CITY OF COLUMBIA
TENNESSEE

AGENDA

The Columbia Municipal Planning Commission will meet on Wednesday, August 12, 2026 at 4:00 PM in Council Chambers in the basement of City Hall, 700 N. Garden Street. The Planning Commission will consider the following:

I. Organization

1. Call to Order
2. Roll Call
3. Welcome of Visitors/Rules of Conduct
4. Acknowledgement of Official Communications of the Columbia City Council on Annexation and Zoning.
5. Approval of Minutes
6. Review of Bonds and Letters of Credit

II. Discussion Items

1. Request from Jason Morelock for **Final PUD Master Plan approval** of *Westfield Park's group living facility,* being a portion of Tax Map 112 Parcel 3.07 off Rutherford Lane.
   THIS ITEM WAS DEFERRED FROM A PREVIOUS AGENDA.

2. Request from M2 Group for **Preliminary Plat approval** of *Westfield Park commercial subdivision* at Tax Map 112 Parcel 3.07 off Rutherford Lane.
   THIS ITEM WAS DEFERRED FROM A PREVIOUS AGENDA.

3. Request from M2 Group for **Final Plat approval** of *Westfield Park commercial subdivision* at Tax Map 112 Parcel 3.07 off Rutherford Lane.
   THIS ITEM WAS DEFERRED FROM A PREVIOUS AGENDA.

4. Request from Gamble Collaborative Design Group for **Final PUD Master Plan approval** of *Waters Edge at Taylor Landing,* located at Tax Map 90 Parcel 7.12 off River Road and Taylor Landing.
   THIS ITEM WAS DEFERRED FROM A PREVIOUS AGENDA.

5. Request from Michael Shamsie for **Rezoning approval** of *6218 Cayce Lane,* being Tax Map 101 Parcel 39, from CD-2 (Rural Character District) to CD-3L (Neighborhood Large Lot Character District).
   THIS ITEM WAS DEFERRED FROM A PREVIOUS AGENDA.

6. Request from Jeff K. Kimbro for **Final Plat revision approval** to *Lot 1* at 800 S. James M. Campbell Blvd, being Tax Map 100N Group L Parcel 6.

7. Request from Chet Rhodes for **Architectural Design Review approval** of new construction in a Light Industrial Special District off Lion Parkway, being a portion of Tax Map 100G Group A Parcel 33.02

8. Request from Chris Mischel for **Final PUD Master Plan approval** of the *Taco Bell at Honey Farm Crossing Lot 1B*, being Tax Map 51 Parcel 58.07 off Nashville Highway and Leafcutter Bee Road.

9. Request from WES Engineers & Surveyors for **Final PUD Master Plan revision approval** of *McClure Farms* Phases 1-4 off Nashville Highway at McClure Blvd., being Tax Map 51 Parcel 6.

III. Other Business

1. ByLaws

IV. Public Comments

V. Adjourn

The Planning Commission of the City of Columbia welcomes your presence and participation at this meeting. If you wish to address the Commission regarding any item on the Agenda, please sign the sign-up sheet and indicate which agenda item you would like to comment on. You will have the opportunity to comment on an item when it comes up on the Agenda and before the Commission votes on the item. Once recognized, you may then come to the podium and state your name and address. Anyone requesting accommodation due to disabilities should contact the ADA Coordinator, Wanda McClain, at 931-560-1570 prior to the meeting. For other questions, please contact the Department of Development Services at 931-560-1560.

Subdivision	Section/Phase	Developer	LOC Amount	Exp. Date	Financial Inst.	LOC/Check No.
Armstrong Meadows	S4	Smith Douglas, LLC	$475,000.00	2/1/2023	SDH Nashville, LLC Surety	6699501345
Armstrong Meadows	S3	General Homes of Columia, LLC	$203,500.00	5/5/2019	First Farmers & Merchants	132921080
Armstrong Street	S1	Tennessee Regional Holdings, LLC	$75,500.00	10/27/2026	CB&S Bank	555752
Baker Creek Place	0	SDH Nashville, LLC	$36,000.00	4/1/2026	Business Surety Check	6699501419
Bear Creek Glen	P2	CHR Land, LLC	$50,000.00	12/4/2026	First Citizens National Bank	1525
Bear Creek Glen	P1	CHR Land, LLC	$90,000.00	7/10/2026	First Citizens National Bank	1459
Bear Creek Overlook	P1	CHR Land, LLC	$203,000.00	7/10/2026	First Citizens National Bank	1460
Bear Creek Overlook	P2	CHR Land, LLC	$120,000.00	7/9/2026	First Citizens National Bank	1514
Bear Creek Overlook	P3	CHR Land, LLC	$145,000.00	6/12/2027	First Citizens National Bank	1536
Bear Springs	1A	Meritage Homes of Tenn., INC.	$675,000.00	11/27/2026	Regions Bank	55111558
Bear Springs	P1B	Meritage Homes of Tenn., INC.	$120,000.00	12/26/2026	Regions Bank	55111614
Bullock Street Townhomes	0	Harakas Development, LLC	$175,000.00	3/17/2026	Surety Check	287222
Cayer Lane - Flex Use	0	Bell Group LLC	$35,000.00	11/14/2026	Bank of Tennessee	8000055355
Colter Place	S1	Sterling Martin	$5,000.00	6/13/2025	Surety Check	7372
Cottages at Bear Creek	S1	Riverstone Homes, LLC	$165,000.00	7/19/2022	Listerhill Credit Union	800646322-00
Cottages at Bear Creek	S2	Riverstone Homes, LLC	$156,000.00	3/18/2023	Listerhill Credit Union	800646322-00
Dabbs/ Hickory Ridge	1A	D R Horton, INC.	$445,000.00	5/28/2026	Trusit Bank	75003118
Dabbs/ Hickory Ridge	1B	D R Horton, INC.	$690,000.00	5/28/2026	Trusit Bank	75003125
Drumwright	P1A	Lennar Homes of Tenn., LLC	$890,000.00	8/11/2023	Regions Bank	55110352
Drumwright	P1B	Lennar Homes of Tenn., LLC	$275,000.00	8/11/2023	Regions Bank	55110356
Drumwright	P2A	Lennar Homes of Tenn., LLC	$200,000.00	5/23/2024	Regions Bank	55110699
Drumwright	P2B	Lennar Homes of Tenn., LLC	$125,000.00	5/23/2024	Regions Bank	55110694
Drumwright	P2C	Lennar Homes of Tenn., LLC	$125,000.00	5/23/2024	Regions Bank	55110700
Drumwright	P2D	Lennar Homes of Tenn., LLC	$265,000.00	5/23/2024	Regions Bank	55110702
Drumwright	P3A	Lennar Homes of Tenn., LLC	$135,000.00	11/22/2024	Regions Bank	55110892
Drumwright	P3B	Lennar Homes of Tenn., LLC	$120,000.00	11/22/2024	Regions Bank	55110893
Drumwright	P3C	Lennar Homes of Tenn., LLC	$190,000.00	11/22/2024	Regions Bank	55110897
Duck River Estates	P1					
Elan	S2	Shaw Enterprises	$14,200.00	1/20/2027	Heritage Bank & Trust	97034502
Hampshire Hills	0	Smith Douglas, LLC	$455,000.00	3/21/2026	Business Surety Check	6699501559
Hampshire Hills Townhomes	0	Hampshire Pike Holdings, LLC	$535,000.00	5/13/2026	First Farmers & Merchants	1804409-1
Heritage Green	P1	Green Trails, LLC	$915,000.00	10/14/2026	Wilson Bank & Trust	1129-0052
Heritage Green	P2					
Hillcrest Townhomes	0	M/I Homes of Nashville, LLC	$455,000.00	3/7/2026	Regions Bank	55111507
Hillcrest Village	1A	M/I Homes of Nashville, LLC	$645,000.00	1/19/2025	Regions Bank	55110968
Hillcrest Village	P2	M/I Homes of Nashville, LLC	$370,000.00	7/16/2025	Regions Bank	55111198
Hillcrest Village Townhomes	0	M/I Homes of Nashville, LLC	$570,000.00	10/16/2026	Regions Bank	55111770
Homestead @ CS	S5 P2B	Pulte Homes Tennessee Partnership	$14,900.00	1/14/2027	Truist	75000699
Homestead @ CS	S5 P2A	Pulte Homes Tennessee Partnership	$25,400.00	1/5/2027	Truist	700005242
Homestead @ CS	S6 P1	Pulte Homes Tennessee Partnership	$25,400.00	1/5/2027	Truist	700005242
Homestead @ CS	South	Pulte Homes Tennessee Partnership	$12,500.00	1/5/2027	Truist	75001551
Honey Farm TH	P1A	Lennar Homes of Tenn., LLC	$130,000.00	9/8/2025	Regions Bank	55111261
Honey Farm TH	P1B	Lennar Homes of Tenn., LLC	$550,000.00	9/11/2025	Regions Bank	55111288
Honey Farm TH	P3	Lennar Homes of Tenn., LLC	$300,000.00	10/21/2025	Regions Bank	55111345
Honey Lakes TH	P1	Lennar Homes of Tenn., LLC	$295,000.00	7/10/2026	First Citizens National Bank	1481
Horizon Park	0	Burchell Properties, LLC	$195,000.00	3/1/2025	CB&S Bank	555894
Idlewild Farms - Hiwassee		Habitat for Humanity	$255,000.00	5/23/2026		
Independence	S3 P5	Pulte Homes Tennessee Partnership	$5,000.00	7/19/2024	Truist	75001562
Independence	S3 P1	Pulte Homes Tennessee Partnership	$390,000.00	9/15/2021	Sun Trust Bank	70004898
Independence	S3 P2	Pulte Homes Tennessee Partnership	$372,000.00	12/6/2022	Sun Trust Bank	70005732
Independence	S3 P3	Pulte Homes Tennessee Partnership	$155,000.00	8/25/2024	Truist	75000721
Independence	S3 P4	Pulte Homes Tennessee Partnership	$140,000.00	7/13/2024	Truist	75001553
Independence	S6 P2	Pulte Homes Tennessee Partnership	$207,000.00	11/8/2022	Sun Trust Bank	700005645
Independence	S6 P3	Pulte Homes Tennessee Partnership	$197,000.00	7/14/2023	Truist	75000675
Independence	S6 P4	Pulte Homes Tennessee Partnership	$160,000.00	7/13/2024	Truist	75001552
Independence	S6 P5	Pulte Homes Tennessee Partnership	$220,000.00	5/1/2025	Truist	75002219
Marlons Creek	P1A	Marlon's Creek Prop Co., LLC	$485,000.00	1/27/2027	Wilson Bank & Trust	1661-3
Marlons Creek	P1B	Marlon's Creek Prop Co., LLC	$560,000.00	7/16/2026	Wilson Bank & Trust	1661-4
Marlons Creek	P2A	Marlon's Creek Prop Co., LLC	$340,000.00	11/14/2026	Wilson Bank & Trust	1661-8
McClure Farms	P1A	Brightland Homes of Tennessee	$260,000.00	12/13/2025	Business Surety Check	13323
McClure Farms	P1B	Brightland Homes of Tennessee	$515,000.00	5/20/2026	Business Surety Check	142555
McClure Farms	P2	Brightland Homes of Tennessee	$690,000.00	10/24/2026	Surety Check	24800946
Morgan Meadows	P2	KCS Property, LLC	$13,500.00	1/6/2024	First Citizens National Bank	1455
Preserve at Drumwright	P1	Lennar Corporation	$1,190,000.00	11/14/2024	Regions Bank	55110889
Preserve at Drumwright	P2	Lennar Corporation	$1,190,000.00	11/14/2024	Regions Bank	55110889
Quail Run Meadows	P2	Quial Run Development Co., LLC	$18,200.00	7/15/2027	First Citizens National Bank	1464
Quail Run Meadows	P1	Quial Run Development Co., LLC	$15,700.00	4/23/2027	First Citizens National Bank	1422
Quail Run Meadows	P1B	Quial Run Development Co., LLC	$18,500.00	4/23/2027	First Citizens National Bank	1441
Quail Run Meadows	P3	Quial Run Development Co., LLC	$185,000.00	7/3/2026	First Citizens National Bank	1479
Quail Run Meadows	P4	Quial Run Development Co., LLC	$210,000.00	7/3/2026	First Citizens National Bank	1508
Quail Run Meadows	P5	Quial Run Development Co., LLC	$175,000.00	9/8/2026	First Citizens National Bank	1522
Rock Springs	1A	Castlerock Communities LLC	$415,000.00	5/15/2028	Wilson Bank & Trust	1830
Rutherford Subdivision	P1	Regent Homes, LLC	$400,000.00	12/21/2026	Fitst Bank	1250098394
Rutherford Subdivision	P2	Regent Homes, LLC	$795,000.00	7/15/2027	First Bank	1250114964
Savannah Cove	S1	Campbell and Lovell Rentals	$45,000.00	9/28/2021	Reliant Bank	69001793
Summerdale	P3A	P & L Development, LLC	$9,700.00	4/17/2026	First Citizens National Bank	1423
Summerdale	P3B	P & L Development, LLC	$17,000.00	4/17/2026	First Citizens National Bank	1425
Summerdale	P4	P & L Development, LLC	$6,400.00	4/17/2026	First Citizens National Bank	1429
Summerdale	P5	P & L Development, LLC	$5,500.00	4/17/2026	First Citizens National Bank	1444
Summerdale	P6	P & L Development, LLC	$10,300.00	4/17/2026	First Citizens National Bank	1450
Summerdale	P7	P & L Development, LLC	$6,600.00	4/17/2026	First Citizens National Bank	1452
Summerdale	P2	P & L Development, LLC	$10,500.00	4/17/2026	First Citizens National Bank	1412
Summerdale	P1	P & L Development, LLC	$13,500.00	4/16/2026	First Citizens National Bank	1402
Summit @ Carter's Station	P1	Tamarack Land - Carters Station LLC	$465,000.00	3/17/2024	INSBANK	61023791-51010
Summit @ Carter's Station	P2	Tamarack Land - Carters Station LLC	$175,000.00	6/14/2024	Business Surety Check	10035
Summit @ Carter's Station	P3	Tamarack Land - Carters Station LLC	$610,000.00	12/20/2024	Business Surety Check	10044
Summit @ Carter's Station	P4	Tamarack Land - Carters Station LLC	$260,000.00	6/12/2025	Business Surety Check	10063
Summit @ Carter's West	P1	Pulte Homes Tennessee Partnership	$120,000.00	10/6/2024		
Summit @ Carter's West	P1 B	Pulte Homes Tennessee Partnership	$435,000.00	4/25/2026	Truist	75002188
Summit @ Carter's West	P1A	Pulte Homes Tennessee Partnership	$120,000.00	10/6/2026	Trusit Bank	75001784
Summit @ Carter's West	P2	Pulte Homes Tennessee Partnership	$470,000.00	4/25/2027	Truist Bank	75002189
Summit @ Carter's West	P3	Pulte Homes Tennessee Partnership	$375,000.00	11/19/2026	Truist Bank	75002637
Summit @ Carter's West	P4	Pulte Homes Tennessee Partnership	$740,000.00	6/30/2026	Truist Bank	75003373
Taylor Landing	P5A	Meritage Homes of Tenn., INC.	$5,000.00	6/30/2027	Regions Bank	55109915
Taylor Landing	P5B	Meritage Homes of Tenn., INC.	$7,200.00	6/30/2027	Regions Bank	55109917
The Landings at Greens Mill	P1A	2558 Greens Mill, LLC	$1,040,000.00	3/24/2027	First Bank	1420118463
The Landings at Greens Mill	P1B	2558 Greens Mill, LLC	$440,000.00	3/24/2027	First Bank	1420118465
The Landings at Greens Mill	P1C	2558 Greens Mill, LLC	$330,000.00	3/24/2027	First Bank	1420118467
The Landings at Greens Mill	P2A	2558 Greens Mill, LLC	$805,000.00	2/13/2027	First Bank	1420118462
The Ridge	P1A	Richmond American Homes of Tenn	$12,100.00	7/15/2027	Regions Bank	55110061
The Ridge	P1B	Richmond American Homes of Tenn	$26,000.00	7/15/2027	Regions Bank	55110215
The Ridge	P2	Richmond American Homes of Tenn	$64,500.00	7/15/2027	Regions Bank	55110394
Trotwood Villas	0					
Vesper Court (completion of the work)	0	P-R Vesper, LLC	$18,500.00	4/18/2027	Pinnacle Bank	47998086688+
Vesper Ct	0	P-R Vesper, LLC	$10,000.00	6/16/2024		
Williamsport Landing	P1	KCS Property, LLC	$31,000.00	1/22/2027	First Citizens National Bank	1485
Williamsport Landing	P2	KCS Property, LLC	$29,000.00	1/22/2027	First Citizens National Bank	1510
Williamsport Landing	P3	KCS Property, LLC	$190,000.00	1/22/2027	First Citizens National Bank	1532
Williamsport Townhouses (Honey Lakes)	P1	Honey Lakes LLC	$295,000.00	7/10/2026		
Williamsport Townhouses (Honey Lakes)	P1 S1					
Woodward Estates	P1	A-1 Home Builders, Inc.	$130,000.00	8/13/2026	First Commerce Bank	409094800
Woodward Estates	P1B	A-1 Home Builders, Inc.	$55,000.00	11/6/2026	First Commerce Bank	409259100

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Morning Pointe Final PUD Master Plan

Project #:	26-0136	Location:	Rutherford Lane
Applicant:	Fulmer Lucas Engineering, LLC	Case Type(s):	Final PUD Master Plan
Staff Planner:	Austin Brass, AICP	Proposed Use:	Assisted Living Center

PROJECT SUMMARY

The applicant seeks approval of a Final PUD Master Plan Revision for a 111,000 SF Assisted Living and Memory Care Facility within a PUD-MU zoning district (Westfield PUD). The Preliminary PUD Master plan associated with this request has been approved by City Council on March 12th, 2026.

- A PUD-MU district requires all lots/building sites to have a maximum of 180' at the right-of-way. This request divides the stie into two individual building sites dedicated to two separate facilities with common ownership. Among the two building sites, deviations have been approved for building site 1 and 2 to exceed 180' with the Preliminary PUD Master Plan associated with this request. This request includes increases to building site dimensions to include the entirety of a TVA easement.
- The west elevation facing Westfield Drive has been updated to include additional columns with gable styled entrance for visual interest. This modification was a condition by Planning Commission with the approval of the Preliminary PUD Master Plan on March 12, 2026.
- A PUD-MU district requires all buildings to have at minimum a 60% frontage buildout for facades within a building site. Deviations for frontage buildout have been approved in the Preliminary PUD Master Plan.
- Changes have been made regarding height of decorative aluminum fence from 30 inches to 36 inches in height.
- The Preliminary PUD Master Plan indicated the use of permeable pavers. These have been removed with the applicant stating the justification of removal in using a focal point biofiltration system to adequality serve stormwater quality.
- An institutional long-term care use has a parking ratio of 1 space per 3 beds. The proposal indicates a total of 151 beds with 51 spaces required. The applicant has requested a deviation from the parking standard to exceed the parking requirement with a proposal of 140 parking spaces. All parking is proposed to be within the 3rd layer of the site as required for parking orientation within a PUD-MU District.
- The Planning Commission is the **decision-making authority** for approval of a Final PUD Master Plan per section 8.5.21.R of the Zoning Ordinance that lists the criteria for Planning Commission action. The Planning Commission will be the decision-making authority for any subsequent subdivision of the property with a Preliminary and Final Plat.

SITE INFORMATION

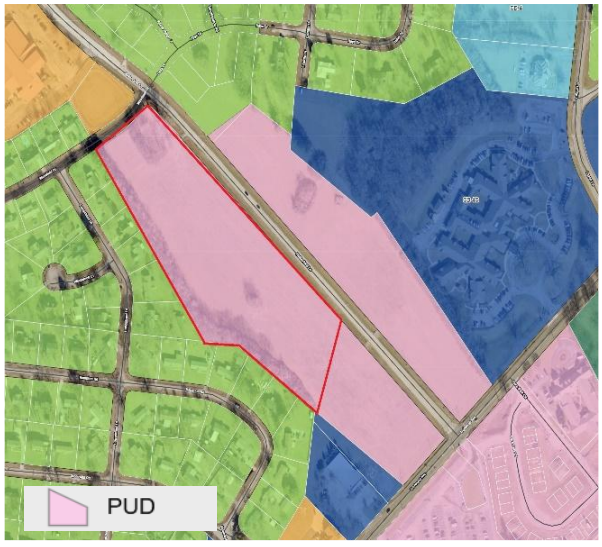
CURRENT ZONING	EXISTING USE	EXISTING IMP.	LAND AREA
PUD-MU	Vacant Land	Assisted Living Facility	+ /- 9.4 acres



FUTURE LAND USE MAP (Suburban Neighborhoods)



ZONING MAP (PUD-MU)



SITE CONTEXT/ADJACENT PROPERTIES			
	Future Land Use	**Zoning**	**Current Use**
Subject Property	**Suburban Neighborhoods**	**PUD-MU**	**Vacant**
North	**Suburban Neighborhoods**	**CIVIC**	**Woodard School**
South	**Suburban Neighborhoods**	**PUD-MU**	**Vacant**
East	**Suburban Neighborhoods**	**CD-3**	**Single-Family Residential**
West	**Suburban Neighborhoods**	**PUD-MU**	**Vacant**

CONSISTENCY WITH CONNECT COLUMBIA

Suburban Neighborhoods

Character & Intent

The intent of the Suburban Neighborhoods (SN) future land use is to enhance existing suburban areas and create new neighborhoods that will improve the quality of life in Columbia. Where appropriate, the SN future land use area also establishes mixed-use and commercial centers which serve residents' retail needs and provide a wider range of housing options. Each development parcel should add to Columbia's existing sense of place and extend the established form and pattern to create a more interconnected community. Future development should emphasize connectivity and continuity of the city as whole. The density and intensity of residential development increases in proximity to areas under the CCUV future land use classification. In the same way, density and intensity decrease in proximity to areas under the Rural Transition (RT) future land use classification. New development enhances pedestrian infrastructure with sidewalks and other multimodal routes. Public frontages may include sidewalks and street trees. Over time, new and infill development connects neighborhoods and community anchors such as libraries, neighborhood centers, health facilities, retail uses, parks, and schools.

Land Use Considerations

The primary land use is low-density detached housing. Along arterial roadways, primary uses may include offices, retail, and all forms of medium-density housing. Secondary land uses include accessory dwellings, two-family homes, civic uses, institutional uses, schools, religious facilities, utility facilities, parks and open space. New industrial and warehouse uses are inappropriate.



Form & Pattern

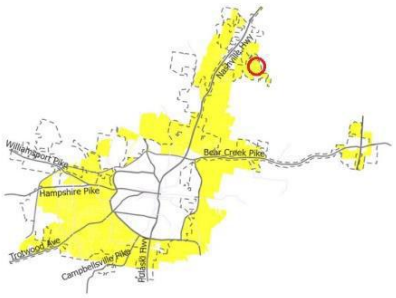
The SN future land use area is characterized by the organization of the built environment to extend a succession of large-lot neighborhoods and compact walkable neighborhoods. Development parcels extend established neighborhood patterns. Leap-frogging development is inappropriate. The SN future land use is distinguished from RT in the organization of lots and thoroughfares to form blocks. Physically separated developments which do not extend established block formation and roadway networks are inappropriate. The density of streets and blocks increases with proximity to CCUV and community anchors. Implementing bulk and design standards loosely delimit the public and domestic realms though the application of layers and front-to-back discipline of lots. Along arterial roadways, commercial corridors of varying intensities emerge over time with a high-quality built environment typified by a mix of building types and a balance between automobile-oriented and pedestrian-oriented design. The physical intensity of development along arterial corridors varies based on the surrounding residential density and the roadway's place in the transportation network. New development should accompany concurrent extension of complete urban services. Parking is provided on-site by private land users, supplemented by on-street spaces.

Implementing Districts

Neighborhood-Large Lot CD-3L
Neighborhood CD-3
General Urban-Corridor CD-4C (only along Arterial roadways)
Manufactured Home Park SD-MHP
Residential PUD PUD-R
Mixed Use PUD PUD-MU
Civic CV

Implementing Standards

General Development Pattern: Mixed Uses & Isolated Uses
Density (density unites per ace): 4 - 24 du/ac
Building Height: 1 - 4 stories
Open Space Elements: Civic Spaces, Parks & Greenways

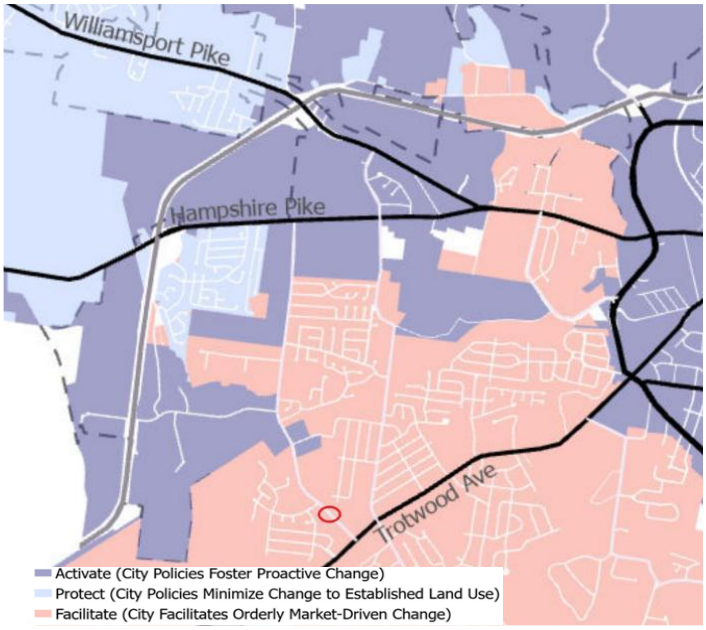




The future land use within this proposed use is **Suburban Neighborhoods**. *Connect Columbia* indicates that overtime, new and infill development connects neighborhoods, community anchors, libraries, retail uses, parks, and schools. This request adheres to this future land use policy as the proposed health care facility includes an additional sidewalk along the frontage of Rutherford Lane and Westwood Drive that further interconnects the neighborhood with future connectivity of nearby uses such as the adjacent Woodard Elementary School.

AREA OF CHANGE

Connect Columbia established the areas of change policy designation for the subject site as *Facilitate.* The designation includes areas where orderly market drive change is occurring or is desired. City policies to bring the community's values to fruition. Public investment and increased coordination with the private sector will achieve transformational changes envisioned by the community (Connect Columbia p. 32).



CONFORMITY WITH ZONING ORDINANCE/ PRELIMINARY PUD MASTER PLAN

Lots, Building Sites & Bulk Standards:

- **The proposed Final PUD Master Plan conforms to the approved Preliminary PUD Master Site Plan except the following modifications proposed with the Final PUD Master Plan.**
    - Changes have been made regarding height of decorative aluminum fence from 30 inches to 36 inches in height.
    - The Preliminary PUD Master Plan indicated the use of permeable pavers. These have been removed with the applicant stating the justification of removal in using a focal point biofiltration system to adequality serve stormwater quality.
    - A PUD-MU district requires all lots/building sites to have a maximum of 180' at the right-of-way. This request divides the site into two individual building sites dedicated to two separate facilities with common ownership. Among the two building sites, deviations have been approved for building site 1 and 2 to exceed 180 with the Preliminary PUD Master Plan associated with this request. This request includes increases to building site dimensions to include the entirety of a TVA easement.

- The applicant has indicated an increase in foundation and courtyard landscaping including an update to the area of tree canopy protection due to the relocation of a sanitary sewer line.
- The elevation facing Westfield Drive has been updated to include additional columns with gable styled entrance for visual interest. This modification was a condition by Planning Commission with the approval of the Preliminary PUD Master Plan on March 12, 2026.

REVIEW PROCESS

The Development Review Committee reviewed this Final PUD Master Plan revision at its May 2026 meeting, as directed by section **8.3.7** of the Zoning Ordinance. Technical comments are provided in the agenda package and summarized above. Section **8.5.21** (Planned Unit Development) outlines the procedural requirements for approval of a Final PUD Master Plan.

8.5.21 (Q). Final Master PUD Development Plan General.

1. In reviewing a Final Master PUD Development Plan or amendment to Final Master PUD Development Plan, the function of the reviewing agencies is twofold: a. First, the plan or amendment must be found to be in substantial compliance with the approved Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan. b. Second, all new or revised information that was not in the previously approved Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan must be reviewed to determine its quality and compliance with all applicable requirements of this Ordinance.

2. The Final Master PUD Development Plan or amendment to Final Master PUD Development Plan shall be deemed in substantial compliance with the approved Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan provided any modifications by the applicant do not involve changes which in aggregate would: a. Violate any provisions of this Ordinance; b. Change the Lot or Building Site Area requirement as submitted in the Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan by more than 10%; c. Involve any increase in the number of Dwelling Units approved for the site in the Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan; d. Involve a reduction of more than 3% of the area shown on the Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan as reserved for Common Open Space; e. Increase the Floor Area shown on the Preliminary Master PUD Development Plan or amendment to

Preliminary Master PUD Development Plan for non-Residential Uses by more than 5%; or f. Alter the mix of Building Types or Uses shown on the Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan by more than 3% in any category or Uses or any one or more Building Types from that proposed in the Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan.
R. Planning Commission Action.

1. The Planning Commission may approve, approve with conditions or modifications, or disapprove the final Master PUD Development Plan or Amendment to existing Master PUD Development Plan.

2. The Planning Commission may approve the Final Master PUD Development Plan or amendment to Final Master PUD Development Plan if it finds: a. **That the Final Master PUD Development Plan or amendment to Final Master PUD Development Plan meets the provisions for substantial compliance with the Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan**, and b. The Final Master PUD Development Plan or amendment to Final Master PUD Development Plan complies with all other standards for review which were not considered when the Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan was approved.

SUMMARY OF DEVELOPMENT REVIEW COMMITTEE COMMENTS

The DRC reviewed this proposal at its May 2026 meeting. A full list of comments, and the applicant's responses, is provided in the agenda packet. Some key comments are noted below.

- **Planning** noted updates were required to match the elevations as approved by Planning Commission and City Council. The applicant responded with updated elevations.
- **Wastewater** noted trees will be required to be within 10-15 feet of a sewer main. The applicant has responded by readjusting the landscape plan to ensure no trees will be adjacent to any sewer mains.
- **Columbia Water** indicated that the water availability letter was issued on **November 19th, 2026,** and remains valid for 120 days. The applicant has responded that new water service fees have been paid for in the amount of $16,670 on 4-6-26 noting the extension of this water availability letter due to payment of service fee.

SAMPLE MOTIONS

Approve:

Move to find, based on the information presented by the applicant and the analysis provided by city staff, that the criteria listed in sections **8.5.21.Q**, & **8.5.21.R**, the City of Columbia Zoning Ordinance have been satisfied, and recommend approval of the Final Planned Unit Development Master Plan as presented *[subject to technical comments and other conditions presented by planning staff*].

Approve Subject to Conditions:

Move to find, based on the information presented by the applicant and the analysis provided by city staff, that the criteria listed in sections **8.5.21.B**, **8.5.21.M**, of the City of Columbia Zoning Ordinance have been satisfied, and recommend approval of the Final Planned Unit Development Master Plan, subject to the following conditions: [*list conditions of approval crafted by Planning Commission*].

Deny:

Move to recommend denial of the Preliminary Planned Unit Development Master Plan having found, based on the information presented by the applicant and the analysis provided by city staff, that the criteria listed in sections**8.5.19** of the City of Columbia Zoning Ordinance, are not satisfied [*list specific reasons for denial*].

Defer:

Move to find that there is insufficient information to make a decision, defer the matter to the next regularly scheduled meeting of the Planning Commission, and request that the [*applicant/staff*] provide: [*list additional information*] for review at a future meeting.

Know what's below. Call before you dig.

SITE DEVELOPMENT PLANS FOR:

MORNING POINTE

RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401
PARCEL ID: 112 00307 000

OWNER
CBP, LLC
700 NORTH MAIN STREET
COLUMBIA, TENNESSEE 38401

CONTACT: ANDY CRICHTON
931-398-5533
acrichton@athensinc.com

DEVELOPER
MORNING POINTE SENIOR LIVING
2050 UNION PLACE
COLUMBIA, TENNESSEE 38401

CONTACT: FRANKLIN FARROW
423-322-3446
ffarrow@ihpllc.com

CIVIL ENGINEER
FULMER LUCAS ENGINEERING, LLC
2002 RICHARD JONES ROAD - SUITE B200
NASHVILLE, TENNESSEE 37215

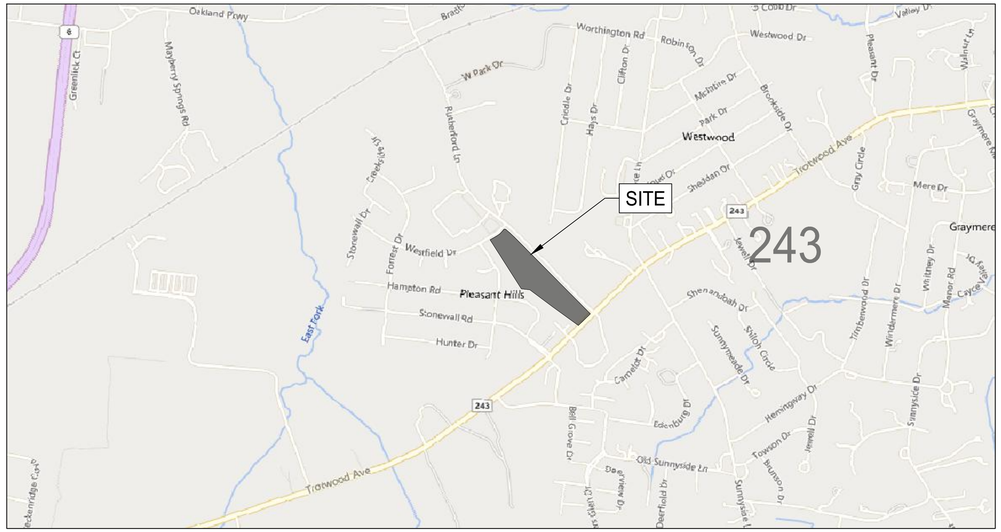
CONTACT: JASON MORELOCK
615-516-8477
jason@fulmerlucas.com

LAND SURVEYOR
M2 GROUP, LLC
1881 GENERAL GEORGE PATTON DRIVE, SUITE 107
FRANKLIN, TENNESSEE 37067

CONTACT: STEPHEN VANDER HORST
931-623-8913
stephen@m2groupllc.com

ARCHITECT
NEUHOFF TAYLOR ARCHITECTS, AIA
699 DALLAS ROAD
CHATTANOOGA, TN 37405

CONTACT: RANDALL TAYLOR
423-265-3272
Randall.Taylor@neuhofftaylor.com



VICINITY MAP
SCALE: 1"=1000'

Sheet List Table	
Sheet Number	Sheet Title
C0.0	COVER SHEET
SV-01	TOPOGRAPHIC SURVEY
C0.1	GENERAL NOTES
C0.2	SITE DEMOLITION PLAN
C0.3	INITIAL ESPC PLAN
C0.4	INTERMEDIATE EPSC PLAN
C0.5	FINAL EPSC PLAN
C1.0	SITE LAYOUT PLAN
C2.0	SITE GRADING PLAN
C2.1	SITE DRAINAGE PLAN
C2.2	OFF-SITE IMPROVEMENTS
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L1.0	TREE PRESERVATION PLAN
L1.1	LANDSCAPE PLAN
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EP1.0	PHOTOMETRICS PLAN - ELECTRICAL
A1	BUILDING 1 FLOOR PLAN
A2	BUILDING 1 ELEVATIONS
A3	BUILDING 2 FLOOR PLAN
A4	BUILDING 2 ELEVATIONS
A7.2	EXTERIOR SIGNS

FINAL PUD MASTER PLAN NOTE:

THE PRELIMINARY PUD MASTER PLAN (ITEM 10.3) WAS APPROVED AT THE MARCH 12, 2026 CITY COUNCIL MEETING THROUGH ORDINANCE NO. 4582. A LIST OF DEVIATIONS FROM THE APPROVED PRELIMINARY PUD MASTER PLAN ARE LISTED BELOW WITH THE REASONING FOR THE DEVIATION.

1. THE PROPERTY LIMITS OF THE DEVELOPMENT HAVE INCREASED TO INCLUDE THE ENTIRETY OF THE TVA EASEMENT ON THE EAST SIDE OF THE DEVELOPMENT.
2. ALUMINUM FENCE HEIGHT HAS BEEN INCREASED FROM 30" TO 36". THE REASON FOR THE CHANGE IS THAT 36" HEIGHT PANELS ARE COMMONLY AVAILABLE AND A STANDARD MANUFACTURER SIZE. IN ADDITION, A 36" HEIGHT IS A BALANCED CHOICE THAT PROVIDES A CLEAN, ELEGANT, AND NON-OBTRUSIVE LOOK.
3. THE TREE CANOPY RETAINED AT THE REAR OF THE PROPERTY HAS BEEN ADJUSTED FOR THE INSTALLATION OF STORM LINES AND SANITARY SEWER LINES THAT ARE NECESSARY TO SERVE THIS DEVELOPMENT.
4. TREE FENCE UPDATED DUE TO SEWER LINE LOCATION.
5. PLANT QUANTITIES INCREASED DUE TO THE ADDITION OF THE FOUNDATION, COURTYARD, AND FOCAL POINT LANDSCAPE.
6. THE PERVIOUS PAVERS HAVE BEEN REMOVED FROM THE DEVELOPMENT IN LIEU OF USING FOCAL POINT BIOFILTRATION SYSTEMS TO ADEQUATELY STORMWATER QUALITY REQUIREMENTS FOR THE DEVELOPMENT.

SURVEY INFO
PROVIDED BY: M2 GROUP, LLC
DATUM: TENNESSEE STATE PLANE (NAD83 & NAVD 88)

FULMER LUCAS
2002 RICHARD JONES RD - SUITE B200
NASHVILLE, TENNESSEE 37215
INFO@FULMERLUCAS.COM - (615) 345-3770

JASON C. MORELOCK — REGISTERED — AGRICULTURE — No. 109893 — STATE OF TENNESSEE — 05/18/2026

SITE DEVELOPMENT PLANS FOR:
MORNING POINTE
RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401

DR.	DATE	DESCRIPTION
JEL	04/20/2026	FINAL PUD MASTER PLAN
JEL	05/18/2026	FINAL PUD MASTER PLAN RE-SUBMITTAL

COVER SHEET

C0.0

1421-01 MORNING POINTE

Monday, May 18, 2026
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LEGAL DESCRIPTION (PER TITLE COMMITMENT)

THE LAND REFERRED TO HEREIN BELOW IN SITUATED IN THE COUNTY OF MAURY, STATE OF TENNESSEE, AND DESCRIBED AS FOLLOWS:

TRACT III:

PARCEL NO. 1:

BOUNDED ON THE NORTH BY L AND N RAILROAD AND RUTHERFORD LANE; EAST BY CRIDDLE MEADOWS SUBDIVISION AND DR. DAN GRAY; SOUTH BY MT. PLEASANT PIKE OR U.S. NO. 43 HIGHWAY, PLEASANT HILLS SUBDIVISION, J.A. MORGAN AND OTHERS; WEST BY RIDLEY BROTHERS. BEGINNING AT AN IRON PIN IN THE EAST LINE OF RIDLEY BROTHERS TRACT AT THE SOUTHWEST CORNER OF THE HEREIN DESCRIBED TRACT: THENCE WITH RIDLEY BROTHERS AND GENERALLY FOLLOWING A FENCE NORTH 5 DEGREES 16 MINUTES EAST, 1,127.65 FEET TO AN IRON PIN; THENCE WITH SAME NORTH 87 DEGREES 32 MINUTES WEST, 946.15 FEET TO AN IRON PIN; THENCE WITH SAME NORTH 0 DEGREES 50 MINUTES EAST, 359.97 FEET TO A SPIKE IN THE CENTER LINE OF L AND N RAILROAD; THENCE FOLLOWING A STAKED LINE WITH IRON PINS ALONG CENTER LINE OF L AND N RAILROAD AS FOLLOWS: NORTH 53 DEGREES 29 MINUTES EAST, 2,326.46 FEET, NORTH 56 DEGREES 09 MINUTES EAST, 352.0 FEET; NORTH 59 DEGREES 31 MINUTES EAST, 326.96 FEET; NORTH 62 DEGREES 32 MINUTES EAST, 264.30 FEET; NORTH 65 DEGREES 18 MINUTES EAST, 278.60 FEET; NORTH 67 DEGREES 39 MINUTES EAST, 221.60 FEET TO AN IRON PIN; THENCE LEAVING RAILROAD AND GENERALLY FOLLOWING A FENCE ALONG THE SOUTH MARGIN OF RUTHERFORD LANE SOUTH 87 DEGREES 27 MINUTES EAST, 916.74 FEET TO AN IRON PIN; THENCE WITH SAME SOUTH 86 DEGREES 19 MINUTES EAST, 149.18 FEET TO A STAKE; THENCE WITH THE WEST LINE OF CRIDDLE MEADOWS SUBDIVISION SOUTH 4 DEGREES 04 MINUTES WEST, 2,743.39 FEET TO AN IRON PIN; THENCE WITH THE SOUTH LINE OF CRIDDLE MEADOWS SUBDIVISION SOUTH 85 DEGREES 56 MINUTES EAST, 400.0 FEET TO AN IRON PIN; THENCE WITH SAME SOUTH 84 DEGREES 29 MINUTES EAST, 221.98 FEET TO AN IRON PIN; THENCE WITH DR. DAN GRAY SOUTH 13 DEGREES 46 MINUTES EAST, 24.80 FEET TO AN IRON PIN; THENCE WITH SAME SOUTH 55 DEGREES 24 MINUTES WEST, 95.22 FEET TO AN IRON PIN; THENCE WITH SAME SOUTH 42 DEGREES 15 MINUTES EAST, 93.35 FEET TO AN IRON PIN; THENCE WITH SAME SOUTH 24 DEGREES 43 MINUTES EAST, 99.95 FEET TO AN IRON PIN; THENCE WITH SAME SOUTH 55 DEGREES 50 MINUTES WEST, 178.04 FEET TO AN IRON PIN; THENCE WITH SAME SOUTH 39 DEGREES 27 MINUTES EAST, 820.80 FEET TO AN IRON PIN; THENCE WITH THE NORTH MARGIN OF MT. PLEASANT PIKE SOUTH 42 DEGREES 32 MINUTES WEST, 506.57 FEET TO AN IRON PIN; THENCE WITH J. A. MORGAN AND OTHERS NORTH 58 DEGREES 05 MINUTES WEST, 424.19 FEET TO AN IRON PIN; THENCE WITH SAME AND WITH PLEASANT HILLS SUBDIVISION NORTH 57 DEGREES 35 MINUTES WEST, 418.17 FEET TO AN IRON PIN; THENCE WITH PLEASANT HILLS SUBDIVISION NORTH 88 DEGREES 01 MINUTES WEST, 680.26 FEET TO AN IRON PIN; THENCE WITH SAME NORTH 88 DEGREES 21 MINUTES WEST, 514.0 FEET TO AN IRON PIN; THENCE WITH SAME NORTH 88 DEGREES 01 MINUTES WEST, 308.0 FEET TO AN IRON PIN; THENCE WITH SAME NORTH 87 DEGREES 37 MINUTES WEST, 431.0 FEET TO AN IRON PIN; THENCE WITH PROPOSED PLEASANT HILLS SUBDIVISION, SECTION 4; AND J. A. MORGAN AND OTHERS NORTH 87 DEGREES 23 MINUTES WEST, 919.68 FEET TO AN IRON PIN; THENCE WITH J. A. MORGAN AND OTHERS NORTH 86 DEGREES 26 MINUTES WEST, 310.82 FEET TO THE POINT OF BEGINNING.

THERE IS A TVA POWER LINE HAVING A 250 RIGHT-OF-WAY ACROSS THE EAST PORTION OF THE ABOVE DESCRIBED TRACT. THERE IS A 100-FOOT CHARTERED RAILROAD RIGHT-OF- WAY ON THIS TRACT ALONG THE RAILROAD LINE.

PARCEL NO. 2:

BOUNDED ON THE NORTH BY RAYMOND MCMEEN AND TOM BURT; C. C. PINCKNEY; W. CLYDE BAKER AND RUTHERFORD LANE; EAST AND SOUTH BY L AND N RAILROAD AND WEST BY RIDLEY BROTHERS. BEGINNING AT AN IRON PIN IN MCMEEN AND BURT'S SOUTH LINE; SAID POINT BEING THE NORTHWEST CORNER OF THE HEREIN DESCRIBED TRACT; THENCE WITH MCMEEN AND BURT FARM, C. C. PINCKNEY AND W. CLYDE BAKER GENERALLY FOLLOWING A FENCE SOUTH 87 DEGREES 52 MINUTES EAST, 1079.03 FEET TO AN IRON PIN; THENCE WITH BAKER GENERALLY FOLLOWING A FENCE SOUTH 85 DEGREES 57 MINUTES EAST, 400.23 FEET TO AN IRON PIN; THENCE WITH SAME SOUTH 85 DEGREES 46 MINUTES EAST, 371.10 FEET TO AN IRON PIN; THENCE WITH SAME NORTH 5 DEGREES 29 MINUTES EAST, 342.33 FEET TO AN IRON PIN; THENCE WITH SAME SOUTH 87 DEGREES 35 MINUTES EAST, 504.44 FEET TO AN IRON PIN; THENCE WITH SAME SOUTH 88 DEGREES 15 MINUTES EAST, 300.05 FEET TO AN IRON PIN; THENCE WITH THE SOUTH MARGIN OF RUTHERFORD LANE SOUTH 89 DEGREES 17 MINUTES EAST, 1,160.19 FEET TO AN IRON PIN; THENCE WITH SAME SOUTH 87 DEGREES 27 MINUTES EAST, 13.46 FEET TO AN IRON PIN IN CENTER LINE OF L AND N RAILROAD; THENCE WITH THE CENTER LINE OF L AND N RAILROAD FOLLOWING A STAKED LINE WITH IRON PINS AS FOLLOWS: SOUTH 67 DEGREES 39 MINUTES WEST, 221.60 FEET; SOUTH 65 DEGREES 18 MINUTES WEST, 278.60 FEET; SOUTH 62 DEGREES 32 MINUTES WEST, 264.30 FEET; SOUTH 59 DEGREES 31 MINUTES WEST, 326.96 FEET; SOUTH 56 DEGREES 09 MINUTES WEST, 252.0 FEET; SOUTH 53 DEGREES 29 MINUTES WEST, 2,305.30 FEET; THENCE LEAVING RAILROAD AND WITH RIDLEY BROTHERS GENERALLY FOLLOWING A FENCE AS FOLLOWS: NORTH 20 DEGREES 46 MINUTES WEST, 328.63 FEET TO AN IRON PIN; NORTH 32 DEGREES 52 MINUTES WEST, 326.42 FEET TO AN IRON PIN; NORTH 23 DEGREES 49 MINUTES WEST, 428.85 FEET TO AN IRON PIN; NORTH 17 DEGREES 02 MINUTES WEST, 922.55 FEET TO THE POINT OF BEGINNING, THERE IS A 100-FOOT CHARTERED RIGHT-OF-WAY ON THIS TRACT ALONG THE RAILROAD LINE.

TRACT IV:

LOCATED IN THE NINTH (9TH) CIVIL DISTRICT OF MAURY COUNTY, TENNESSEE, NEAR THE INTERSECTION OF WEST PARK DRIVE AND THE L AND N RAILROAD. BOUNDED ON THE NORTH BY L AND N RAILROAD; EAST BY WEST PARK DRIVE; SOUTH AND WEST BY A. D. CRICHTON AND OTHERS, AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A SPIKE IN THE CENTER OF L AND N RAILROAD, SAID POINT IS ALSO IN THE WEST MARGIN OF WEST PARK DRIVE; SAID POINT IS IN THE NORTHEAST CORNER OF THE HEREIN DESCRIBED TRACT; THENCE WITH THE WEST MARGIN OF WEST PARK DRIVE SOUTH 34 DEGREES 10 MINUTES EAST, 517.77 FEET TO AN IRON PIN AT POINT OF CURVE; THENCE ON A CHORD TO A 5 DEGREES 11 MINUTES CURVE HAVING A CENTRAL ANGLE OF 22 DEGREES 09 MINUTES FEET SOUTH 30 DEGREES 56 MINUTES EAST, 125.0 FEET TO AN IRON PIN; THENCE WITH A. D. CRICHTON AND OTHERS SOUTH 53 DEGREES 29 MINUTES WEST, 644.71 FEET TO AN IRON PIN; THENCE WITH SAME NORTH 36 DEGREES 31 MINUTES WEST, 660.91 FEET TO A SPIKE IN THE CENTER OF L AND N RAILROAD; THENCE WITH L AND N RAILROAD NORTH 53 DEGREES 29 MINUTES EAST, 287.17 FEET TO A SPIKE; THENCE WITH SAME ON A CHORD TO A 1 DEGREES CURVE NORTH 56 DEGREES 04 MINUTES EAST 352.0 FEET TO A SPIKE; THENCE WITH SAME ON A CHORD TO CURVE NORTH 57 DEGREES 57 MINUTES EAST, 39.21 FEET TO THE POINT OF BEGINNING.

TRACT V:

THIS IS A TRACT OR PARCEL OF LAND LOCATED IN THE NINTH CIVIL DISTRICT OF MAURY COUNTY, TENNESSEE BOUNDED ON THE NORTH BY DON CRICHTON AND OTHERS; EAST BY PROPOSED NEW ROAD; SOUTH AND WEST BY DON CRICHTON AND OTHERS AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT AN IRON PIN IN THE WEST MARGIN OF NEW PROPOSED ROAD AT THE SOUTHWEST CORNER OF THE HEREIN DESCRIBED TRACT, SAID POINT BEING NORTH 48 DEGREES 53 MINUTES WEST, 1,473.45 FEET FROM THE NORTH MARGIN OF U. S. HIGHWAY NO. 43 OR MT. PLEASANT PIKE, SAID POINT IN NORTH MARGIN OF HIGHWAY IS SOUTH 41 DEGREES 57 MINUTES WEST, 236.16 FEET FROM THE MOST SOUTHERLY SOUTHWEST CORNER OF THE DON CRICHTON AND OTHERS FARM; THENCE WITH DON CRICHTON AND OTHERS SOUTH 56 DEGREES 07 MINUTES WEST, 255.0 FEET TO AN IRON PIN; THENCE WITH SAME, NORTH 48 DEGREES 53 MINUTES WEST, 175.0 FEET TO AN IRON PIN, THENCE WITH SAME NORTH 56 DEGREES 07 MINUTES EAST, 246.70 FEET TO AN IRON PIN; THENCE WITH THE WEST MARGIN OF THE NEW PROPOSED ROAD ON A 4 DEGREES 07 MINUTES CURVE HAVING A CENTRAL ANGLE OF 9 DEGREES 54 MINUTES A DISTANCE ON CURVE OF 149.30 FEET TO P.C. OF CURVE; THENCE WITH SAME ON A TANGENT SOUTH 48 DEGREES 53 MINUTES EAST, 28.0 FEET TO THE POINT OF BEGINNING.

TRACT VI:

ANY PORTION OF OLD RUTHERFORD LANE THAT BOUNDS SAID PROPERTY OWNED BY ANDREW D. CRICHTON, JOHN B. JEWELL, III, AND JAMES W. JEWELL, UP TO THE CENTERLINE OF SAID LANE.

FIRST PARTY ALSO QUITCLAIMS ANY AND ALL RIGHTS IN AND TO OLD RUTHERFORD LANE ACQUIRED BY VIRTUE OF THE FOREGOING DEED OR OTHERWISE.

INCLUDED IN THE FOREGOING DESCRIPTION, BUT EXPRESSLY EXCLUDED THEREFROM, IS PROPERTY CONVEYED BY THE FOLLOWING; ALL OF RECORD IN THE REGISTER'S OFFICE OF MAURY COUNTY, TENNESSEE.

1. ALL LOTS IN WESTFIELD SUBDIVISION, SECTIONS 1, 2,3, 4, AND 4A, WITH THE EXCEPTION OF LOT 114 WESTFIELD SUBDIVISION, SECTION 4 AS SHOWN ON PLAT OF RECORD IN PLAT BOOK 8, PAGE 21, REGISTER'S OFFICE OF MAURY COUNTY, TENNESSEE.
2. DEED TO THE INDUSTRIAL DEVELOPMENT BOARD OF MAURY COUNTY, TENNESSEE IN BOOK 563, PAGE 204;
3. DEED TO MAURY COUNTY, TENNESSEE IN BOOK 591, PAGE 180;
4. DEED TO HERMAN L. LEWIS IN BOOK 607, PAGE 512;
5. DEED TO COLCO, INC., A TENNESSEE CORPORATION IN BOOK 655, PAGE 709;
6. DEED TO RICHARD A. BRICKNER AND WIFE, JUDITH BRICKNER, AS TENANTS IN THE ENTIRETY IN BOOK 675, PAGE 50;
7. DEED TO MAURY COUNTY, TENNESSEE IN BOOK 675, PAGE 354;
8. DEED TO GAITHER FRIERSON GARY IN BOOK 679, PAGE 508;
9. DEED TO STEVEN G. HALL IN BOOK 711, PAGE 531;
10. DEED TO MAURY COUNTY BOARD OF EDUCATION IN BOOK 803, PAGE 174;
11. DEED TO DAVID L. SCHWAB AND JOHN G. MITCHELL, AS EQUAL TENANTS IN COMMON IN BOOK 1114, PAGE 276;
12. DEED EUGENE L. HELLER IN BOOK 1145, PAGE 580; AND
13. DEED TO MAURY COUNTY, STATE OF TENNESSEE IN BOOK R2839, PAGE 368.

BEING PART OF THE SAME PROPERTY CONVEYED TO CBP, LLC, A TENNESSEE LIMITED LIABILITY COMPANY, BY DEED FROM CRICHTON WELTON PARTNERS, G.P., A TENNESSEE GENERAL PARTNERSHIP, OF RECORD IN BOOK R2895, PAGE 1276, IN THE REGISTER'S OFFICE OF MAURY COUNTY, TENNESSEE.

LEGAL DESCRIPTION (PER SURVEY)

LOCATED IN THE 9TH CIVIL DISTRICT OF MAURY COUNTY, TENNESSEE, BEING A PORTION OF THE CBP, LLC PROPERTY, AS REFERENCED IN RECORD BOOK 2895, PAGE 829 OF THE REGISTER'S OFFICE OF MAURY COUNTY, TENNESSEE (ROMCT) AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT AN IRON REBAR (SET), ON THE EASTERLY RIGHT-OF-WAY LINE OF WESTFIELD DRIVE AND THE NORTHEASTERLY CORNER OF LOT 1, WESTFIELD ESTATES, SECTION 1 PROPERTY, PLAT BOOK 7, PAGE 34 (ROMCT), HAVING A TENNESSEE STATE PLANE COORDINATE VALUE OF NORTH: 460,158.17 US FEET, EAST: 1,640,747.93 US FEET (NAD83, 2011);

THENCE, WITH WESTFIELD DRIVE, THE FOLLOWING FOUR (4) CALLS:
1. NORTH 60° 15' 34" EAST 105.85 FEET TO AN IRON PIPE (FOUND);
2. ALONG A CURVE TO THE LEFT, HAVING A RADIUS OF 282.23 FEET, AN ARC LENGTH OF 108.50 FEET, AND A CHORD BEARING OF NORTH 49° 15' 42" EAST 107.83 FEET TO AN IRON PIPE (FOUND);
3. NORTH 36° 46' 42" EAST 18.65 FEET TO AN IRON PIPE (FOUND);
4. ALONG A CURVE TO THE RIGHT, HAVING A RADIUS OF 25.00 FEET, AN ARC LENGTH OF 42.59 FEET, AND A CHORD BEARING OF NORTH 80° 41' 30" EAST 37.63 FEET TO AN IRON PIPE (FOUND) IN THE WESTERLY RIGHT-OF-WAY OF RUTHERFORD LANE;

THENCE, WITH RUTHERFORD LANE, THE FOLLOWING TWO (2) CALLS:
1. ALONG A CURVE TO THE RIGHT, HAVING A RADIUS OF 1392.39 FEET, AN ARC LENGTH OF 157.80 FEET, AND A CHORD BEARING OF SOUTH 47° 58' 28" EAST 157.71 FEET TO AN IRON REBAR (SET);
2. SOUTH 44° 43' 40" EAST 834.17 FEET TO AN IRON REBAR (SET) BEING IN THE CENTERLINE OF A 150' TVA EASEMENT;

THENCE, SEVERING CBP, LLC, SOUTH 08° 07' 07" WEST 383.66 FEET TO AN IRON PIPE (FOUND) BEING THE NORTHEAST CORNER OF THE ALPHEUS S. WEIDNER III PROPERTY, RECORD BOOK 2482, PAGE 1271 (ROMCT);

THENCE, WITH WEIDNER AND THE NORTHERLY LINE OF PLEASANT HILLS, SECTION 1, PLAT BOOK 4, PAGE 63 (ROMCT), THE FOLLOWING TWO (2) CALLS:
1. NORTH 53° 16' 46" WEST 395.79 FEET TO AN IRON REBAR (FOUND);
2. NORTH 83° 51 15" WEST 118.06 FEET TO THE SOUTHEAST CORNER OF LOT 6 OF SAID WESTFIELD ESTATES, SECTION 1;

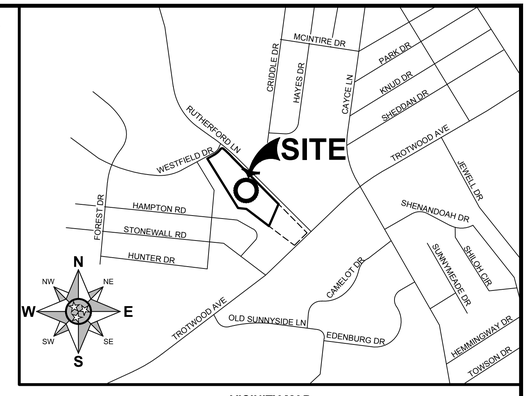
THENCE WITH WESTFIELD ESTATES, NORTH 32° 33 34" WEST 812.55 FEET TO THE POINT OF BEGINNING, CONTAINING IN ALL 9.13 ACRES, MORE OR LESS.

GENERAL NOTES:

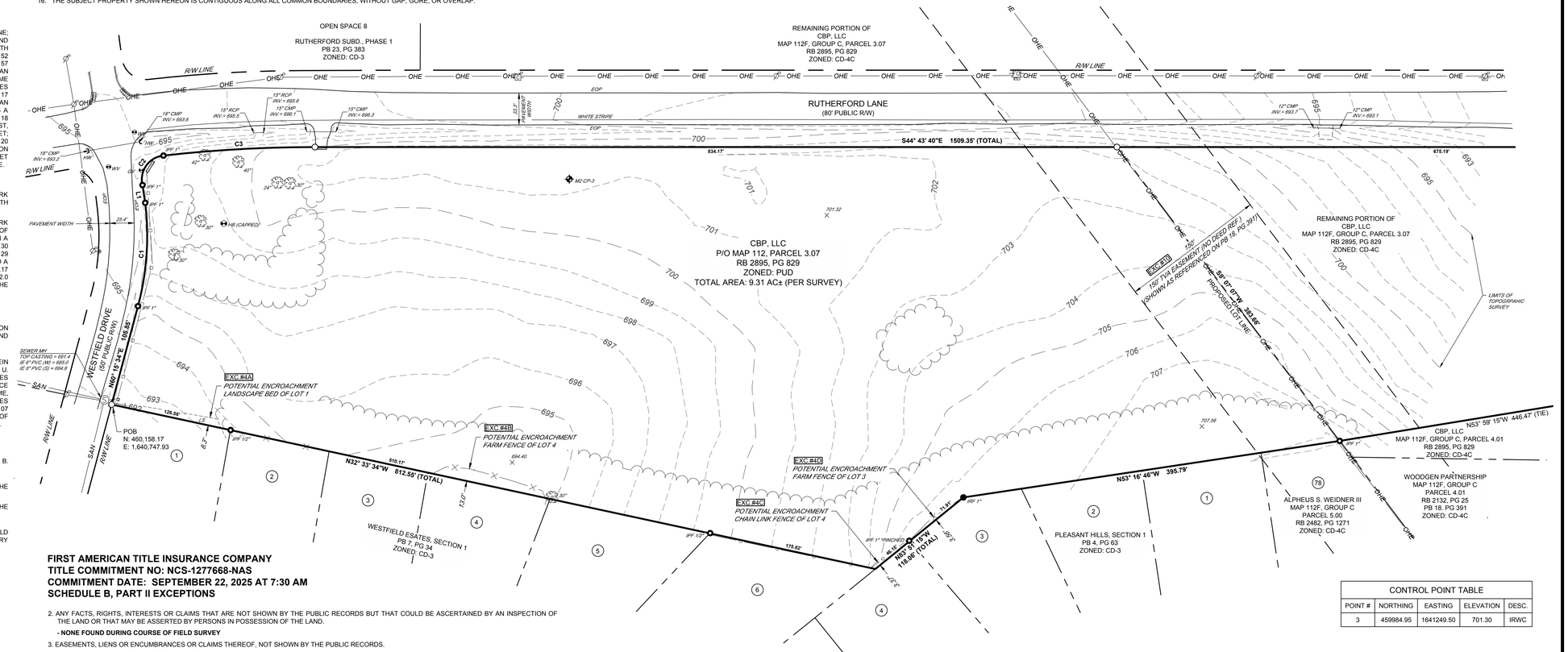
1. BEARINGS ARE BASED ON THE TENNESSEE STATE PLANE COORDINATE SYSTEM (NAD83, 2011).
2. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88, GEOID 18). CONTOURS ARE SHOWN AT 1-FOOT INTERVALS.
3. THE PROPERTY SHOWN HEREON IS THE SAME PROPERTY AS REFERENCED IN THE FIRST AMERICAN TITLE INSURANCE COMPANY, TITLE COMMITMENT NO. NAS-1277668-NAS.
4. THE FIELD SURVEY WAS COMPLETED ON SEPTEMBER 11, 2025.
5. THIS SURVEY WAS PREPARED USING THE TITLE COMMITMENT, AS REFERENCED HEREON, ALONG WITH CURRENT DEEDS AND PLATS OF RECORD.
6. ALL DEED BOOK AND PLAT REFERENCES PERTAIN TO THE REGISTER'S OFFICE FOR MAURY COUNTY, TENNESSEE.
7. ADJOINING PROPERTY LINES SHOWN WERE PLOTTED FROM INFORMATION TAKEN FROM EITHER DEED DESCRIPTION, RECORD PLATS, OR TAX MAPS.
8. PROPERTY CORNERS SET THIS SURVEY ARE 18" #4 REBAR WITH ORANGE PLASTIC CAP STAMPED "M2 GROUP", 18" #5 REBAR WITH YELLOW PLASTIC CAP STAMPED "M2 GROUP, LLC", OR PK NAIL WITH STAINLESS STEEL WASHER STAMPED "M2 GROUP, LLC", UNLESS NOTED OTHERWISE.
9. UTILITIES SHOWN HEREON WERE COMPILED FROM VISIBLE STRUCTURES AT THE SITE, INFORMATION FROM PLANS, AND PHYSICAL MARKINGS AND COMBINED TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES. HOWEVER, LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY, AND RELIABLY DEPICTED. IN ADDITION, IN SOME JURISDICTIONS, 811 OR OTHER SIMILAR UTILITY LOCATE REQUESTS FROM SURVEYORS MAY BE IGNORED OR RESULT IN AN INCOMPLETE RESPONSE. THIS SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THIS SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. VERIFICATION OF EXISTENCE, LOCATIONS, AND DEPTH SHOULD BE MADE BEFORE CONDUCTING ANY EXCAVATION IN THE VICINITY OF THE UTILITY.
10. THE PROPERTY SHOWN HEREON IS LOCATED IN A FLOOD HAZARD ZONE "X" (AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN) ACCORDING TO F.I.R.M. MAP "MAURY COUNTY, TENNESSEE" PANEL 280 OF 440, MAP NUMBER 47119C0280E, EFFECTIVE APRIL 16, 2007.
11. THE SUBJECT PROPERTY IS CURRENTLY ZONED "PUD" (PLANNED UNIT DEVELOPMENT) , BASED ON THE OFFICIAL ZONING MAP FOR CITY OF COLUMBIA, TENNESSEE. A CURRENT ZONING REPORT AND/OR ZONING LETTER HAS NOT BEEN PROVIDED TO THE SURVEYOR. THE MINIMUM BUILDING SETBACK REQUIREMENTS FOR "PUD" ZONING SHOULD BE CONFIRMED WITH THE CONTROLLING JURISDICTION.
13. THE SUBJECT PROPERTY HAS DIRECT AND CONTIGUOUS ACCESS TO RUTHERFORD LANE, A 80-FOOT PUBLIC RIGHT-OF-WAY, TROTWOOD AVENUE, A 60-FOOT PUBLIC RIGHT-OF-WAY, AND WESTFIELD DRIVE, A 50-FOOT PUBLIC RIGHT-OF-WAY.
14. THERE WAS NO EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS OBSERVED DURING THE COURSE OF FIELD SURVEY.
15. NO EVIDENCE OF PROPOSED CHANGES IN THE STREET RIGHT OF WAY LINES, OR OF RECENT STREET OR SIDEWALK CONSTRUCTION, OR REPAIRS, WAS OBSERVED DURING THE COURSE OF FIELD SURVEY.
16. THE SUBJECT PROPERTY SHOWN HEREON IS CONTIGUOUS ALONG ALL COMMON BOUNDARIES, WITHOUT GAP, GORE, OR OVERLAP.

LEGEND:

	EXISTING PROPERTY LINE	HB	HOSE BIB
	EXISTING RIGHT-OF-WAY		SANITARY SEWER MANHOLE
	EXISTING ADJACENT PROPERTY LINE		CURB INLET
	EXISTING EASEMENT		INLET (SQUARE)
MBSL	MINIMUM BUILDING SETBACK LINE	GV	GAS BOX (GAS VALVE)
700	EXISTING INDEX CONTOUR		HIGH TENSION TOWER
	EXISTING INTERMEDIATE CONTOUR		POWER POLE
	EXISTING FARM FENCE		GUY WIRE
	EXISTING WOOD FENCE		TRAFFIC PULL BOX
	EXISTING CHAIN-LINK FENCE		COMMUNICATION PEDESTAL
SAN	EXISTING SANITARY SEWER LINE		FIBER OPTIC PULL BOX
W	EXISTING WATER LINE		TREE, DECIDUOUS
OHE	EXISTING OVERHEAD ELECTRIC	700.00	EXISTING SPOT ELEVATION
	EXISTING TREELINE	(POI)	POINT OF INSERTION
	IRON REBAR FOUND (IRF)	HW	HEADWALL
	IRON PIPE FOUND (IPF)	LS	LANDSCAPE BED
	IRON REBAR SET W/CAP (IRS)	EOP	EDGE OF PAVEMENT
	BENCHMARK / SURVEY CONTROL	1	LOT NUMBER
WV	WATER VALVE	EXC. #3	SCHEDULE B PART II EXCEPTION
	FIRE HYDRANT		



VICINITY MAP
SCALE: 1"=1000'



FIRST AMERICAN TITLE INSURANCE COMPANY
TITLE COMMITMENT NO: NCS-1277668-NAS
COMMITMENT DATE: SEPTEMBER 22, 2025 AT 7:30 AM
SCHEDULE B, PART II EXCEPTIONS

2. ANY FACTS, RIGHTS, INTERESTS OR CLAIMS THAT ARE NOT SHOWN BY THE PUBLIC RECORDS BUT THAT COULD BE ASCERTAINED BY AN INSPECTION OF THE LAND OR THAT MAY BE ASSERTED BY PERSONS IN POSSESSION OF THE LAND.
   - NONE FOUND DURING COURSE OF FIELD SURVEY
3. EASEMENTS, LIENS OR ENCUMBRANCES OR CLAIMS THEREOF, NOT SHOWN BY THE PUBLIC RECORDS.
   - NONE FOUND DURING COURSE OF FIELD SURVEY
4. ANY ENCROACHMENT, ENCUMBRANCE, VIOLATION, VARIATION, OR ADVERSE CIRCUMSTANCE AFFECTING THE TITLE THAT WOULD BE DISCLOSED BY AN ACCURATE AND COMPLETE LAND SURVEY OF THE LAND AND NOT SHOWN BY THE PUBLIC RECORDS.
   (A) - ENCROACHMENT OF LANDSCAPE BED FROM LOT 1, WESTFIELD ESTATES, SECT. 1, AS SHOWN AND NOTED HEREON
   (B) - ENCROACHMENT OF FARM FENCE FROM LOT 4, WESTFIELD ESTATES, SECT. 1, AS SHOWN AND NOTED HEREON
   (C) - ENCROACHMENT OF CHAIN LINK FENCE FROM LOT 4, PLEASANT HILLS, SECT. 1, AS SHOWN AND NOTED HEREON
   (D) - ENCROACHMENT OF FARM FENCE FROM LOT 3, PLEASANT HILLS, SECT. 1, AS SHOWN AND NOTED HEREON
10. ALL MATTERS SHOWN ON PLAT(S) OF RECORD IN BOOK 8, PAGE 21; PLAT BOOK P18, PAGE 379; AND PLAT BOOK P23, PAGE 348, IN THE REGISTER'S OFFICE OF MAURY COUNTY, TENNESSEE.
   - PLAT BOOK 8, PAGE 21 AND PLAT BOOK 23, PAGE 348, DO NOT AFFECT THE SUBJECT PROPERTY
   - PLAT BOOK 18, PAGE 379, REFERENCES A 150' TVA OVERHEAD POWER LINE EASEMENT THAT DOES AFFECT THE SUBJECT PROPERTY AS SHOWN AND NOTED HEREON
   - PLAT BOOK 18, PAGE 391, IS NOT LISTED IN EXCEPTION ABOVE, BUT DOES REFERENCE SAME 150' TVA OVERHEAD POWER LINE EASEMENT THAT DOES AFFECT THE SUBJECT PROPERTY AS SHOWN AND NOTED HEREON
11. RIGHT OF WAY AND LIFE ESTATE CONTAINED IN DEED OF RECORDED IN BOOK 595, PAGE 486, IN THE REGISTER'S OFFICE OF MAURY COUNTY, TENNESSEE.
   - DOES NOT AFFECT THE SUBJECT PROPERTY
12. TERMS AND PROVISIONS OF RIGHT OF WAY OR EASEMENT, BY AND BETWEEN THOMAS J. BURT AND RAYMOND MCMEEN AND CITY OF COLUMBIA, TENNESSEE, A MUNICIPAL CORPORATION, OF RECORD IN BOOK 609, PAGE 309, IN THE REGISTER'S OFFICE OF MAURY COUNTY, TENNESSEE.
   - DOES NOT AFFECT THE SUBJECT PROPERTY
13. TERMS AND PROVISIONS OF RIGHT-OF-WAY OR EASEMENT, BY AND BETWEEN ANDREW DON CRICHTON, JAMES W. JEWELL AND JOHN B. JEWELL, III AND CITY OF COLUMBIA, ITS SUCCESSORS AND ASSIGNS, OF RECORD IN BOOK R1924, PAGE 1092, IN THE REGISTER'S OFFICE OF MAURY COUNTY, TENNESSEE.
   - DOES NOT AFFECT THE SUBJECT PROPERTY
15. TERMS AND PROVISIONS OF GRADING AND CONSTRUCTION EASEMENT AGREEMENT, BY AND BETWEEN WELTON INVESTMENTS, LLC, A TENNESSEE LIMITED LIABILITY COMPANY AND COLUMBIA RETAIL PARTNERS, A TENNESSEE GENERAL PARTNERSHIP, OF RECORD IN BOOK R2113, PAGE 557, IN THE REGISTER'S OFFICE OF MAURY COUNTY, TENNESSEE.
   - DOES NOT AFFECT THE SUBJECT PROPERTY
17. TERMS AND PROVISIONS OF SANITARY SEWER EASEMENT, BY AND BETWEEN CBP, LLC, A TENNESSEE LIMITED LIABILITY COMPANY AND CITY OF COLUMBIA, STATE OF TENNESSEE, ITS SUCCESSORS AND ASSIGNS, OF RECORD IN BOOK R2931, PAGE 1096, IN THE REGISTER'S OFFICE OF MAURY COUNTY, TENNESSEE.
   - DOES NOT AFFECT THE SUBJECT PROPERTY
20. RIGHTS OF THE RAILROAD COMPANY TO EXPAND ITS RIGHT OF WAY TO ITS FULL CHARTER WIDTH.
   - DOES NOT AFFECT THE SUBJECT PROPERTY

CONTROL POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESC.
3	459984.95	1641249.50	701.30	IRWC

LINE TABLE		
LINE #	LENGTH	DIRECTION
L1	18.65	N36° 46' 42"E

CURVE TABLE				
CURVE #	LENGTH	RADIUS	CHORD BRNG	CHORD LENGTH
C1	108.50	282.23	N49° 15' 42"E	107.83
C2	42.59	25.00	N80° 41' 30"E	37.63
C3	157.80	1392.39	S47° 58' 28"E	157.71

GPS SURVEY DATA INFORMATION:

- TYPE OF GPS SURVEY: RTK
- POSITIONAL ACCURACY: 0.07 FEET
- DATUM/EPOCH: NAD83 (2011) EPOCH 2010.00
- PUBLISHED/FIXED CONTROL USED: TGRN
- GEOID MODEL: GEOID 18
- COMBINED GRID SCALE FACTOR: 0.9999285106
- UNITS: (US FEET)(GRID)



SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THE INFORMATION SHOWN HEREON IS TRUE AND ACCURATE TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND BELIEF. THE SURVEY SHOWN HEREON REPRESENTS A CATEGORY I SURVEY, HAVING A LINEAR ERROR OF CLOSURE WHICH IS EQUAL TO OR LESS THAN 1 FOOT PER 10,000 FEET OF LAND (1:10,000). THIS SURVEY WAS MADE IN COMPLIANCE WITH THE CURRENT TENNESSEE MINIMUM STANDARDS OF PRACTICE.

60' 0 60' 120'
GRAPHIC SCALE

REVISION #	DATE	DESCRIPTION

BOUNDARY & TOPOGRAPHIC SURVEY
P/O MAP 112, PARCEL 3.07
RUTHERFORD LANE
CITY OF COLUMBIA
9TH CIVIL DISTRICT
MAURY COUNTY, TENNESSEE

DATE :	OCTOBER 22, 2025	DRAWN BY :	PMK
PROJECT NUMBER :	25-215	CHECKED BY :	EDC

M2 GROUP
P.O. BOX 2543
BRENTWOOD, TN 37024-2543
615-656-0257 / M2GROUPLLC.COM

Know what's **below.**
Call before you dig.

GENERAL NOTES:

1. GENERAL CONTRACTOR (GC) IS TO CONFORM TO ALL LOCAL CODES AND OBTAIN ALL PERMITS PRIOR TO BEGINNING WORK.
2. GC SHALL VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES. GC SHALL TAKE CARE TO PROTECT UTILITIES THAT ARE TO REMAIN. REPAIR ALL CONTRACTOR CAUSED DAMAGE ACCORDING TO LOCAL STANDARDS AND AT THE CONTRACTOR'S EXPENSE. COORDINATE ALL CONSTRUCTION WITH THE APPROPRIATE UTILITY COMPANY.
3. GC SHALL EXERCISE EXTREME CAUTION WHEN WORKING IN THE VICINITY OF UNDERGROUND OR OVERHEAD ELECTRICAL WIRES AND SERVICES. IF AT ANY TIME IN THE PURSUIT OF THIS WORK, THE CONTRACTOR MUST WORK IN CLOSE PROXIMITY OF ELECTRICAL WIRES, THE ELECTRICAL COMPANY SHALL BE CONTACTED PRIOR TO SUCH WORK AND THE PROPER SAFETY MEASURES TAKEN.
4. IN EASEMENTS AND RIGHTS-OF-WAY, GC SHALL PROTECT AND RESTORE SAID PROPERTY TO A CONDITION SIMILAR OR EQUAL TO THAT EXISTING AT THE COMMENCEMENT OF CONSTRUCTION, EXCEPT WHERE NOTED.
5. GC IS TO PHOTOGRAPH ALL EXISTING CONDITIONS PRIOR TO INITIATING CONSTRUCTION.
6. CLEAR THE ENTIRE CONSTRUCTION AREA OF ALL WEEDS, BUSHES, TREES NOTED FOR REMOVAL OR WITHIN GRADING BOUNDARY, STUMPS, ASPHALT, CONCRETE, CURBS AND OTHER PROTRUDING OBSTRUCTIONS NOT DESIGNATED TO REMAIN.
7. ALL MATERIALS NOT TO REMAIN ARE TO BE DISPOSED OF OFF SITE AT A PROPERLY PERMITTED LOCATION.
8. GC IS RESPONSIBLE FOR CLEANING AND MAINTAINING HAUL ROUTES AND CONTROLLING DUST. CLEANING SHOULD BE CONTINUOUS DURING ACTIVE WORK.
9. GC IS RESPONSIBLE FOR ALL NECESSARY EROSION CONTROL TO KEEP SEDIMENT ON SITE, EVEN IF IT IS NOT DIRECTLY SHOWN ON THE PLANS. ANY EROSION CONTROL NEEDED NOT SHOWN ON THE PLANS SHALL BE MARKED ON THE PLANS.
10. GC SHALL NOT DISTURB EXISTING CONDITIONS OUTSIDE OF THE PROJECT PROPERTY UNLESS SHOWN ON THE PLANS OR WITH PERMISSION OF THE PROPERTY OWNER. ANY UNAUTHORIZED DAMAGES SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.
11. ALL CURB AND GUTTER TO BE DEMOLISHED SHALL BE REMOVED TO THE NEAREST JOINT. CONTRACTOR TO FIELD VERIFY LIMITS AS JOINTS ARE NOT SHOWN ON THE PLANS.

DEMOLITION NOTES:

1. CLEARING LIMITS SHALL BE PHYSICALLY MARKED IN THE FIELD BY THE CONTRACTOR.
2. NO TREES SHALL BE REMOVED, NOR VEGETATION DISTURBED BEYOND THE LIMITS OF CONSTRUCTION WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE OWNER'S REPRESENTATIVE.
3. TREE PROTECTION FENCING SHALL BE IN ACCORDANCE WITH GALLATIN STANDARDS AND DETAILED DRAWINGS. DO NOT OPERATE OR STORE EQUIPMENT, NOR HANDLE OR STORE MATERIALS WITHIN THE DRIP LINES OF THE TREES SHOWN TO REMAIN.
4. PROTECTION OF EXISTING TREES AND VEGETATION: PROTECT EXISTING TREES AND OTHER VEGETATION INDICATED TO REMAIN IN PLACE AGAINST UNNECESSARY CUTTING, BREAKING OR SKINNING OF ROOTS, SKINNING OR BRUISING OF BARK, SMOTHERING OF TREES BY STOCKPILING CONSTRUCTION MATERIALS OR EXCAVATED MATERIALS WITHIN DRIP LINE, EXCESS FOOT OR VEHICULAR TRAFFIC, OR PARKING OF VEHICLES WITHIN DRIP LINE. PROVIDE TEMPORARY GUARDS TO PROTECT TREES AND VEGETATION TO BE LEFT STANDING.
5. ALL DEMOLITION WASTE AND CONSTRUCTION DEBRIS, OTHER THAN TOPSOIL, SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE DESIGNATED AND SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF OFFSITE IN A STATE APPROVED WASTE SITE AND IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS. TAKE CARE TO PROTECT UTILITIES THAT ARE TO REMAIN. REPAIR DAMAGE ACCORDING TO THE APPROPRIATE UTILITY COMPANY STANDARDS AND AT THE CONTRACTOR'S EXPENSE.
6. ALL UTILITY DISCONNECTION, REMOVAL, RELOCATION, CUTTING, CAPPING AND/OR ABANDONMENT SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY / AGENCY. UTILITY CONTACTS ARE LISTED ON THE COVER SHEET.
7. THE BURNING OF CLEARED MATERIAL AND DEBRIS SHALL NOT BE ALLOWED UNLESS CONTRACTOR OBTAINS PRIOR WRITTEN AUTHORIZATION FROM THE LOCAL AUTHORITIES.
8. EROSION & SEDIMENT CONTROL MEASURES AROUND AREAS OF DEMOLITION SHALL BE PROPERLY INSTALLED AND FUNCTION PROPERLY PRIOR TO INITIALIZATION OF DEMOLITION ACTIVITIES.
9. HAZARDOUS MATERIALS ARE NOT EXPECTED, IF FOUND ON SITE, SUCH MATERIALS SHALL BE REMOVED BY A LICENSED HAZARDOUS MATERIALS CONTRACTOR. CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY IF HAZARDOUS MATERIALS ARE ENCOUNTERED.
10. CONTRACTOR SHALL ADHERE TO ALL LOCAL, STATE, FEDERAL AND OSHA REGULATIONS DURING ALL DEMOLITION ACTIVITIES.
11. CONTRACTOR SHALL PROTECT ALL CORNER PINS, MONUMENTS, PROPERTY CORNERS AND BENCHMARKS DURING DEMOLITION ACTIVITIES. IF DISTURBED, CONTRACTOR SHALL HAVE DISTURBED ITEMS RESET BY A LICENSED SURVEYOR AT NO ADDITIONAL COST TO THE OWNER.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES, STRUCTURES, AND FEATURES TO REMAIN. ANY ITEMS TO REMAIN THAT HAVE BEEN DISTURBED OR DAMAGED AS A RESULT OF CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT CONTRACTOR'S EXPENSE.
13. ANY UTILITY AND STRUCTURE REMOVAL, RELOCATION, CUTTING, CAPPING AND/OR ABANDONMENT SHALL BE COORDINATED AND PROPERLY DOCUMENTED BY A CERTIFIED PROFESSIONAL, WHEN APPLICABLE, WITH THE APPROPRIATE UTILITY COMPANY, MUNICIPALITY AND/OR AGENCY. DEMOLITION OF REGULATED ITEMS MAY INCLUDE, BUT ARE NOT LIMITED TO WELLS, ASBESTOS, UNDER GROUND STORAGE TANKS, SEPTIC TANKS AND ELECTRIC TRANSFORMERS. DEMOLITION CONTRACTOR SHALL REFER TO ANY ENVIRONMENTAL STUDIES FOR DEMOLITION RECOMMENDATIONS AND GUIDANCE. AVAILABLE ENVIRONMENTAL STUDIES MAY INCLUDE, BUT ARE NOT LIMITED TO PHASE I ESA, PHASE II ESA, WETLAND AND STREAM DELINEATION AND ASBESTOS SURVEY. ALL APPLICABLE ENVIRONMENTAL STUDIES SHALL BE MADE AVAILABLE UPON REQUEST.
14. THE CONTRACTOR SHALL USE SUITABLE METHODS TO CONTROL DUST AND DIRT CAUSED BY THE DEMOLITION ACTIVITIES.

SITE LAYOUT NOTES:

1. CONTRACTOR SHALL CHECK ALL FINISHED GRADES AND DIMENSION IN THE FIELD AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE PRIOR TO BEGINNING WORK.
2. THE CONTRACTOR SHALL CONFORM TO ALL LOCAL CODES AND OBTAIN ALL PERMITS PRIOR TO BEGINNING WORK.
3. PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING PAVEMENT AND NEW PAVEMENT. FIELD ADJUSTMENT OF FINAL GRADES MAYBE NECESSARY. INSTALL ALL UTILITIES PRIOR TO INSTALLATION OF FINAL PAVEMENT.
4. CONCRETE WALKS AND PADS SHALL HAVE A BROOM FINISH. ALL CONCRETE SHALL BE CLASS "A" (4,000 PSI) UNLESS OTHERWISE NOTED.
5. ALL DAMAGE TO EXISTING ASPHALT PAVEMENT TO REMAIN WHICH RESULTS FROM NEW CONSTRUCTION SHALL BE REPLACED WITH LIKE MATERIALS AT THE CONTRACTOR'S EXPENSE.
6. DIMENSIONS ARE TO THE FACE OF CURBS, EDGE OF CONCRETE, OR TO THE FACE OF BUILDING, UNLESS OTHERWISE NOTED.
7. ALL CURB TURNOUT, EDGE OF PAVEMENT, AND STRIPING RADII ARE FOUR FEET (4') UNLESS OTHERWISE NOTED.
8. CONTRACTOR TO VERIFY ALL REQUIRED CLEARANCES FROM OVERHEAD POWER LINES PRIOR TO THE START OF CONSTRUCTION.
9. CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN THE USE OF EQUIPMENT IN AND AROUND OVERHEAD OR UNDERGROUND ELECTRICAL WIRES AND SERVICES. IF AT ANY TIME IN THE PURSUIT OF THIS WORK , THE CONTRACTOR MUST WORK IN CLOSE PROXIMITY OF THE ABOVE NOTED WIRES, THE ELECTRICAL COMPANY SHALL BE CONTACTED PRIOR TO SUCH WORK AND THE PROPER SAFETY MEASURES MUST BE TAKEN.
10. IN EASEMENTS AND RIGHTS-OF-WAYS, CONTRACTOR SHALL PROTECT AND RESTORE SAID PROPERTY TO A CONDITION SIMILAR OR EQUAL TO THAT EXISTING AT THE COMMENCEMENT OF CONSTRUCTION, EXCEPT AS NOTED.
11. THE CONTRACTOR SHALL COMPLY WITH ALL PERTINENT PROVISIONS OF THE "MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION" ISSUED BY AGC OF AMERICA, INC. AND THE "SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION' ISSUED BY THE U.S. DEPARTMENT OF LABOR.
12. TRAFFIC CONTROL, IF REQUIRED, SHALL BE PROVIDED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
13. IN THE EVENT OF ANY DISCREPANCY AND/OR ERROR FOUND IN THE DRAWINGS, OR IF PROBLEMS ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL BE REQUIRED TO NOTIFY THE ENGINEER IN WRITING BEFORE PROCEEDING WITH THE WORK. IF THE ENGINEER IS NOT NOTIFIED, THE CONTRACTOR SHALL TAKE RESPONSIBILITY FOR THE COST OF ANY REVISION.
14. BUILDING CONTROL POINTS, GRADE AND OFFSET STAKES ARE TO BE SET BY THE CONTRACTOR.
15. PROVIDE 24" TAPER ON ENDS OF ALL CURBS THAT TERMINATE.
16. ALL CURB RAMPS IN THE PUBLIC ROW ARE TO RECEIVE DETECTABLE WARNINGS PER LOCAL MUNICIPALITY.
17. ALL BUILDINGS WITHIN 10' OF THE BIORETENTION AREA ARE TO BE WATERPROOFED. SEE ARCHITECTURAL PLANS.
18. ALL SITE RETAINING WALLS SHALL BE DESIGNED BY OTHERS.
19. INSTALL CONCRETE JOINTS WHERE SHOWN ON DETAILS. ALIGN ON WALLS, BUILDINGS, RADII, ETC. EVENLY SPACE BETWEEN ELEMENTS AS SHOWN. PROVIDE EXPANSION JOINTS BETWEEN CONCRETE PAVEMENT AND ALL VERTICAL ELEMENTS SUCH AS WALLS, CURBS, ETC.
20. ALL LANDSCAPE ISLANDS SHALL BE MOUNDED WITH TOPSOIL 4" ABOVE THE CURB LINE TO PROMOTE POSITIVE DRAINAGE.
21. SAW CUT LINES SHALL BE DONE IN A STRAIGHT NEAT LINE A MINIMUM OF 18" FROM THE EXISTING EDGE OF PAVEMENT.
22. ALL PAVEMENT MARKINGS SHALL BE 4" WIDE UNLESS OTHERWISE NOTED. ALL PAVEMENT MARKINGS WITHIN THE RIGHT-OF-WAY SHALL BE THERMOPLASTIC AND COMPLY WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) LATEST EDITION. RIGHT-OF-WAY SIGNAGE TO ALSO COMPLY WITH M.U.T.C.D. ON SITE PAVEMENT MARKINGS SHALL BE WHITE PAINT UNLESS NOTED OTHERWISE.

TRAFFIC CONTROL NOTES:

1. THESE TRAFFIC CONTROL PLANS DO NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF INSTALLING TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE CURRENT EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
2. CONSTRUCTION SIGNING SHOWN IN THESE PLANS IS THE SERVE AS GUIDANCE ONLY. OTHER SIGNS MAY BE REQUIRED DURING VARIOUS PHASES OF CONSTRUCTION.
3. NO TRAFFIC SHALL BE DETOURED OR ROADWAY CLOSED, ABANDONED, OR REMOVED WITHOUT THE PRIOR APPROVAL OF THE CITY.
4. THE ADVANCE WARNING SIGNS ARE TO BE PLACED PRIOR TO CONSTRUCTION AND SHALL REMAIN IN PLACE UNTIL PROJECT IS COMPLETE.
5. CONTRACTOR IS TO COVER ALL CONFLICTING SIGNS DURING CONSTRUCTION.
6. THE CONTRACTOR IS TO COORDINATE ALL LANE CLOSURES WITH THE CITY ENGINEER.G

GRADING PLAN NOTES:

1. ALL PIPES UNDER EXISTING PAVED AREAS SHALL BE BACKFILLED TO TOP OF SUBGRADE WITH CRUSHED STONE UNLESS PUBLIC WORKS SPECIFICATIONS REQUIRE FLOWABLE FILL.
2. CONTRACTOR TO VERIFY ALL EXISTING UTILITY ELEVATIONS AND GRADES PRIOR TO BEGINNING WORK. NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES FROM THE PLANS.
3. CONTOUR LINES AND SPOT ELEVATIONS ARE THE RESULT OF DETAILED ENGINEERING GRADING DESIGN AND REFLECT A PLANNED INTENT WITH REGARD TO DRAINAGE AND MOVEMENT OF MATERIALS. SHOULD THE CONTRACTOR HAVE ANY QUESTIONS OF THE INTENT OR ANY PROBLEMS WITH CONTINUITY OF GRADES, THE ENGINEER SHOULD BE CONTACTED IMMEDIATELY PRIOR TO BEGINNING WORK.
4. NO TREES ARE TO BE REMOVED AND/OR VEGETATION DISTURBED EXCEPT AS NECESSARY FOR GRADING PURPOSES AND ONLY AS APPROVED BY OWNER'S REPRESENTATIVE.
5. TOPSOIL IS TO BE STRIPPED FROM ALL CUT AND FILL AREAS. IF POSSIBLE, STOCKPILE AND REDISTRIBUTE A MINIMUM OF 6" OF TOPSOIL OVER FINISHED LANDSCAPED AREAS UNLESS OTHERWISE STATED ON THE LANDSCAPE PLAN.
6. FILL MATERIAL REQUIRED SHALL BE PLACED UNDER THE SUPERVISION OF A GEOTECHNICAL TESTING FIRM AND BE BORROWED AT THE CONTRACTOR'S EXPENSE.
7. ALL GRADED AREAS, INCLUDING SLOPES, ARE TO BE SODDED OR MULCHED AND SEEDED WITHIN 14 DAYS AFTER GRADING IS SUSPENDED OR COMPLETED.
8. ALL SLOPES EQUAL TO OR GREATER THAN 3:1 MUST BE STABILIZED WITHIN 7 DAYS AFTER GRADING IS SUSPENDED OR COMPLETED.
9. GRADING OPERATIONS ARE NOT TO BEGIN UNTIL EROSION CONTROL HAS BEEN INSTALLED AS SHOWN ON DRAWINGS, INSPECTED BY METRO STORMWATER DEPARTMENT, AND THE GRADING PERMIT HAS BEEN ISSUED.
10. SILT BARRIERS SHALL BE CLEANED OF ACCUMULATED SEDIMENT OR REPLACED WHEN APPROXIMATELY 33% FILLED WITH SEDIMENT OR DIRECTED BY THE EROSION CONTROL SPECIALIST.
11. ALL DIMENSIONS AND LOCATIONS OF TEMPORARY EROSION CONTROL DEVICES SHALL BE SUBJECT TO ADJUSTMENT AS DESIGNATED BY THE OWNER'S REPRESENTATIVE.
12. WHEN THE TEMPORARY EROSION CONTROL DEVICES ARE NO LONGER NEEDED FOR THE INTENDED PURPOSE IN THE OPINION OF THE DESIGNATED SITE EROSION CONTROL SPECIALIST, THEY MAY BE REMOVED.
13. THE CONTRACTOR SHALL PROVIDE THE NECESSARY PROTECTION FOR TREES TO REMAIN IN ACCORDANCE WITH CITY SPECIFICATIONS. DO NOT OPERATE OR STORE HEAVY EQUIPMENT NOR HANDLE OR STORE MATERIALS WITHIN THE DRIP LINES OF TREES TO REMAIN.
14. IF NEEDED, CONTRACTOR SHALL PROVIDE AN AREA FOR CONCRETE WASH DOWN AND EQUIPMENT FUELING IN ACCORDANCE WITH METRO STORMWATER BMP CP-10 AND CP-13. CONTRACTOR TO COORDINATE EXACT LOCATION WITH NPDES DEPARTMENT DURING PRE-CONSTRUCTION MEETING.
15. PRIOR TO FINAL ACCEPTANCE AND INSPECTION, SEDIMENT MUST BE REMOVED ALL NEW AND EXISTING STRUCTURES AND WATER QUALITY SYSTEMS.
16. CONTRACTOR TO CONTACT ENGINEER PRIOR TO INSTALLATION OF ALL STORMWATER AND UNDERGROUND UTILITY INFRASTRUCTURE ASSOCIATED WITH THE PROJECT IN ORDER TO DETERMINE REQUIRED AS-BUILT INFORMATION.
17. CONTRACTOR IS TO ALLOW 30 DAYS FOR THE ENGINEER TO SUBMIT SUCH DETERMINATION TO THE STORMWATER DEPARTMENT FOR THEIR APPROVAL PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
18. GC IS TO PHOTOGRAPH INSTALLATION OF ALL WATER QUALITY INFRASTRUCTURE.

EROSION & SEDIMENT CONTROL NOTES:

1. ALL PERIMETER MEASURES MUST BE IN PLACE BEFORE GRADING.
2. ALL STOCKPILES ARE TO BE CONTAINED ON THE PROJECT PROPERTY UNLESS WRITTEN PERMISSION IS GIVEN BY THE ADJACENT PROPERTY OWNER. INSTALL SILT FENCE AT THE BASE OF ANY STOCKPILES.
3. ALL GRADED SLOPES 3:1 OR STEEPER AND DITCH BOTTOMS SHALL RECEIVE PROPER EROSION CONTROL BLANKETS/MATTING OR SOD.
4. ALL FIELD ADJUSTMENT OF EROSION CONTROL MEASURES SHALL BE NOTED ON THE PLANS KEPT IN THE JOB TRAILER.
5. WHEN THE TEMPORARY EROSION CONTROL DEVICES ARE NO LONGER NEEDED FOR THE INTENDED PURPOSE IN THE OPINION OF THE DESIGNATED SITE EROSION CONTROL SPECIALIST, THEY MAY BE REMOVED.
6. CONTRACTOR TO PROVIDE AN AREA FOR CONCRETE WASH DOWN AND EQUIPMENT FUELING IN ACCORDANCE WITH METRO CP-10 AND CP-13, RESPECTIVELY. CONTRACTOR TO COORDINATE EXACT LOCATION WITH NPDES DEPARTMENT DURING PRECONSTRUCTION MEETING. CONTROL OF OTHER SITE WASTES SUCH AS DISCARDED BUILDING MATERIALS, CHEMICALS, LITTER, AND SANITARY WASTES THAT MAY CAUSE ADVERSE IMPACTS TO WATER QUALITY IS ALSO REQUIRED BY THE GRADING PERMITTEE. LOCATION OF AND/OR NOTES REFERRING TO THESE BMP'S SHALL BE SHOWN ON THE EPSC PLAN.
7. ALL DISTURBED AREAS ARE TO BE PERMANENTLY STABILIZED PER THE LANDSCAPE PLAN. ALL AREAS NOT OTHERWISE RECEIVING SOD OR OTHER PLANTING SHALL RECEIVE SEED AND STRAW PER THE SPECIFICATIONS INCLUDED WITHIN TENNESSEE EROSION AND SEDIMENT CONTROL HANDBOOK.
8. ALL GRADED AREAS, INCLUDING SLOPES, ARE TO BE SODDED OR MULCHED AND SEEDED WITHIN 14 DAYS AFTER GRADING IS SUSPENDED OR COMPLETED.
9. ALL SLOPES EQUAL TO OR GREATER THAN 3:1 MUST BE STABILIZED WITHIN 7 DAYS AFTER GRADING IS SUSPENDED OR COMPLETED.
10. GRADING OPERATIONS ARE NOT TO BEGIN UNTIL EROSION CONTROL HAS BEEN INSTALLED AS SHOWN ON DRAWINGS, INSPECTED BY METRO STORMWATER DEPARTMENT, AND THE GRADING PERMIT HAS BEEN ISSUED.
11. SILT BARRIERS SHALL BE CLEANED OF ACCUMULATED SEDIMENT OR REPLACED WHEN APPROXIMATELY 33% FILLED WITH SEDIMENT OR DIRECTED BY THE EROSION CONTROL SPECIALIST.
12. THE CONTRACTOR SHALL PROVIDE THE NECESSARY PROTECTION FOR TREES TO REMAIN IN ACCORDANCE WITH CITY SPECIFICATIONS. DO NOT OPERATE OR STORE HEAVY EQUIPMENT NOR HANDLE OR STORE MATERIALS WITHIN THE DRIP LINES OF TREES TO REMAIN.
13. PRIOR TO FINAL ACCEPTANCE AND INSPECTION, SEDIMENT MUST BE REMOVED FROM ALL NEW AND EXISTING STRUCTURES AND WATER QUALITY SYSTEMS.
14. TDEC NOTICE OF TERMINATION (NOT) TO BE SUBMITTED ONLINE BY THE GENERAL CONTRACTOR UPON COMPLETION OF SITE WORK. GENERAL CONTRACTOR MUST HAVE A TDEC 'MY FORMS SYSTEM' ACCOUNT ON https://forms.tdec.tn.gov/ IN ORDER TO FILE THE NOT.

UTILITY NOTES:

1. ALL PIPES UNDER EXISTING PAVED AREAS SHALL BE BACKFILLED TO TOP OF SUBGRADE WITH CRUSHED STONE UNLESS PUBLIC WORKS SPECIFICATIONS REQUIRE FLOWABLE FILL.
2. WHERE SEWER LINES PASS OVER OR WITHIN 2.5' OF WATER MAINS, THE SEWER SHALL BE ENCASED IN CONCRETE.
3. ALL PAVED AREAS SHALL BE CONSTRUCTED TO SUBGRADE AND ALL PROPOSED FILLS SHALL BE MADE AND COMPACTED PRIOR TO CONSTRUCTION OF SANITARY SEWERS.
4. PROPOSED SEWER LINES INSTALLED WITHIN NATURAL EARTH MAY BE SDR 35 PVC. PROPOSED SEWER LINES INSTALLED WITHIN FILL MUST BE DUCTILE IRON PIPE.
5. THE CONTRACTOR IS RESPONSIBLE FOR ALL HORIZONTAL AND VERTICAL BENDS, JOINTS, AND FITTINGS REQUIRED TO CONSTRUCT UTILITIES.
6. THE CONTRACTOR SHALL VERIFY THE EXISTING INVERT ELEVATIONS OF SANITARY SEWERS PRIOR TO CONSTRUCTION.
7. ALL WATER METERS WILL BE PURCHASED FROM COLUMBIA POWER & WATER SYSTEMS.
8. A MINIMUM OF 3' OF GROUND COVER SHALL BE MAINTAINED OVER ALL PROPOSED SANITARY SEWER MAINS.
9. SEE MECHANICAL AND PLUMBING DRAWINGS FOR EXACT LOCATIONS OF SEWER CONNECTIONS, WATER CONNECTIONS, AND GAS CONNECTIONS. THE UTILITY CONTRACTOR IS TO INSTALL PROPOSED UTILITIES TO WITHIN 5' OF THE BUILDING LINE. A LICENSED SPRINKLER CONTRACTOR MUST INSTALL SPRINKLER SYSTEM PIPING FROM POINT OF SERVICE, IF APPLICABLE.
10. ALL UTILITY INSTALLATION IS TO BE DONE IN ACCORDANCE WITH THE LOCAL STANDARDS OR OTHER APPLICABLE CODES.
11. GC SHALL REVIEW COLUMBIA POWER & WATER SYSTEMS SPECIFICATIONS PRIOR TO INITIATING WORK.
12. CURRENT SERVICE TO EXISTING STRUCTURES SHALL NOT BE INTERRUPTED WITHOUT ADVANCED WRITTEN PERMISSION FROM THE OWNER.
13. CONTRACTOR SHALL BID AND PERFORM THE WORK IN ACCORDANCE WITH ALL LOCAL, STATE, AND NATIONAL CODES AND THE REQUIREMENTS OF THE LOCAL UTILITY COMPANIES.
14. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND INVERT OF ALL EXISTING UTILITIES AND STORM DRAINAGE. TAKE CARE TO PROTECT UTILITIES THAT ARE TO REMAIN. REPAIR TO CONTRACTOR-CAUSED DAMAGE ACCORDING TO LOCAL STANDARDS AND AT THE CONTRACTOR'S EXPENSE. CONTRACTOR TO COORDINATE ALL CONSTRUCTION WITH THE APPROPRIATE UTILITY COMPANY.

ABBREVIATIONS WITHIN CONSTRUCTION PLANS:

TYP	TYPICAL
REF	REFERENCE
PUDE	PUBLIC UTILITY AND DRAINAGE EASEMENT
TDOT	TENNESSEE DEPARTMENT OF TRANSPORTATION
CPWS	COLUMBIA POWER & WATER SYSTEMS
TVA	TENNESSEE VALLEY AUTHORITY
DIA	DIAMETER
NTS	NOT TO SCALE
UG	UNDERGROUND
SAN	SANITARY SEWER
WTR	WATER
PVC	POLYVINYL CHLORIDE
DIP	DUCTILE IRON
RCP	REINFORCED CONCRETE PIPE
HP	POLYPROPYLENE PIPE
EPSC	EROSION PREVENTION AND SEDIMENT CONTROL
NPDES	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
SPCC	SPILL PREVENTION, CONTROL AND COUNTERMEASURES
EP	EDGE OF PAVEMENT
FC	FACE OF CURB
FOG	FACE OF GUTTER
OC	ON CENTER
LP	LOW POINT
HP	HIGH POINT
EX	EXISTING
CONT	CONTINUOUS
MBSL	MINIMUM BUILDING SETBACK LINE

SURVEY INFO
PROVIDED BY: M2 GROUP, LLC
DATUM: TENNESSEE STATE PLANE (NAD83 & NAVD 88)

FULMER LUCAS
2002 RICHARD JONES RD - SUITE B200
NASHVILLE, TENNESSEE 37215
INFO@FULMERLUCAS.COM - (615) 345-3770

JASON C. MORELL — REGISTERED — AGRICULTURE — No. 109803 — STATE OF TENNESSEE — 05/19/2026

SITE DEVELOPMENT PLANS FOR:
MORNING POINTE
RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401

DR.	DATE	DESCRIPTION
JEL	04/20/2026	FINAL PUD MASTER PLAN
JEL	05/19/2026	FINAL PUD MASTER PLAN RE-SUBMITTAL

GENERAL NOTES

C0.1

1421-01 MORNING POINTE

Modified: Mon, 18 2026
Z:\1421 Morning Pointe\01 - Columbia\02 - Civil\Sheets\1421-01_Cover Sheet.dwg

Xref: \XXXX-XX_24X36 Title_NCS.dwg

Know what's **below.**
Call before you dig.

SITE DEMOLITION KEYNOTES:

1. SAW CUT (AS NEEDED) AND REMOVE EXISTING ASPHALT PAVEMENT TO SUBGRADE IN PREAPARATION FOR INSTALLATION OF CURB & GUTTER SHOWN ON SHEET C1.0. (BACKFILL CAVITY WITH DENSE GRADE AGGREGATE AND COMPACT).
2. REMOVE EXISTING WOODEN FENCE AND STONE COLUMNS (INCLUDING FOUNDATION).
3. REMOVE EXISTING WESTFIELD SIGN AND FOUNDATION.
4. REMOVE EXISTING TREES TO LIMITS SHOWN.
5. REMOVE EXISTING STORM DRAINS AND PIPES (CONTRACTOR SHALL MAINTAIN PROPER DRAINAGE THROUGHOUT ALL PHASES OF CONSTRUCTION).
6. EXISTING TREES ARE TO REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION
7. ALL UNDERGROUND UTILITY SERVICES NOT ADDRESSED ON THIS DEMOLITION PLAN OR ADDITIONAL SERVICES FOUND DURING DEMOLITION THAT ARE WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE REMOVED COMPLETELY UNLESS UTILITY WILL REMAIN IN SERVICE AFTER COMPLETION OF DEMOLITION. FOUND UTILITIES TO REMAIN WILL BE RELOCATED AS NEEDED. (COORDINATE ANY UTILITY REMOVAL/RELOCATION WITH THE APPROPRIATE UTILITY COMPANIES PRIOR TO REMOVAL/RELOCATION AND/OR TURN OFF.
8. ANY ITEMS NOT SPECIFICALLY ADDRESSED IN THESE DEMOLITION NOTES ARE TO REMOVED UNLESS DIRECTED OTHERWISE BY THE DEVELOPER.
9. EXISTING UTILITY TO REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION.

LEGEND

- IRON ROD (OLD)
- BENCHMARK
- CATCH BASIN
- FIRE HYDRANT
- SEWER MANHOLE
- EXISTING TREE
- WATER VALVE
- WATER METER
- IRON ROD (NEW)
- UTILITY POLE

MAP REFERENCE:

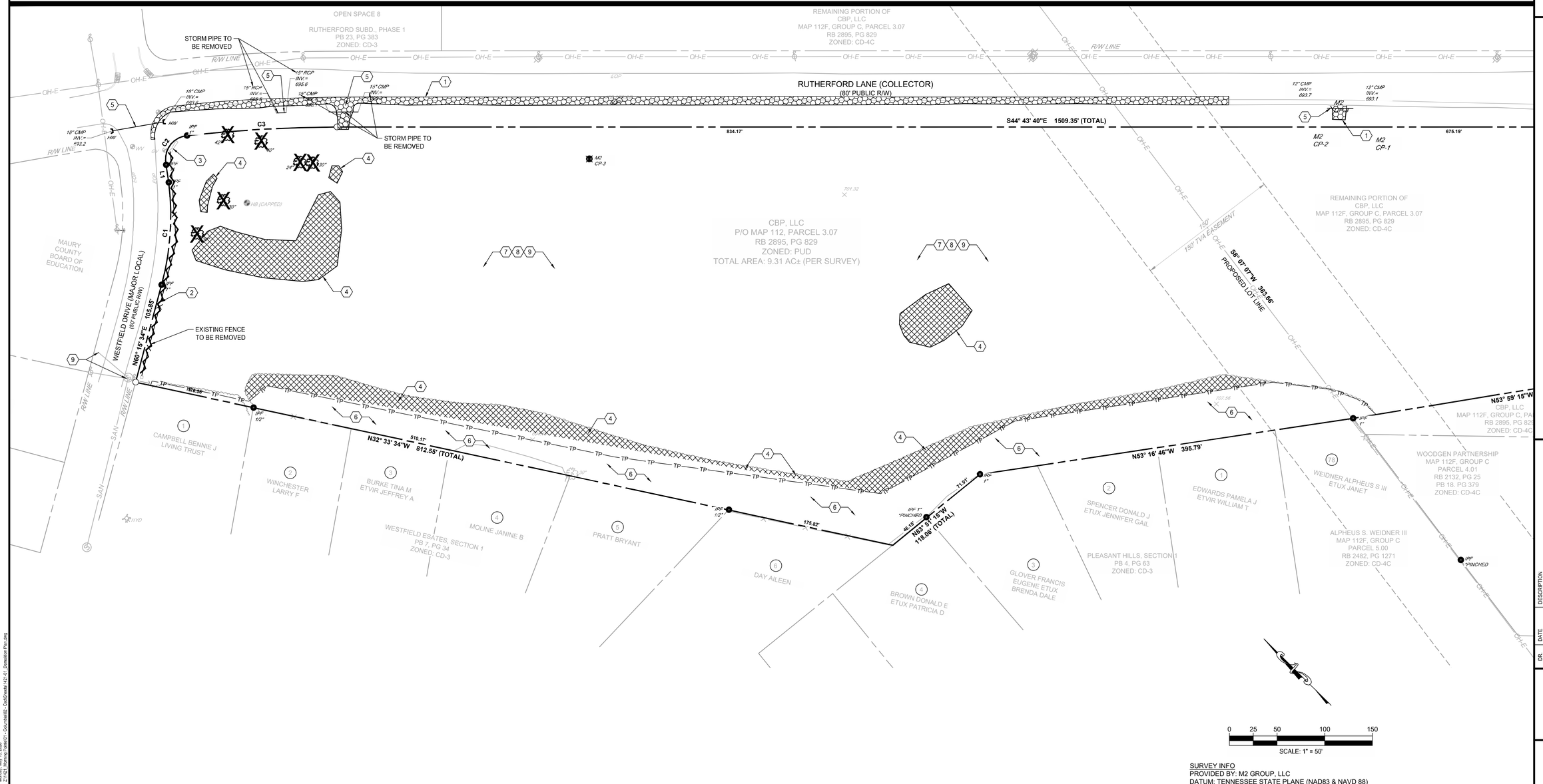
PARCEL IS FOR SUBJECT PROPERTY IS A PORTION OF PARCEL ID 112 00307 000 ON MAURY COUNTY PROPERTY MAP.

SITE DEMOLITION LEGEND:

- PAVEMENT, PAVEMENT STRIPING, SIDEWALKS, CURBS, RAMPS, AND ISLANDS TO BE REMOVED
- BUILDING DEMOLITION
- UTILITY LINE TO BE REMOVED
- UTILITY STRUCTURE TO BE REMOVED
- TREE TO BE REMOVED
- SIGN OR BOLLARD TO BE REMOVED
- TREE PROTECTION FENCING
- FENCE TO BE REMOVED

REFERENCE:

1. SEE SHEET C0.1 FOR GENERAL NOTES AND DEMOLITION NOTES.
2. EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION WAS OBTAINED FROM A BOUNDARY AND TOPOGRAPHIC SURVEY BY M2 GROUP, LLC. DATED OCTOBER 22, 2025.
3. THE PROPERTY SHOWN HEREON IS LOCATED IN A FLOOD HAZARD ZONE "X" (AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN) ACCORDING TO PANEL "MAURY COUNTY, TENNESSEE" PANEL 280 OF 440, MAP NUMBER "47119C0280E", EFFECTIVE APRIL 16, 2007.



SURVEY INFO
PROVIDED BY: M2 GROUP, LLC
DATUM: TENNESSEE STATE PLANE (NAD83 & NAVD 88)

FULMER LUCAS
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NASHVILLE, TENNESSEE 37215
INFO@FULMERLUCAS.COM - (615) 345-3770

JASON C. MOREIN
REGISTERED ENGINEER
AGRICULTURE
No. 109855
STATE OF TENNESSEE
05/18/2026

SITE DEVELOPMENT PLANS FOR:
MORNING POINTE
RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401

DR.	DATE	DESCRIPTION
JEL	04/20/2026	FINAL PUD MASTER PLAN
JEL	05/18/2026	FINAL PUD MASTER PLAN RE-SUBMITTAL

SITE DEMOLITION PLAN

C0.2

1421-01 MORNING POINTE

Monday, May 18, 2026
K:\21 Projects\1421 - Columbia\02 Civil\Sheets\1421-01 Demolition Plan.dwg

Know what's **below.**
Call before you dig.

TENNESSEE CONSTRUCTION GENERAL PERMIT NOTICE OF COVERAGE (NOC) CERTIFICATION:

2.I HEREBY CERTIFY THAT THIS PROJECT WILL REQUIRE COVERAGE UNDER A TENNESSEE CONSTRUCTION GENERAL PERMIT. THE TOTAL DISTURBED AREA IS: ±9.60 AC.

CHECK ALL THAT APPLY: THIS SITE DISCHARGES INTO WATERS IDENTIFIED BY TDEC AS:

☒ IMPAIRED FOR SILTATION ☒ IMPAIRED FOR HABITAT ALTERATION ☒ EXCEPTIONAL

SIGNATURE:_____ DATE: 04/20/2026

CIRCLE ONE: DEVELOPER (PROJECT ENGINEER) OTHER _____

NOTE: ONCE SITE IS STABILIZED FOR U&O RELEASE ALL REMAINING ESPC MEASURES SHOULD BE REMOVED AND DISPOSED OF IN A PROPER MANNER

REFERENCE:

1. SEE SHEET C0.1 FOR GENERAL NOTES AND EROSION & SEDIMENT CONTROL NOTES.
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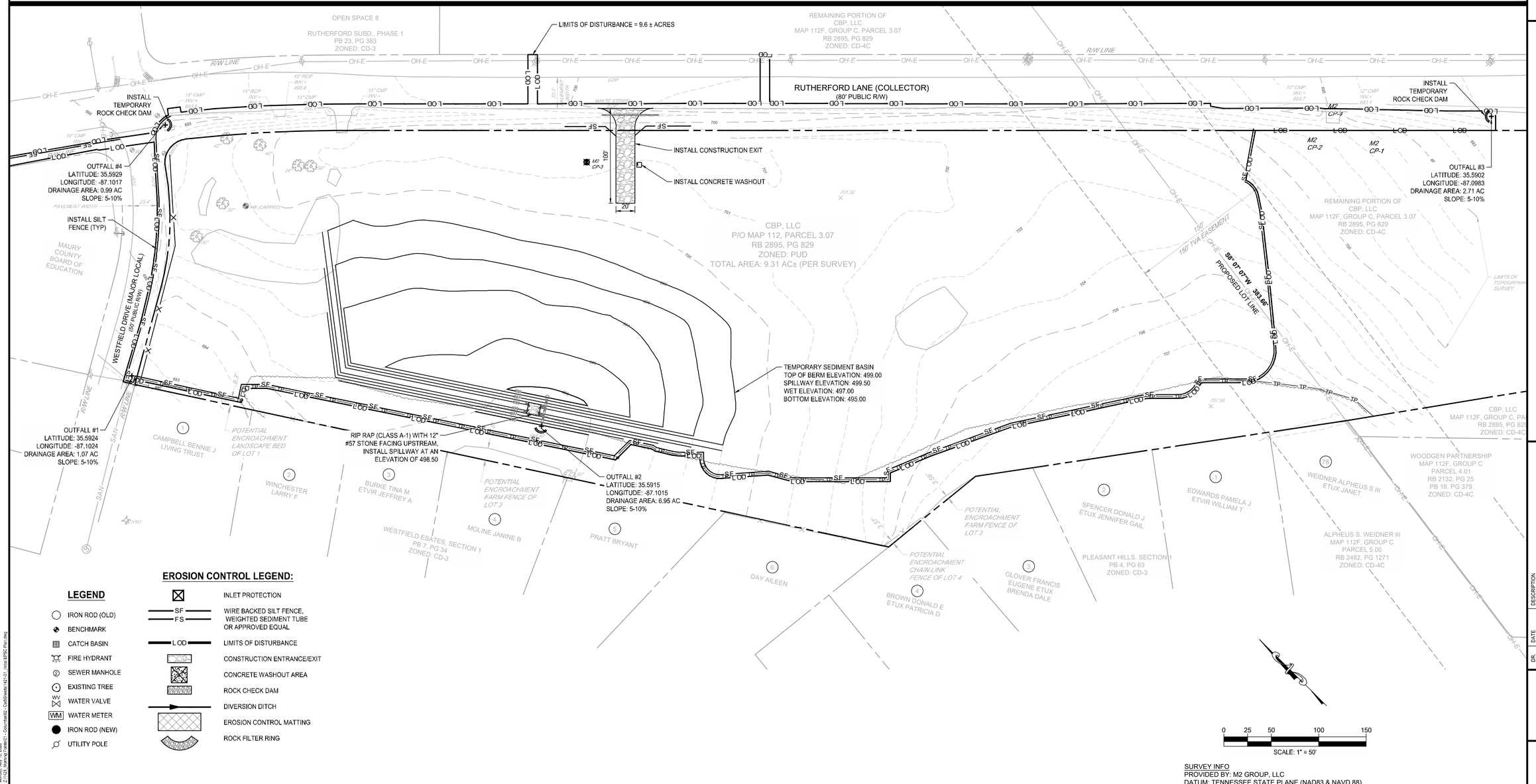

EROSION CONTROL LEGEND:

LEGEND

- IRON ROD (OLD)
- BENCHMARK
- CATCH BASIN
- FIRE HYDRANT
- SEWER MANHOLE
- EXISTING TREE
- WATER VALVE
- WATER METER
- IRON ROD (NEW)
- UTILITY POLE

- INLET PROTECTION
- SF / FS — WIRE BACKED SILT FENCE, WEIGHTED SEDIMENT TUBE OR APPROVED EQUAL
- LOD — LIMITS OF DISTURBANCE
- CONSTRUCTION ENTRANCE/EXIT
- CONCRETE WASHOUT AREA
- ROCK CHECK DAM
- DIVERSION DITCH
- EROSION CONTROL MATTING
- ROCK FILTER RING

SURVEY INFO
PROVIDED BY: M2 GROUP, LLC
DATUM: TENNESSEE STATE PLANE (NAD83 & NAVD 88)

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NASHVILLE, TENNESSEE 37215
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JASON C. MOREIN
REGISTERED ENGINEER
AGRICULTURE
05/18/2026
No. 109905
STATE OF TENNESSEE

SITE DEVELOPMENT PLANS FOR:
MORNING POINTE
RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401

DR.	DATE	DESCRIPTION
JEL	04/20/2026	FINAL PUD MASTER PLAN
JEL	05/18/2026	FINAL PUD MASTER PLAN RE-SUBMITTAL

INITIAL ESPC PLAN

C0.3

1421-01 MORNING POINTE

Monday, May 18, 2026
J:\1421 Morning Pointe\1421-01 Columbia\02 - Civil\Sheets\1421-01 Initial ESPC Plan.dwg

Know what's below. Call before you dig.

TENNESSEE CONSTRUCTION GENERAL PERMIT NOTICE OF COVERAGE (NOC) CERTIFICATION:

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IMPAIRED FOR SILTATION ☒ IMPAIRED FOR HABITAT ALTERATION ☒ EXCEPTIONAL

SIGNATURE:_____ DATE: 04/20/2026

CIRCLE ONE: DEVELOPER (PROJECT ENGINEER) OTHER _____

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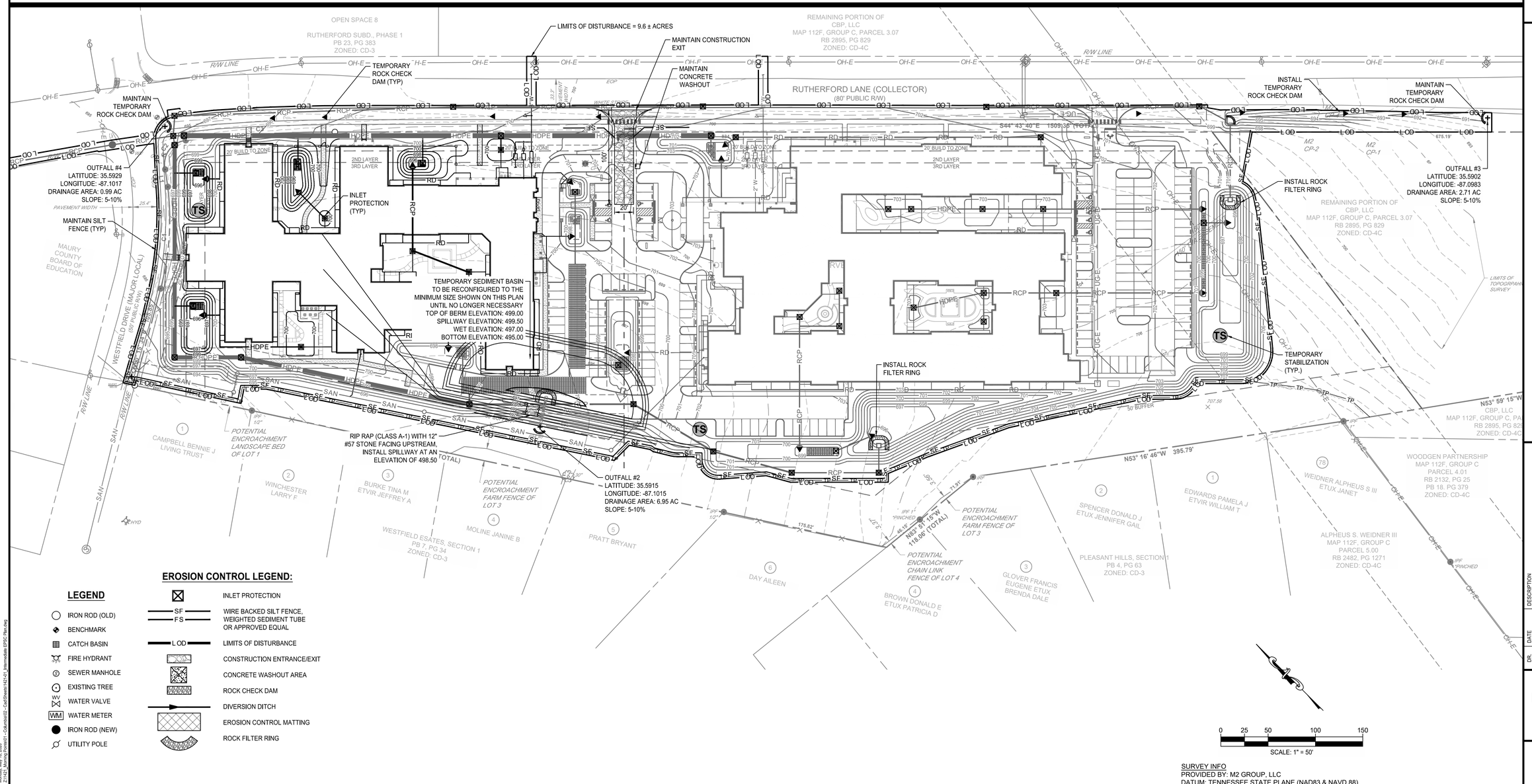

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LEGEND

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PROVIDED BY: M2 GROUP, LLC
DATUM: TENNESSEE STATE PLANE (NAD83 & NAVD 88)

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JASON C. MOREIL — REGISTERED LANDSCAPE ARCHITECT — AGRICULTURE — No. 108993 — STATE OF TENNESSEE — 04/20/2026

SITE DEVELOPMENT PLANS FOR:
MORNING POINTE
RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401

DR.	DATE	DESCRIPTION
JEL	04/20/2026	FINAL PUD MASTER PLAN
JEL	05/18/2026	FINAL PUD MASTER PLAN RE-SUBMITTAL

INTERMEDIATE EPSC PLAN

C0.4

1421-01 MORNING POINTE

Monday, May 18, 2026
M:\2021\1421-01 Morning Pointe\01 - Columbia\02 - Civil\Sheets\1421-01_Intermediate EPSC Plan.dwg

Know what's below. Call before you dig.

TENNESSEE CONSTRUCTION GENERAL PERMIT NOTICE OF COVERAGE (NOC) CERTIFICATION:

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SIGNATURE:_____ DATE: 04/20/2026

CIRCLE ONE: DEVELOPER (PROJECT ENGINEER) OTHER _____

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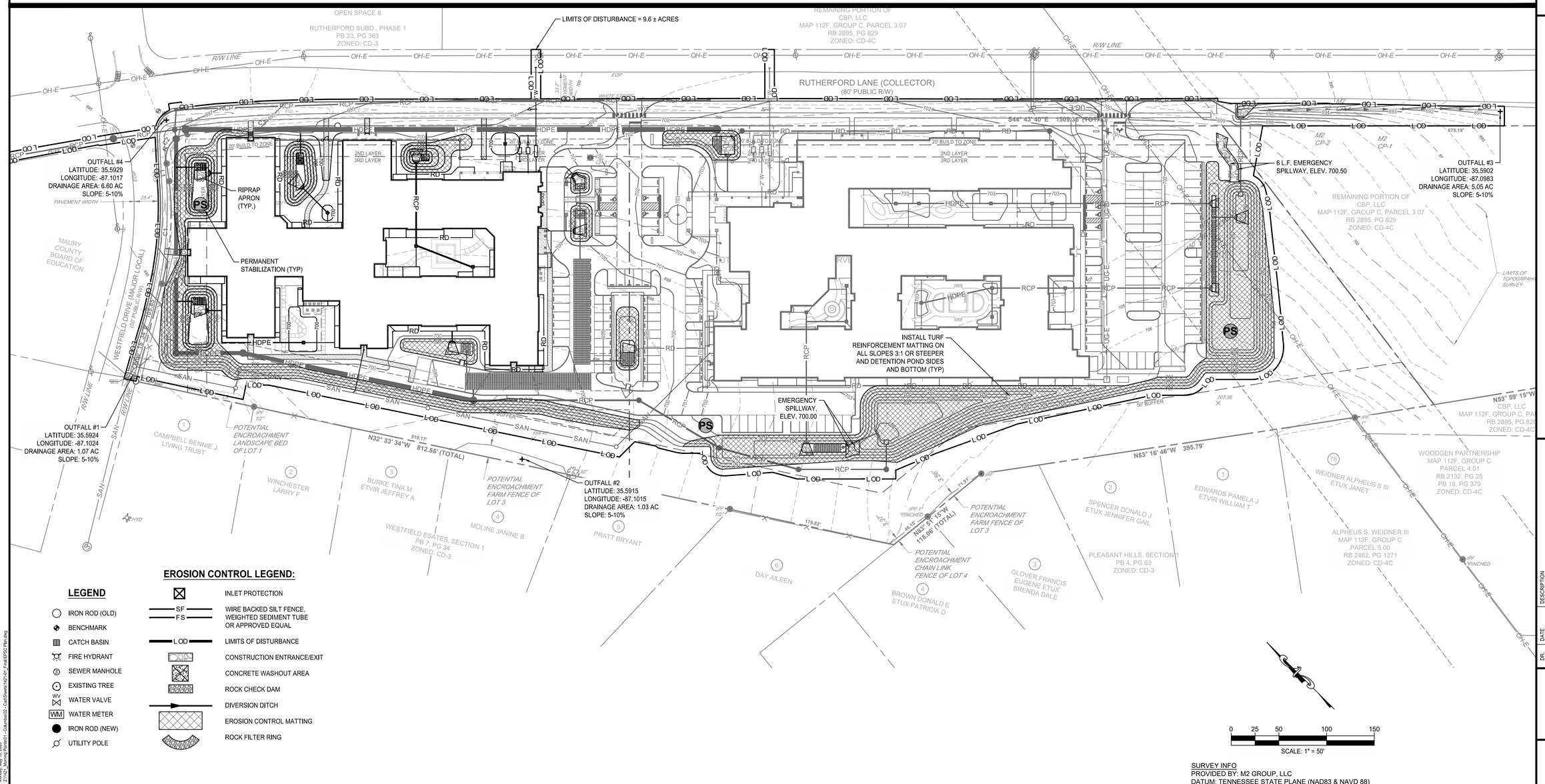

EROSION CONTROL LEGEND:

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SURVEY INFO
PROVIDED BY: M2 GROUP, LLC
DATUM: TENNESSEE STATE PLANE (NAD83 & NAVD 88)

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JASON C. MOREL
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AGRICULTURE
No. 108903
STATE OF TENNESSEE
04/20/2026

SITE DEVELOPMENT PLANS FOR:
MORNING POINTE
RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401

DR.	DATE	DESCRIPTION
JEL	04/20/2026	FINAL PUD MASTER PLAN
JEL	05/18/2026	FINAL PUD MASTER PLAN RE-SUBMITTAL

FINAL EPSC PLAN

C0.5

1421-01 MORNING POINTE

Monday, May 18, 2026
Jason Morel
N:\1421 Morning Pointe\01 - Columbia\02 - Civil\Sheets\1421-01_Final EPSC Plan.dwg

Know what's **below.**
Call before you dig.

KEY NOTES:

1. HEAVY DUTY ASPHALT PAVEMENT
2. LIGHT DUTY ASPHALT PAVEMENT
3. CONCRETE PAVEMENT
4. CONCRETE SIDEWALK
5. INTEGRAL CONCRETE CURB AND SIDEWALK
6. CONCRETE DRIVEWAY APRON
7. CONCRETE POST CURB
8. CONCRETE RIBBON CURB
9. CITY OF COLUMBIA COLLECTOR PAVEMENT
10. CITY OF COLUMBIA 6-30 CURB & GUTTER

KEY NOTES:

11. CITY OF COLUMBIA CONCRETE SIDEWALK
12. PARALLEL ACCESSIBLE RAMP WITH WITH DETECTABLE WARNING SURFACE
13. ACCESSIBLE PARKING SIGN (VAN ACCESSIBLE AS REQUIRED) & SYMBOL (TYP. FOR ALL ACCESSIBLE PARKING SPACES)
14. PARKING WHEELSTOP
15. DETECTABLE WARNING SURFACE
16. TAPER CONCRETE CURB
17. FLUSH CONCRETE SIDEWALK AT PAVEMENT FOR ACCESSIBILITY
18. FLUSH CONCRETE SIDEWALK AT PAVEMENT FOR DRAINAGE PURPOSES
19. 4" SINGLE PAINTED SOLID WHITE LINE
20. 4" WIDE PAINTED WHITE STRIPES, 3' O.C. @ 45°
21. INDICATES NUMBER OF PARKING SPACES PER BAY
22. TIE PROPOSED ASPHALT PAVEMENT TO EXISTING

KEY NOTES:

23. EXISTING ASPHALT PAVEMENT TO REMAIN
24. DUMPSTER ENCLOSURE (SEE ARCHITECTURAL PLANS)
25. WHITE TRAFFIC ARROW (THERMOPLASTIC)
26. 4" SINGLE SOLID WHITE LINE (THERMOPLASTIC)
27. 24" WIDE WHITE CROSSWALK (STRIPES @ 4' O.C.) (THERMOPLASTIC)
28. 24" WIDE WHITE STOP BAR (THERMOPLASTIC)
29. CONCRETE SIDEWALK WITH LANDINGS AND HANDRAILS (SEE ARCHITECTURAL PLANS)
30. 3' WIDE CONCRETE CURB CUT WITH DRAINAGE FLUME
31. GENERATOR PAD LOCATION
32. ELECTRICAL TRANSFORMER LOCATION
33. STAIRS (SEE THIS PLAN FOR RISER AND TREAD DIMENSION) SEE ARCHITECTURAL AND STRUCTURAL PLANS FOR STAIR DETAILS
34. R1-1 30" x 30" STOP SIGN

DEVIATIONS FROM STANDARDS:

TABLE 4.3.1-M

- FRONTAGE BUILDOUT FOR BUILDING 2 IS 54.1%
- ALL WINDOWS AND/OR DOORS ARE NOT SPACED <20' APART
- MAXIMUM BUILDING SITE WIDTH OF 180' IS EXCEEDED
  - BUILDING 1: 612' (SINGLE BUILDING SITE)
  - BUILDING 2: 465' (SINGLE BUILDING SITE)

TABLE 4.3.12.B

- PARKING: EXCEEDS 150% OF MINIMUM PARKING REQUESTED (63 ADDITIONAL SPACES REQUESTED TO ACCOMODATE STAFFING OVERLAP DURING SHIFT CHANGE)

KEY NOTES:

35. MONUMENT SIGN (BY OTHERS)
36. DROP OFF SIGN (BY OTHERS)
37. DELIVERIES/OVERFLOW PARKING (BY OTHERS)
38. 30" HIGH DECORATIVE ALUMINUM FENCE WITH 36" HIGH BRICK COLUMNS (SEE LANDSCAPE PLANS)
39. UTILITY TRENCH PAVEMENT REPAIR
40. FLAGPOLE (BY OTHERS)
41. DRAIN AT SIDEWALK

FRONTAGE CALCULATION:

BUILDING 1

OVERALL FRONTAGE:	601'
(INCLUDES TVA EASEMENT)	
BUILDING WITHIN BUILD TO ZONE:	269'
STREET SCREEN PROVIDED:	86'
TOTAL FRONTAGE LENGTH:	355'
TOTAL PERCENTAGE PROVIDED:	61.6%
TOTAL PERCENTAGE REQUIRED:	60%

BUILDING 2

OVERALL FRONTAGE:	453'
BUILDING WITHIN BUILD TO ZONE:	102'
STREET SCREEN PROVIDED:	143'
TOTAL FRONTAGE LENGTH:	245'
TOTAL PERCENTAGE PROVIDED:	54.1%
TOTAL PERCENTAGE REQUIRED:	60%

TRAFFIC IMPACT:

PER THE 12TH GENERATION OF THE TRIP GENERATION MANUAL, THIS PROJECT CLASSIFIED AS LAND USE CODE 254 (ASSISTED LIVING) WITH 151 BEDS WILL CREATE 29 AM PEAK HOUR TRIPS AND 36 PM PEAK HOUR TRIPS.

SITE DATA TABLE:

SITE DATA

DEVELOPMENT:	MORNING POINTE
ADDRESS:	RUTHERFORD LANE @ WESTFIELD DRIVE
CITY:	COLUMBIA
COUNTY:	MAURY
STATE:	TENNESSEE
REGISTER'S OFFICE REFERENCE:	RECORD BOOK 2895, PAGE 829
* LOT AREA (EXISTING):	560,245 S.F. OR 12.86 ACRES
* LOT AREA (PROPOSED):	159,534 S.F. OR 3.66 ACRES
* LOT AREA (PROPOSED):	273,687 S.F. OR 6.28 ACRES
* LOT AREA (PROPOSED):	126,819 S.F. OR 2.91 ACRES
CIVIL DISTRICT:	9TH
TAX MAP:	112
GROUP:	N/A
PARCEL:	3.07
MINIMUM FRONT SETBACK (PRINCIPAL):	0 - 20 FEET
MINIMUM FRONT SETBACK (SECONDARY):	0 - 20 FEET
MINIMUM SIDE SETBACK:	SEE PLAN
MINIMUM REAR SETBACK:	35 FEET

ZONING CLASSIFICATION

JURISDICTION:	CITY OF COLUMBIA
ZONING:	PUD (PLANNED UNIT DEVELOPMENT)
PROPOSED USE:	LONG TERM CARE FACILITY
PROPOSED SPECIFIC USE:	MEMORY CARE AND ASSISTED LIVING

PHASING

BUILDING 1:	2026-2027
BUILDING 2:	2028-2029

LOT OCCUPATION

LOT BUILDING SITE WIDTH (180' MAX.):	SEE DEVIATION FROM STANDARDS
FRONTAGE BUILDOUT (60% MIN.):	SEE DEVIATION FROM STANDARDS AND FRONTAGE CALCULATIONS
LOT/BUILDING SITE AREA:	NOT REGULATED
IMPERVIOUS SURFACE COVERAGE (100% MAX.)	213,778 SF (0.52 OR 52.1%)

BUILDING INFORMATION

SQUARE FOOTAGE:	111,000 S.F. (TOTAL)
BUILDING HEIGHT:	ONE-STORY

PARKING SUMMARY

REQUIRED PARKING (LONG TERM CARE FACILITY)	
1 SPACE PER 3 BEDS	(1 SPACE / 3 BEDS) * 151 BEDS = 51 SPACES
PROVIDED PARKING	
STANDARD PARKING	137 SPACES
ACCESSIBLE PARKING	8 SPACES
TOTAL PARKING REQUIRED	145 SPACES

ENGINEER

FULMER LUCAS ENGINEERING, LLC
2002 RICHARD JONES ROAD, SUITE B200
NASHVILLE, TN 37215
PHONE: (615) 300-6486
CONTACT: JASON MORELOCK

DEVELOPER

MORNING POINTE SENIOR LIVING
2050 UNION PLACE
COLUMBIA, TN 38401
PHONE: (423) 322-3446
CONTACT: FRANKLIN FARROW

* NOTE:

THE PROPERTY WILL BE SUBDIVIDED THROUGH THE FINAL PLAT PROCESS. A SEPARATE APPLICATION WILL BE SUBMITTED TO THE PLANNING DEPARTMENT TO RUN CONCURRENTLY WITH THE FINAL PUD MATER PLAN APPLICATION.

PAVING LEGEND

- HEAVY DUTY ASPHALT
- LIGHT DUTY ASPHALT
- SIDEWALK SECTION
- HEAVY DUTY CONCRETE
- UTILITY TRENCH PAVEMENT REPAIR
- COLLECTOR PAVEMENT

REFERENCE:

1. SEE SHEET C0.1 FOR GENERAL NOTES, SITE LAYOUT NOTES AND CITY OF COLUMBIA NOTES.
2. EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION WAS OBTAINED FROM A BOUNDARY & TOPOGRAPHIC SURVEY BY M2 GROUP, LLC DATED OCTOBER 22, 2025.
3. THE PROPERTY DESCRIBED HEREON DOES NOT LIE WITHIN A FLOOD HAZARD AREA IN ACCORDANCE WITH "INSURANCE RATE MAP PANEL NUMBER "47119C0280E", DATED: APRIL 16, 2007, ZONE "X".

FULMER LUCAS
2002 RICHARD JONES RD - SUITE B200
NASHVILLE, TENNESSEE 37215
INFO@FULMERLUCAS.COM - (615) 345-3770

JASON C. MORELOCK — REGISTERED ENGINEER — AGRICULTURE — STATE OF TENNESSEE — No. 119992 — 4/20/2026

SITE DEVELOPMENT PLANS FOR:
MORNING POINTE
RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401

DR.	DATE	DESCRIPTION
JEL	04/20/2026	FINAL PUD MASTER PLAN
JEL	05/18/2026	FINAL PUD MASTER PLAN RE-SUBMITTAL

SITE LAYOUT PLAN

C1.0

1421-01 MORNING POINTE

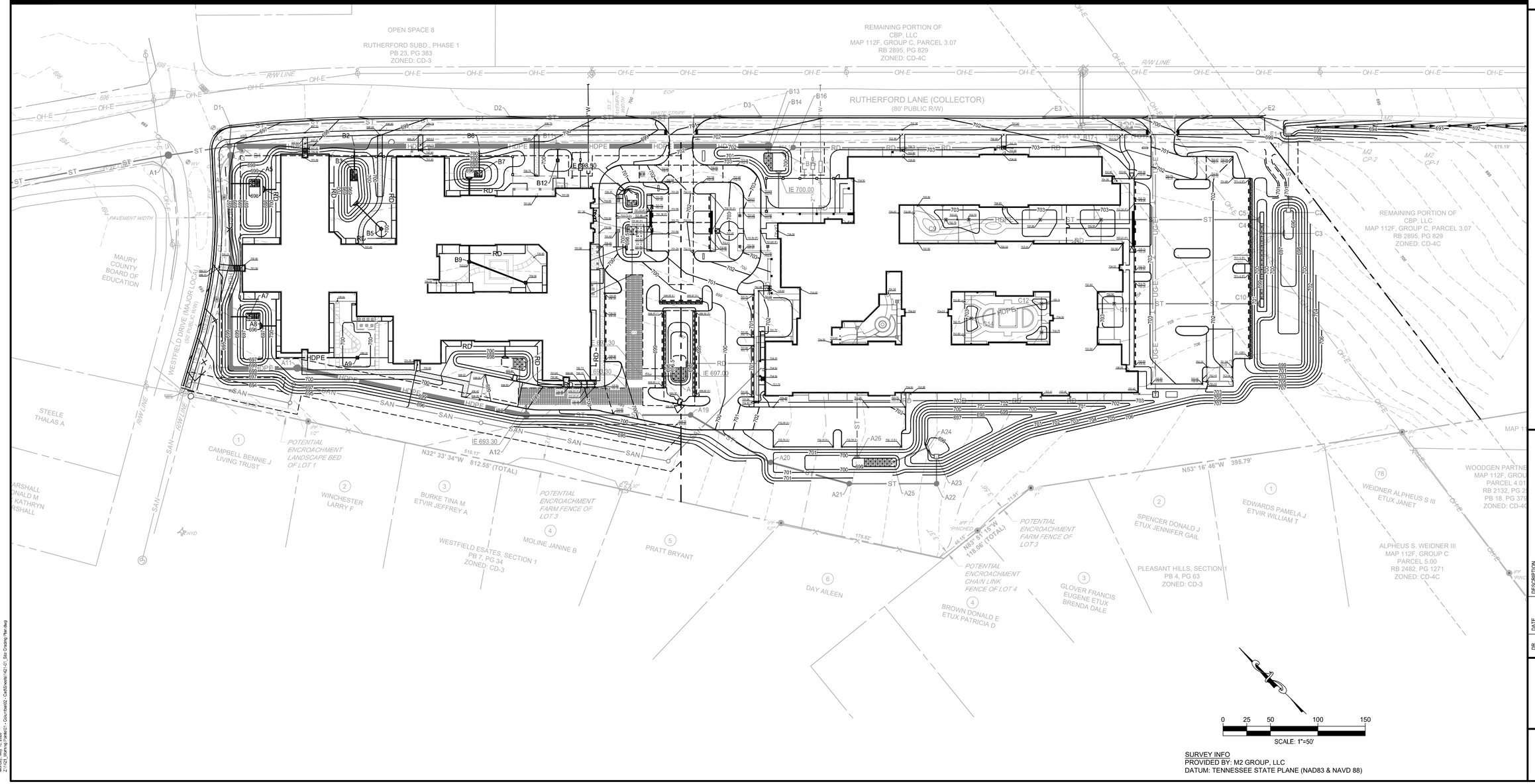
Monday, May 18, 2026
Z:\2021 Projects\1421-01 - Columbia\02 - CatSheets\1421-01_Site Layout Plan.dwg

811
Know what's **below.**
Call before you dig.

REFERENCE:
1. SEE SHEET C0.1 FOR GENERAL NOTES AND GRADING PLAN NOTES.
2. EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION WAS OBTAINED FROM A BOUNDARY AND TOPOGRAPHIC SURVEY BY M2 GROUP, LLC, DATED OCTOBER 22, 2025.
3. THE PROPERTY SHOWN HEREON IS LOCATED IN A FLOOD HAZARD ZONE "X" (AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN) ACCORDING TO PANEL "MAURY COUNTY, TENNESSEE" PANEL 280 OF 440, MAP NUMBER "47119C0280E", EFFECTIVE APRIL 16, 2007.

LEGEND

DW	DOMESTIC WATER SERVICE
G	GAS SERVICE
SAN	SANITARY SEWER SERVICE
OH-E	OVERHEAD ELECTRIC SERVICE
OH-T	OVERHEAD TELEPHONE SERVICE
UD	PERVIOUS PAVEMENT UNDERDRAIN
RD	ROOF DRAIN TRUNK LINE
	STORM PIPE (SEE PLANS FOR MATERIAL)
562	EXISTING CONTOUR
562	PROPOSED CONTOUR
	DRIVEWAY CENTERLINE
	PROPERTY LINE
S	SANITARY SEWER MANHOLE
ST	STORM SEWER MANHOLE
	CURB INLET
	CATCH BASIN
	NYLOPLAST DRAIN BASIN
	ELECTRIC/COMMUNICATION POLE
XXX.XX / XXX.XX	TOP OF CURB SPOT ELEVATION / BOTTOM OF CURB SPOT ELEVATION
TW:XXX.XX / BW:XXX.XX	RETAINING WALL / TOP OF WALL / FINISHED GRADE AT BOTTOM OF WALL
XXX.XX (MEFG)	MEET EXISTING GRADE
XXX.XX	SPOT ELEVATION
XXX.XX	EXISTING SPOT ELEVATION
XXX.XX (F)	FLUSH SPOT ELEVATION
	DIVERSION DITCH



SURVEY INFO
PROVIDED BY: M2 GROUP, LLC
DATUM: TENNESSEE STATE PLANE (NAD83 & NAVD 88)

FULMER LUCAS
2002 RICHARD JONES RD - SUITE B200
NASHVILLE, TENNESSEE 37215
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SITE DEVELOPMENT PLANS FOR:
MORNING POINTE
RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401

DR.	DATE	DESCRIPTION
JEL	04/20/2026	FINAL PUD MASTER PLAN
JEL	05/18/2026	FINAL PUD MASTER PLAN RE-SUBMITTAL

SITE GRADING PLAN

C2.0

1421-01 MORNING POINTE

Know what's below. Call before you dig.

LEGEND

SYMBOL	DESCRIPTION
DW	DOMESTIC WATER SERVICE
G	GAS SERVICE
SAN	SANITARY SEWER SERVICE
OH-E	OVERHEAD ELECTRIC SERVICE
OH-T	OVERHEAD TELEPHONE SERVICE
UD	PERVIOUS PAVEMENT UNDERDRAIN
RD	ROOF DRAIN TRUNK LINE
	STORM PIPE (SEE PLANS FOR MATERIAL).
562 (dashed)	EXISTING CONTOUR
562	PROPOSED CONTOUR
	DRIVEWAY CENTERLINE
	PROPERTY LINE
S	SANITARY SEWER MANHOLE
ST	STORM SEWER MANHOLE
	CURB INLET
	CATCH BASIN
	NYLOPLAST DRAIN BASIN
	ELECTRIC/COMMUNICATION POLE
XXX.XX / XXX.XX	TOP OF CURB SPOT ELEVATION BOTTOM OF CURB SPOT ELEVATION
TW:XXX.XX / BW:XXX.XX	RETAINING WALL TOP OF WALL FINISHED GRADE AT BOTTOM OF WALL
XXX.XX ME	MEET EXISTING GRADE
XXX.XX	SPOT ELEVATION
XXX.XX	EXISTING SPOT ELEVATION
XXX.XX F	FLUSH SPOT ELEVATION

REFERENCE:

1. SEE SHEET C0.1 FOR GENERAL NOTES AND GRADING PLAN NOTES.
2. EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION WAS OBTAINED FROM A BOUNDARY AND TOPOGRAPHIC SURVEY BY M2 GROUP, LLC, DATED OCTOBER 22, 2025.
3. THE PROPERTY SHOWN HEREON IS LOCATED IN A FLOOD HAZARD ZONE "X" (AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN) ACCORDING TO PANEL "MAURY COUNTY, TENNESSEE" PANEL 280 OF 440, MAP NUMBER "47119C0280E", EFFECTIVE APRIL 16, 2007.

STORM STRUCTURES TABLE

STRUCTURE	TYPE	TOP CASTING	INVERT
A1	EXISTING MANHOLE	695.00	690.07
A2	PROPOSED MANHOLE	695.90	690.40
A3	PROPOSED MANHOLE	696.00	690.46
A4	BLIND CONNECTION	697.50	690.61
A5	30" NYLOPLAST BASIN	696.50	693.00
A6	BLIND CONNECTION	699.30	691.33
A7	30" NYLOPLAST BASIN	696.50	693.00
A8	15" CONCRETE HEADWALL	N/A	696.00
A9	PROPOSED YARD DRAIN	699.20	696.70
A10	PROPOSED MANHOLE	699.30	691.60
A11	PROPOSED MANHOLE	700.50	691.95
A12	PROPOSED MANHOLE	699.10	693.19
A13	RTANK DETENTION	VARIES	693.30
A14	30" NYLOPLAST BASIN	698.00	694.50
A15	RTANK DETENTION	VARIES	693.30
A16	30" NYLOPLAST BASIN	697.00	693.50
A17	30" NYLOPLAST BASIN	699.00	695.35
A18	30" NYLOPLAST BASIN	699.00	695.50
A19	PROPOSED MANHOLE	699.25	694.06
A20	PROPOSED MANHOLE	701.50	694.56
A21	PROPOSED MANHOLE	701.00	694.99
A22	PROPOSED MANHOLE	703.60	695.46
A23	OUTLET CONTROL STR	698.00	695.60
A24	15" CONCRETE HEADWALL	N/A	695.81
A25	30" NYLOPLAST BASIN	699.50	696.00
A26	15" CONCRETE HEADWALL	N/A	699.00
A27	BLIND CONNECTION	703.50	699.65
A28	PROPOSED YARD DRAIN	703.00	699.69
A29	PROPOSED YARD DRAIN	703.00	699.85
A30	PROPOSED YARD DRAIN	703.00	700.04
B1	PROPOSED MANHOLE	696.25	690.46
B2	BLIND CONNECTION	699.80	691.06
B3	30" NYLOPLAST BASIN	696.50	693.00

STORM STRUCTURES TABLE

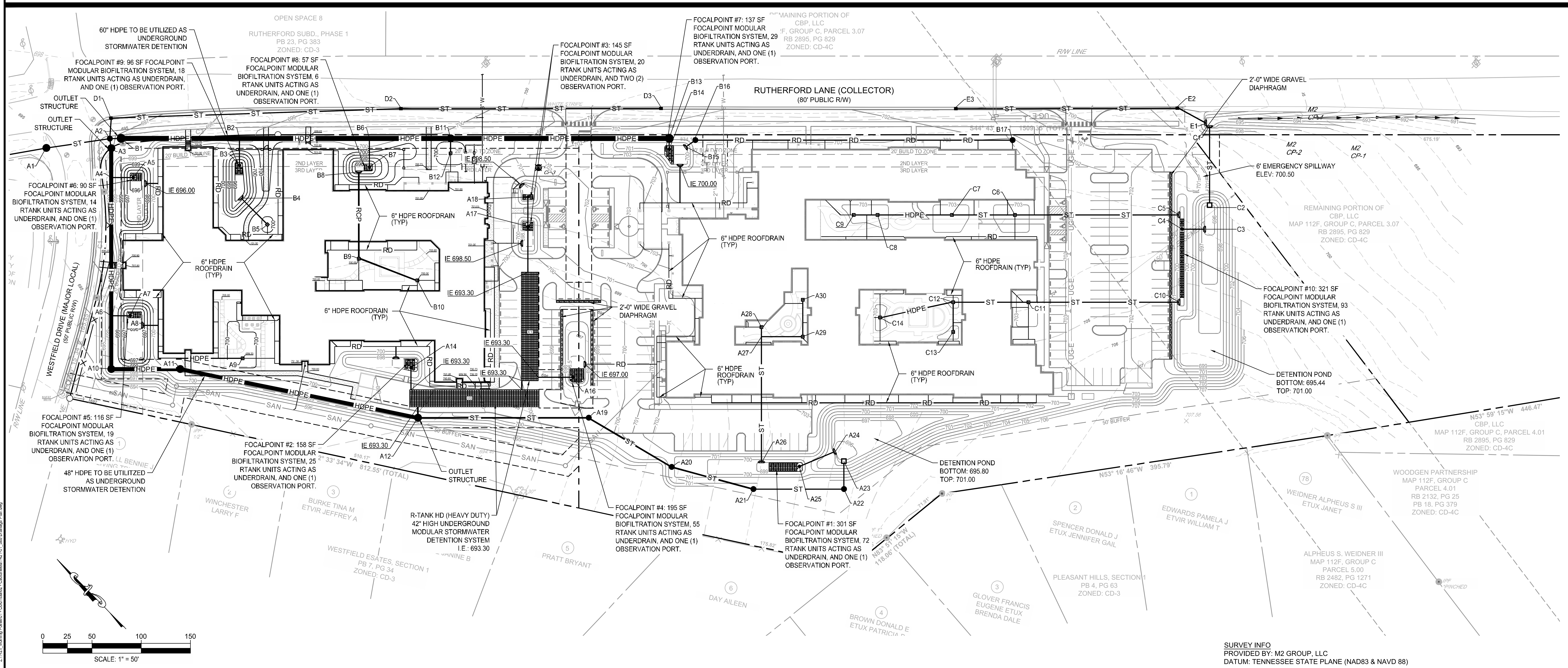
STRUCTURE	TYPE	TOP CASTING	INVERT
B4	15" CONCRETE HEADWALL	N/A	696.00
B5	PROPOSED YARD DRAIN	699.50	696.19
B6	BLIND CONNECTION	699.80	691.72
B7	30" NYLOPLAST BASIN	696.50	693.00
B8	15" CONCRETE HEADWALL	N/A	696.00
B9	PROPOSED YARD DRAIN	700.00	696.45
B10	PROPOSED YARD DRAIN	700.00	696.77
B11	PROPOSED MANHOLE	700.50	692.14
B12	PROPOSED YARD DRAIN	699.50	696.00
B13	PROPOSED MANHOLE	702.10	693.25
B14	30" NYLOPLAST BASIN	700.50	697.00
B15	15" CONCRETE HEADWALL	N/A	700.00
B16	PROPOSED MANHOLE	702.25	700.07
B17	PROPOSED MANHOLE	703.50	701.69
C1	15" CONCRETE HEADWALL	N/A	695.00
C2	OUTLET CONTROL STR	698.00	695.44
C3	15" CONCRETE HEADWALL	N/A	695.88
C4	30" NYLOPLAST BASIN	699.50	696.00
C5	15" CONCRETE HEADWALL	N/A	699.00
C6	PROPOSED YARD DRAIN	702.50	699.84
C7	PROPOSED YARD DRAIN	702.50	700.17
C8	PROPOSED YARD DRAIN	702.75	700.55
C9	PROPOSED YARD DRAIN	702.75	700.68
C10	15" CONCRETE HEADWALL	N/A	699.00
C11	PROPOSED YARD DRAIN	702.50	699.77
C12	PROPOSED YARD DRAIN	702.75	700.16
C13	PROPOSED YARD DRAIN	702.75	700.32
C14	PROPOSED YARD DRAIN	702.75	700.54
D1	PROPOSED CURB INLET	696.00	690.60
D2	PROPOSED CURB INLET	698.90	694.10
D3	PROPOSED CURB INLET	701.18	697.50
E1	15" CONCRETE HEADWALL	N/A	694.00
E2	PROPOSED CURB INLET	698.00	694.50
E3	PROPOSED CURB INLET	701.40	697.50

STORM PIPES TABLE

PIPE	SIZE & MATERIAL	LENGTH (FT)	SLOPE
A2-A1	24" RCP	66	0.5%
A3-A2	18" RCP	10	0.6%
A4-A3	48" HDPE	30	0.5%
A5-A4	15" HDPE	21	11.4%
A6-A4	48" HDPE	141	0.5%
A7-A6	15" HDPE	18	9.3%
A9-A8	12" HDPE	30	0.5%
A10-A6	48" HDPE	54	0.5%
A11-A10	48" HDPE	70	0.5%
A12-A11	48" HDPE	246	0.5%
A13-A12	24" HDPE	11	1.0%
A14-A13	12" HDPE	21	5.7%
A15-A13	18" HDPE	9	0.0%
A16-A15	18" HDPE	34	0.6%
A17-A15	12" HDPE	45	4.6%
A18-A17	12" HDPE	27	0.6%
A19-A18	15" HDPE	173	0.5%
A20-A19	15" HDPE	98	0.5%
A21-A20	15" HDPE	86	0.5%
A22-A21	15" HDPE	92	0.5%
A23-A22	15" HDPE	27	0.5%
A25-A24	15" HDPE	150	0.5%
A27-A26	15" RCP	127	0.5%
A28-A27	15" HDPE	8	0.5%
A29-A27	15" HDPE	41	0.5%
A30-A29	15" HDPE	34	0.6%
B1-A1	15" RCP	120	0.6%
B2-B1	60" HDPE	120	0.5%

STORM PIPES TABLE

PIPE	SIZE & MATERIAL	LENGTH (FT)	SLOPE
B3-B2	12" HDPE	26	7.5%
B5-B4	12" HDPE	36	0.5%
B6-B2	60" HDPE	132	0.5%
B7-B6	12" HDPE	28	4.6%
B9-B8	12" RCP	87	0.5%
B10-B9	12" HDPE	61	0.5%
B11-B6	60" HDPE	83	0.5%
B12-B11	12" HDPE	14	27.6%
B13-B11	60" HDPE	222	0.5%
B14-B13	12" HDPE	10	37.5%
B16-B15	10" HDPE	12	0.6%
B17-B16	10" HDPE	322	0.5%
C2-C1	18" RCP	120	0.5%
C4-C3	18" HDPE	22	0.5%
C6-C5	15" HDPE	165	0.5%
C7-C6	12" HDPE	61	0.5%
C8-C7	12" HDPE	72	0.5%
C9-C8	12" HDPE	21	0.6%
C11-C10	15" HDPE	151	0.5%
C12-C11	15" RCP	74	0.5%
C13-C12	15" HDPE	27	0.6%
C14-C12	15" HDPE	73	0.5%
D1-A2	18" RCP	20	1.0%
D2-D1	15" RCP	292	1.2%
D3-D2	15" RCP	261	1.3%
E2-E1	12" RCP	46	1.1%
E3-E2	12" RCP	223	1.4%



SURVEY INFO
PROVIDED BY: M2 GROUP, LLC
DATUM: TENNESSEE STATE PLANE (NAD83 & NAVD 88)

FULMER LUCAS
2002 RICHARD JONES RD - SUITE B200
NASHVILLE, TENNESSEE 37215
INFO@FULMERLUCAS.COM - (615) 345-3770

JASON C. MORELOCK, REGISTERED ENGINEER, No. 108803, STATE OF TENNESSEE — 05/18/2026

SITE DEVELOPMENT PLANS FOR:
MORNING POINTE
RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401

DR.	DATE	DESCRIPTION
JEL	04/20/2026	FINAL PUD MASTER PLAN
JEL	05/18/2026	FINAL PUD MASTER PLAN RE-SUBMITTAL

SITE DRAINAGE PLAN

C2.1

1421-01 MORNING POINTE

Monday, May 18, 2026
Z:\1421_Morning Pointe\01 - Columbia\02 - Cad\Sheets\1421-01_Site Drainage Plan.dwg

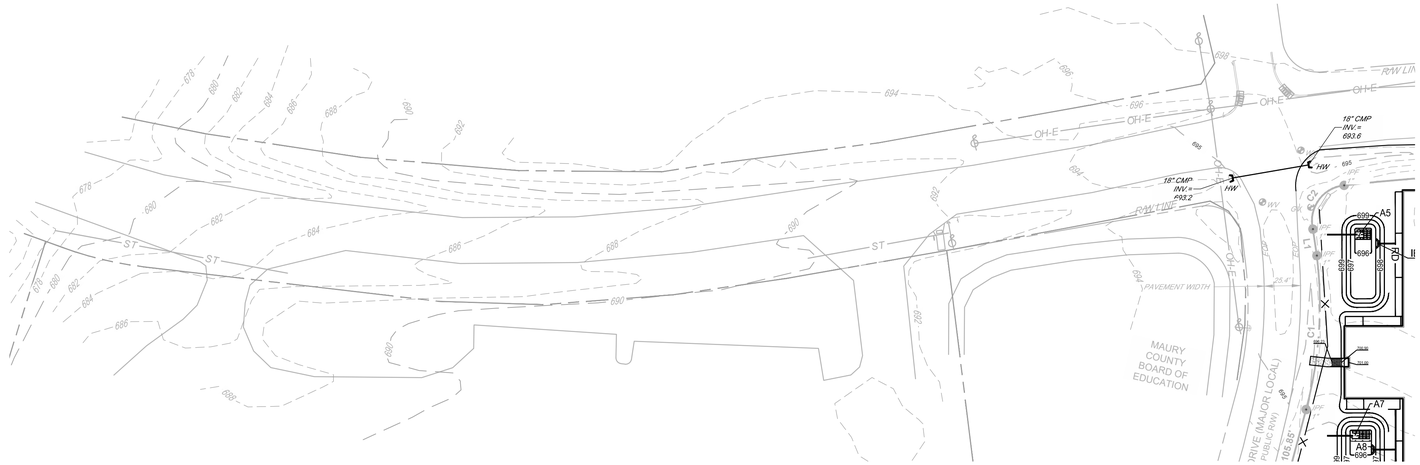
811 Know what's below. Call before you dig.

LEGEND

- DW — DOMESTIC WATER SERVICE
- G — GAS SERVICE
- SAN — SANITARY SEWER SERVICE
- OH-E — OVERHEAD ELECTRIC SERVICE
- OH-T — OVERHEAD TELEPHONE SERVICE
- UD — PERVIOUS PAVEMENT UNDERDRAIN
- RD — ROOF DRAIN TRUNK LINE
- STORM PIPE (SEE PLANS FOR MATERIAL)
- 562 — EXISTING CONTOUR
- 562 — PROPOSED CONTOUR
- DRIVEWAY CENTERLINE
- PROPERTY LINE
- (S) — SANITARY SEWER MANHOLE
- (ST) — STORM SEWER MANHOLE
- CURB INLET
- CATCH BASIN
- NYLOPLAST DRAIN BASIN
- ELECTRIC/COMMUNICATION POLE
- XXX.XX / XXX.XX — TOP OF CURB SPOT ELEVATION / BOTTOM OF CURB SPOT ELEVATION
- TW:XXX.XX / BW:XXX.XX — RETAINING WALL, TOP OF WALL / FINISHED GRADE AT BOTTOM OF WALL
- XXX.XX (MEFG) — MEET EXISTING GRADE
- XXX.XX — SPOT ELEVATION
- XXX.XX — EXISTING SPOT ELEVATION
- XXX.XX (F) — FLUSH SPOT ELEVATION
- DIVERSION DITCH
- INLET PROTECTION
- SF / FS — WIRE BACKED SILT FENCE, WEIGHTED SEDIMENT TUBE OR APPROVED EQUAL
- LOD — LIMITS OF DISTURBANCE
- CONSTRUCTION ENTRANCE/EXIT
- CONCRETE WASHOUT AREA
- ROCK CHECK DAM
- DIVERSION DITCH
- EROSION CONTROL MATTING
- ROCK FILTER RING

REFERENCE:

1. SEE SHEET C0.1 FOR GENERAL NOTES AND DEMOLITION NOTES.
2. EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION WAS OBTAINED FROM A BOUNDARY & TOPOGRAPHIC SURVEY BY M2 GROUP, LLC DATED OCTOBER 22, 2025.
3. THE PROPERTY DESCRIBED HEREON DOES NOT LIE WITHIN A FLOOD HAZARD AREA IN ACCORDANCE WITH "INSURANCE RATE MAP PANEL NUMBER "47119C0280E", DATED: APRIL 16, 2007, ZONE "X".

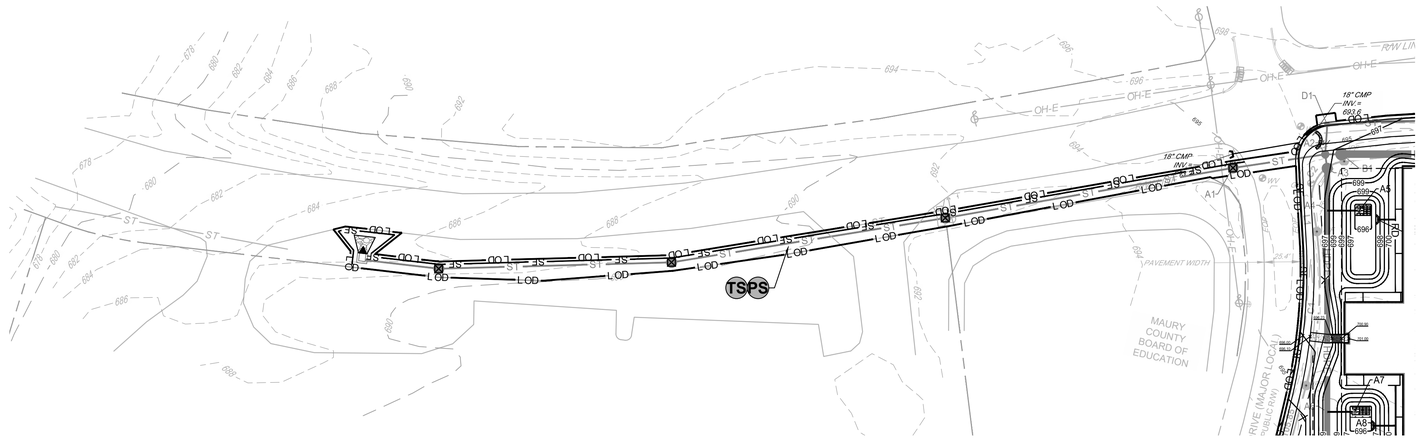


0 10 20 40 60
SCALE: 1"=40'

EXISTING CONDITIONS PLAN

REFERENCE:

1. SEE SHEET C0.1 FOR GENERAL NOTES AND GRADING PLAN NOTES.
2. EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION WAS OBTAINED FROM A BOUNDARY & TOPOGRAPHIC SURVEY BY M2 GROUP, LLC DATED OCTOBER 22, 2025.
3. THE PROPERTY DESCRIBED HEREON DOES NOT LIE WITHIN A FLOOD HAZARD AREA IN ACCORDANCE WITH "INSURANCE RATE MAP PANEL NUMBER "47119C0280E", DATED: APRIL 16, 2007, ZONE "X".

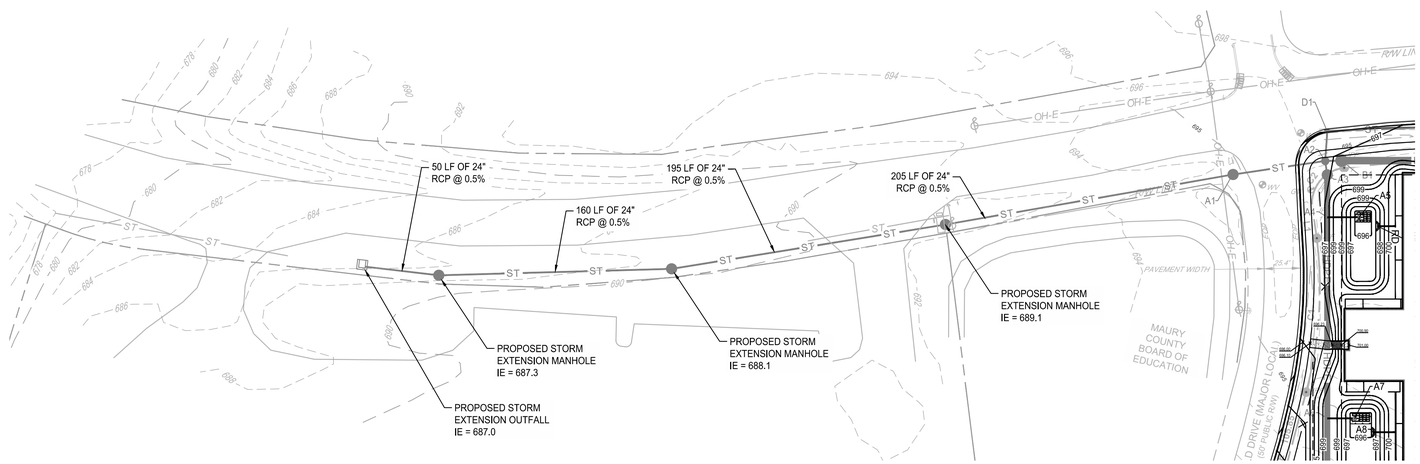


0 10 20 40 60
SCALE: 1"=40'

OFF-SITE EROSION CONTROL PLAN

REFERENCE:

1. SEE SHEET C0.1 FOR GENERAL NOTES AND EROSION & SEDIMENT CONTROL NOTES.
2. EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION WAS OBTAINED FROM A BOUNDARY & TOPOGRAPHIC SURVEY BY M2 GROUP, LLC DATED OCTOBER 22, 2025.
3. THE PROPERTY DESCRIBED HEREON DOES NOT LIE WITHIN A FLOOD HAZARD AREA IN ACCORDANCE WITH "INSURANCE RATE MAP PANEL NUMBER "47119C0280E", DATED: APRIL 16, 2007, ZONE "X".



0 10 20 40 60
SCALE: 1"=40'

OFF-SITE GRADING & DRAINAGE PLAN

SURVEY INFO
PROVIDED BY: M2 GROUP, LLC
DATUM: TENNESSEE STATE PLANE (NAD83 & NAVD 88)

FULMER LUCAS
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JASON C. MORELL — REGISTERED — No. 109803 — AGRICULTURE — STATE OF TENNESSEE — 05/18/2026

SITE DEVELOPMENT PLANS FOR:
MORNING POINTE
RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401

DR.	DATE	DESCRIPTION
JEL	04/20/2026	FINAL PUD MASTER PLAN
JEL	05/18/2026	FINAL PUD MASTER PLAN RE-SUBMITTAL

OFF-SITE IMPROVEMENTS

C2.2

1421-01 MORNING POINTE

Monday, May 18, 2026
N:\Civil_Survey Projects\01 - Columbia\02 - Cad\Sheets\1421-01_Offsite Grading Plan.dwg

Know what's **below.**
Call before you dig.

KEYNOTES:

1. POINT OF CONNECTION - SANITARY SEWER
I.E. = 685.00
(COORDINATE WITH CPWS PRIOR TO INSTALLATION)
2. CONNECT TO EXISTING MANHOLE BY MACHINE CORING, INSTALL KOR-N-SEAL BOOT CONNECTOR
3. INSTALL 8" SDR 26 PVC SANITARY SEWER MAIN @ 0.5% MINIMUM SLOPE (PER CPWS SPECS)
4. INSTALL SANITARY SEWER MANHOLE, (PER CPWS SPECS)
T.C. = 692.84
I.E. (IN) = 685.33, I.E. (OUT) = 685.13
5. INSTALL SANITARY SEWER MANHOLE, (PER CPWS SPECS)
T.C. = 693.80 (+/-)
I.E. (IN) = 686.61, I.E. (OUT) = 685.41
6. INSTALL SANITARY SEWER MANHOLE, (PER CPWS SPECS)
T.C. = 698.25
I.E. (IN) = 687.01, I.E. (OUT) = 686.81
7. INSTALL SANITARY SEWER MANHOLE, (PER CPWS SPECS)
T.C. = 695.20 (+/-)
I.E. (IN) = 689.23, I.E. (OUT) = 689.03
8. INSTALL SANITARY SEWER MANHOLE, (PER CPWS SPECS)
T.C. = 695.80 (+/-)
I.E. (IN) = 691.45, I.E. (OUT) = 691.25
9. INSTALL 8" x 6" WYE CONNECTION (PER CPWS SPECS)

KEYNOTES:

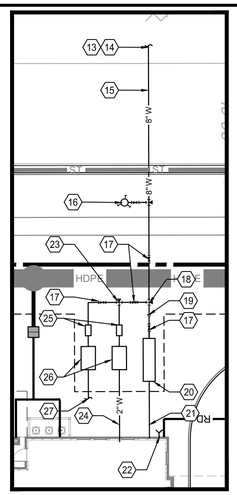
10. INSTALL 6" SDR 26 PVC @ 2.0% MIN. SLOPE
11. INSTALL TWO-WAY SEWER CLEANOUT ADJACENT TO THE BUILDING WHERE SHOWN (TYP. @ ALL SEWER LEADS TO BUILDINGS). REFER TO PLUMBING PLANS FOR ALL SEWER LINES WITHIN 5' OF THE BUILDING FOOTPRINT. (PER CPWS SPECS)
12. INSTALL TRAFFIC BEARING SEWER CLEANOUT (PER CPWS SPECS)
13. POINT OF CONNECTION - WATER (COORDINATE WITH CPWS PRIOR TO INSTALLATION)
14. INSTALL 12" x 8" MJ TAPPING SLEEVE (MUELLER H-615 OR APPROVED EQUAL), 8" GATE VALVE & BOX AND CONCRETE KISKER (PER CPWS SPECS)
15. INSTALL 8" PRESSURE CLASS 350 DUCTILE IRON WATER PIPE (PER CPWS SPECS)
16. INSTALL (PER CPWS SPECS):
1 - 8" x 6" MJ TEE
1 - 6" GATE VALVE W/ BOX
1 - FIRE HYDRANT ASSEMBLY
2 - CONCRETE KICKER
17. INSTALL GATE VALVE W/ BOX (PER CPWS SPECS)
18. INSTALL (PER CPWS SPECS):
1 - 8" x 2" MJ TEE W/ CONCRETE KICKER
2 - 8" GATE VALVE W/ BOX
1 - 2" GATE VALVE W/ BOX
19. INSTALL 8"x6" REDUCER (PER CPWS SPECS)
20. INSTALL 6" AMES M300 DDCVA IN ABOVE GROUND HEATED ENCLOSURE (SAFE-T-COVER 600-AL ENCLOSURE W/ SINGLE PHASE 120V/2000W HCH2000-120 SLAB MOUNT HEATING SYSTEM ON 6" CONCRETE SLAB (PER CPWS AND MANUFACTURER SPECS)
21. INSTALL 6" PRESSURE CLASS 350 DUCTILE IRON WATER PIPE (PER CPWS SPECS)
22. BUILDING MOUNTED FDC (SEE FIRE PROTECTION PLANS)
23. INSTALL 2" x 2" MJ TEE W/ CONCRETE KICKER (PER CPWS SPECS)

KEYNOTES:

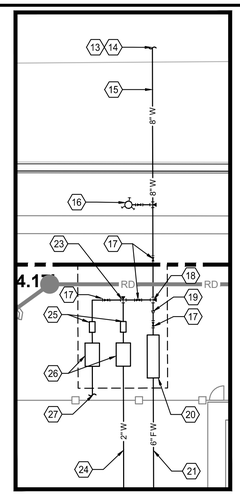
24. INSTALL 2" TYPE "K" COPPER WATER SERVICE (MIN. 36" COVER) (PER CPWS SPECS)
25. INSTALL 2" WATER METER IN PRECAST CONCRETE METER BOX (PER CPWS SPECS)
26. 1 - 2" RPBP (AMES 4000B) IN ABOVE GROUND HEATED ENCLOSURE ON CONCRETE PAD (PER CPWS SPECS) (CONTRACTOR TO ENSURE POWER IS PROVIDED TO ENCLOSURE FOR HEAT)
27. PLUG & MARK IRRIGATION LINE FOR CONTINUATION BY IRRIGATION CONTRACTOR
28. EXISTING RISER POLE TO REMAIN
29. POINT OF CONNECTION - PHONE/DATA, CABLE, ELECTRICAL SERVICE (COORDINATE WITH UTILITY PROVIDER PRIOR TO INSTALLATION)
30. CONTRACTOR TO INSTALL RIGID GALVANIZED CONDUITS TO 10' UP RISER POLE FROM GRADE. CAP ONE CONDUIT IN A PERMANENT MANNER. OTHER CONDUIT SHALL BE EXTENDED TO REQUIRED HEIGHT BY CPWS. CONTRACTOR SHALL FURNISH ALL EXPOSED CONDUITS, WHICH SHALL BE RIGID GALVANIZED CONDUIT. INSTALL RIGID GALVANIZED CONDUIT APPROX. 6" OFF RISER POLE. CPWS WILL FURNISH AND INSTALL PRIMARY CONDUCTORS IN COMPLETED CONDUITS.
31. CONTRACTOR TO PROVIDE AND INSTALL RIGID GALVANIZED METAL RADIUS SWEEP ELBOW AT RISER POLE BASE, CONTINUE FROM GRADE APPROX. 10' UP RISER POLE WITH RIGID GALVANIZED STEEL CONDUIT, INSTALL RIGID GALVANIZED CONDUIT APPROX. 6" OFF RISER POLE.
32. ELECTRICAL PULLBOX (PER CPWS SPECS)
33. PROPOSED DUAL 4" ELECTRICAL GRADE PVC CONDUITS FOR PRIMARY ELECTRICAL SERVICE (36" MINIMUM COVER). CONTRACTOR TO PROVIDE AND INSTALL A TRENCH AND PVC CONDUIT W/ PULL STRING FROM THE POLE TO THE TRANSFORMER PER CPWS SPECS.
34. CONTRACTOR TO PROVIDE AND INSTALL RIGID GALVANIZED METAL RADIUS SWEEP ELBOW AT TRANSFORMER
35. PROPOSED ELECTRICAL TRANSFORMER LOCATION (PAD BY GC, TRANSFORMER SET BY CPWS)

KEYNOTES:

36. UNDERGROUND ELECTRIC SECONDARY THREE PHASE SERVICE. CONTRACTOR TO PROVIDE AND INSTALL A TRENCH, (2) 4" SCHEDULE 40 ELECTRICAL GRADE PVC CONDUIT W/ PULL STRING AND CONDUCTOR WIRE PER CPWS SPECS.
37. CONTRACTOR TO PROVIDE AND INSTALL (2) 4" SCH 40 PVC CONDUITS W/ PULL TAPE FOR PHONE/DATA SERVICE FROM 6" ABOVE GRADE AT RISER POLE TO 3/4" PLYWOOD BOARD INSIDE BUILDING, PROVIDE 1-30" SWEEP UP TO PLYWOOD BOARD WITH #6 GROUND WIRE AND GROUND BAR. (AT&T TO PROVIDE AND PULL PHONE/DATA WIRE). INSTALL IN SAME TRENCH AS ELECTRICAL CONDUITS WITH CPWS REQUIRED VERTICAL AND HORIZONTAL SEPARATION. CONDUIT TO ROUTE AROUND ELECTRICAL TRANSFORMER PAD LOCATION WITH CPWS REQUIRED SEPARATION.
38. CONTRACTOR TO PROVIDE AND INSTALL (1) 4" SCHEDULE 40 PVC CONDUIT WITH PULL TAPE FOR CABLE SERVICE FROM POINT OF CONNECTION TO BUILDING (CABLE PROVIDER TO PROVIDE AND PULL CABLE). INSTALL IN SAME TRENCH AS ELECTRICAL CONDUITS WITH CPWS REQUIRED VERTICAL AND HORIZONTAL SEPARATION. CONDUIT TO ROUTE AROUND ELECTRICAL TRANSFORMER PAD LOCATION WITH CPWS REQUIRED SEPARATION.
39. PHONE/DATA PULL BOX (PER UTILITY COMPANY SPECS)



WATER INSET #1
SCALE: 1" = 20'



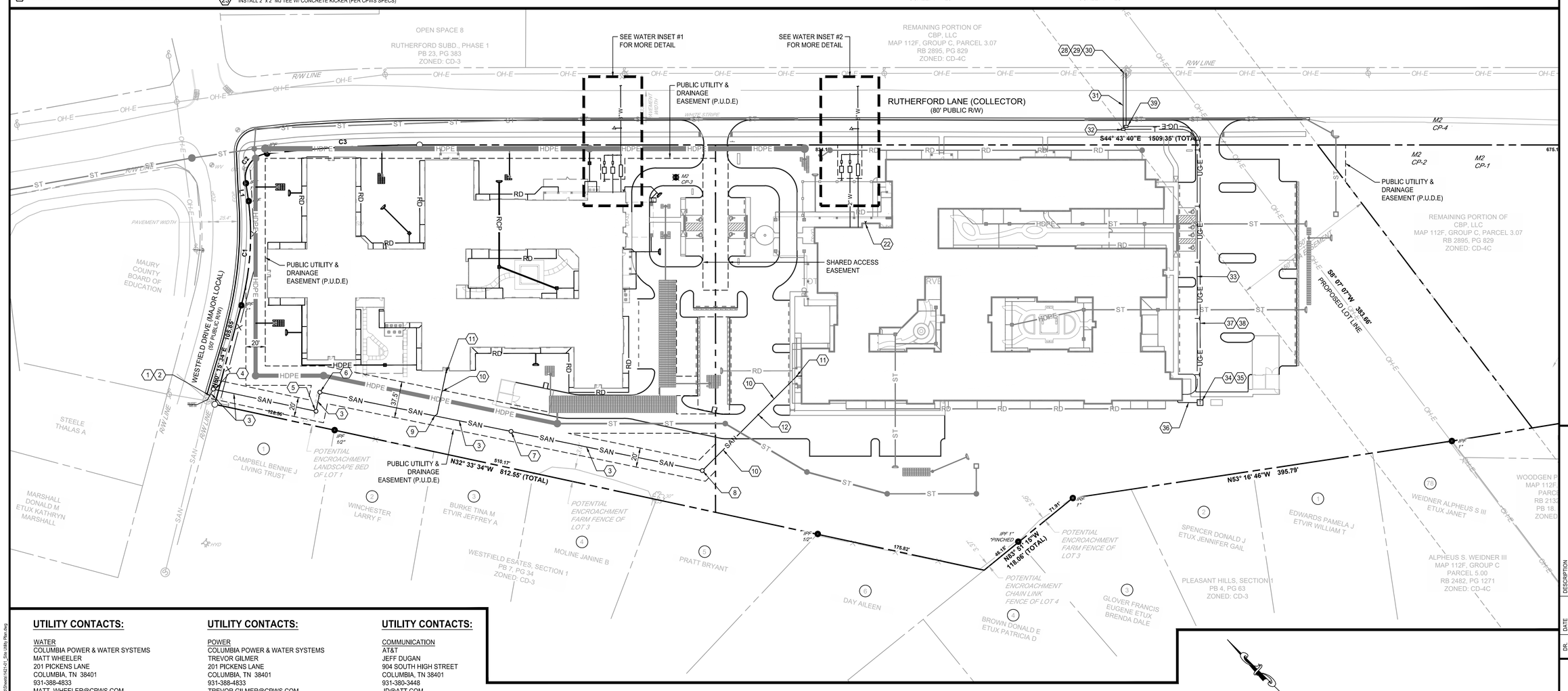
WATER INSET #2
SCALE: 1" = 20'

REFERENCE:

1. SEE SHEET C0.1 FOR GENERAL NOTES AND UTILITY NOTES.
2. EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION WAS OBTAINED FROM A BOUNDARY AND TOPOGRAPHIC SURVEY BY M2 GROUP, LLC, DATED OCTOBER 22, 2025.
3. THE PROPERTY SHOWN HEREON IS LOCATED IN A FLOOD HAZARD ZONE "X" (AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN) ACCORDING TO F.I.R.M. PANEL "MAURY COUNTY, TENNESSEE" PANEL 280 OF 440, MAP NUMBER "47119C0280E", EFFECTIVE APRIL 16, 2007.

LEGEND

- DW — DOMESTIC WATER SERVICE
- G — GAS SERVICE
- SAN — SANITARY SEWER SERVICE
- OH-E — OVERHEAD ELECTRIC SERVICE
- OH-T — OVERHEAD TELEPHONE SERVICE
- UD — PERVIOUS PAVEMENT UNDERDRAIN
- RD — ROOF DRAIN TRUNK LINE
- STORM PIPE (SEE PLANS FOR MATERIAL).
- 562 — EXISTING CONTOUR
- 562 — PROPOSED CONTOUR
- DRIVEWAY CENTERLINE
- PROPERTY LINE
- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- CURB INLET
- CATCH BASIN
- NYLOPLAST DRAIN BASIN
- ELECTRIC/COMMUNICATION POLE



UTILITY CONTACTS:

WATER
COLUMBIA POWER & WATER SYSTEMS
MATT WHEELER
201 PICKENS LANE
COLUMBIA, TN 38401
931-388-4833
MATT. WHEELER@CPWS.COM

SEWER
CITY OF COLUMBIA WASTEWATER DEPARTMENT
1244 TREATMETN PLANT ROAD
COLUMBIA, TN 38401
DONNIE BOSHERS
931-560-1001
DBOSHERS@COLUMBIATN.GOV

UTILITY CONTACTS:

POWER
COLUMBIA POWER & WATER SYSTEMS
TREVOR GILMER
201 PICKENS LANE
COLUMBIA, TN 38401
931-388-4833
TREVOR.GILMER@CPWS.COM

GAS
ATMOS ENERGY
TIM BROWN
810 NASHVILLE HIGHWAY
COLUMBIA, TN 38401
931-388-9136
TIM.BROWN@ATMOSENERGY.COM

UTILITY CONTACTS:

COMMUNICATION
AT&T
JEFF DUGAN
904 SOUTH HIGH STREET
COLUMBIA, TN 38401
931-380-3448
JD@ATT.COM

0 25 50 100 150
SCALE: 1" = 50'

SURVEY INFO
PROVIDED BY: M2 GROUP, LLC
DATUM: TENNESSEE STATE PLANE (NAD83 & NAVD 88)

FULMER LUCAS
2002 RICHARD JONES RD - SUITE B200
NASHVILLE, TENNESSEE 37215
INFO@FULMERLUCAS.COM - (615) 345-3770

JASON C. MOREIN
REGISTERED LANDSCAPE ARCHITECT
AGRICULTURE
No. 110903
STATE OF TENNESSEE

SITE DEVELOPMENT PLANS FOR:
MORNING POINTE
RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401

DR.	DATE	DESCRIPTION
JEL	04/20/2026	FINAL PUD MASTER PLAN
JEL	05/18/2026	FINAL PUD MASTER PLAN RE-SUBMITTAL

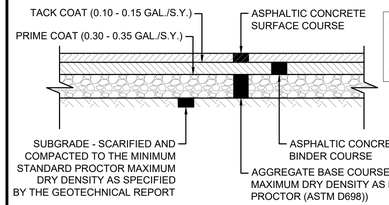
SITE UTILITY PLAN

C3.0

1421-01 MORNING POINTE

Monday, May 18, 2026
K:\Civil\1421-01 - Columbia\02 - CadSheets\1421-01_Site Utility Plan.dwg

FLEXIBLE PAVEMENT RECOMMENDATIONS			
MATERIALS	HEAVY DUTY ASPHALT PAVEMENT SECTION THICKNESS (INCHES)	LIGHT DUTY ASPHALT PAVEMENT SECTION THICKNESS (INCHES)	TENNESSEE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS
ASPHALTIC CONCRETE SURFACE COURSE	X = 1 1/2"	X = 1 1/2"	SECTION 411, SECTION E
ASPHALTIC CONCRETE BINDER COURSE	Y = 2"	Y = 2"	SECTION 307, SECTION B
AGGREGATE BASE COURSE	Z = 8"	Z = 6"	SECTION 903 CLASS A, GRADING D
COMPACTION DENSITY REQUIREMENTS BY MARSHALL METHOD SECTION 407.			

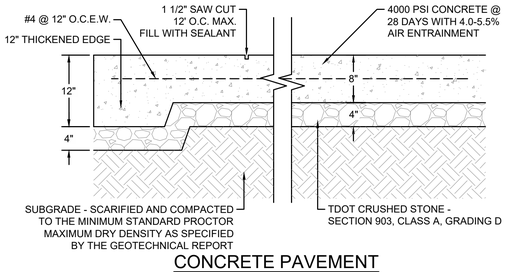


NOTE:
PAVEMENT SECTIONS ARE SHOWN FOR REFERENCE ONLY. SEE GEOTECHNICAL REPORT FOR PAVEMENT DESIGN.

ASPHALT PAVEMENT
NOT TO SCALE

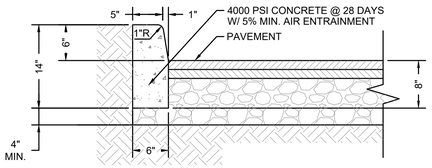
NOTES:
1. MATERIALS AND CONSTRUCTION PROCEDURES SHALL BE IN ACCORDANCE WITH THE TDOT STANDARD SPECIFICATIONS, SECTION 501 FOR CONCRETE, AND SECTION 303 FOR BASE COURSE.
2. REFER TO DETAILS ON THIS SHEET FOR JOINT SPACING AND CONSTRUCTION.
3. EXPANSION JOINTS ARE TO BE SPACED 25' TO 30' APART DEPENDING ON TRANSVERSE JOINT MARKINGS.

NOTE:
PAVEMENT SECTIONS ARE SHOWN FOR REFERENCE ONLY. SEE GEOTECHNICAL REPORT FOR PAVEMENT DESIGN.

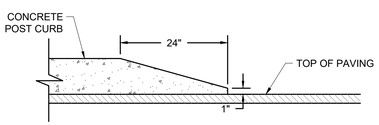


CONCRETE PAVEMENT
NOT TO SCALE

NOTES:
1. CURBING SHALL BE CONSTRUCTED IN 10 FOOT LENGTHS.
2. PREFORMED 3/4" EXPANSION JOINTS SHALL BE EQUALLY SPACED AT 50' O.C. (MAX). EXPANSION JOINTS SHALL ALSO BE PLACED AT TANGENT POINTS AND BETWEEN CURBS & RIGID OBJECTS.
3. EQUALLY SPACE ¾" CONTRACTION JOINTS AT 10' O.C. (MAX.) BETWEEN EXPANSION JOINTS.
4. PRIOR TO BACKFILLING, PREVENT WATER FROM PONDING BEHIND CURBS.
5. THE CONCRETE SHALL MEET THE REQUIREMENTS OF ASTM C94, 4,000 PSI WITH FIBER MESH ADDED.
6. THE FINISHED CURB WILL BE COATED WITH A CURING COMPOUND DESIGNED TO SEAL THE SURFACE AND FORM A MEMBRANE TO RETARD WATER LOSS.

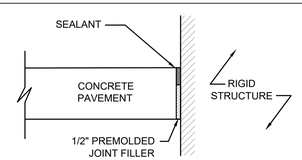


CONCRETE POST CURB
NOT TO SCALE

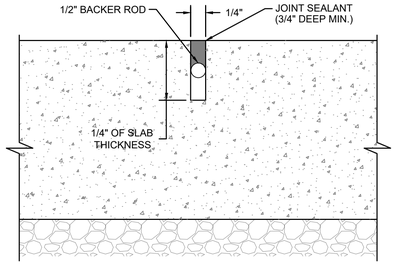


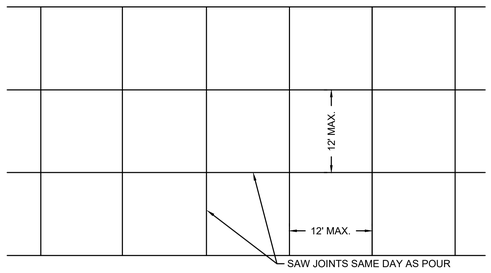
TAPERED CONCRETE CURB
NOT TO SCALE

NOTE:
PROVIDE ISOLATION JOINT WHERE CONCRETE SIDEWALK OR PAVEMENT ABUTS A RIGID STRUCTURE.



ISOLATION JOINT
NOT TO SCALE

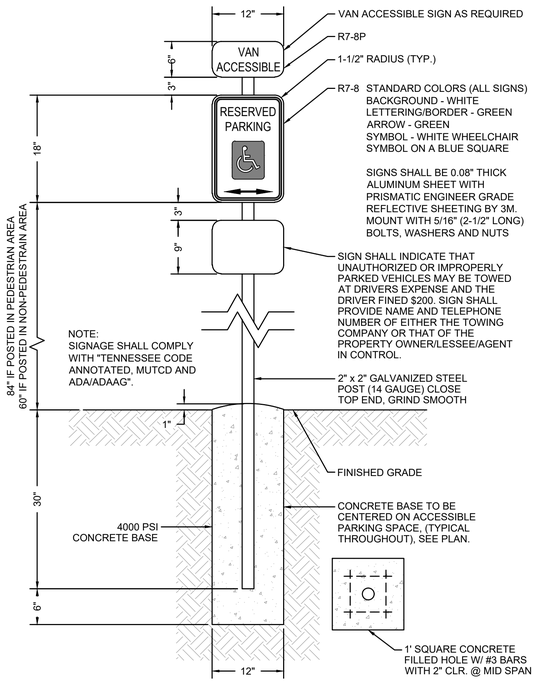




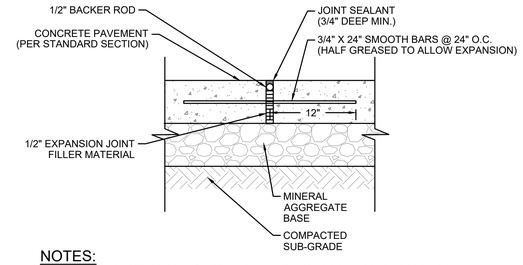
PLAN VIEW

NOTES:
1. INSTALL SAW CUT JOINTS WITHIN 24 HOURS OF FINISHING CONCRETE.

CONCRETE PAVEMENT SAW CUT JOINT
NOT TO SCALE

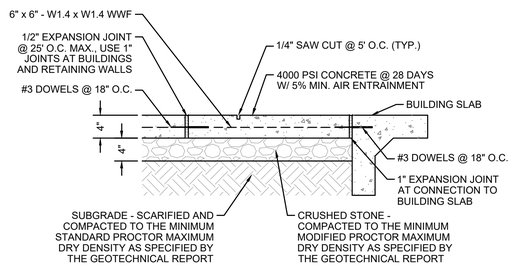


EXTERIOR ACCESSIBLE PARKING SIGN & SYMBOL
NOT TO SCALE

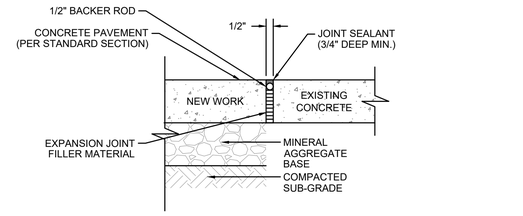


NOTES:
1. INSTALL CONSTRUCTION JOINTS WHEN CONTINUOUS POUR OPERATIONS ARE SUSPENDED FOR MORE THAN 30 MINUTES.

CONCRETE PAVEMENT CONSTRUCTION JOINT
NOT TO SCALE

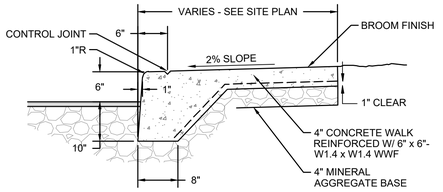


CONCRETE SIDEWALK
NOT TO SCALE



NOTES:
1. INSTALL EXPANSION JOINTS @ 20' O.C. IN EACH DIRECTION AND AGAINST ASPHALT PAVEMENT AND STRUCTURES.

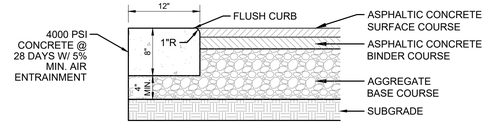
CONCRETE PAVEMENT EXPANSION JOINT
NOT TO SCALE



NOTES:
1. PROVIDE CONTROL JOINTS SPACED EVERY 5 FEET AND EXPANSION JOINTS EVERY 25 FEET.

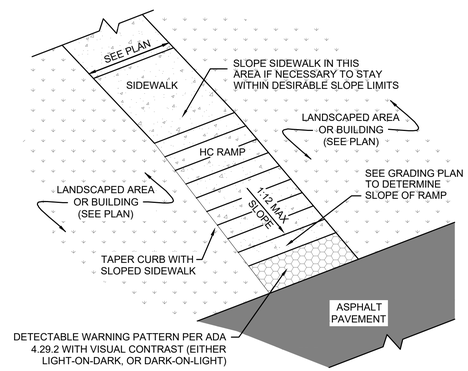
INTEGRAL CONCRETE CURB AND SIDEWALK
NOT TO SCALE

NOTES:
1. CURBING SHALL BE CONSTRUCTED IN 10 FOOT LENGTHS.
2. PREFORMED 1/2" EXPANSION JOINTS SHALL BE EQUALLY SPACED AT 50' O.C. (MAX). EXPANSION JOINTS SHALL ALSO BE PLACED AT TANGENT POINTS AND BETWEEN CURBS & RIGID OBJECTS.
3. EQUALLY SPACE ¾" CONTRACTION JOINTS AT 10' O.C. (MAX.) BETWEEN EXPANSION JOINTS.
4. PRIOR TO BACKFILLING, PREVENT WATER FROM PONDING BEHIND CURBS.
5. THE CONCRETE SHALL MEET THE REQUIREMENTS OF ASTM C94, 4,000 PSI WITH FIBER MESH ADDED.
6. THE FINISHED CURB WILL BE COATED WITH A CURING COMPOUND DESIGNED TO SEAL THE SURFACE AND FORM A MEMBRANE TO RETARD WATER LOSS.

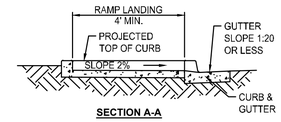


CONCRETE FLUSH CURB
NOT TO SCALE

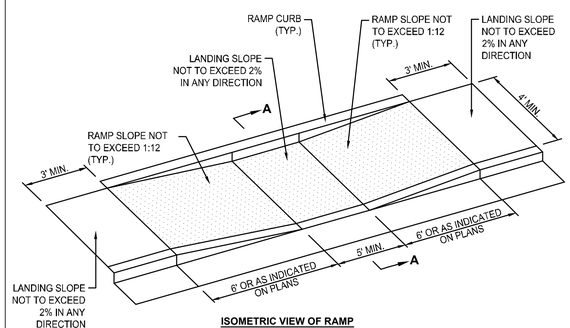
NOTES:
1. ALL WORK PERFORMED BY THE CONTRACTOR SHALL COMPLY THE PERTINENT PROVISIONS OF THE AMERICANS WITH DISABILITIES ACT.
2. CROSS SLOPE OF THE RAMP SHALL NOT EXCEED 1:50.
3. SURFACE TEXTURE OF THE RAMP SHALL BE STABLE, FIRM AND SLIP RESISTANT. THE SURFACE SHALL BE COARSE BROOMED FINISH TRANSVERSE TO THE SLOPE OF THE RAMP.



PARALLEL ACCESSIBLE RAMP (SCENARIO #1)
NOT TO SCALE



SECTION A-A



ISOMETRIC VIEW OF RAMP

NOTES:
1. ACCESSIBLE RAMP CONSTRUCTION SHALL CONFORM TO ALL FEDERAL, STATE AND CITY CODES AND SPECIFICATIONS.
2. SURFACES SHALL MEET THE GUIDELINES OF THE ADA STANDARDS FOR ACCESSIBILITY, APPENDIX A, PART 36.
3. THE SLOPE OF THE GUTTER MUST NOT EXCEED 1:20 ADJACENT TO THE RAMP.
4. CROSS SLOPE OF THE RAMP SHALL NOT EXCEED 1:50.

PARALLEL ACCESSIBLE RAMP (SCENARIO #2)
NOT TO SCALE

FULMER LUCAS
2002 RICHARD JONES RD - SUITE B200
NASHVILLE, TENNESSEE 37215
INFO@FULMERLUCAS.COM - (615) 345-3770

JASON C. MOREIN — REGISTERED ENGINEER — AGRICULTURE — No. 109855 — STATE OF TENNESSEE — 05/18/2026

SITE DEVELOPMENT PLANS FOR:
MORNING POINTE
RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401

DR.	DATE	DESCRIPTION
JEL	04/20/2026	FINAL PUD MASTER PLAN
JEL	05/18/2026	FINAL PUD MASTER PLAN RE-SUBMITTAL

SITE DETAILS

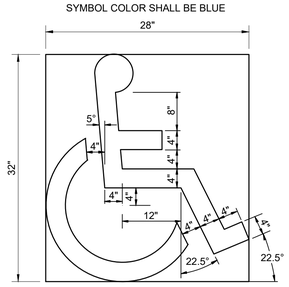
C4.0

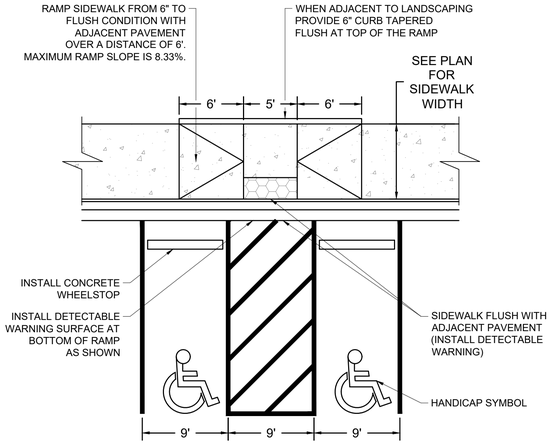
1421-01 MORNING POINTE

Monday, May 18, 2026
L:\21 Projects\1421-01 - Columbia\02 - Civil\Sheets\1421-01 Site Details.dwg

NOTES:

1. ALL WORK PERFORMED BY THE CONTRACTOR SHALL COMPLY THE PERTINENT PROVISIONS OF THE AMERICANS WITH DISABILITIES ACT.
2. CROSS SLOPE OF THE RAMP SHALL NOT EXCEED 1:50.
3. SURFACE TEXTURE OF THE RAMP SHALL BE STABLE, FIRM AND SLIP RESISTANT. THE SURFACE SHALL BE COARSE BROOMED FINISH TRANSVERSE TO THE SLOPE OF THE RAMP.
4. MAXIMUM SLOPE OF 2% IN ANY DIRECTION WITHIN ADA PARKING SPACES.
5. REFER TO SITE PLAN FOR EXACT LAYOUT.

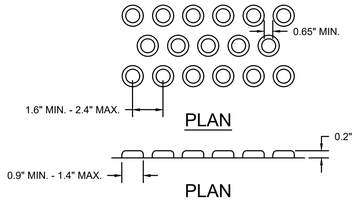




ADA PARKING DETAILS
NOT TO SCALE

NOTES:

1. DETECTABLE WARNING SURFACE IS REQUIRED AT ALL SIDEWALK RAMPS AT BOUNDARY WITH ADJACENT PAVEMENT.
2. TRUNCATED DOMES IN A DETECTABLE WARNING SURFACE SHALL HAVE A BASE DIAMETER OF 0.9 INCHES MINIMUM TO 1.4 INCHES MAXIMUM, A TOP DIAMETER OF 50 PERCENT OF THE BASE DIAMETER MINIMUM TO 65 PERCENT OF THE
3. BASE DIAMETER MAXIMUM, AND A HEIGHT OF 0.2 INCHES.
4. TRUNCATED DOMES IN A DETECTABLE WARNING SURFACE SHALL HAVE A CENTER-TO-CENTER SPACING OF 1.6 INCHES MINIMUM AND 2.4 INCHES MAXIMUM, AND A BASE-TO-BASE SPACING OF (0.65 IN MINIMUM, MEASURED BETWEEN THE MOST ADJACENT DOMES.
5. DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH ADJACENT GUTTER, STREET OR HIGHWAY, OR WALKWAY SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT.
6. DETECTABLE WARNING SURFACES SHALL EXTEND 24 INCHES MINIMUM IN THE DIRECTION OF TRAVEL AND THE FULL WIDTH OF THE CURB RAMP (EXCLUSIVE OF FLARES), THE LANDING, OR THE BLENDED TRANSITION.
7. REFER TO FLARED HANDICAP RAMP DETAIL AND PARALLEL HANDICAP RAMP DETAIL FOR PLACEMENT OF DETECTABLE WARNING SURFACE.



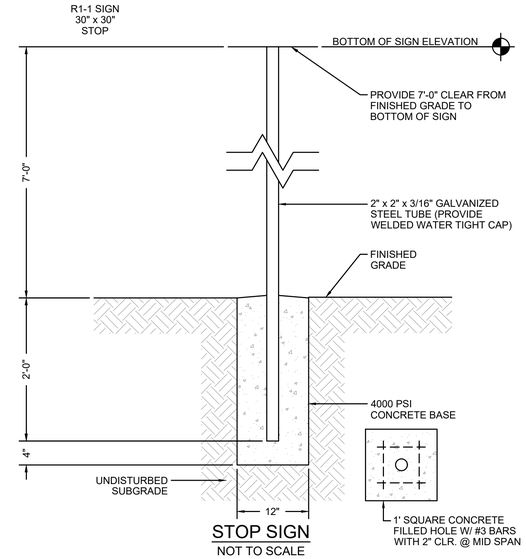
DETECTABLE WARNING SURFACE
NOT TO SCALE

COLORS:
LEGEND - WHITE (RETROFELCTIVE)
BACKGROUND - RED (RETROFLECTIVE)

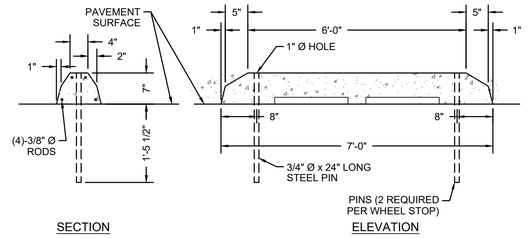


NOTES:

1. SET POSTS IN CONCRETE TO A MINIMUM DEPTH OF 24". SIGN PANELS SHALL BE 0.100 ALUMINUM WITH RAISED OR SILKSCREEN COPY.
2. FOR POST MOUNTING, USE NON-CORROSIVE 3/8" MACHINE BOLTS W/ WASHERS, 2 PER SIGN; OR IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
3. ALL SIGNAGE IS TO BE INSTALLED WITH THE BOTTOM EDGE OF THE LOWEST SIGN AT LEAST 60" ABOVE FINISHED GRADE, WHERE NO PEDESTRIAN TRAFFIC IS POSSIBLE.
4. ALL SIGNAGE IS TO BE INSTALLED WITH THE BOTTOM EDGE OF THE LOWEST SIGN AT LEAST 84", WHERE PEDESTRIAN TRAFFIC IS POSSIBLE.



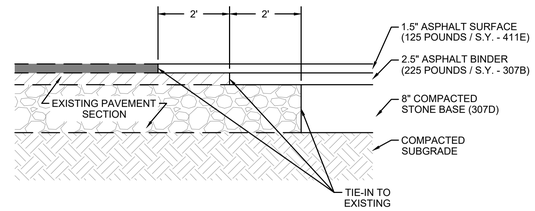
STOP SIGN
NOT TO SCALE



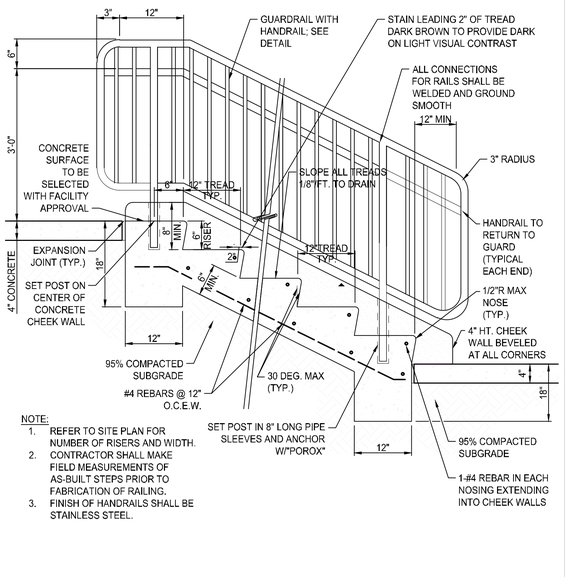
NOTES:

1. RECESS PINS BELOW TOP OF WHEEL STOP 1/2".

CONCRETE WHEELSTOP
NOT TO SCALE

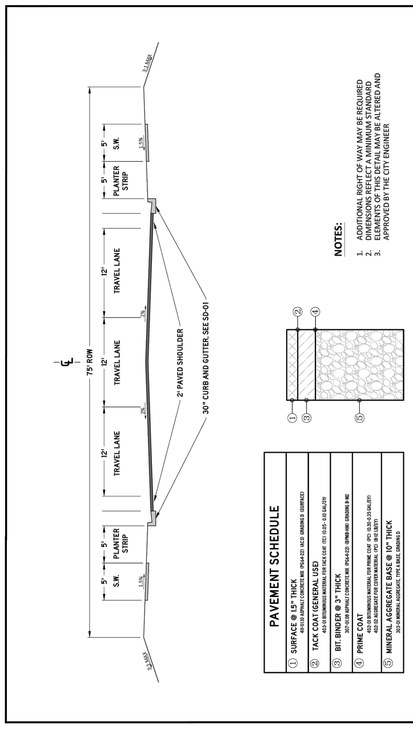


ASPHALT PAVEMENT TIE-IN TO EXISTING
NOT TO SCALE

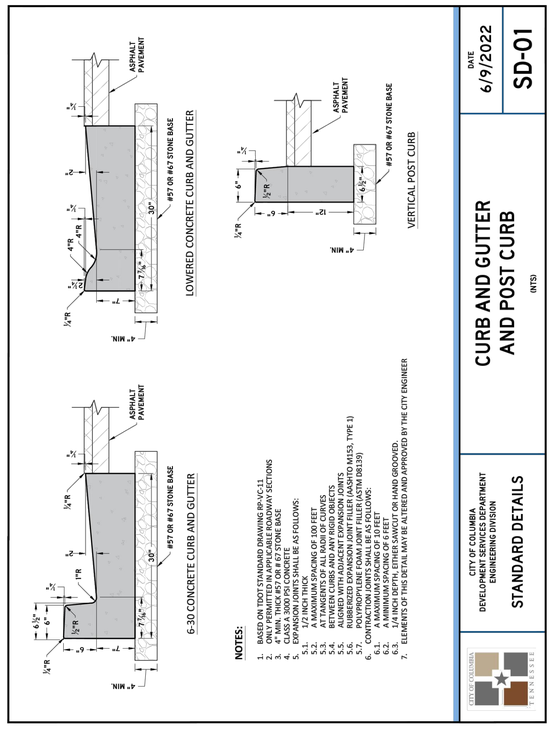


NOTE:
1. REFER TO SITE PLAN FOR NUMBER OF RISERS AND WIDTH.
2. CONTRACTOR SHALL MAKE FIELD MEASUREMENTS OF AS-BUILT STEPS PRIOR TO FABRICATION OF RAILING.
3. FINISH OF HANDRAILS SHALL BE STAINLESS STEEL.

CONCRETE STEPS AND HANDRAIL
NOT TO SCALE

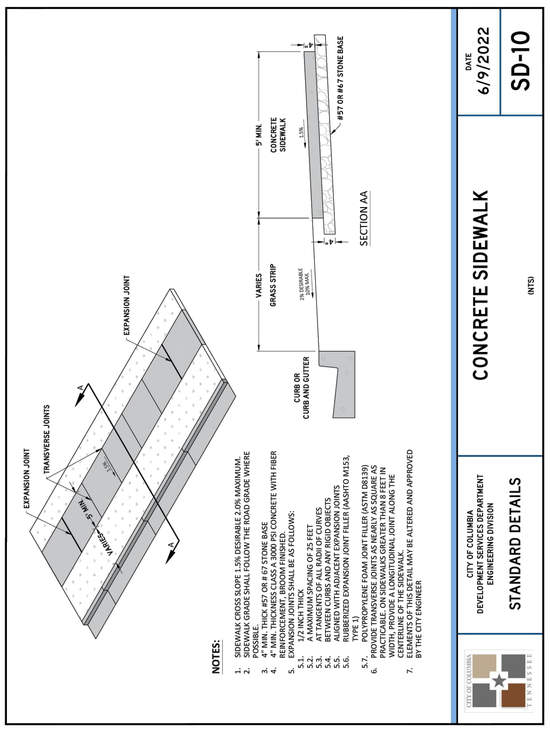


COLUMBIA COLLECTOR ROADWAY
NOT TO SCALE



NOTES:
1. BASED ON TDOT STANDARD DRAWING RP-VC-11
2. CURB AND GUTTER SHALL BE CONSTRUCTED WITH CONTRACTION JOINTS AT 4' MIN. THICK #57 OR # 67 STONE BASE
3. CONCRETE SHALL BE CLASS A, 3000 PSI CONCRETE
4. EXPANSION JOINTS SHALL BE AS FOLLOWS:
   5.1. 1/2 INCH THICK
   5.2. A MAXIMUM SPACING OF 100 FEET
   5.3. AT TANGENTS OF ALL RADII OF CURVES
   5.4. BETWEEN CURBS AND ANY RIGID OBJECTS
   5.5. ALIGNED WITH ADJACENT EXPANSION JOINTS
   5.6. RUBBERIZED EXPANSION JOINT FILLER (AASHTO M153, TYPE 1)
5. CONTRACTION JOINTS SHALL BE AS FOLLOWS:
   6.1. A MAXIMUM SPACING OF 10 FEET
   6.2. A MINIMUM SPACING OF 6 FEET
   6.3. POLYPROPYLENE FOAM JOINT FILLER (ASTM D8139)
   6.4. CONSTRUCTED AS A SAWED OR HAND GROOVED.
   6.5. ALIGNED WITH ADJACENT CONTRACTION JOINTS
6. CURB AND GUTTER SHALL BE CONSTRUCTED WITH FIBER REINFORCEMENT, BROOM FINISH, 3000 PSI CONCRETE WITH FIBER
7. ELEMENTS OF THIS DETAIL MAY BE ALTERED AND APPROVED BY THE CITY ENGINEER

COLUMBIA CURB AND GUTTER AND POST CURB
NOT TO SCALE



NOTES:
1. SIDEWALK CROSS SLOPE 1.5% DESIRABLE 2.0% MAXIMUM.
2. SIDEWALK GRADE SHALL FOLLOW THE ROAD GRADE WHERE POSSIBLE.
3. 4" MIN. THICK #57 OR # 67 STONE BASE
4. CONCRETE SHALL BE CLASS A, 3000 PSI CONCRETE WITH FIBER REINFORCEMENT, BROOM FINISH
5. EXPANSION JOINTS SHALL BE AS FOLLOWS:
   5.1. 1/2 INCH THICK
   5.2. A MAXIMUM SPACING OF 25 FEET
   5.3. AT TANGENTS OF ALL RADII OF CURVES
   5.4. BETWEEN CURBS AND ANY RIGID OBJECTS
   5.5. ALIGNED WITH ADJACENT EXPANSION JOINTS
   5.6. RUBBERIZED EXPANSION JOINT FILLER (AASHTO M153, TYPE 1)
   5.7. POLYPROPYLENE FOAM JOINT FILLER (ASTM D8139)
6. PROVIDE TRANSVERSE JOINTS AS NEARLY AS SQUARE AS POSSIBLE WITH NO JOINT LESS THAN HALF THE SIDEWALK WIDTH, PROVIDE A LONGITUDINAL JOINT ALONG THE CENTERLINE OF THE SIDEWALK
7. ELEMENTS OF THIS DETAIL MAY BE ALTERED AND APPROVED BY THE CITY ENGINEER

COLUMBIA CONCRETE SIDEWALK
NOT TO SCALE

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JASON C. MORELOCK
REGISTERED LANDSCAPE ARCHITECT
AGRICULTURE
No. 108605
STATE OF TENNESSEE
05/18/2026

SITE DEVELOPMENT PLANS FOR:
MORNING POINTE
RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401

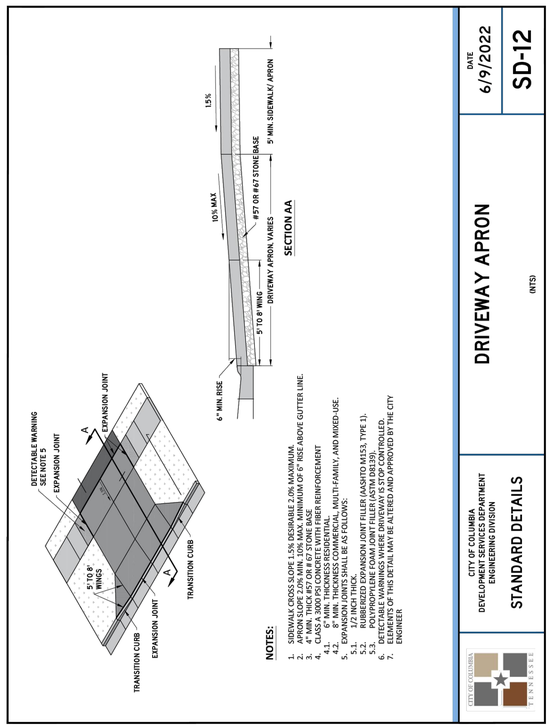
DR.	DATE	DESCRIPTION
JEL	04/20/2026	FINAL PUD MASTER PLAN
JEL	05/18/2026	FINAL PUD MASTER PLAN RE-SUBMITTAL

SITE DETAILS

C4.1

1421-01 MORNING POINTE

Monday, May 18, 2026
L:\421 Morning Pointe\01 - Columbia\02 - Civil\Sheets\1421-01 - Site Details.dwg



COLUMBIA COLLECTOR ROADWAY
NOT TO SCALE

DATE	SD-12
6/9/2022	

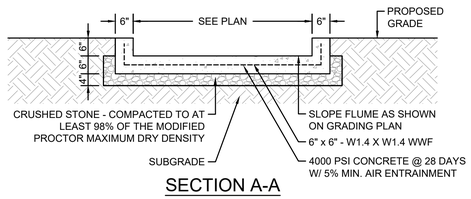
DRIVEWAY APRON (NTS)

CITY OF COLUMBIA
DEVELOPMENT SERVICES DEPARTMENT
ENGINEERING DIVISION

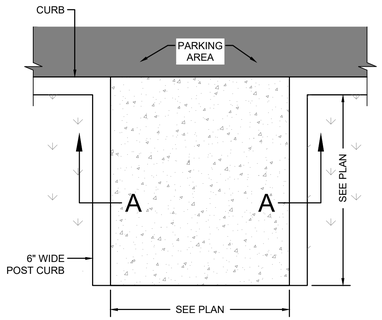
STANDARD DETAILS

NOTES:

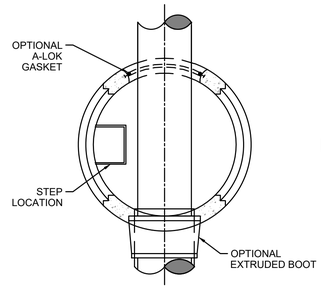
1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY AND TDOT STANDARD SPECIFICATIONS.
2. ALL EXPOSED CONCRETE EDGES SHALL HAVE A 1/2" RADIUS TOOLED JOINT.
3. SUBGRADE TO BE COMPACTED TO AT LEAST 98% OF STANDARD PROCTOR MAXIMUM LABORATORY DRY DENSITY.



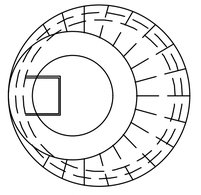
SECTION A-A



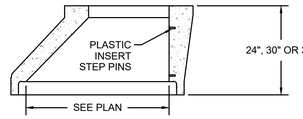
CONCRETE CURB CUT
NOT TO SCALE



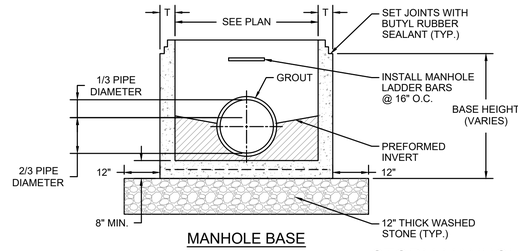
TOP VIEW



TOP VIEW

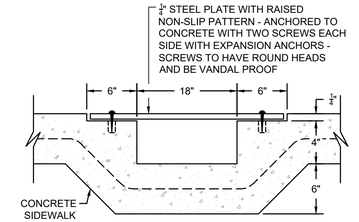


MANHOLE RISER



MANHOLE BASE

STORM MANHOLE
NOT TO SCALE

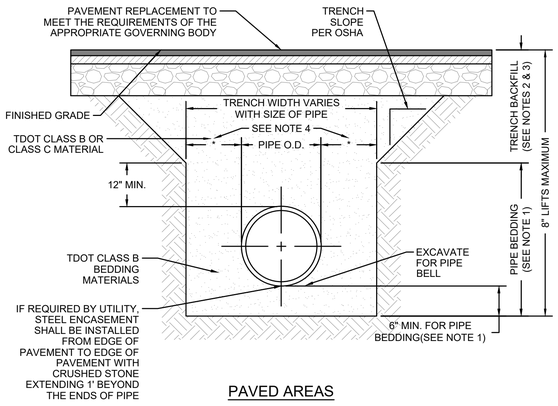


DRAIN AT SIDEWALKS
NOT TO SCALE

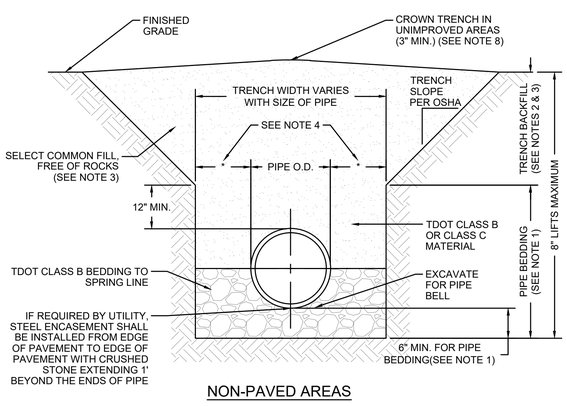
NOTES:

1. ALL MATERIAL, DESIGN, MANFACTURING, PHYSICAL TEST REQUIREMENTS, FINISH MARKING, INSPECTION, REJECTION AND REPAIRS TO MEET / OR EXCEED SPECIFICATIONS FOR PRECAST-REINFORCED CONCRETE MANHOLE SECTIONS". PER ASTM C-478 (LATEST REVISION).
2. MANHOLE SECTIONS TO BE TONGUE AND GROOVED.
3. BENCHES MUST BE PROVIDED IN ALL STORM MANHOLES.
4. USE JOHN BOUCHARD & SON'S CO. 1150, OR APPROVED EQUAL.
5. CASTINGS SHALL BE FURNISHED WITH MANUFACTURERS' STANDARD ASPHALT COATING.
6. GRATE AND STRUCTURE MUST MEET HEAVY DUTY TRAFFIC RATING (H20).
7. CONCRETE = MIN. 4000 PSI AT 28 DAYS.
8. REINFORCEMENT = MIN. 0.14 SQ. IN./SQ. FT., GRADE 60 BARS.
9. VERTICAL MANHOLE STEPS SHALL BE CONSISTENTLY SPACED AND SHALL COMPLY WITH OSHA (SUBPART D) "FIXED LADDERS" (SECTION 1910-27) AND/OR ASTM C-478.
10. INSTALL LADDER BAR @ 16" O.C. FRAME AND GRATE SHALL BE STAMPED WITH "NO DUMPING...DRAINS TO RIVER" OR CITY/COUNTY APPROVED EQUAL.

SIEVE ANALYSIS CHART					
CRUSHED STONE ASTM D-448, NUMBER 67		SAND		SELECT NATIVE MATERIAL	
NOMINAL SIZE	% PASSING	NOMINAL SIZE	% PASSING	NOMINAL SIZE	% PASSING
1"	100	1"	100	1"	100
3/4"	90 - 100	#4	60 - 100	#4	40 - 100
3/8"	20 - 55	#200	0 - 5	#200	0 - 50
#4	0 - 10	MAXIMUM P.I. = 5			
#8	0 - 5	MAXIMUM L.L. = 30		MAXIMUM P.I. = 12	



PAVED AREAS



NON-PAVED AREAS

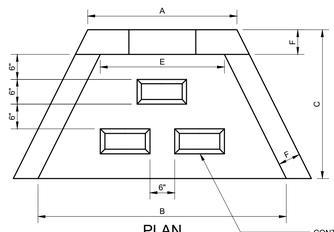
TYPICAL STORM BEDDING
NOT TO SCALE

NOTES:

1. PIPE BEDDING: TDOT CLASS B BEDDING COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: TDOT CLASS B OR CLASS C MATERIAL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
3. TRENCH BACKFILL UTILIZING SELECT COMMON FILL SHALL BE IN ACCORDANCE WITH TDOT SPECIFICATIONS.
4. (*): 15" MAX. FOR PIPE DIAMETER LESS THAN 24", AND 24" MAX. FOR PIPE DIAMETER 24" AND LARGER.
5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
7. SHEETING AND BRACING SHALL BE USED IN ACCORDANCE WITH CURRENT TRENCHING REGULATIONS AND WHERE UNSAFE CONDITIONS EXIST.
8. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH CITY OR TENNESSEE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.

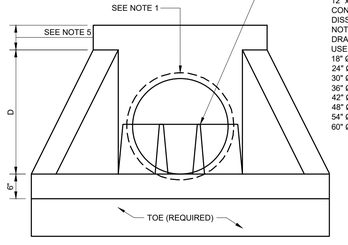
NOTES:

1. CONCRETE: 4000 PSI AT 28 DAYS.
2. REINFORCED WITH NO. 4 BARS 10" C/C EACH WAY WITH WINGS AND TOE SLAB DOWELED TO HEADWALL WITH NO. 5 BARS.
3. 3/4" CHAMFER ON ALL EXPOSED EDGES.
4. CONTRACTOR TO PLACE ANY ADDITIONAL FILL MATERIAL NEEDED TO BRING FINISHED GRADE TO WITHIN 0" - 2" OF THE TOP OF THE HEADWALL.
5. 0" FOR AW HEADWALL
   6" FOR BW & CW HEADWALL
   6" TO 27" FOR DW HEADWALL

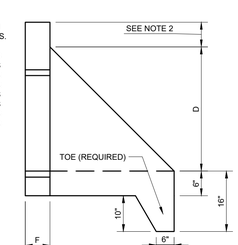


PLAN

TABLE OF DIMENSIONS				
PIPE SIZE	AW 12"-15"-18"	BW 24"	CW 30"-36"-42"	DW 48"-54"-60"
A	32"	48"	80"	97.25"
B	48"	72"	102"	120"
C	30"	44"	54"	56"
D	26"	36"	54"	60"
E	24"	36"	64"	83"
F	6"	8"	8"	8"
MAX. OPENING	26"	32"	55"	78"
WT / LB	1.380	3.100	8.100	11.400



FRONT ELEVATION



SIDE ELEVATION

CONCRETE HEADWALL
NOT TO SCALE

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JASON C. MOREIN
REGISTERED ENGINEER
AGRICULTURE
No. 109605
STATE OF TENNESSEE
05/16/2026

SITE DEVELOPMENT PLANS FOR:
MORNING POINTE
RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401

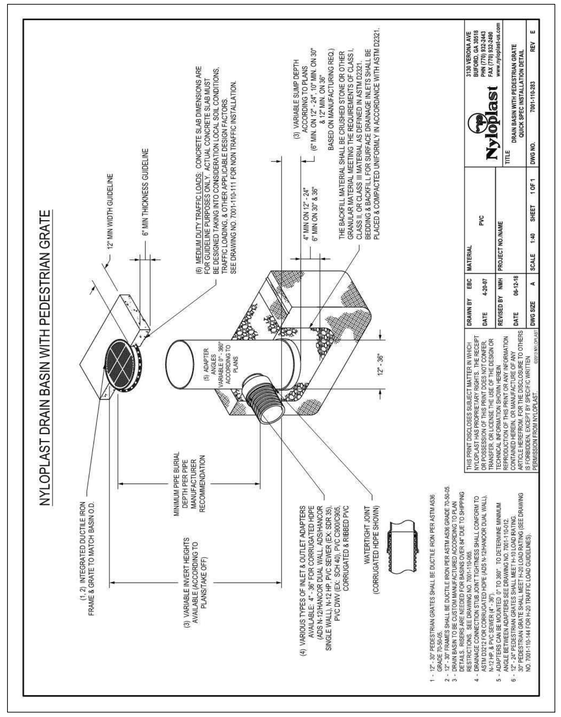
DR.	DATE	DESCRIPTION
JEL	04/20/2026	FINAL PUD MASTER PLAN
JEL	05/16/2026	FINAL PUD MASTER PLAN RE-SUBMITTAL

SITE DETAILS

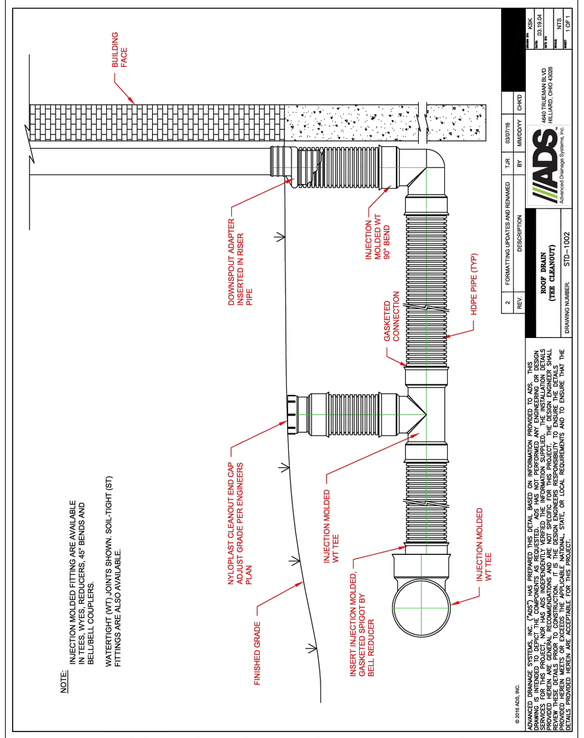
C4.2

1421-01 MORNING POINTE

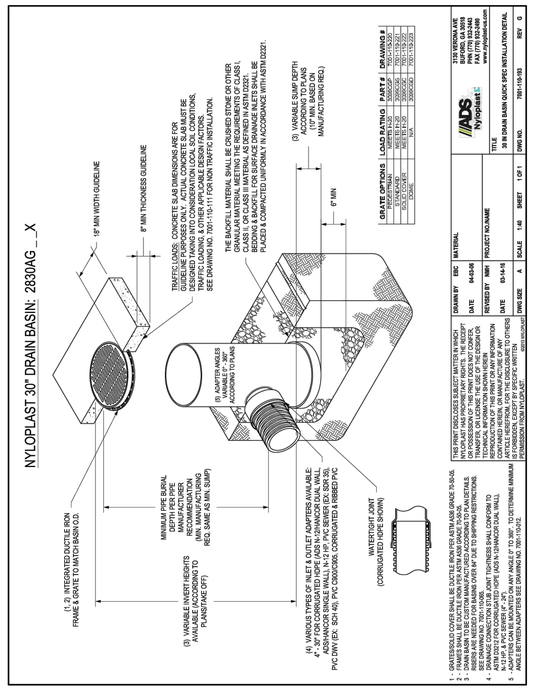
Modified: May 16, 2026
Z:\1421 Morning Pointe\01 - Columbia\02 - Civil\Sheets\1421-01 Site Details.dwg



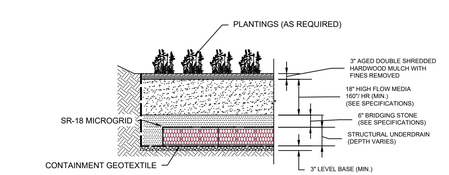
NYLOPLAST YARD DRAIN (NON-PAVED AREAS)
NOT TO SCALE



FOCAL POINT OVERFLOW STRUCTURES
NOT TO SCALE



FOCAL POINT OVERFLOW STRUCTURES
NOT TO SCALE



FOCAL POINT CROSS SECTION
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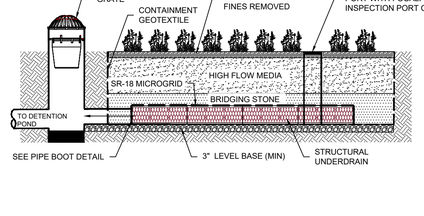
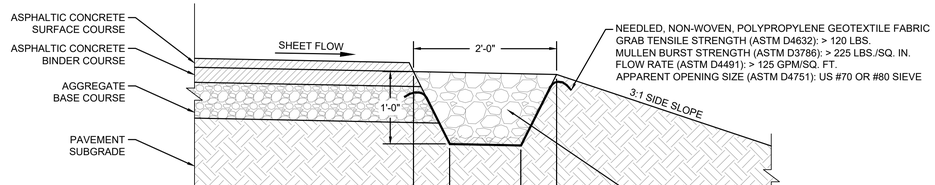
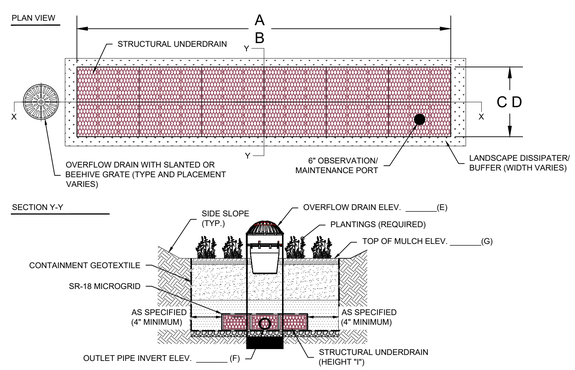


FOCAL POINT SECTION X-X
NOT TO SCALE



GRAVEL DIAPHRAGM
NOT TO SCALE

		FOCALPOINT HPMBS CONSTRUCTION GUIDE									
		MODULE 1	MODULE 2	MODULE 3	MODULE 4	MODULE 5	MODULE 6	MODULE 7	MODULE 8	MODULE 9	MODULE 10
A	FOCALPOINT LENGTH	VARIES (MAX. ~39')	VARIES (MAX. ~39')	VARIES (MAX. ~39')	VARIES (MAX. ~39')	VARIES (MAX. ~39')	VARIES (MAX. ~39')	VARIES (MAX. ~39')	VARIES (MAX. ~39')	VARIES (MAX. ~39')	VARIES (MAX. ~39')
B	# UNDERDRAIN LONG	VARIES (MAX. 15)	VARIES (MAX. 15)	VARIES (MAX. 15)	VARIES (MAX. 15)	VARIES (MAX. 15)	VARIES (MAX. 15)	VARIES (MAX. 15)	VARIES (MAX. 15)	VARIES (MAX. 15)	VARIES (MAX. 15)
C	FOCALPOINT WIDTH	VARIES (MAX. ~17')	VARIES (MAX. ~17')	VARIES (MAX. ~17')	VARIES (MAX. ~17')	VARIES (MAX. ~17')	VARIES (MAX. ~17')	VARIES (MAX. ~17')	VARIES (MAX. ~17')	VARIES (MAX. ~17')	VARIES (MAX. ~17')
D	# UNDERDRAIN WIDE	VARIES (MAX. 12)	VARIES (MAX. 12)	VARIES (MAX. 12)	VARIES (MAX. 12)	VARIES (MAX. 12)	VARIES (MAX. 12)	VARIES (MAX. 12)	VARIES (MAX. 12)	VARIES (MAX. 12)	VARIES (MAX. 12)
E	OVERFLOW ELEVATION	563.5	563.5	563.5	563.5	563.5	563.5	563.5	563.5	563.5	563.5
F	OUTLET PIPE INVERT ELEV.	560.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0
G	TOP OF MULCH	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0
H	TOP OF GABION (OPTIONAL)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
I	UNDERDRAIN HEIGHT	9.45"	9.45"	9.45"	9.45"	9.45"	9.45"	9.45"	9.45"	9.45"	9.45"



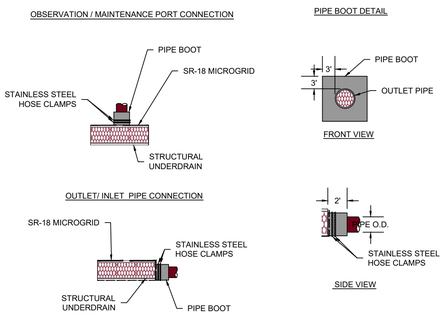
FOCALPOINT HPMBS PERFORMANCE SPECIFICATION:

HIGH PERFORMANCE MEDIA
- HIGH PERFORMANCE MEDIA MUST MEET A MINIMUM OF 160" PER HOUR INFILTRATION RATE.
- HIGH PERFORMANCE MEDIA MUST BE NJDEP CERTIFIED FOR 80% TSS.

HIGH PERFORMANCE STRUCTURAL UNDERDRAIN
- MUST HAVE A MINIMUM OF 19 SQUARE INCHES OF ORIFICE OPENING PER SQUARE FOOT.
- MUST MEET HS-20 LOADING REQUIREMENTS.
- MUST BE MODULAR IN NATURE AND ASSEMBLED ON SITE.
- MUST HAVE MINIMUM 90% INTERIOR VOID SPACE.

PLANT COMPONENT
- SUPPLIER SHALL PROVIDE LIST OF ACCEPTABLE PLANTS.
- IF PLANTS ARE NOT INCLUDED IN THE LANDSCAPE CONTRACT/PLANS, SITE CONTRACTOR SHALL PROVIDE PLANTS.
- PLANTS SHALL BE INSTALLED AT THE TIME THE SYSTEM IS COMMISSIONED FOR USE. PLANTING OUTSIDE THIS TIME REQUIRES APPROVAL BY THE ENGINEER/LANDSCAPE ARCHITECT OF RECORD.
- SEE FOCALPOINT INSTALLATION GUIDE FOR PLANT SPACING. PLANTING PROCEDURES ETC.

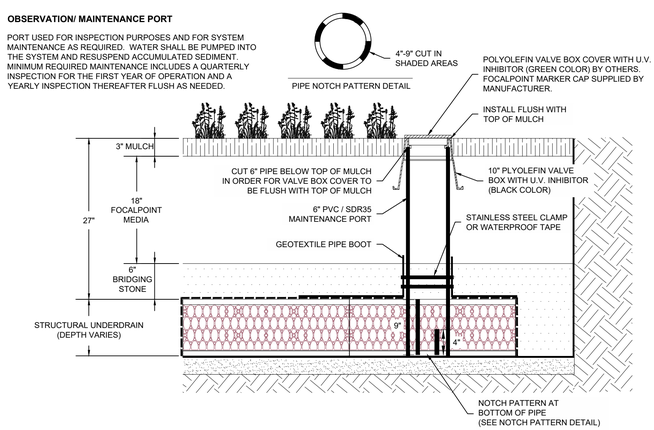
FOCAL POINT CONSTRUCTION GUIDE
NOT TO SCALE



FOCAL POINT PIPE CONNECTIONS
NOT TO SCALE

OBSERVATION/ MAINTENANCE PORT

PORT USED FOR INSPECTION PURPOSES AND FOR SYSTEM MAINTENANCE AS REQUIRED. WATER SHALL BE PUMPED INTO THE SYSTEM AND RESUSPEND ACCUMULATED SEDIMENT. MINIMUM REQUIRED MAINTENANCE INCLUDES A QUARTERLY INSPECTION FOR THE FIRST YEAR OF OPERATION AND A YEARLY INSPECTION THEREAFTER FLUSH AS NEEDED.



FOCAL POINT OBSERVATION PORT CONNECTION
NOT TO SCALE

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NASHVILLE, TENNESSEE 37215
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JASON C. MORELLI — REGISTERED LANDSCAPE ARCHITECT — AGREE/DISAGREE — 109605 — STATE OF TENNESSEE

SITE DEVELOPMENT PLANS FOR:
MORNING POINTE
RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401

DR.	DATE	DESCRIPTION
JEL	04/20/2026	FINAL PUD MASTER PLAN
JEL	05/18/2026	FINAL PUD MASTER PLAN RE-SUBMITTAL

SITE DETAILS

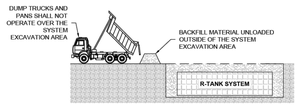
C4.3

1421-01 MORNING POINTE

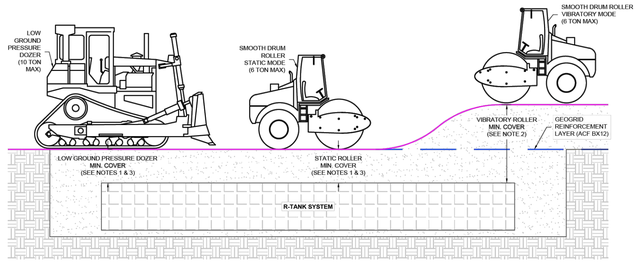
Monday, May 18, 2026
L:\21 Projects\1421-01 - Columbia\02 - Civil\Sheets\1421-01 Site Details.dwg

R-TANK CONSTRUCTION EQUIPMENT RECOMMENDATIONS				
UNIT TYPE	COMPRESSION STRENGTH	10 TON LOW GROUND PRESSURE DOZER MIN. COVER	6 TON SMOOTH DRUM STATIC ROLLER MIN. COVER	6 TON SMOOTH DRUM VIBRATORY ROLLER MIN. COVER
HD	33.0 PSI	12" (SEE NOTE 1, 2 & 3)	12" (SEE NOTE 1, 2 & 3)	24" (SEE NOTE 2)
SD	42.0 PSI	12" (SEE NOTE 1, 2 & 3)	12" (SEE NOTE 1, 2 & 3)	24" (SEE NOTE 2)
MD	64.0 PSI	12" (SEE NOTE 1, 2 & 3)	12" (SEE NOTE 1, 2 & 3)	24" (SEE NOTE 2)

NOTES:
1. FOLLOWING PLACEMENT OF SIDE BACKFILL, A UNIFORM 12" LIFT OF THE FREELY DRAINING MATERIAL (SPEC SECTION 2.03 B1) SHALL BE PLACED OVER THE R-TANK AND LIGHTLY COMPACTED USING A WALK-BEHIND TRENCH ROLLER. ALTERNATELY, A ROLLER (MAXIMUM GROSS VEHICLE WEIGHT OF 6 TONS) MAY BE USED. ROLLER MUST REMAIN IN STATIC MODE UNTIL A MINIMUM OF 24" OF COVER HAS BEEN PLACED OVER THE MODULES. SHEEP FOOT ROLLERS SHOULD NOT BE USED. **SPEC SECTION 3.05 A5**
2. AFTER THE GEOGRID IS INSTALLED OVER THE INITIAL LAYER, THE GRADED AGGREGATE BASE MATERIALS CAN BE PUSHED OUT (MAX MACHINE SIZE IS 10 TON LGP DOZER OR SMALLER) IN A SINGLE LIFT AND STATIC ROLLED BY A MACHINE WITH A MAX GROSS VEHICLE WEIGHT OF 6 TONS. ROLLER MUST REMAIN IN STATIC MODE UNTIL A MINIMUM OF 24" OF COVER HAS BEEN PLACED OVER THE MODULES. SHEEP FOOT ROLLERS SHOULD NOT BE USED. SPEC SECTION 3.05 A5
2. ONLY LOW PRESSURE TIRE OR TRACK VEHICLES (LESS THAN 7 PSI AND OPERATING WEIGHT OF LESS THAN 20,000 LBS) SHALL BE OPERATED OVER THE R-TANK SYSTEM DURING CONSTRUCTION. **SPEC SECTION 3.05 A5**
3. DUMP TRUCKS AND PANS SHALL NOT BE OPERATED WITHIN THE R-TANK SYSTEM AT ANY TIME. WHERE NECESSARY, THE HEAVY EQUIPMENT SHOULD UNLOAD IN AN AREA ADJACENT TO THE R-TANK SYSTEM AND THE MATERIAL SHOULD BE MOVED OVER THE SYSTEM WITH TRACKED EQUIPMENT. **SPEC SECTION 3.05 A5**
4. ENSURE THAT ALL UNRELATED CONSTRUCTION TRAFFIC IS KEPT AWAY FROM THE LIMITS OF EXCAVATION UNTIL THE PROJECT IS COMPLETE AND FINAL SURFACE MATERIALS ARE IN PLACE. NO NON-INSTALLATION RELATED LOADING SHOULD BE ALLOWED OVER THE R-TANK SYSTEM UNTIL THE FINAL DESIGN SECTION HAS BEEN CONSTRUCTED (INCLUDING PAVEMENT). **SPEC SECTION 3.05 B**
5. SEE R-TANK INSTALLATION GUIDE OR CONTACT YOUR LOCAL FERGUSON REPRESENTATIVE FOR ADDITIONAL INFORMATION.



DUMP TRUCK DETAIL



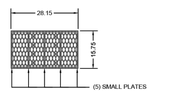
FERGUSON WATERWORKS
FOR ADDITIONAL INFORMATION PLEASE VISIT: www.fergusongss.com

R-TANK$^{HD, SD, MD}$ CONSTRUCTION EQUIPMENT (TRAFFIC) DETAIL

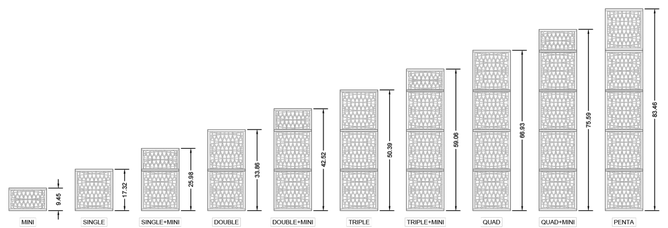
DRAWN BY	JKD
DATE	5/27/2025
SHEET NO.	1 of 1

R-TANK HD UNIT INFORMATION					
UNIT TYPE	WIDTH	LENGTH	HEIGHT	STORAGE VOLUME	WEIGHT
MINI	15.75"	28.15"	9.45"	2.30 CF	10.90 LBS.
SINGLE	15.75"	28.15"	17.32"	4.22 CF	17.30 LBS.
SINGLE+MINI	15.75"	28.15"	25.98"	6.33 CF	25.90 LBS.
DOUBLE	15.75"	28.15"	33.86"	8.25 CF	32.30 LBS.
DOUBLE+MINI	15.75"	28.15"	42.52"	10.36 CF	41.00 LBS.
TRIPLE	15.75"	28.15"	50.39"	12.28 CF	47.40 LBS.
TRIPLE+MINI	15.75"	28.15"	59.06"	14.39 CF	56.00 LBS.
QUAD	15.75"	28.15"	66.93"	16.31 CF	62.40 LBS.
QUAD+MINI	15.75"	28.15"	75.59"	18.42 CF	63.80 LBS.
PENTA	15.75"	28.15"	83.46"	20.34 CF	69.30 LBS.

NOTES:
1. R-TANK HD HAS AN INTERNAL VOID SPACE OF 95% AND A SURFACE AREA VOID OF 90%.
2. R-TANK HD HAS A MAXIMUM COMPRESSION STRENGTH OF 33.4 PSI, (MODULE ONLY).
3. R-TANK HD IS MADE FROM 100% RECYCLED POLYPROPYLENE.
4. R-TANK HD IS COMPRISED OF 5 SMALL WALLS PER UNITS.



TOP VIEW



FERGUSON WATERWORKS
FOR ADDITIONAL INFORMATION PLEASE VISIT: www.fergusongss.com

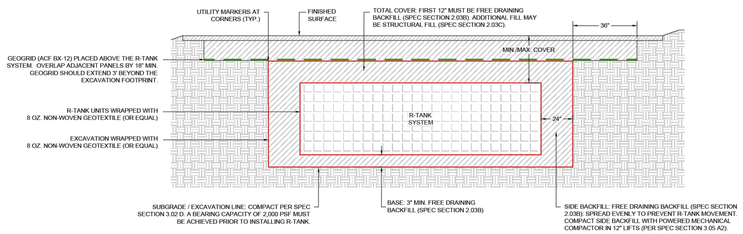
R-TANK^{HD} MODULE DETAIL

DRAWN BY	JKD
DATE	8/29/2024
SHEET NO.	1 of 1

NOTES:
1. INSTALLATIONS PER THIS DETAIL MEET GUIDELINES OF HL-93 LOADING PER THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.
2. FOR INFILTRATION APPLICATIONS, UNCOMPACTED FREE DRAINING BACKFILL (SPEC SECTION 2.03A) TO PROVIDE A LEVEL BASE. SURFACE MUST BE SMOOTH, FREE OF LUMPS OR DEBRIS, AND EXTEND 2' BEYOND R-TANK FOOTPRINT. THE ENGINEER OF RECORD IS RESPONSIBLE FOR ASSESSING THE BEARING CAPACITY OF THE SUBGRADE, AND BASE.
3. FOR INSTALLATIONS IN LANDSCAPED AREAS, THE INSTALLATION OF TREES IS PROHIBITED ABOVE THE R-TANK UNITS. PLEASE CONTACT YOUR LOCAL FERGUSON WATERWORKS REPRESENTATIVE FOR MORE INFORMATION.
4. THE R-TANK SYSTEM IS NOT DESIGNED TO SUPPORT LOADS FROM BUILDINGS OR STRUCTURES. THEREFORE, THE ENGINEER OF RECORD MUST COORDINATE WITH THE PROPER DISCIPLINES TO ENSURE NO STRUCTURAL LOADS ARE IMPARTED UPON THE SYSTEM AND ANY INFILTRATION FROM THE SYSTEM HAS BEEN ACCOUNTED FOR IN THE FOUNDATION DESIGN.

R-TANK UNIT LOAD RATING				
UNIT TYPE	COMPRESSION STRENGTH	HS-20 MIN. COVER*	HS-25 MIN. COVER*	MAX. COVER*
HD	33.0 PSI	20"	24"	6.99'
SD	42.0 PSI	18"	21"	9.99'
MD	64.0 PSI	15"	18"	9.99'
UD	134.0 PSI	12"	15"	6.99'

* MINIMUM AND MAXIMUM COVER ARE MEASURED FROM THE TOP OF THE R-TANK UNIT TO THE TOP OF THE FINISHED SURFACE.



FERGUSON WATERWORKS
FOR ADDITIONAL INFORMATION PLEASE VISIT: www.fergusongss.com

R-TANK$^{HD, SD, MD, UD}$ VEHICULAR LOAD (HS-20 / HS-25) SECTION DETAIL

DRAWN BY	JKS
DATE	5/27/2025
SHEET NO.	1 of 1

FULMER LUCAS
2002 RICHARD JONES RD - SUITE B200
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INFO@FULMERLUCAS.COM - (615) 345-3770

JASON C. MOREIN — REGISTERED ENGINEER — AGRICULTURE — No. 109855 — STATE OF TENNESSEE

SITE DEVELOPMENT PLANS FOR:
MORNING POINTE
RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401

DR.	DATE	DESCRIPTION
JEL	04/20/2026	FINAL PUD MASTER PLAN
JEL	06/18/2026	FINAL PUD MASTER PLAN RE-SUBMITTAL

SITE DETAILS

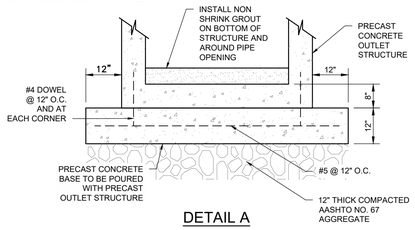
C4.4

1421-01 MORNING POINTE

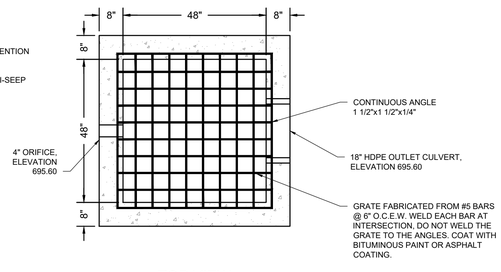
Monday, May 18, 2026
12:12:23 PM CDT
N:\1421 Morning Pointe\01 - Columbia\02 - Civil\Sheets\1421-01 Site Details.dwg

NOTES:

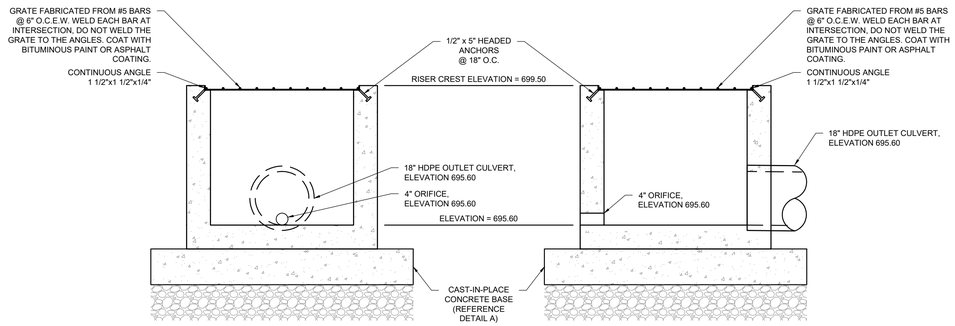
1. ALL CONCRETE SHALL BE CLASS A CONCRETE, 4000 PSI, 5% AIR ENTRAINED.
2. INLET JOINTS TO BE SEALED WITH 1" DIAMETER FLEXIBLE BUTYL RUBBER JOINT SEALANT, USE 1/2" DIAMETER FOR FRAME AND GRATE.
3. LIFTING HOLES TO BE POINTED WITH NON-SHRINK GROUT, AND LEFT WATERTIGHT, NEAT AND SMOOTH.
4. COAT WITH BITUMINOUS PAINT OR ASPHALT COATING.
5. CONTRACTOR SHALL REFER TO DETENTION POND BERM WITH OUTLET STRUCTURE DETAIL ON THIS SHEET FOR DETAILS OF DETENTION POND BERM.
6. CONTRACTOR SHALL REFER TO DETENTION POND OUTLET STRUCTURE TRASH RACK DETAIL, COMPACTION KEY DETAIL AND ANTI-SEEP COLLAR DETAIL FOR DETAILS OF THESE ITEMS ON THIS SHEET.



DETAIL A



TOP VIEW



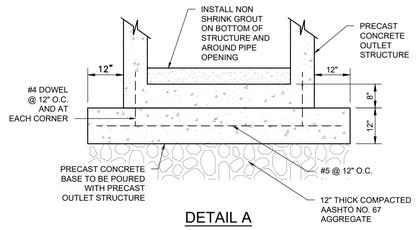
SIDE VIEW FRONT VIEW

DETENTION AREA #1 OUTLET STRUCTURE

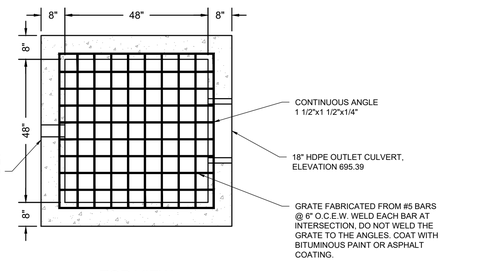
NOT TO SCALE

NOTES:

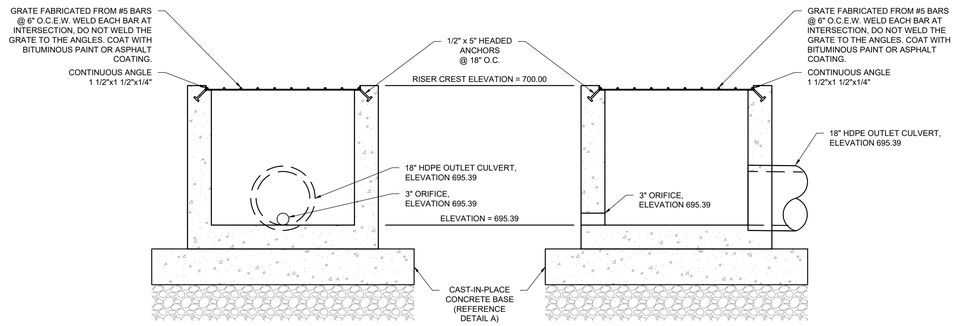
1. ALL CONCRETE SHALL BE CLASS A CONCRETE, 4000 PSI, 5% AIR ENTRAINED.
2. INLET JOINTS TO BE SEALED WITH 1" DIAMETER FLEXIBLE BUTYL RUBBER JOINT SEALANT, USE 1/2" DIAMETER FOR FRAME AND GRATE.
3. LIFTING HOLES TO BE POINTED WITH NON-SHRINK GROUT, AND LEFT WATERTIGHT, NEAT AND SMOOTH.
4. COAT WITH BITUMINOUS PAINT OR ASPHALT COATING.
5. CONTRACTOR SHALL REFER TO DETENTION POND BERM WITH OUTLET STRUCTURE DETAIL ON THIS SHEET FOR DETAILS OF DETENTION POND BERM.
6. CONTRACTOR SHALL REFER TO DETENTION POND OUTLET STRUCTURE TRASH RACK DETAIL, COMPACTION KEY DETAIL AND ANTI-SEEP COLLAR DETAIL FOR DETAILS OF THESE ITEMS ON THIS SHEET.



DETAIL A



TOP VIEW



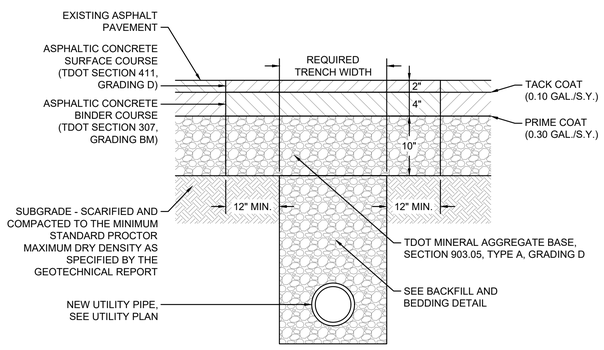
SIDE VIEW FRONT VIEW

DETENTION AREA #2 OUTLET STRUCTURE

NOT TO SCALE

NOTES:

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF SPRING HILL AND TDOT STANDARD SPECIFICATIONS.
2. EDGE OF EXISTING PAVEMENT TO BE TRIMMED A MINIMUM OF 12" BEYOND EACH SIDE OF TRENCH WIDTH TO OBTAIN NEAT LINES. COLD MIX TO BE PLACED AS A TEMPORARY SURFACE WITHIN 48 HOURS OF MAKING ROAD CROSSING.
3. A MINIMUM OF TWO INCHES OF ASPHALTIC CONCRETE BINDER ("B MODIFIED) SHALL BE REQUIRED FOR ALL PAVEMENT REPAIRS. AN ADDITIONAL TWO INCHES SHALL BE PLACED WHEN DIRECTED BY THE CITY OF SPRING HILL.
4. ALL LATERAL STREET CUTS MUST BE COVERED WITH STEEL PLATES OF SUFFICIENT THICKNESS TO SPAN THE CUT WITHOUT NOTICEABLE DEFLECTION. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL ROAD CUT PERMITS PRIOR TO CONSTRUCTION.
5. CONTRACTOR TO REINSTALL ALL STRIPING, PAVEMENT MARKERS, SIGNAL LOOPS, ETC. AFFECTED BY PAVEMENT REPLACEMENT.
6. ROAD SHALL BE REPAIRED PER CITY OF SPRING HILL MAJOR THOROUGHFARE PLAN AND AS DIRECTED BY THE CITY.

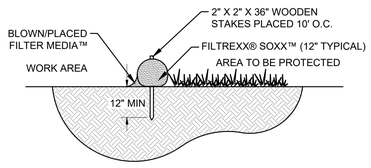


UTILITY TRENCH PAVEMENT REPAIR

NOT TO SCALE

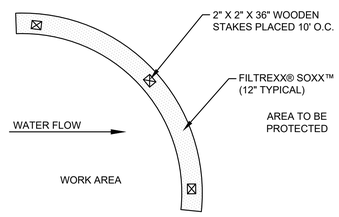
NOTES:

1. ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS.
2. FILTER MEDIA™ FILL TO MEET APPLICATION REQUIREMENTS.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY THE EROSION CONTROL SPECIALIST.
4. FILTER SOCK IS ALLOWED TO BE USED IN ROCKY AREAS IN LIEU OF SILT FENCE.



SECTIONAL VIEW

NOT TO SCALE



PLAN VIEW

NOT TO SCALE

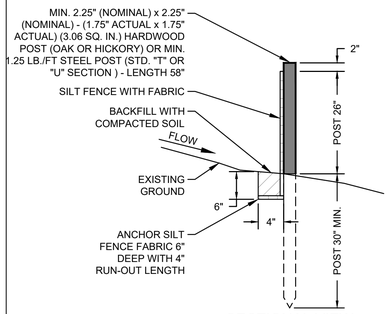
NOTE:
INSTALLATION AND MAINTENANCE SHALL MEET THE REQUIREMENTS OF THE TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK, TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION, LATEST EDITION.

FILTREXX FILTER SOCK

NOT TO SCALE

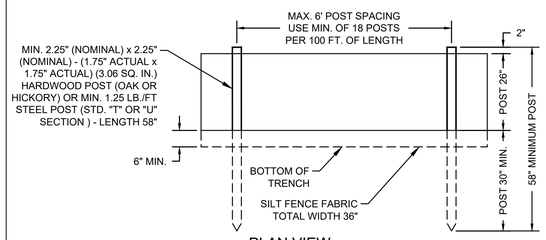
NOTES

1. WHERE WIRE BACKING IS REQUIRED, WIRE SHALL BE A MINIMUM OF 32" IN WIDTH AND SHALL HAVE A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.
2. WHERE WIRE BACKING IS REQUIRED, MIDDLE AND VERTICAL WIRES SHALL BE 12 ½ GAUGE MIN.
3. WHERE WIRE BACKING IS REQUIRED, TOP AND BOTTOM WIRES SHALL BE 10 GAUGE MIN.



SECTIONAL VIEW

NOT TO SCALE



PLAN VIEW

NOT TO SCALE

NOTE:
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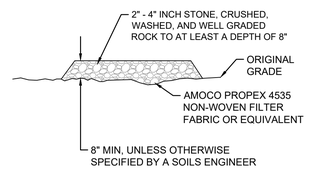
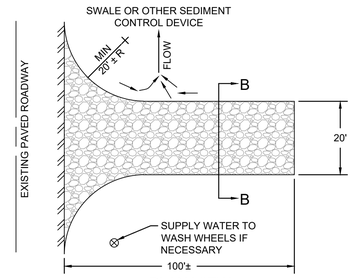
SILT FENCE

NOT TO SCALE



SECTION B-B

NOT TO SCALE



PLAN VIEW

NOT TO SCALE

NOTE:
INSTALLATION AND MAINTENANCE SHALL MEET THE REQUIREMENTS OF THE TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK, TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION, LATEST EDITION.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

FULMER LUCAS
2002 RICHARD JONES RD - SUITE B200
NASHVILLE, TENNESSEE 37215
INFO@FULMERLUCAS.COM - (615) 345-3770

JASON C. MOREIN — REGISTERED ENGINEER — AGRICULTURE — No. 119903 — STATE OF TENNESSEE

SITE DEVELOPMENT PLANS FOR:
MORNING POINTE
RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401

DR.	DATE	DESCRIPTION
JEL	04/20/2026	FINAL PUD MASTER PLAN
JEL	05/18/2026	FINAL PUD MASTER PLAN RE-SUBMITTAL

SITE DETAILS

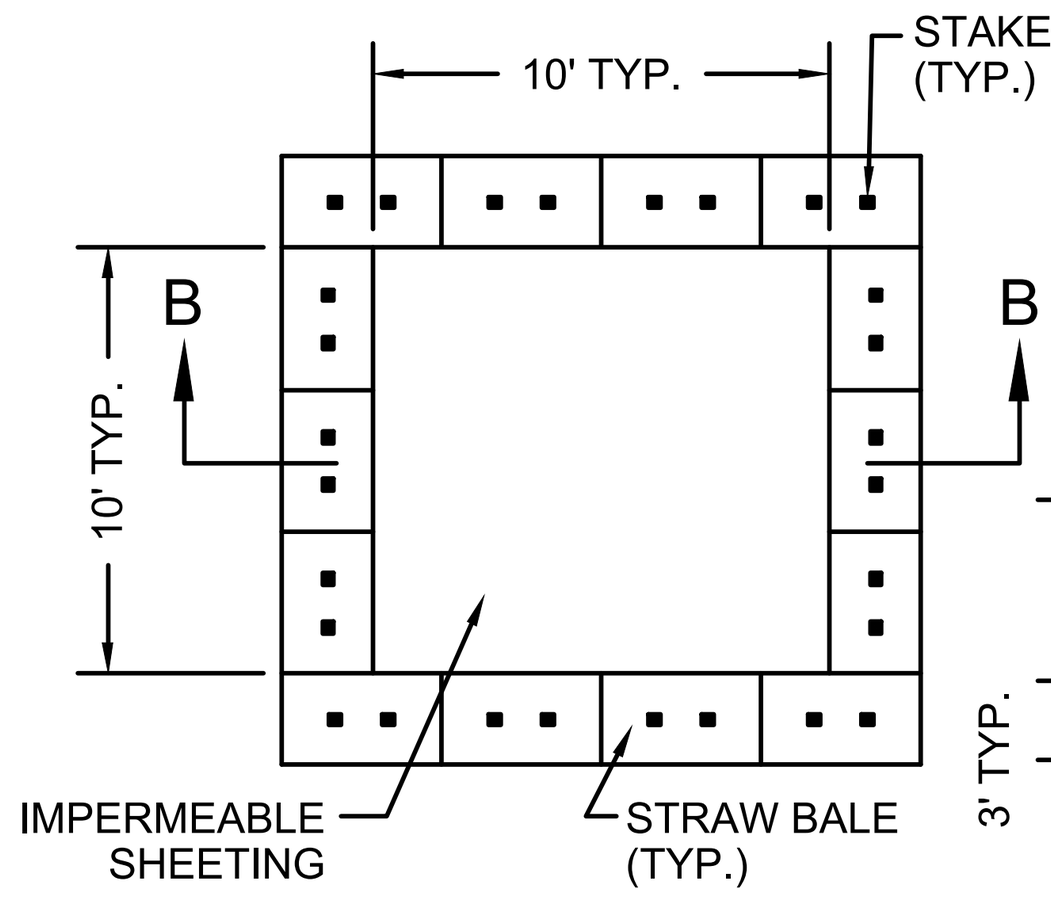
C4.5

1421-01 MORNING POINTE

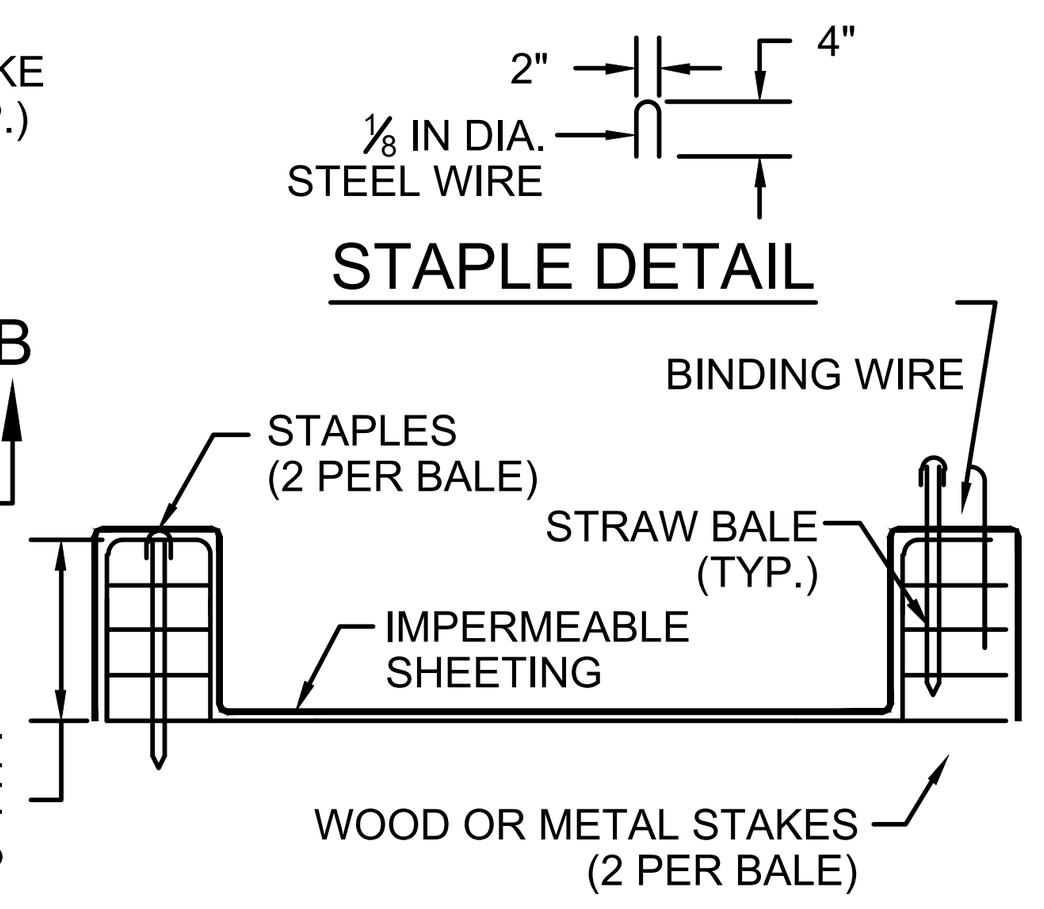
Monday, May 18, 2026
Z:\421 Spring Hill\421-01 - Columbia\02 - Cad\Sheets\1421-01_Site Details.dwg

CONSTRUCTION SPECIFICATIONS

1. LOCATE WASHOUT STRUCTURE A MINIMUM OF 50 FEET AWAY FROM OPEN CHANNELS, STORM DRAIN INLETS, SENSITIVE AREAS, WETLANDS, BUFFERS AND WATER COURSES AND AWAY FROM CONSTRUCTION TRAFFIC.
2. SIZE WASHOUT STRUCTURE FOR VOLUME NECESSARY TO CONTAIN WASH WATER AND SOLIDS AND MAINTAIN AT LEAST 4 INCHES OF FREEBOARD. TYPICAL DIMENSIONS ARE 10 FEET X 10 FEET X 3 FEET DEEP.
3. PREPARE SOIL BASE FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE LINER. FOR LINER, USE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING, FREE OF HOLES AND TEARS OR OTHER DEFECTS THAT COMPROMISE IMPERMEABILITY OF THE MATERIAL.
4. PROVIDE A SIGN FOR THE WASHOUT IN CLOSE PROXIMITY TO THE FACILITY.
5. KEEP CONCRETE WASHOUT STRUCTURE WATER TIGHT. REPLACE IMPERMEABLE LINER IF DAMAGED (E.G., RIPPED OR PUNCTURED). EMPTY OR REPLACE WASHOUT STRUCTURE THAT IS 75 PERCENT FULL, AND DISPOSE OF ACCUMULATED MATERIAL PROPERLY. DO NOT REUSE PLASTIC LINER. WET-VACUUM STORED LIQUIDS THAT HAVE NOT EVAPORATED AND DISPOSE OF IN AN APPROVED MANNER. PRIOR TO FORECASTED RAINSTORMS, REMOVE LIQUIDS OR COVER STRUCTURE TO PREVENT OVERFLOWS. REMOVE HARDENED SOLIDS, WHOLE OR BROKEN UP, FOR DISPOSAL OR RECYCLING. MAINTAIN RUNOFF DIVERSION AROUND EXCAVATED WASHOUT STRUCTURE UNTIL STRUCTURE IS REMOVED.



PLAN



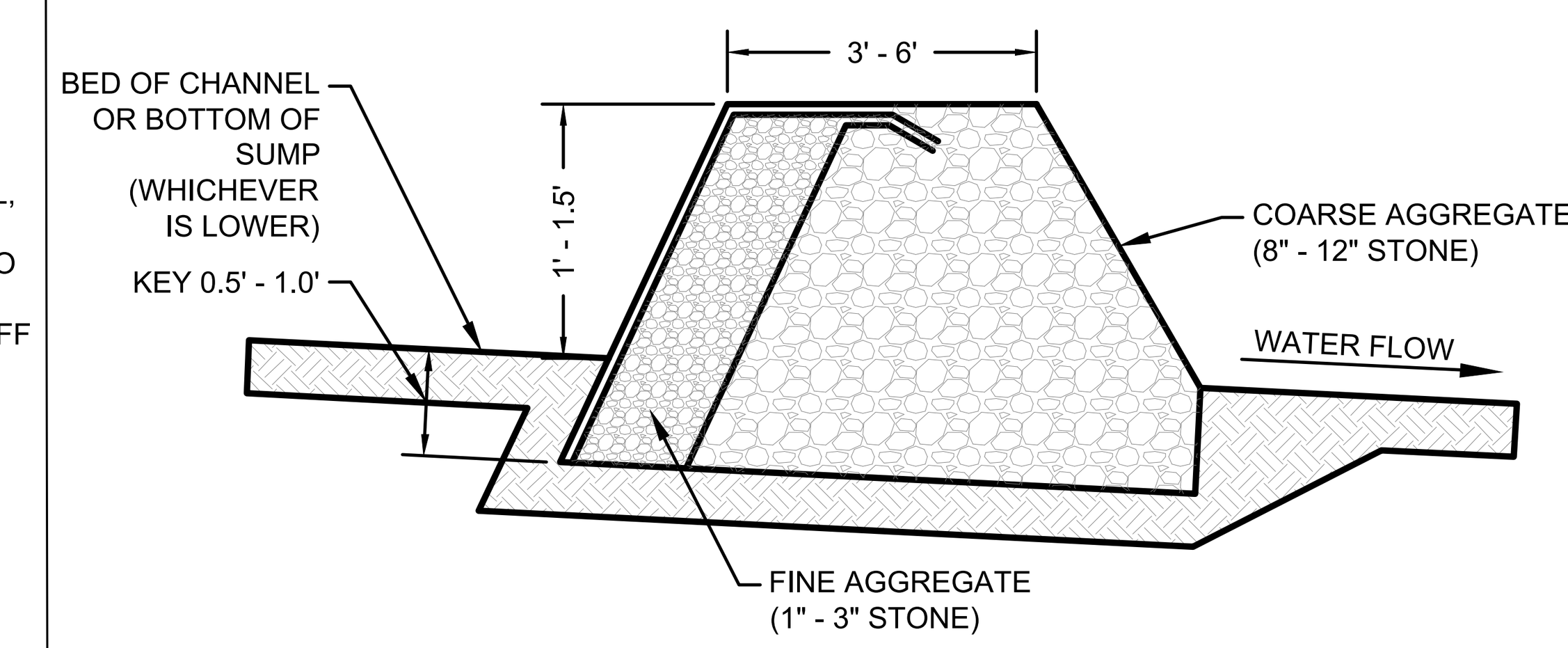
SECTION B-B

NOTE: CAN BE TWO STACKED BALES OR PARTIALLY EXCAVATED TO REACH 3 FT DEPTH.

WASHOUT STRUCTURE WITH STRAW BALES

NOTE:
INSTALLATION AND MAINTENANCE SHALL MEET THE REQUIREMENTS OF THE TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK, TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION, LATEST EDITION.

CONCRETE WASHOUT
NOT TO SCALE



CROSS-SECTION
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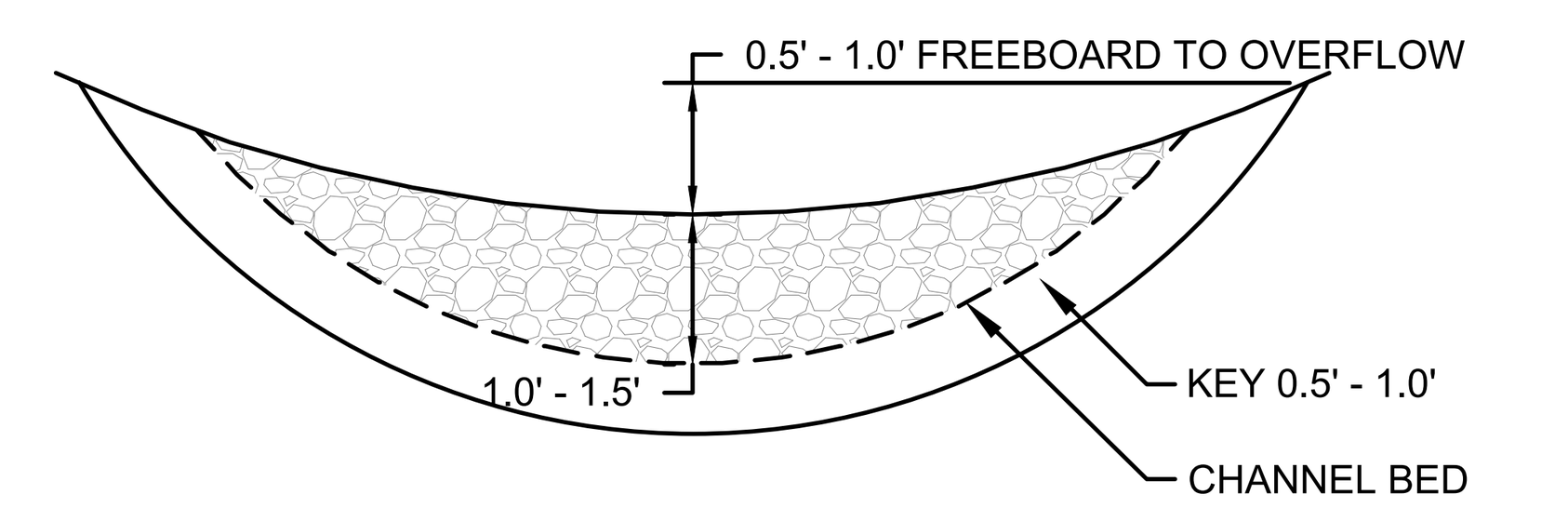


ELEVATION
NOT TO SCALE

NOTE:
INSTALLATION AND MAINTENANCE SHALL MEET THE REQUIREMENTS OF THE TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK, TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION, LATEST EDITION.

TEMPORARY ROCK CHECK DAM
NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

1. ENSURE THAT THE SUBGRADE FOR THE FILTER AND RIPRAP FOLLOWS THE REQUIRED LINES AND GRADES SHOWN IN THE PLAN. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO THE DENSITY OF THE SURROUNDING UNDISTURBED MATERIAL. LOW AREAS IN THE SUBGRADE ON UNDISTURBED SOIL MAY ALSO BE FILLED BY INCREASING THE RIPRAP THICKNESS.
2. THE RIPRAP AND GRAVEL FILTER MUST CONFORM TO THE SPECIFIED GRADING LIMITS SHOWN ON THE PLANS.
3. GEOTEXTILE MUST MEET DESIGN REQUIREMENTS AND BE PROPERLY PROTECTED FROM PUNCHING OR TEARING DURING INSTALLATION. REPAIR ANY DAMAGE BY REMOVING THE RIPRAP AND PLACING ANOTHER PIECE OF FILTER FABRIC OVER THE DAMAGED AREA. ALL CONNECTING JOINTS SHOULD OVERLAP A MINIMUM OF 1 FT. IF THE DAMAGE IS EXTENSIVE, REPLACE THE ENTIRE FILTER FABRIC.
4. RIPRAP MAY BE PLACED BY EQUIPMENT, BUT TAKE CARE TO AVOID DAMAGING THE FILTER FABRIC.
5. THE MINIMUM THICKNESS OF THE RIPRAP SHOULD BE 1.5 TIMES THE MAXIMUM STONE DIAMETER.
6. CONSTRUCT THE APRON ON ZERO GRADE WITH NO OVERFALL AT THE END. MAKE THE TOP OF THE RIPRAP AT THE DOWNSTREAM END LEVEL WITH THE RECEIVING AREA OR SLIGHTLY BELOW IT.
7. ENSURE THAT THE APRON IS PROPERLY ALIGNED WITH THE RECEIVING STREAM AND PREFERABLY STRAIGHT THROUGHOUT ITS LENGTH. IF A CURVE IS NEEDED TO FIT SITE CONDITIONS, PLACE IT IN THE UPPER SECTION OF THE APRON.
8. IMMEDIATELY AFTER CONSTRUCTION, STABILIZE ALL DISTURBED AREAS WITH VEGETATION.
9. STONE QUALITY - SELECT STONE FOR RIPRAP FROM FIELD STONE OR QUARRY STONE. THE STONE SHOULD BE HARD, ANGULAR, AND HIGHLY WEATHER-RESISTANT. THE SPECIFIC GRAVITY OF THE INDIVIDUAL STONES SHOULD BE AT LEAST 2.5.

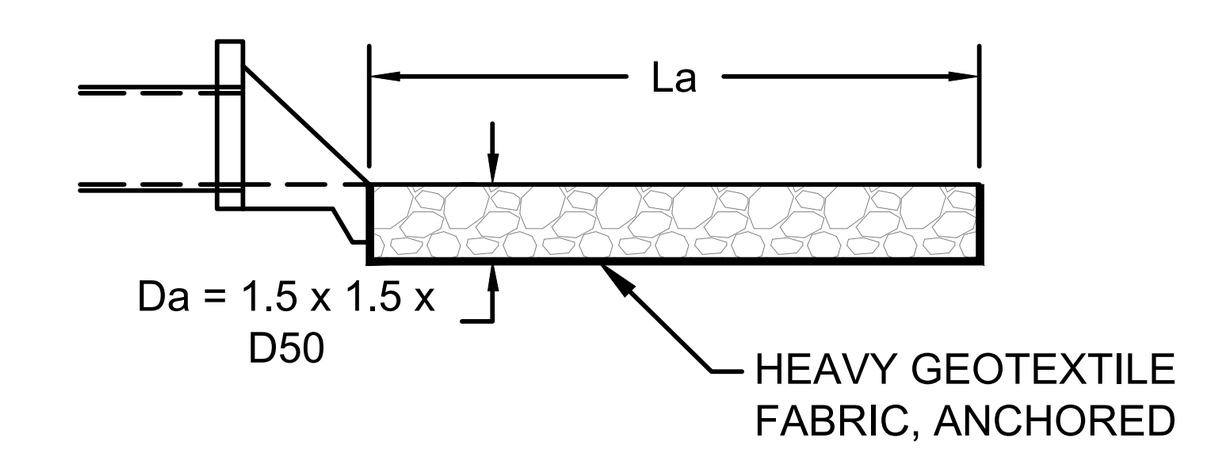
CONSTRUCTION SPECIFICATIONS

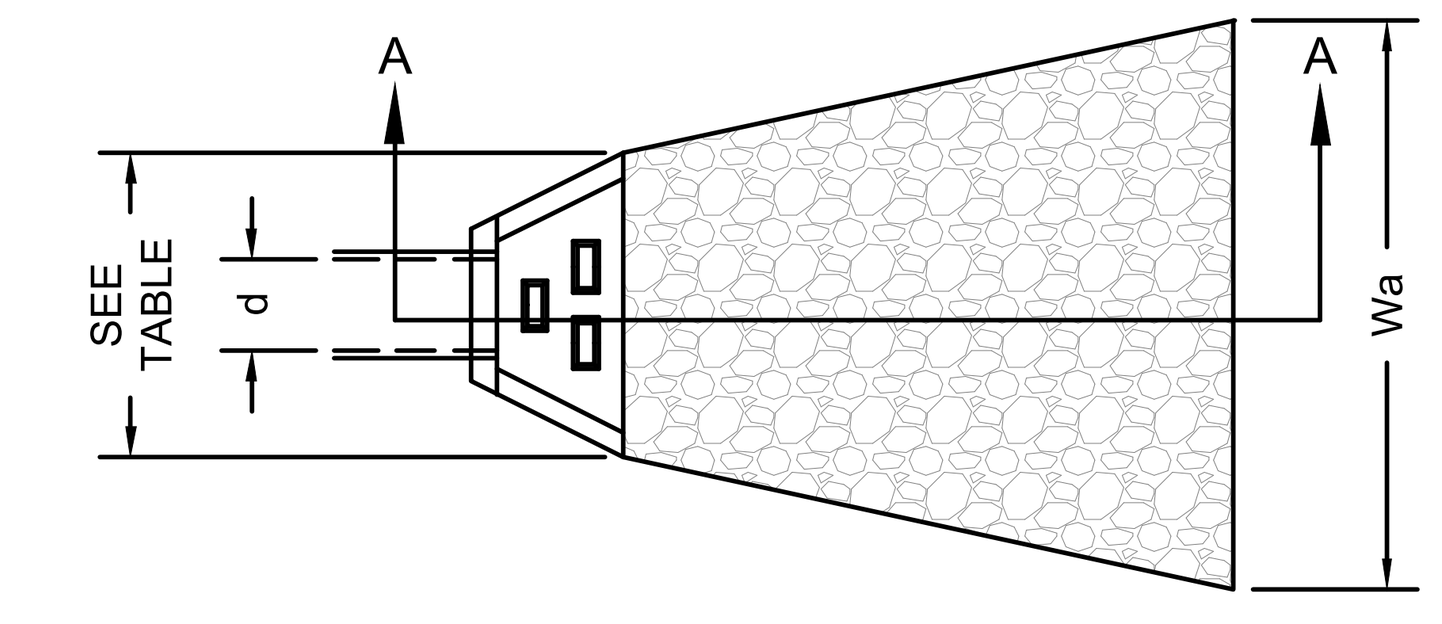
10. FILTER - INSTALL A FILTER TO PREVENT SOIL MOVEMENT THROUGH THE OPENINGS IN THE RIPRAP. THE FILTER SHOULD CONSIST OF A GRADED GRAVEL LAYER OR A SYNTHETIC FILTER CLOTH.

MAINTENANCE
INSPECT RIPRAP OUTLET STRUCTURES AFTER HEAVY RAINS TO SEE IF ANY EROSION AROUND OR BELOW THE RIPRAP HAS TAKEN PLACE OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.

DETAIL NOTES
1. L_a IS THE LENGTH OF THE RIPRAP APRON.
2. D = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6".
3. IF THE PIPE DISCHARGES DIRECTLY INTO A WELL-DEFINED CHANNEL, THE APRON SHOULD EXTEND ACROSS THE CHANNEL BOTTOM AND UP THE CHANNEL BANKS TO AN ELEVATION 1 FOOT ABOVE THE HIGH TAILWATER DEPTH OR TO THE TOP OF THE BANK (WHICHEVER IS LESS) .
4. A FILTER BLANKET OR FILTER FABRIC SHALL BE INSTALLED BETWEEN THE RIPRAP AND SOIL FOUNDATION.

APRON LENGTH AND THICKNESS
THE APRON DIMENSIONS AND d_{50}, STONE MEDIAN SIZE, SHALL BE AS FOLLOWS:

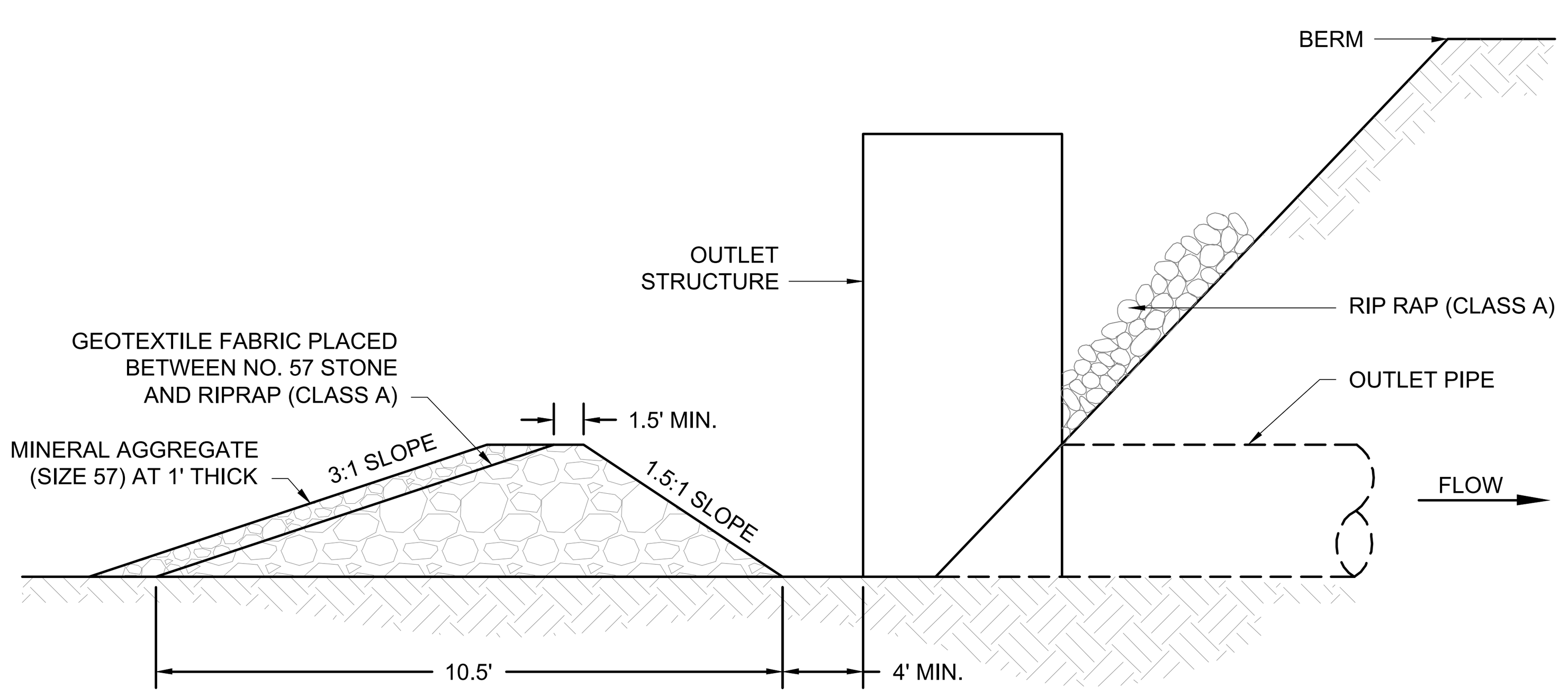




PLAN
PIPE OUTLET TO FLAT AREA

NOTE:
INSTALLATION AND MAINTENANCE SHALL MEET THE REQUIREMENTS OF THE TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK, TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION, LATEST EDITION.

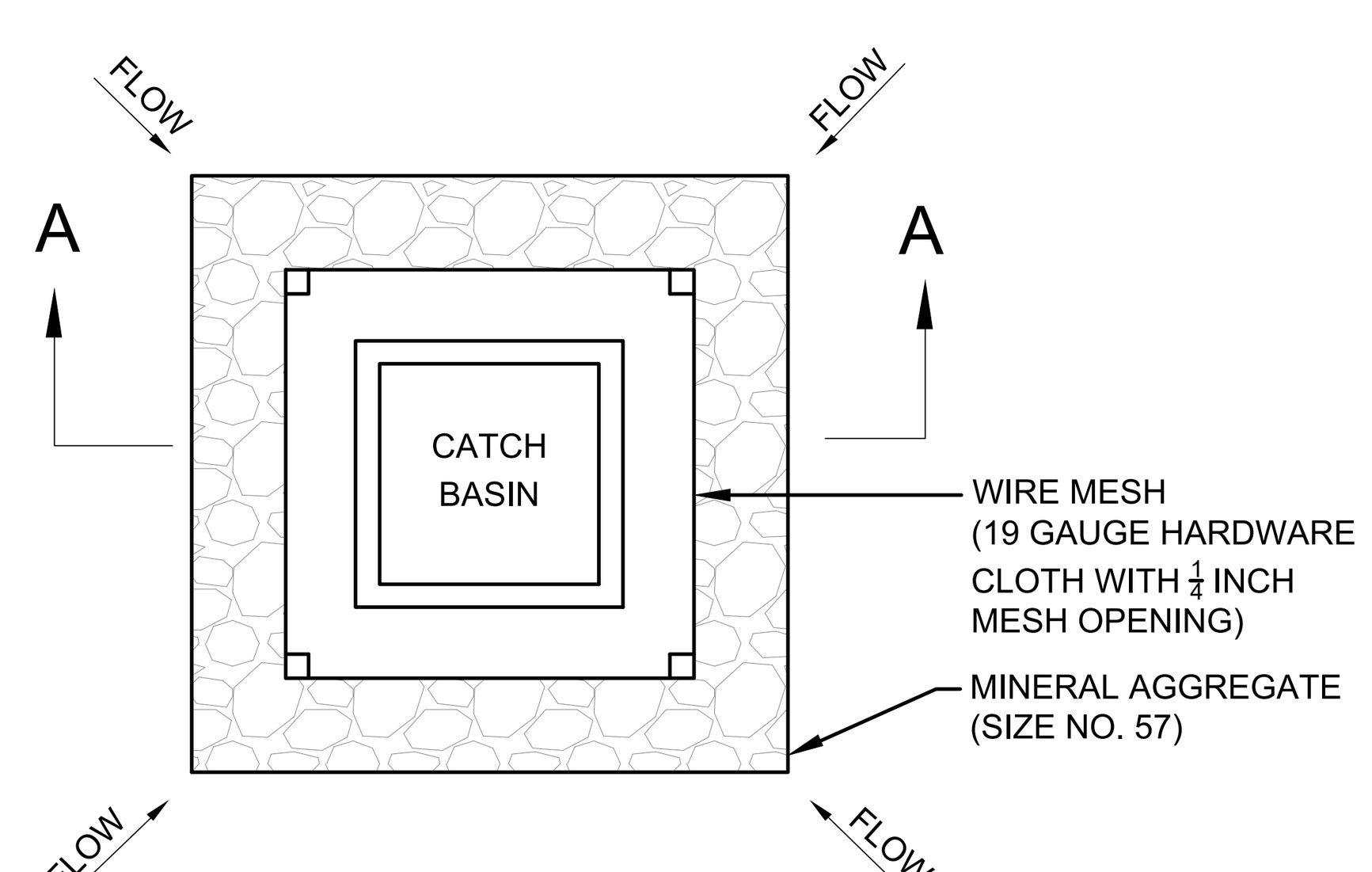
OUTLET PROTECTION
NOT TO SCALE



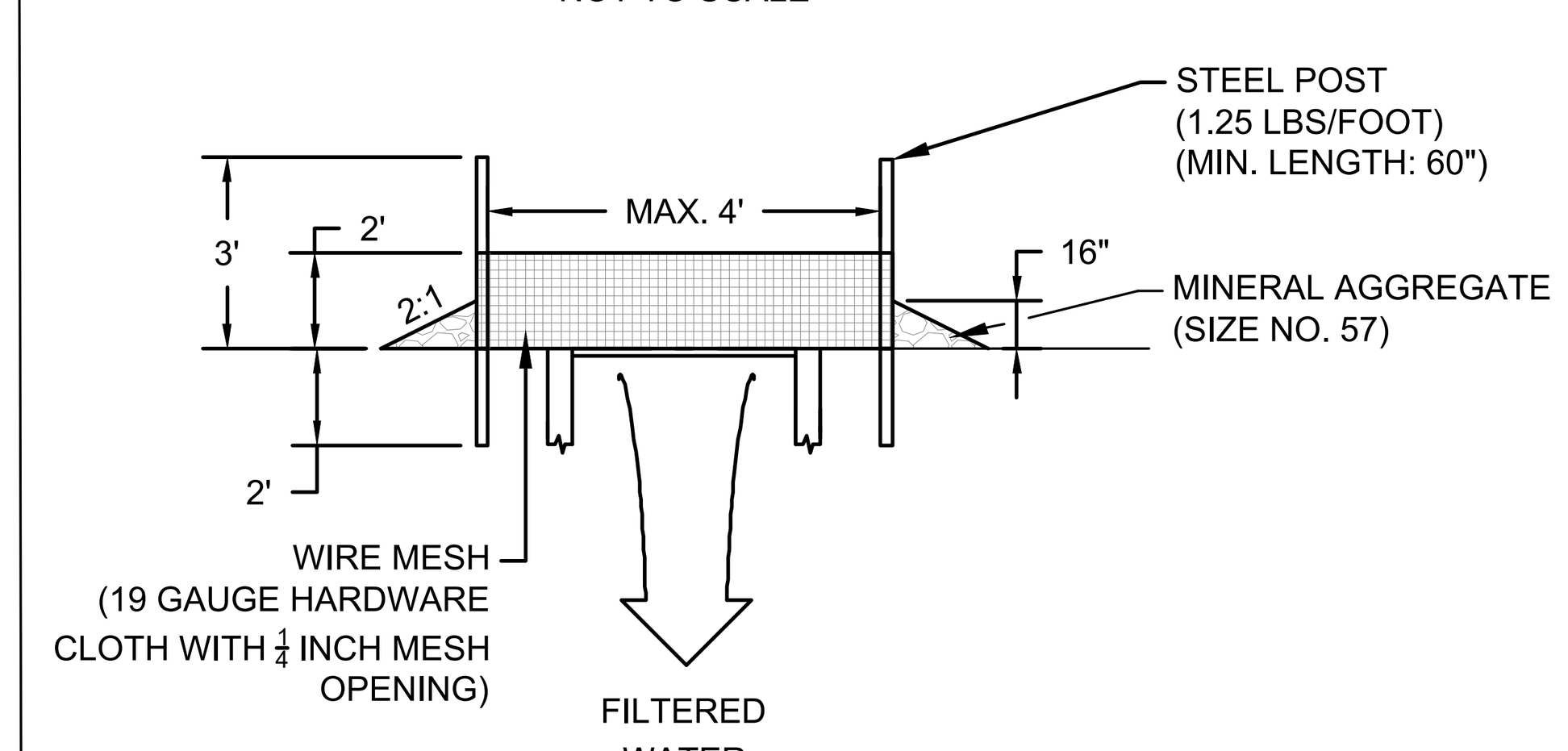
SECTIONAL VIEW

NOTE:
INSTALLATION AND MAINTENANCE SHALL MEET THE REQUIREMENTS OF THE TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK, TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION, LATEST EDITION.

ROCK FILTER RING
NOT TO SCALE



PLAN VIEW
NOT TO SCALE



SECTION A-A
NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

1. UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET.
2. DRIVE 5-FOOT STEEL POSTS 2 FEET INTO THE GROUND SURROUNDING THE INLET. SPACE POSTS EVENLY AROUND THE PERIMETER OF THE INLET, A MAXIMUM OF 4 FEET APART.
3. SURROUND THE POSTS WITH WIRE MESH HARDWARE CLOTH. SECURE THE WIRE MESH TO THE STEEL POSTS AT THE TOP, MIDDLE, AND BOTTOM. PLACING A 2-FOOT FLAP OF THE WIRE MESH UNDER THE GRAVEL FOR ANCHORING IS RECOMMENDED.
4. PLACE CLEAN GRAVEL (#57 STONE) ON A 2:1 SLOPE WITH A HEIGHT OF 16 INCHES AROUND THE WIRE, AND SMOOTH TO AN EVEN GRADE.
5. ONCE THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE ACCUMULATED SEDIMENT, AND ESTABLISH FINAL GRADING ELEVATIONS.
6. COMPACT THE AREA PROPERLY AND STABILIZE IT WITH GROUNDCOVER.

MAINTENANCE AND INSPECTION POINTS

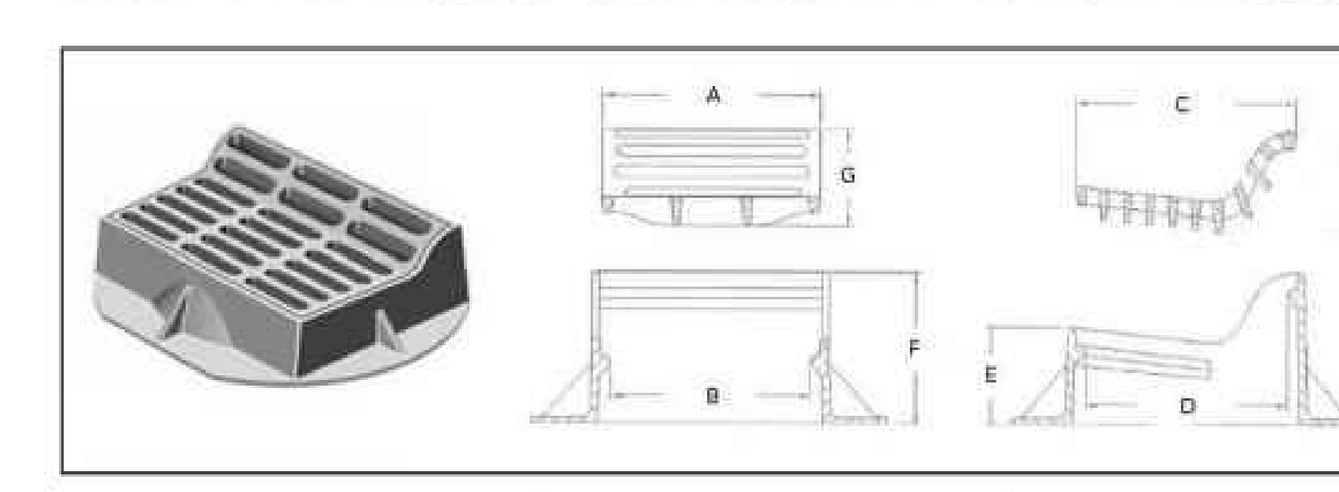
1. SEDIMENT SHOULD NOT BE ALLOWED TO WASH INTO THE INLET. IT SHOULD BE REMOVED FROM THE INLET PROTECTION AND DISPOSED OF AND STABILIZED SO THAT IT WILL NOT ENTER THE INLET AGAIN. REMOVE SEDIMENT FROM THE DEPOSITION AREAS WHEN HALF THE HEIGHT OF THE STORAGE AREA HAS BEEN FILLED.
2. CHECK MEASURE FOR DAMAGE OR EVIDENCE OF EROSION AND BYPASSING AROUND THE INLET PROTECTION. IF INLETS ARE IN SERIES, RUNOFF THAT BYPASSES AN UPGRADIENT INLET CAN OVERWHELM A DOWNGRADIENT INLET PROTECTION DEVICE. SAND BAGS, DIVERSIONS, OR OTHER METHODS SHOULD BE USED TO DIRECT RUNOFF INTO STORM DRAIN INLETS.
3. WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED, ALL MATERIALS AND ANY SEDIMENT SHOULD BE REMOVED, AND EITHER SALVAGED OR DISPOSED OF PROPERLY. THE DISTURBED AREA SHOULD BE BROUGHT TO PROPER GRADE, THEN SMOOTHED AND COMPACTED. APPROPRIATELY STABILIZE ALL DISTURBED AREAS AROUND THE INLET.

NOTE:
INSTALLATION AND MAINTENANCE SHALL MEET THE REQUIREMENTS OF THE TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK, TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION, LATEST EDITION.

INLET PROTECTION (PRE-PAVED AREAS)
NOT TO SCALE

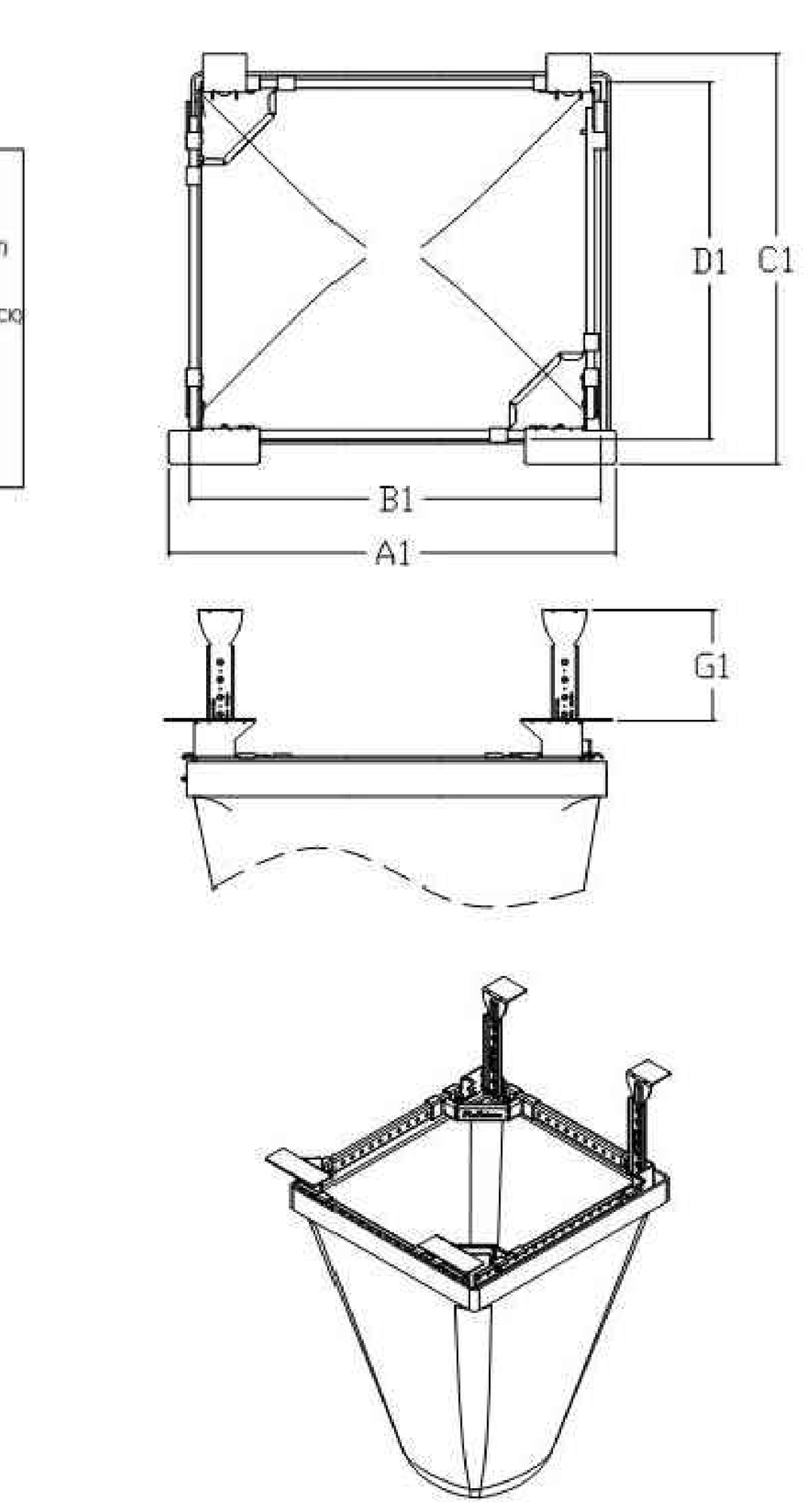
FLEXSTORM P/Ns 62'_'SQFX

INLET TYPE: RAISED CAST IRON FRAME WITH ROLLED CURB GRATE



A: GRATE WIDTH (LEFT TO RIGHT)
B: FRAME CLEAR OPENING WIDTH (LEFT TO RIGHT)
C: GRATE DEPTH (FRONT TO BACK)
D: FRAME CLEAR OPENING DEPTH (FRONT TO BACK)
E: HEIGHT OF CASTING (STREET SIDE)
F: HEIGHT OF CASTING (REAR CURB SIDE)
G: OVERALL GRATE HEIGHT

Catch-It Frame with FX Bag		Field Inlet Dimensions		Flexstorm Framing Dims				Flexstorm Ratings (Flow at 50% max)		
ADS P/N	Flexstorm Item code	Grate Size (A x C)	Clear Opening (B x D)	B1	D1	A1	C1	Bag Capacity (ft³)	FX/FX+ Flow Rate (CFS)	Bypass (CFS)
62MSQFX	P-SQRC-198-180-178-166-FX	19.75 x 18.62	17.75 x 16.62	16.0	15.5	19.5	17.8	1.6	1.3	3.0
62MSQFX	P-SQRC-223-186-203-143-FX	22.25 x 18.62	20.25 x 14.25	18.5	13.5	22.0	18.4	1.6	1.4	3.1
62MSQFX	P-SQRC-225-163-195-150-FX	22.5 x 16.25	19.5 x 15	19.0	14.0	22.5	16.0	1.7	1.4	3.2
62MSQFX	P-SQRC-230-160-215-150-FX	23 X 16	21.5 X 15	19.5	14.0	23.0	15.8	1.7	1.4	3.2
62MSQFX	P-SQRC-223-163-210-160-FX	22.25 x 16.25	21 x 16	18.5	15.0	22.0	16.0	1.8	1.4	3.2
62MSQFX	P-SQRC-243-168-223-148-FX	24.25 x 16.75	22.25 x 14.75	20.5	14.0	24.0	16.5	1.8	1.5	3.3
62MSQFX	P-SQRC-223-186-203-200-FX	22.25 x 18.62	20.25 x 20	18.5	19.0	22.0	18.4	2.2	1.6	3.6
62MSQFX	P-SQRC-223-186-203-200-FX	22.25 x 18.625	20.25 x 20	18.5	19.0	22.0	18.4	2.2	1.6	3.6
62MSQFX	P-SQRC-223-186-203-200-FX	22.25 x 18.625	20.25 x 20	18.5	19.0	22.0	18.4	2.2	1.6	3.6
62MSQFX	P-SQRC-258-188-240-170-FX	25.75 x 18.75	24 x 17	22.0	16.0	25.5	18.5	2.2	1.6	3.7
62MSQFX	P-SQRC-257-190-236-180-FX	25.7 x 19	23.6 x 18	22.0	17.0	25.5	18.8	2.4	1.7	3.8
62MSQFX	P-SQRC-257-190-236-180-FX	25.7 x 19	23.6 x 18	22.0	17.0	25.5	18.8	2.4	1.7	3.8
62MSQFX	P-SQRC-243-233-221-200-FX	24.25 x 23.25	22.125 x 20	20.5	19.0	24.0	23.0	2.5	1.7	3.8
62MSQFX	P-SQRC-243-235-221-200-FX	24.25 x 23.5	22.125 x 20	20.5	19.0	24.0	23.3	2.5	1.7	3.8
62MSQFX	P-SQRC-243-235-221-200-FX	24.25 x 23.5	22.125 x 20	20.5	19.0	24.0	23.3	2.5	1.7	3.8
62MSQFX	P-SQRC-288-173-269-153-FX	28.75 x 17.25	26.9 x 15.3	25.0	14.5	28.5	17.0	2.3	1.7	3.8
62MSQFX	P-SQRC-288-173-269-153-FX	28.75 x 17.25	26.9 x 15.3	25.0	14.5	28.5	17.0	2.3	1.7	3.8
62MSQFX	P-SQRC-228-220-220-203-FX	22.75 x 22	22 x 20.25	19.0	19.5	22.5	21.8	2.4	1.6	3.7
62MSQFX	P-SQRC-223-223-223-200-FX	22.5 x 22.25	22.25 x 20	18.5	19.0	22.0	22.0	2.2	1.6	3.6
62MSQFX	P-SQRC-233-233-213-213-FX	23.25 X 23.25	21.25 X 21.25	19.5	20.5	23.0	23.0	2.5	1.7	3.9
62MSQFX	P-SQRC-261-223-235-195-FX	26.1 x 22.25	23.5 x 19.5	22.5	18.5	26.0	22.0	2.6	1.7	4.0
62MSQFX	P-SQRC-265-225-245-198-FX	26.5 x 22.5	24.5 x 19.75	23.0	19.0	26.5	22.3	2.8	1.8	4.0
62MSQFX	P-SQRC-260-235-260-215-FX	26 x 23.5	26.1 x 21.5	22.5	20.5	26.0	23.3	2.9	1.8	4.1
62MSQFX	P-SQRC-260-235-261-215-FX	26 x 23.5	26.1 x 21.5	22.5	20.5	26.0	23.3	2.9	1.8	4.1
62LSQFX	P-SQRC-281-240-261-220-FX	28.1 x 24	26.1 x 22	24.5	21.0	28.0	23.8	3.3	1.9	4.4
62LSQFX	P-SQRC-250-240-250-240-FX	25 x 24	25 x 24	21.5	23.0	25.0	23.8	3.1	1.9	4.3
62LSQFX	P-SQRC-318-288-298-268-FX	31.75 X 28.75	29.75 X 26.75	28.0	26.0	31.5	28.5	4.6	2.3	5.2



NOTES:

1. RATINGS SHOWN ARE FOR STANDARD 22" BAG DEPTH; "SHORT" 12" DEPTH BAGS ARE AVAILABLE WITH -S SUFFIX; RATINGS REDUCED BY ~50%.

2. THE FOLLOWING REQUIRES ADDITIONAL REVIEW

-GRATES WITH EXTENDED BOTTOMS

-ANY OBSTRUCTED INLET OPENINGS

FLEXSTORM INLET FILTERS
CATCH-IT

ALL PRODUCTS MANUFACTURED BY INLET & PIPE PROTECTION, INC
A DIVISION OF ADS, INC.
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SIZE	FRAME TYPE	DWG NO	REV
C	SQRC	SQRC-62HD-FX	A

SCALE — SHEET 1 OF 1

INLET PROTECTION (POST-PAVED AREAS)
NOT TO SCALE

FULMER LUCAS
2002 RICHARD JONES RD - SUITE B200
NASHVILLE, TENNESSEE 37215
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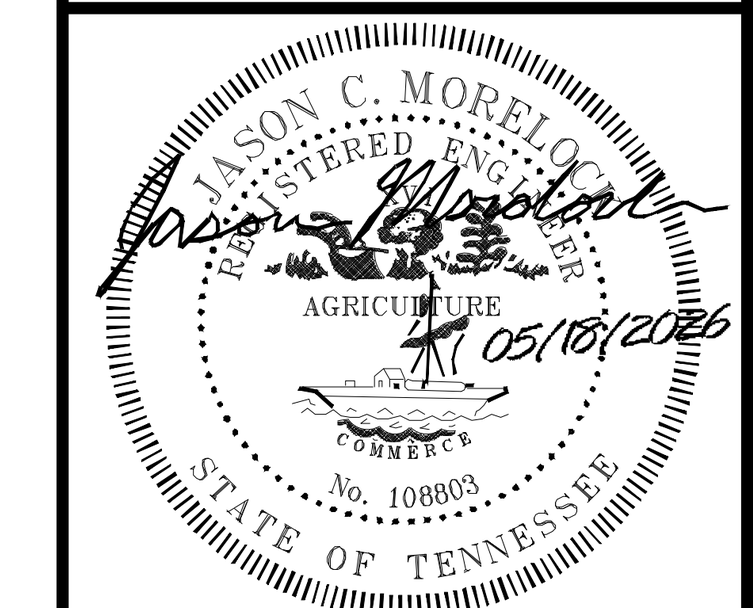


SITE DEVELOPMENT PLANS FOR:
MORNING POINTE
RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401

DR.	DATE	DESCRIPTION
JEL	04/20/2026	FINAL PUD MASTER PLAN
JEL	05/18/2026	FINAL PUD MASTER PLAN RE-SUBMITTAL

SITE DETAILS

C4.6

1421-01 MORNING POINTE

Monday, May 18, 2026
Z:\1421_Morning Pointe\01 - Columbia\02 - Cad\Sheets\1421-01_Site Details.dwg

TEMPORARY SEEDING

CONSTRUCTION SPECIFICATIONS

GRADING AND SHAPING:
EXCESSIVE WATER RUNOFF SHALL BE REDUCED BY PROPERLY DESIGNED AND INSTALLED EROSION CONTROL PRACTICES SUCH AS DITCHES, DIKES, DIVERSIONS, AND SEDIMENT BASINS. NO SHAPING OR GRADING IS REQUIRED IF SLOPES CAN BE STABILIZED BY HAND-SEEDED VEGETATION OR IF HYDRAULIC SEEDING EQUIPMENT IS TO BE USED.

SEEDBED PREPARATION:
GOOD SEEDBED PREPARATION IS ESSENTIAL TO SUCCESSFUL PLANT ESTABLISHMENT. A GOOD SEEDBED IS WELL PULVERIZED, LOOSE AND UNIFORM. WHERE HYDROSEEDING METHODS ARE USED, THE SURFACE MAY BE LEFT WITH A MORE IRREGULAR SURFACE OF LARGE CLODS AND STONES.

LIMING:
APPLY LIME ACCORDING TO SOIL TEST RECOMMENDATIONS. IF THE PH (ACIDITY) OF THE SOIL IS NOT KNOWN, AN APPLICATION OF GROUND AGRICULTURAL LIMESTONE AT THE RATE TO 1 TO 1½ TONS/ACRE ON COARSE TEXTURED SOILS AND 2-3 TONS/ACRE ON FINE TEXTURED SOILS IS USUALLY SUFFICIENT. APPLY LIMESTONE UNIFORMLY AND INCORPORATE INTO THE TOP 4-6
INCHES OF SOIL. SOILS WITH A PH OF 6 OR HIGHER DO NOT NEED TO BE LIMED.

FERTILIZER:
BASE APPLICATION RATES ON SOIL TESTS. WHEN SOIL TESTS ARE NOT POSSIBLE, APPLY A 10-10-10 GRADE FERTILIZER AT 700-1000LB/ACRE. BOTH FERTILIZER AND LIME SHOULD
BE INCORPORATED INTO THE TOP 4-6 INCHES OF SOIL. IF A HYDRAULIC SEEDER IS USED, DO NOT MIX SEED AND FERTILIZER MORE THAN 30 MINUTES BEFORE THE APPLICATION.

SURFACE ROUGHENING:
IF RECENT TILLAGE OPERATIONS HAVE RESULTED IN A LOOSE SURFACE, ADDITIONAL ROUGHENING MAY NOT BE NECESSARY, EXCEPT TO BREAK UP LARGE CLODS. IF RAINFALL CAUSED THE SURFACE TO BECOME SEALED OR CRUSTED, LOOSEN IT JUST PRIOR TO SEEDING BY DISKING, RAKING, HARROWING, OR OTHER SUITABLE METHODS. GROOVE OR FURROW SLOPES STEEPER THAN 3:1 ON THE CONTOUR BEFORE SEEDING.

CONSTRUCTION SPECIFICATIONS

SEEDING:
SELECT A NON-INVASIVE GRASS OR GRASS-LEGUME MIXTURE SUITABLE TO THE AREA AND SEASON OF THE YEAR. SEE FIGURES 7.8-1 TO 7.8-3 FOR SUGGESTIONS OF TEMPORARY SEEDING SPECIES. ALTHOUGH NATIVE PLANTS ARE PREFERRED, THERE ARE CURRENTLY NO AVAILABLE NATIVE SPECIES THAT ARE NOT COST PROHIBITIVE. NON-INVASIVE ANNUAL PLANTS ARE PREFERRED. SEED SHALL BE APPLIED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDRAULIC SEEDER. DRILL OR CULTIPACKER SEEDERS SHOULD NORMALLY PLACE SEED ¼ TO ½ INCHES DEEP. APPROPRIATE DEPTH OF PLANTING IS 10 TIMES THE SEED DIAMETER. SOIL SHOULD BE RAKED LIGHTLY TO COVER SEED WITH SOIL IF SEEDED BY HAND.

MULCHING:
THE USE OF MULCH WILL HELP ENSURE ESTABLISHMENT UNDER NORMAL CONDITIONS, AND IS ESSENTIAL TO SEEDING SUCCESS UNDER HARSH SITE CONDITIONS. HARSH SITE CONDITIONS INCLUDE:

- SEEDING IN FALL FOR WINTER COVER
- SLOPES STEEPER THAN 3:1
- EXCESSIVELY HOT OR DRY WEATHER
- ADVERSE SOILS (SHALLOW, ROCKY, OR HIGH IN CLAY OR SAND), AND
- AREAS RECEIVING CONCENTRATED FLOW.

IRRIGATION:
DURING TIMES OF DROUGHT, WATER SHALL BE APPLIED AT A RATE NOT CAUSING RUNOFF AND EROSION. THE SOIL SHALL BE THOROUGHLY WETTED TO A DEPTH THAT WILL ENSURE GERMINATION OF THE SEED. SUBSEQUENT APPLICATIONS SHOULD BE MADE AS NEEDED. NEWLY SEEDED AREAS REQUIRE MORE WATER THAN MORE MATURE PLANTS.

TEMPORARY COVER SEEDING MIXTURES

SEEDING DATES	GRASS SEED	SOIL AMENDMENTS	MULCH	MAINTENANCE
JANUARY 1 TO MAY 1	RYE (120 LBS/ACRE)	FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LBS/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LBS/ACRE 10-10-10 FERTILIZER.	APPLY 4,000 LBS/ACTE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.	REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESSED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.
MAY 1 TO AUGUST 15	OATS (60 LBS/ACRE)			
	BROWN TOP MILLET (30 LBS/ACRE)			
AUGUST 15 - DECEMBER 31	OATS (30 LBS/ACRE)			
	WINTER WHEAT (30 LBS/ACRE)			

NOTE:
INSTALLATION AND MAINTENANCE SHALL MEET THE REQUIREMENTS OF THE TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK, TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION, LATEST EDITION.

TEMPORARY SEEDING
NOT TO SCALE

PERMANENT SEEDING

CONSTRUCTION SPECIFICATIONS

GRADING AND SHAPING:
GRADING AND SHAPING MAY NOT BE REQUIRED WHERE HYDRAULIC SEEDING AND FERTILIZING EQUIPMENT IS TO BE USED. VERTICAL BANKS SHALL BE SLOPED TO ENABLE PLANT ESTABLISHMENT.

WHEN CONVENTIONAL SEEDING AND FERTILIZING ARE TO BE DONE, GRADE AND SHAPE THE SLOPE, WHERE FEASIBLE AND PRACTICAL, SO THAT EQUIPMENT CAN BE USED SAFELY AND EFFICIENTLY DURING SEEDBED PREPARATION, SEEDING, MULCHING, AND MAINTENANCE OF VEGETATION.

CONCENTRATIONS OF WATER THAT COULD CAUSE EXCESSIVE SOIL EROSION SHOULD BE DIVERTED TO A SAFE OUTLET. DIVERSIONS AND OTHER TREATMENT PRACTICES MUST CONFORM TO THE APPROPRIATE STANDARDS AND SPECIFICATIONS.

PLANT SELECTION:
ONLY CERTIFIED SEED SHALL BE USED. REFER TO TABLE FOR SUGGESTED SPECIES. GRASS TYPE SHOULD BE SELECTED ON THE BASIS OF SPECIES CHARACTERISTICS; SITE AND SOIL CONDITIONS; PLANNED USE AND MAINTENANCE OF THE AREA; TIME OF YEAR OF PLANTING, METHOD OF PLANTING; AND THE NEEDS AND DESIRES OF THE LAND USER.

PLANT SELECTION MAY ALSO INCLUDE ANNUAL COMPANION CROPS. ANNUAL COMPANION CROPS SHOULD BE USED ONLY WHEN THE PERENNIAL SPECIES ARE NOT PLANTED DURING THEIR OPTIMUM PLANTING PERIOD. CARE SHOULD BE TAKEN IN SELECTING COMPANION CROP SPECIES AND SEEDING RATES BECAUSE ANNUAL CROPS WILL COMPETE WITH PERENNIAL SPECIES FOR WATER, NUTRIENTS, AND GROWING SPACE. A HIGH SEEDING RATE OF THE COMPANION CROP MAY PREVENT THE ESTABLISHMENT OF PERENNIAL SPECIES.

RYEGRASS SHALL NOT BE USED IN ANY SEEDING MIXTURES CONTAINING PERMANENT, PERENNIAL SPECIES DUE TO ITS ABILITY TO OUT-COMPETE DESIRED SPECIES CHOSEN FOR PERMANENT PERENNIAL COVER. HOWEVER, CRIMSON, CLOVER, OATS AND WINTER WHEAT
CAN BE PLANTED ANY TIME OF THE YEAR AND ARE RECOMMENDED AS A COVER CROP WITH NATIVE PERENNIAL SPECIES.

TOPSOIL:
TOPSOIL SHOULD BE REPLACED ON ALL AREAS TO BE SEEDED. SEE PRACTICE 7.3 FOR MORE INFORMATION ON THE REMOVAL, STORAGE AND REAPPLICATION OF TOPSOIL.

SEEDBED PREPARATION:
WHEN CONVENTIONAL SEEDING IS TO BE USED, TOPSOIL SHOULD BE APPLIED TO ANY AREA WHERE THE DISTURBANCE RESULTS IN SUBSOIL AT THE FINAL GRADE SURFACE. A MINIMUM DEPTH OF 4" IS REQUIRED. SOIL PH SHOULD BE ABOVE 5 – PREFERABLY BETWEEN 6.0 AND 6.5. SOIL ON THE SITE SHOULD BE TESTED TO DETERMINE LIME AND FERTILIZER RATES. SOIL SHOULD BE SUBMITTED TO A SOILS SPECIALIST OR COUNTY AGRICULTURAL EXTENSION AGENT FOR TESTING AND SOIL AMENDMENT RECOMMENDATIONS. IN THE ABSENCE OF SOIL TEST RESULTS, THE FOLLOWING APPLICATION RATES CAN BE USED:

GROUND AGRICULTURAL LIMESTONE:

- LIGHT-TEXTURED, SANDY SOILS: 1- 1 1/2 TONS/ACRE
- HEAVY-TEXTURED, CLAYEY SOILS: 2-3 TONS/ACRE

FERTILIZER:

- GRASSES: 800-1200 LB/ACRE OF 10-10-10 (OR THE EQUIVALENT)
- GRASS-LEGUME MIXTURES: 800-1200 LB/ACRE OF 5-10-10 (OR THE EQUIVALENT)

BROADCAST SEEDING:

- SEEDBED PREPARATION MAY NOT BE REQUIRED WHERE HYDRAULIC SEEDING EQUIPMENT IS TO BE USED.
- TILLAGE, AT A MINIMUM, SHALL ADEQUATELY LOOSEN THE SOIL TO A DEPTH OF 4 TO 6 INCHES; ALLEVIATE COMPACTION; INCORPORATE TOPSOIL, LIME, AND FERTILIZER; SMOOTH AND FIRM THE SOIL; ALLOW FOR THE PROPER PLACEMENT OF SEED, SPRIGS, OR PLANTS; AND ALLOW FOR THE ANCHORING OF STRAW OR HAY MULCH IF A CRIMPER IS TO BE USED.
- TILLAGE MAY BE DONE WITH ANY SUITABLE EQUIPMENT.
- TILLAGE SHOULD BE DONE PARALLEL TO THE CONTOUR WHERE FEASIBLE.
- ON SLOPES TOO STEEP FOR THE SAFE OPERATION OF TILLAGE EQUIPMENT, THE SOIL SURFACE SHALL BE PITTED OR TRENCHED ACROSS THE SLOPE WITH APPROPRIATE HAND TOOLS TO PROVIDE CONSECUTIVE BEDS, 6 TO 8 INCHES APART, IN WHICH SEED MAY LODGE AND GERMINATE. HYDRAULIC SEEDING MAY ALSO BE USED.

CONSTRUCTION SPECIFICATIONS

INOCULANTS:
NATIVE LEGUME SEEDS DO NOT NEED TO BE INOCULATED. ALL NON-NATIVE LEGUME SEED SHALL BE INOCULATED WITH APPROPRIATE NITROGEN FIXING BACTERIA. THE INOCULANTS SHALL BE PURE CULTURE PREPARED SPECIFICALLY FOR THE SEED SPECIES AND USED WITHIN THE DATES ON THE CONTAINER. A MIXING MEDIUM RECOMMENDED BY THE MANUFACTURER SHALL BE USED TO BOND THE INOCULANTS TO THE SEED. FOR CONVENTIONAL SEEDING, USE TWICE THE AMOUNT OF INOCULANTS RECOMMENDED BY THE MANUFACTURER.

NO-TILL SEEDING:
NO-TILL SEEDING IS PERMISSIBLE INTO ANNUAL COVER CROPS WHEN PLANTING IS DONE FOLLOWING MATURITY OF THE COVER CROP OR IF THE TEMPORARY COVER STAND IS SPARSE ENOUGH TO ALLOW ADEQUATE GROWTH OF THE PERMANENT (PERENNIAL) SPECIES. NO-TILL SEEDING SHALL BE DONE WITH APPROPRIATE NO-TILL SEEDING EQUIPMENT. THE SEED MUST BE UNIFORMLY DISTRIBUTED AND PLANTED AT THE PROPER DEPTH. NATIVE GRASSES RESPOND VERY WELL TO DRILL SEEDING AT A DEPTH OF ONE-FOURTH INCH.

MULCH:
STRAW MULCH IS REQUIRED FOR ALL PERMANENT VEGETATION APPLICATIONS AND MUST BE APPLIED IMMEDIATELY AFTER THE APPLICATION OF SEED. THE APPLICATION RATE FOR MULCH IS 2 TONS PER ACRE WITH OVERALL UNIFORM SOIL COVERAGE OF 70%. ALL MULCH MUST BE ANCHORED.

MAINTENANCE AND INSPECTION POINTS:
ANY AREAS THAT HAVE WASHED OUT DUE TO HIGH STORMWATER FLOWS, AREAS THAT HAVE BEEN DISTURBED BY BLOWING WIND, AND AREAS THAT DO NOT SHOW GOOD GERMINATION SHOULD BE RETREATED.

INSPECT SEEDED AREAS FOR FAILURE AND MAKE NECESSARY REPAIRS AND RESEEDINGS WITHIN THE SAME SEASON, IF POSSIBLE.

RESEEDING:
IF A STAND HAS INADEQUATE COVER, RE-EVALUATE CHOICE OF PLANT MATERIALS AND QUANTITIES OF LIME AND FERTILIZER. RE-ESTABLISH THE STAND AFTER SEEDBED PREPARATION OR OVER-SEED THE STAND. CONSIDER SEEDING TEMPORARY, ANNUAL SPECIES IF THE TIME OF YEAR IS NOT APPROPRIATE FOR PERMANENT SEEDING.

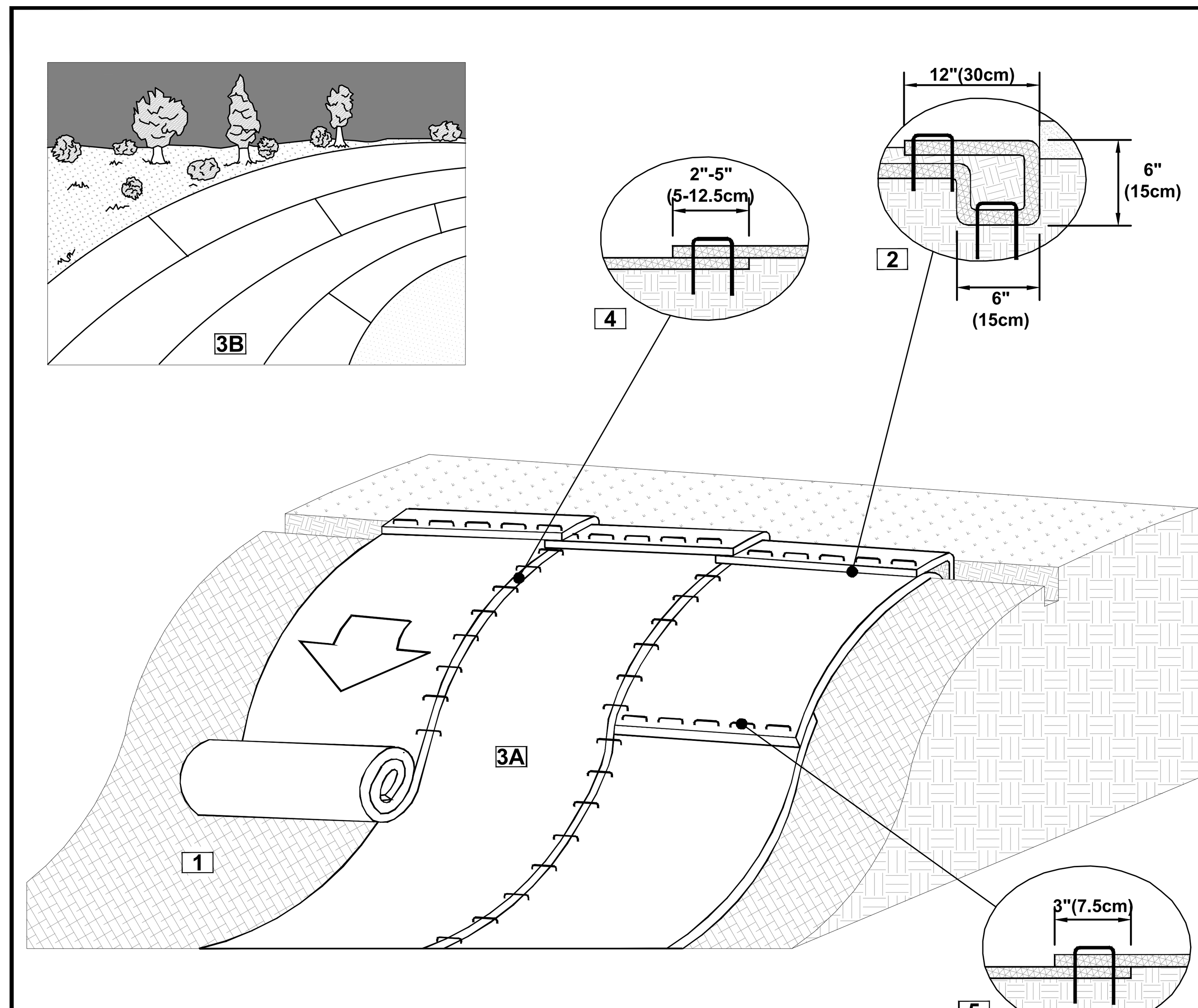
PERMANENT COVER SEEDING MIXTURES

ZONE		BEST	MARGINAL	PREFERRED RATE/MIX (lb/ac PLS)
REGION II	LOW MAINTENANCE; SLOPES AND POOR, SHALLOW SOILS	AUG 25 - SEPT 15 FEB 15 - MAY 30	SEPT 15 - OCT 25 MAR 21 - MAY 30	15 BROWNTOP MULLET 5 LITTLE BLUESTEM 2 SWITCH GRASS 2 TALL DROPSEED 5 SIDEOATS GRAMMA 2 BLACK-EYED SUSAN 2 PARTRIDGE PEA 1 GREYHEADED CONEFLOWER
	LOW MAINTENANCE; MODERATE SLOPES; SOILS >6in. DEPTH	AUG 25 - SEPT 15 FEB 15 - MAY 30	SEPT 15 - OCT 25 MAR 21 - MAY 30	15 BROWNTOP MULLET 5 PURPLETOP 5 LITTLE BLUESTREAM 5 VIRGINIA WILD RYE 2 BLACK-EYED SUSAN 2 PARTRIDGE PEA 1 GREYHEADED CONEFLOWER
	HIGH MAINTENANCE	AUG 30 - OCT 15	FEB 15 - APR 15	15 BROWNTOP MULLET 2 PARTRIDGE PEA 45 RED FESCUE 45 HARD FESCUE 25 CHEWING FESCUE

NOTE:
INSTALLATION AND MAINTENANCE SHALL MEET THE REQUIREMENTS OF THE TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK, TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION, LATEST EDITION.

PERMANENT SEEDING
NOT TO SCALE

EROSION CONTROL BLANKET (SLOPE INSTALLATION)



Drawing Not To Scale

NORTH AMERICAN GREEN
5401 St. Wendel - Cynthiana Rd. PH: 800-722-2040
Poseyville, IN 47633 www.nagreen.com

Disclaimer:
The information presented herein is general design information only. For specific applications, consult an independent professional for further design guidance.

Drawn on: 5-4-17

SLOPE INSTALLATION DETAIL

1. Prepare soil before installing rolled erosion control products (RECPs), including any necessary application of lime, fertilizer, and seed.
2. Begin at the top of the slope by anchoring the RECPs in a 6"(15cm) deep X 6"(15cm) wide trench with approximately 12"(30cm) of RECPs extended beyond the up-slope portion of the trench. Anchor the RECPs with a row of staples/stakes approximately 12"(30cm) apart in the bottom of the trench. Backfill and compact the trench after stapling. Apply seed to the compacted soil and fold the remaining 12"(30cm) portion of RECPs back over the seed and compacted soil. Secure RECPs over compacted soil with a row of staples/stakes spaced approximately 12"(30cm) apart across the width of the RECPs.
3. Roll the RECPs (A) down or (B) horizontally across the slope. RECPs will unroll with appropriate side against the soil surface. All RECPs must be securely fastened to soil surface by placing staples/stakes in appropriate locations as shown in the staple pattern guide.
4. The edges of parallel RECPs must be stapled with approximately 2" - 5" (5-12.5cm) overlap depending on the RECPs type.
5. Consecutive RECPs spliced down the slope must be end over end (Shingle style) with an approximate 3"(7.5cm) overlap. Staple through overlapped area, approximately 12"(30cm) apart across entire RECPs width.

*NOTE:
In loose soil conditions, the use of staple or stake lengths greater than 6"(15cm) may be necessary to properly secure the RECP's.

NOTE:
INSTALLATION AND MAINTENANCE SHALL MEET THE REQUIREMENTS OF THE TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK, TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION, LATEST EDITION.

EROSION CONTROL BLANKET (SLOPE INSTALLATION)
NOT TO SCALE

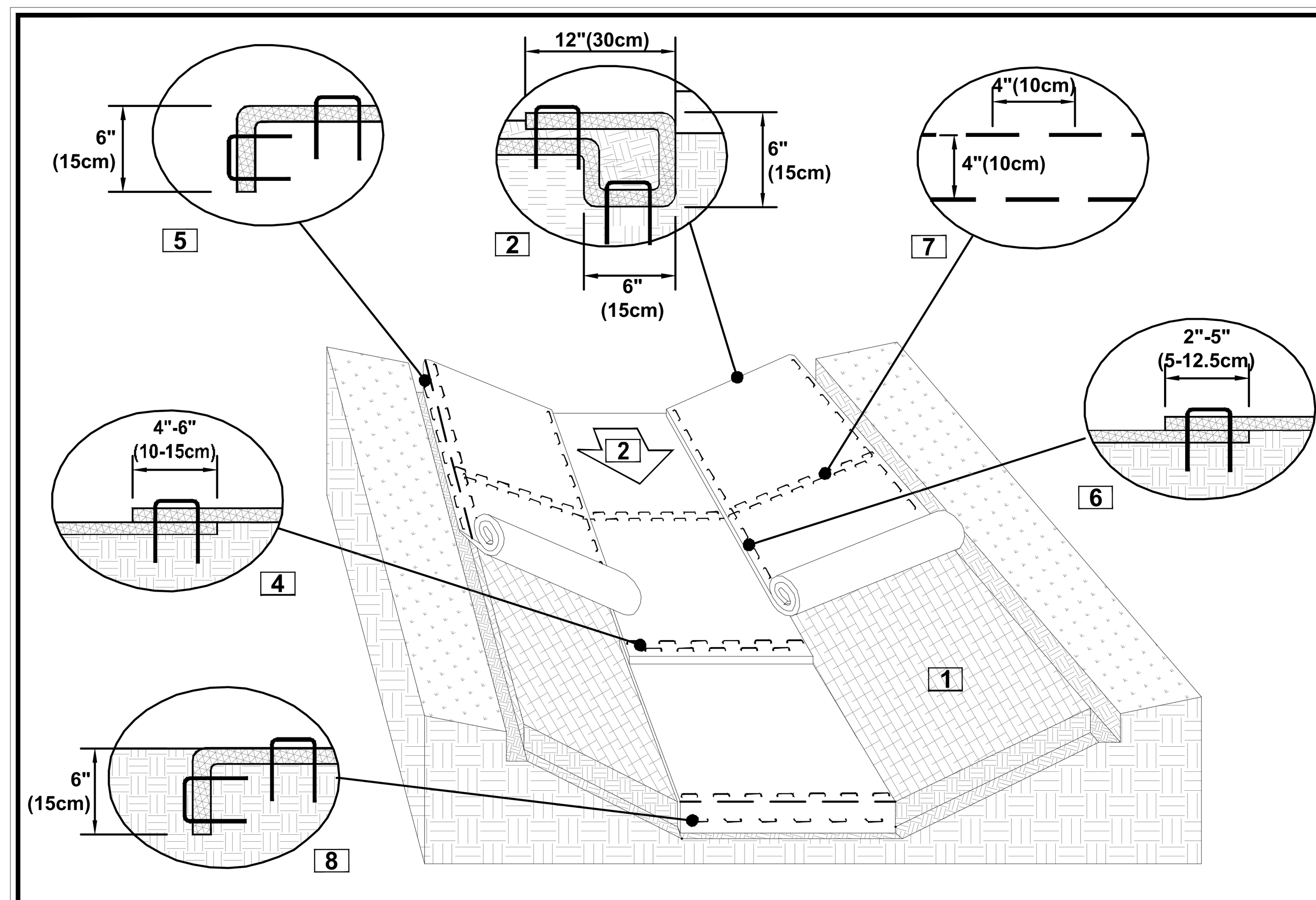
CONSTRUCTION SPECIFICATIONS

1. EVEN IF PROPERLY DESIGNED, IF NOT PROPERLY INSTALLED, EROSION CONTROL BLANKETS WILL LIKELY NOT FUNCTION AS DESIRED. PROPER INSTALLATION IS IMPERATIVE. EVEN IF PROPERLY INSTALLED, IF NOT PROPERLY TIMED AND NOURISHED, VEGETATION WILL LIKELY NOT GROW AS DESIRED. PROPER SEED/VEGETATION SELECTION IS ALSO IMPERATIVE. GRADE THE SURFACE OF INSTALLATION AREAS SO THAT THE GROUND IS SMOOTH AND SOIL LOOSE. WHEN SEEDING PRIOR TO INSTALLATION, FOLLOW THE STEPS FOR SEED BED PREPARATION, SOIL AMENDMENTS, AND SEEDING. ALL GULLIES, RILLS, AND ANY OTHER DISTURBED AREAS MUST BE FINE GRADED PRIOR TO INSTALLATION. SPREAD SEED BEFORE BLANKET INSTALLATION. (IMPORTANT: REMOVE ALL LARGE ROCKS, DIRT CLODS, STUMPS, ROOTS, GRASS CLUMPS, TRASH, AND OTHER OBSTRUCTIONS FROM THE SOIL SURFACE TO ALLOW FOR DIRECT CONTACT BETWEEN THE SOIL SURFACE AND THE BLANKET.) TERMINAL ANCHOR TRENCHES ARE REQUIRED AT BLANKET END. TERMINAL ANCHOR TRENCHES SHOULD BE A MINIMUM OF 12 INCHES IN DEPTH AND 6 INCHES IN WIDTH.
2. **INSTALLATION FOR SLOPES:** PLACE THE BLANKET 2-3 FEET OVER THE TOP OF THE SLOPE AND INTO AN EXCAVATED END TRENCH MEASURING APPROXIMATELY 12 INCHES DEEP BY 6 INCHES WIDE. PIN THE BLANKET AT 1 FOOT INTERVALS ALONG THE BOTTOM OF THE TRENCH, BACKFILL, AND COMPACT. UNROLL THE BLANKET DOWN (OR ALONG) THE SLOPE MAINTAINING DIRECT CONTACT BETWEEN THE SOIL AND THE BLANKET. OVERLAP ADJACENT ROLLS A MINIMUM OF 3 INCHES. PIN THE BLANKET TO THE GROUND USING STAPLES OR PINS IN A 3 FOOT CENTER-TO-CENTER PATTERN OR AS RECOMMENDED BY MANUFACTURER.
3. **ANCHORING DEVICES:** 11 GAUGE, AT LEAST 6 INCHES LENGTH BY 1 INCH WIDTH, STAPLES OR 12 INCH MINIMUM LENGTH WOODEN STAKES ARE RECOMMENDED FOR ANCHORING THE BLANKET TO THE GROUND. DRIVE STAPLES OR PINS SO THAT THE TOP OF THE STAPLE OR PIN IS FLUSH WITH THE GROUND SURFACE. ANCHOR EACH BLANKET EVERY 3 FEET ALONG ITS CENTER. LONGITUDINAL OVERLAPS MUST BE SUFFICIENT TO ACCOMMODATE A ROW OF ANCHORS AND UNIFORM ALONG THE ENTIRE LENGTH OF OVERLAP AND ANCHORED EVERY 3 FEET ALONG THE OVERLAP LENGTH. ROLL ENDS MAY BE SPLICED BY OVERLAPPING 1 FOOT (IN THE DIRECTION OF WATER FLOW), WITH THE UPSTREAM/UPSLOPE MAT PLACED ON TOP OF THE DOWNSTREAM/DOWNSLOPE BLANKET. THIS OVERLAP SHOULD BE ANCHORED AT 1 FOOT SPACING ACROSS THE BLANKET. WHEN INSTALLING MULTIPLE WIDTH MATS HEAT SEAMED IN THE FACTORY, ALL FACTORY SEAMS AND FIELD OVERLAPS SHOULD BE SIMILARLY ANCHORED.

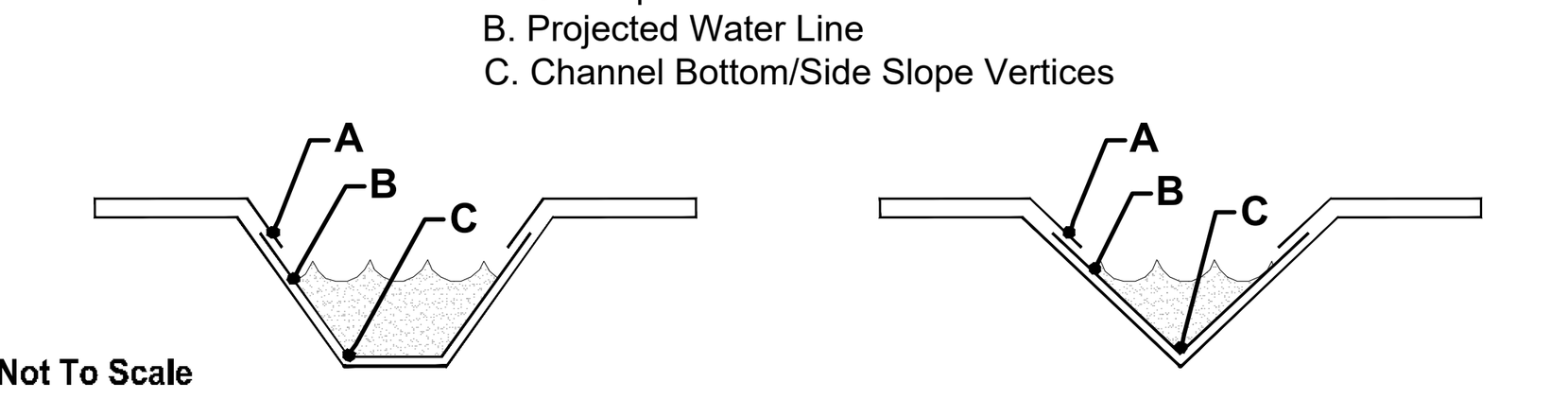
MAINTENANCE AND INSPECTION POINTS

1. GOOD CONTACT WITH THE GROUND MUST BE MAINTAINED, AND EROSION MUST NOT OCCUR BENEATH THE BLANKET.
2. ANY AREAS OF THE BLANKET THAT ARE DAMAGED OR NOT IN CLOSE CONTACT WITH THE GROUND SHALL BE REPAIRED AND STAPLED.
3. IF EROSION OCCURS DUE TO POORLY CONTROLLED DRAINAGE, THE PROBLEM SHALL BE FIXED AND THE ERODED AREA REPAIRED.
4. MONITOR AND REPAIR THE BLANKET AS NECESSARY UNTIL GROUND COVER IS ESTABLISHED. INSPECTIONS SHOULD INCLUDE WALKING ACROSS THE SLOPE TO CHECK FOR EROSION GULLIES THAT CAN BE FELT RATHER THAN SEEN.

EROSION CONTROL BLANKET (CHANNEL INSTALLATION)



CRITICAL POINTS
A. Overlaps and Seams
B. Projected Water Line
C. Channel Bottom/Side Slope Vertices



NOTES:
*Horizontal staple spacing should be altered if necessary to allow staples to secure the critical points along the channel surface.

**In loose soil conditions, the use of staple or stake lengths greater than 6"(15cm) may be necessary to properly secure the RECP's.

Drawing Not To Scale

NORTH AMERICAN GREEN
5401 St. Wendel - Cynthiana Rd. PH: 800-722-2040
Poseyville, IN 47633 www.nagreen.com

Disclaimer:
The information presented herein is general design information only. For specific applications, consult an independent professional for further design guidance.

Drawn on: 5-4-17

CHANNEL INSTALLATION DETAIL

1. Prepare soil before installing rolled erosion control products (RECPs), including any necessary application of lime, fertilizer, and seed.
2. Begin at the top of the channel by anchoring the RECPs in a 6"(15cm) deep X 6"(15cm) wide trench with approximately 12"(30cm) of RECPs extended beyond the up-slope portion of the trench. Use ShoreMax mat at the channel/culvert outlet as supplemental scour protection as needed. Anchor the RECPs with a row of staples/stakes approximately 12"(30cm) apart in the bottom of the trench. Backfill and compact the trench after stapling. Apply seed to the compacted soil and fold the remaining 12"(30cm) portion of RECPs back over the seed and compacted soil. Secure RECPs over compacted soil with a row of staples/stakes spaced approximately 12" apart across the width of the RECPs.
3. Roll center RECPs in direction of water flow in bottom of channel. RECPs will unroll with appropriate side against the soil surface. All RECPs must be securely fastened to soil surface by placing staples/stakes in appropriate locations as shown in the staple pattern guide.
4. Place consecutive RECPs end-over-end (Shingle style) with a 4"-6" overlap. Use a double row of staples staggered 4" apart and 4" on center to secure RECPs.
5. Full length edge of RECPs at top of side slopes must be anchored with a row of staples/stakes approximately 12"(30cm) apart in a 6"(15cm) deep X 6"(15cm) wide trench. Backfill and compact the trench after stapling.
6. Adjacent RECPs must be overlapped approximately 2"-5" (5-12.5cm) (Depending on RECPs type) and stapled.
7. In high flow channel applications a staple check slot is recommended at 30 to 40 foot (9 -12m) intervals. Use a double row of staples staggered 4"(10cm) apart and 4"(10cm) on center over entire width of the channel.
8. The terminal end of the RECPs must be anchored with a row of staples/stakes approximately 12" (30cm) apart in a 6"(15cm) deep X 6"(15cm) wide trench. Backfill and compact the trench after stapling.

NOTE:
INSTALLATION AND MAINTENANCE SHALL MEET THE REQUIREMENTS OF THE TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK, TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION, LATEST EDITION.

EROSION CONTROL BLANKET (CHANNEL INSTALLATION)
NOT TO SCALE

FULMER LUCAS
2002 RICHARD JONES RD - SUITE B200
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JASON C. MORELOCK, REGISTERED ENGINEER, AGRICULTURE, COMMERCE, No. 108803, STATE OF TENNESSEE — 05/18/2026

SITE DEVELOPMENT PLANS FOR:
MORNING POINTE
RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401

DR.	DATE	DESCRIPTION
JEL	04/20/2026	FINAL PUD MASTER PLAN
JEL	05/18/2026	FINAL PUD MASTER PLAN RE-SUBMITTAL

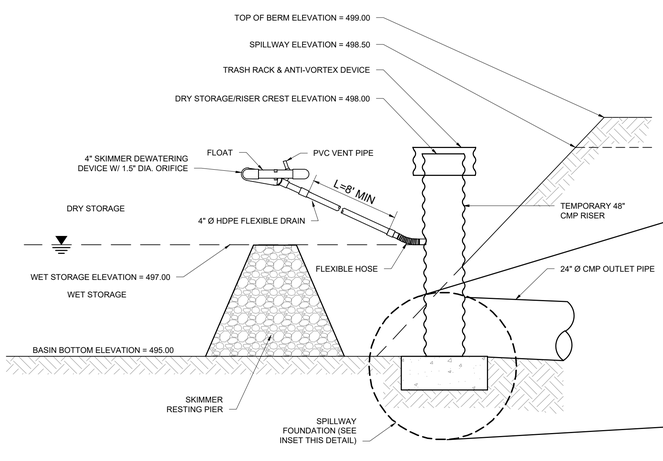
SITE DETAILS

C4.7

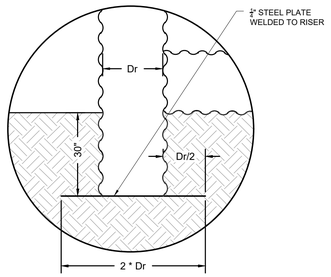
1421-01 MORNING POINTE

Monday, May 18, 2026
Z:\11421_Morning Pointe\01 - Columbia\02 - Cad\Sheets\1421-01_Site Details.dwg

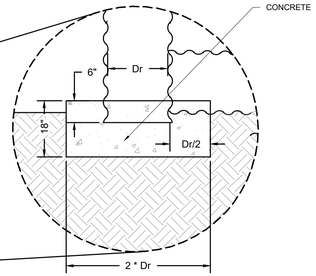
NOTE:
INSTALLATION AND MAINTENANCE SHALL MEET THE REQUIREMENTS OF THE TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK, TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION, LATEST EDITION.



SEDIMENT BASIN OUTLET STRUCTURE



STEEL BASE FOR EMBANKMENT
10 FEET OR LESS IN HEIGHT



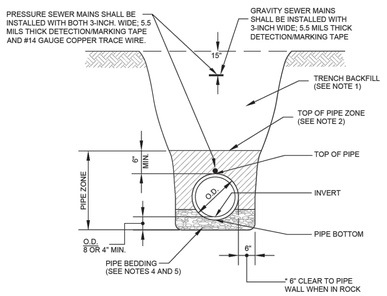
CONCRETE BASE FOR EMBANKMENT
10 FEET OR LESS IN HEIGHT

SPILLWAY FOUNDATION

TEMPORARY SEDIMENT BASIN #1
NOT TO SCALE

NOTES:

1. SEE PROJECT SPECIFICATIONS FOR BACKFILL REQUIREMENTS.
2. "PIPE ZONE" EXTENDS TO 6" ABOVE TOP OF PIPE AND BACKFILL IN TO BE CRUSHED STONE, GRAVEL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE ENGINEER.
3. LIMIT TRENCH WIDTH AT TOP OF PIPE ZONE TO O.D. + 16", UNLESS PERMITTED OTHERWISE BY ENGINEER.
4. PIPE BEDDING IS TO BE CRUSHED GRAVEL OR OTHER GRANULAR MATERIAL AS APPROVED BY ENGINEER. DEPTH UNDER BOTTOM OF PIPE IS TO BE 1/8 OUTER DIAMETER (O.D.) OF PIPE OR 4", WHICHEVER IS GREATER.*
5. PIPE TO BE CONTINUOUSLY SUPPORTED ALONG LENGTH OF PIPE BARREL EXCEPT AT BELLS. BELL HOLES ARE REQUIRED SUCH THAT NO BEARING LOAD IS TAKEN BY THE BELL.



TYPICAL SEWER INSTALLATION
NOT TO SCALE

STANDARD SEWER DETAIL NO: S1

TYPICAL SEWER INSTALLATION
NOT TO SCALE

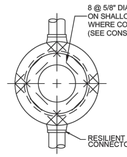
NOTE: ALL MANHOLES SHALL BE MANUFACTURED WITH XYPEX ADMIX C-1000/C-2000 OR APPROVED EQUAL FOR WATERPROOFING AND PROTECTION AGAINST HYDROGEN SULFIDE DETERIORATION. DOSAGE RATE SHALL BE 3% OF WEIGHT OF CEMENT.

CONSTRUCTION NOTES

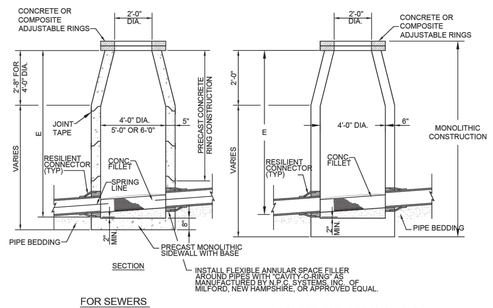
CYLINDRICAL AND CONICAL SECTIONS OF ALL MANHOLES SHALL BE CONSTRUCTED OF EITHER MONOLITHIC CONCRETE OR PRECAST CONCRETE RINGS AS DESIGNED IN THE PROJECT SPECIFICATIONS OF THE CONTRACT DOCUMENT. CONCENTRIC CONES SHALL BE USED ON PRECAST CONCRETE AND MONOLITHIC CONCRETE UNITS. DIMENSION "E" VARIES. WHEN LESS THAN 5-FEET OMIT CONE AND EXTEND CYLINDRICAL MANHOLE SIDEWALL SECTION TO AN ELEVATION 8-INCHES BELOW BOTTOM OF ADJUSTING BRICK. CONSTRUCT 8-INCH THICK CONCRETE SLAB ON TOP OF CYLINDRICAL SECTION REINFORCED WITH 5/8-INCH DIA. BARS AS SHOWN. PROVIDE 24-INCH DIAMETER OPENING IN SLAB FOR MANHOLE'S FRAME AND BRICK ADJUSTMENT RINGS AS ON CONED MANHOLE. BENCH WALLS IN MANHOLES FOR SEWERS 18-INCHES IN DIAMETER AND SMALLER TO BE BUILT UP TO THE THREE-QUARTER POINT ON PIPE. SEWERS 21-INCHES TO 30-INCHES IN DIAMETER - 15-INCHES HIGH. LARGER SEWERS TO SPRING LINE. NO BENCH WALLS REQUIRED IN DEAD END MANHOLES, ALTHOUGH BOTTOM TO BE PROPERLY DISHED.

ALL JOINTS TO BE WRAPPED WITH 6" JOINT TAPE.

NOTE: GRANULAR BACKFILL MATERIAL SHALL BE PLACED ADJACENT TO MANHOLE IN AREAS WHERE SWELLING CLAY EXIST.



PLAN



SECTION

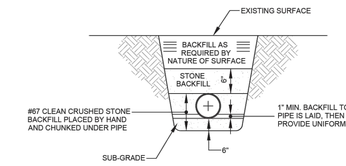
FOR SEWERS
36" DIAMETER & SMALLER
NOT TO SCALE

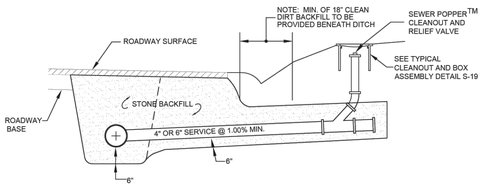
POURED IN PLACE MANHOLE
NOT TO SCALE

STANDARD MANHOLES
NOT TO SCALE

STANDARD SEWER DETAIL NO: S2

STANDARD MANHOLES
NOT TO SCALE



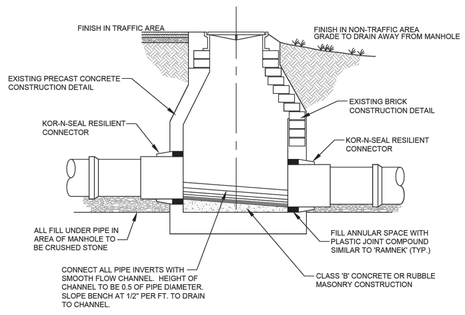


NOTE: CLEANOUT SHALL BE INSTALLED AT THE PROPERTY LINE.

SERVICE LINE
NOT TO SCALE

STANDARD SEWER DETAIL NO: S4

SERVICE LINE
NOT TO SCALE



CONNECTION TO EXISTING MANHOLE
NOT TO SCALE

NOTE: THE CONTRACTOR SHALL NOT CONNECT TO EXISTING MANHOLE UNTIL ALL NEW SEWAGE FACILITIES HAVE BEEN INSTALLED, TESTED AND RELEASED FOR SERVICE.

STANDARD SEWER DETAIL NO: S5

CONNECTION TO EXISTING MANHOLE
NOT TO SCALE

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JASON C. MOREIN — REGISTERED ENGINEER — AGRICULTURE — No. 109605 — STATE OF TENNESSEE — 05/18/2026

SITE DEVELOPMENT PLANS FOR:
MORNING POINTE
RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401

DR.	DATE	DESCRIPTION
JEL	04/20/2026	FINAL PUD MASTER PLAN
JEL	05/18/2026	FINAL PUD MASTER PLAN RE-SUBMITTAL

SITE DETAILS

C4.8

1421-01 MORNING POINTE

Updated: Mar 19, 2026
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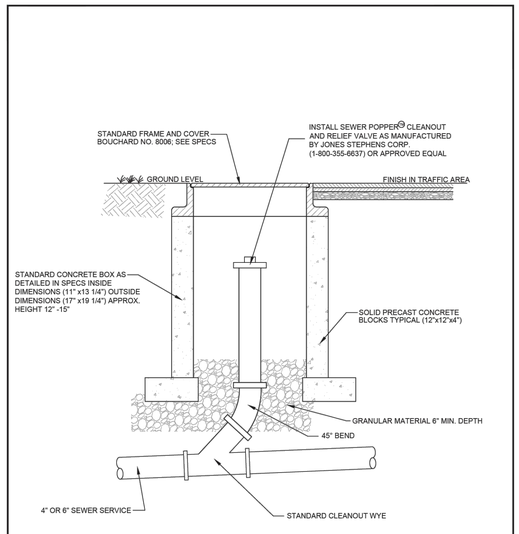


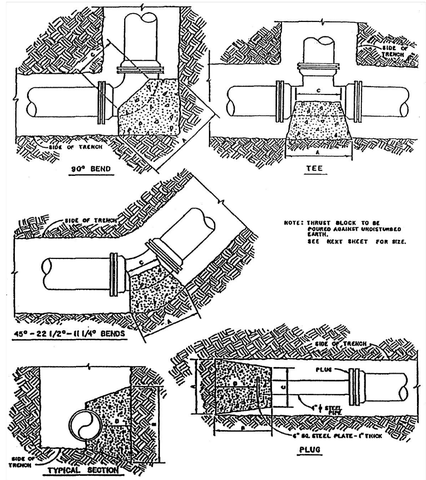
TYPICAL CLEANOUT ASSEMBLY
NOT TO SCALE

STANDARD SEWER DETAIL NO:	S19

WMSII YR 2023

TYPICAL CLEANOUT ASSEMBLY
NOT TO SCALE

IV. WATER DISTRIBUTION SYSTEM STANDARD DRAWINGS



COLUMBIA WATER SYSTEM	REVISED: JUNE 1997	THRUST BLOCKING DETAILS	DRAWING NO. CWS 1

42

WATER THRUST BLOCKING DETAILS
NOT TO SCALE

11-1/4° BEND

Size	2"	4"	6"	8"	10"	12"	16"	18"
A	8"	9"	11"	13"	16"	18"	16"	30"
B	8"	9"	11"	13"	16"	18"	16"	30"
C	8"	8"	10"	12"	14"	16"	16"	15"
D	4"	4"	5"	6"	8"	9"	9"	16"

TEE

SIZE Main	SIZE Branch	12"	8'-10"	2'-6"	8'-12"	2'-6"	2"
A		12"	8'-10"	2'-6"	9"	9"	2'-6"
B		9"	11"	13"	16"	18"	30"
C		9"	11"	13"	14"	16"	15"
D		9"	10"	12"	8"	6"	4"

PLUG

Size	2"	4"	6"	8"	10"	12"	16"	18"
A	26"	26"	26"	26"	43"	52"	70"	70"
B	26"	26"	26"	26"	34"	42"	70"	70"
C	12"	12"	12"	12"	12"	12"	12"	30"
D	11	12	13	12	11"	22"	32"	32"

90° BEND

Size	2"	4"	6"	8"	10"	12"	16"	18"
A	16"	16"	26"	33"	40"	50"	70"	70"
B	16"	16"	24"	33"	40"	50"	70"	70"
C	8"	9"	12"	12"	15"	16"	22"	24"
D	8"	8"	12"	12"	20"	25"	24"	

45° BEND

Size	2"	4"	6"	8"	10"	12"	16"	18"
A	12"	12"	18"	24"	31"	37"	52"	52"
B	12"	12"	18"	24"	31"	37"	52"	52"
C	8"	8"	10"	12"	14"	16"	16"	14"
D	6"	6"	9"	9"	12"	15"	16"	16"

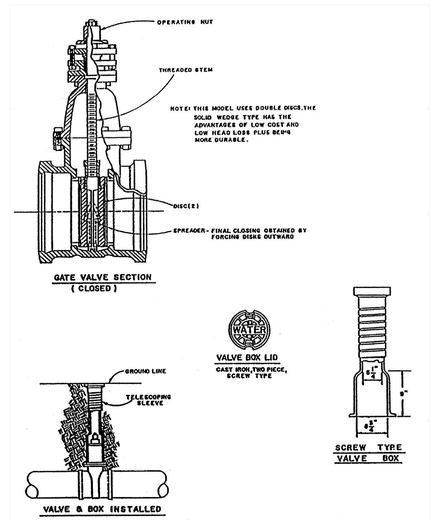
22-1/2° BEND

Size	2"	4"	6"	8"	10"	12"	16"	18"
A	9"	9"	13"	18"	23"	26"	40"	40"
B	9"	9"	13"	18"	23"	26"	40"	40"
C	8"	8"	10"	12"	14"	16"	16"	16"
D	4"	4"	6"	6"	11"	13"	16"	16"

COLUMBIA WATER SYSTEM	REVISED: JUNE 1997	THRUST BLOCKING DIMENSIONS	DRAWING NO. CWS 2

43

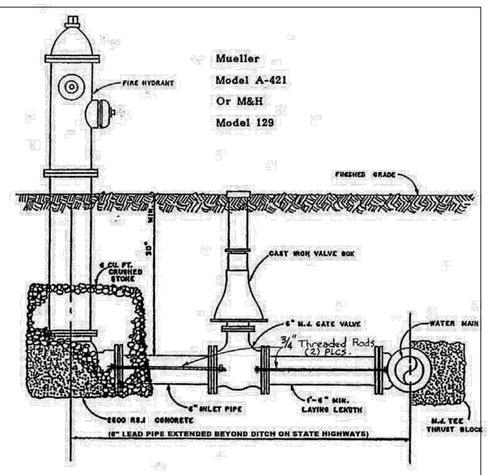
WATER THRUST BLOCKING DIMENSIONS
NOT TO SCALE



COLUMBIA WATER SYSTEM	REVISED: JUNE 1997	GATE VALVE & VALVE BOX	DRAWING NO. GV-VB 1

44

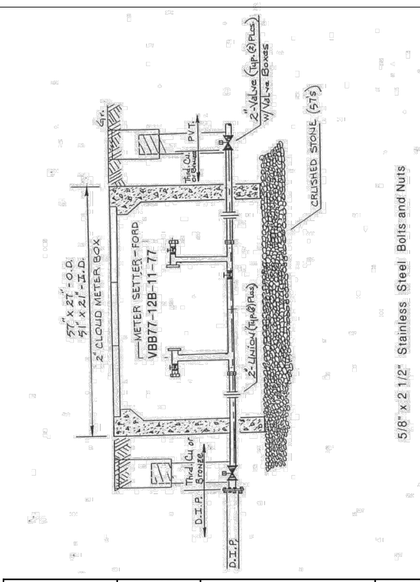
WATER GATE VALVE & VALVE BOX
NOT TO SCALE



COLUMBIA WATER SYSTEM	REVISED: JUNE 1997	FIRE HYDRANT ASSEMBLY	DRAWING NO. FHA 1

45

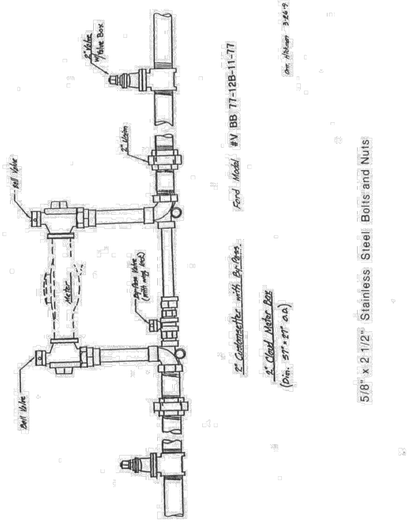
FIRE HYDRANT ASSEMBLY
NOT TO SCALE



COLUMBIA UTILITIES BOARD	REVISED: JULY 1997	WATER SERVICE ASSEMBLY 2" METER	DRAWING NO. CWS 1

49

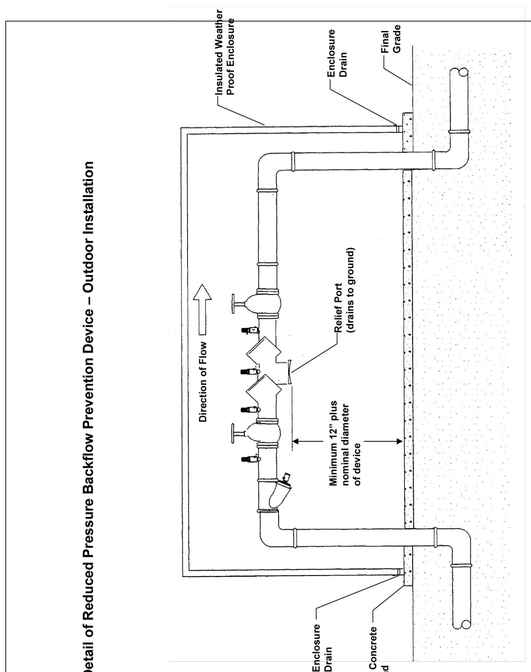
WATER SERVICE ASSEMBLY 2" METER
NOT TO SCALE



COLUMBIA WATER SYSTEM	REVISED: JUNE 1997	WATER SERVICE ASSEMBLY 2" METER	DRAWING NO. CWS 2

50

WATER SERVICE ASSEMBLY 2" METER
NOT TO SCALE



63

WATER RPBP OUTDOOR INSTALLATION
NOT TO SCALE

FULMER LUCAS
2002 RICHARD JONES RD - SUITE B200
NASHVILLE, TENNESSEE 37215
INFO@FULMERLUCAS.COM - (615) 345-3770

JASON C. MOREIN — REGISTERED LANDSCAPE ARCHITECT — AGRICULTURE — No. 108605 — STATE OF TENNESSEE — 05/16/2026

SITE DEVELOPMENT PLANS FOR:
MORNING POINTE
RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401

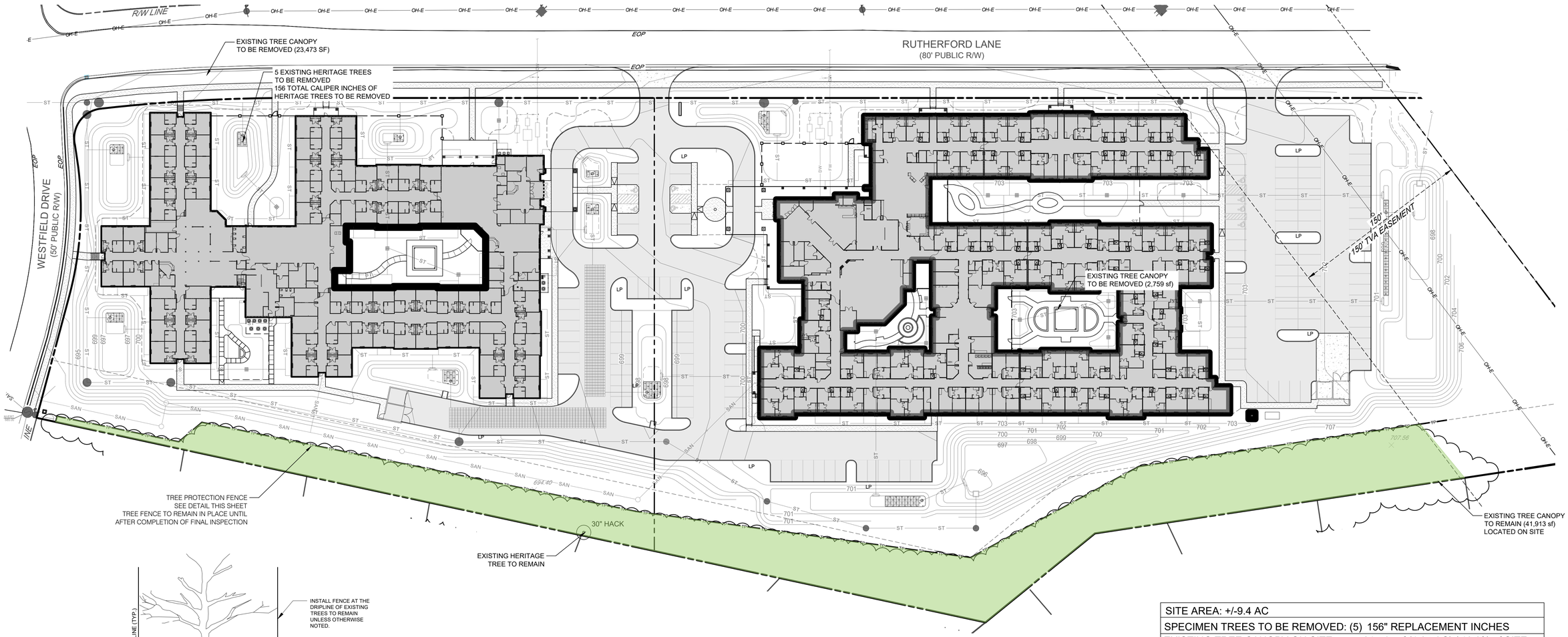
DR.	DATE	DESCRIPTION
JEL	04/20/2026	FINAL PUD MASTER PLAN
JEL	05/18/2026	FINAL PUD MASTER PLAN RE-SUBMITTAL

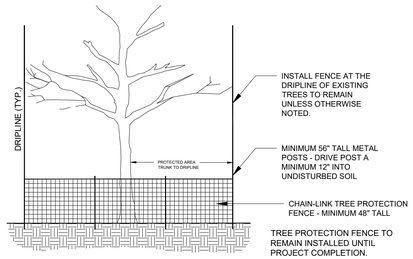
SITE DETAILS

C4.9

1421-01 MORNING POINTE

Modified: May 18, 2026
Z:\1421 Morning Pointe\01 - Columbia\02 - Civil\Sheets\1421-01 Site Details.dwg





CHAIN LINK FENCING TREE PROTECTION

TREE PROTECTION NOTES:

1. The tree protection barriers shall be constructed before the issuance of any permits, and shall remain intact throughout the entire period of construction.
2. The tree protection barrier shall be installed as labeled on this plan or a distance to the radius of the dripline, whichever is greatest, as measured from the trunk of the protected tree.
3. Any required excavation in or around the protection zone to accommodate underground services, footings, etc; shall be indicated on the plan, and shall be excavated by hand. In addition, related root pruning shall be accomplished via ANSI A-300 standard so as to minimize compact on the general root system. Root prunning to occur prior to grading.
4. The storage of building materials or stockpiling shall not be permitted within the limits of or against the protection barriers.
5. Trees within the protection barriers must be adequately cared for throughout the construction pro cess (i.e., they must be watered sufficiently, particularly if the tree's root system has been disturbed by excavation.) Fill shall not be placed upon the root system as to endanger the health or life of the affected tree.
6. Heavy accumulation of dust from construction activity may occur on the surface of tree foliage. To control dust, tree foliage may be hosed down upon the request of the Landscape Architect or Owners Representative.
7. Removal of all tree protection fencing will be done by the Contractor. Restoration of all areas disturbed by the fencing will be the Contractor's responsibility. All tree fence to remain intact until final completion of the project.

SITE AREA: +/-9.4 AC
SPECIMEN TREES TO BE REMOVED: (5) 156" REPLACEMENT INCHES
EXISTING TREE CANOPY ON SITE: 81,545 sf (1.87 AC) / 19.9% of SITE
REQ. CANOPY RETENTION (24% OF EXISTING COVER) 19,571 sf (0.45 AC) PROPOSED CANOPY RETENTION (51.3% EX. COVER) 41,913 sf (0.96 AC)

DEVIATION FROM PRELIMINARY PUD MASTER PLAN

- PLANT QUANTITIES INCREASED DUE TO ADDITION OF FOUNDATION LANDSCAPE, COURTYARD LANDSCAPE, AND FOCAL POINT LANDSCAPE
- DECORATIVE FENCE AND COLUMN SIZE INCREASED TO CREATE A MORE AESTHETIC LOOK
- TREE PROTECTION FENCE AND TREE CANOPY UPDATED DUE TO SEWER LINE LOCATION

0 40 80 120 feet

SCALE: 1" = 40'

NORTH

LAND DESIGN
106 MISSION CRT. STE 403B
Franklin, TN 37067
615.376.2421
hblanddesign.com

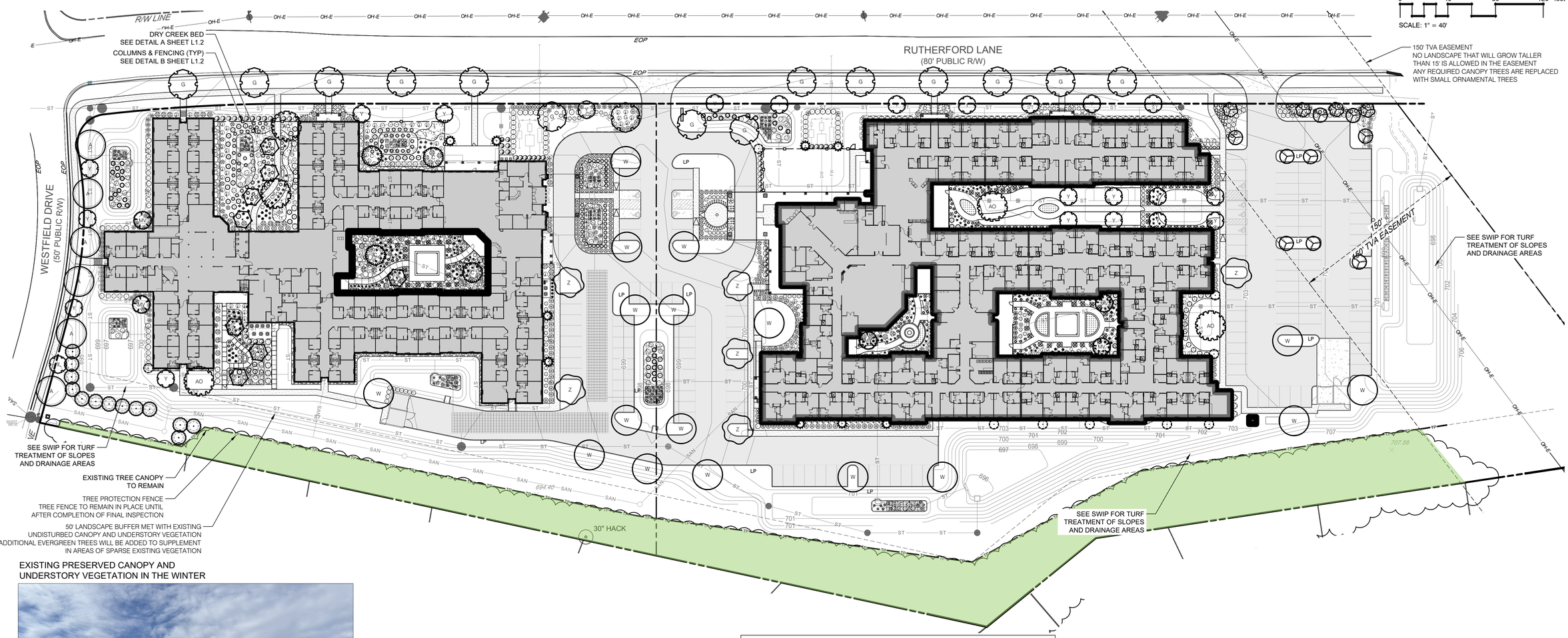
PROPOSED SITE FOR:
MORNING POINTE
COLUMBIA, TENNESSEE

CONNOR L. BALL
REGISTERED
LANDSCAPE
ARCHITECT
STATE OF
TENNESSEE

Job # - 25277
BY: cb

TREE PRESERVATION PLAN

L1.0



EXISTING PRESERVED CANOPY AND UNDERSTORY VEGETATION IN THE WINTER





- 1 TREE PER 50 FT OF FRONTAGE
  1,237 LF / 50 = 25 STREET TREES
- HERITAGE TREE REPLACEMENT: 156"
  PROVIDED: >157.5" (63 - 2.5" TREES)
- 1 CANOPY TREE PER 2,000 SF OF PARKING AREA
  64,369sf PARKING AREA / 2,000 = 32 PARKING LOT TREES
- MIN. SIZE: 2.5" / MIN. SPECIES: 4 / MAX GENERA 40%
- FOUNDATION PLANTINGS
- ALL TREES TO BE INSTALLED AT A MIX. 6' FROM ANY WATER MAIN OR PUBLIC WATER SYSTEM INFRASTRUCTURE

DEVIATION FROM PRELIMINARY PUD MASTER PLAN

- PLANT QUANTITIES INCREASED DUE TO ADDITION OF FOUNDATION LANDSCAPE, COURTYARD LANDSCAPE, AND FOCAL POINT LANDSCAPE
- DECORATIVE FENCE AND COLUMN SIZE INCREASED TO CREATE A MORE AESTHETIC LOOK
- TREE PROTECTION FENCE AND TREE CANOPY UPDATED DUE TO SEWER LINE LOCATION

HB LAND DESIGN
106 MISSION CRT. STE 403B
Franklin, TN 37067
615.376.2421
hblanddesign.com

PROPOSED SITE FOR:
MORNING POINTE
COLUMBIA, TENNESSEE

Job # - 25277
BY: cb

NORTH

L1.1

LANDSCAPE PLAN

PLANTING NOTES:
1. Refer to all written specifications; adhere to Plans and Specifications for all phases of work.
2. Verify all utility locations in the field before work begins. Repair damaged utilities to owners satisfaction at no additional cost.
3. Verify all material quantities on the drawing during bidding and pricing. In the event of a discrepancy, the quantities drawn on the plan will take precedence over the material schedule.
4. All materials are subject to the approval of the Landscape Architect, City, and Owner.
5. Once unloaded from truck, immediately stand all trees up. DO NOT lie the trees down. This will reduce the risk of sunscald.
6. Plants shall meet specifications. Root balls shall meet or exceed size standards as set forth by 'American Standards for Nursery Stock'. Main leaders of all trees shall remain intact.
7. Mulch plant pits and planting beds with specified mulch to the depth indicated on drawings.
8. Prepare all topsoil used in tree, shrub, and seed mixes in accordance with the specifications
9. Discard any material which turns brown or defoliates within 5 days after planting. Replace immediately with approved specified material at no additional cost.
10. Maintain all plant material and lawns until project is accepted in full by the City.
11. Install all plant material in accordance with all local codes and ordinances. Obtain any required permits necessary to complete the work.
12. Trees shall be first quality representatives of their species and shall meet all requirements otherwise stipulated. The Landscape Architect reserves the right to reject plant materials in the field, at the growing location, or at the job site at any time during the project.
13. Test all tree pits for drainage. Any tree pit that holds water for more than 24 hours shall be installed using filter fabric wrapped perforated drainage tube (sloped to low point) and a washed pea gravel pit well drain

LANDSCAPE NOTES:
1. Contractor responsible for locating and protecting all underground utilities prior to digging.
2. Contractor responsible for protecting existing trees from damage during construction as shown on plans.
3. Contractor to install 6" minimum depth of clean, friable topsoil at all planting beds and lawn areas prior to fine grading.
4. Existing grass in proposed planting areas to be killed and removed and area to be hand raked to remove all rocks and debris larger than 1 inch in diameter prior to planting shrubs or laying sod. Landscape contractor to provide fine grading.
5. Any existing grass disturbed during construction to be fully removed, re-graded and replaced. All tire marks and indention to be repaired.
6. Soil to be tested to determine fertilizer and lime requirements and distributed prior to laying sod.
7. Sod to be delivered fresh (cut less than 24 hours prior to arriving on site), laid immediately, rolled, and watered thoroughly immediately after planting. edge of sod adjacent to mulch beds to be shovel cut. All sod to be delivered in largest rolls available. there shall be no gaps between sod joints.
8. The contractor is solely responsible for the establishment of the areas designated as seed to the final acceptance of the owner and city. The contractor shall plan to overseed areas that do not germinate and/or provide adequate coverage.
9. Planting mix to be provided as specified in the landscape specifications.
10. The landscape contractor shall guarantee all plants installed for one full year from date of acceptance. All plants shall be alive and at a vigorous rate of growth at the end of the guarantee period. The landscape contractor shall not be responsible for acts of god or vandalism.
11. Any plant that is determined dead, in an unhealthy or unsightly condition, lost its shape due to dead branches or other symptoms of poor, non-vigorous growth, as determined by the landscape architect, shall be replaced by the landscape contractor at no cost to owner.
12. Prior to installation, the landscape contractor shall inspect the subgrade, general site conditions, verify elevations, utility locations, irrigation, approve topsoil provided by general contractor and observe the site conditions under which the work is to be done. Notify general contractor of any unsatisfactory conditions, and work shall not proceed until such conditions have been corrected.
13. Water all plant material that are newly planted thoroughly twice in first 24 hours and apply mulch immediately.
14. All areas of disturbance outside of landscape beds shall be repaired with turf.
15. Any utility structure, light poles, sign, or other feature may not be added to any required landscape island in such a manner that would displace the required element(s) (trees, shrubs, etc.)

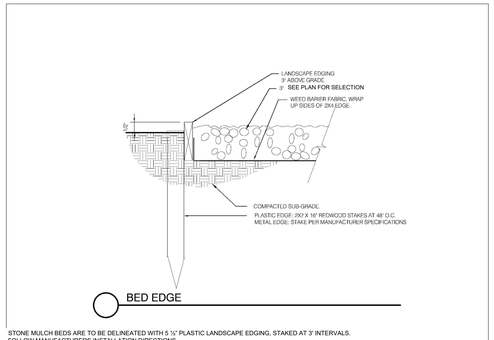
TREE SPECIFICATIONS: ALL TREES SHALL HAVE THE FOLLOWING CHARACTERISTICS:
1. Deciduous trees shall have one dominant single straight trunk with the tip of the leader on the main trunk left intact and the terminal bud on the central leader is at the highest point on the tree.
2. Trees with forked trunks are acceptable if all the following conditions are met:
   a. The fork occurs in the upper 1/3 of the tree.
   b. One fork is less than 2/3 the diameter of the dominant fork.
   c. The top 1/3 of the smaller fork is removed at the time of planting.
3. No branch is greater than 2/3 the diameter of the trunk directly above the branch.
4. The trunk and/or major branches shall not touch
5. Several branches are larger in diameter and obviously more dominant.
6. Branching habit is more horizontal than vertical, and no branches are oriented nearly vertical to the trunk.
7. Branches are evenly distributed around the trunk with no more than one major branch located directly above another and the crown is full of foliage evenly distributed around the tree
8. Crown spread shall look proportional to the tree.
9. NO flush cuts or open trunk wounds or other bark injury
10. Root ball meets all ANSI standards and is appropriately sized

DEFICIENCIES NOT ACCEPTED:
1. Tip dieback on 5% of branches
2. Crown thin/spasely foliated
3. Included bark
4. Major Branches touching
5. Asymmetrical branching

TO AVOID OVERHEAD LIGHT POLE CONFLICTS:
In the event proposed canopy trees are in conflict (within 15') with proposed or existing light pole locations, the landscape contractor shall stop work and contact Heibert+Ball Land Design immediately for coordination and field adjustment

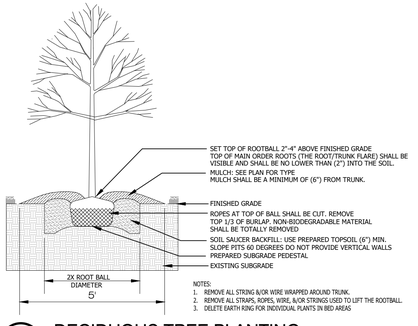
TO AVOID OVERHEAD UTILITY CONFLICTS:
In the event proposed canopy trees are in conflict (within 25') with proposed or existing overhead utility locations, the landscape contractor shall stop work and contact Heibert+Ball Land Design immediately for coordination and field adjustment.

811 Know what's below. Call before you dig.



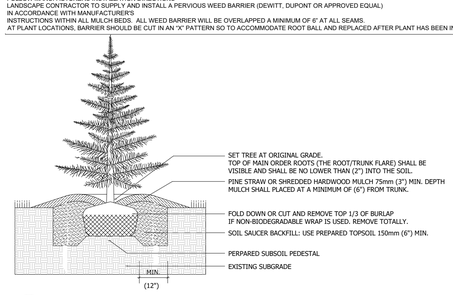
BED EDGE

STONE MULCH BEDS ARE TO BE DELINEATED WITH 5 ½" PLASTIC LANDSCAPE EDGING, STAKED AT 3' INTERVALS.
FOLLOW MANUFACTURERS INSTALLATION DIRECTIONS
LANDSCAPE CONTRACTOR TO SUPPLY AND INSTALL A PERVIOUS WEED BARRIER (DEWITT, DUPONT OR APPROVED EQUAL)
IN ACCORDANCE WITH MANUFACTURER'S
INSTRUCTIONS WITHIN ALL MULCH BEDS. ALL WEED BARRIER WILL BE OVERLAPPED A MINIMUM OF 6" AT ALL SEAMS.
AT PLANT LOCATIONS, BARRIER SHOULD BE CUT IN AN "X" PATTERN SO TO ACCOMMODATE ROOT BALL AND REPLACED AFTER PLANT HAS BEEN INSTALLED



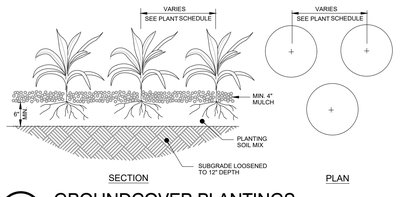
NOTES:
1. REMOVE ALL STRING &/OR WIRE WRAPPED AROUND TRUNK.
2. REMOVE ALL STRAPS, ROPES, WIRE, &/OR STRINGS USED TO LIFT THE ROOTBALL.
3. DELETE EARTH RING FOR INDIVIDUAL PLANTS IN BED AREAS

DECIDUOUS TREE PLANTING

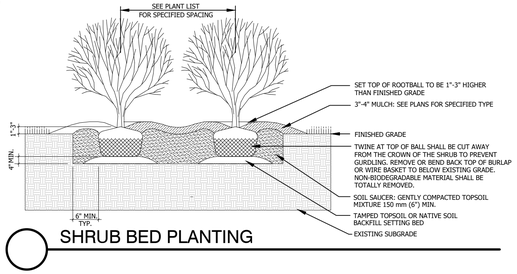


EVERGREEN TREE PLANTING

P-NO-12



GROUNDCOVER PLANTINGS
GROUNDCOVER, GRASSES, AND PERENNIALS



SHRUB BED PLANTING

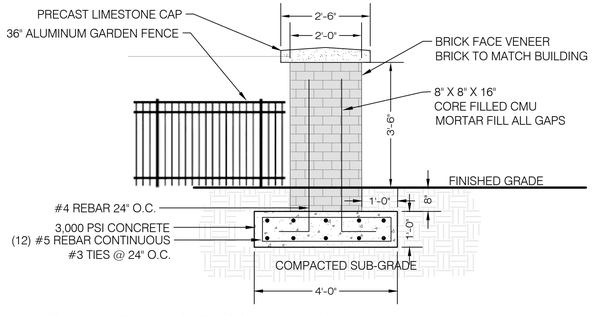
DEVIATION FROM PRELIMINARY PUD MASTER PLAN
- PLANT QUANTITIES INCREASED DUE TO ADDITION OF FOUNDATION LANDSCAPE, COURTYARD LANDSCAPE, AND FOCAL POINT LANDSCAPE
- DECORATIVE FENCE AND COLUMN SIZE INCREASED TO CREATE A MORE AESTHETIC LOOK
- TREE PROTECTION FENCE AND TREE CANOPY UPDATED DUE TO SEWER LINE LOCATION

PLANT SCHEDULE

SYMBOL	QTY	COMMON / BOTANICAL NAME	CONT	CAL	SIZE
BUFFER TREES					
	13	Little Gem Magnolia / Magnolia grandiflora `Little Gem' Full Dense form. Full to base. See tree specifications	B & B		8`-10` HT
PARKING LOT TREES					
	9	Black Diamond Best Red Crape Myrtle / Lagerstroemia indica 'Black Diamond Best Red' 3 Cane. Min. Evenly Branched. Matched. See Tree Specifications	#15 Container	CLUMP	8` HT
W	17	Willow Oak / Quercus phellos 5` Clear Trunk. Evenly Branched. Matched. See Tree Specifications	B & B	2.5"Cal	Per ANSI
Z	6	Village Green Zelkova / Zelkova serrata `Village Green` 5` Clear Trunk. Evenly Branched. Matched. See Tree Specifications	B & B	2.5"Cal	Per ANSI
REPLACEMENT TREES					
AO	5	October Glory Maple / Acer rubrum `October Glory' 5` Clear Trunk. Evenly Branched. Full Symmetrcal Crown. See Tree Specifications.	B & B	2.5"Cal	12`-14` HT
	9	Columnar European Hornbean / Carpinus betulus `Fastigiata` 3` Clear Trunk. Evenly Branched. See Tree Specifications	B & B	2.5"Cal	10`-12` HT
C	4	Red Fox Katsura Tree / Cercidiphyllum japonicum 'Red Fox' 4` Clear Trunk. Evenly Branched. Full Symmetrcal Crown. See Tree Specifications.	B & B	2.5"Cal	10`-12` HT
	8	Cherokee Princess Dogwood / Cornus florida `Cherokee Princess` 4' Clear Trunk. Full Symmetrcal Crown See Tree Specifications	B & B	2.5"Cal	10`-12` HT
	9	Slender Silhouette Sweet Gum / Liquidambar styraciflua 'Slender Silhouette' 4' Clear Trunk. Evenly Branched. Full Symetrcal Crown. See Tree Specifications	B & B	2.5"Cal	10`-12` HT
MV	5	Sweet Bay 'Hentry Hicks (Tree Form) / Magnolia virginiana `Henry Hicks` (TF) Single Stem. Full Rounded Head. See Tree Specifications. Matched Specimens	B & B	2.5"Cal	10`-12` HT
Y	23	Yoshino Cherry / Prunus x yedoensis 4` Clear Trunk. Evenly Branched. Matched. See Tree Specifications	B & B	2.5"Cal	12`-14` HT
STREET TREES					
A	6	Summer Red Red Maple / Acer rubrum `HOSR` 5` Clear Trunk. Evenly Branched. Matched. See Tree Specifications	B & B	2.5"Cal	Per ANSI
G	15	Kentucky Coffeetree / Gymnocladus dioica 'Espresso' 5` Clear Trunk. Evenly Branched. Matched. See Tree Specifications	B & B	2.5"Cal	Per ANSI
	4	Black Diamond Blush Crape Myrtle / Lagerstroemia indica 'Black Diamond Blush' 3 Cane. Min. Evenly Branched. Matched. See Tree Specifications	#15 Container	CLUMP	8` HT

WHEN THE TERMS "POT", "CONTAINER", OR "CALIPER" ARE USED TO DESCRIBE MINIMUM SIZE AT PLANTING, THE ESTABLISHED AMERICAN STANDARD FOR NURSERY STOCK SHALL APPLY.
THAT IS: •"ALL CONTAINER GROWN (DECIDUOUS OR CONIFER) SHRUBS SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED AND ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THEY SHALL HAVE TOPS WHICH ARE OF GOOD QUALITY AND ARE IN A HEALTHY GROWING CONDITION." "AN ESTABLISHED CONTAINER GROWN (DECIDUOUS OR CONIFER) SHRUB SHALL BE A (DECIDUOUS OR CONIFER) SHRUB TRANSPLANTED INTO A CONTAINER AND GROWN IN THAT CONTAINER SUFFICIENTLY LONG FOR THE NEW FIBROUS ROOTS TO HAVE DEVELOPED SO THAT THE ROOT MASS WILL RETAIN ITS SHAPE AND HOLD TOGETHER WHEN REMOVED FROM THE CONTAINER." •CONTAINER SIZE MAY BE CONVERTED TO MINIMUM HEIGHT/SPREAD AS FOLLOWS:
1 GALLON = 12" TO 15" HEIGHT OR SPREAD
3 GALLON = 15"-18" HEIGHT OR SPREAD
5 GALLON = 18" TO 24" HEIGHT OR SPREAD
7 GALLON = 24" TO 30" HEIGHT OR SPREAD

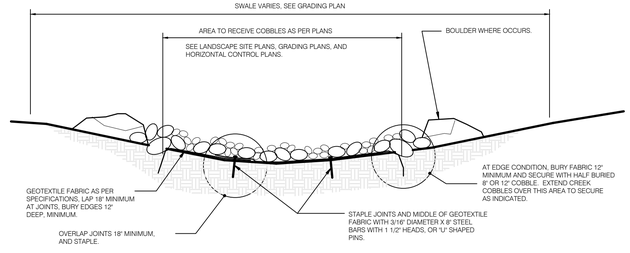
PLAN NOTES:
1. ACCEPT WHERE SPECIFIED AS ROCK MULCH; ALL LANDSCAPE BEDS SHALL BE NEATLY TRENCHED WITH A BED EDGE AND HAVE 3" MINIMUM DEPTH OF PINE BARK MULCH.
2. ALL TREES AND SHRUBS SHALL BE COORDINATED WITH LIGHTING PLAN PRIOR TO INSTALLATION.
3. ALL AREAS OF DISTURBANCE NOT SPECIFIED AS SOD SHALL BE SEEDED WITH 80% REBEL SUPREME, 20% MERION BLUEGRASS @ 8#/1,000 SF UNLESS OTHERWISE NOTED ON GRADING PLANS
4. ANY CHANGES TO TREE SPECIES OR LOCATIONS MAY REQUIRE THE CONTRACTOR TO PROVIDE AN AS-BUILT OF THE INSTALLED LANDSCAPE AND POSSIBLY DELAY APPROVAL OF THE SITE BY THE CITY OF COLUMBIA



B 42" COLUMN DETAIL & GARDEN FENCE
1/2" = 1'-0"

PLANT SCHEDULE

SYMBOL	CODE	QTY	COMMON / BOTANICAL NAME	HT / CONT.
SHRUBS				
	AE2	66	Radiance Abelia / Abelia x grandiflora `Radiance' Full; Dense; Well Rooted	#3 Container
	AZ	29	Northern Lights Deciduous Azalea / Azalea x `Mandarin Lights' Full. Heavy. Well Branched	#3 Container
	BGV	93	Green Velvet Boxwood / Buxus x 'Green Velvet' Full; Dense Form. Matched	#3 Container
	BI	29	Green Mountain Boxwood / Buxus x `Green Mountain' Full; Dense Form. Unsheered	#5 Container
	CE	43	Pearl Glamt Beautyberry / Callicarpa x 'NCCX2' Full; Heavy; Well Rooted, Matching	#1 Container
	CS	23	Winters Snowman Camellia / Camellia x 'Winter's Snowman' Full; Dense; Well Rooted	#5 Container
	CH	106	Duke`s Garden Plum Yew / Cephalotaxus harringtonia `Duke`s Garden' Full; Heavy; Well Rooted; Matching	#3 Container
	CC	2	Harry Lauder's Walking Stick / Corylus avellana 'Contorta' Full. Heavy. Well Branched.	#7 Container
	DV	92	Vintage Jade Distylium / Distylium x Vintage Jade Full; Dense; Well Rooted	#3 Container
	FG	15	Blue Shadow Fothergilla / Fothergilla x intermedia Blue Shadow Full; Dense; Well Rooted	#3 Container
	HA	138	Annabelle Hydrangea / Hydrangea arborescens `Annabelle' Full; Dense Form. Matched	#3 Container
	HY	28	Limelight Prime® Panicle Hydrangea / Hydrangea paniculata 'SMNHPPH' Full; Well Rooted	#7 Container
	HQ	14	Alice Oakleaf Hydrangea / Hydrangea quercifolia `Alice' Full; Heavy; Well Rooted, Matching	#3 Container
	HM	12	Munchkin Oakleaf Hydrangea / Hydrangea quercifolia `Munchkin' Full; Heavy; Well Rooted; Matching	#3 Container
	ID2	43	Dwarf Burford Holly / Ilex cornuta `Burfordii Nana' Full; Dense Form	30"-36" HT
	IC	48	Soft Touch Holly / Ilex cornuta `Soft Touch' Full; Dense Form	#3 Container
	IV4	54	Little Henry Sweetspire / Itea virginica `Little Henry' Full; Dense Form	#3 Container
	IV3	92	Merlot Sweetspire / Itea virginica `Merlot' Full. Heavy. Well Branched	18" HT
	JV	82	Old Gold Juniper / Juniperus chinensis 'Old Gold' Full. Heavy. Well Branched.	#3 Container
	JO	59	Grey Owl Juniper / Juniperus virginiana `Grey Owl' Full. Heavy. Well Branched.	#3 Container
	JO2	6	Stonehenge Skinny Yew / Taxus 'Stonehenge Skinny' Full; Dense Form.	#3 Container
	VM	51	Spice Baby™ Koreanspice Viburnum / Viburnum carlesii 'SMVCB'	#5 Container
	VP	30	Prague Viburnum / Viburnum x pragense Full; Dense Form. Matched	#5 Container
GRASSES				
	CA	42	Karl Foersters Feather Reed Grass / Calamagrostis x acutiflora `Karl Foerster' Full; Dense; Well Rooted	#1 Container
	LB2	172	Big Blue Lilyturf / Liriope muscari `Big Blue' Full; Dense; Well Rooted	1 Quart Pot
	PV2	32	Blue Switch Grass / Panicum virgatum `Heavy Metal' Full; Dense; Well Rooted	#1 Container
	PV	133	Shenandoah Switch Grass / Panicum virgatum `Shenandoah' Full; Dense; Well Rooted	#1 Container
PERENNIALS				
	DE	83	Autumn Fern / Dryopteris erythrosora `Brilliance' Full; Heavy; Well Rooted; Matching	#1 Container
	EM	48	Phantom Joe Pye Weed / Eupatorium maculatum 'Phantom' Full; Dense; Well Rooted; Matching	#1 Container
	HE2	83	Lenten Rose / Helleborus 'Ice n Roses White' Full; Heavy; Well Rooted;	#1 Container
	HG	29	Autumn Bride Heuchera / Heuchera 'Autumn Bride' Full; Dense; Well Rooted	#1 Container
	HR	93	Royal Standard Hosta / Hosta 'Royal Standard' Full; Heavy; Well Rooted,	#2 Container
	IR	66	Southern Blue Flag Iris / Iris virginica Full; Dense; Well Rooted	#1 Container
	NW	25	Junior Walker's Catmint / Nepeta x faassenii 'Novanepjun' Full; Dense Form. Matched	#1 Container
	RF	24	Goldsturm Black-eyed Susan / Rudbeckia fulgida `Goldsturm' Full; Dense; Well Rooted	#1 Container
SYMBOL	CODE	QTY	COMMON / BOTANICAL NAME	CONT
GROUND COVERS				
	RR3	844 sf	Dry Creek Bed Locally sourced Colorado River Rock. Color: Rocky Mountain Mix of 6"-10" Rock (40%) and 3"-6" Rock (60%) And 7 Large Boulders Installed over Weed Fabric with Steel Bed Edge	Space as Noted
	RR2	12,535 sf	River Rock Mulch 3" Depth of locally sourced 2"-5" Tennessee River Stone Mulch. Install over weed fabric and steel bed edge in all areas other than Focal Points. Focal points to be installed construced per detail on Civil Sheets	Space as Noted
	SC3	254	Selection of Perennial, Annuals, and Grasses / Seasonal Color Install an appealing layered look.	4"pot@
	SC	4,493 sf	Slate Chips Mulch 3"-4" Depth of locally sourced slate chips installed over weed fabric and bound by steel bed edging.	Space as Noted



A DRY CREEK BED INSTALLATION
1/2" = 1'-0"

LAND DESIGN
106 MISSION CRT. STE 403B
Franklin, TN 37067
615.376.2421
hblanddesign.com

PROPOSED SITE FOR:
MORNING POINTE
COLUMBIA, TENNESSEE

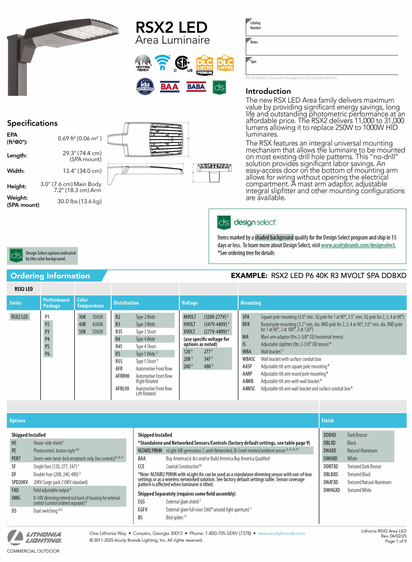
CONNOR L. BALL REGISTERED LANDSCAPE ARCHITECT

Job # - 25277
BY: cb

NORTH

L1.1

LANDSCAPE PLAN



RSX2 LED
Area Luminaire

Introduction
The new RSX LED Area family delivers maximum value by providing significant energy savings, long life and outstanding photometric performance at an affordable price. The RSX2 delivers 11,000 to 31,000 lumens allowing it to replace 250W to 1000W HID luminaires.

The RSX features an integral universal mounting mechanism that allows the luminaire to be mounted on most existing drill hole patterns. This "no-drill" solution provides significant labor savings. An easy-access door on the bottom of mounting arm allows for wiring without opening the electrical compartment. A mast arm adaptor, adjustable integral slipfitter and other mounting configurations are available.

Specifications
EPA (ft²@0°): 0.69 ft² (0.06 m²)
Length: 29.3" (74.4 cm) (SPA mount)
Width: 13.4" (34.0 cm)
Height: 3.0" (7.6 cm) Main Body, 7.2" (18.3 cm) Arm
Weight: (SPA mount) 30.0 lbs (13.6 kg)

design select
Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.
*See ordering tree for details

Design Select options indicated by this color background.

Ordering Information
EXAMPLE: RSX2 LED P6 40K R3 MVOLT SPA DDBXD

RSX2 LED

Series	Performance Package	Color Temperature	Distribution	Voltage	Mounting
RSX2 LED	P1	30K 3000K	R2 Type 2 Wide	MVOLT (120V-277V)*	SPA Square pole mounting (3.0" min. SQ pole for 1 at 90°, 3.5" min. SQ pole for 2, 3, 4 at 90°)
	P2	40K 4000K	R3 Type 3 Wide	HVOLT (347V-480V)*	RPA Round pole mounting (3.2" min. dia. RND pole for 2, 3, 4 at 90°, 3.0" min. dia. RND pole for 1 at 90°, 2 at 180°, 3 at 120°)
	P3	50K 5000K	R3S Type 3 Short	XVOLT (277V-480V)*	WA Mast arm adaptor (fits 2-3/8" OD horizontal tenon)
	P4		R4 Type 4 Wide	Use specific voltage for options as noted)	IS Adjustable slipfitter (fits 2-3/8" OD tenon)*
	P5		R4S Type 4 Short	120* 277*	WBA Wall bracket*
	P6		R5 Type 5 Wide*	208* 347*	WBACC Wall bracket with surface conduit box
			R5S Type 5 Short*	240* 480*	AASP Adjustable tilt arm square pole mounting*
			AFR Automotive Front Row		AARP Adjustable tilt arm round pole mounting*
			AFRR90 Automotive Front Row Right Rotated		AABOL Adjustable tilt arm with wall bracket*
			AFRL90 Automotive Front Row Left Rotated		AAWSC Adjustable tilt arm wall bracket and surface conduit box*

Options

Shipped Installed
HS House-side shield*
PE Photocontrol, button style 10*
PER7 Seven-wire twist-lock receptacle only (no control) 10,11,12
SF Single fuse (120, 277, 347)
DF Double fuse (208, 240, 480)
SPD20KV 20KV Surge pack (10kV standard)
FAO Field adjustable output 13
DMG 0-10V dimming extend out back of housing for external control (control ordered separate) 14
DS Dual switch 15,16

Shipped Installed
*Standalone and Networked Sensors, Controls (factory default settings, see table page 9)
NLTAIR2 PIRHN Nlight AIR generation 2, with Networked, 8-level motion/ambient sensor (PIRHN) 17,18,19
BAA Buy America's Act and/or Build America Buy America Qualified
CCE Central Construction*
*Note: NLTAIR2 PIRHN with nLight Air can be used as a standalone dimming sensor with out-of-box settings or as a wireless networked solution. See factory default settings table. Sensor coverage pattern is affected when luminaire is tilted.

Shipped Separately (require same field assembly)
EGS External glare shield 7
EGFV External glare full visor (360° around light aperture) 7
BS Bird spikes 20

Finish
DDBXD Dark Bronze
DBLXD Black
DNAXD Natural Aluminum
DWHXD White
DDBTXD Textured Dark Bronze
DBLBXD Textured Black
DNATXD Textured Natural Aluminum
DWHGXD Textured White

LITHONIA LIGHTING
One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV (7378) • www.acuitybrands.com
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Lithonia RSX2 Area LED Rev. 04/02/25 Page 1 of 9
COMMERCIAL OUTDOOR

2 TYPES SP1, SP1D, & SP2
NOT TO SCALE



KBA8 LED
LED Specification Bollard

BAA

Introduction
The KBA8 Bollard is a stylish, fully integrated LED solution for walkways. It features a sleek, modern design and is carefully engineered to provide long-lasting, energy-efficient lighting with a variety of optical and control options for customized performance.

With an expected service life of over 20 years of nighttime use and up to 70% in energy savings over comparable 100W metal halide luminaires, the KBA8 Bollard is a reliable, low-maintenance lighting solution that produces sites that are exceptionally illuminated.

Specifications
Diameter: 8" Round (203.2 mm)
Height: 42" (106.7 mm)
Weight (max): 27 lbs (12.25 kg)

Ordering Information
EXAMPLE: KBA8 LED 16C 700 40K SYM MVOLT DDBXD

KBA8 LED

Series	LEDs	Drive current	Color temperature	Distribution	Voltage	Control options
KBA8 LED	Asymmetric: 12C 12 LEDs*	350 350 mA	30K 3000 K	ASY Asymmetric*	MVOLT*	Shipped installed
		450 450 mA*	40K 4000 K	SYM Symmetric*	120*	PE Photoelectric cell, button type
	Symmetric: 16C 16 LEDs*	530 530 mA	50K 5000 K		208*	DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately)
		700 700 mA	AMBPC Amber phosphor converted		240*	ELCW Emergency battery backup, CA 1 Hr 20 hrs/cm/system*
			AMBLW Amber limited wavelength 17		277*	
					347*	

Other options
Shipped installed
SF Single fuse (120, 277, 347V) 18
DF Double fuse (208, 240V) 18
HS4 24" overall height
HS8 36" overall height
HS96 96" overall height
FG Ground rod for loose use
LHB Without anchor bolts (3 bolt base)
LHBA 4 bolt retrofit base without anchor bolts 19

Finish (required)
DNAXD White
DNAXD Natural aluminum
DDBXD Dark bronze
DBLXD Black
DDBTXD Textured dark bronze
DBLBXD Textured black
DNATXD Textured natural aluminum
DWHGXD Textured white

Accessories
Ordered and shipped separately
KBA8 U Anchor bolts for KBA8 LED 21

NOTES
1 Only available in the 12C, ASY version.
2 Only available in the 16C, SYM version.
3 Only available with ASY, AMBLW version.
4 Not available with ELCW.
5 MVOLT driver operates in the following voltage: from 120-277V (50/60 Hz). Specify 120, 208, 240 or 277 options only when ordering with fusing (SF, DF options), or photocontrol (PE option).
6 Not available with 347V. Not available with fusing. Not available with HS accessory.
7 Single fuse (SF) requires 120, 277, or 347 voltage option. Double fuse (DF) requires 208, 240, or 480 voltage.
8 KBA8 U not available with LHABA option.
9 Stripping is available only in the colors listed.

LITHONIA LIGHTING
One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV (7378) • www.lithonia.com
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KBA8-LED Rev. 11/21/22

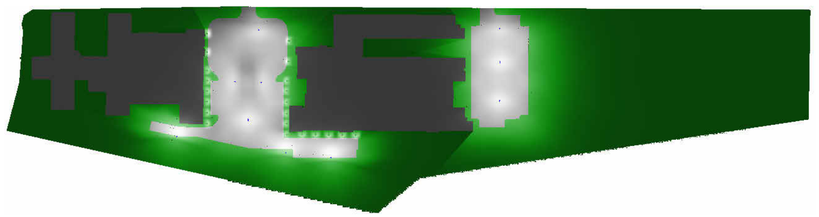
3 TYPE BD1
NOT TO SCALE

Statistics

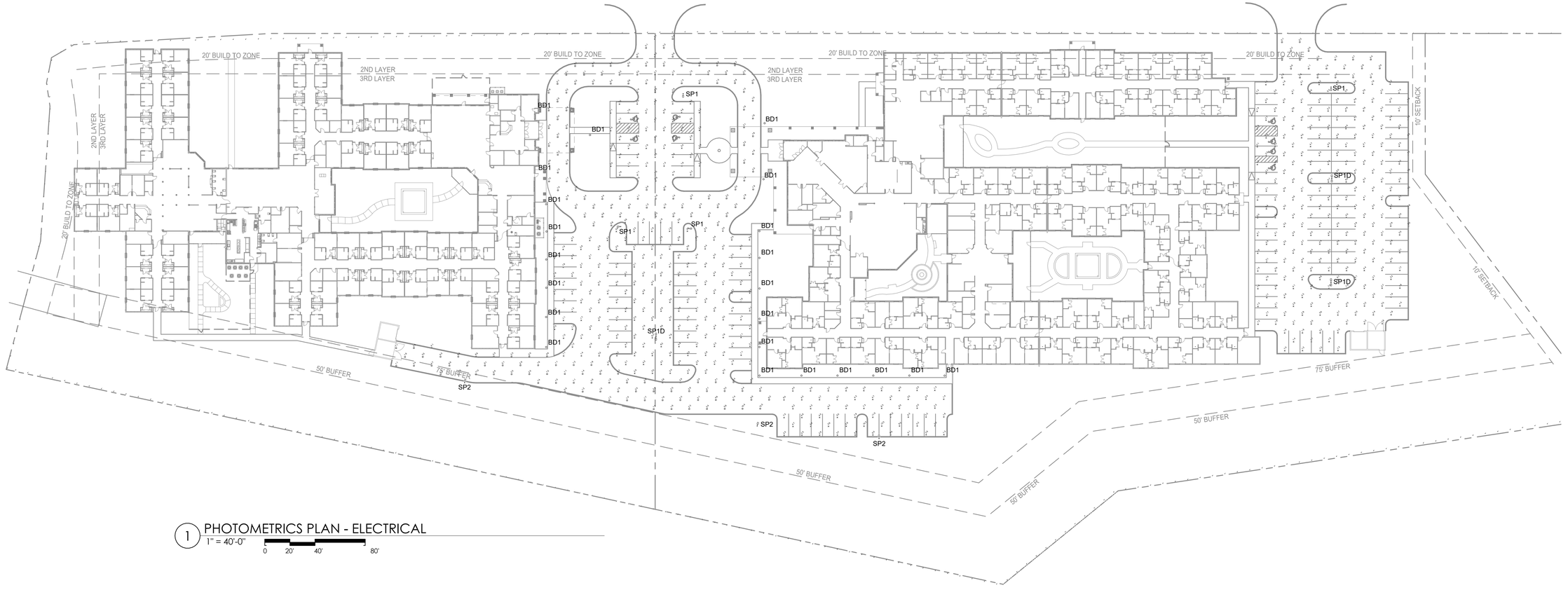
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
DRIVE 2	◇	4.0 fc	12.5 fc	0.9 fc	13.9:1	4.4:1
DRIVE 3	◇	1.1 fc	3.1 fc	0.1 fc	31.0:1	11.0:1
PARKING 1	+	2.3 fc	5.5 fc	1.0 fc	5.5:1	2.3:1
PARKING 2	+	3.1 fc	9.2 fc	1.0 fc	9.2:1	3.1:1
PARKING 3	+	4.8 fc	12.3 fc	1.3 fc	9.5:1	3.7:1
PARKING 4	+	3.6 fc	9.7 fc	1.0 fc	9.7:1	3.6:1
PROPERTY LINE	×	0.0 fc	0.2 fc	0.0 fc	N/A	N/A
DRIVE 1	◇	1.6 fc	6.4 fc	0.1 fc	64.0:1	16.0:1

SITE LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER	MODEL	VOLTAGE	INPUT WATTS	CCT/LUMENS	MOUNTING	DESCRIPTION
BD1	LITHONIA	KBA8-LED-12C-350-50K-ASY	120	16	5000K/1650	BOLLARD	LED BOLLARD, DARK BRONZE
SP1	LITHONIA	RSX2-LED-P6-50K-R3-EGS	208	244	5000K/30267	POLE	SITE POLE LIGHT (30' MOUNTING HEIGHT) DARK BRONZE
SP1D	LITHONIA	(2) RSX1-LED-P4-50K-R3	208	488	5000K/60534	POLE	SITE POLE LIGHT (30' MOUNTING HEIGHT) DARK BRONZE, DUAL HEAD
SP2	LITHONIA	RSX2-LED-P6-50K-AFR	208	244	5000K/30332	POLE	SITE POLE LIGHT (30' MOUNTING HEIGHT) DARK BRONZE



4 PHOTOMETRIC RENDER
NOT TO SCALE



1 PHOTOMETRICS PLAN - ELECTRICAL
1" = 40'-0"
0 20' 40' 80'

pmc Consulting Engineers
www.powermgmt.com
PROJECT NO. 25097
MIM / MIM

REVISIONS

699 DALLAS ROAD
CHATTANOOGA, TN 37405
(423) 265-3272
FAX (423)266-5502

NEUHOFF TAYLOR ARCHITECTS

SITE DEVELOPMENT PLANS FOR
MORNING POINTE
RUTHERFORD LANE
COLUMBIA, TENNESSEE

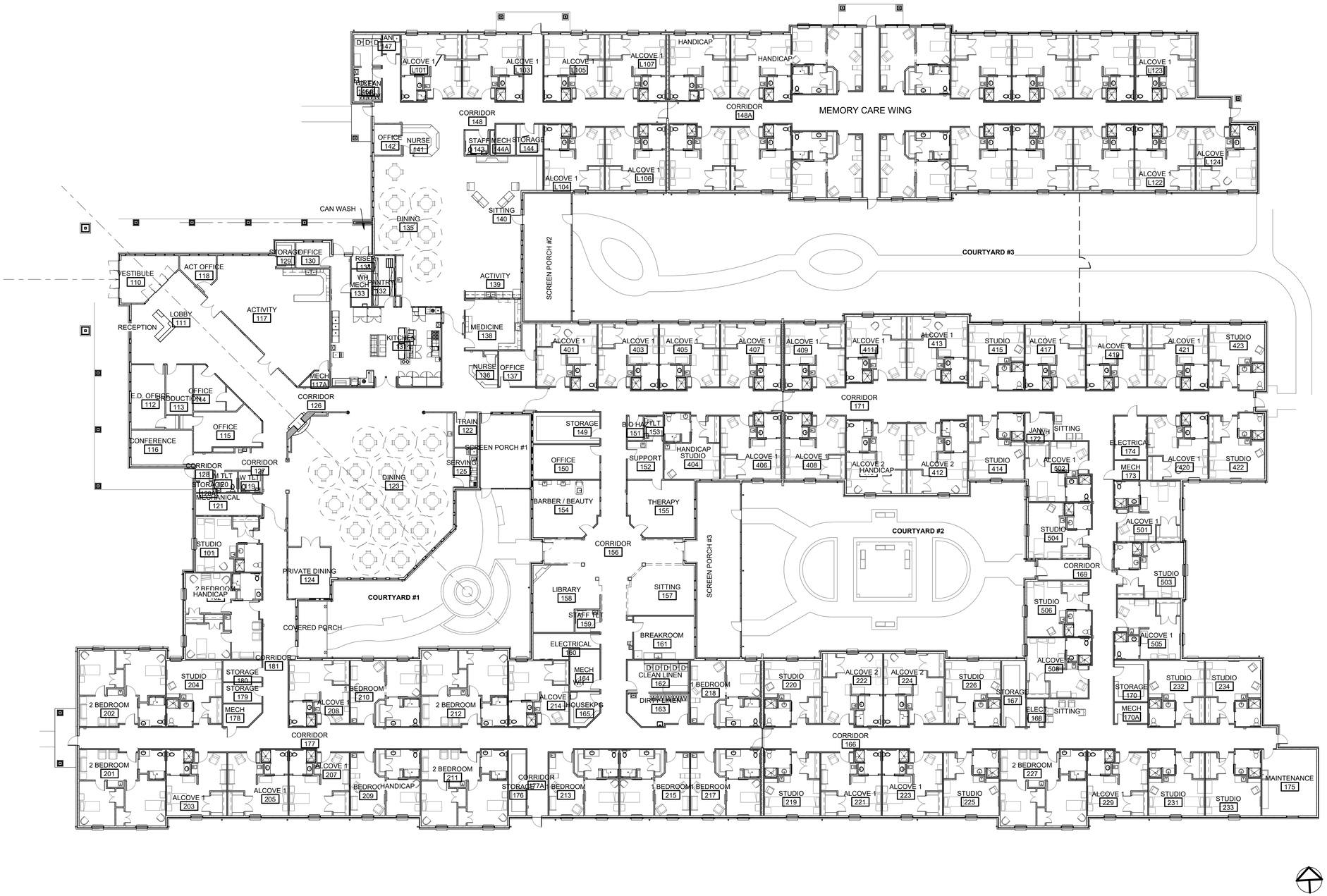
MATTHEW IAN MCDANIEL REGISTERED ENGINEER 11/17/2025 No. 131293 STATE OF TENNESSEE

PROJECT #
25047

DATE
11-17-25

DRAWING NAME
PHOTOMETRICS PLAN - ELECTRICAL

SHEET #
EP1.0



1 FLOOR PLAN
1/16" = 1'-0"

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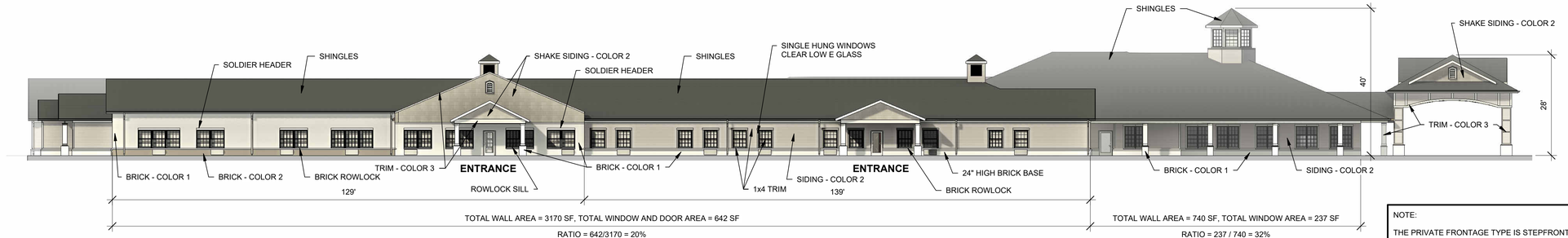
NEUHOFF TAYLOR ARCHITECTS

MORNING POINTE OF COLUMBIA
ASSISTED LIVING AND MEMORY CARE FACILITY
RUTHERFORD LANE
COLUMBIA, TENNESSEE

REVISIONS

RANDALL P. TAYLOR REGISTERED ARCHITECT 102.003407 12-26-25 STATE OF TENNESSEE

PROJECT # 25049
DATE 12-15-25
DRAWING NAME FLOOR PLAN
SHEET # A1



2 PLAN NORTH (RUTHERFORD LN) ELEVATION
1/16" = 1'-0"

NOTE:

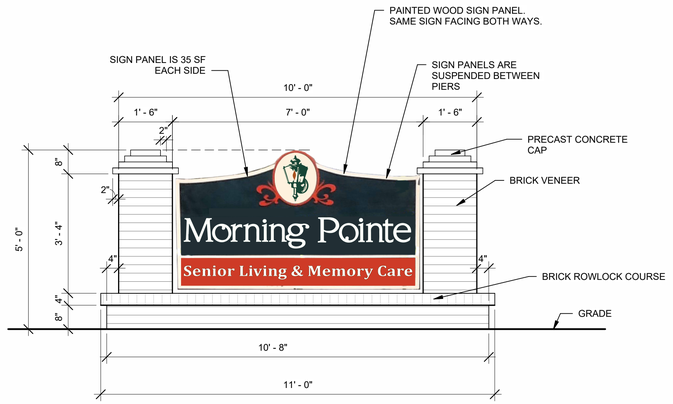
THE PRIVATE FRONTAGE TYPE IS STEPFRONT. A STEP AT THE ENTRANCE DOOR WILL NOT BE PROVIDED TO COMPLY THE BUILDING CODE REQUIREMENT FOR A LEVEL EGRESS.

ALL ROOF SLOPES TO BE BETWEEN 6:12 AND 14:12.

ALL CEILING HEIGHTS WILL BE LESS THAN 25 FEET.



1 PLAN SOUTH (FACING LANDSCAPE BUFFER) ELEVATION
1/16" = 1'-0"



5 MORNING POINTE SIGN
1/2" = 1'-0"



3 PLAN WEST ELEVATION
1/16" = 1'-0"



4 PLAN EAST ELEVATION
1/16" = 1'-0"

REVISIONS

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CHATTANOOGA, TN 37405
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NEUHOFF TAYLOR ARCHITECTS

MORNING POINTE OF COLUMBIA
ASSISTED LIVING AND MEMORY CARE FACILITY
RUTHERFORD LANE
COLUMBIA, TENNESSEE

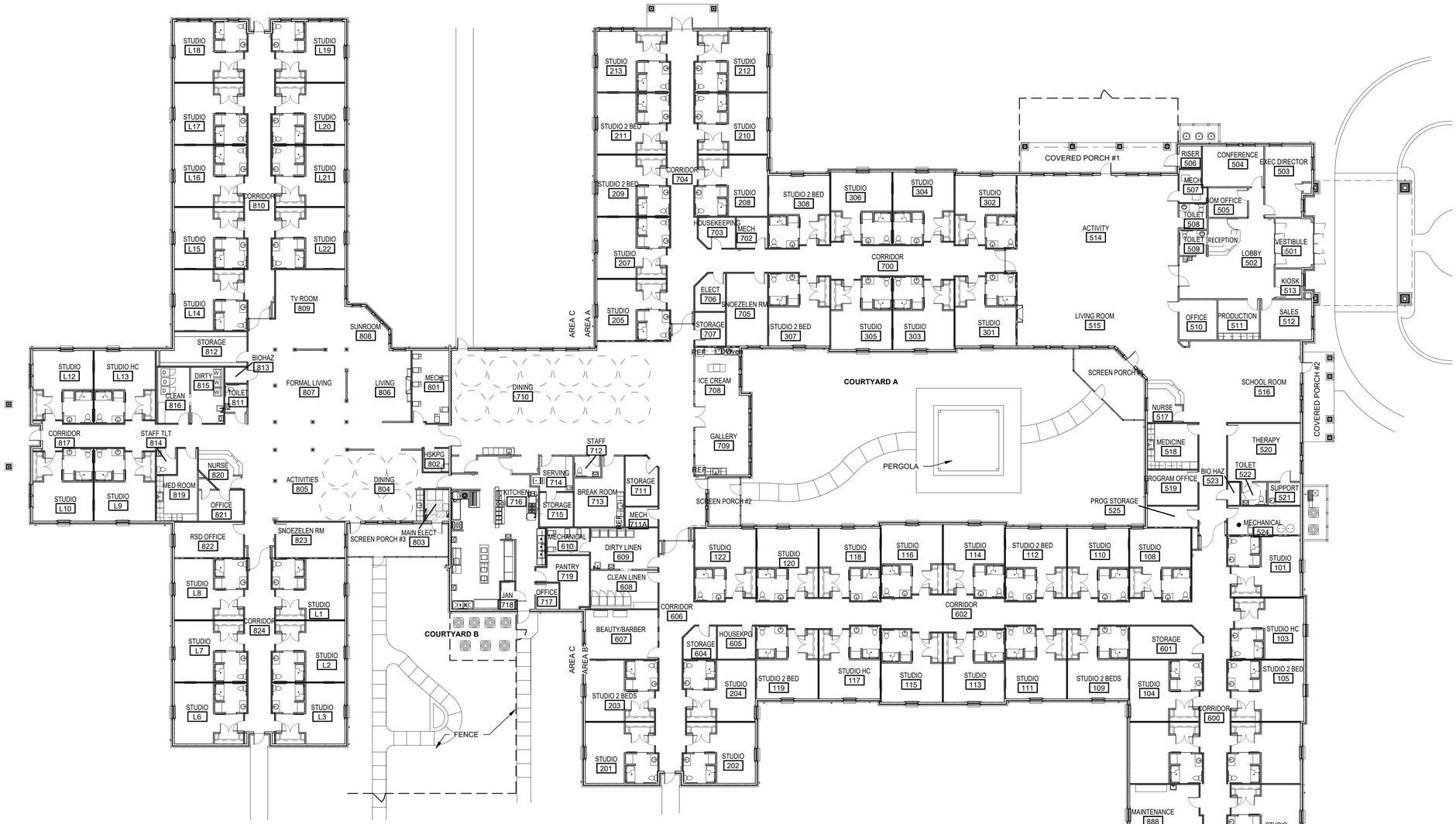
RANDALL P. TAYLOR
REGISTERED ARCHITECT
STATE OF TENNESSEE
12-23-25

PROJECT #
25049

DATE
12-15-25

DRAWING NAME
ELEVATIONS

SHEET #
A2



1 FLOOR PLAN
1/16" = 1'-0"

REVISIONS

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NEUHOFF TAYLOR ARCHITECTS

THE LANTERN AT MORNING POINTE
ALZHEIMER'S CENTER OF EXCELLENCE COLUMBIA

RUTHERFORD LANE
COLUMBIA, TN

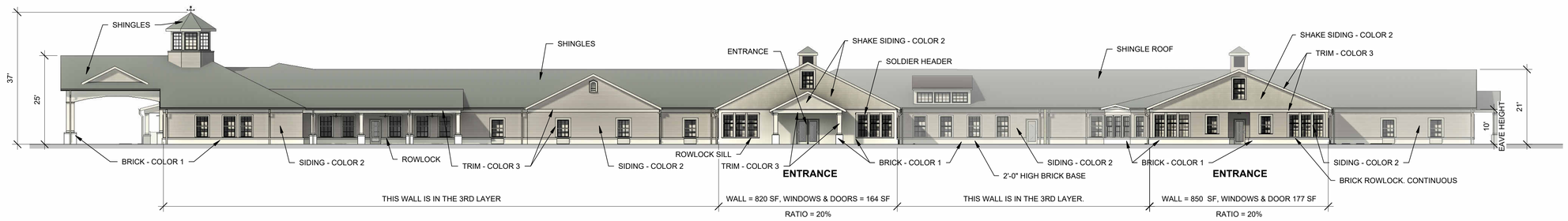
RANDALL P. TAYLOR
REGISTERED ARCHITECT
STATE OF TENNESSEE
1-23-26

PROJECT #
25048

DATE
1-23-26

DRAWING NAME
FLOOR PLAN

SHEET #
A3



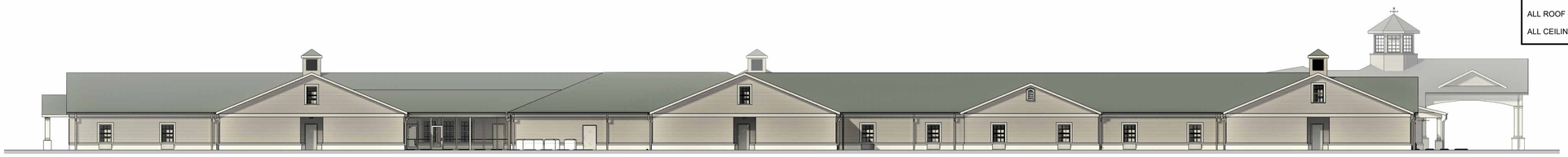
1 PLAN NORTH (RUTHERFORD LN) ELEVATION
1/16" = 1'-0"

NOTE:

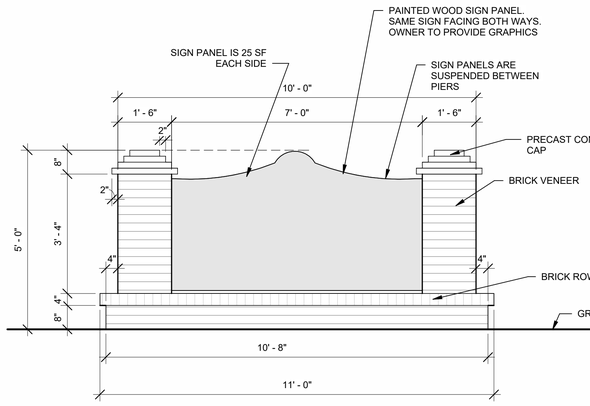
THE PRIVATE FRONTAGE TYPE IS STEPFRONT. A STEP AT THE ENTRANCE DOOR WILL NOT BE PROVIDED TO COMPLY THE BUILDING CODE REQUIREMENT FOR A LEVEL EGRESS.

ALL ROOF SLOPES TO BE BETWEEN 6:12 AND 14:12.

ALL CEILING HEIGHTS WILL BE LESS THAN 25 FEET.



2 PLAN SOUTH (FACING LANDSCAPE BUFFER) ELEVATION
1/16" = 1'-0"



5 MORNING POINTE SIGN
1/2" = 1'-0"



3 PLAN WEST (WESTFIELD) ELEVATION
1/16" = 1'-0"



4 PLAN EAST ELEVATION
1/16" = 1'-0"

REVISIONS

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NEUHOFF TAYLOR ARCHITECTS

THE LANTERN AT MORNING POINTE
ALZHEIMER'S CENTER OF EXCELLENCE COLUMBIA

RUTHERFORD LANE
COLUMBIA, TN

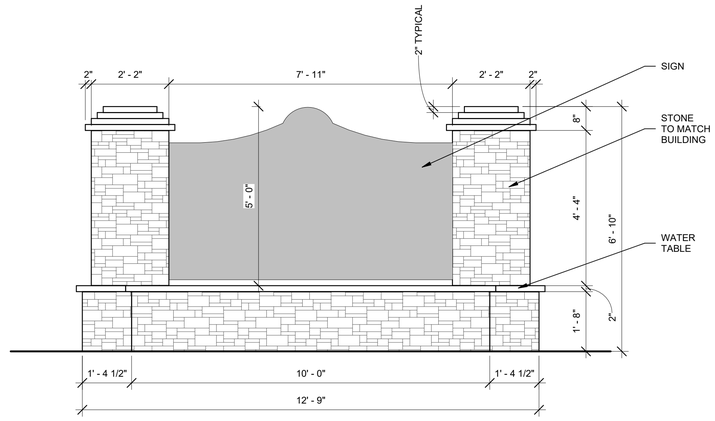
RANDALL P. TAYLOR
REGISTERED ARCHITECT
STATE OF TENNESSEE
No. 16021
1-23-26

PROJECT #
25048

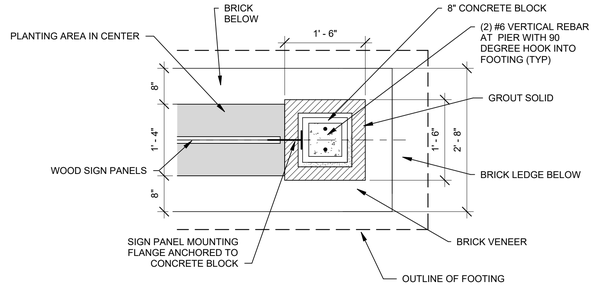
DATE
1-23-26

DRAWING NAME
ELEVATIONS

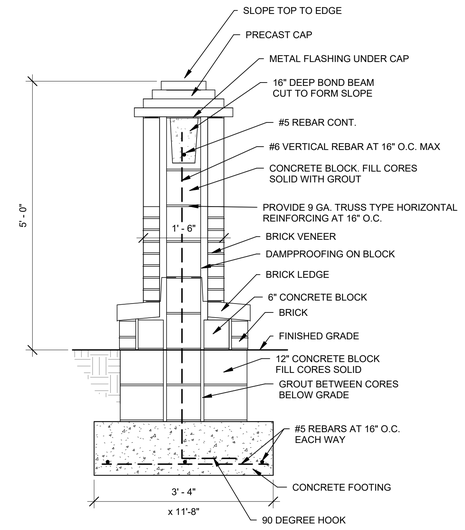
SHEET #
A4



1 MONUMENT SIGN ELEVATION
1/2" = 1'-0"



2 PLAN DETAIL AT PIER
3/4" = 1'-0"



3 SECTION
3/4" = 1'-0"

REVISIONS

699 DALLAS ROAD
CHATTANOOGA, TN 37405
(423) 265-3272
FAX (423)266-5502

NEUHOFF TAYLOR ARCHITECTS

MORNING POINTE OF COLUMBIA
ASSISTED LIVING AND MEMORY CARE FACILITY
200 RUTHERFORD LANE
COLUMBIA, TENNESSEE

RANDALL P. TAYLOR
REGISTERED ARCHITECT
No. 19021
STATE OF TENNESSEE
4/14/26

PROJECT #
25049

DATE
4-14-26

DRAWING NAME
EXTERIOR SIGNS

SHEET #
A7.2

FULMER LUCAS

May 18, 2026

Mr. Austin Brass, AICP
CITY OF COLUMBIA
Development Services Department
700 N Garden Street
Columbia, TN 38401

(submitted through columbia.onlama.com)

Re: Morning Pointe Final PUD Master Plan Re-Submittal

Dear Austin,

Fulmer Lucas Engineering, LLC, on behalf of Morning Pointe Senior Living, respectfully submits the following items for your review:

- 24" x 36" electronic copy of Final PUD Master Plan (PDF)
- Final PUD Master Plan (DWG)
- Drainage Report

Fulmer Lucas Engineering received review comments from your office on May 14, 2024, based on the plans submitted on April 20, 2026.

Comments

Fire

1. No comments.

Engineering

2. Stormwater and grading shall be evaluated fully during the site construction plans review.
   Response: Understood.

Planning

3. The lead case planner for this review will be Austin Brass, AICP. Please email all correspondence to abrass@colubiatn.gov.
   Response: Understood.

4. Plan West Elevation facing Westfield Drive included a revised design with City Council approval. Please update this Final PUD Master Site Plan to reflect elevation as approved by City Council.
   Response: The current design and being the same as approved by City Council is included with this re-submittal.

5. Plan North Elevation enfronting Rutherford Lane differs from City Council approval with triple glazed windows and more detailed entrance. Please update this Final PUD Master Plan to adhere to City Council approval
   Response: The current design and being the same as approved by City Council is included with this re-submittal.

6. Master Plan approved at City Council indicates a 30-inch height aluminum fence; however, proposal for this request indicates a 36-inch height aluminum fence.
   Response: Aluminum fence height has been changed from 30" to 36". The reason for the change is that 36" height panels are commonly available and a standard manufacturer size. In addition, a 36" height is a balanced choice that provides a clean, elegant, and non-obtrusive look.

7. Provide a detailed list of any changes from the proposed preliminary PUD Master Plan. This includes readjustments for landscaping on site and reasoning.
   Response: A list of any changes has been added from the Preliminary PUD Master Plan to the Final PUD Master Plan to the Cover Sheet.

8. Update landscape plan to reflect any changes including call out list that reflects landscaping opacity.
   Response: The plant schedule matches the plan.

Planning

9. Columbia Power System has an existing power line near your proposed residential development. We are willing to serve this development subject to all Columbia Power System policies and procedures in effect at actual time service is rendered provided an approved final plat and complete electrical load information is furnished as soon as possible prior to start of actual construction.
   Unfortunately, due to current supply chain challenges, no timeframe can be guaranteed regarding the availability of meters or transformers appropriate for your development.
   Response: Understood.

Police

10. No comments provided.

City Attorney

11. No comments provided.

Building

12. No comments.

ATT

13. ATT to serve.
    Response: Understood.

Wastewater

14. On tree preservation/landscaping plans: trees will not be allowed within 10-15 ft of a sewer main, depending on sewer depth as according to specs.
    Response: Understood, plans have been adjusted to address this requirement.

Public Works

15. Please see the attached City of Columbia Dumpster Guidelines & Accessibility Requirements. Private sanitation services may be utilized.

Response: Understood.

16. DUMPSTER GUIDELINES AND ACCESSIBILITY REQUIREMENTS
    DUMPSTER AND COMPACTOR STANDARDS
    GENERAL
    All requirements for collection and accessibility to containers apply, regardless of whether collection is public or private.
    GUIDELINES FOR DUMPSTERS
    The number and capacity of dumpsters must be adequate to serve the disposal needs of the business, development or complex. Collection must occur at least one time per week, with special approval needed for every other week (EOW) collection. Each dumpster must be easily accessible, as determined by the Public Works Department, and of a size compatible with equipment of the department. If the dumpster is in an enclosed area, there must be at least 2 feet and 6 inches of clearance on each side of the dumpster.
    DUMPSTER PAD REQUIREMENTS
    1. The concrete dumpster pad shall be at least 12 feet by 12 feet.
    2. The pad(s) shall be 8-inch-thick concrete, reinforced with rebar to support a 30-ton loadbearing capacity.
    3. A 14-foot-wide by 40-foot-long straight and clear access approach to each dumpster for the truck is required.
    4. Clearance at each side of the dumpster must be at least 2 feet and 6 inches.
    5. If a gated enclosure is utilized, the gates must be lockable in the open position to prevent the gates from swinging into the path of the truck during servicing.
    6. Two 6-inch diameter concrete filled steel bollards must be placed in the concrete pad to the rear of each dumpster, 2 feet from the back edge of the dumpster pad, spaced 4 feet apart and centered side to side. The bollards will rise 6 feet above the pad and extend 32 inches below the pad into the concrete footers.
    7. If the box is enclosed, it is recommended that there be pedestrian access in addition to service gates.
    8. Access area, approach and pad must be level.
    9. Standard pads with no drain should be elevated approximately 1-1/2 inches above the surrounding pavement.

    ACCESSIBILITY REQUIREMENTS FOR DUMPSTERS AND COMPACTORS
    1. Access must accommodate a 40-foot-long truck, with a 45-foot turning radius. Circular movement through the complex for the vehicles is highly recommended.
    2. The collection truck shall not be required to back-up for no more than 200 feet.
    3. No backing into or across a public right-of-way.
    4. No overhead obstructions at waste handling or access area. Refuse collection trucks need a minimum of a 25-foot vertical clearance to service containers.
    5. Heavy duty pavement is required for the collection truck's path through the complex. City of Columbia Public Works will not be responsible for the repair of asphalt or concrete which has been damaged due to normal usage.
    6. Gates must be unlocked and open for collection.

    Response: Understood.

Maury County Schools

17. No comment.

Columbia Water

18. A water availability letter was issued on November 19, 2026, it remains valid until May 19, 2026. The availability of capacity to serve is based on a determination by the Fire Marshal of fire flow requirements and the information submitted on the Water Service Availability Request application. Any off-site improvements detailed in the availability letter are the responsibility of the developer/owner. All public water system improvements are subject to the preparation and approval of detailed construction plans prepared in accordance with CPWS and Tennessee Department of Environment and Conservation requirements.
    Response: The New Service Water Fees in the amount of $16,670 were paid on 04/06/2026. It is our understanding that payment of the New Water Service Fees will extend the expiration of this Water Availability Letter for one year, while the applicant is working with CPWS on design and review of the improvement drawings. This results in a new expiration date of 05/06/2026.

Maury County Highway Dept.

19. No comment.

Maury County E911

20. No comment provided.

Duck River Electric Membership Corp

21. No comments.

This request is for a Final PUD Master Plan submittal to allow an assisted living and memory care campus. The Preliminary PUD Master Plan was approved by City Council at the 03/12/2026 meeting. This Final PUD Master Plan submitted does not deviate substantively from the approved Preliminary PUD Master Plan.

Please place this item on the June 10, 2026 Columbia Municipal Planning Commission agenda.

If you have any questions or require additional information, please contact me via email (jason@fulmerlucas.com) or phone (615-300-6486).

Sincerely,

Jason Morelock, PE

Cc: Franklin Farrow, Morning Pointe Senior Living

Enclosure

CITY OF
COLUMBIA
TENNESSEE

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

DEVELOPMENT REVEW COMMITTEE MEETING
Tuesday, May 12, 2026

ITEM NO.
26-0136

DESCRIPTION: Westfield Park PUD - Morning Pointe

COMMENTS:

Fire

1. No comments

Engineering

2. Stormwater and grading shall be evaluated fully during the site construction plans review.

Planning

3. The lead case planner for this review will be Austin Brass, AICP. Please email all correspondence to abrass@colubiatn.gov
4. Plan West Elevation facing Westfield Drive included a revised design with City Council approval. Please update this Final PUD Master Site Plan to reflect elevation as approved by City Council.
5. Pan North Elevation enfronting Rutherford Lane differs from City Council approval with triple glazed windows and more detailed entrance. Please update this Final PUD Master Plan to adhere to City Council approval
6. Master Plan approved at City Council indicates a 30-inch height aluminum fence; however, proposal for this request indicates a 36 inch height aluminum fence.
7. Provide a detailed list of any changes from the proposed preliminary PUD Master Plan. This includes readjustment for landscaping on site and reasoning.
8. Update landscape plan to reflect any changes including call out list that reflect landscaping opacity.

Columbia Power

9. Columbia Power System has an existing power line near your proposed residential development. We are willing to serve this development subject to all Columbia Power System policies and

procedures in effect at actual time service is rendered provided an approved final plat and complete electrical load information is furnished as soon as possible prior to start of actual construction.
. Unfortunately, due to current supply chain challenges, no timeframe can be guaranteed regarding the availability of meters or transformers appropriate for your development.

Police

10. No comments provided.

City Attorney

11. No comments provided.

Building

12. No comments.

ATT

13. ATT To Serve.

Wastewater

14. On tree preservation/landscaping plans: trees will not be allowed within 10-15 ft of a sewer main, depending on sewer depth as according to specs.

Public Works

15. Please see the attached City of Columbia Dumpster Guidelines & Accessibility Requirements. Private sanitation services may be utilized.
16. DUMPSTER GUIDELINES AND ACCESSIBILITY REQUIREMENTS
    DUMPSTER AND COMPACTOR STANDARDS
    GENERAL
    All requirements for collection and accessibility to containers apply, regardless of whether collection is public or private.
    GUIDELINES FOR DUMPSTERS

The number and capacity of dumpsters must be adequate to serve the disposal needs of the business, development or complex. Collection must occur at least one time per week, with special approval needed for every other week (EOW) collection. Each dumpster must be easily accessible, as determined by the Public Works Department, and of a size compatible with equipment of the department. If the dumpster is in an enclosed area, there must be at least 2 feet
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    6. Gates must be unlocked and open for collection.

Maury County Schools

18. No comment.

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

Columbia Water

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Maury County Highway Dept.

20. No comment.

Maury County E911

21. No comment provided.

Duck River Electric Membership Corp

22. No comments.

Resubmittal Guidelines

Please provide a comment response letter as well as digital copies of revised plans and supporting documentation. Submit all required documents electronically through the online portal: columbia.onlama.com. If the files are oversized, please provide a file sharing link.

Please contact the case planner identified in the Planning Comments with any questions about the review process.

Please contact pkeltner@columbiatn.gov or srichardson@columbiatn.gov if you encounter difficulties with the online portal.

CITY OF
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You will receive an invoice for required advertising and mailing fees. All fees must be paid by the Friday following resubmittal in order advance to the Planning Commission agenda.

NOTE: All resubmittals must demonstrate compliance with city standards prior to Planning Commission review. Requests which do not adhere to regulations and/or remain unresponsive to technical comments will not be forwarded to the next agenda until such items are amended. Final Plat applications which are not ready to proceed to Planning Commission following the first resubmittal deadline will be added to the following DRC agenda to confirm the status of required infrastructure and utilities. Applications which remain incomplete following two resubmittal deadlines will be closed.

This Instrument Prepared By
and Upon Recording Return To:
Miller & Martin PLLC (RGD)
832 Georgia Avenue, Suite 1200
Chattanooga, Tennessee 37402

Name and Address:	**Send Tax Bills For _____ Property:**	**Tax Parcel No.**
_____	_____	Part of Tax Parcel No. _____
_____	_____	
_____	_____	

Name and Address:	**Send Tax Bills For _____ Property:**	**Tax Parcel No.**
_____	_____	Part of Tax Parcel No. _____
_____	_____	
_____		

DECLARATION OF EASEMENTS

THIS DECLARATION OF EASEMENTS (the "Declaration") is made and entered into to be effective as of the _____ day of _____, 2026, by _____, a _____ ("_____ PropCo"), and _____, a _____ ("_____ Development" and with _____PropCo, collectively, the "Declarants").

W I T N E S S E T H:

WHEREAS, _____ is the owner of that certain parcel of land located in Columbia, Maury County, Tennessee containing approximately _____ acres, as more particularly described on **Exhibit "A"** attached hereto and made a part hereof (the "_____ Development Property"); and

WHEREAS, _____ is the owner of that certain parcel of land also located in Columbia, Maury County, Tennessee containing approximately _____ acres, and adjacent to the _____ Property, as more particularly described on **Exhibit "B"** attached hereto and made a part hereof (the "_____ Property"); and

WHEREAS, Declarants wish to establish certain easements for the benefit of their respective properties as such easements are more particularly set forth herein (the _____ Development Property and the _____ Property being collectively, the "Property");

NOW, THEREFORE, Declarants, as the owners of the Property, hereby agree as follows for the benefit of the Property:

A. **INCORPORATION OF RECITALS.** The foregoing recitals are incorporated herein and made a part hereof.

B. **DEFINITIONS.** The following terms shall have the following meanings as used in this Declaration:

(1) "Common Properties" shall mean and refer to those easements, facilities, properties, tracts of land (or portions thereof) and any improvements thereon which are designated by the Owners as Common Properties, or used for the benefit of the Property as a whole, and which include, without limitation, those certain areas and existing or proposed improvements designated on the Site Plan (as hereinafter defined) as common areas or Common Properties. The Common Properties may include, but shall not be limited to, streets, street lights, parks, ponds, common drainage system (and related facilities), medians, driving lanes, parking spaces, sidewalks, roadways, trails, pathways, curbs, landscaping, irrigation systems and all equipment and facilities related thereto, historic structures and markers, all benches, markers and other park type structures, items and improvements, all fountains located in any detention, retention or other ponds located on the Property, and signs (including street signs and other identification signs) constructed or installed within any of the aforementioned easements for the benefit of the Property. The term "Common Properties" shall also include any personal property acquired by the Declarants if said personal property is designated as a Common Property or otherwise used for the common benefit of the Property. Notwithstanding the foregoing, the terms of the specific easements contained herein shall control in the event of any conflict with easements related to Common Properties.

(2) "Lot" shall mean each individual tract, lot or parcel comprising the Property and identified on the Site Plan. The individual parcels are referred to herein collectively as the "Lots". A Lot may not be further subdivided without the consent of all Owners and, if consented to by all Owners, the Lots shall include the individual lots created from the approved subdivision of a Lot.

(3) "Owner" (whether such term is capitalized or not) of a Lot shall mean the record owner or owners, whether one or more persons, firms, associations, corporations, or other legal entities, of the fee simple title to such property, but, notwithstanding any applicable theory of a deed of trust or mortgage, shall not mean or refer to a beneficiary (or trustee) under a deed of trust or any mortgagee, unless and until such beneficiary or mortgagee has acquired fee simple ownership pursuant to foreclosure or deed in lieu of foreclosure, nor shall the term Owner mean or refer to any lessee or tenant of any Owner.

(4) "Site Plan" shall mean that certain Site Plan prepared for _____ by _____ dated _____, 2026, a copy of which is attached hereto as **Exhibit "C"** and made a part hereof, which Site Plan is also incorporated herein by reference. [VERIFY MOST CURRENT SITE PLAN]

(5) "Survey" shall mean the survey titled _____ prepared by _____, dated _____, 2026, a reduced copy of which is attached hereto as **Exhibit "D"** and made apart hereof, which survey is incorporated herein by reference.

C. EASEMENTS.

(1) **Temporary Construction Easements; Cooperation**. Subject to the terms and conditions set forth herein, Declarants hereby grant and convey unto to the Owners of the Lots, and their respective successors and assigns, a non-exclusive temporary construction easement and right-of-way for the benefit of each Lot (as applicable) to the extent needed in accordance with good construction practices, but only during a period of construction on the Lot (as applicable), on, over, across and through a location or locations reasonably approved by the Owner of the burdened Lot for the purposes of facilitating construction on the benefited Lot and providing a temporary means of access for construction vehicles to and from the benefited Lot and facilitating construction of such improvements thereon. Such construction activities shall be performed in such a manner as to cause as little disturbance to the use of the burdened Lot (as applicable) as is practicable under the circumstances and the benefited Owner shall diligently pursue completion of such construction activity in a timely manner and without delay. The temporary construction easements reserved unto each Owner expire upon the completion of construction of improvements on the benefited Lot.

(2) **Access Easements.**

(a) **Shared Entrance Drive and Sidewalk Easements**.

(1) The Declarants hereby grant, declare, establish and create for the benefit of the Property and each Lot a perpetual, non-exclusive easement for vehicular and pedestrian access, ingress and egress on, over and across the area in the general location of the "____" Shared Entrance Drive" (the "Shared Entrance Drive") identified and shown on the Site Plan (the "Shared Entrance Easement"). At the time commercial improvements are constructed on the _____ Property, _____ shall, at its sole cost and expense, construct the Shared Entrance Drive and curb cuts connecting _____ to the driving lanes on each Property in the locations shown on the Site Plan. Upon construction of the Shared Entrance Drive and related improvements, the Shared Entrance Easement shall apply to the area where the Shared Entrance Drive and curb cuts are actually constructed (the "Shared Entrance Easement Area"). After the initial construction and continuing thereafter, the Owner of the _____ Property shall be responsible for maintaining, repairing, restoring or replacing the driving lanes, access drives, and curb cuts within the Shared Entrance Easement Area. The Owners shall share equally all reasonable costs incurred to maintain, repair, restore or replace the driving lanes, access drives and curb cuts located within the Shared Entrance Easement Area in accordance with Section D hereof. Unless all Owners agree in writing, any repaving of the access drive located in the Shared Entrance Easement Area shall not occur more often than once every eight (8) years following the effective date of this Declaration. All capital expenses incurred in connection with the maintenance, repair and replacement of the Shared Entrance Drive and related improvements must be approved in advance by the Owners which approval shall not be unreasonably withheld, conditioned or delayed.

(2) The Declarants hereby grant, declare, establish and create for the benefit of the Property and each Lot a perpetual, non-exclusive easement for pedestrian access, ingress and egress on, over and across the areas in the general location of the shared sidewalks (the "Shared Sidewalks") identified and shown on the Site Plan (the "Shared Sidewalks Easement"). The Owner

of the _____ Property shall be responsible for constructing, maintaining, and repairing the Shared Sidewalks in accordance with Section D hereof. Upon construction of the Shared Sidewalks, the Shared Sidewalks Easement shall apply to the area where the Shared Sidewalks are actually constructed (the "Shared Sidewalks Easement Area"), and the Owners shall share equally all reasonable costs incurred to maintain, repair, restore or replace the Shared Sidewalks in accordance with Section D hereof.

(b) **Mutual Cross Access Easement**. The Declarants hereby declare and establish for the benefit of the Property and each Lot, a perpetual, non-exclusive easement for vehicular (but excluding construction vehicles and equipment which are specifically prohibited) and pedestrian access, ingress and egress on, over and across the driving lanes and sidewalks constructed on the Lots, which provide connectivity both between the Lots and to and from adjacent public or private rights-of-way and driveways, including without limitation the Shared Entrance Drive and Highland Church Road (the "Cross Access Easement"). The Cross Access Easement shall apply to the areas on each Lot where driving lanes and sidewalks are located and relocated from time to time (the "Cross Access Easement Area"). The Owners shall not materially modify or relocate driving lanes and sidewalks in a manner so as to prevent the cross access so described, without the express written consent of the other Owner. The Owner of the _____ Property shall be responsible for maintaining and repairing any access drives and sidewalks. The Owners shall share equally all reasonable costs incurred to maintain, repair, restore or replace the access drives and sidewalks. No fence or other barrier which would prevent or obstruct the passage of pedestrian or vehicular travel for the purposes herein specified shall be erected or permitted.

(c) **Common Properties**. _____ and _____ hereby establish and grant to one another a perpetual, non-exclusive reciprocal easement over, across, upon, and within all improvements and areas designated as Common Properties, together with all related accessways, utilities, and appurtenances, for purposes of vehicular and pedestrian access, circulation, parking, ingress, egress, and use consistent with the development and operation of the Owners' respective Lots. Each Owner, and its tenants, employees, invitees, agents, contractors, and successors, shall have the right to use the Common Properties located on the other Owner's Lot in a manner consistent with this Declaration and the identified intended use of the Common Properties, provided such use does not unreasonably interfere with the other Owner's use and enjoyment of its property. At the time that commercial improvements are constructed on the _____ Property, the Owner of the _____ Property shall be responsible for constructing the Common Properties as shown on the Site Plan, including all associated paving, curbing, sidewalks, lighting, landscaping, drainage, and related improvements, in compliance with applicable laws and the standards set forth in this Declaration. Upon completion, the Common Properties shall be maintained by the Owner of the _____ Property in accordance with Section D hereof, and no Owner shall obstruct, modify,

or impair the Common Properties in a manner that materially interferes with the reciprocal access rights granted herein. The Common Properties shall include, without limitation, all parking spaces identified on the Site Plan (the "Common Parking Spaces"). This reciprocal easement shall run with the land, burden and benefit each Owner's property, and inure to the benefit of the Owners and their respective successors and assigns.

(d) **Self-Help Rights**. In the event that an Owner does not maintain and repair the driving lanes, access drives, Shared Sidewalks, Common Properties, and curb cuts as provided herein in a good and proper condition as required for the use thereof, the other Owner shall have the right after thirty (30) days written notice and the failure of the Owner to make any such required maintenance and repairs within said 30-day period to enter the Property to complete all necessary maintenance and repairs as detailed in the written notice provided to the Owner. Upon completion of such maintenance and repairs, the Owner exercising this self-help right shall send written notice to the other Owner detailing such costs incurred with supporting documentation and such other Owner shall pay to the Owner its share of such sum within thirty (30) days thereafter.

(3) **Grading**. _____ hereby declares, establishes, and grants for the benefit of the _____ Property, and in favor of _____, a temporary, non-exclusive easement over, across, upon, and within that approximately ____ foot portion of the _____ Property parallel to and along the shared boundary of the _____ Property and the _____ Property shown on the Survey (the "Grading Easement Area") for the purpose of performing all grading, sloping, contouring, earthwork, soil stabilization, drainage shaping, and related activities reasonably necessary to achieve the final approved grades, elevations, and contours required for the development, use, and operation of the _____ Property. This easement includes the right of _____, its employees, agents, contractors, and assigns to enter upon the Grading Easement Area to cut, fill, remove, place, compact, or otherwise manipulate soil; install temporary or permanent erosion-control measures; construct and maintain slopes, embankments, retaining structures, and drainage improvements; and perform any other grading-related work reasonably necessary to support the structural integrity, access, drainage, and functionality of the _____ Property. _____ shall restore disturbed areas to a neat and stable condition upon completion of grading activities. _____ shall not interfere with or impair _____'s exercise of this easement and shall not alter grades within the Grading Easement Area in a manner that adversely affects the _____ Property. This grading easement shall expire upon the completion of construction of commercial improvements on the _____ Property and completion of shared improvements which _____ has the responsibility to construct pursuant to this Declaration.

(4) **Drainage Easements**. The Declarants hereby declare and establish for the benefit of the Property and each Lot, a perpetual, non-exclusive easement to connect with and to drain storm and surface waters from the _____ Property and the _____ Property to the Private Drainage Detention Area (the "Detention Area") as shown on the Site Plan

(the "Drainage Easement"). At the time that commercial improvements are constructed on the _____ Property, _____ shall, at its sole cost and expense, construct the Detention Area. Upon construction of the Detention Area and related improvements, the Drainage Easement shall apply to the area where the Detention Area is actually constructed. After construction, and pursuant to such Drainage Easement, each Owner shall have the right at its sole expense to install within an area approved in writing by the other Owner in its reasonable discretion, such lines, facilities and other improvements as may be necessary to connect to and to receive the benefit of the Drainage Easement (any such lines, facilities and other improvements installed by an Owner being collectively the "Drainage Facilities"), upon and subject to the following terms and conditions:

(a) The Owner of each Lot shall be responsible for the connection of the Drainage Facilities on such Lot to the Detention Area.

(b) All work done in completing any Drainage Facilities shall be done expeditiously and in such a manner so as not to cause undue interference with the business being conducted on the Property, so as to minimize any disruption to the other Owner's business, and so as not to interrupt or interfere with utility services to any improvements on the other Lot.

(c) After completion of the installation, repair or replacement of any of the Drainage Facilities by an Owner, such Owner shall, at such Owner's cost and expense, promptly restore all property and improvements affected thereby to the same or as good a condition as existed immediately prior to the commencement of any such work.

(d) The Owner of the _____ Property shall be solely responsible for constructing the Detention Area and maintaining and repairing, with cost sharing from the Owner of the _____ Property as provided in Section D hereof, the area of land comprising the Drainage Easement, including, without limitation, the Detention Area and all surrounding landscaping, but not any Drainage Facilities installed on the _____ Property by the Owner of the _____ Property. The cost to maintain and repair the Detention Area, including, without limitation, all landscaping, shall be shared equally by the Owners in accordance with Section D hereof. Further, any costs incurred by the Owner of the _____ Property to repair any damage to the Drainage Facilities which is caused by or is attributable to the gross negligence, misuse or willful acts of Owner of the _____ Property or such Owner's invitees, agents or contractors shall be paid in full by the Owner of _____ Property.

(e) In the event the volume of the Detention Area must be enlarged to accommodate the storm and surface water drainage from the _____ Property such enlargement must be approved by the Owner of the _____ Property and shall be completed only in accordance with the plans and specifications approved by the Owner of the

_____ Property and all costs and expenses for any such enlargement shall be the sole responsibility of the Owner of the _____ Property without contribution from the Owner of the _____ Property.

(f) The Lots shall be graded to provide positive drainage to the Detention Area, or to storm sewer lines that have been sized to receive storm water discharge. All necessary erosion control methods will be utilized to avoid siltation onto adjacent properties and into pipelines. Stockpiling of topsoil or excessive material shall be done so as not to interfere with drainage before, during or after construction. Existing drainage areas will not be altered during or after the grading sequence unless approved by the Owner of the affected Lot or Lots. Parking lot slopes shall be a minimum 1.5 percent and maximum 4 percent. All trenches and excavation near or adjacent to existing curbs, sidewalks, and pavement shall be backfilled with trench backfill material.

(5) **General Utility Easements**. The Declarants hereby declare, create, and establish for the benefit of the Property and each Lot, a perpetual, non-exclusive easement (the "Utility Easement") for the purpose of installing, connecting to, maintaining, repairing, replacing and using water, electric, gas, telephone, sewer, irrigation and other utility lines on, over, across and under portions of each Lot being (10) feet in width for each utility line so installed and being five (5) feet on either side of the center line of the utility line so installed, but only in such locations as may be approved in writing by the Owner of the burdened Lot in its reasonable discretion (each area within which a utility line are constructed and installed pursuant hereto being an "Utility Easement Area"). Once installed, a utility line shall not be relocated without the written approval of the Owner of the burdened Lot, and the Utility Easement shall apply to the area where the utility line(s) is actually installed. As part of the Utility Easement as granted hereby, each Owner shall have a right of access on, over and across so much of the other Owner's Lot within the area of the Utility Easement and on, over and across such portions of the other Owner's Lot as may be necessary for access to the respective Utility Easement Area from time to time to install, maintain, repair or replace any such utility line so installed. Upon completion of any work to install, maintain, repair or replace any such utility line, the party performing such work shall repair and restore the portion of the Property so disturbed to the condition existing immediately prior to such work. Prior to entry onto another Owner's Lot for such purposes, the Owner performing work shall coordinate such entry and work with the Owner of the burdened Lot as is reasonably necessary to avoid any disruption to the business operated on such Lot.

(6) **Signage; Sign Easement to _____**. Upon construction of improvements on the _____ Property, _____ shall construct, and thereafter shall maintain, repair, and replace (i) the monument sign located along _____ Road generally shown on the Site Plan, and any replacements thereof (the "Monument Sign"), and (ii) directional signage bordering the Shared Entrance Drive; provided, however, _____ shall be responsible for any construction of directional signage on the _____ Property during the construction of improvements thereon. _____ shall reimburse _____ for _____'s share of the reasonable costs incurred to perform sign maintenance, utilities used by signage, and the cost to insure any signage (collectively, "Sign Costs") within thirty

(30) days after receipt of an invoice therefor, which shall include reasonable supporting documentation evidencing the Sign Costs incurred. _____ hereby grants to _____ a non-exclusive, perpetual easement over, across, and upon the portions of the _____ Property shown on the Site Plan (the "Sign Easement Area") for the construction, operation, and use of the Monument Sign and the directional signage, together with all necessary access rights for _____.

D. COST SHARING.

(1) **General**. Notwithstanding any provision to the contrary in this Declaration, the Owners shall equally share all reasonable costs incurred to maintain, repair, restore or replace the driving lanes, access drives, curb cuts, Shared Entrance Drive, Shared Sidewalks, Common Properties, Monument Sign, Common Parking Spaces, and Detention Area. All such maintenance, repairs, restoration, and replacement shall be the responsibility of the Owner of the _____ Property except as otherwise set forth herein, and all such shared costs shall be paid by the Owner of the _____ Property within thirty (30) days after receipt of written demand therefor together with documentation supporting the reasonable costs so incurred. All work shall be performed in a commercially reasonable manner, consistent with good property-management practices, and at reasonable cost.

(2) **Misuse**. Notwithstanding any provision to the contrary in this Declaration, an Owner of a Lot (the "Responsible Owner") shall be solely responsible, without any cost sharing with any other Owner, to repair any damage caused by or attributable to the misuse, gross negligence or willful misconduct of the Responsible Owner, or the Responsible Owner's invitees, agents or contractors, such repairs to be completed promptly following occurrence of such damage. If the Responsible Owner does not complete any such required repair, any other Owner may exercise such remedies or self-help rights as provided in this Declaration.

E. INDEMNIFICATION AND INSURANCE.

(1) **Indemnification**. Subject to the provisions hereof, each Owner shall indemnify, defend, and save the other Owners harmless for, from and against any and all demands, liabilities, damages, expenses, causes of action, suits, claims, and judgments, including reasonable attorneys' fees and costs, arising from injury or death to person or damage to property that occurs on the indemnifying Owner's Lot. An Owner shall not be entitled to such indemnification for any damage caused to such Owner by reason of its negligence, recklessness or willful misconduct or the negligence, recklessness or willful misconduct of such Owner or its agents, servants, contractors or employees.

(2) **Liability Insurance**. Each Owner shall at all times during the term of this Declaration, maintain or cause to be maintained in full force and effect an "Occurrence Based" commercial general liability insurance policy covering its Lot, with an insurance company or companies having an A.M. Best (or equivalent) rating of A- or better, including coverage for any accident resulting in bodily injury to or the death of any person and consequential damages arising therefrom, and a comprehensive property damage insurance policy, each in an amount not less than $3,000,000, as such amount is adjusted to pursuant hereto, per occurrence and including coverage of the contractual liability contained in Section E(1) above. Each Owner shall name as additional insureds on its respective commercial general liability policy with respect to its Lot (a) the other Owners and (b)

upon receipt of written notice from an Owner, such Owner's mortgagee and any other party required by a mortgage. Each Owner shall furnish to the other Owners upon request evidence that the insurance referred to in this Section is in full force and effect. Such insurance shall provide that the same may not be canceled, reduced below the required minimum or materially amended without at least thirty (30) days prior written notice being given by the insurer to the Owners.

(3) **Property Insurance**. Each Owner shall at all times during the term of this Declaration, maintain or cause to be maintained in full force and effect a property insurance policy covering such Owner's Lot in the form of the Insurance Services Offices' ISO Property form 1030 Causes of Loss Special Form or equivalent ("Property Insurance"). All Property Insurance shall be in the amount of the full replacement cost of the insured improvements, excluding foundations and footings but including demolition costs. Each Owner shall furnish to the other Owners upon request evidence that the insurance referred to in this Section is in full force and effect.

(4) **Blanket Insurance**. Any insurance required to be carried pursuant to this Section may be carried under a policy or policies covering other liabilities and locations of an Owner; provided, however, that such policy or policies apply to the Owner's Lot required to be insured by this Section in an amount not less than the amount of insurance required to be carried by the Owner with respect thereto, pursuant to this Section which shall contain a per location endorsement.

(5) **Release and Waiver of Subrogation**. Each Owner hereby releases the other Owners from and, to the extent legally possible for it to do so on behalf of its insurer, hereby waives any liability for any loss or damage to its property located upon such Owner's Lot, which loss or damage is of the type covered by fire and extended coverage insurance described in this Section, irrespective of any negligence on the part of the indemnified Owners which may have contributed to or caused such loss. If the waiver of subrogation is not effective, each Owner covenants that it will obtain for the benefit of the indemnified Owners an express waiver of any right of subrogation which the insurer of the Owner may acquire against the indemnified Owners by virtue of the payment of any such loss covered by such insurance.

F. **ASSIGNMENT**. Each Owner may assign or delegate any or all of its responsibilities, duties, and obligations under this Declaration to a tenant or other lawful occupant of the Owner's Lot, provided that the assignment is made in writing and delivered to the other Owner. Notwithstanding the foregoing, no assignment to such a tenant or occupant shall relieve an Owner of liability for compliance with this Declaration, and the Owner shall remain jointly and severally liable with the tenant or occupant for all assigned obligations. Each Owner may enforce this Declaration against the assigning Owner, the tenant or occupant, or both, in its discretion.

G. **AMENDMENT.** This Declaration may be amended by the written amendment of the Owners of the Lots affected by any such amendment, or their respective designees, without the joinder of any other person or entity.

H. **NOTICES.** Any notices to be sent pursuant to this Declaration shall be in writing and sent to the address of the Owner to which such notice is to be sent as such address is maintained in the county tax records for the Property and shall be sent (i) hand-delivery, (ii) certified

U.S. Mail, return receipt requested, or (iii) via overnight delivery by a nationally recognized delivery service.

I. **COUNTERPARTS.** This Declaration may be executed in counterparts which when taken together shall constitute this document in its entirety.

J. **NO THIRD PARTY BENEFICIARIES.** The easements and rights created pursuant to this Declaration are for the benefit of the Owners of the Lots and their respective invitees, tenants, employees and residents and are not intended to and shall not be construed to dedicate any easements to or create any rights in favor of any other person, entity or the general public. The easements created pursuant to this Declaration shall not be maintained by the public and such maintenance obligation shall be the responsibility of the Owners pursuant to the provisions of this Declaration.

K. **TAXES.** The Owner of each Lot shall be solely responsible for paying all taxes, and assessments imposed on such Owner's Lot, including any value attributable to such Owner's Lot for the easements benefiting such Lot as created pursuant hereto.

L. **PERPETUAL EASEMENTS.** The easements created hereby are perpetual, non-exclusive easements for the benefit of the Lots and shall run with title to the Lots and shall be binding upon and inure to the benefit of the Owners of the Lots and each such Owner's successors and/or assigns.

M. **REMEDIES.** In the event an Owner fails to perform the maintenance, repair or other work required by this Declaration or fails to perform the work in accordance with the requirements of this Declaration or otherwise breaches the terms of this Declaration, the non-defaulting Owner shall have the right to correct such deficiencies or perform the work to cure the breach, and recover its reasonable out-of-pocket costs and expenses incurred to cure such deficiency or breach. Any amounts due and payable to an Owner pursuant to this Declaration shall be paid within thirty (30) days from the date the defaulting Owner is notified of the amounts due.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties have executed this Declaration to be effective as of the date first above written.

_____, a
_____

By: _____
Title: _____
Print Name: _____

[Acknowledgment To Be Added]

_____, a
_____

By: _____
Title: _____
Print Name: _____

[Acknowledgment To Be Added]

STATE OF TENNESSEE)
COUNTY OF _____)

AFFIDAVIT OF VALUE

The undersigned _____, a _____, hereby swears or affirms that the actual consideration for this transfer or value of the property transferred, whichever is greater, is $100.00, which amount is equal to or greater than the amount which the property transferred would command at a fair and voluntary sale.

_____, a
_____

By: _____
Title: _____
Print Name: _____

Subscribed and Sworn to before me
this ___ day of _____, 2026

_____
Notary Public
My Commission Expires: _____

[AFFIX SEAL]

EXHIBIT "A"

Property

Located in Columbia, Maury County, Tennessee:

[INSERT PLAT LEGAL DESCRIPTION]

EXHIBIT "B"

Property

Located in Columbia, Maury County, Tennessee:

[INSERT PLAT LEGAL DESCRIPTION]

EXHIBIT "C"

Site Plan

See Attached

EXHIBIT "D"

Survey

See Attached

CPWS
Columbia Power & Water Systems

201 Pickens Lane
P.O. Box 379
Columbia, TN 38402

P 931.388.4833
F 931.388.5287
www.cpws.com

October 21, 2025

Jay Fulmer, PE
Fulmer Lucas
2002 Richard Jones Rd Ste B200
Nashville, TN 37215

jay@fulmerlucas.com

Re: Rutherford Lane & Westfield Dr, being Tax Map: 112F Group: C Parcel: 3.07. Assisted living facility with 145 beds split between two buildings.

Dear Sir:

Columbia Power System has an existing power line near your proposed residential development.

We are willing to serve this development subject to all Columbia Power System policies and procedures in effect at actual time service is rendered provided an approved final plat and complete electrical load information is furnished as soon as possible prior to start of actual construction.

- **Unfortunately, due to current supply chain challenges, no timeframe can be guaranteed regarding the availability of meters or transformers appropriate for your development.**

Yours truly,

COLUMBIA POWER SYSTEM

Trevor Gilmer
Power Engineering Manager

so

CITY OF COLUMBIA
TENNESSEE

WASTEWATER DEPARTMENT

23 October 2025

Jay Fulmer
Fulmer Lucas Engineering, LLC
2002 Richard Jones Rd, B200
Nashville, TN 37215

RE: Rutherford Ln Map 112 Parcel 3.07, Columbia, TN 38401; Morning Pointe 145 Bed Assisted Living Facility

Jay,

This letter serves as confirmation that the City of Columbia Wastewater Department has the available capacity to service the subject development. Any extension to the existing sewer infrastructure will be initiated by the owner/developer, reviewed by our department and approved by the State of Tennessee. The project must be advanced in accordance with local, state and federal rules, regulations and policies. Funding and construction of those improvements will remain the responsibility of the owner/developer. New customers will be required to pay all fees applicable at the time of connection. Any Final Plat approval and Dedication are both subject to installation and function, as determined by our Department. No detailed design plan for an extension of the sewer has been proposed at this time.

Donnie Boshers, Director
City of Columbia, TN
Wastewater Department

November 19, 2025

Mr. Jay Fulmer
Fulmer Lucas Engineering
2002 Richard Jones Rd., Suite B200
Nashville, TN 37215
Sent via email: jay@fulmerlucas.com

RE: **Water Availability Letter** Expires: 5/19/2026
Morning Pointe Assisted Living
Rutherford Lane at Westfield Drive (southwest corner)
Tax Map & Parcel 11200307000
Columbia, TN

Dear Mr. Lucas:

Columbia Power & Water Systems ("the Utility"/CPWS) is a municipal corporation authorized to provide water services in accordance with State law. CPWS has adopted rules, regulations, and standard operation procedures, prescribing the conditions under which CPWS will furnish water service. In addition, certain State laws delegate authority to the Tennessee Department of Environment and Conservation (TDEC), various Planning Commissions, and other authorities in Cities and Counties. These Cities and Counties have also adopted rules and regulations. Water service will be made available on a first-come, first-served basis, subject to the payment of all charges and fees imposed by CPWS and the approval of any and all required governmental agencies. Water service is subject to availability of all CPWS furnished equipment and materials appropriate for the development and provided the applicant complies with all rules and regulations of CPWS and conditions set out herein.

The proposed development is a 145 bed assisted living facility in two buildings. CPWS has evaluated the projected water demands for the proposed development in the water system hydraulic model. CPWS can provide water for the proposed development according to the following criteria and requirements:

- Source water capacity is vested when CPWS has provided approval to proceed to construction and appropriate Impact Fees are paid.
- The current CPWS system is only able to support a fire flow up to 750 gpm at this location until (planned) additional improvements in the Southside distribution area are completed.
    - After completion of the Southside distribution area improvements, available fire flow will be up to 1,250 gpm.

- The number and sizes of service meters assumed for this letter is based on Applicant's description of the project features. Actual meter count and sizing will be updated or verified during the Design Review phase of the Project:
    - 114,340 sf of commercial assisted living space (two buildings)
    - Assume Fire Service meter: One (1) at 6-inch
    - Assumed Commercial Service meters: Two (2) at 2-inch
    - Assumed Landscape Irrigation meter: One (1) at ¾-inch
- The above request translates to a 41 Single Family Unit (SFU) flow demand equivalent.
- Separate irrigation meters with backflow devices will be required to serve the proposed Project.
- If fire sprinkler systems are requested or required, separate fire meters with backflow devices will be required to serve the proposed Project.

All of the above requirements up to and including the meter(s) are to be constructed and paid for by the Applicant and dedicated to CPWS once complete. No construction of water infrastructure shall be initiated until final construction plans have been approved by CPWS (including TDEC approval, if required).

This Water Availability Letter will expire in six months unless vested by payment of water service fees and impact fees for the proposed project. Any request for water availability after the expiration date of this letter will be considered a new application.

Once you have received this Water Availability Letter, next steps in the process to vest water service from CPWS are as follows:

- Remit to CPWS new water service fees for plan review, TDEC coordination, and inspection as follows: $1,500 + $370 per SFU equivalent
- Applicant will prepare design drawings for review and approval by CPWS for construction of the proposed water system improvements.
    - Provide design drawings in AutoCAD and .pdf format for CPWS review of proposed development. Include design drawings for grading, drainage, roadway improvements, buried (wet and dry) utilities, water systems, and surface improvements.
    - Once CPWS approves the Construction Drawings for the proposed system improvements, Applicant will submit proposed improvements design to TDEC for review and approval (if TDEC review required).
    - CPWS will prepare hydraulic calculations and a Utility Approval Letter to accompany the plans submittal to TDEC.
- Current water service fees due prior to CPWS review of design plans are listed in the table below. *Note that payment of Water Service Fees will extend the expiration of this*

Water Availability Letter for one year, while the applicant is working with CPWS on design and review of the improvement drawings.

New Water Service Fees	SFUs	Total
$1,500 + 370 per SFU	41	**$16,670**

- Upon Construction Drawing approval by CPWS, applicant may then pay Impact Fees and Meter Fees and schedule the pre-construction meeting. Pre-construction meeting will be canceled and re-scheduled unless all impact fees are paid at least 48 hours prior, or surety is provided in lieu of full payment.
- Water meters will be ordered by CPWS once meter fees are paid by the Applicant.
    - Meter fees are subject to change based on final design and the prevailing Board-approved rates at time of payment.
    - If surety is provided in lieu of payment, meters are not ordered until fees are paid and may result in extended lead-times.
- Applicants will be charged Impact Fees and Meter Fees in effect at time of payment. Please see CPWS website for schedule of impact fees and timing of planned fee escalations. Anticipated meter costs and impact fees for this project are according to the following table:

Impact Fees and Meter Costs	Number	$ / Unit	Total
¾" Landscape Irrigation Meter Cost	1	$540	$540
2" Service Meter Cost	2	Current Price	Deferred
6" Fire Meter Cost	1	Current Price	Deferred
Current Impact Fee for ¾" Service Meter	1	$5,500	$5,500
Current Impact Fee for 2" Service Meter	2	$30,000	$60,000
Estimate of Fees Due Prior to Pre-Construction Meeting =			**$66,040**

- After the pre-construction meeting, CPWS will then issue a formal Notice to Proceed.
- Applicant is required to construct all public water infrastructure per CPWS standard specifications and provide CPWS personnel unregulated access to the site to inspect the construction of the water infrastructure.
- No construction of water improvements may take place prior to the Notice to Proceed or without a CPWS inspector present.

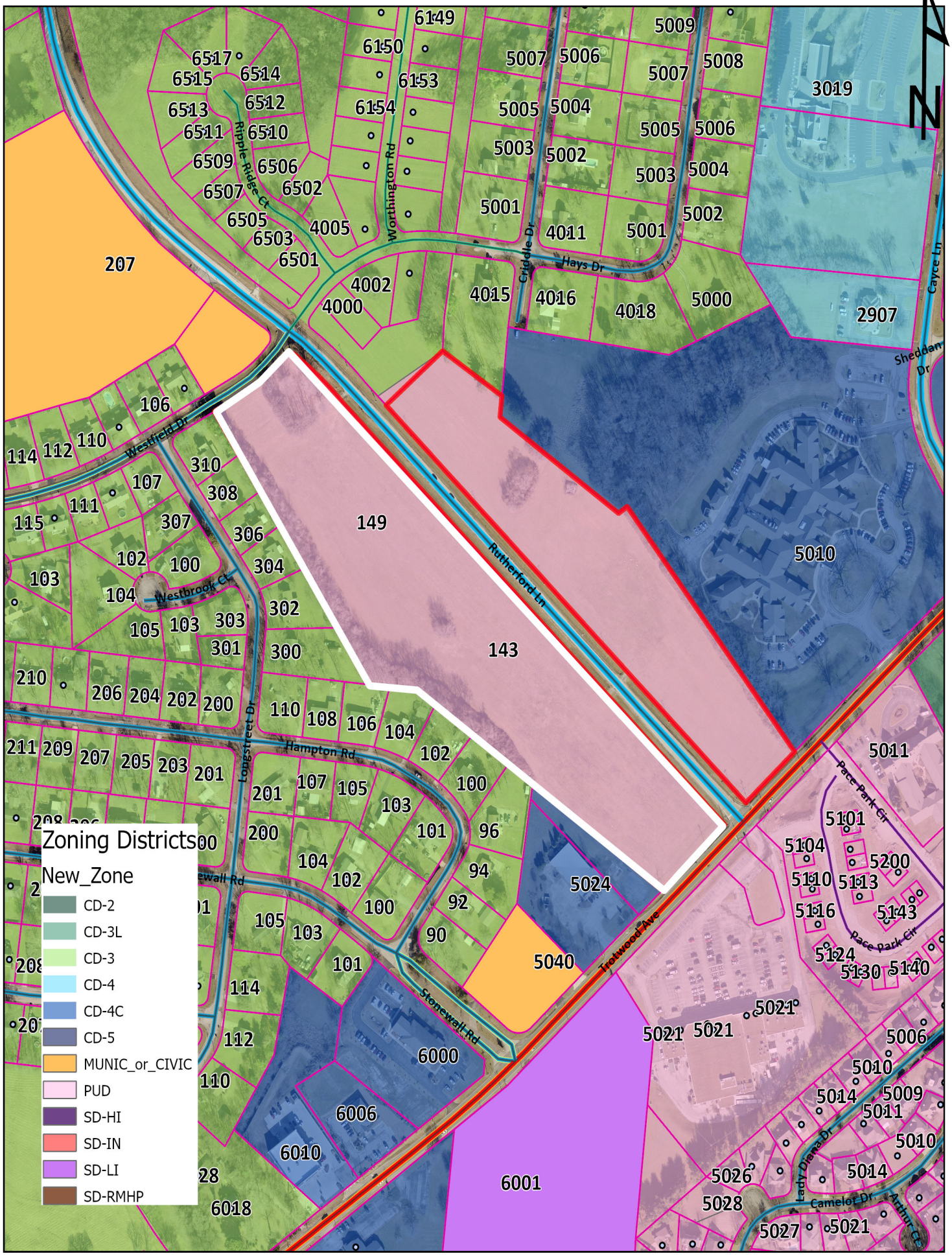
Please feel free to contact me at 931-388-4833 x7655 or Matt.Wheeler@cpws.com if you have questions or would like to discuss.

Sincerely,



Matthew J. Wheeler, P.E.
Vice President of Water Resources, CPWS

cc: Franklin Farrow, Morning Pointe
Bart Anderson, CPWS
File 25-036



Case 26-0136
Westfield Park PUD
Rutherford Lane

City of Columbia
Development Services
700 N. Garden Street
Columbia, TN 38401
www.columbiatn.gov

FULMER LUCAS

MEMORANDUM

To: City of Columbia Planning Department
From: Jay Fulmer, PE
Date: November 17, 2025
Subject: Morning Pointe – Master Plan Application
Project Description

A master plan for approximately 9.3 acres of the greater tract along the western side of Rutherford Lane between Westfield Drive and Trotwood Avenue is being submitted to allow an assisted living and memory care campus within the existing PUD zoning.

The project is intended to include two buildings constructed in two phases. The property will ultimately be subdivided for each building to be on its own parcel for operational purposes.

The first building is approximately 62,600 square feet and contains 77 units (83 beds). The building will serve both assisted living and memory care purposes. The second building is approximately 48,400 square feet and contains 60 units (68 beds). Upon completion of building 2, the memory care patients from building 1 will be transferred to building 2 so each building can function independently.

The parking proposed is based on operational needs from existing facilities as well as staffing projections. The central parking lot will be constructed with the first building.

Morning Pointe is the owner and operator of the campus, and they have an established facility within the City of Columbia. This campus is intended to support the growing population of those in need of assisted living and memory care facilities.

Please send any further questions or comments to jay@fulmerlucas.com.

Jay Fulmer

CITY OF COLUMBIA TENNESSEE

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

Preliminary Plat, Site Development Plan, and PUD Checklist

Development: Morning Pointe

This checklist shall be completed, and included with the submittal documents. If the submittal does not contain a completed checklist, it shall be deemed incomplete. All below listed items shall be included in the submittal documents and plans, as well as any further information required by the City of Columbia to evaluate compliance and to perform a full and complete review. See Zoning Ordinance Article 8 and Subdivision Regulations.

General

- ☒ Name of development
- ☒ Contact info for the owner and licensed design professional(s) preparing plan: name, address, email, phone
- ☒ Plan sealed by a design professional licensed in the State of Tennessee.
- ☒ North Arrow, legend, and site vicinity map
- ☒ Graphic Scale: between 1 in. = 10 ft. and 1 in. =100 ft.
- ☒ Survey stamped by a State of Tennessee Licensed Professional Land Surveyor, with all project boundaries including bearings and angles to the nearest hundredth, utilities, and existing streets and rights-of-way.
- ☒ Note referencing Tennessee State Plane Coordinate System, NAD 83 Datum
- ☒ All property boundaries, existing easements, and encumbrances
- ☒ Parcel identification, owner, and deed and plat references of adjoining properties
- ☒ Proposed phasing and timetable for all phases of development

N/A ☐ x Traffic Impact Study, as required. Less than 75 peak hour trips (approximately 38)

- ☒ The substance of all existing and proposed covenants, easements, or other restrictions.
  Draft easement is included for your reference. Proposed easements will likely be recorded via the Final Plat.
  If easements are not recorded via Final Plat, they will be recorded via instrument with this document.

Lots and Land-Use

- ☒ The size of total property to be developed in square feet and acres
- ☒ Lot numbers of all proposed lots, with dimensions, locations, and square footage
- ☒ A tabulation of the land area to be devoted to various uses and activities and overall densities.

N/A ☐ Typical lot layout depicting proposed setbacks, yards, and easements, where applicable

Structures

- ☒ Location and approximate dimensions of all existing and proposed structures.
- ☒ Location of all earth retaining structures, with approximate top and bottom of wall elevations.
- ☒ Existing and intended use of all buildings and structures on site, including the number of dwelling units and density, where applicable
- ☒ Location, type, and size of proposed signs
- ☒ Approximate height, bulk, and the utilization of structures including activities and the number of living units.

CITY OF COLUMBIA
TENNESSEE

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

Grading, Drainage, and Storm

- ☒ Existing conditions and contours at vertical intervals of not more than two (2) feet
- ☒ General proposed contours at vertical intervals of not more than two (2) feet
- ☒ FEMA Special Flood Hazard Area (SFHA), 100-year Floodplain (F-P), and Floodway (F-W) boundaries with elevations and the exact location of the nearest benchmark. Indicate the Flood Insurance Rate Map (FIRM) panel number, its effective date, and flood insurance zones
- N/A ❑ Location and dimension of aquatic buffer zones
- ☒ General layout of the proposed storm drainage system including surface and subsurface drainage systems, areas for detention, and water quality devices.
- N/A ❑ Identification of all critical lots

Streets, Parking, and Pedestrian Elements

- N/A ❑ Proposed street and alley rights-of-way, typical sections, widths, classification, names, and proposed ownership and maintenance responsibility
- ☒ Proposed connections to existing and proposed streets (including classification) located outside the development
- N/A ❑ Proposed improvements as identified in the Traffic Impact Study, as required
- ☒ Existing and proposed sidewalks, trails, and other pedestrian elements
- ☒ Existing and proposed on-street and off-street parking and loading areas
- ☒ Summary of all provided and required parking

Landscaping, Open Space, and Amenities

- ☒ Natural features on site including, but not limited to, wetlands, streams, ponds, springs, sinkholes, wells, rock outcroppings, excessive slopes, and forested areas
- ☒ Landscaped areas and buffers with details on proposed plantings, existing vegetation, and other features.
- N/A ❑ The location and size of all common open space, parkland dedications, and dedications and reservations of land for public uses.
- ☒ Any amenity features and structures for private or public benefit.
- ☒ Location, dimension, and materials of fences and walls
- ☒ Tree Canopy retention

Utilities

- ☒ General layout and location of existing and proposed utilities and utility features including, but not limited to potable water, fire hydrants, sanitary sewer, storm sewer, and power and communication facilities.
- ☒ Acknowledgement from water, sewer, and power utility providers that the proposed development may be adequately served with existing infrastructure, or if improvements are required to adequately serve the development, a general statement of the improvements.

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TENNESSEE

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

PUD Specific Items

- ☒ List of all deviations from PUD Standards requested
- ☒ The nature of the landholder's interest in the land proposed to be developed and a written statement of concurrence from all parties having a beneficial interest in the affected property.
- ☒ Location and approximate dimensions of all existing and proposed structures including approximate height, bulk, and the utilization of structures including activities and the number of living units. Include architectural renderings of all proposed structures with materials listed.
- ☒ The substance of covenants, grants of easements or other restrictions to be imposed upon the use of the land, buildings and structures including proposed easements for public utilities on the property or documentation of off-site easements.
- ☒ Exterior lighting plan.

If the application is deemed incomplete by the Zoning Administrator, a written request shall be made within ten days after the original submittal, for further information. In such case the application shall be held in abeyance until deemed complete for final review. No plan shall be formally presented for Planning Commission action until such plan is found complete, compliant with City standards, and ready for review.

Checklist Completed By:

Jason Morelock		04/20/2026
Print Name	Signature	Date

Jay Fulmer

From: Andy Crichton <acrichton@athensins.com>
Sent: Tuesday, November 11, 2025 3:57 PM
To: Franklin Farrow
Cc: Jay Fulmer; 'Chae Hart-Whitworth'
Subject: Property on Rutherford Lane

November, 11th 2025

City Of Columbia
Development Services
700 North Garden Street
Columbia, TN 38401

To Whom It May Concern:

CBP, LLC the Crichton brothers currently own property fronting on Rutherford Lane. Approximately 9 acres of the property is being sold to the principals of Morning Pointe Senior Living Greg Vital and Franklin Farrow.
Moring Pointe had been a provider of assisted living services in Columbia for the past 20+ years and is seeking to expand their services at this new wonderful location.

Vital and Farrow are the owners and co-founders of Morning Pointe which is a Tennessee base senior living company with 27 years of experience in this sector. CBP, LLC the Crichton brothers are pleased to sell this
property once approvals are all received.

Kind Regards,

Andy Crichton, *Agent ~ CBP, LLC Managaing Member*
Columbia, TN 38401
Office: 931.398.5533
Cell: 615.714.2452
www.athensins.com

FULMER LUCAS

April 20, 2026

Mr. Austin Brass, AICP
CITY OF COLUMBIA
Development Services Department
700 N Garden Street
Columbia, TN 38401

Re: Morning Pointe Final PUD Master Plan Submittal

Dear Austin,

Fulmer Lucas Engineering, LLC, on behalf of Morning Pointe Senior Living, respectfully submits the following items for your review:

- Planning Commission Project Development Application
- Preliminary Plat, Site Development Plan, and PUD Checklist
- Owner Agent Authorization and Acknowledgement
- Power, Sewer and Water Will Serve Letters
- Declaration of Easements (Draft)
- Pre-Application Meeting (Receipt)
- Pre-Application Meeting Summary
- Project Description
- Drainage Report
- One (1) folded 24" x 36" hard copy of Site Plans
- Final Development plan (PUD-MU): $300.00 (to be paid upon confirmation of fee amount by City)

This request is for a Final PUD Master Plan submittal to allow an assisted living and memory care campus. The Preliminary PUD Master Plan was approved by City Council st the 03/12/2026 meeting. This Final PUD Master Plan submitted does not deviate substantively from the approved Preliminary PUD Master Plan.

Please place this item on the June 10, 2026 Columbia Municipal Planning Commission agenda.

If you have any questions or require additional information, please contact me via email (jason@fulmerlucas.com) or phone (615-300-6486).

Sincerely,

Jason Morelock, PE

Cc: Franklin Farrow, Morning Pointe Senior Living

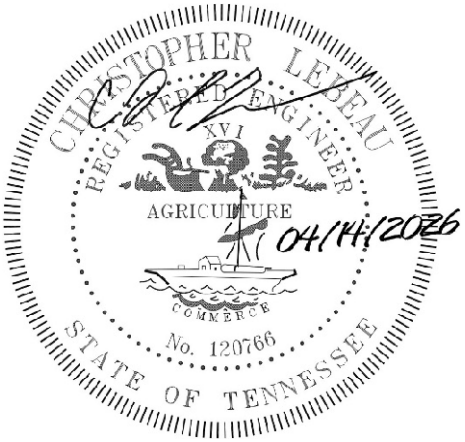
Enclosure

FULMER LUCAS

DRAINAGE REPORT

FOR

MORNING POINTE
FL PROJECT #1421-01



Enclosures:

- Drainage Area Maps
- Hydraflow Storm Sewers Report
- HydroCAD Report
- USDA Web Soil Survey

PROJECT DESCRIPTION/NARRATIVE:

Proposed work for this project consists of the construction of an assisted living and memory care campus at the intersection of Westfield Drive and Rutherford Lane. The pre-developed condition consists of a weighted average curve number of 51.1, and the post-developed condition will see an increase of curve number to 70.5.

Underground detention, surface detention and Focal Point Units have been proposed to satisfy the target runoff reduction requirement, as well as to assist in attenuating the peak flow. The pre-developed and routed peak flows have been compiled in the table below:

Design Storm	Pre-Outfall 1 (CFS)	Post-Outfall 1 Routed (CFS)*	Pre-Outfall 2 (CFS)	Post-Outfall 2 Routed (CFS)*	Pre-Outfall 3 (CFS)	Post-Outfall 3 Routed (CFS)*
1-YEAR	0.52	2.77	0.08	0.00	0.18	2.03
2-YEAR	1.17	4.16	0.45	0.01	0.66	3.34
5-YEAR	2.27	5.99	0.91	0.07	1.64	5.36
10-YEAR	3.28	7.73	3.69	0.30	2.63	7.16
25-YEAR	4.82	10.10	6.81	0.79	4.19	9.83
50-YEAR	6.11	11.90	9.67	1.28	5.54	12.04
100-YEAR	7.52	13.75	12.95	1.86	7.04	14.43

* ”Post-Q Routed” contains both the peak flow out of the treated areas, and the peak flow of the bypassed area.

Design Storm	Pre-Development Cumulative Flows (CFS) From Property	Post-Development Routed Cumulative Flows (CFS) From Property
1-YEAR	0.88	4.80
2-YEAR	2.65	7.51
5-YEAR	6.76	11.42
10-YEAR	11.09	15.19
25-YEAR	18.19	20.72
50-YEAR	24.44	25.22
100-YEAR	31.46	30.04

Cumulative flows were calculated to compare the overall flows leaving the property. The USDA soil survey reflects type A soils, which have low runoff potential and high infiltration rates. Due to the low flow rates leaving the property in pre-development condition, it is not practical to meet the pre-development flows with the post-development conditions. The applicant would like to discuss further with the City to determine alternative methods for stormwater infrastructure on this property.

Drainage Area Maps

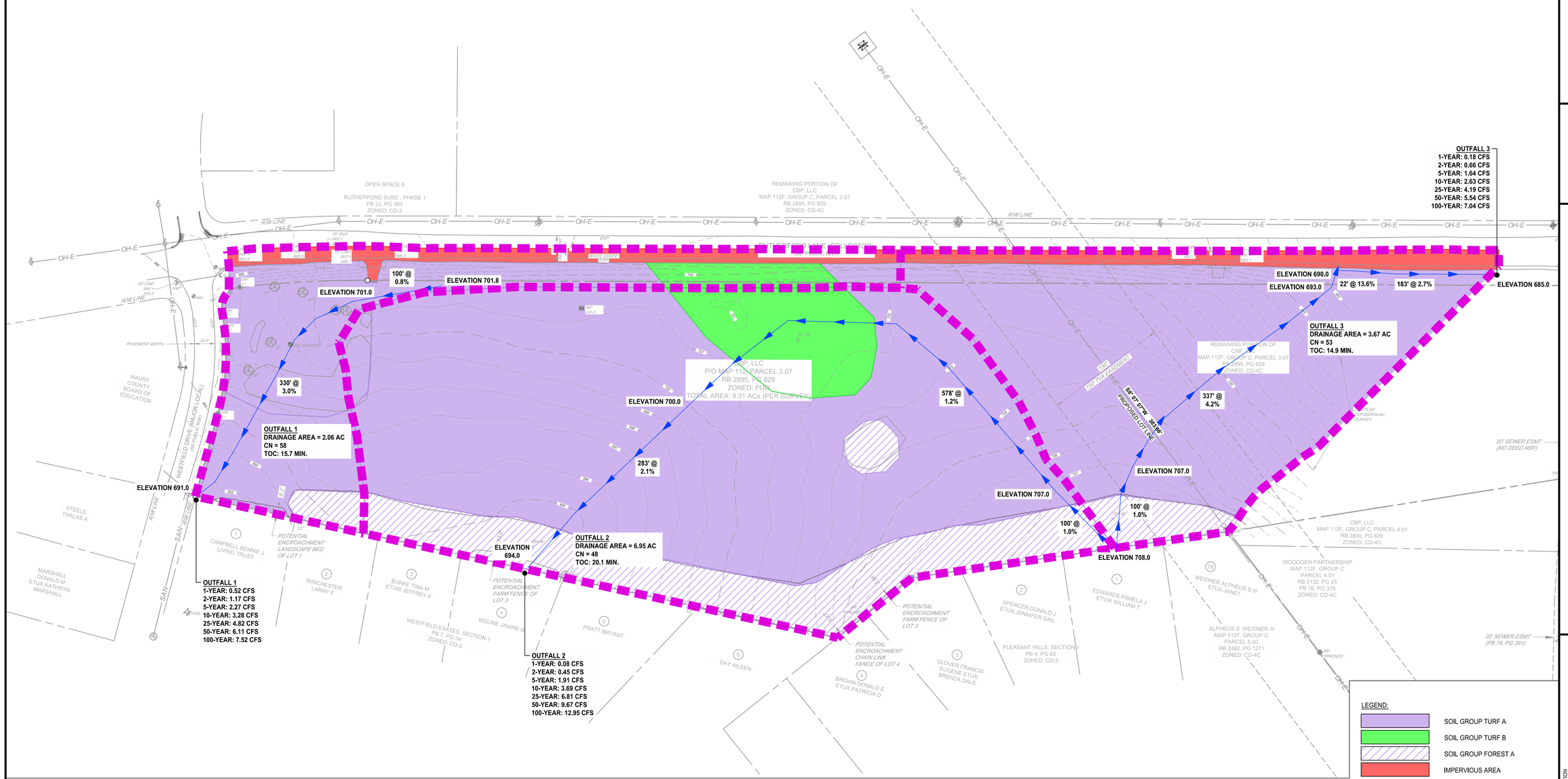
Know what's **below.**
Call before you dig.

FULMER LUCAS
2002 RICHARD JONES RD - SUITE B200
NASHVILLE, TENNESSEE 37215
INFO@FULMERLUCAS.COM - (615) 345-3770

SITE DEVELOPMENT PLANS FOR:

MORNING POINTE

RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401



SURVEY INFO
PROVIDED BY: M2 GROUP, LLC
DATUM: TENNESSEE STATE PLANE (NAD83 & NAVD 88)

CUMULATIVE FLOWS FOR THE PROPERTY

1-YEAR FLOW = (0.52 + 0.08 + 0.28) CFS = 0.88 CFS
2-YEAR FLOW = (1.17 + 0.45 + 1.03) CFS = 2.65 CFS
5-YEAR FLOW = (2.27 + 1.91 + 2.58) CFS = 6.76 CFS
10-YEAR FLOW = (3.28 + 3.69 + 4.12) CFS = 11.09 CFS
25-YEAR FLOW = (4.82 + 6.81 + 6.56) CFS = 18.19 CFS
50-YEAR FLOW = (6.11 + 9.67 + 8.66) CFS = 24.44 CFS
100-YEAR FLOW = (7.52 + 12.95 + 10.99) CFS = 31.46 CFS

DR.	DATE	DESCRIPTION
JEL	04/20/2026	FINAL PUD MASTER PLAN

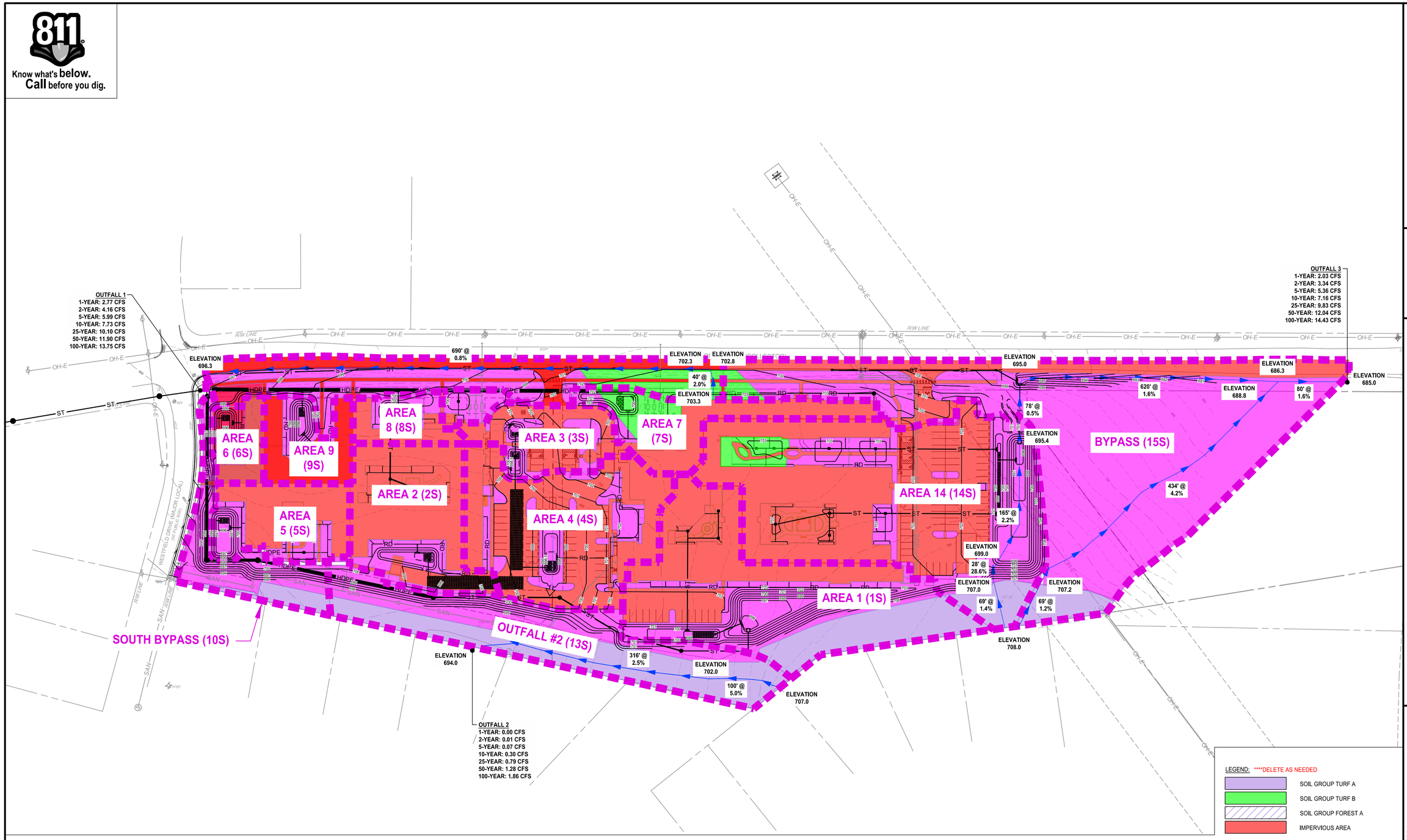
OVERALL EXISTING DRAINAGE AREA MAP

PRE

1421-01 MORNING POINTE

Monday, April 20, 2026
User: Mandy Stanfield
I:\1421 Morning Pointe\01 - Columbia\02 - Civil\Exhibits\1421-01_Drainage_EXISTING.dwg

Know what's below. Call before you dig.



LEGEND: ****DELETE AS NEEDED

- SOIL GROUP TURF A
- SOIL GROUP TURF B
- SOIL GROUP FOREST A
- IMPERVIOUS AREA
- DRAINAGE AREA BOUNDARY
- FLOW PATH

0 25 50 100 150

SCALE: 1" = 60'

SURVEY INFO
PROVIDED BY: M2 GROUP, LLC
DATUM: TENNESSEE STATE PLANE (NAD83 & NAVD 88)

CUMULATIVE FLOWS FOR THE PROPERTY

1-YEAR FLOW = (0.97 + 1.80 + 0.00 + 2.03) CFS = 4.80 CFS
2-YEAR FLOW = (1.69 + 2.47 + 0.01 + 3.34) CFS = 7.51 CFS
5-YEAR FLOW = (2.58 + 3.41 + 0.07 + 5.36) CFS = 11.42 CFS
10-YEAR FLOW = (3.57 + 4.16 + 0.30 + 7.16) CFS = 15.19 CFS
25-YEAR FLOW = (4.89 + 5.21 + 0.79 + 9.83) CFS = 20.72 CFS
50-YEAR FLOW = (5.84 + 6.06 + 1.28 + 12.04) CFS = 25.22 CFS
100-YEAR FLOW = (6.81 + 6.94 + 1.86 + 14.43) CFS = 30.04 CFS

FULMER LUCAS
2002 RICHARD JONES RD - SUITE B200
NASHVILLE, TENNESSEE 37215
INFO@FULMERLUCAS.COM - (615) 345-3770

SITE DEVELOPMENT PLANS FOR:
MORNING POINTE
RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401

DR.	DATE	DESCRIPTION
JEL	04/20/2026	FINAL PUD MASTER PLAN

OVERALL PROPOSED DRAINAGE AREA MAP

POST

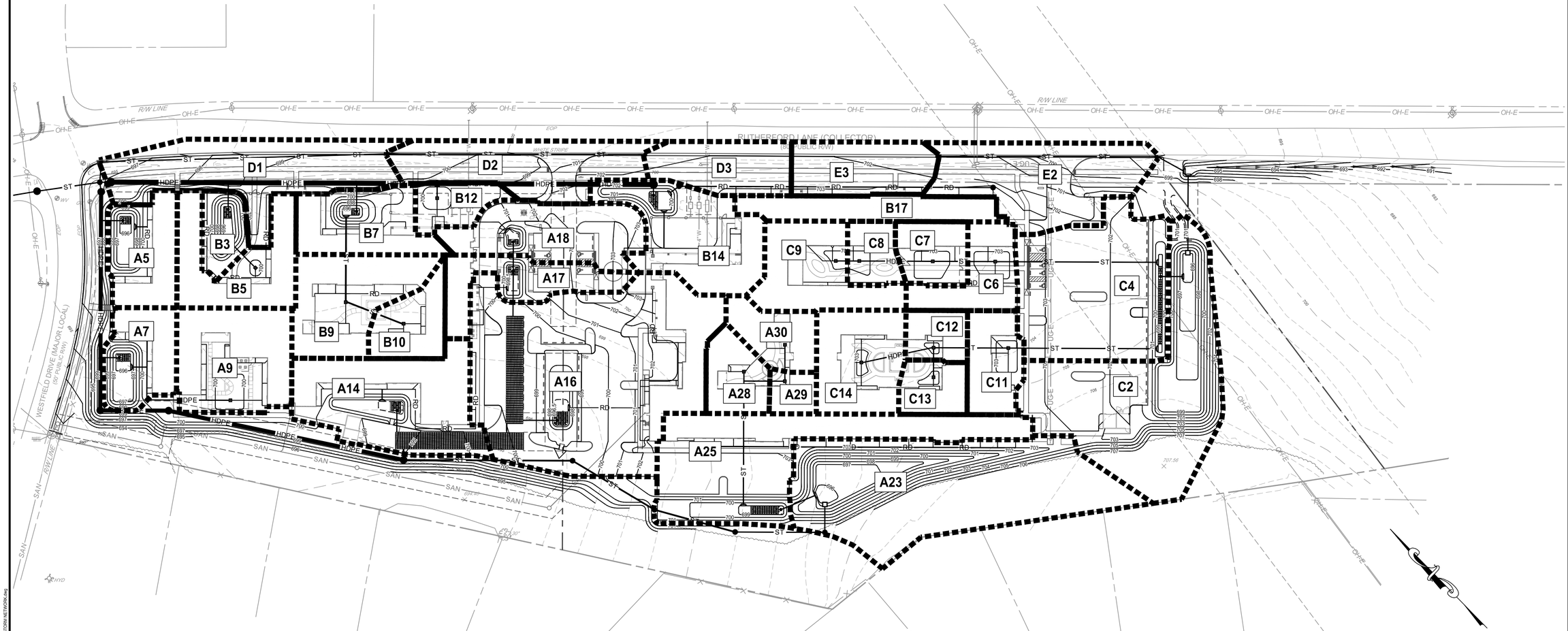
1421-01 MORNING POINTE

Monday, April 20, 2026
11:21:13 AM by jlewis - J:\Columbia\02 - Civil\Exhibits\1421-01_Drainage_PROPOSED.dwg

Know what's **below.**
Call before you dig.

INLET	AREA (AC)	IMP (AC)	FOR (AC)	PER (AC)	C-FACTOR	Tc (MINS)
A5	0.18	0.09	0.00	0.08	0.58	5
A7	0.16	0.08	0.00	0.09	0.52	5
A9	0.29	0.20	0.00	0.09	0.71	5
A14	0.40	0.29	0.00	0.11	0.74	5
A16	0.98	0.76	0.00	0.23	0.76	5
A17	0.17	0.12	0.00	0.04	0.74	5
A18	0.26	0.19	0.00	0.07	0.75	5
A23	0.72	0.00	0.32	0.40	0.09	5
A25	0.50	0.38	0.00	0.12	0.75	5
A28	0.11	0.11	0.00	0.00	0.95	5
A29	0.05	0.05	0.00	0.00	0.95	5
A30	0.12	0.12	0.00	0.00	0.95	5
B3	0.08	0.00	0.00	0.08	0.15	5
B5	0.22	0.11	0.00	0.11	0.54	5
B7	0.20	0.11	0.00	0.09	0.59	5
B9	0.26	0.26	0.00	0.00	0.95	5
B10	0.12	0.12	0.00	0.00	0.95	5

INLET	AREA (AC)	IMP (AC)	FOR (AC)	PER (AC)	C-FACTOR	Tc (MINS)
B12	0.09	0.01	0.00	0.07	0.27	5
B14	0.31	0.13	0.00	0.17	0.49	5
B17	0.16	0.16	0.00	0.00	0.95	5
C2	0.65	0.19	0.11	0.36	0.36	5
C4	0.51	0.41	0.00	0.10	0.79	5
C6	0.14	0.10	0.00	0.04	0.72	5
C7	0.11	0.05	0.00	0.05	0.55	5
C8	0.19	0.15	0.00	0.04	0.78	5
C9	0.12	0.07	0.00	0.05	0.63	5
C11	0.13	0.09	0.00	0.04	0.70	5
C12	0.08	0.08	0.00	0.00	0.95	5
C13	0.09	0.09	0.00	0.00	0.95	5
C14	0.22	0.22	0.00	0.00	0.95	5
D1	0.39	0.15	0.00	0.24	0.46	5
D2	0.29	0.16	0.00	0.14	0.57	5
D3	0.17	0.07	0.00	0.10	0.47	5
E2	0.36	0.18	0.00	0.18	0.56	5
E3	0.18	0.07	0.00	0.11	0.48	5



SURVEY INFO
PROVIDED BY: M2 GROUP, LLC
DATUM: TENNESSEE STATE PLANE (NAD83 & NAVD 88)

FULMER LUCAS
2002 RICHARD JONES RD - SUITE B200
NASHVILLE, TENNESSEE 37215
INFO@FULMERLUCAS.COM - (615) 345-3770

SITE DEVELOPMENT PLANS FOR:
MORNING POINTE
RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401

DR.	DATE	DESCRIPTION
JEL	04/20/2026	FINAL PUD MASTER PLAN

STORM NETWORK DRAINAGE AREA MAP

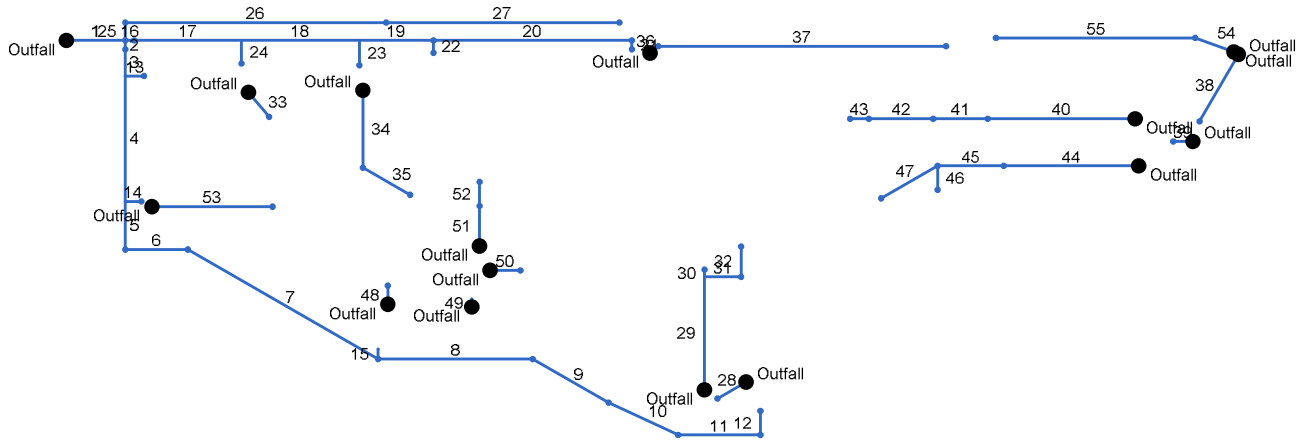
NET

1421-01 MORNING POINTE

Monday, April 20, 2026
By: Jeremy Shelton
N:\Civil Projects\1421 - Columbia\02 - Civil\Exhibits\1421-01_Drainage_STORM NETWORK.dwg

Hydraflow Storm Sewers Report

Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
55	54	223.000	0.18	0.18	0.48	0.09	0.09	5.0	5.0	7.2	0.63	4.13	2.08	12	1.35	694.50	697.50	695.06	697.83	698.00	701.40	E3-E2
54	End	46.000	0.36	0.54	0.56	0.20	0.29	5.0	9.7	6.1	1.76	3.71	3.71	12	1.09	694.00	694.50	694.60	695.06	694.00	698.00	E2-E1
53	End	135.000	0.29	0.29	0.71	0.21	0.21	5.0	5.0	7.2	1.49	2.56	3.29	12	0.52	696.00	696.70	696.61	697.22	696.00	699.20	A9-A8
52	51	27.000	0.26	0.26	0.75	0.20	0.20	5.0	5.0	7.2	1.41	2.65	2.92	12	0.56	695.35	695.50	696.00	696.04	699.00	699.00	A18-A17
51	End	45.000	0.17	0.43	0.74	0.13	0.32	5.0	5.3	7.2	2.30	7.60	3.72	12	4.56	693.30	695.35	694.17	696.00	699.75	699.00	A17-A15
50	End	34.000	0.98	0.98	0.76	0.74	0.74	5.0	5.0	7.2	5.39	8.05	3.05	18	0.59	693.30	693.50	696.52	696.61	699.50	697.00	A16-A15
49	End	9.000	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	7.70	0.00	5.26	18	0.00	693.30	693.30	694.37	694.57	700.00	700.00	A15-A13
48	End	21.000	0.40	0.40	0.74	0.30	0.30	5.0	5.0	7.2	2.14	8.51	3.55	12	5.71	693.30	694.50	694.17	695.13	698.75	698.00	A14-A13
47	45	73.000	0.22	0.22	0.95	0.21	0.21	5.0	5.0	7.2	1.51	4.66	1.23	15	0.52	700.16	700.54	701.94	701.98	702.75	702.75	C14-C12
46	45	27.000	0.09	0.09	0.95	0.09	0.09	5.0	5.0	7.2	0.62	4.97	0.50	15	0.59	700.16	700.32	701.94	701.94	702.75	702.75	C13-C12
45	44	74.000	0.08	0.39	0.95	0.08	0.37	5.0	6.0	7.0	2.58	4.69	2.10	15	0.53	699.77	700.16	701.69	701.81	702.50	702.75	C12-C11
44	End	151.000	0.13	0.52	0.70	0.09	0.46	5.0	6.6	6.8	3.14	4.61	2.56	15	0.51	699.00	699.77	701.28	701.64	699.00	702.50	C11-C10
43	42	21.000	0.12	0.12	0.63	0.08	0.08	5.0	5.0	7.2	0.55	2.80	1.84	12	0.62	700.55	700.68	701.21	700.99	702.75	702.75	C9-C8
42	41	72.000	0.19	0.31	0.78	0.15	0.22	5.0	5.5	7.1	1.59	2.59	3.01	12	0.53	700.17	700.55	700.92	701.11	702.50	702.75	C8-C7
41	40	61.000	0.11	0.42	0.55	0.06	0.28	5.0	6.1	6.9	1.97	2.62	3.66	12	0.54	699.84	700.17	700.49	700.82	702.50	702.50	C7-C6
40	End	165.000	0.14	0.56	0.72	0.10	0.39	5.0	6.5	6.8	2.63	4.61	3.70	15	0.51	699.00	699.84	699.77	700.49	699.00	702.50	C6-C5
39	End	22.000	0.51	0.51	0.79	0.40	0.40	5.0	5.0	7.2	8.67	7.76	5.54	18	0.55	695.88	696.00	697.08	697.29	696.00	699.50	C4-C3
38	End	87.000	0.65	0.65	0.36	0.23	0.23	5.0	5.0	7.2	10.36	7.47	6.18	18	0.51	695.00	695.44	696.27	697.22	697.00	698.00	C2-C1
37	36	322.000	0.16	0.16	0.95	0.15	0.15	5.0	5.0	7.2	1.10	1.55	3.02	10	0.50	700.07	701.69	700.65	702.17	702.25	703.50	B17-B16
36	End	12.000	0.00	0.16	0.00	0.00	0.15	0.0	7.7	6.5	0.99	1.67	2.86	10	0.58	700.00	700.07	700.53	700.56	700.00	702.25	B16-B15
35	34	61.000	0.12	0.12	0.95	0.11	0.11	5.0	5.0	7.2	0.83	2.58	1.14	12	0.52	696.45	696.77	697.54	697.57	700.00	700.00	B10-B9
34	End	87.000	0.26	0.38	0.95	0.25	0.36	5.0	6.0	7.0	2.52	2.56	3.75	12	0.52	696.00	696.45	696.79	697.25	696.00	700.00	B9-B8

Project File: Storm Sewer Model.stm | Number of lines: 55 | Run Date: 4/20/2026

NOTES:Intensity = 88.24 / (Inlet time + 15.50) ^ 0.83; Return period =Yrs. 10 ; c = cir e = ellip b = box

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
33	End	36.000	0.22	0.22	0.95	0.21	0.21	5.0	5.0	7.2	1.51	2.59	3.25	12	0.53	696.00	696.19	696.61	696.73	696.00	699.50	B5-B4
32	31	34.000	0.12	0.12	0.95	0.11	0.11	5.0	5.0	7.2	0.83	4.83	1.85	15	0.56	699.85	700.04	700.79	700.40	703.00	703.00	A30-A29
31	29	41.000	0.05	0.17	0.95	0.05	0.16	5.0	5.8	7.0	1.13	4.51	1.08	15	0.49	699.65	699.85	700.75	700.76	703.50	703.00	A29-A27
30	29	8.000	0.11	0.11	0.95	0.10	0.10	5.0	5.0	7.2	0.76	4.56	0.67	15	0.50	699.65	699.69	700.75	700.75	703.50	703.00	A28-A27
29	End	127.000	0.00	0.28	0.00	0.00	0.27	0.0	6.6	6.8	1.81	4.62	1.55	15	0.51	699.00	699.65	700.62	700.71	699.00	703.50	A27-A26
28	End	37.000	0.50	0.50	0.75	0.38	0.38	5.0	5.0	7.2	2.71	4.63	3.49	15	0.51	695.81	696.00	696.63	696.71	695.81	699.50	A25-A24
27	26	261.000	0.17	0.17	0.47	0.08	0.08	5.0	5.0	7.2	0.58	7.98	2.02	15	1.30	694.10	697.50	694.55	697.80	698.90	701.18	D3-D2
26	25	292.000	0.29	0.46	0.57	0.17	0.25	5.0	14.2	5.3	1.30	7.07	2.17	15	1.20	690.60	694.10	693.01	694.55	696.00	698.90	D2-D1
25	1	20.000	0.39	0.85	0.46	0.18	0.42	5.0	17.8	4.8	2.06	10.24	1.16	18	0.95	690.41	690.60	692.97	692.98	695.90	696.00	D1-A2
24	17	26.000	0.08	0.08	0.15	0.01	0.01	5.0	5.0	7.2	1.59	9.73	3.54	12	7.46	691.06	693.00	691.64	693.53	698.90	696.50	B3-B2
23	18	28.000	0.20	0.20	0.59	0.12	0.12	5.0	5.0	7.2	3.35	7.61	7.12	12	4.57	691.72	693.00	692.19	693.78	699.80	696.50	B7-B6
22	19	14.000	0.09	0.09	0.27	0.02	0.02	5.0	5.0	7.2	0.18	18.70	1.64	12	27.57	692.14	696.00	692.37	696.17	700.50	699.50	B12-B11
21	20	10.000	0.31	0.31	0.49	0.15	0.15	5.0	5.0	7.2	1.10	21.81	4.65	12	37.50	693.25	697.00	693.53	697.44	702.10	700.50	B14-B13
20	19	222.000	0.00	0.31	0.00	0.00	0.15	0.0	5.1	7.2	1.09	184.2	2.52	60	0.50	692.14	693.25	692.42	693.53	700.50	702.10	B13-B11
19	18	83.000	0.00	0.40	0.00	0.00	0.18	0.0	71.3	2.2	0.39	185.3	1.08	60	0.51	691.72	692.14	692.19	692.32	699.80	700.50	B11-B6
18	17	132.000	0.00	0.60	0.00	0.00	0.29	0.0	93.7	1.8	3.03	184.2	2.81	60	0.50	691.06	691.72	691.64	692.19	698.90	699.80	B6-B2
17	16	120.000	0.00	0.68	0.00	0.00	0.31	0.0	103.4	1.7	4.52	184.2	2.01	60	0.50	690.46	691.06	693.05	691.64	696.25	698.90	B2-B1
16	1	10.000	0.00	0.68	0.00	0.00	0.31	0.0	109.9	1.6	4.49	5.00	3.66	15	0.60	690.40	690.46	692.97	693.02	695.90	696.25	B1-A2
15	7	11.000	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	9.84	22.62	5.65	24	1.00	693.19	693.30	694.24	694.42	699.10	699.10	A13-A12
14	4	18.000	0.16	0.16	0.52	0.08	0.08	5.0	5.0	7.2	2.10	19.67	2.80	15	9.28	691.33	693.00	692.46	693.58	699.30	696.50	A7-A6
13	3	21.000	0.18	0.18	0.58	0.10	0.10	5.0	5.0	7.2	0.76	21.78	1.72	15	11.38	690.61	693.00	691.76	693.34	697.50	696.50	A5-A4
12	11	27.000	0.72	0.72	0.09	0.06	0.06	5.0	5.0	7.2	3.18	4.65	3.14	15	0.52	695.46	695.60	696.47	696.52	703.60	698.00	A23-A22

Project File: Storm Sewer Model.stm | Number of lines: 55 | Run Date: 4/20/2026

NOTES:Intensity = 88.24 / (Inlet time + 15.50) ^ 0.83; Return period =Yrs. 10 ; c = cir e = ellip b = box

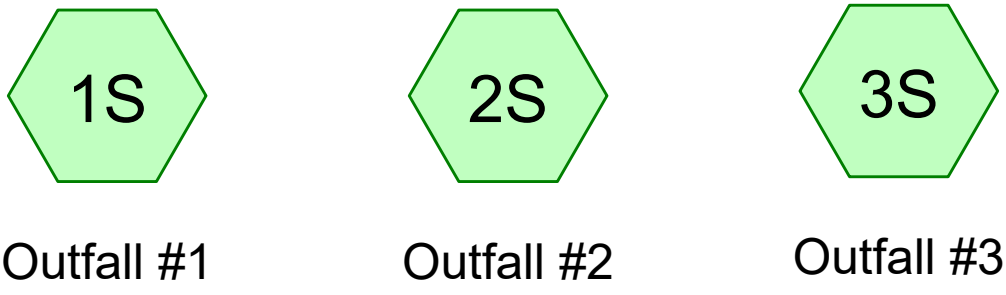
Storm Sewer Tabulation

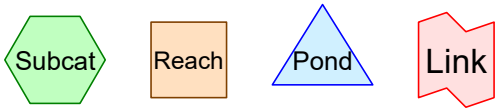
Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
11	10	92.000	0.00	0.72	0.00	0.00	0.06	0.0	5.2	7.2	3.18	4.62	3.83	15	0.51	694.99	695.46	695.87	696.20	701.00	703.60	A22-A21
10	9	86.000	0.00	0.72	0.00	0.00	0.06	0.0	5.8	7.0	3.16	4.57	4.01	15	0.50	694.56	694.99	695.33	695.75	701.50	701.00	A21-A20
9	8	98.000	0.00	0.72	0.00	0.00	0.06	0.0	6.3	6.9	3.16	4.61	3.82	15	0.51	694.06	694.56	694.94	695.29	699.25	701.50	A20-A19
8	7	173.000	0.00	0.72	0.00	0.00	0.06	0.0	7.0	6.7	3.14	4.58	3.55	15	0.50	693.19	694.06	694.24	694.79	699.10	699.25	A19-A12
7	6	246.000	0.00	0.72	0.00	0.00	0.06	0.0	8.1	6.4	12.97	102.0	4.92	48	0.50	691.95	693.19	693.00	694.24	700.50	699.10	A12-A11
6	5	70.000	0.00	0.72	0.00	0.00	0.06	0.0	12.1	5.7	12.92	101.6	4.91	48	0.50	691.60	691.95	692.65	693.00	699.30	700.50	A11-A10
5	4	54.000	0.00	0.72	0.00	0.00	0.06	0.0	13.2	5.5	12.91	101.6	4.67	48	0.50	691.33	691.60	692.46	692.65	699.30	699.30	A10-A6
4	3	141.000	0.00	0.88	0.00	0.00	0.15	0.0	14.1	5.3	14.84	102.7	5.04	48	0.51	690.61	691.33	691.76	692.46	697.50	699.30	A6-A4
3	2	30.000	0.00	1.06	0.00	0.00	0.25	0.0	16.0	5.1	15.33	101.6	3.36	48	0.50	690.46	690.61	693.36	691.76	696.00	697.50	A4-A3
2	1	10.000	0.00	1.06	0.00	0.00	0.25	0.0	16.4	5.0	15.32	8.13	8.67	18	0.60	690.40	690.46	692.97	693.18	695.90	696.00	A3-A2
1	End	66.000	0.00	2.59	0.00	0.00	0.98	0.0	109.9	1.6	19.64	15.99	6.71	24	0.50	690.07	690.40	691.71	692.35	695.00	695.90	A2-A1

Project File: Storm Sewer Model.stm | Number of lines: 55 | Run Date: 4/20/2026

NOTES:Intensity = 88.24 / (Inlet time + 15.50) ^ 0.83; Return period =Yrs. 10 ; c = cir e = ellip b = box

HydroCAD Report





Routing Diagram for Stormwater Calculations - Existing
Prepared by Fulmer Lucas, Printed 4/20/2026
HydroCAD® 10.20-8a s/n 11448 © 2025 HydroCAD Software Solutions LLC

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-year	Type II 24-hr		Default	24.00	1	3.24	2
2	2-year	Type II 24-hr		Default	24.00	1	3.87	2
3	5-year	Type II 24-hr		Default	24.00	1	4.71	2
4	10-year	Type II 24-hr		Default	24.00	1	5.38	2
5	25-year	Type II 24-hr		Default	24.00	1	6.30	2
6	50-year	Type II 24-hr		Default	24.00	1	7.02	2
7	100-year	Type II 24-hr		Default	24.00	1	7.77	2

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
424,710	49	50-75% Grass cover, Fair, HSG A (1S, 2S, 3S)
31,363	69	50-75% Grass cover, Fair, HSG B (1S, 2S)
29,185	98	Paved parking, HSG A (1S, 3S)
67,082	36	Woods, Fair, HSG A (1S, 2S, 3S)
552,341	**51**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
520,978	HSG A	1S, 2S, 3S
31,363	HSG B	1S, 2S
0	HSG C	
0	HSG D	
0	Other	
552,341		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover	Su Nu
424,710	31,363	0	0	0	456,073	50-75% Grass cover, Fair	
29,185	0	0	0	0	29,185	Paved parking	
67,082	0	0	0	0	67,082	Woods, Fair	
520,978	**31,363**	**0**	**0**	**0**	**552,341**	**TOTAL AREA**	

Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Outfall #1 Runoff Area=2.060 ac 16.50% Impervious Runoff Depth=0.36"
Flow Length=430' Tc=15.7 min CN=58 Runoff=0.52 cfs 2,658 cf

Subcatchment2S: Outfall #2 Runoff Area=6.950 ac 0.00% Impervious Runoff Depth=0.10"
Flow Length=961' Tc=20.1 min CN=48 Runoff=0.08 cfs 2,441 cf

Subcatchment3S: Outfall #3 Runoff Area=3.670 ac 8.99% Impervious Runoff Depth=0.21"
Flow Length=642' Tc=14.9 min CN=53 Runoff=0.28 cfs 2,772 cf

Total Runoff Area = 552,341 sf Runoff Volume = 7,871 cf Average Runoff Depth = 0.17"
94.72% Pervious = 523,156 sf 5.28% Impervious = 29,185 sf

Summary for Subcatchment 1S: Outfall #1

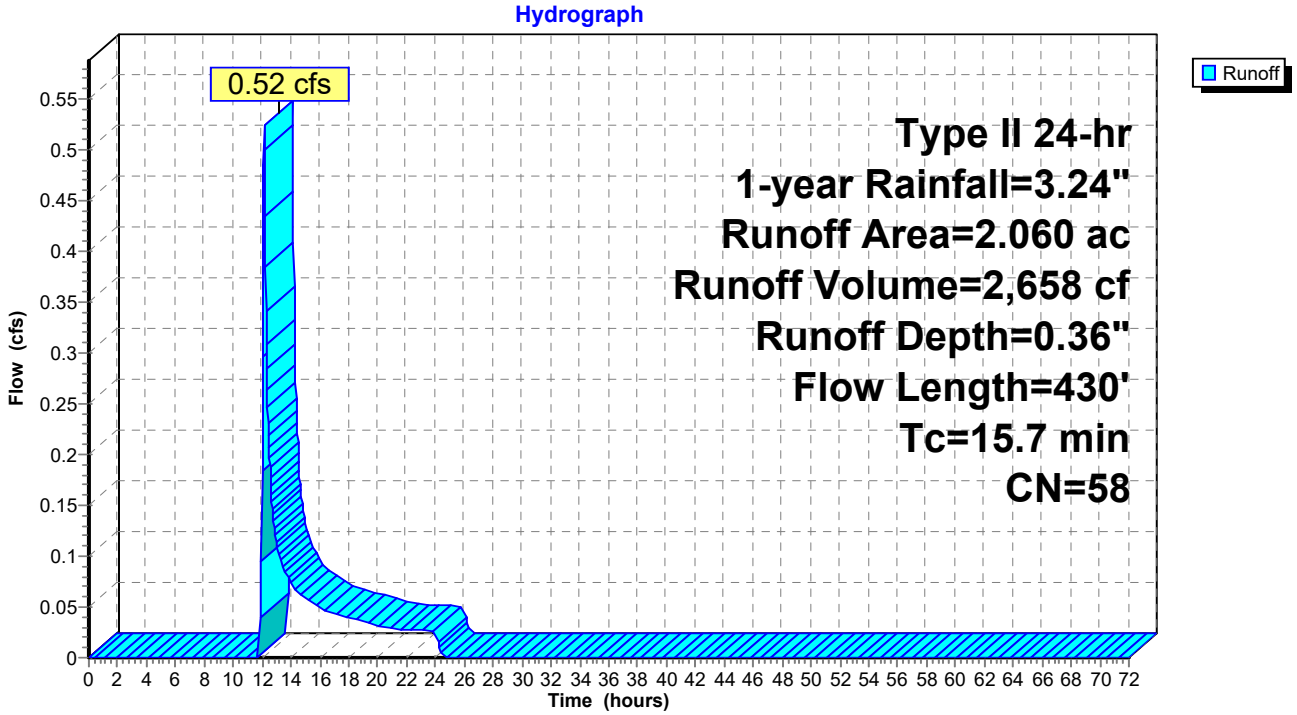
Runoff = 0.52 cfs @ 12.13 hrs, Volume= 2,658 cf, Depth= 0.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 1-year Rainfall=3.24"

Area (ac)	CN	Description
1.480	49	50-75% Grass cover, Fair, HSG A
0.150	69	50-75% Grass cover, Fair, HSG B
0.090	36	Woods, Fair, HSG A
0.340	98	Paved parking, HSG A
2.060	58	Weighted Average
1.720		83.50% Pervious Area
0.340		16.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.7	100	0.0080	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
2.0	330	0.0300	2.79		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
15.7	430	Total			

Subcatchment 1S: Outfall #1



Summary for Subcatchment 2S: Outfall #2

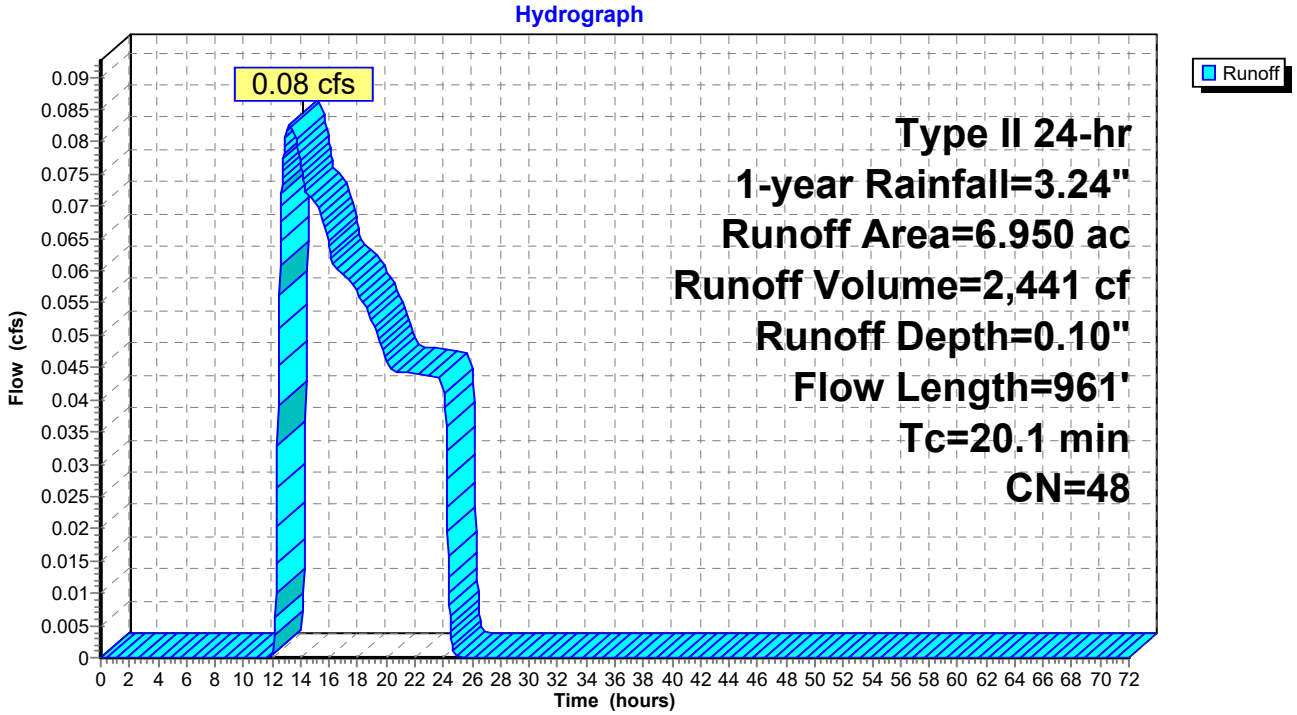
Runoff = 0.08 cfs @ 13.14 hrs, Volume= 2,441 cf, Depth= 0.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 1-year Rainfall=3.24"

Area (ac)	CN	Description
5.110	49	50-75% Grass cover, Fair, HSG A
0.570	69	50-75% Grass cover, Fair, HSG B
1.270	36	Woods, Fair, HSG A
6.950	48	Weighted Average
6.950		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.6	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
5.5	578	0.0120	1.76		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
2.0	283	0.0210	2.33		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
20.1	961	Total			

Subcatchment 2S: Outfall #2



Summary for Subcatchment 3S: Outfall #3

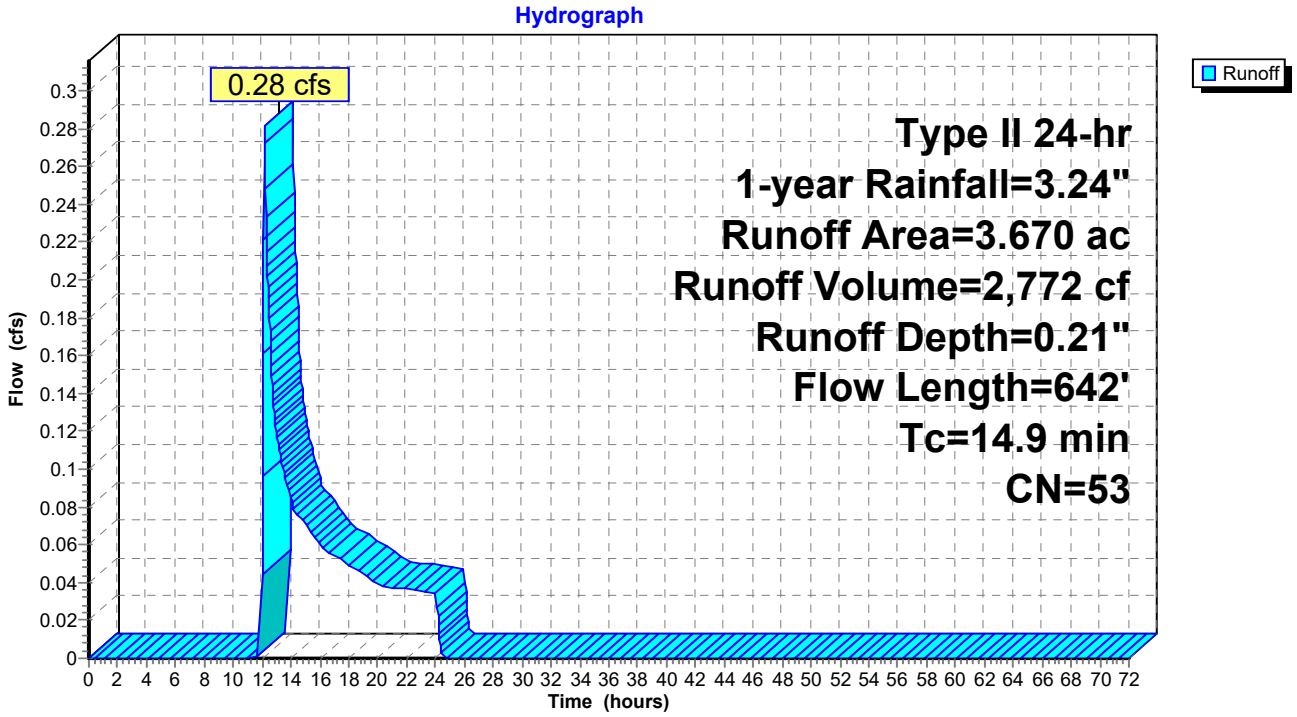
Runoff = 0.28 cfs @ 12.16 hrs, Volume= 2,772 cf, Depth= 0.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 1-year Rainfall=3.24"

Area (ac)	CN	Description
3.160	49	50-75% Grass cover, Fair, HSG A
0.180	36	Woods, Fair, HSG A
0.330	98	Paved parking, HSG A
3.670	53	Weighted Average
3.340		91.01% Pervious Area
0.330		8.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.6	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
1.7	337	0.0420	3.30		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.1	22	0.1360	5.94		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.5	183	0.0270	6.06	15.14	**Channel Flow,** Area= 2.5 sf Perim= 6.2' r= 0.40' n= 0.022 Earth, clean & straight
14.9	642	Total			

Subcatchment 3S: Outfall #3



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Outfall #1 Runoff Area=2.060 ac 16.50% Impervious Runoff Depth=0.61"
Flow Length=430' Tc=15.7 min CN=58 Runoff=1.17 cfs 4,538 cf

Subcatchment2S: Outfall #2 Runoff Area=6.950 ac 0.00% Impervious Runoff Depth=0.23"
Flow Length=961' Tc=20.1 min CN=48 Runoff=0.45 cfs 5,839 cf

Subcatchment3S: Outfall #3 Runoff Area=3.670 ac 8.99% Impervious Runoff Depth=0.40"
Flow Length=642' Tc=14.9 min CN=53 Runoff=1.03 cfs 5,340 cf

Total Runoff Area = 552,341 sf Runoff Volume = 15,717 cf Average Runoff Depth = 0.34"
94.72% Pervious = 523,156 sf 5.28% Impervious = 29,185 sf

Summary for Subcatchment 1S: Outfall #1

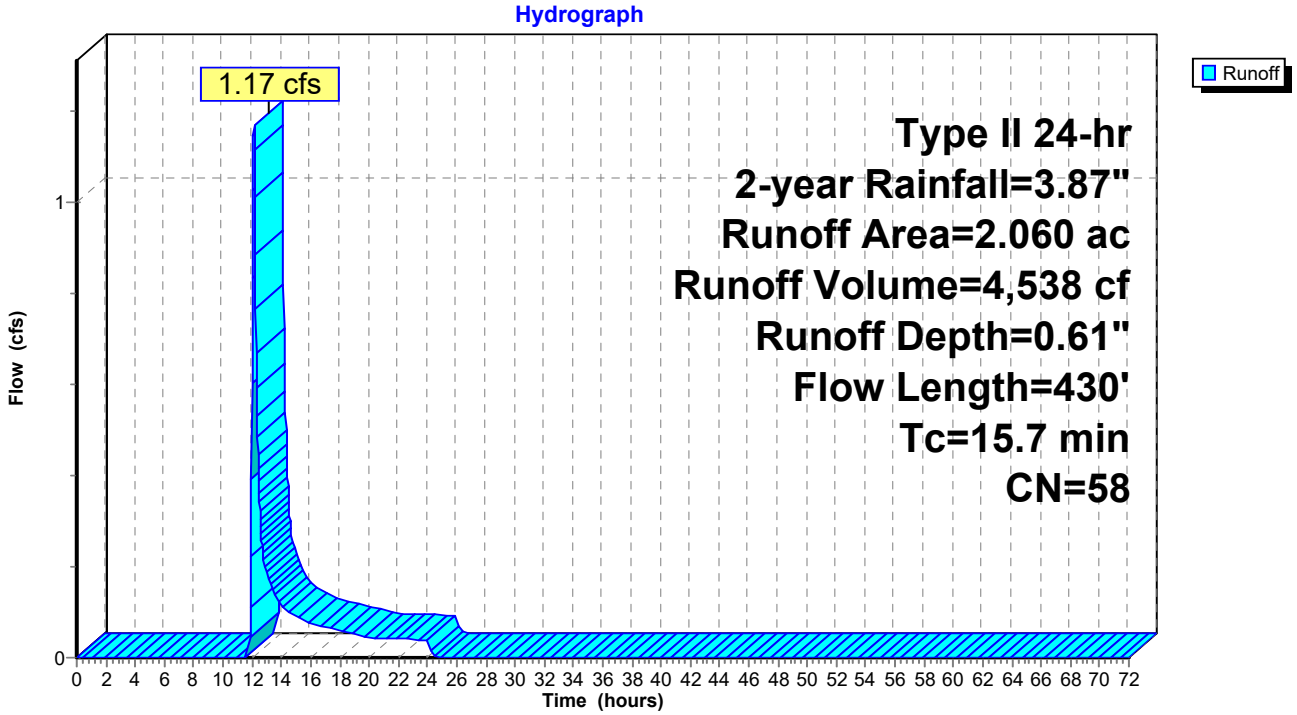
Runoff = 1.17 cfs @ 12.11 hrs, Volume= 4,538 cf, Depth= 0.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 2-year Rainfall=3.87"

Area (ac)	CN	Description
1.480	49	50-75% Grass cover, Fair, HSG A
0.150	69	50-75% Grass cover, Fair, HSG B
0.090	36	Woods, Fair, HSG A
0.340	98	Paved parking, HSG A
2.060	58	Weighted Average
1.720		83.50% Pervious Area
0.340		16.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.7	100	0.0080	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
2.0	330	0.0300	2.79		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
15.7	430	Total			

Subcatchment 1S: Outfall #1



Summary for Subcatchment 2S: Outfall #2

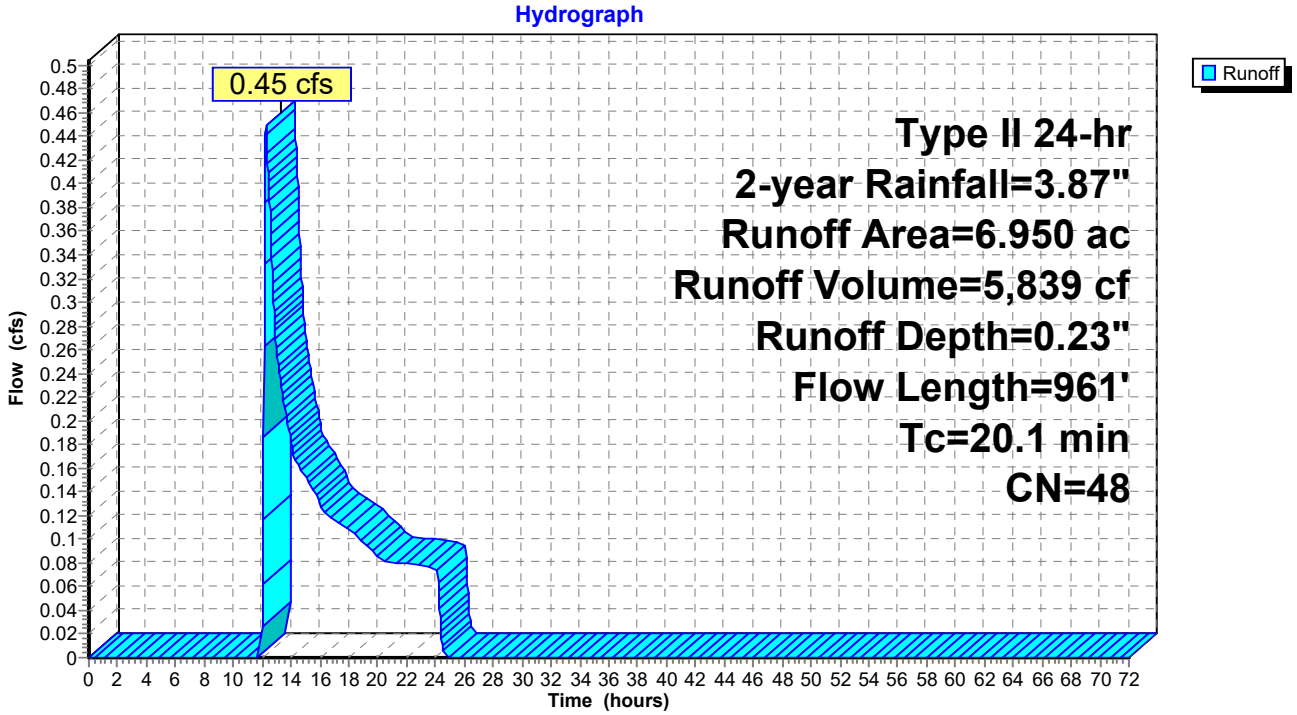
Runoff = 0.45 cfs @ 12.28 hrs, Volume= 5,839 cf, Depth= 0.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 2-year Rainfall=3.87"

Area (ac)	CN	Description
5.110	49	50-75% Grass cover, Fair, HSG A
0.570	69	50-75% Grass cover, Fair, HSG B
1.270	36	Woods, Fair, HSG A
6.950	48	Weighted Average
6.950		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.6	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
5.5	578	0.0120	1.76		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
2.0	283	0.0210	2.33		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
20.1	961	Total			

Subcatchment 2S: Outfall #2



Summary for Subcatchment 3S: Outfall #3

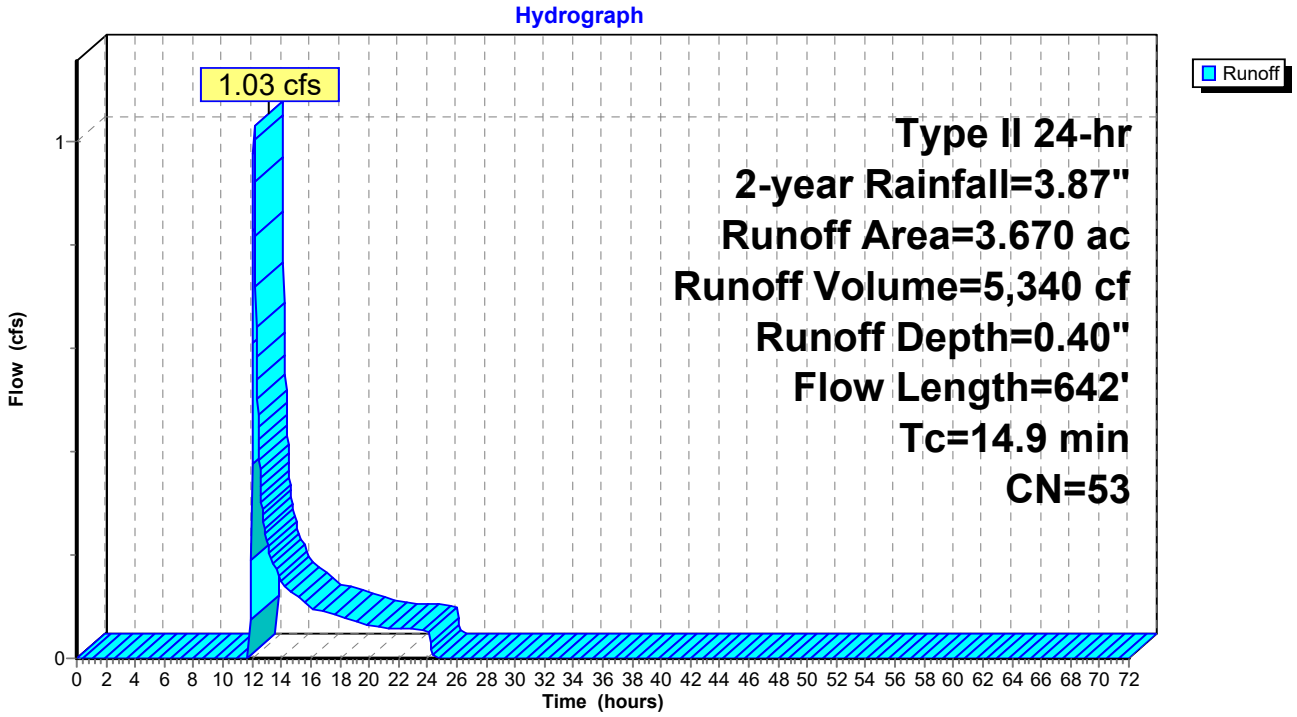
Runoff = 1.03 cfs @ 12.12 hrs, Volume= 5,340 cf, Depth= 0.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 2-year Rainfall=3.87"

Area (ac)	CN	Description
3.160	49	50-75% Grass cover, Fair, HSG A
0.180	36	Woods, Fair, HSG A
0.330	98	Paved parking, HSG A
3.670	53	Weighted Average
3.340		91.01% Pervious Area
0.330		8.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.6	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
1.7	337	0.0420	3.30		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.1	22	0.1360	5.94		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.5	183	0.0270	6.06	15.14	**Channel Flow,** Area= 2.5 sf Perim= 6.2' r= 0.40' n= 0.022 Earth, clean & straight
14.9	642	Total			

Subcatchment 3S: Outfall #3



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Outfall #1 Runoff Area=2.060 ac 16.50% Impervious Runoff Depth=1.01"
Flow Length=430' Tc=15.7 min CN=58 Runoff=2.27 cfs 7,574 cf

Subcatchment2S: Outfall #2 Runoff Area=6.950 ac 0.00% Impervious Runoff Depth=0.48"
Flow Length=961' Tc=20.1 min CN=48 Runoff=1.91 cfs 12,200 cf

Subcatchment3S: Outfall #3 Runoff Area=3.670 ac 8.99% Impervious Runoff Depth=0.73"
Flow Length=642' Tc=14.9 min CN=53 Runoff=2.58 cfs 9,731 cf

Total Runoff Area = 552,341 sf Runoff Volume = 29,505 cf Average Runoff Depth = 0.64"
94.72% Pervious = 523,156 sf 5.28% Impervious = 29,185 sf

Summary for Subcatchment 1S: Outfall #1

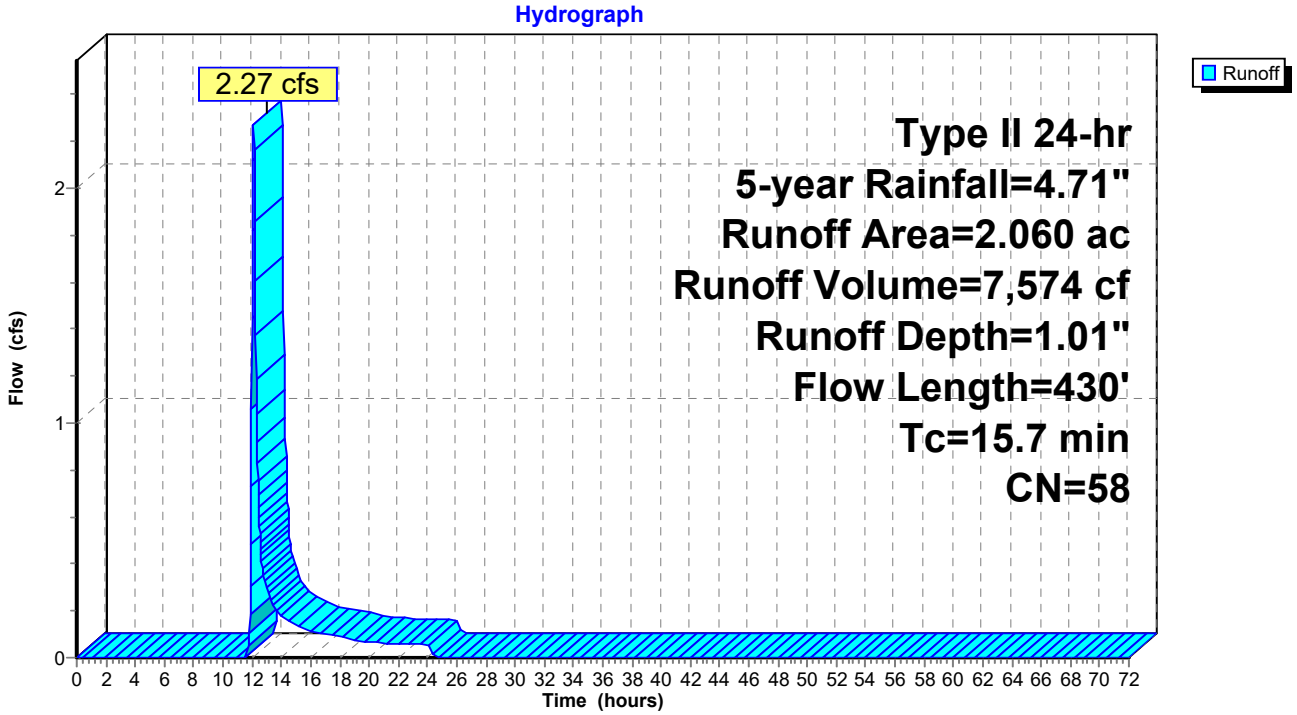
Runoff = 2.27 cfs @ 12.10 hrs, Volume= 7,574 cf, Depth= 1.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 5-year Rainfall=4.71"

Area (ac)	CN	Description
1.480	49	50-75% Grass cover, Fair, HSG A
0.150	69	50-75% Grass cover, Fair, HSG B
0.090	36	Woods, Fair, HSG A
0.340	98	Paved parking, HSG A
2.060	58	Weighted Average
1.720		83.50% Pervious Area
0.340		16.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.7	100	0.0080	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
2.0	330	0.0300	2.79		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
15.7	430	Total			

Subcatchment 1S: Outfall #1



Summary for Subcatchment 2S: Outfall #2

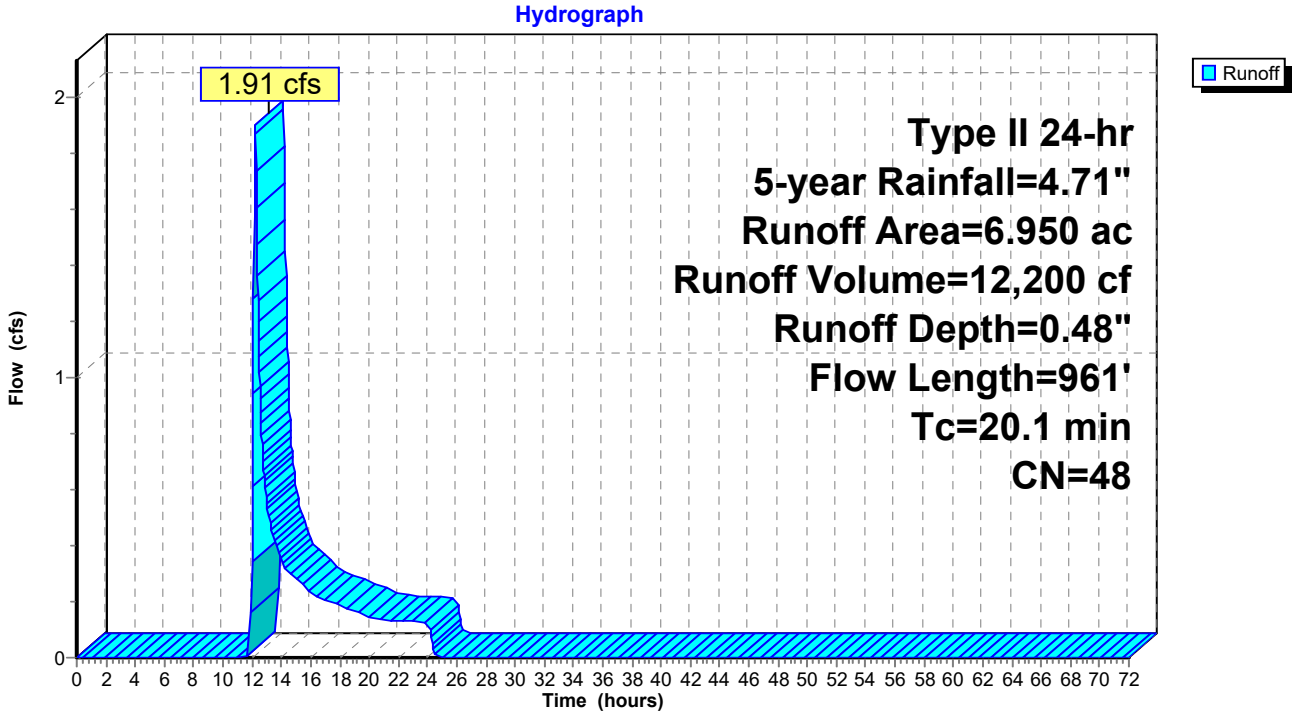
Runoff = 1.91 cfs @ 12.20 hrs, Volume= 12,200 cf, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 5-year Rainfall=4.71"

Area (ac)	CN	Description
5.110	49	50-75% Grass cover, Fair, HSG A
0.570	69	50-75% Grass cover, Fair, HSG B
1.270	36	Woods, Fair, HSG A
6.950	48	Weighted Average
6.950		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.6	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
5.5	578	0.0120	1.76		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
2.0	283	0.0210	2.33		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
20.1	961	Total			

Subcatchment 2S: Outfall #2



Summary for Subcatchment 3S: Outfall #3

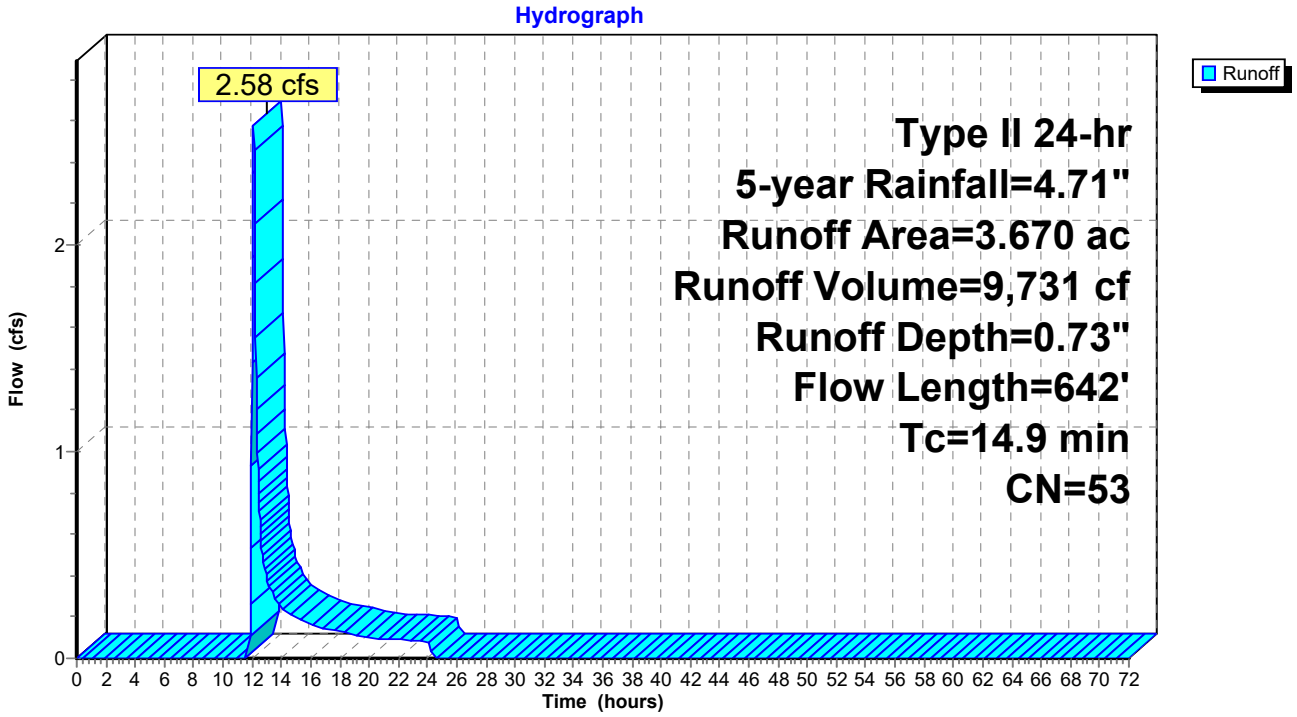
Runoff = 2.58 cfs @ 12.10 hrs, Volume= 9,731 cf, Depth= 0.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 5-year Rainfall=4.71"

Area (ac)	CN	Description
3.160	49	50-75% Grass cover, Fair, HSG A
0.180	36	Woods, Fair, HSG A
0.330	98	Paved parking, HSG A
3.670	53	Weighted Average
3.340		91.01% Pervious Area
0.330		8.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.6	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
1.7	337	0.0420	3.30		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.1	22	0.1360	5.94		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.5	183	0.0270	6.06	15.14	**Channel Flow,** Area= 2.5 sf Perim= 6.2' r= 0.40' n= 0.022 Earth, clean & straight
14.9	642	Total			

Subcatchment 3S: Outfall #3



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Outfall #1 Runoff Area=2.060 ac 16.50% Impervious Runoff Depth=1.38"
Flow Length=430' Tc=15.7 min CN=58 Runoff=3.28 cfs 10,346 cf

Subcatchment2S: Outfall #2 Runoff Area=6.950 ac 0.00% Impervious Runoff Depth=0.74"
Flow Length=961' Tc=20.1 min CN=48 Runoff=3.69 cfs 18,545 cf

Subcatchment3S: Outfall #3 Runoff Area=3.670 ac 8.99% Impervious Runoff Depth=1.04"
Flow Length=642' Tc=14.9 min CN=53 Runoff=4.12 cfs 13,890 cf

Total Runoff Area = 552,341 sf Runoff Volume = 42,781 cf Average Runoff Depth = 0.93"
94.72% Pervious = 523,156 sf 5.28% Impervious = 29,185 sf

Summary for Subcatchment 1S: Outfall #1

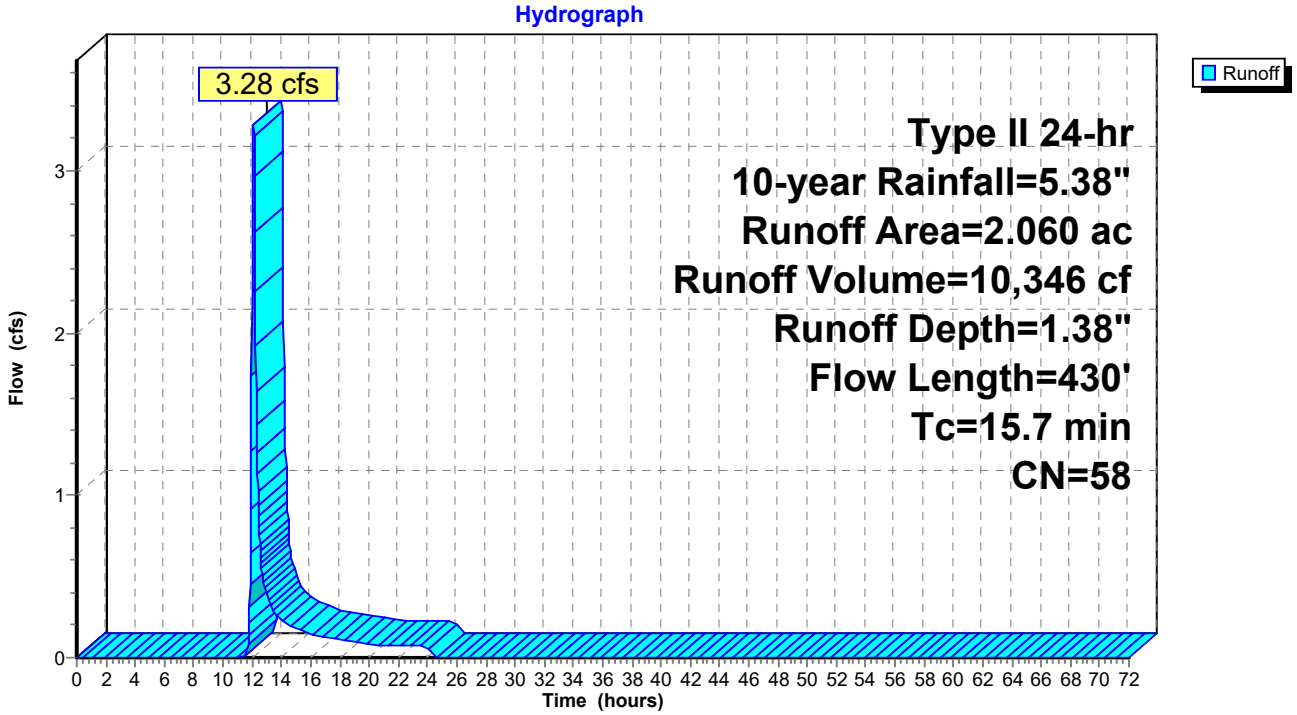
Runoff = 3.28 cfs @ 12.10 hrs, Volume= 10,346 cf, Depth= 1.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 10-year Rainfall=5.38"

Area (ac)	CN	Description
1.480	49	50-75% Grass cover, Fair, HSG A
0.150	69	50-75% Grass cover, Fair, HSG B
0.090	36	Woods, Fair, HSG A
0.340	98	Paved parking, HSG A
2.060	58	Weighted Average
1.720		83.50% Pervious Area
0.340		16.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.7	100	0.0080	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
2.0	330	0.0300	2.79		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
15.7	430	Total			

Subcatchment 1S: Outfall #1



Summary for Subcatchment 2S: Outfall #2

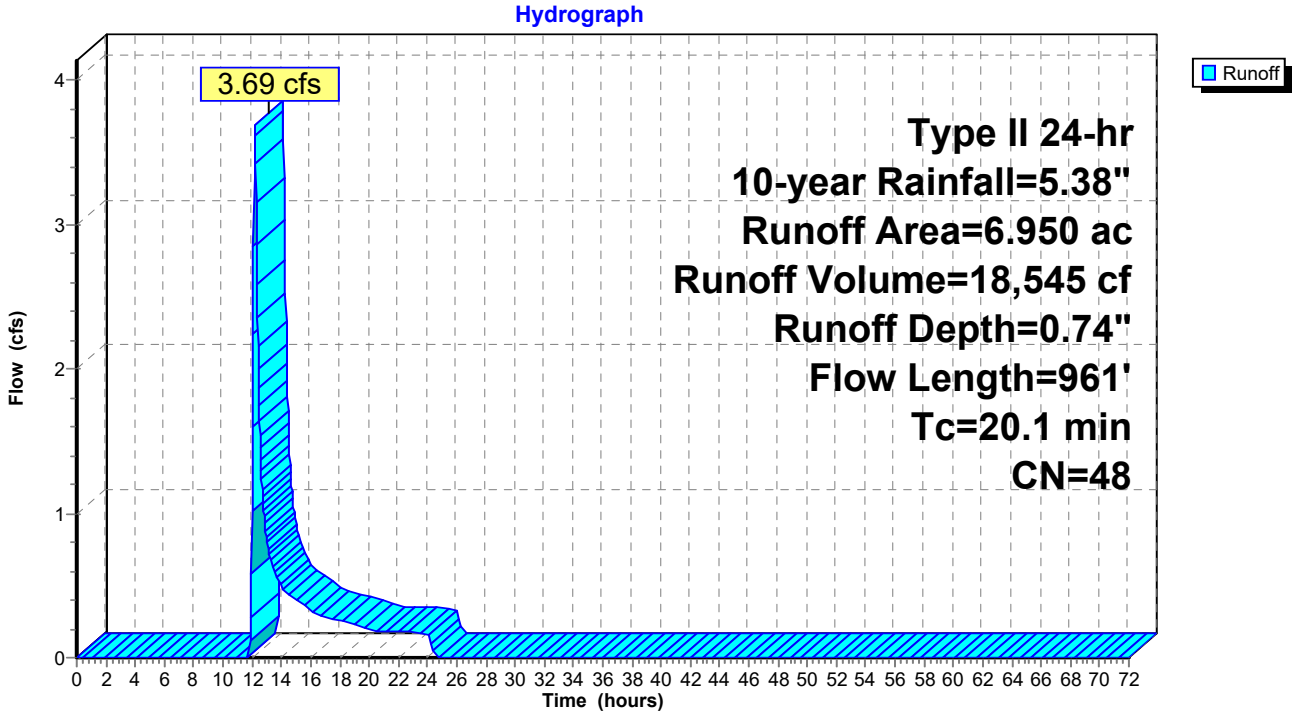
Runoff = 3.69 cfs @ 12.18 hrs, Volume= 18,545 cf, Depth= 0.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 10-year Rainfall=5.38"

Area (ac)	CN	Description
5.110	49	50-75% Grass cover, Fair, HSG A
0.570	69	50-75% Grass cover, Fair, HSG B
1.270	36	Woods, Fair, HSG A
6.950	48	Weighted Average
6.950		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.6	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
5.5	578	0.0120	1.76		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
2.0	283	0.0210	2.33		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
20.1	961	Total			

Subcatchment 2S: Outfall #2



Summary for Subcatchment 3S: Outfall #3

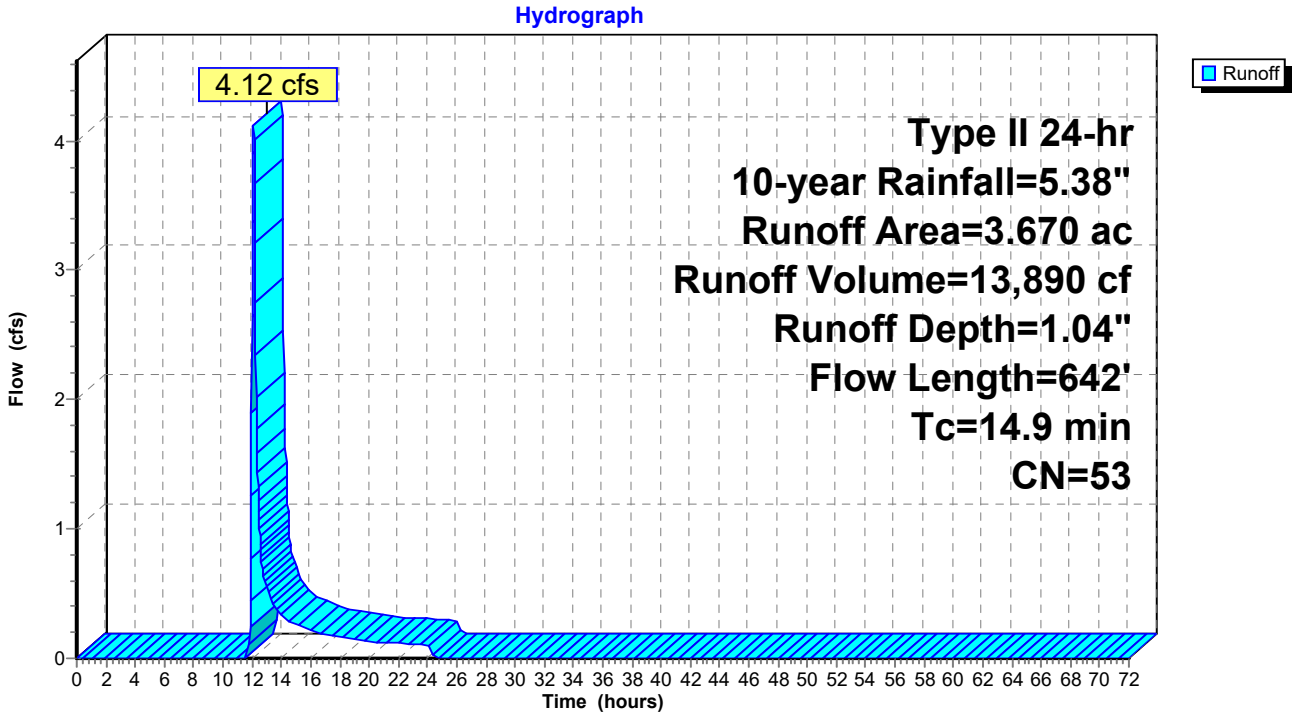
Runoff = 4.12 cfs @ 12.10 hrs, Volume= 13,890 cf, Depth= 1.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 10-year Rainfall=5.38"

Area (ac)	CN	Description
3.160	49	50-75% Grass cover, Fair, HSG A
0.180	36	Woods, Fair, HSG A
0.330	98	Paved parking, HSG A
3.670	53	Weighted Average
3.340		91.01% Pervious Area
0.330		8.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.6	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
1.7	337	0.0420	3.30		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.1	22	0.1360	5.94		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.5	183	0.0270	6.06	15.14	**Channel Flow,** Area= 2.5 sf Perim= 6.2' r= 0.40' n= 0.022 Earth, clean & straight
14.9	642	Total			

Subcatchment 3S: Outfall #3



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Outfall #1 Runoff Area=2.060 ac 16.50% Impervious Runoff Depth=1.95"
Flow Length=430' Tc=15.7 min CN=58 Runoff=4.82 cfs 14,556 cf

Subcatchment2S: Outfall #2 Runoff Area=6.950 ac 0.00% Impervious Runoff Depth=1.14"
Flow Length=961' Tc=20.1 min CN=48 Runoff=6.81 cfs 28,798 cf

Subcatchment3S: Outfall #3 Runoff Area=3.670 ac 8.99% Impervious Runoff Depth=1.53"
Flow Length=642' Tc=14.9 min CN=53 Runoff=6.56 cfs 20,378 cf

Total Runoff Area = 552,341 sf Runoff Volume = 63,732 cf Average Runoff Depth = 1.38"
94.72% Pervious = 523,156 sf 5.28% Impervious = 29,185 sf

Summary for Subcatchment 1S: Outfall #1

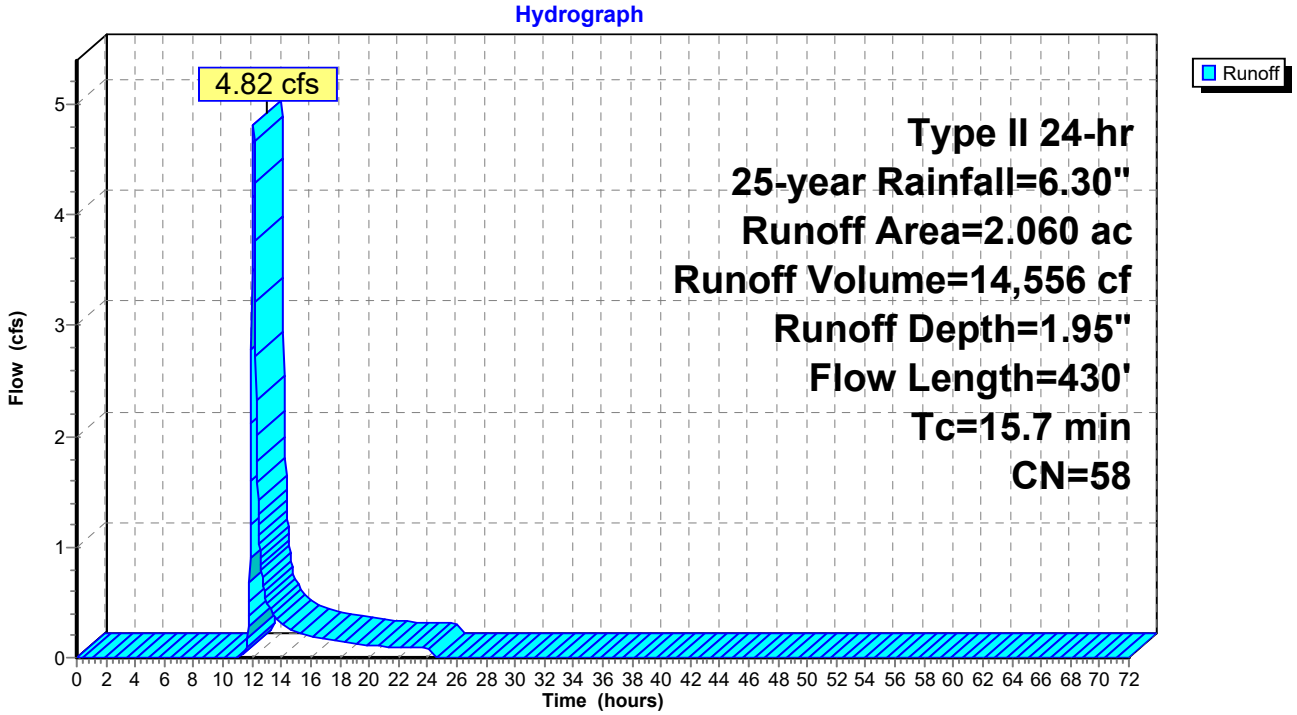
Runoff = 4.82 cfs @ 12.09 hrs, Volume= 14,556 cf, Depth= 1.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 25-year Rainfall=6.30"

Area (ac)	CN	Description
1.480	49	50-75% Grass cover, Fair, HSG A
0.150	69	50-75% Grass cover, Fair, HSG B
0.090	36	Woods, Fair, HSG A
0.340	98	Paved parking, HSG A
2.060	58	Weighted Average
1.720		83.50% Pervious Area
0.340		16.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.7	100	0.0080	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
2.0	330	0.0300	2.79		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
15.7	430	Total			

Subcatchment 1S: Outfall #1



Summary for Subcatchment 2S: Outfall #2

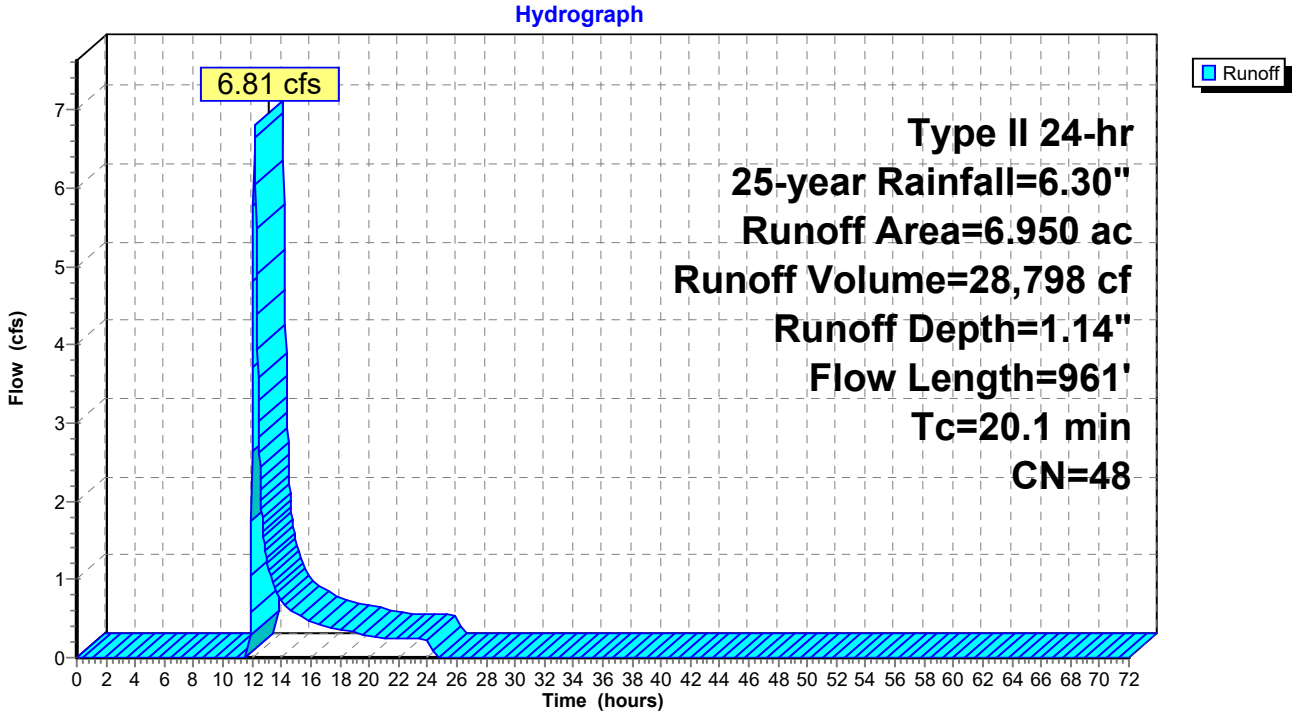
Runoff = 6.81 cfs @ 12.17 hrs, Volume= 28,798 cf, Depth= 1.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 25-year Rainfall=6.30"

Area (ac)	CN	Description
5.110	49	50-75% Grass cover, Fair, HSG A
0.570	69	50-75% Grass cover, Fair, HSG B
1.270	36	Woods, Fair, HSG A
6.950	48	Weighted Average
6.950		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.6	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
5.5	578	0.0120	1.76		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
2.0	283	0.0210	2.33		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
20.1	961	Total			

Subcatchment 2S: Outfall #2



Summary for Subcatchment 3S: Outfall #3

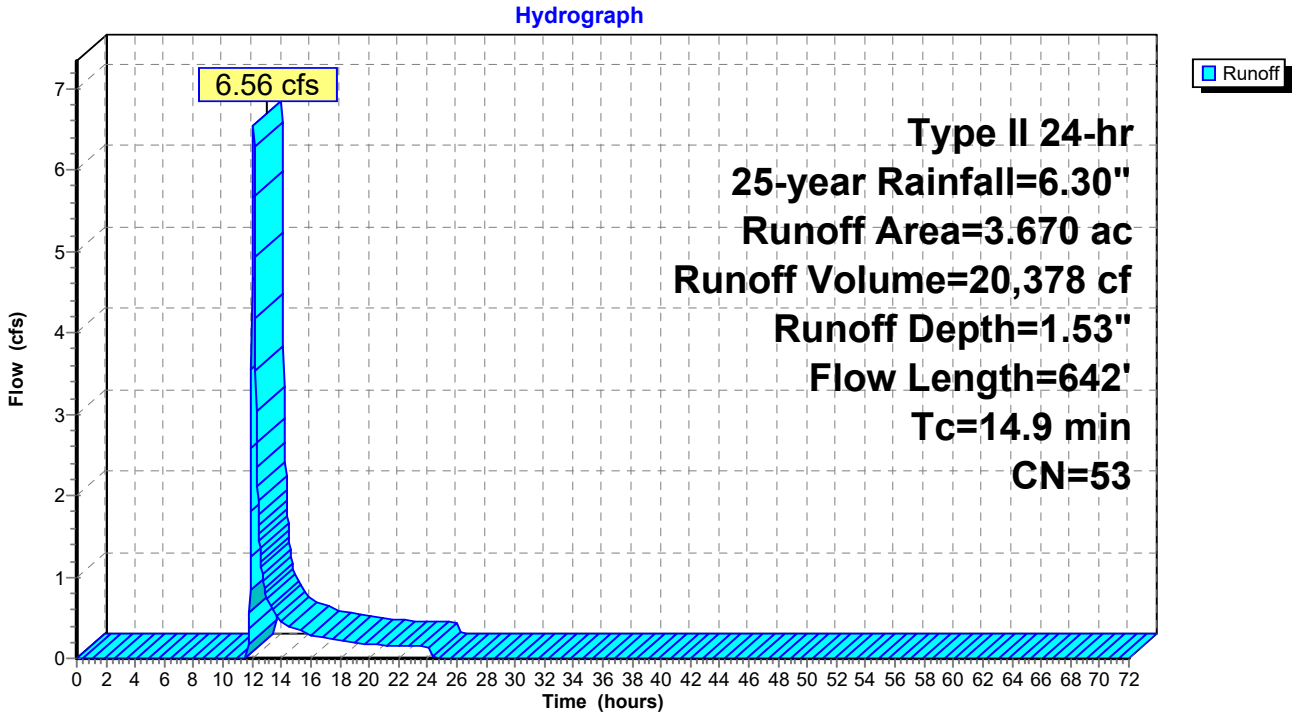
Runoff = 6.56 cfs @ 12.09 hrs, Volume= 20,378 cf, Depth= 1.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 25-year Rainfall=6.30"

Area (ac)	CN	Description
3.160	49	50-75% Grass cover, Fair, HSG A
0.180	36	Woods, Fair, HSG A
0.330	98	Paved parking, HSG A
3.670	53	Weighted Average
3.340		91.01% Pervious Area
0.330		8.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.6	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
1.7	337	0.0420	3.30		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.1	22	0.1360	5.94		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.5	183	0.0270	6.06	15.14	**Channel Flow,** Area= 2.5 sf Perim= 6.2' r= 0.40' n= 0.022 Earth, clean & straight
14.9	642	Total			

Subcatchment 3S: Outfall #3



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Outfall #1 Runoff Area=2.060 ac 16.50% Impervious Runoff Depth=2.42"
Flow Length=430' Tc=15.7 min CN=58 Runoff=6.11 cfs 18,118 cf

Subcatchment2S: Outfall #2 Runoff Area=6.950 ac 0.00% Impervious Runoff Depth=1.50"
Flow Length=961' Tc=20.1 min CN=48 Runoff=9.67 cfs 37,883 cf

Subcatchment3S: Outfall #3 Runoff Area=3.670 ac 8.99% Impervious Runoff Depth=1.95"
Flow Length=642' Tc=14.9 min CN=53 Runoff=8.66 cfs 25,980 cf

Total Runoff Area = 552,341 sf Runoff Volume = 81,980 cf Average Runoff Depth = 1.78"
94.72% Pervious = 523,156 sf 5.28% Impervious = 29,185 sf

Summary for Subcatchment 1S: Outfall #1

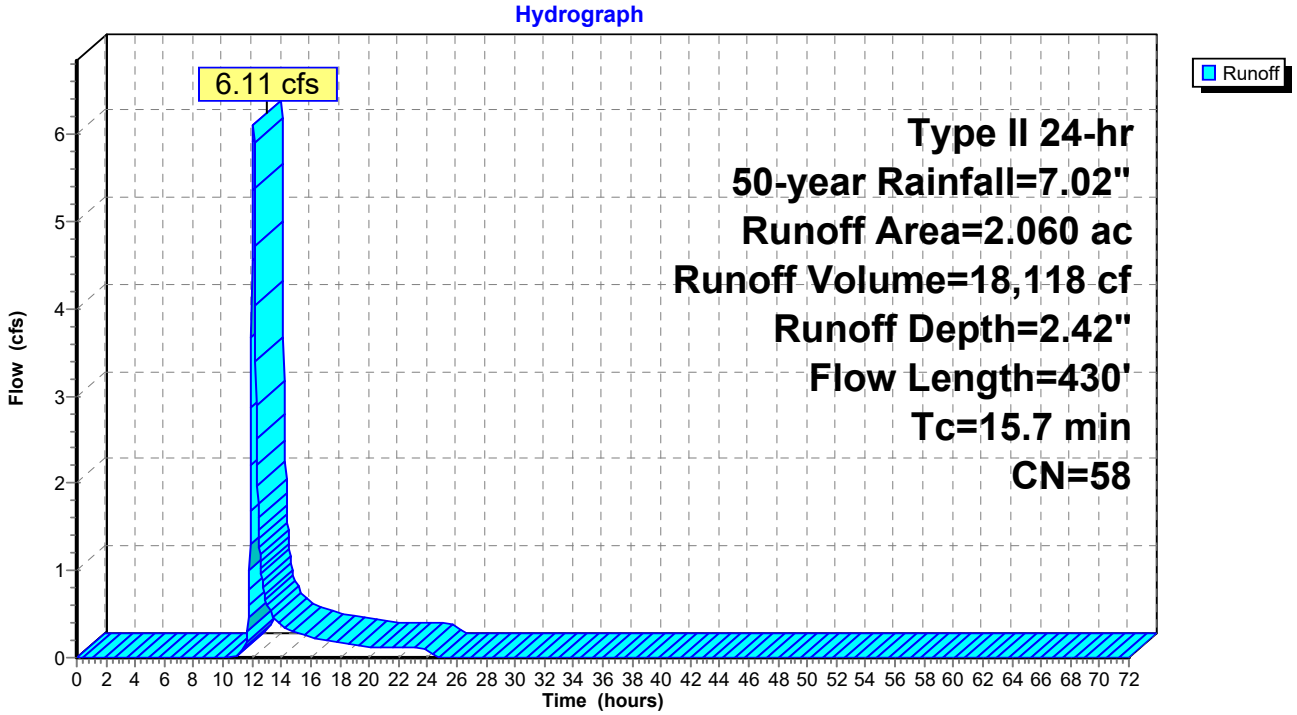
Runoff = 6.11 cfs @ 12.09 hrs, Volume= 18,118 cf, Depth= 2.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 50-year Rainfall=7.02"

Area (ac)	CN	Description
1.480	49	50-75% Grass cover, Fair, HSG A
0.150	69	50-75% Grass cover, Fair, HSG B
0.090	36	Woods, Fair, HSG A
0.340	98	Paved parking, HSG A
2.060	58	Weighted Average
1.720		83.50% Pervious Area
0.340		16.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.7	100	0.0080	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
2.0	330	0.0300	2.79		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
15.7	430	Total			

Subcatchment 1S: Outfall #1



Summary for Subcatchment 2S: Outfall #2

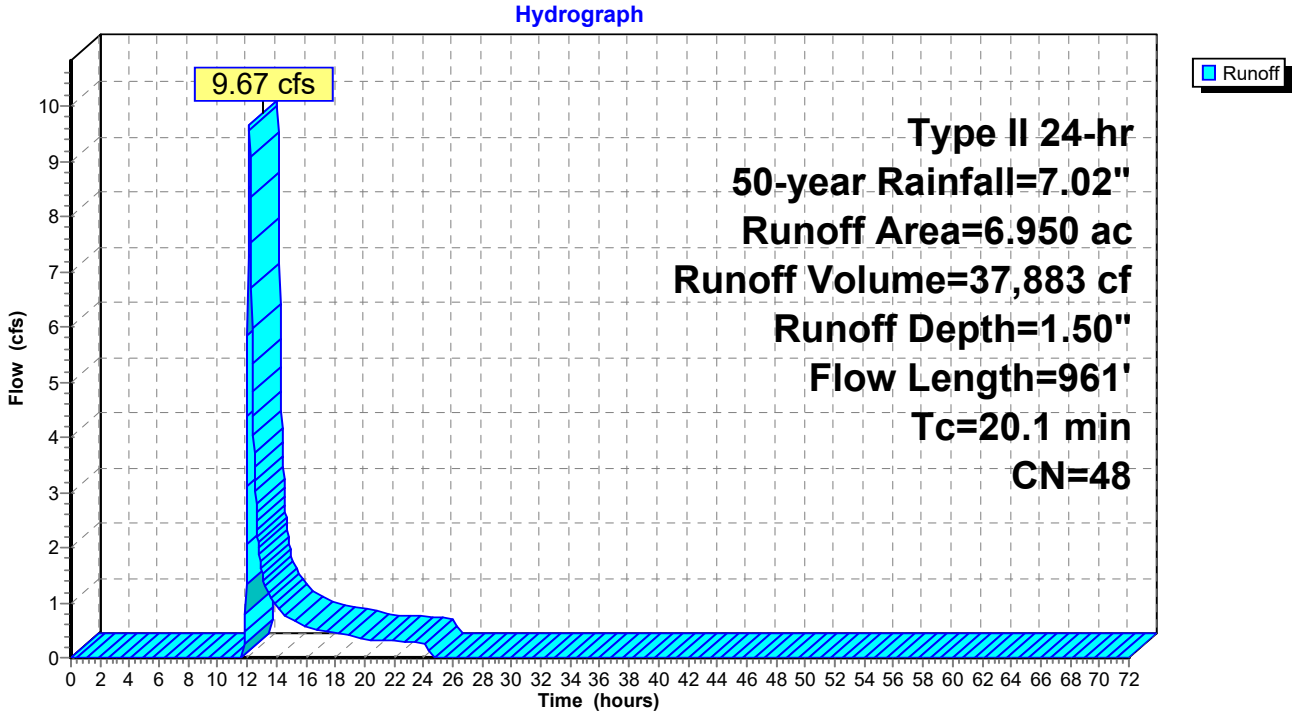
Runoff = 9.67 cfs @ 12.16 hrs, Volume= 37,883 cf, Depth= 1.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 50-year Rainfall=7.02"

Area (ac)	CN	Description
5.110	49	50-75% Grass cover, Fair, HSG A
0.570	69	50-75% Grass cover, Fair, HSG B
1.270	36	Woods, Fair, HSG A
6.950	48	Weighted Average
6.950		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.6	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
5.5	578	0.0120	1.76		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
2.0	283	0.0210	2.33		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
20.1	961	Total			

Subcatchment 2S: Outfall #2



Summary for Subcatchment 3S: Outfall #3

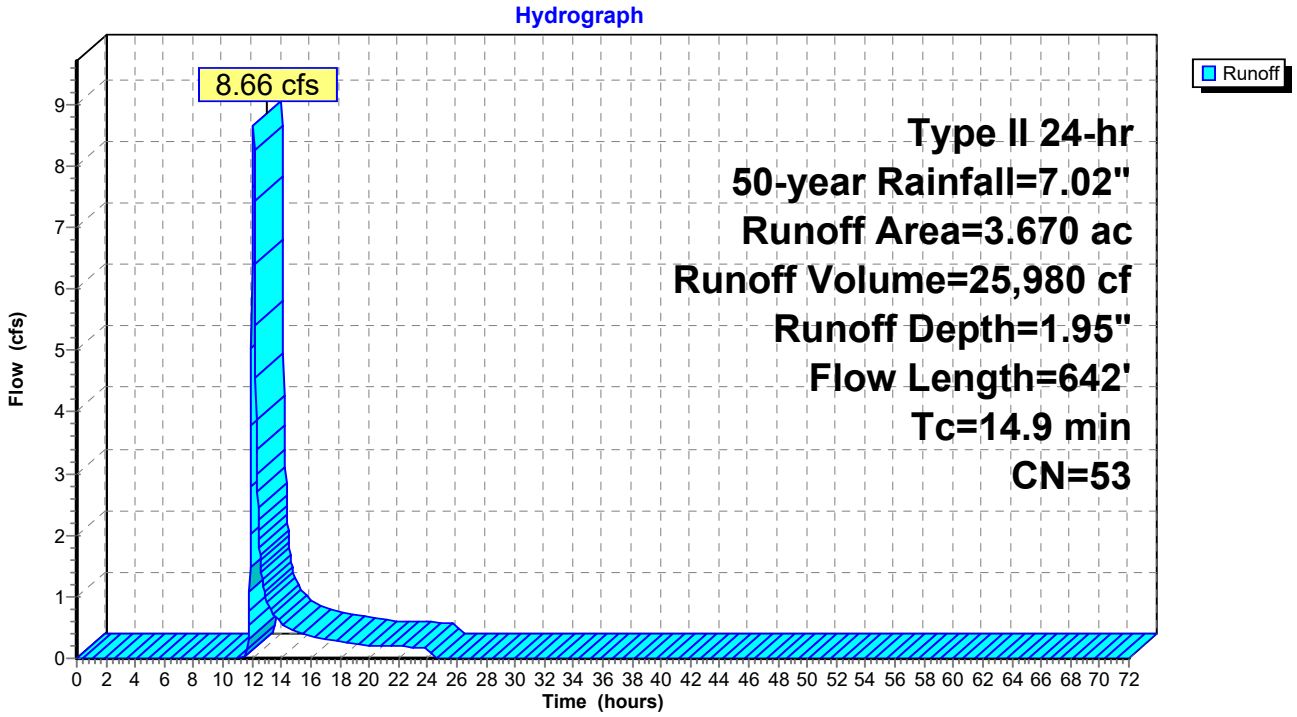
Runoff = 8.66 cfs @ 12.08 hrs, Volume= 25,980 cf, Depth= 1.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 50-year Rainfall=7.02"

Area (ac)	CN	Description
3.160	49	50-75% Grass cover, Fair, HSG A
0.180	36	Woods, Fair, HSG A
0.330	98	Paved parking, HSG A
3.670	53	Weighted Average
3.340		91.01% Pervious Area
0.330		8.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.6	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
1.7	337	0.0420	3.30		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.1	22	0.1360	5.94		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.5	183	0.0270	6.06	15.14	**Channel Flow,** Area= 2.5 sf Perim= 6.2' r= 0.40' n= 0.022 Earth, clean & straight
14.9	642	Total			

Subcatchment 3S: Outfall #3



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Outfall #1 Runoff Area=2.060 ac 16.50% Impervious Runoff Depth=2.95"
Flow Length=430' Tc=15.7 min CN=58 Runoff=7.52 cfs 22,034 cf

Subcatchment2S: Outfall #2 Runoff Area=6.950 ac 0.00% Impervious Runoff Depth=1.91"
Flow Length=961' Tc=20.1 min CN=48 Runoff=12.95 cfs 48,192 cf

Subcatchment3S: Outfall #3 Runoff Area=3.670 ac 8.99% Impervious Runoff Depth=2.42"
Flow Length=642' Tc=14.9 min CN=53 Runoff=10.99 cfs 32,226 cf

Total Runoff Area = 552,341 sf Runoff Volume = 102,451 cf Average Runoff Depth = 2.23"
94.72% Pervious = 523,156 sf 5.28% Impervious = 29,185 sf

Summary for Subcatchment 1S: Outfall #1

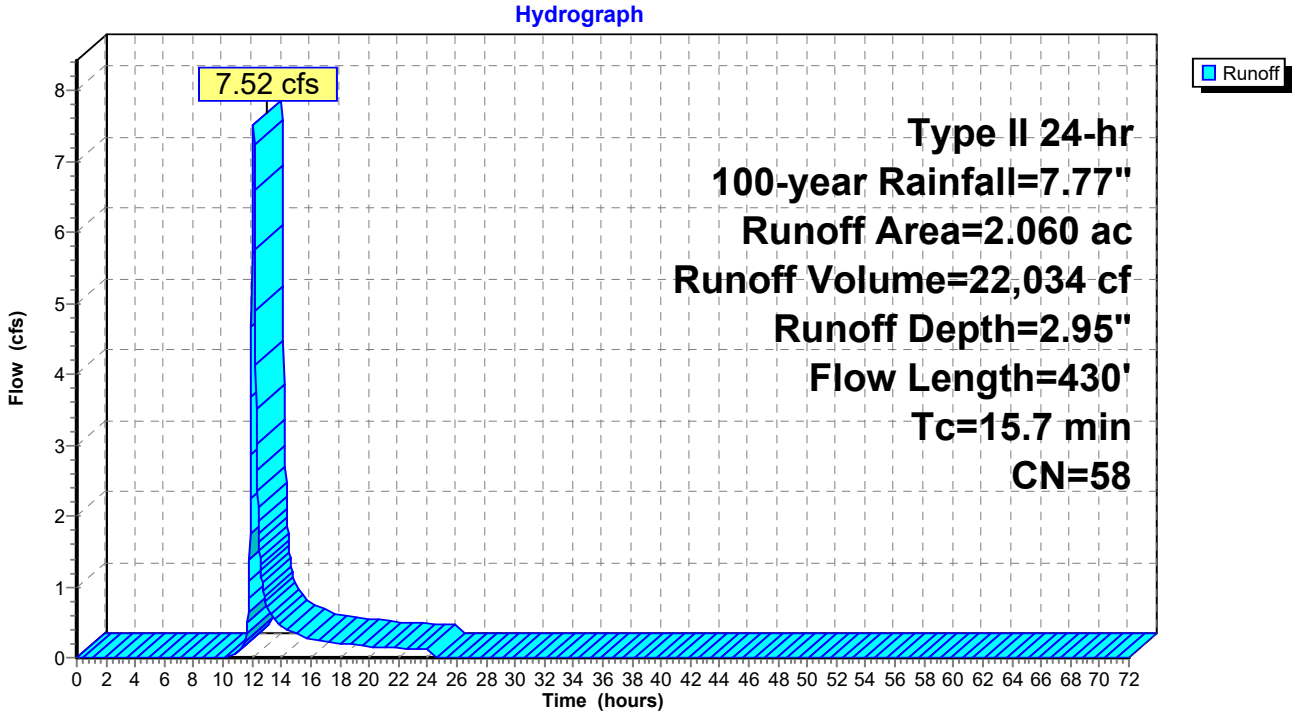
Runoff = 7.52 cfs @ 12.09 hrs, Volume= 22,034 cf, Depth= 2.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 100-year Rainfall=7.77"

Area (ac)	CN	Description
1.480	49	50-75% Grass cover, Fair, HSG A
0.150	69	50-75% Grass cover, Fair, HSG B
0.090	36	Woods, Fair, HSG A
0.340	98	Paved parking, HSG A
2.060	58	Weighted Average
1.720		83.50% Pervious Area
0.340		16.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.7	100	0.0080	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
2.0	330	0.0300	2.79		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
15.7	430	Total			

Subcatchment 1S: Outfall #1



Summary for Subcatchment 2S: Outfall #2

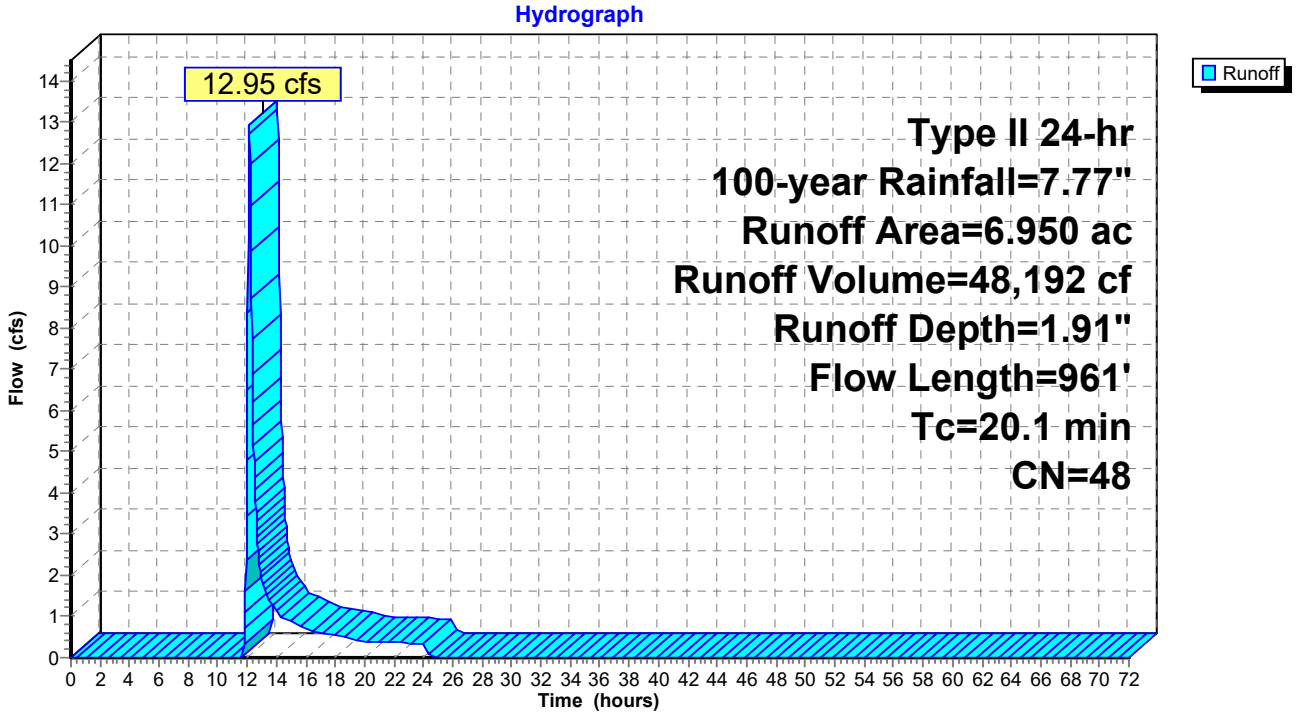
Runoff = 12.95 cfs @ 12.15 hrs, Volume= 48,192 cf, Depth= 1.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 100-year Rainfall=7.77"

Area (ac)	CN	Description
5.110	49	50-75% Grass cover, Fair, HSG A
0.570	69	50-75% Grass cover, Fair, HSG B
1.270	36	Woods, Fair, HSG A
6.950	48	Weighted Average
6.950		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.6	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
5.5	578	0.0120	1.76		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
2.0	283	0.0210	2.33		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
20.1	961	Total			

Subcatchment 2S: Outfall #2



Summary for Subcatchment 3S: Outfall #3

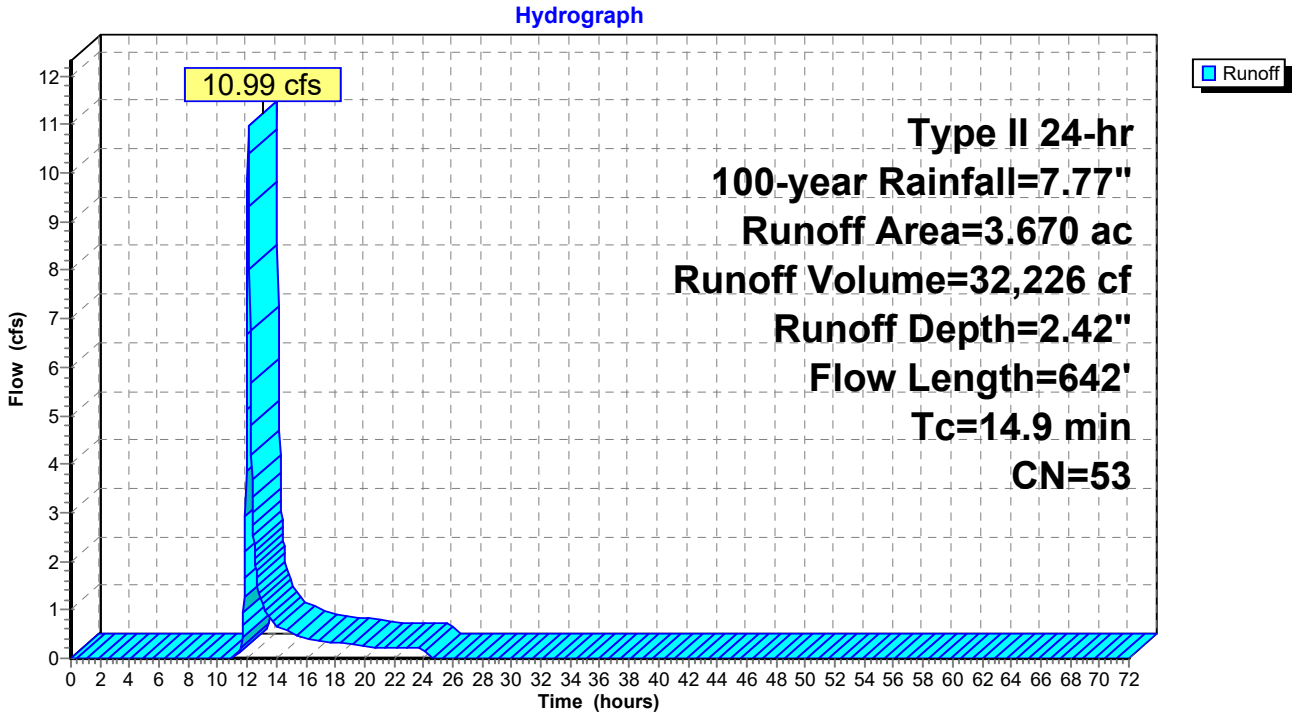
Runoff = 10.99 cfs @ 12.08 hrs, Volume= 32,226 cf, Depth= 2.42"

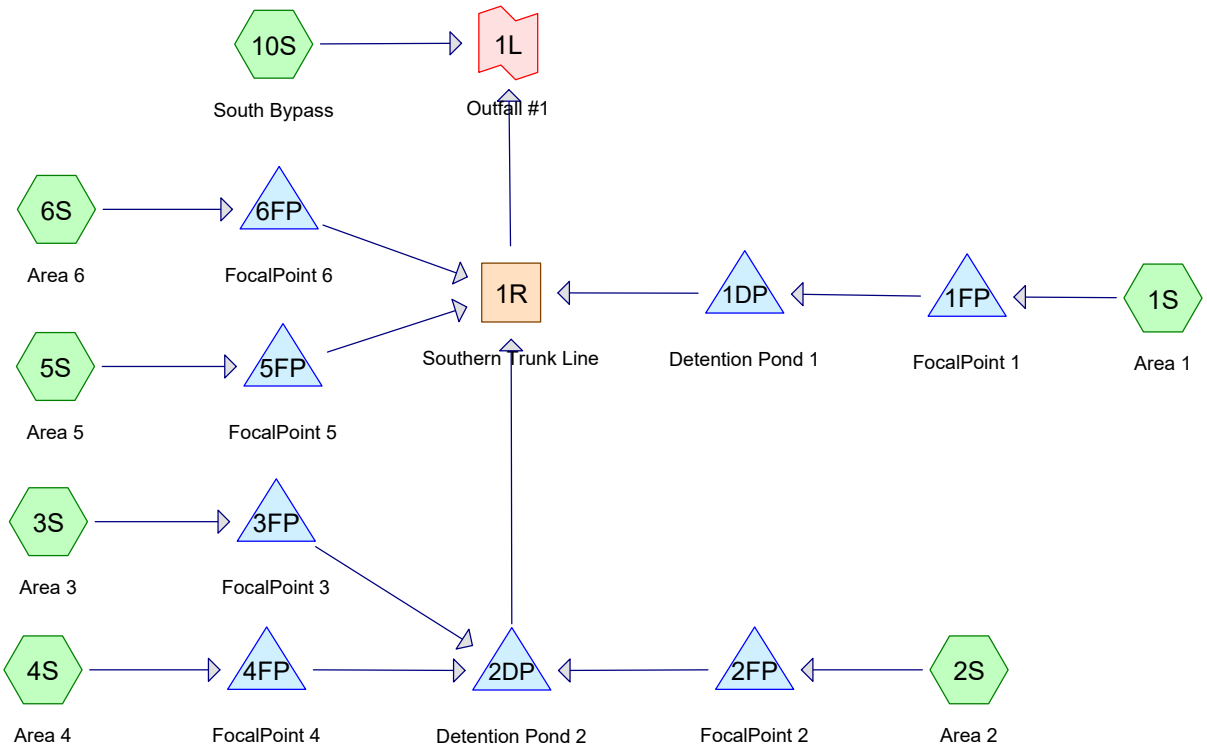
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 100-year Rainfall=7.77"

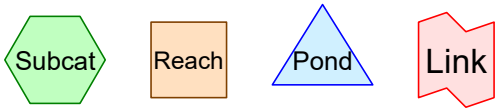
Area (ac)	CN	Description
3.160	49	50-75% Grass cover, Fair, HSG A
0.180	36	Woods, Fair, HSG A
0.330	98	Paved parking, HSG A
3.670	53	Weighted Average
3.340		91.01% Pervious Area
0.330		8.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.6	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
1.7	337	0.0420	3.30		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.1	22	0.1360	5.94		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.5	183	0.0270	6.06	15.14	**Channel Flow,** Area= 2.5 sf Perim= 6.2' r= 0.40' n= 0.022 Earth, clean & straight
14.9	642	Total			

Subcatchment 3S: Outfall #3







Routing Diagram for Stormwater Calculations - Proposed - Outfall 1 South
Prepared by Fulmer Lucas, Printed 4/20/2026
HydroCAD® 10.20-8a s/n 11448 © 2025 HydroCAD Software Solutions LLC

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-year	Type II 24-hr		Default	24.00	1	3.24	2
2	2-year	Type II 24-hr		Default	24.00	1	3.87	2
3	5-year	Type II 24-hr		Default	24.00	1	4.71	2
4	10-year	Type II 24-hr		Default	24.00	1	5.38	2
5	25-year	Type II 24-hr		Default	24.00	1	6.30	2
6	50-year	Type II 24-hr		Default	24.00	1	7.02	2
7	100-year	Type II 24-hr		Default	24.00	1	7.77	2

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
65,776	49	50-75% Grass cover, Fair, HSG A (1S, 2S, 3S, 4S, 5S, 6S, 10S)
121,097	98	Paved parking, HSG A (1S, 2S, 3S, 4S, 5S, 6S, 10S)
16,988	36	Woods, Fair, HSG A (1S, 10S)
203,861	**77**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
203,861	HSG A	1S, 2S, 3S, 4S, 5S, 6S, 10S
0	HSG B	
0	HSG C	
0	HSG D	
0	Other	
203,861		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover	Su Nu
65,776	0	0	0	0	65,776	50-75% Grass cover, Fair	
121,097	0	0	0	0	121,097	Paved parking	
16,988	0	0	0	0	16,988	Woods, Fair	
203,861	**0**	**0**	**0**	**0**	**203,861**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	1R	695.46	690.10	1,058.0	0.0051	0.013	0.0	24.0	0.0	
2	1DP	695.60	695.46	28.0	0.0050	0.013	0.0	18.0	0.0	
3	1FP	696.00	695.80	40.0	0.0050	0.013	0.0	18.0	0.0	
4	2DP	694.00	693.20	10.0	0.0800	0.013	0.0	18.0	0.0	
5	2FP	694.50	694.00	28.0	0.0179	0.013	0.0	18.0	0.0	
6	3FP	696.00	694.00	80.0	0.0250	0.013	0.0	18.0	0.0	
7	4FP	696.00	695.88	23.0	0.0052	0.013	0.0	18.0	0.0	
8	5FP	694.00	691.39	24.0	0.1088	0.013	0.0	18.0	0.0	
9	6FP	694.00	690.87	24.0	0.1304	0.013	0.0	18.0	0.0	

Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Area 1 Runoff Area=1.480 ac 43.92% Impervious Runoff Depth=0.75"
Tc=5.0 min CN=68 Runoff=1.96 cfs 4,053 cf

Subcatchment2S: Area 2 Runoff Area=0.720 ac 83.33% Impervious Runoff Depth=2.21"
Tc=5.0 min CN=90 Runoff=2.81 cfs 5,765 cf

Subcatchment3S: Area 3 Runoff Area=0.380 ac 71.05% Impervious Runoff Depth=1.72"
Tc=5.0 min CN=84 Runoff=1.19 cfs 2,367 cf

Subcatchment4S: Area 4 Runoff Area=1.100 ac 79.09% Impervious Runoff Depth=2.03"
Tc=5.0 min CN=88 Runoff=4.02 cfs 8,118 cf

Subcatchment5S: Area 5 Runoff Area=0.440 ac 61.36% Impervious Runoff Depth=1.37"
Tc=5.0 min CN=79 Runoff=1.11 cfs 2,183 cf

Subcatchment6S: Area 6 Runoff Area=0.180 ac 55.56% Impervious Runoff Depth=1.18"
Tc=5.0 min CN=76 Runoff=0.39 cfs 771 cf

Subcatchment10S: South Bypass Runoff Area=0.380 ac 5.26% Impervious Runoff Depth=0.12"
Tc=5.0 min CN=49 Runoff=0.01 cfs 160 cf

Reach 1R: Southern Trunk Line Avg. Flow Depth=0.33' Max Vel=2.82 fps Inflow=1.40 cfs 17,868 cf
24.0" Round Pipe n=0.013 L=1,058.0' S=0.0051 '/' Capacity=16.10 cfs Outflow=0.96 cfs 17,865 cf

Pond 1DP: Detention Pond 1 Peak Elev=696.59' Storage=734 cf Inflow=1.91 cfs 3,683 cf
Outflow=0.38 cfs 3,683 cf

Pond 1FP: FocalPoint 1 Peak Elev=699.68' Storage=502 cf Inflow=1.96 cfs 4,053 cf
Outflow=1.91 cfs 3,683 cf

Pond 2DP: Detention Pond 2 Peak Elev=694.80' Storage=6,955 cf Inflow=7.60 cfs 13,435 cf
Outflow=0.33 cfs 12,487 cf

Pond 2FP: FocalPoint 2 Peak Elev=698.22' Storage=972 cf Inflow=2.81 cfs 5,765 cf
Outflow=2.73 cfs 5,043 cf

Pond 3FP: FocalPoint 3 Peak Elev=699.62' Storage=824 cf Inflow=1.19 cfs 2,367 cf
Outflow=1.07 cfs 1,646 cf

Pond 4FP: FocalPoint 4 Peak Elev=699.80' Storage=1,389 cf Inflow=4.02 cfs 8,118 cf
Outflow=4.23 cfs 6,746 cf

Pond 5FP: FocalPoint 5 Peak Elev=697.60' Storage=725 cf Inflow=1.11 cfs 2,183 cf
Outflow=0.83 cfs 1,555 cf

Pond 6FP: FocalPoint 6 Peak Elev=697.50' Storage=629 cf Inflow=0.39 cfs 771 cf
Outflow=0.01 cfs 143 cf

Link 1L: Outfall #1 Inflow=0.97 cfs 18,025 cf
Primary=0.97 cfs 18,025 cf

Total Runoff Area = 203,861 sf Runoff Volume = 23,417 cf Average Runoff Depth = 1.38"
40.60% Pervious = 82,764 sf 59.40% Impervious = 121,097 sf

Summary for Subcatchment 1S: Area 1

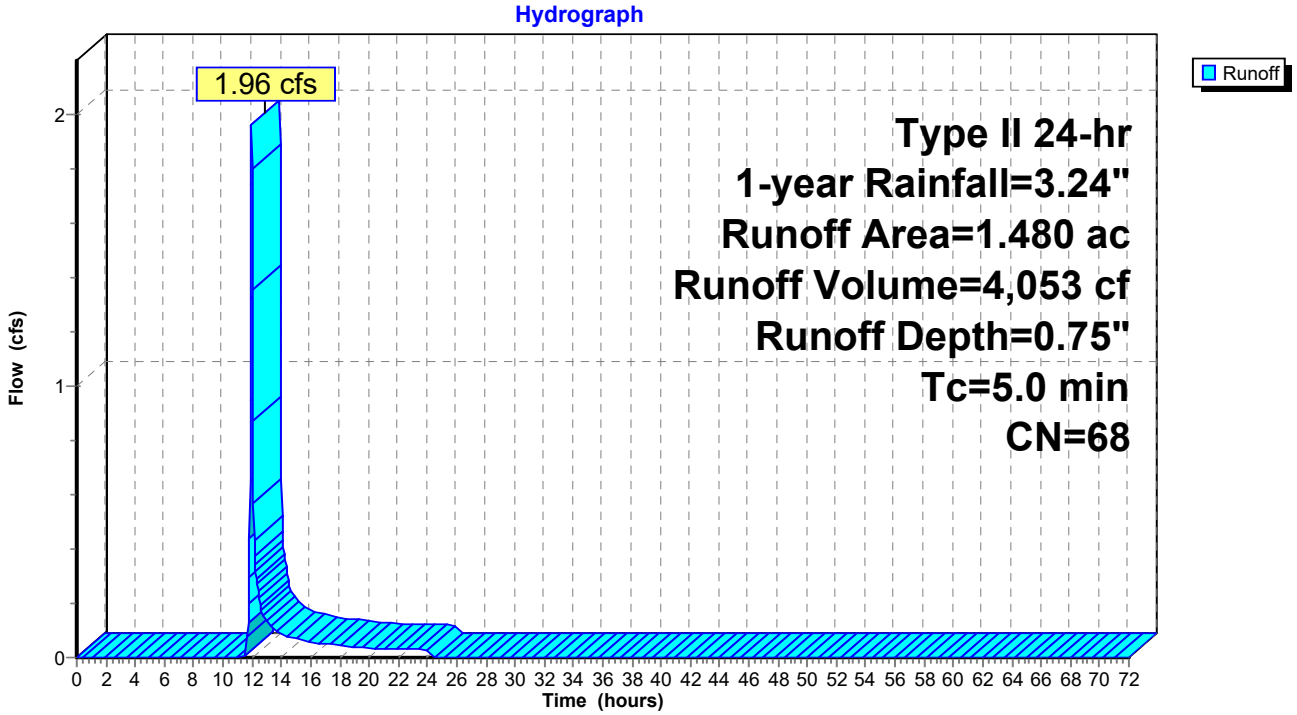
Runoff = 1.96 cfs @ 11.97 hrs, Volume= 4,053 cf, Depth= 0.75"
Routed to Pond 1FP : FocalPoint 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 1-year Rainfall=3.24"

Area (ac)	CN	Description
0.510	49	50-75% Grass cover, Fair, HSG A
0.320	36	Woods, Fair, HSG A
0.650	98	Paved parking, HSG A
1.480	68	Weighted Average
0.830		56.08% Pervious Area
0.650		43.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 1S: Area 1



Summary for Subcatchment 2S: Area 2

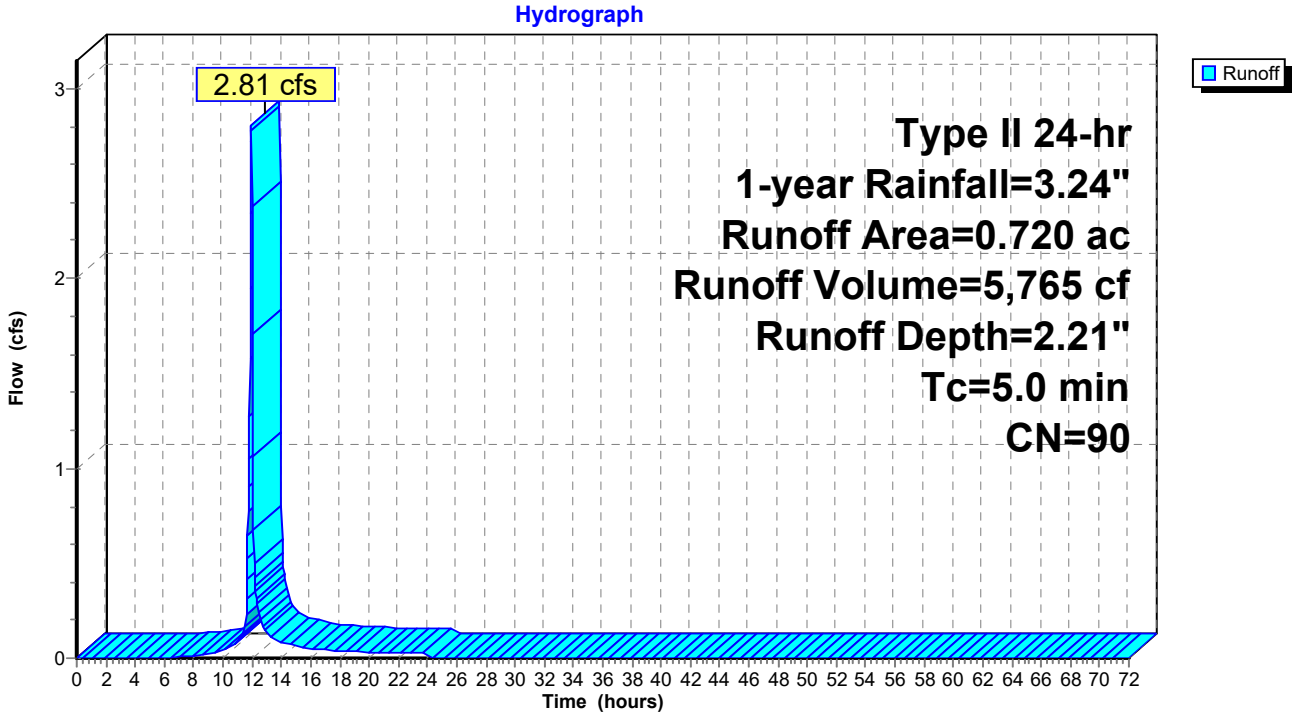
Runoff = 2.81 cfs @ 11.96 hrs, Volume= 5,765 cf, Depth= 2.21"
Routed to Pond 2FP : FocalPoint 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 1-year Rainfall=3.24"

Area (ac)	CN	Description
0.120	49	50-75% Grass cover, Fair, HSG A
0.600	98	Paved parking, HSG A
0.720	90	Weighted Average
0.120		16.67% Pervious Area
0.600		83.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 2S: Area 2



Summary for Subcatchment 3S: Area 3

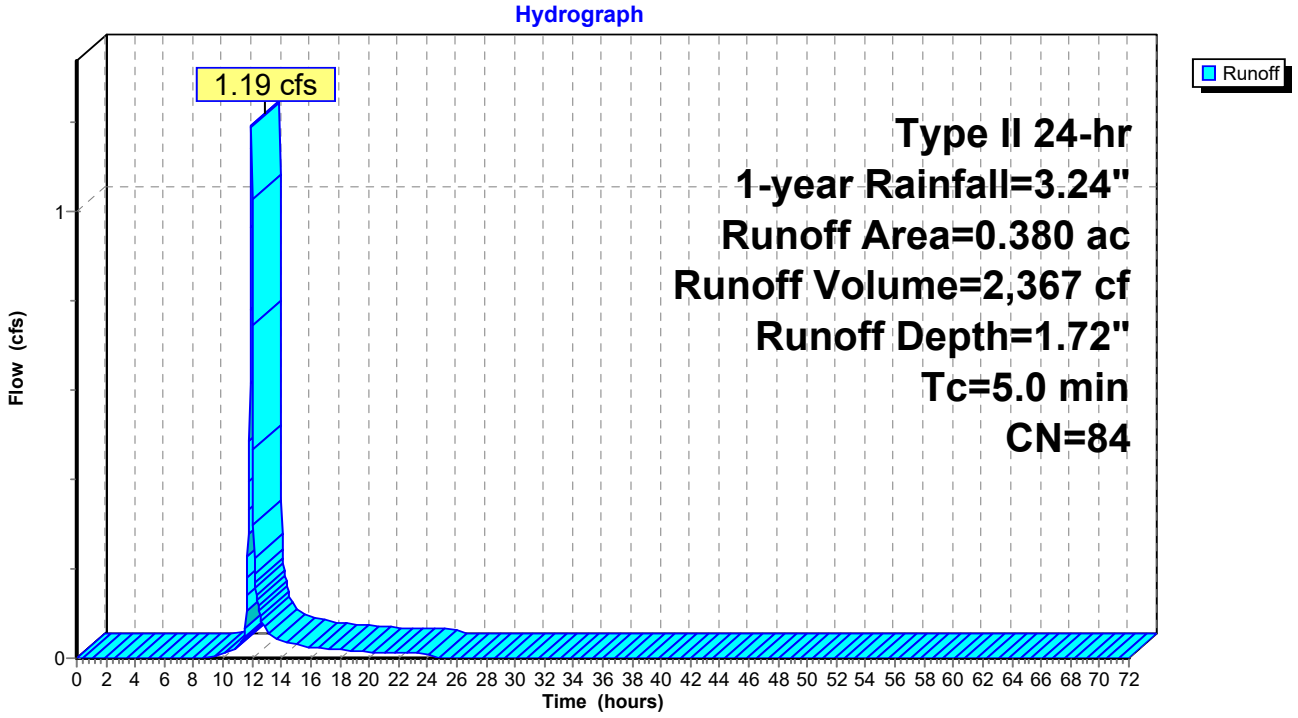
Runoff = 1.19 cfs @ 11.96 hrs, Volume= 2,367 cf, Depth= 1.72"
Routed to Pond 3FP : FocalPoint 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 1-year Rainfall=3.24"

Area (ac)	CN	Description
0.110	49	50-75% Grass cover, Fair, HSG A
0.270	98	Paved parking, HSG A
0.380	84	Weighted Average
0.110		28.95% Pervious Area
0.270		71.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 3S: Area 3



Summary for Subcatchment 4S: Area 4

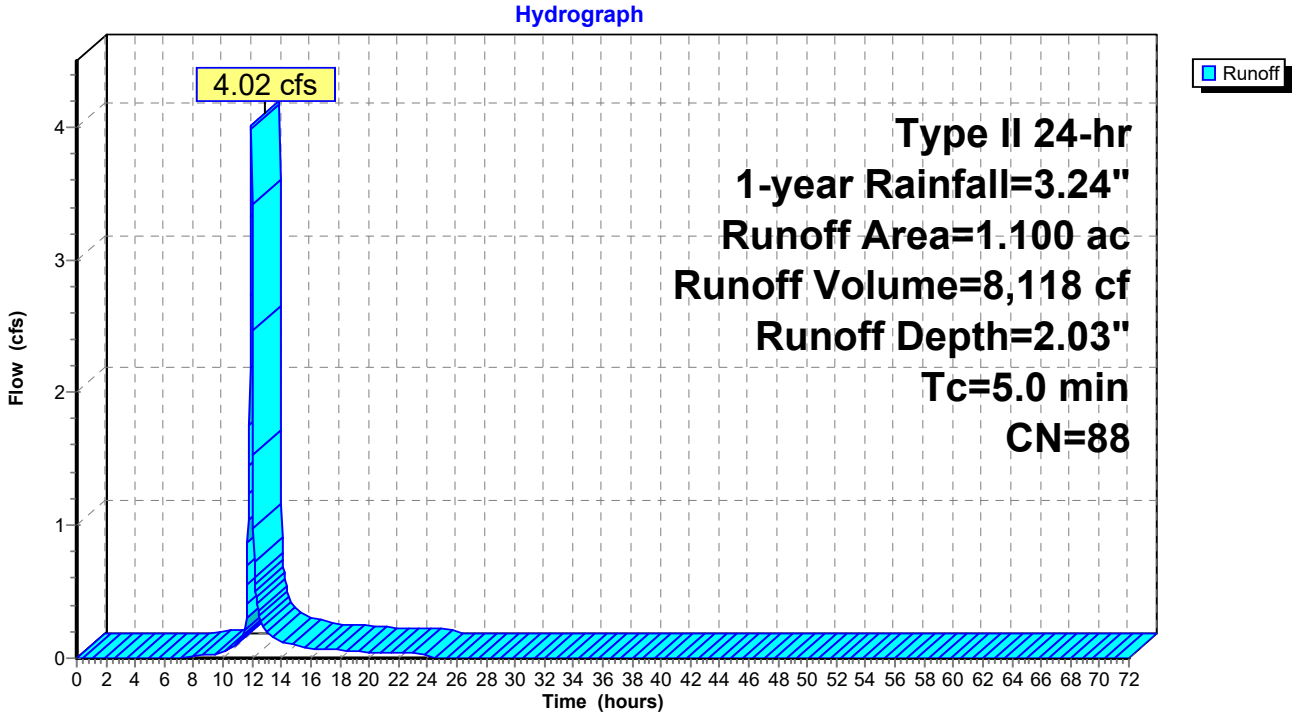
Runoff = 4.02 cfs @ 11.96 hrs, Volume= 8,118 cf, Depth= 2.03"
Routed to Pond 4FP : FocalPoint 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 1-year Rainfall=3.24"

Area (ac)	CN	Description
0.230	49	50-75% Grass cover, Fair, HSG A
0.870	98	Paved parking, HSG A
1.100	88	Weighted Average
0.230		20.91% Pervious Area
0.870		79.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 4S: Area 4



Summary for Subcatchment 5S: Area 5

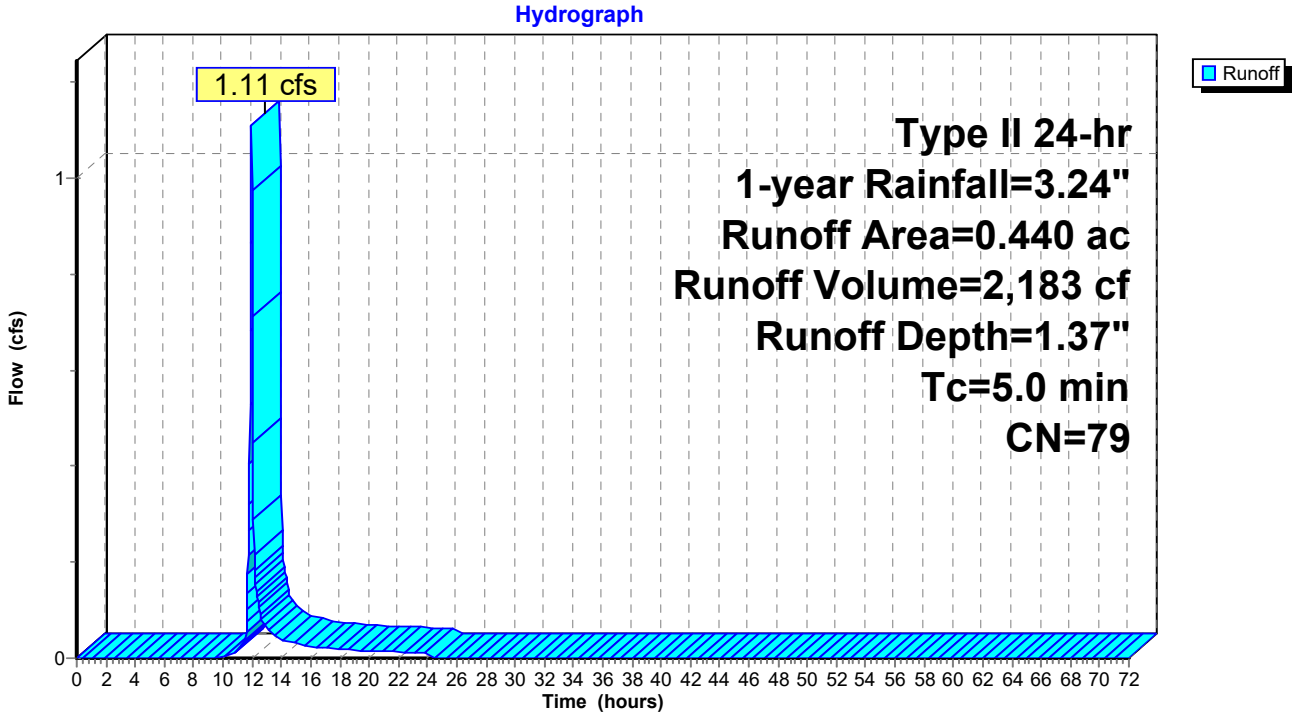
Runoff = 1.11 cfs @ 11.96 hrs, Volume= 2,183 cf, Depth= 1.37"
Routed to Pond 5FP : FocalPoint 5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 1-year Rainfall=3.24"

Area (ac)	CN	Description
0.170	49	50-75% Grass cover, Fair, HSG A
0.270	98	Paved parking, HSG A
0.440	79	Weighted Average
0.170		38.64% Pervious Area
0.270		61.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 5S: Area 5



Summary for Subcatchment 6S: Area 6

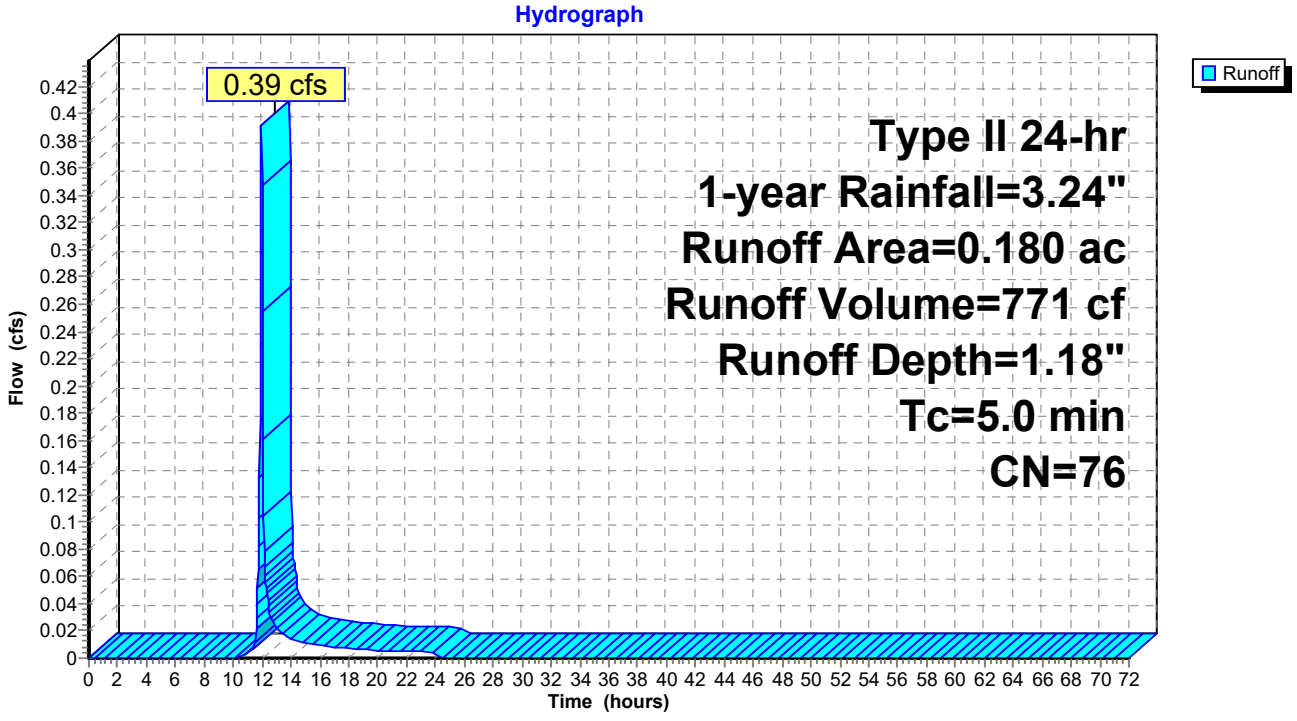
Runoff = 0.39 cfs @ 11.97 hrs, Volume= 771 cf, Depth= 1.18"
Routed to Pond 6FP : FocalPoint 6

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 1-year Rainfall=3.24"

Area (ac)	CN	Description
0.080	49	50-75% Grass cover, Fair, HSG A
0.100	98	Paved parking, HSG A
0.180	76	Weighted Average
0.080		44.44% Pervious Area
0.100		55.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 6S: Area 6



Summary for Subcatchment 10S: South Bypass

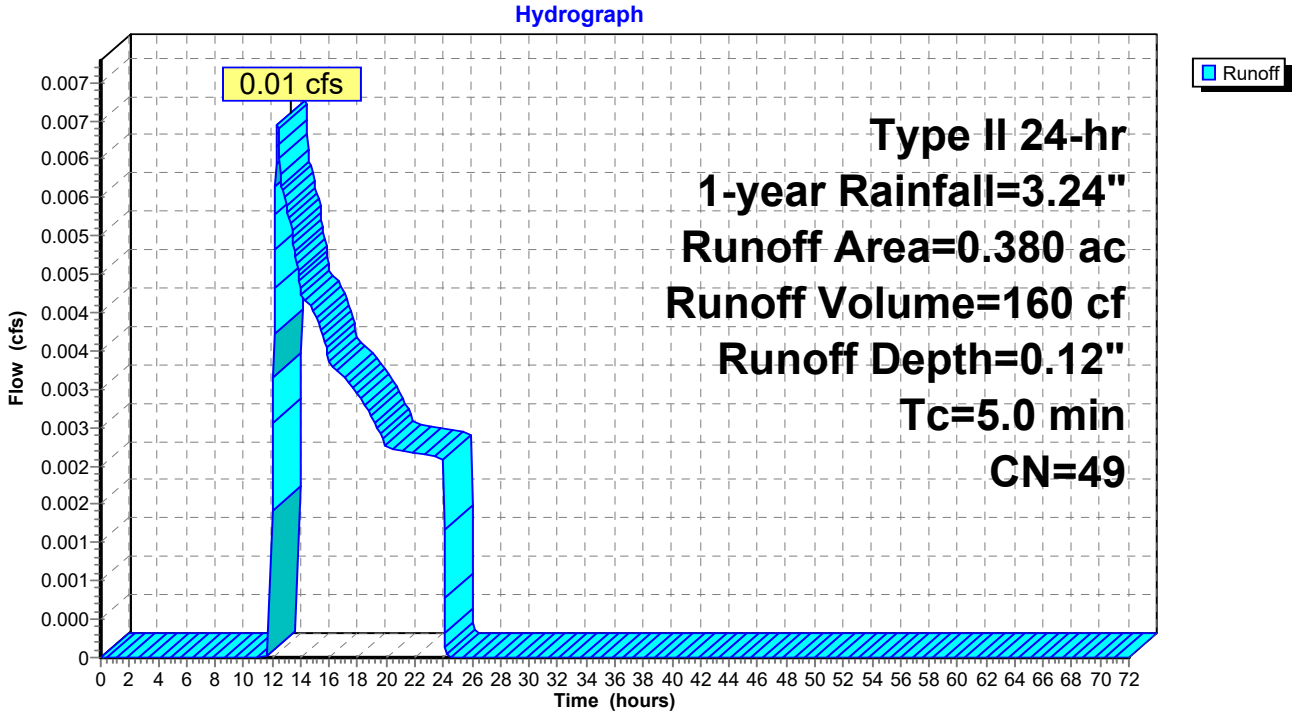
Runoff = 0.01 cfs @ 12.39 hrs, Volume= 160 cf, Depth= 0.12"
Routed to Link 1L : Outfall #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 1-year Rainfall=3.24"

Area (ac)	CN	Description
0.290	49	50-75% Grass cover, Fair, HSG A
0.070	36	Woods, Fair, HSG A
0.020	98	Paved parking, HSG A
0.380	49	Weighted Average
0.360		94.74% Pervious Area
0.020		5.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 10S: South Bypass



Summary for Reach 1R: Southern Trunk Line

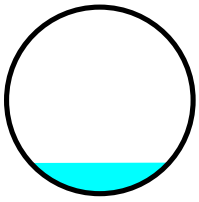
[52] Hint: Inlet/Outlet conditions not evaluated
[79] Warning: Submerged Pond 1DP Primary device # 1 INLET by 0.19'
[81] Warning: Exceeded Pond 2DP by 1.71' @ 0.00 hrs
[79] Warning: Submerged Pond 5FP Primary device # 1 INLET by 1.79'
[79] Warning: Submerged Pond 6FP Primary device # 1 INLET by 1.79'

Inflow Area = 187,308 sf, 64.19% Impervious, Inflow Depth > 1.14" for 1-year event
Inflow = 1.40 cfs @ 12.03 hrs, Volume= 17,868 cf
Outflow = 0.96 cfs @ 12.24 hrs, Volume= 17,865 cf, Atten= 32%, Lag= 12.6 min
Routed to Link 1L : Outfall #1

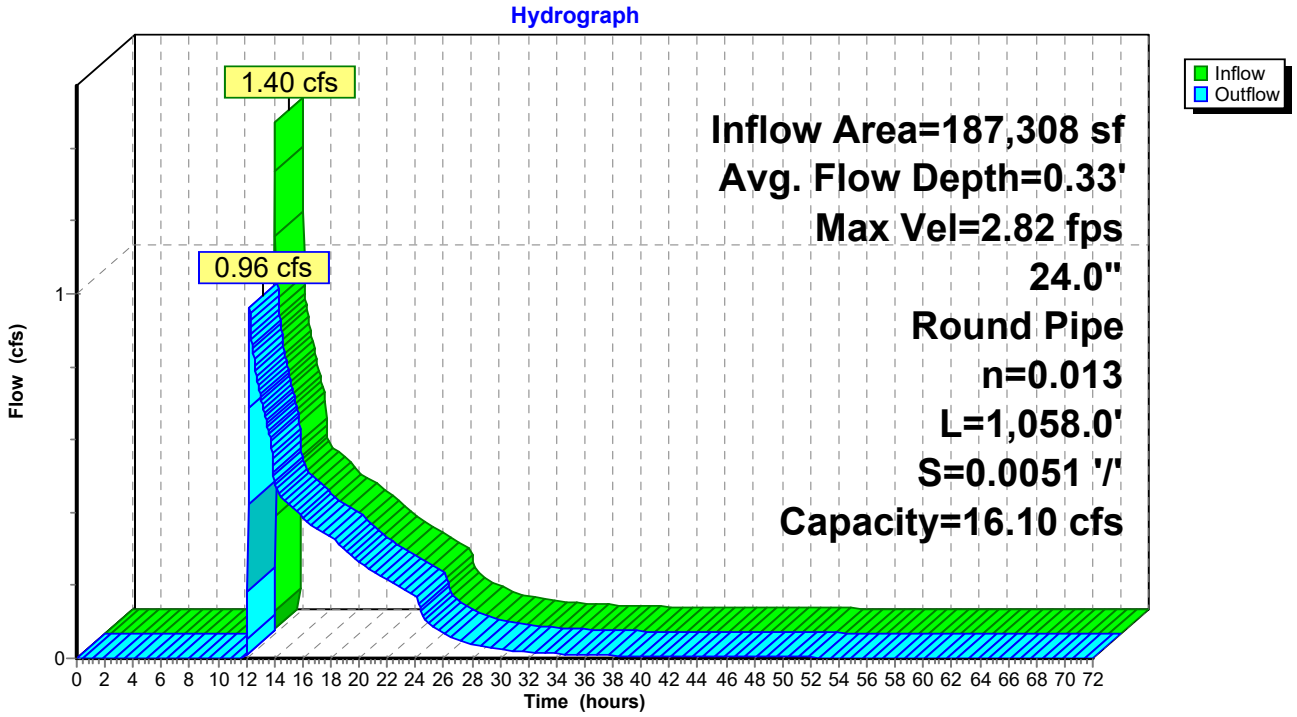
Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Max. Velocity= 2.82 fps, Min. Travel Time= 6.3 min
Avg. Velocity = 0.91 fps, Avg. Travel Time= 19.3 min

Peak Storage= 362 cf @ 12.13 hrs
Average Depth at Peak Storage= 0.33' , Surface Width= 1.49'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 16.10 cfs

24.0" Round Pipe
n= 0.013
Length= 1,058.0' Slope= 0.0051 '/'
Inlet Invert= 695.46', Outlet Invert= 690.10'



Reach 1R: Southern Trunk Line



Summary for Pond 1DP: Detention Pond 1

[44] Hint: Outlet device #2 is below defined storage
[79] Warning: Submerged Pond 1FP Primary device # 1 INLET by 0.59'

Inflow Area = 64,469 sf, 43.92% Impervious, Inflow Depth = 0.69" for 1-year event
Inflow = 1.91 cfs @ 11.99 hrs, Volume= 3,683 cf
Outflow = 0.38 cfs @ 12.17 hrs, Volume= 3,683 cf, Atten= 80%, Lag= 11.1 min
Primary = 0.38 cfs @ 12.17 hrs, Volume= 3,683 cf
Routed to Reach 1R : Southern Trunk Line

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 696.59' @ 12.17 hrs Surf.Area= 1,358 sf Storage= 734 cf

Plug-Flow detention time= 12.0 min calculated for 3,682 cf (100% of inflow)
Center-of-Mass det. time= 12.0 min (909.4 - 897.5)

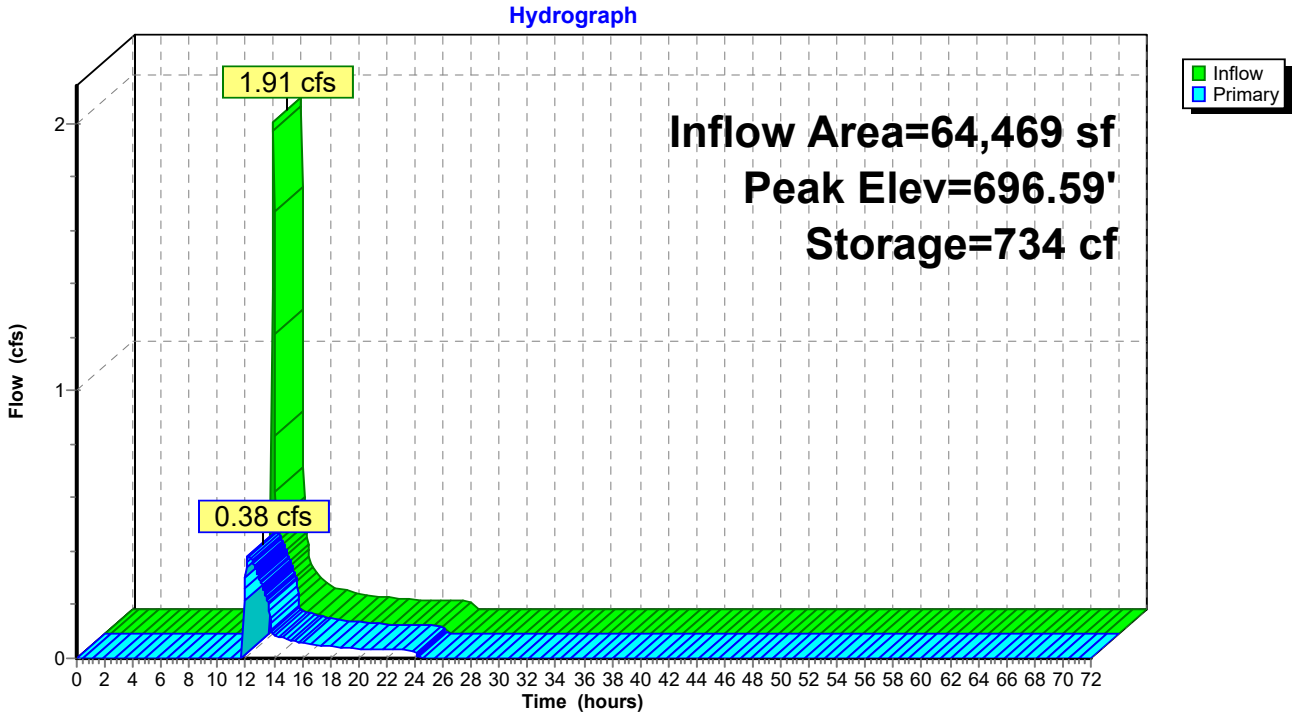
Volume	Invert	Avail.Storage	Storage Description
#1	695.80'	19,432 cf	**Custom Stage Data (Prismatic)** Listed below

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
695.80	0	0	0
696.00	285	29	29
697.00	2,098	1,192	1,220
698.00	3,151	2,625	3,845
699.00	4,138	3,645	7,489
700.00	5,311	4,725	12,214
701.00	9,125	7,218	19,432

Device	Routing	Invert	Outlet Devices
#1	Primary	695.60'	**18.0" Round Culvert** L= 28.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 695.60' / 695.46' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	695.60'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.38 cfs @ 12.17 hrs HW=696.59' TW=565.00' (Fixed TW Elev= 565.00')
└─**1=Culvert** (Passes 0.38 cfs of 3.08 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.38 cfs @ 4.37 fps)
  └─**3=Orifice/Grate** (Controls 0.00 cfs)

Pond 1DP: Detention Pond 1



Summary for Pond 1FP: FocalPoint 1

[92] Warning: Device #3 is above defined storage

Inflow Area = 64,469 sf, 43.92% Impervious, Inflow Depth = 0.75" for 1-year event
Inflow = 1.96 cfs @ 11.97 hrs, Volume= 4,053 cf
Outflow = 1.91 cfs @ 11.99 hrs, Volume= 3,683 cf, Atten= 3%, Lag= 0.9 min
Primary = 1.91 cfs @ 11.99 hrs, Volume= 3,683 cf
Routed to Pond 1DP : Detention Pond 1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 699.68' @ 11.99 hrs Surf.Area= 827 sf Storage= 502 cf

Plug-Flow detention time= 65.9 min calculated for 3,683 cf (91% of inflow)
Center-of-Mass det. time= 19.2 min (897.5 - 878.2)

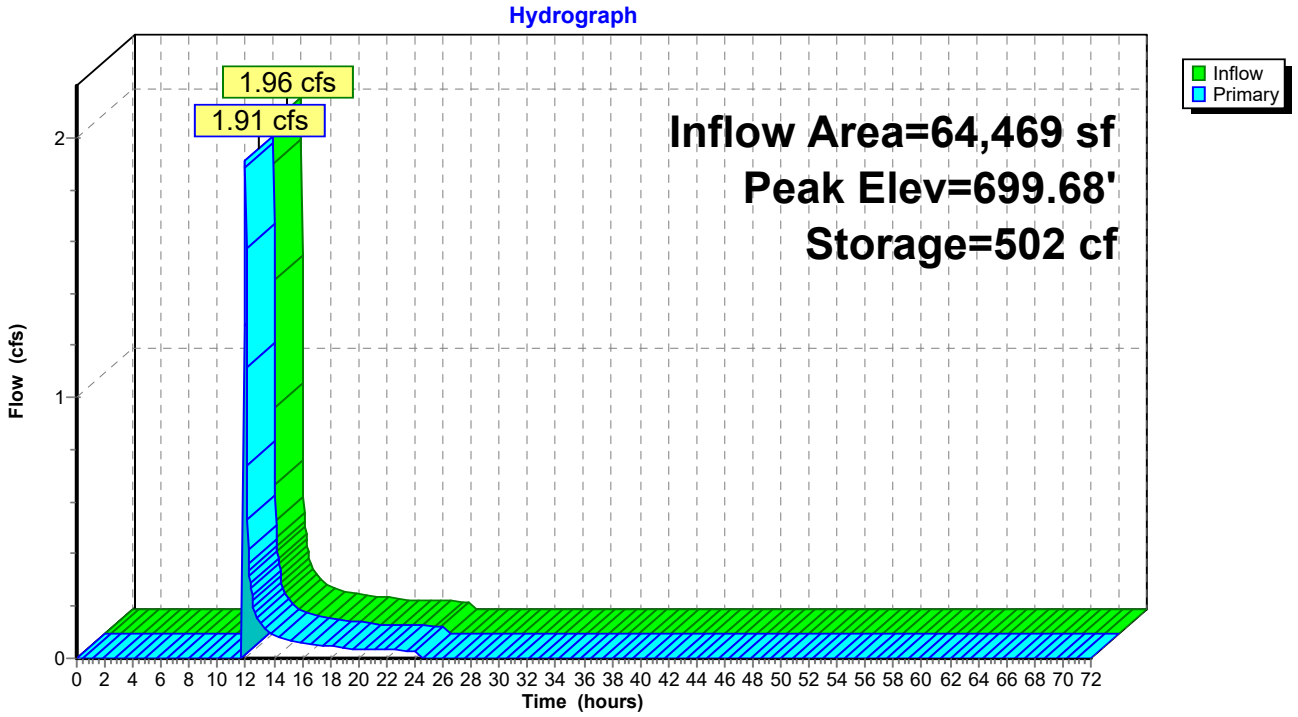
Volume	Invert	Avail.Storage	Storage Description
#1	696.00'	815 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
696.00	237	0.0	0	0
699.00	237	20.0	142	142
700.00	1,109	100.0	673	815

Device	Routing	Invert	Outlet Devices
#1	Primary	696.00'	**18.0" Round Culvert** L= 40.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 696.00' / 695.80' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**10.0' long x 18.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=1.87 cfs @ 11.99 hrs HW=699.67' (Free Discharge)
- **1=Culvert** (Passes 1.87 cfs of 14.55 cfs potential flow)
  - **2=Orifice/Grate** (Weir Controls 1.87 cfs @ 1.36 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1FP: FocalPoint 1



Summary for Pond 2DP: Detention Pond 2

[79] Warning: Submerged Pond 2FP Primary device # 1 INLET by 0.30'
[79] Warning: Submerged Pond 3FP Primary device # 1 OUTLET by 0.80'

Inflow Area = 95,832 sf, 79.09% Impervious, Inflow Depth = 1.68" for 1-year event
Inflow = 7.60 cfs @ 11.99 hrs, Volume= 13,435 cf
Outflow = 0.33 cfs @ 13.35 hrs, Volume= 12,487 cf, Atten= 96%, Lag= 81.8 min
Primary = 0.33 cfs @ 13.35 hrs, Volume= 12,487 cf
Routed to Reach 1R : Southern Trunk Line

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 694.80' @ 13.35 hrs Surf.Area= 8,711 sf Storage= 6,955 cf

Plug-Flow detention time= 345.0 min calculated for 12,487 cf (93% of inflow)
Center-of-Mass det. time= 307.2 min (1,150.9 - 843.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	693.75'	3,019 cf	**38.12'W x 114.25'L x 4.79'H Field A** 20,877 cf Overall - 13,330 cf Embedded = 7,547 cf x 40.0% Voids
#2A	694.00'	12,663 cf	**Ferguson R-Tank HD 2.5** x 1222 Inside #1 Inside= 15.7"W x 42.5"H => 4.42 sf x 2.35'L = 10.4 cf Outside= 15.7"W x 42.5"H => 4.65 sf x 2.35'L = 10.9 cf 1222 Chambers in 26 Rows
#3B	693.75'	3,019 cf	**38.12'W x 114.25'L x 4.79'H Field B** 20,877 cf Overall - 13,330 cf Embedded = 7,547 cf x 40.0% Voids
#4B	694.00'	12,663 cf	**Ferguson R-Tank HD 2.5** x 1222 Inside #3 Inside= 15.7"W x 42.5"H => 4.42 sf x 2.35'L = 10.4 cf Outside= 15.7"W x 42.5"H => 4.65 sf x 2.35'L = 10.9 cf 1222 Chambers in 26 Rows
		31,364 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	694.00'	**18.0" Round Culvert** L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.00' / 693.20' S= 0.0800 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	694.00'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	697.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.33 cfs @ 13.35 hrs HW=694.80' TW=565.00' (Fixed TW Elev= 565.00')
- **1=Culvert** (Passes 0.33 cfs of 2.91 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.33 cfs @ 3.83 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 2DP: Detention Pond 2 - Chamber Wizard Field A

Chamber Model = Ferguson R-Tank HD 2.5 (Ferguson R-Tank HD)
Inside= 15.7"W x 42.5"H => 4.42 sf x 2.35'L = 10.4 cf
Outside= 15.7"W x 42.5"H => 4.65 sf x 2.35'L = 10.9 cf

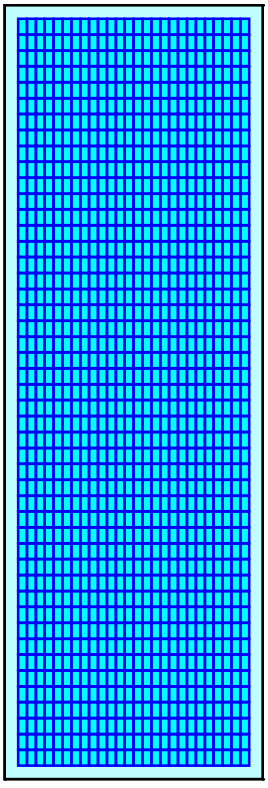
47 Chambers/Row x 2.35' Long = 110.25' Row Length +24.0" End Stone x 2 = 114.25' Base Length
26 Rows x 15.7" Wide + 24.0" Side Stone x 2 = 38.12' Base Width
3.0" Stone Base + 42.5" Chamber Height + 12.0" Stone Cover = 4.79' Field Height

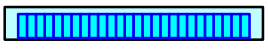
1,222 Chambers x 10.4 cf = 12,663.1 cf Chamber Storage
1,222 Chambers x 10.9 cf = 13,329.6 cf Displacement

20,876.7 cf Field - 13,329.6 cf Chambers = 7,547.2 cf Stone x 40.0% Voids = 3,018.9 cf Stone Storage

Chamber Storage + Stone Storage = 15,682.0 cf = 0.360 af
Overall Storage Efficiency = 75.1%
Overall System Size = 114.25' x 38.12' x 4.79'

1,222 Chambers
773.2 cy Field
279.5 cy Stone





Pond 2DP: Detention Pond 2 - Chamber Wizard Field B

Chamber Model = Ferguson R-Tank HD 2.5 (Ferguson R-Tank HD)
Inside= 15.7"W x 42.5"H => 4.42 sf x 2.35'L = 10.4 cf
Outside= 15.7"W x 42.5"H => 4.65 sf x 2.35'L = 10.9 cf

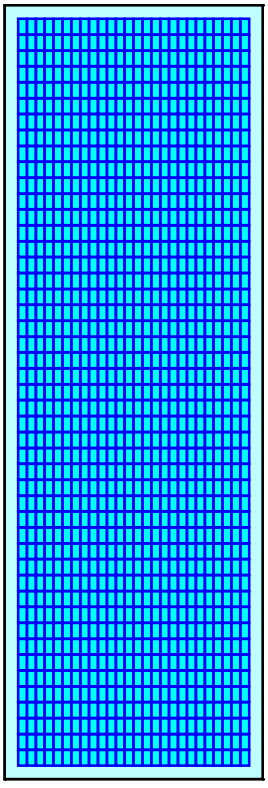
47 Chambers/Row x 2.35' Long = 110.25' Row Length +24.0" End Stone x 2 = 114.25' Base Length
26 Rows x 15.7" Wide + 24.0" Side Stone x 2 = 38.12' Base Width
3.0" Stone Base + 42.5" Chamber Height + 12.0" Stone Cover = 4.79' Field Height

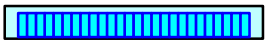
1,222 Chambers x 10.4 cf = 12,663.1 cf Chamber Storage
1,222 Chambers x 10.9 cf = 13,329.6 cf Displacement

20,876.7 cf Field - 13,329.6 cf Chambers = 7,547.2 cf Stone x 40.0% Voids = 3,018.9 cf Stone Storage

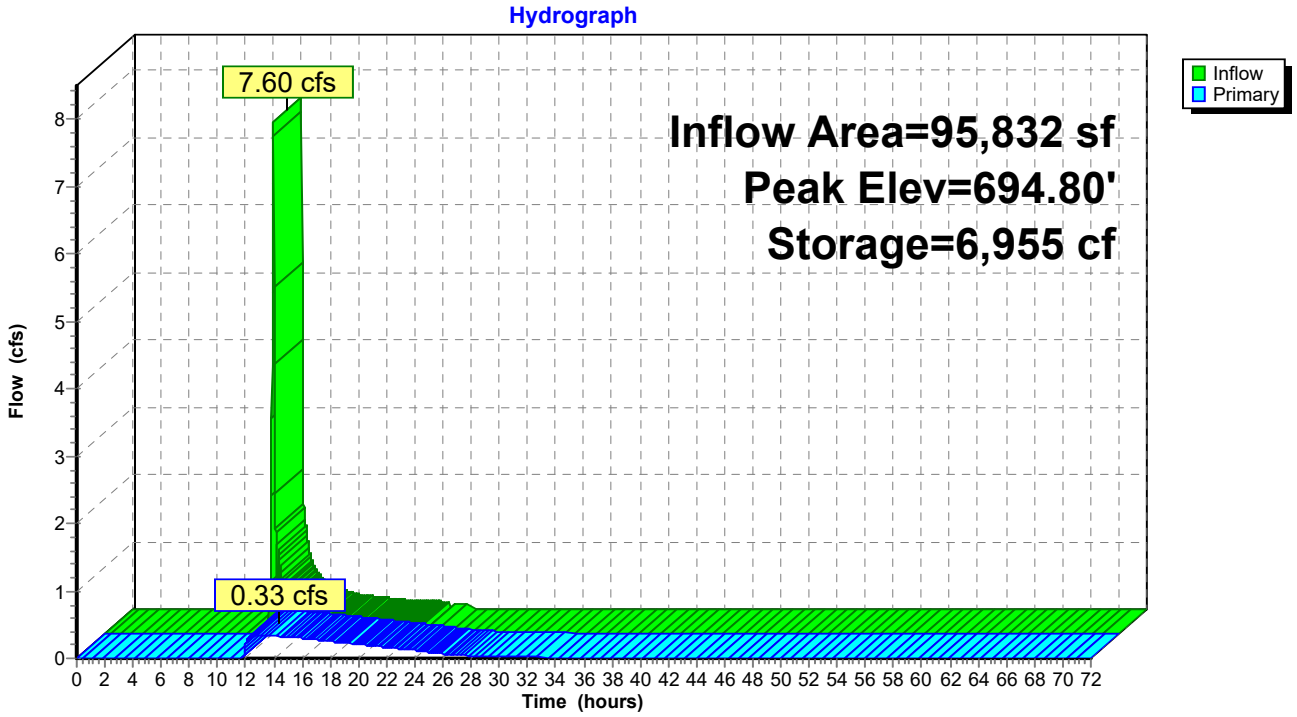
Chamber Storage + Stone Storage = 15,682.0 cf = 0.360 af
Overall Storage Efficiency = 75.1%
Overall System Size = 114.25' x 38.12' x 4.79'

1,222 Chambers
773.2 cy Field
279.5 cy Stone





Pond 2DP: Detention Pond 2



Summary for Pond 2FP: FocalPoint 2

Inflow Area = 31,363 sf, 83.33% Impervious, Inflow Depth = 2.21" for 1-year event
Inflow = 2.81 cfs @ 11.96 hrs, Volume= 5,765 cf
Outflow = 2.73 cfs @ 11.97 hrs, Volume= 5,043 cf, Atten= 3%, Lag= 0.9 min
Primary = 2.73 cfs @ 11.97 hrs, Volume= 5,043 cf
Routed to Pond 2DP : Detention Pond 2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 698.22' @ 11.97 hrs Surf.Area= 1,176 sf Storage= 972 cf

Plug-Flow detention time= 89.6 min calculated for 5,040 cf (87% of inflow)
Center-of-Mass det. time= 29.5 min (831.9 - 802.4)

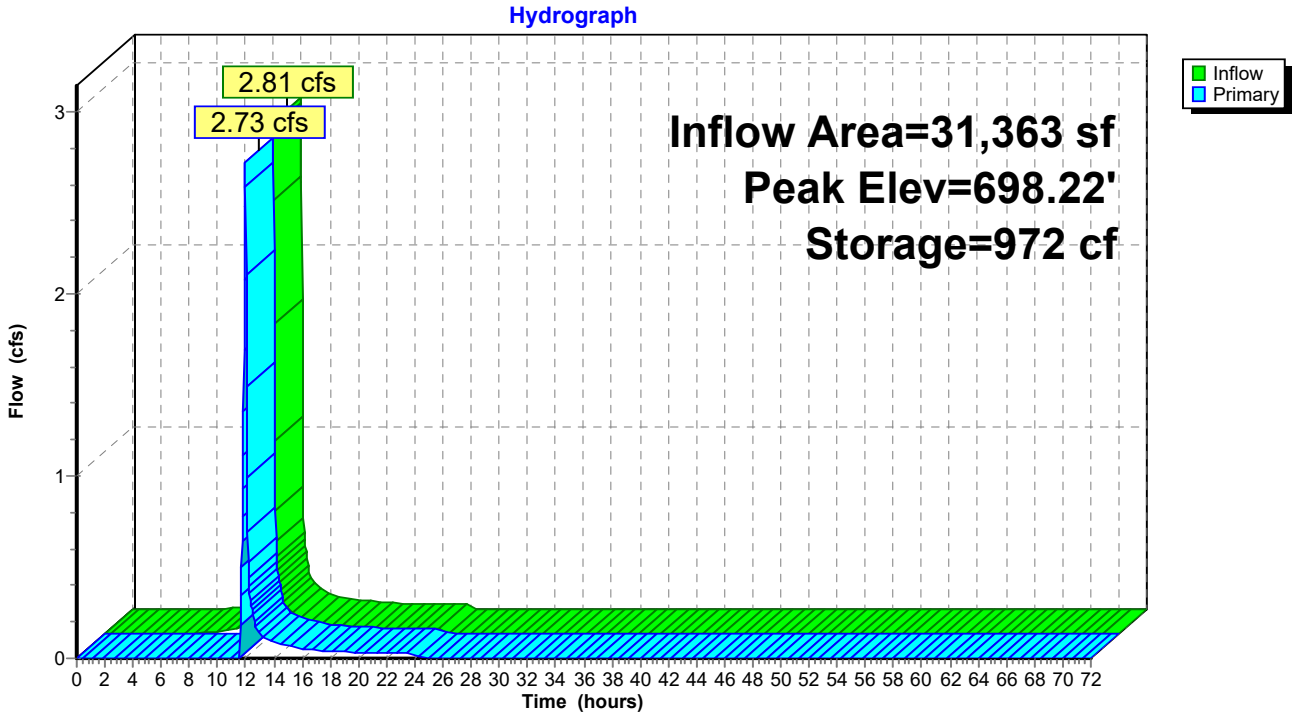
Volume	Invert	Avail.Storage	Storage Description
#1	694.50'	1,317 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
694.50	539	0.0	0	0
697.50	539	20.0	323	323
698.00	1,056	100.0	399	722
698.50	1,323	100.0	595	1,317

Device	Routing	Invert	Outlet Devices
#1	Primary	694.50'	**18.0" Round Culvert** L= 28.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.50' / 694.00' S= 0.0179 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	698.00'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=2.70 cfs @ 11.97 hrs HW=698.22' (Free Discharge)
↑ **1=Culvert** (Passes 2.70 cfs of 14.67 cfs potential flow)
↑ **2=Orifice/Grate** (Weir Controls 2.70 cfs @ 1.54 fps)

Pond 2FP: FocalPoint 2



Summary for Pond 3FP: FocalPoint 3

Inflow Area = 16,553 sf, 71.05% Impervious, Inflow Depth = 1.72" for 1-year event
Inflow = 1.19 cfs @ 11.96 hrs, Volume= 2,367 cf
Outflow = 1.07 cfs @ 12.00 hrs, Volume= 1,646 cf, Atten= 10%, Lag= 2.6 min
Primary = 1.07 cfs @ 12.00 hrs, Volume= 1,646 cf
Routed to Pond 2DP : Detention Pond 2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 699.62' @ 12.01 hrs Surf.Area= 892 sf Storage= 824 cf

Plug-Flow detention time= 163.8 min calculated for 1,646 cf (70% of inflow)
Center-of-Mass det. time= 59.8 min (884.7 - 824.9)

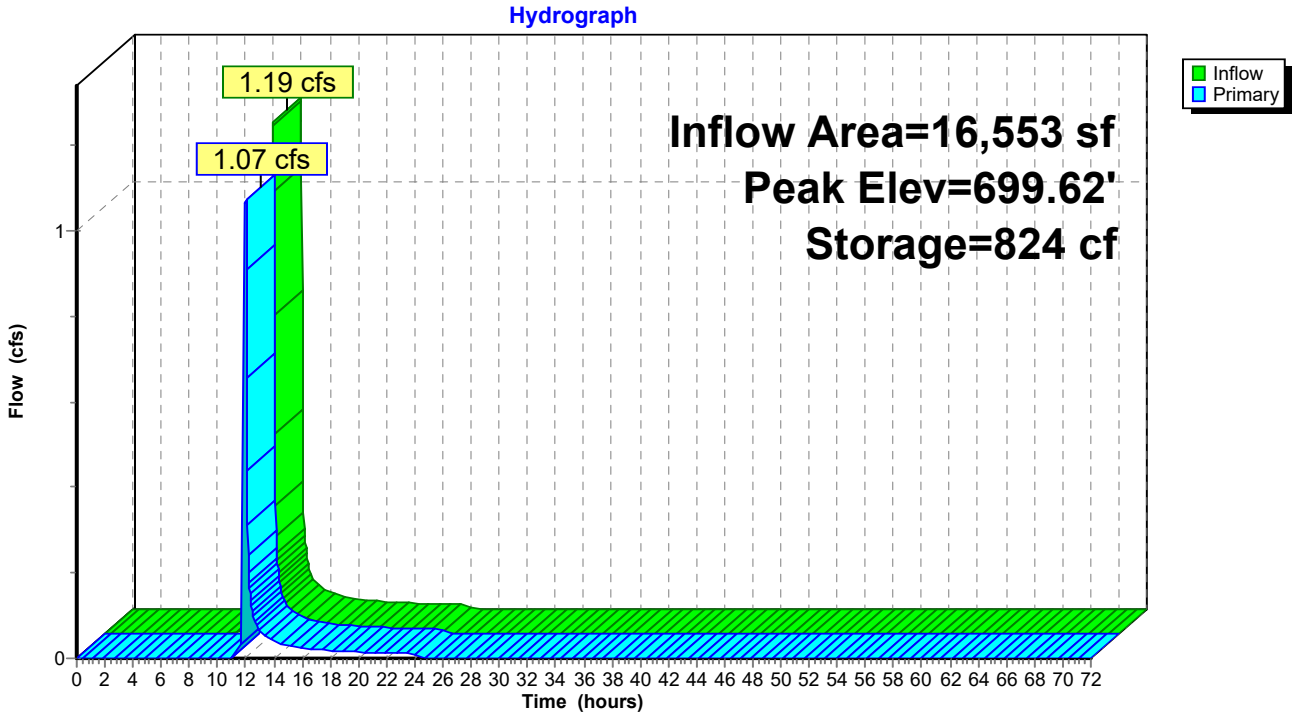
Volume	Invert	Avail.Storage	Storage Description
#1	696.00'	1,197 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
696.00	602	0.0	0	0
699.00	602	20.0	361	361
700.00	1,070	100.0	836	1,197

Device	Routing	Invert	Outlet Devices
#1	Primary	696.00'	**18.0" Round Culvert** L= 80.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 696.00' / 694.00' S= 0.0250 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.03 cfs @ 12.00 hrs HW=699.62' (Free Discharge)
↑**1=Culvert** (Passes 1.03 cfs of 14.41 cfs potential flow)
↑**2=Orifice/Grate** (Weir Controls 1.03 cfs @ 1.12 fps)

Pond 3FP: FocalPoint 3



Summary for Pond 4FP: FocalPoint 4

[92] Warning: Device #2 is above defined storage
[92] Warning: Device #3 is above defined storage
[93] Warning: Storage range exceeded by 0.80'
[88] Warning: Qout>Qin may require smaller dt or Finer Routing
[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=201)

Inflow Area = 47,916 sf, 79.09% Impervious, Inflow Depth = 2.03" for 1-year event
Inflow = 4.02 cfs @ 11.96 hrs, Volume= 8,118 cf
Outflow = 4.23 cfs @ 11.95 hrs, Volume= 6,746 cf, Atten= 0%, Lag= 0.0 min
Primary = 4.23 cfs @ 11.95 hrs, Volume= 6,746 cf
Routed to Pond 2DP : Detention Pond 2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 699.80' @ 11.95 hrs Surf.Area= 1,491 sf Storage= 1,389 cf

Plug-Flow detention time= 105.8 min calculated for 6,743 cf (83% of inflow)
Center-of-Mass det. time= 31.8 min (842.3 - 810.5)

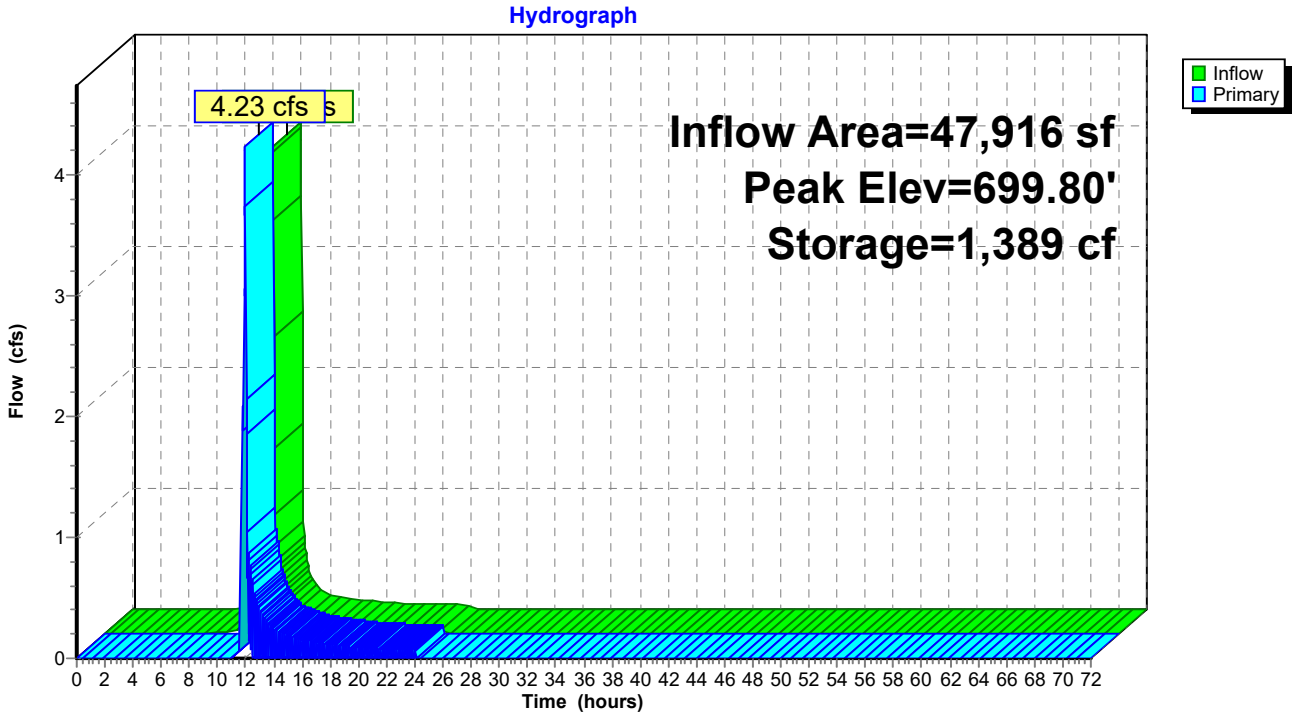
Volume	Invert	Avail.Storage	Storage Description
#1	695.00'	1,389 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
695.00	585	0.0	0	0
698.00	585	20.0	351	351
699.00	1,491	100.0	1,038	1,389

Device	Routing	Invert	Outlet Devices
#1	Primary	696.00'	**18.0" Round Culvert** L= 23.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 696.00' / 695.88' S= 0.0052 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**6.0' long x 133.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=4.09 cfs @ 11.95 hrs HW=699.79' (Free Discharge)
- **1=Culvert** (Passes 4.09 cfs of 14.84 cfs potential flow)
  - **2=Orifice/Grate** (Weir Controls 4.09 cfs @ 1.77 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 4FP: FocalPoint 4



Summary for Pond 5FP: FocalPoint 5

Inflow Area = 19,166 sf, 61.36% Impervious, Inflow Depth = 1.37" for 1-year event
Inflow = 1.11 cfs @ 11.96 hrs, Volume= 2,183 cf
Outflow = 0.83 cfs @ 12.02 hrs, Volume= 1,555 cf, Atten= 26%, Lag= 3.5 min
Primary = 0.83 cfs @ 12.02 hrs, Volume= 1,555 cf
Routed to Reach 1R : Southern Trunk Line

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 697.60' @ 12.02 hrs Surf.Area= 996 sf Storage= 725 cf

Plug-Flow detention time= 163.0 min calculated for 1,554 cf (71% of inflow)
Center-of-Mass det. time= 57.3 min (898.4 - 841.1)

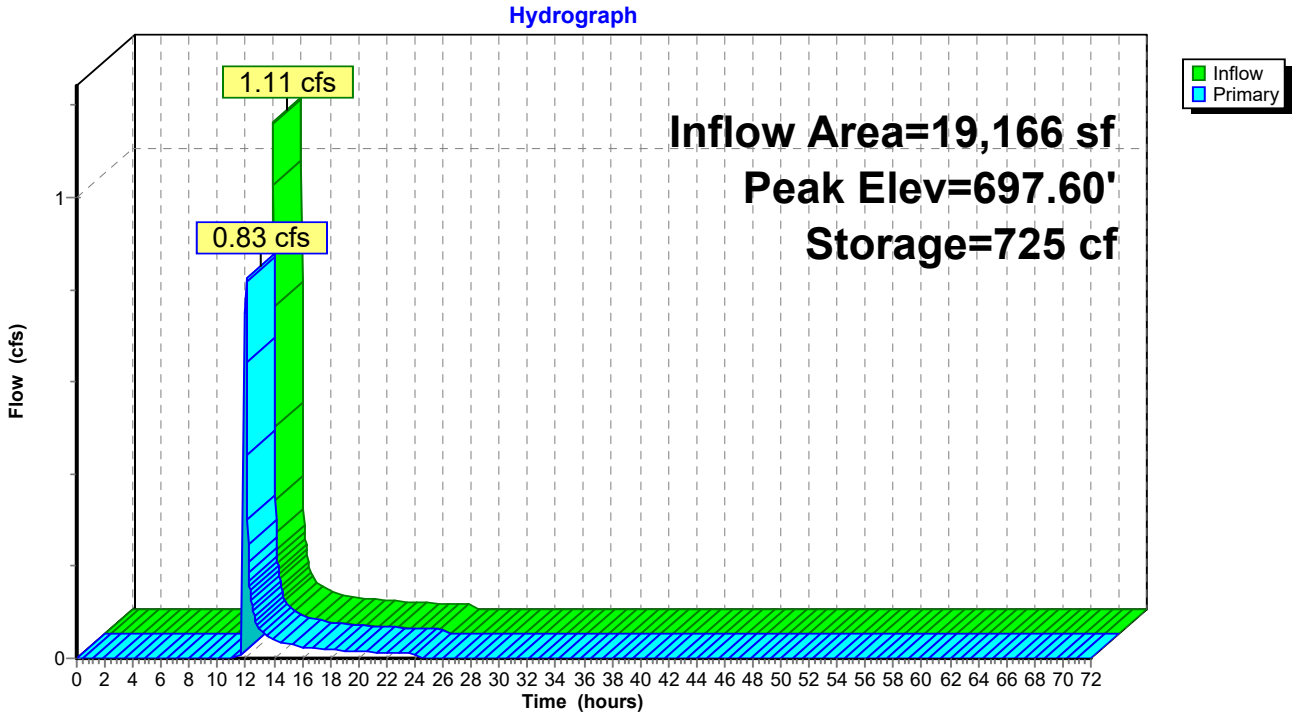
Volume	Invert	Avail.Storage	Storage Description
#1	694.00'	2,779 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
694.00	472	0.0	0	0
697.00	472	20.0	283	283
698.00	1,344	100.0	908	1,191
699.00	1,832	100.0	1,588	2,779

Device	Routing	Invert	Outlet Devices
#1	Primary	694.00'	**18.0" Round Culvert** L= 24.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.00' / 691.39' S= 0.1088 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	697.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	698.50'	**6.0' long x 9.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.46 2.55 2.70 2.69 2.68 2.68 2.67 2.64 2.64 2.64 2.65 2.64 2.65 2.65 2.66 2.67 2.69

Primary OutFlow Max=0.80 cfs @ 12.02 hrs HW=697.60' (Free Discharge)
└─**1=Culvert** (Passes 0.80 cfs of 14.36 cfs potential flow)
└─**2=Orifice/Grate** (Weir Controls 0.80 cfs @ 1.03 fps)
└─**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 5FP: FocalPoint 5



Summary for Pond 6FP: FocalPoint 6

Inflow Area = 7,841 sf, 55.56% Impervious, Inflow Depth = 1.18" for 1-year event
Inflow = 0.39 cfs @ 11.97 hrs, Volume= 771 cf
Outflow = 0.01 cfs @ 17.29 hrs, Volume= 143 cf, Atten= 98%, Lag= 319.2 min
Primary = 0.01 cfs @ 17.29 hrs, Volume= 143 cf
Routed to Reach 1R : Southern Trunk Line

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 697.50' @ 17.29 hrs Surf.Area= 909 sf Storage= 629 cf

Plug-Flow detention time= 509.9 min calculated for 143 cf (19% of inflow)
Center-of-Mass det. time= 365.1 min (1,215.7 - 850.6)

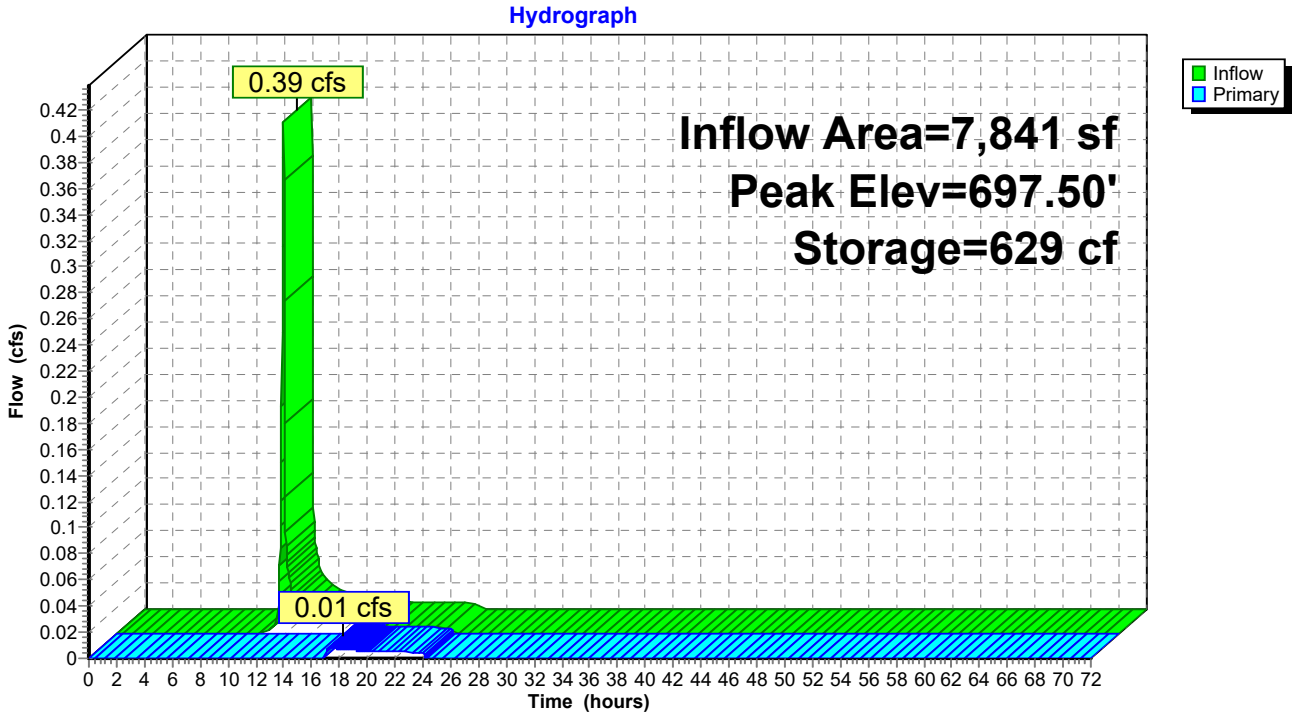
Volume	Invert	Avail.Storage	Storage Description
#1	694.00'	2,779 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
694.00	472	0.0	0	0
697.00	472	20.0	283	283
698.00	1,344	100.0	908	1,191
699.00	1,832	100.0	1,588	2,779

Device	Routing	Invert	Outlet Devices
#1	Primary	694.00'	**18.0" Round Culvert** L= 24.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.00' / 690.87' S= 0.1304 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	697.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	698.50'	**6.0' long x 9.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.46 2.55 2.70 2.69 2.68 2.68 2.67 2.64 2.64 2.64 2.65 2.64 2.65 2.65 2.66 2.67 2.69

Primary OutFlow Max=0.00 cfs @ 17.29 hrs HW=697.50' (Free Discharge)
└─**1=Culvert** (Passes 0.00 cfs of 14.11 cfs potential flow)
└─**2=Orifice/Grate** (Weir Controls 0.00 cfs @ 0.12 fps)
└─**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 6FP: FocalPoint 6

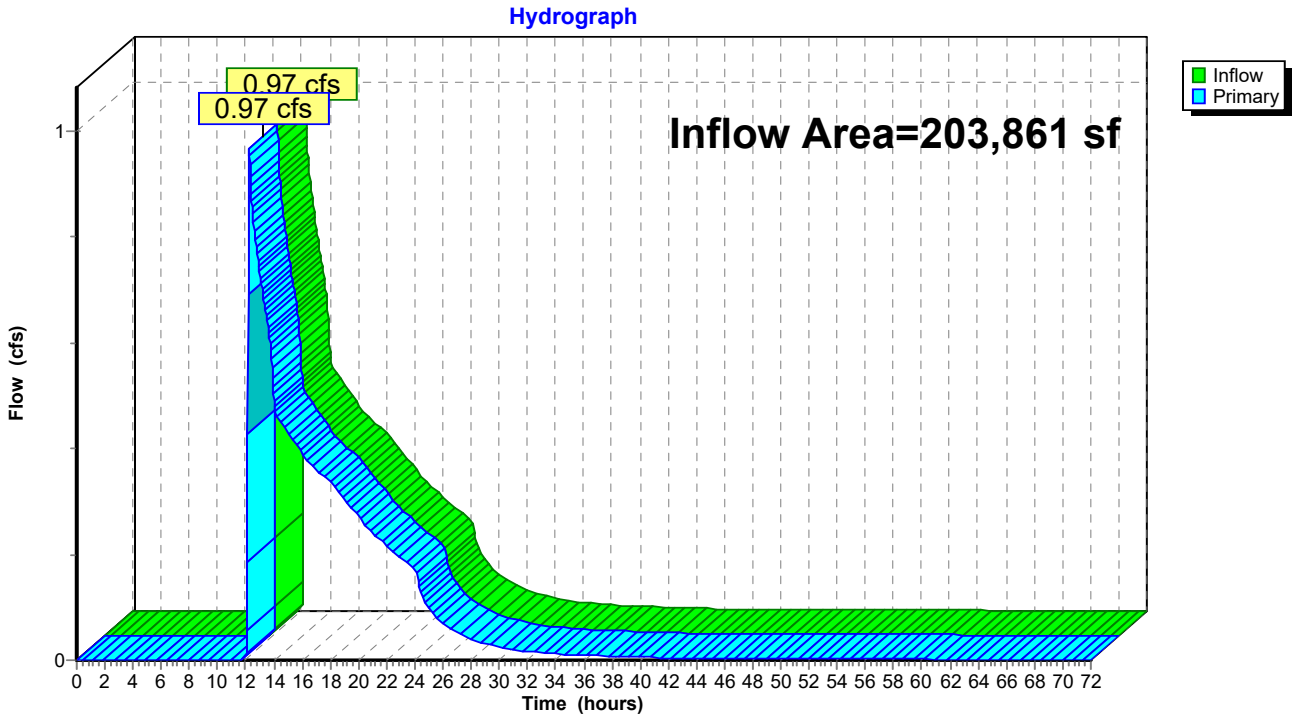


Summary for Link 1L: Outfall #1

Inflow Area = 203,861 sf, 59.40% Impervious, Inflow Depth > 1.06" for 1-year event
Inflow = 0.97 cfs @ 12.24 hrs, Volume= 18,025 cf
Primary = 0.97 cfs @ 12.24 hrs, Volume= 18,025 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs

Link 1L: Outfall #1



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Area 1 Runoff Area=1.480 ac 43.92% Impervious Runoff Depth=1.12"
Tc=5.0 min CN=68 Runoff=3.02 cfs 6,036 cf

Subcatchment2S: Area 2 Runoff Area=0.720 ac 83.33% Impervious Runoff Depth=2.80"
Tc=5.0 min CN=90 Runoff=3.51 cfs 7,308 cf

Subcatchment3S: Area 3 Runoff Area=0.380 ac 71.05% Impervious Runoff Depth=2.26"
Tc=5.0 min CN=84 Runoff=1.56 cfs 3,113 cf

Subcatchment4S: Area 4 Runoff Area=1.100 ac 79.09% Impervious Runoff Depth=2.61"
Tc=5.0 min CN=88 Runoff=5.09 cfs 10,416 cf

Subcatchment5S: Area 5 Runoff Area=0.440 ac 61.36% Impervious Runoff Depth=1.86"
Tc=5.0 min CN=79 Runoff=1.51 cfs 2,968 cf

Subcatchment6S: Area 6 Runoff Area=0.180 ac 55.56% Impervious Runoff Depth=1.64"
Tc=5.0 min CN=76 Runoff=0.55 cfs 1,071 cf

Subcatchment10S: South Bypass Runoff Area=0.380 ac 5.26% Impervious Runoff Depth=0.26"
Tc=5.0 min CN=49 Runoff=0.07 cfs 362 cf

Reach 1R: Southern Trunk Line Avg. Flow Depth=0.43' Max Vel=3.31 fps Inflow=2.14 cfs 25,522 cf
24.0" Round Pipe n=0.013 L=1,058.0' S=0.0051 '/' Capacity=16.10 cfs Outflow=1.66 cfs 25,519 cf

Pond 1DP: Detention Pond 1 Peak Elev=697.12' Storage=1,527 cf Inflow=2.95 cfs 5,666 cf
Outflow=0.49 cfs 5,666 cf

Pond 1FP: FocalPoint 1 Peak Elev=699.74' Storage=553 cf Inflow=3.02 cfs 6,036 cf
Outflow=2.95 cfs 5,666 cf

Pond 2DP: Detention Pond 2 Peak Elev=695.18' Storage=9,903 cf Inflow=10.36 cfs 18,026 cf
Outflow=0.42 cfs 17,072 cf

Pond 2FP: FocalPoint 2 Peak Elev=698.26' Storage=1,016 cf Inflow=3.51 cfs 7,308 cf
Outflow=3.42 cfs 6,586 cf

Pond 3FP: FocalPoint 3 Peak Elev=699.65' Storage=852 cf Inflow=1.56 cfs 3,113 cf
Outflow=1.52 cfs 2,393 cf

Pond 4FP: FocalPoint 4 Peak Elev=699.86' Storage=1,389 cf Inflow=5.09 cfs 10,416 cf
Outflow=5.44 cfs 9,048 cf

Pond 5FP: FocalPoint 5 Peak Elev=697.65' Storage=770 cf Inflow=1.51 cfs 2,968 cf
Outflow=1.43 cfs 2,340 cf

Pond 6FP: FocalPoint 6 Peak Elev=697.51' Storage=633 cf Inflow=0.55 cfs 1,071 cf
Outflow=0.03 cfs 443 cf

Link 1L: Outfall #1 Inflow=1.69 cfs 25,881 cf
Primary=1.69 cfs 25,881 cf

Total Runoff Area = 203,861 sf Runoff Volume = 31,274 cf Average Runoff Depth = 1.84"
40.60% Pervious = 82,764 sf 59.40% Impervious = 121,097 sf

Summary for Subcatchment 1S: Area 1

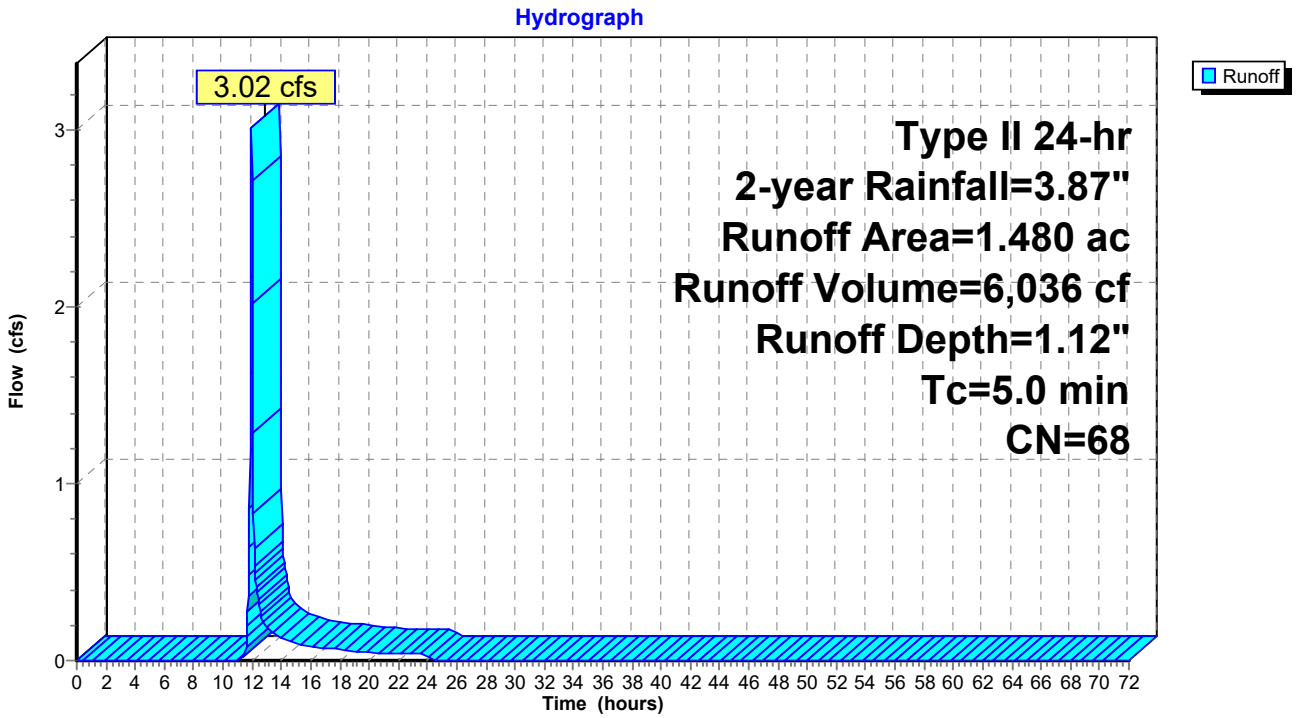
Runoff = 3.02 cfs @ 11.97 hrs, Volume= 6,036 cf, Depth= 1.12"
Routed to Pond 1FP : FocalPoint 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 2-year Rainfall=3.87"

Area (ac)	CN	Description
0.510	49	50-75% Grass cover, Fair, HSG A
0.320	36	Woods, Fair, HSG A
0.650	98	Paved parking, HSG A
1.480	68	Weighted Average
0.830		56.08% Pervious Area
0.650		43.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 1S: Area 1



Summary for Subcatchment 2S: Area 2

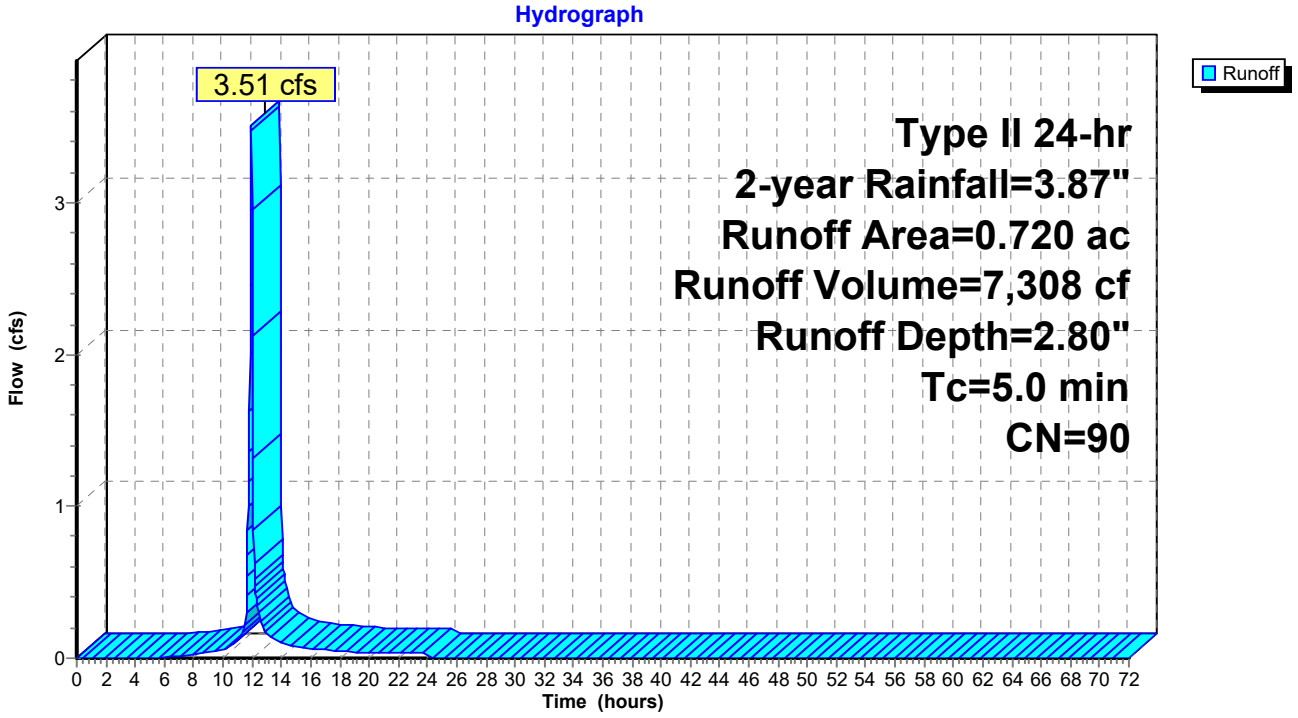
Runoff = 3.51 cfs @ 11.96 hrs, Volume= 7,308 cf, Depth= 2.80"
Routed to Pond 2FP : FocalPoint 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 2-year Rainfall=3.87"

Area (ac)	CN	Description
0.120	49	50-75% Grass cover, Fair, HSG A
0.600	98	Paved parking, HSG A
0.720	90	Weighted Average
0.120		16.67% Pervious Area
0.600		83.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 2S: Area 2



Summary for Subcatchment 3S: Area 3

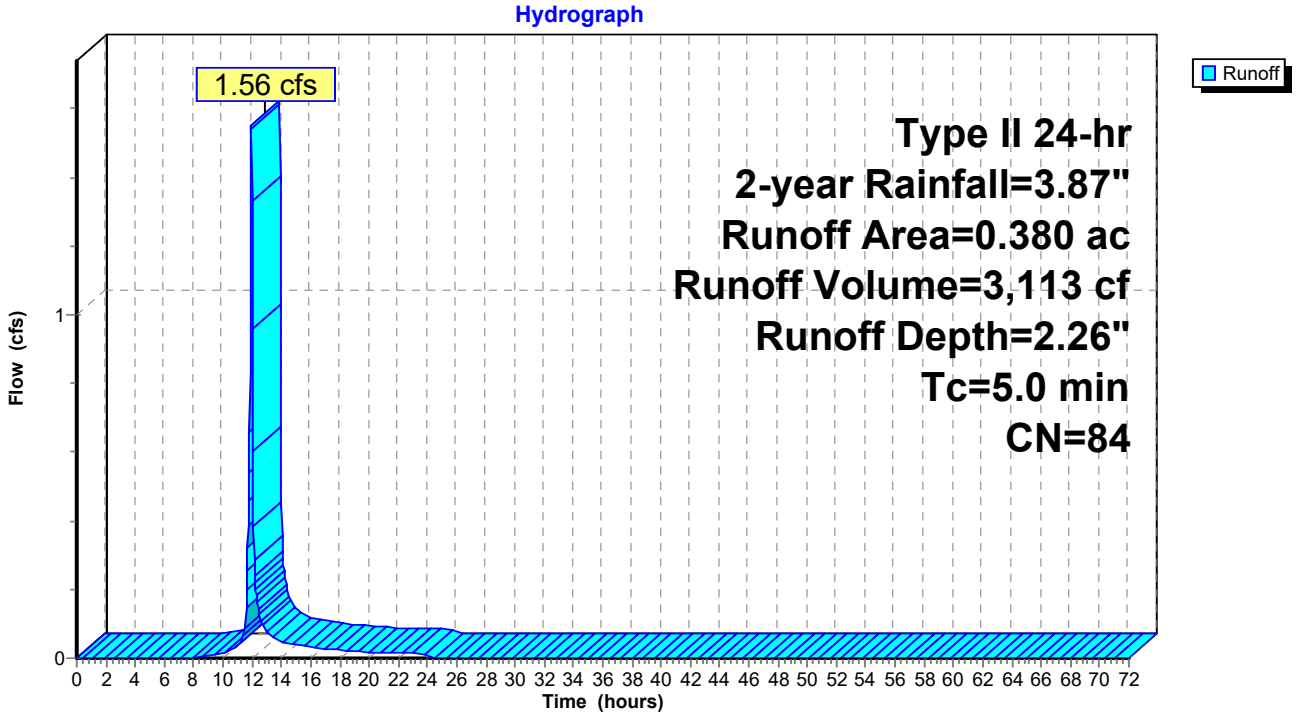
Runoff = 1.56 cfs @ 11.96 hrs, Volume= 3,113 cf, Depth= 2.26"
Routed to Pond 3FP : FocalPoint 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 2-year Rainfall=3.87"

Area (ac)	CN	Description
0.110	49	50-75% Grass cover, Fair, HSG A
0.270	98	Paved parking, HSG A
0.380	84	Weighted Average
0.110		28.95% Pervious Area
0.270		71.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 3S: Area 3



Summary for Subcatchment 4S: Area 4

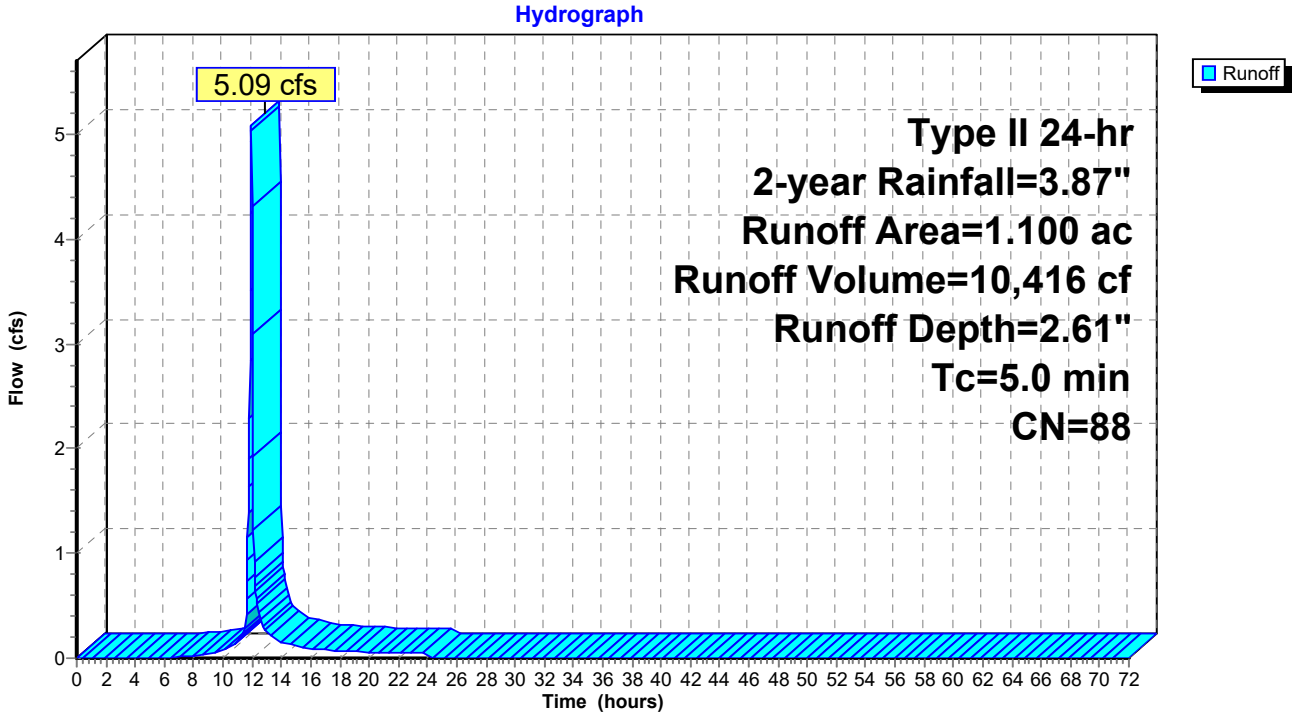
Runoff = 5.09 cfs @ 11.96 hrs, Volume= 10,416 cf, Depth= 2.61"
Routed to Pond 4FP : FocalPoint 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 2-year Rainfall=3.87"

Area (ac)	CN	Description
0.230	49	50-75% Grass cover, Fair, HSG A
0.870	98	Paved parking, HSG A
1.100	88	Weighted Average
0.230		20.91% Pervious Area
0.870		79.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 4S: Area 4



Summary for Subcatchment 5S: Area 5

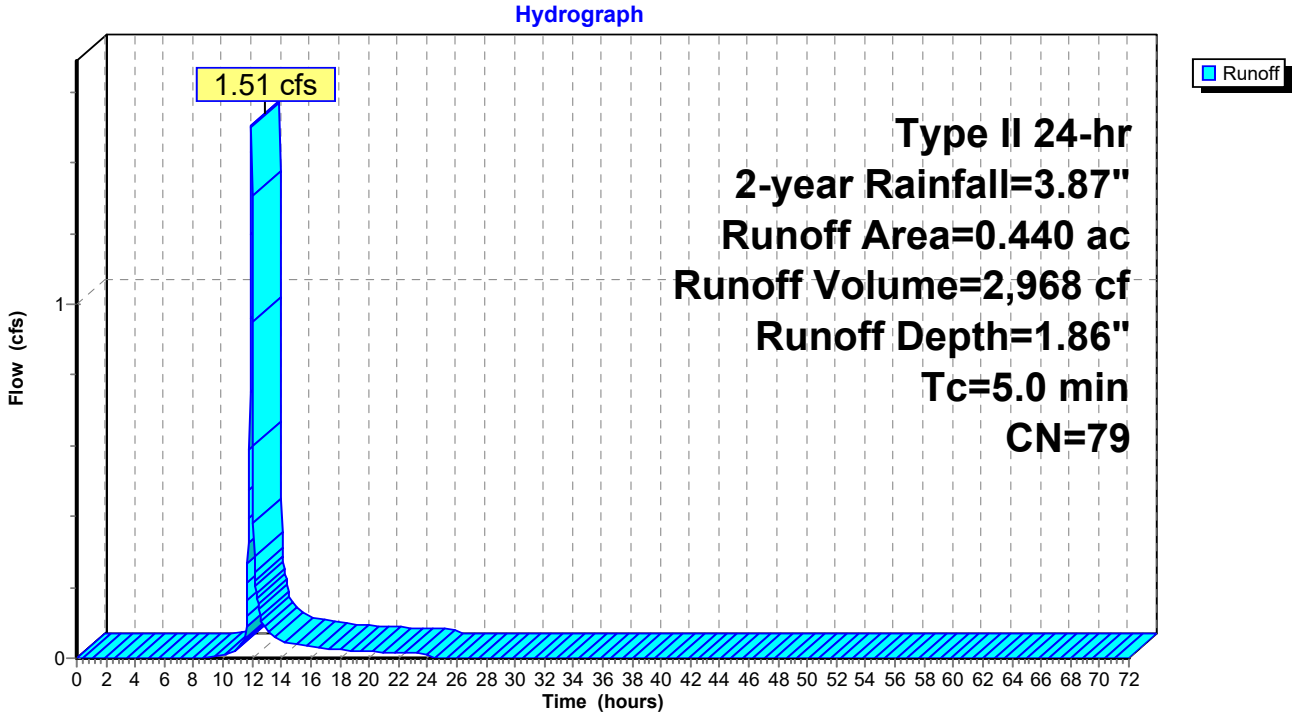
Runoff = 1.51 cfs @ 11.96 hrs, Volume= 2,968 cf, Depth= 1.86"
Routed to Pond 5FP : FocalPoint 5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 2-year Rainfall=3.87"

Area (ac)	CN	Description
0.170	49	50-75% Grass cover, Fair, HSG A
0.270	98	Paved parking, HSG A
0.440	79	Weighted Average
0.170		38.64% Pervious Area
0.270		61.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 5S: Area 5



Summary for Subcatchment 6S: Area 6

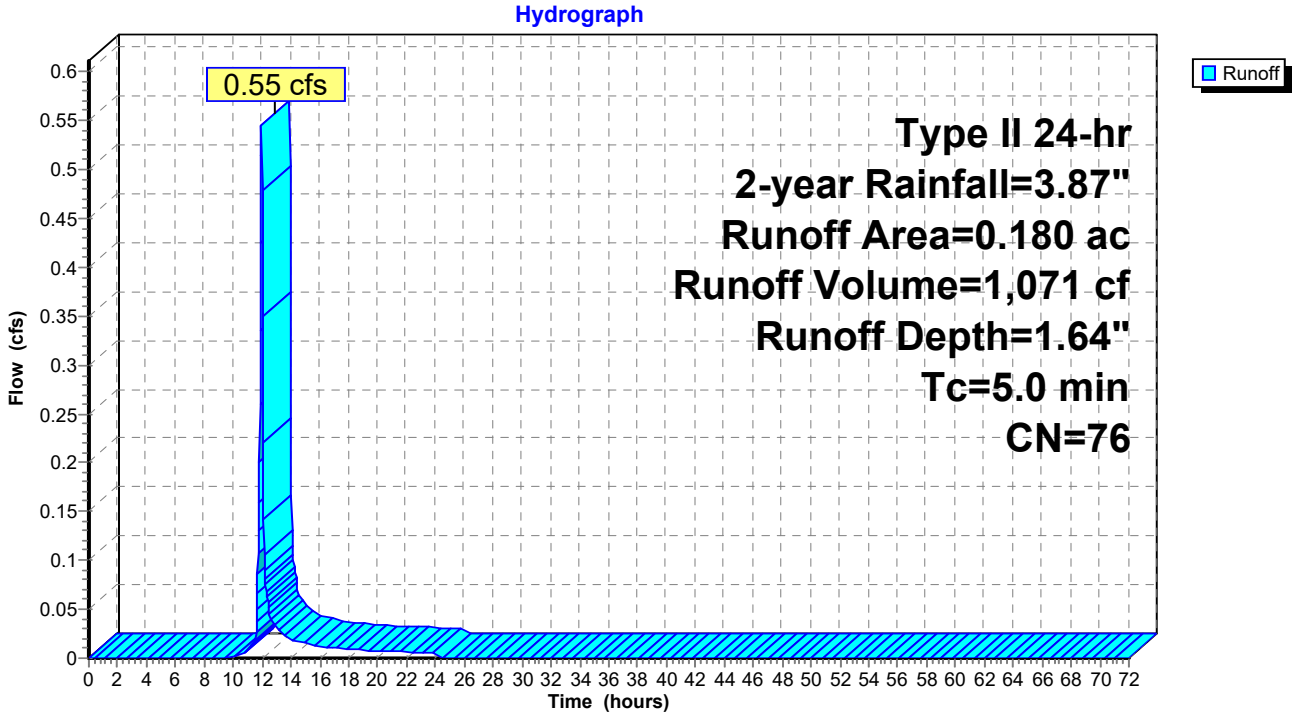
Runoff = 0.55 cfs @ 11.96 hrs, Volume= 1,071 cf, Depth= 1.64"
Routed to Pond 6FP : FocalPoint 6

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 2-year Rainfall=3.87"

Area (ac)	CN	Description
0.080	49	50-75% Grass cover, Fair, HSG A
0.100	98	Paved parking, HSG A
0.180	76	Weighted Average
0.080		44.44% Pervious Area
0.100		55.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 6S: Area 6



Summary for Subcatchment 10S: South Bypass

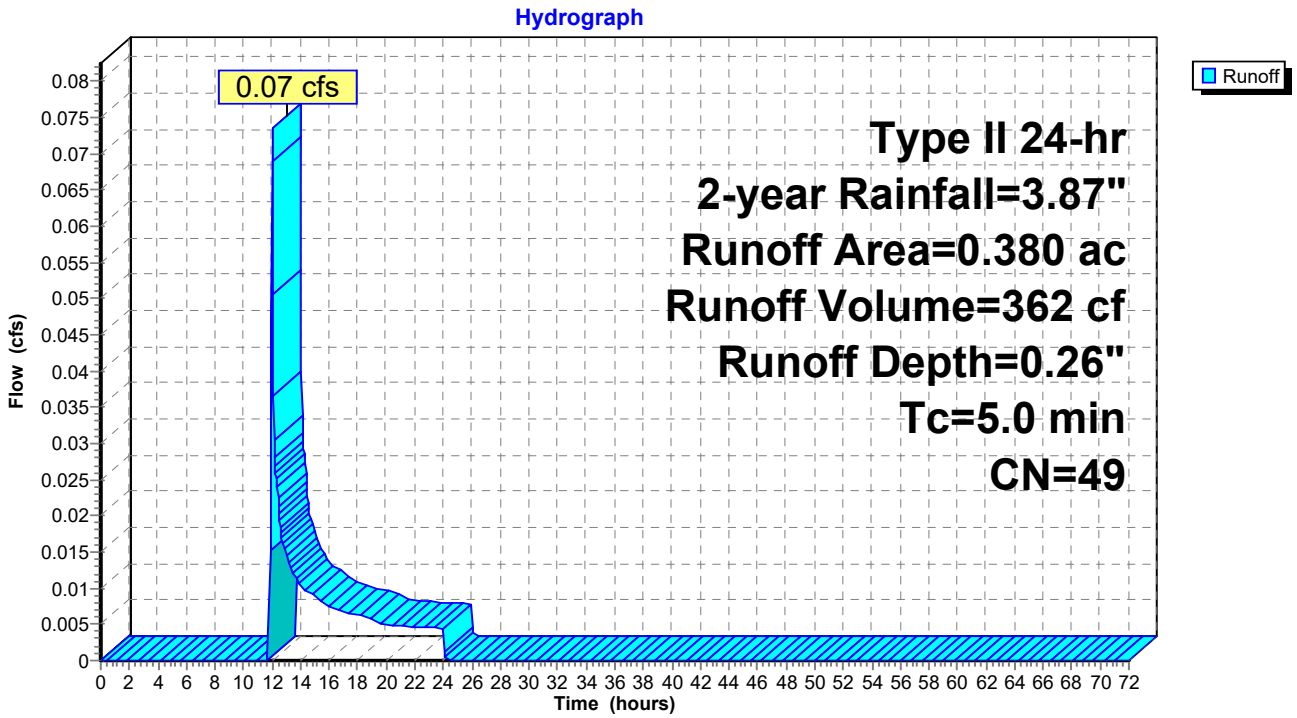
Runoff = 0.07 cfs @ 12.01 hrs, Volume= 362 cf, Depth= 0.26"
Routed to Link 1L : Outfall #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 2-year Rainfall=3.87"

Area (ac)	CN	Description
0.290	49	50-75% Grass cover, Fair, HSG A
0.070	36	Woods, Fair, HSG A
0.020	98	Paved parking, HSG A
0.380	49	Weighted Average
0.360		94.74% Pervious Area
0.020		5.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 10S: South Bypass



Summary for Reach 1R: Southern Trunk Line

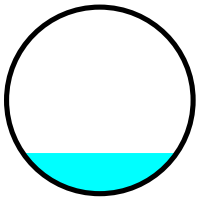
[52] Hint: Inlet/Outlet conditions not evaluated
[79] Warning: Submerged Pond 1DP Primary device # 1 INLET by 0.29'
[81] Warning: Exceeded Pond 2DP by 1.71' @ 0.00 hrs
[79] Warning: Submerged Pond 5FP Primary device # 1 INLET by 1.89'
[79] Warning: Submerged Pond 6FP Primary device # 1 INLET by 1.89'

Inflow Area = 187,308 sf, 64.19% Impervious, Inflow Depth > 1.64" for 2-year event
Inflow = 2.14 cfs @ 12.00 hrs, Volume= 25,522 cf
Outflow = 1.66 cfs @ 12.16 hrs, Volume= 25,519 cf, Atten= 23%, Lag= 9.6 min
Routed to Link 1L : Outfall #1

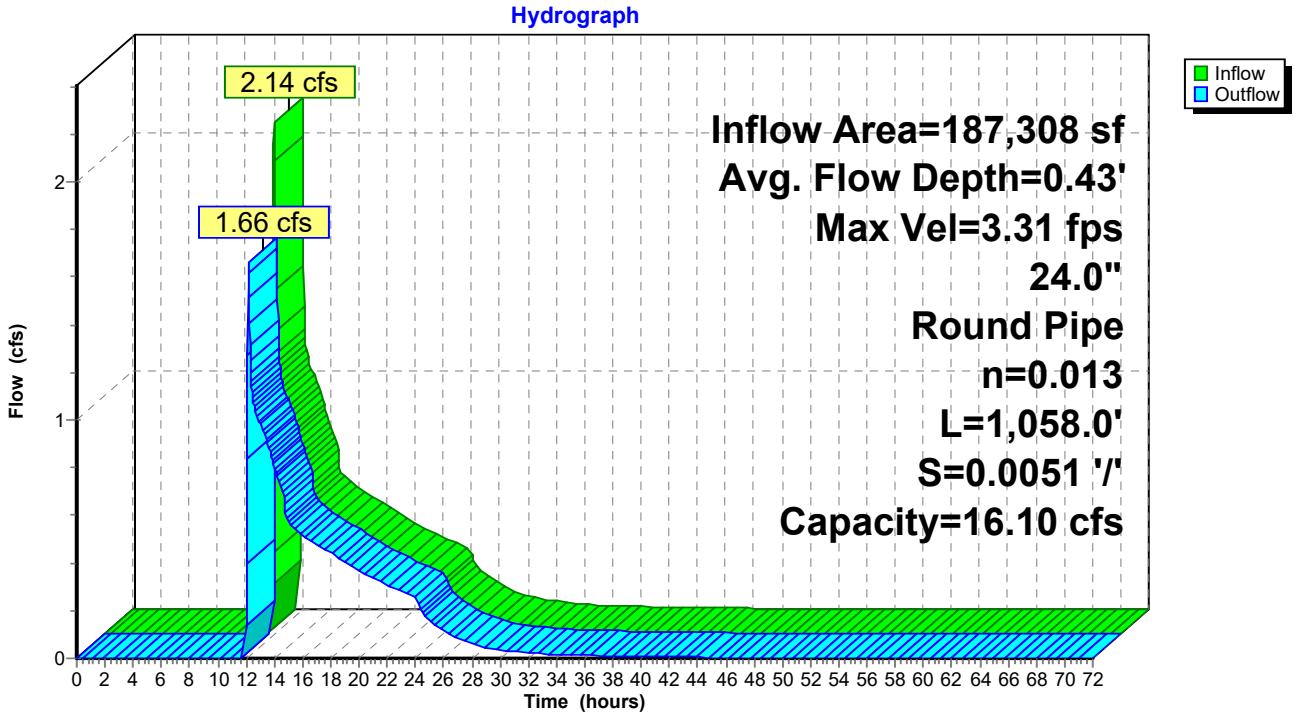
Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Max. Velocity= 3.31 fps, Min. Travel Time= 5.3 min
Avg. Velocity = 0.99 fps, Avg. Travel Time= 17.8 min

Peak Storage= 532 cf @ 12.07 hrs
Average Depth at Peak Storage= 0.43' , Surface Width= 1.65'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 16.10 cfs

24.0" Round Pipe
n= 0.013
Length= 1,058.0' Slope= 0.0051 '/'
Inlet Invert= 695.46', Outlet Invert= 690.10'



Reach 1R: Southern Trunk Line



Summary for Pond 1DP: Detention Pond 1

[44] Hint: Outlet device #2 is below defined storage
[79] Warning: Submerged Pond 1FP Primary device # 1 INLET by 1.12'

Inflow Area = 64,469 sf, 43.92% Impervious, Inflow Depth = 1.05" for 2-year event
Inflow = 2.95 cfs @ 11.98 hrs, Volume= 5,666 cf
Outflow = 0.49 cfs @ 12.21 hrs, Volume= 5,666 cf, Atten= 83%, Lag= 13.6 min
Primary = 0.49 cfs @ 12.21 hrs, Volume= 5,666 cf
Routed to Reach 1R : Southern Trunk Line

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 697.12' @ 12.21 hrs Surf.Area= 2,221 sf Storage= 1,527 cf

Plug-Flow detention time= 22.7 min calculated for 5,666 cf (100% of inflow)
Center-of-Mass det. time= 22.7 min (899.9 - 877.2)

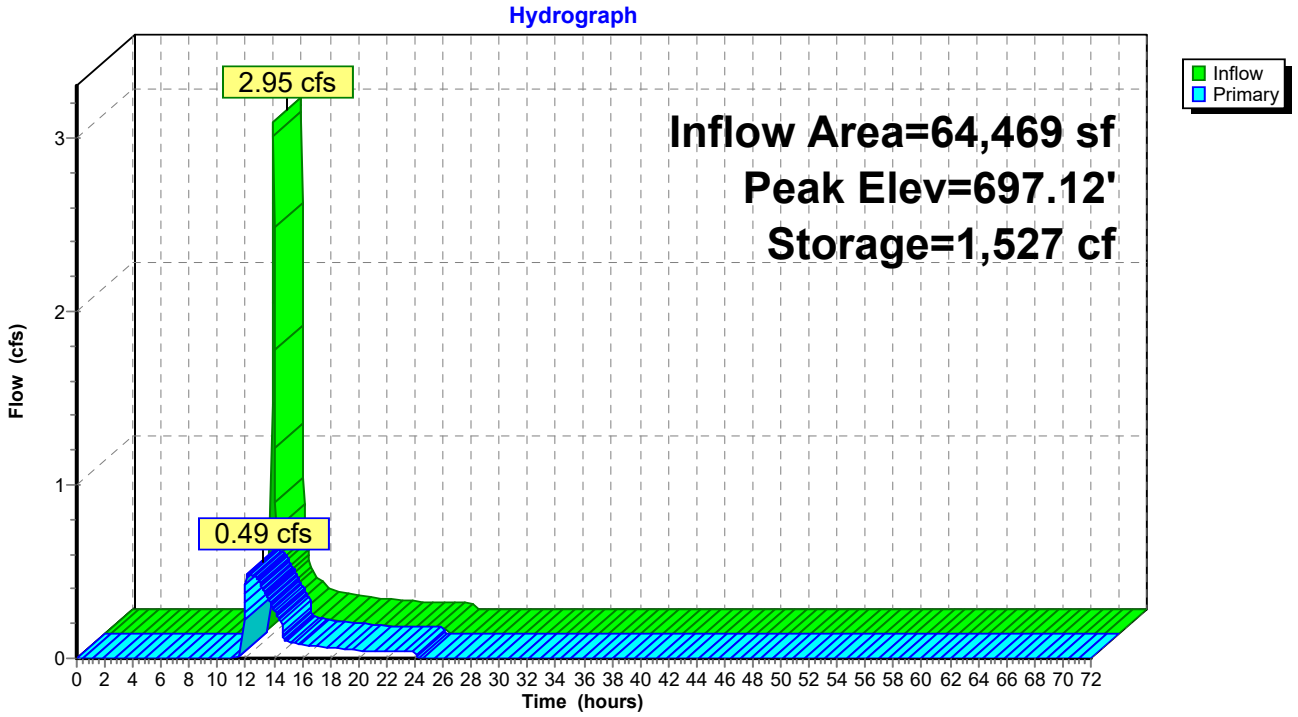
Volume	Invert	Avail.Storage	Storage Description
#1	695.80'	19,432 cf	**Custom Stage Data (Prismatic)** Listed below

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
695.80	0	0	0
696.00	285	29	29
697.00	2,098	1,192	1,220
698.00	3,151	2,625	3,845
699.00	4,138	3,645	7,489
700.00	5,311	4,725	12,214
701.00	9,125	7,218	19,432

Device	Routing	Invert	Outlet Devices
#1	Primary	695.60'	**18.0" Round Culvert** L= 28.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 695.60' / 695.46' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	695.60'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.49 cfs @ 12.21 hrs HW=697.12' TW=565.00' (Fixed TW Elev= 565.00')
└─**1=Culvert** (Passes 0.49 cfs of 6.04 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.49 cfs @ 5.60 fps)
  └─**3=Orifice/Grate** (Controls 0.00 cfs)

Pond 1DP: Detention Pond 1



Summary for Pond 1FP: FocalPoint 1

[92] Warning: Device #3 is above defined storage

Inflow Area = 64,469 sf, 43.92% Impervious, Inflow Depth = 1.12" for 2-year event
Inflow = 3.02 cfs @ 11.97 hrs, Volume= 6,036 cf
Outflow = 2.95 cfs @ 11.98 hrs, Volume= 5,666 cf, Atten= 2%, Lag= 0.8 min
Primary = 2.95 cfs @ 11.98 hrs, Volume= 5,666 cf
Routed to Pond 1DP : Detention Pond 1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 699.74' @ 11.98 hrs Surf.Area= 879 sf Storage= 553 cf

Plug-Flow detention time= 45.5 min calculated for 5,666 cf (94% of inflow)
Center-of-Mass det. time= 12.6 min (877.2 - 864.6)

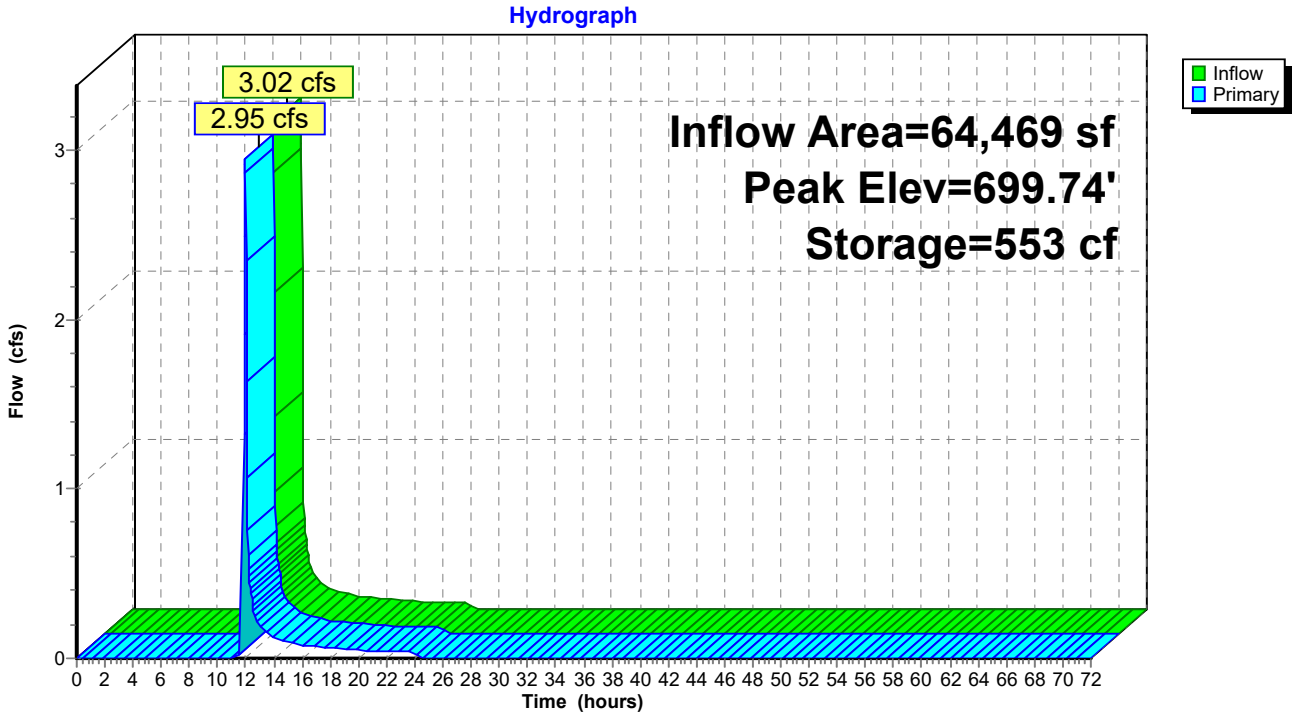
Volume	Invert	Avail.Storage	Storage Description
#1	696.00'	815 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
696.00	237	0.0	0	0
699.00	237	20.0	142	142
700.00	1,109	100.0	673	815

Device	Routing	Invert	Outlet Devices
#1	Primary	696.00'	**18.0" Round Culvert** L= 40.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 696.00' / 695.80' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**10.0' long x 18.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=2.89 cfs @ 11.98 hrs HW=699.73' (Free Discharge)
└**1=Culvert** (Passes 2.89 cfs of 14.70 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 2.89 cfs @ 1.58 fps)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1FP: FocalPoint 1



Summary for Pond 2DP: Detention Pond 2

[79] Warning: Submerged Pond 2FP Primary device # 1 INLET by 0.68'
[79] Warning: Submerged Pond 3FP Primary device # 1 OUTLET by 1.18'

Inflow Area = 95,832 sf, 79.09% Impervious, Inflow Depth = 2.26" for 2-year event
Inflow = 10.36 cfs @ 11.97 hrs, Volume= 18,026 cf
Outflow = 0.42 cfs @ 13.31 hrs, Volume= 17,072 cf, Atten= 96%, Lag= 80.4 min
Primary = 0.42 cfs @ 13.31 hrs, Volume= 17,072 cf
Routed to Reach 1R : Southern Trunk Line

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 695.18' @ 13.31 hrs Surf.Area= 8,711 sf Storage= 9,903 cf

Plug-Flow detention time= 355.6 min calculated for 17,072 cf (95% of inflow)
Center-of-Mass det. time= 326.2 min (1,158.2 - 832.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	693.75'	3,019 cf	**38.12'W x 114.25'L x 4.79'H Field A** 20,877 cf Overall - 13,330 cf Embedded = 7,547 cf x 40.0% Voids
#2A	694.00'	12,663 cf	**Ferguson R-Tank HD 2.5** x 1222 Inside #1 Inside= 15.7"W x 42.5"H => 4.42 sf x 2.35'L = 10.4 cf Outside= 15.7"W x 42.5"H => 4.65 sf x 2.35'L = 10.9 cf 1222 Chambers in 26 Rows
#3B	693.75'	3,019 cf	**38.12'W x 114.25'L x 4.79'H Field B** 20,877 cf Overall - 13,330 cf Embedded = 7,547 cf x 40.0% Voids
#4B	694.00'	12,663 cf	**Ferguson R-Tank HD 2.5** x 1222 Inside #3 Inside= 15.7"W x 42.5"H => 4.42 sf x 2.35'L = 10.4 cf Outside= 15.7"W x 42.5"H => 4.65 sf x 2.35'L = 10.9 cf 1222 Chambers in 26 Rows
		31,364 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	694.00'	**18.0" Round Culvert** L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.00' / 693.20' S= 0.0800 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	694.00'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	697.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.42 cfs @ 13.31 hrs HW=695.18' TW=565.00' (Fixed TW Elev= 565.00')
- **1=Culvert** (Passes 0.42 cfs of 5.55 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.42 cfs @ 4.86 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 2DP: Detention Pond 2 - Chamber Wizard Field A

Chamber Model = Ferguson R-Tank HD 2.5 (Ferguson R-Tank HD)
Inside= 15.7"W x 42.5"H => 4.42 sf x 2.35'L = 10.4 cf
Outside= 15.7"W x 42.5"H => 4.65 sf x 2.35'L = 10.9 cf

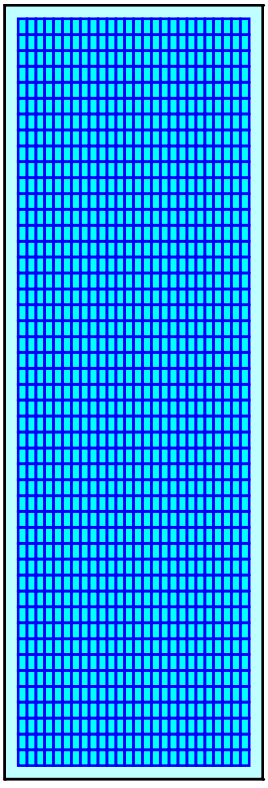
47 Chambers/Row x 2.35' Long = 110.25' Row Length +24.0" End Stone x 2 = 114.25' Base Length
26 Rows x 15.7" Wide + 24.0" Side Stone x 2 = 38.12' Base Width
3.0" Stone Base + 42.5" Chamber Height + 12.0" Stone Cover = 4.79' Field Height

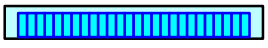
1,222 Chambers x 10.4 cf = 12,663.1 cf Chamber Storage
1,222 Chambers x 10.9 cf = 13,329.6 cf Displacement

20,876.7 cf Field - 13,329.6 cf Chambers = 7,547.2 cf Stone x 40.0% Voids = 3,018.9 cf Stone Storage

Chamber Storage + Stone Storage = 15,682.0 cf = 0.360 af
Overall Storage Efficiency = 75.1%
Overall System Size = 114.25' x 38.12' x 4.79'

1,222 Chambers
773.2 cy Field
279.5 cy Stone





Pond 2DP: Detention Pond 2 - Chamber Wizard Field B

Chamber Model = Ferguson R-Tank HD 2.5 (Ferguson R-Tank HD)
Inside= 15.7"W x 42.5"H => 4.42 sf x 2.35'L = 10.4 cf
Outside= 15.7"W x 42.5"H => 4.65 sf x 2.35'L = 10.9 cf

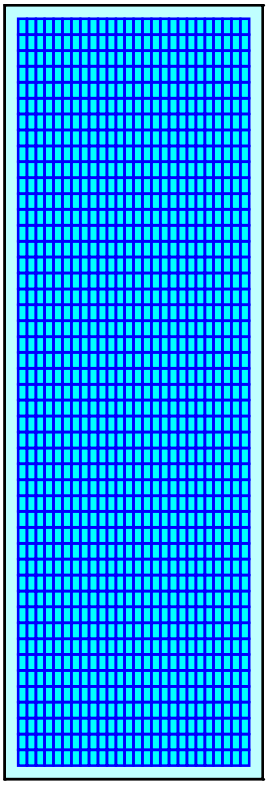
47 Chambers/Row x 2.35' Long = 110.25' Row Length +24.0" End Stone x 2 = 114.25' Base Length
26 Rows x 15.7" Wide + 24.0" Side Stone x 2 = 38.12' Base Width
3.0" Stone Base + 42.5" Chamber Height + 12.0" Stone Cover = 4.79' Field Height

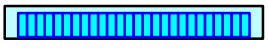
1,222 Chambers x 10.4 cf = 12,663.1 cf Chamber Storage
1,222 Chambers x 10.9 cf = 13,329.6 cf Displacement

20,876.7 cf Field - 13,329.6 cf Chambers = 7,547.2 cf Stone x 40.0% Voids = 3,018.9 cf Stone Storage

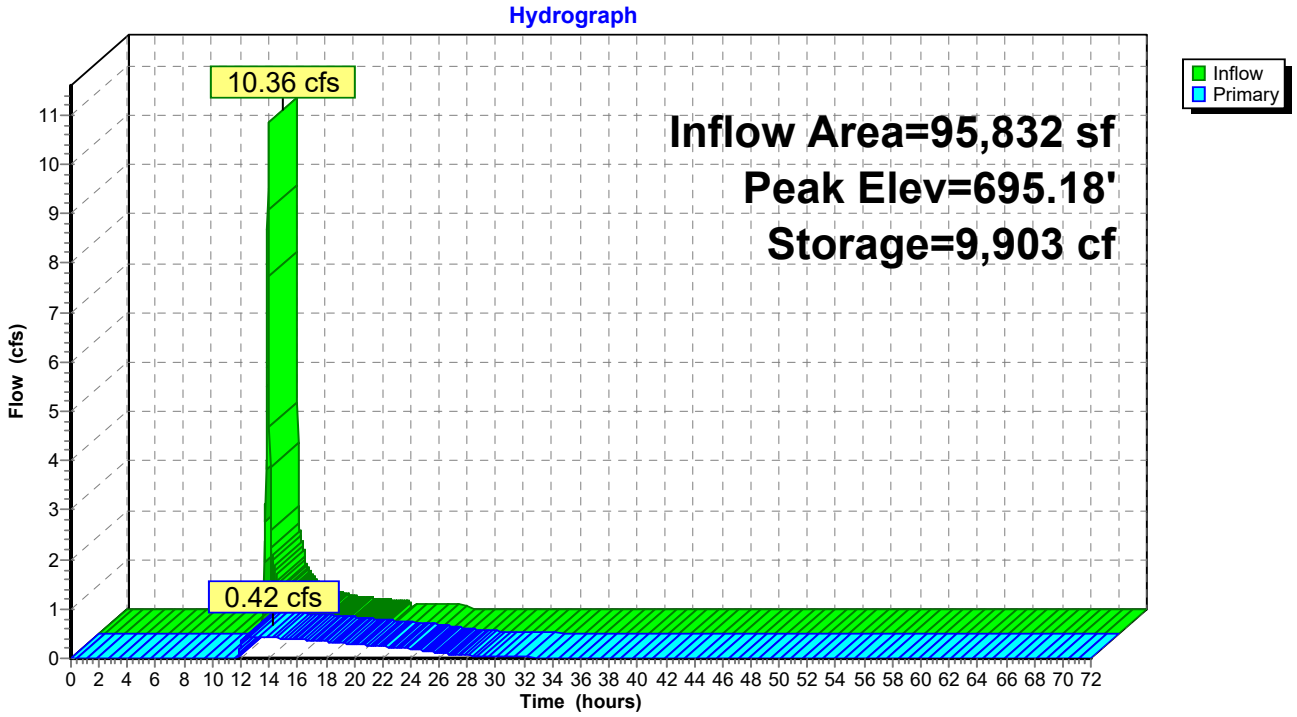
Chamber Storage + Stone Storage = 15,682.0 cf = 0.360 af
Overall Storage Efficiency = 75.1%
Overall System Size = 114.25' x 38.12' x 4.79'

1,222 Chambers
773.2 cy Field
279.5 cy Stone





Pond 2DP: Detention Pond 2



Summary for Pond 2FP: FocalPoint 2

Inflow Area = 31,363 sf, 83.33% Impervious, Inflow Depth = 2.80" for 2-year event
Inflow = 3.51 cfs @ 11.96 hrs, Volume= 7,308 cf
Outflow = 3.42 cfs @ 11.97 hrs, Volume= 6,586 cf, Atten= 3%, Lag= 0.9 min
Primary = 3.42 cfs @ 11.97 hrs, Volume= 6,586 cf
Routed to Pond 2DP : Detention Pond 2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 698.26' @ 11.97 hrs Surf.Area= 1,195 sf Storage= 1,016 cf

Plug-Flow detention time= 77.6 min calculated for 6,583 cf (90% of inflow)
Center-of-Mass det. time= 27.1 min (822.8 - 795.7)

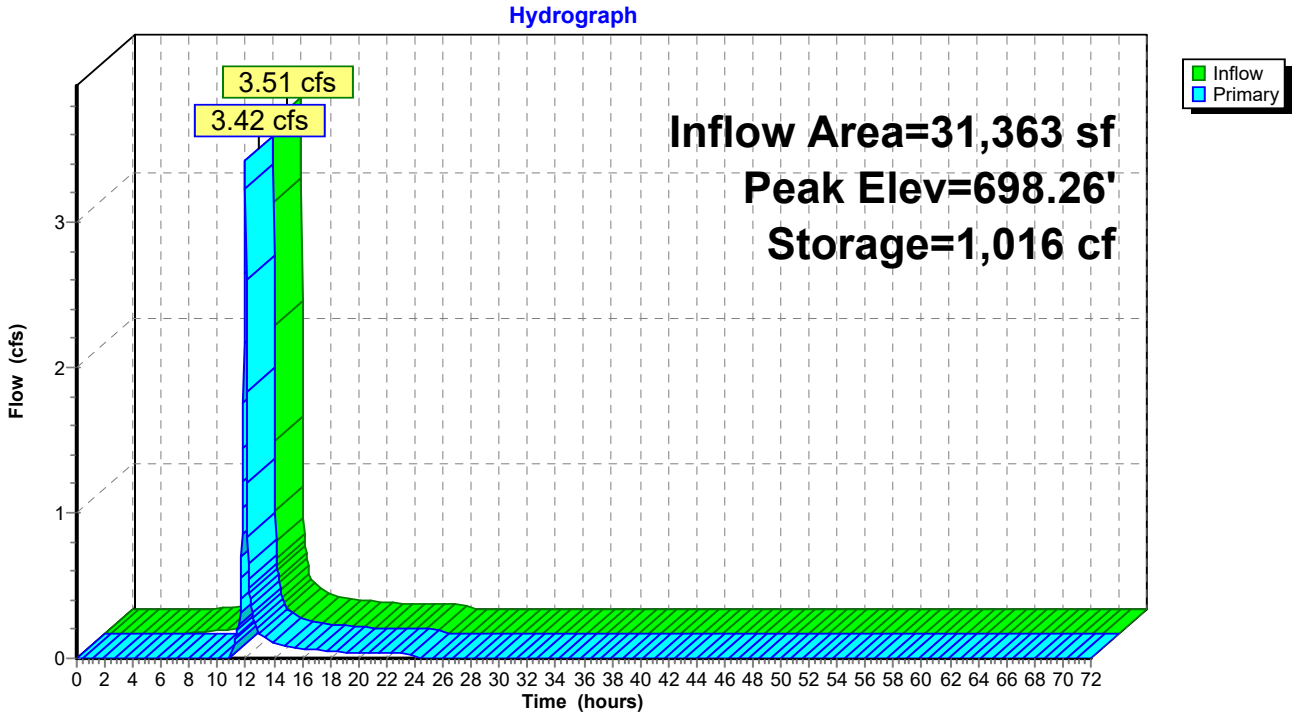
Volume	Invert	Avail.Storage	Storage Description
#1	694.50'	1,317 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
694.50	539	0.0	0	0
697.50	539	20.0	323	323
698.00	1,056	100.0	399	722
698.50	1,323	100.0	595	1,317

Device	Routing	Invert	Outlet Devices
#1	Primary	694.50'	**18.0" Round Culvert** L= 28.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.50' / 694.00' S= 0.0179 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	698.00'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=3.40 cfs @ 11.97 hrs HW=698.26' (Free Discharge)
└**1=Culvert** (Passes 3.40 cfs of 14.76 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 3.40 cfs @ 1.67 fps)

Pond 2FP: FocalPoint 2



Summary for Pond 3FP: FocalPoint 3

Inflow Area = 16,553 sf, 71.05% Impervious, Inflow Depth = 2.26" for 2-year event
Inflow = 1.56 cfs @ 11.96 hrs, Volume= 3,113 cf
Outflow = 1.52 cfs @ 11.98 hrs, Volume= 2,393 cf, Atten= 3%, Lag= 1.0 min
Primary = 1.52 cfs @ 11.98 hrs, Volume= 2,393 cf
Routed to Pond 2DP : Detention Pond 2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 699.65' @ 11.98 hrs Surf.Area= 907 sf Storage= 852 cf

Plug-Flow detention time= 133.9 min calculated for 2,393 cf (77% of inflow)
Center-of-Mass det. time= 44.1 min (861.2 - 817.1)

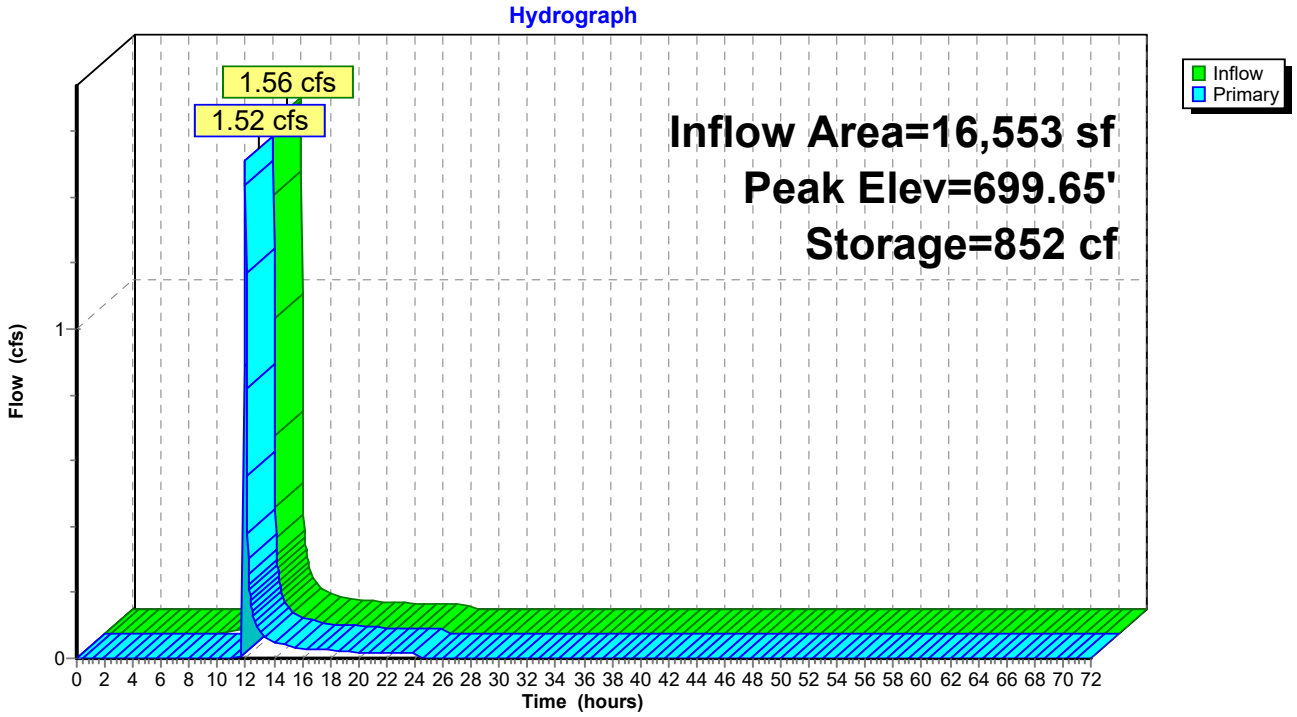
Volume	Invert	Avail.Storage	Storage Description
#1	696.00'	1,197 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
696.00	602	0.0	0	0
699.00	602	20.0	361	361
700.00	1,070	100.0	836	1,197

Device	Routing	Invert	Outlet Devices
#1	Primary	696.00'	**18.0" Round Culvert** L= 80.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 696.00' / 694.00' S= 0.0250 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.49 cfs @ 11.98 hrs HW=699.65' (Free Discharge)
↑**1=Culvert** (Passes 1.49 cfs of 14.49 cfs potential flow)
↑**2=Orifice/Grate** (Weir Controls 1.49 cfs @ 1.27 fps)

Pond 3FP: FocalPoint 3



Summary for Pond 4FP: FocalPoint 4

[92] Warning: Device #2 is above defined storage
[92] Warning: Device #3 is above defined storage
[93] Warning: Storage range exceeded by 0.86'
[88] Warning: Qout>Qin may require smaller dt or Finer Routing
[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=204)

Inflow Area = 47,916 sf, 79.09% Impervious, Inflow Depth = 2.61" for 2-year event
Inflow = 5.09 cfs @ 11.96 hrs, Volume= 10,416 cf
Outflow = 5.44 cfs @ 11.97 hrs, Volume= 9,048 cf, Atten= 0%, Lag= 0.4 min
Primary = 5.44 cfs @ 11.97 hrs, Volume= 9,048 cf
Routed to Pond 2DP : Detention Pond 2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 699.86' @ 11.97 hrs Surf.Area= 1,491 sf Storage= 1,389 cf

Plug-Flow detention time= 89.8 min calculated for 9,044 cf (87% of inflow)
Center-of-Mass det. time= 27.6 min (831.0 - 803.5)

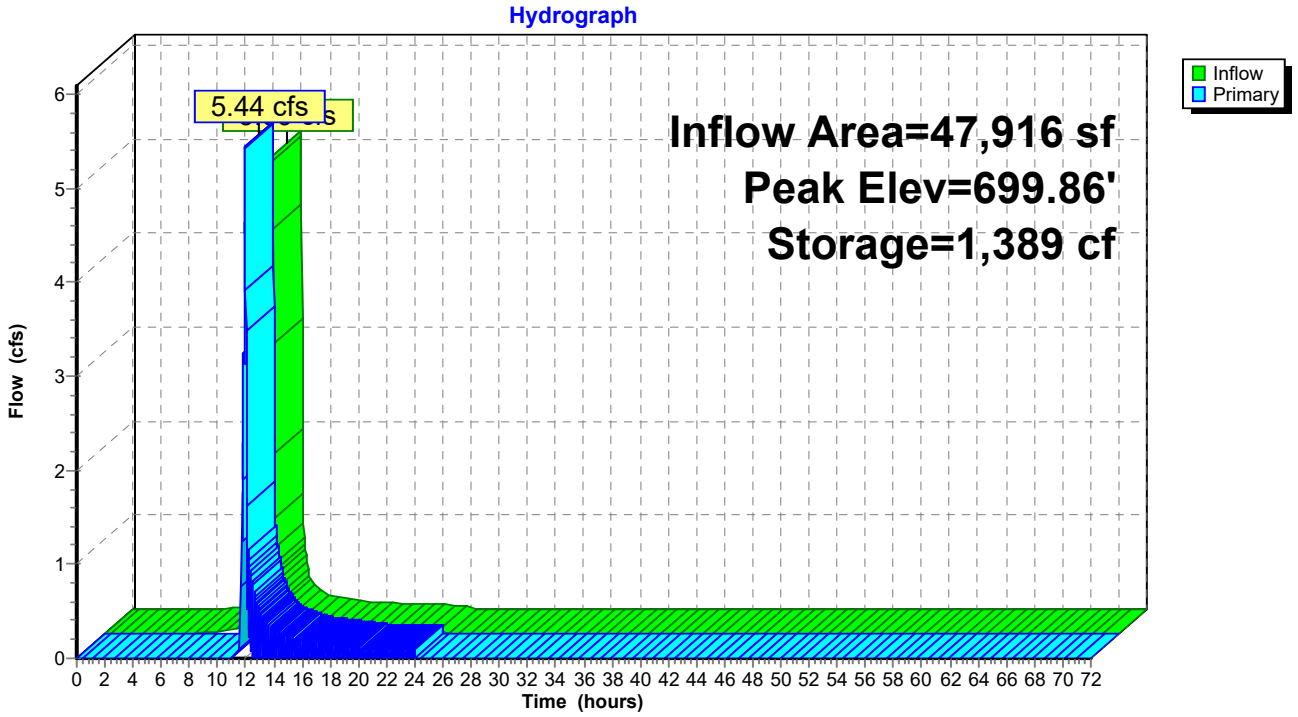
Volume	Invert	Avail.Storage	Storage Description
#1	695.00'	1,389 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
695.00	585	0.0	0	0
698.00	585	20.0	351	351
699.00	1,491	100.0	1,038	1,389

Device	Routing	Invert	Outlet Devices
#1	Primary	696.00'	**18.0" Round Culvert** L= 23.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 696.00' / 695.88' S= 0.0052 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**6.0' long x 133.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=5.30 cfs @ 11.97 hrs HW=699.85' (Free Discharge)
- **1=Culvert** (Passes 5.30 cfs of 14.98 cfs potential flow)
- **2=Orifice/Grate** (Weir Controls 5.30 cfs @ 1.93 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 4FP: FocalPoint 4



Summary for Pond 5FP: FocalPoint 5

Inflow Area = 19,166 sf, 61.36% Impervious, Inflow Depth = 1.86" for 2-year event
Inflow = 1.51 cfs @ 11.96 hrs, Volume= 2,968 cf
Outflow = 1.43 cfs @ 11.99 hrs, Volume= 2,340 cf, Atten= 5%, Lag= 1.3 min
Primary = 1.43 cfs @ 11.99 hrs, Volume= 2,340 cf
Routed to Reach 1R : Southern Trunk Line

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 697.65' @ 11.99 hrs Surf.Area= 1,035 sf Storage= 770 cf

Plug-Flow detention time= 126.8 min calculated for 2,339 cf (79% of inflow)
Center-of-Mass det. time= 39.3 min (871.5 - 832.2)

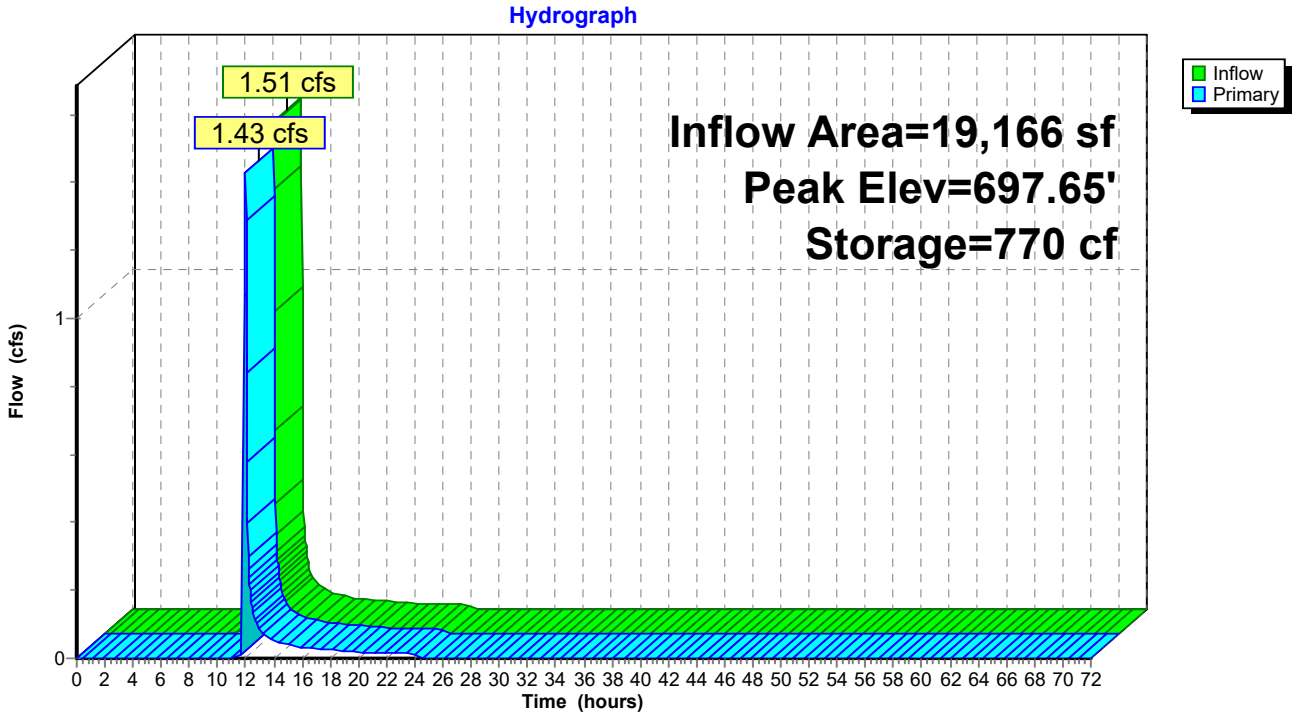
Volume	Invert	Avail.Storage	Storage Description
#1	694.00'	2,779 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
694.00	472	0.0	0	0
697.00	472	20.0	283	283
698.00	1,344	100.0	908	1,191
699.00	1,832	100.0	1,588	2,779

Device	Routing	Invert	Outlet Devices
#1	Primary	694.00'	**18.0" Round Culvert** L= 24.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.00' / 691.39' S= 0.1088 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	697.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	698.50'	**6.0' long x 9.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.46 2.55 2.70 2.69 2.68 2.68 2.67 2.64 2.64 2.64 2.65 2.64 2.65 2.65 2.66 2.67 2.69

Primary OutFlow Max=1.40 cfs @ 11.99 hrs HW=697.64' (Free Discharge)
└**1=Culvert** (Passes 1.40 cfs of 14.47 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 1.40 cfs @ 1.24 fps)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 5FP: FocalPoint 5



Summary for Pond 6FP: FocalPoint 6

Inflow Area = 7,841 sf, 55.56% Impervious, Inflow Depth = 1.64" for 2-year event
Inflow = 0.55 cfs @ 11.96 hrs, Volume= 1,071 cf
Outflow = 0.03 cfs @ 12.98 hrs, Volume= 443 cf, Atten= 94%, Lag= 60.8 min
Primary = 0.03 cfs @ 12.98 hrs, Volume= 443 cf
Routed to Reach 1R : Southern Trunk Line

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 697.51' @ 12.98 hrs Surf.Area= 913 sf Storage= 633 cf

Plug-Flow detention time= 306.8 min calculated for 443 cf (41% of inflow)
Center-of-Mass det. time= 176.1 min (1,016.9 - 840.8)

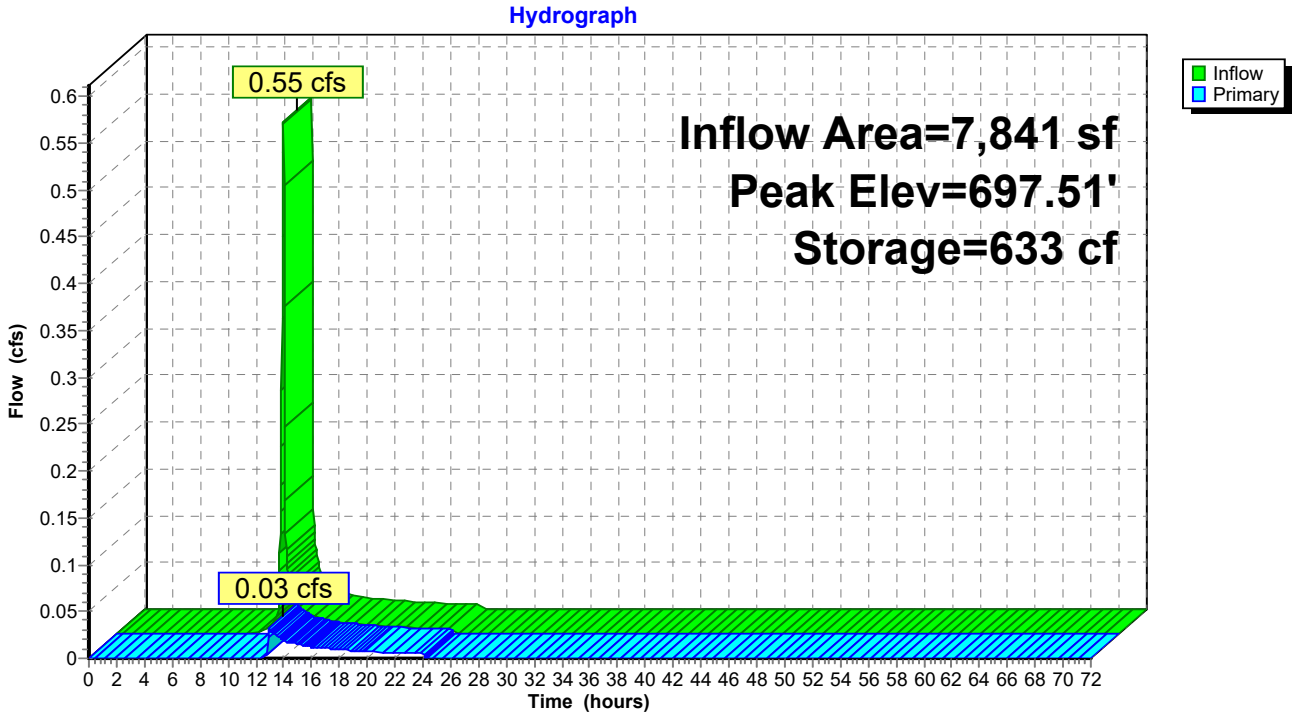
Volume	Invert	Avail.Storage	Storage Description
#1	694.00'	2,779 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
694.00	472	0.0	0	0
697.00	472	20.0	283	283
698.00	1,344	100.0	908	1,191
699.00	1,832	100.0	1,588	2,779

Device	Routing	Invert	Outlet Devices
#1	Primary	694.00'	**18.0" Round Culvert** L= 24.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.00' / 690.87' S= 0.1304 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	697.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	698.50'	**6.0' long x 9.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.46 2.55 2.70 2.69 2.68 2.68 2.67 2.64 2.64 2.64 2.65 2.64 2.65 2.65 2.66 2.67 2.69

Primary OutFlow Max=0.01 cfs @ 12.98 hrs HW=697.51' (Free Discharge)
└**1=Culvert** (Passes 0.01 cfs of 14.12 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 0.01 cfs @ 0.24 fps)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 6FP: FocalPoint 6

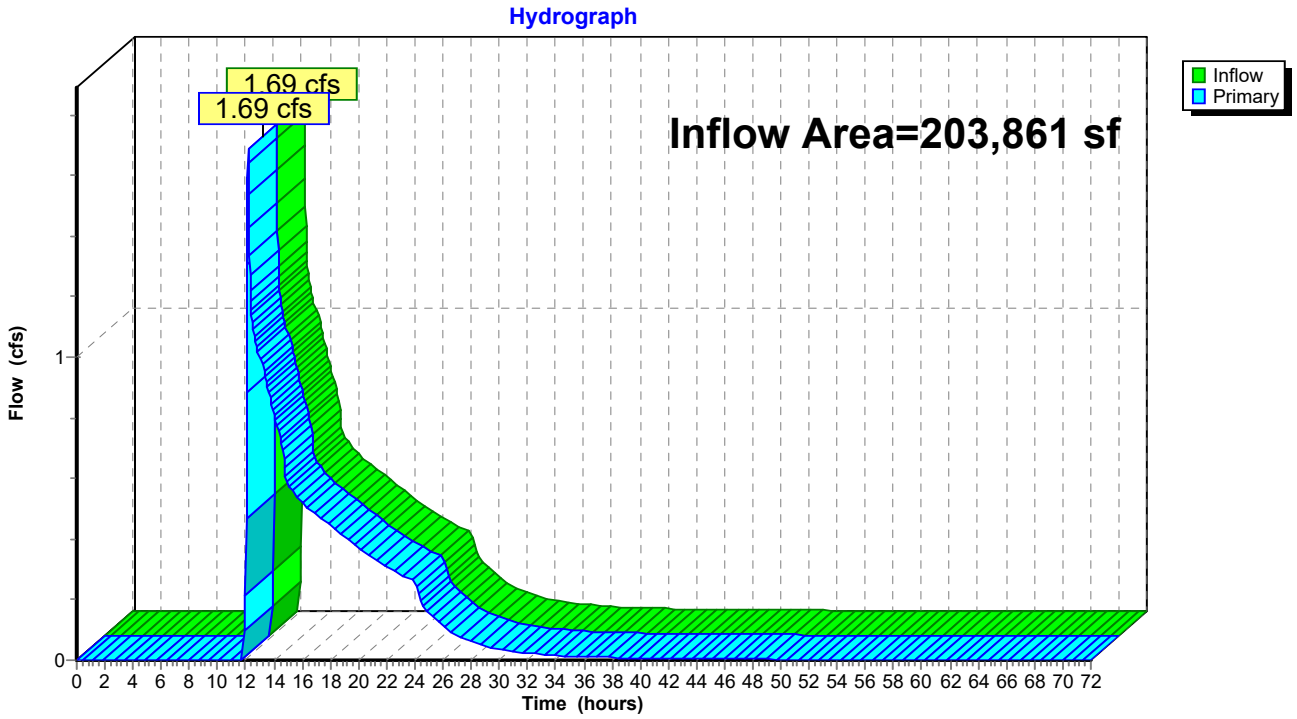


Summary for Link 1L: Outfall #1

Inflow Area = 203,861 sf, 59.40% Impervious, Inflow Depth > 1.52" for 2-year event
Inflow = 1.69 cfs @ 12.16 hrs, Volume= 25,881 cf
Primary = 1.69 cfs @ 12.16 hrs, Volume= 25,881 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs

Link 1L: Outfall #1



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Area 1 Runoff Area=1.480 ac 43.92% Impervious Runoff Depth=1.68"
Tc=5.0 min CN=68 Runoff=4.57 cfs 9,004 cf

Subcatchment2S: Area 2 Runoff Area=0.720 ac 83.33% Impervious Runoff Depth=3.60"
Tc=5.0 min CN=90 Runoff=4.45 cfs 9,402 cf

Subcatchment3S: Area 3 Runoff Area=0.380 ac 71.05% Impervious Runoff Depth=3.01"
Tc=5.0 min CN=84 Runoff=2.05 cfs 4,147 cf

Subcatchment4S: Area 4 Runoff Area=1.100 ac 79.09% Impervious Runoff Depth=3.39"
Tc=5.0 min CN=88 Runoff=6.52 cfs 13,553 cf

Subcatchment5S: Area 5 Runoff Area=0.440 ac 61.36% Impervious Runoff Depth=2.55"
Tc=5.0 min CN=79 Runoff=2.06 cfs 4,079 cf

Subcatchment6S: Area 6 Runoff Area=0.180 ac 55.56% Impervious Runoff Depth=2.30"
Tc=5.0 min CN=76 Runoff=0.76 cfs 1,502 cf

Subcatchment10S: South Bypass Runoff Area=0.380 ac 5.26% Impervious Runoff Depth=0.53"
Tc=5.0 min CN=49 Runoff=0.26 cfs 731 cf

Reach 1R: Southern Trunk Line Avg. Flow Depth=0.54' Max Vel=3.73 fps Inflow=2.88 cfs 36,273 cf
24.0" Round Pipe n=0.013 L=1,058.0' S=0.0051 '/' Capacity=16.10 cfs Outflow=2.51 cfs 36,270 cf

Pond 1DP: Detention Pond 1 Peak Elev=697.64' Storage=2,896 cf Inflow=4.48 cfs 8,635 cf
Outflow=0.57 cfs 8,635 cf

Pond 1FP: FocalPoint 1 Peak Elev=699.81' Storage=622 cf Inflow=4.57 cfs 9,004 cf
Outflow=4.48 cfs 8,635 cf

Pond 2DP: Detention Pond 2 Peak Elev=695.73' Storage=14,049 cf Inflow=12.93 cfs 24,277 cf
Outflow=0.53 cfs 23,314 cf

Pond 2FP: FocalPoint 2 Peak Elev=698.31' Storage=1,070 cf Inflow=4.45 cfs 9,402 cf
Outflow=4.34 cfs 8,679 cf

Pond 3FP: FocalPoint 3 Peak Elev=699.68' Storage=881 cf Inflow=2.05 cfs 4,147 cf
Outflow=2.00 cfs 3,426 cf

Pond 4FP: FocalPoint 4 Peak Elev=699.91' Storage=1,389 cf Inflow=6.52 cfs 13,553 cf
Outflow=6.62 cfs 12,171 cf

Pond 5FP: FocalPoint 5 Peak Elev=697.68' Storage=807 cf Inflow=2.06 cfs 4,079 cf
Outflow=1.99 cfs 3,451 cf

Pond 6FP: FocalPoint 6 Peak Elev=697.54' Storage=667 cf Inflow=0.76 cfs 1,502 cf
Outflow=0.24 cfs 874 cf

Link 1L: Outfall #1

Inflow=2.58 cfs 37,001 cf
Primary=2.58 cfs 37,001 cf

Total Runoff Area = 203,861 sf Runoff Volume = 42,418 cf Average Runoff Depth = 2.50"
40.60% Pervious = 82,764 sf 59.40% Impervious = 121,097 sf

Summary for Subcatchment 1S: Area 1

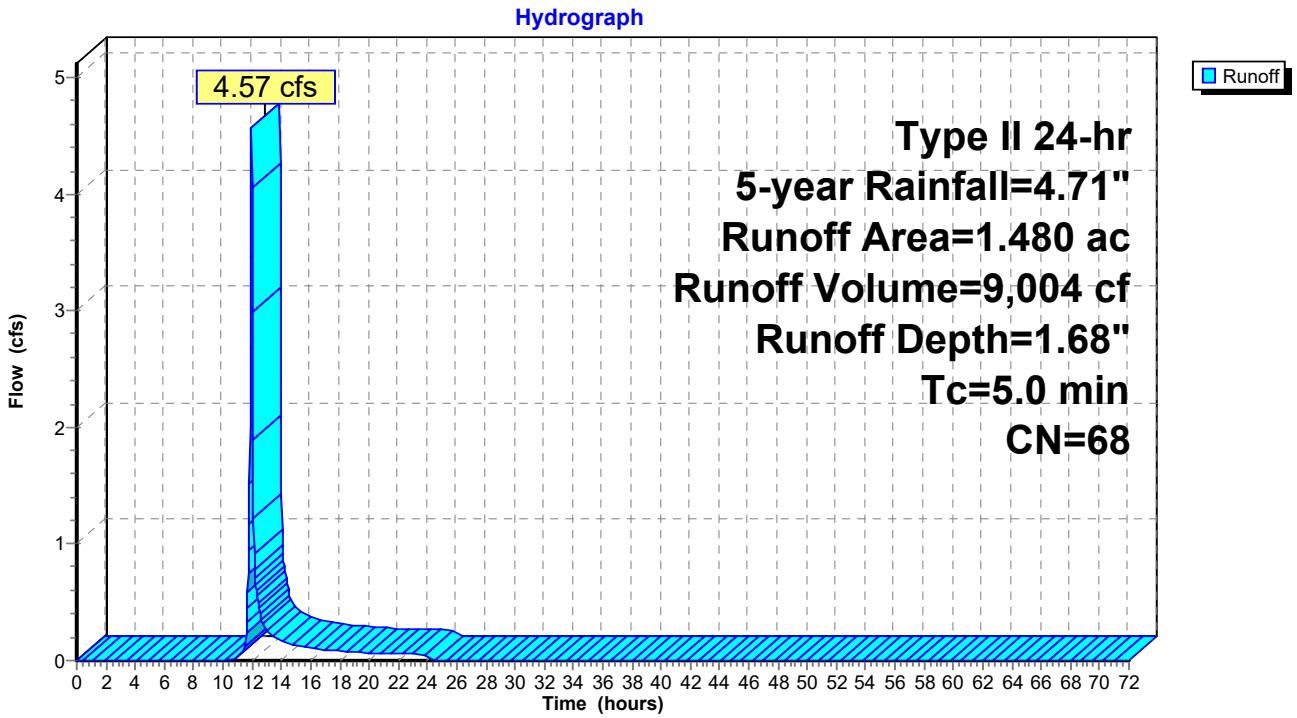
Runoff = 4.57 cfs @ 11.97 hrs, Volume= 9,004 cf, Depth= 1.68"
Routed to Pond 1FP : FocalPoint 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 5-year Rainfall=4.71"

Area (ac)	CN	Description
0.510	49	50-75% Grass cover, Fair, HSG A
0.320	36	Woods, Fair, HSG A
0.650	98	Paved parking, HSG A
1.480	68	Weighted Average
0.830		56.08% Pervious Area
0.650		43.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 1S: Area 1



Summary for Subcatchment 2S: Area 2

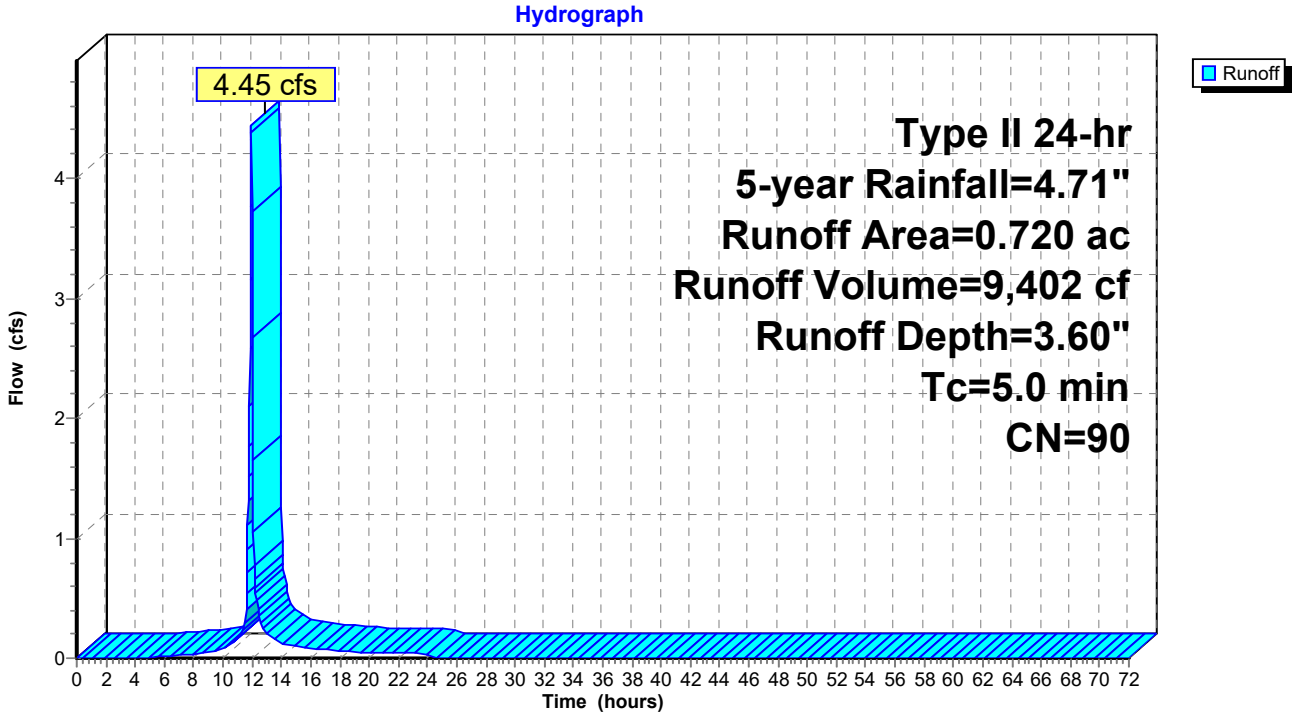
Runoff = 4.45 cfs @ 11.96 hrs, Volume= 9,402 cf, Depth= 3.60"
Routed to Pond 2FP : FocalPoint 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 5-year Rainfall=4.71"

Area (ac)	CN	Description
0.120	49	50-75% Grass cover, Fair, HSG A
0.600	98	Paved parking, HSG A
0.720	90	Weighted Average
0.120		16.67% Pervious Area
0.600		83.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 2S: Area 2



Summary for Subcatchment 3S: Area 3

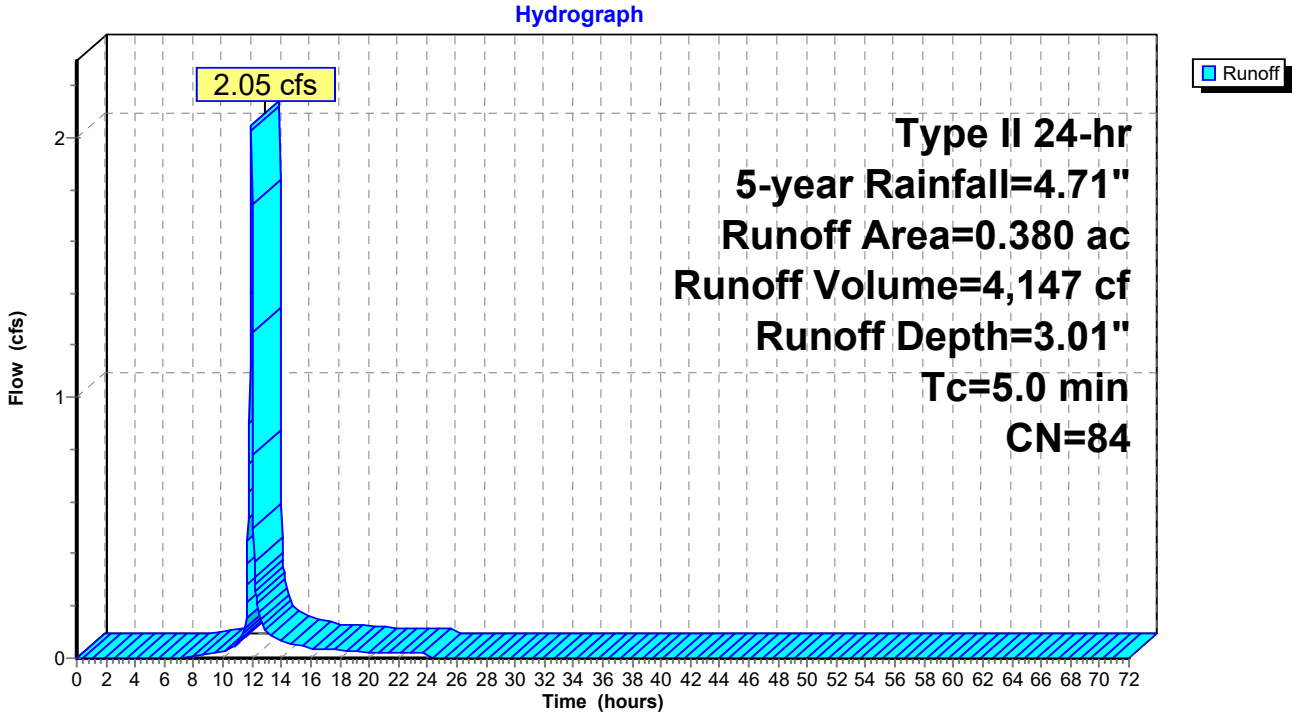
Runoff = 2.05 cfs @ 11.96 hrs, Volume= 4,147 cf, Depth= 3.01"
Routed to Pond 3FP : FocalPoint 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 5-year Rainfall=4.71"

Area (ac)	CN	Description
0.110	49	50-75% Grass cover, Fair, HSG A
0.270	98	Paved parking, HSG A
0.380	84	Weighted Average
0.110		28.95% Pervious Area
0.270		71.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 3S: Area 3



Summary for Subcatchment 4S: Area 4

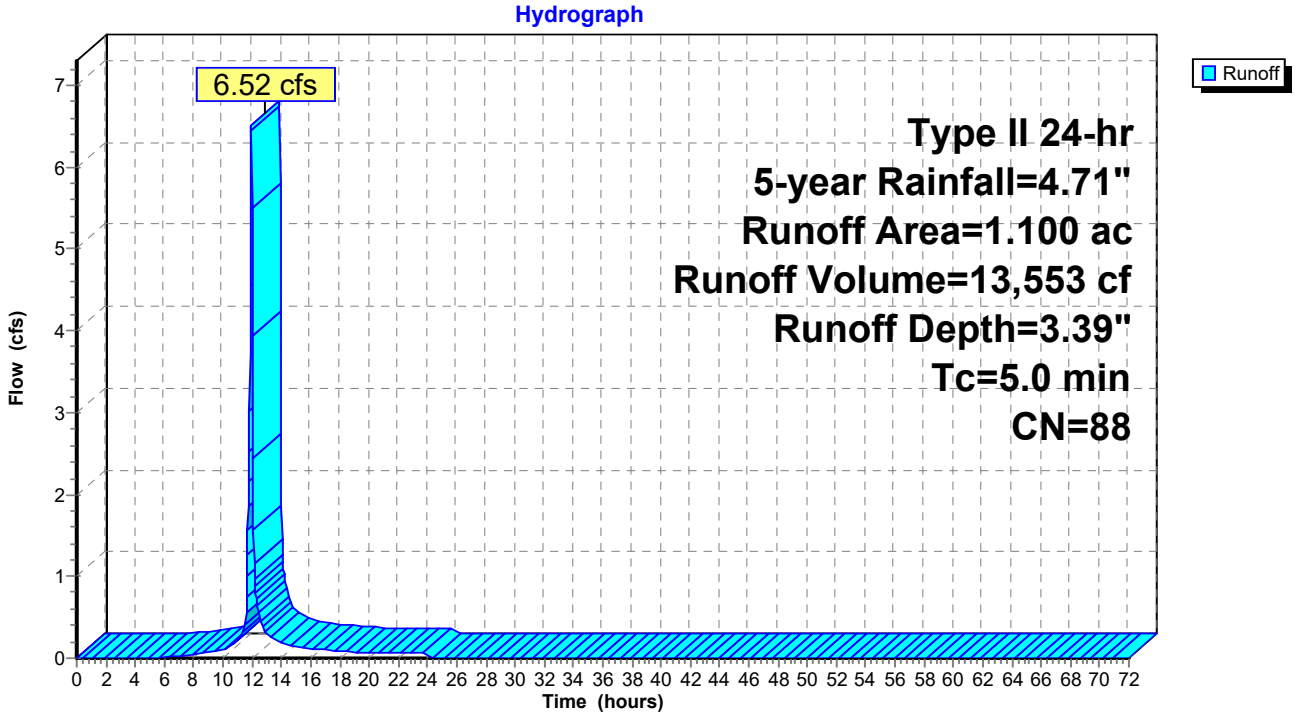
Runoff = 6.52 cfs @ 11.96 hrs, Volume= 13,553 cf, Depth= 3.39"
Routed to Pond 4FP : FocalPoint 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 5-year Rainfall=4.71"

Area (ac)	CN	Description
0.230	49	50-75% Grass cover, Fair, HSG A
0.870	98	Paved parking, HSG A
1.100	88	Weighted Average
0.230		20.91% Pervious Area
0.870		79.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 4S: Area 4



Summary for Subcatchment 5S: Area 5

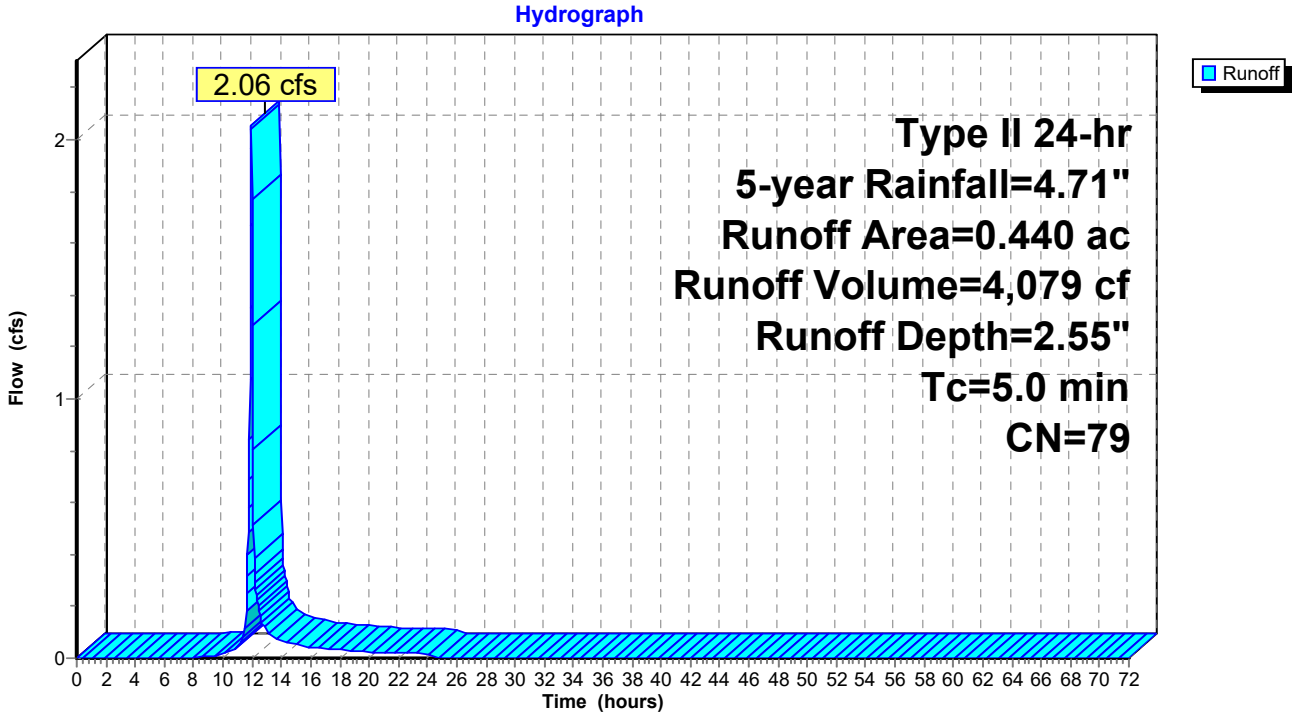
Runoff = 2.06 cfs @ 11.96 hrs, Volume= 4,079 cf, Depth= 2.55"
Routed to Pond 5FP : FocalPoint 5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 5-year Rainfall=4.71"

Area (ac)	CN	Description
0.170	49	50-75% Grass cover, Fair, HSG A
0.270	98	Paved parking, HSG A
0.440	79	Weighted Average
0.170		38.64% Pervious Area
0.270		61.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 5S: Area 5



Summary for Subcatchment 6S: Area 6

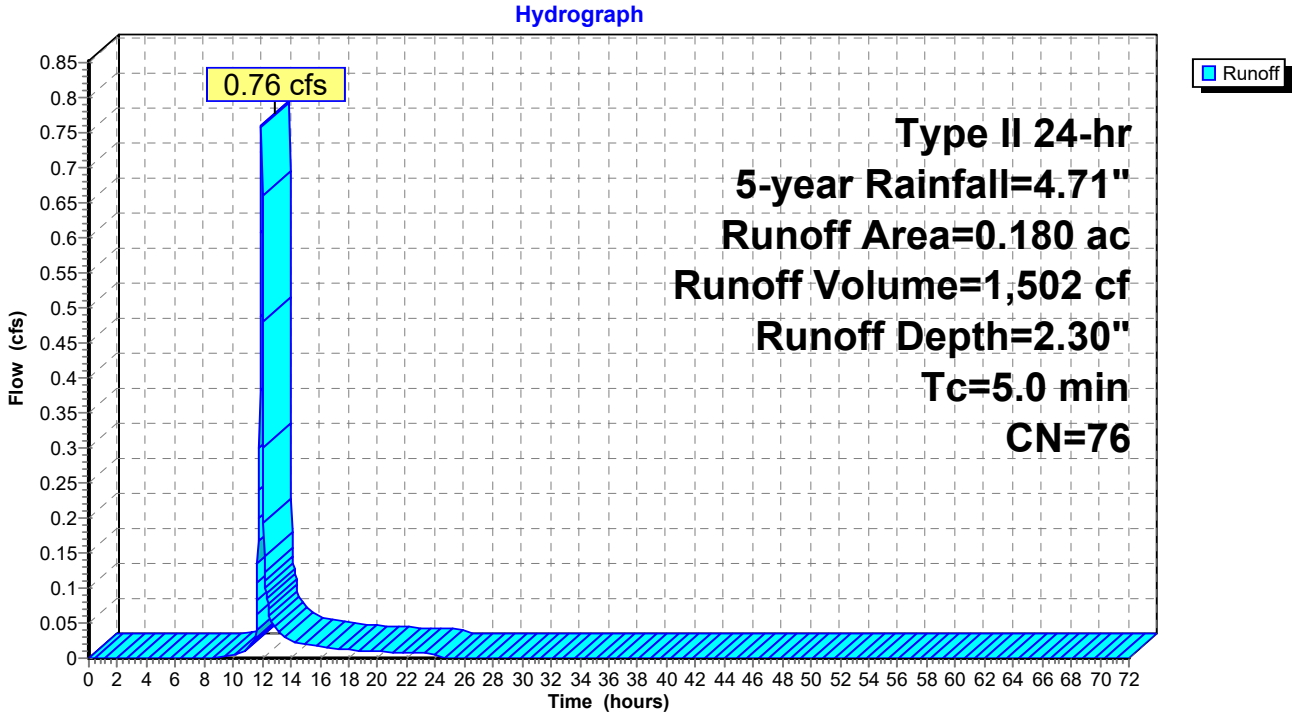
Runoff = 0.76 cfs @ 11.96 hrs, Volume= 1,502 cf, Depth= 2.30"
Routed to Pond 6FP : FocalPoint 6

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 5-year Rainfall=4.71"

Area (ac)	CN	Description
0.080	49	50-75% Grass cover, Fair, HSG A
0.100	98	Paved parking, HSG A
0.180	76	Weighted Average
0.080		44.44% Pervious Area
0.100		55.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 6S: Area 6



Summary for Subcatchment 10S: South Bypass

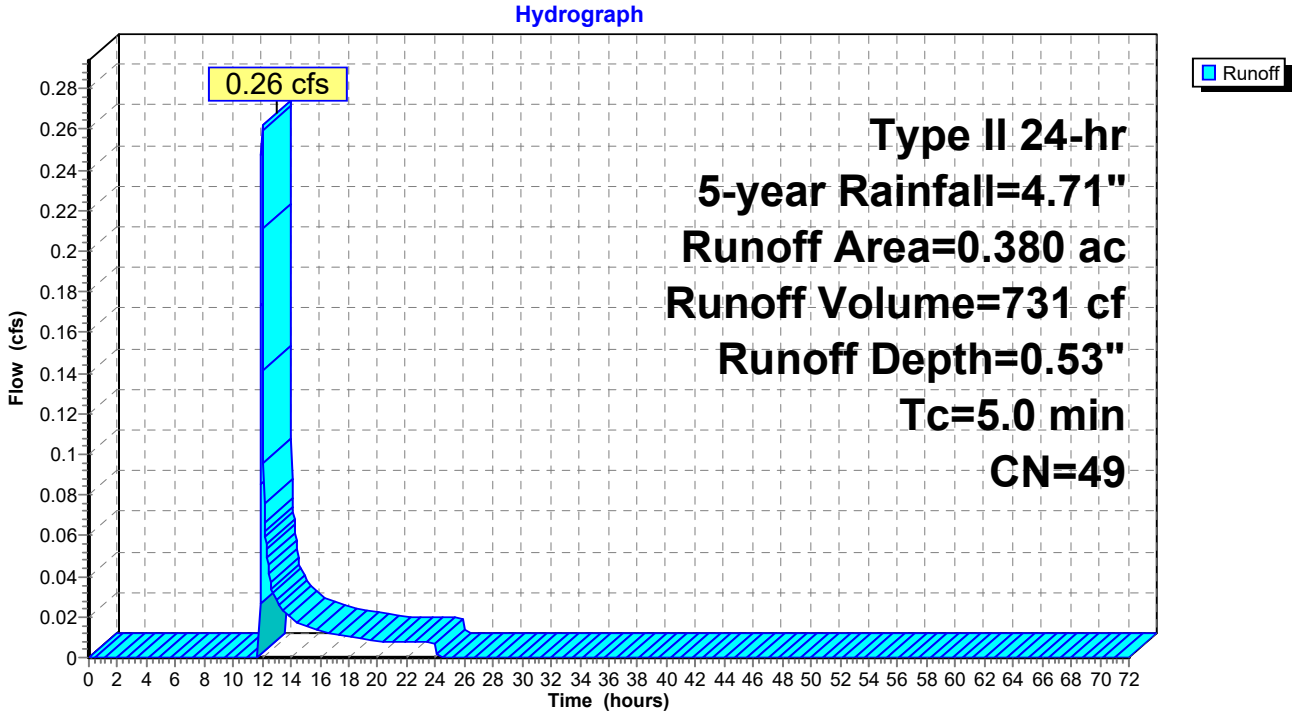
Runoff = 0.26 cfs @ 11.99 hrs, Volume= 731 cf, Depth= 0.53"
Routed to Link 1L : Outfall #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 5-year Rainfall=4.71"

Area (ac)	CN	Description
0.290	49	50-75% Grass cover, Fair, HSG A
0.070	36	Woods, Fair, HSG A
0.020	98	Paved parking, HSG A
0.380	49	Weighted Average
0.360		94.74% Pervious Area
0.020		5.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 10S: South Bypass



Summary for Reach 1R: Southern Trunk Line

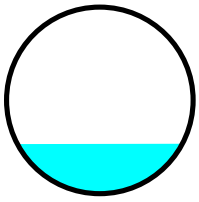
[52] Hint: Inlet/Outlet conditions not evaluated
[79] Warning: Submerged Pond 1DP Primary device # 1 INLET by 0.39'
[81] Warning: Exceeded Pond 2DP by 1.71' @ 0.00 hrs
[79] Warning: Submerged Pond 5FP Primary device # 1 INLET by 1.99'
[79] Warning: Submerged Pond 6FP Primary device # 1 INLET by 1.99'

Inflow Area = 187,308 sf, 64.19% Impervious, Inflow Depth > 2.32" for 5-year event
Inflow = 2.88 cfs @ 11.98 hrs, Volume= 36,273 cf
Outflow = 2.51 cfs @ 12.13 hrs, Volume= 36,270 cf, Atten= 13%, Lag= 8.4 min
Routed to Link 1L : Outfall #1

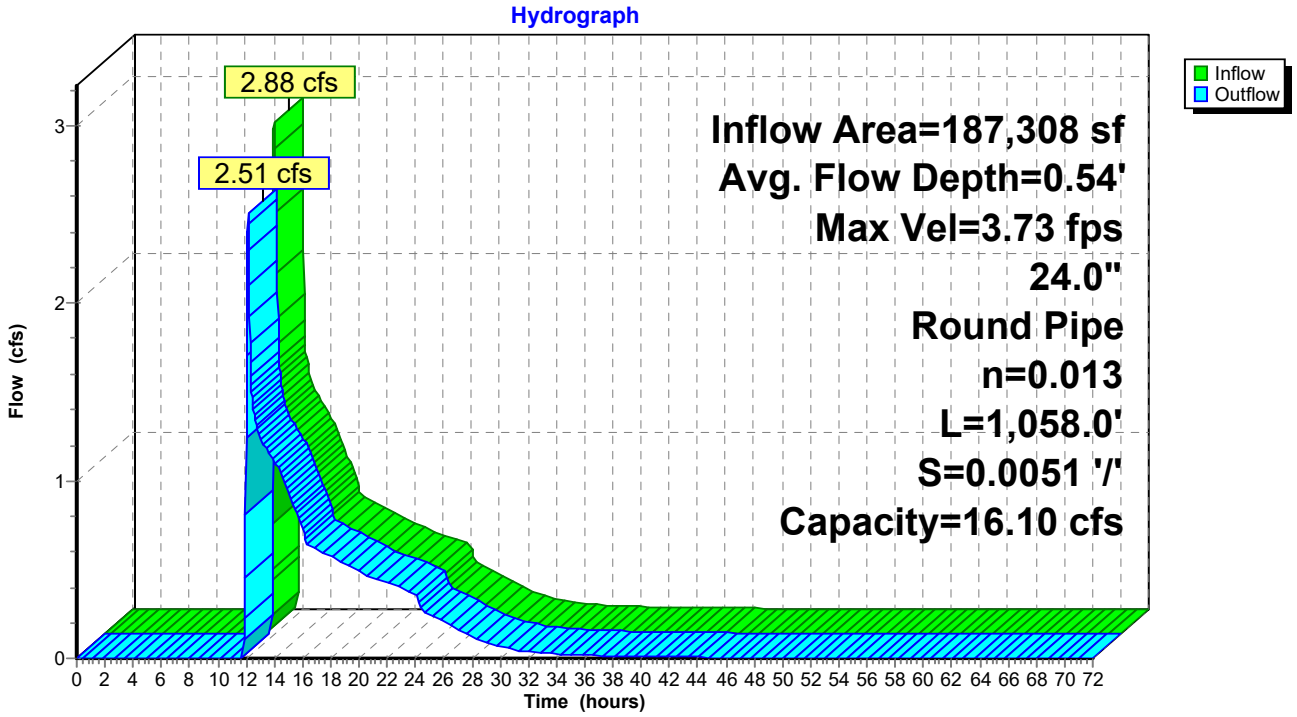
Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Max. Velocity= 3.73 fps, Min. Travel Time= 4.7 min
Avg. Velocity = 1.09 fps, Avg. Travel Time= 16.2 min

Peak Storage= 715 cf @ 12.04 hrs
Average Depth at Peak Storage= 0.54' , Surface Width= 1.77'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 16.10 cfs

24.0" Round Pipe
n= 0.013
Length= 1,058.0' Slope= 0.0051 '/'
Inlet Invert= 695.46', Outlet Invert= 690.10'



Reach 1R: Southern Trunk Line



Summary for Pond 1DP: Detention Pond 1

[44] Hint: Outlet device #2 is below defined storage
[79] Warning: Submerged Pond 1FP Primary device # 1 INLET by 1.64'

Inflow Area = 64,469 sf, 43.92% Impervious, Inflow Depth = 1.61" for 5-year event
Inflow = 4.48 cfs @ 11.98 hrs, Volume= 8,635 cf
Outflow = 0.57 cfs @ 12.34 hrs, Volume= 8,635 cf, Atten= 87%, Lag= 21.4 min
Primary = 0.57 cfs @ 12.34 hrs, Volume= 8,635 cf
Routed to Reach 1R : Southern Trunk Line

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 697.64' @ 12.34 hrs Surf.Area= 2,771 sf Storage= 2,896 cf

Plug-Flow detention time= 41.1 min calculated for 8,631 cf (100% of inflow)
Center-of-Mass det. time= 41.1 min (901.9 - 860.8)

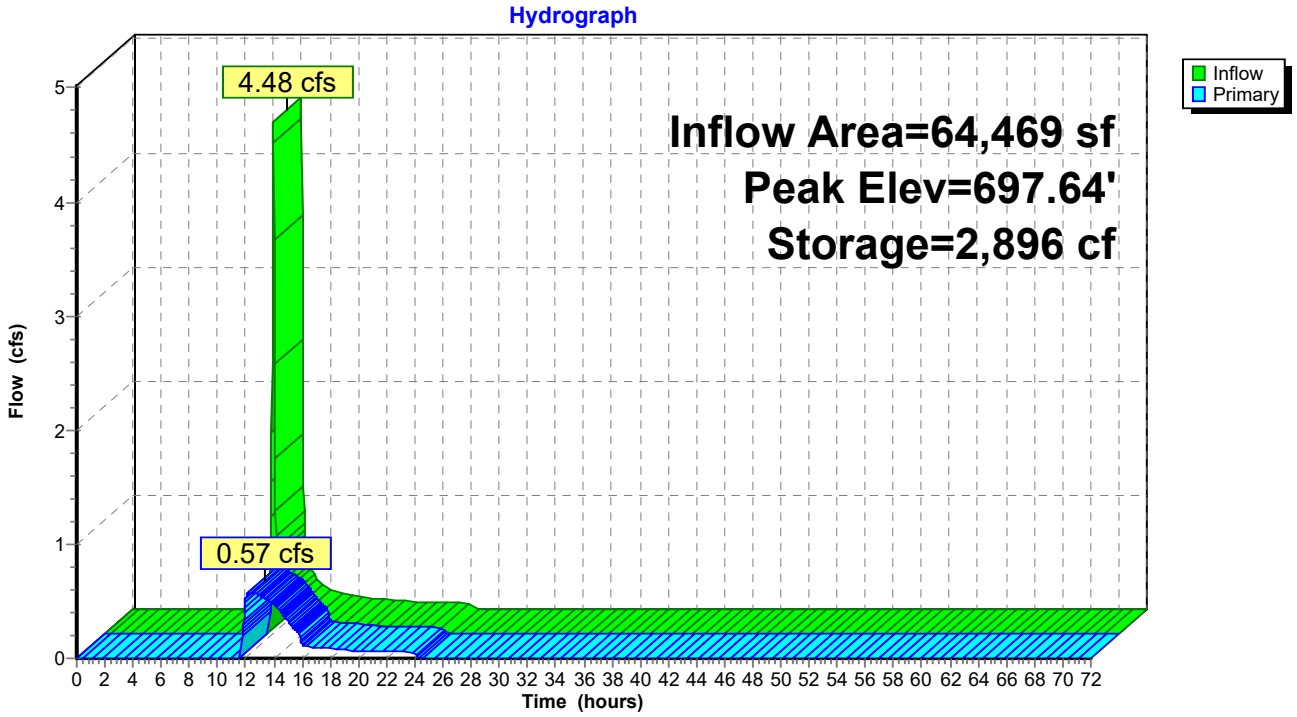
Volume	Invert	Avail.Storage	Storage Description
#1	695.80'	19,432 cf	**Custom Stage Data (Prismatic)** Listed below

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
695.80	0	0	0
696.00	285	29	29
697.00	2,098	1,192	1,220
698.00	3,151	2,625	3,845
699.00	4,138	3,645	7,489
700.00	5,311	4,725	12,214
701.00	9,125	7,218	19,432

Device	Routing	Invert	Outlet Devices
#1	Primary	695.60'	**18.0" Round Culvert** L= 28.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 695.60' / 695.46' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	695.60'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.57 cfs @ 12.34 hrs HW=697.64' TW=565.00' (Fixed TW Elev= 565.00')
└─**1=Culvert** (Passes 0.57 cfs of 8.24 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.57 cfs @ 6.59 fps)
  └─**3=Orifice/Grate** (Controls 0.00 cfs)

Pond 1DP: Detention Pond 1



Summary for Pond 1FP: FocalPoint 1

[92] Warning: Device #3 is above defined storage

Inflow Area = 64,469 sf, 43.92% Impervious, Inflow Depth = 1.68" for 5-year event
Inflow = 4.57 cfs @ 11.97 hrs, Volume= 9,004 cf
Outflow = 4.48 cfs @ 11.98 hrs, Volume= 8,635 cf, Atten= 2%, Lag= 0.7 min
Primary = 4.48 cfs @ 11.98 hrs, Volume= 8,635 cf
Routed to Pond 1DP : Detention Pond 1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 699.81' @ 11.98 hrs Surf.Area= 945 sf Storage= 622 cf

Plug-Flow detention time= 31.8 min calculated for 8,635 cf (96% of inflow)
Center-of-Mass det. time= 8.8 min (860.8 - 852.0)

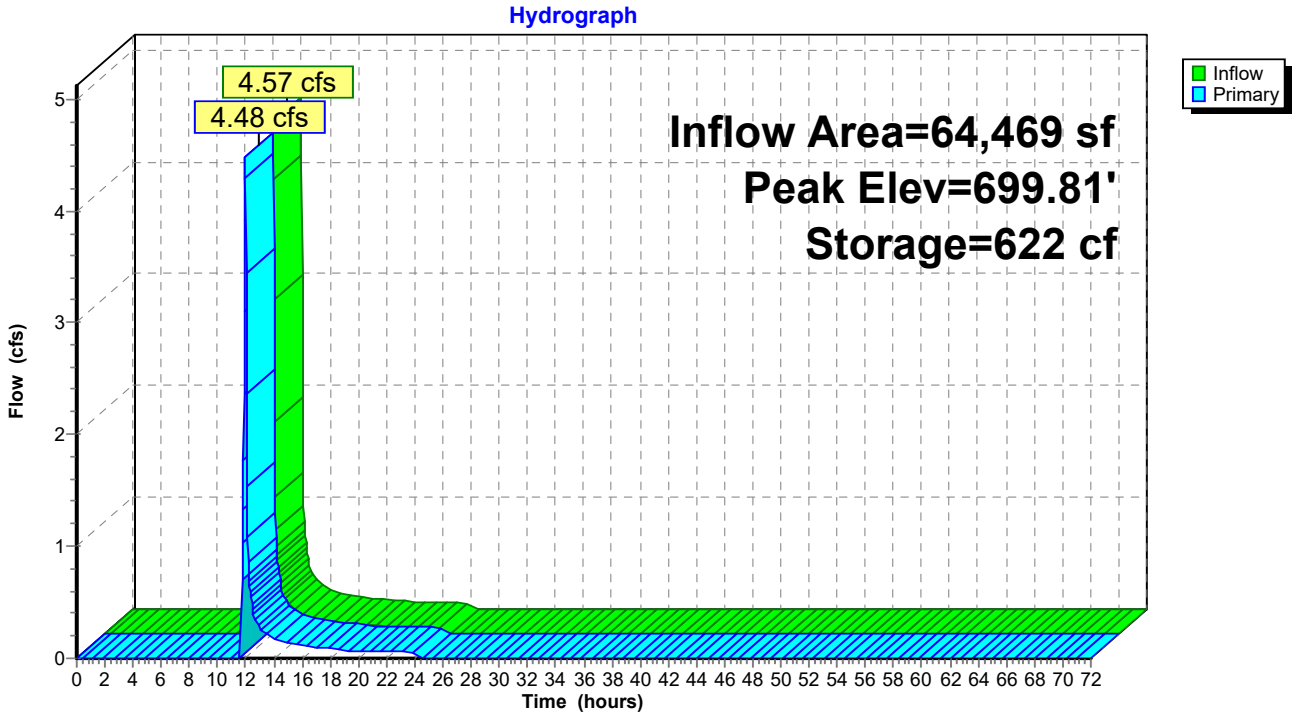
Volume	Invert	Avail.Storage	Storage Description
#1	696.00'	815 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
696.00	237	0.0	0	0
699.00	237	20.0	142	142
700.00	1,109	100.0	673	815

Device	Routing	Invert	Outlet Devices
#1	Primary	696.00'	**18.0" Round Culvert** L= 40.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 696.00' / 695.80' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**10.0' long x 18.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=4.41 cfs @ 11.98 hrs HW=699.81' (Free Discharge)
- **1=Culvert** (Passes 4.41 cfs of 14.88 cfs potential flow)
  - **2=Orifice/Grate** (Weir Controls 4.41 cfs @ 1.82 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1FP: FocalPoint 1



Summary for Pond 2DP: Detention Pond 2

[79] Warning: Submerged Pond 2FP Primary device # 1 INLET by 1.23'
[79] Warning: Submerged Pond 3FP Primary device # 1 OUTLET by 1.73'

Inflow Area = 95,832 sf, 79.09% Impervious, Inflow Depth = 3.04" for 5-year event
Inflow = 12.93 cfs @ 11.97 hrs, Volume= 24,277 cf
Outflow = 0.53 cfs @ 13.32 hrs, Volume= 23,314 cf, Atten= 96%, Lag= 81.1 min
Primary = 0.53 cfs @ 13.32 hrs, Volume= 23,314 cf
Routed to Reach 1R : Southern Trunk Line

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 695.73' @ 13.32 hrs Surf.Area= 8,711 sf Storage= 14,049 cf

Plug-Flow detention time= 382.2 min calculated for 23,305 cf (96% of inflow)
Center-of-Mass det. time= 360.4 min (1,182.0 - 821.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	693.75'	3,019 cf	**38.12'W x 114.25'L x 4.79'H Field A** 20,877 cf Overall - 13,330 cf Embedded = 7,547 cf x 40.0% Voids
#2A	694.00'	12,663 cf	**Ferguson R-Tank HD 2.5** x 1222 Inside #1 Inside= 15.7"W x 42.5"H => 4.42 sf x 2.35'L = 10.4 cf Outside= 15.7"W x 42.5"H => 4.65 sf x 2.35'L = 10.9 cf 1222 Chambers in 26 Rows
#3B	693.75'	3,019 cf	**38.12'W x 114.25'L x 4.79'H Field B** 20,877 cf Overall - 13,330 cf Embedded = 7,547 cf x 40.0% Voids
#4B	694.00'	12,663 cf	**Ferguson R-Tank HD 2.5** x 1222 Inside #3 Inside= 15.7"W x 42.5"H => 4.42 sf x 2.35'L = 10.4 cf Outside= 15.7"W x 42.5"H => 4.65 sf x 2.35'L = 10.9 cf 1222 Chambers in 26 Rows
		31,364 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	694.00'	**18.0" Round Culvert** L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.00' / 693.20' S= 0.0800 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	694.00'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	697.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.53 cfs @ 13.32 hrs HW=695.73' TW=565.00' (Fixed TW Elev= 565.00')
- **1=Culvert** (Passes 0.53 cfs of 8.42 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.53 cfs @ 6.02 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 2DP: Detention Pond 2 - Chamber Wizard Field A

Chamber Model = Ferguson R-Tank HD 2.5 (Ferguson R-Tank HD)
Inside= 15.7"W x 42.5"H => 4.42 sf x 2.35'L = 10.4 cf
Outside= 15.7"W x 42.5"H => 4.65 sf x 2.35'L = 10.9 cf

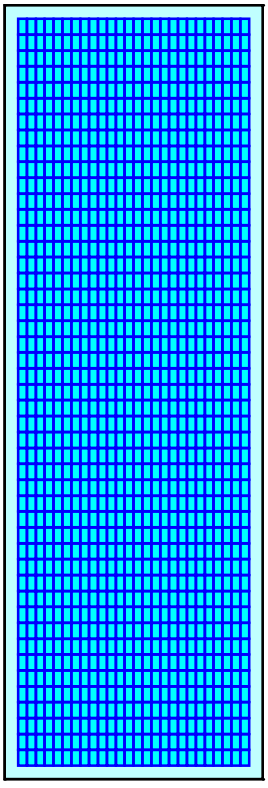
47 Chambers/Row x 2.35' Long = 110.25' Row Length +24.0" End Stone x 2 = 114.25' Base Length
26 Rows x 15.7" Wide + 24.0" Side Stone x 2 = 38.12' Base Width
3.0" Stone Base + 42.5" Chamber Height + 12.0" Stone Cover = 4.79' Field Height

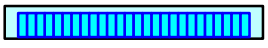
1,222 Chambers x 10.4 cf = 12,663.1 cf Chamber Storage
1,222 Chambers x 10.9 cf = 13,329.6 cf Displacement

20,876.7 cf Field - 13,329.6 cf Chambers = 7,547.2 cf Stone x 40.0% Voids = 3,018.9 cf Stone Storage

Chamber Storage + Stone Storage = 15,682.0 cf = 0.360 af
Overall Storage Efficiency = 75.1%
Overall System Size = 114.25' x 38.12' x 4.79'

1,222 Chambers
773.2 cy Field
279.5 cy Stone





Pond 2DP: Detention Pond 2 - Chamber Wizard Field B

Chamber Model = Ferguson R-Tank HD 2.5 (Ferguson R-Tank HD)
Inside= 15.7"W x 42.5"H => 4.42 sf x 2.35'L = 10.4 cf
Outside= 15.7"W x 42.5"H => 4.65 sf x 2.35'L = 10.9 cf

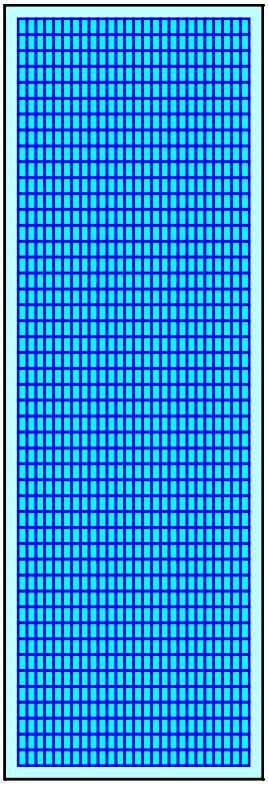
47 Chambers/Row x 2.35' Long = 110.25' Row Length +24.0" End Stone x 2 = 114.25' Base Length
26 Rows x 15.7" Wide + 24.0" Side Stone x 2 = 38.12' Base Width
3.0" Stone Base + 42.5" Chamber Height + 12.0" Stone Cover = 4.79' Field Height

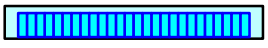
1,222 Chambers x 10.4 cf = 12,663.1 cf Chamber Storage
1,222 Chambers x 10.9 cf = 13,329.6 cf Displacement

20,876.7 cf Field - 13,329.6 cf Chambers = 7,547.2 cf Stone x 40.0% Voids = 3,018.9 cf Stone Storage

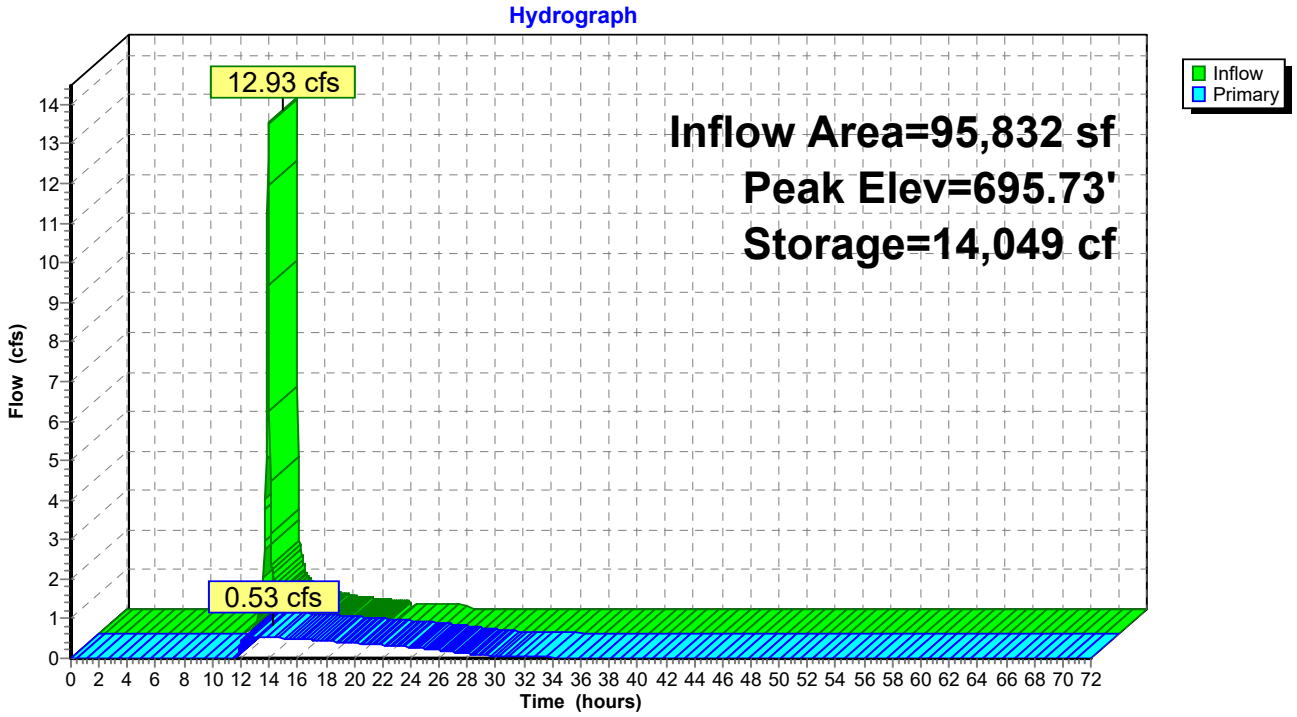
Chamber Storage + Stone Storage = 15,682.0 cf = 0.360 af
Overall Storage Efficiency = 75.1%
Overall System Size = 114.25' x 38.12' x 4.79'

1,222 Chambers
773.2 cy Field
279.5 cy Stone





Pond 2DP: Detention Pond 2



Summary for Pond 2FP: FocalPoint 2

Inflow Area = 31,363 sf, 83.33% Impervious, Inflow Depth = 3.60" for 5-year event
Inflow = 4.45 cfs @ 11.96 hrs, Volume= 9,402 cf
Outflow = 4.34 cfs @ 11.97 hrs, Volume= 8,679 cf, Atten= 2%, Lag= 0.8 min
Primary = 4.34 cfs @ 11.97 hrs, Volume= 8,679 cf
Routed to Pond 2DP : Detention Pond 2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 698.31' @ 11.97 hrs Surf.Area= 1,219 sf Storage= 1,070 cf

Plug-Flow detention time= 66.7 min calculated for 8,679 cf (92% of inflow)
Center-of-Mass det. time= 25.0 min (813.7 - 788.6)

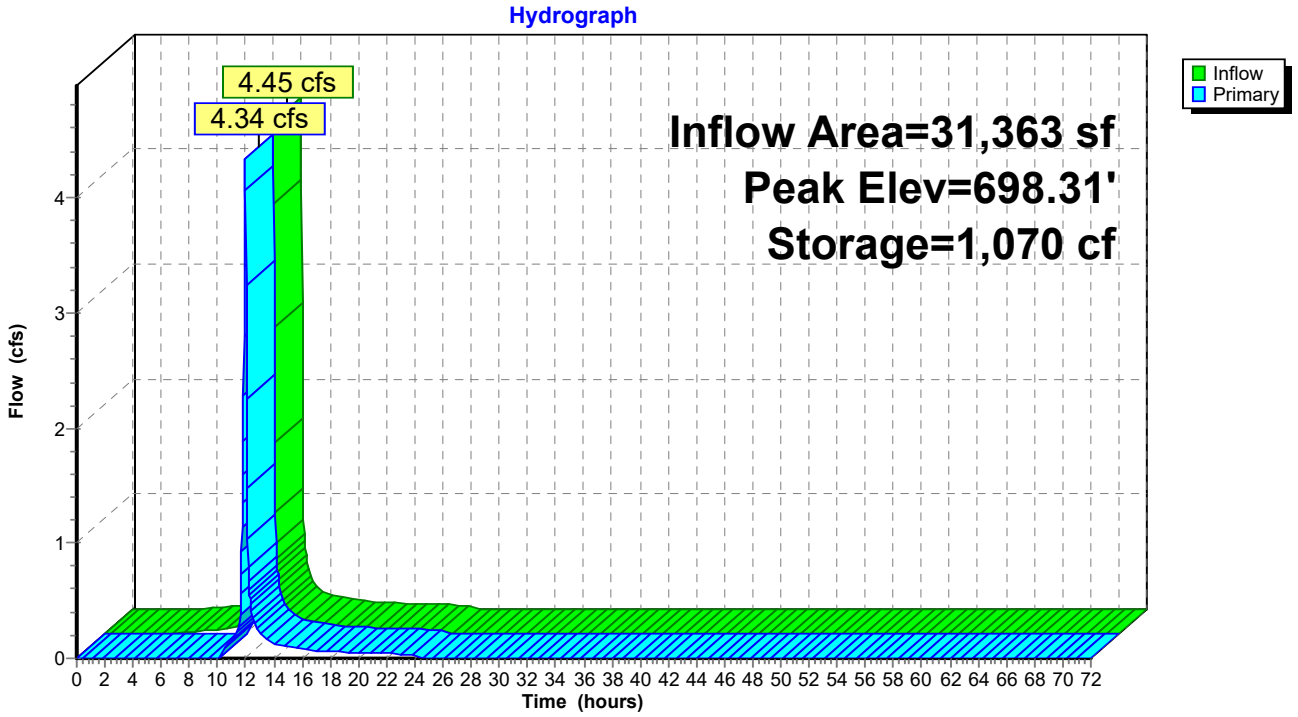
Volume	Invert	Avail.Storage	Storage Description
#1	694.50'	1,317 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
694.50	539	0.0	0	0
697.50	539	20.0	323	323
698.00	1,056	100.0	399	722
698.50	1,323	100.0	595	1,317

Device	Routing	Invert	Outlet Devices
#1	Primary	694.50'	**18.0" Round Culvert** L= 28.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.50' / 694.00' S= 0.0179 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	698.00'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=4.33 cfs @ 11.97 hrs HW=698.31' (Free Discharge)
↑**1=Culvert** (Passes 4.33 cfs of 14.87 cfs potential flow)
↑**2=Orifice/Grate** (Weir Controls 4.33 cfs @ 1.81 fps)

Pond 2FP: FocalPoint 2



Summary for Pond 3FP: FocalPoint 3

Inflow Area = 16,553 sf, 71.05% Impervious, Inflow Depth = 3.01" for 5-year event
Inflow = 2.05 cfs @ 11.96 hrs, Volume= 4,147 cf
Outflow = 2.00 cfs @ 11.97 hrs, Volume= 3,426 cf, Atten= 2%, Lag= 0.8 min
Primary = 2.00 cfs @ 11.97 hrs, Volume= 3,426 cf
Routed to Pond 2DP : Detention Pond 2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 699.68' @ 11.97 hrs Surf.Area= 921 sf Storage= 881 cf

Plug-Flow detention time= 110.2 min calculated for 3,425 cf (83% of inflow)
Center-of-Mass det. time= 35.0 min (843.9 - 808.9)

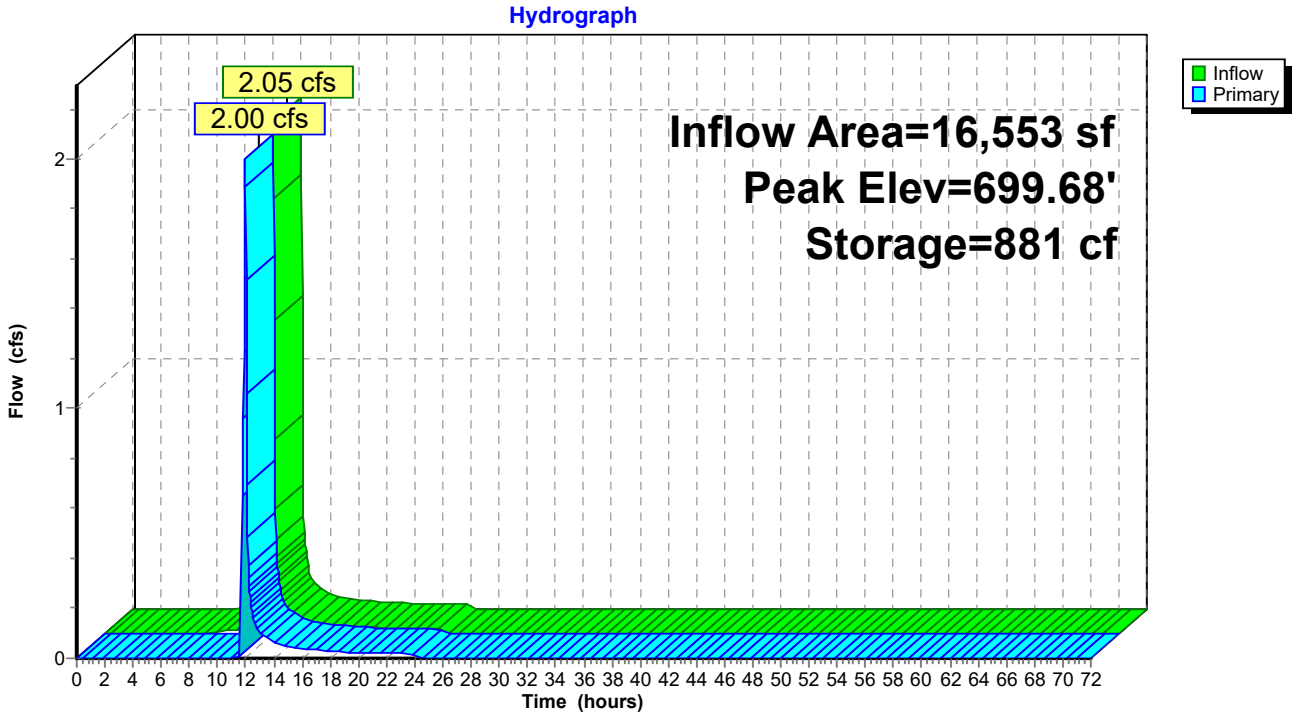
Volume	Invert	Avail.Storage	Storage Description
#1	696.00'	1,197 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
696.00	602	0.0	0	0
699.00	602	20.0	361	361
700.00	1,070	100.0	836	1,197

Device	Routing	Invert	Outlet Devices
#1	Primary	696.00'	**18.0" Round Culvert** L= 80.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 696.00' / 694.00' S= 0.0250 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.98 cfs @ 11.97 hrs HW=699.68' (Free Discharge)
↑—**1=Culvert** (Passes 1.98 cfs of 14.57 cfs potential flow)
↑—**2=Orifice/Grate** (Weir Controls 1.98 cfs @ 1.39 fps)

Pond 3FP: FocalPoint 3



Summary for Pond 4FP: FocalPoint 4

[92] Warning: Device #2 is above defined storage
[92] Warning: Device #3 is above defined storage
[93] Warning: Storage range exceeded by 0.91'
[88] Warning: Qout>Qin may require smaller dt or Finer Routing
[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=204)

Inflow Area = 47,916 sf, 79.09% Impervious, Inflow Depth = 3.39" for 5-year event
Inflow = 6.52 cfs @ 11.96 hrs, Volume= 13,553 cf
Outflow = 6.62 cfs @ 11.96 hrs, Volume= 12,171 cf, Atten= 0%, Lag= 0.2 min
Primary = 6.62 cfs @ 11.96 hrs, Volume= 12,171 cf
Routed to Pond 2DP : Detention Pond 2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 699.91' @ 11.96 hrs Surf.Area= 1,491 sf Storage= 1,389 cf

Plug-Flow detention time= 76.7 min calculated for 12,166 cf (90% of inflow)
Center-of-Mass det. time= 25.0 min (821.0 - 796.0)

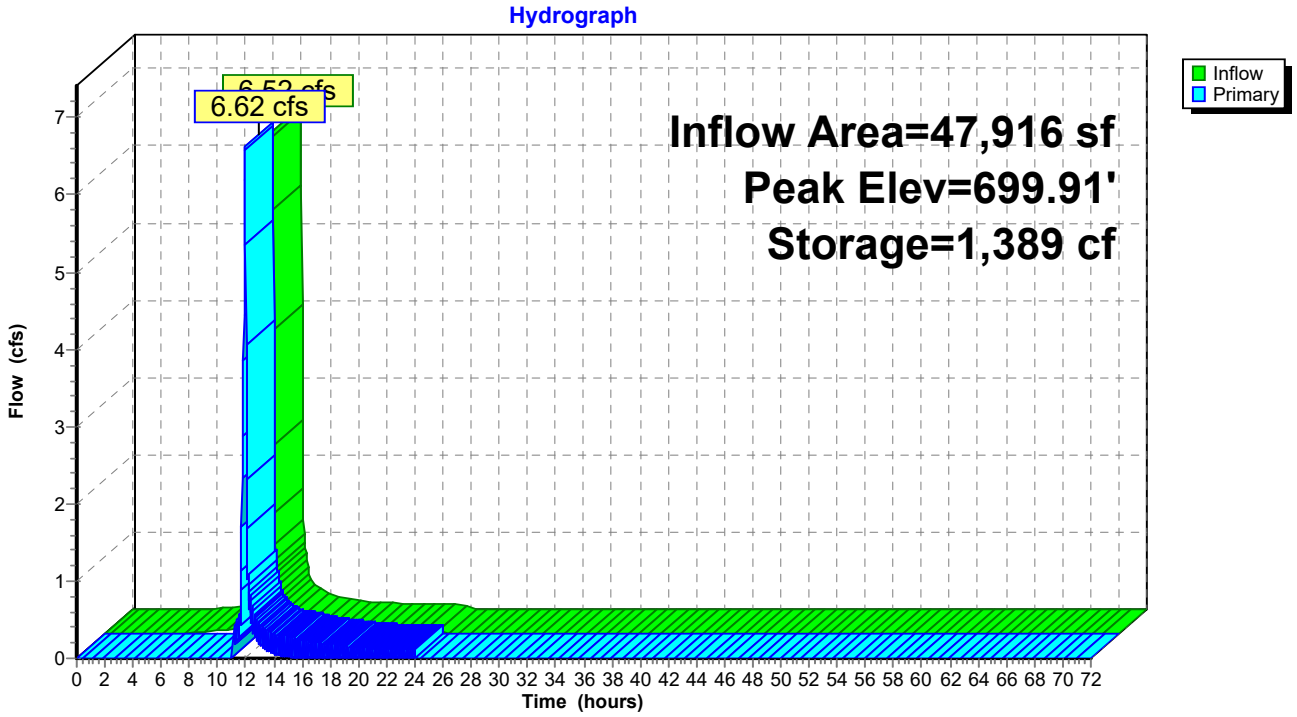
Volume	Invert	Avail.Storage	Storage Description
#1	695.00'	1,389 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
695.00	585	0.0	0	0
698.00	585	20.0	351	351
699.00	1,491	100.0	1,038	1,389

Device	Routing	Invert	Outlet Devices
#1	Primary	696.00'	**18.0" Round Culvert** L= 23.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 696.00' / 695.88' S= 0.0052 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**6.0' long x 133.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=6.46 cfs @ 11.96 hrs HW=699.90' (Free Discharge)
- **1=Culvert** (Passes 6.46 cfs of 15.10 cfs potential flow)
  - **2=Orifice/Grate** (Weir Controls 6.46 cfs @ 2.06 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 4FP: FocalPoint 4



Summary for Pond 5FP: FocalPoint 5

Inflow Area = 19,166 sf, 61.36% Impervious, Inflow Depth = 2.55" for 5-year event
Inflow = 2.06 cfs @ 11.96 hrs, Volume= 4,079 cf
Outflow = 1.99 cfs @ 11.98 hrs, Volume= 3,451 cf, Atten= 3%, Lag= 1.0 min
Primary = 1.99 cfs @ 11.98 hrs, Volume= 3,451 cf
Routed to Reach 1R : Southern Trunk Line

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 697.68' @ 11.98 hrs Surf.Area= 1,066 sf Storage= 807 cf

Plug-Flow detention time= 99.5 min calculated for 3,449 cf (85% of inflow)
Center-of-Mass det. time= 29.2 min (852.2 - 823.1)

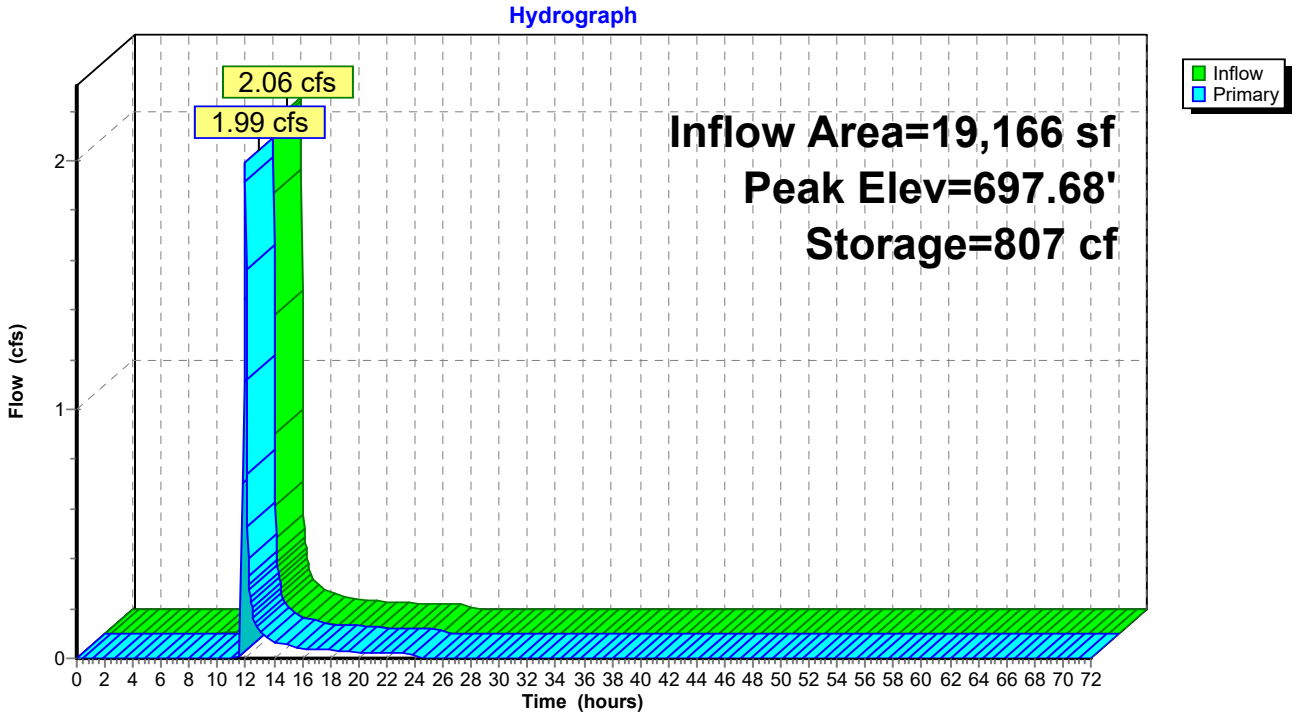
Volume	Invert	Avail.Storage	Storage Description
#1	694.00'	2,779 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
694.00	472	0.0	0	0
697.00	472	20.0	283	283
698.00	1,344	100.0	908	1,191
699.00	1,832	100.0	1,588	2,779

Device	Routing	Invert	Outlet Devices
#1	Primary	694.00'	**18.0" Round Culvert** L= 24.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.00' / 691.39' S= 0.1088 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	697.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	698.50'	**6.0' long x 9.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.46 2.55 2.70 2.69 2.68 2.68 2.67 2.64 2.64 2.64 2.65 2.64 2.65 2.65 2.66 2.67 2.69

Primary OutFlow Max=1.95 cfs @ 11.98 hrs HW=697.68' (Free Discharge)
- **1=Culvert** (Passes 1.95 cfs of 14.56 cfs potential flow)
  - **2=Orifice/Grate** (Weir Controls 1.95 cfs @ 1.38 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 5FP: FocalPoint 5



Summary for Pond 6FP: FocalPoint 6

Inflow Area = 7,841 sf, 55.56% Impervious, Inflow Depth = 2.30" for 5-year event
Inflow = 0.76 cfs @ 11.96 hrs, Volume= 1,502 cf
Outflow = 0.24 cfs @ 12.08 hrs, Volume= 874 cf, Atten= 68%, Lag= 7.0 min
Primary = 0.24 cfs @ 12.08 hrs, Volume= 874 cf
Routed to Reach 1R : Southern Trunk Line

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 697.54' @ 12.08 hrs Surf.Area= 945 sf Storage= 667 cf

Plug-Flow detention time= 211.1 min calculated for 874 cf (58% of inflow)
Center-of-Mass det. time= 93.1 min (924.1 - 831.0)

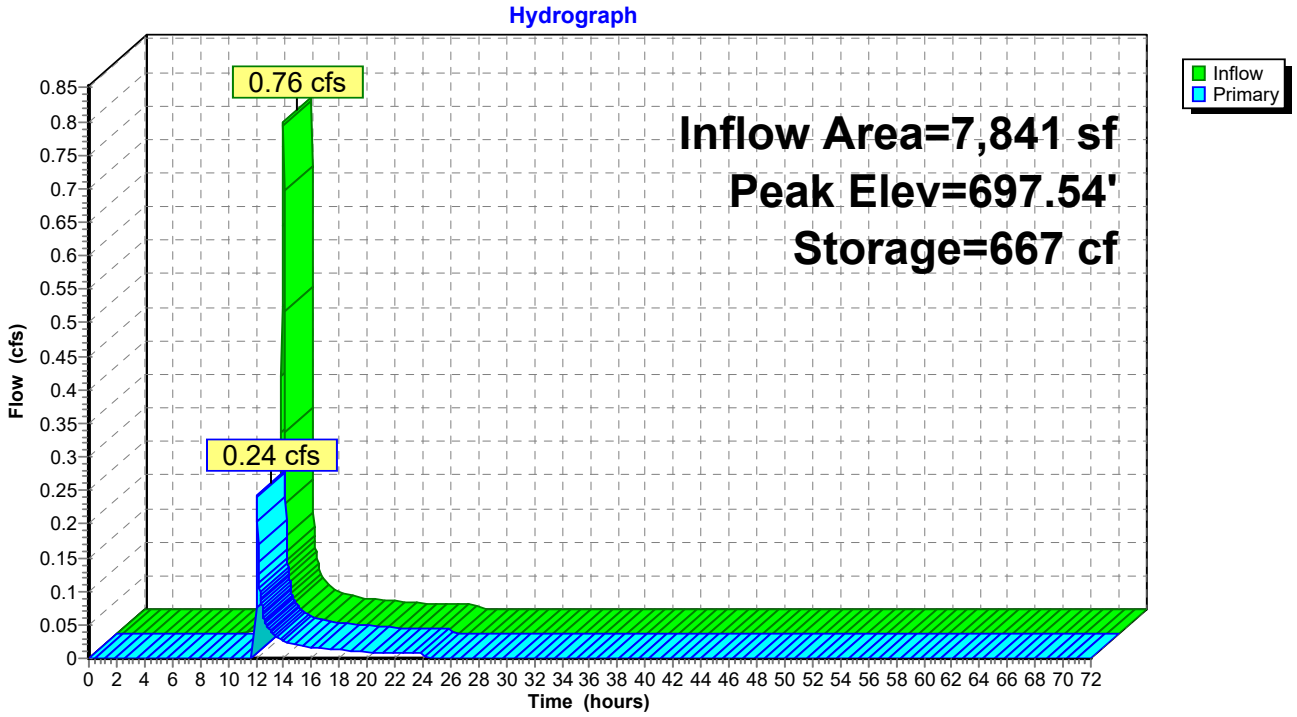
Volume	Invert	Avail.Storage	Storage Description
#1	694.00'	2,779 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
694.00	472	0.0	0	0
697.00	472	20.0	283	283
698.00	1,344	100.0	908	1,191
699.00	1,832	100.0	1,588	2,779

Device	Routing	Invert	Outlet Devices
#1	Primary	694.00'	**18.0" Round Culvert** L= 24.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.00' / 690.87' S= 0.1304 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	697.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	698.50'	**6.0' long x 9.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.46 2.55 2.70 2.69 2.68 2.68 2.67 2.64 2.64 2.64 2.65 2.64 2.65 2.65 2.66 2.67 2.69

Primary OutFlow Max=0.22 cfs @ 12.08 hrs HW=697.54' (Free Discharge)
└─**1=Culvert** (Passes 0.22 cfs of 14.22 cfs potential flow)
└─**2=Orifice/Grate** (Weir Controls 0.22 cfs @ 0.67 fps)
└─**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 6FP: FocalPoint 6

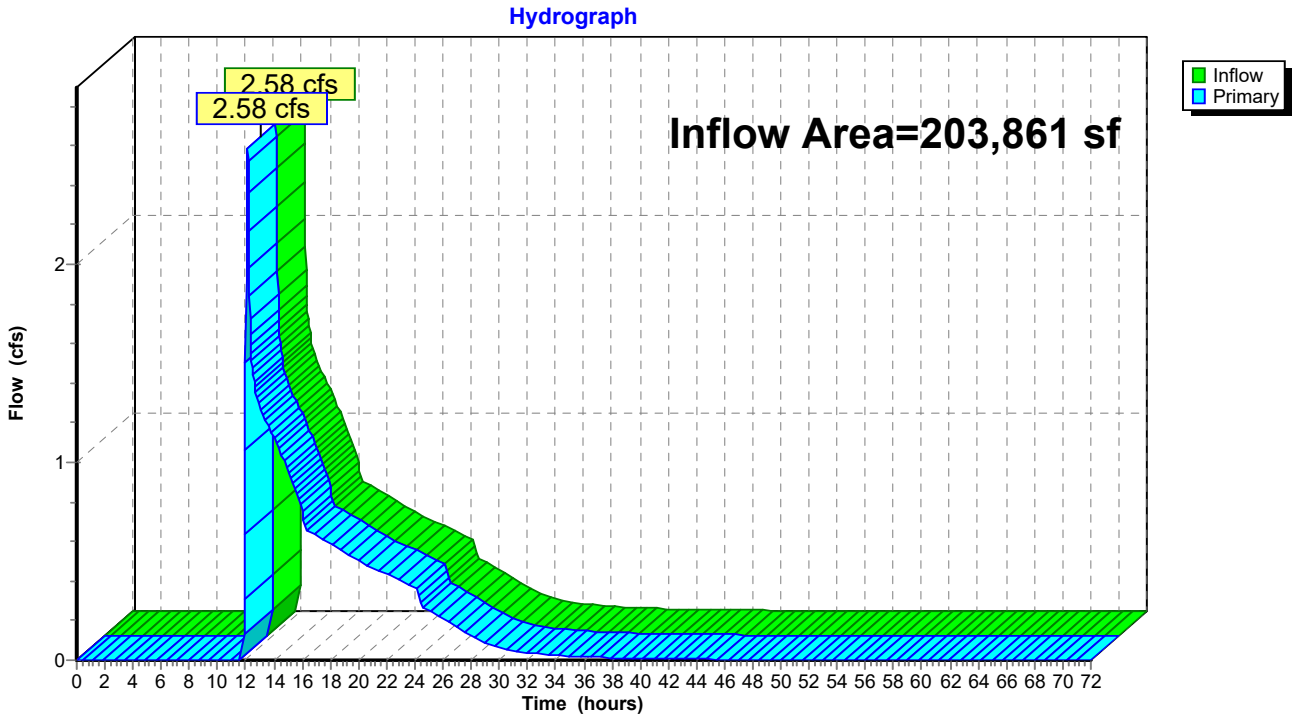


Summary for Link 1L: Outfall #1

Inflow Area = 203,861 sf, 59.40% Impervious, Inflow Depth > 2.18" for 5-year event
Inflow = 2.58 cfs @ 12.12 hrs, Volume= 37,001 cf
Primary = 2.58 cfs @ 12.12 hrs, Volume= 37,001 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs

Link 1L: Outfall #1



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Area 1 Runoff Area=1.480 ac 43.92% Impervious Runoff Depth=2.15"
Tc=5.0 min CN=68 Runoff=5.90 cfs 11,575 cf

Subcatchment2S: Area 2 Runoff Area=0.720 ac 83.33% Impervious Runoff Depth=4.24"
Tc=5.0 min CN=90 Runoff=5.19 cfs 11,091 cf

Subcatchment3S: Area 3 Runoff Area=0.380 ac 71.05% Impervious Runoff Depth=3.62"
Tc=5.0 min CN=84 Runoff=2.44 cfs 4,993 cf

Subcatchment4S: Area 4 Runoff Area=1.100 ac 79.09% Impervious Runoff Depth=4.03"
Tc=5.0 min CN=88 Runoff=7.66 cfs 16,096 cf

Subcatchment5S: Area 5 Runoff Area=0.440 ac 61.36% Impervious Runoff Depth=3.13"
Tc=5.0 min CN=79 Runoff=2.50 cfs 5,002 cf

Subcatchment6S: Area 6 Runoff Area=0.180 ac 55.56% Impervious Runoff Depth=2.85"
Tc=5.0 min CN=76 Runoff=0.94 cfs 1,863 cf

Subcatchment10S: South Bypass Runoff Area=0.380 ac 5.26% Impervious Runoff Depth=0.79"
Tc=5.0 min CN=49 Runoff=0.46 cfs 1,095 cf

Reach 1R: Southern Trunk Line Avg. Flow Depth=0.63' Max Vel=4.09 fps Inflow=4.01 cfs 45,202 cf
24.0" Round Pipe n=0.013 L=1,058.0' S=0.0051 '/' Capacity=16.10 cfs Outflow=3.44 cfs 45,199 cf

Pond 1DP: Detention Pond 1 Peak Elev=698.09' Storage=4,164 cf Inflow=5.79 cfs 11,206 cf
Outflow=0.64 cfs 11,206 cf

Pond 1FP: FocalPoint 1 Peak Elev=699.87' Storage=679 cf Inflow=5.90 cfs 11,575 cf
Outflow=5.79 cfs 11,206 cf

Pond 2DP: Detention Pond 2 Peak Elev=696.18' Storage=17,463 cf Inflow=14.92 cfs 29,357 cf
Outflow=0.60 cfs 28,388 cf

Pond 2FP: FocalPoint 2 Peak Elev=698.34' Storage=1,111 cf Inflow=5.19 cfs 11,091 cf
Outflow=5.07 cfs 10,369 cf

Pond 3FP: FocalPoint 3 Peak Elev=699.70' Storage=902 cf Inflow=2.44 cfs 4,993 cf
Outflow=2.39 cfs 4,272 cf

Pond 4FP: FocalPoint 4 Peak Elev=699.95' Storage=1,389 cf Inflow=7.66 cfs 16,096 cf
Outflow=7.70 cfs 14,715 cf

Pond 5FP: FocalPoint 5 Peak Elev=697.71' Storage=835 cf Inflow=2.50 cfs 5,002 cf
Outflow=2.43 cfs 4,373 cf

Pond 6FP: FocalPoint 6 Peak Elev=697.59' Storage=712 cf Inflow=0.94 cfs 1,863 cf
Outflow=0.69 cfs 1,235 cf

Link 1L: Outfall #1

Inflow=3.57 cfs 46,293 cf
Primary=3.57 cfs 46,293 cf

Total Runoff Area = 203,861 sf Runoff Volume = 51,715 cf Average Runoff Depth = 3.04"
40.60% Pervious = 82,764 sf 59.40% Impervious = 121,097 sf

Summary for Subcatchment 1S: Area 1

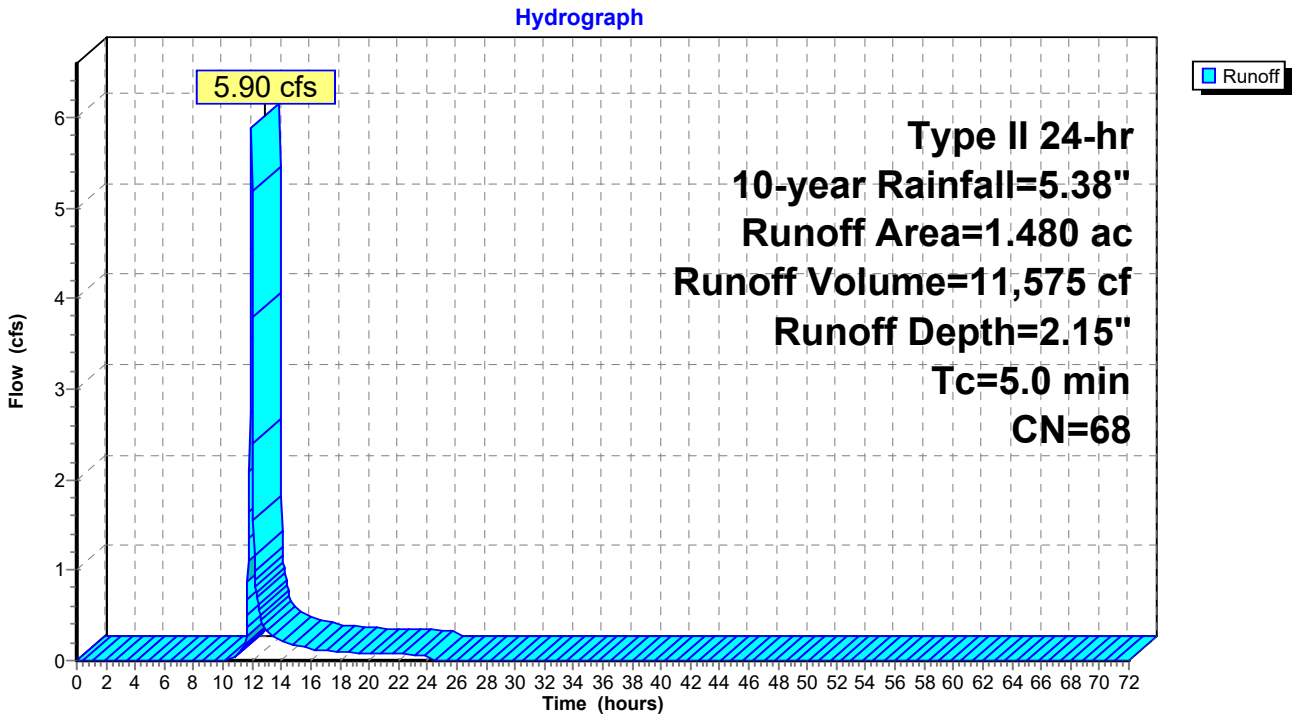
Runoff = 5.90 cfs @ 11.97 hrs, Volume= 11,575 cf, Depth= 2.15"
Routed to Pond 1FP : FocalPoint 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 10-year Rainfall=5.38"

Area (ac)	CN	Description
0.510	49	50-75% Grass cover, Fair, HSG A
0.320	36	Woods, Fair, HSG A
0.650	98	Paved parking, HSG A
1.480	68	Weighted Average
0.830		56.08% Pervious Area
0.650		43.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 1S: Area 1



Summary for Subcatchment 2S: Area 2

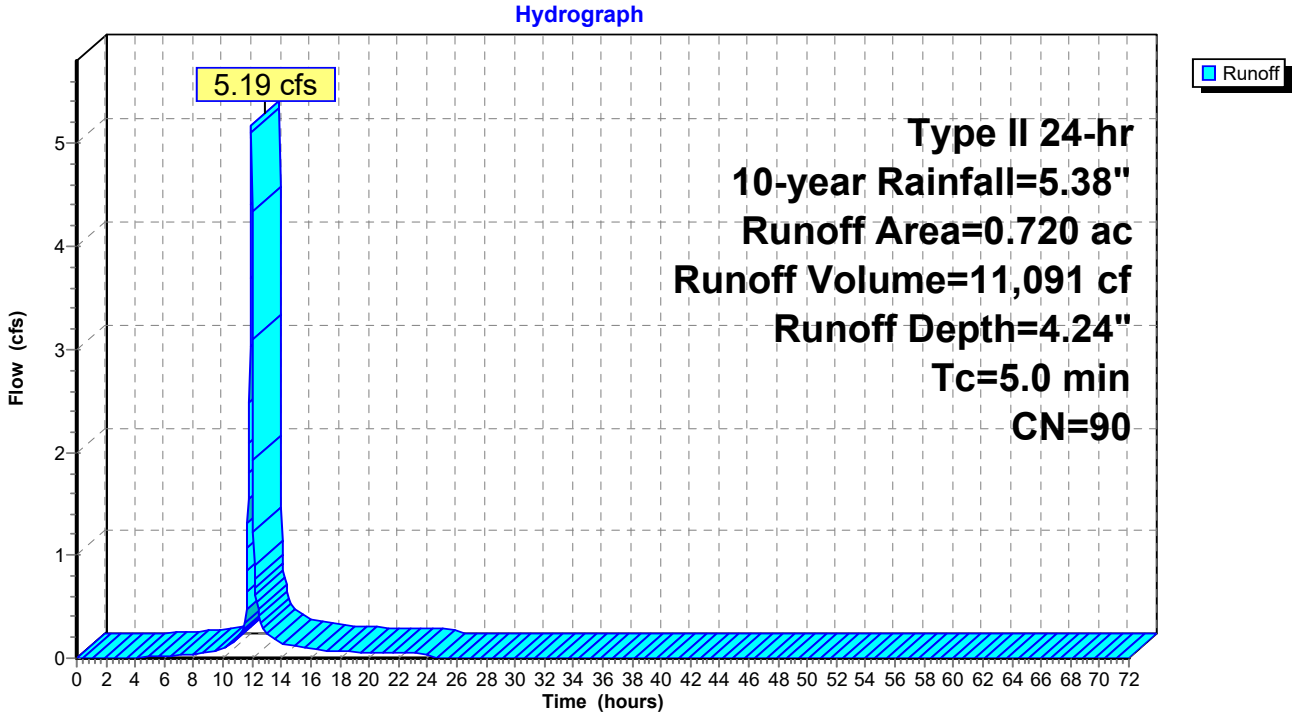
Runoff = 5.19 cfs @ 11.96 hrs, Volume= 11,091 cf, Depth= 4.24"
Routed to Pond 2FP : FocalPoint 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 10-year Rainfall=5.38"

Area (ac)	CN	Description
0.120	49	50-75% Grass cover, Fair, HSG A
0.600	98	Paved parking, HSG A
0.720	90	Weighted Average
0.120		16.67% Pervious Area
0.600		83.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 2S: Area 2



Summary for Subcatchment 3S: Area 3

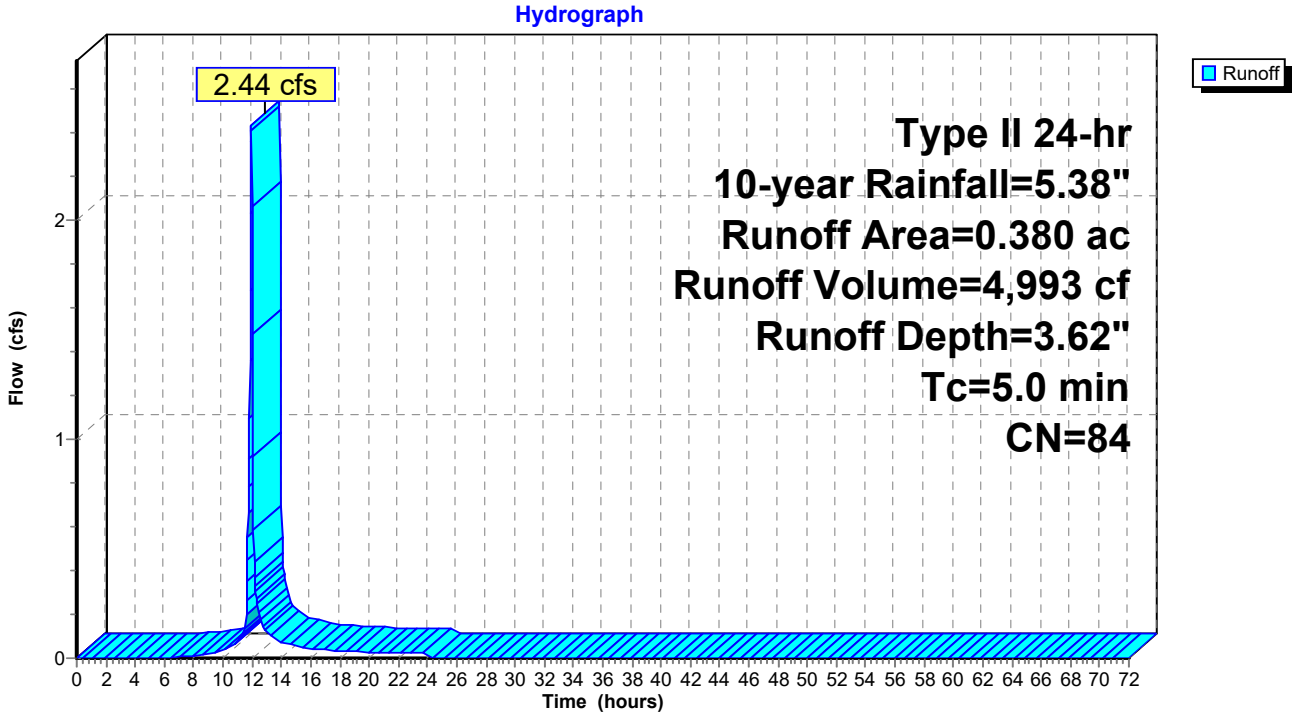
Runoff = 2.44 cfs @ 11.96 hrs, Volume= 4,993 cf, Depth= 3.62"
Routed to Pond 3FP : FocalPoint 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 10-year Rainfall=5.38"

Area (ac)	CN	Description
0.110	49	50-75% Grass cover, Fair, HSG A
0.270	98	Paved parking, HSG A
0.380	84	Weighted Average
0.110		28.95% Pervious Area
0.270		71.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 3S: Area 3



Summary for Subcatchment 4S: Area 4

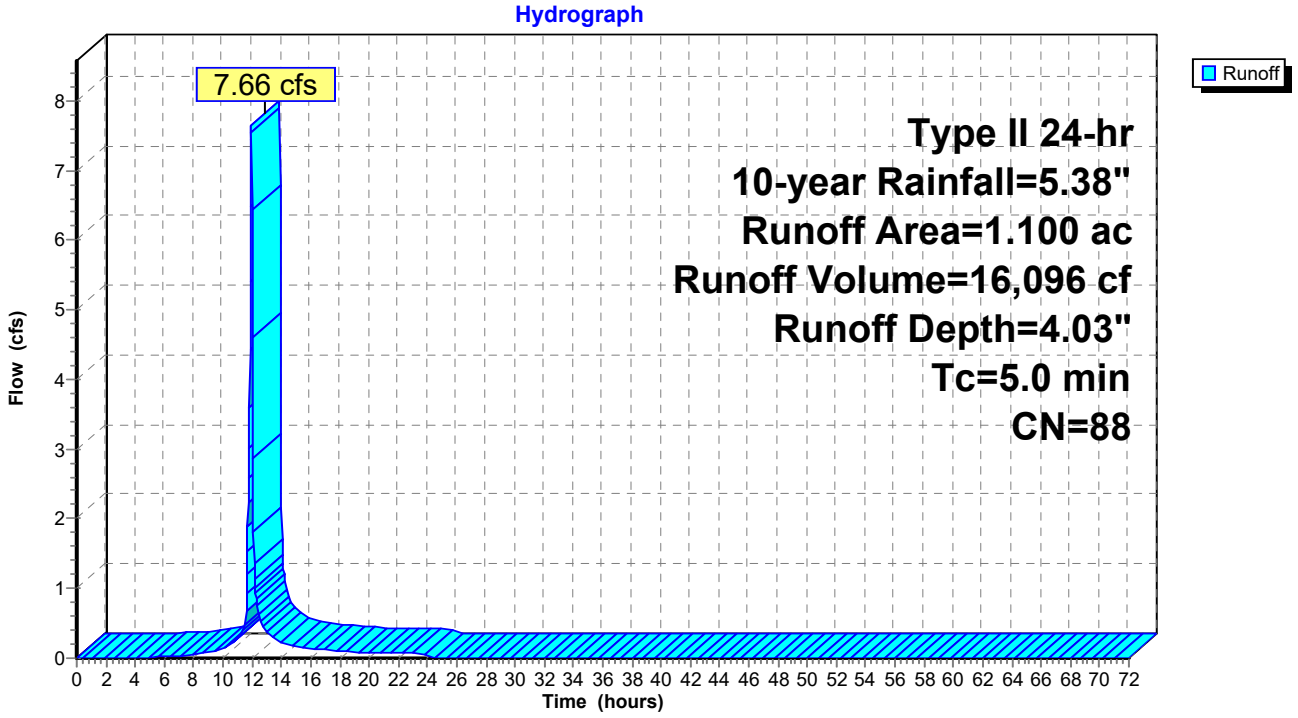
Runoff = 7.66 cfs @ 11.96 hrs, Volume= 16,096 cf, Depth= 4.03"
Routed to Pond 4FP : FocalPoint 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 10-year Rainfall=5.38"

Area (ac)	CN	Description
0.230	49	50-75% Grass cover, Fair, HSG A
0.870	98	Paved parking, HSG A
1.100	88	Weighted Average
0.230		20.91% Pervious Area
0.870		79.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 4S: Area 4



Summary for Subcatchment 5S: Area 5

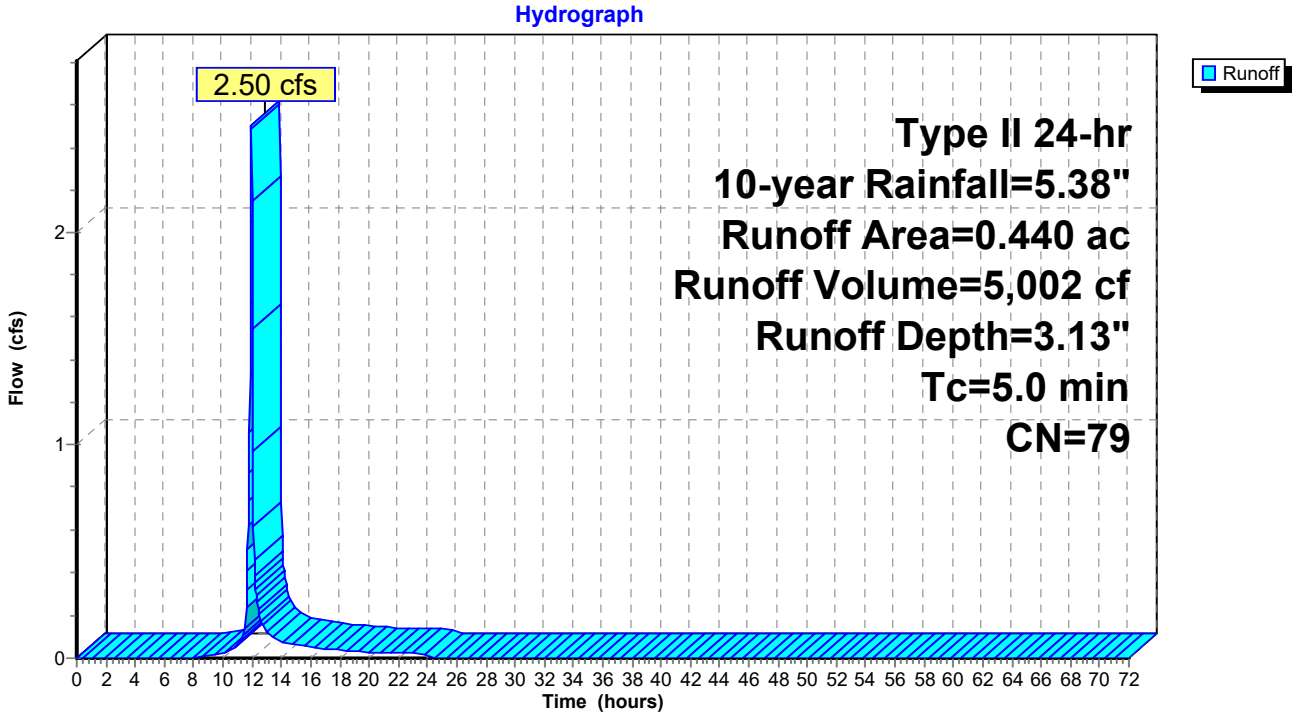
Runoff = 2.50 cfs @ 11.96 hrs, Volume= 5,002 cf, Depth= 3.13"
Routed to Pond 5FP : FocalPoint 5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 10-year Rainfall=5.38"

Area (ac)	CN	Description
0.170	49	50-75% Grass cover, Fair, HSG A
0.270	98	Paved parking, HSG A
0.440	79	Weighted Average
0.170		38.64% Pervious Area
0.270		61.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 5S: Area 5



Summary for Subcatchment 6S: Area 6

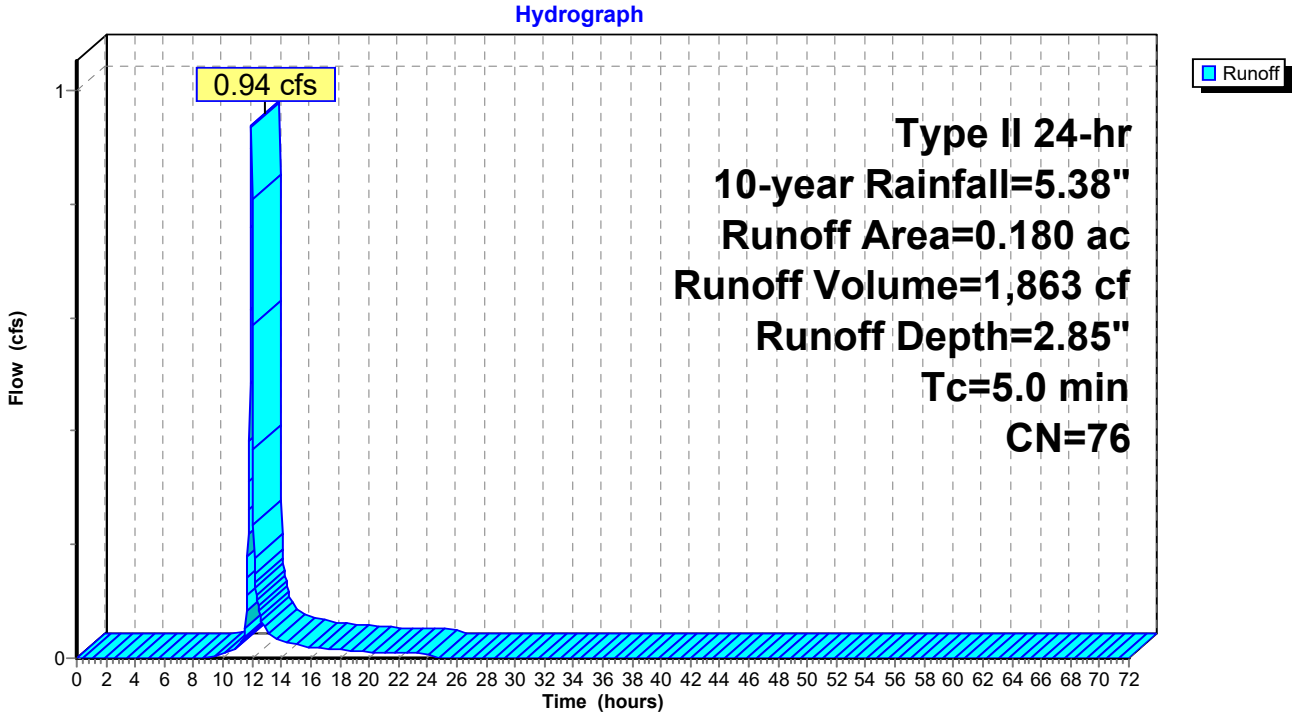
Runoff = 0.94 cfs @ 11.96 hrs, Volume= 1,863 cf, Depth= 2.85"
Routed to Pond 6FP : FocalPoint 6

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 10-year Rainfall=5.38"

Area (ac)	CN	Description
0.080	49	50-75% Grass cover, Fair, HSG A
0.100	98	Paved parking, HSG A
0.180	76	Weighted Average
0.080		44.44% Pervious Area
0.100		55.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 6S: Area 6



Summary for Subcatchment 10S: South Bypass

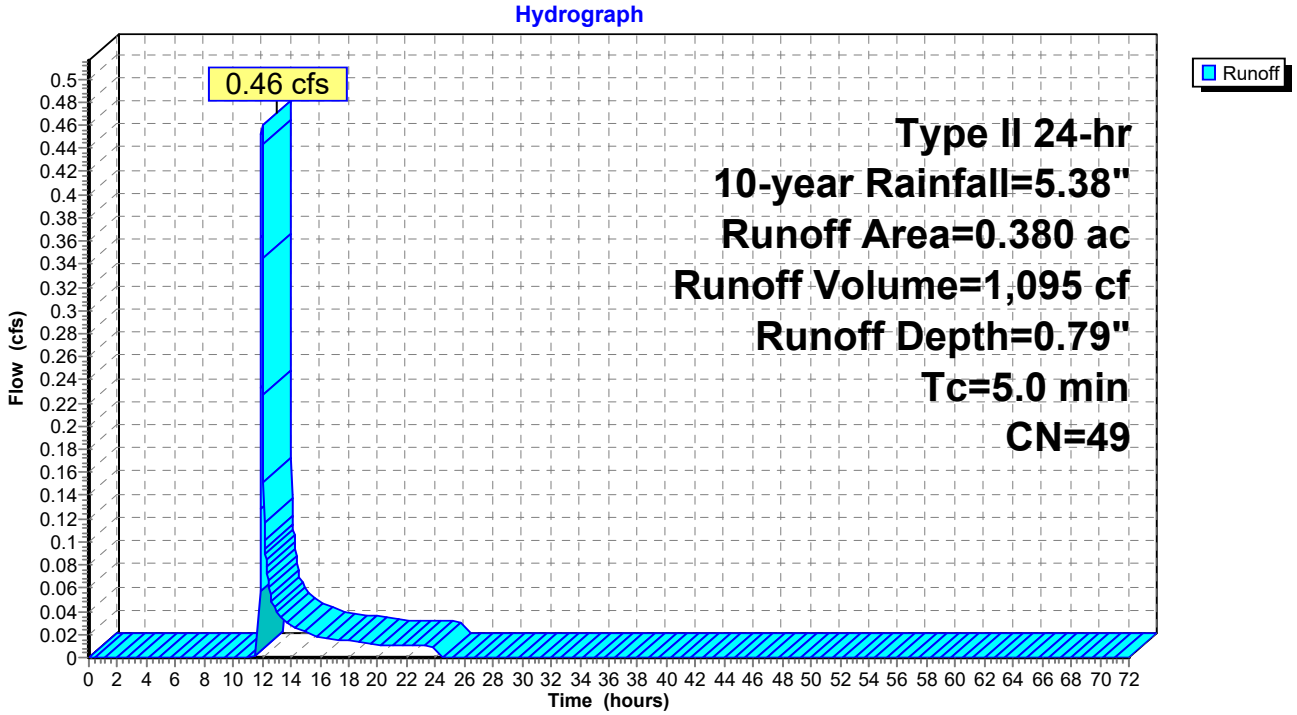
Runoff = 0.46 cfs @ 11.98 hrs, Volume= 1,095 cf, Depth= 0.79"
Routed to Link 1L : Outfall #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 10-year Rainfall=5.38"

Area (ac)	CN	Description
0.290	49	50-75% Grass cover, Fair, HSG A
0.070	36	Woods, Fair, HSG A
0.020	98	Paved parking, HSG A
0.380	49	Weighted Average
0.360		94.74% Pervious Area
0.020		5.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 10S: South Bypass



Summary for Reach 1R: Southern Trunk Line

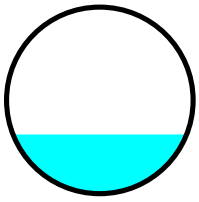
[52] Hint: Inlet/Outlet conditions not evaluated
[79] Warning: Submerged Pond 1DP Primary device # 1 INLET by 0.49'
[81] Warning: Exceeded Pond 2DP by 1.71' @ 0.00 hrs
[79] Warning: Submerged Pond 5FP Primary device # 1 INLET by 2.09'
[79] Warning: Submerged Pond 6FP Primary device # 1 INLET by 2.09'

Inflow Area = 187,308 sf, 64.19% Impervious, Inflow Depth > 2.90" for 10-year event
Inflow = 4.01 cfs @ 12.00 hrs, Volume= 45,202 cf
Outflow = 3.44 cfs @ 12.11 hrs, Volume= 45,199 cf, Atten= 14%, Lag= 6.7 min
Routed to Link 1L : Outfall #1

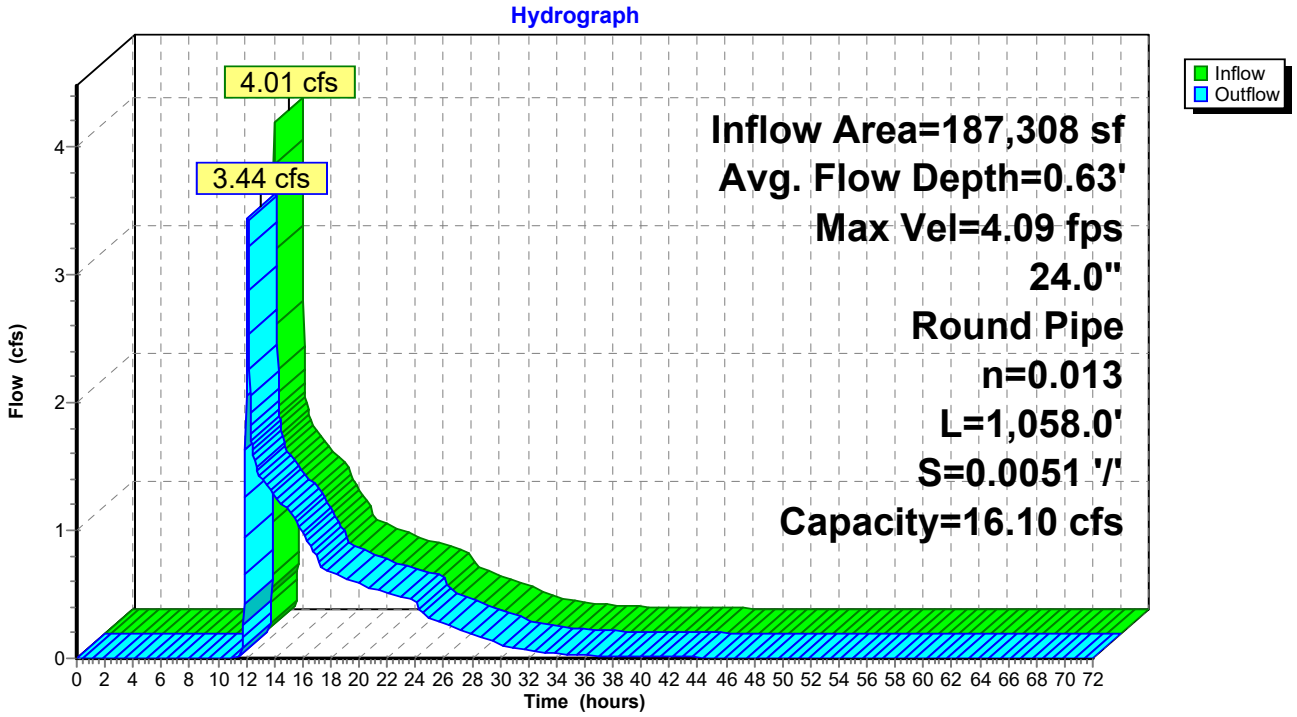
Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Max. Velocity= 4.09 fps, Min. Travel Time= 4.3 min
Avg. Velocity = 1.16 fps, Avg. Travel Time= 15.2 min

Peak Storage= 902 cf @ 12.04 hrs
Average Depth at Peak Storage= 0.63' , Surface Width= 1.86'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 16.10 cfs

24.0" Round Pipe
n= 0.013
Length= 1,058.0' Slope= 0.0051 '/'
Inlet Invert= 695.46', Outlet Invert= 690.10'



Reach 1R: Southern Trunk Line



Summary for Pond 1DP: Detention Pond 1

[44] Hint: Outlet device #2 is below defined storage
[79] Warning: Submerged Pond 1FP Primary device # 1 INLET by 2.09'

Inflow Area = 64,469 sf, 43.92% Impervious, Inflow Depth = 2.09" for 10-year event
Inflow = 5.79 cfs @ 11.98 hrs, Volume= 11,206 cf
Outflow = 0.64 cfs @ 12.41 hrs, Volume= 11,206 cf, Atten= 89%, Lag= 26.1 min
Primary = 0.64 cfs @ 12.41 hrs, Volume= 11,206 cf
Routed to Reach 1R : Southern Trunk Line

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 698.09' @ 12.41 hrs Surf.Area= 3,237 sf Storage= 4,164 cf

Plug-Flow detention time= 56.5 min calculated for 11,201 cf (100% of inflow)
Center-of-Mass det. time= 56.5 min (908.4 - 851.9)

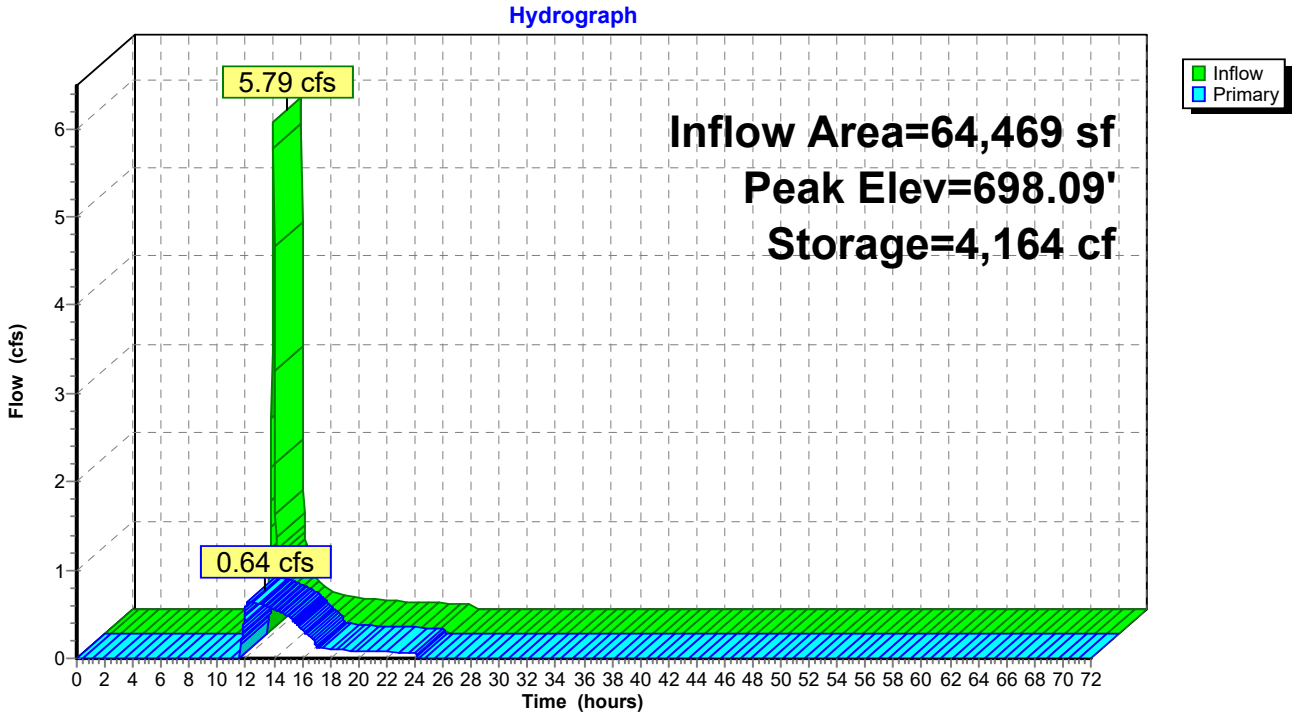
Volume	Invert	Avail.Storage	Storage Description
#1	695.80'	19,432 cf	**Custom Stage Data (Prismatic)** Listed below

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
695.80	0	0	0
696.00	285	29	29
697.00	2,098	1,192	1,220
698.00	3,151	2,625	3,845
699.00	4,138	3,645	7,489
700.00	5,311	4,725	12,214
701.00	9,125	7,218	19,432

Device	Routing	Invert	Outlet Devices
#1	Primary	695.60'	**18.0" Round Culvert** L= 28.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 695.60' / 695.46' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	695.60'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.64 cfs @ 12.41 hrs HW=698.09' TW=565.00' (Fixed TW Elev= 565.00')
└─**1=Culvert** (Passes 0.64 cfs of 10.62 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.64 cfs @ 7.34 fps)
  └─**3=Orifice/Grate** (Controls 0.00 cfs)

Pond 1DP: Detention Pond 1



Summary for Pond 1FP: FocalPoint 1

[92] Warning: Device #3 is above defined storage

Inflow Area = 64,469 sf, 43.92% Impervious, Inflow Depth = 2.15" for 10-year event
Inflow = 5.90 cfs @ 11.97 hrs, Volume= 11,575 cf
Outflow = 5.79 cfs @ 11.98 hrs, Volume= 11,206 cf, Atten= 2%, Lag= 0.7 min
Primary = 5.79 cfs @ 11.98 hrs, Volume= 11,206 cf
Routed to Pond 1DP : Detention Pond 1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 699.87' @ 11.98 hrs Surf.Area= 996 sf Storage= 679 cf

Plug-Flow detention time= 25.7 min calculated for 11,201 cf (97% of inflow)
Center-of-Mass det. time= 7.4 min (851.9 - 844.5)

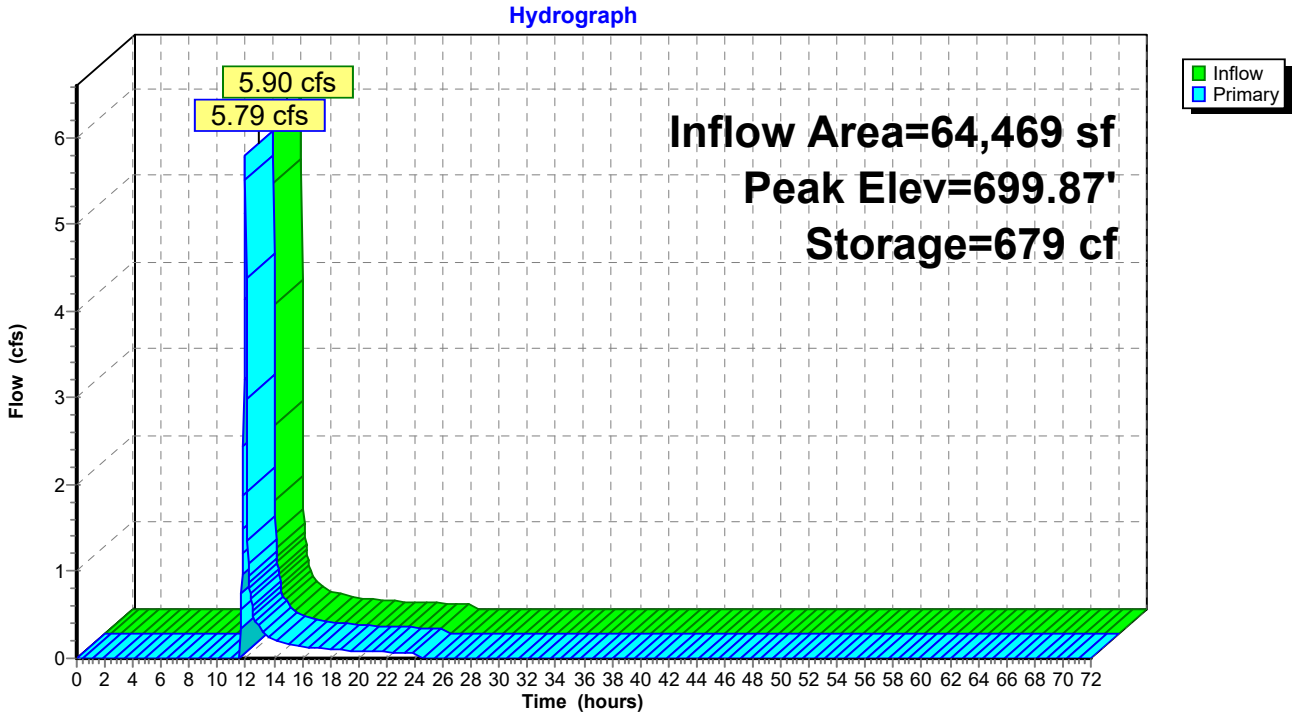
Volume	Invert	Avail.Storage	Storage Description
#1	696.00'	815 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
696.00	237	0.0	0	0
699.00	237	20.0	142	142
700.00	1,109	100.0	673	815

Device	Routing	Invert	Outlet Devices
#1	Primary	696.00'	**18.0" Round Culvert** L= 40.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 696.00' / 695.80' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**10.0' long x 18.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=5.71 cfs @ 11.98 hrs HW=699.87' (Free Discharge)
- **1=Culvert** (Passes 5.71 cfs of 15.02 cfs potential flow)
  - **2=Orifice/Grate** (Weir Controls 5.71 cfs @ 1.98 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1FP: FocalPoint 1



Summary for Pond 2DP: Detention Pond 2

[79] Warning: Submerged Pond 2FP Primary device # 1 INLET by 1.68'
[79] Warning: Submerged Pond 3FP Primary device # 1 INLET by 0.18'
[79] Warning: Submerged Pond 4FP Primary device # 1 INLET by 0.18'

Inflow Area = 95,832 sf, 79.09% Impervious, Inflow Depth = 3.68" for 10-year event
Inflow = 14.92 cfs @ 11.96 hrs, Volume= 29,357 cf
Outflow = 0.60 cfs @ 13.36 hrs, Volume= 28,388 cf, Atten= 96%, Lag= 84.1 min
Primary = 0.60 cfs @ 13.36 hrs, Volume= 28,388 cf
Routed to Reach 1R : Southern Trunk Line

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 696.18' @ 13.36 hrs Surf.Area= 8,711 sf Storage= 17,463 cf

Plug-Flow detention time= 408.1 min calculated for 28,388 cf (97% of inflow)
Center-of-Mass det. time= 388.7 min (1,203.9 - 815.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	693.75'	3,019 cf	**38.12'W x 114.25'L x 4.79'H Field A** 20,877 cf Overall - 13,330 cf Embedded = 7,547 cf x 40.0% Voids
#2A	694.00'	12,663 cf	**Ferguson R-Tank HD 2.5** x 1222 Inside #1 Inside= 15.7"W x 42.5"H => 4.42 sf x 2.35'L = 10.4 cf Outside= 15.7"W x 42.5"H => 4.65 sf x 2.35'L = 10.9 cf 1222 Chambers in 26 Rows
#3B	693.75'	3,019 cf	**38.12'W x 114.25'L x 4.79'H Field B** 20,877 cf Overall - 13,330 cf Embedded = 7,547 cf x 40.0% Voids
#4B	694.00'	12,663 cf	**Ferguson R-Tank HD 2.5** x 1222 Inside #3 Inside= 15.7"W x 42.5"H => 4.42 sf x 2.35'L = 10.4 cf Outside= 15.7"W x 42.5"H => 4.65 sf x 2.35'L = 10.9 cf 1222 Chambers in 26 Rows
		31,364 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	694.00'	**18.0" Round Culvert** L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.00' / 693.20' S= 0.0800 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	694.00'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	697.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.60 cfs @ 13.36 hrs HW=696.18' TW=565.00' (Fixed TW Elev= 565.00')
- **1=Culvert** (Passes 0.60 cfs of 10.16 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.60 cfs @ 6.83 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 2DP: Detention Pond 2 - Chamber Wizard Field A

Chamber Model = Ferguson R-Tank HD 2.5 (Ferguson R-Tank HD)
Inside= 15.7"W x 42.5"H => 4.42 sf x 2.35'L = 10.4 cf
Outside= 15.7"W x 42.5"H => 4.65 sf x 2.35'L = 10.9 cf

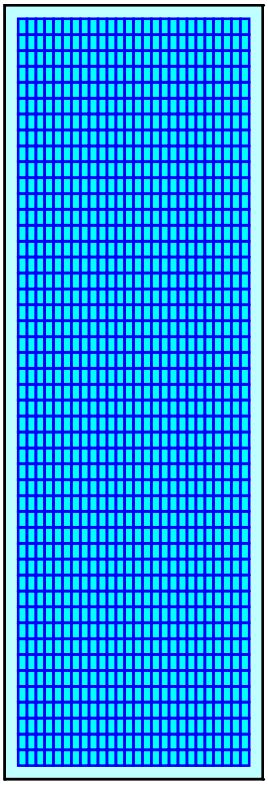
47 Chambers/Row x 2.35' Long = 110.25' Row Length +24.0" End Stone x 2 = 114.25' Base Length
26 Rows x 15.7" Wide + 24.0" Side Stone x 2 = 38.12' Base Width
3.0" Stone Base + 42.5" Chamber Height + 12.0" Stone Cover = 4.79' Field Height

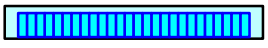
1,222 Chambers x 10.4 cf = 12,663.1 cf Chamber Storage
1,222 Chambers x 10.9 cf = 13,329.6 cf Displacement

20,876.7 cf Field - 13,329.6 cf Chambers = 7,547.2 cf Stone x 40.0% Voids = 3,018.9 cf Stone Storage

Chamber Storage + Stone Storage = 15,682.0 cf = 0.360 af
Overall Storage Efficiency = 75.1%
Overall System Size = 114.25' x 38.12' x 4.79'

1,222 Chambers
773.2 cy Field
279.5 cy Stone





Pond 2DP: Detention Pond 2 - Chamber Wizard Field B

Chamber Model = Ferguson R-Tank HD 2.5 (Ferguson R-Tank HD)
Inside= 15.7"W x 42.5"H => 4.42 sf x 2.35'L = 10.4 cf
Outside= 15.7"W x 42.5"H => 4.65 sf x 2.35'L = 10.9 cf

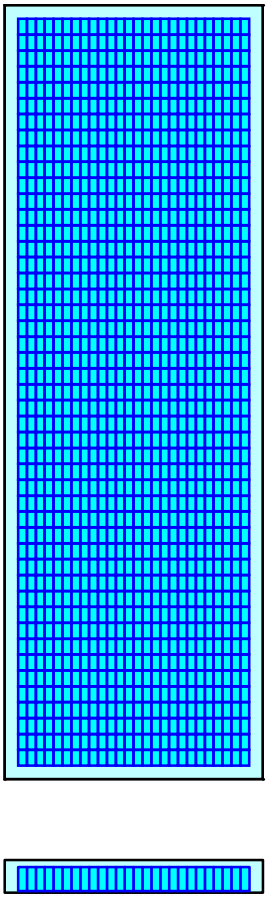
47 Chambers/Row x 2.35' Long = 110.25' Row Length +24.0" End Stone x 2 = 114.25' Base Length
26 Rows x 15.7" Wide + 24.0" Side Stone x 2 = 38.12' Base Width
3.0" Stone Base + 42.5" Chamber Height + 12.0" Stone Cover = 4.79' Field Height

1,222 Chambers x 10.4 cf = 12,663.1 cf Chamber Storage
1,222 Chambers x 10.9 cf = 13,329.6 cf Displacement

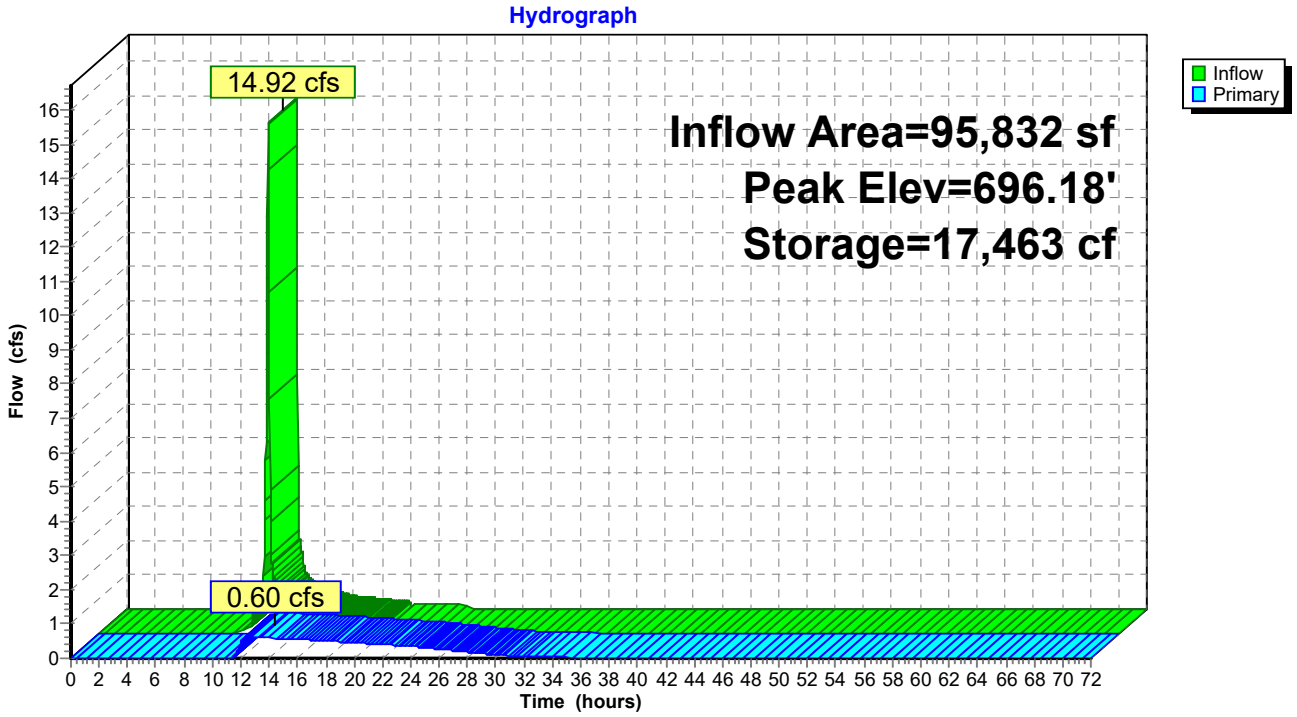
20,876.7 cf Field - 13,329.6 cf Chambers = 7,547.2 cf Stone x 40.0% Voids = 3,018.9 cf Stone Storage

Chamber Storage + Stone Storage = 15,682.0 cf = 0.360 af
Overall Storage Efficiency = 75.1%
Overall System Size = 114.25' x 38.12' x 4.79'

1,222 Chambers
773.2 cy Field
279.5 cy Stone



Pond 2DP: Detention Pond 2



Summary for Pond 2FP: FocalPoint 2

Inflow Area = 31,363 sf, 83.33% Impervious, Inflow Depth = 4.24" for 10-year event
Inflow = 5.19 cfs @ 11.96 hrs, Volume= 11,091 cf
Outflow = 5.07 cfs @ 11.97 hrs, Volume= 10,369 cf, Atten= 2%, Lag= 0.8 min
Primary = 5.07 cfs @ 11.97 hrs, Volume= 10,369 cf
Routed to Pond 2DP : Detention Pond 2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 698.34' @ 11.97 hrs Surf.Area= 1,237 sf Storage= 1,111 cf

Plug-Flow detention time= 60.2 min calculated for 10,369 cf (93% of inflow)
Center-of-Mass det. time= 23.7 min (807.7 - 784.1)

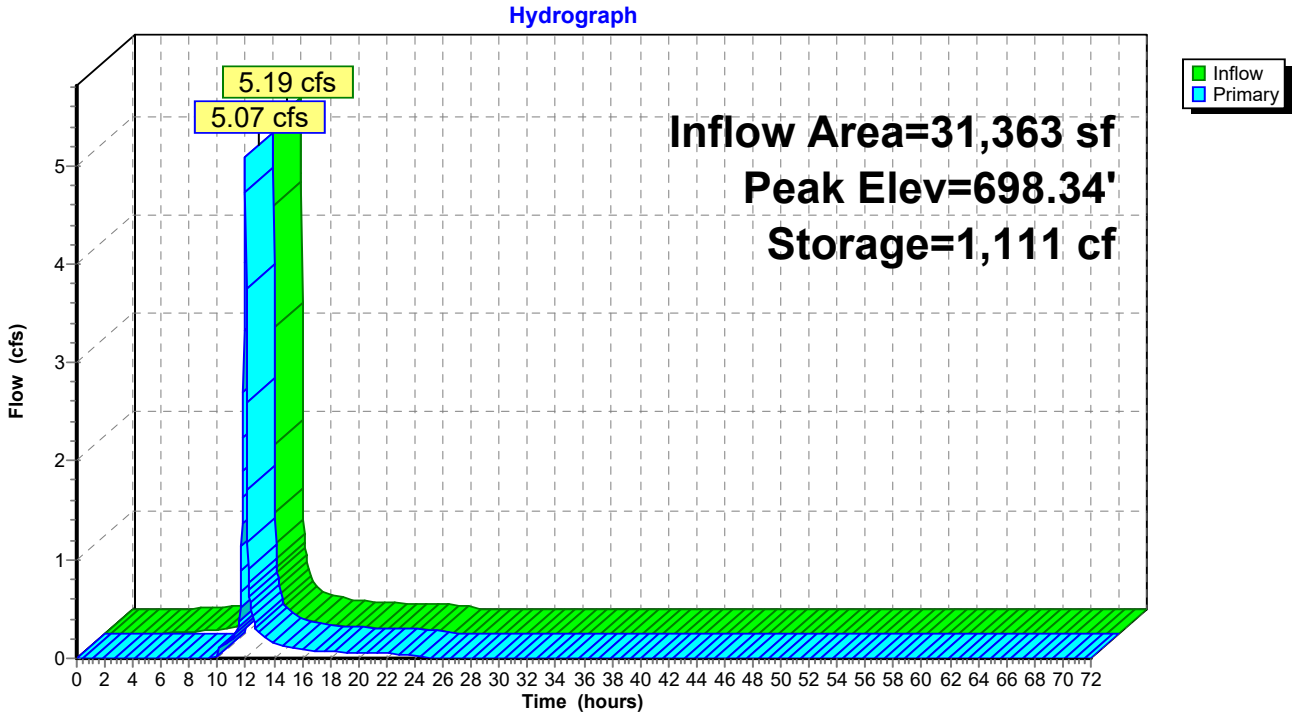
Volume	Invert	Avail.Storage	Storage Description
#1	694.50'	1,317 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
694.50	539	0.0	0	0
697.50	539	20.0	323	323
698.00	1,056	100.0	399	722
698.50	1,323	100.0	595	1,317

Device	Routing	Invert	Outlet Devices
#1	Primary	694.50'	**18.0" Round Culvert** L= 28.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.50' / 694.00' S= 0.0179 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	698.00'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=5.07 cfs @ 11.97 hrs HW=698.34' (Free Discharge)
↑ **1=Culvert** (Passes 5.07 cfs of 14.95 cfs potential flow)
↑ **2=Orifice/Grate** (Weir Controls 5.07 cfs @ 1.90 fps)

Pond 2FP: FocalPoint 2



Summary for Pond 3FP: FocalPoint 3

Inflow Area = 16,553 sf, 71.05% Impervious, Inflow Depth = 3.62" for 10-year event
Inflow = 2.44 cfs @ 11.96 hrs, Volume= 4,993 cf
Outflow = 2.39 cfs @ 11.97 hrs, Volume= 4,272 cf, Atten= 2%, Lag= 0.8 min
Primary = 2.39 cfs @ 11.97 hrs, Volume= 4,272 cf
Routed to Pond 2DP : Detention Pond 2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 699.70' @ 11.97 hrs Surf.Area= 932 sf Storage= 902 cf

Plug-Flow detention time= 98.2 min calculated for 4,272 cf (86% of inflow)
Center-of-Mass det. time= 31.5 min (835.2 - 803.6)

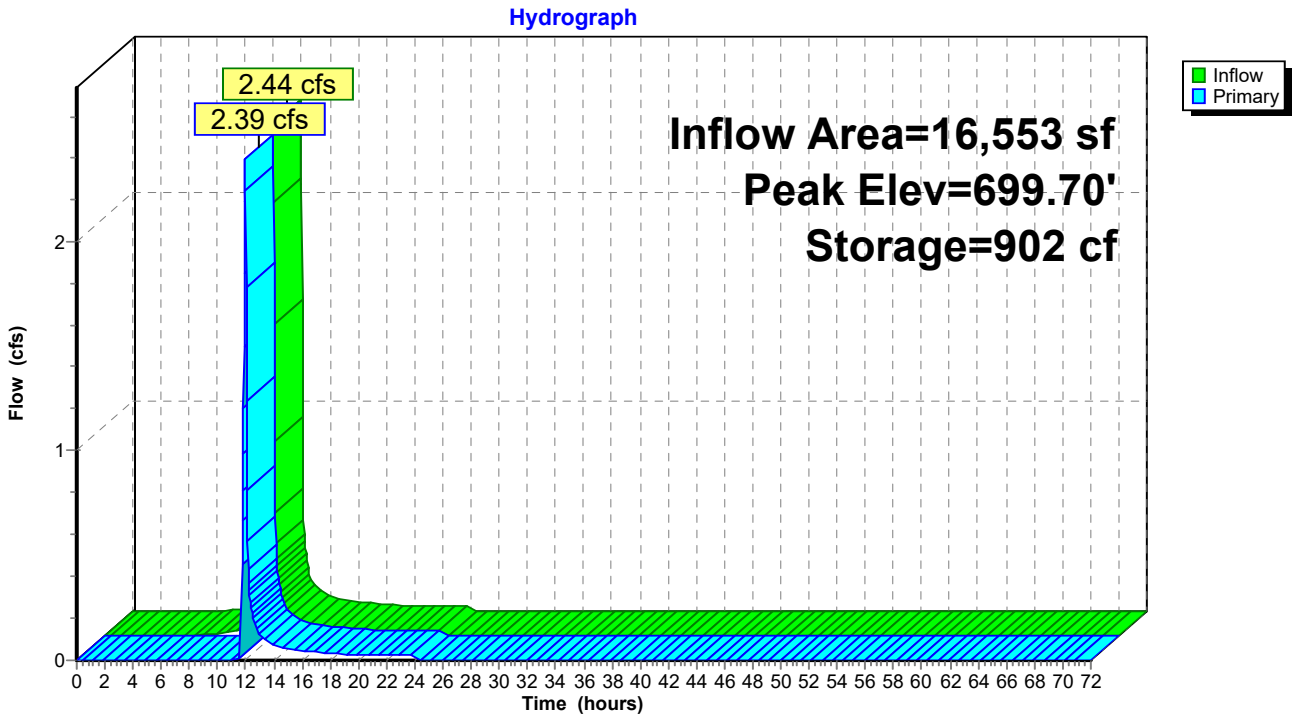
Volume	Invert	Avail.Storage	Storage Description
#1	696.00'	1,197 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
696.00	602	0.0	0	0
699.00	602	20.0	361	361
700.00	1,070	100.0	836	1,197

Device	Routing	Invert	Outlet Devices
#1	Primary	696.00'	**18.0" Round Culvert** L= 80.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 696.00' / 694.00' S= 0.0250 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=2.37 cfs @ 11.97 hrs HW=699.70' (Free Discharge)
↑—**1=Culvert** (Passes 2.37 cfs of 14.62 cfs potential flow)
↑—**2=Orifice/Grate** (Weir Controls 2.37 cfs @ 1.48 fps)

Pond 3FP: FocalPoint 3



Summary for Pond 4FP: FocalPoint 4

[92] Warning: Device #2 is above defined storage
[92] Warning: Device #3 is above defined storage
[93] Warning: Storage range exceeded by 0.95'
[88] Warning: Qout>Qin may require smaller dt or Finer Routing
[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=211)

Inflow Area = 47,916 sf, 79.09% Impervious, Inflow Depth = 4.03" for 10-year event
Inflow = 7.66 cfs @ 11.96 hrs, Volume= 16,096 cf
Outflow = 7.70 cfs @ 11.95 hrs, Volume= 14,715 cf, Atten= 0%, Lag= 0.0 min
Primary = 7.70 cfs @ 11.95 hrs, Volume= 14,715 cf
Routed to Pond 2DP : Detention Pond 2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 699.95' @ 11.95 hrs Surf.Area= 1,491 sf Storage= 1,389 cf

Plug-Flow detention time= 68.9 min calculated for 14,709 cf (91% of inflow)
Center-of-Mass det. time= 23.6 min (814.7 - 791.2)

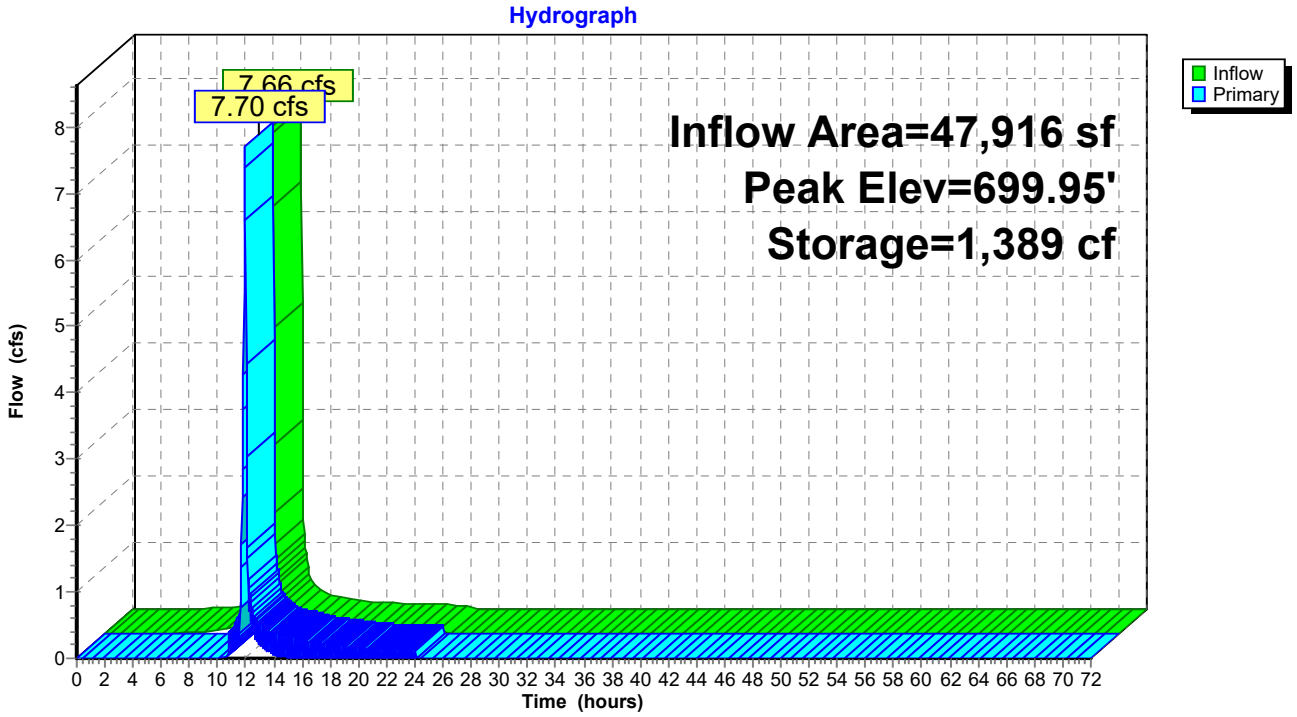
Volume	Invert	Avail.Storage	Storage Description
#1	695.00'	1,389 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
695.00	585	0.0	0	0
698.00	585	20.0	351	351
699.00	1,491	100.0	1,038	1,389

Device	Routing	Invert	Outlet Devices
#1	Primary	696.00'	**18.0" Round Culvert** L= 23.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 696.00' / 695.88' S= 0.0052 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**6.0' long x 133.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=7.52 cfs @ 11.95 hrs HW=699.94' (Free Discharge)
- **1=Culvert** (Passes 7.52 cfs of 15.20 cfs potential flow)
  - **2=Orifice/Grate** (Weir Controls 7.52 cfs @ 2.17 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 4FP: FocalPoint 4



Summary for Pond 5FP: FocalPoint 5

Inflow Area = 19,166 sf, 61.36% Impervious, Inflow Depth = 3.13" for 10-year event
Inflow = 2.50 cfs @ 11.96 hrs, Volume= 5,002 cf
Outflow = 2.43 cfs @ 11.98 hrs, Volume= 4,373 cf, Atten= 3%, Lag= 0.9 min
Primary = 2.43 cfs @ 11.98 hrs, Volume= 4,373 cf
Routed to Reach 1R : Southern Trunk Line

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 697.71' @ 11.98 hrs Surf.Area= 1,089 sf Storage= 835 cf

Plug-Flow detention time= 86.0 min calculated for 4,373 cf (87% of inflow)
Center-of-Mass det. time= 25.3 min (842.6 - 817.3)

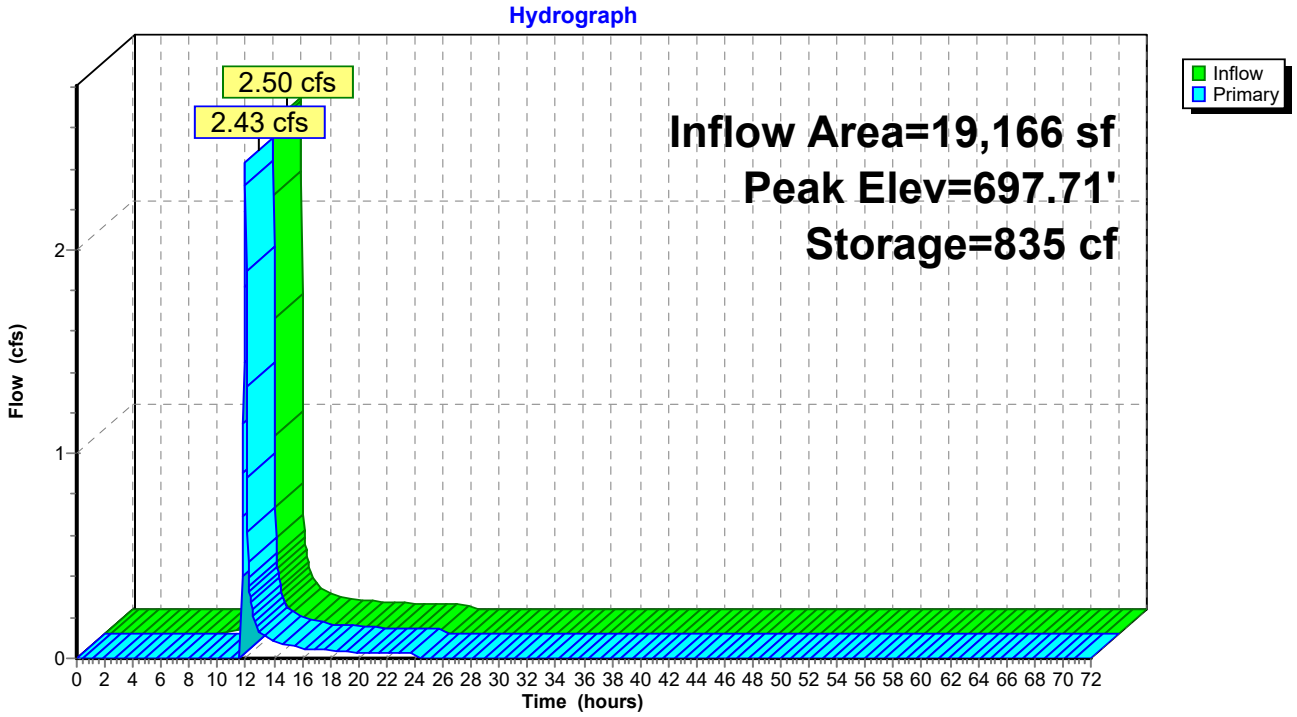
Volume	Invert	Avail.Storage	Storage Description
#1	694.00'	2,779 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
694.00	472	0.0	0	0
697.00	472	20.0	283	283
698.00	1,344	100.0	908	1,191
699.00	1,832	100.0	1,588	2,779

Device	Routing	Invert	Outlet Devices
#1	Primary	694.00'	**18.0" Round Culvert** L= 24.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.00' / 691.39' S= 0.1088 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	697.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	698.50'	**6.0' long x 9.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.46 2.55 2.70 2.69 2.68 2.68 2.67 2.64 2.64 2.64 2.65 2.64 2.65 2.65 2.66 2.67 2.69

Primary OutFlow Max=2.40 cfs @ 11.98 hrs HW=697.71' (Free Discharge)
└**1=Culvert** (Passes 2.40 cfs of 14.63 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 2.40 cfs @ 1.48 fps)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 5FP: FocalPoint 5



Summary for Pond 6FP: FocalPoint 6

Inflow Area = 7,841 sf, 55.56% Impervious, Inflow Depth = 2.85" for 10-year event
Inflow = 0.94 cfs @ 11.96 hrs, Volume= 1,863 cf
Outflow = 0.69 cfs @ 12.02 hrs, Volume= 1,235 cf, Atten= 27%, Lag= 3.7 min
Primary = 0.69 cfs @ 12.02 hrs, Volume= 1,235 cf
Routed to Reach 1R : Southern Trunk Line

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 697.59' @ 12.02 hrs Surf.Area= 985 sf Storage= 712 cf

Plug-Flow detention time= 175.2 min calculated for 1,235 cf (66% of inflow)
Center-of-Mass det. time= 67.3 min (892.2 - 824.8)

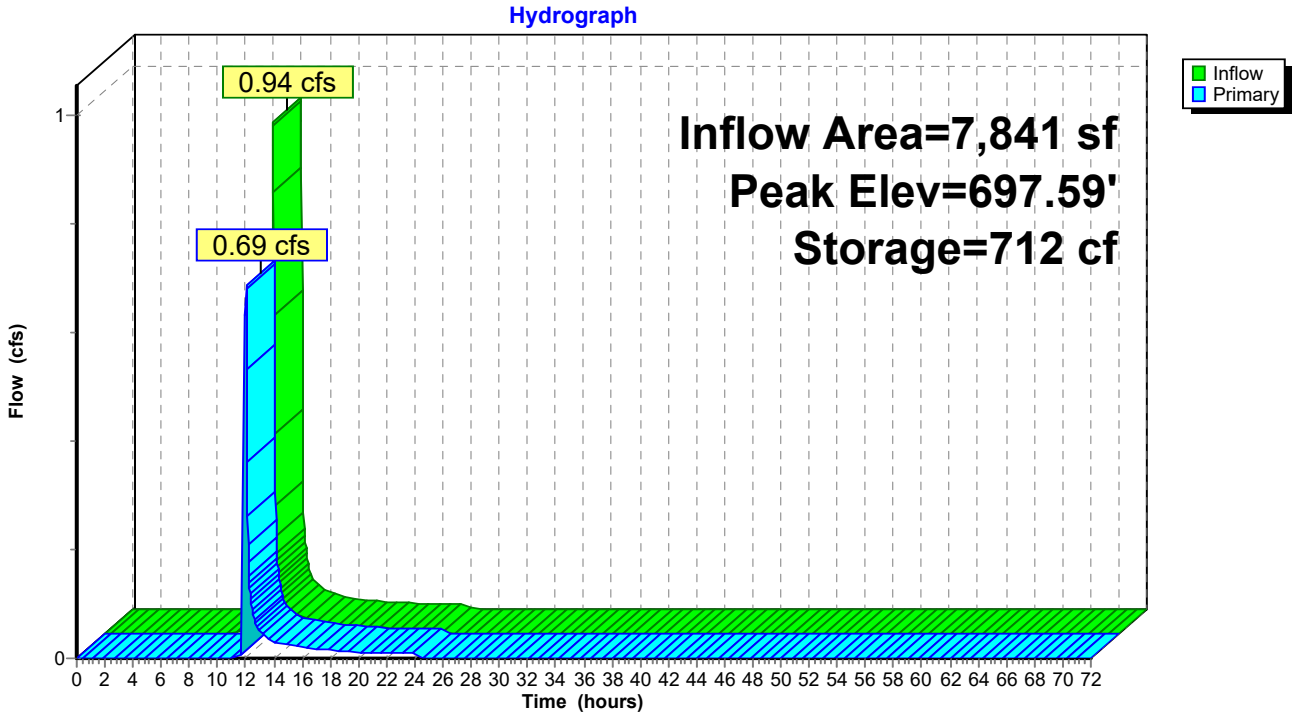
Volume	Invert	Avail.Storage	Storage Description
#1	694.00'	2,779 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
694.00	472	0.0	0	0
697.00	472	20.0	283	283
698.00	1,344	100.0	908	1,191
699.00	1,832	100.0	1,588	2,779

Device	Routing	Invert	Outlet Devices
#1	Primary	694.00'	**18.0" Round Culvert** L= 24.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.00' / 690.87' S= 0.1304 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	697.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	698.50'	**6.0' long x 9.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.46 2.55 2.70 2.69 2.68 2.68 2.67 2.64 2.64 2.64 2.65 2.64 2.65 2.65 2.66 2.67 2.69

Primary OutFlow Max=0.65 cfs @ 12.02 hrs HW=697.59' (Free Discharge)
└**1=Culvert** (Passes 0.65 cfs of 14.33 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 0.65 cfs @ 0.96 fps)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 6FP: FocalPoint 6

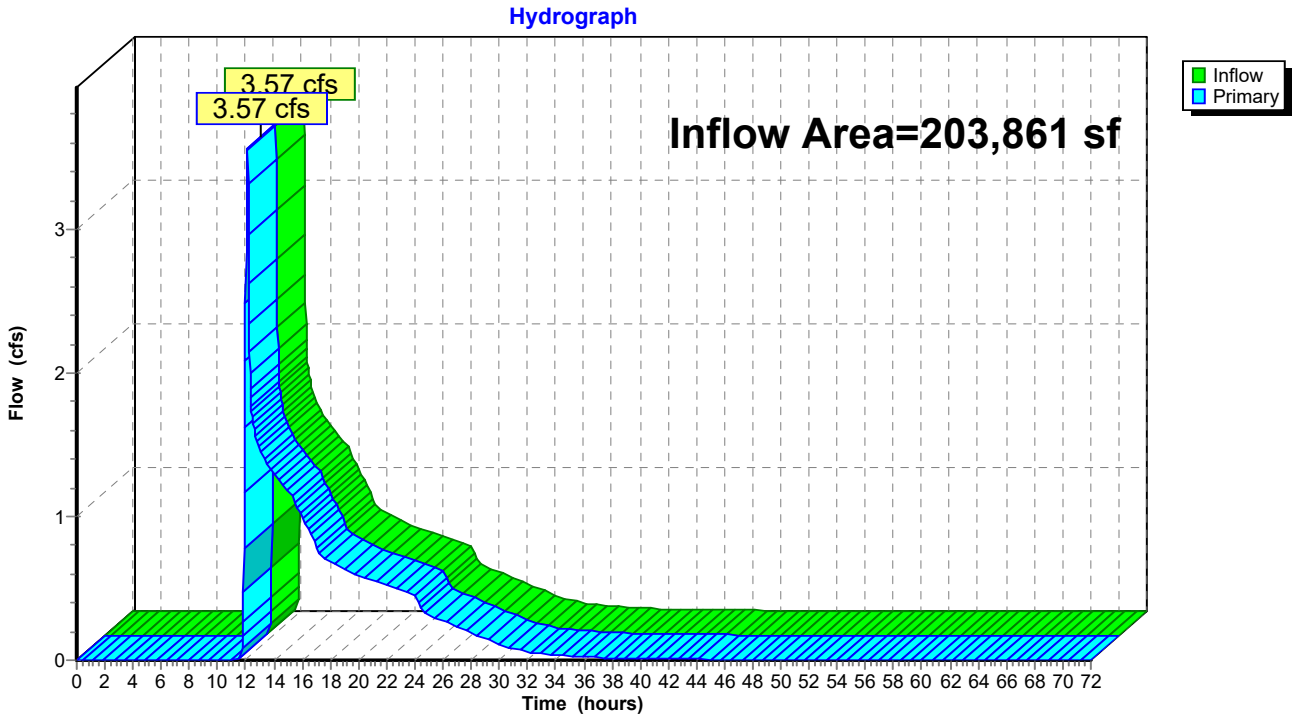


Summary for Link 1L: Outfall #1

Inflow Area = 203,861 sf, 59.40% Impervious, Inflow Depth > 2.73" for 10-year event
Inflow = 3.57 cfs @ 12.11 hrs, Volume= 46,293 cf
Primary = 3.57 cfs @ 12.11 hrs, Volume= 46,293 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs

Link 1L: Outfall #1



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Area 1 Runoff Area=1.480 ac 43.92% Impervious Runoff Depth=2.85"
Tc=5.0 min CN=68 Runoff=7.80 cfs 15,329 cf

Subcatchment2S: Area 2 Runoff Area=0.720 ac 83.33% Impervious Runoff Depth=5.14"
Tc=5.0 min CN=90 Runoff=6.20 cfs 13,430 cf

Subcatchment3S: Area 3 Runoff Area=0.380 ac 71.05% Impervious Runoff Depth=4.48"
Tc=5.0 min CN=84 Runoff=2.98 cfs 6,177 cf

Subcatchment4S: Area 4 Runoff Area=1.100 ac 79.09% Impervious Runoff Depth=4.92"
Tc=5.0 min CN=88 Runoff=9.21 cfs 19,627 cf

Subcatchment5S: Area 5 Runoff Area=0.440 ac 61.36% Impervious Runoff Depth=3.95"
Tc=5.0 min CN=79 Runoff=3.12 cfs 6,307 cf

Subcatchment6S: Area 6 Runoff Area=0.180 ac 55.56% Impervious Runoff Depth=3.64"
Tc=5.0 min CN=76 Runoff=1.19 cfs 2,379 cf

Subcatchment10S: South Bypass Runoff Area=0.380 ac 5.26% Impervious Runoff Depth=1.22"
Tc=5.0 min CN=49 Runoff=0.78 cfs 1,678 cf

Reach 1R: Southern Trunk Line Avg. Flow Depth=0.74' Max Vel=4.44 fps Inflow=5.32 cfs 57,819 cf
24.0" Round Pipe n=0.013 L=1,058.0' S=0.0051 '/' Capacity=16.10 cfs Outflow=4.65 cfs 57,816 cf

Pond 1DP: Detention Pond 1 Peak Elev=698.60' Storage=6,034 cf Inflow=7.68 cfs 14,959 cf
Outflow=0.71 cfs 14,959 cf

Pond 1FP: FocalPoint 1 Peak Elev=699.95' Storage=758 cf Inflow=7.80 cfs 15,329 cf
Outflow=7.68 cfs 14,959 cf

Pond 2DP: Detention Pond 2 Peak Elev=696.80' Storage=22,200 cf Inflow=18.30 cfs 36,410 cf
Outflow=0.68 cfs 35,431 cf

Pond 2FP: FocalPoint 2 Peak Elev=698.38' Storage=1,165 cf Inflow=6.20 cfs 13,430 cf
Outflow=6.08 cfs 12,708 cf

Pond 3FP: FocalPoint 3 Peak Elev=699.73' Storage=930 cf Inflow=2.98 cfs 6,177 cf
Outflow=2.93 cfs 5,456 cf

Pond 4FP: FocalPoint 4 Peak Elev=700.01' Storage=1,389 cf Inflow=9.21 cfs 19,627 cf
Outflow=9.33 cfs 18,246 cf

Pond 5FP: FocalPoint 5 Peak Elev=697.74' Storage=872 cf Inflow=3.12 cfs 6,307 cf
Outflow=3.04 cfs 5,679 cf

Pond 6FP: FocalPoint 6 Peak Elev=697.62' Storage=746 cf Inflow=1.19 cfs 2,379 cf
Outflow=1.12 cfs 1,750 cf

Link 1L: Outfall #1

Inflow=4.89 cfs 59,494 cf
Primary=4.89 cfs 59,494 cf

Total Runoff Area = 203,861 sf Runoff Volume = 64,926 cf Average Runoff Depth = 3.82"
40.60% Pervious = 82,764 sf 59.40% Impervious = 121,097 sf

Summary for Subcatchment 1S: Area 1

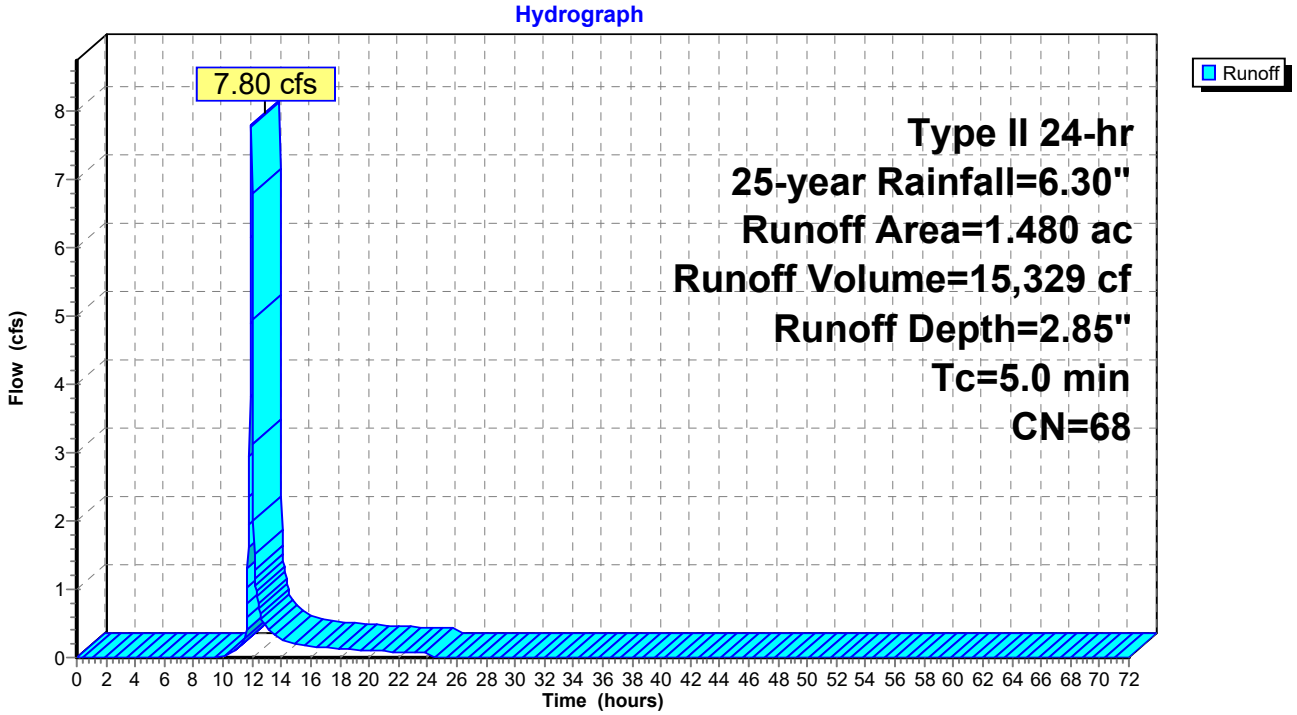
Runoff = 7.80 cfs @ 11.96 hrs, Volume= 15,329 cf, Depth= 2.85"
Routed to Pond 1FP : FocalPoint 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 25-year Rainfall=6.30"

Area (ac)	CN	Description
0.510	49	50-75% Grass cover, Fair, HSG A
0.320	36	Woods, Fair, HSG A
0.650	98	Paved parking, HSG A
1.480	68	Weighted Average
0.830		56.08% Pervious Area
0.650		43.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 1S: Area 1



Summary for Subcatchment 2S: Area 2

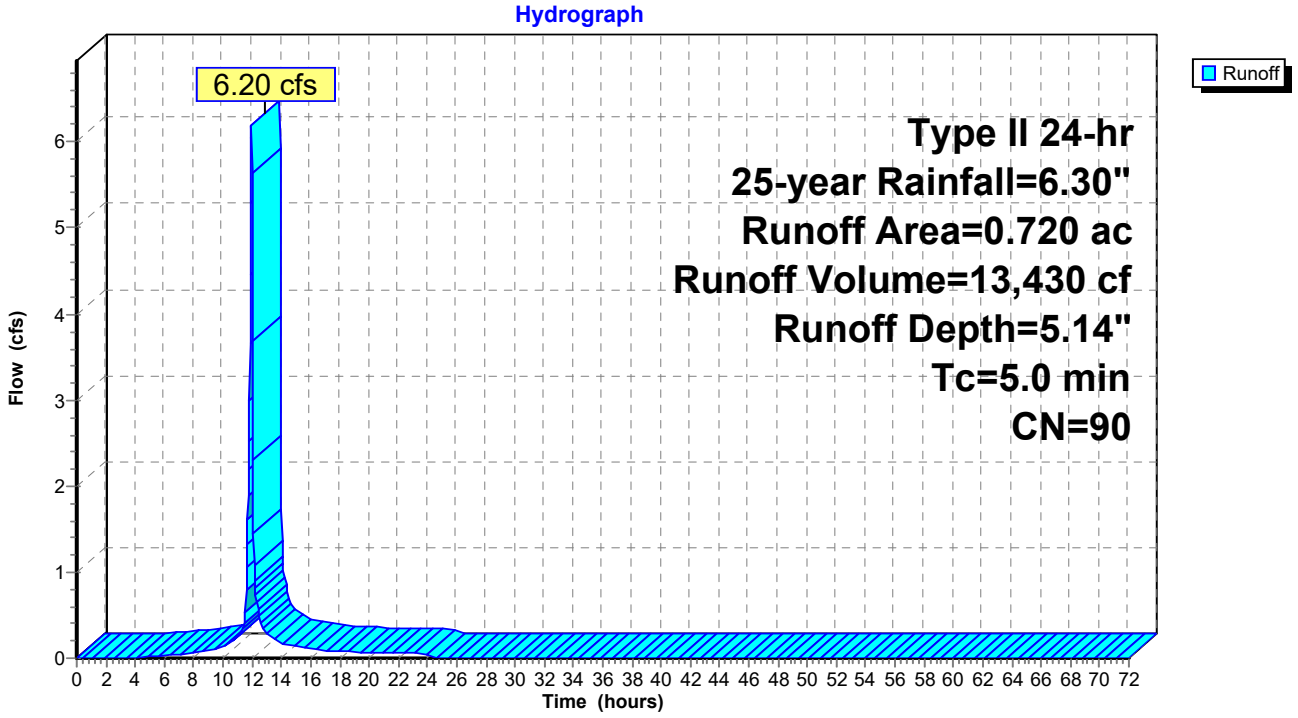
Runoff = 6.20 cfs @ 11.96 hrs, Volume= 13,430 cf, Depth= 5.14"
Routed to Pond 2FP : FocalPoint 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 25-year Rainfall=6.30"

Area (ac)	CN	Description
0.120	49	50-75% Grass cover, Fair, HSG A
0.600	98	Paved parking, HSG A
0.720	90	Weighted Average
0.120		16.67% Pervious Area
0.600		83.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 2S: Area 2



Summary for Subcatchment 3S: Area 3

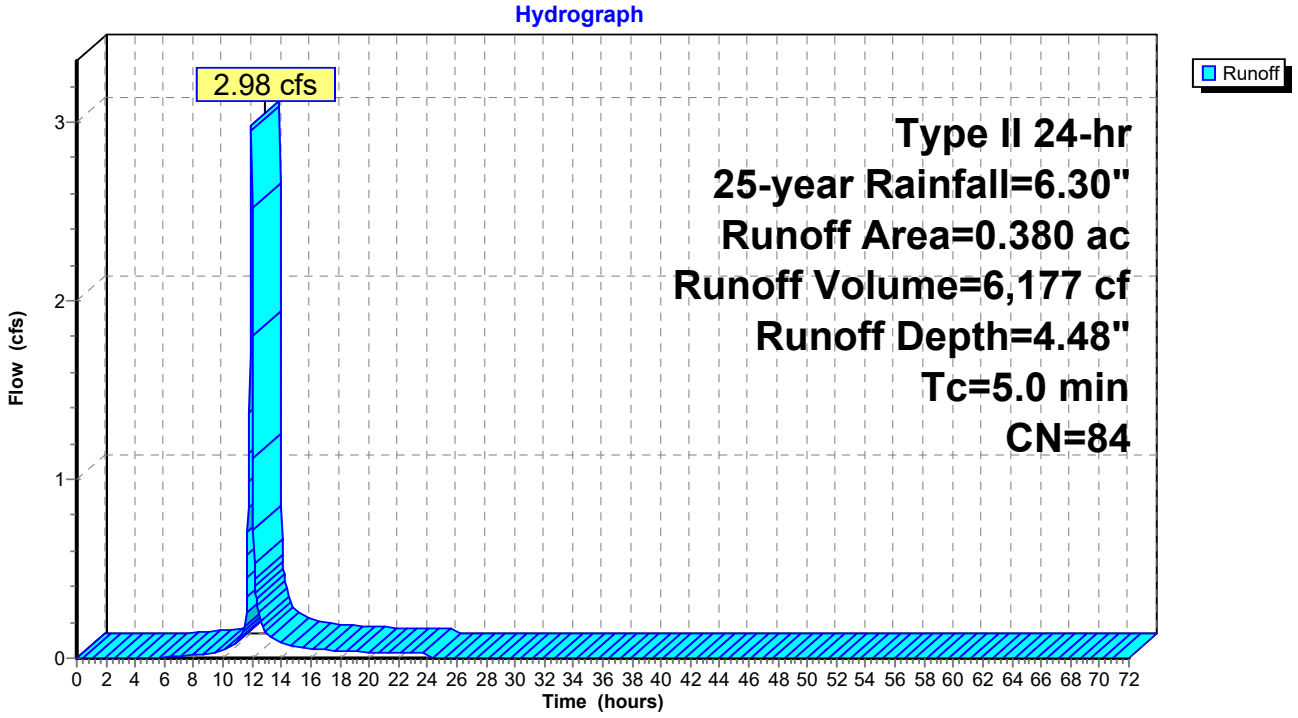
Runoff = 2.98 cfs @ 11.96 hrs, Volume= 6,177 cf, Depth= 4.48"
Routed to Pond 3FP : FocalPoint 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 25-year Rainfall=6.30"

Area (ac)	CN	Description
0.110	49	50-75% Grass cover, Fair, HSG A
0.270	98	Paved parking, HSG A
0.380	84	Weighted Average
0.110		28.95% Pervious Area
0.270		71.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 3S: Area 3



Summary for Subcatchment 4S: Area 4

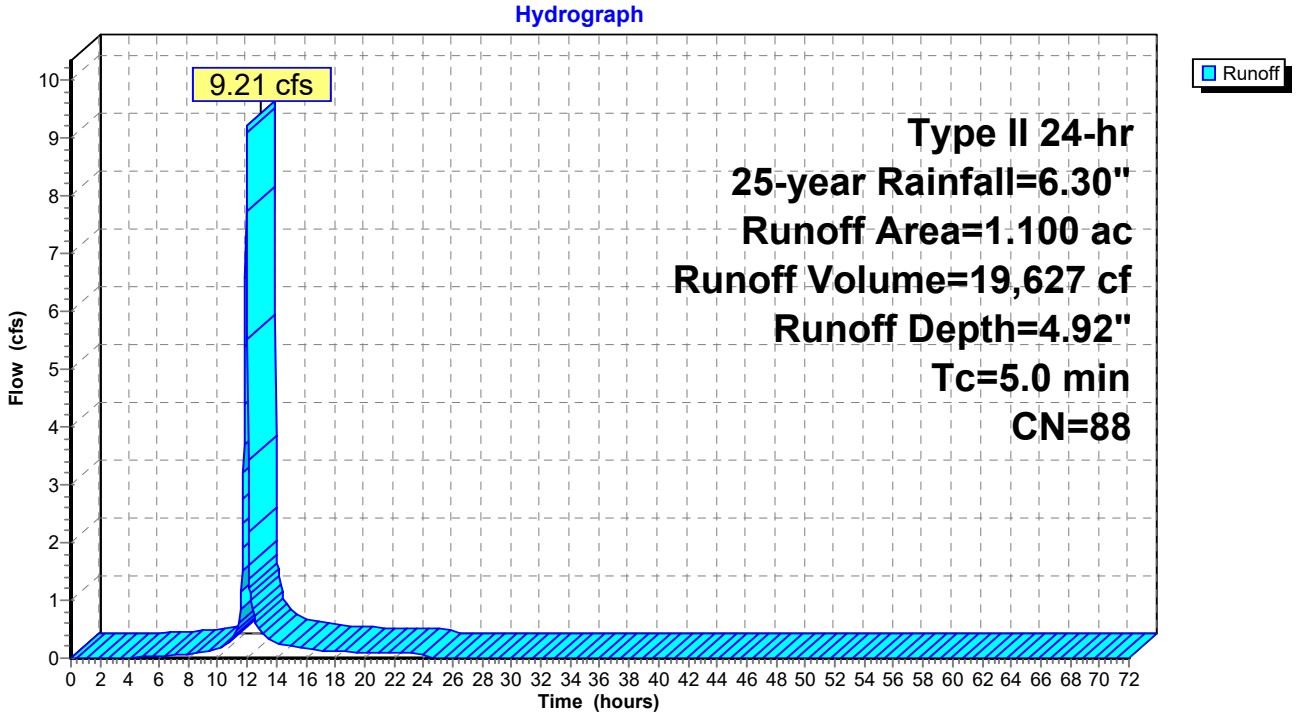
Runoff = 9.21 cfs @ 11.96 hrs, Volume= 19,627 cf, Depth= 4.92"
Routed to Pond 4FP : FocalPoint 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 25-year Rainfall=6.30"

Area (ac)	CN	Description
0.230	49	50-75% Grass cover, Fair, HSG A
0.870	98	Paved parking, HSG A
1.100	88	Weighted Average
0.230		20.91% Pervious Area
0.870		79.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 4S: Area 4



Summary for Subcatchment 5S: Area 5

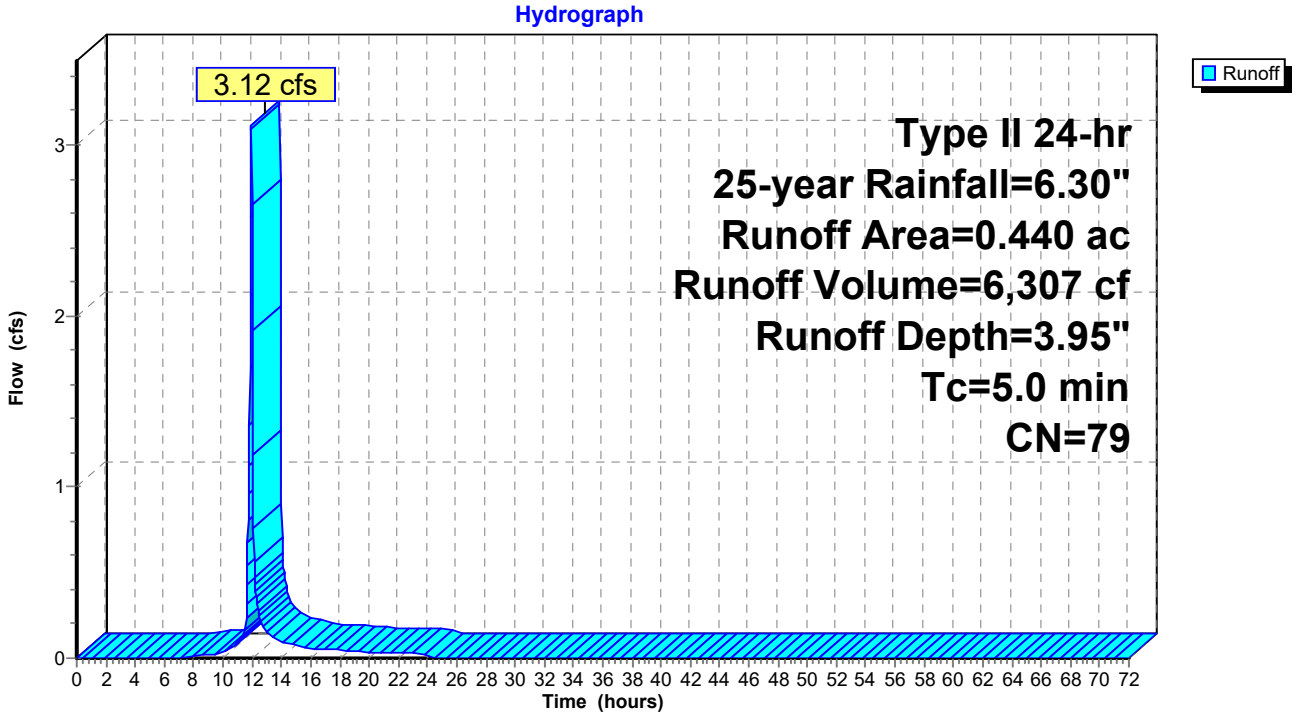
Runoff = 3.12 cfs @ 11.96 hrs, Volume= 6,307 cf, Depth= 3.95"
Routed to Pond 5FP : FocalPoint 5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 25-year Rainfall=6.30"

Area (ac)	CN	Description
0.170	49	50-75% Grass cover, Fair, HSG A
0.270	98	Paved parking, HSG A
0.440	79	Weighted Average
0.170		38.64% Pervious Area
0.270		61.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 5S: Area 5



Summary for Subcatchment 6S: Area 6

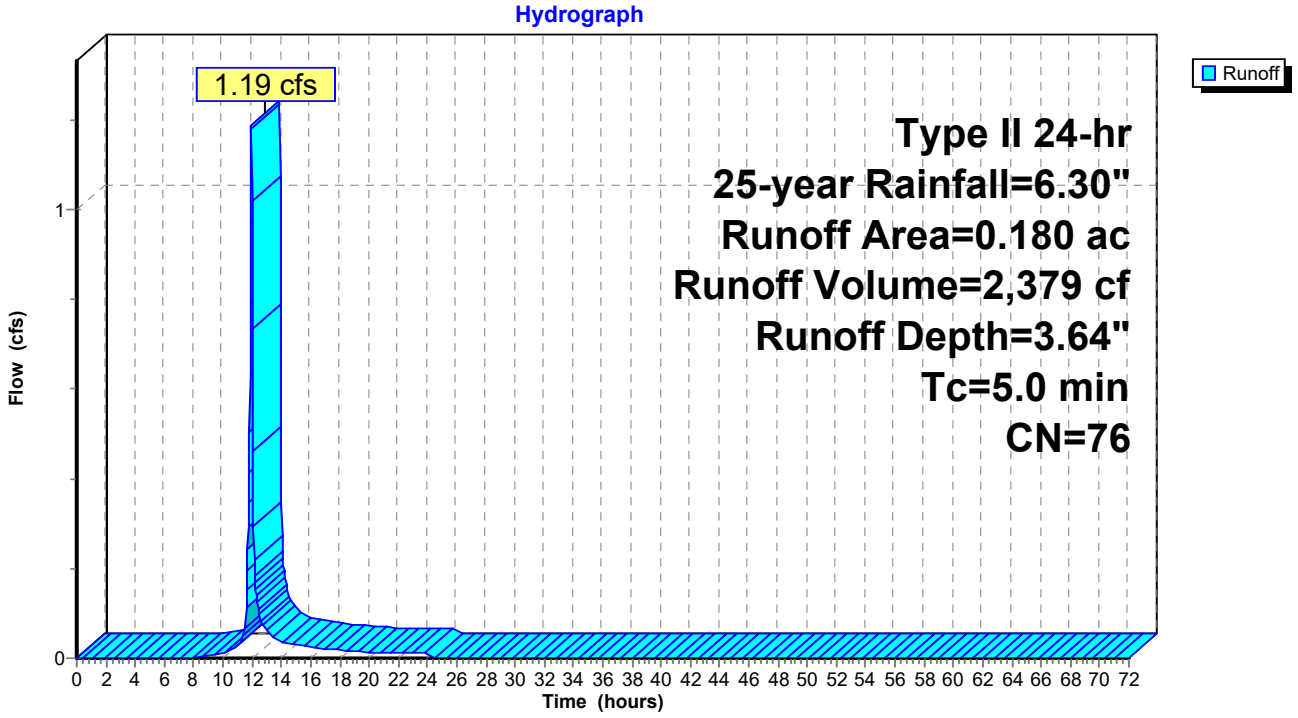
Runoff = 1.19 cfs @ 11.96 hrs, Volume= 2,379 cf, Depth= 3.64"
Routed to Pond 6FP : FocalPoint 6

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 25-year Rainfall=6.30"

Area (ac)	CN	Description
0.080	49	50-75% Grass cover, Fair, HSG A
0.100	98	Paved parking, HSG A
0.180	76	Weighted Average
0.080		44.44% Pervious Area
0.100		55.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 6S: Area 6



Summary for Subcatchment 10S: South Bypass

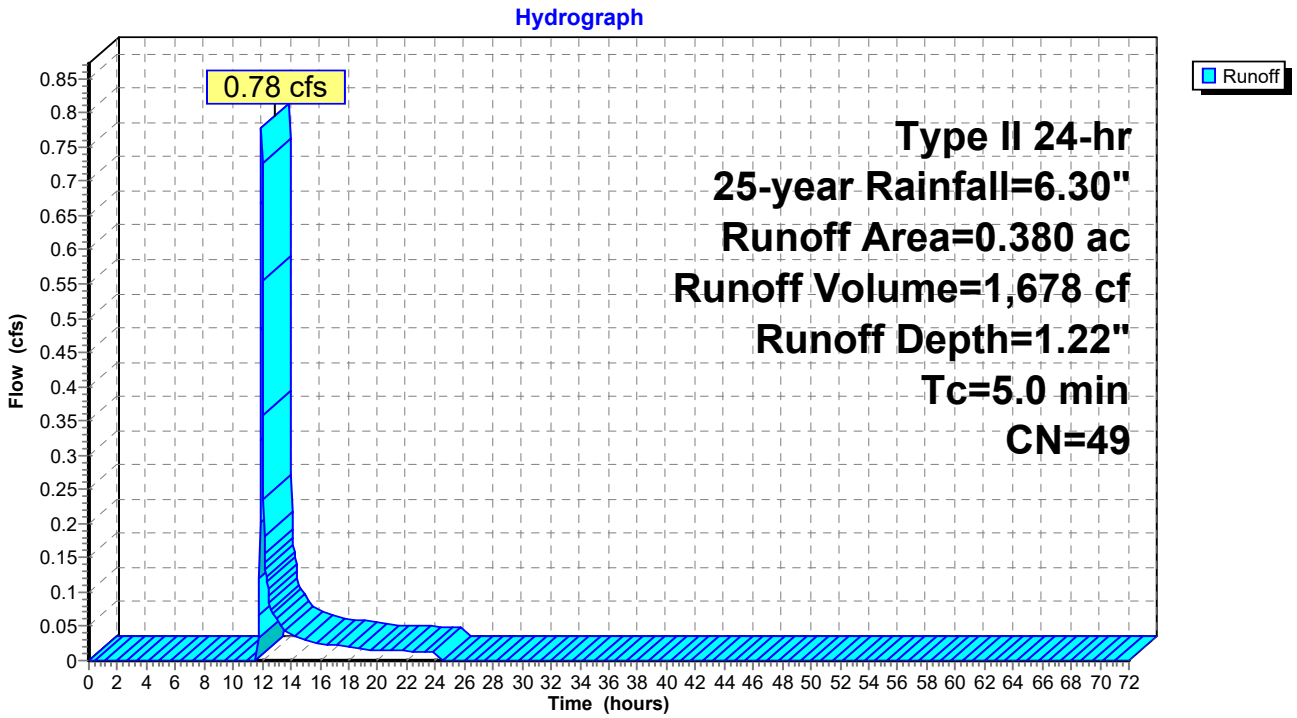
Runoff = 0.78 cfs @ 11.98 hrs, Volume= 1,678 cf, Depth= 1.22"
Routed to Link 1L : Outfall #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 25-year Rainfall=6.30"

Area (ac)	CN	Description
0.290	49	50-75% Grass cover, Fair, HSG A
0.070	36	Woods, Fair, HSG A
0.020	98	Paved parking, HSG A
0.380	49	Weighted Average
0.360		94.74% Pervious Area
0.020		5.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 10S: South Bypass



Summary for Reach 1R: Southern Trunk Line

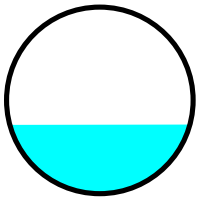
[52] Hint: Inlet/Outlet conditions not evaluated
[79] Warning: Submerged Pond 1DP Primary device # 1 INLET by 0.60'
[81] Warning: Exceeded Pond 2DP by 1.71' @ 0.00 hrs
[79] Warning: Submerged Pond 5FP Primary device # 1 INLET by 2.20'
[79] Warning: Submerged Pond 6FP Primary device # 1 INLET by 2.20'

Inflow Area = 187,308 sf, 64.19% Impervious, Inflow Depth > 3.70" for 25-year event
Inflow = 5.32 cfs @ 11.98 hrs, Volume= 57,819 cf
Outflow = 4.65 cfs @ 12.09 hrs, Volume= 57,816 cf, Atten= 13%, Lag= 6.5 min
Routed to Link 1L : Outfall #1

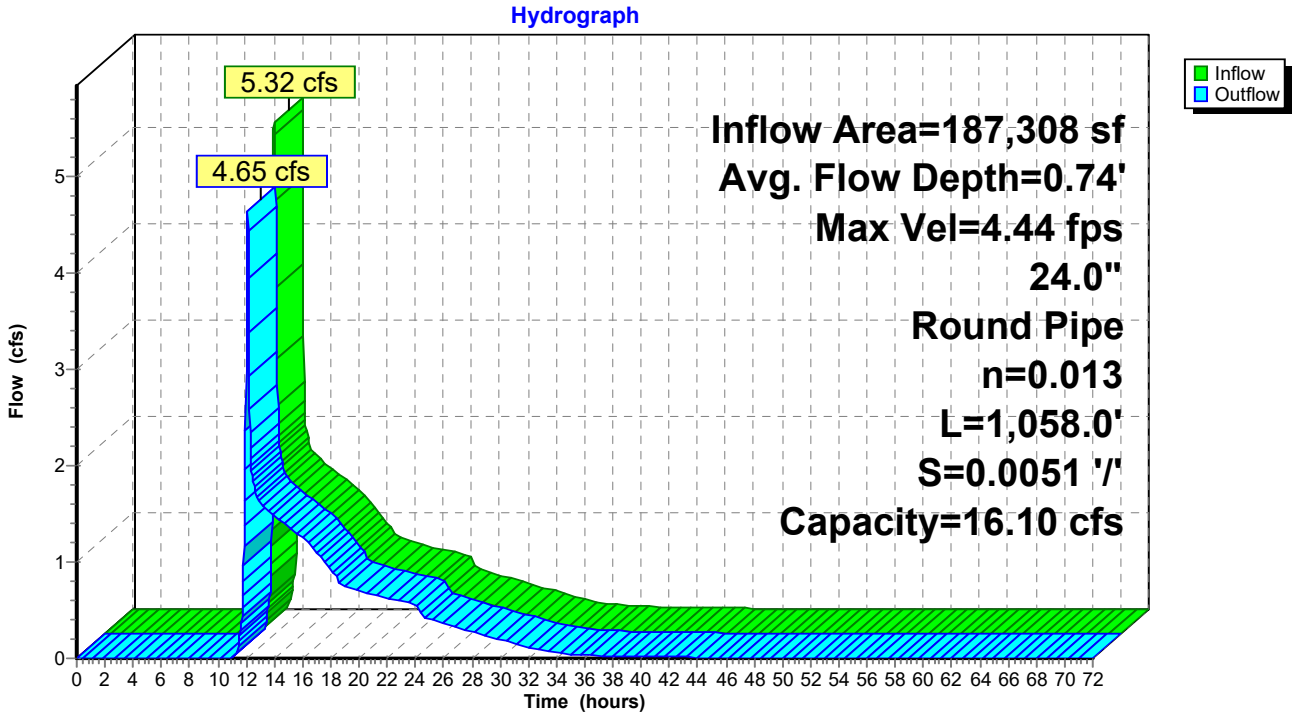
Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Max. Velocity= 4.44 fps, Min. Travel Time= 4.0 min
Avg. Velocity = 1.26 fps, Avg. Travel Time= 14.0 min

Peak Storage= 1,115 cf @ 12.02 hrs
Average Depth at Peak Storage= 0.74' , Surface Width= 1.93'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 16.10 cfs

24.0" Round Pipe
n= 0.013
Length= 1,058.0' Slope= 0.0051 '/'
Inlet Invert= 695.46', Outlet Invert= 690.10'



Reach 1R: Southern Trunk Line



Summary for Pond 1DP: Detention Pond 1

[44] Hint: Outlet device #2 is below defined storage
[79] Warning: Submerged Pond 1FP Primary device # 1 INLET by 2.60'

Inflow Area = 64,469 sf, 43.92% Impervious, Inflow Depth = 2.78" for 25-year event
Inflow = 7.68 cfs @ 11.97 hrs, Volume= 14,959 cf
Outflow = 0.71 cfs @ 12.49 hrs, Volume= 14,959 cf, Atten= 91%, Lag= 31.1 min
Primary = 0.71 cfs @ 12.49 hrs, Volume= 14,959 cf
Routed to Reach 1R : Southern Trunk Line

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 698.60' @ 12.49 hrs Surf.Area= 3,744 sf Storage= 6,034 cf

Plug-Flow detention time= 77.7 min calculated for 14,953 cf (100% of inflow)
Center-of-Mass det. time= 77.7 min (920.4 - 842.7)

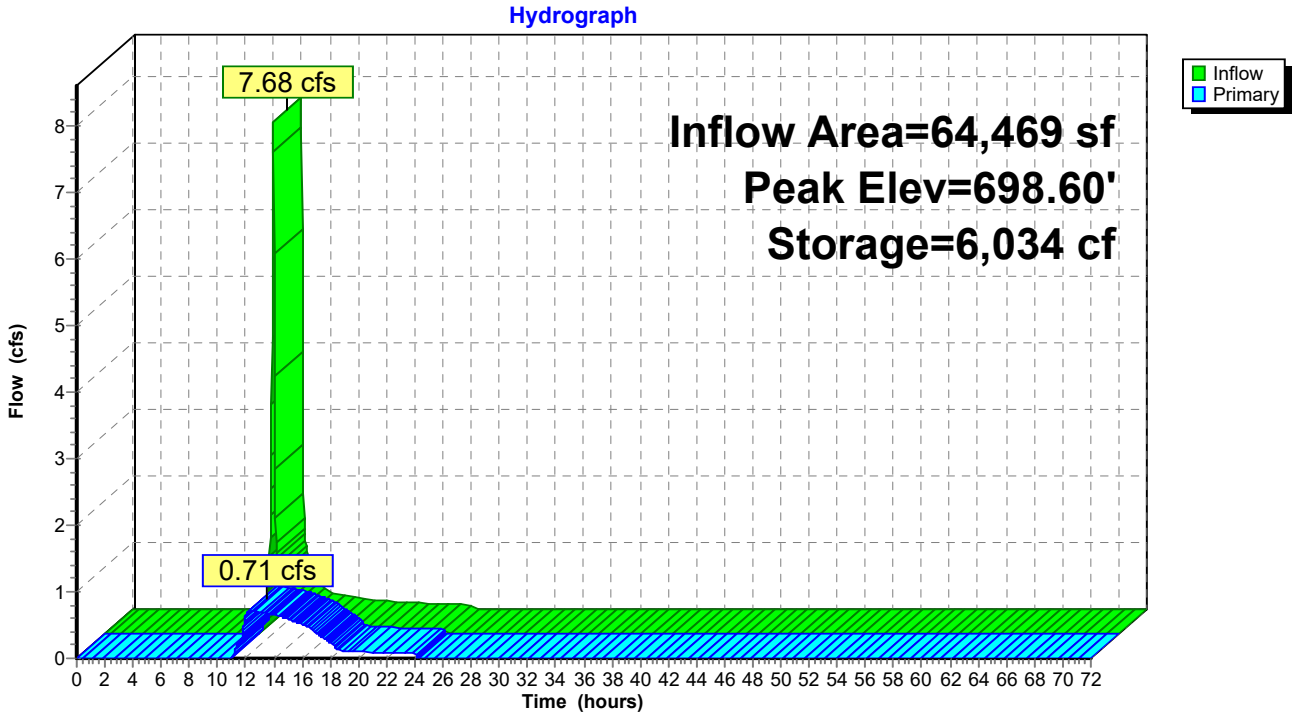
Volume	Invert	Avail.Storage	Storage Description
#1	695.80'	19,432 cf	**Custom Stage Data (Prismatic)** Listed below

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
695.80	0	0	0
696.00	285	29	29
697.00	2,098	1,192	1,220
698.00	3,151	2,625	3,845
699.00	4,138	3,645	7,489
700.00	5,311	4,725	12,214
701.00	9,125	7,218	19,432

Device	Routing	Invert	Outlet Devices
#1	Primary	695.60'	**18.0" Round Culvert** L= 28.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 695.60' / 695.46' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	695.60'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.71 cfs @ 12.49 hrs HW=698.60' TW=565.00' (Fixed TW Elev= 565.00')
└─**1=Culvert** (Passes 0.71 cfs of 12.77 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.71 cfs @ 8.11 fps)
  └─**3=Orifice/Grate** (Controls 0.00 cfs)

Pond 1DP: Detention Pond 1



Summary for Pond 1FP: FocalPoint 1

[92] Warning: Device #3 is above defined storage

Inflow Area = 64,469 sf, 43.92% Impervious, Inflow Depth = 2.85" for 25-year event
Inflow = 7.80 cfs @ 11.96 hrs, Volume= 15,329 cf
Outflow = 7.68 cfs @ 11.97 hrs, Volume= 14,959 cf, Atten= 2%, Lag= 0.6 min
Primary = 7.68 cfs @ 11.97 hrs, Volume= 14,959 cf
Routed to Pond 1DP : Detention Pond 1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 699.95' @ 11.97 hrs Surf.Area= 1,063 sf Storage= 758 cf

Plug-Flow detention time= 20.5 min calculated for 14,953 cf (98% of inflow)
Center-of-Mass det. time= 6.4 min (842.7 - 836.3)

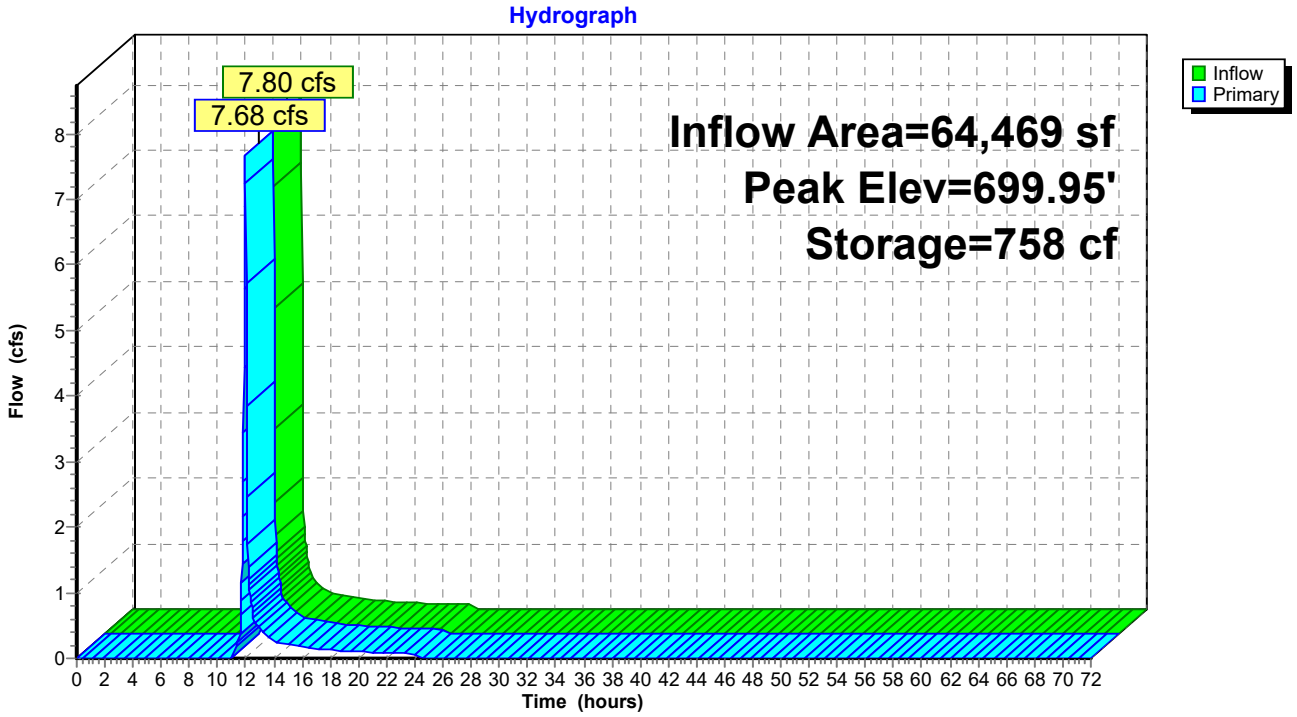
Volume	Invert	Avail.Storage	Storage Description
#1	696.00'	815 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
696.00	237	0.0	0	0
699.00	237	20.0	142	142
700.00	1,109	100.0	673	815

Device	Routing	Invert	Outlet Devices
#1	Primary	696.00'	**18.0" Round Culvert** L= 40.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 696.00' / 695.80' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**10.0' long x 18.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=7.60 cfs @ 11.97 hrs HW=699.94' (Free Discharge)
- **1=Culvert** (Passes 7.60 cfs of 15.21 cfs potential flow)
  - **2=Orifice/Grate** (Weir Controls 7.60 cfs @ 2.18 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1FP: FocalPoint 1



Summary for Pond 2DP: Detention Pond 2

[79] Warning: Submerged Pond 2FP Primary device # 1 INLET by 2.30'
[79] Warning: Submerged Pond 3FP Primary device # 1 INLET by 0.80'
[79] Warning: Submerged Pond 4FP Primary device # 1 INLET by 0.80'

Inflow Area = 95,832 sf, 79.09% Impervious, Inflow Depth = 4.56" for 25-year event
Inflow = 18.30 cfs @ 11.96 hrs, Volume= 36,410 cf
Outflow = 0.68 cfs @ 13.44 hrs, Volume= 35,431 cf, Atten= 96%, Lag= 88.4 min
Primary = 0.68 cfs @ 13.44 hrs, Volume= 35,431 cf
Routed to Reach 1R : Southern Trunk Line

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 696.80' @ 13.44 hrs Surf.Area= 8,711 sf Storage= 22,200 cf

Plug-Flow detention time= 441.5 min calculated for 35,431 cf (97% of inflow)
Center-of-Mass det. time= 425.4 min (1,233.5 - 808.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	693.75'	3,019 cf	**38.12'W x 114.25'L x 4.79'H Field A** 20,877 cf Overall - 13,330 cf Embedded = 7,547 cf x 40.0% Voids
#2A	694.00'	12,663 cf	**Ferguson R-Tank HD 2.5** x 1222 Inside #1 Inside= 15.7"W x 42.5"H => 4.42 sf x 2.35'L = 10.4 cf Outside= 15.7"W x 42.5"H => 4.65 sf x 2.35'L = 10.9 cf 1222 Chambers in 26 Rows
#3B	693.75'	3,019 cf	**38.12'W x 114.25'L x 4.79'H Field B** 20,877 cf Overall - 13,330 cf Embedded = 7,547 cf x 40.0% Voids
#4B	694.00'	12,663 cf	**Ferguson R-Tank HD 2.5** x 1222 Inside #3 Inside= 15.7"W x 42.5"H => 4.42 sf x 2.35'L = 10.4 cf Outside= 15.7"W x 42.5"H => 4.65 sf x 2.35'L = 10.9 cf 1222 Chambers in 26 Rows
		31,364 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	694.00'	**18.0" Round Culvert** L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.00' / 693.20' S= 0.0800 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	694.00'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	697.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.68 cfs @ 13.44 hrs HW=696.80' TW=565.00' (Fixed TW Elev= 565.00')
- **1=Culvert** (Passes 0.68 cfs of 12.18 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.68 cfs @ 7.81 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 2DP: Detention Pond 2 - Chamber Wizard Field A

Chamber Model = Ferguson R-Tank HD 2.5 (Ferguson R-Tank HD)
Inside= 15.7"W x 42.5"H => 4.42 sf x 2.35'L = 10.4 cf
Outside= 15.7"W x 42.5"H => 4.65 sf x 2.35'L = 10.9 cf

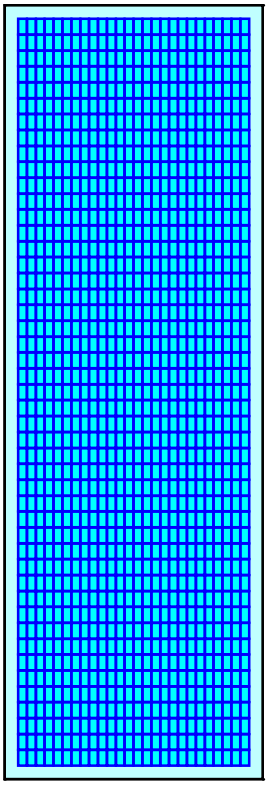
47 Chambers/Row x 2.35' Long = 110.25' Row Length +24.0" End Stone x 2 = 114.25' Base Length
26 Rows x 15.7" Wide + 24.0" Side Stone x 2 = 38.12' Base Width
3.0" Stone Base + 42.5" Chamber Height + 12.0" Stone Cover = 4.79' Field Height

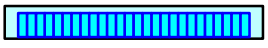
1,222 Chambers x 10.4 cf = 12,663.1 cf Chamber Storage
1,222 Chambers x 10.9 cf = 13,329.6 cf Displacement

20,876.7 cf Field - 13,329.6 cf Chambers = 7,547.2 cf Stone x 40.0% Voids = 3,018.9 cf Stone Storage

Chamber Storage + Stone Storage = 15,682.0 cf = 0.360 af
Overall Storage Efficiency = 75.1%
Overall System Size = 114.25' x 38.12' x 4.79'

1,222 Chambers
773.2 cy Field
279.5 cy Stone





Pond 2DP: Detention Pond 2 - Chamber Wizard Field B

Chamber Model = Ferguson R-Tank HD 2.5 (Ferguson R-Tank HD)
Inside= 15.7"W x 42.5"H => 4.42 sf x 2.35'L = 10.4 cf
Outside= 15.7"W x 42.5"H => 4.65 sf x 2.35'L = 10.9 cf

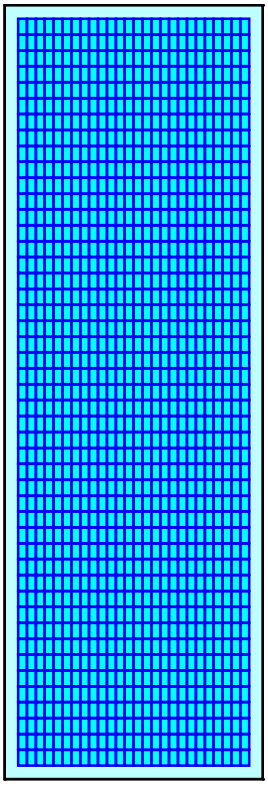
47 Chambers/Row x 2.35' Long = 110.25' Row Length +24.0" End Stone x 2 = 114.25' Base Length
26 Rows x 15.7" Wide + 24.0" Side Stone x 2 = 38.12' Base Width
3.0" Stone Base + 42.5" Chamber Height + 12.0" Stone Cover = 4.79' Field Height

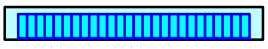
1,222 Chambers x 10.4 cf = 12,663.1 cf Chamber Storage
1,222 Chambers x 10.9 cf = 13,329.6 cf Displacement

20,876.7 cf Field - 13,329.6 cf Chambers = 7,547.2 cf Stone x 40.0% Voids = 3,018.9 cf Stone Storage

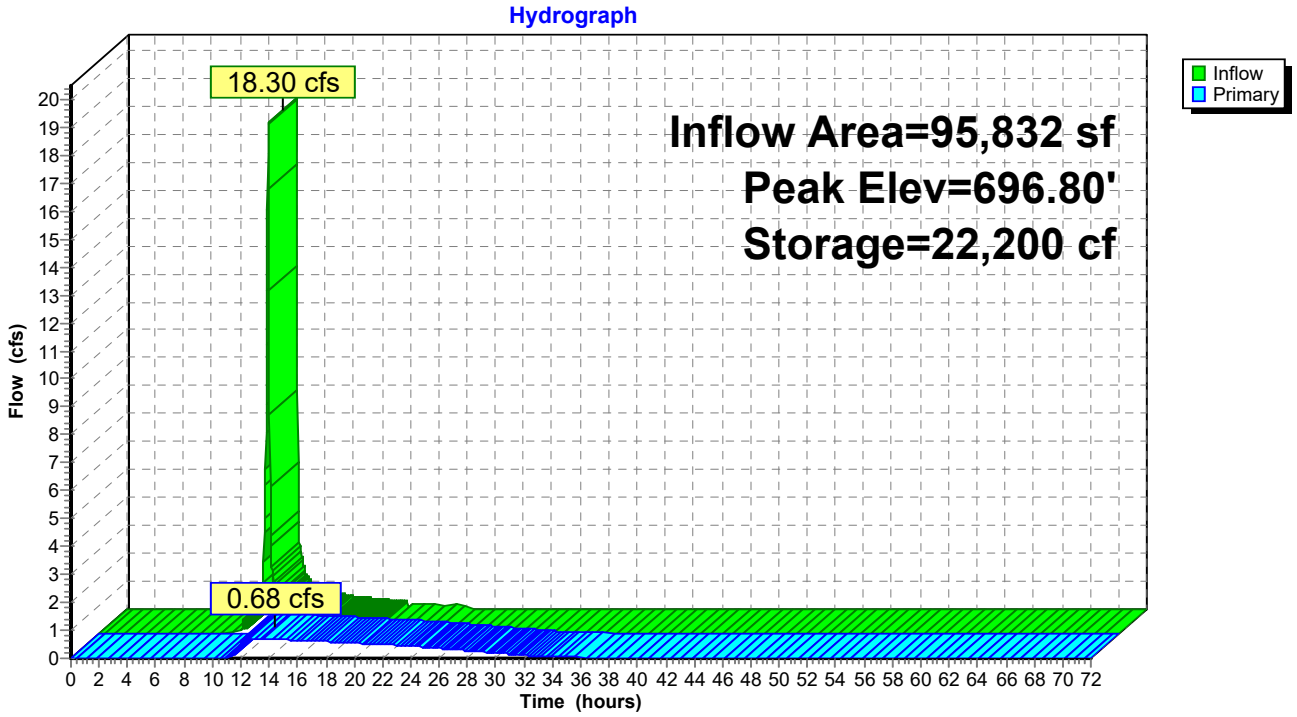
Chamber Storage + Stone Storage = 15,682.0 cf = 0.360 af
Overall Storage Efficiency = 75.1%
Overall System Size = 114.25' x 38.12' x 4.79'

1,222 Chambers
773.2 cy Field
279.5 cy Stone





Pond 2DP: Detention Pond 2



Summary for Pond 2FP: FocalPoint 2

Inflow Area = 31,363 sf, 83.33% Impervious, Inflow Depth = 5.14" for 25-year event
Inflow = 6.20 cfs @ 11.96 hrs, Volume= 13,430 cf
Outflow = 6.08 cfs @ 11.97 hrs, Volume= 12,708 cf, Atten= 2%, Lag= 0.8 min
Primary = 6.08 cfs @ 11.97 hrs, Volume= 12,708 cf
Routed to Pond 2DP : Detention Pond 2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 698.38' @ 11.97 hrs Surf.Area= 1,260 sf Storage= 1,165 cf

Plug-Flow detention time= 53.1 min calculated for 12,702 cf (95% of inflow)
Center-of-Mass det. time= 22.0 min (800.9 - 778.9)

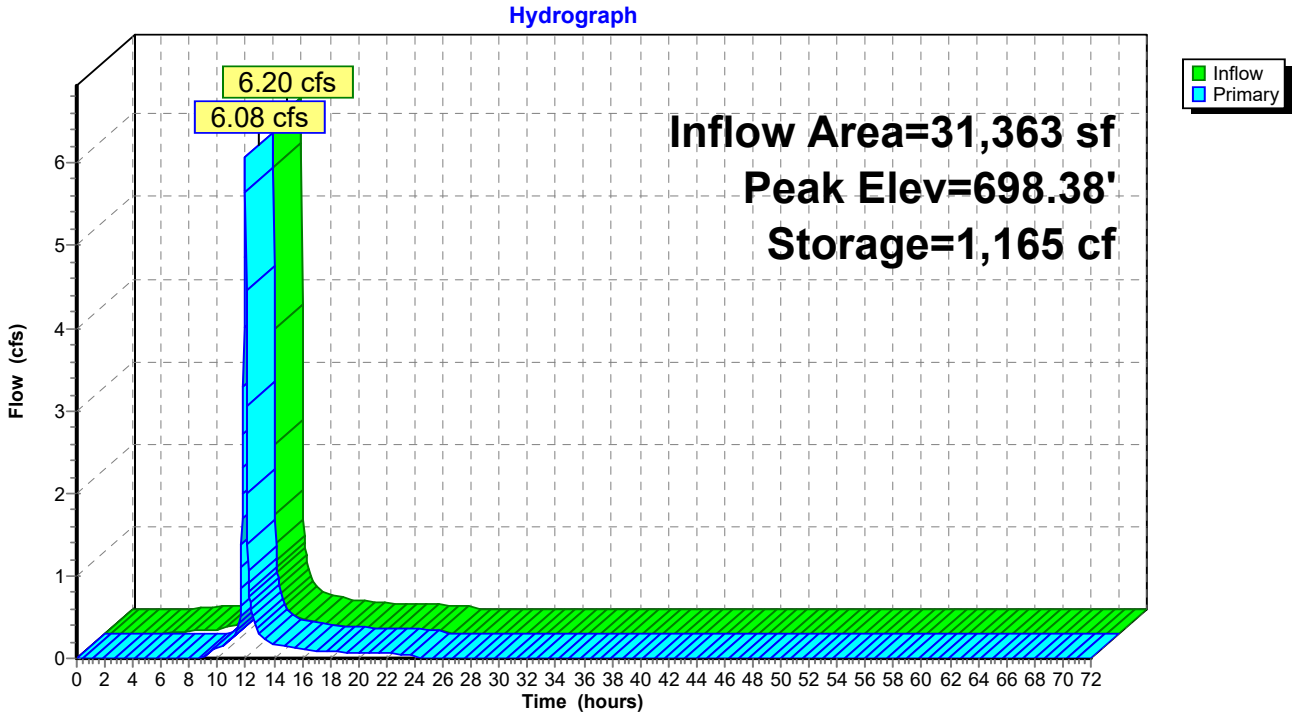
Volume	Invert	Avail.Storage	Storage Description
#1	694.50'	1,317 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
694.50	539	0.0	0	0
697.50	539	20.0	323	323
698.00	1,056	100.0	399	722
698.50	1,323	100.0	595	1,317

Device	Routing	Invert	Outlet Devices
#1	Primary	694.50'	**18.0" Round Culvert** L= 28.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.50' / 694.00' S= 0.0179 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	698.00'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=6.07 cfs @ 11.97 hrs HW=698.38' (Free Discharge)
↑ **1=Culvert** (Passes 6.07 cfs of 15.06 cfs potential flow)
↑ **2=Orifice/Grate** (Weir Controls 6.07 cfs @ 2.02 fps)

Pond 2FP: FocalPoint 2



Summary for Pond 3FP: FocalPoint 3

Inflow Area = 16,553 sf, 71.05% Impervious, Inflow Depth = 4.48" for 25-year event
Inflow = 2.98 cfs @ 11.96 hrs, Volume= 6,177 cf
Outflow = 2.93 cfs @ 11.97 hrs, Volume= 5,456 cf, Atten= 2%, Lag= 0.7 min
Primary = 2.93 cfs @ 11.97 hrs, Volume= 5,456 cf
Routed to Pond 2DP : Detention Pond 2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 699.73' @ 11.97 hrs Surf.Area= 946 sf Storage= 930 cf

Plug-Flow detention time= 86.0 min calculated for 5,454 cf (88% of inflow)
Center-of-Mass det. time= 28.9 min (826.5 - 797.6)

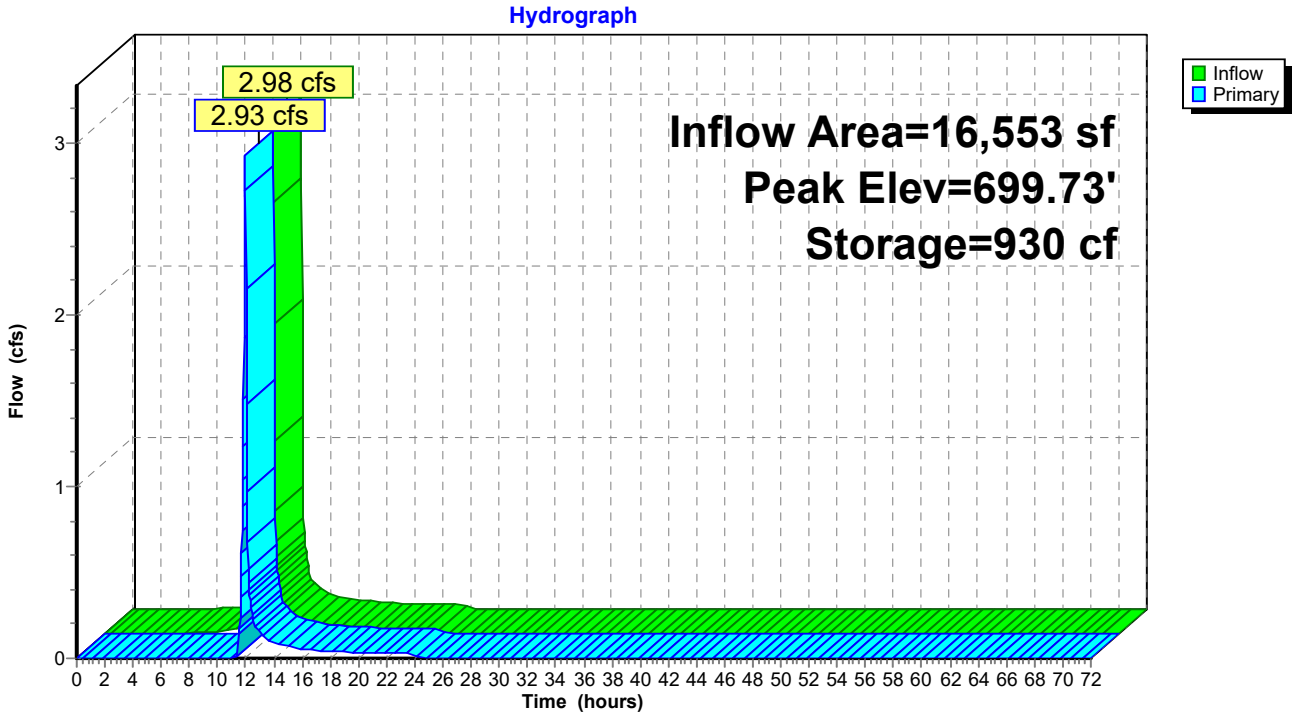
Volume	Invert	Avail.Storage	Storage Description
#1	696.00'	1,197 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
696.00	602	0.0	0	0
699.00	602	20.0	361	361
700.00	1,070	100.0	836	1,197

Device	Routing	Invert	Outlet Devices
#1	Primary	696.00'	**18.0" Round Culvert** L= 80.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 696.00' / 694.00' S= 0.0250 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=2.91 cfs @ 11.97 hrs HW=699.73' (Free Discharge)
↑**1=Culvert** (Passes 2.91 cfs of 14.70 cfs potential flow)
↑**2=Orifice/Grate** (Weir Controls 2.91 cfs @ 1.58 fps)

Pond 3FP: FocalPoint 3



Summary for Pond 4FP: FocalPoint 4

[92] Warning: Device #2 is above defined storage
[92] Warning: Device #3 is above defined storage
[93] Warning: Storage range exceeded by 1.01'
[88] Warning: Qout>Qin may require smaller dt or Finer Routing
[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=222)

Inflow Area = 47,916 sf, 79.09% Impervious, Inflow Depth = 4.92" for 25-year event
Inflow = 9.21 cfs @ 11.96 hrs, Volume= 19,627 cf
Outflow = 9.33 cfs @ 11.96 hrs, Volume= 18,246 cf, Atten= 0%, Lag= 0.2 min
Primary = 9.33 cfs @ 11.96 hrs, Volume= 18,246 cf
Routed to Pond 2DP : Detention Pond 2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 700.01' @ 11.96 hrs Surf.Area= 1,491 sf Storage= 1,389 cf

Plug-Flow detention time= 60.8 min calculated for 18,239 cf (93% of inflow)
Center-of-Mass det. time= 22.0 min (807.7 - 785.7)

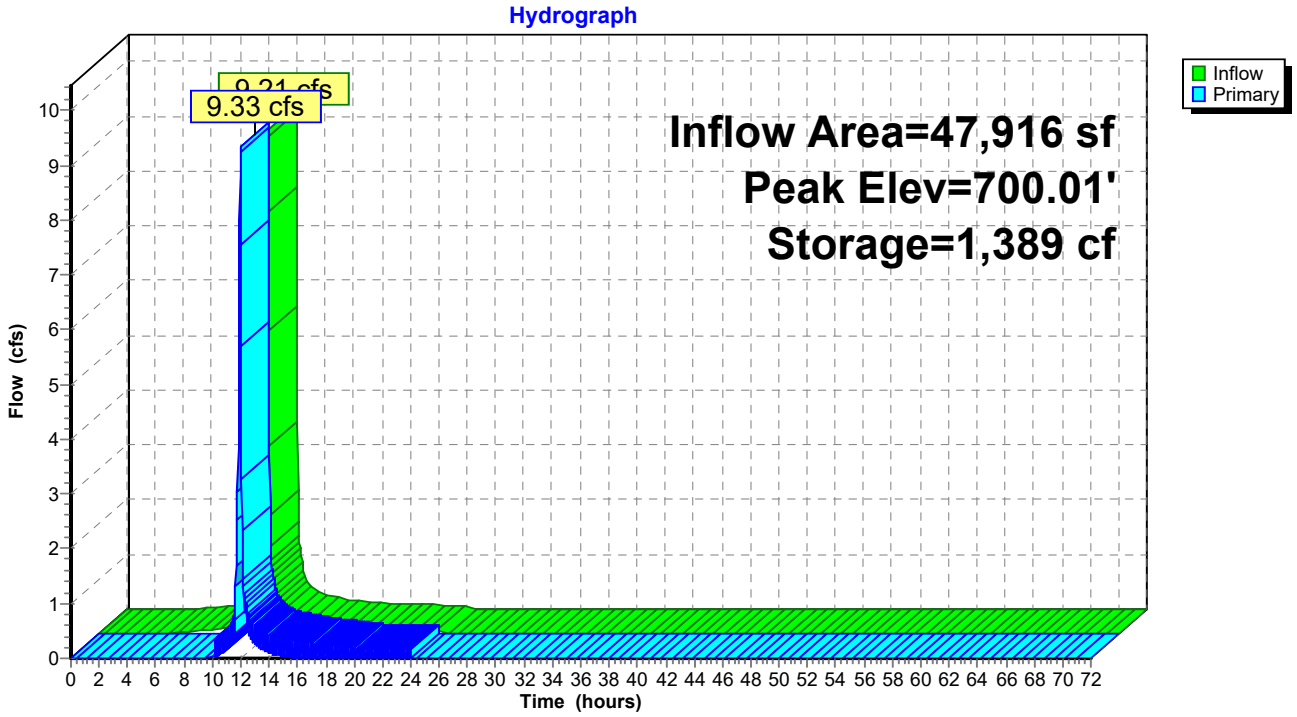
Volume	Invert	Avail.Storage	Storage Description
#1	695.00'	1,389 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
695.00	585	0.0	0	0
698.00	585	20.0	351	351
699.00	1,491	100.0	1,038	1,389

Device	Routing	Invert	Outlet Devices
#1	Primary	696.00'	**18.0" Round Culvert** L= 23.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 696.00' / 695.88' S= 0.0052 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**6.0' long x 133.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=9.10 cfs @ 11.96 hrs HW=700.00' (Free Discharge)
- **1=Culvert** (Passes 9.10 cfs of 15.34 cfs potential flow)
  - **2=Orifice/Grate** (Weir Controls 9.10 cfs @ 2.31 fps)
- **3=Broad-Crested Rectangular Weir** (Weir Controls 0.00 cfs @ 0.07 fps)

Pond 4FP: FocalPoint 4



Summary for Pond 5FP: FocalPoint 5

Inflow Area = 19,166 sf, 61.36% Impervious, Inflow Depth = 3.95" for 25-year event
Inflow = 3.12 cfs @ 11.96 hrs, Volume= 6,307 cf
Outflow = 3.04 cfs @ 11.97 hrs, Volume= 5,679 cf, Atten= 3%, Lag= 0.9 min
Primary = 3.04 cfs @ 11.97 hrs, Volume= 5,679 cf
Routed to Reach 1R : Southern Trunk Line

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 697.74' @ 11.97 hrs Surf.Area= 1,118 sf Storage= 872 cf

Plug-Flow detention time= 73.5 min calculated for 5,679 cf (90% of inflow)
Center-of-Mass det. time= 22.6 min (833.2 - 810.7)

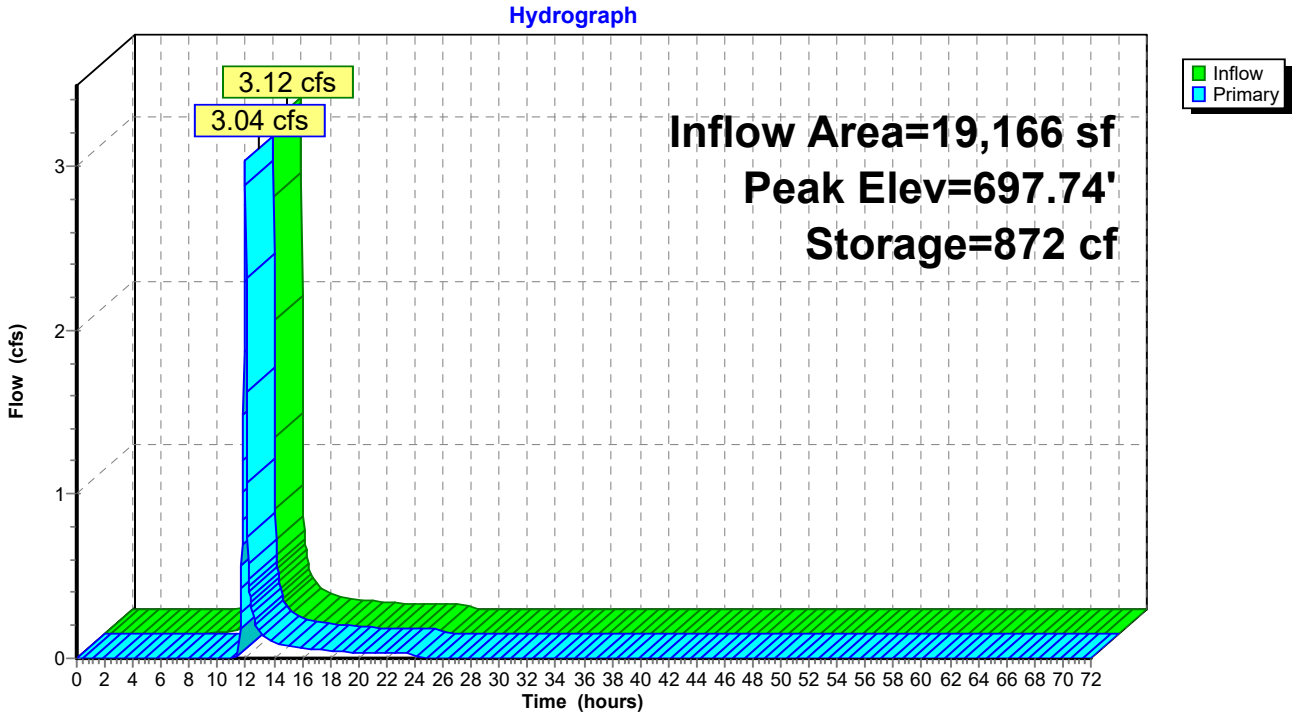
Volume	Invert	Avail.Storage	Storage Description
#1	694.00'	2,779 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
694.00	472	0.0	0	0
697.00	472	20.0	283	283
698.00	1,344	100.0	908	1,191
699.00	1,832	100.0	1,588	2,779

Device	Routing	Invert	Outlet Devices
#1	Primary	694.00'	**18.0" Round Culvert** L= 24.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.00' / 691.39' S= 0.1088 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	697.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	698.50'	**6.0' long x 9.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.46 2.55 2.70 2.69 2.68 2.68 2.67 2.64 2.64 2.64 2.65 2.64 2.65 2.65 2.66 2.67 2.69

Primary OutFlow Max=3.01 cfs @ 11.97 hrs HW=697.74' (Free Discharge)
- **1=Culvert** (Passes 3.01 cfs of 14.71 cfs potential flow)
  - **2=Orifice/Grate** (Weir Controls 3.01 cfs @ 1.60 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 5FP: FocalPoint 5



Summary for Pond 6FP: FocalPoint 6

Inflow Area = 7,841 sf, 55.56% Impervious, Inflow Depth = 3.64" for 25-year event
Inflow = 1.19 cfs @ 11.96 hrs, Volume= 2,379 cf
Outflow = 1.12 cfs @ 11.99 hrs, Volume= 1,750 cf, Atten= 6%, Lag= 1.6 min
Primary = 1.12 cfs @ 11.99 hrs, Volume= 1,750 cf
Routed to Reach 1R : Southern Trunk Line

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 697.62' @ 11.99 hrs Surf.Area= 1,015 sf Storage= 746 cf

Plug-Flow detention time= 145.9 min calculated for 1,750 cf (74% of inflow)
Center-of-Mass det. time= 50.1 min (868.0 - 817.9)

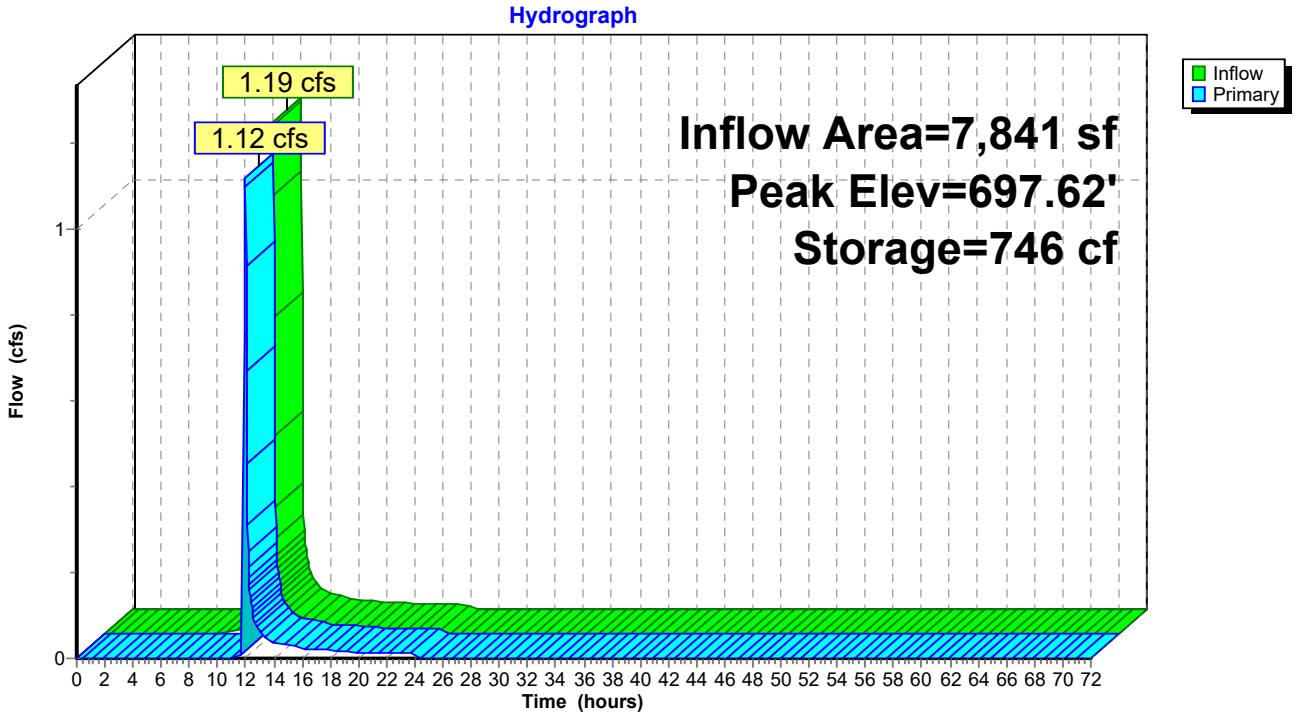
Volume	Invert	Avail.Storage	Storage Description
#1	694.00'	2,779 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
694.00	472	0.0	0	0
697.00	472	20.0	283	283
698.00	1,344	100.0	908	1,191
699.00	1,832	100.0	1,588	2,779

Device	Routing	Invert	Outlet Devices
#1	Primary	694.00'	**18.0" Round Culvert** L= 24.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.00' / 690.87' S= 0.1304 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	697.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	698.50'	**6.0' long x 9.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.46 2.55 2.70 2.69 2.68 2.68 2.67 2.64 2.64 2.64 2.65 2.64 2.65 2.65 2.66 2.67 2.69

Primary OutFlow Max=1.08 cfs @ 11.99 hrs HW=697.62' (Free Discharge)
└**1=Culvert** (Passes 1.08 cfs of 14.42 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 1.08 cfs @ 1.14 fps)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 6FP: FocalPoint 6

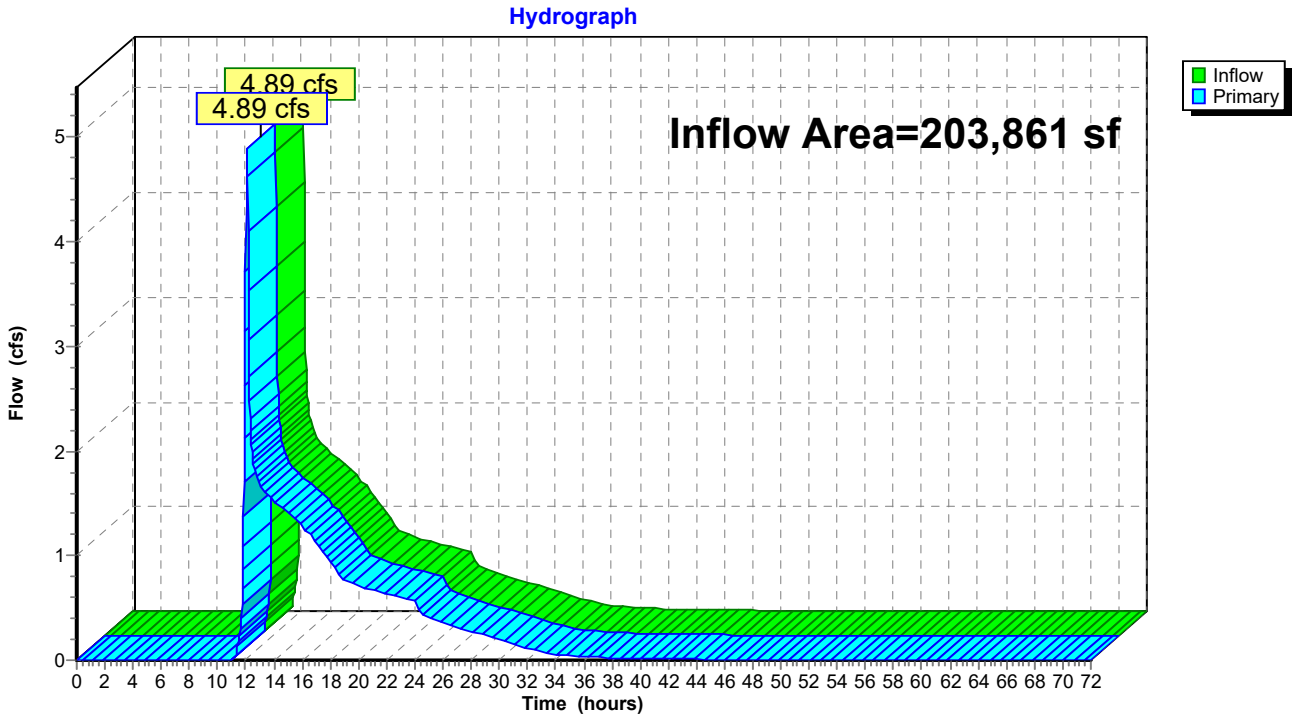


Summary for Link 1L: Outfall #1

Inflow Area = 203,861 sf, 59.40% Impervious, Inflow Depth > 3.50" for 25-year event
Inflow = 4.89 cfs @ 12.08 hrs, Volume= 59,494 cf
Primary = 4.89 cfs @ 12.08 hrs, Volume= 59,494 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs

Link 1L: Outfall #1



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Area 1 Runoff Area=1.480 ac 43.92% Impervious Runoff Depth=3.43"
Tc=5.0 min CN=68 Runoff=9.34 cfs 18,408 cf

Subcatchment2S: Area 2 Runoff Area=0.720 ac 83.33% Impervious Runoff Depth=5.84"
Tc=5.0 min CN=90 Runoff=6.99 cfs 15,271 cf

Subcatchment3S: Area 3 Runoff Area=0.380 ac 71.05% Impervious Runoff Depth=5.16"
Tc=5.0 min CN=84 Runoff=3.40 cfs 7,116 cf

Subcatchment4S: Area 4 Runoff Area=1.100 ac 79.09% Impervious Runoff Depth=5.61"
Tc=5.0 min CN=88 Runoff=10.43 cfs 22,412 cf

Subcatchment5S: Area 5 Runoff Area=0.440 ac 61.36% Impervious Runoff Depth=4.60"
Tc=5.0 min CN=79 Runoff=3.61 cfs 7,351 cf

Subcatchment6S: Area 6 Runoff Area=0.180 ac 55.56% Impervious Runoff Depth=4.28"
Tc=5.0 min CN=76 Runoff=1.39 cfs 2,793 cf

Subcatchment10S: South Bypass Runoff Area=0.380 ac 5.26% Impervious Runoff Depth=1.59"
Tc=5.0 min CN=49 Runoff=1.06 cfs 2,192 cf

Reach 1R: Southern Trunk Line Avg. Flow Depth=0.81' Max Vel=4.63 fps Inflow=6.10 cfs 67,917 cf
24.0" Round Pipe n=0.013 L=1,058.0' S=0.0051 '/' Capacity=16.10 cfs Outflow=5.47 cfs 67,913 cf

Pond 1DP: Detention Pond 1 Peak Elev=699.03' Storage=7,609 cf Inflow=9.28 cfs 18,038 cf
Outflow=0.76 cfs 18,038 cf

Pond 1FP: FocalPoint 1 Peak Elev=700.01' Storage=815 cf Inflow=9.34 cfs 18,408 cf
Outflow=9.28 cfs 18,038 cf

Pond 2DP: Detention Pond 2 Peak Elev=697.13' Storage=24,747 cf Inflow=20.45 cfs 41,974 cf
Outflow=1.27 cfs 40,991 cf

Pond 2FP: FocalPoint 2 Peak Elev=698.41' Storage=1,206 cf Inflow=6.99 cfs 15,271 cf
Outflow=6.86 cfs 14,549 cf

Pond 3FP: FocalPoint 3 Peak Elev=699.76' Storage=951 cf Inflow=3.40 cfs 7,116 cf
Outflow=3.34 cfs 6,396 cf

Pond 4FP: FocalPoint 4 Peak Elev=700.04' Storage=1,389 cf Inflow=10.43 cfs 22,412 cf
Outflow=10.44 cfs 21,030 cf

Pond 5FP: FocalPoint 5 Peak Elev=697.77' Storage=900 cf Inflow=3.61 cfs 7,351 cf
Outflow=3.53 cfs 6,723 cf

Pond 6FP: FocalPoint 6 Peak Elev=697.64' Storage=762 cf Inflow=1.39 cfs 2,793 cf
Outflow=1.34 cfs 2,165 cf

Link 1L: Outfall #1

Inflow=5.84 cfs 70,105 cf
Primary=5.84 cfs 70,105 cf

Total Runoff Area = 203,861 sf Runoff Volume = 75,544 cf Average Runoff Depth = 4.45"
40.60% Pervious = 82,764 sf 59.40% Impervious = 121,097 sf

Summary for Subcatchment 1S: Area 1

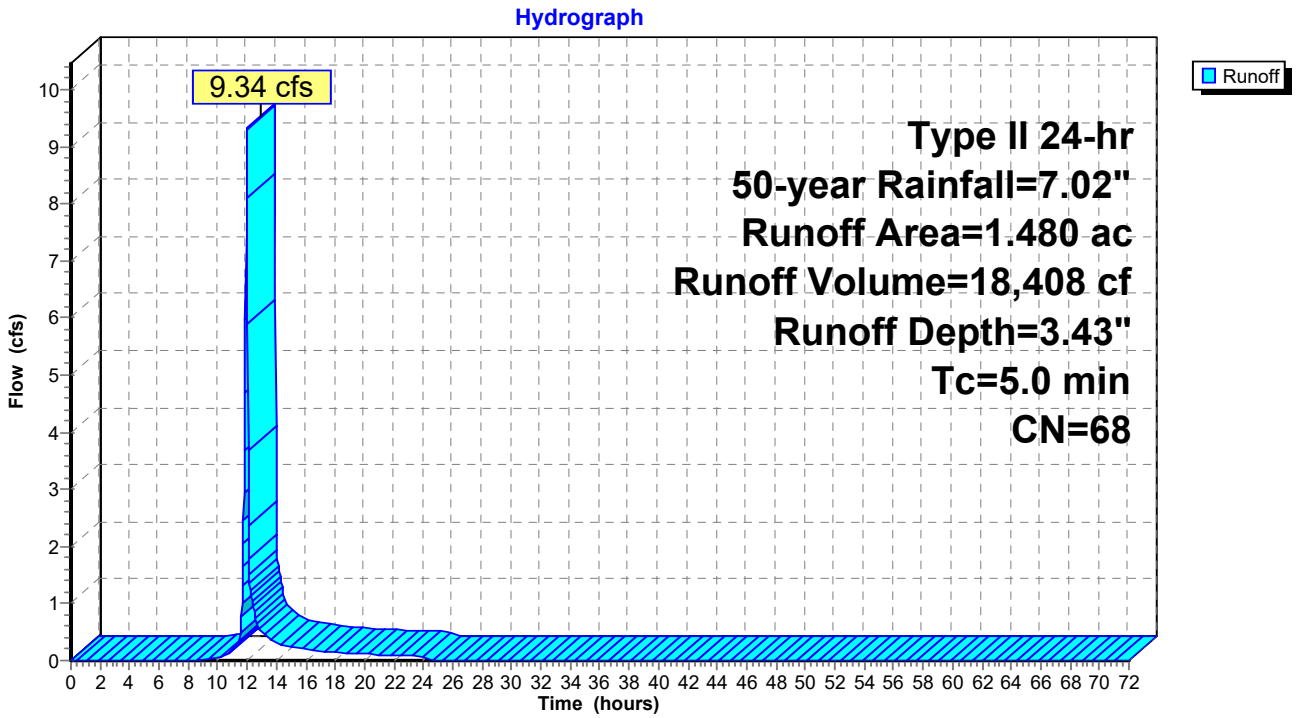
Runoff = 9.34 cfs @ 11.96 hrs, Volume= 18,408 cf, Depth= 3.43"
Routed to Pond 1FP : FocalPoint 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 50-year Rainfall=7.02"

Area (ac)	CN	Description
0.510	49	50-75% Grass cover, Fair, HSG A
0.320	36	Woods, Fair, HSG A
0.650	98	Paved parking, HSG A
1.480	68	Weighted Average
0.830		56.08% Pervious Area
0.650		43.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 1S: Area 1



Summary for Subcatchment 2S: Area 2

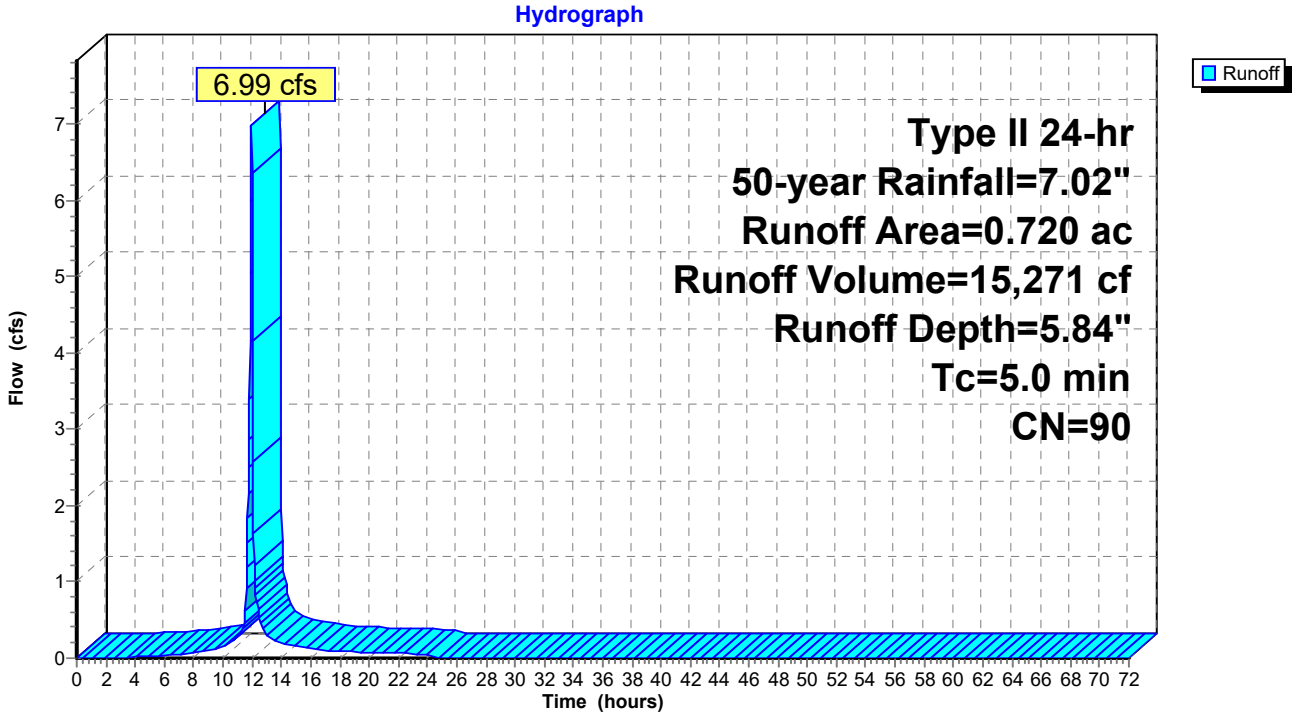
Runoff = 6.99 cfs @ 11.96 hrs, Volume= 15,271 cf, Depth= 5.84"
Routed to Pond 2FP : FocalPoint 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 50-year Rainfall=7.02"

Area (ac)	CN	Description
0.120	49	50-75% Grass cover, Fair, HSG A
0.600	98	Paved parking, HSG A
0.720	90	Weighted Average
0.120		16.67% Pervious Area
0.600		83.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 2S: Area 2



Summary for Subcatchment 3S: Area 3

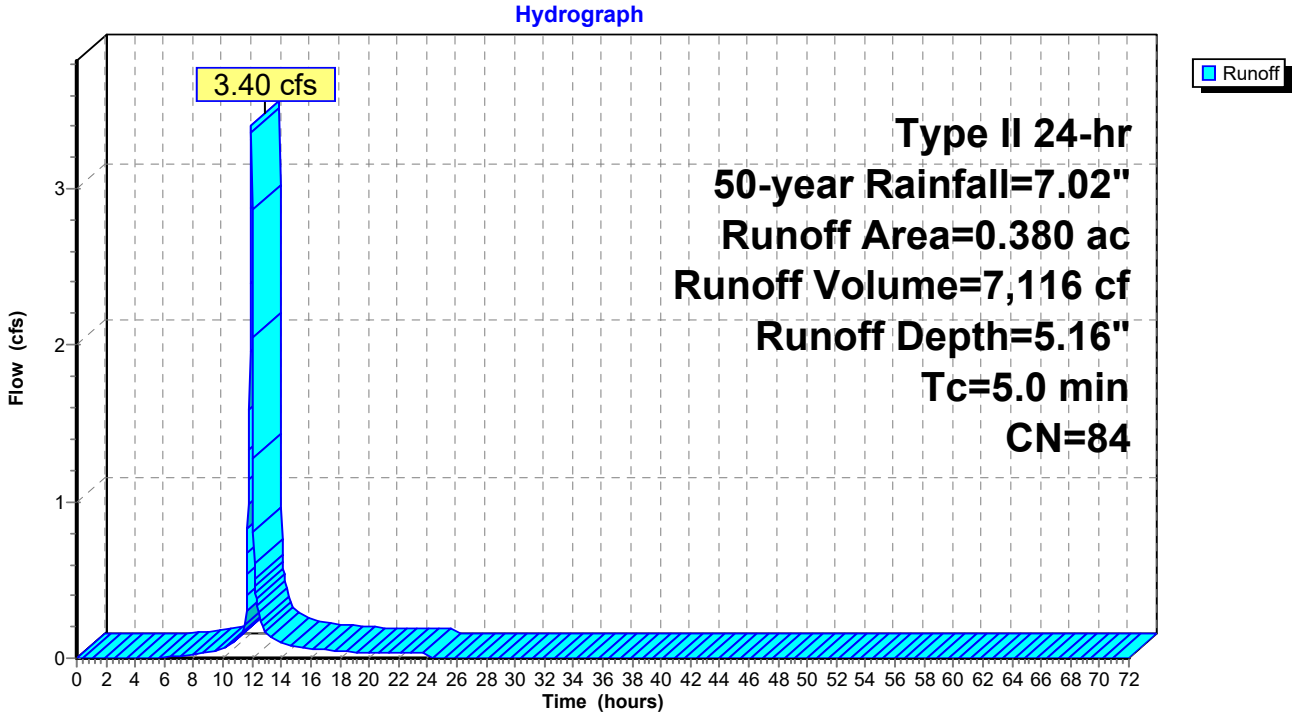
Runoff = 3.40 cfs @ 11.96 hrs, Volume= 7,116 cf, Depth= 5.16"
Routed to Pond 3FP : FocalPoint 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 50-year Rainfall=7.02"

Area (ac)	CN	Description
0.110	49	50-75% Grass cover, Fair, HSG A
0.270	98	Paved parking, HSG A
0.380	84	Weighted Average
0.110		28.95% Pervious Area
0.270		71.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 3S: Area 3



Summary for Subcatchment 4S: Area 4

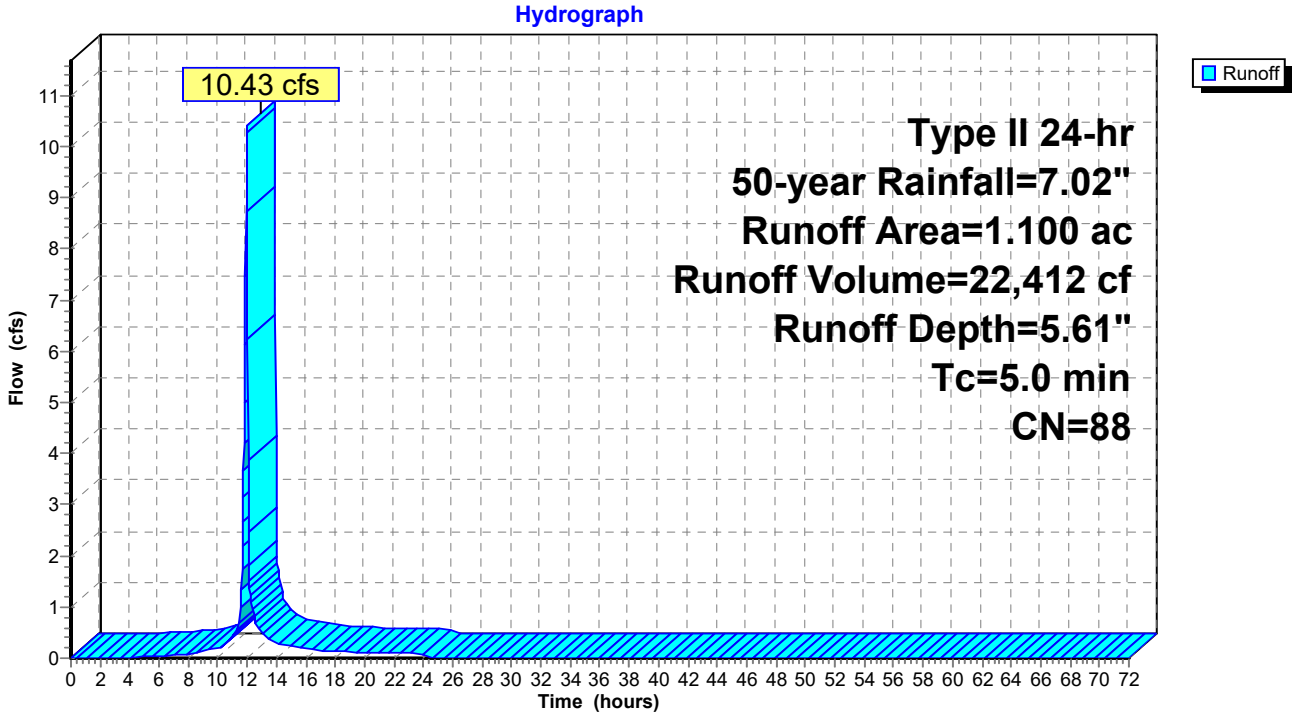
Runoff = 10.43 cfs @ 11.96 hrs, Volume= 22,412 cf, Depth= 5.61"
Routed to Pond 4FP : FocalPoint 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 50-year Rainfall=7.02"

Area (ac)	CN	Description
0.230	49	50-75% Grass cover, Fair, HSG A
0.870	98	Paved parking, HSG A
1.100	88	Weighted Average
0.230		20.91% Pervious Area
0.870		79.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 4S: Area 4



Summary for Subcatchment 5S: Area 5

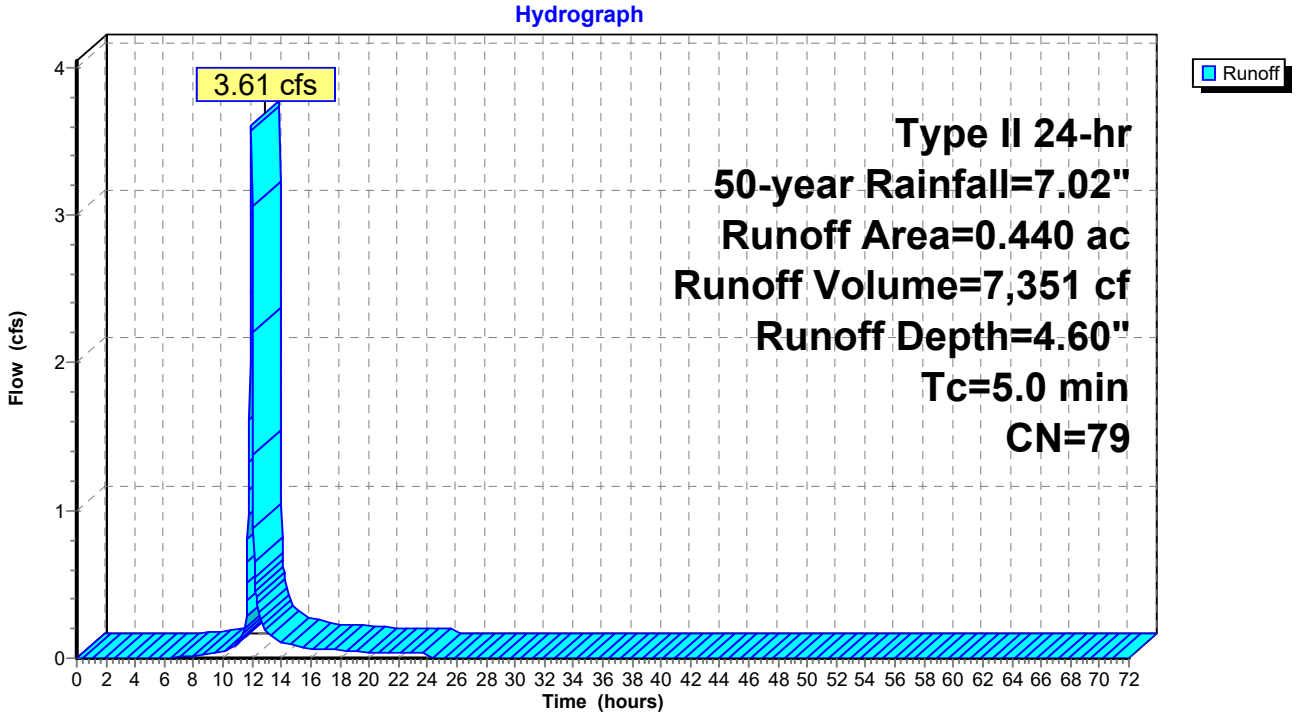
Runoff = 3.61 cfs @ 11.96 hrs, Volume= 7,351 cf, Depth= 4.60"
Routed to Pond 5FP : FocalPoint 5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 50-year Rainfall=7.02"

Area (ac)	CN	Description
0.170	49	50-75% Grass cover, Fair, HSG A
0.270	98	Paved parking, HSG A
0.440	79	Weighted Average
0.170		38.64% Pervious Area
0.270		61.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 5S: Area 5



Summary for Subcatchment 6S: Area 6

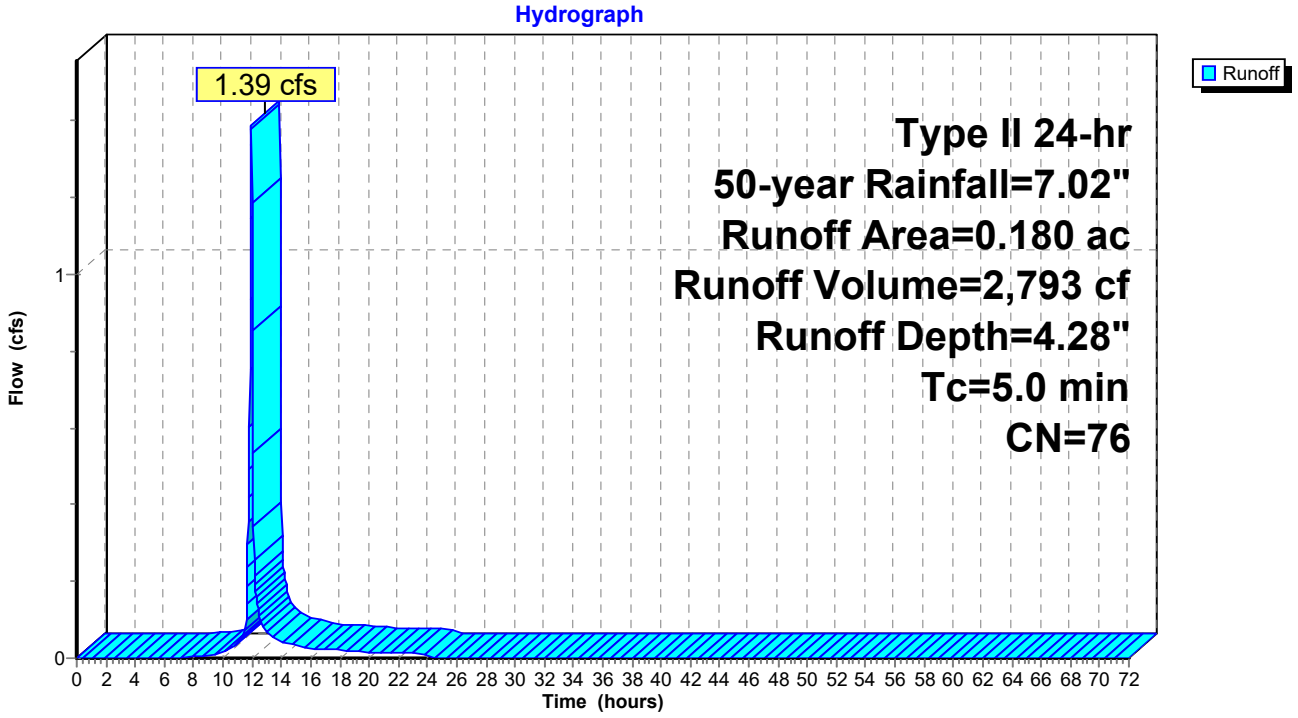
Runoff = 1.39 cfs @ 11.96 hrs, Volume= 2,793 cf, Depth= 4.28"
Routed to Pond 6FP : FocalPoint 6

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 50-year Rainfall=7.02"

Area (ac)	CN	Description
0.080	49	50-75% Grass cover, Fair, HSG A
0.100	98	Paved parking, HSG A
0.180	76	Weighted Average
0.080		44.44% Pervious Area
0.100		55.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 6S: Area 6



Summary for Subcatchment 10S: South Bypass

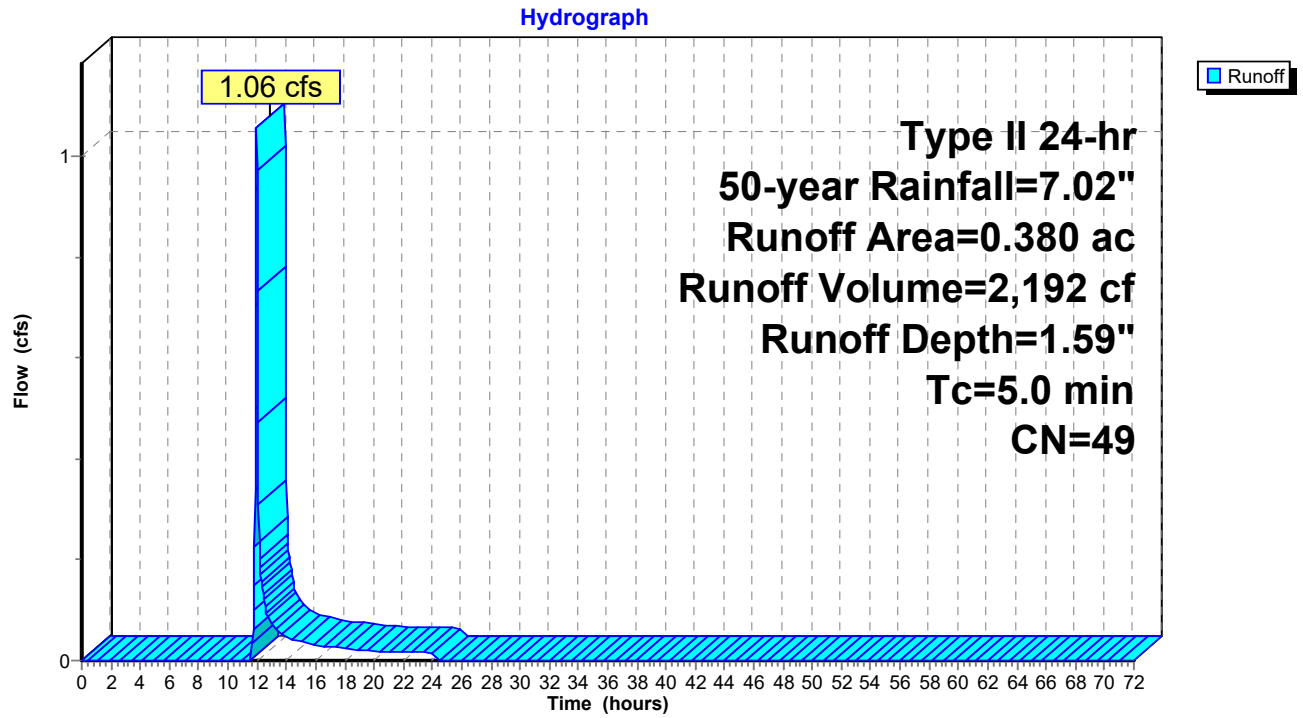
Runoff = 1.06 cfs @ 11.97 hrs, Volume= 2,192 cf, Depth= 1.59"
Routed to Link 1L : Outfall #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 50-year Rainfall=7.02"

Area (ac)	CN	Description
0.290	49	50-75% Grass cover, Fair, HSG A
0.070	36	Woods, Fair, HSG A
0.020	98	Paved parking, HSG A
0.380	49	Weighted Average
0.360		94.74% Pervious Area
0.020		5.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 10S: South Bypass



Summary for Reach 1R: Southern Trunk Line

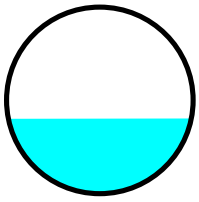
[52] Hint: Inlet/Outlet conditions not evaluated
[79] Warning: Submerged Pond 1DP Primary device # 1 INLET by 0.66'
[81] Warning: Exceeded Pond 2DP by 1.71' @ 0.00 hrs
[79] Warning: Submerged Pond 5FP Primary device # 1 INLET by 2.26'
[79] Warning: Submerged Pond 6FP Primary device # 1 INLET by 2.26'

Inflow Area = 187,308 sf, 64.19% Impervious, Inflow Depth > 4.35" for 50-year event
Inflow = 6.10 cfs @ 11.98 hrs, Volume= 67,917 cf
Outflow = 5.47 cfs @ 12.08 hrs, Volume= 67,913 cf, Atten= 10%, Lag= 6.2 min
Routed to Link 1L : Outfall #1

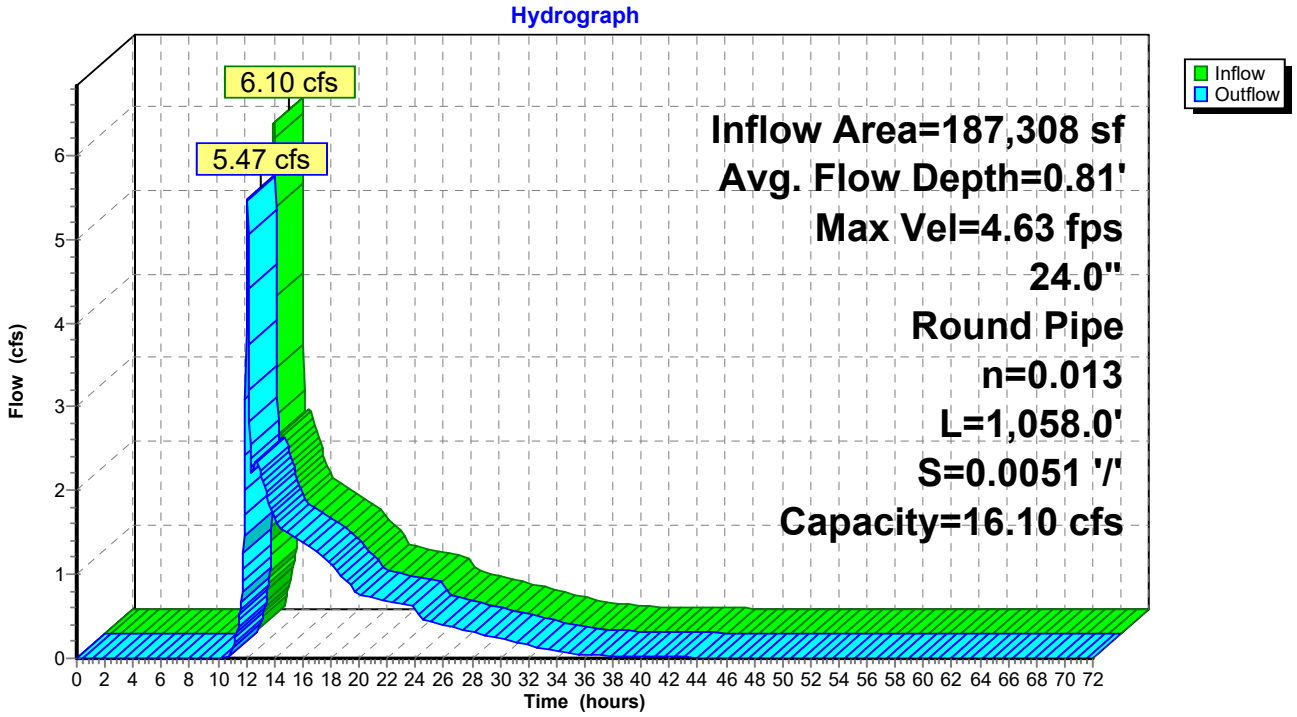
Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Max. Velocity= 4.63 fps, Min. Travel Time= 3.8 min
Avg. Velocity = 1.32 fps, Avg. Travel Time= 13.4 min

Peak Storage= 1,253 cf @ 12.02 hrs
Average Depth at Peak Storage= 0.81' , Surface Width= 1.96'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 16.10 cfs

24.0" Round Pipe
n= 0.013
Length= 1,058.0' Slope= 0.0051 '/'
Inlet Invert= 695.46', Outlet Invert= 690.10'



Reach 1R: Southern Trunk Line



Summary for Pond 1DP: Detention Pond 1

[44] Hint: Outlet device #2 is below defined storage
[79] Warning: Submerged Pond 1FP Primary device # 1 INLET by 3.03'

Inflow Area = 64,469 sf, 43.92% Impervious, Inflow Depth = 3.36" for 50-year event
Inflow = 9.28 cfs @ 11.97 hrs, Volume= 18,038 cf
Outflow = 0.76 cfs @ 12.54 hrs, Volume= 18,038 cf, Atten= 92%, Lag= 33.9 min
Primary = 0.76 cfs @ 12.54 hrs, Volume= 18,038 cf
Routed to Reach 1R : Southern Trunk Line

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 699.03' @ 12.54 hrs Surf.Area= 4,168 sf Storage= 7,609 cf

Plug-Flow detention time= 94.5 min calculated for 18,030 cf (100% of inflow)
Center-of-Mass det. time= 94.4 min (931.4 - 837.0)

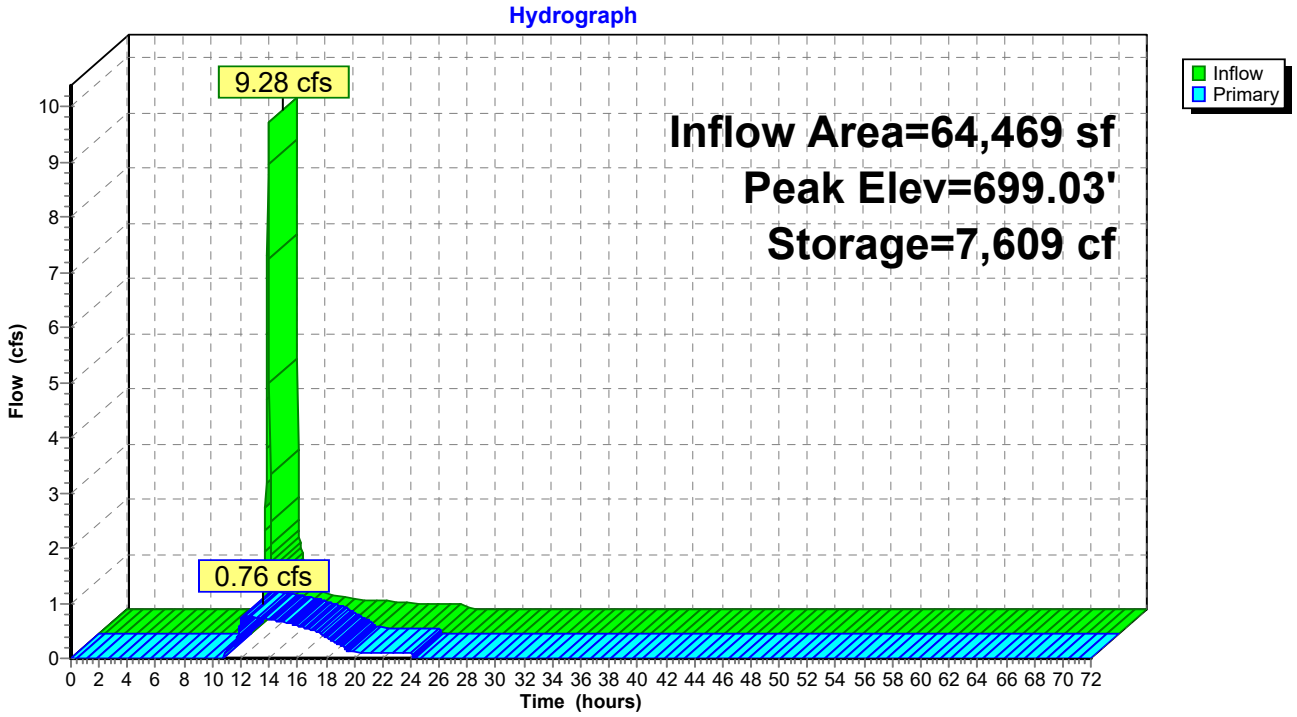
Volume	Invert	Avail.Storage	Storage Description
#1	695.80'	19,432 cf	**Custom Stage Data (Prismatic)** Listed below

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
695.80	0	0	0
696.00	285	29	29
697.00	2,098	1,192	1,220
698.00	3,151	2,625	3,845
699.00	4,138	3,645	7,489
700.00	5,311	4,725	12,214
701.00	9,125	7,218	19,432

Device	Routing	Invert	Outlet Devices
#1	Primary	695.60'	**18.0" Round Culvert** L= 28.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 695.60' / 695.46' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	695.60'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.76 cfs @ 12.54 hrs HW=699.03' TW=565.00' (Fixed TW Elev= 565.00')
└─**1=Culvert** (Passes 0.76 cfs of 13.92 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.76 cfs @ 8.69 fps)
  └─**3=Orifice/Grate** (Controls 0.00 cfs)

Pond 1DP: Detention Pond 1



Summary for Pond 1FP: FocalPoint 1

[92] Warning: Device #3 is above defined storage
[93] Warning: Storage range exceeded by 0.01'

Inflow Area = 64,469 sf, 43.92% Impervious, Inflow Depth = 3.43" for 50-year event
Inflow = 9.34 cfs @ 11.96 hrs, Volume= 18,408 cf
Outflow = 9.28 cfs @ 11.97 hrs, Volume= 18,038 cf, Atten= 1%, Lag= 0.5 min
Primary = 9.28 cfs @ 11.97 hrs, Volume= 18,038 cf
Routed to Pond 1DP : Detention Pond 1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 700.01' @ 11.97 hrs Surf.Area= 1,109 sf Storage= 815 cf

Plug-Flow detention time= 17.9 min calculated for 18,038 cf (98% of inflow)
Center-of-Mass det. time= 6.0 min (837.0 - 831.0)

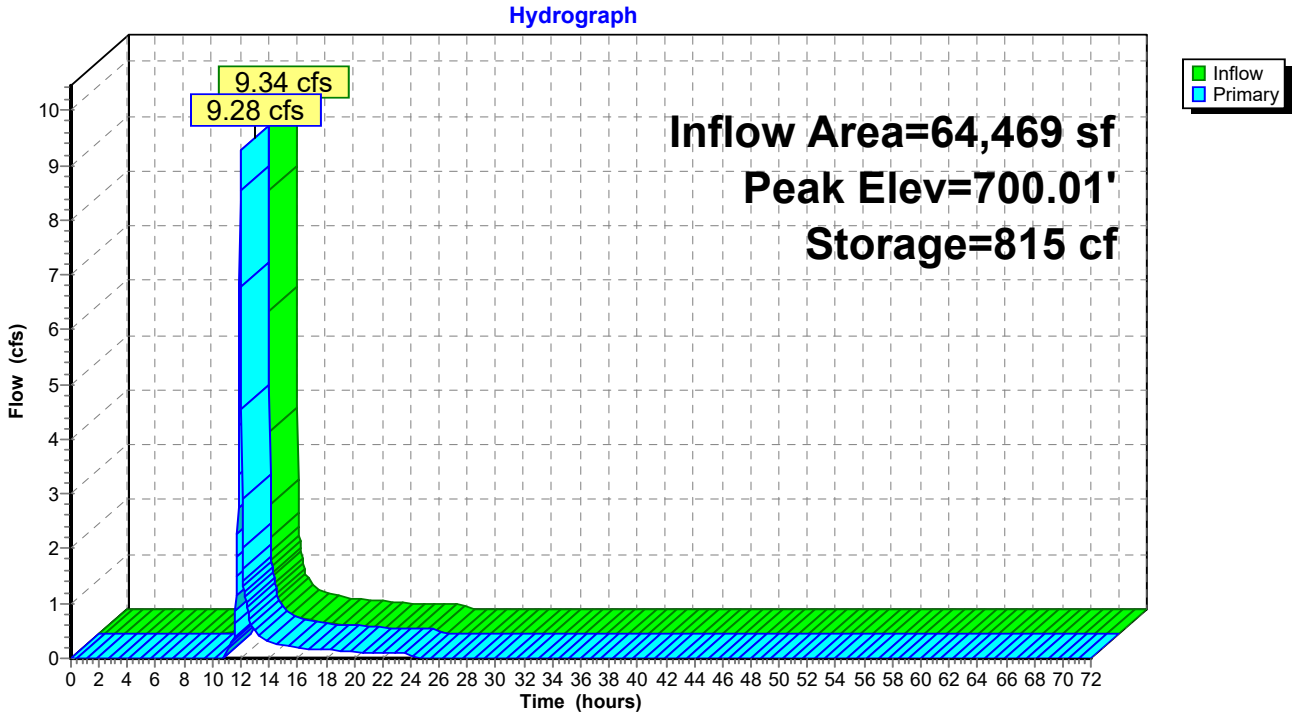
Volume	Invert	Avail.Storage	Storage Description
#1	696.00'	815 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
696.00	237	0.0	0	0
699.00	237	20.0	142	142
700.00	1,109	100.0	673	815

Device	Routing	Invert	Outlet Devices
#1	Primary	696.00'	**18.0" Round Culvert** L= 40.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 696.00' / 695.80' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**10.0' long x 18.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=9.21 cfs @ 11.97 hrs HW=700.00' (Free Discharge)
└**1=Culvert** (Passes 9.20 cfs of 15.35 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 9.20 cfs @ 2.32 fps)
└**3=Broad-Crested Rectangular Weir** (Weir Controls 0.01 cfs @ 0.18 fps)

Pond 1FP: FocalPoint 1



Summary for Pond 2DP: Detention Pond 2

[79] Warning: Submerged Pond 2FP Primary device # 1 INLET by 2.63'
[79] Warning: Submerged Pond 3FP Primary device # 1 INLET by 1.13'
[79] Warning: Submerged Pond 4FP Primary device # 1 INLET by 1.13'

Inflow Area = 95,832 sf, 79.09% Impervious, Inflow Depth = 5.26" for 50-year event
Inflow = 20.45 cfs @ 11.96 hrs, Volume= 41,974 cf
Outflow = 1.27 cfs @ 12.64 hrs, Volume= 40,991 cf, Atten= 94%, Lag= 40.6 min
Primary = 1.27 cfs @ 12.64 hrs, Volume= 40,991 cf
Routed to Reach 1R : Southern Trunk Line

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 697.13' @ 12.64 hrs Surf.Area= 8,711 sf Storage= 24,747 cf

Plug-Flow detention time= 433.5 min calculated for 40,974 cf (98% of inflow)
Center-of-Mass det. time= 420.2 min (1,223.6 - 803.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	693.75'	3,019 cf	**38.12'W x 114.25'L x 4.79'H Field A** 20,877 cf Overall - 13,330 cf Embedded = 7,547 cf x 40.0% Voids
#2A	694.00'	12,663 cf	**Ferguson R-Tank HD 2.5** x 1222 Inside #1 Inside= 15.7"W x 42.5"H => 4.42 sf x 2.35'L = 10.4 cf Outside= 15.7"W x 42.5"H => 4.65 sf x 2.35'L = 10.9 cf 1222 Chambers in 26 Rows
#3B	693.75'	3,019 cf	**38.12'W x 114.25'L x 4.79'H Field B** 20,877 cf Overall - 13,330 cf Embedded = 7,547 cf x 40.0% Voids
#4B	694.00'	12,663 cf	**Ferguson R-Tank HD 2.5** x 1222 Inside #3 Inside= 15.7"W x 42.5"H => 4.42 sf x 2.35'L = 10.4 cf Outside= 15.7"W x 42.5"H => 4.65 sf x 2.35'L = 10.9 cf 1222 Chambers in 26 Rows
		31,364 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	694.00'	**18.0" Round Culvert** L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.00' / 693.20' S= 0.0800 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	694.00'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	697.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=1.26 cfs @ 12.64 hrs HW=697.13' TW=565.00' (Fixed TW Elev= 565.00')
- **1=Culvert** (Passes 0.72 cfs of 13.13 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.72 cfs @ 8.29 fps)
- **3=Broad-Crested Rectangular Weir** (Weir Controls 0.54 cfs @ 1.02 fps)

Pond 2DP: Detention Pond 2 - Chamber Wizard Field A

Chamber Model = Ferguson R-Tank HD 2.5 (Ferguson R-Tank HD)
Inside= 15.7"W x 42.5"H => 4.42 sf x 2.35'L = 10.4 cf
Outside= 15.7"W x 42.5"H => 4.65 sf x 2.35'L = 10.9 cf

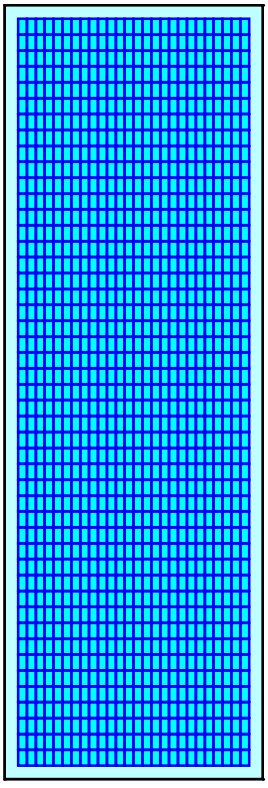
47 Chambers/Row x 2.35' Long = 110.25' Row Length +24.0" End Stone x 2 = 114.25' Base Length
26 Rows x 15.7" Wide + 24.0" Side Stone x 2 = 38.12' Base Width
3.0" Stone Base + 42.5" Chamber Height + 12.0" Stone Cover = 4.79' Field Height

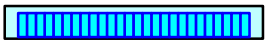
1,222 Chambers x 10.4 cf = 12,663.1 cf Chamber Storage
1,222 Chambers x 10.9 cf = 13,329.6 cf Displacement

20,876.7 cf Field - 13,329.6 cf Chambers = 7,547.2 cf Stone x 40.0% Voids = 3,018.9 cf Stone Storage

Chamber Storage + Stone Storage = 15,682.0 cf = 0.360 af
Overall Storage Efficiency = 75.1%
Overall System Size = 114.25' x 38.12' x 4.79'

1,222 Chambers
773.2 cy Field
279.5 cy Stone





Pond 2DP: Detention Pond 2 - Chamber Wizard Field B

Chamber Model = Ferguson R-Tank HD 2.5 (Ferguson R-Tank HD)
Inside= 15.7"W x 42.5"H => 4.42 sf x 2.35'L = 10.4 cf
Outside= 15.7"W x 42.5"H => 4.65 sf x 2.35'L = 10.9 cf

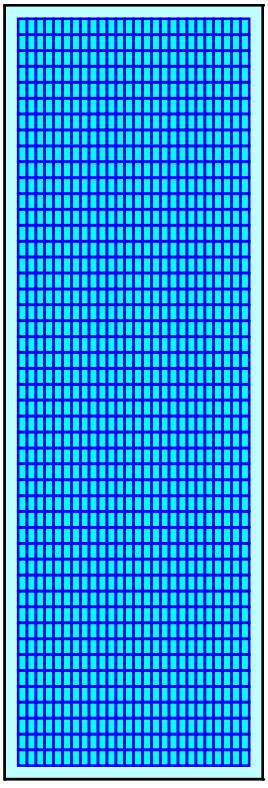
47 Chambers/Row x 2.35' Long = 110.25' Row Length +24.0" End Stone x 2 = 114.25' Base Length
26 Rows x 15.7" Wide + 24.0" Side Stone x 2 = 38.12' Base Width
3.0" Stone Base + 42.5" Chamber Height + 12.0" Stone Cover = 4.79' Field Height

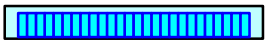
1,222 Chambers x 10.4 cf = 12,663.1 cf Chamber Storage
1,222 Chambers x 10.9 cf = 13,329.6 cf Displacement

20,876.7 cf Field - 13,329.6 cf Chambers = 7,547.2 cf Stone x 40.0% Voids = 3,018.9 cf Stone Storage

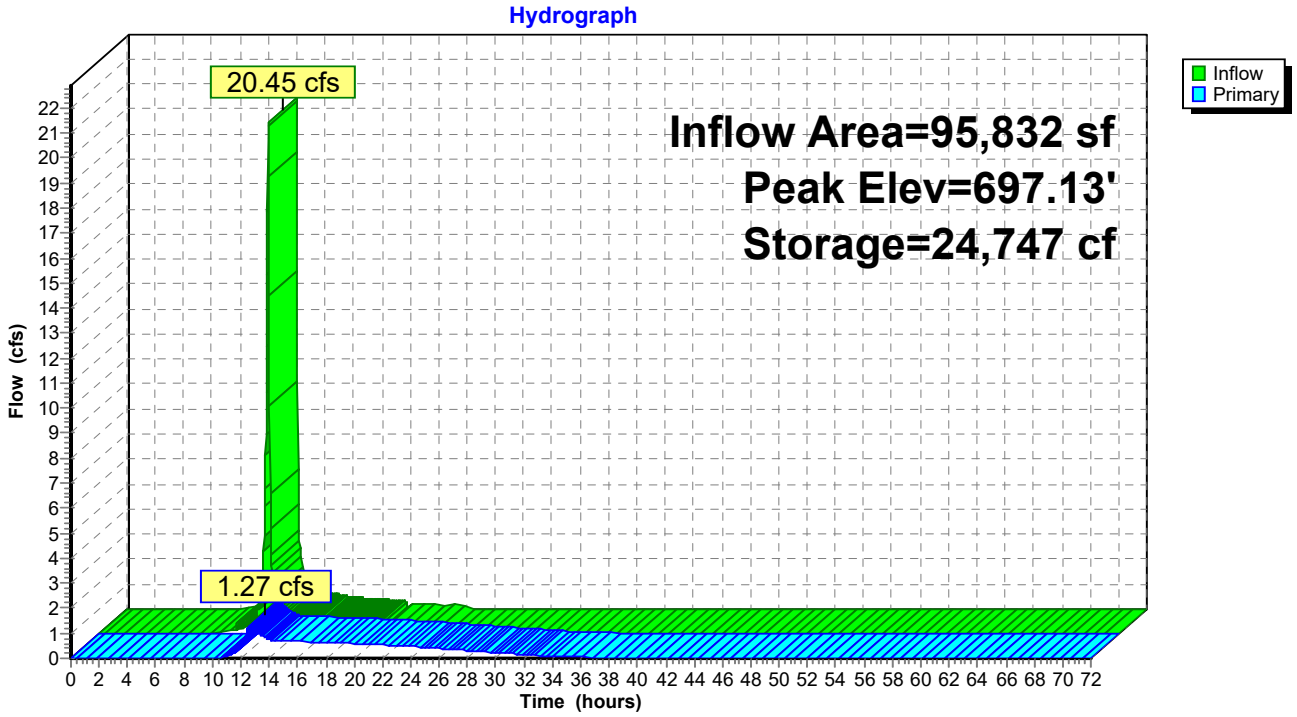
Chamber Storage + Stone Storage = 15,682.0 cf = 0.360 af
Overall Storage Efficiency = 75.1%
Overall System Size = 114.25' x 38.12' x 4.79'

1,222 Chambers
773.2 cy Field
279.5 cy Stone





Pond 2DP: Detention Pond 2



Summary for Pond 2FP: FocalPoint 2

Inflow Area = 31,363 sf, 83.33% Impervious, Inflow Depth = 5.84" for 50-year event
Inflow = 6.99 cfs @ 11.96 hrs, Volume= 15,271 cf
Outflow = 6.86 cfs @ 11.97 hrs, Volume= 14,549 cf, Atten= 2%, Lag= 0.7 min
Primary = 6.86 cfs @ 11.97 hrs, Volume= 14,549 cf
Routed to Pond 2DP : Detention Pond 2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 698.41' @ 11.97 hrs Surf.Area= 1,277 sf Storage= 1,206 cf

Plug-Flow detention time= 48.7 min calculated for 14,542 cf (95% of inflow)
Center-of-Mass det. time= 20.8 min (796.3 - 775.5)

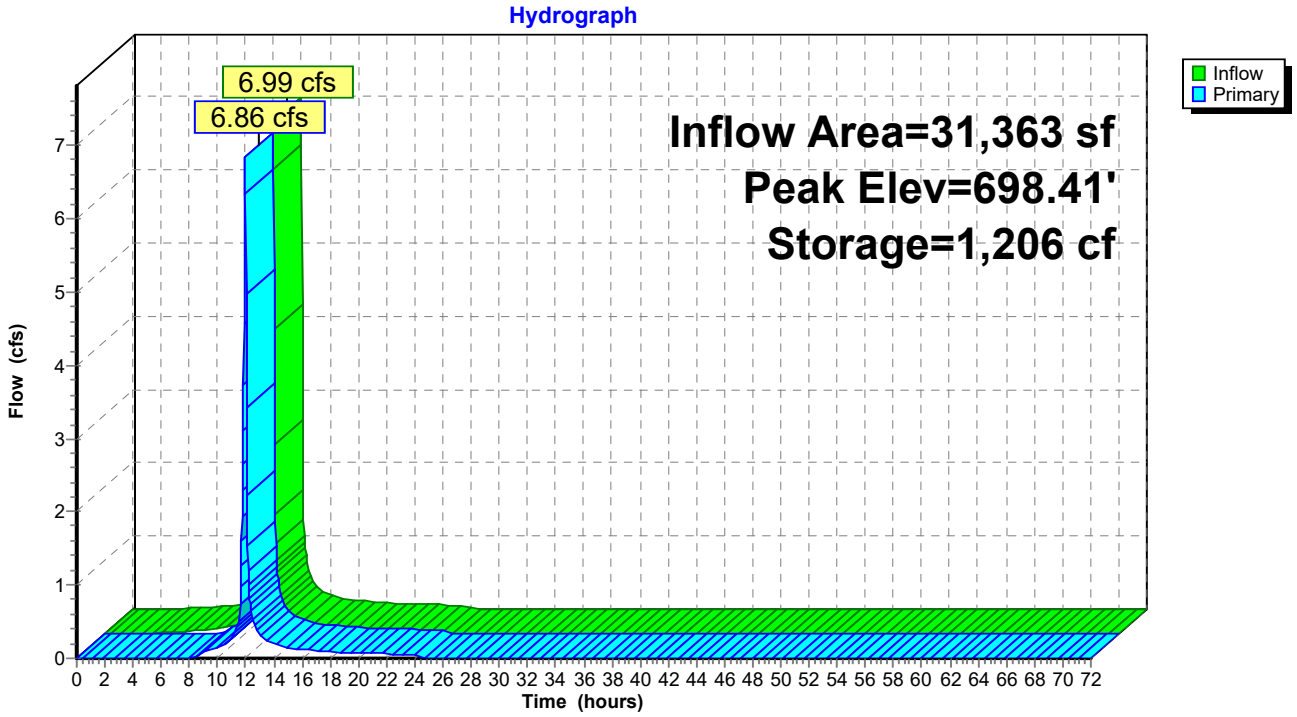
Volume	Invert	Avail.Storage	Storage Description
#1	694.50'	1,317 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
694.50	539	0.0	0	0
697.50	539	20.0	323	323
698.00	1,056	100.0	399	722
698.50	1,323	100.0	595	1,317

Device	Routing	Invert	Outlet Devices
#1	Primary	694.50'	**18.0" Round Culvert** L= 28.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.50' / 694.00' S= 0.0179 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	698.00'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=6.84 cfs @ 11.97 hrs HW=698.41' (Free Discharge)
↑ **1=Culvert** (Passes 6.84 cfs of 15.13 cfs potential flow)
↑ **2=Orifice/Grate** (Weir Controls 6.84 cfs @ 2.10 fps)

Pond 2FP: FocalPoint 2



Summary for Pond 3FP: FocalPoint 3

Inflow Area = 16,553 sf, 71.05% Impervious, Inflow Depth = 5.16" for 50-year event
Inflow = 3.40 cfs @ 11.96 hrs, Volume= 7,116 cf
Outflow = 3.34 cfs @ 11.97 hrs, Volume= 6,396 cf, Atten= 2%, Lag= 0.7 min
Primary = 3.34 cfs @ 11.97 hrs, Volume= 6,396 cf
Routed to Pond 2DP : Detention Pond 2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 699.76' @ 11.97 hrs Surf.Area= 956 sf Storage= 951 cf

Plug-Flow detention time= 79.0 min calculated for 6,393 cf (90% of inflow)
Center-of-Mass det. time= 27.6 min (821.2 - 793.6)

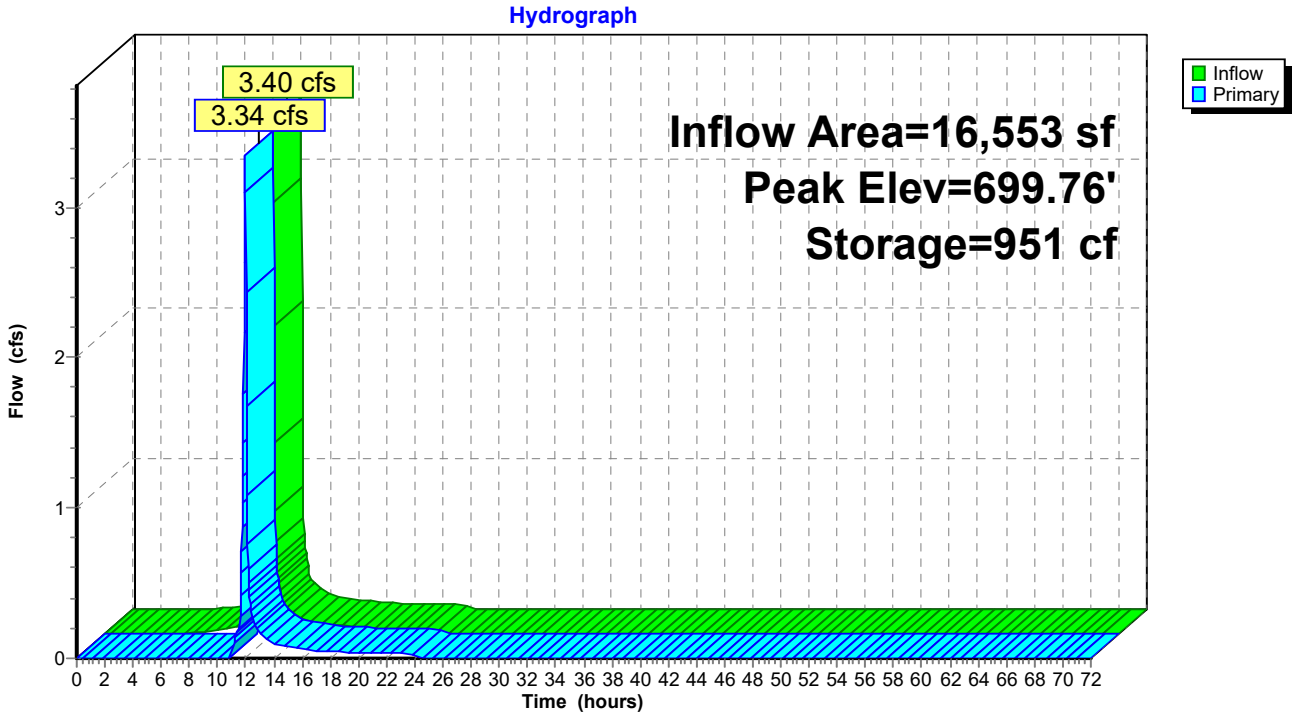
Volume	Invert	Avail.Storage	Storage Description
#1	696.00'	1,197 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
696.00	602	0.0	0	0
699.00	602	20.0	361	361
700.00	1,070	100.0	836	1,197

Device	Routing	Invert	Outlet Devices
#1	Primary	696.00'	**18.0" Round Culvert** L= 80.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 696.00' / 694.00' S= 0.0250 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=3.34 cfs @ 11.97 hrs HW=699.76' (Free Discharge)
↑**1=Culvert** (Passes 3.34 cfs of 14.75 cfs potential flow)
↑**2=Orifice/Grate** (Weir Controls 3.34 cfs @ 1.66 fps)

Pond 3FP: FocalPoint 3



Summary for Pond 4FP: FocalPoint 4

[92] Warning: Device #2 is above defined storage
[92] Warning: Device #3 is above defined storage
[93] Warning: Storage range exceeded by 1.04'
[88] Warning: Qout>Qin may require smaller dt or Finer Routing
[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=229)

Inflow Area = 47,916 sf, 79.09% Impervious, Inflow Depth = 5.61" for 50-year event
Inflow = 10.43 cfs @ 11.96 hrs, Volume= 22,412 cf
Outflow = 10.44 cfs @ 11.95 hrs, Volume= 21,030 cf, Atten= 0%, Lag= 0.0 min
Primary = 10.44 cfs @ 11.95 hrs, Volume= 21,030 cf
Routed to Pond 2DP : Detention Pond 2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 700.04' @ 11.95 hrs Surf.Area= 1,491 sf Storage= 1,389 cf

Plug-Flow detention time= 55.8 min calculated for 21,030 cf (94% of inflow)
Center-of-Mass det. time= 20.9 min (803.0 - 782.0)

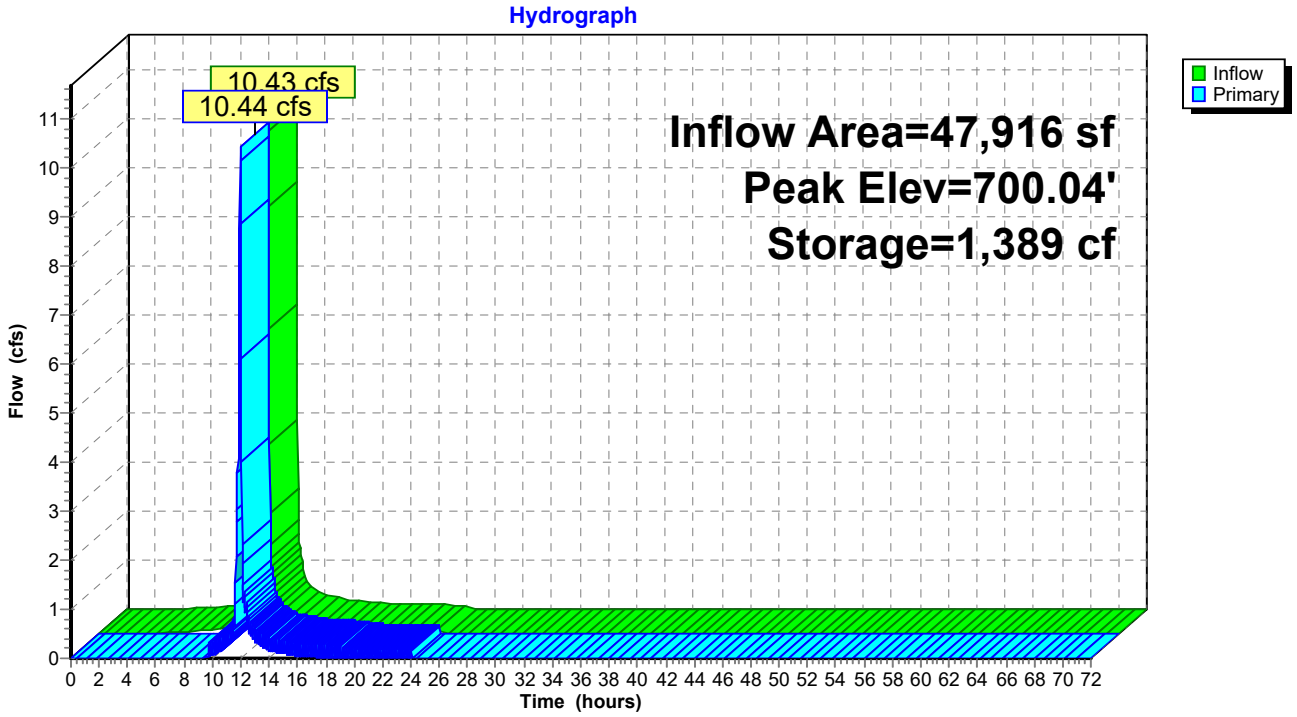
Volume	Invert	Avail.Storage	Storage Description
#1	695.00'	1,389 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
695.00	585	0.0	0	0
698.00	585	20.0	351	351
699.00	1,491	100.0	1,038	1,389

Device	Routing	Invert	Outlet Devices
#1	Primary	696.00'	**18.0" Round Culvert** L= 23.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 696.00' / 695.88' S= 0.0052 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**6.0' long x 133.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=10.21 cfs @ 11.95 hrs HW=700.04' (Free Discharge)
- **1=Culvert** (Passes 10.09 cfs of 15.43 cfs potential flow)
  - **2=Orifice/Grate** (Weir Controls 10.09 cfs @ 2.40 fps)
- **3=Broad-Crested Rectangular Weir** (Weir Controls 0.11 cfs @ 0.51 fps)

Pond 4FP: FocalPoint 4



Summary for Pond 5FP: FocalPoint 5

Inflow Area = 19,166 sf, 61.36% Impervious, Inflow Depth = 4.60" for 50-year event
Inflow = 3.61 cfs @ 11.96 hrs, Volume= 7,351 cf
Outflow = 3.53 cfs @ 11.97 hrs, Volume= 6,723 cf, Atten= 2%, Lag= 0.8 min
Primary = 3.53 cfs @ 11.97 hrs, Volume= 6,723 cf
Routed to Reach 1R : Southern Trunk Line

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 697.77' @ 11.97 hrs Surf.Area= 1,140 sf Storage= 900 cf

Plug-Flow detention time= 66.4 min calculated for 6,723 cf (91% of inflow)
Center-of-Mass det. time= 21.3 min (827.6 - 806.3)

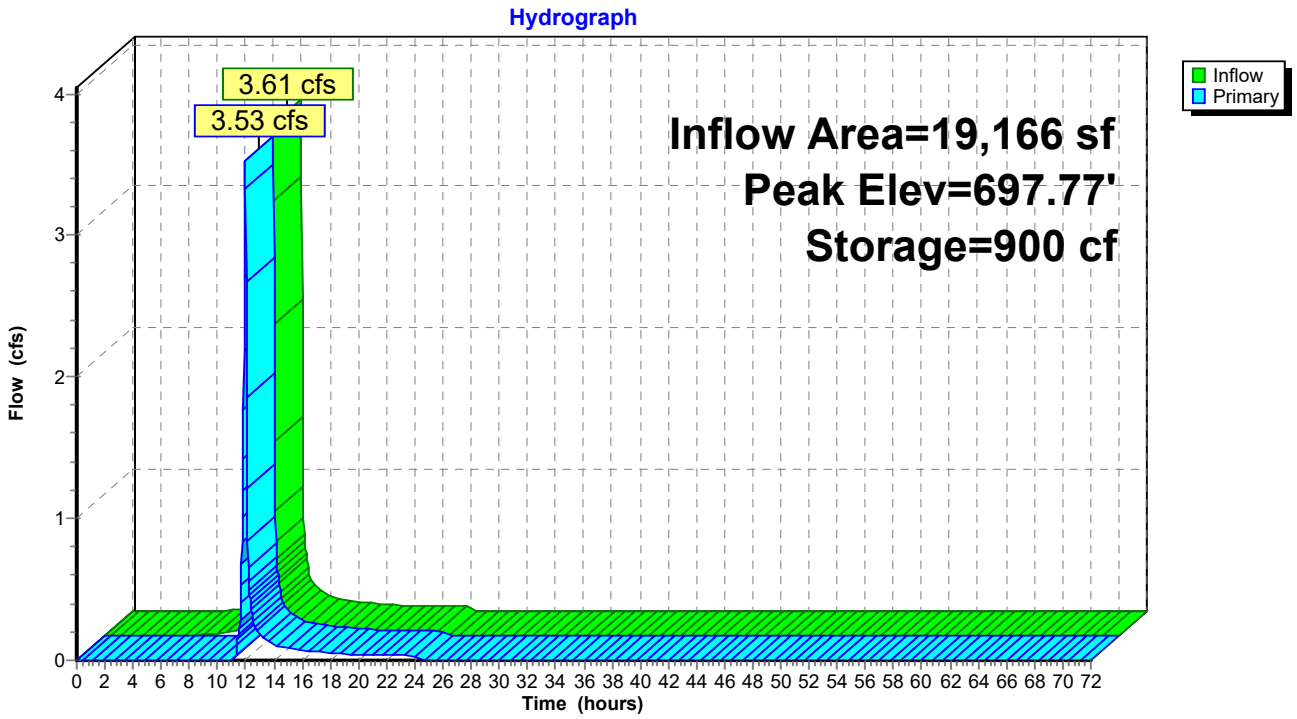
Volume	Invert	Avail.Storage	Storage Description
#1	694.00'	2,779 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
694.00	472	0.0	0	0
697.00	472	20.0	283	283
698.00	1,344	100.0	908	1,191
699.00	1,832	100.0	1,588	2,779

Device	Routing	Invert	Outlet Devices
#1	Primary	694.00'	**18.0" Round Culvert** L= 24.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.00' / 691.39' S= 0.1088 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	697.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	698.50'	**6.0' long x 9.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.46 2.55 2.70 2.69 2.68 2.68 2.67 2.64 2.64 2.64 2.65 2.64 2.65 2.65 2.66 2.67 2.69

Primary OutFlow Max=3.49 cfs @ 11.97 hrs HW=697.76' (Free Discharge)
└**1=Culvert** (Passes 3.49 cfs of 14.77 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 3.49 cfs @ 1.68 fps)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 5FP: FocalPoint 5



Summary for Pond 6FP: FocalPoint 6

Inflow Area = 7,841 sf, 55.56% Impervious, Inflow Depth = 4.28" for 50-year event
Inflow = 1.39 cfs @ 11.96 hrs, Volume= 2,793 cf
Outflow = 1.34 cfs @ 11.98 hrs, Volume= 2,165 cf, Atten= 4%, Lag= 1.1 min
Primary = 1.34 cfs @ 11.98 hrs, Volume= 2,165 cf
Routed to Reach 1R : Southern Trunk Line

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 697.64' @ 11.98 hrs Surf.Area= 1,029 sf Storage= 762 cf

Plug-Flow detention time= 130.7 min calculated for 2,165 cf (78% of inflow)
Center-of-Mass det. time= 42.8 min (856.1 - 813.3)

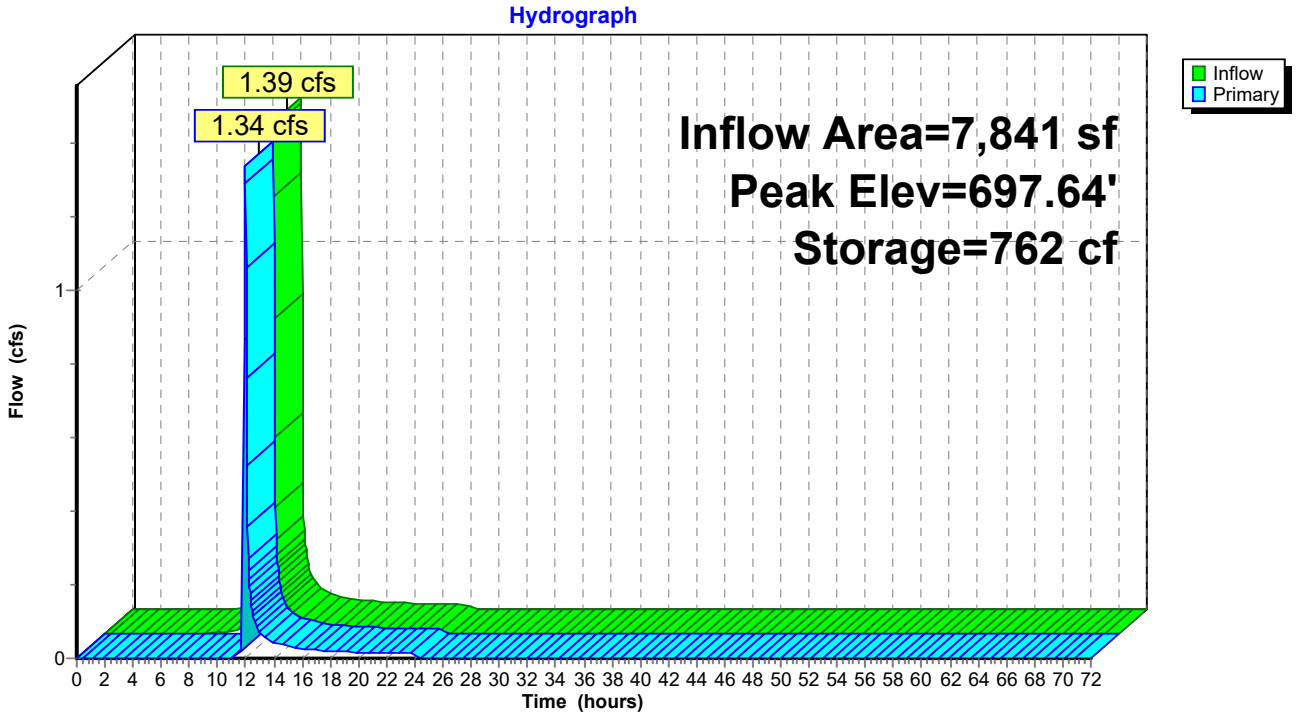
Volume	Invert	Avail.Storage	Storage Description
#1	694.00'	2,779 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
694.00	472	0.0	0	0
697.00	472	20.0	283	283
698.00	1,344	100.0	908	1,191
699.00	1,832	100.0	1,588	2,779

Device	Routing	Invert	Outlet Devices
#1	Primary	694.00'	**18.0" Round Culvert** L= 24.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.00' / 690.87' S= 0.1304 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	697.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	698.50'	**6.0' long x 9.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.46 2.55 2.70 2.69 2.68 2.68 2.67 2.64 2.64 2.64 2.65 2.64 2.65 2.65 2.66 2.67 2.69

Primary OutFlow Max=1.30 cfs @ 11.98 hrs HW=697.64' (Free Discharge)
└**1=Culvert** (Passes 1.30 cfs of 14.46 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 1.30 cfs @ 1.21 fps)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 6FP: FocalPoint 6

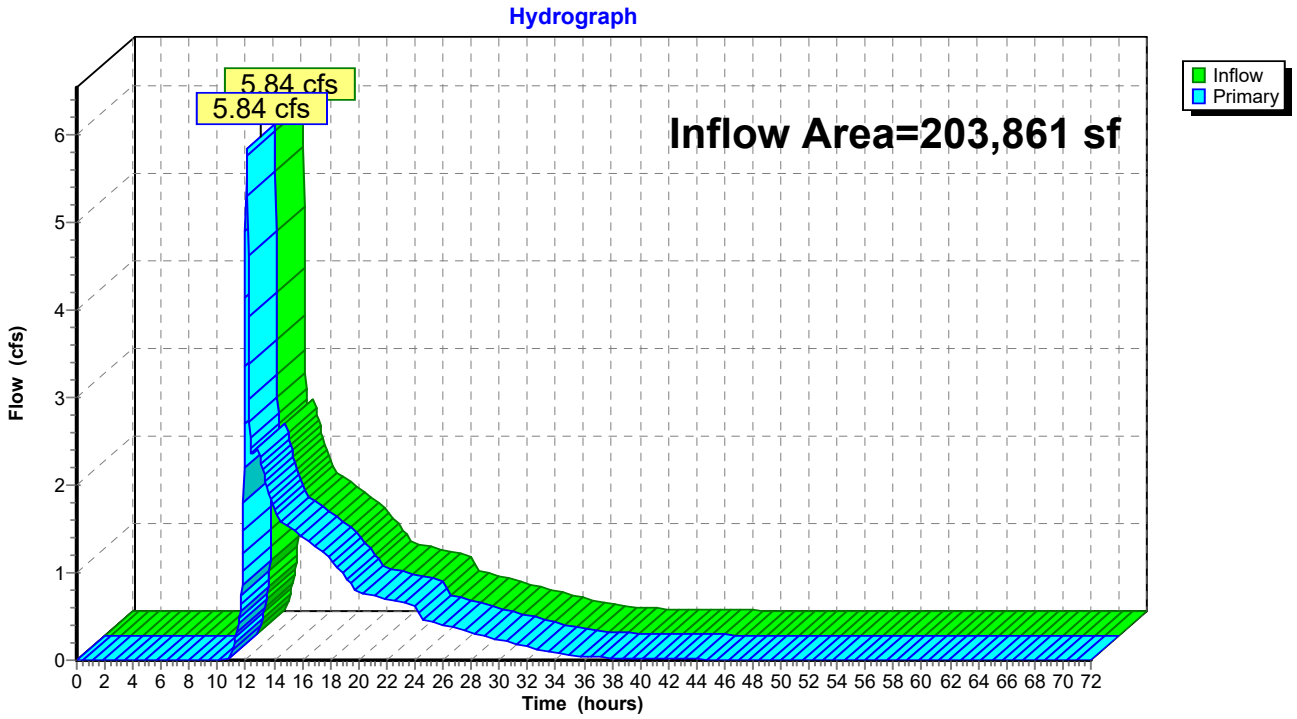


Summary for Link 1L: Outfall #1

Inflow Area = 203,861 sf, 59.40% Impervious, Inflow Depth > 4.13" for 50-year event
Inflow = 5.84 cfs @ 12.07 hrs, Volume= 70,105 cf
Primary = 5.84 cfs @ 12.07 hrs, Volume= 70,105 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs

Link 1L: Outfall #1



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Area 1 Runoff Area=1.480 ac 43.92% Impervious Runoff Depth=4.04"
Tc=5.0 min CN=68 Runoff=10.98 cfs 21,720 cf

Subcatchment2S: Area 2 Runoff Area=0.720 ac 83.33% Impervious Runoff Depth=6.58"
Tc=5.0 min CN=90 Runoff=7.80 cfs 17,196 cf

Subcatchment3S: Area 3 Runoff Area=0.380 ac 71.05% Impervious Runoff Depth=5.87"
Tc=5.0 min CN=84 Runoff=3.84 cfs 8,104 cf

Subcatchment4S: Area 4 Runoff Area=1.100 ac 79.09% Impervious Runoff Depth=6.34"
Tc=5.0 min CN=88 Runoff=11.69 cfs 25,330 cf

Subcatchment5S: Area 5 Runoff Area=0.440 ac 61.36% Impervious Runoff Depth=5.29"
Tc=5.0 min CN=79 Runoff=4.12 cfs 8,456 cf

Subcatchment6S: Area 6 Runoff Area=0.180 ac 55.56% Impervious Runoff Depth=4.95"
Tc=5.0 min CN=76 Runoff=1.60 cfs 3,234 cf

Subcatchment10S: South Bypass Runoff Area=0.380 ac 5.26% Impervious Runoff Depth=2.01"
Tc=5.0 min CN=49 Runoff=1.37 cfs 2,773 cf

Reach 1R: Southern Trunk Line Avg. Flow Depth=0.87' Max Vel=4.80 fps Inflow=6.90 cfs 78,595 cf
24.0" Round Pipe n=0.013 L=1,058.0' S=0.0051 '/' Capacity=16.10 cfs Outflow=6.28 cfs 78,591 cf

Pond 1DP: Detention Pond 1 Peak Elev=699.40' Storage=9,358 cf Inflow=11.00 cfs 21,350 cf
Outflow=0.80 cfs 21,350 cf

Pond 1FP: FocalPoint 1 Peak Elev=700.06' Storage=815 cf Inflow=10.98 cfs 21,720 cf
Outflow=11.00 cfs 21,350 cf

Pond 2DP: Detention Pond 2 Peak Elev=697.31' Storage=26,113 cf Inflow=23.05 cfs 47,798 cf
Outflow=2.74 cfs 46,812 cf

Pond 2FP: FocalPoint 2 Peak Elev=698.45' Storage=1,247 cf Inflow=7.80 cfs 17,196 cf
Outflow=7.67 cfs 16,473 cf

Pond 3FP: FocalPoint 3 Peak Elev=699.78' Storage=972 cf Inflow=3.84 cfs 8,104 cf
Outflow=3.78 cfs 7,383 cf

Pond 4FP: FocalPoint 4 Peak Elev=700.08' Storage=1,389 cf Inflow=11.69 cfs 25,330 cf
Outflow=11.67 cfs 23,942 cf

Pond 5FP: FocalPoint 5 Peak Elev=697.79' Storage=929 cf Inflow=4.12 cfs 8,456 cf
Outflow=4.03 cfs 7,828 cf

Pond 6FP: FocalPoint 6 Peak Elev=697.65' Storage=777 cf Inflow=1.60 cfs 3,234 cf
Outflow=1.54 cfs 2,606 cf

Link 1L: Outfall #1 Inflow=6.81 cfs 81,364 cf
Primary=6.81 cfs 81,364 cf

Total Runoff Area = 203,861 sf Runoff Volume = 86,811 cf Average Runoff Depth = 5.11"
40.60% Pervious = 82,764 sf 59.40% Impervious = 121,097 sf

Summary for Subcatchment 1S: Area 1

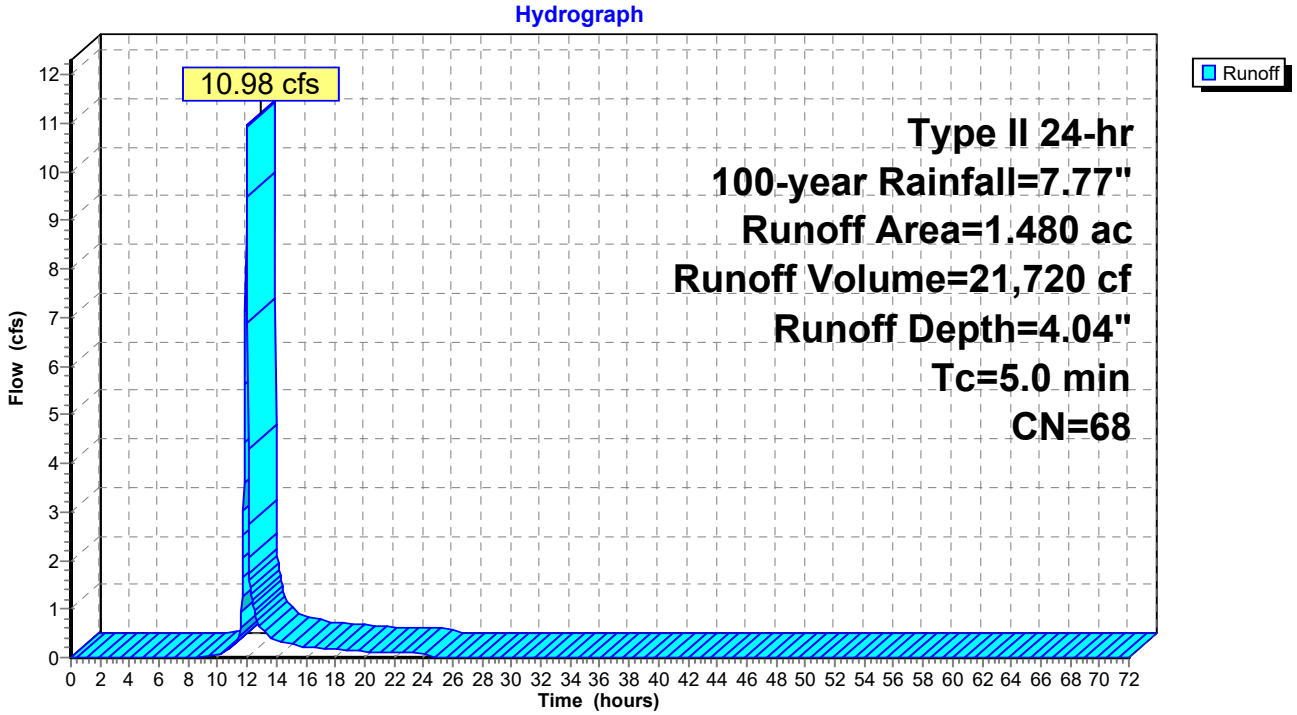
Runoff = 10.98 cfs @ 11.96 hrs, Volume= 21,720 cf, Depth= 4.04"
Routed to Pond 1FP : FocalPoint 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 100-year Rainfall=7.77"

Area (ac)	CN	Description
0.510	49	50-75% Grass cover, Fair, HSG A
0.320	36	Woods, Fair, HSG A
0.650	98	Paved parking, HSG A
1.480	68	Weighted Average
0.830		56.08% Pervious Area
0.650		43.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 1S: Area 1



Summary for Subcatchment 2S: Area 2

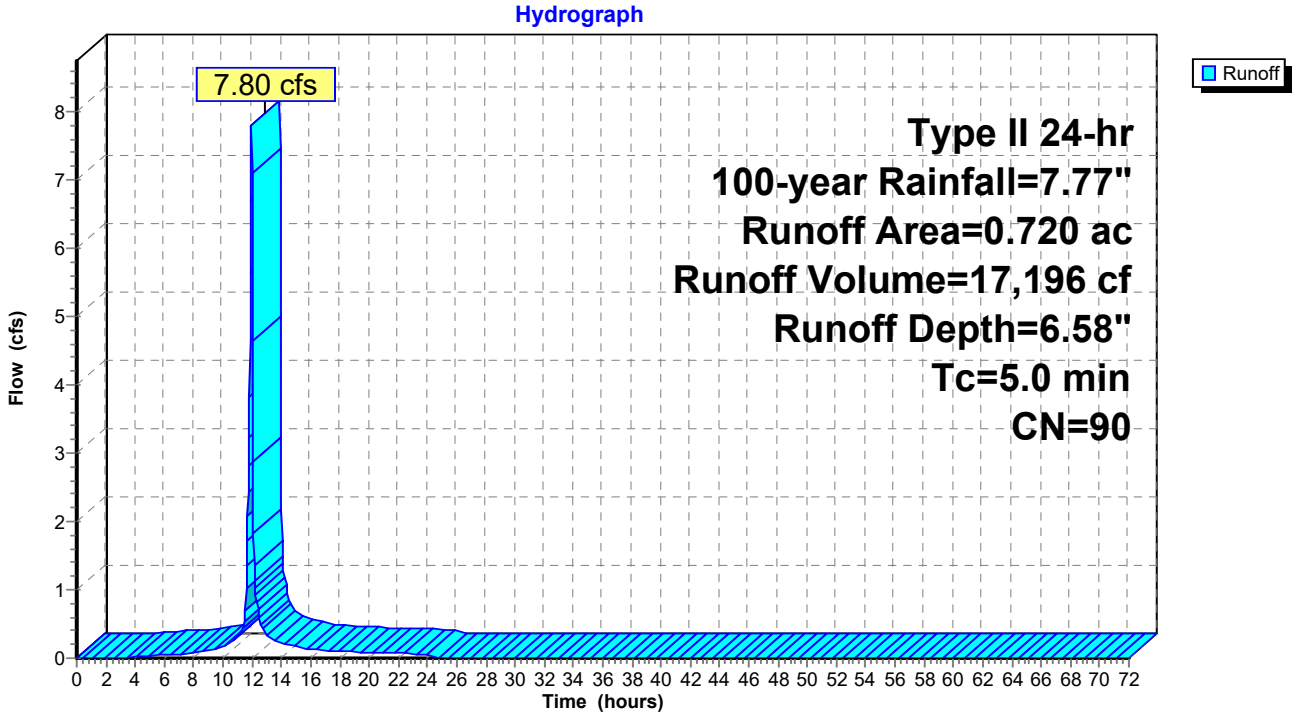
Runoff = 7.80 cfs @ 11.96 hrs, Volume= 17,196 cf, Depth= 6.58"
Routed to Pond 2FP : FocalPoint 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 100-year Rainfall=7.77"

Area (ac)	CN	Description
0.120	49	50-75% Grass cover, Fair, HSG A
0.600	98	Paved parking, HSG A
0.720	90	Weighted Average
0.120		16.67% Pervious Area
0.600		83.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 2S: Area 2



Summary for Subcatchment 3S: Area 3

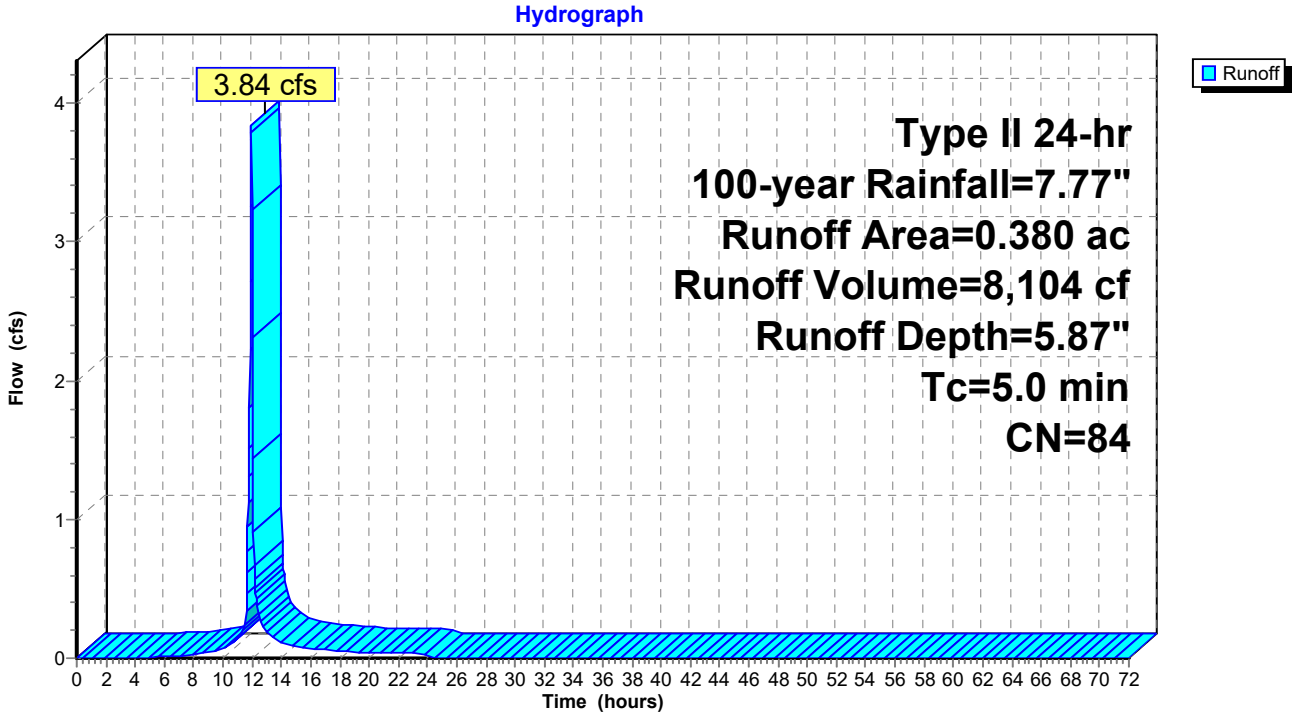
Runoff = 3.84 cfs @ 11.96 hrs, Volume= 8,104 cf, Depth= 5.87"
Routed to Pond 3FP : FocalPoint 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 100-year Rainfall=7.77"

Area (ac)	CN	Description
0.110	49	50-75% Grass cover, Fair, HSG A
0.270	98	Paved parking, HSG A
0.380	84	Weighted Average
0.110		28.95% Pervious Area
0.270		71.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 3S: Area 3



Summary for Subcatchment 4S: Area 4

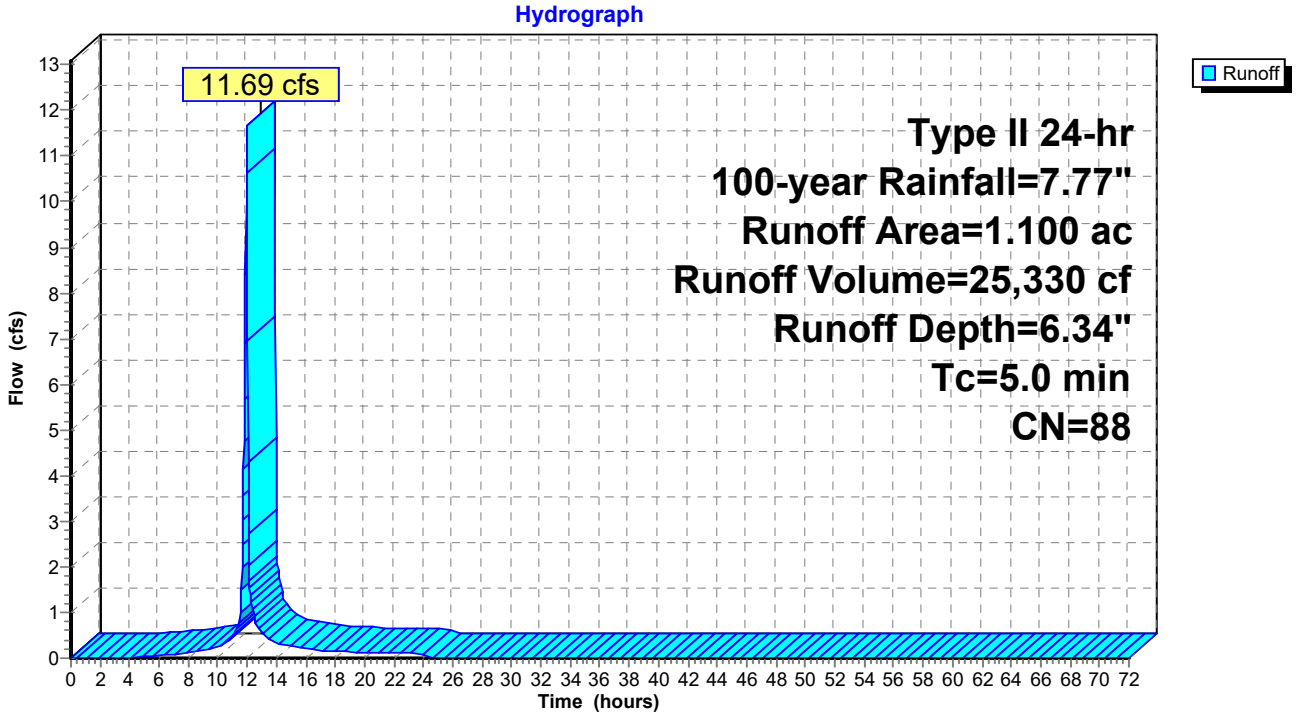
Runoff = 11.69 cfs @ 11.96 hrs, Volume= 25,330 cf, Depth= 6.34"
Routed to Pond 4FP : FocalPoint 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 100-year Rainfall=7.77"

Area (ac)	CN	Description
0.230	49	50-75% Grass cover, Fair, HSG A
0.870	98	Paved parking, HSG A
1.100	88	Weighted Average
0.230		20.91% Pervious Area
0.870		79.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 4S: Area 4



Summary for Subcatchment 5S: Area 5

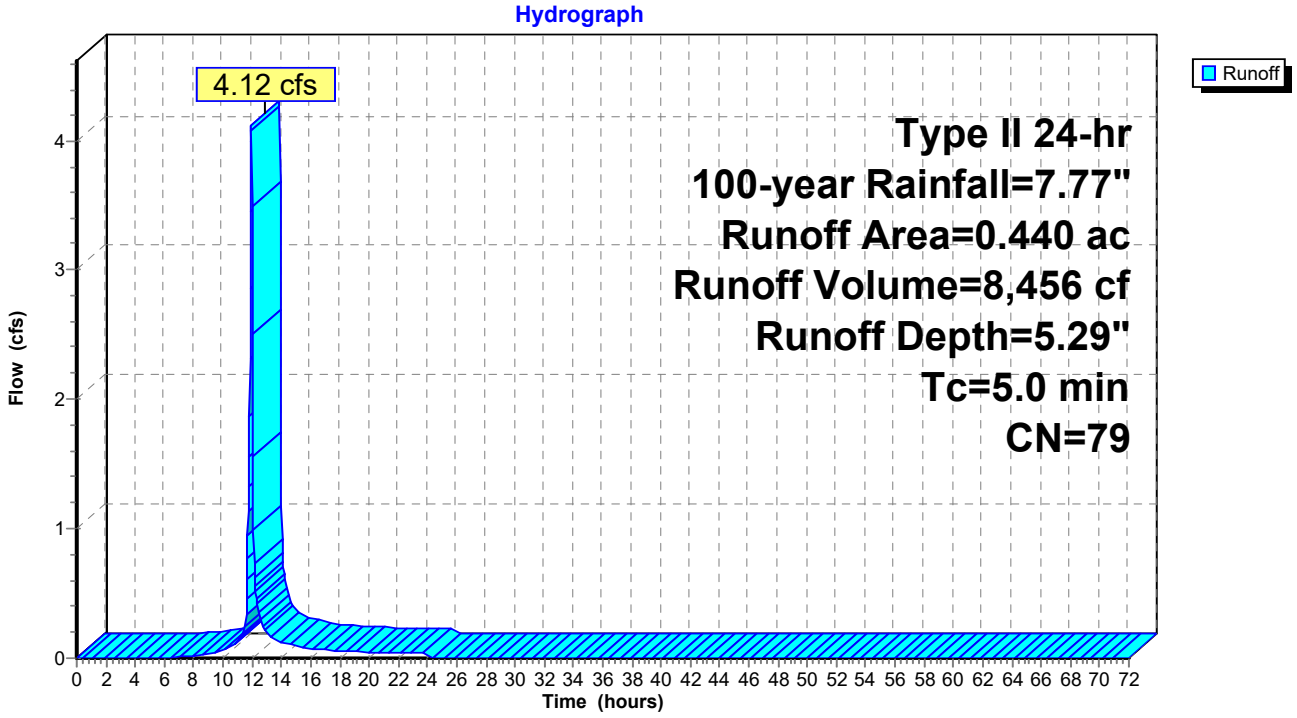
Runoff = 4.12 cfs @ 11.96 hrs, Volume= 8,456 cf, Depth= 5.29"
Routed to Pond 5FP : FocalPoint 5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 100-year Rainfall=7.77"

Area (ac)	CN	Description
0.170	49	50-75% Grass cover, Fair, HSG A
0.270	98	Paved parking, HSG A
0.440	79	Weighted Average
0.170		38.64% Pervious Area
0.270		61.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 5S: Area 5



Summary for Subcatchment 6S: Area 6

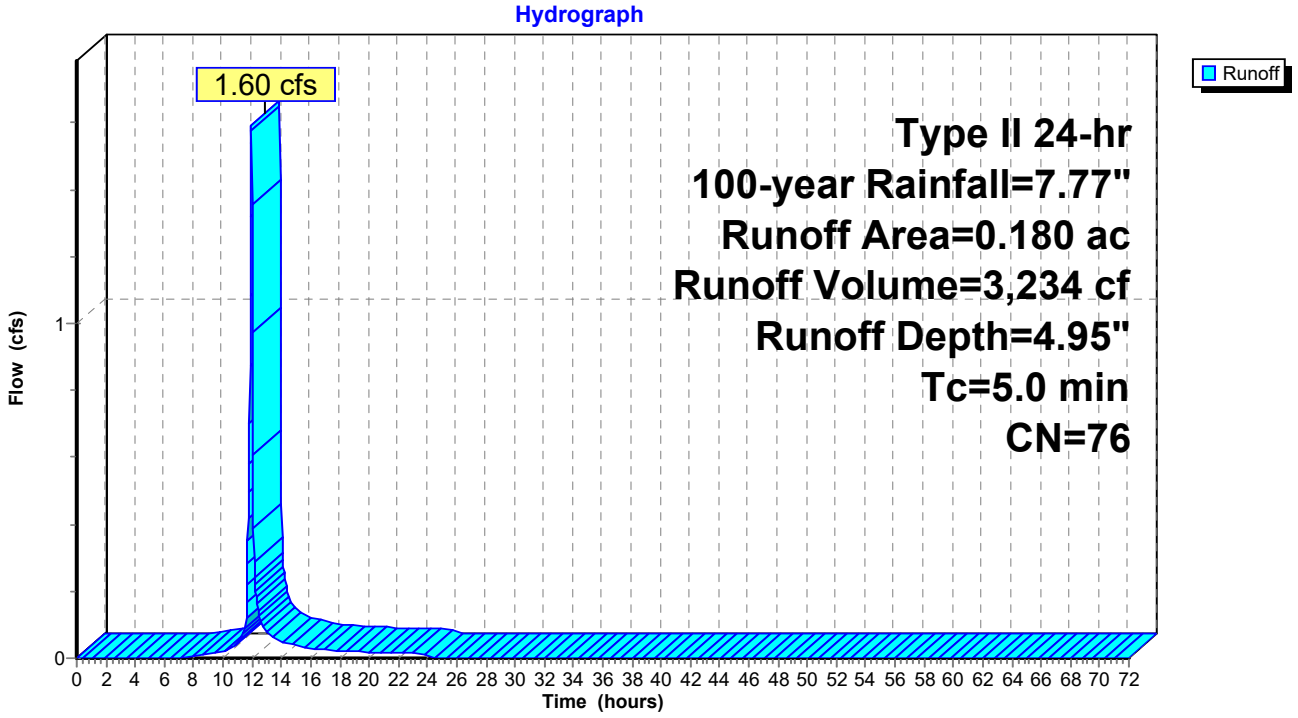
Runoff = 1.60 cfs @ 11.96 hrs, Volume= 3,234 cf, Depth= 4.95"
Routed to Pond 6FP : FocalPoint 6

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 100-year Rainfall=7.77"

Area (ac)	CN	Description
0.080	49	50-75% Grass cover, Fair, HSG A
0.100	98	Paved parking, HSG A
0.180	76	Weighted Average
0.080		44.44% Pervious Area
0.100		55.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 6S: Area 6



Summary for Subcatchment 10S: South Bypass

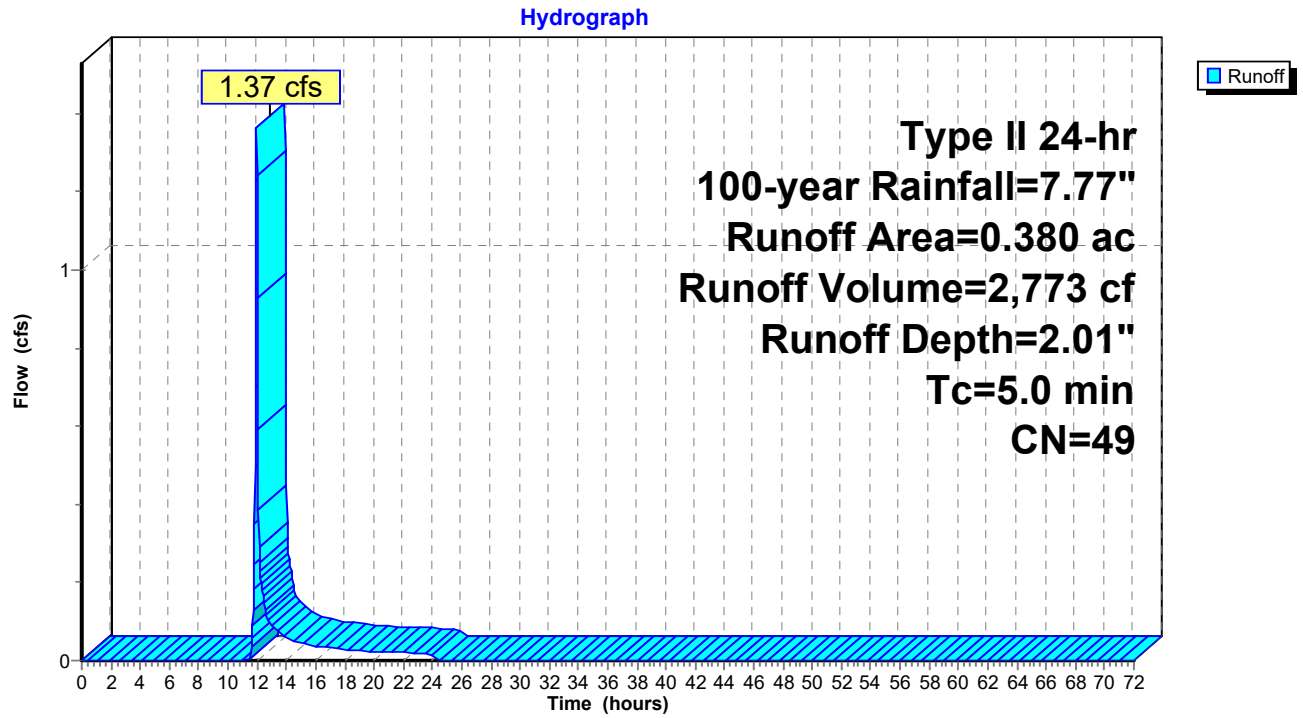
Runoff = 1.37 cfs @ 11.97 hrs, Volume= 2,773 cf, Depth= 2.01"
Routed to Link 1L : Outfall #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 100-year Rainfall=7.77"

Area (ac)	CN	Description
0.290	49	50-75% Grass cover, Fair, HSG A
0.070	36	Woods, Fair, HSG A
0.020	98	Paved parking, HSG A
0.380	49	Weighted Average
0.360		94.74% Pervious Area
0.020		5.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 10S: South Bypass



Summary for Reach 1R: Southern Trunk Line

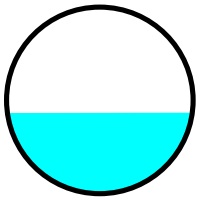
[52] Hint: Inlet/Outlet conditions not evaluated
[79] Warning: Submerged Pond 1DP Primary device # 1 INLET by 0.72'
[81] Warning: Exceeded Pond 2DP by 1.71' @ 0.00 hrs
[79] Warning: Submerged Pond 5FP Primary device # 1 INLET by 2.32'
[79] Warning: Submerged Pond 6FP Primary device # 1 INLET by 2.32'

Inflow Area = 187,308 sf, 64.19% Impervious, Inflow Depth > 5.04" for 100-year event
Inflow = 6.90 cfs @ 11.98 hrs, Volume= 78,595 cf
Outflow = 6.28 cfs @ 12.07 hrs, Volume= 78,591 cf, Atten= 9%, Lag= 5.9 min
Routed to Link 1L : Outfall #1

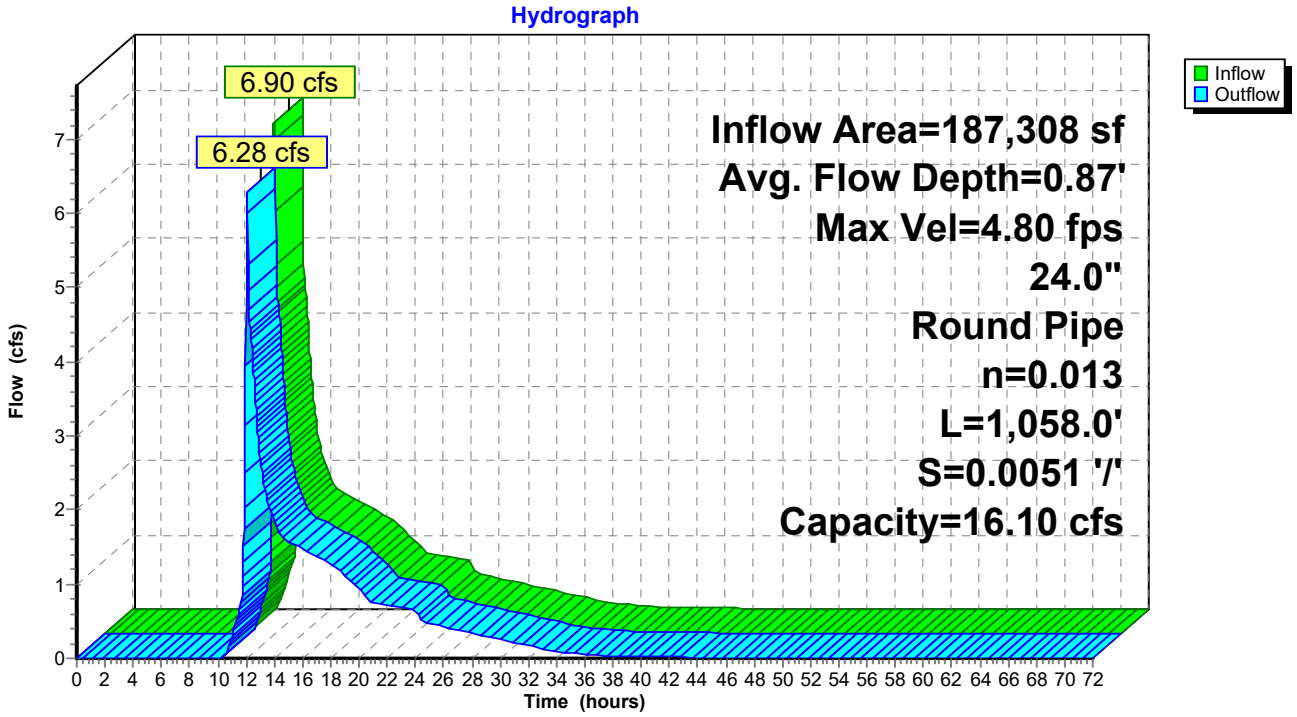
Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Max. Velocity= 4.80 fps, Min. Travel Time= 3.7 min
Avg. Velocity = 1.36 fps, Avg. Travel Time= 13.0 min

Peak Storage= 1,384 cf @ 12.01 hrs
Average Depth at Peak Storage= 0.87' , Surface Width= 1.98'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 16.10 cfs

24.0" Round Pipe
n= 0.013
Length= 1,058.0' Slope= 0.0051 '/'
Inlet Invert= 695.46', Outlet Invert= 690.10'



Reach 1R: Southern Trunk Line



Summary for Pond 1DP: Detention Pond 1

[44] Hint: Outlet device #2 is below defined storage
[79] Warning: Submerged Pond 1FP Primary device # 1 INLET by 3.40'

Inflow Area = 64,469 sf, 43.92% Impervious, Inflow Depth = 3.97" for 100-year event
Inflow = 11.00 cfs @ 11.96 hrs, Volume= 21,350 cf
Outflow = 0.80 cfs @ 12.58 hrs, Volume= 21,350 cf, Atten= 93%, Lag= 37.2 min
Primary = 0.80 cfs @ 12.58 hrs, Volume= 21,350 cf
Routed to Reach 1R : Southern Trunk Line

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 699.40' @ 12.58 hrs Surf.Area= 4,602 sf Storage= 9,358 cf

Plug-Flow detention time= 112.5 min calculated for 21,341 cf (100% of inflow)
Center-of-Mass det. time= 112.5 min (944.3 - 831.8)

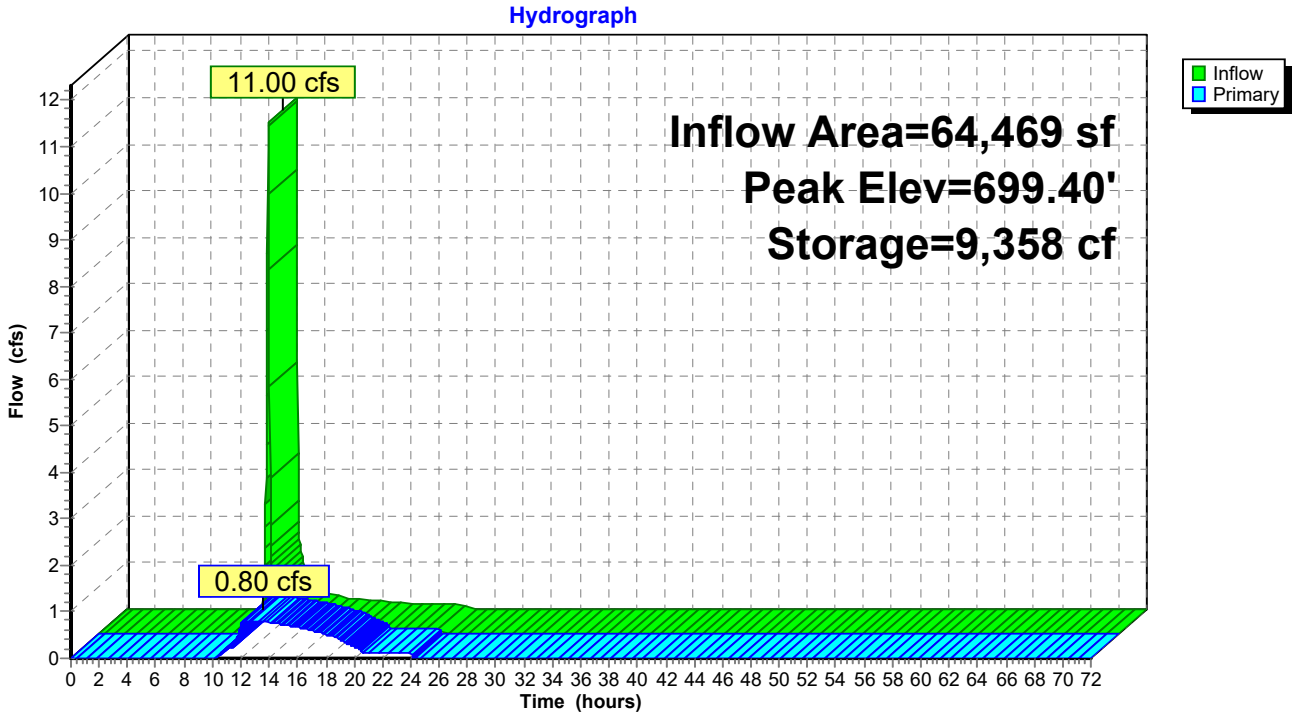
Volume	Invert	Avail.Storage	Storage Description
#1	695.80'	19,432 cf	**Custom Stage Data (Prismatic)** Listed below

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
695.80	0	0	0
696.00	285	29	29
697.00	2,098	1,192	1,220
698.00	3,151	2,625	3,845
699.00	4,138	3,645	7,489
700.00	5,311	4,725	12,214
701.00	9,125	7,218	19,432

Device	Routing	Invert	Outlet Devices
#1	Primary	695.60'	**18.0" Round Culvert** L= 28.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 695.60' / 695.46' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	695.60'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.80 cfs @ 12.58 hrs HW=699.40' TW=565.00' (Fixed TW Elev= 565.00')
└─**1=Culvert** (Passes 0.80 cfs of 14.85 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.80 cfs @ 9.17 fps)
  └─**3=Orifice/Grate** (Controls 0.00 cfs)

Pond 1DP: Detention Pond 1



Summary for Pond 1FP: FocalPoint 1

[92] Warning: Device #3 is above defined storage
[93] Warning: Storage range exceeded by 0.06'
[88] Warning: Qout>Qin may require smaller dt or Finer Routing

Inflow Area = 64,469 sf, 43.92% Impervious, Inflow Depth = 4.04" for 100-year event
Inflow = 10.98 cfs @ 11.96 hrs, Volume= 21,720 cf
Outflow = 11.00 cfs @ 11.96 hrs, Volume= 21,350 cf, Atten= 0%, Lag= 0.0 min
Primary = 11.00 cfs @ 11.96 hrs, Volume= 21,350 cf
Routed to Pond 1DP : Detention Pond 1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 700.06' @ 11.96 hrs Surf.Area= 1,109 sf Storage= 815 cf

Plug-Flow detention time= 15.8 min calculated for 21,350 cf (98% of inflow)
Center-of-Mass det. time= 5.6 min (831.8 - 826.3)

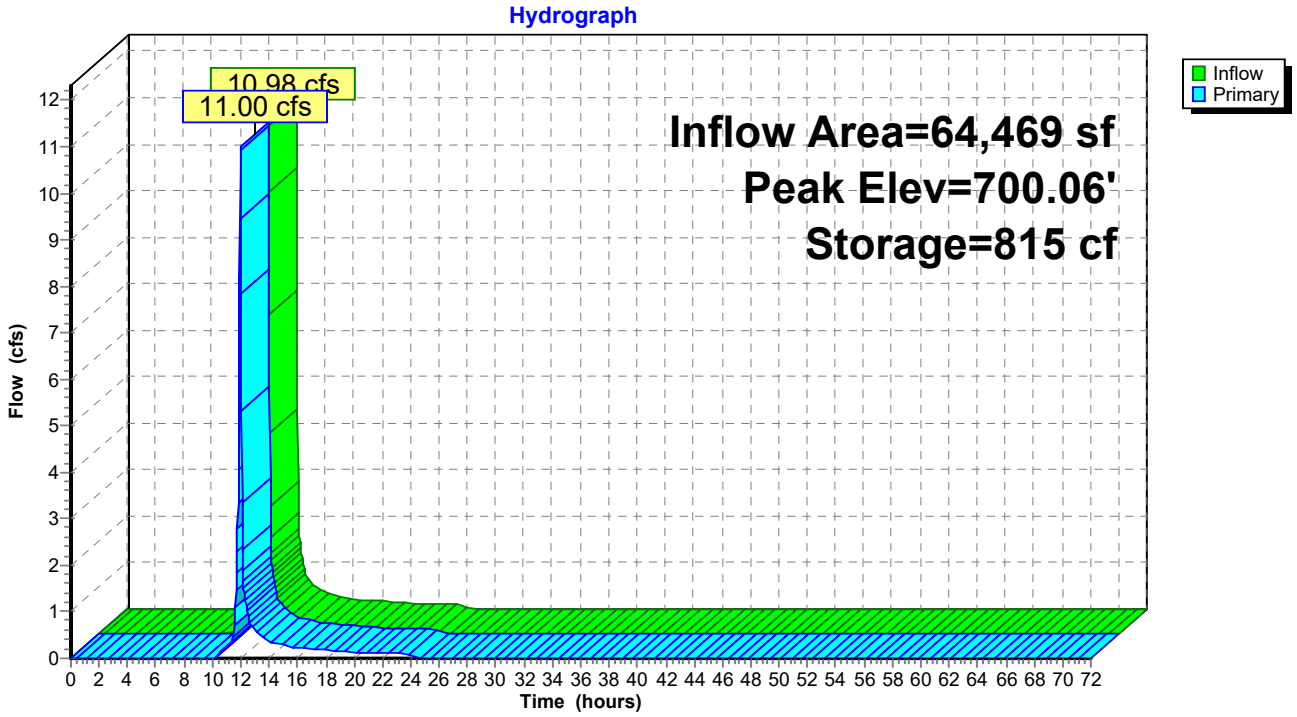
Volume	Invert	Avail.Storage	Storage Description
#1	696.00'	815 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
696.00	237	0.0	0	0
699.00	237	20.0	142	142
700.00	1,109	100.0	673	815

Device	Routing	Invert	Outlet Devices
#1	Primary	696.00'	**18.0" Round Culvert** L= 40.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 696.00' / 695.80' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**10.0' long x 18.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=10.80 cfs @ 11.96 hrs HW=700.05' (Free Discharge)
- **1=Culvert** (Passes 10.49 cfs of 15.46 cfs potential flow)
  - **2=Orifice/Grate** (Weir Controls 10.49 cfs @ 2.43 fps)
- **3=Broad-Crested Rectangular Weir** (Weir Controls 0.30 cfs @ 0.60 fps)

Pond 1FP: FocalPoint 1



Summary for Pond 2DP: Detention Pond 2

[79] Warning: Submerged Pond 2FP Primary device # 1 INLET by 2.81'
[79] Warning: Submerged Pond 3FP Primary device # 1 INLET by 1.31'
[79] Warning: Submerged Pond 4FP Primary device # 1 INLET by 1.31'

Inflow Area = 95,832 sf, 79.09% Impervious, Inflow Depth = 5.99" for 100-year event
Inflow = 23.05 cfs @ 11.96 hrs, Volume= 47,798 cf
Outflow = 2.74 cfs @ 12.25 hrs, Volume= 46,812 cf, Atten= 88%, Lag= 17.1 min
Primary = 2.74 cfs @ 12.25 hrs, Volume= 46,812 cf
Routed to Reach 1R : Southern Trunk Line

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 697.31' @ 12.25 hrs Surf.Area= 8,711 sf Storage= 26,113 cf

Plug-Flow detention time= 399.8 min calculated for 46,812 cf (98% of inflow)
Center-of-Mass det. time= 387.1 min (1,186.1 - 799.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	693.75'	3,019 cf	**38.12'W x 114.25'L x 4.79'H Field A** 20,877 cf Overall - 13,330 cf Embedded = 7,547 cf x 40.0% Voids
#2A	694.00'	12,663 cf	**Ferguson R-Tank HD 2.5** x 1222 Inside #1 Inside= 15.7"W x 42.5"H => 4.42 sf x 2.35'L = 10.4 cf Outside= 15.7"W x 42.5"H => 4.65 sf x 2.35'L = 10.9 cf 1222 Chambers in 26 Rows
#3B	693.75'	3,019 cf	**38.12'W x 114.25'L x 4.79'H Field B** 20,877 cf Overall - 13,330 cf Embedded = 7,547 cf x 40.0% Voids
#4B	694.00'	12,663 cf	**Ferguson R-Tank HD 2.5** x 1222 Inside #3 Inside= 15.7"W x 42.5"H => 4.42 sf x 2.35'L = 10.4 cf Outside= 15.7"W x 42.5"H => 4.65 sf x 2.35'L = 10.9 cf 1222 Chambers in 26 Rows
		31,364 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	694.00'	**18.0" Round Culvert** L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.00' / 693.20' S= 0.0800 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	694.00'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	697.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=2.74 cfs @ 12.25 hrs HW=697.31' TW=565.00' (Fixed TW Elev= 565.00')
- **1=Culvert** (Passes 0.75 cfs of 13.62 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.75 cfs @ 8.54 fps)
- **3=Broad-Crested Rectangular Weir** (Weir Controls 1.99 cfs @ 1.60 fps)

Pond 2DP: Detention Pond 2 - Chamber Wizard Field A

Chamber Model = Ferguson R-Tank HD 2.5 (Ferguson R-Tank HD)
Inside= 15.7"W x 42.5"H => 4.42 sf x 2.35'L = 10.4 cf
Outside= 15.7"W x 42.5"H => 4.65 sf x 2.35'L = 10.9 cf

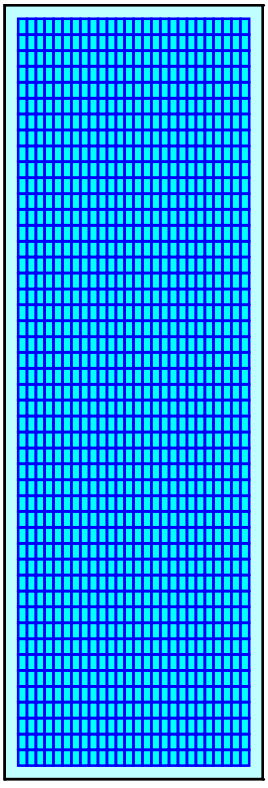
47 Chambers/Row x 2.35' Long = 110.25' Row Length +24.0" End Stone x 2 = 114.25' Base Length
26 Rows x 15.7" Wide + 24.0" Side Stone x 2 = 38.12' Base Width
3.0" Stone Base + 42.5" Chamber Height + 12.0" Stone Cover = 4.79' Field Height

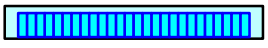
1,222 Chambers x 10.4 cf = 12,663.1 cf Chamber Storage
1,222 Chambers x 10.9 cf = 13,329.6 cf Displacement

20,876.7 cf Field - 13,329.6 cf Chambers = 7,547.2 cf Stone x 40.0% Voids = 3,018.9 cf Stone Storage

Chamber Storage + Stone Storage = 15,682.0 cf = 0.360 af
Overall Storage Efficiency = 75.1%
Overall System Size = 114.25' x 38.12' x 4.79'

1,222 Chambers
773.2 cy Field
279.5 cy Stone





Pond 2DP: Detention Pond 2 - Chamber Wizard Field B

Chamber Model = Ferguson R-Tank HD 2.5 (Ferguson R-Tank HD)
Inside= 15.7"W x 42.5"H => 4.42 sf x 2.35'L = 10.4 cf
Outside= 15.7"W x 42.5"H => 4.65 sf x 2.35'L = 10.9 cf

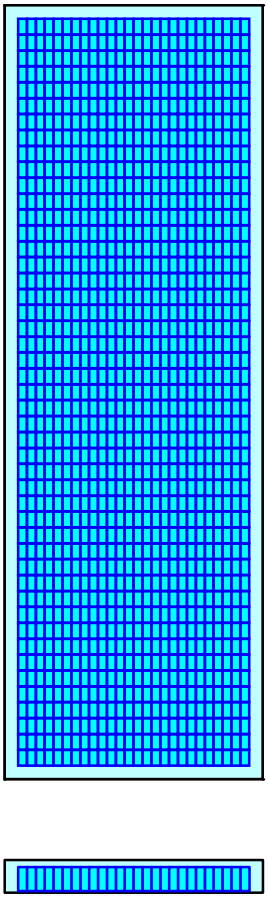
47 Chambers/Row x 2.35' Long = 110.25' Row Length +24.0" End Stone x 2 = 114.25' Base Length
26 Rows x 15.7" Wide + 24.0" Side Stone x 2 = 38.12' Base Width
3.0" Stone Base + 42.5" Chamber Height + 12.0" Stone Cover = 4.79' Field Height

1,222 Chambers x 10.4 cf = 12,663.1 cf Chamber Storage
1,222 Chambers x 10.9 cf = 13,329.6 cf Displacement

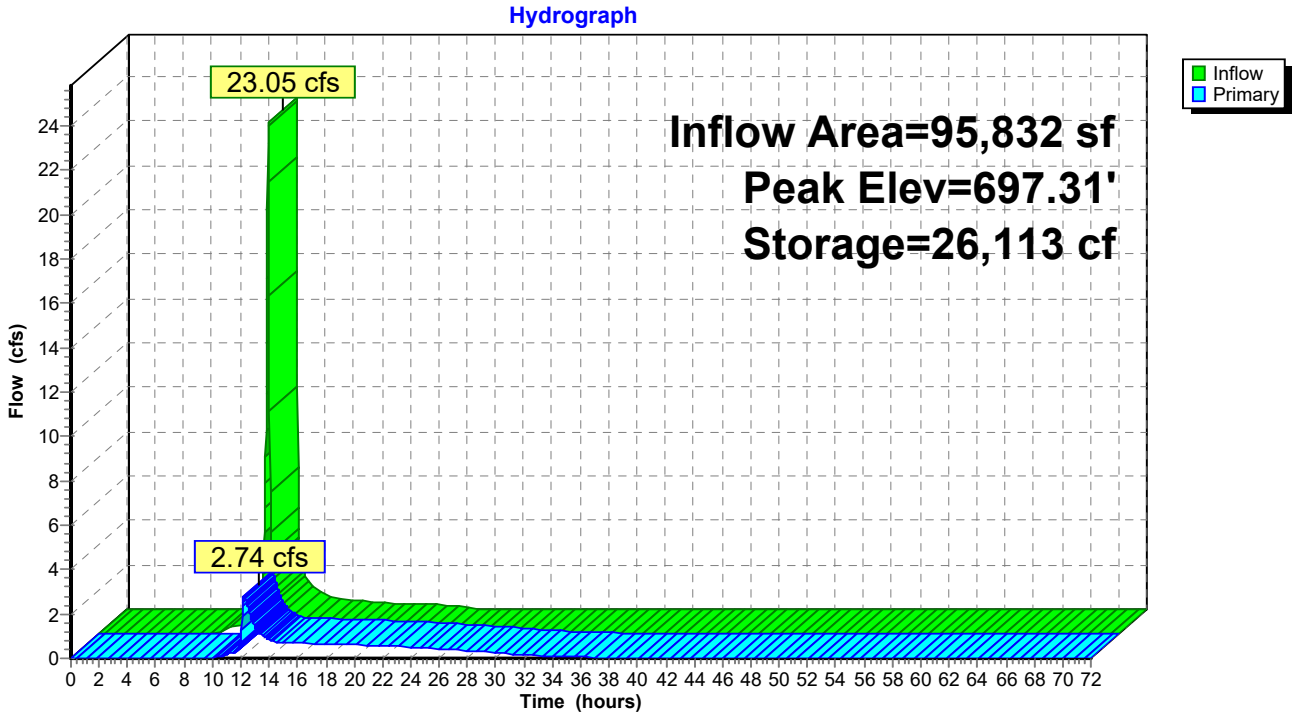
20,876.7 cf Field - 13,329.6 cf Chambers = 7,547.2 cf Stone x 40.0% Voids = 3,018.9 cf Stone Storage

Chamber Storage + Stone Storage = 15,682.0 cf = 0.360 af
Overall Storage Efficiency = 75.1%
Overall System Size = 114.25' x 38.12' x 4.79'

1,222 Chambers
773.2 cy Field
279.5 cy Stone



Pond 2DP: Detention Pond 2



Summary for Pond 2FP: FocalPoint 2

Inflow Area = 31,363 sf, 83.33% Impervious, Inflow Depth = 6.58" for 100-year event
Inflow = 7.80 cfs @ 11.96 hrs, Volume= 17,196 cf
Outflow = 7.67 cfs @ 11.97 hrs, Volume= 16,473 cf, Atten= 2%, Lag= 0.7 min
Primary = 7.67 cfs @ 11.97 hrs, Volume= 16,473 cf
Routed to Pond 2DP : Detention Pond 2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 698.45' @ 11.97 hrs Surf.Area= 1,294 sf Storage= 1,247 cf

Plug-Flow detention time= 44.9 min calculated for 16,467 cf (96% of inflow)
Center-of-Mass det. time= 19.7 min (792.1 - 772.4)

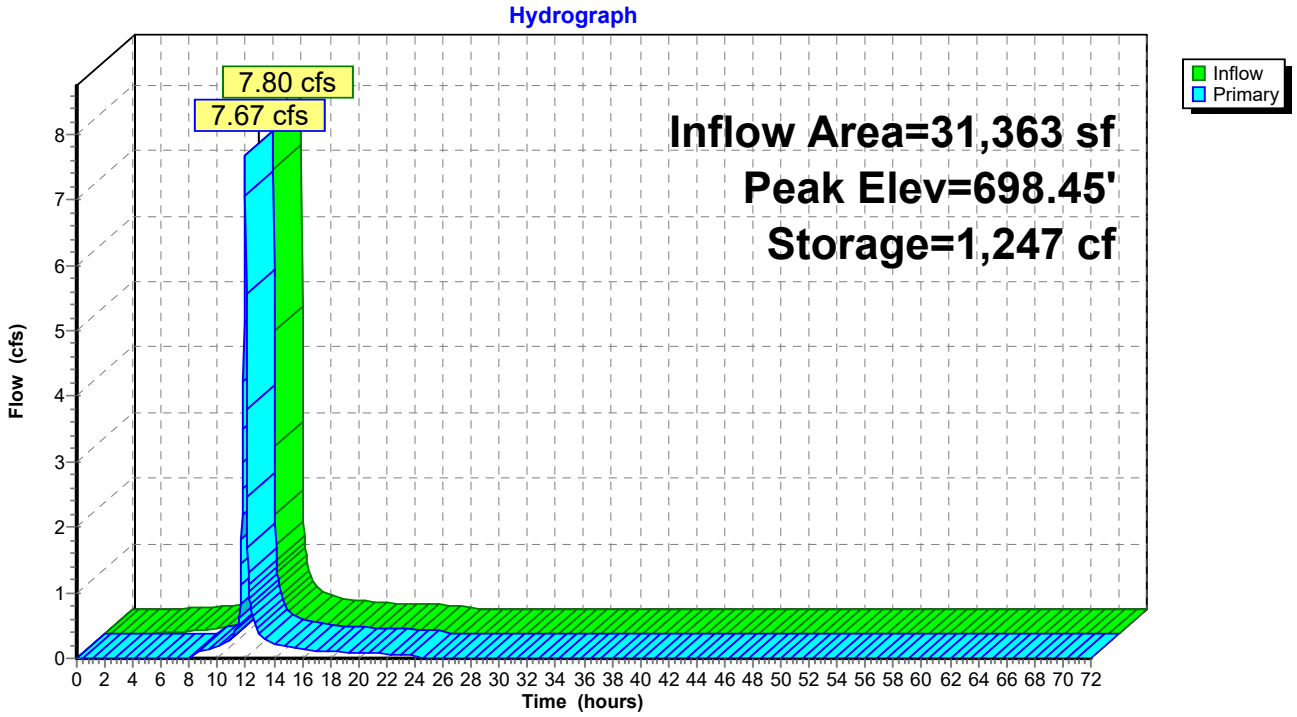
Volume	Invert	Avail.Storage	Storage Description
#1	694.50'	1,317 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
694.50	539	0.0	0	0
697.50	539	20.0	323	323
698.00	1,056	100.0	399	722
698.50	1,323	100.0	595	1,317

Device	Routing	Invert	Outlet Devices
#1	Primary	694.50'	**18.0" Round Culvert** L= 28.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.50' / 694.00' S= 0.0179 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	698.00'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=7.63 cfs @ 11.97 hrs HW=698.45' (Free Discharge)
↑**1=Culvert** (Passes 7.63 cfs of 15.21 cfs potential flow)
↑**2=Orifice/Grate** (Weir Controls 7.63 cfs @ 2.18 fps)

Pond 2FP: FocalPoint 2



Summary for Pond 3FP: FocalPoint 3

Inflow Area = 16,553 sf, 71.05% Impervious, Inflow Depth = 5.87" for 100-year event
Inflow = 3.84 cfs @ 11.96 hrs, Volume= 8,104 cf
Outflow = 3.78 cfs @ 11.97 hrs, Volume= 7,383 cf, Atten= 2%, Lag= 0.7 min
Primary = 3.78 cfs @ 11.97 hrs, Volume= 7,383 cf
Routed to Pond 2DP : Detention Pond 2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 699.78' @ 11.97 hrs Surf.Area= 966 sf Storage= 972 cf

Plug-Flow detention time= 73.2 min calculated for 7,383 cf (91% of inflow)
Center-of-Mass det. time= 26.4 min (816.4 - 790.0)

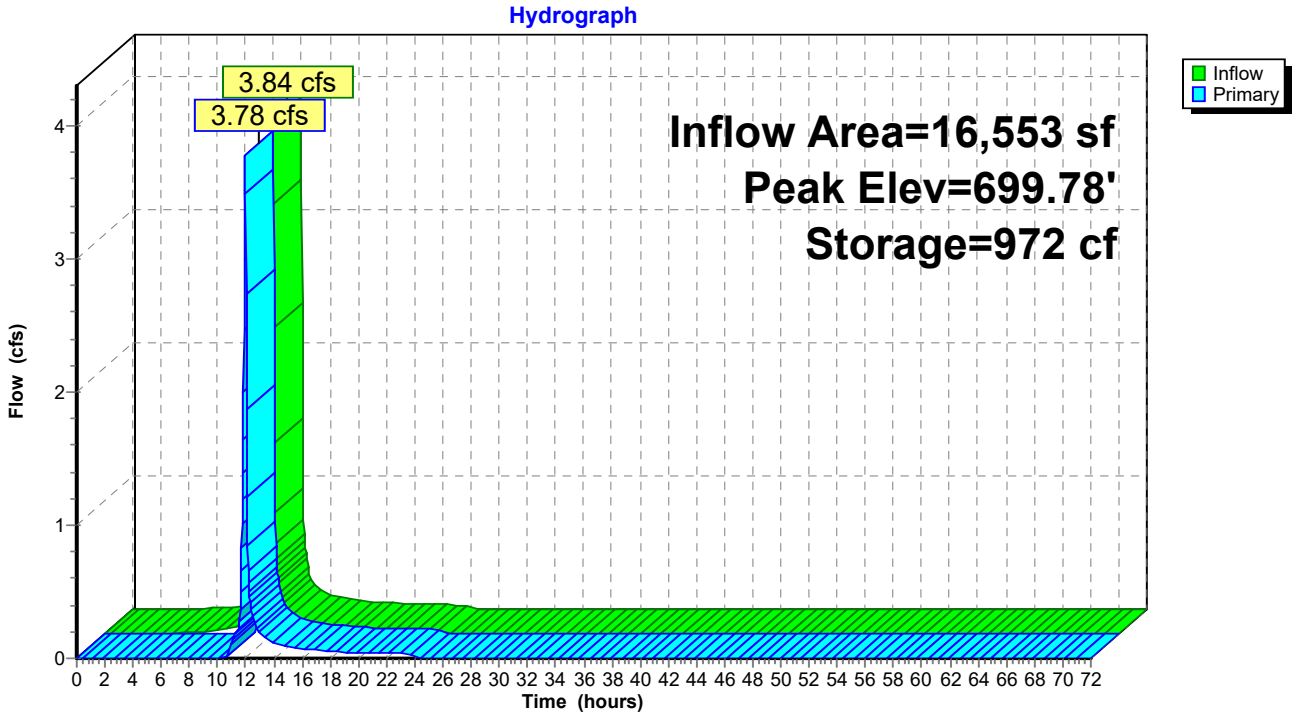
Volume	Invert	Avail.Storage	Storage Description
#1	696.00'	1,197 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
696.00	602	0.0	0	0
699.00	602	20.0	361	361
700.00	1,070	100.0	836	1,197

Device	Routing	Invert	Outlet Devices
#1	Primary	696.00'	**18.0" Round Culvert** L= 80.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 696.00' / 694.00' S= 0.0250 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=3.77 cfs @ 11.97 hrs HW=699.78' (Free Discharge)
↑**1=Culvert** (Passes 3.77 cfs of 14.81 cfs potential flow)
↑**2=Orifice/Grate** (Weir Controls 3.77 cfs @ 1.72 fps)

Pond 3FP: FocalPoint 3



Summary for Pond 4FP: FocalPoint 4

[92] Warning: Device #2 is above defined storage
[92] Warning: Device #3 is above defined storage
[93] Warning: Storage range exceeded by 1.08'

Inflow Area = 47,916 sf, 79.09% Impervious, Inflow Depth = 6.34" for 100-year event
Inflow = 11.69 cfs @ 11.96 hrs, Volume= 25,330 cf
Outflow = 11.67 cfs @ 11.96 hrs, Volume= 23,942 cf, Atten= 0%, Lag= 0.0 min
Primary = 11.67 cfs @ 11.96 hrs, Volume= 23,942 cf
Routed to Pond 2DP : Detention Pond 2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 700.08' @ 11.96 hrs Surf.Area= 1,491 sf Storage= 1,389 cf

Plug-Flow detention time= 51.3 min calculated for 23,932 cf (94% of inflow)
Center-of-Mass det. time= 19.7 min (798.5 - 778.7)

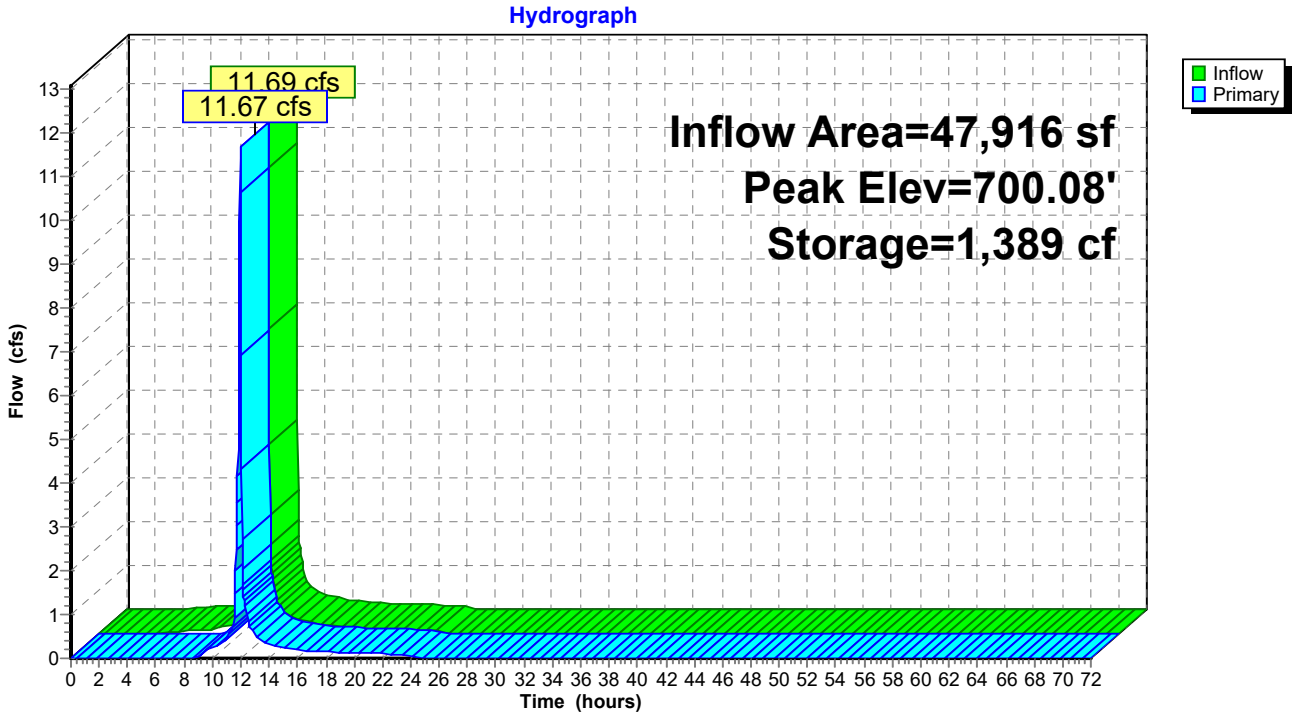
Volume	Invert	Avail.Storage	Storage Description
#1	695.00'	1,389 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
695.00	585	0.0	0	0
698.00	585	20.0	351	351
699.00	1,491	100.0	1,038	1,389

Device	Routing	Invert	Outlet Devices
#1	Primary	696.00'	**18.0" Round Culvert** L= 23.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 696.00' / 695.88' S= 0.0052 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**6.0' long x 133.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=11.43 cfs @ 11.96 hrs HW=700.07' (Free Discharge)
└**1=Culvert** (Passes 11.12 cfs of 15.51 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 11.12 cfs @ 2.47 fps)
└**3=Broad-Crested Rectangular Weir** (Weir Controls 0.31 cfs @ 0.72 fps)

Pond 4FP: FocalPoint 4



Summary for Pond 5FP: FocalPoint 5

Inflow Area = 19,166 sf, 61.36% Impervious, Inflow Depth = 5.29" for 100-year event
Inflow = 4.12 cfs @ 11.96 hrs, Volume= 8,456 cf
Outflow = 4.03 cfs @ 11.97 hrs, Volume= 7,828 cf, Atten= 2%, Lag= 0.8 min
Primary = 4.03 cfs @ 11.97 hrs, Volume= 7,828 cf
Routed to Reach 1R : Southern Trunk Line

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 697.79' @ 11.97 hrs Surf.Area= 1,161 sf Storage= 929 cf

Plug-Flow detention time= 60.7 min calculated for 7,828 cf (93% of inflow)
Center-of-Mass det. time= 20.4 min (822.7 - 802.3)

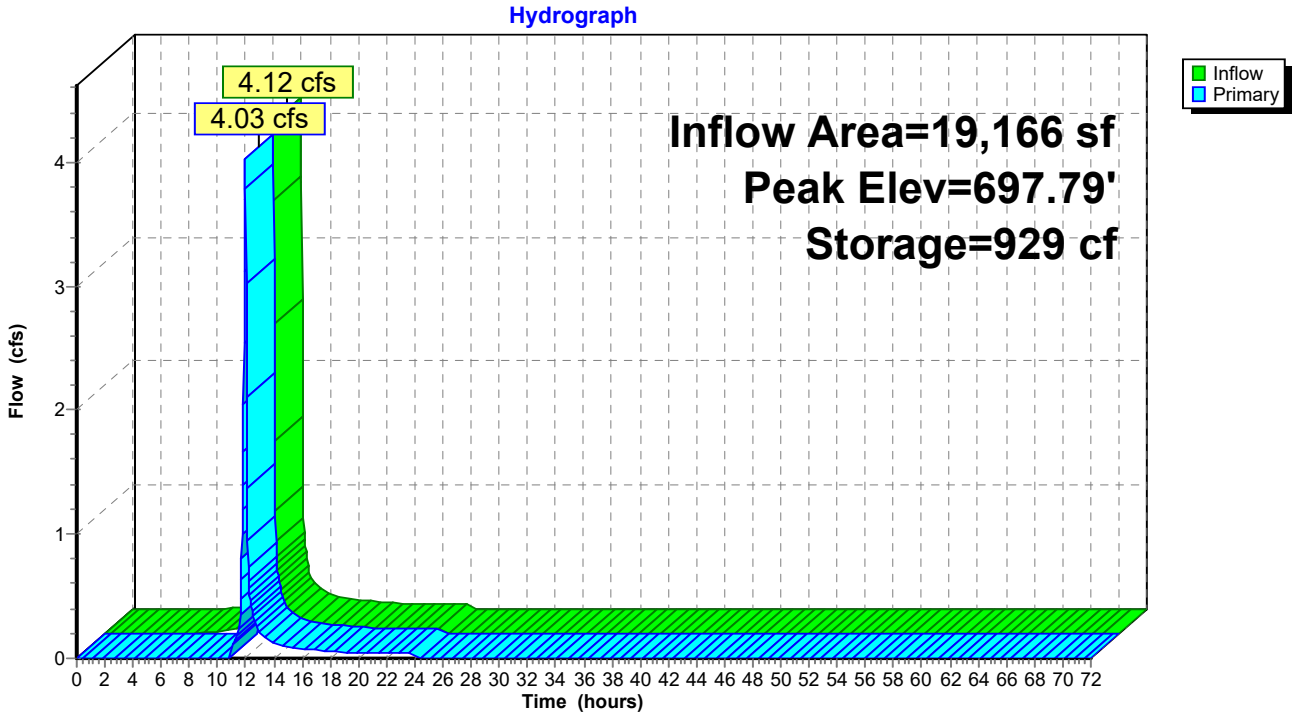
Volume	Invert	Avail.Storage	Storage Description
#1	694.00'	2,779 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
694.00	472	0.0	0	0
697.00	472	20.0	283	283
698.00	1,344	100.0	908	1,191
699.00	1,832	100.0	1,588	2,779

Device	Routing	Invert	Outlet Devices
#1	Primary	694.00'	**18.0" Round Culvert** L= 24.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.00' / 691.39' S= 0.1088 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	697.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	698.50'	**6.0' long x 9.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.46 2.55 2.70 2.69 2.68 2.68 2.67 2.64 2.64 2.64 2.65 2.64 2.65 2.65 2.66 2.67 2.69

Primary OutFlow Max=4.00 cfs @ 11.97 hrs HW=697.79' (Free Discharge)
└─**1=Culvert** (Passes 4.00 cfs of 14.83 cfs potential flow)
└─**2=Orifice/Grate** (Weir Controls 4.00 cfs @ 1.76 fps)
└─**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 5FP: FocalPoint 5



Summary for Pond 6FP: FocalPoint 6

Inflow Area = 7,841 sf, 55.56% Impervious, Inflow Depth = 4.95" for 100-year event
Inflow = 1.60 cfs @ 11.96 hrs, Volume= 3,234 cf
Outflow = 1.54 cfs @ 11.98 hrs, Volume= 2,606 cf, Atten= 4%, Lag= 1.0 min
Primary = 1.54 cfs @ 11.98 hrs, Volume= 2,606 cf
Routed to Reach 1R : Southern Trunk Line

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 697.65' @ 11.98 hrs Surf.Area= 1,042 sf Storage= 777 cf

Plug-Flow detention time= 118.6 min calculated for 2,606 cf (81% of inflow)
Center-of-Mass det. time= 38.1 min (847.2 - 809.1)

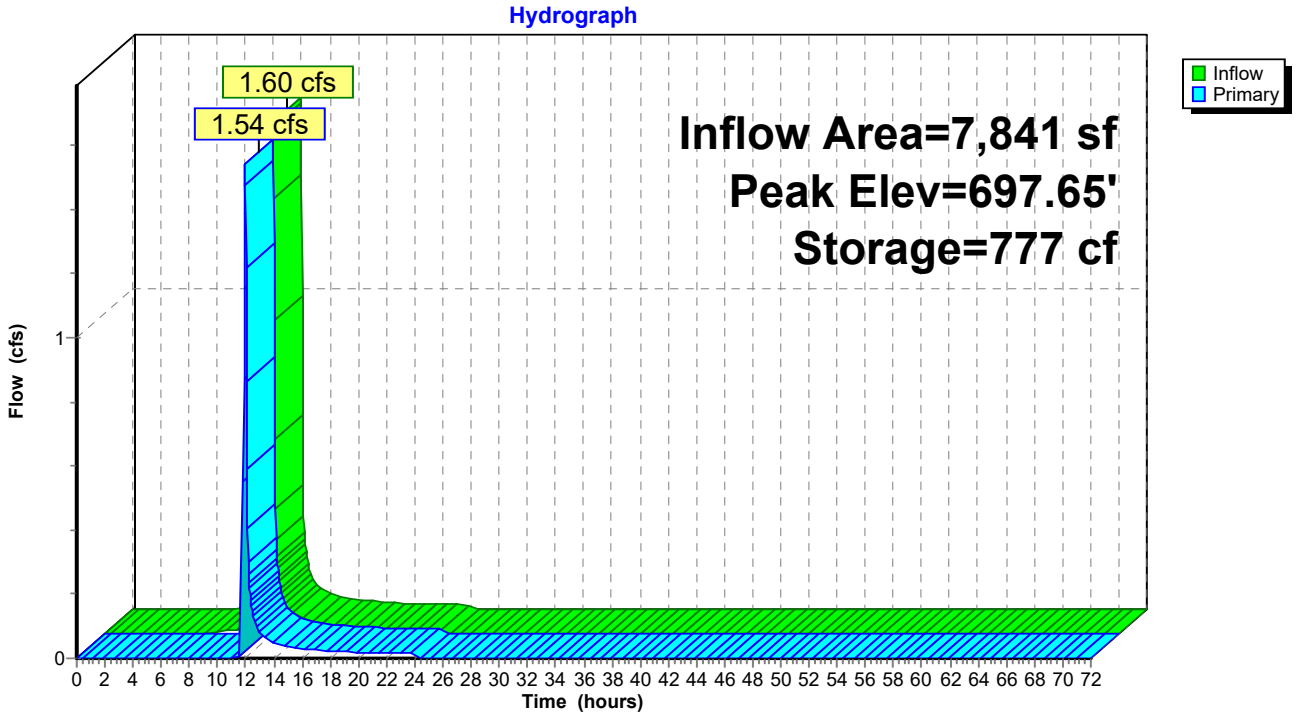
Volume	Invert	Avail.Storage	Storage Description
#1	694.00'	2,779 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
694.00	472	0.0	0	0
697.00	472	20.0	283	283
698.00	1,344	100.0	908	1,191
699.00	1,832	100.0	1,588	2,779

Device	Routing	Invert	Outlet Devices
#1	Primary	694.00'	**18.0" Round Culvert** L= 24.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.00' / 690.87' S= 0.1304 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	697.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	698.50'	**6.0' long x 9.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.46 2.55 2.70 2.69 2.68 2.68 2.67 2.64 2.64 2.64 2.65 2.64 2.65 2.65 2.66 2.67 2.69

Primary OutFlow Max=1.52 cfs @ 11.98 hrs HW=697.65' (Free Discharge)
└**1=Culvert** (Passes 1.52 cfs of 14.49 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 1.52 cfs @ 1.27 fps)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 6FP: FocalPoint 6

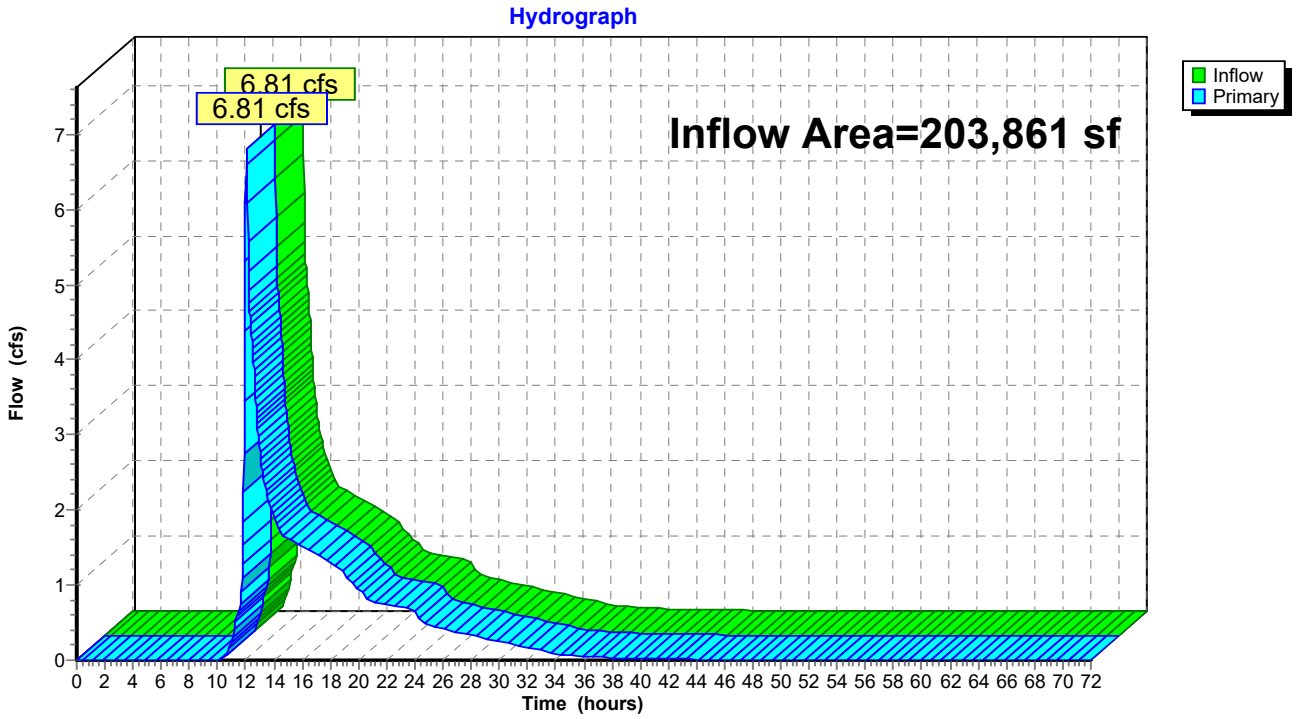


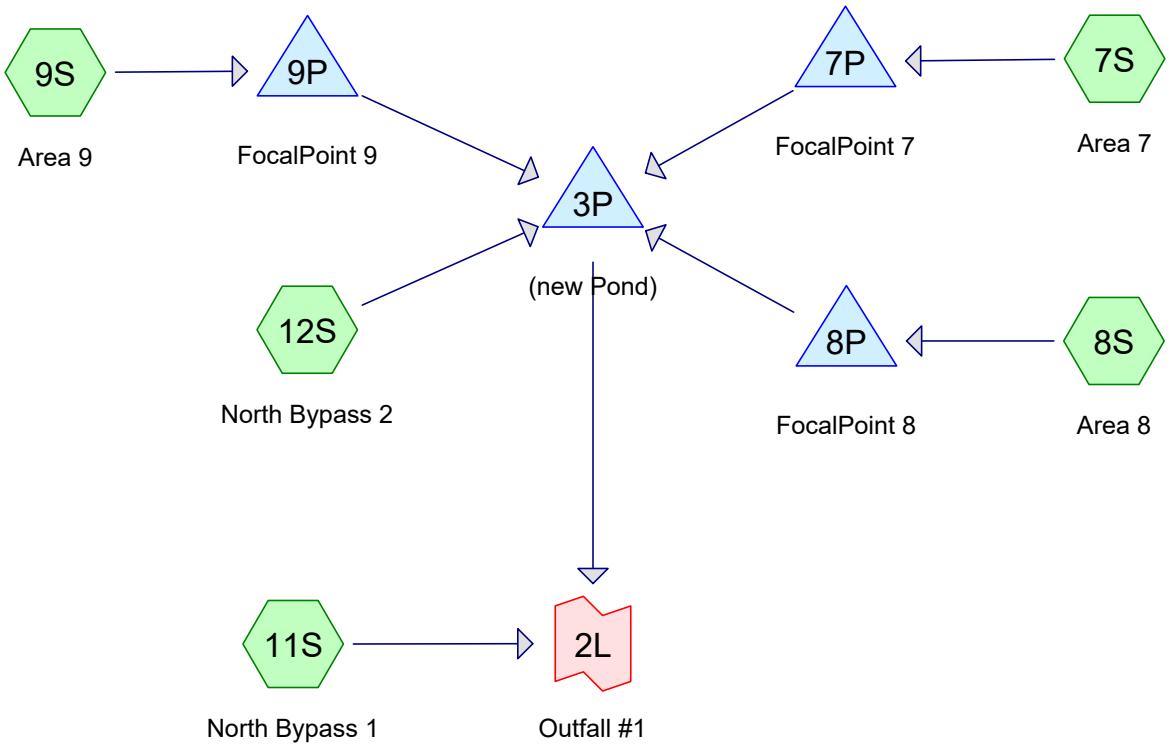
Summary for Link 1L: Outfall #1

Inflow Area = 203,861 sf, 59.40% Impervious, Inflow Depth > 4.79" for 100-year event
Inflow = 6.81 cfs @ 12.06 hrs, Volume= 81,364 cf
Primary = 6.81 cfs @ 12.06 hrs, Volume= 81,364 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs

Link 1L: Outfall #1





Subcat Reach Pond Link

Routing Diagram for Stormwater Calculations - Proposed - Outfall 1 North
Prepared by Fulmer Lucas, Printed 4/20/2026
HydroCAD® 10.20-8a s/n 11448 © 2025 HydroCAD Software Solutions LLC

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-year	Type II 24-hr		Default	24.00	1	3.24	2
2	2-year	Type II 24-hr		Default	24.00	1	3.87	2
3	5-year	Type II 24-hr		Default	24.00	1	4.71	2
4	10-year	Type II 24-hr		Default	24.00	1	5.38	2
5	25-year	Type II 24-hr		Default	24.00	1	6.30	2
6	50-year	Type II 24-hr		Default	24.00	1	7.02	2
7	100-year	Type II 24-hr		Default	24.00	1	7.77	2

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
30,056	49	50-75% Grass cover, Fair, HSG A (7S, 8S, 9S, 11S, 12S)
10,890	69	50-75% Grass cover, Fair, HSG B (7S, 11S)
42,689	98	Paved parking, HSG A (7S, 8S, 9S, 11S)
83,635	**77**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
72,745	HSG A	7S, 8S, 9S, 11S, 12S
10,890	HSG B	7S, 11S
0	HSG C	
0	HSG D	
0	Other	
83,635		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover	Su Nu
30,056	10,890	0	0	0	40,946	50-75% Grass cover, Fair	
42,689	0	0	0	0	42,689	Paved parking	
72,745	**10,890**	**0**	**0**	**0**	**83,635**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	3P	690.54	690.44	20.0	0.0050	0.013	0.0	18.0	0.0	
2	7P	697.00	696.20	16.0	0.0500	0.013	0.0	18.0	0.0	
3	8P	695.00	693.05	26.0	0.0750	0.013	0.0	18.0	0.0	
4	9P	694.00	691.74	32.0	0.0706	0.013	0.0	18.0	0.0	

Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment7S: Area 7 Runoff Area=0.450 ac 62.22% Impervious Runoff Depth=1.79"
Tc=5.0 min CN=85 Runoff=1.47 cfs 2,927 cf

Subcatchment8S: Area 8 Runoff Area=0.200 ac 55.00% Impervious Runoff Depth=1.18"
Tc=5.0 min CN=76 Runoff=0.44 cfs 857 cf

Subcatchment9S: Area 9 Runoff Area=0.300 ac 63.33% Impervious Runoff Depth=1.43"
Tc=5.0 min CN=80 Runoff=0.79 cfs 1,560 cf

Subcatchment11S: North Bypass 1 Runoff Area=0.880 ac 45.45% Impervious Runoff Depth=1.06"
Flow Length=730' Tc=10.9 min CN=74 Runoff=1.36 cfs 3,399 cf

Subcatchment12S: North Bypass 2 Runoff Area=0.090 ac 0.00% Impervious Runoff Depth=0.12"
Tc=5.0 min CN=49 Runoff=0.00 cfs 38 cf

Pond 3P: (new Pond) Peak Elev=691.90' Storage=485 cf Inflow=1.40 cfs 3,132 cf
Outflow=0.46 cfs 3,132 cf

Pond 7P: FocalPoint 7 Peak Elev=700.64' Storage=792 cf Inflow=1.47 cfs 2,927 cf
Outflow=1.40 cfs 2,287 cf

Pond 8P: FocalPoint 8 Peak Elev=698.41' Storage=857 cf Inflow=0.44 cfs 857 cf
Outflow=0.00 cfs 0 cf

Pond 9P: FocalPoint 9 Peak Elev=697.52' Storage=769 cf Inflow=0.79 cfs 1,560 cf
Outflow=0.10 cfs 807 cf

Link 2L: Outfall #1 Inflow=1.80 cfs 6,531 cf
Primary=1.80 cfs 6,531 cf

Total Runoff Area = 83,635 sf Runoff Volume = 8,780 cf Average Runoff Depth = 1.26"
48.96% Pervious = 40,946 sf 51.04% Impervious = 42,689 sf

Summary for Subcatchment 7S: Area 7

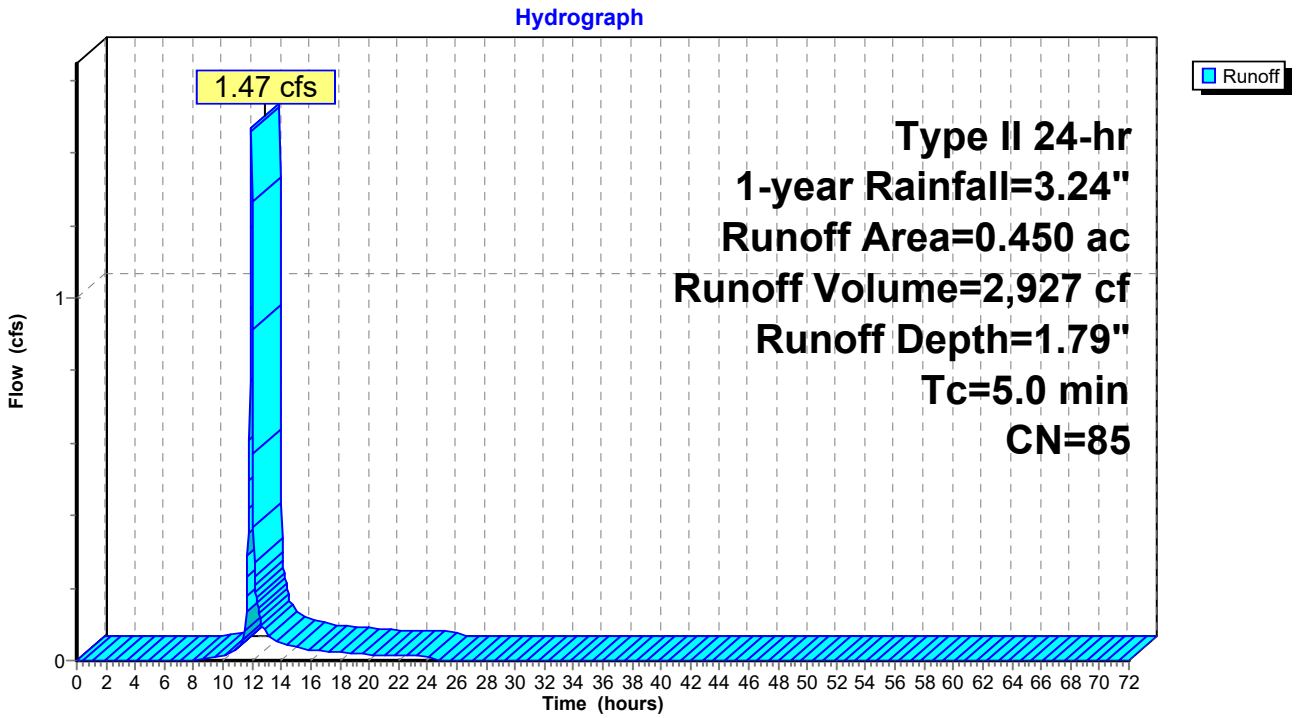
Runoff = 1.47 cfs @ 11.96 hrs, Volume= 2,927 cf, Depth= 1.79"
Routed to Pond 7P : FocalPoint 7

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 1-year Rainfall=3.24"

Area (ac)	CN	Description
0.040	49	50-75% Grass cover, Fair, HSG A
0.130	69	50-75% Grass cover, Fair, HSG B
0.280	98	Paved parking, HSG A
0.450	85	Weighted Average
0.170		37.78% Pervious Area
0.280		62.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 7S: Area 7



Summary for Subcatchment 8S: Area 8

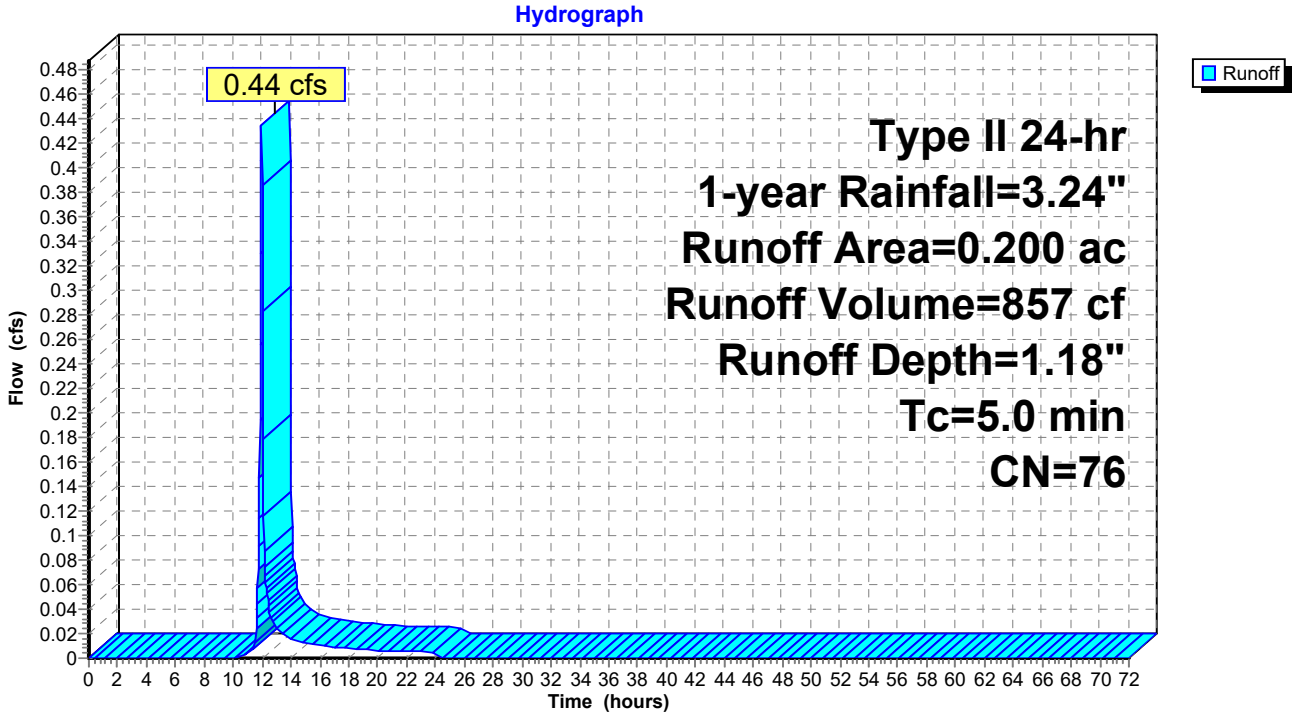
Runoff = 0.44 cfs @ 11.97 hrs, Volume= 857 cf, Depth= 1.18"
Routed to Pond 8P : FocalPoint 8

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 1-year Rainfall=3.24"

Area (ac)	CN	Description
0.090	49	50-75% Grass cover, Fair, HSG A
0.110	98	Paved parking, HSG A
0.200	76	Weighted Average
0.090		45.00% Pervious Area
0.110		55.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 8S: Area 8



Summary for Subcatchment 9S: Area 9

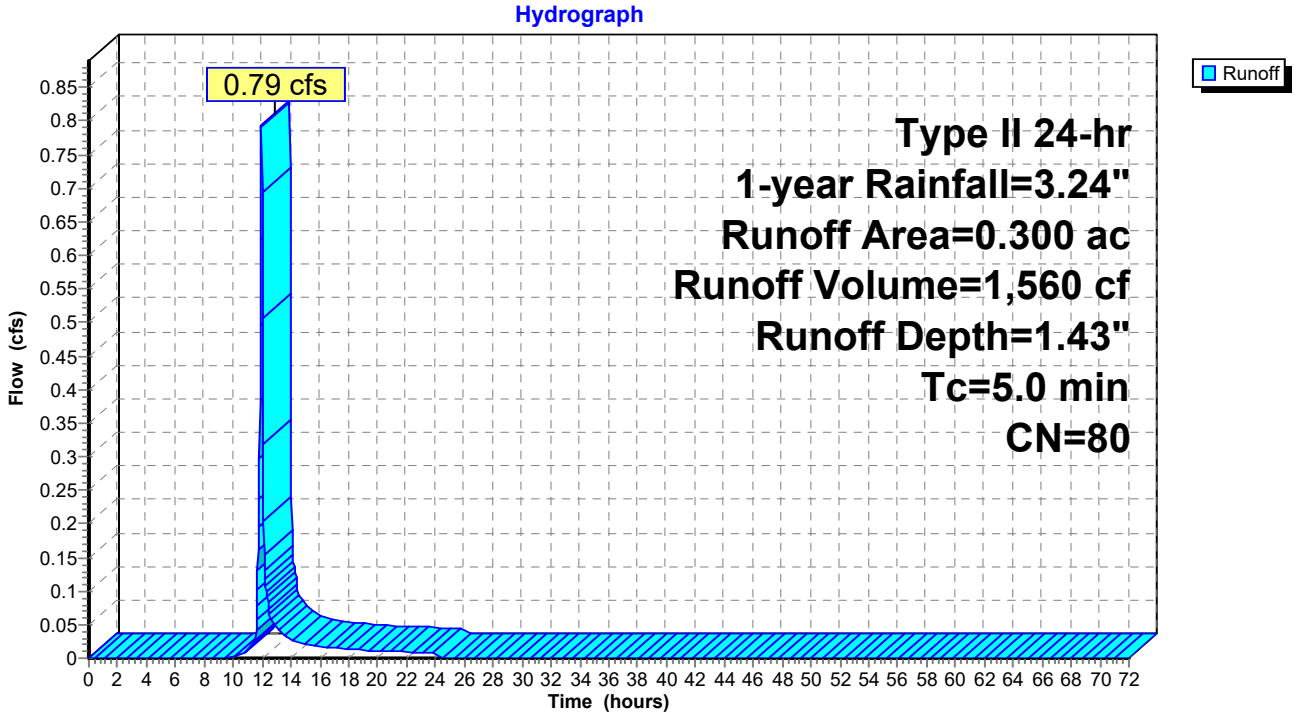
Runoff = 0.79 cfs @ 11.96 hrs, Volume= 1,560 cf, Depth= 1.43"
Routed to Pond 9P : FocalPoint 9

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 1-year Rainfall=3.24"

Area (ac)	CN	Description
0.110	49	50-75% Grass cover, Fair, HSG A
0.190	98	Paved parking, HSG A
0.300	80	Weighted Average
0.110		36.67% Pervious Area
0.190		63.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 9S: Area 9



Summary for Subcatchment 11S: North Bypass 1

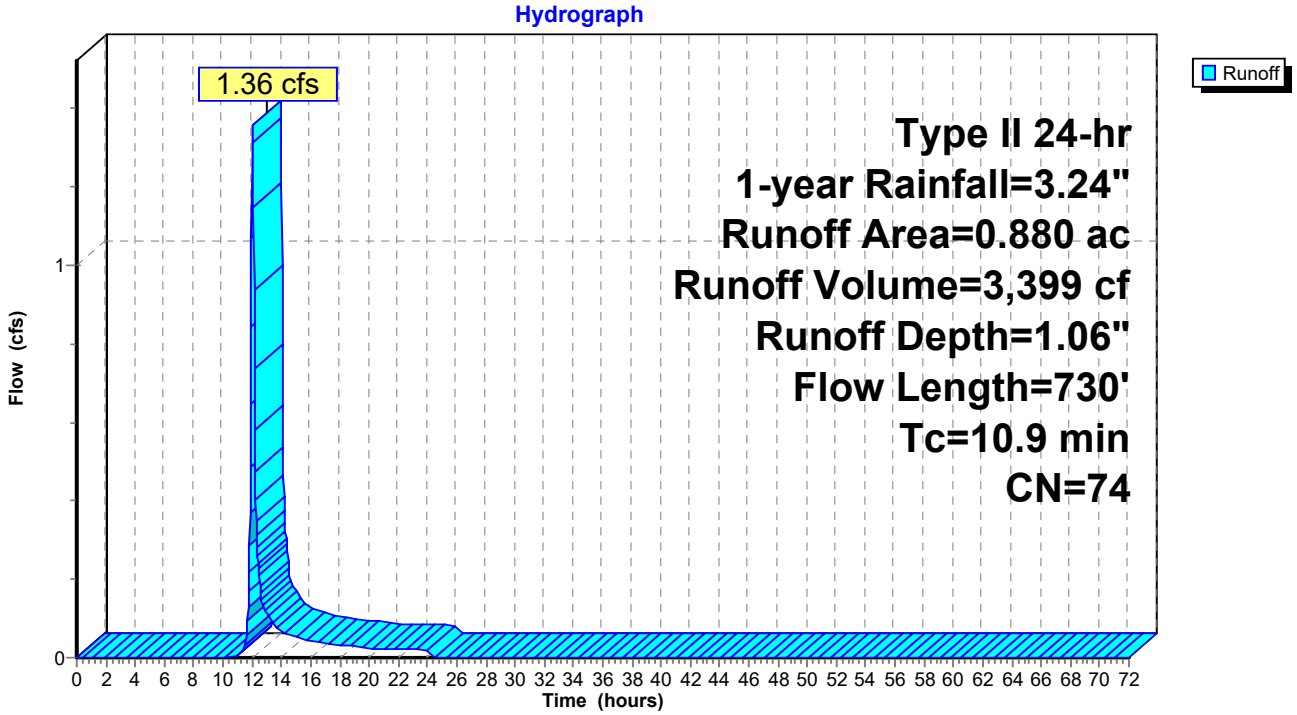
Runoff = 1.36 cfs @ 12.04 hrs, Volume= 3,399 cf, Depth= 1.06"
Routed to Link 2L : Outfall #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 1-year Rainfall=3.24"

Area (ac)	CN	Description
0.360	49	50-75% Grass cover, Fair, HSG A
0.120	69	50-75% Grass cover, Fair, HSG B
0.400	98	Paved parking, HSG A
0.880	74	Weighted Average
0.480		54.55% Pervious Area
0.400		45.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	40	0.0200	0.15		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
6.3	690	0.0080	1.82		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
10.9	730	Total			

Subcatchment 11S: North Bypass 1



Summary for Subcatchment 12S: North Bypass 2

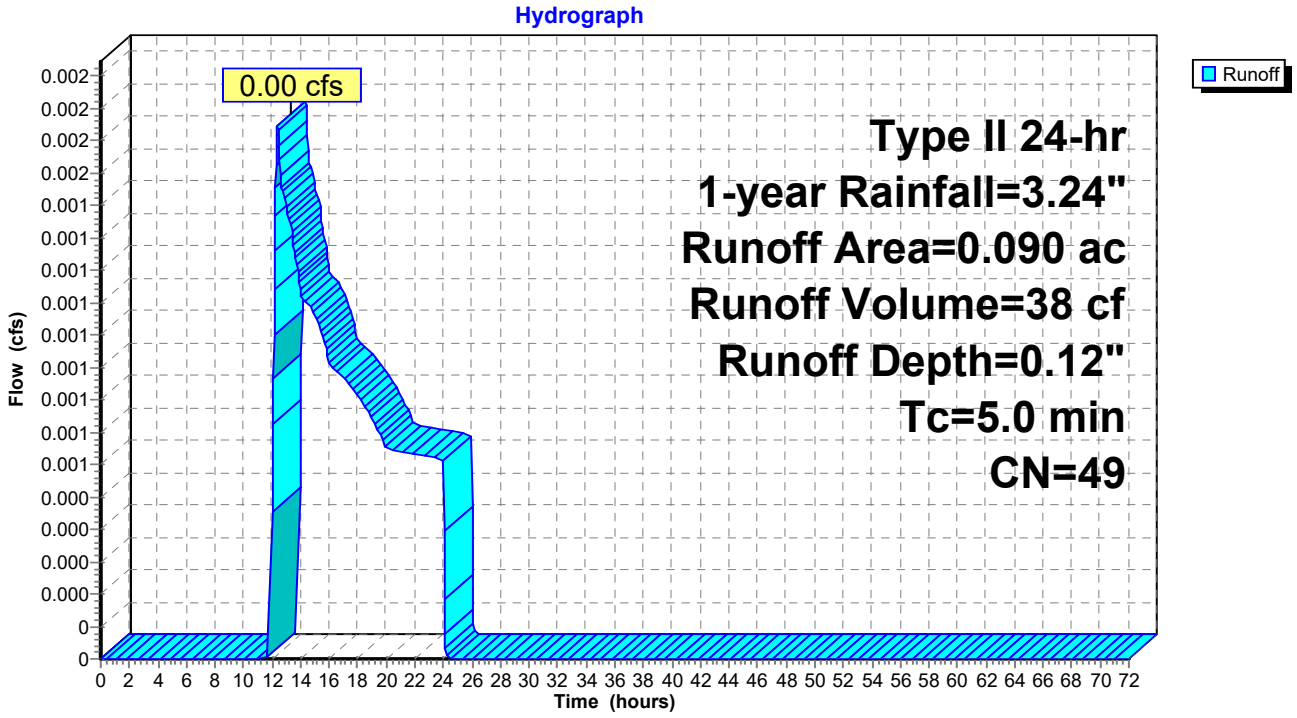
Runoff = 0.00 cfs @ 12.39 hrs, Volume= 38 cf, Depth= 0.12"
Routed to Pond 3P : (new Pond)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 1-year Rainfall=3.24"

Area (ac)	CN	Description
0.090	49	50-75% Grass cover, Fair, HSG A
0.090		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 12S: North Bypass 2



Summary for Pond 3P: (new Pond)

[79] Warning: Submerged Pond 9P Primary device # 1 OUTLET by 0.16'

Inflow Area = 45,302 sf, 55.77% Impervious, Inflow Depth = 0.83" for 1-year event
Inflow = 1.40 cfs @ 11.98 hrs, Volume= 3,132 cf
Outflow = 0.46 cfs @ 12.11 hrs, Volume= 3,132 cf, Atten= 67%, Lag= 7.7 min
Primary = 0.46 cfs @ 12.11 hrs, Volume= 3,132 cf
Routed to Link 2L : Outfall #1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 691.90' @ 12.11 hrs Surf.Area= 866 sf Storage= 485 cf

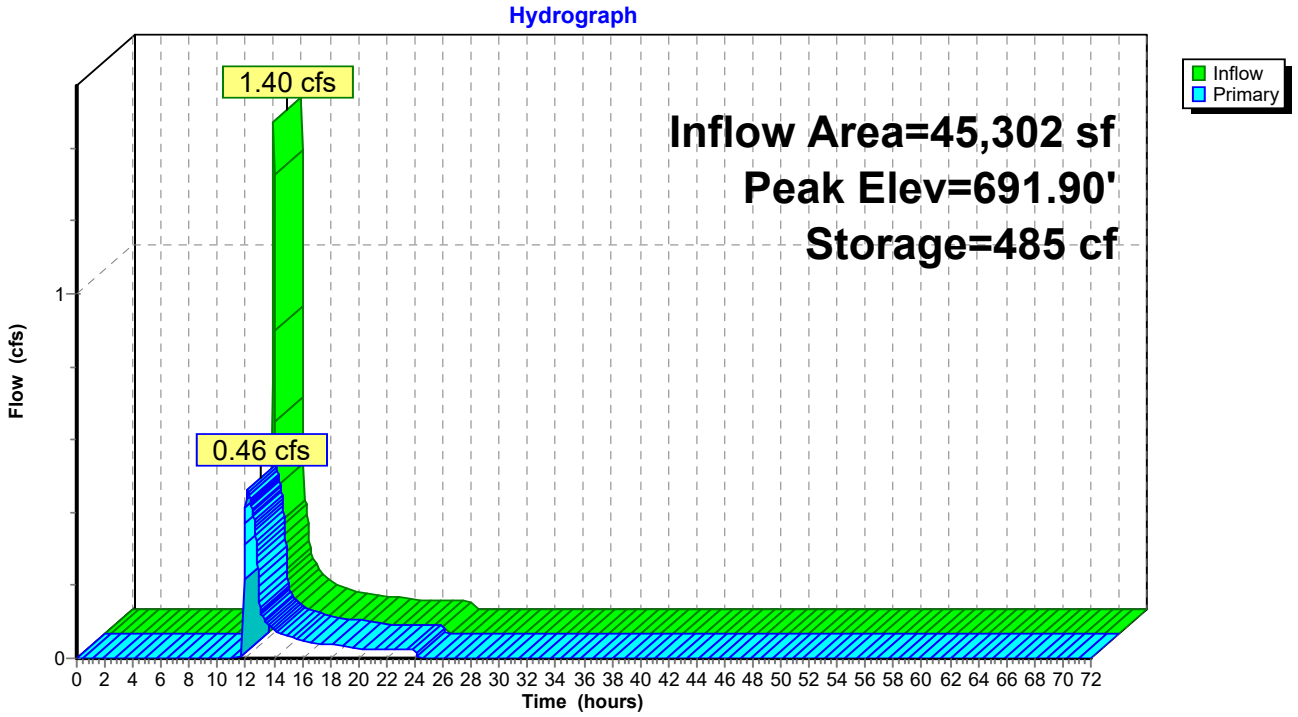
Plug-Flow detention time= 5.5 min calculated for 3,132 cf (100% of inflow)
Center-of-Mass det. time= 5.5 min (895.0 - 889.4)

Volume	Invert	Avail.Storage	Storage Description
#1	690.54'	10,996 cf	**60.0" Round CMP_Round 60"** L= 560.0' S= 0.0050 '/'

Device	Routing	Invert	Outlet Devices
#1	Primary	690.54'	**18.0" Round RCP_Round 18"** L= 20.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 690.54' / 690.44' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	690.54'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	695.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.46 cfs @ 12.11 hrs HW=691.90' (Free Discharge)
└─**1=RCP_Round 18"** (Passes 0.46 cfs of 5.08 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.46 cfs @ 5.26 fps)
  └─**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 3P: (new Pond)



Summary for Pond 7P: FocalPoint 7

[92] Warning: Device #3 is above defined storage

Inflow Area = 19,602 sf, 62.22% Impervious, Inflow Depth = 1.79" for 1-year event
Inflow = 1.47 cfs @ 11.96 hrs, Volume= 2,927 cf
Outflow = 1.40 cfs @ 11.98 hrs, Volume= 2,287 cf, Atten= 5%, Lag= 1.3 min
Primary = 1.40 cfs @ 11.98 hrs, Volume= 2,287 cf
Routed to Pond 3P : (new Pond)

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 700.64' @ 11.98 hrs Surf.Area= 1,143 sf Storage= 792 cf

Plug-Flow detention time= 128.8 min calculated for 2,287 cf (78% of inflow)
Center-of-Mass det. time= 41.1 min (862.6 - 821.5)

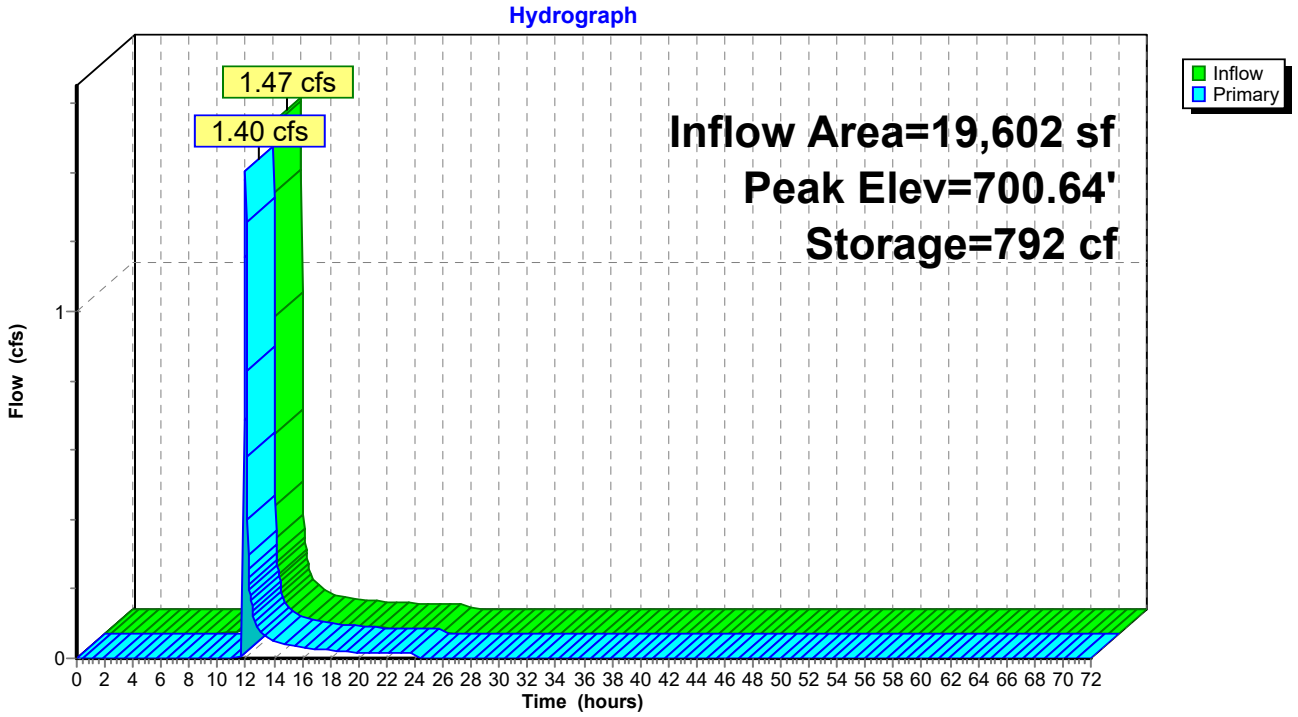
Volume	Invert	Avail.Storage	Storage Description
#1	697.00'	3,154 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
697.00	461	0.0	0	0
700.00	461	20.0	277	277
701.00	1,521	100.0	991	1,268
702.00	2,252	100.0	1,887	3,154

Device	Routing	Invert	Outlet Devices
#1	Primary	697.00'	**18.0" Round Culvert** L= 16.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 697.00' / 696.20' S= 0.0500 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	700.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	702.00'	**65.0' long x 11.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.53 2.59 2.70 2.68 2.67 2.68 2.66 2.64

Primary OutFlow Max=1.36 cfs @ 11.98 hrs HW=700.64' (Free Discharge)
- **1=Culvert** (Passes 1.36 cfs of 14.47 cfs potential flow)
  - **2=Orifice/Grate** (Weir Controls 1.36 cfs @ 1.23 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 7P: FocalPoint 7



Summary for Pond 8P: FocalPoint 8

[92] Warning: Device #3 is above defined storage

Inflow Area = 8,712 sf, 55.00% Impervious, Inflow Depth = 1.18" for 1-year event
Inflow = 0.44 cfs @ 11.97 hrs, Volume= 857 cf
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Pond 3P : (new Pond)

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 698.41' @ 24.30 hrs Surf.Area= 1,003 sf Storage= 857 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

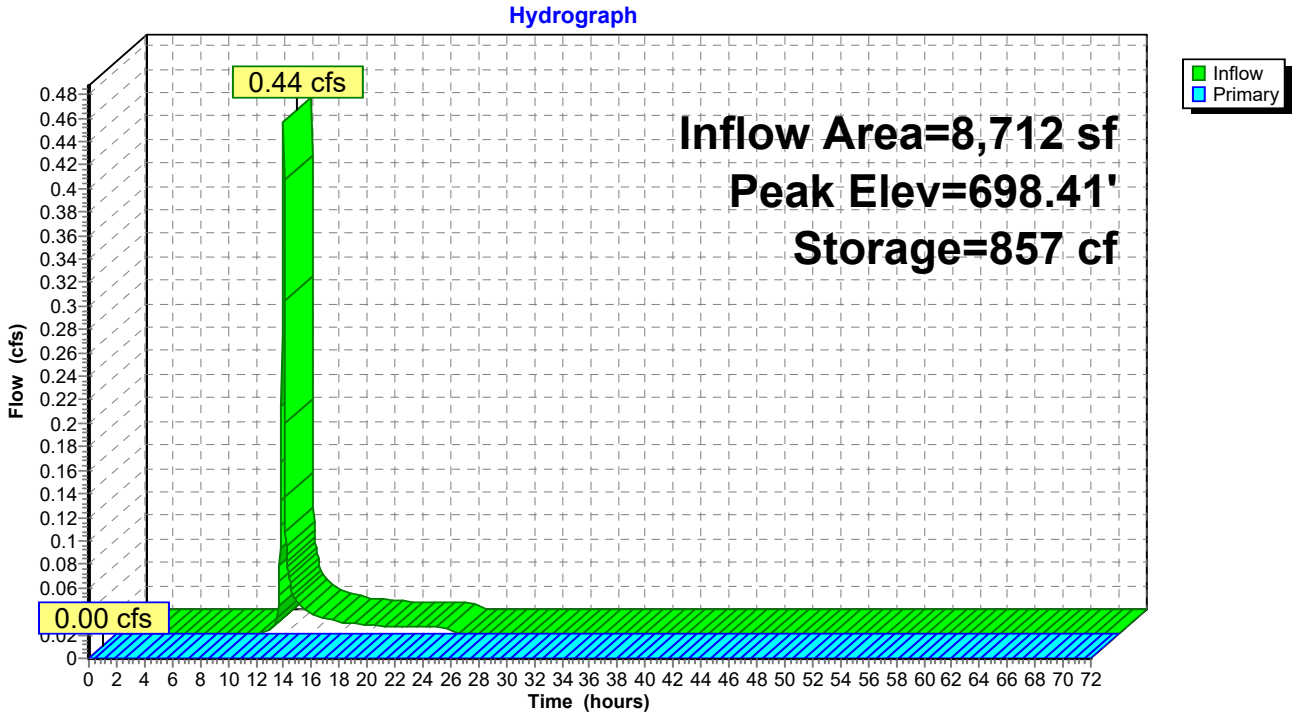
Volume	Invert	Avail.Storage	Storage Description
#1	695.00'	3,154 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
695.00	803	0.0	0	0
698.00	803	20.0	482	482
699.00	1,285	100.0	1,044	1,526
700.00	1,971	100.0	1,628	3,154

Device	Routing	Invert	Outlet Devices
#1	Primary	695.00'	**18.0" Round Culvert** L= 26.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 695.00' / 693.05' S= 0.0750 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	698.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**57.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=695.00' (Free Discharge)
- **1=Culvert** (Controls 0.00 cfs)
  - **2=Orifice/Grate** (Controls 0.00 cfs)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 8P: FocalPoint 8



Summary for Pond 9P: FocalPoint 9

[92] Warning: Device #3 is above defined storage

Inflow Area = 13,068 sf, 63.33% Impervious, Inflow Depth = 1.43" for 1-year event
Inflow = 0.79 cfs @ 11.96 hrs, Volume= 1,560 cf
Outflow = 0.10 cfs @ 12.31 hrs, Volume= 807 cf, Atten= 88%, Lag= 20.6 min
Primary = 0.10 cfs @ 12.31 hrs, Volume= 807 cf
Routed to Pond 3P : (new Pond)

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 697.52' @ 12.31 hrs Surf.Area= 842 sf Storage= 769 cf

Plug-Flow detention time= 246.5 min calculated for 806 cf (52% of inflow)
Center-of-Mass det. time= 121.3 min (959.2 - 837.9)

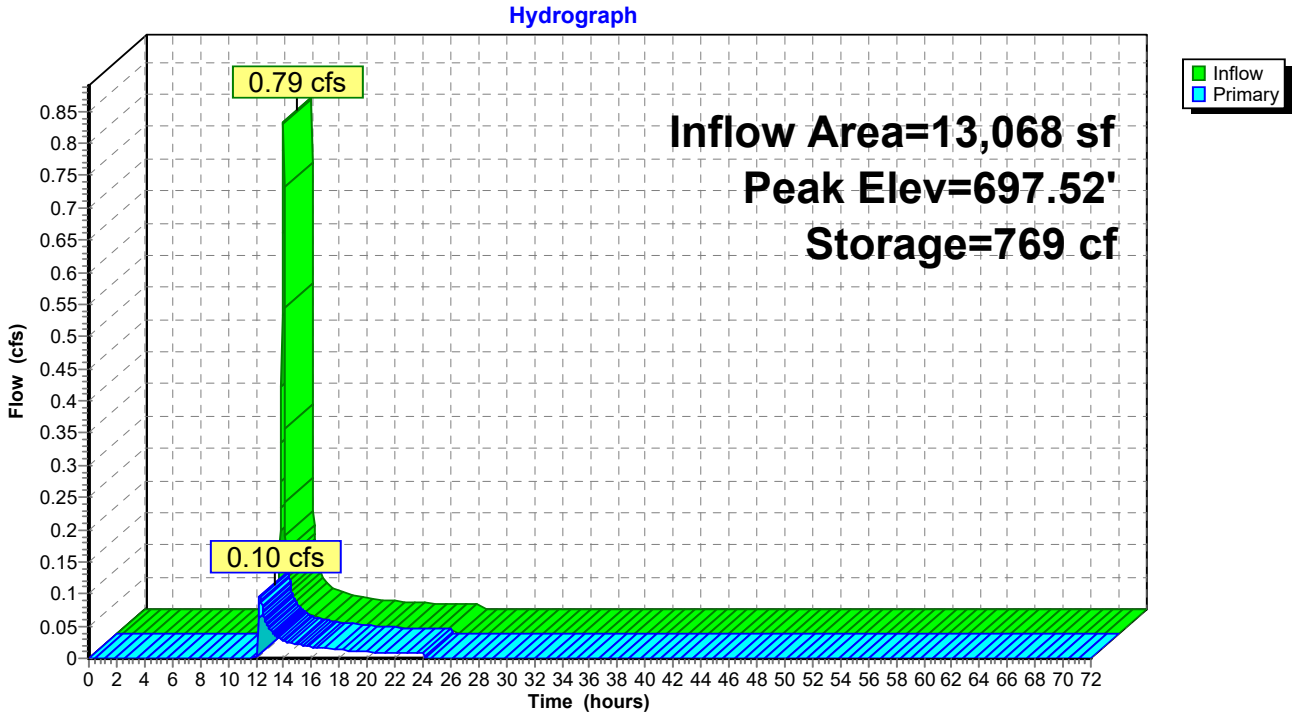
Volume	Invert	Avail.Storage	Storage Description
#1	694.00'	4,192 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
694.00	641	0.0	0	0
697.00	641	20.0	385	385
698.00	1,028	100.0	835	1,219
699.00	1,472	100.0	1,250	2,469
700.00	1,973	100.0	1,723	4,192

Device	Routing	Invert	Outlet Devices
#1	Primary	694.00'	**18.0" Round Culvert** L= 32.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.00' / 691.74' S= 0.0706 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	697.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**54.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=0.07 cfs @ 12.31 hrs HW=697.52' (Free Discharge)
- **1=Culvert** (Passes 0.07 cfs of 14.16 cfs potential flow)
  - **2=Orifice/Grate** (Weir Controls 0.07 cfs @ 0.45 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 9P: FocalPoint 9

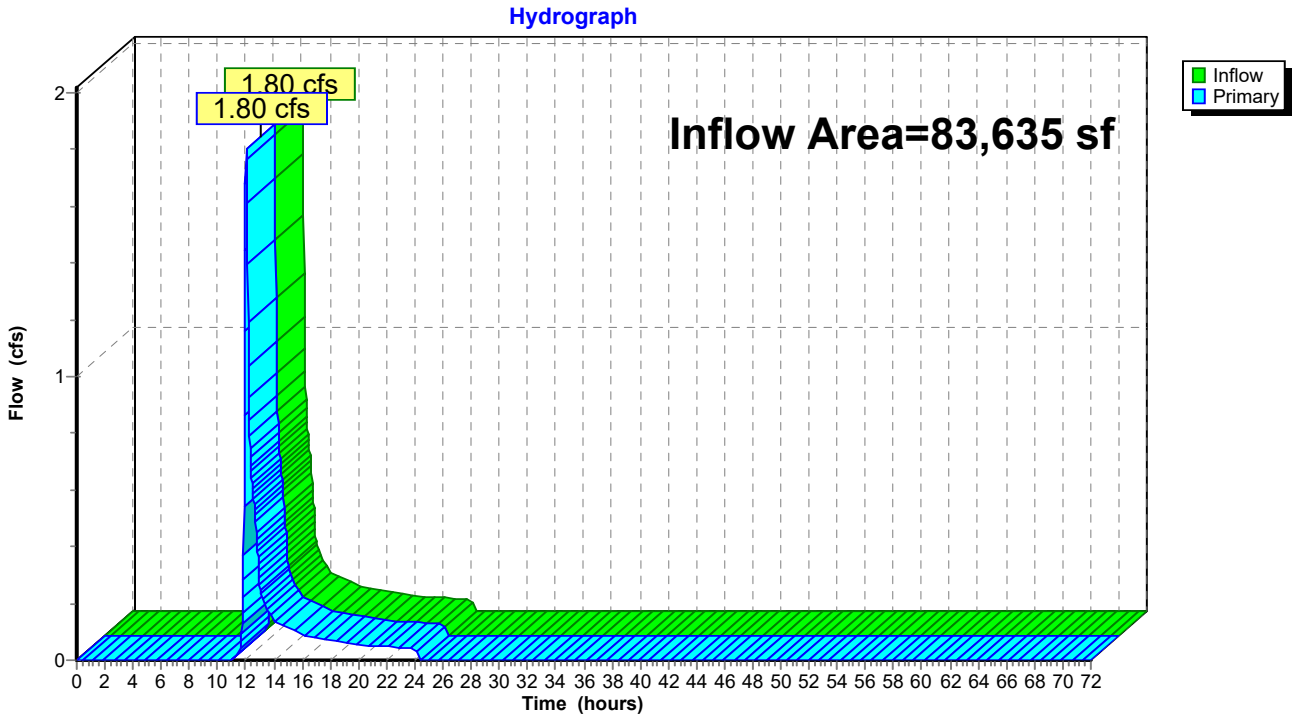


Summary for Link 2L: Outfall #1

Inflow Area = 83,635 sf, 51.04% Impervious, Inflow Depth = 0.94" for 1-year event
Inflow = 1.80 cfs @ 12.04 hrs, Volume= 6,531 cf
Primary = 1.80 cfs @ 12.04 hrs, Volume= 6,531 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs

Link 2L: Outfall #1



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment7S: Area 7 Runoff Area=0.450 ac 62.22% Impervious Runoff Depth=2.34"
Tc=5.0 min CN=85 Runoff=1.90 cfs 3,826 cf

Subcatchment8S: Area 8 Runoff Area=0.200 ac 55.00% Impervious Runoff Depth=1.64"
Tc=5.0 min CN=76 Runoff=0.61 cfs 1,190 cf

Subcatchment9S: Area 9 Runoff Area=0.300 ac 63.33% Impervious Runoff Depth=1.93"
Tc=5.0 min CN=80 Runoff=1.07 cfs 2,107 cf

Subcatchment11S: North Bypass 1 Runoff Area=0.880 ac 45.45% Impervious Runoff Depth=1.50"
Flow Length=730' Tc=10.9 min CN=74 Runoff=1.95 cfs 4,797 cf

Subcatchment12S: North Bypass 2 Runoff Area=0.090 ac 0.00% Impervious Runoff Depth=0.26"
Tc=5.0 min CN=49 Runoff=0.02 cfs 86 cf

Pond 3P: (new Pond) Peak Elev=692.47' Storage=1,121 cf Inflow=2.25 cfs 4,872 cf
Outflow=0.56 cfs 4,872 cf

Pond 7P: FocalPoint 7 Peak Elev=700.67' Storage=825 cf Inflow=1.90 cfs 3,826 cf
Outflow=1.83 cfs 3,186 cf

Pond 8P: FocalPoint 8 Peak Elev=698.50' Storage=946 cf Inflow=0.61 cfs 1,190 cf
Outflow=0.01 cfs 247 cf

Pond 9P: FocalPoint 9 Peak Elev=697.59' Storage=831 cf Inflow=1.07 cfs 2,107 cf
Outflow=0.72 cfs 1,353 cf

Link 2L: Outfall #1 Inflow=2.47 cfs 9,669 cf
Primary=2.47 cfs 9,669 cf

Total Runoff Area = 83,635 sf Runoff Volume = 12,005 cf Average Runoff Depth = 1.72"
48.96% Pervious = 40,946 sf 51.04% Impervious = 42,689 sf

Summary for Subcatchment 7S: Area 7

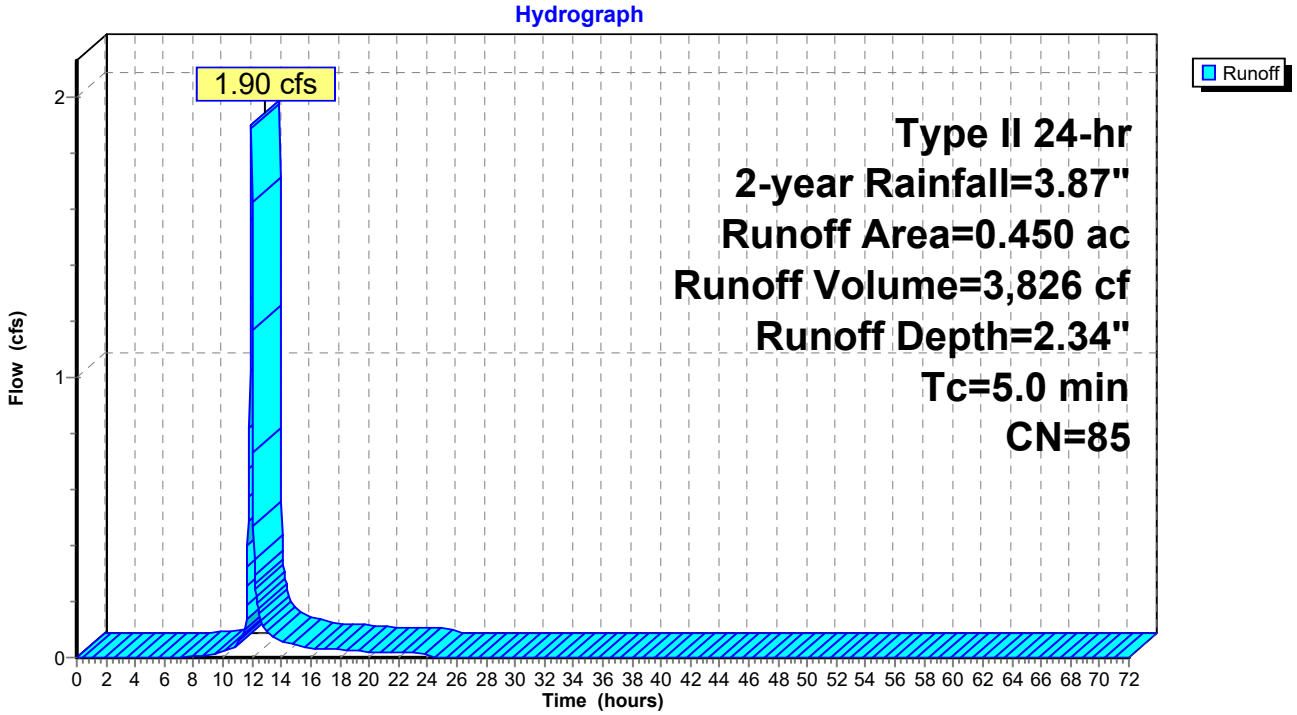
Runoff = 1.90 cfs @ 11.96 hrs, Volume= 3,826 cf, Depth= 2.34"
Routed to Pond 7P : FocalPoint 7

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 2-year Rainfall=3.87"

Area (ac)	CN	Description
0.040	49	50-75% Grass cover, Fair, HSG A
0.130	69	50-75% Grass cover, Fair, HSG B
0.280	98	Paved parking, HSG A
0.450	85	Weighted Average
0.170		37.78% Pervious Area
0.280		62.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 7S: Area 7



Summary for Subcatchment 8S: Area 8

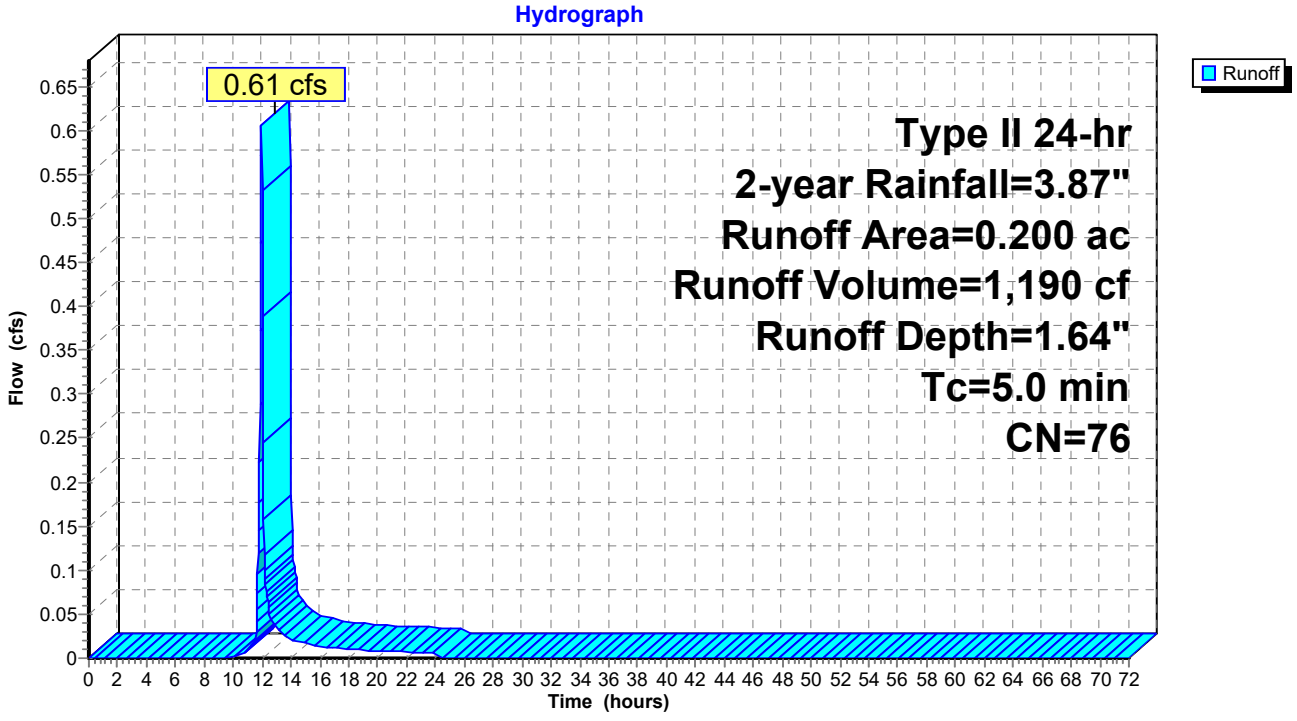
Runoff = 0.61 cfs @ 11.96 hrs, Volume= 1,190 cf, Depth= 1.64"
Routed to Pond 8P : FocalPoint 8

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 2-year Rainfall=3.87"

Area (ac)	CN	Description
0.090	49	50-75% Grass cover, Fair, HSG A
0.110	98	Paved parking, HSG A
0.200	76	Weighted Average
0.090		45.00% Pervious Area
0.110		55.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 8S: Area 8



Summary for Subcatchment 9S: Area 9

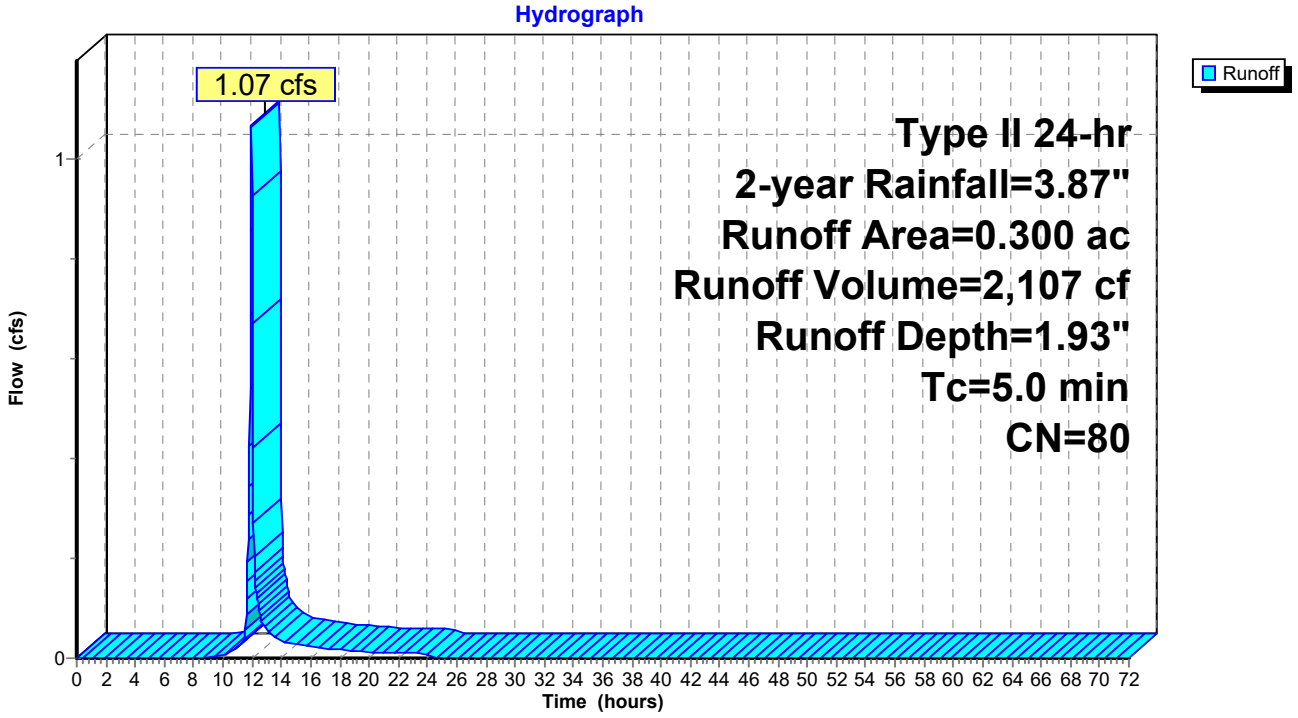
Runoff = 1.07 cfs @ 11.96 hrs, Volume= 2,107 cf, Depth= 1.93"
Routed to Pond 9P : FocalPoint 9

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 2-year Rainfall=3.87"

Area (ac)	CN	Description
0.110	49	50-75% Grass cover, Fair, HSG A
0.190	98	Paved parking, HSG A
0.300	80	Weighted Average
0.110		36.67% Pervious Area
0.190		63.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 9S: Area 9



Summary for Subcatchment 11S: North Bypass 1

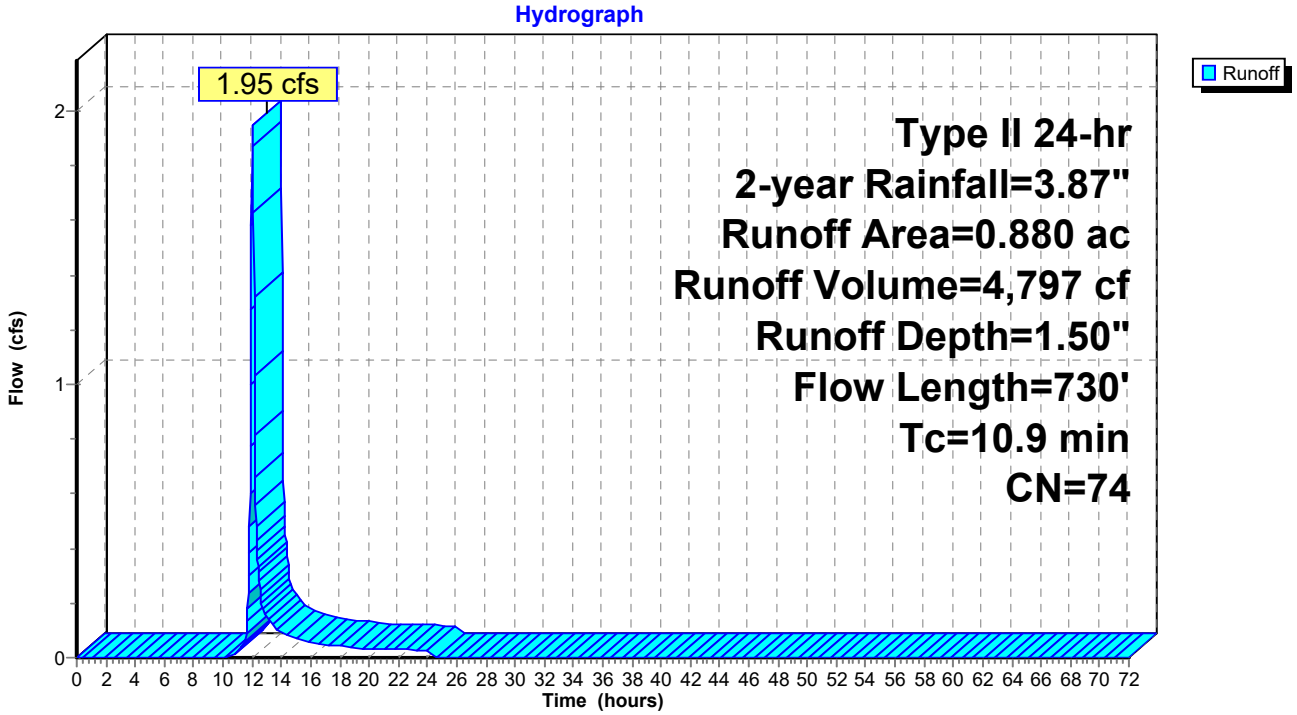
Runoff = 1.95 cfs @ 12.03 hrs, Volume= 4,797 cf, Depth= 1.50"
Routed to Link 2L : Outfall #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 2-year Rainfall=3.87"

Area (ac)	CN	Description
0.360	49	50-75% Grass cover, Fair, HSG A
0.120	69	50-75% Grass cover, Fair, HSG B
0.400	98	Paved parking, HSG A
0.880	74	Weighted Average
0.480		54.55% Pervious Area
0.400		45.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	40	0.0200	0.15		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
6.3	690	0.0080	1.82		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
10.9	730	Total			

Subcatchment 11S: North Bypass 1



Summary for Subcatchment 12S: North Bypass 2

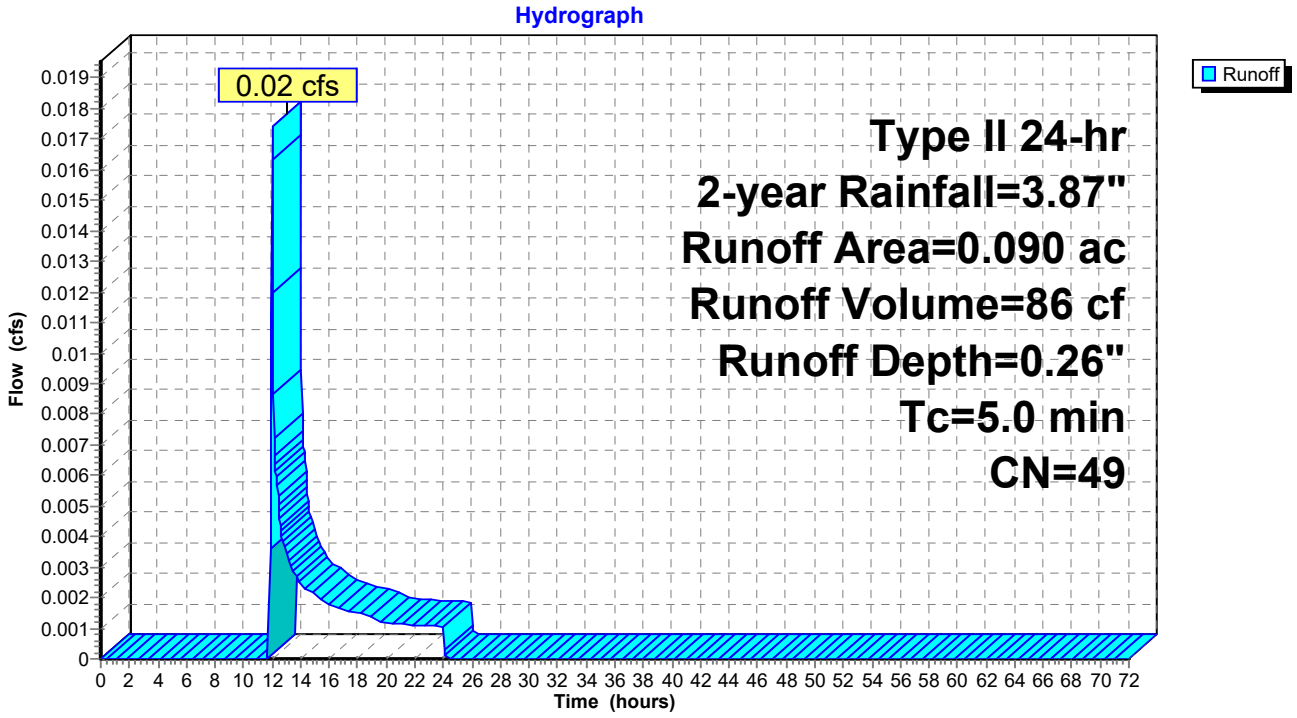
Runoff = 0.02 cfs @ 12.01 hrs, Volume= 86 cf, Depth= 0.26"
Routed to Pond 3P : (new Pond)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 2-year Rainfall=3.87"

Area (ac)	CN	Description
0.090	49	50-75% Grass cover, Fair, HSG A
0.090		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 12S: North Bypass 2



Summary for Pond 3P: (new Pond)

[79] Warning: Submerged Pond 9P Primary device # 1 OUTLET by 0.73'

Inflow Area = 45,302 sf, 55.77% Impervious, Inflow Depth = 1.29" for 2-year event
Inflow = 2.25 cfs @ 12.01 hrs, Volume= 4,872 cf
Outflow = 0.56 cfs @ 12.16 hrs, Volume= 4,872 cf, Atten= 75%, Lag= 8.9 min
Primary = 0.56 cfs @ 12.16 hrs, Volume= 4,872 cf
Routed to Link 2L : Outfall #1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 692.47' @ 12.16 hrs Surf.Area= 1,395 sf Storage= 1,121 cf

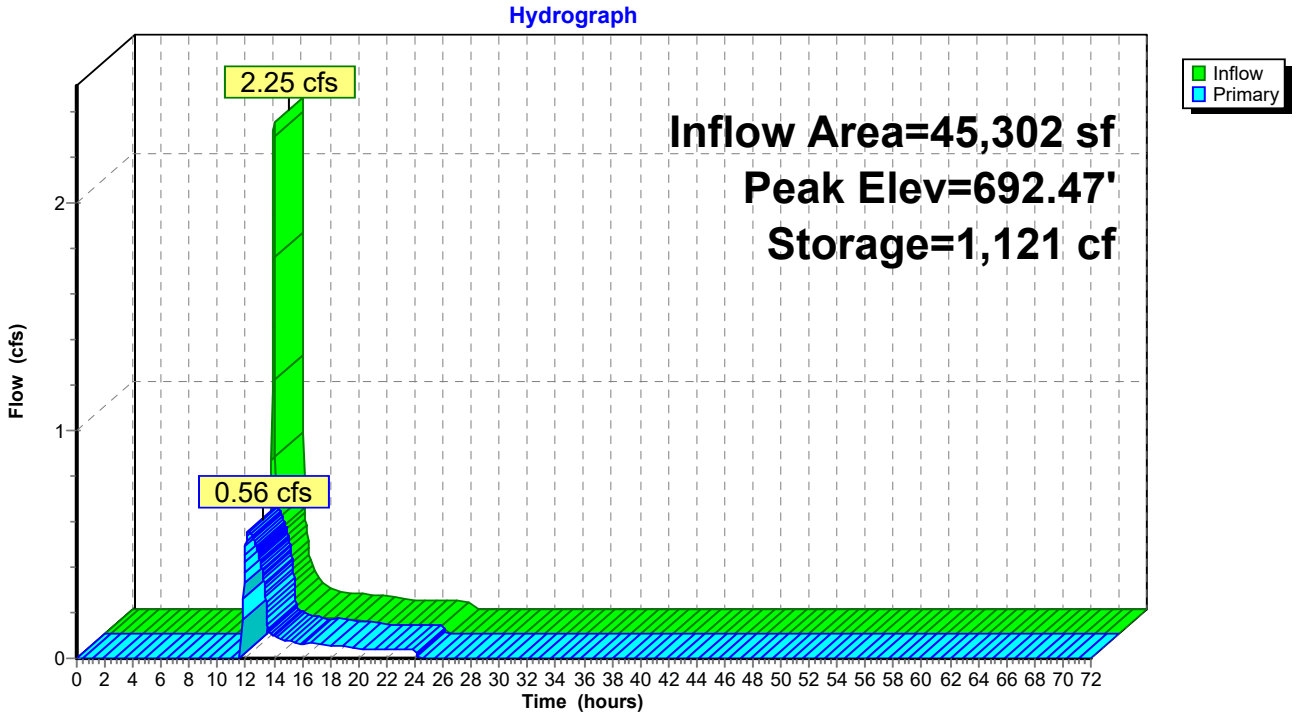
Plug-Flow detention time= 12.2 min calculated for 4,870 cf (100% of inflow)
Center-of-Mass det. time= 12.2 min (893.5 - 881.3)

Volume	Invert	Avail.Storage	Storage Description
#1	690.54'	10,996 cf	**60.0" Round CMP_Round 60"** L= 560.0' S= 0.0050 '/'

Device	Routing	Invert	Outlet Devices
#1	Primary	690.54'	**18.0" Round RCP_Round 18"** L= 20.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 690.54' / 690.44' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	690.54'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	695.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.56 cfs @ 12.16 hrs HW=692.47' (Free Discharge)
└**1=RCP_Round 18"** (Passes 0.56 cfs of 7.94 cfs potential flow)
└**2=Orifice/Grate** (Orifice Controls 0.56 cfs @ 6.39 fps)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 3P: (new Pond)



Summary for Pond 7P: FocalPoint 7

[92] Warning: Device #3 is above defined storage

Inflow Area = 19,602 sf, 62.22% Impervious, Inflow Depth = 2.34" for 2-year event
Inflow = 1.90 cfs @ 11.96 hrs, Volume= 3,826 cf
Outflow = 1.83 cfs @ 11.98 hrs, Volume= 3,186 cf, Atten= 4%, Lag= 1.1 min
Primary = 1.83 cfs @ 11.98 hrs, Volume= 3,186 cf
Routed to Pond 3P : (new Pond)

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 700.67' @ 11.98 hrs Surf.Area= 1,173 sf Storage= 825 cf

Plug-Flow detention time= 106.7 min calculated for 3,186 cf (83% of inflow)
Center-of-Mass det. time= 32.9 min (846.7 - 813.9)

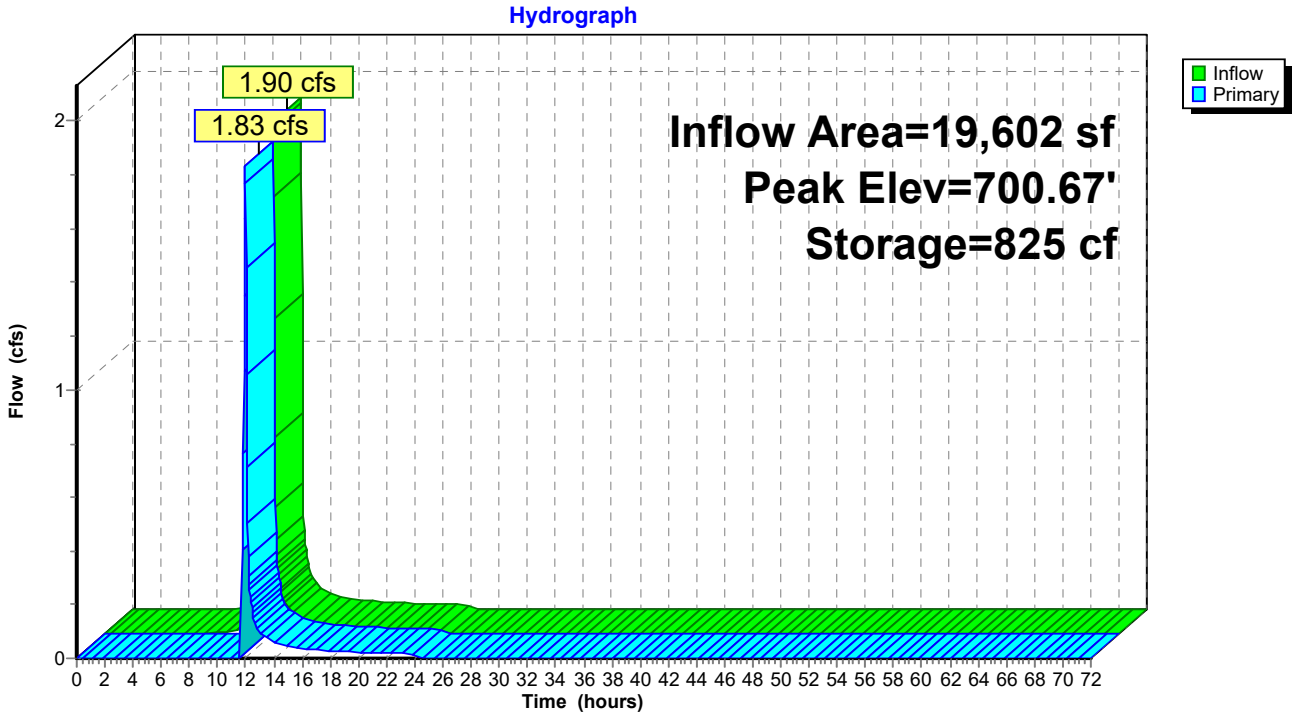
Volume	Invert	Avail.Storage	Storage Description
#1	697.00'	3,154 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
697.00	461	0.0	0	0
700.00	461	20.0	277	277
701.00	1,521	100.0	991	1,268
702.00	2,252	100.0	1,887	3,154

Device	Routing	Invert	Outlet Devices
#1	Primary	697.00'	**18.0" Round Culvert** L= 16.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 697.00' / 696.20' S= 0.0500 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	700.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	702.00'	**65.0' long x 11.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.53 2.59 2.70 2.68 2.67 2.68 2.66 2.64

Primary OutFlow Max=1.80 cfs @ 11.98 hrs HW=700.67' (Free Discharge)
- **1=Culvert** (Passes 1.80 cfs of 14.54 cfs potential flow)
  - **2=Orifice/Grate** (Weir Controls 1.80 cfs @ 1.35 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 7P: FocalPoint 7



Summary for Pond 8P: FocalPoint 8

[92] Warning: Device #3 is above defined storage

Inflow Area = 8,712 sf, 55.00% Impervious, Inflow Depth = 1.64" for 2-year event
Inflow = 0.61 cfs @ 11.96 hrs, Volume= 1,190 cf
Outflow = 0.01 cfs @ 16.38 hrs, Volume= 247 cf, Atten= 98%, Lag= 265.2 min
Primary = 0.01 cfs @ 16.38 hrs, Volume= 247 cf
Routed to Pond 3P : (new Pond)

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 698.50' @ 16.38 hrs Surf.Area= 1,045 sf Storage= 946 cf

Plug-Flow detention time= 478.7 min calculated for 247 cf (21% of inflow)
Center-of-Mass det. time= 338.5 min (1,179.3 - 840.8)

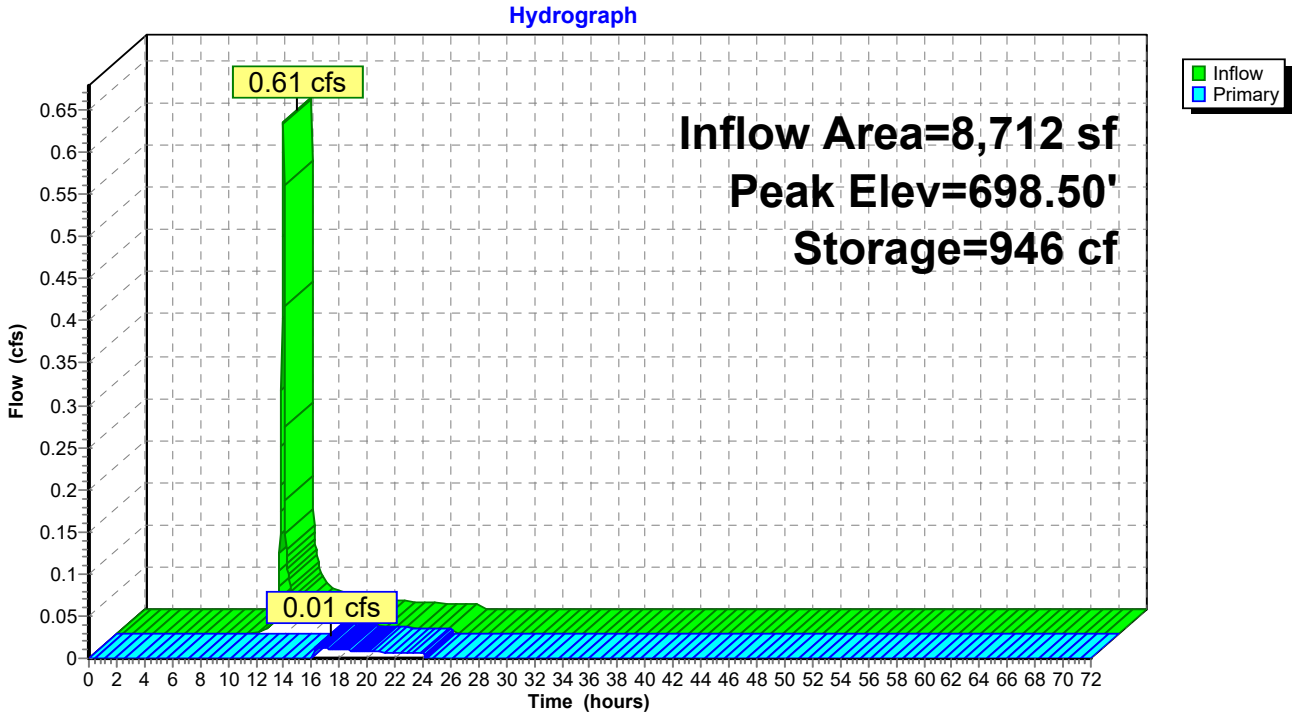
Volume	Invert	Avail.Storage	Storage Description
#1	695.00'	3,154 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
695.00	803	0.0	0	0
698.00	803	20.0	482	482
699.00	1,285	100.0	1,044	1,526
700.00	1,971	100.0	1,628	3,154

Device	Routing	Invert	Outlet Devices
#1	Primary	695.00'	**18.0" Round Culvert** L= 26.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 695.00' / 693.05' S= 0.0750 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	698.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**57.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=0.00 cfs @ 16.38 hrs HW=698.50' (Free Discharge)
└**1=Culvert** (Passes 0.00 cfs of 14.12 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 0.00 cfs @ 0.15 fps)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 8P: FocalPoint 8



Summary for Pond 9P: FocalPoint 9

[92] Warning: Device #3 is above defined storage

Inflow Area = 13,068 sf, 63.33% Impervious, Inflow Depth = 1.93" for 2-year event
Inflow = 1.07 cfs @ 11.96 hrs, Volume= 2,107 cf
Outflow = 0.72 cfs @ 12.04 hrs, Volume= 1,353 cf, Atten= 32%, Lag= 4.4 min
Primary = 0.72 cfs @ 12.04 hrs, Volume= 1,353 cf
Routed to Pond 3P : (new Pond)

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 697.59' @ 12.04 hrs Surf.Area= 870 sf Storage= 831 cf

Plug-Flow detention time= 186.1 min calculated for 1,353 cf (64% of inflow)
Center-of-Mass det. time= 73.6 min (902.8 - 829.3)

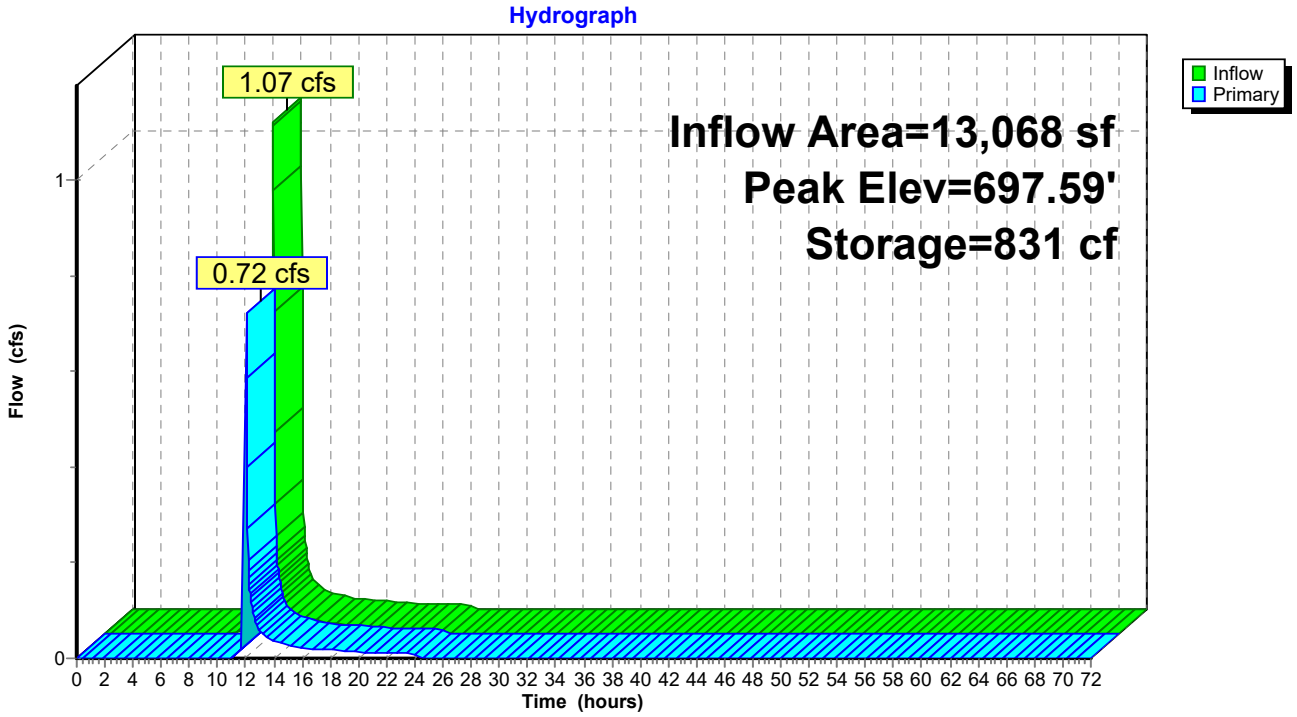
Volume	Invert	Avail.Storage	Storage Description
#1	694.00'	4,192 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
694.00	641	0.0	0	0
697.00	641	20.0	385	385
698.00	1,028	100.0	835	1,219
699.00	1,472	100.0	1,250	2,469
700.00	1,973	100.0	1,723	4,192

Device	Routing	Invert	Outlet Devices
#1	Primary	694.00'	**18.0" Round Culvert** L= 32.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.00' / 691.74' S= 0.0706 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	697.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**54.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=0.67 cfs @ 12.04 hrs HW=697.59' (Free Discharge)
- **1=Culvert** (Passes 0.67 cfs of 14.33 cfs potential flow)
- **2=Orifice/Grate** (Weir Controls 0.67 cfs @ 0.97 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 9P: FocalPoint 9

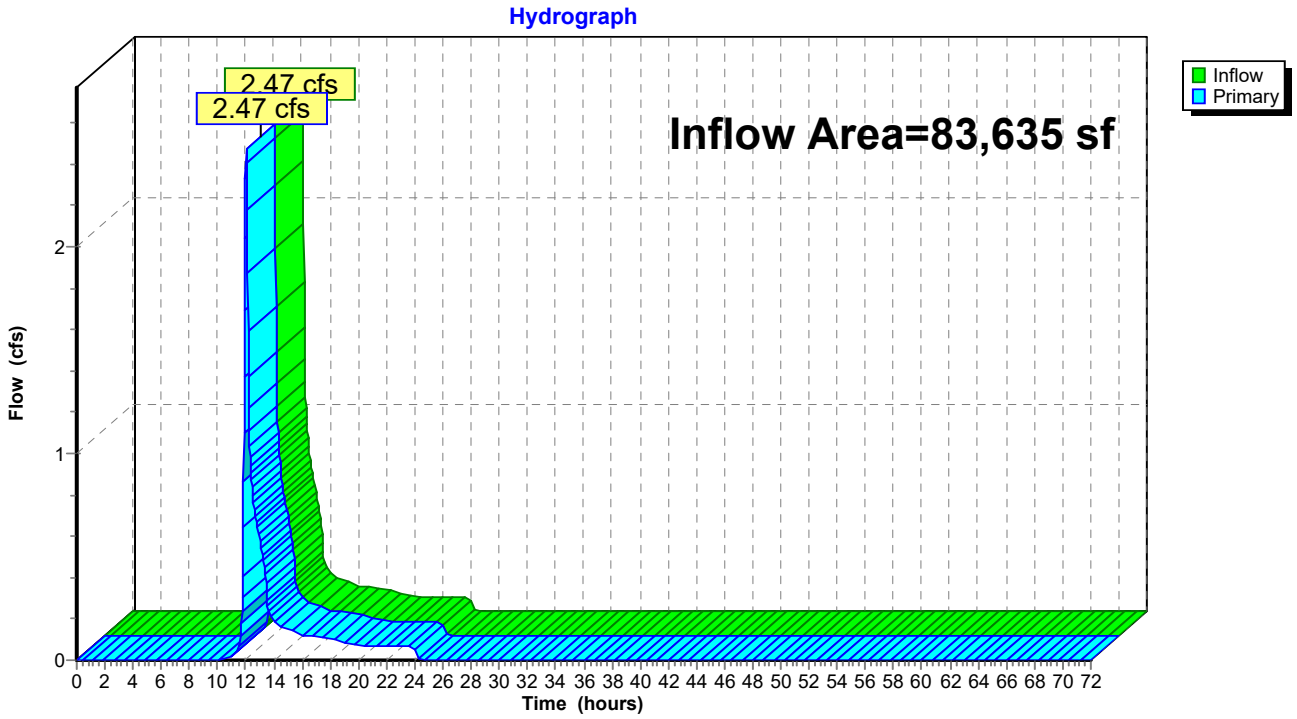


Summary for Link 2L: Outfall #1

Inflow Area = 83,635 sf, 51.04% Impervious, Inflow Depth = 1.39" for 2-year event
Inflow = 2.47 cfs @ 12.04 hrs, Volume= 9,669 cf
Primary = 2.47 cfs @ 12.04 hrs, Volume= 9,669 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs

Link 2L: Outfall #1



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment7S: Area 7 Runoff Area=0.450 ac 62.22% Impervious Runoff Depth=3.10"
Tc=5.0 min CN=85 Runoff=2.49 cfs 5,066 cf

Subcatchment8S: Area 8 Runoff Area=0.200 ac 55.00% Impervious Runoff Depth=2.30"
Tc=5.0 min CN=76 Runoff=0.85 cfs 1,669 cf

Subcatchment9S: Area 9 Runoff Area=0.300 ac 63.33% Impervious Runoff Depth=2.64"
Tc=5.0 min CN=80 Runoff=1.44 cfs 2,877 cf

Subcatchment11S: North Bypass 1 Runoff Area=0.880 ac 45.45% Impervious Runoff Depth=2.14"
Flow Length=730' Tc=10.9 min CN=74 Runoff=2.79 cfs 6,821 cf

Subcatchment12S: North Bypass 2 Runoff Area=0.090 ac 0.00% Impervious Runoff Depth=0.53"
Tc=5.0 min CN=49 Runoff=0.06 cfs 173 cf

Pond 3P: (new Pond) Peak Elev=693.06' Storage=2,118 cf Inflow=3.87 cfs 7,447 cf
Outflow=0.64 cfs 7,447 cf

Pond 7P: FocalPoint 7 Peak Elev=700.71' Storage=866 cf Inflow=2.49 cfs 5,066 cf
Outflow=2.40 cfs 4,426 cf

Pond 8P: FocalPoint 8 Peak Elev=698.51' Storage=954 cf Inflow=0.85 cfs 1,669 cf
Outflow=0.06 cfs 725 cf

Pond 9P: FocalPoint 9 Peak Elev=697.64' Storage=877 cf Inflow=1.44 cfs 2,877 cf
Outflow=1.41 cfs 2,123 cf

Link 2L: Outfall #1 Inflow=3.41 cfs 14,268 cf
Primary=3.41 cfs 14,268 cf

Total Runoff Area = 83,635 sf Runoff Volume = 16,605 cf Average Runoff Depth = 2.38"
48.96% Pervious = 40,946 sf 51.04% Impervious = 42,689 sf

Summary for Subcatchment 7S: Area 7

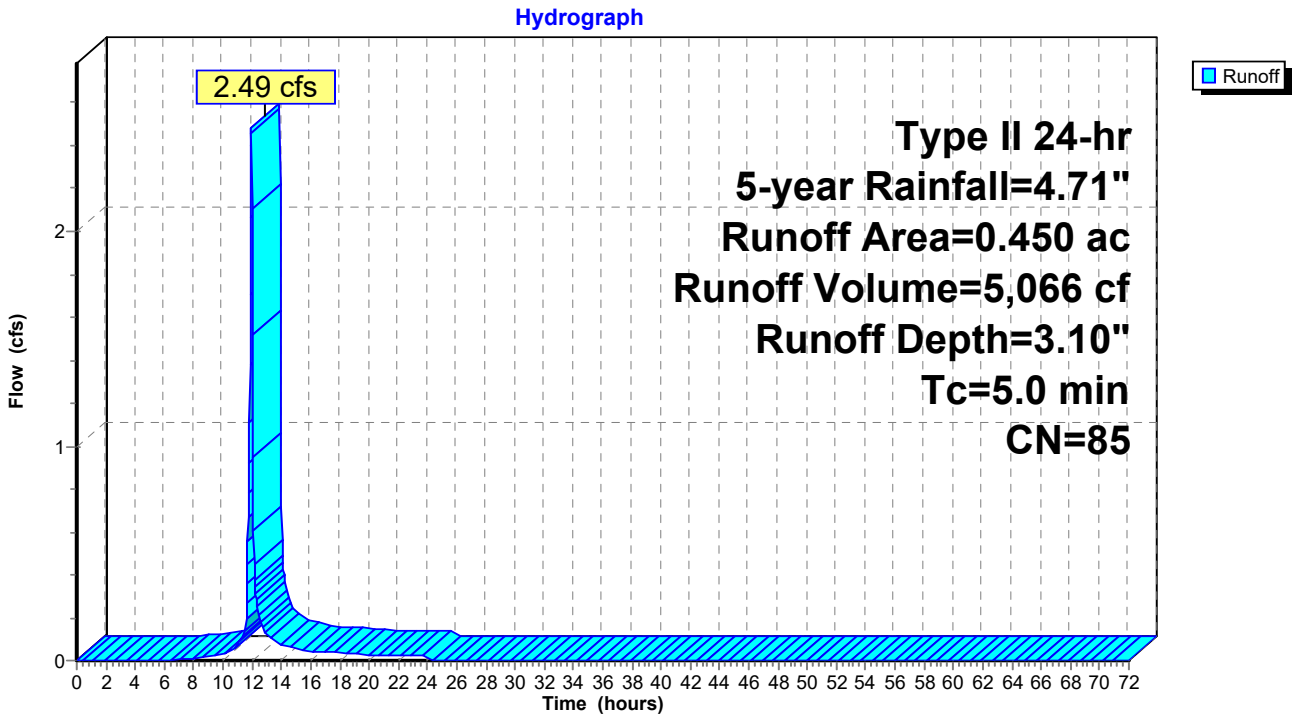
Runoff = 2.49 cfs @ 11.96 hrs, Volume= 5,066 cf, Depth= 3.10"
Routed to Pond 7P : FocalPoint 7

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 5-year Rainfall=4.71"

Area (ac)	CN	Description
0.040	49	50-75% Grass cover, Fair, HSG A
0.130	69	50-75% Grass cover, Fair, HSG B
0.280	98	Paved parking, HSG A
0.450	85	Weighted Average
0.170		37.78% Pervious Area
0.280		62.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 7S: Area 7



Summary for Subcatchment 8S: Area 8

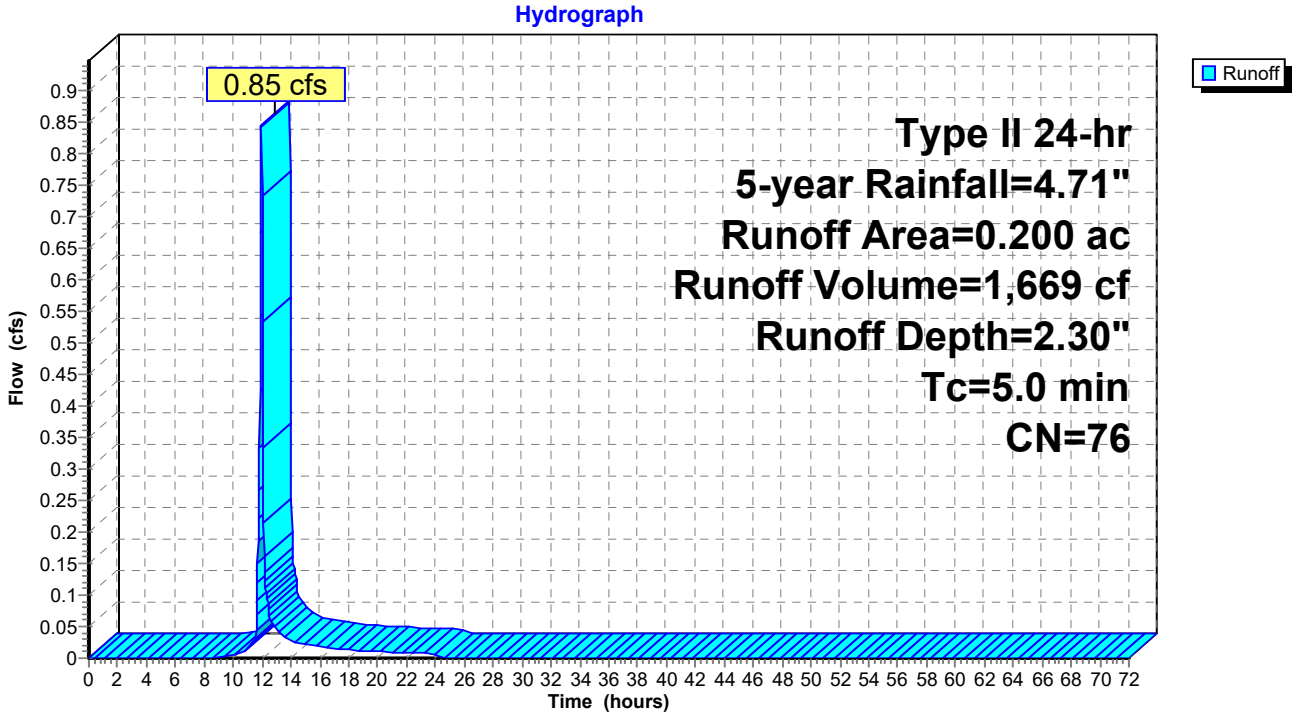
Runoff = 0.85 cfs @ 11.96 hrs, Volume= 1,669 cf, Depth= 2.30"
Routed to Pond 8P : FocalPoint 8

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 5-year Rainfall=4.71"

Area (ac)	CN	Description
0.090	49	50-75% Grass cover, Fair, HSG A
0.110	98	Paved parking, HSG A
0.200	76	Weighted Average
0.090		45.00% Pervious Area
0.110		55.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 8S: Area 8



Summary for Subcatchment 9S: Area 9

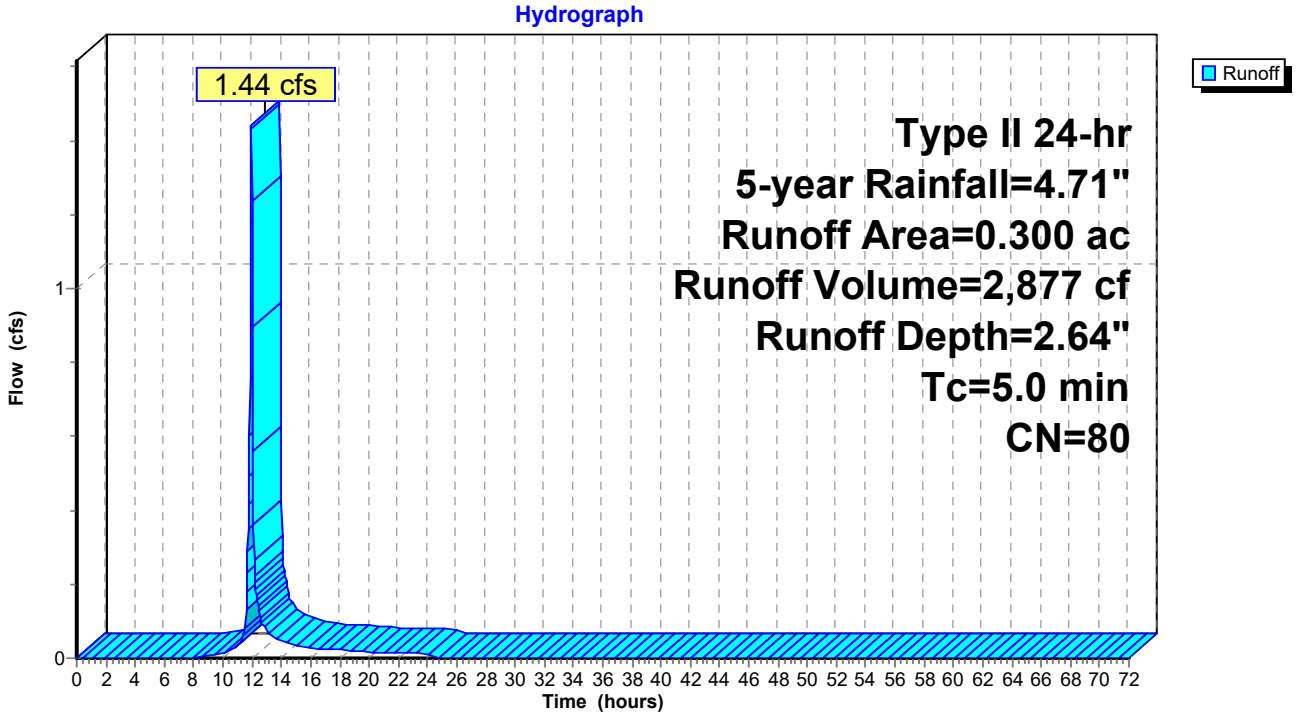
Runoff = 1.44 cfs @ 11.96 hrs, Volume= 2,877 cf, Depth= 2.64"
Routed to Pond 9P : FocalPoint 9

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 5-year Rainfall=4.71"

Area (ac)	CN	Description
0.110	49	50-75% Grass cover, Fair, HSG A
0.190	98	Paved parking, HSG A
0.300	80	Weighted Average
0.110		36.67% Pervious Area
0.190		63.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 9S: Area 9



Summary for Subcatchment 11S: North Bypass 1

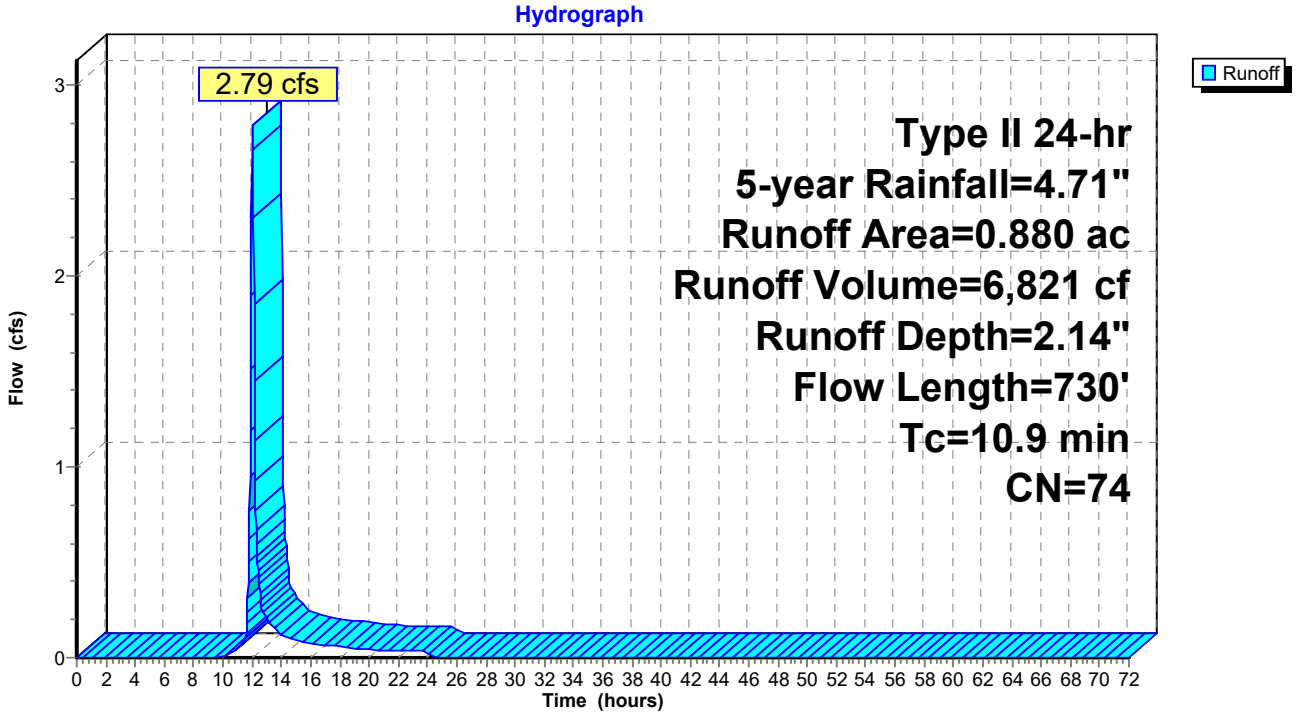
Runoff = 2.79 cfs @ 12.03 hrs, Volume= 6,821 cf, Depth= 2.14"
Routed to Link 2L : Outfall #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 5-year Rainfall=4.71"

Area (ac)	CN	Description
0.360	49	50-75% Grass cover, Fair, HSG A
0.120	69	50-75% Grass cover, Fair, HSG B
0.400	98	Paved parking, HSG A
0.880	74	Weighted Average
0.480		54.55% Pervious Area
0.400		45.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	40	0.0200	0.15		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
6.3	690	0.0080	1.82		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
10.9	730	Total			

Subcatchment 11S: North Bypass 1



Summary for Subcatchment 12S: North Bypass 2

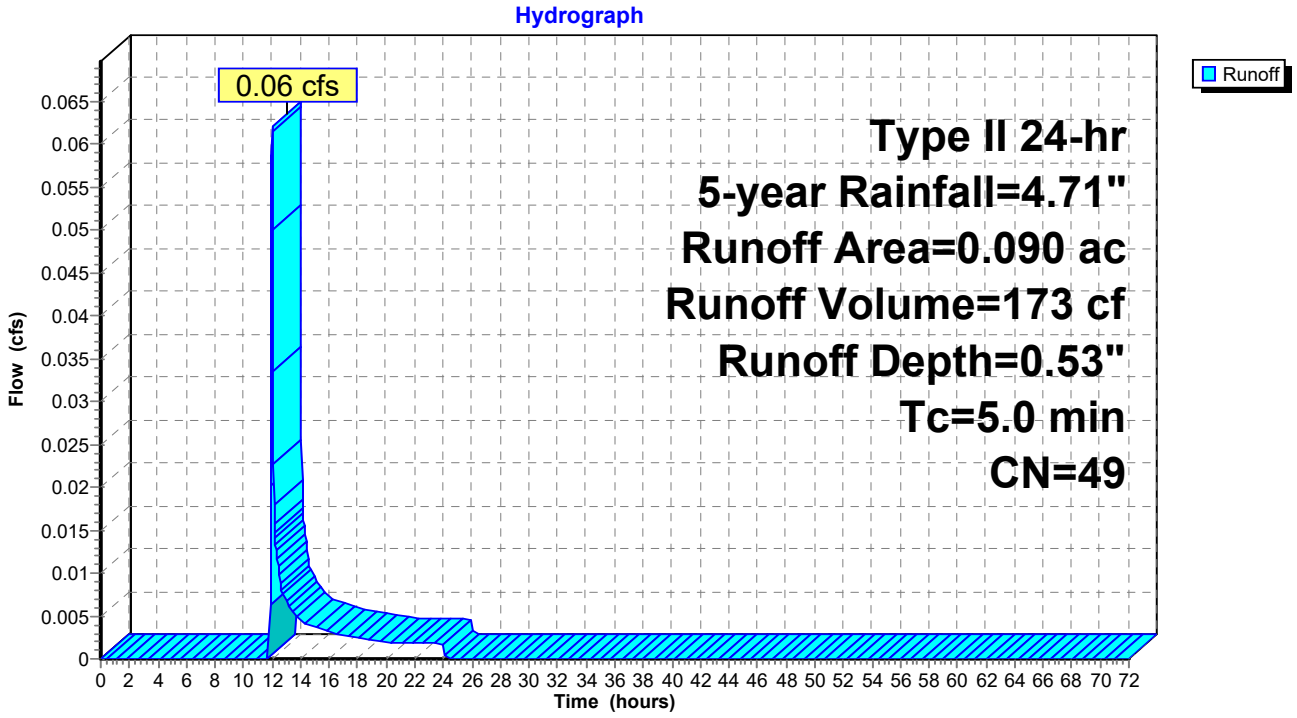
Runoff = 0.06 cfs @ 11.99 hrs, Volume= 173 cf, Depth= 0.53"
Routed to Pond 3P : (new Pond)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 5-year Rainfall=4.71"

Area (ac)	CN	Description
0.090	49	50-75% Grass cover, Fair, HSG A
0.090		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 12S: North Bypass 2



Summary for Pond 3P: (new Pond)

[79] Warning: Submerged Pond 8P Primary device # 1 OUTLET by 0.01'
[79] Warning: Submerged Pond 9P Primary device # 1 OUTLET by 1.32'

Inflow Area = 45,302 sf, 55.77% Impervious, Inflow Depth = 1.97" for 5-year event
Inflow = 3.87 cfs @ 11.98 hrs, Volume= 7,447 cf
Outflow = 0.64 cfs @ 12.18 hrs, Volume= 7,447 cf, Atten= 83%, Lag= 12.1 min
Primary = 0.64 cfs @ 12.18 hrs, Volume= 7,447 cf
Routed to Link 2L : Outfall #1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 693.06' @ 12.18 hrs Surf.Area= 1,981 sf Storage= 2,118 cf

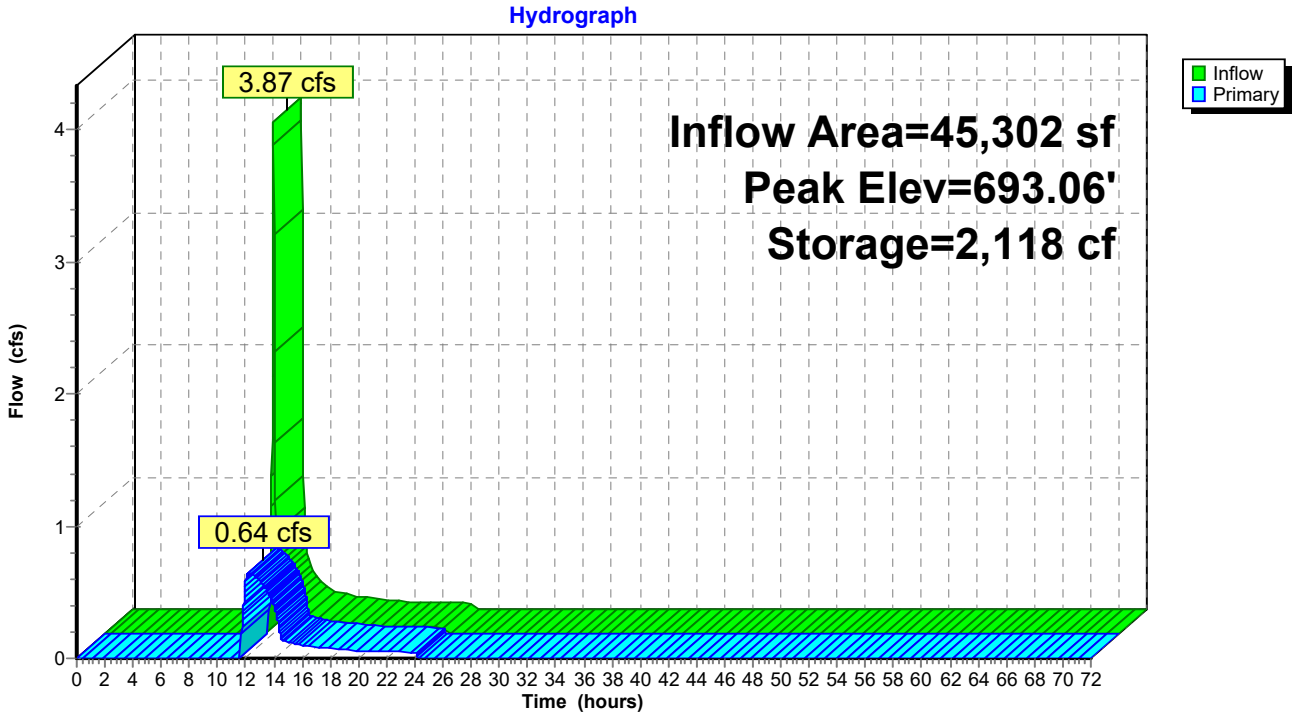
Plug-Flow detention time= 22.9 min calculated for 7,447 cf (100% of inflow)
Center-of-Mass det. time= 22.9 min (884.3 - 861.5)

Volume	Invert	Avail.Storage	Storage Description
#1	690.54'	10,996 cf	**60.0" Round CMP_Round 60"** L= 560.0' S= 0.0050 '/'

Device	Routing	Invert	Outlet Devices
#1	Primary	690.54'	**18.0" Round RCP_Round 18"** L= 20.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 690.54' / 690.44' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	690.54'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	695.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.64 cfs @ 12.18 hrs HW=693.06' (Free Discharge)
└**1=RCP_Round 18"** (Passes 0.64 cfs of 10.97 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 0.64 cfs @ 7.38 fps)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 3P: (new Pond)



Summary for Pond 7P: FocalPoint 7

[92] Warning: Device #3 is above defined storage

Inflow Area = 19,602 sf, 62.22% Impervious, Inflow Depth = 3.10" for 5-year event
Inflow = 2.49 cfs @ 11.96 hrs, Volume= 5,066 cf
Outflow = 2.40 cfs @ 11.98 hrs, Volume= 4,426 cf, Atten= 3%, Lag= 1.0 min
Primary = 2.40 cfs @ 11.98 hrs, Volume= 4,426 cf
Routed to Pond 3P : (new Pond)

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 700.71' @ 11.98 hrs Surf.Area= 1,209 sf Storage= 866 cf

Plug-Flow detention time= 88.6 min calculated for 4,424 cf (87% of inflow)
Center-of-Mass det. time= 28.1 min (833.9 - 805.9)

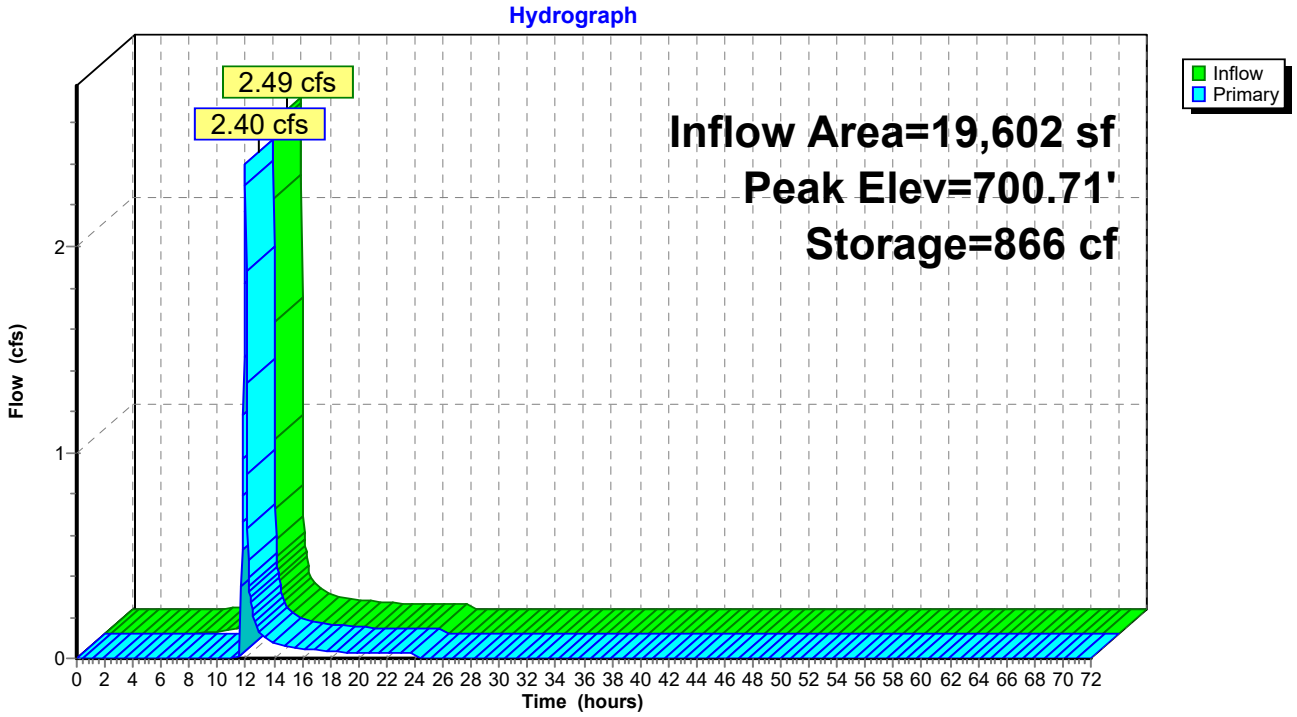
Volume	Invert	Avail.Storage	Storage Description
#1	697.00'	3,154 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
697.00	461	0.0	0	0
700.00	461	20.0	277	277
701.00	1,521	100.0	991	1,268
702.00	2,252	100.0	1,887	3,154

Device	Routing	Invert	Outlet Devices
#1	Primary	697.00'	**18.0" Round Culvert** L= 16.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 697.00' / 696.20' S= 0.0500 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	700.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	702.00'	**65.0' long x 11.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.53 2.59 2.70 2.68 2.67 2.68 2.66 2.64

Primary OutFlow Max=2.37 cfs @ 11.98 hrs HW=700.70' (Free Discharge)
- **1=Culvert** (Passes 2.37 cfs of 14.63 cfs potential flow)
  - **2=Orifice/Grate** (Weir Controls 2.37 cfs @ 1.48 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 7P: FocalPoint 7



Summary for Pond 8P: FocalPoint 8

[92] Warning: Device #3 is above defined storage

Inflow Area = 8,712 sf, 55.00% Impervious, Inflow Depth = 2.30" for 5-year event
Inflow = 0.85 cfs @ 11.96 hrs, Volume= 1,669 cf
Outflow = 0.06 cfs @ 12.61 hrs, Volume= 725 cf, Atten= 93%, Lag= 39.0 min
Primary = 0.06 cfs @ 12.61 hrs, Volume= 725 cf
Routed to Pond 3P : (new Pond)

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 698.51' @ 12.61 hrs Surf.Area= 1,049 sf Storage= 954 cf

Plug-Flow detention time= 282.9 min calculated for 725 cf (43% of inflow)
Center-of-Mass det. time= 158.1 min (989.1 - 831.0)

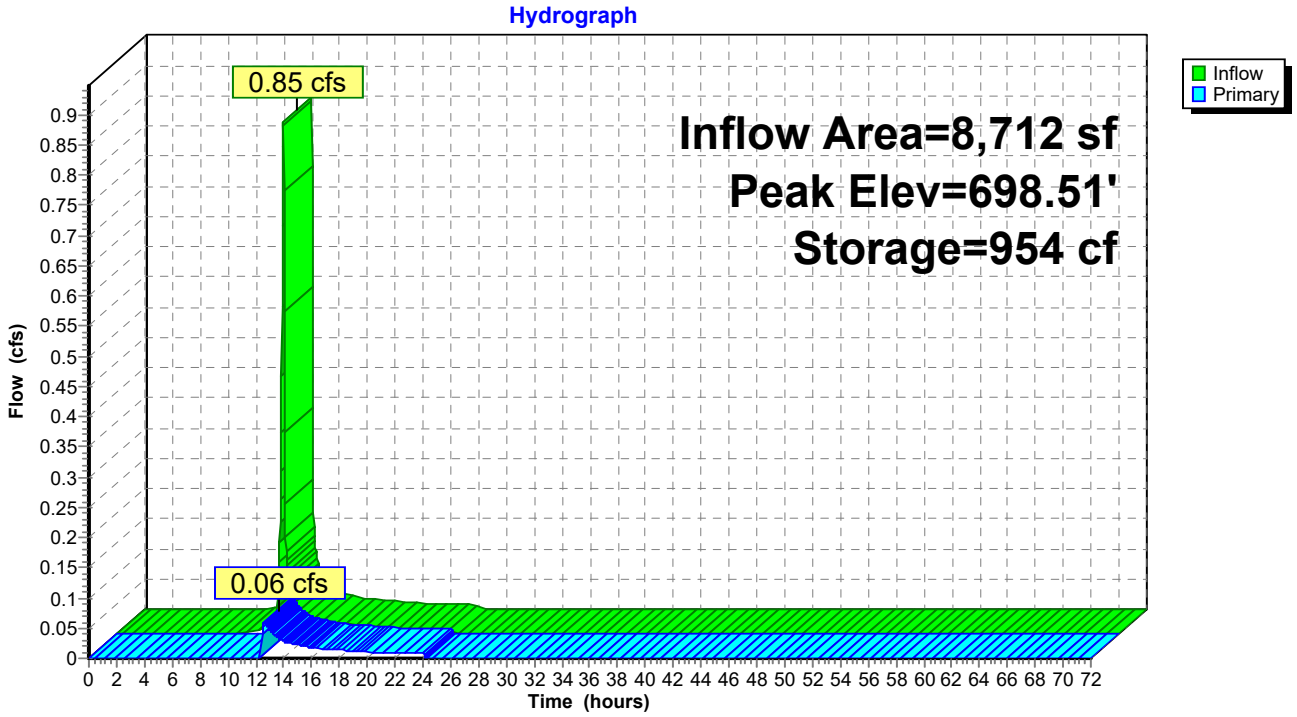
Volume	Invert	Avail.Storage	Storage Description
#1	695.00'	3,154 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
695.00	803	0.0	0	0
698.00	803	20.0	482	482
699.00	1,285	100.0	1,044	1,526
700.00	1,971	100.0	1,628	3,154

Device	Routing	Invert	Outlet Devices
#1	Primary	695.00'	**18.0" Round Culvert** L= 26.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 695.00' / 693.05' S= 0.0750 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	698.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**57.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=0.03 cfs @ 12.61 hrs HW=698.51' (Free Discharge)
└**1=Culvert** (Passes 0.03 cfs of 14.14 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 0.03 cfs @ 0.33 fps)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 8P: FocalPoint 8



Summary for Pond 9P: FocalPoint 9

[92] Warning: Device #3 is above defined storage

Inflow Area = 13,068 sf, 63.33% Impervious, Inflow Depth = 2.64" for 5-year event
Inflow = 1.44 cfs @ 11.96 hrs, Volume= 2,877 cf
Outflow = 1.41 cfs @ 11.98 hrs, Volume= 2,123 cf, Atten= 2%, Lag= 1.3 min
Primary = 1.41 cfs @ 11.98 hrs, Volume= 2,123 cf
Routed to Pond 3P : (new Pond)

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 697.64' @ 11.98 hrs Surf.Area= 890 sf Storage= 877 cf

Plug-Flow detention time= 145.4 min calculated for 2,122 cf (74% of inflow)
Center-of-Mass det. time= 49.5 min (869.8 - 820.4)

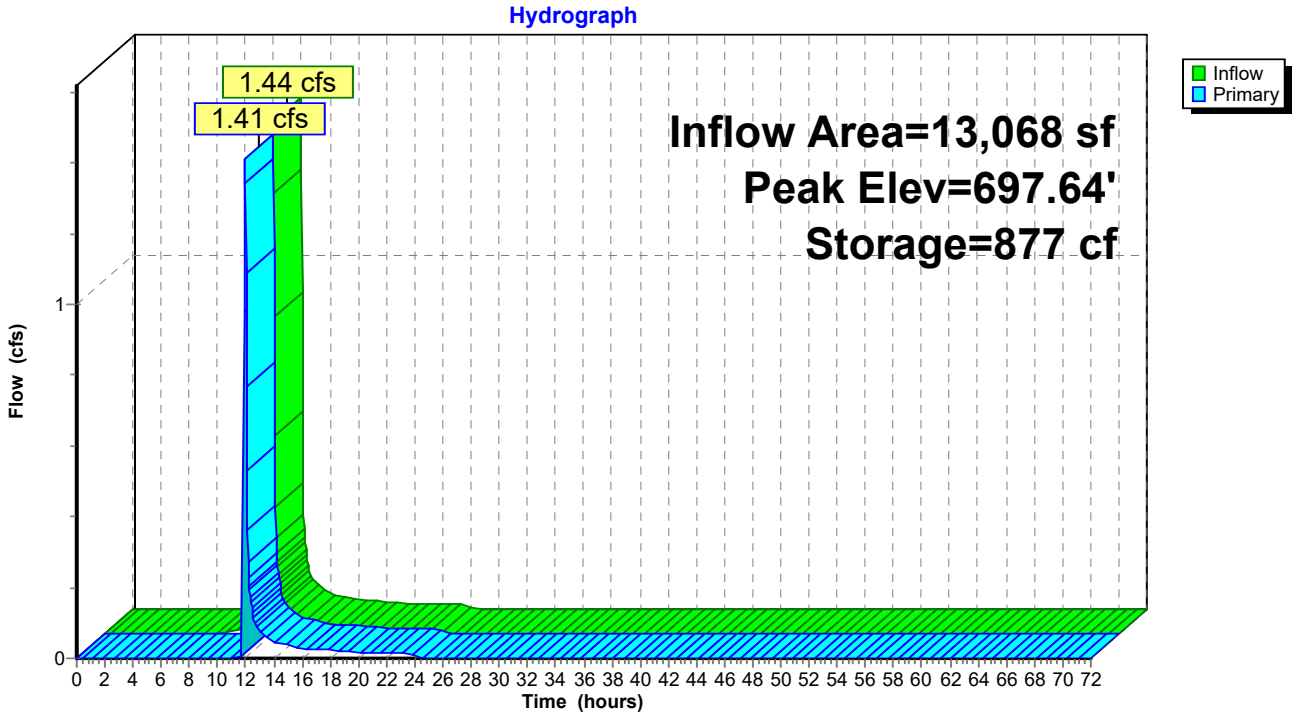
Volume	Invert	Avail.Storage	Storage Description
#1	694.00'	4,192 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
694.00	641	0.0	0	0
697.00	641	20.0	385	385
698.00	1,028	100.0	835	1,219
699.00	1,472	100.0	1,250	2,469
700.00	1,973	100.0	1,723	4,192

Device	Routing	Invert	Outlet Devices
#1	Primary	694.00'	**18.0" Round Culvert** L= 32.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.00' / 691.74' S= 0.0706 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	697.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**54.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=1.34 cfs @ 11.98 hrs HW=697.64' (Free Discharge)
- **1=Culvert** (Passes 1.34 cfs of 14.46 cfs potential flow)
  - **2=Orifice/Grate** (Weir Controls 1.34 cfs @ 1.22 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 9P: FocalPoint 9

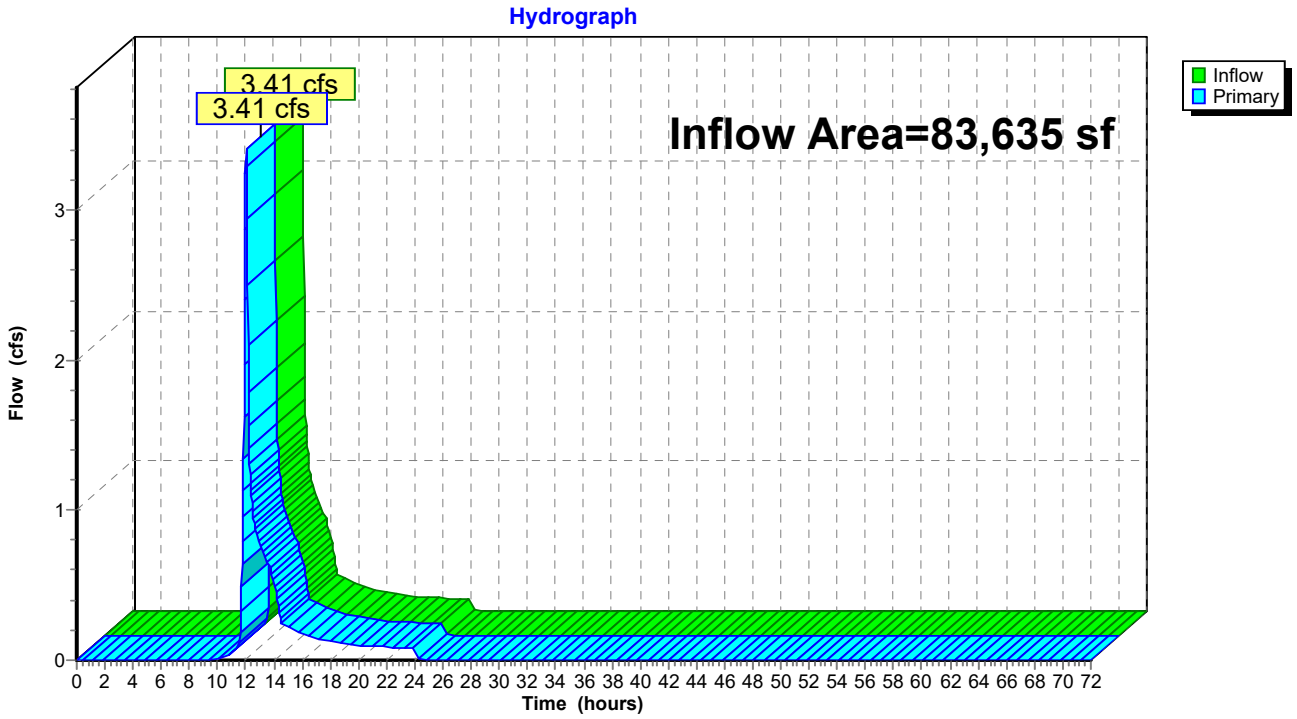


Summary for Link 2L: Outfall #1

Inflow Area = 83,635 sf, 51.04% Impervious, Inflow Depth = 2.05" for 5-year event
Inflow = 3.41 cfs @ 12.03 hrs, Volume= 14,268 cf
Primary = 3.41 cfs @ 12.03 hrs, Volume= 14,268 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs

Link 2L: Outfall #1



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment7S: Area 7 Runoff Area=0.450 ac 62.22% Impervious Runoff Depth=3.72"
Tc=5.0 min CN=85 Runoff=2.95 cfs 6,078 cf

Subcatchment8S: Area 8 Runoff Area=0.200 ac 55.00% Impervious Runoff Depth=2.85"
Tc=5.0 min CN=76 Runoff=1.05 cfs 2,070 cf

Subcatchment9S: Area 9 Runoff Area=0.300 ac 63.33% Impervious Runoff Depth=3.23"
Tc=5.0 min CN=80 Runoff=1.75 cfs 3,514 cf

Subcatchment11S: North Bypass 1 Runoff Area=0.880 ac 45.45% Impervious Runoff Depth=2.67"
Flow Length=730' Tc=10.9 min CN=74 Runoff=3.50 cfs 8,532 cf

Subcatchment12S: North Bypass 2 Runoff Area=0.090 ac 0.00% Impervious Runoff Depth=0.79"
Tc=5.0 min CN=49 Runoff=0.11 cfs 259 cf

Pond 3P: (new Pond) Peak Elev=693.49' Storage=3,075 cf Inflow=4.68 cfs 9,585 cf
Outflow=0.70 cfs 9,585 cf

Pond 7P: FocalPoint 7 Peak Elev=700.73' Storage=897 cf Inflow=2.95 cfs 6,078 cf
Outflow=2.86 cfs 5,438 cf

Pond 8P: FocalPoint 8 Peak Elev=698.54' Storage=990 cf Inflow=1.05 cfs 2,070 cf
Outflow=0.25 cfs 1,127 cf

Pond 9P: FocalPoint 9 Peak Elev=697.66' Storage=895 cf Inflow=1.75 cfs 3,514 cf
Outflow=1.70 cfs 2,761 cf

Link 2L: Outfall #1 Inflow=4.16 cfs 18,117 cf
Primary=4.16 cfs 18,117 cf

Total Runoff Area = 83,635 sf Runoff Volume = 20,454 cf Average Runoff Depth = 2.93"
48.96% Pervious = 40,946 sf 51.04% Impervious = 42,689 sf

Summary for Subcatchment 7S: Area 7

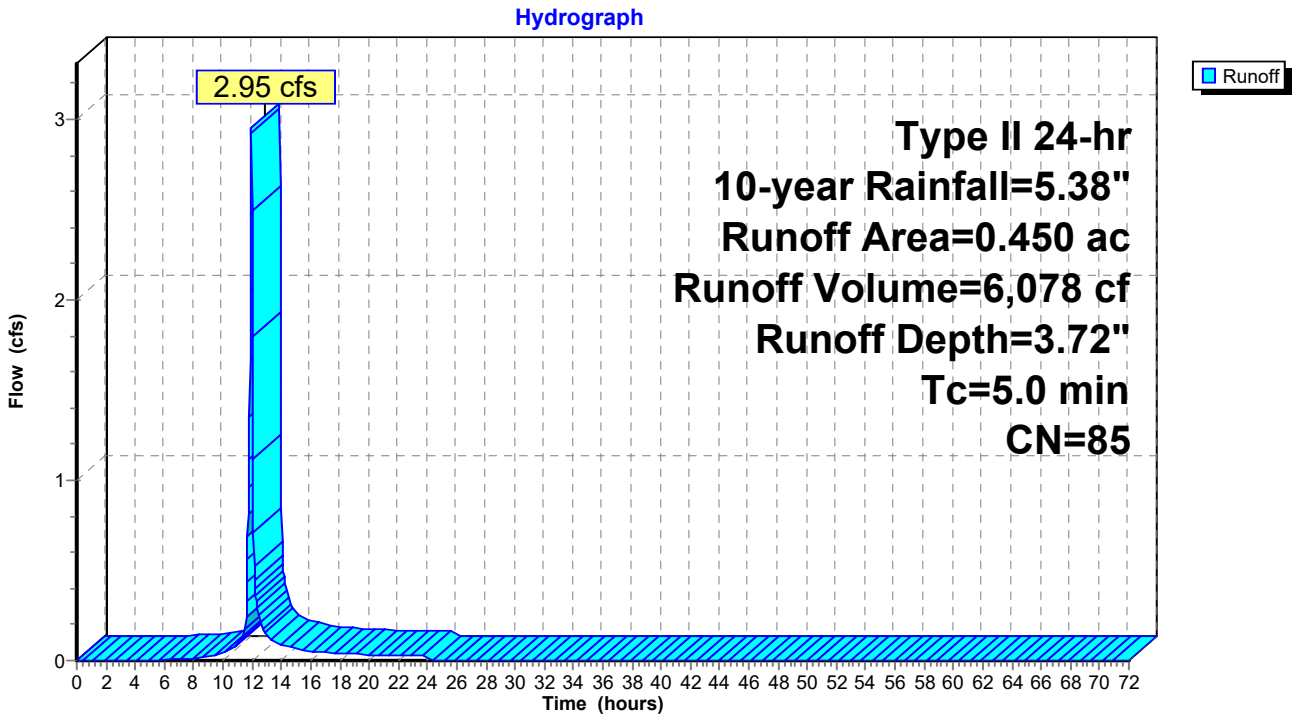
Runoff = 2.95 cfs @ 11.96 hrs, Volume= 6,078 cf, Depth= 3.72"
Routed to Pond 7P : FocalPoint 7

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 10-year Rainfall=5.38"

Area (ac)	CN	Description
0.040	49	50-75% Grass cover, Fair, HSG A
0.130	69	50-75% Grass cover, Fair, HSG B
0.280	98	Paved parking, HSG A
0.450	85	Weighted Average
0.170		37.78% Pervious Area
0.280		62.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 7S: Area 7



Summary for Subcatchment 8S: Area 8

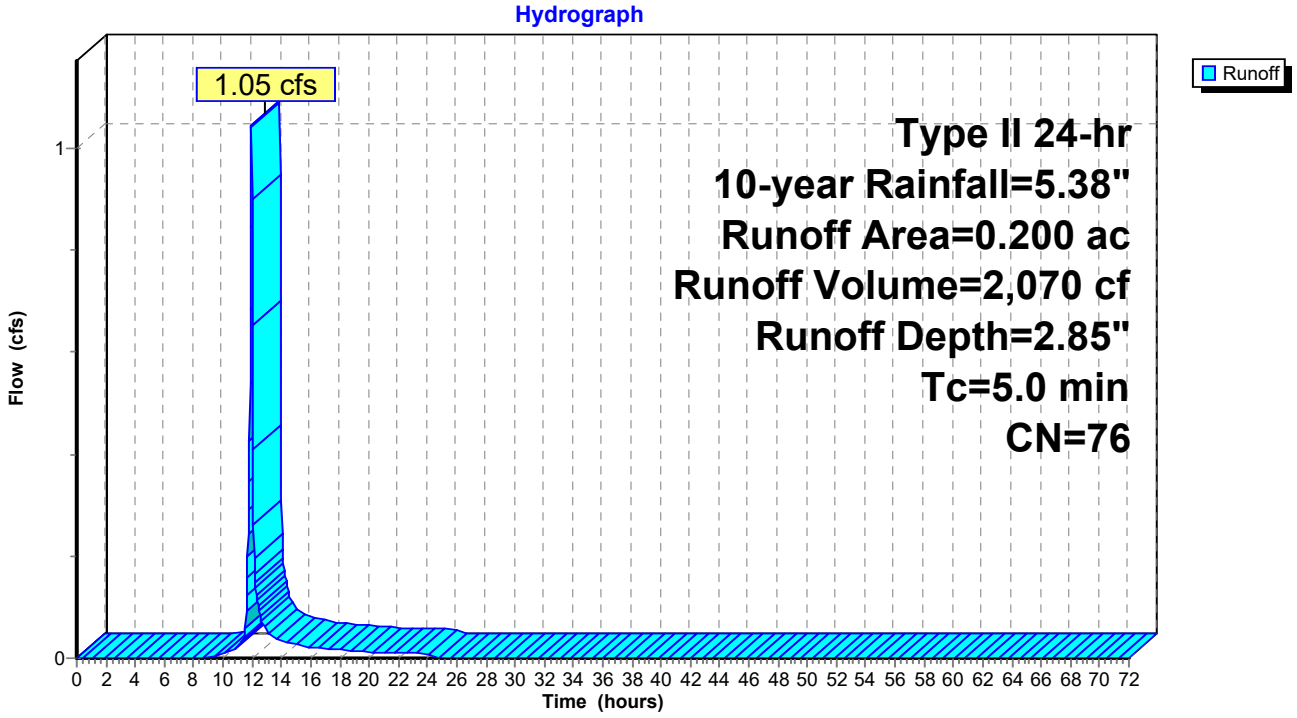
Runoff = 1.05 cfs @ 11.96 hrs, Volume= 2,070 cf, Depth= 2.85"
Routed to Pond 8P : FocalPoint 8

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 10-year Rainfall=5.38"

Area (ac)	CN	Description
0.090	49	50-75% Grass cover, Fair, HSG A
0.110	98	Paved parking, HSG A
0.200	76	Weighted Average
0.090		45.00% Pervious Area
0.110		55.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 8S: Area 8



Summary for Subcatchment 9S: Area 9

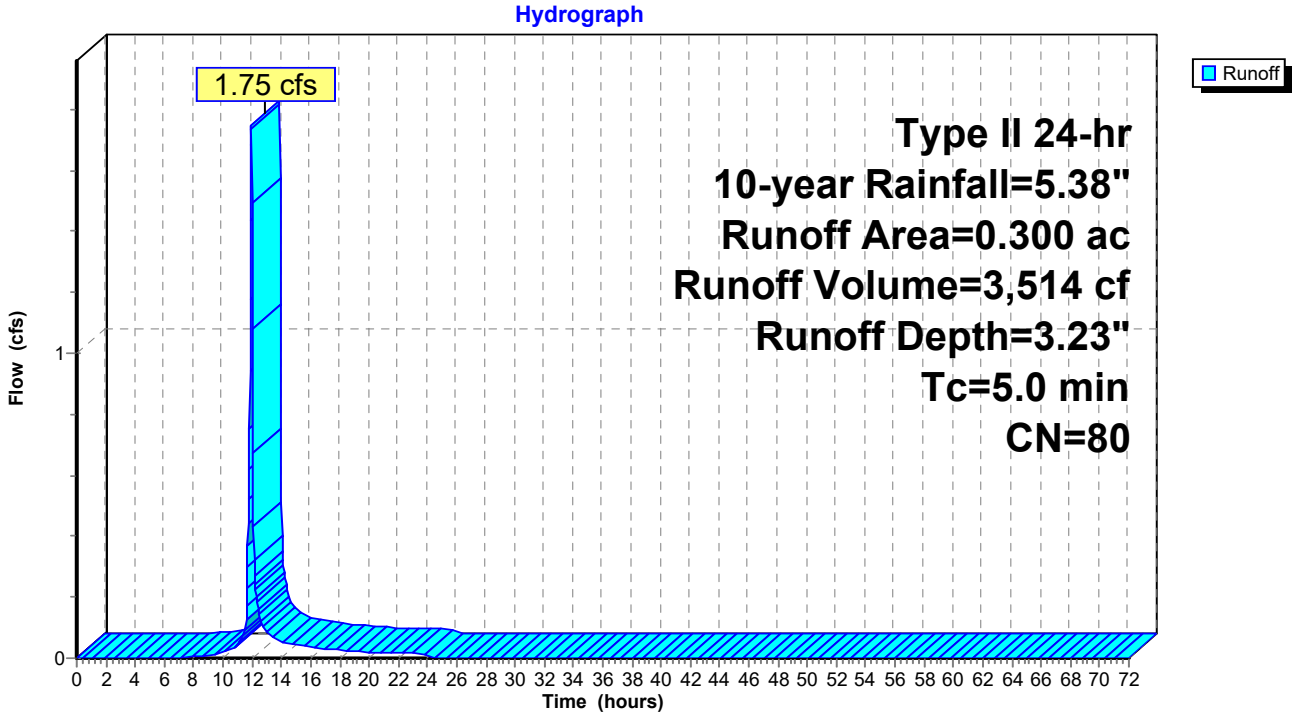
Runoff = 1.75 cfs @ 11.96 hrs, Volume= 3,514 cf, Depth= 3.23"
Routed to Pond 9P : FocalPoint 9

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 10-year Rainfall=5.38"

Area (ac)	CN	Description
0.110	49	50-75% Grass cover, Fair, HSG A
0.190	98	Paved parking, HSG A
0.300	80	Weighted Average
0.110		36.67% Pervious Area
0.190		63.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 9S: Area 9



Summary for Subcatchment 11S: North Bypass 1

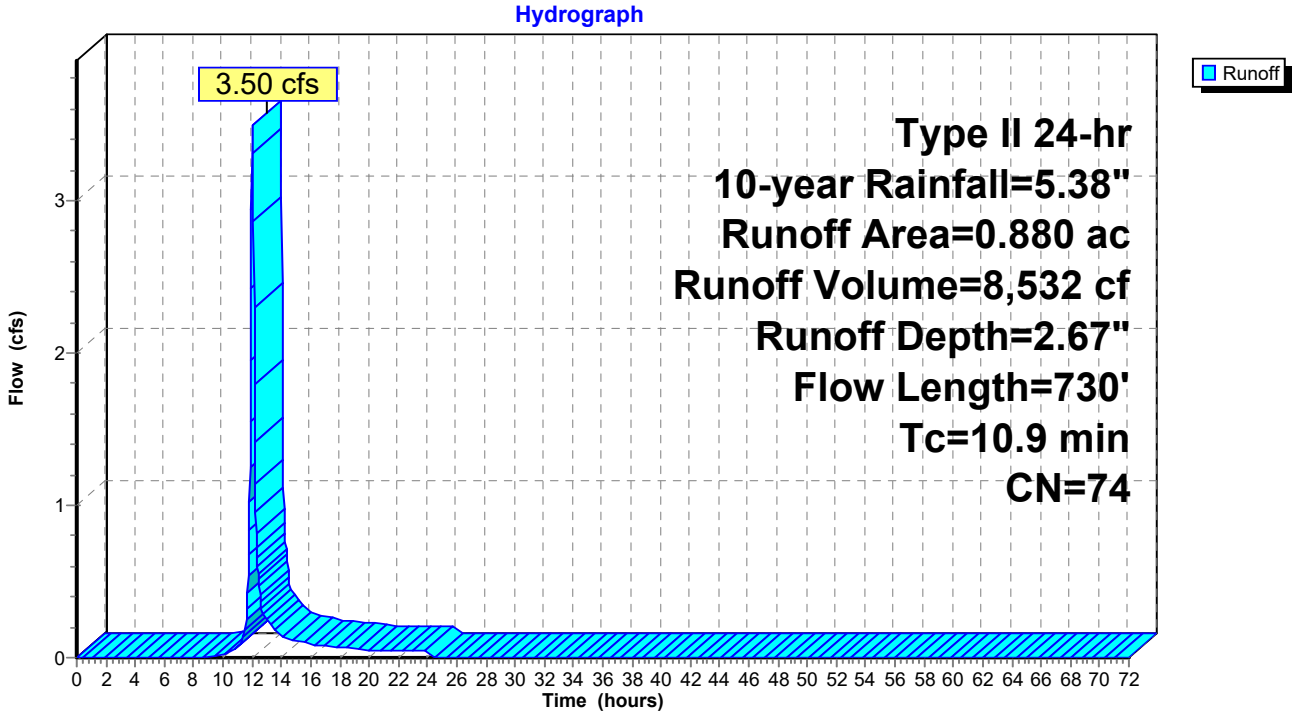
Runoff = 3.50 cfs @ 12.03 hrs, Volume= 8,532 cf, Depth= 2.67"
Routed to Link 2L : Outfall #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 10-year Rainfall=5.38"

Area (ac)	CN	Description
0.360	49	50-75% Grass cover, Fair, HSG A
0.120	69	50-75% Grass cover, Fair, HSG B
0.400	98	Paved parking, HSG A
0.880	74	Weighted Average
0.480		54.55% Pervious Area
0.400		45.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	40	0.0200	0.15		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
6.3	690	0.0080	1.82		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
10.9	730	Total			

Subcatchment 11S: North Bypass 1



Summary for Subcatchment 12S: North Bypass 2

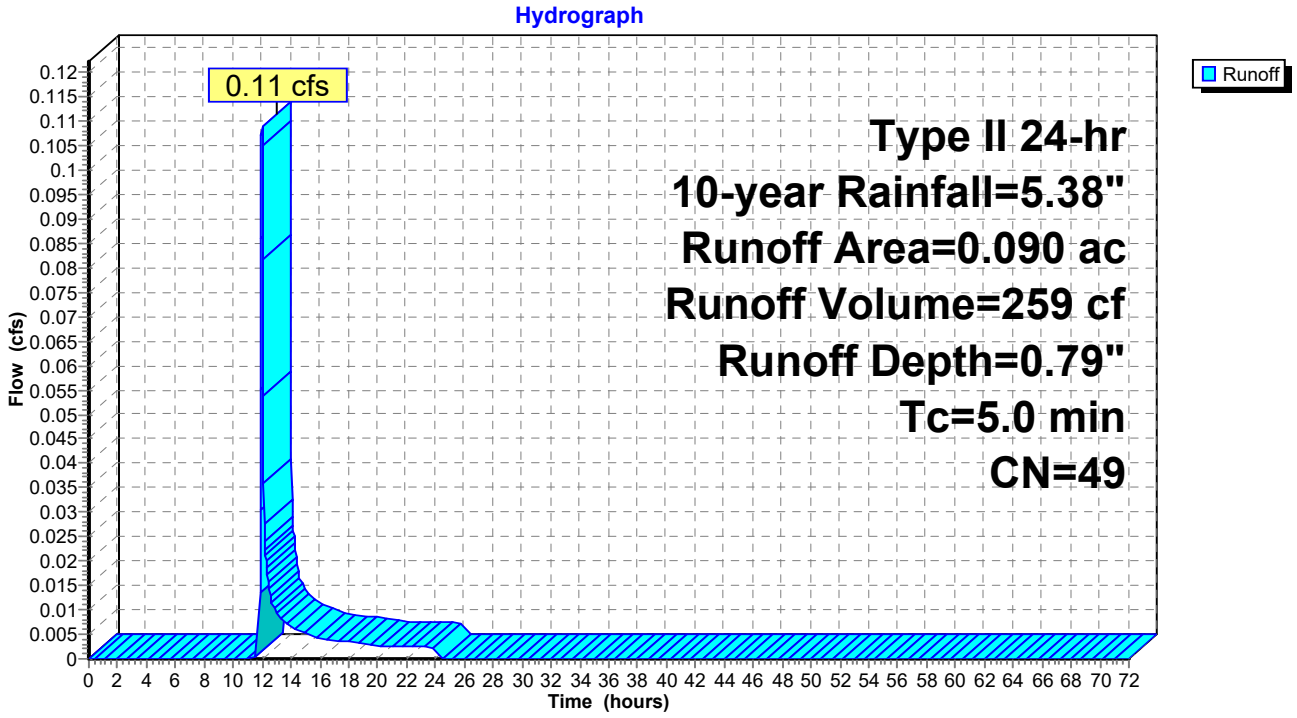
Runoff = 0.11 cfs @ 11.98 hrs, Volume= 259 cf, Depth= 0.79"
Routed to Pond 3P : (new Pond)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 10-year Rainfall=5.38"

Area (ac)	CN	Description
0.090	49	50-75% Grass cover, Fair, HSG A
0.090		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 12S: North Bypass 2



Summary for Pond 3P: (new Pond)

[79] Warning: Submerged Pond 8P Primary device # 1 OUTLET by 0.44'
[79] Warning: Submerged Pond 9P Primary device # 1 OUTLET by 1.75'

Inflow Area = 45,302 sf, 55.77% Impervious, Inflow Depth = 2.54" for 10-year event
Inflow = 4.68 cfs @ 11.97 hrs, Volume= 9,585 cf
Outflow = 0.70 cfs @ 12.30 hrs, Volume= 9,585 cf, Atten= 85%, Lag= 19.4 min
Primary = 0.70 cfs @ 12.30 hrs, Volume= 9,585 cf
Routed to Link 2L : Outfall #1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 693.49' @ 12.30 hrs Surf.Area= 2,379 sf Storage= 3,075 cf

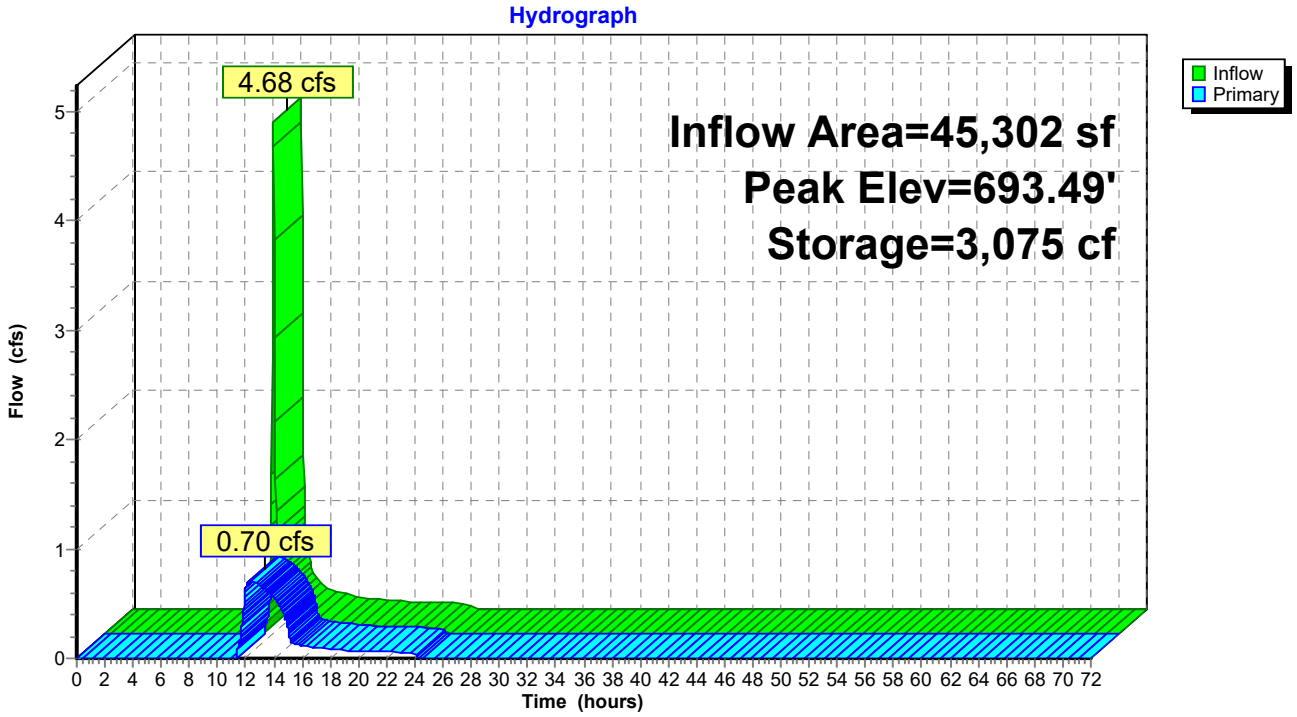
Plug-Flow detention time= 33.6 min calculated for 9,581 cf (100% of inflow)
Center-of-Mass det. time= 33.5 min (882.9 - 849.3)

Volume	Invert	Avail.Storage	Storage Description
#1	690.54'	10,996 cf	**60.0" Round CMP_Round 60"** L= 560.0' S= 0.0050 '/'

Device	Routing	Invert	Outlet Devices
#1	Primary	690.54'	**18.0" Round RCP_Round 18"** L= 20.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 690.54' / 690.44' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	690.54'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	695.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.70 cfs @ 12.30 hrs HW=693.49' (Free Discharge)
└**1=RCP_Round 18"** (Passes 0.70 cfs of 12.63 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.70 cfs @ 8.04 fps)
  └**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 3P: (new Pond)



Summary for Pond 7P: FocalPoint 7

[92] Warning: Device #3 is above defined storage

Inflow Area = 19,602 sf, 62.22% Impervious, Inflow Depth = 3.72" for 10-year event
Inflow = 2.95 cfs @ 11.96 hrs, Volume= 6,078 cf
Outflow = 2.86 cfs @ 11.97 hrs, Volume= 5,438 cf, Atten= 3%, Lag= 1.0 min
Primary = 2.86 cfs @ 11.97 hrs, Volume= 5,438 cf
Routed to Pond 3P : (new Pond)

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 700.73' @ 11.97 hrs Surf.Area= 1,236 sf Storage= 897 cf

Plug-Flow detention time= 79.1 min calculated for 5,436 cf (89% of inflow)
Center-of-Mass det. time= 26.2 min (826.9 - 800.7)

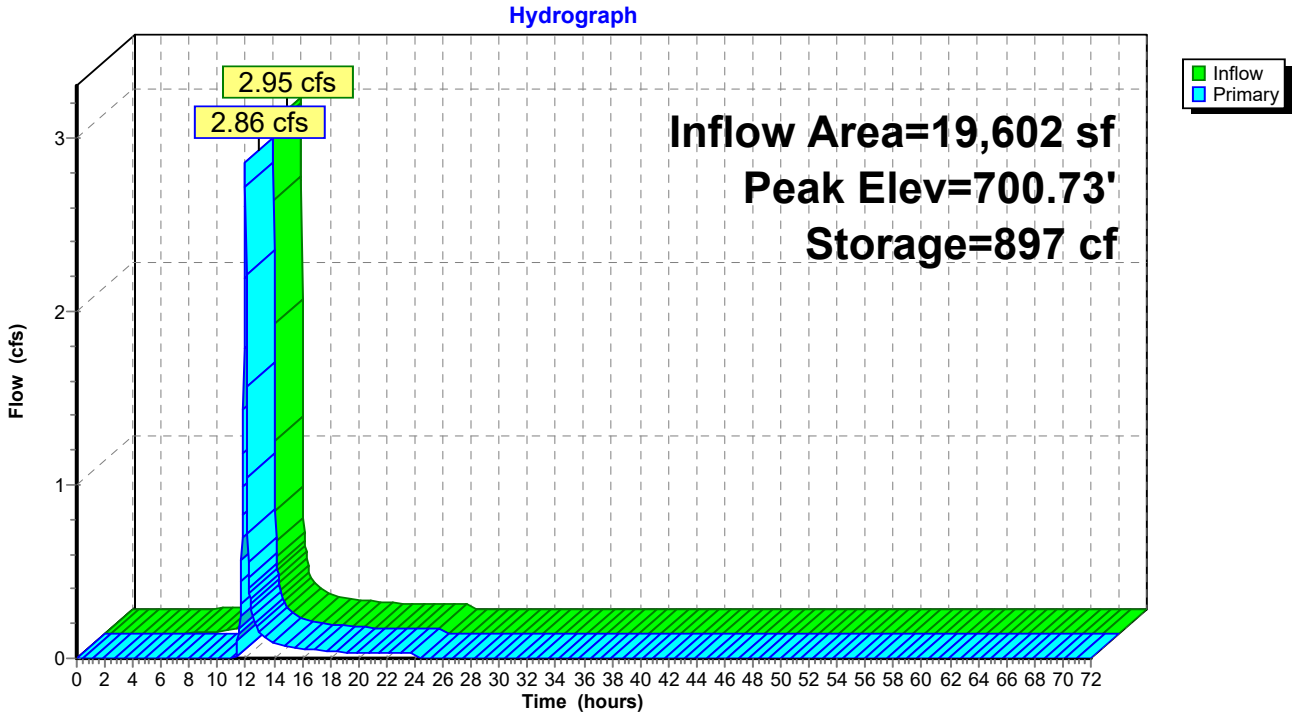
Volume	Invert	Avail.Storage	Storage Description
#1	697.00'	3,154 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
697.00	461	0.0	0	0
700.00	461	20.0	277	277
701.00	1,521	100.0	991	1,268
702.00	2,252	100.0	1,887	3,154

Device	Routing	Invert	Outlet Devices
#1	Primary	697.00'	**18.0" Round Culvert** L= 16.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 697.00' / 696.20' S= 0.0500 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	700.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	702.00'	**65.0' long x 11.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.53 2.59 2.70 2.68 2.67 2.68 2.66 2.64

Primary OutFlow Max=2.83 cfs @ 11.97 hrs HW=700.73' (Free Discharge)
- **1=Culvert** (Passes 2.83 cfs of 14.69 cfs potential flow)
  - **2=Orifice/Grate** (Weir Controls 2.83 cfs @ 1.57 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 7P: FocalPoint 7



Summary for Pond 8P: FocalPoint 8

[92] Warning: Device #3 is above defined storage

Inflow Area = 8,712 sf, 55.00% Impervious, Inflow Depth = 2.85" for 10-year event
Inflow = 1.05 cfs @ 11.96 hrs, Volume= 2,070 cf
Outflow = 0.25 cfs @ 12.10 hrs, Volume= 1,127 cf, Atten= 76%, Lag= 8.4 min
Primary = 0.25 cfs @ 12.10 hrs, Volume= 1,127 cf
Routed to Pond 3P : (new Pond)

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 698.54' @ 12.10 hrs Surf.Area= 1,065 sf Storage= 990 cf

Plug-Flow detention time= 222.6 min calculated for 1,127 cf (54% of inflow)
Center-of-Mass det. time= 104.8 min (929.7 - 824.8)

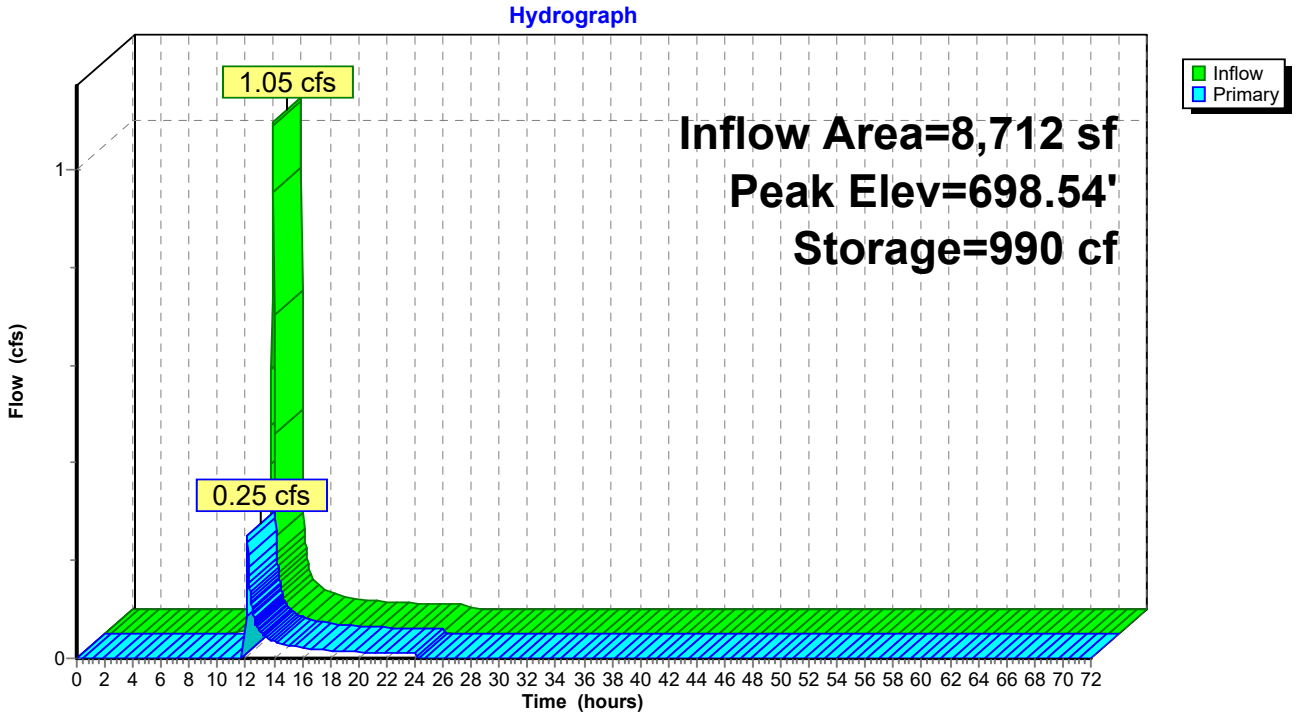
Volume	Invert	Avail.Storage	Storage Description
#1	695.00'	3,154 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
695.00	803	0.0	0	0
698.00	803	20.0	482	482
699.00	1,285	100.0	1,044	1,526
700.00	1,971	100.0	1,628	3,154

Device	Routing	Invert	Outlet Devices
#1	Primary	695.00'	**18.0" Round Culvert** L= 26.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 695.00' / 693.05' S= 0.0750 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	698.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**57.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=0.22 cfs @ 12.10 hrs HW=698.54' (Free Discharge)
- **1=Culvert** (Passes 0.22 cfs of 14.22 cfs potential flow)
  - **2=Orifice/Grate** (Weir Controls 0.22 cfs @ 0.67 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 8P: FocalPoint 8



Summary for Pond 9P: FocalPoint 9

[92] Warning: Device #3 is above defined storage

Inflow Area = 13,068 sf, 63.33% Impervious, Inflow Depth = 3.23" for 10-year event
Inflow = 1.75 cfs @ 11.96 hrs, Volume= 3,514 cf
Outflow = 1.70 cfs @ 11.98 hrs, Volume= 2,761 cf, Atten= 3%, Lag= 0.9 min
Primary = 1.70 cfs @ 11.98 hrs, Volume= 2,761 cf
Routed to Pond 3P : (new Pond)

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 697.66' @ 11.98 hrs Surf.Area= 898 sf Storage= 895 cf

Plug-Flow detention time= 126.2 min calculated for 2,759 cf (79% of inflow)
Center-of-Mass det. time= 40.6 min (855.3 - 814.7)

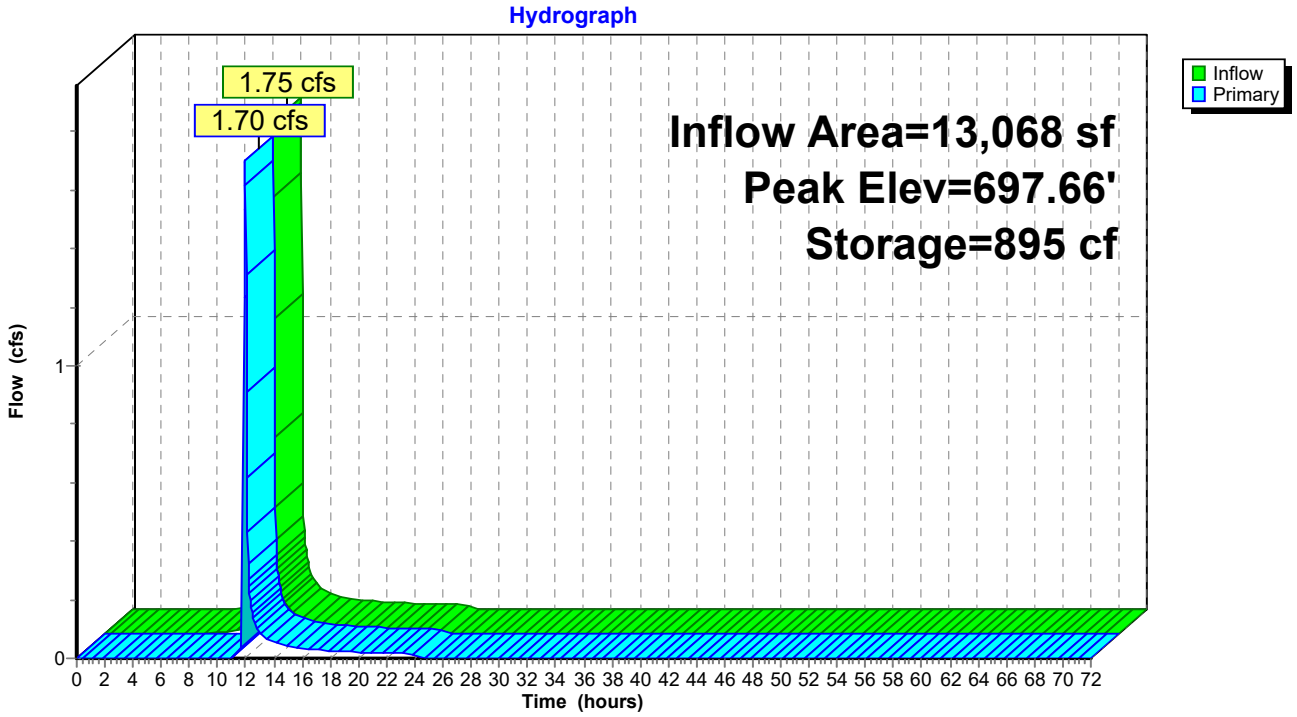
Volume	Invert	Avail.Storage	Storage Description
#1	694.00'	4,192 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
694.00	641	0.0	0	0
697.00	641	20.0	385	385
698.00	1,028	100.0	835	1,219
699.00	1,472	100.0	1,250	2,469
700.00	1,973	100.0	1,723	4,192

Device	Routing	Invert	Outlet Devices
#1	Primary	694.00'	**18.0" Round Culvert** L= 32.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.00' / 691.74' S= 0.0706 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	697.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**54.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=1.68 cfs @ 11.98 hrs HW=697.66' (Free Discharge)
- **1=Culvert** (Passes 1.68 cfs of 14.52 cfs potential flow)
  - **2=Orifice/Grate** (Weir Controls 1.68 cfs @ 1.32 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 9P: FocalPoint 9

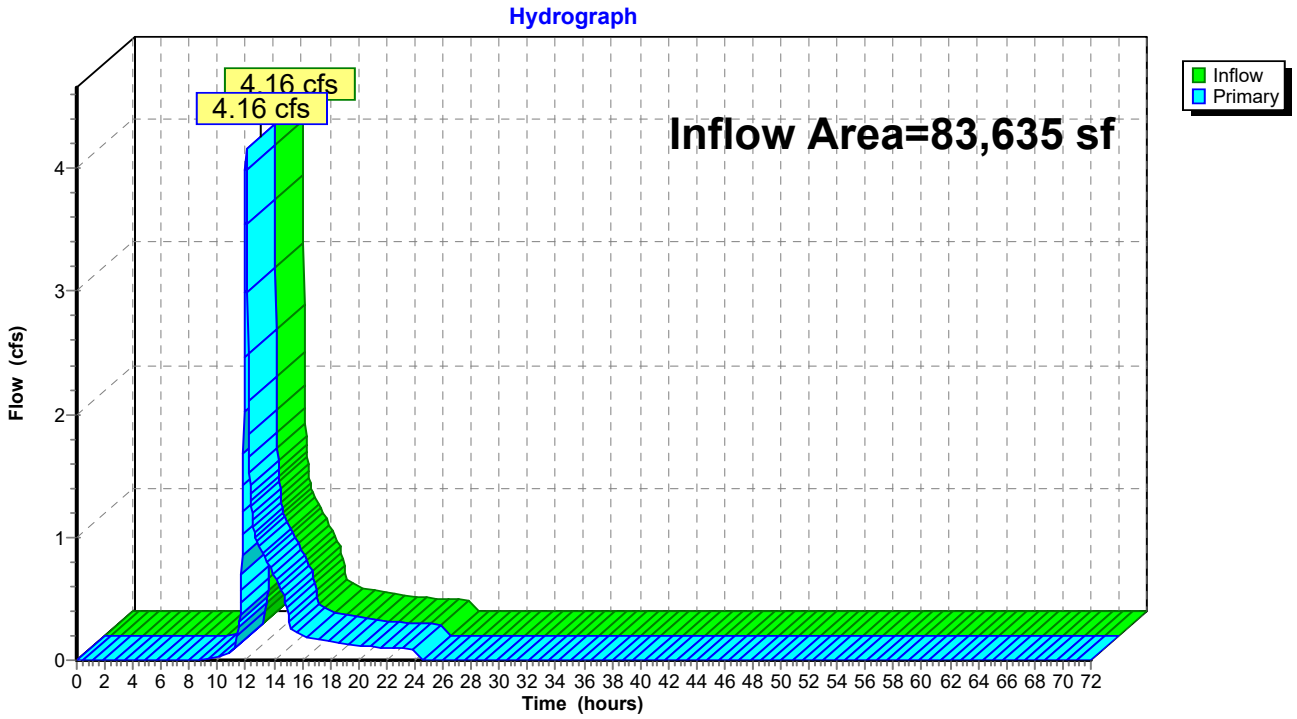


Summary for Link 2L: Outfall #1

Inflow Area = 83,635 sf, 51.04% Impervious, Inflow Depth = 2.60" for 10-year event
Inflow = 4.16 cfs @ 12.03 hrs, Volume= 18,117 cf
Primary = 4.16 cfs @ 12.03 hrs, Volume= 18,117 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs

Link 2L: Outfall #1



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment7S: Area 7 Runoff Area=0.450 ac 62.22% Impervious Runoff Depth=4.59"
Tc=5.0 min CN=85 Runoff=3.59 cfs 7,492 cf

Subcatchment8S: Area 8 Runoff Area=0.200 ac 55.00% Impervious Runoff Depth=3.64"
Tc=5.0 min CN=76 Runoff=1.32 cfs 2,643 cf

Subcatchment9S: Area 9 Runoff Area=0.300 ac 63.33% Impervious Runoff Depth=4.05"
Tc=5.0 min CN=80 Runoff=2.18 cfs 4,414 cf

Subcatchment11S: North Bypass 1 Runoff Area=0.880 ac 45.45% Impervious Runoff Depth=3.44"
Flow Length=730' Tc=10.9 min CN=74 Runoff=4.49 cfs 10,985 cf

Subcatchment12S: North Bypass 2 Runoff Area=0.090 ac 0.00% Impervious Runoff Depth=1.22"
Tc=5.0 min CN=49 Runoff=0.18 cfs 397 cf

Pond 3P: (new Pond) Peak Elev=694.10' Storage=4,610 cf Inflow=6.42 cfs 12,609 cf
Outflow=0.77 cfs 12,609 cf

Pond 7P: FocalPoint 7 Peak Elev=700.76' Storage=938 cf Inflow=3.59 cfs 7,492 cf
Outflow=3.49 cfs 6,852 cf

Pond 8P: FocalPoint 8 Peak Elev=698.61' Storage=1,063 cf Inflow=1.32 cfs 2,643 cf
Outflow=0.97 cfs 1,699 cf

Pond 9P: FocalPoint 9 Peak Elev=697.69' Storage=918 cf Inflow=2.18 cfs 4,414 cf
Outflow=2.13 cfs 3,660 cf

Link 2L: Outfall #1 Inflow=5.21 cfs 23,594 cf
Primary=5.21 cfs 23,594 cf

Total Runoff Area = 83,635 sf Runoff Volume = 25,930 cf Average Runoff Depth = 3.72"
48.96% Pervious = 40,946 sf 51.04% Impervious = 42,689 sf

Summary for Subcatchment 7S: Area 7

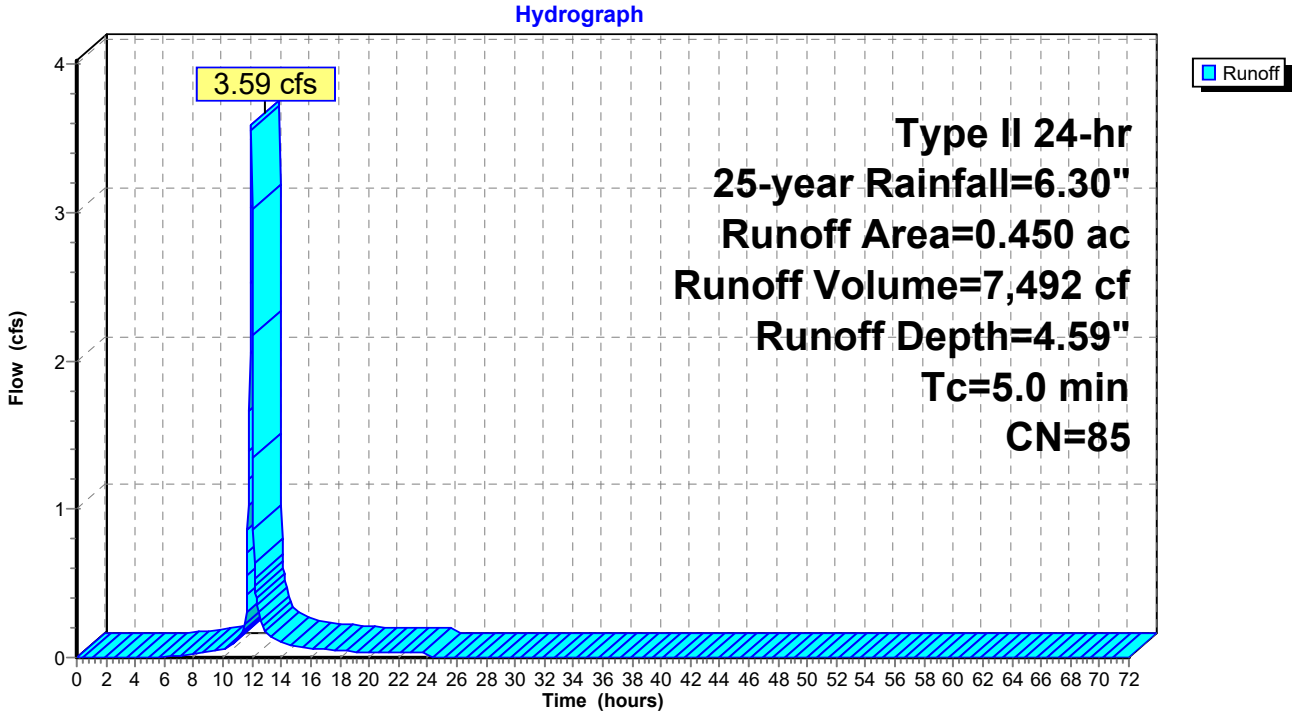
Runoff = 3.59 cfs @ 11.96 hrs, Volume= 7,492 cf, Depth= 4.59"
Routed to Pond 7P : FocalPoint 7

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 25-year Rainfall=6.30"

Area (ac)	CN	Description
0.040	49	50-75% Grass cover, Fair, HSG A
0.130	69	50-75% Grass cover, Fair, HSG B
0.280	98	Paved parking, HSG A
0.450	85	Weighted Average
0.170		37.78% Pervious Area
0.280		62.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 7S: Area 7



Summary for Subcatchment 8S: Area 8

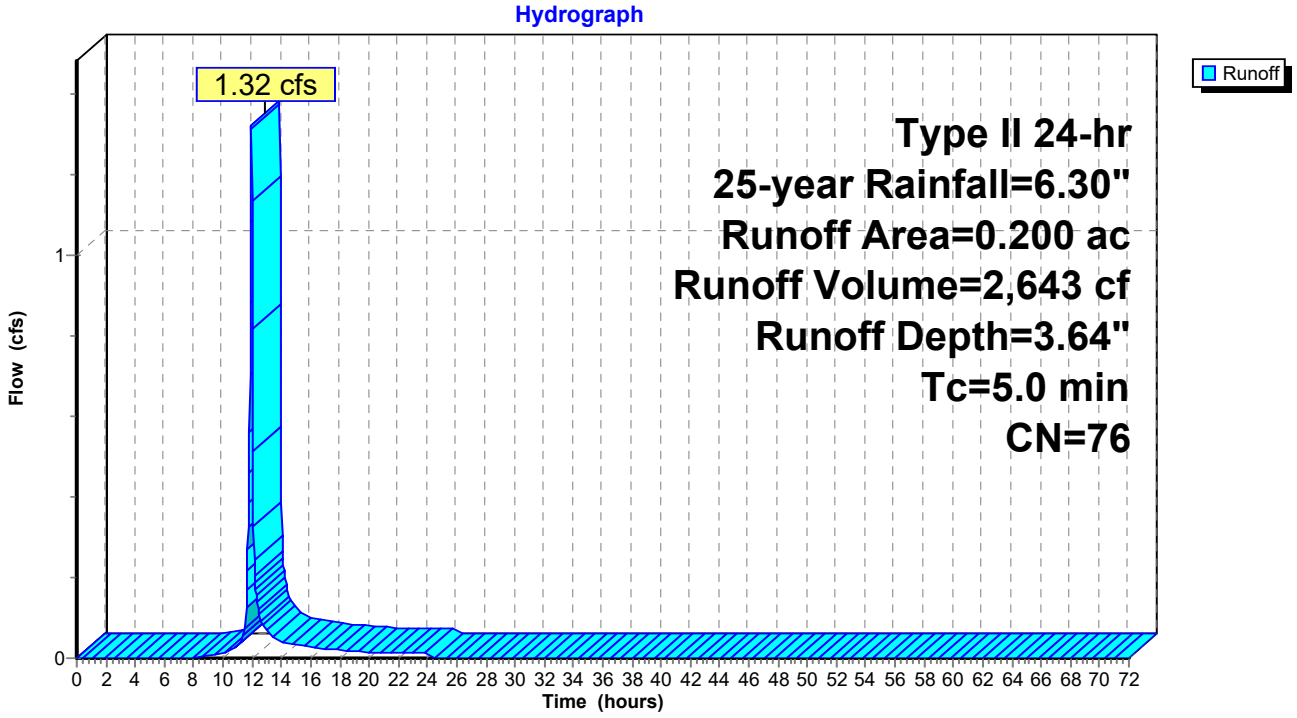
Runoff = 1.32 cfs @ 11.96 hrs, Volume= 2,643 cf, Depth= 3.64"
Routed to Pond 8P : FocalPoint 8

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 25-year Rainfall=6.30"

Area (ac)	CN	Description
0.090	49	50-75% Grass cover, Fair, HSG A
0.110	98	Paved parking, HSG A
0.200	76	Weighted Average
0.090		45.00% Pervious Area
0.110		55.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 8S: Area 8



Summary for Subcatchment 9S: Area 9

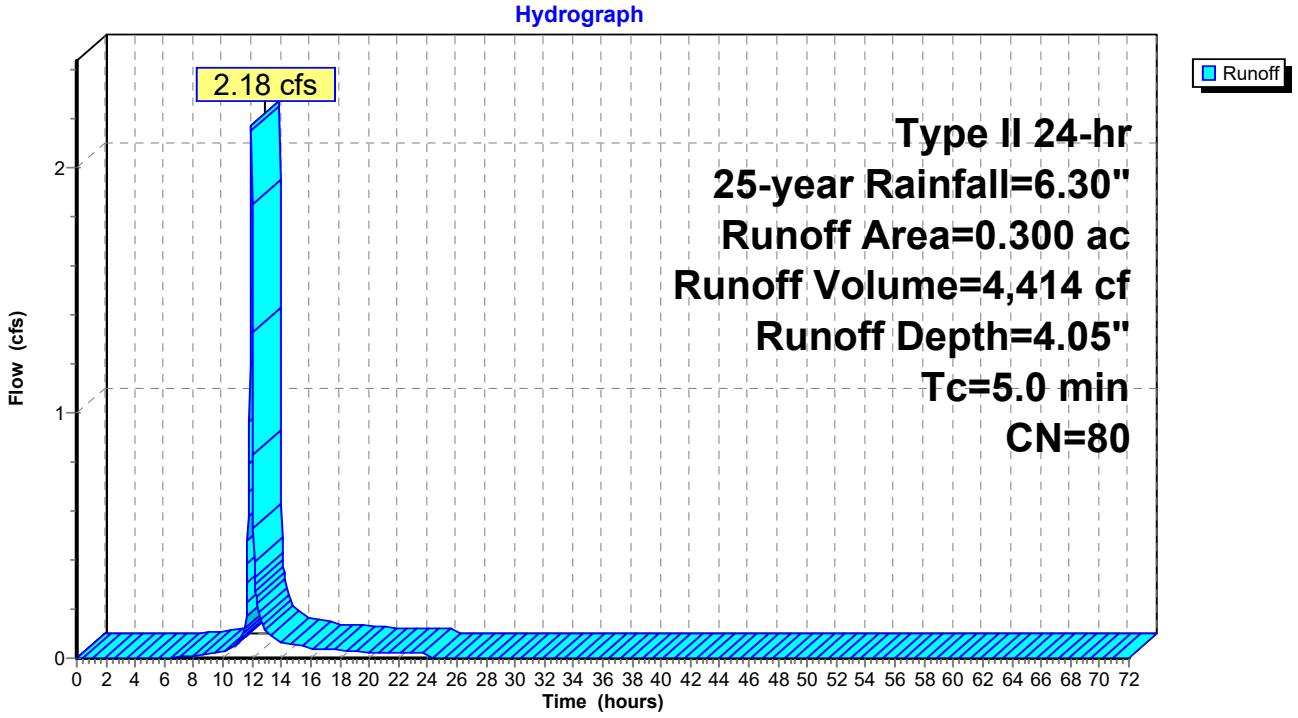
Runoff = 2.18 cfs @ 11.96 hrs, Volume= 4,414 cf, Depth= 4.05"
Routed to Pond 9P : FocalPoint 9

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 25-year Rainfall=6.30"

Area (ac)	CN	Description
0.110	49	50-75% Grass cover, Fair, HSG A
0.190	98	Paved parking, HSG A
0.300	80	Weighted Average
0.110		36.67% Pervious Area
0.190		63.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 9S: Area 9



Summary for Subcatchment 11S: North Bypass 1

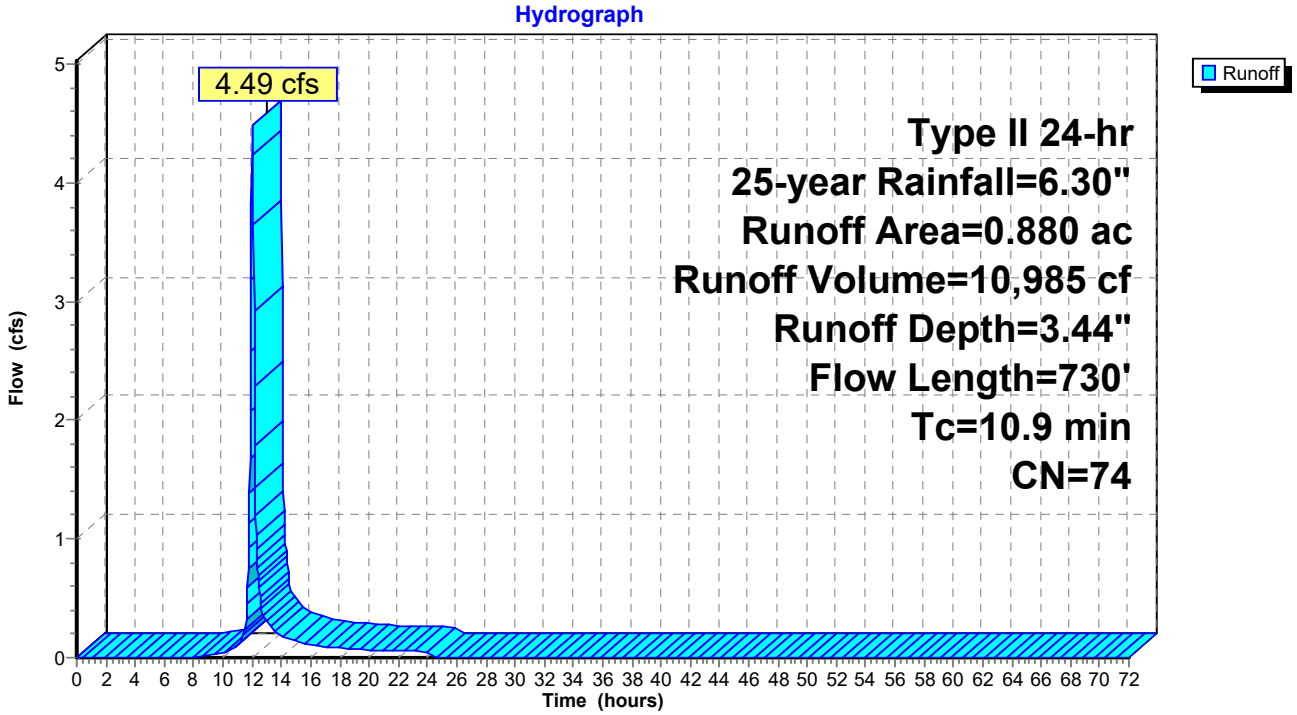
Runoff = 4.49 cfs @ 12.03 hrs, Volume= 10,985 cf, Depth= 3.44"
Routed to Link 2L : Outfall #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 25-year Rainfall=6.30"

Area (ac)	CN	Description
0.360	49	50-75% Grass cover, Fair, HSG A
0.120	69	50-75% Grass cover, Fair, HSG B
0.400	98	Paved parking, HSG A
0.880	74	Weighted Average
0.480		54.55% Pervious Area
0.400		45.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	40	0.0200	0.15		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
6.3	690	0.0080	1.82		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
10.9	730	Total			

Subcatchment 11S: North Bypass 1



Summary for Subcatchment 12S: North Bypass 2

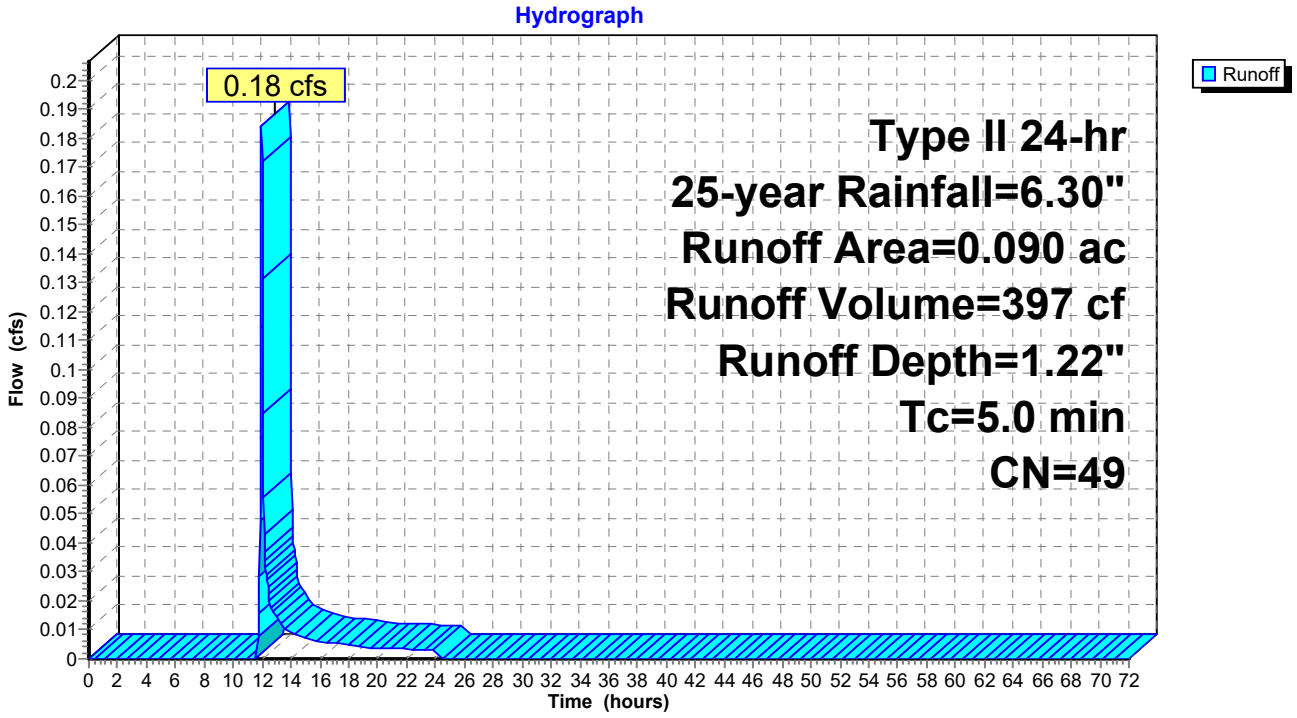
Runoff = 0.18 cfs @ 11.98 hrs, Volume= 397 cf, Depth= 1.22"
Routed to Pond 3P : (new Pond)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 25-year Rainfall=6.30"

Area (ac)	CN	Description
0.090	49	50-75% Grass cover, Fair, HSG A
0.090		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 12S: North Bypass 2



Summary for Pond 3P: (new Pond)

[79] Warning: Submerged Pond 8P Primary device # 1 OUTLET by 1.05'
[79] Warning: Submerged Pond 9P Primary device # 1 INLET by 0.10'

Inflow Area = 45,302 sf, 55.77% Impervious, Inflow Depth = 3.34" for 25-year event
Inflow = 6.42 cfs @ 11.99 hrs, Volume= 12,609 cf
Outflow = 0.77 cfs @ 12.36 hrs, Volume= 12,609 cf, Atten= 88%, Lag= 22.3 min
Primary = 0.77 cfs @ 12.36 hrs, Volume= 12,609 cf
Routed to Link 2L : Outfall #1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 694.10' @ 12.36 hrs Surf.Area= 2,615 sf Storage= 4,610 cf

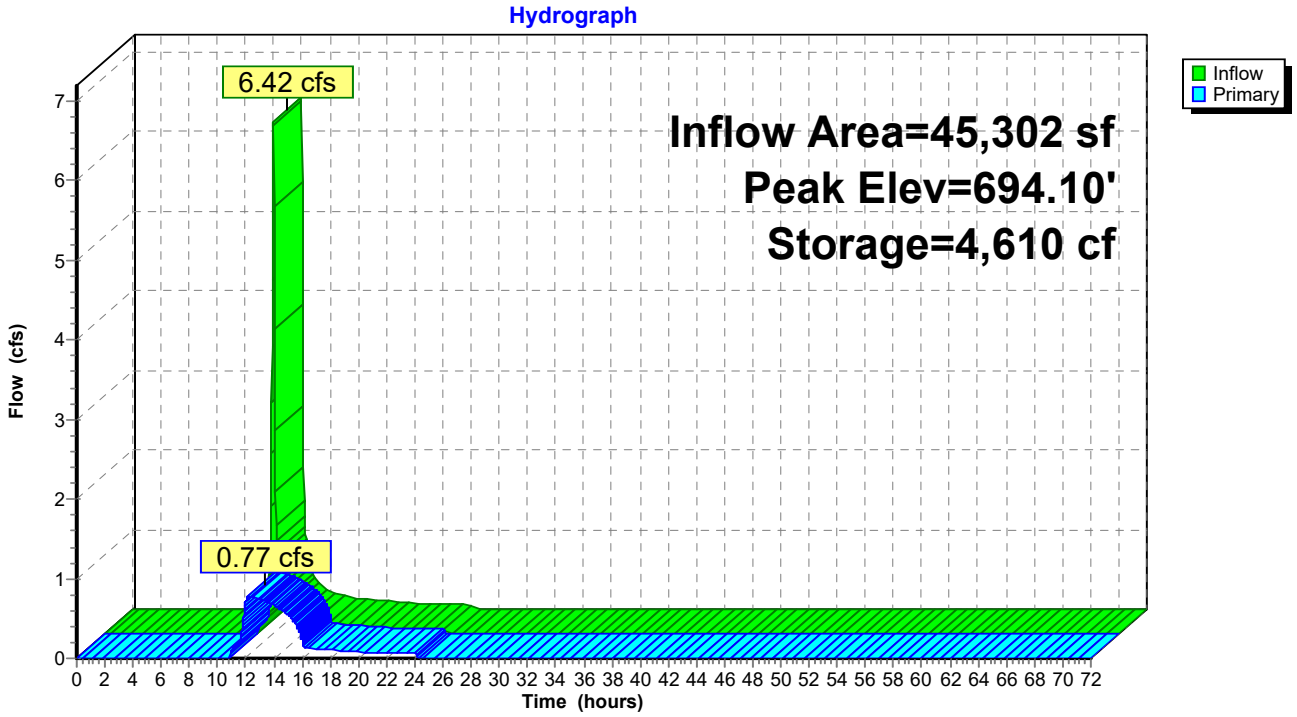
Plug-Flow detention time= 48.3 min calculated for 12,604 cf (100% of inflow)
Center-of-Mass det. time= 48.3 min (886.0 - 837.7)

Volume	Invert	Avail.Storage	Storage Description
#1	690.54'	10,996 cf	**60.0" Round CMP_Round 60"** L= 560.0' S= 0.0050 '/'

Device	Routing	Invert	Outlet Devices
#1	Primary	690.54'	**18.0" Round RCP_Round 18"** L= 20.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 690.54' / 690.44' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	690.54'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	695.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.77 cfs @ 12.36 hrs HW=694.10' (Free Discharge)
└**1=RCP_Round 18"** (Passes 0.77 cfs of 14.27 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 0.77 cfs @ 8.87 fps)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 3P: (new Pond)



Summary for Pond 7P: FocalPoint 7

[92] Warning: Device #3 is above defined storage

Inflow Area = 19,602 sf, 62.22% Impervious, Inflow Depth = 4.59" for 25-year event
Inflow = 3.59 cfs @ 11.96 hrs, Volume= 7,492 cf
Outflow = 3.49 cfs @ 11.97 hrs, Volume= 6,852 cf, Atten= 3%, Lag= 0.9 min
Primary = 3.49 cfs @ 11.97 hrs, Volume= 6,852 cf
Routed to Pond 3P : (new Pond)

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 700.76' @ 11.97 hrs Surf.Area= 1,271 sf Storage= 938 cf

Plug-Flow detention time= 69.6 min calculated for 6,849 cf (91% of inflow)
Center-of-Mass det. time= 24.5 min (819.3 - 794.8)

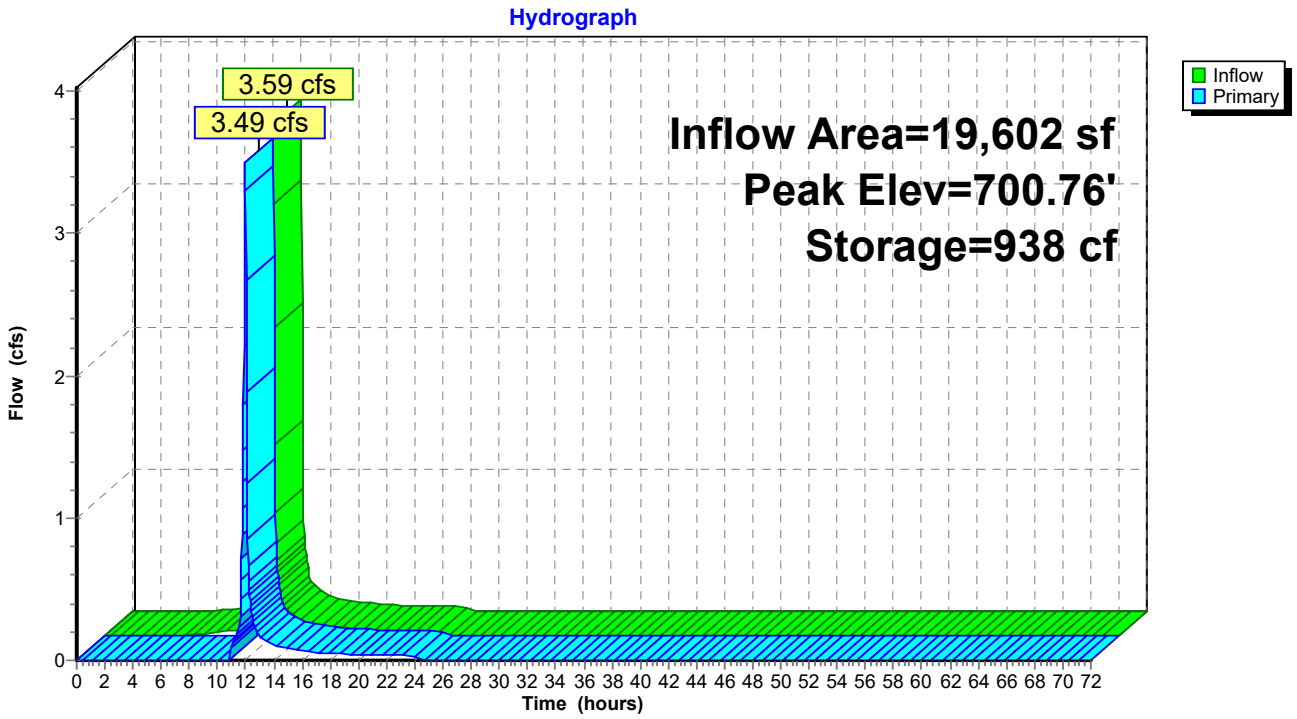
Volume	Invert	Avail.Storage	Storage Description
#1	697.00'	3,154 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
697.00	461	0.0	0	0
700.00	461	20.0	277	277
701.00	1,521	100.0	991	1,268
702.00	2,252	100.0	1,887	3,154

Device	Routing	Invert	Outlet Devices
#1	Primary	697.00'	**18.0" Round Culvert** L= 16.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 697.00' / 696.20' S= 0.0500 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	700.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	702.00'	**65.0' long x 11.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.53 2.59 2.70 2.68 2.67 2.68 2.66 2.64

Primary OutFlow Max=3.46 cfs @ 11.97 hrs HW=700.76' (Free Discharge)
- **1=Culvert** (Passes 3.46 cfs of 14.77 cfs potential flow)
  - **2=Orifice/Grate** (Weir Controls 3.46 cfs @ 1.68 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 7P: FocalPoint 7



Summary for Pond 8P: FocalPoint 8

[92] Warning: Device #3 is above defined storage

Inflow Area = 8,712 sf, 55.00% Impervious, Inflow Depth = 3.64" for 25-year event
Inflow = 1.32 cfs @ 11.96 hrs, Volume= 2,643 cf
Outflow = 0.97 cfs @ 12.02 hrs, Volume= 1,699 cf, Atten= 27%, Lag= 3.6 min
Primary = 0.97 cfs @ 12.02 hrs, Volume= 1,699 cf
Routed to Pond 3P : (new Pond)

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 698.61' @ 12.02 hrs Surf.Area= 1,098 sf Storage= 1,063 cf

Plug-Flow detention time= 180.1 min calculated for 1,699 cf (64% of inflow)
Center-of-Mass det. time= 72.2 min (890.0 - 817.9)

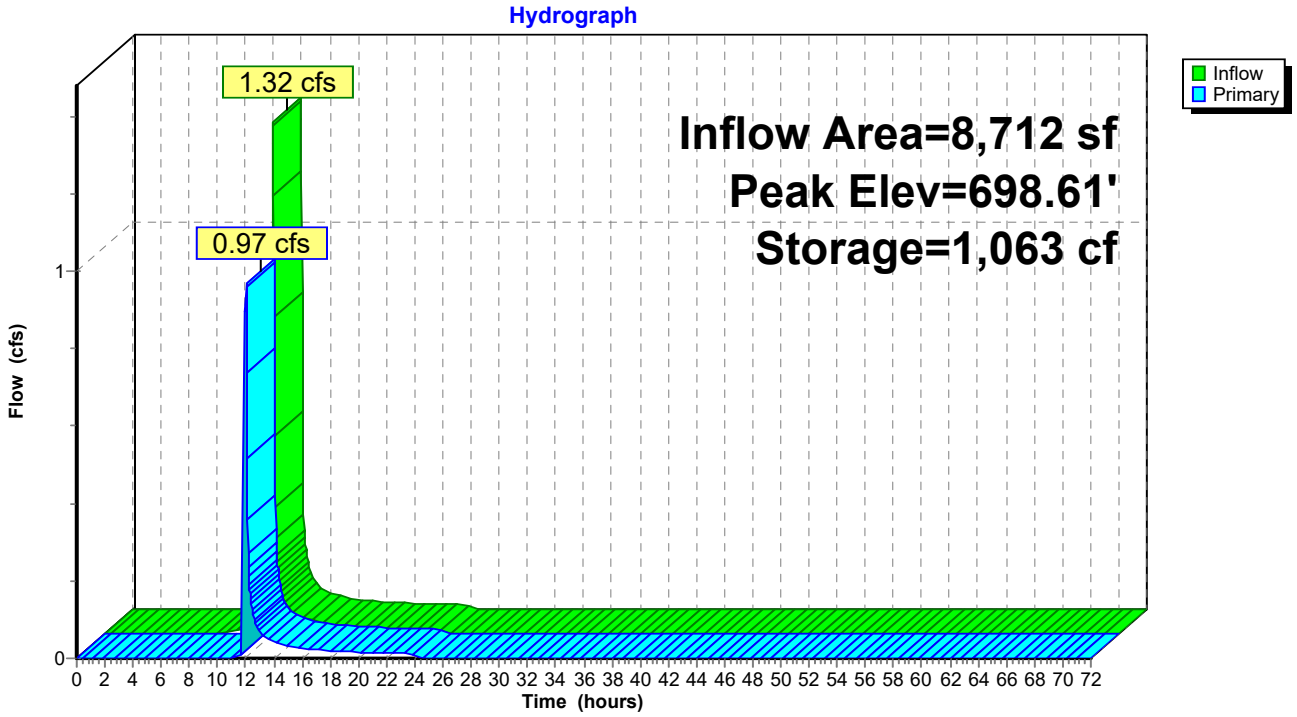
Volume	Invert	Avail.Storage	Storage Description
#1	695.00'	3,154 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
695.00	803	0.0	0	0
698.00	803	20.0	482	482
699.00	1,285	100.0	1,044	1,526
700.00	1,971	100.0	1,628	3,154

Device	Routing	Invert	Outlet Devices
#1	Primary	695.00'	**18.0" Round Culvert** L= 26.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 695.00' / 693.05' S= 0.0750 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	698.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**57.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=0.93 cfs @ 12.02 hrs HW=698.61' (Free Discharge)
- **1=Culvert** (Passes 0.93 cfs of 14.39 cfs potential flow)
  - **2=Orifice/Grate** (Weir Controls 0.93 cfs @ 1.08 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 8P: FocalPoint 8



Summary for Pond 9P: FocalPoint 9

[92] Warning: Device #3 is above defined storage

Inflow Area = 13,068 sf, 63.33% Impervious, Inflow Depth = 4.05" for 25-year event
Inflow = 2.18 cfs @ 11.96 hrs, Volume= 4,414 cf
Outflow = 2.13 cfs @ 11.97 hrs, Volume= 3,660 cf, Atten= 2%, Lag= 0.8 min
Primary = 2.13 cfs @ 11.97 hrs, Volume= 3,660 cf
Routed to Pond 3P : (new Pond)

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 697.69' @ 11.97 hrs Surf.Area= 908 sf Storage= 918 cf

Plug-Flow detention time= 108.6 min calculated for 3,660 cf (83% of inflow)
Center-of-Mass det. time= 34.2 min (842.4 - 808.2)

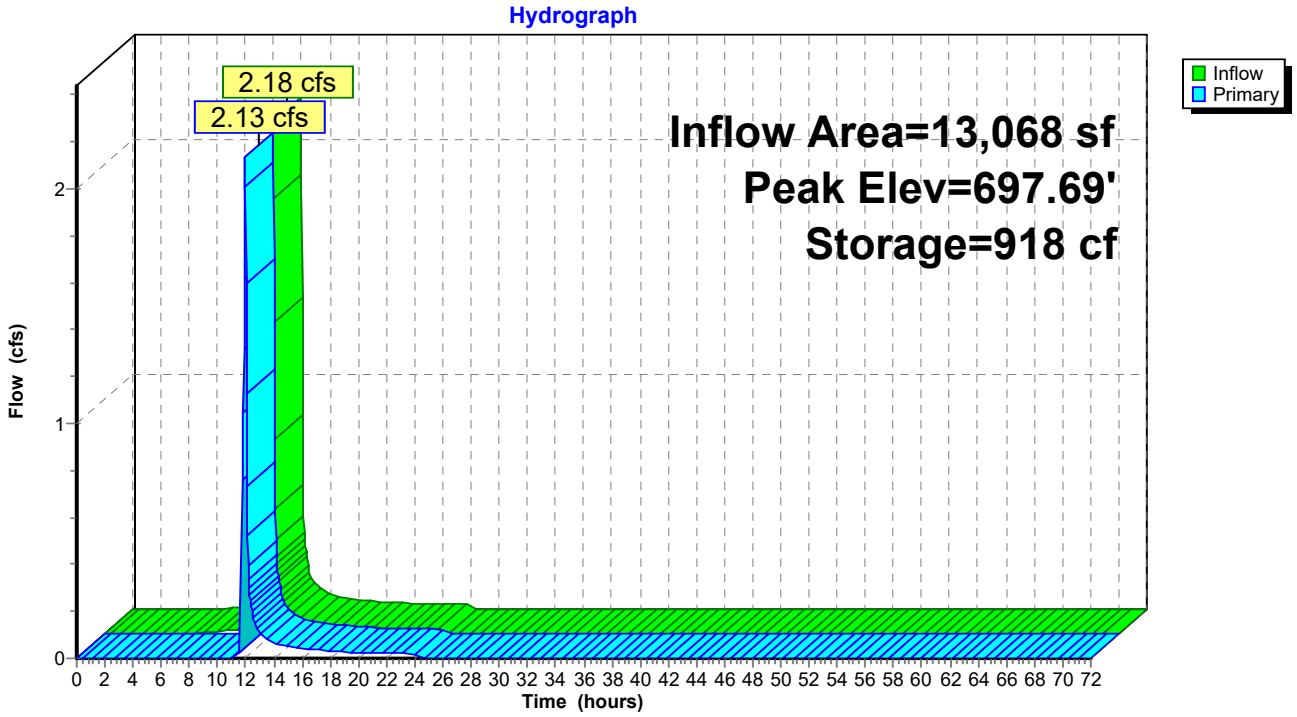
Volume	Invert	Avail.Storage	Storage Description
#1	694.00'	4,192 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
694.00	641	0.0	0	0
697.00	641	20.0	385	385
698.00	1,028	100.0	835	1,219
699.00	1,472	100.0	1,250	2,469
700.00	1,973	100.0	1,723	4,192

Device	Routing	Invert	Outlet Devices
#1	Primary	694.00'	**18.0" Round Culvert** L= 32.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.00' / 691.74' S= 0.0706 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	697.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**54.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=2.10 cfs @ 11.97 hrs HW=697.69' (Free Discharge)
- **1=Culvert** (Passes 2.10 cfs of 14.58 cfs potential flow)
  - **2=Orifice/Grate** (Weir Controls 2.10 cfs @ 1.42 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 9P: FocalPoint 9

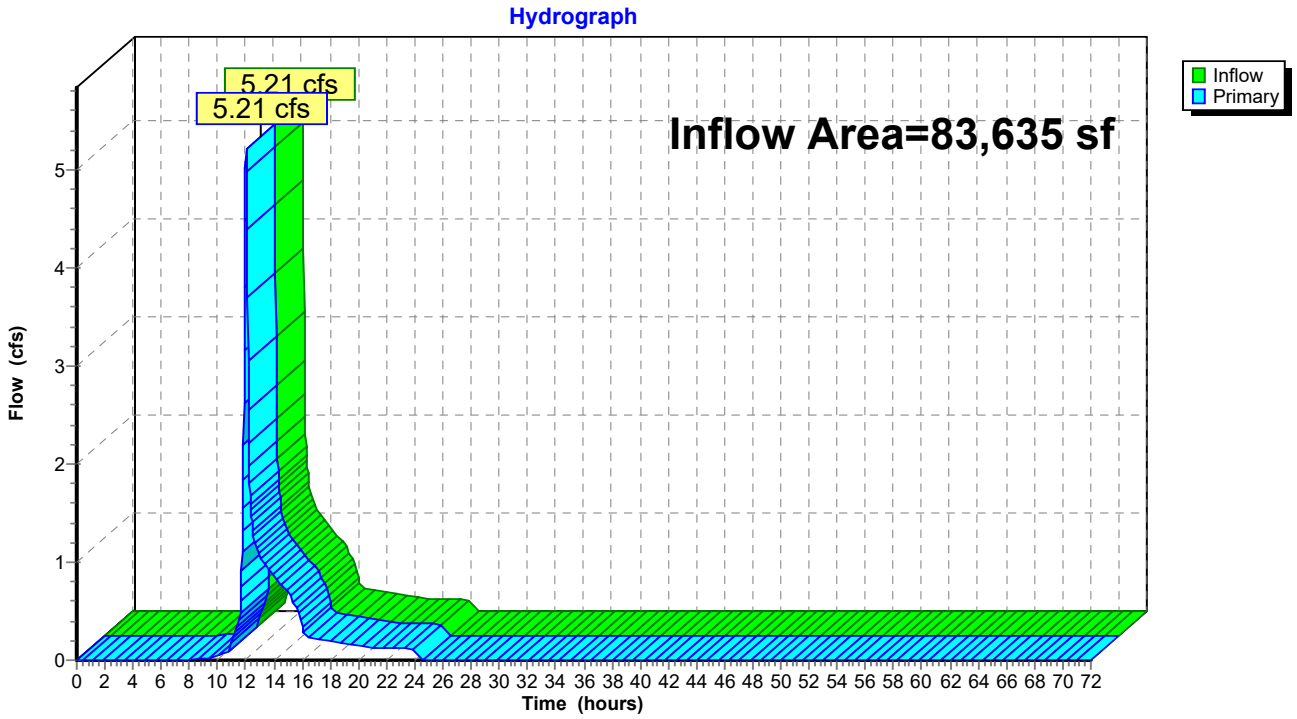


Summary for Link 2L: Outfall #1

Inflow Area = 83,635 sf, 51.04% Impervious, Inflow Depth = 3.39" for 25-year event
Inflow = 5.21 cfs @ 12.03 hrs, Volume= 23,594 cf
Primary = 5.21 cfs @ 12.03 hrs, Volume= 23,594 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs

Link 2L: Outfall #1



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment7S: Area 7 Runoff Area=0.450 ac 62.22% Impervious Runoff Depth=5.27"
Tc=5.0 min CN=85 Runoff=4.09 cfs 8,611 cf

Subcatchment8S: Area 8 Runoff Area=0.200 ac 55.00% Impervious Runoff Depth=4.28"
Tc=5.0 min CN=76 Runoff=1.54 cfs 3,104 cf

Subcatchment9S: Area 9 Runoff Area=0.300 ac 63.33% Impervious Runoff Depth=4.71"
Tc=5.0 min CN=80 Runoff=2.51 cfs 5,132 cf

Subcatchment11S: North Bypass 1 Runoff Area=0.880 ac 45.45% Impervious Runoff Depth=4.06"
Flow Length=730' Tc=10.9 min CN=74 Runoff=5.29 cfs 12,968 cf

Subcatchment12S: North Bypass 2 Runoff Area=0.090 ac 0.00% Impervious Runoff Depth=1.59"
Tc=5.0 min CN=49 Runoff=0.25 cfs 519 cf

Pond 3P: (new Pond) Peak Elev=694.58' Storage=5,867 cf Inflow=8.04 cfs 15,030 cf
Outflow=0.83 cfs 15,030 cf

Pond 7P: FocalPoint 7 Peak Elev=700.79' Storage=969 cf Inflow=4.09 cfs 8,611 cf
Outflow=3.98 cfs 7,972 cf

Pond 8P: FocalPoint 8 Peak Elev=698.64' Storage=1,098 cf Inflow=1.54 cfs 3,104 cf
Outflow=1.40 cfs 2,160 cf

Pond 9P: FocalPoint 9 Peak Elev=697.71' Storage=936 cf Inflow=2.51 cfs 5,132 cf
Outflow=2.46 cfs 4,379 cf

Link 2L: Outfall #1 Inflow=6.06 cfs 27,998 cf
Primary=6.06 cfs 27,998 cf

Total Runoff Area = 83,635 sf Runoff Volume = 30,334 cf Average Runoff Depth = 4.35"
48.96% Pervious = 40,946 sf 51.04% Impervious = 42,689 sf

Summary for Subcatchment 7S: Area 7

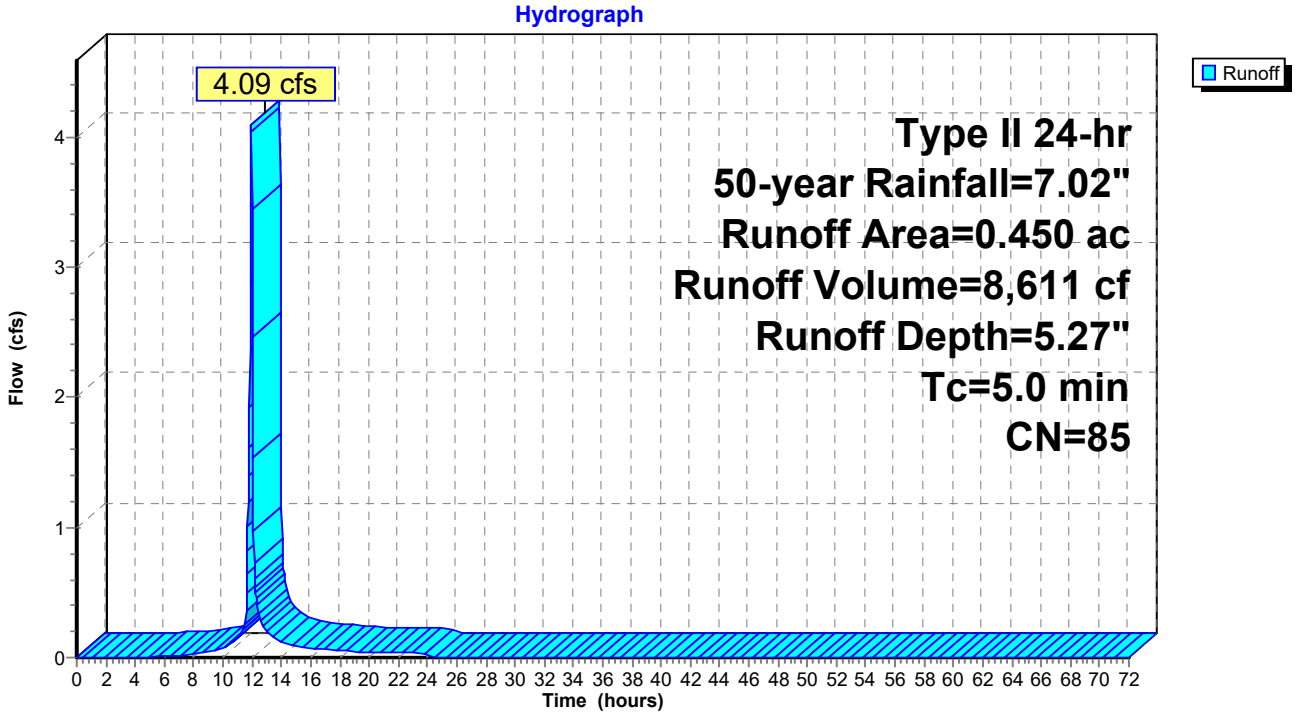
Runoff = 4.09 cfs @ 11.96 hrs, Volume= 8,611 cf, Depth= 5.27"
Routed to Pond 7P : FocalPoint 7

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 50-year Rainfall=7.02"

Area (ac)	CN	Description
0.040	49	50-75% Grass cover, Fair, HSG A
0.130	69	50-75% Grass cover, Fair, HSG B
0.280	98	Paved parking, HSG A
0.450	85	Weighted Average
0.170		37.78% Pervious Area
0.280		62.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 7S: Area 7



Summary for Subcatchment 8S: Area 8

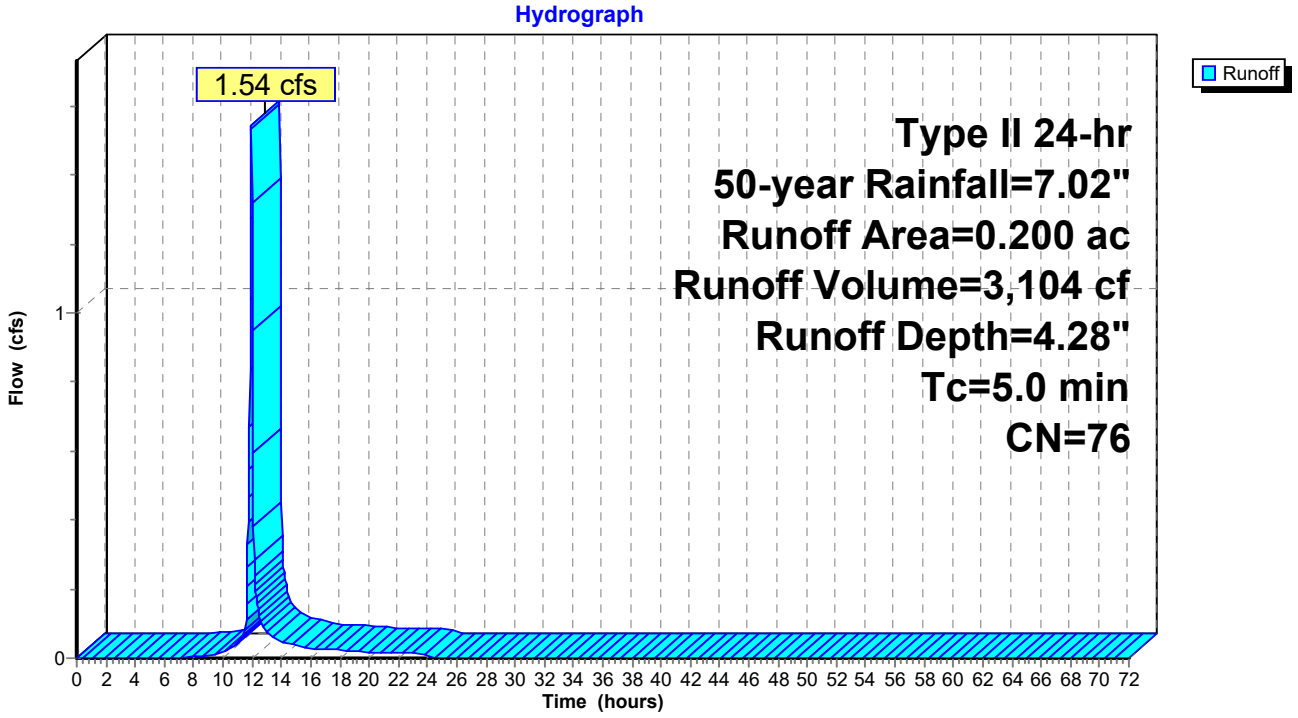
Runoff = 1.54 cfs @ 11.96 hrs, Volume= 3,104 cf, Depth= 4.28"
Routed to Pond 8P : FocalPoint 8

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 50-year Rainfall=7.02"

Area (ac)	CN	Description
0.090	49	50-75% Grass cover, Fair, HSG A
0.110	98	Paved parking, HSG A
0.200	76	Weighted Average
0.090		45.00% Pervious Area
0.110		55.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 8S: Area 8



Summary for Subcatchment 9S: Area 9

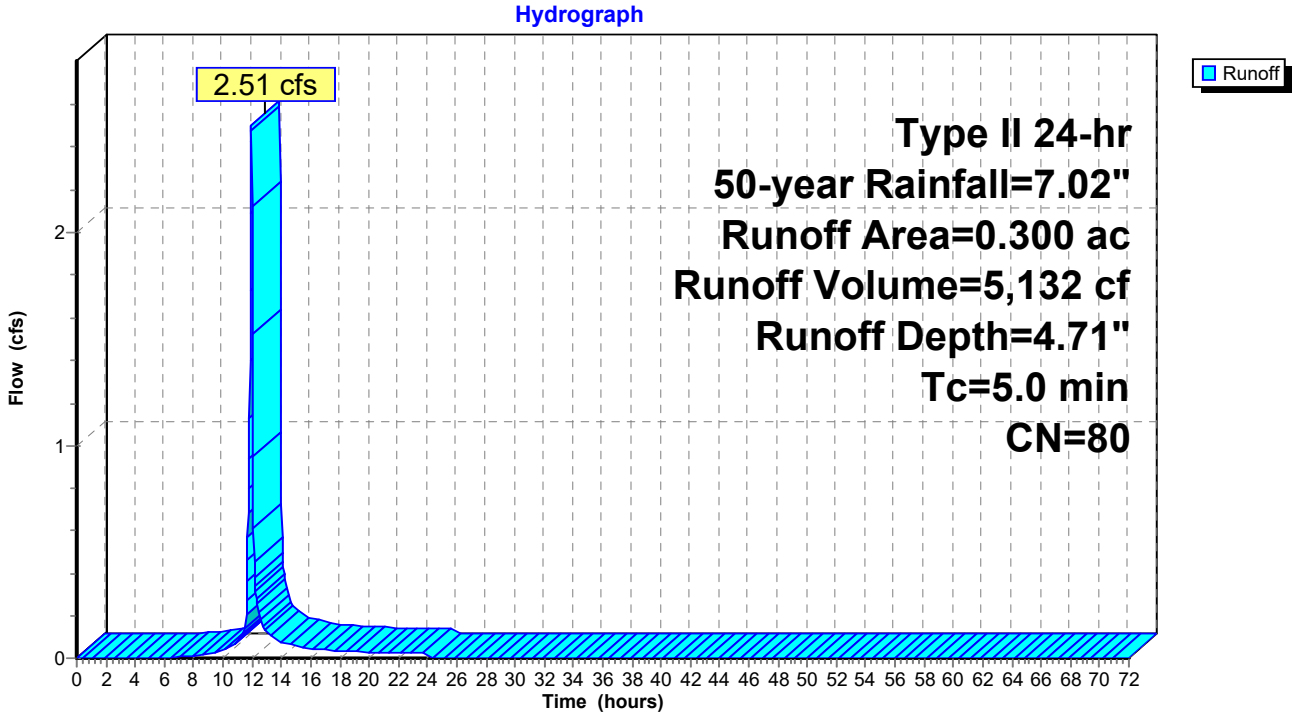
Runoff = 2.51 cfs @ 11.96 hrs, Volume= 5,132 cf, Depth= 4.71"
Routed to Pond 9P : FocalPoint 9

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 50-year Rainfall=7.02"

Area (ac)	CN	Description
0.110	49	50-75% Grass cover, Fair, HSG A
0.190	98	Paved parking, HSG A
0.300	80	Weighted Average
0.110		36.67% Pervious Area
0.190		63.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 9S: Area 9



Summary for Subcatchment 11S: North Bypass 1

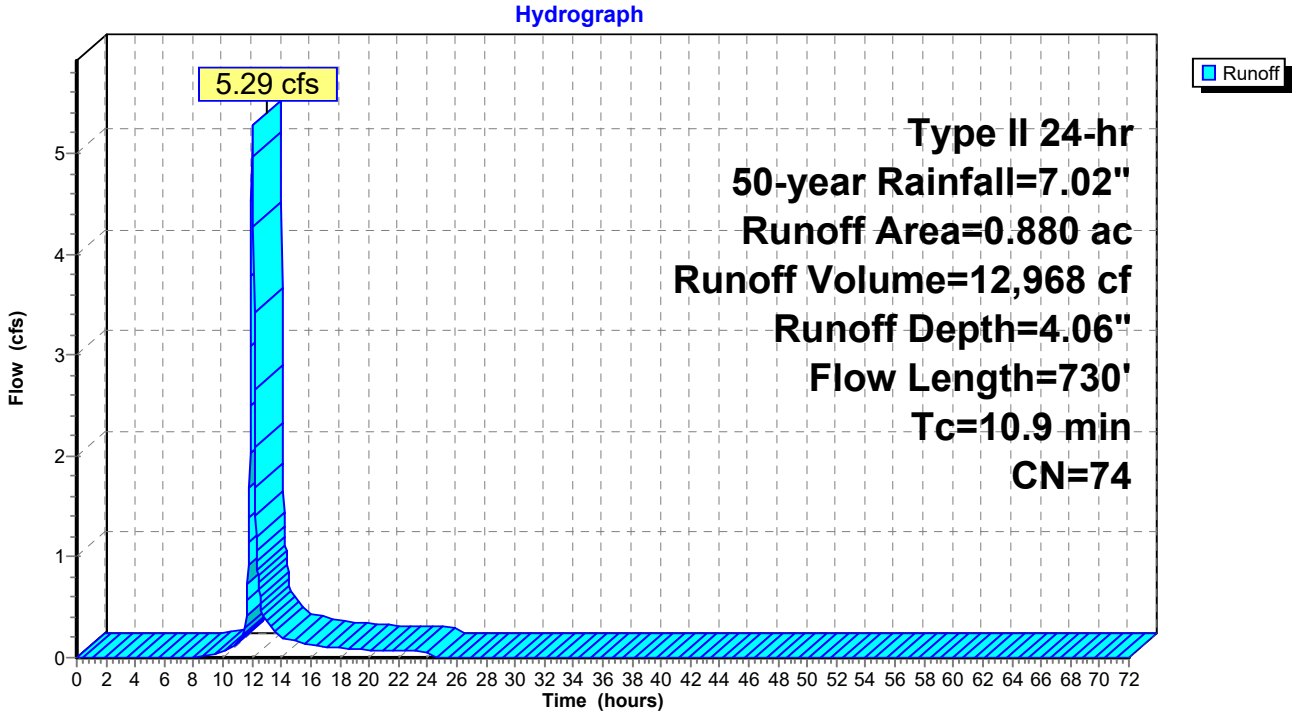
Runoff = 5.29 cfs @ 12.03 hrs, Volume= 12,968 cf, Depth= 4.06"
Routed to Link 2L : Outfall #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 50-year Rainfall=7.02"

Area (ac)	CN	Description
0.360	49	50-75% Grass cover, Fair, HSG A
0.120	69	50-75% Grass cover, Fair, HSG B
0.400	98	Paved parking, HSG A
0.880	74	Weighted Average
0.480		54.55% Pervious Area
0.400		45.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	40	0.0200	0.15		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
6.3	690	0.0080	1.82		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
10.9	730	Total			

Subcatchment 11S: North Bypass 1



Summary for Subcatchment 12S: North Bypass 2

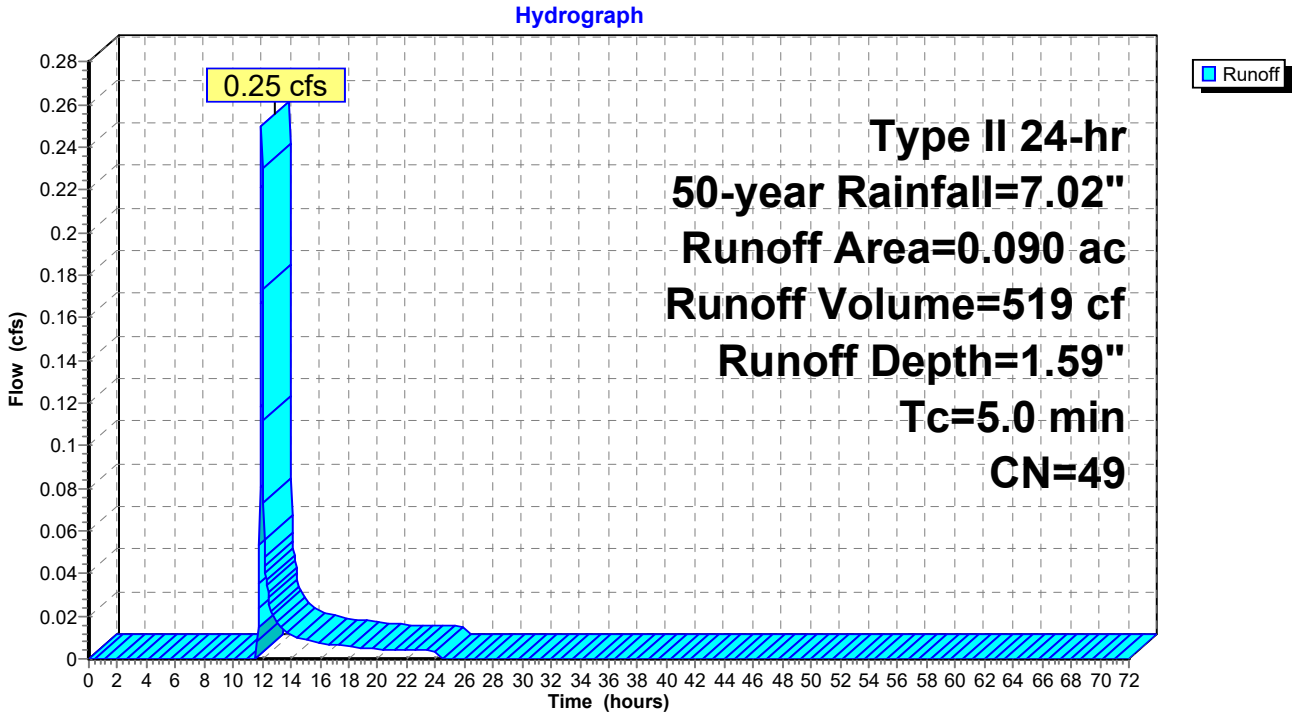
Runoff = 0.25 cfs @ 11.97 hrs, Volume= 519 cf, Depth= 1.59"
Routed to Pond 3P : (new Pond)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 50-year Rainfall=7.02"

Area (ac)	CN	Description
0.090	49	50-75% Grass cover, Fair, HSG A
0.090		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 12S: North Bypass 2



Summary for Pond 3P: (new Pond)

[79] Warning: Submerged Pond 8P Primary device # 1 OUTLET by 1.53'
[79] Warning: Submerged Pond 9P Primary device # 1 INLET by 0.58'

Inflow Area = 45,302 sf, 55.77% Impervious, Inflow Depth = 3.98" for 50-year event
Inflow = 8.04 cfs @ 11.98 hrs, Volume= 15,030 cf
Outflow = 0.83 cfs @ 12.41 hrs, Volume= 15,030 cf, Atten= 90%, Lag= 25.5 min
Primary = 0.83 cfs @ 12.41 hrs, Volume= 15,030 cf
Routed to Link 2L : Outfall #1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 694.58' @ 12.41 hrs Surf.Area= 2,641 sf Storage= 5,867 cf

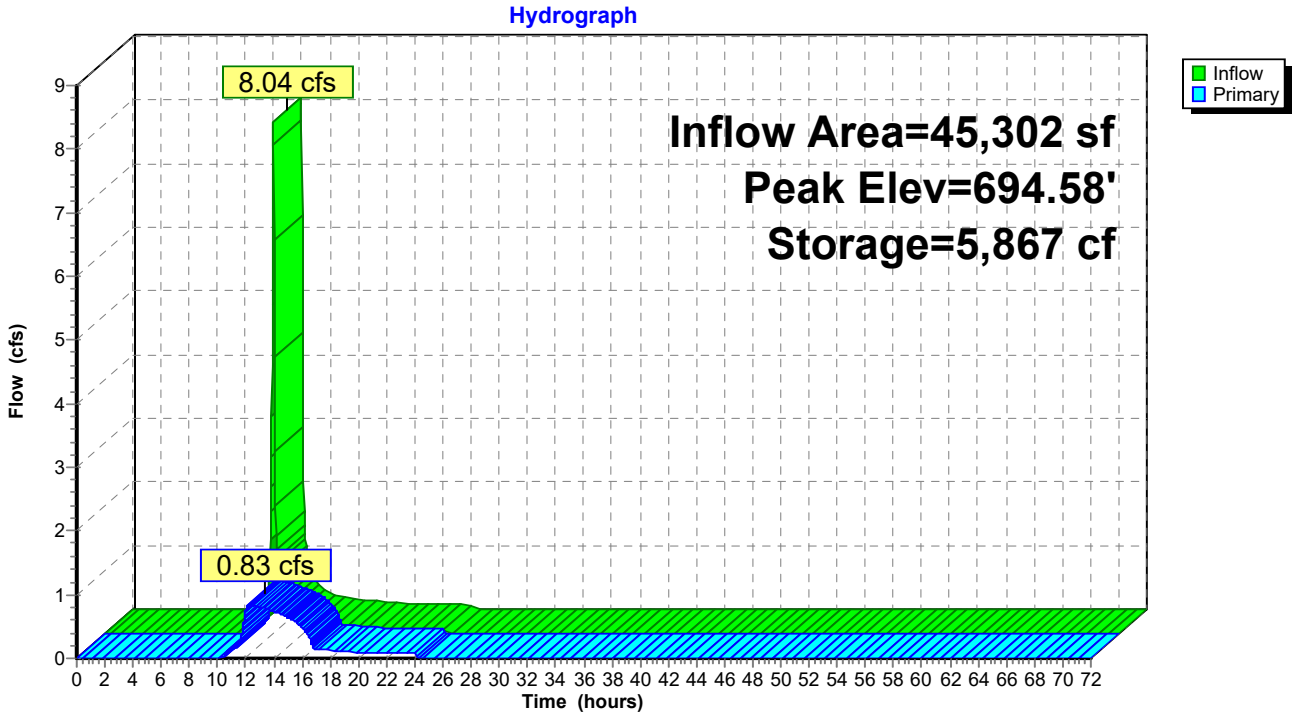
Plug-Flow detention time= 59.7 min calculated for 15,030 cf (100% of inflow)
Center-of-Mass det. time= 59.7 min (890.8 - 831.0)

Volume	Invert	Avail.Storage	Storage Description
#1	690.54'	10,996 cf	**60.0" Round CMP_Round 60"** L= 560.0' S= 0.0050 '/'

Device	Routing	Invert	Outlet Devices
#1	Primary	690.54'	**18.0" Round RCP_Round 18"** L= 20.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 690.54' / 690.44' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	690.54'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	695.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.83 cfs @ 12.41 hrs HW=694.58' (Free Discharge)
└**1=RCP_Round 18"** (Passes 0.83 cfs of 15.43 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.83 cfs @ 9.48 fps)
  └**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 3P: (new Pond)



Summary for Pond 7P: FocalPoint 7

[92] Warning: Device #3 is above defined storage

Inflow Area = 19,602 sf, 62.22% Impervious, Inflow Depth = 5.27" for 50-year event
Inflow = 4.09 cfs @ 11.96 hrs, Volume= 8,611 cf
Outflow = 3.98 cfs @ 11.97 hrs, Volume= 7,972 cf, Atten= 3%, Lag= 0.9 min
Primary = 3.98 cfs @ 11.97 hrs, Volume= 7,972 cf
Routed to Pond 3P : (new Pond)

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 700.79' @ 11.97 hrs Surf.Area= 1,297 sf Storage= 969 cf

Plug-Flow detention time= 63.9 min calculated for 7,972 cf (93% of inflow)
Center-of-Mass det. time= 23.4 min (814.3 - 790.9)

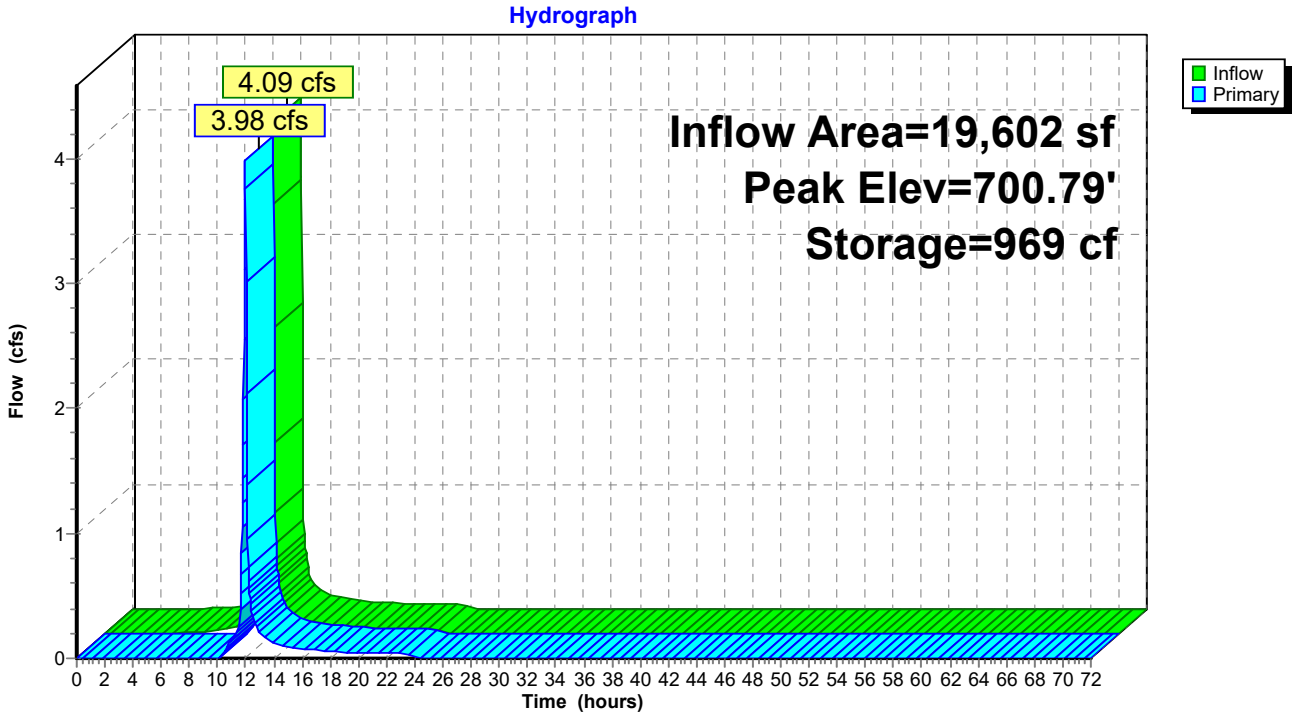
Volume	Invert	Avail.Storage	Storage Description
#1	697.00'	3,154 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
697.00	461	0.0	0	0
700.00	461	20.0	277	277
701.00	1,521	100.0	991	1,268
702.00	2,252	100.0	1,887	3,154

Device	Routing	Invert	Outlet Devices
#1	Primary	697.00'	**18.0" Round Culvert** L= 16.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 697.00' / 696.20' S= 0.0500 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	700.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	702.00'	**65.0' long x 11.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.53 2.59 2.70 2.68 2.67 2.68 2.66 2.64

Primary OutFlow Max=3.95 cfs @ 11.97 hrs HW=700.79' (Free Discharge)
- **1=Culvert** (Passes 3.95 cfs of 14.83 cfs potential flow)
  - **2=Orifice/Grate** (Weir Controls 3.95 cfs @ 1.75 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 7P: FocalPoint 7



Summary for Pond 8P: FocalPoint 8

[92] Warning: Device #3 is above defined storage

Inflow Area = 8,712 sf, 55.00% Impervious, Inflow Depth = 4.28" for 50-year event
Inflow = 1.54 cfs @ 11.96 hrs, Volume= 3,104 cf
Outflow = 1.40 cfs @ 12.00 hrs, Volume= 2,160 cf, Atten= 10%, Lag= 2.2 min
Primary = 1.40 cfs @ 12.00 hrs, Volume= 2,160 cf
Routed to Pond 3P : (new Pond)

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 698.64' @ 12.00 hrs Surf.Area= 1,113 sf Storage= 1,098 cf

Plug-Flow detention time= 160.0 min calculated for 2,160 cf (70% of inflow)
Center-of-Mass det. time= 59.2 min (872.5 - 813.3)

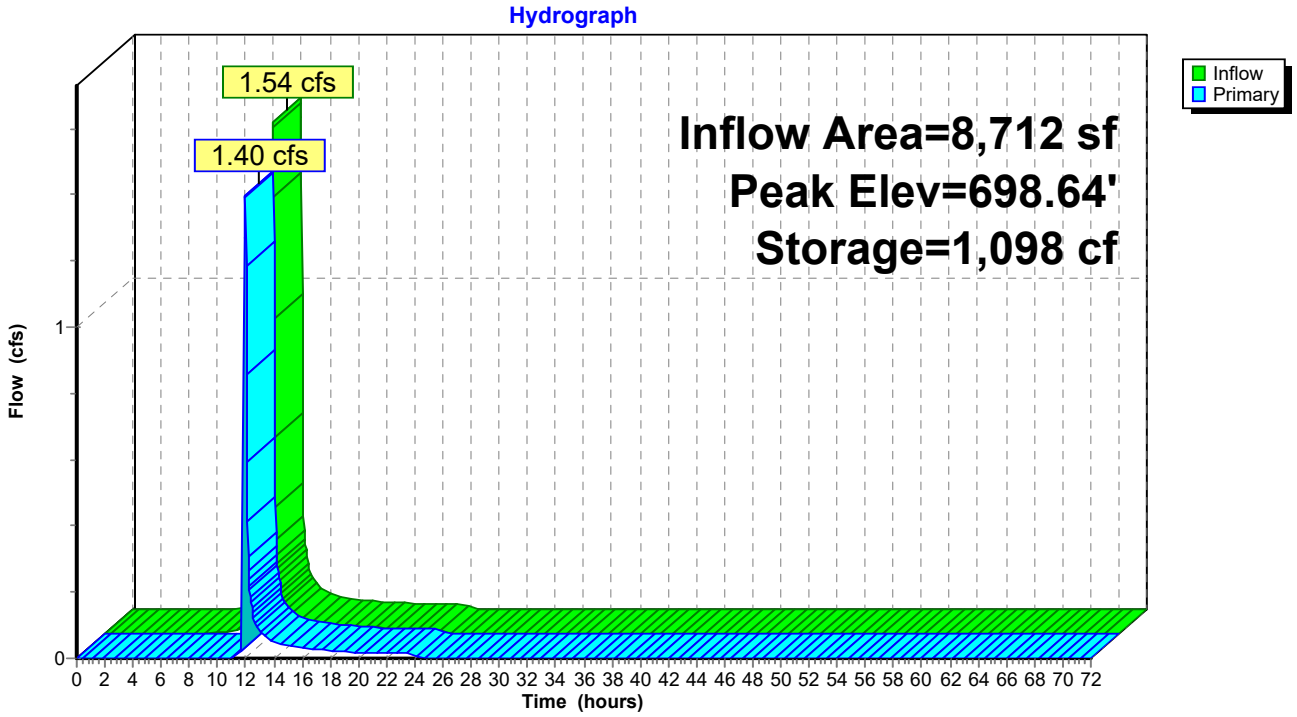
Volume	Invert	Avail.Storage	Storage Description
#1	695.00'	3,154 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
695.00	803	0.0	0	0
698.00	803	20.0	482	482
699.00	1,285	100.0	1,044	1,526
700.00	1,971	100.0	1,628	3,154

Device	Routing	Invert	Outlet Devices
#1	Primary	695.00'	**18.0" Round Culvert** L= 26.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 695.00' / 693.05' S= 0.0750 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	698.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**57.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=1.37 cfs @ 12.00 hrs HW=698.64' (Free Discharge)
└**1=Culvert** (Passes 1.37 cfs of 14.47 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 1.37 cfs @ 1.23 fps)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 8P: FocalPoint 8



Summary for Pond 9P: FocalPoint 9

[92] Warning: Device #3 is above defined storage

Inflow Area = 13,068 sf, 63.33% Impervious, Inflow Depth = 4.71" for 50-year event
Inflow = 2.51 cfs @ 11.96 hrs, Volume= 5,132 cf
Outflow = 2.46 cfs @ 11.97 hrs, Volume= 4,379 cf, Atten= 2%, Lag= 0.8 min
Primary = 2.46 cfs @ 11.97 hrs, Volume= 4,379 cf
Routed to Pond 3P : (new Pond)

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 697.71' @ 11.97 hrs Surf.Area= 915 sf Storage= 936 cf

Plug-Flow detention time= 98.6 min calculated for 4,377 cf (85% of inflow)
Center-of-Mass det. time= 31.4 min (835.3 - 803.9)

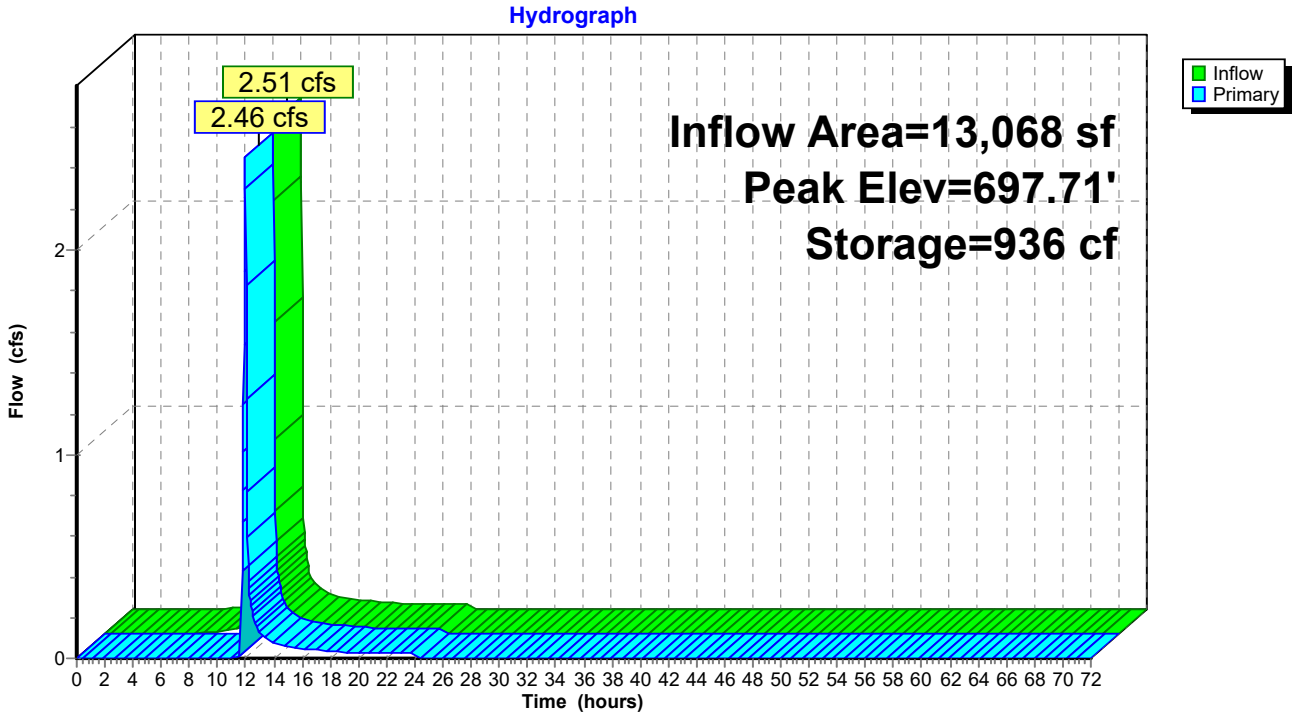
Volume	Invert	Avail.Storage	Storage Description
#1	694.00'	4,192 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
694.00	641	0.0	0	0
697.00	641	20.0	385	385
698.00	1,028	100.0	835	1,219
699.00	1,472	100.0	1,250	2,469
700.00	1,973	100.0	1,723	4,192

Device	Routing	Invert	Outlet Devices
#1	Primary	694.00'	**18.0" Round Culvert** L= 32.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.00' / 691.74' S= 0.0706 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	697.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**54.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=2.43 cfs @ 11.97 hrs HW=697.71' (Free Discharge)
- **1=Culvert** (Passes 2.43 cfs of 14.63 cfs potential flow)
  - **2=Orifice/Grate** (Weir Controls 2.43 cfs @ 1.49 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 9P: FocalPoint 9

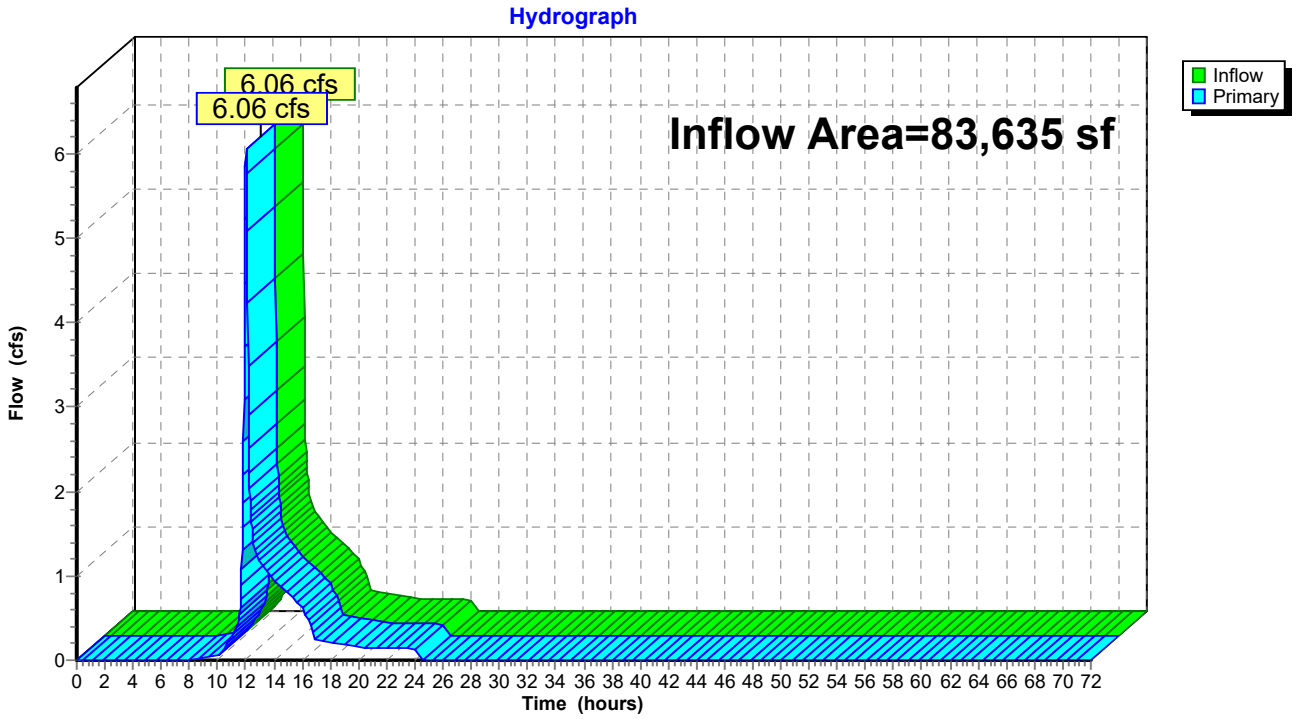


Summary for Link 2L: Outfall #1

Inflow Area = 83,635 sf, 51.04% Impervious, Inflow Depth = 4.02" for 50-year event
Inflow = 6.06 cfs @ 12.03 hrs, Volume= 27,998 cf
Primary = 6.06 cfs @ 12.03 hrs, Volume= 27,998 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs

Link 2L: Outfall #1



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment7S: Area 7 Runoff Area=0.450 ac 62.22% Impervious Runoff Depth=5.99"
Tc=5.0 min CN=85 Runoff=4.61 cfs 9,787 cf

Subcatchment8S: Area 8 Runoff Area=0.200 ac 55.00% Impervious Runoff Depth=4.95"
Tc=5.0 min CN=76 Runoff=1.77 cfs 3,593 cf

Subcatchment9S: Area 9 Runoff Area=0.300 ac 63.33% Impervious Runoff Depth=5.41"
Tc=5.0 min CN=80 Runoff=2.86 cfs 5,891 cf

Subcatchment11S: North Bypass 1 Runoff Area=0.880 ac 45.45% Impervious Runoff Depth=4.72"
Flow Length=730' Tc=10.9 min CN=74 Runoff=6.12 cfs 15,079 cf

Subcatchment12S: North Bypass 2 Runoff Area=0.090 ac 0.00% Impervious Runoff Depth=2.01"
Tc=5.0 min CN=49 Runoff=0.32 cfs 657 cf

Pond 3P: (new Pond) Peak Elev=695.06' Storage=7,111 cf Inflow=9.32 cfs 17,591 cf
Outflow=1.04 cfs 17,591 cf

Pond 7P: FocalPoint 7 Peak Elev=700.81' Storage=1,001 cf Inflow=4.61 cfs 9,787 cf
Outflow=4.50 cfs 9,148 cf

Pond 8P: FocalPoint 8 Peak Elev=698.66' Storage=1,121 cf Inflow=1.77 cfs 3,593 cf
Outflow=1.71 cfs 2,649 cf

Pond 9P: FocalPoint 9 Peak Elev=697.73' Storage=954 cf Inflow=2.86 cfs 5,891 cf
Outflow=2.80 cfs 5,138 cf

Link 2L: Outfall #1 Inflow=6.94 cfs 32,671 cf
Primary=6.94 cfs 32,671 cf

Total Runoff Area = 83,635 sf Runoff Volume = 35,007 cf Average Runoff Depth = 5.02"
48.96% Pervious = 40,946 sf 51.04% Impervious = 42,689 sf

Summary for Subcatchment 7S: Area 7

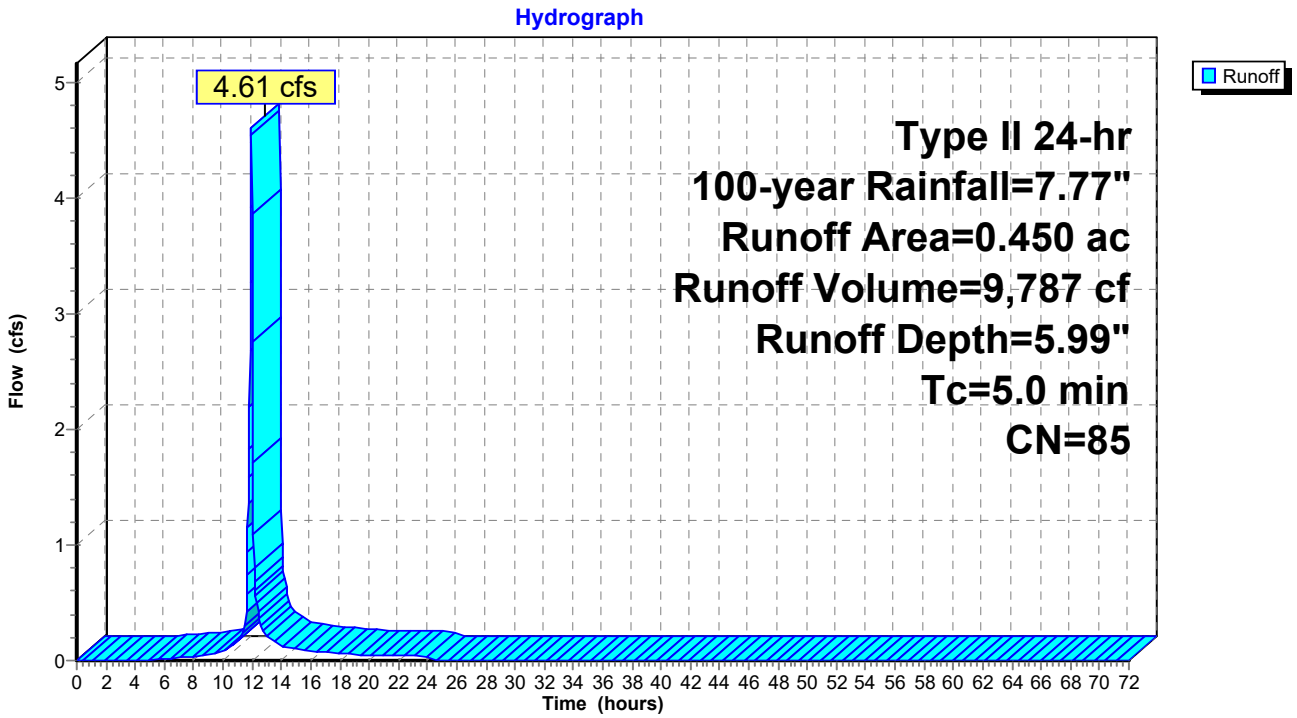
Runoff = 4.61 cfs @ 11.96 hrs, Volume= 9,787 cf, Depth= 5.99"
Routed to Pond 7P : FocalPoint 7

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 100-year Rainfall=7.77"

Area (ac)	CN	Description
0.040	49	50-75% Grass cover, Fair, HSG A
0.130	69	50-75% Grass cover, Fair, HSG B
0.280	98	Paved parking, HSG A
0.450	85	Weighted Average
0.170		37.78% Pervious Area
0.280		62.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 7S: Area 7



Summary for Subcatchment 8S: Area 8

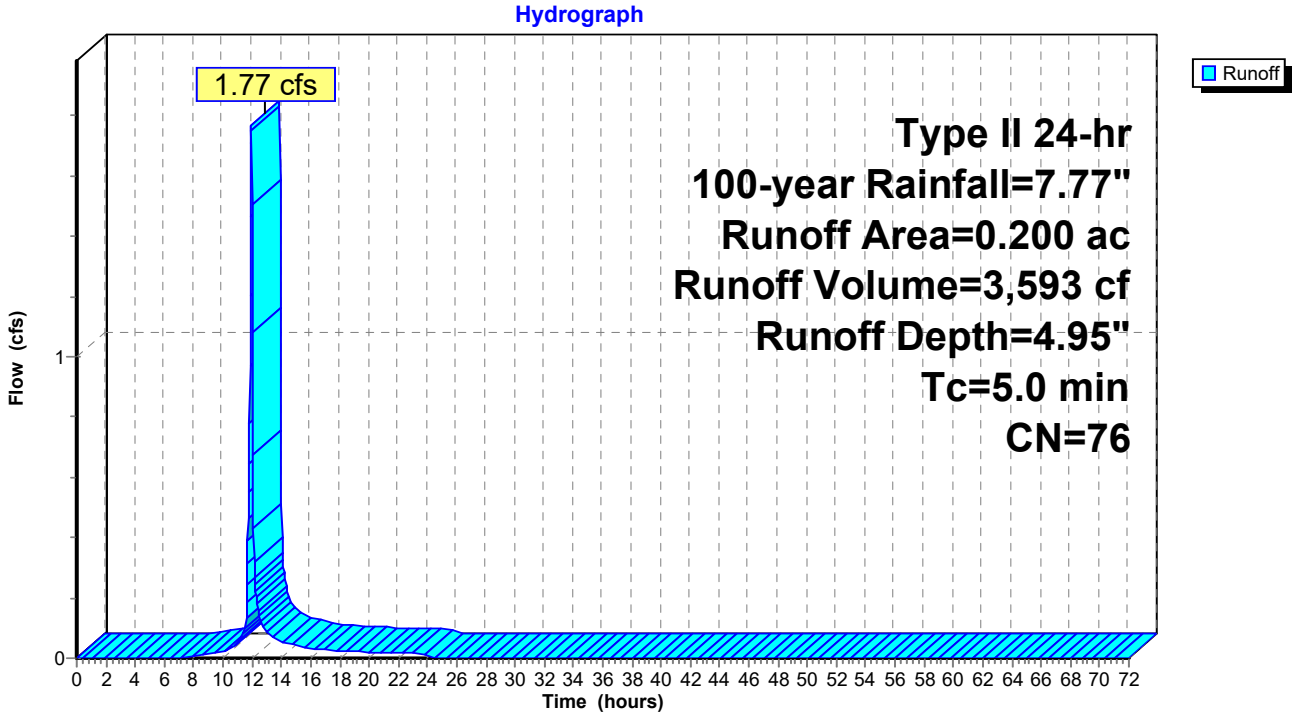
Runoff = 1.77 cfs @ 11.96 hrs, Volume= 3,593 cf, Depth= 4.95"
Routed to Pond 8P : FocalPoint 8

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 100-year Rainfall=7.77"

Area (ac)	CN	Description
0.090	49	50-75% Grass cover, Fair, HSG A
0.110	98	Paved parking, HSG A
0.200	76	Weighted Average
0.090		45.00% Pervious Area
0.110		55.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 8S: Area 8



Summary for Subcatchment 9S: Area 9

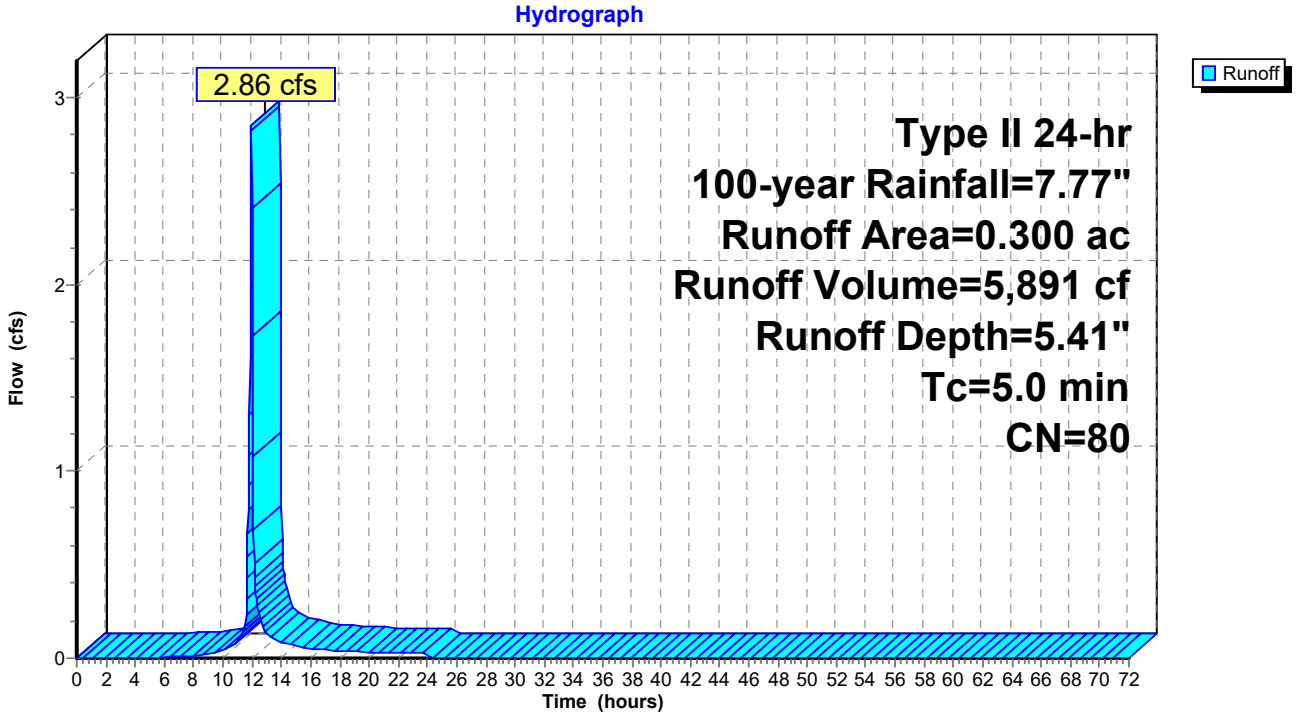
Runoff = 2.86 cfs @ 11.96 hrs, Volume= 5,891 cf, Depth= 5.41"
Routed to Pond 9P : FocalPoint 9

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 100-year Rainfall=7.77"

Area (ac)	CN	Description
0.110	49	50-75% Grass cover, Fair, HSG A
0.190	98	Paved parking, HSG A
0.300	80	Weighted Average
0.110		36.67% Pervious Area
0.190		63.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 9S: Area 9



Summary for Subcatchment 11S: North Bypass 1

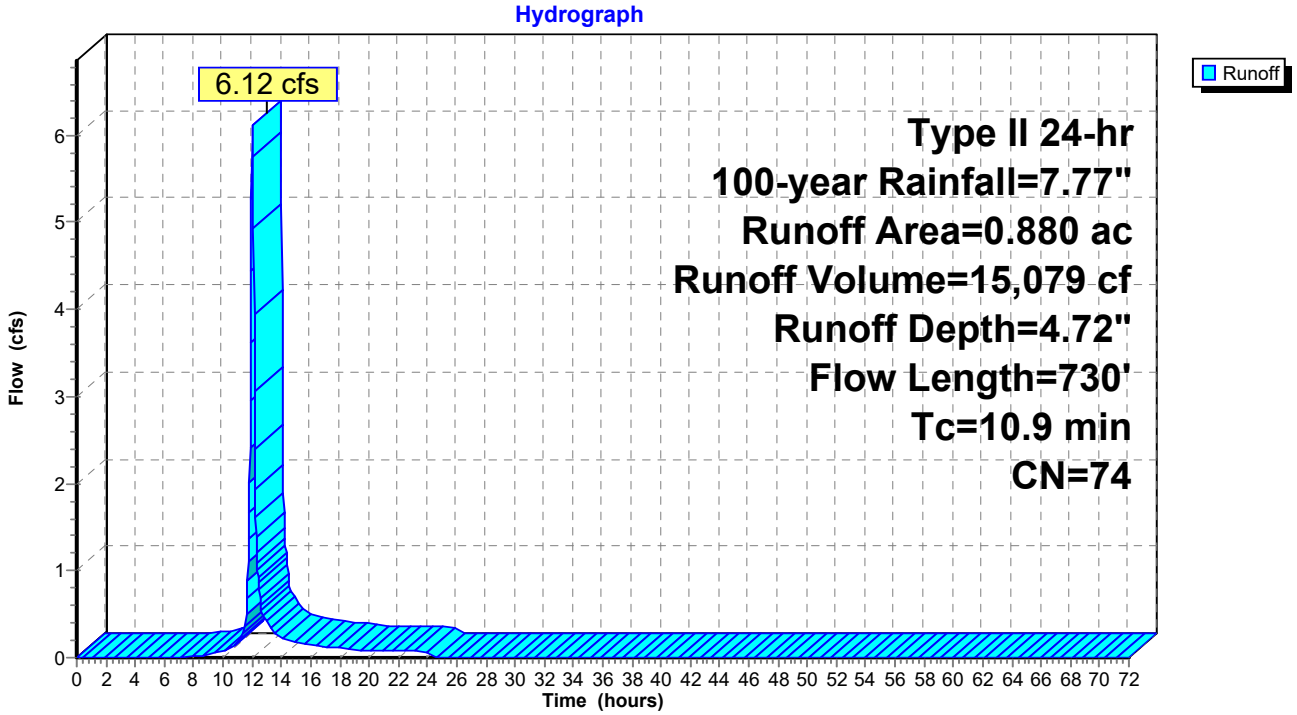
Runoff = 6.12 cfs @ 12.03 hrs, Volume= 15,079 cf, Depth= 4.72"
Routed to Link 2L : Outfall #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 100-year Rainfall=7.77"

Area (ac)	CN	Description
0.360	49	50-75% Grass cover, Fair, HSG A
0.120	69	50-75% Grass cover, Fair, HSG B
0.400	98	Paved parking, HSG A
0.880	74	Weighted Average
0.480		54.55% Pervious Area
0.400		45.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	40	0.0200	0.15		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
6.3	690	0.0080	1.82		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
10.9	730	Total			

Subcatchment 11S: North Bypass 1



Summary for Subcatchment 12S: North Bypass 2

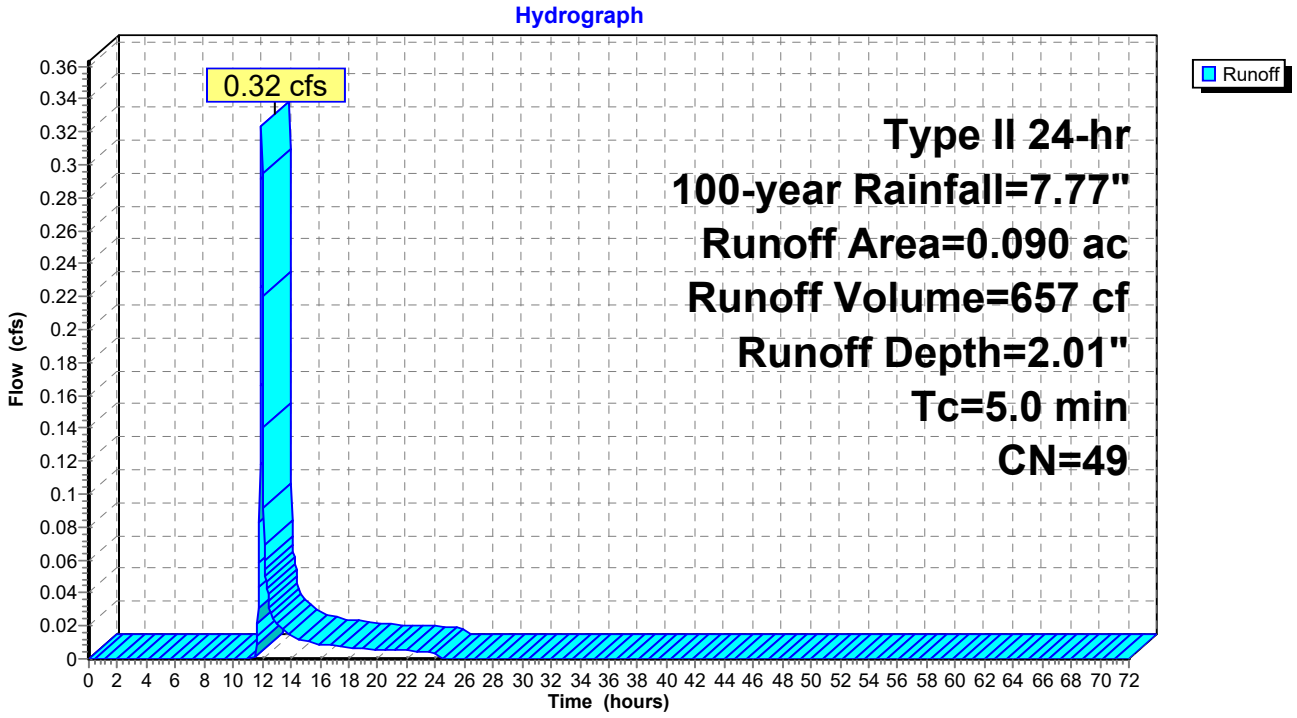
Runoff = 0.32 cfs @ 11.97 hrs, Volume= 657 cf, Depth= 2.01"
Routed to Pond 3P : (new Pond)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 100-year Rainfall=7.77"

Area (ac)	CN	Description
0.090	49	50-75% Grass cover, Fair, HSG A
0.090		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 12S: North Bypass 2



Summary for Pond 3P: (new Pond)

[79] Warning: Submerged Pond 8P Primary device # 1 INLET by 0.06'
[79] Warning: Submerged Pond 9P Primary device # 1 INLET by 1.06'

Inflow Area = 45,302 sf, 55.77% Impervious, Inflow Depth = 4.66" for 100-year event
Inflow = 9.32 cfs @ 11.97 hrs, Volume= 17,591 cf
Outflow = 1.04 cfs @ 12.34 hrs, Volume= 17,591 cf, Atten= 89%, Lag= 22.0 min
Primary = 1.04 cfs @ 12.34 hrs, Volume= 17,591 cf
Routed to Link 2L : Outfall #1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 695.06' @ 12.34 hrs Surf.Area= 2,539 sf Storage= 7,111 cf

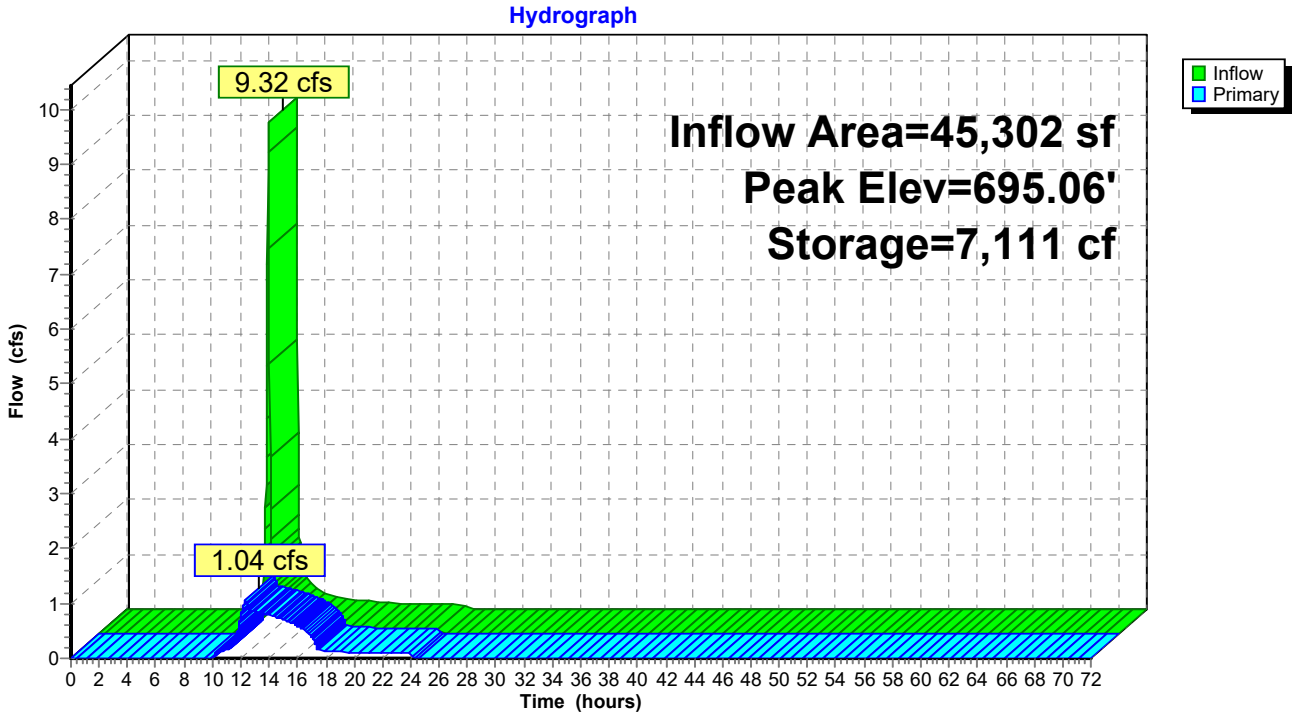
Plug-Flow detention time= 69.4 min calculated for 17,591 cf (100% of inflow)
Center-of-Mass det. time= 69.3 min (894.7 - 825.4)

Volume	Invert	Avail.Storage	Storage Description
#1	690.54'	10,996 cf	**60.0" Round CMP_Round 60"** L= 560.0' S= 0.0050 '/'

Device	Routing	Invert	Outlet Devices
#1	Primary	690.54'	**18.0" Round RCP_Round 18"** L= 20.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 690.54' / 690.44' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	690.54'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	695.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=1.03 cfs @ 12.34 hrs HW=695.06' (Free Discharge)
└**1=RCP_Round 18"** (Passes 1.03 cfs of 16.52 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 0.88 cfs @ 10.04 fps)
└**3=Broad-Crested Rectangular Weir** (Weir Controls 0.15 cfs @ 0.67 fps)

Pond 3P: (new Pond)



Summary for Pond 7P: FocalPoint 7

[92] Warning: Device #3 is above defined storage

Inflow Area = 19,602 sf, 62.22% Impervious, Inflow Depth = 5.99" for 100-year event
Inflow = 4.61 cfs @ 11.96 hrs, Volume= 9,787 cf
Outflow = 4.50 cfs @ 11.97 hrs, Volume= 9,148 cf, Atten= 3%, Lag= 0.9 min
Primary = 4.50 cfs @ 11.97 hrs, Volume= 9,148 cf
Routed to Pond 3P : (new Pond)

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 700.81' @ 11.97 hrs Surf.Area= 1,322 sf Storage= 1,001 cf

Plug-Flow detention time= 58.9 min calculated for 9,144 cf (93% of inflow)
Center-of-Mass det. time= 22.5 min (809.8 - 787.3)

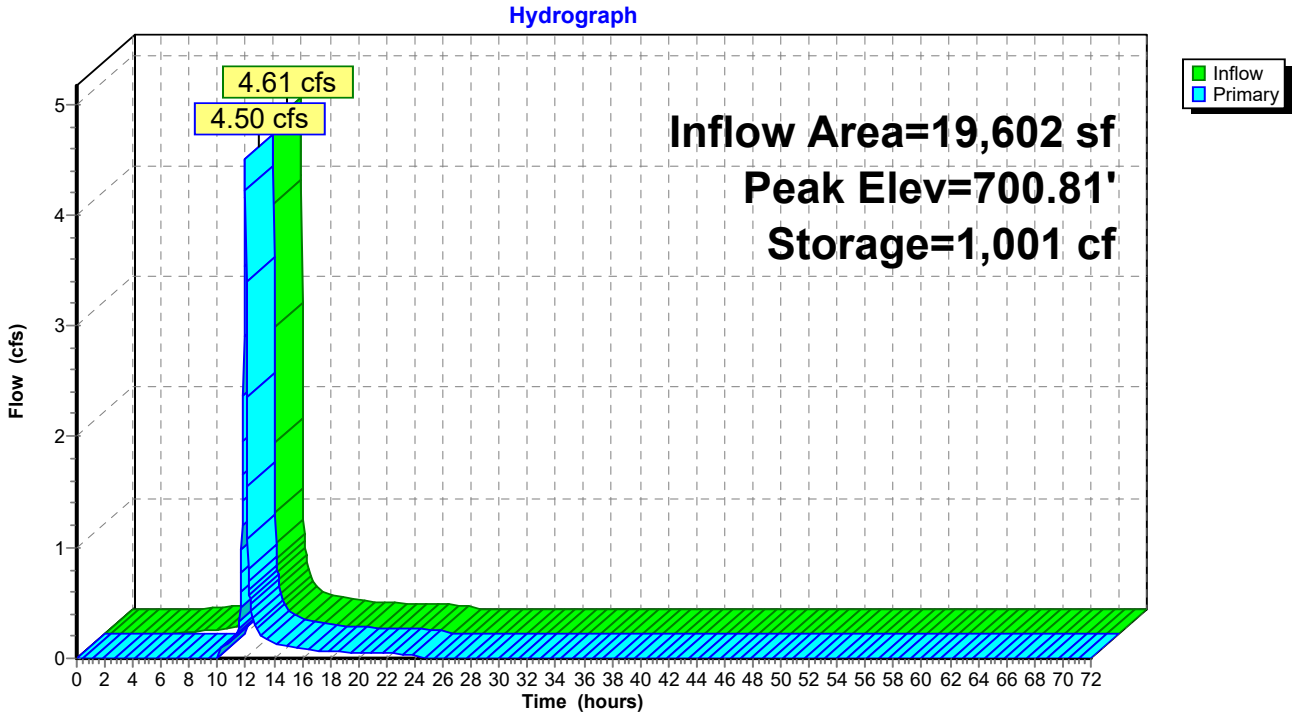
Volume	Invert	Avail.Storage	Storage Description
#1	697.00'	3,154 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
697.00	461	0.0	0	0
700.00	461	20.0	277	277
701.00	1,521	100.0	991	1,268
702.00	2,252	100.0	1,887	3,154

Device	Routing	Invert	Outlet Devices
#1	Primary	697.00'	**18.0" Round Culvert** L= 16.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 697.00' / 696.20' S= 0.0500 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	700.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	702.00'	**65.0' long x 11.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.53 2.59 2.70 2.68 2.67 2.68 2.66 2.64

Primary OutFlow Max=4.47 cfs @ 11.97 hrs HW=700.81' (Free Discharge)
- **1=Culvert** (Passes 4.47 cfs of 14.89 cfs potential flow)
  - **2=Orifice/Grate** (Weir Controls 4.47 cfs @ 1.83 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 7P: FocalPoint 7



Summary for Pond 8P: FocalPoint 8

[92] Warning: Device #3 is above defined storage

Inflow Area = 8,712 sf, 55.00% Impervious, Inflow Depth = 4.95" for 100-year event
Inflow = 1.77 cfs @ 11.96 hrs, Volume= 3,593 cf
Outflow = 1.71 cfs @ 11.98 hrs, Volume= 2,649 cf, Atten= 4%, Lag= 1.2 min
Primary = 1.71 cfs @ 11.98 hrs, Volume= 2,649 cf
Routed to Pond 3P : (new Pond)

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 698.66' @ 11.98 hrs Surf.Area= 1,123 sf Storage= 1,121 cf

Plug-Flow detention time= 144.9 min calculated for 2,649 cf (74% of inflow)
Center-of-Mass det. time= 50.8 min (860.0 - 809.1)

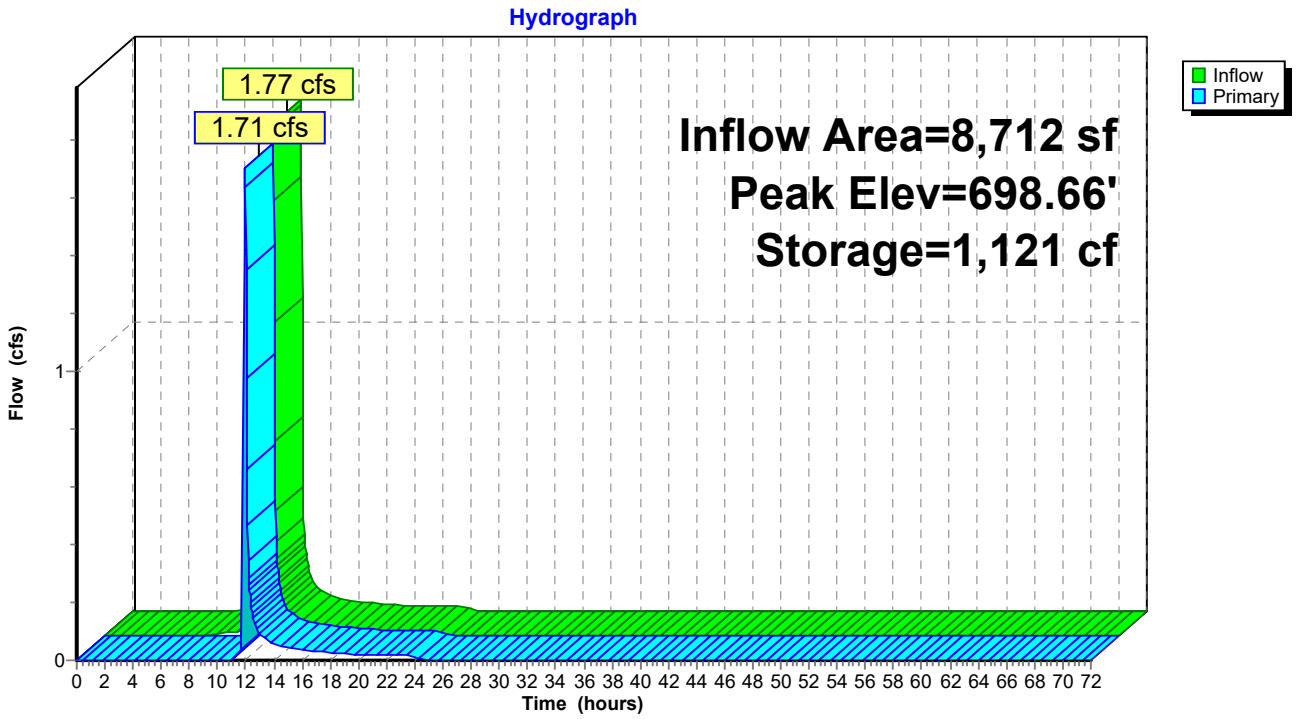
Volume	Invert	Avail.Storage	Storage Description
#1	695.00'	3,154 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
695.00	803	0.0	0	0
698.00	803	20.0	482	482
699.00	1,285	100.0	1,044	1,526
700.00	1,971	100.0	1,628	3,154

Device	Routing	Invert	Outlet Devices
#1	Primary	695.00'	**18.0" Round Culvert** L= 26.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 695.00' / 693.05' S= 0.0750 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	698.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**57.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=1.66 cfs @ 11.98 hrs HW=698.66' (Free Discharge)
- **1=Culvert** (Passes 1.66 cfs of 14.52 cfs potential flow)
  - **2=Orifice/Grate** (Weir Controls 1.66 cfs @ 1.31 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 8P: FocalPoint 8



Summary for Pond 9P: FocalPoint 9

[92] Warning: Device #3 is above defined storage

Inflow Area = 13,068 sf, 63.33% Impervious, Inflow Depth = 5.41" for 100-year event
Inflow = 2.86 cfs @ 11.96 hrs, Volume= 5,891 cf
Outflow = 2.80 cfs @ 11.97 hrs, Volume= 5,138 cf, Atten= 2%, Lag= 0.8 min
Primary = 2.80 cfs @ 11.97 hrs, Volume= 5,138 cf
Routed to Pond 3P : (new Pond)

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 697.73' @ 11.97 hrs Surf.Area= 923 sf Storage= 954 cf

Plug-Flow detention time= 90.6 min calculated for 5,136 cf (87% of inflow)
Center-of-Mass det. time= 29.6 min (829.6 - 800.0)

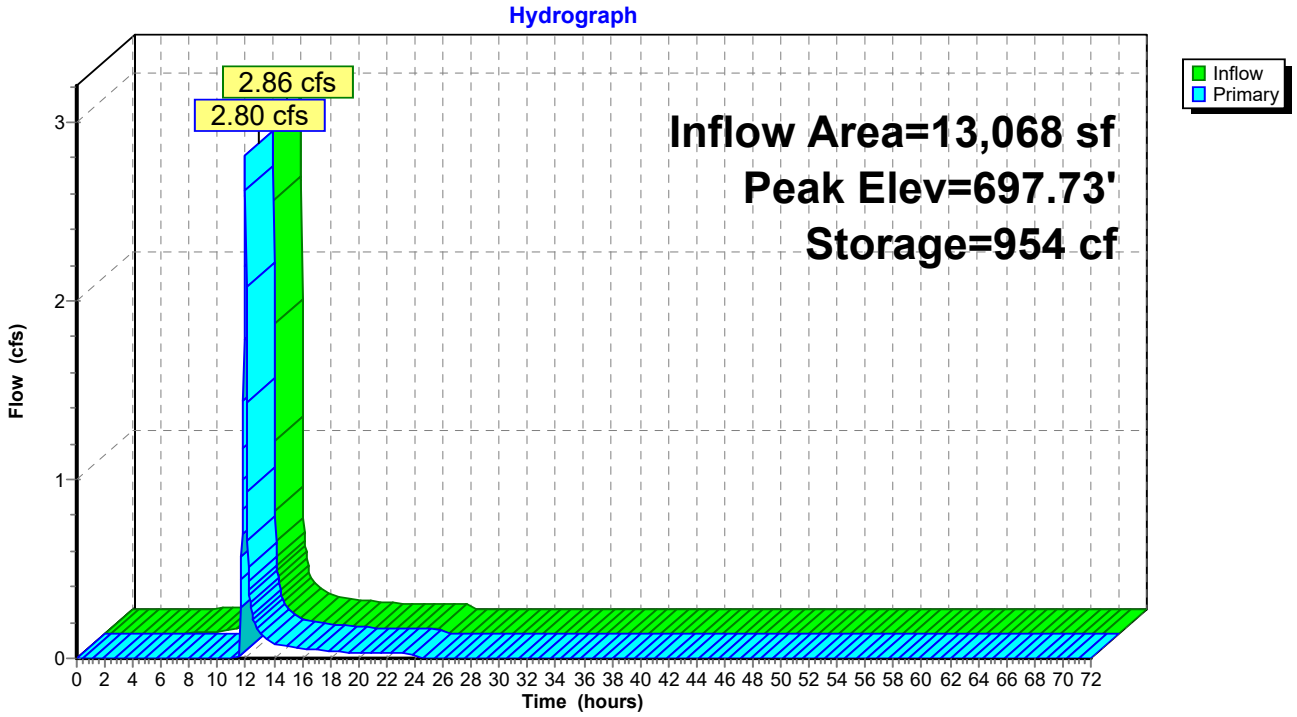
Volume	Invert	Avail.Storage	Storage Description
#1	694.00'	4,192 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
694.00	641	0.0	0	0
697.00	641	20.0	385	385
698.00	1,028	100.0	835	1,219
699.00	1,472	100.0	1,250	2,469
700.00	1,973	100.0	1,723	4,192

Device	Routing	Invert	Outlet Devices
#1	Primary	694.00'	**18.0" Round Culvert** L= 32.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 694.00' / 691.74' S= 0.0706 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	697.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**54.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=2.79 cfs @ 11.97 hrs HW=697.73' (Free Discharge)
- **1=Culvert** (Passes 2.79 cfs of 14.68 cfs potential flow)
  - **2=Orifice/Grate** (Weir Controls 2.79 cfs @ 1.56 fps)
- **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 9P: FocalPoint 9

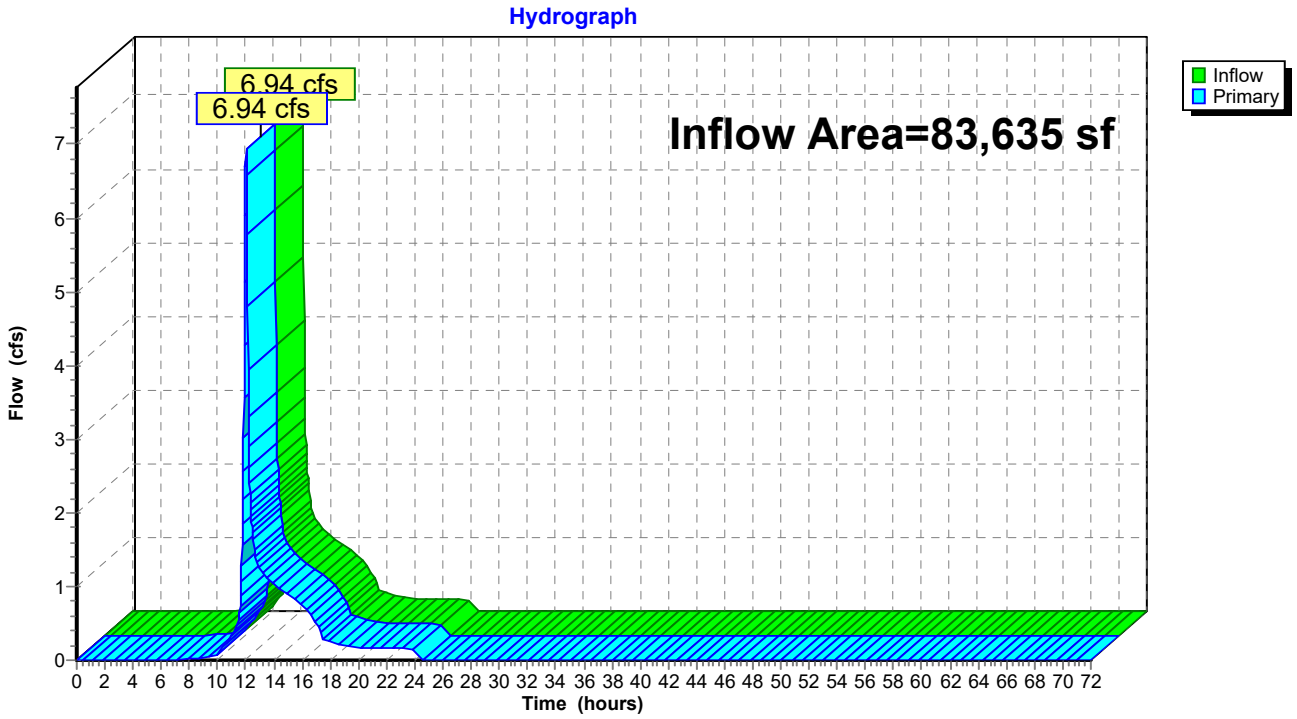


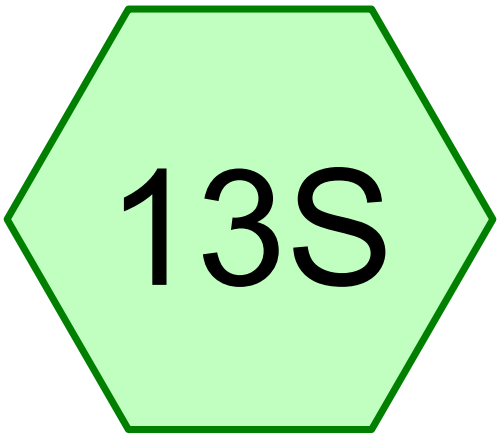
Summary for Link 2L: Outfall #1

Inflow Area = 83,635 sf, 51.04% Impervious, Inflow Depth = 4.69" for 100-year event
Inflow = 6.94 cfs @ 12.03 hrs, Volume= 32,671 cf
Primary = 6.94 cfs @ 12.03 hrs, Volume= 32,671 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs

Link 2L: Outfall #1





Outfall #2

Subcat Reach Pond Link

Routing Diagram for Stormwater Calculations - Proposed - Outfall 2
Prepared by Fulmer Lucas, Printed 4/20/2026
HydroCAD® 10.20-8a s/n 11448 © 2025 HydroCAD Software Solutions LLC

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-year	Type II 24-hr		Default	24.00	1	3.24	2
2	2-year	Type II 24-hr		Default	24.00	1	3.87	2
3	5-year	Type II 24-hr		Default	24.00	1	4.71	2
4	10-year	Type II 24-hr		Default	24.00	1	5.38	2
5	25-year	Type II 24-hr		Default	24.00	1	6.30	2
6	50-year	Type II 24-hr		Default	24.00	1	7.02	2
7	100-year	Type II 24-hr		Default	24.00	1	7.77	2

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
20,473	49	50-75% Grass cover, Fair, HSG A (13S)
24,394	36	Woods, Fair, HSG A (13S)
44,867	**42**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
44,867	HSG A	13S
0	HSG B	
0	HSG C	
0	HSG D	
0	Other	
44,867		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover	Su Nu
20,473	0	0	0	0	20,473	50-75% Grass cover, Fair	
24,394	0	0	0	0	24,394	Woods, Fair	
44,867	**0**	**0**	**0**	**0**	**44,867**	**TOTAL AREA**	

Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment13S: Outfall #2 Runoff Area=1.030 ac 0.00% Impervious Runoff Depth=0.02"
Flow Length=416' Tc=8.7 min CN=42 Runoff=0.00 cfs 60 cf

Total Runoff Area = 44,867 sf Runoff Volume = 60 cf Average Runoff Depth = 0.02"
100.00% Pervious = 44,867 sf 0.00% Impervious = 0 sf

Summary for Subcatchment 13S: Outfall #2

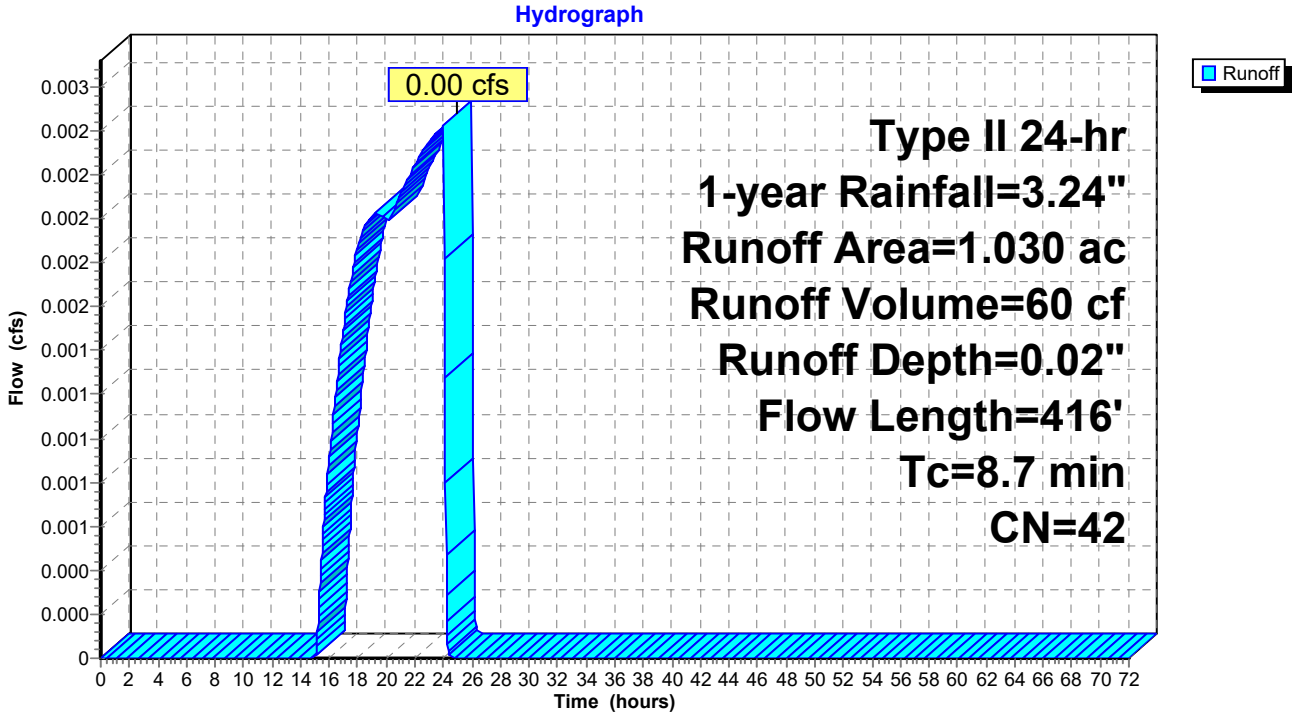
Runoff = 0.00 cfs @ 24.00 hrs, Volume= 60 cf, Depth= 0.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 1-year Rainfall=3.24"

Area (ac)	CN	Description
0.470	49	50-75% Grass cover, Fair, HSG A
0.560	36	Woods, Fair, HSG A
1.030	42	Weighted Average
1.030		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	100	0.0500	0.25		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
2.1	316	0.0250	2.55		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
8.7	416	Total			

Subcatchment 13S: Outfall #2



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment13S: Outfall #2 Runoff Area=1.030 ac 0.00% Impervious Runoff Depth=0.08"
Flow Length=416' Tc=8.7 min CN=42 Runoff=0.01 cfs 308 cf

Total Runoff Area = 44,867 sf Runoff Volume = 308 cf Average Runoff Depth = 0.08"
100.00% Pervious = 44,867 sf 0.00% Impervious = 0 sf

Summary for Subcatchment 13S: Outfall #2

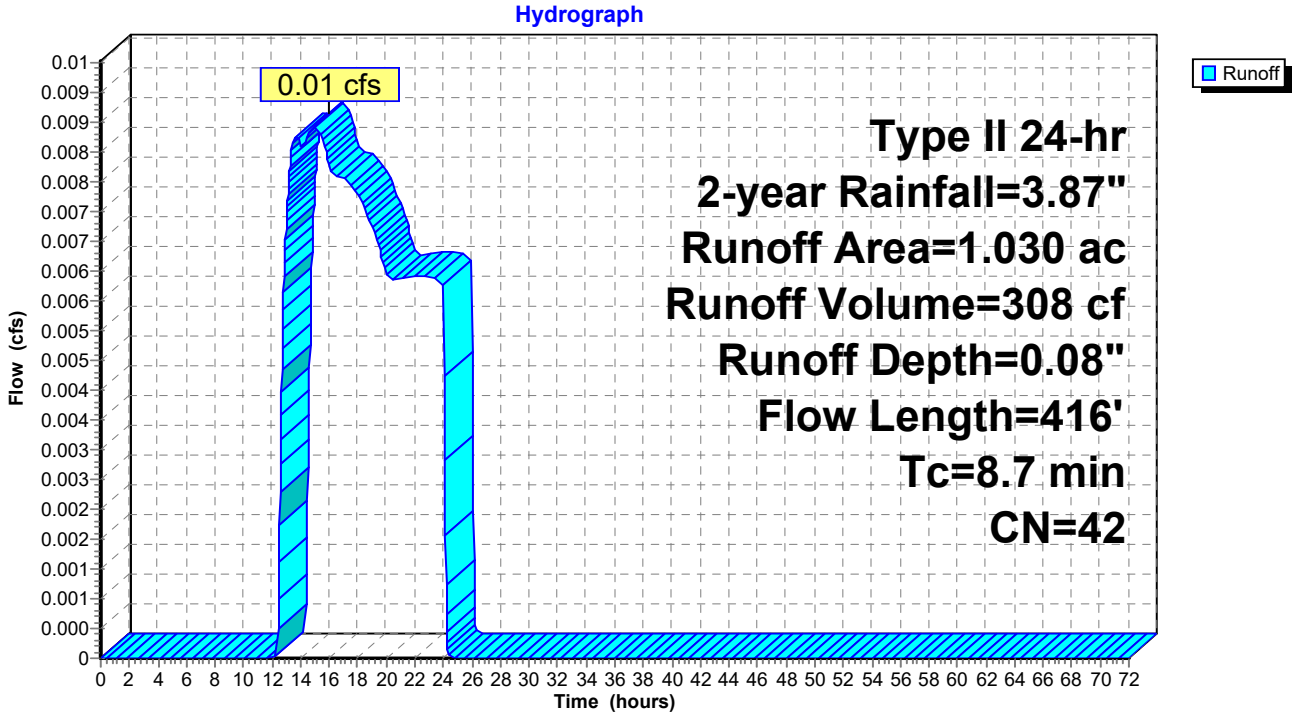
Runoff = 0.01 cfs @ 14.92 hrs, Volume= 308 cf, Depth= 0.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 2-year Rainfall=3.87"

Area (ac)	CN	Description
0.470	49	50-75% Grass cover, Fair, HSG A
0.560	36	Woods, Fair, HSG A
1.030	42	Weighted Average
1.030		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	100	0.0500	0.25		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
2.1	316	0.0250	2.55		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
8.7	416	Total			

Subcatchment 13S: Outfall #2



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment13S: Outfall #2 Runoff Area=1.030 ac 0.00% Impervious Runoff Depth=0.24"
Flow Length=416' Tc=8.7 min CN=42 Runoff=0.07 cfs 900 cf

Total Runoff Area = 44,867 sf Runoff Volume = 900 cf Average Runoff Depth = 0.24"
100.00% Pervious = 44,867 sf 0.00% Impervious = 0 sf

Summary for Subcatchment 13S: Outfall #2

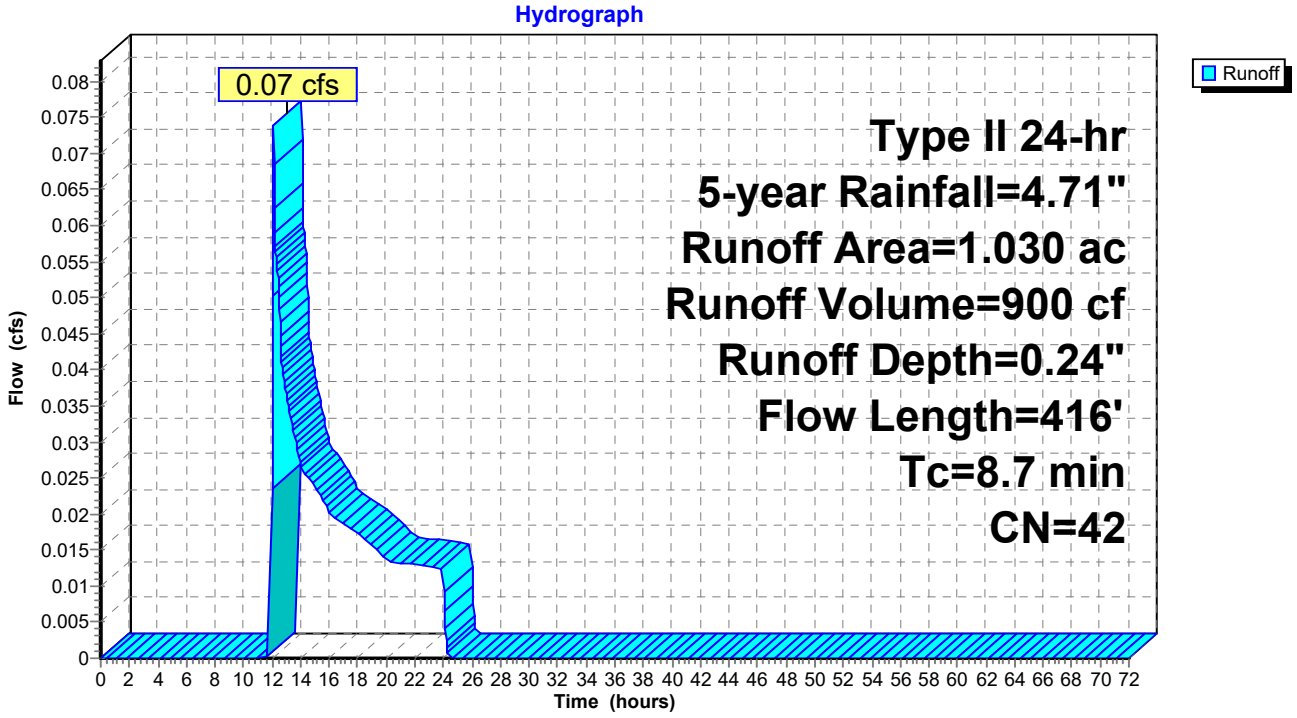
Runoff = 0.07 cfs @ 12.09 hrs, Volume= 900 cf, Depth= 0.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 5-year Rainfall=4.71"

Area (ac)	CN	Description
0.470	49	50-75% Grass cover, Fair, HSG A
0.560	36	Woods, Fair, HSG A
1.030	42	Weighted Average
1.030		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	100	0.0500	0.25		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
2.1	316	0.0250	2.55		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
8.7	416	Total			

Subcatchment 13S: Outfall #2



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment13S: Outfall #2 Runoff Area=1.030 ac 0.00% Impervious Runoff Depth=0.42"
Flow Length=416' Tc=8.7 min CN=42 Runoff=0.30 cfs 1,560 cf

Total Runoff Area = 44,867 sf Runoff Volume = 1,560 cf Average Runoff Depth = 0.42"
100.00% Pervious = 44,867 sf 0.00% Impervious = 0 sf

Summary for Subcatchment 13S: Outfall #2

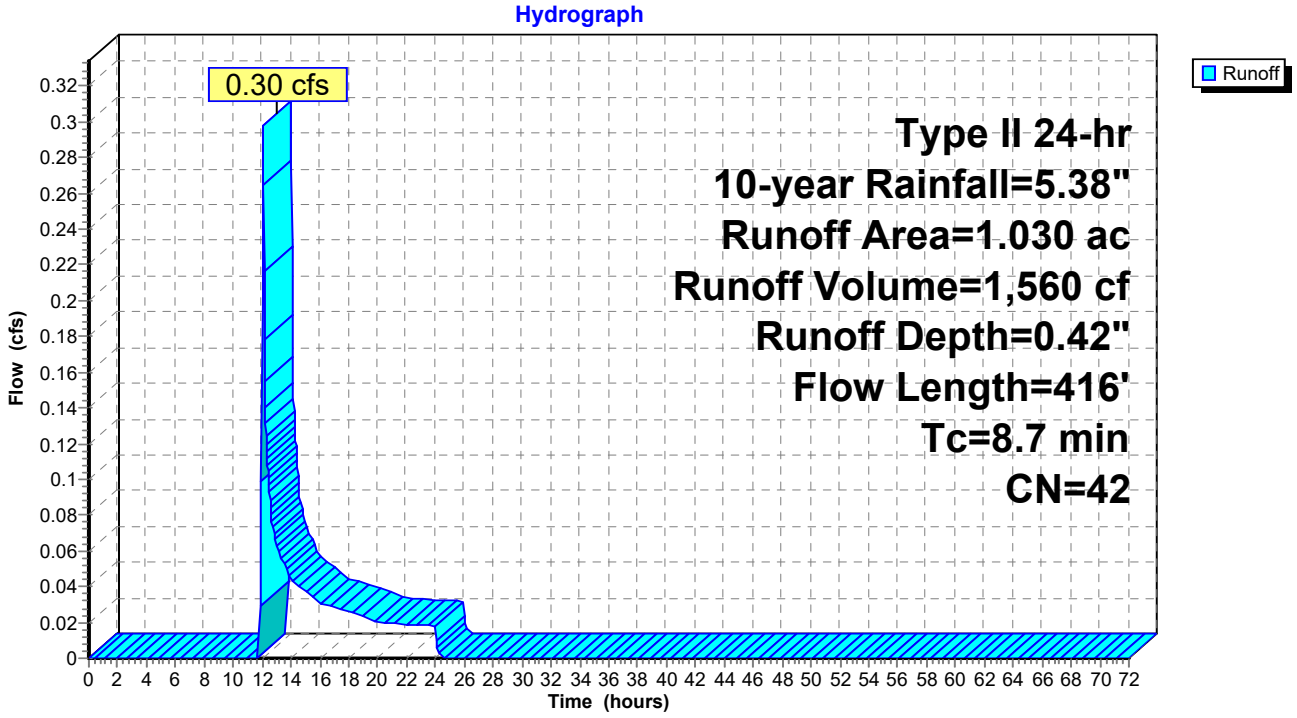
Runoff = 0.30 cfs @ 12.06 hrs, Volume= 1,560 cf, Depth= 0.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 10-year Rainfall=5.38"

Area (ac)	CN	Description
0.470	49	50-75% Grass cover, Fair, HSG A
0.560	36	Woods, Fair, HSG A
1.030	42	Weighted Average
1.030		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	100	0.0500	0.25		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
2.1	316	0.0250	2.55		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
8.7	416	Total			

Subcatchment 13S: Outfall #2



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment13S: Outfall #2 Runoff Area=1.030 ac 0.00% Impervious Runoff Depth=0.72"
Flow Length=416' Tc=8.7 min CN=42 Runoff=0.79 cfs 2,698 cf

Total Runoff Area = 44,867 sf Runoff Volume = 2,698 cf Average Runoff Depth = 0.72"
100.00% Pervious = 44,867 sf 0.00% Impervious = 0 sf

Summary for Subcatchment 13S: Outfall #2

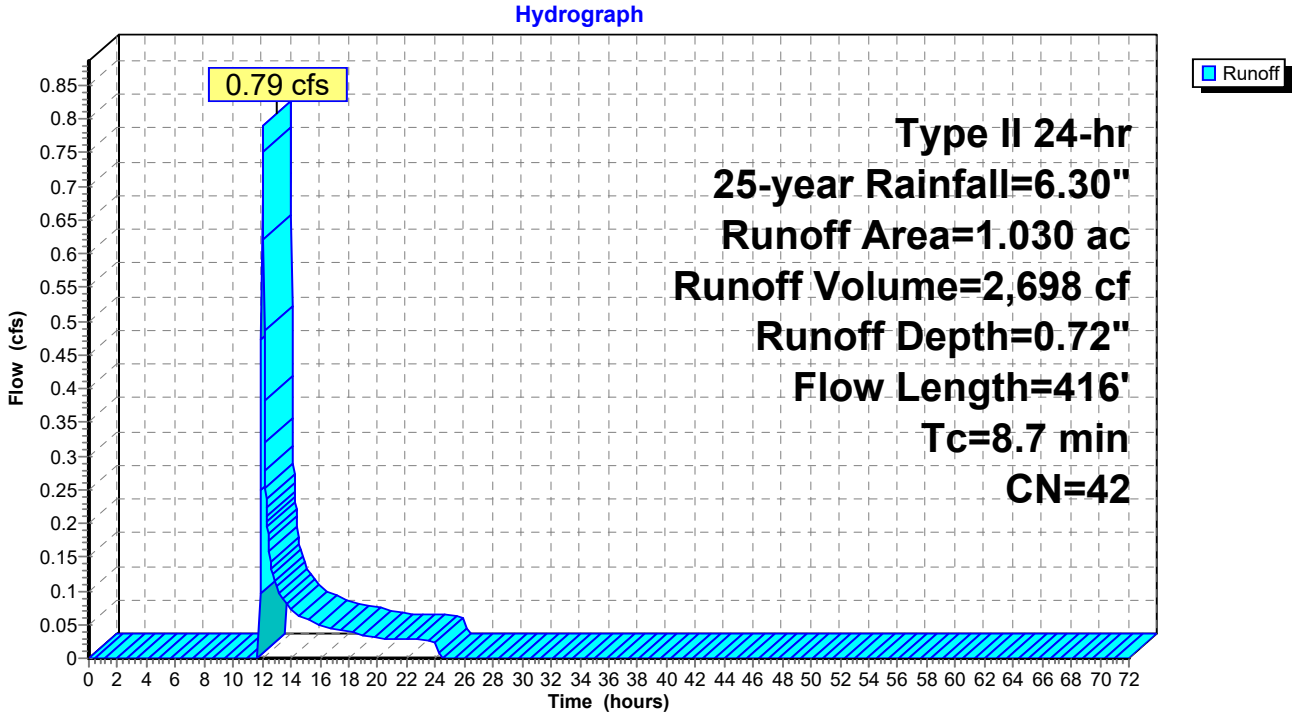
Runoff = 0.79 cfs @ 12.04 hrs, Volume= 2,698 cf, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 25-year Rainfall=6.30"

Area (ac)	CN	Description
0.470	49	50-75% Grass cover, Fair, HSG A
0.560	36	Woods, Fair, HSG A
1.030	42	Weighted Average
1.030		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	100	0.0500	0.25		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
2.1	316	0.0250	2.55		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
8.7	416	Total			

Subcatchment 13S: Outfall #2



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment13S: Outfall #2 Runoff Area=1.030 ac 0.00% Impervious Runoff Depth=1.00"
Flow Length=416' Tc=8.7 min CN=42 Runoff=1.28 cfs 3,752 cf

Total Runoff Area = 44,867 sf Runoff Volume = 3,752 cf Average Runoff Depth = 1.00"
100.00% Pervious = 44,867 sf 0.00% Impervious = 0 sf

Summary for Subcatchment 13S: Outfall #2

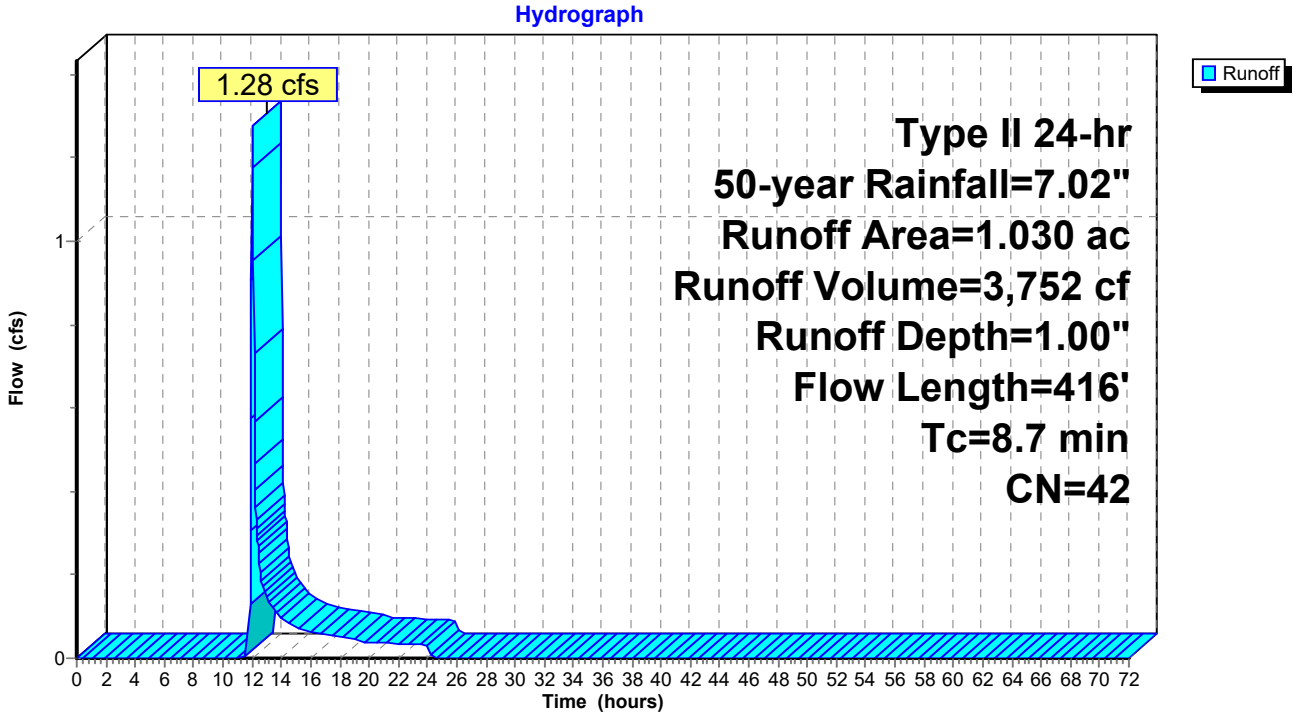
Runoff = 1.28 cfs @ 12.03 hrs, Volume= 3,752 cf, Depth= 1.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 50-year Rainfall=7.02"

Area (ac)	CN	Description
0.470	49	50-75% Grass cover, Fair, HSG A
0.560	36	Woods, Fair, HSG A
1.030	42	Weighted Average
1.030		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	100	0.0500	0.25		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
2.1	316	0.0250	2.55		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
8.7	416	Total			

Subcatchment 13S: Outfall #2



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment13S: Outfall #2 Runoff Area=1.030 ac 0.00% Impervious Runoff Depth=1.33"
Flow Length=416' Tc=8.7 min CN=42 Runoff=1.86 cfs 4,983 cf

Total Runoff Area = 44,867 sf Runoff Volume = 4,983 cf Average Runoff Depth = 1.33"
100.00% Pervious = 44,867 sf 0.00% Impervious = 0 sf

Summary for Subcatchment 13S: Outfall #2

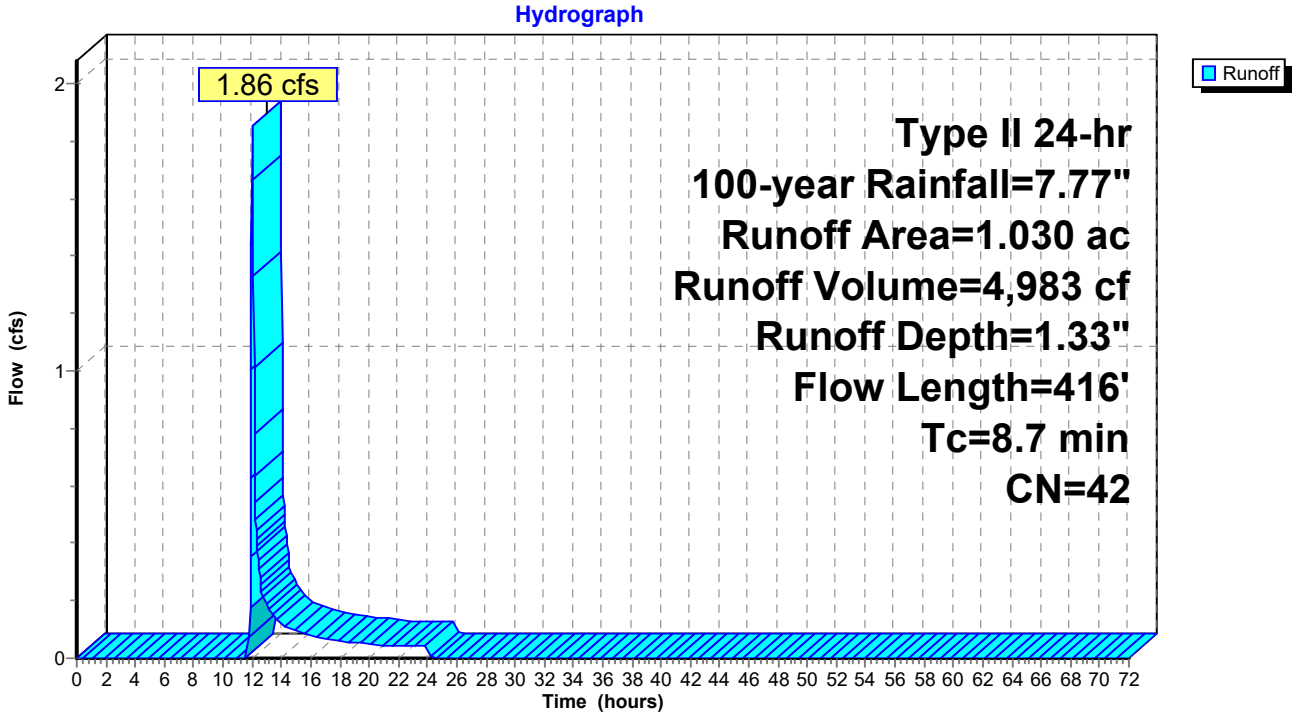
Runoff = 1.86 cfs @ 12.02 hrs, Volume= 4,983 cf, Depth= 1.33"

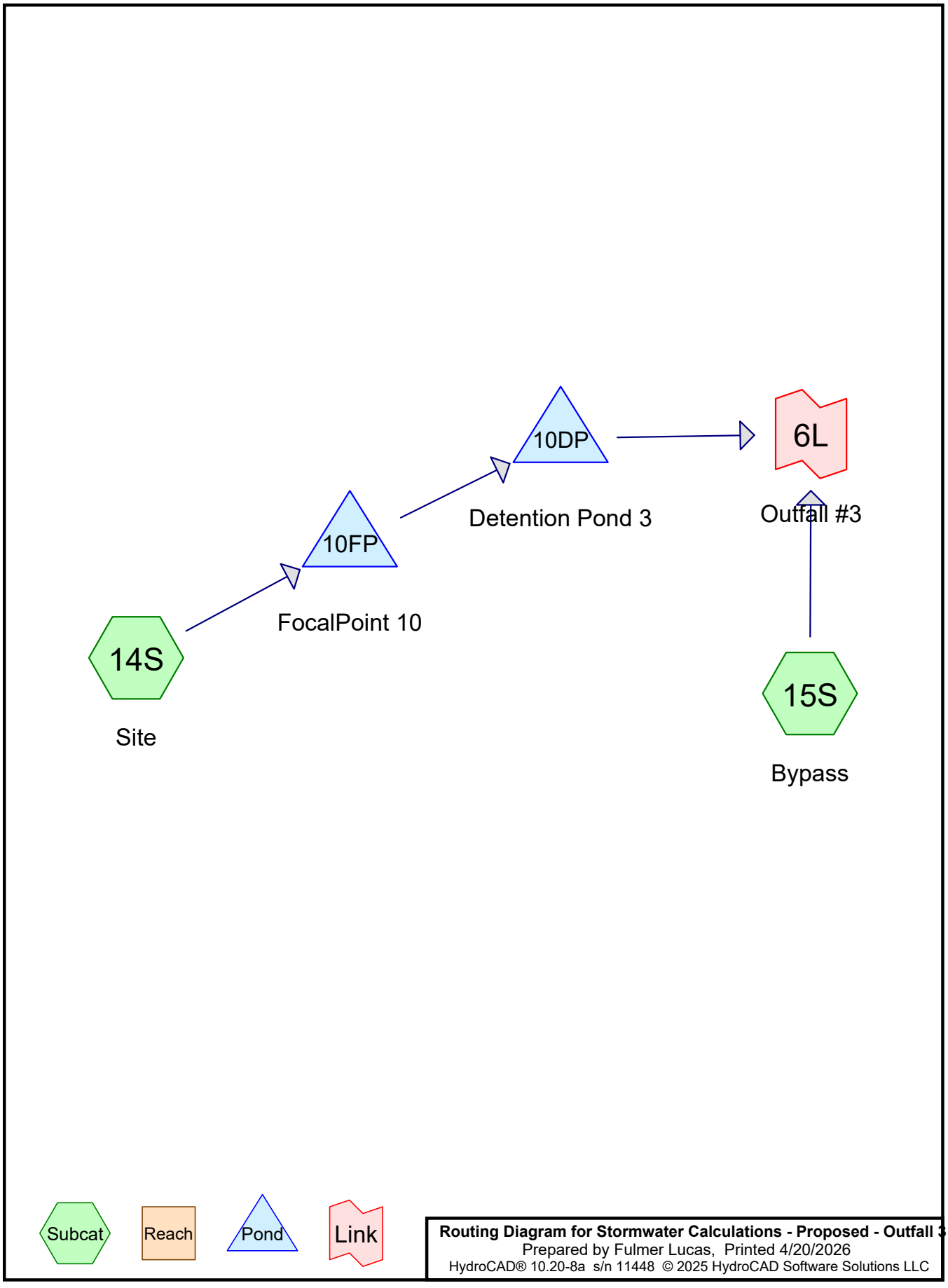
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 100-year Rainfall=7.77"

Area (ac)	CN	Description
0.470	49	50-75% Grass cover, Fair, HSG A
0.560	36	Woods, Fair, HSG A
1.030	42	Weighted Average
1.030		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	100	0.0500	0.25		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
2.1	316	0.0250	2.55		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
8.7	416	Total			

Subcatchment 13S: Outfall #2




10DP
6L
Detention Pond 3
Outfall #3
10FP
FocalPoint 10
14S
Site
15S
Bypass
Subcat
Reach
Pond
Link
Routing Diagram for Stormwater Calculations - Proposed - Outfall 3
Prepared by Fulmer Lucas, Printed 4/20/2026
HydroCAD® 10.20-8a s/n 11448 © 2025 HydroCAD Software Solutions LLC

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-year	Type II 24-hr		Default	24.00	1	3.24	2
2	2-year	Type II 24-hr		Default	24.00	1	3.87	2
3	5-year	Type II 24-hr		Default	24.00	1	4.71	2
4	10-year	Type II 24-hr		Default	24.00	1	5.38	2
5	25-year	Type II 24-hr		Default	24.00	1	6.30	2
6	50-year	Type II 24-hr		Default	24.00	1	7.02	2
7	100-year	Type II 24-hr		Default	24.00	1	7.77	2

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
114,127	49	50-75% Grass cover, Fair, HSG A (14S, 15S)
3,049	69	50-75% Grass cover, Fair, HSG B (14S)
93,218	98	Paved parking, HSG A (14S, 15S)
9,583	36	Woods, Fair, HSG A (14S, 15S)
219,978	**69**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
216,929	HSG A	14S, 15S
3,049	HSG B	14S
0	HSG C	
0	HSG D	
0	Other	
219,978		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover	Su Nu
114,127	3,049	0	0	0	117,176	50-75% Grass cover, Fair	
93,218	0	0	0	0	93,218	Paved parking	
9,583	0	0	0	0	9,583	Woods, Fair	
216,929	**3,049**	**0**	**0**	**0**	**219,978**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	14S	0.00	0.00	78.0	0.0050	0.013	0.0	18.0	0.0	
2	10DP	695.33	695.00	64.0	0.0052	0.013	0.0	18.0	0.0	
3	10FP	696.00	695.88	23.0	0.0052	0.013	0.0	18.0	0.0	

Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment14S: Site Runoff Area=2.220 ac 64.41% Impervious Runoff Depth=1.50"
Flow Length=960' Tc=11.8 min CN=81 Runoff=4.79 cfs 12,092 cf

Subcatchment15S: Bypass Runoff Area=2.830 ac 25.09% Impervious Runoff Depth=0.46"
Flow Length=599' Tc=11.2 min CN=61 Runoff=1.41 cfs 4,730 cf

Pond 10DP: Detention Pond 3 Peak Elev=698.28' Storage=4,215 cf Inflow=4.74 cfs 11,407 cf
Outflow=0.70 cfs 11,407 cf

Pond 10FP: FocalPoint 10 Peak Elev=699.82' Storage=1,037 cf Inflow=4.79 cfs 12,092 cf
Outflow=4.74 cfs 11,407 cf

Link 6L: Outfall #3 Inflow=2.03 cfs 16,137 cf
Primary=2.03 cfs 16,137 cf

Total Runoff Area = 219,978 sf Runoff Volume = 16,822 cf Average Runoff Depth = 0.92"
57.62% Pervious = 126,760 sf 42.38% Impervious = 93,218 sf

Summary for Subcatchment 14S: Site

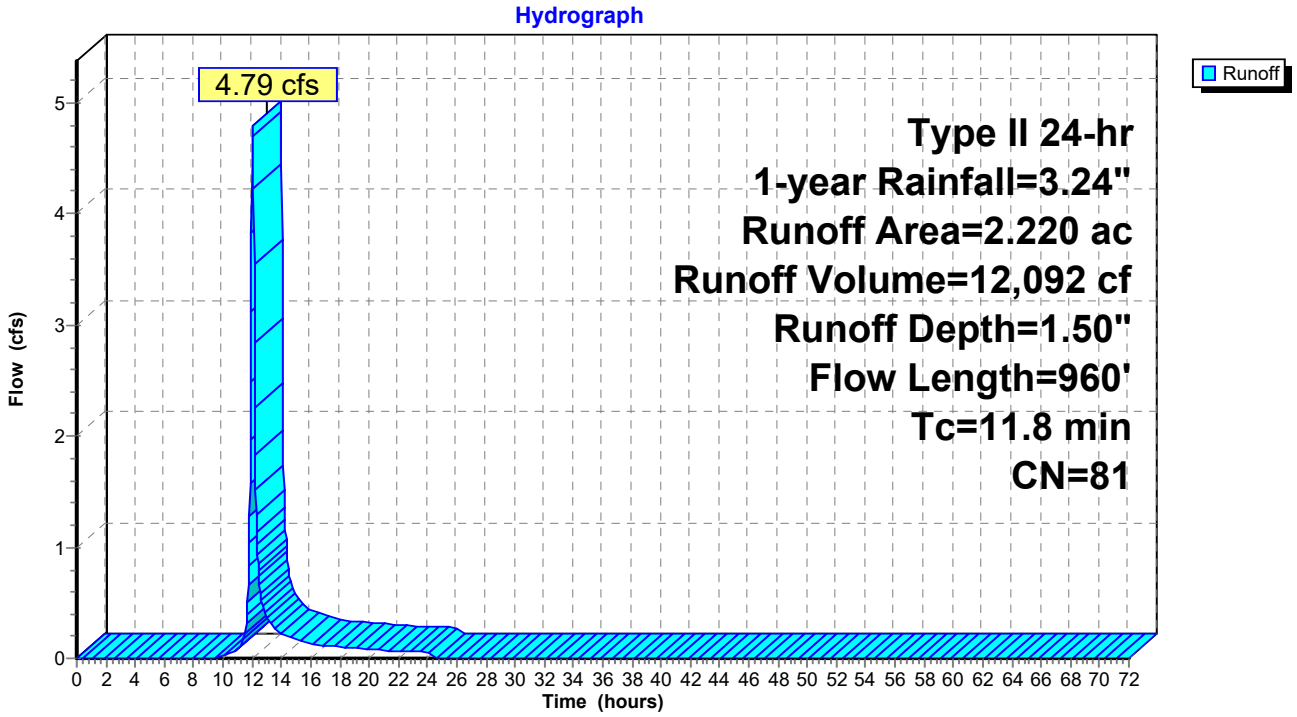
Runoff = 4.79 cfs @ 12.04 hrs, Volume= 12,092 cf, Depth= 1.50"
Routed to Pond 10FP : FocalPoint 10

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 1-year Rainfall=3.24"

Area (ac)	CN	Description
0.610	49	50-75% Grass cover, Fair, HSG A
0.070	69	50-75% Grass cover, Fair, HSG B
0.110	36	Woods, Fair, HSG A
1.430	98	Paved parking, HSG A
2.220	81	Weighted Average
0.790		35.59% Pervious Area
1.430		64.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	69	0.0140	0.14		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
0.1	28	0.2860	8.61		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
1.2	165	0.0220	2.39		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.3	78	0.0050	4.20	7.43	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013
2.0	620	0.0160	5.21	15.63	**Channel Flow,** Area= 3.0 sf Perim= 6.3' r= 0.48' n= 0.022 Earth, clean & straight
11.8	960	Total			

Subcatchment 14S: Site



Summary for Subcatchment 15S: Bypass

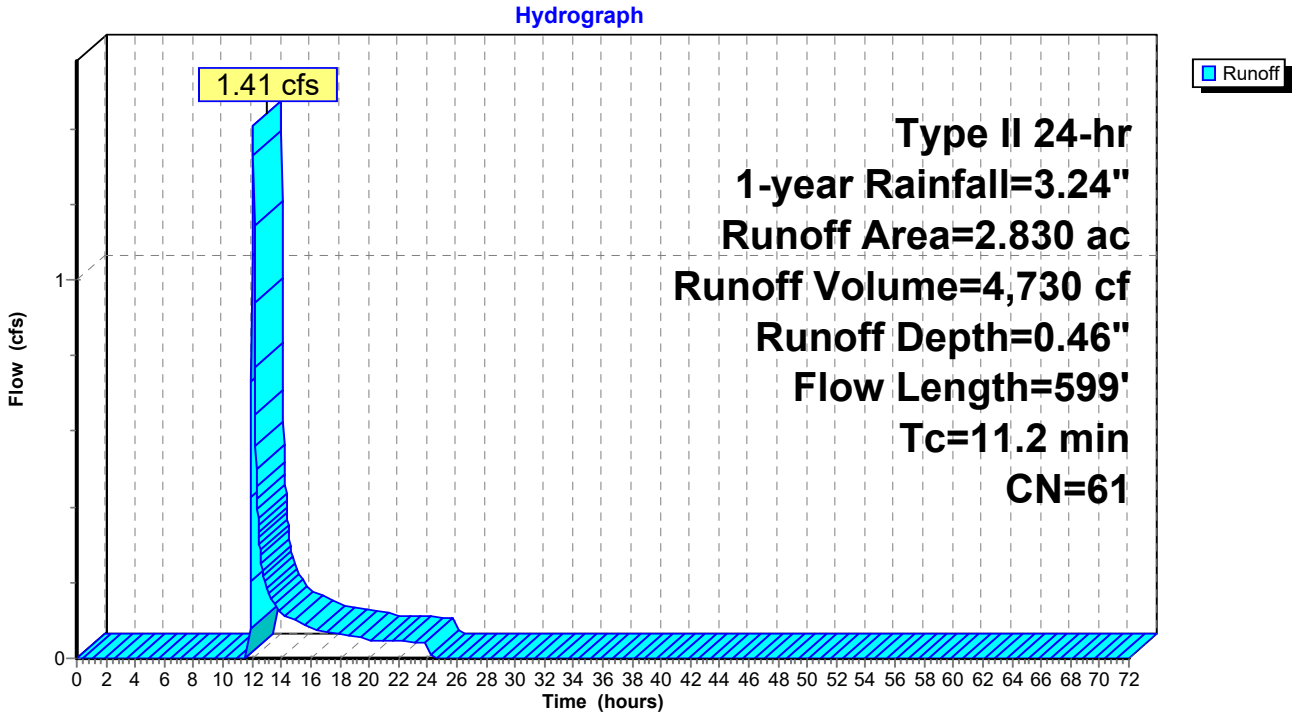
Runoff = 1.41 cfs @ 12.06 hrs, Volume= 4,730 cf, Depth= 0.46"
Routed to Link 6L : Outfall #3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 1-year Rainfall=3.24"

Area (ac)	CN	Description
2.010	49	50-75% Grass cover, Fair, HSG A
0.110	36	Woods, Fair, HSG A
0.710	98	Paved parking, HSG A
2.830	61	Weighted Average
2.120		74.91% Pervious Area
0.710		25.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	69	0.0120	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
2.2	434	0.0420	3.30		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.0	16	0.1562	6.36		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.3	80	0.0160	4.66	11.66	**Channel Flow,** Area= 2.5 sf Perim= 6.2' r= 0.40' n= 0.022 Earth, clean & straight
11.2	599	Total			

Subcatchment 15S: Bypass



Summary for Pond 10DP: Detention Pond 3

[44] Hint: Outlet device #2 is below defined storage
[79] Warning: Submerged Pond 10FP Primary device # 1 INLET by 2.28'

Inflow Area = 96,703 sf, 64.41% Impervious, Inflow Depth = 1.42" for 1-year event
Inflow = 4.74 cfs @ 12.05 hrs, Volume= 11,407 cf
Outflow = 0.70 cfs @ 12.50 hrs, Volume= 11,407 cf, Atten= 85%, Lag= 26.7 min
Primary = 0.70 cfs @ 12.50 hrs, Volume= 11,407 cf
Routed to Link 6L : Outfall #3

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 698.28' @ 12.50 hrs Surf.Area= 3,679 sf Storage= 4,215 cf

Plug-Flow detention time= 49.4 min calculated for 11,407 cf (100% of inflow)
Center-of-Mass det. time= 49.4 min (903.1 - 853.7)

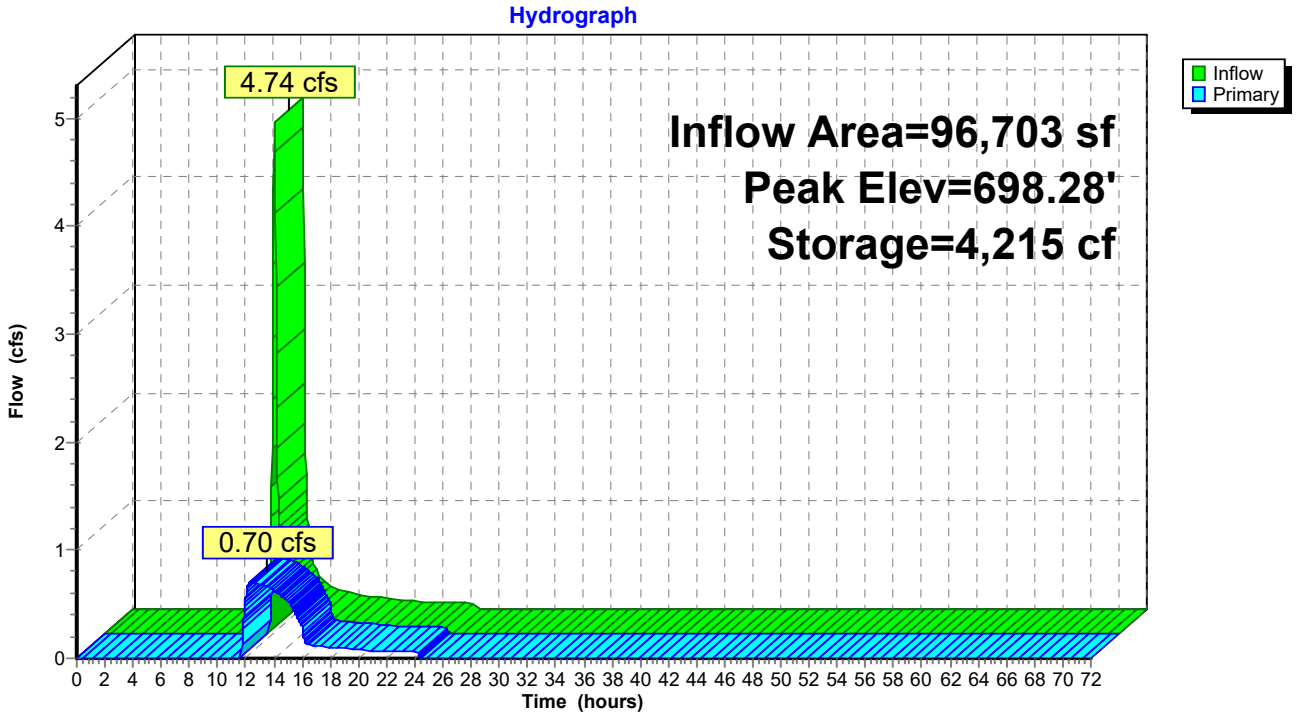
Volume	Invert	Avail.Storage	Storage Description
#1	695.44'	22,040 cf	**Custom Stage Data (Prismatic)** Listed below

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
695.44	0	0	0
696.00	292	82	82
697.00	1,309	801	882
698.00	2,953	2,131	3,013
699.00	5,510	4,232	7,245
700.00	6,790	6,150	13,395
701.00	10,501	8,646	22,040

Device	Routing	Invert	Outlet Devices
#1	Primary	695.33'	**18.0" Round Culvert** L= 64.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 695.33' / 695.00' S= 0.0052 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	695.33'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	700.00'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	700.50'	**6.0' long x 9.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.46 2.55 2.70 2.69 2.68 2.68 2.67 2.64 2.64 2.64 2.65 2.64 2.65 2.65 2.66 2.67 2.69

Primary OutFlow Max=0.70 cfs @ 12.50 hrs HW=698.28' TW=565.00' (Fixed TW Elev= 565.00')
- **1=Culvert** (Passes 0.70 cfs of 11.59 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.70 cfs @ 8.04 fps)
  - **3=Orifice/Grate** (Controls 0.00 cfs)
- **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 10DP: Detention Pond 3



Summary for Pond 10FP: FocalPoint 10

[92] Warning: Device #3 is above defined storage

Inflow Area = 96,703 sf, 64.41% Impervious, Inflow Depth = 1.50" for 1-year event
Inflow = 4.79 cfs @ 12.04 hrs, Volume= 12,092 cf
Outflow = 4.74 cfs @ 12.05 hrs, Volume= 11,407 cf, Atten= 1%, Lag= 1.0 min
Primary = 4.74 cfs @ 12.05 hrs, Volume= 11,407 cf
Routed to Pond 10DP : Detention Pond 3

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 699.82' @ 12.05 hrs Surf.Area= 1,224 sf Storage= 1,037 cf

Plug-Flow detention time= 44.0 min calculated for 11,407 cf (94% of inflow)
Center-of-Mass det. time= 12.6 min (853.7 - 841.0)

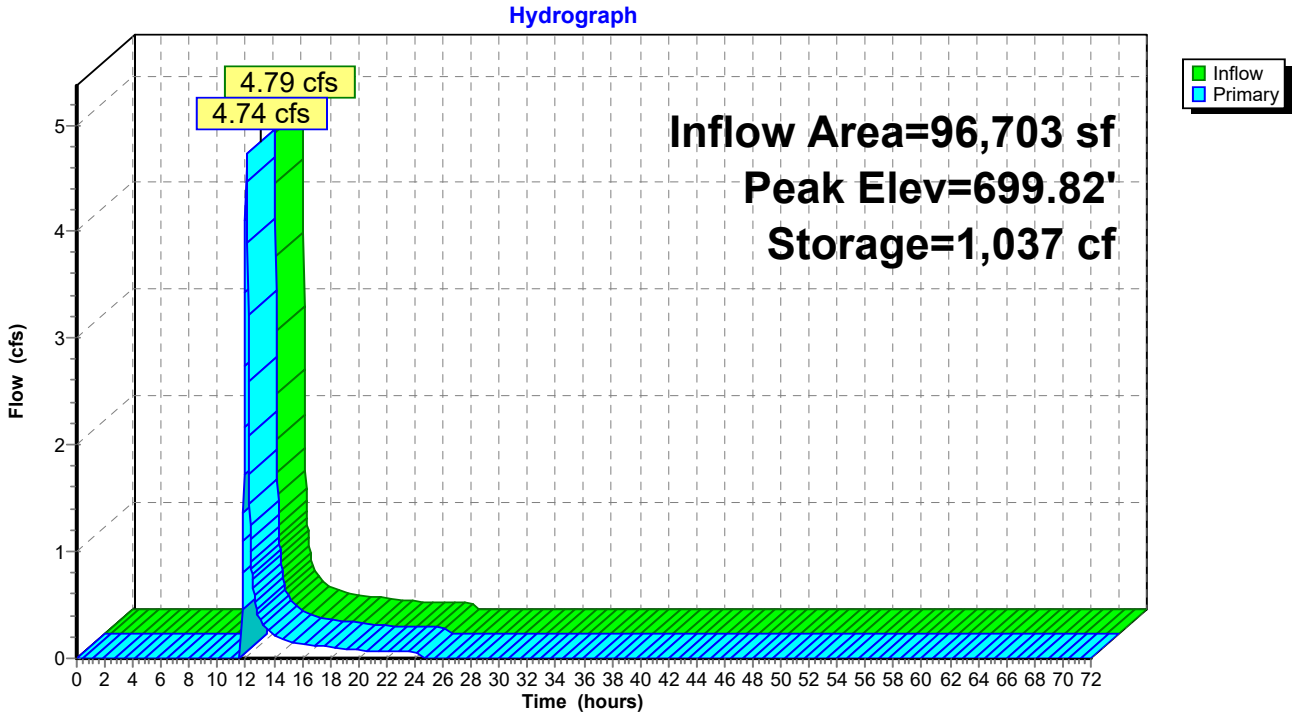
Volume	Invert	Avail.Storage	Storage Description
#1	696.00'	1,266 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
696.00	527	0.0	0	0
699.00	527	20.0	316	316
700.00	1,373	100.0	950	1,266

Device	Routing	Invert	Outlet Devices
#1	Primary	696.00'	**18.0" Round Culvert** L= 23.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 696.00' / 695.88' S= 0.0052 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**103.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=4.70 cfs @ 12.05 hrs HW=699.82' (Free Discharge)
└**1=Culvert** (Passes 4.70 cfs of 14.91 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 4.70 cfs @ 1.86 fps)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 10FP: FocalPoint 10

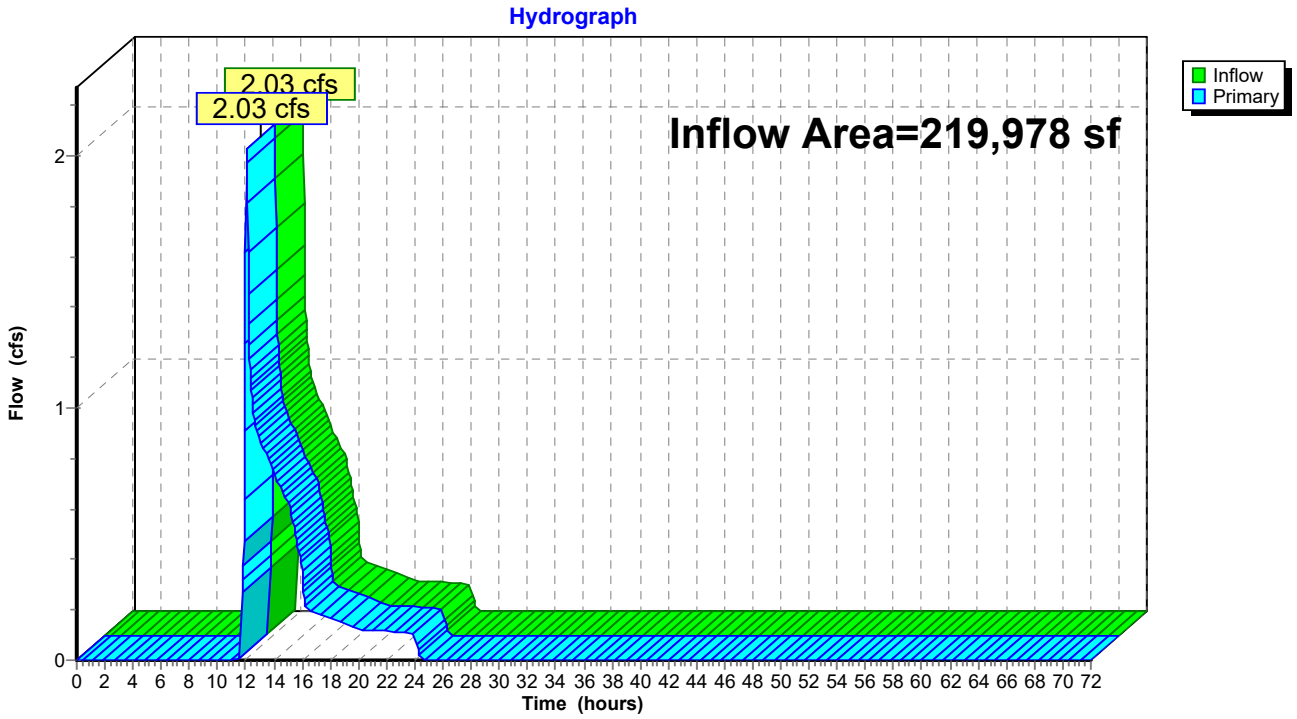


Summary for Link 6L: Outfall #3

Inflow Area = 219,978 sf, 42.38% Impervious, Inflow Depth = 0.88" for 1-year event
Inflow = 2.03 cfs @ 12.07 hrs, Volume= 16,137 cf
Primary = 2.03 cfs @ 12.07 hrs, Volume= 16,137 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs

Link 6L: Outfall #3



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment14S: Site Runoff Area=2.220 ac 64.41% Impervious Runoff Depth=2.01"
Flow Length=960' Tc=11.8 min CN=81 Runoff=6.43 cfs 16,219 cf

Subcatchment15S: Bypass Runoff Area=2.830 ac 25.09% Impervious Runoff Depth=0.75"
Flow Length=599' Tc=11.2 min CN=61 Runoff=2.66 cfs 7,678 cf

Pond 10DP: Detention Pond 3 Peak Elev=698.78' Storage=6,313 cf Inflow=6.37 cfs 15,534 cf
Outflow=0.76 cfs 15,534 cf

Pond 10FP: FocalPoint 10 Peak Elev=699.89' Storage=1,126 cf Inflow=6.43 cfs 16,219 cf
Outflow=6.37 cfs 15,534 cf

Link 6L: Outfall #3 Inflow=3.34 cfs 23,211 cf
Primary=3.34 cfs 23,211 cf

Total Runoff Area = 219,978 sf Runoff Volume = 23,897 cf Average Runoff Depth = 1.30"
57.62% Pervious = 126,760 sf 42.38% Impervious = 93,218 sf

Summary for Subcatchment 14S: Site

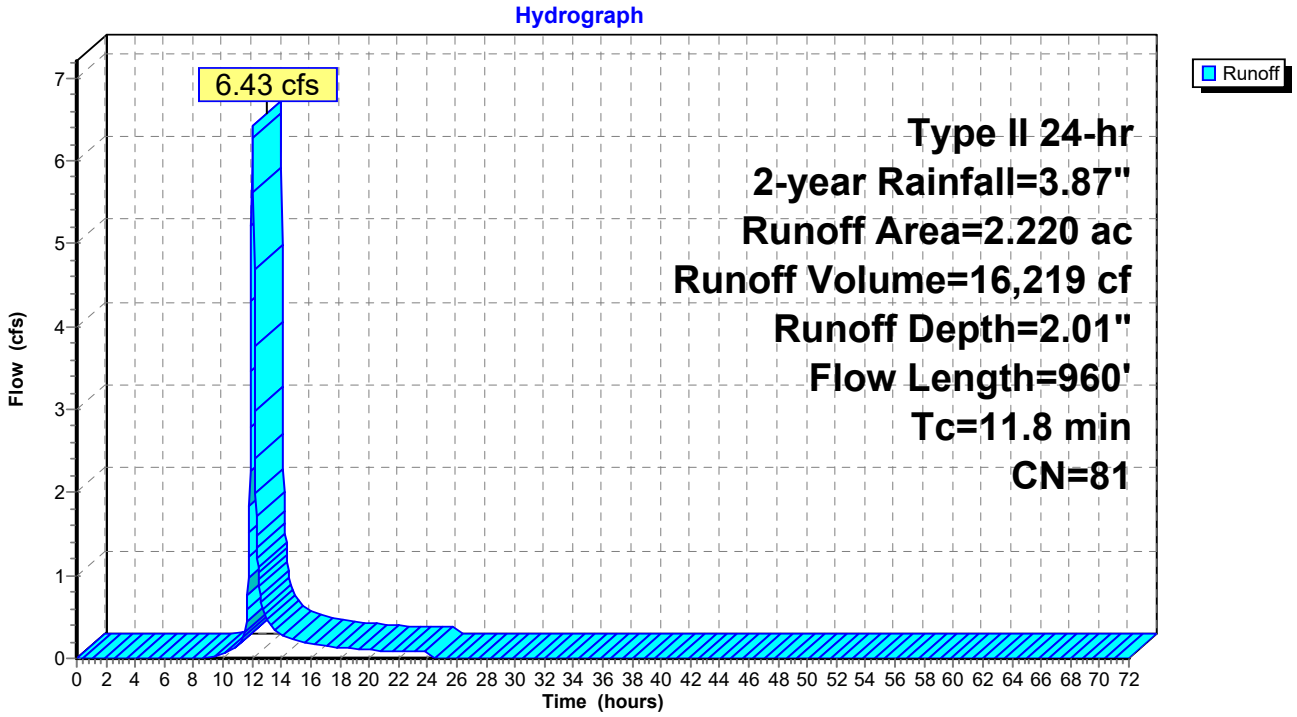
Runoff = 6.43 cfs @ 12.04 hrs, Volume= 16,219 cf, Depth= 2.01"
Routed to Pond 10FP : FocalPoint 10

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 2-year Rainfall=3.87"

Area (ac)	CN	Description
0.610	49	50-75% Grass cover, Fair, HSG A
0.070	69	50-75% Grass cover, Fair, HSG B
0.110	36	Woods, Fair, HSG A
1.430	98	Paved parking, HSG A
2.220	81	Weighted Average
0.790		35.59% Pervious Area
1.430		64.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	69	0.0140	0.14		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
0.1	28	0.2860	8.61		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
1.2	165	0.0220	2.39		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.3	78	0.0050	4.20	7.43	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013
2.0	620	0.0160	5.21	15.63	**Channel Flow,** Area= 3.0 sf Perim= 6.3' r= 0.48' n= 0.022 Earth, clean & straight
11.8	960	Total			

Subcatchment 14S: Site



Summary for Subcatchment 15S: Bypass

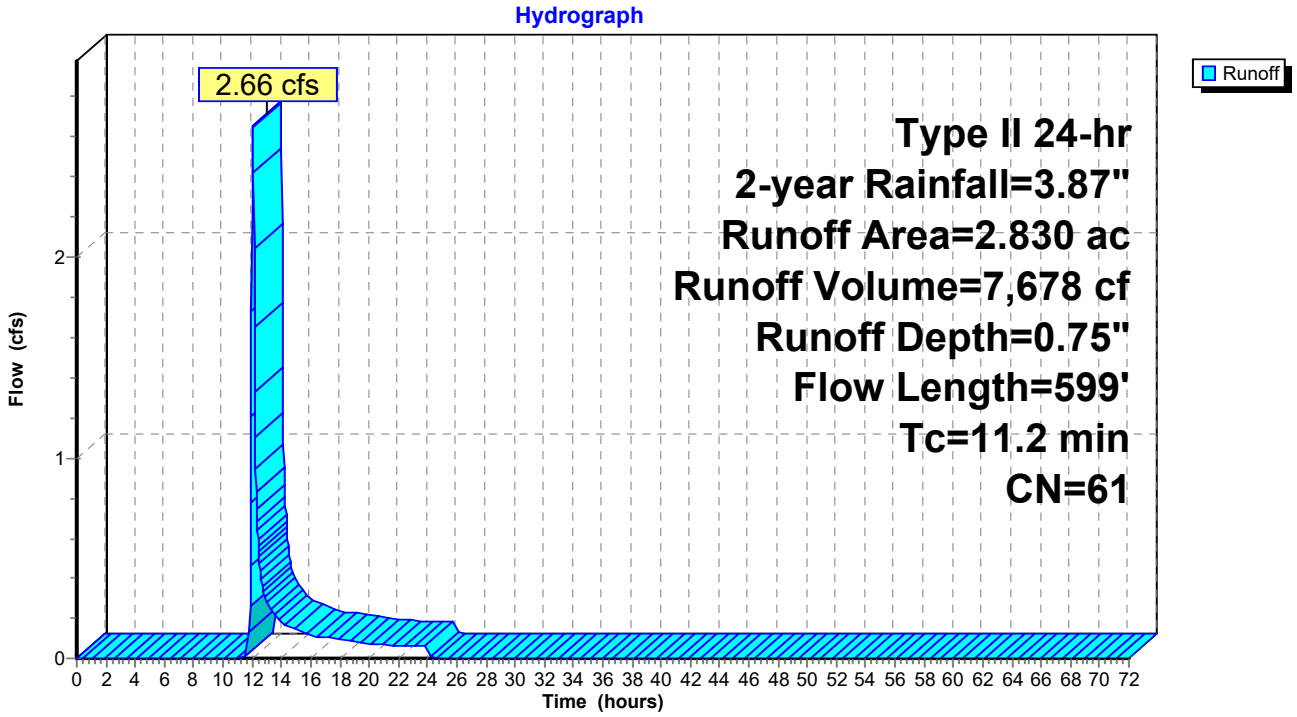
Runoff = 2.66 cfs @ 12.05 hrs, Volume= 7,678 cf, Depth= 0.75"
Routed to Link 6L : Outfall #3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 2-year Rainfall=3.87"

Area (ac)	CN	Description
2.010	49	50-75% Grass cover, Fair, HSG A
0.110	36	Woods, Fair, HSG A
0.710	98	Paved parking, HSG A
2.830	61	Weighted Average
2.120		74.91% Pervious Area
0.710		25.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	69	0.0120	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
2.2	434	0.0420	3.30		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.0	16	0.1562	6.36		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.3	80	0.0160	4.66	11.66	**Channel Flow,** Area= 2.5 sf Perim= 6.2' r= 0.40' n= 0.022 Earth, clean & straight
11.2	599	Total			

Subcatchment 15S: Bypass



Summary for Pond 10DP: Detention Pond 3

[44] Hint: Outlet device #2 is below defined storage
[79] Warning: Submerged Pond 10FP Primary device # 1 INLET by 2.78'

Inflow Area = 96,703 sf, 64.41% Impervious, Inflow Depth = 1.93" for 2-year event
Inflow = 6.37 cfs @ 12.05 hrs, Volume= 15,534 cf
Outflow = 0.76 cfs @ 12.58 hrs, Volume= 15,534 cf, Atten= 88%, Lag= 31.7 min
Primary = 0.76 cfs @ 12.58 hrs, Volume= 15,534 cf
Routed to Link 6L : Outfall #3

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 698.78' @ 12.58 hrs Surf.Area= 4,947 sf Storage= 6,313 cf

Plug-Flow detention time= 72.0 min calculated for 15,534 cf (100% of inflow)
Center-of-Mass det. time= 72.0 min (915.6 - 843.6)

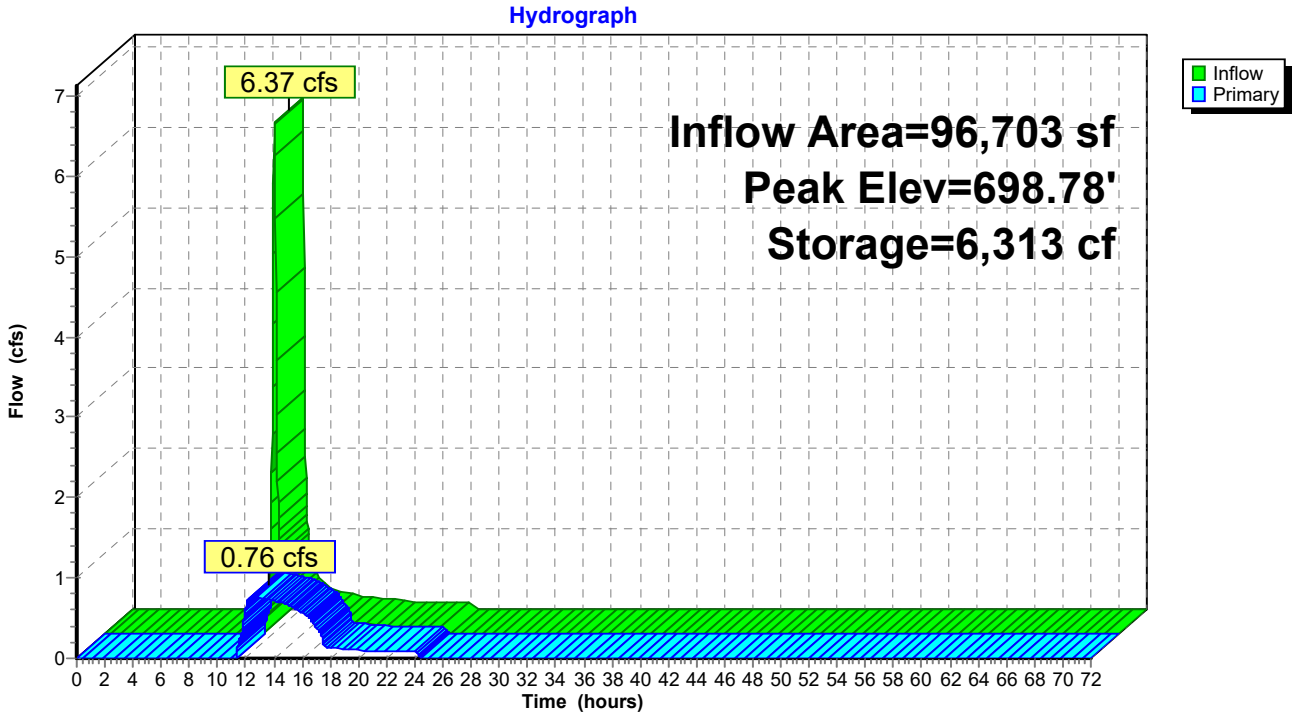
Volume	Invert	Avail.Storage	Storage Description
#1	695.44'	22,040 cf	**Custom Stage Data (Prismatic)** Listed below

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
695.44	0	0	0
696.00	292	82	82
697.00	1,309	801	882
698.00	2,953	2,131	3,013
699.00	5,510	4,232	7,245
700.00	6,790	6,150	13,395
701.00	10,501	8,646	22,040

Device	Routing	Invert	Outlet Devices
#1	Primary	695.33'	**18.0" Round Culvert** L= 64.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 695.33' / 695.00' S= 0.0052 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	695.33'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	700.00'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	700.50'	**6.0' long x 9.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.46 2.55 2.70 2.69 2.68 2.68 2.67 2.64 2.64 2.64 2.65 2.64 2.65 2.65 2.66 2.67 2.69

Primary OutFlow Max=0.76 cfs @ 12.58 hrs HW=698.78' TW=565.00' (Fixed TW Elev= 565.00')
- **1=Culvert** (Passes 0.76 cfs of 13.10 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.76 cfs @ 8.72 fps)
  - **3=Orifice/Grate** (Controls 0.00 cfs)
- **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 10DP: Detention Pond 3



Summary for Pond 10FP: FocalPoint 10

[92] Warning: Device #3 is above defined storage

Inflow Area = 96,703 sf, 64.41% Impervious, Inflow Depth = 2.01" for 2-year event
Inflow = 6.43 cfs @ 12.04 hrs, Volume= 16,219 cf
Outflow = 6.37 cfs @ 12.05 hrs, Volume= 15,534 cf, Atten= 1%, Lag= 0.9 min
Primary = 6.37 cfs @ 12.05 hrs, Volume= 15,534 cf
Routed to Pond 10DP : Detention Pond 3

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 699.89' @ 12.05 hrs Surf.Area= 1,284 sf Storage= 1,126 cf

Plug-Flow detention time= 35.1 min calculated for 15,534 cf (96% of inflow)
Center-of-Mass det. time= 10.9 min (843.6 - 832.6)

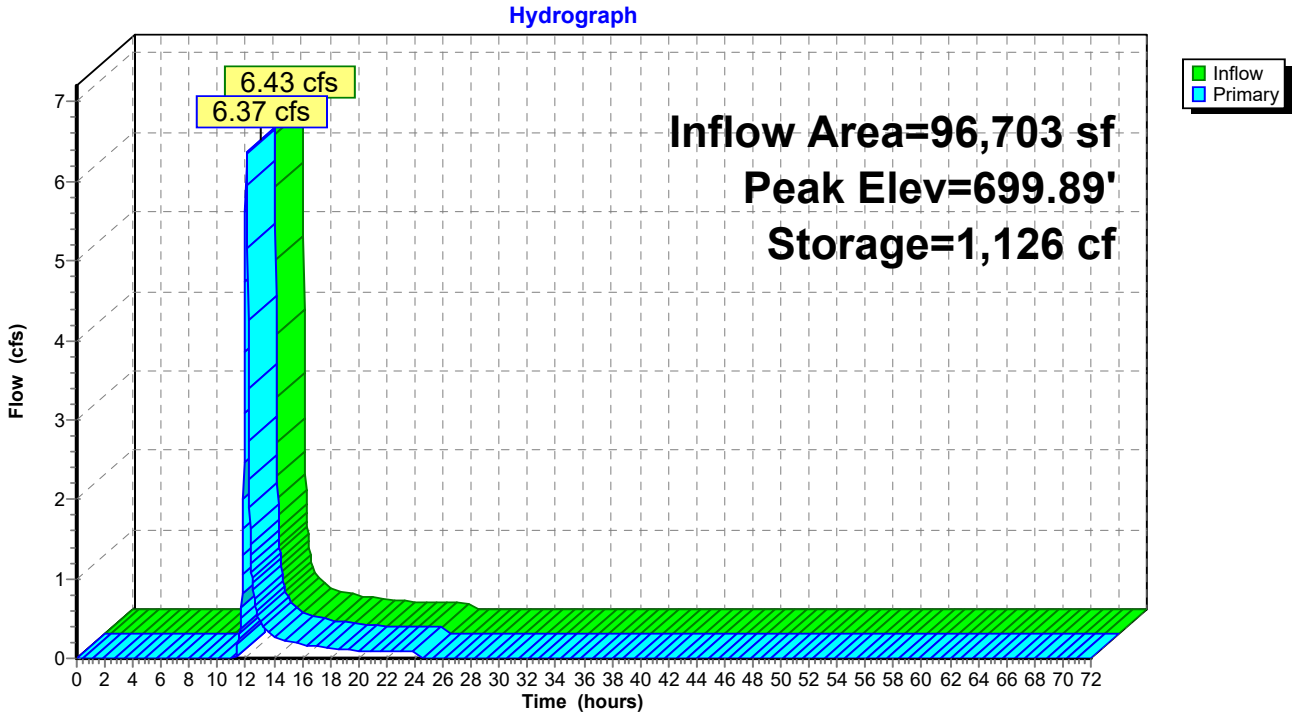
Volume	Invert	Avail.Storage	Storage Description
#1	696.00'	1,266 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
696.00	527	0.0	0	0
699.00	527	20.0	316	316
700.00	1,373	100.0	950	1,266

Device	Routing	Invert	Outlet Devices
#1	Primary	696.00'	**18.0" Round Culvert** L= 23.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 696.00' / 695.88' S= 0.0052 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**103.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=6.31 cfs @ 12.05 hrs HW=699.89' (Free Discharge)
└**1=Culvert** (Passes 6.31 cfs of 15.08 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 6.31 cfs @ 2.05 fps)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 10FP: FocalPoint 10

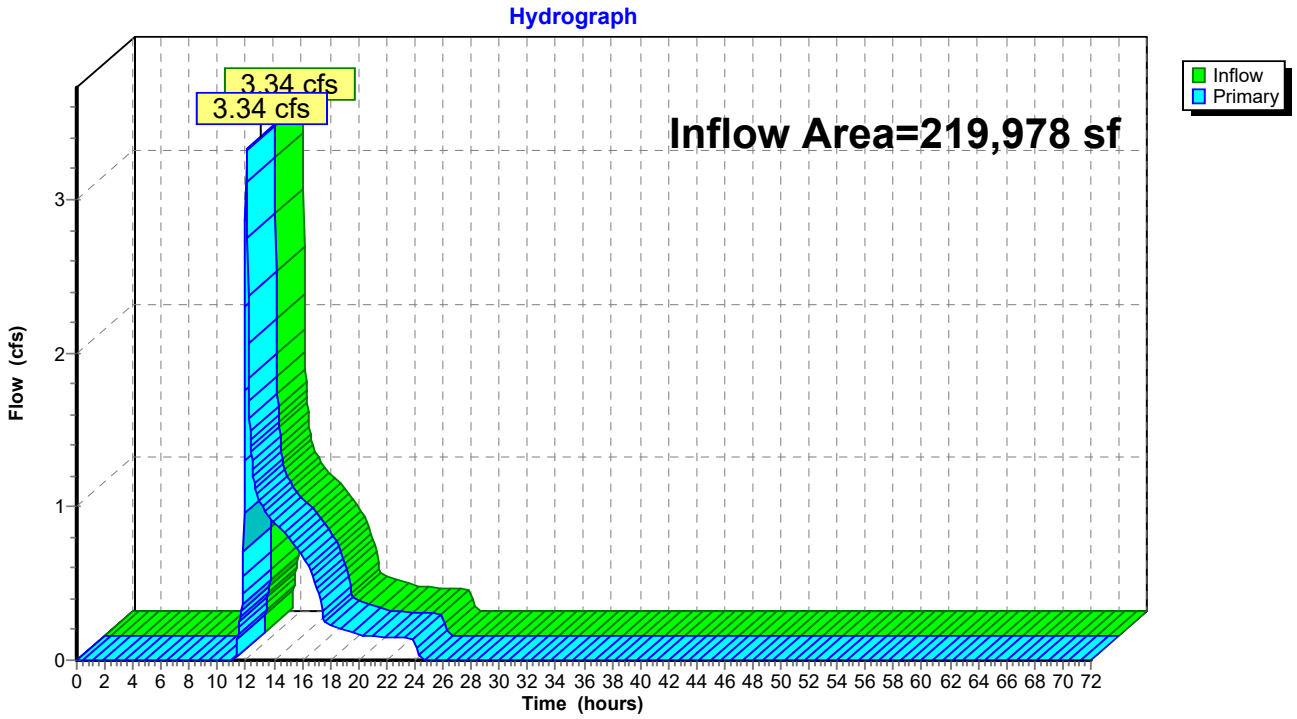


Summary for Link 6L: Outfall #3

Inflow Area = 219,978 sf, 42.38% Impervious, Inflow Depth = 1.27" for 2-year event
Inflow = 3.34 cfs @ 12.05 hrs, Volume= 23,211 cf
Primary = 3.34 cfs @ 12.05 hrs, Volume= 23,211 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs

Link 6L: Outfall #3



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment14S: Site Runoff Area=2.220 ac 64.41% Impervious Runoff Depth=2.73"
Flow Length=960' Tc=11.8 min CN=81 Runoff=8.69 cfs 22,004 cf

Subcatchment15S: Bypass Runoff Area=2.830 ac 25.09% Impervious Runoff Depth=1.20"
Flow Length=599' Tc=11.2 min CN=61 Runoff=4.65 cfs 12,311 cf

Pond 10DP: Detention Pond 3 Peak Elev=699.33' Storage=9,301 cf Inflow=8.61 cfs 21,319 cf
Outflow=0.82 cfs 21,319 cf

Pond 10FP: FocalPoint 10 Peak Elev=699.98' Storage=1,242 cf Inflow=8.69 cfs 22,004 cf
Outflow=8.61 cfs 21,319 cf

Link 6L: Outfall #3 Inflow=5.36 cfs 33,630 cf
Primary=5.36 cfs 33,630 cf

Total Runoff Area = 219,978 sf Runoff Volume = 34,315 cf Average Runoff Depth = 1.87"
57.62% Pervious = 126,760 sf 42.38% Impervious = 93,218 sf

Summary for Subcatchment 14S: Site

[47] Hint: Peak is 117% of capacity of segment #4

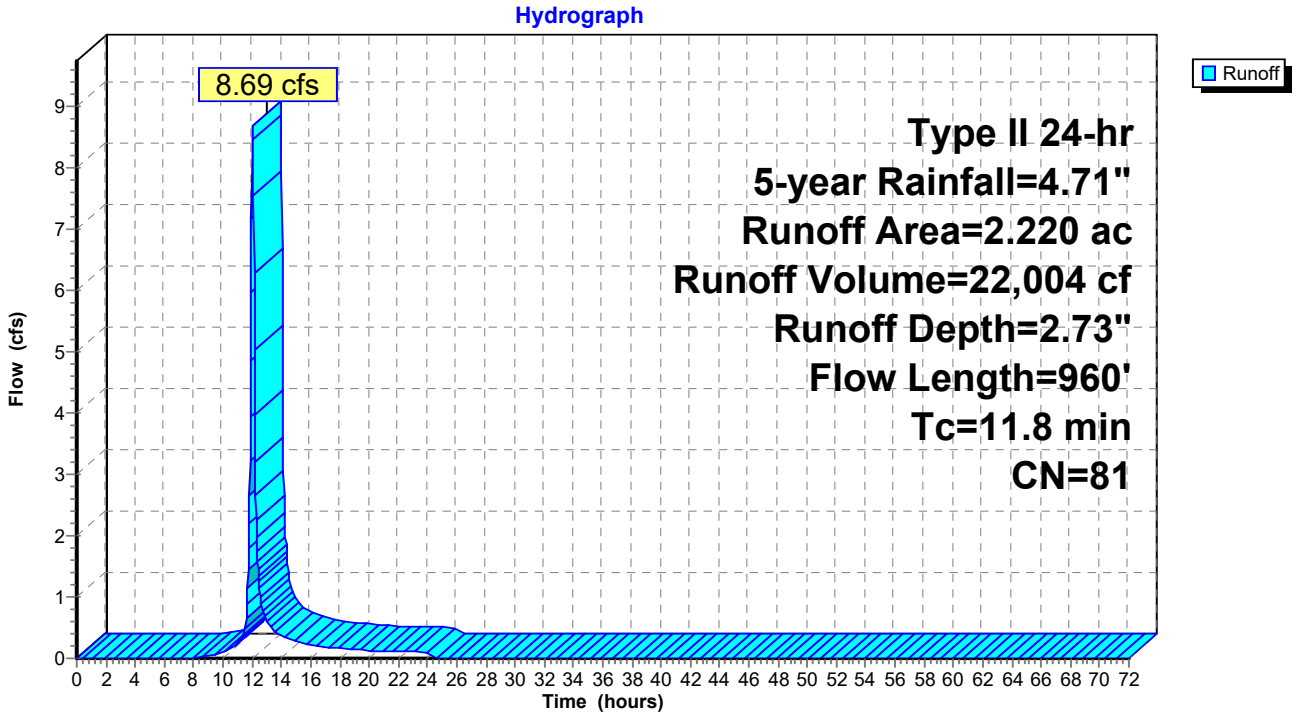
Runoff = 8.69 cfs @ 12.04 hrs, Volume= 22,004 cf, Depth= 2.73"
Routed to Pond 10FP : FocalPoint 10

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 5-year Rainfall=4.71"

Area (ac)	CN	Description
0.610	49	50-75% Grass cover, Fair, HSG A
0.070	69	50-75% Grass cover, Fair, HSG B
0.110	36	Woods, Fair, HSG A
1.430	98	Paved parking, HSG A
2.220	81	Weighted Average
0.790		35.59% Pervious Area
1.430		64.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	69	0.0140	0.14		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
0.1	28	0.2860	8.61		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
1.2	165	0.0220	2.39		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.3	78	0.0050	4.20	7.43	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013
2.0	620	0.0160	5.21	15.63	**Channel Flow,** Area= 3.0 sf Perim= 6.3' r= 0.48' n= 0.022 Earth, clean & straight
11.8	960	Total			

Subcatchment 14S: Site



Summary for Subcatchment 15S: Bypass

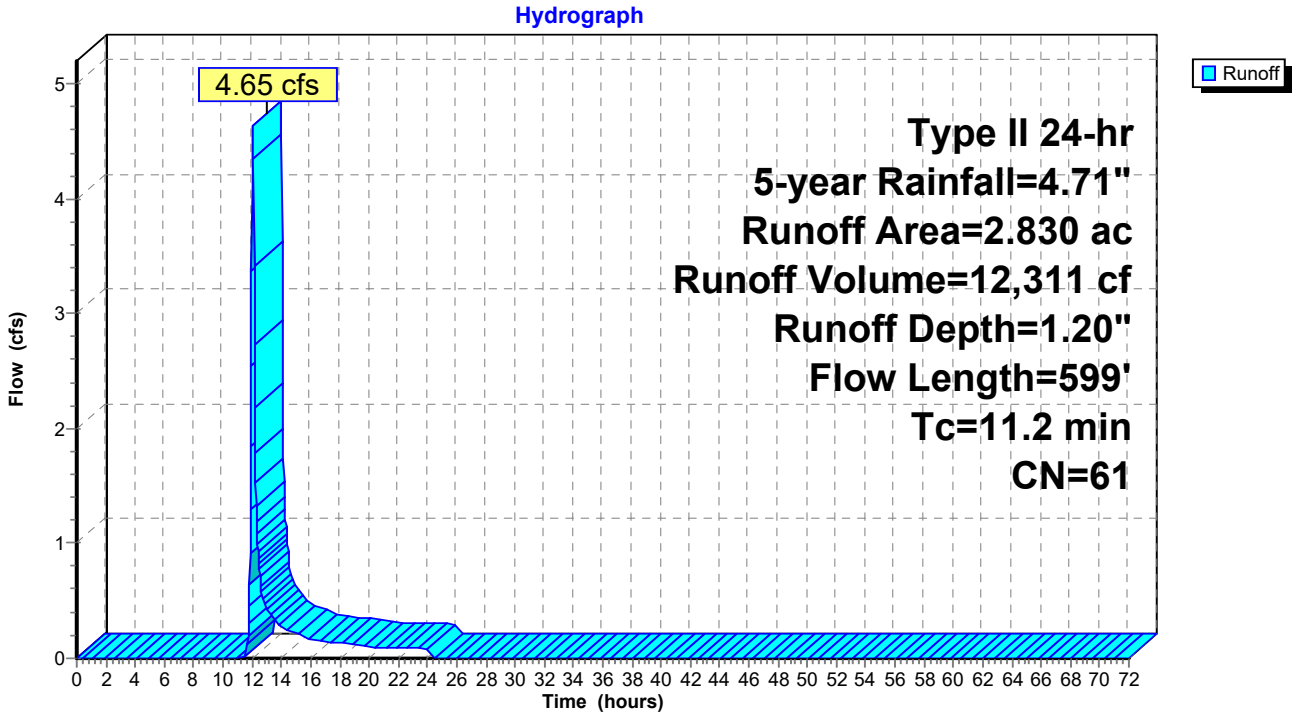
Runoff = 4.65 cfs @ 12.04 hrs, Volume= 12,311 cf, Depth= 1.20"
Routed to Link 6L : Outfall #3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 5-year Rainfall=4.71"

Area (ac)	CN	Description
2.010	49	50-75% Grass cover, Fair, HSG A
0.110	36	Woods, Fair, HSG A
0.710	98	Paved parking, HSG A
2.830	61	Weighted Average
2.120		74.91% Pervious Area
0.710		25.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	69	0.0120	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
2.2	434	0.0420	3.30		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.0	16	0.1562	6.36		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.3	80	0.0160	4.66	11.66	**Channel Flow,** Area= 2.5 sf Perim= 6.2' r= 0.40' n= 0.022 Earth, clean & straight
11.2	599	Total			

Subcatchment 15S: Bypass



Summary for Pond 10DP: Detention Pond 3

[44] Hint: Outlet device #2 is below defined storage
[79] Warning: Submerged Pond 10FP Primary device # 1 INLET by 3.33'

Inflow Area = 96,703 sf, 64.41% Impervious, Inflow Depth = 2.65" for 5-year event
Inflow = 8.61 cfs @ 12.05 hrs, Volume= 21,319 cf
Outflow = 0.82 cfs @ 12.68 hrs, Volume= 21,319 cf, Atten= 90%, Lag= 37.7 min
Primary = 0.82 cfs @ 12.68 hrs, Volume= 21,319 cf
Routed to Link 6L : Outfall #3

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 699.33' @ 12.68 hrs Surf.Area= 5,938 sf Storage= 9,301 cf

Plug-Flow detention time= 102.4 min calculated for 21,310 cf (100% of inflow)
Center-of-Mass det. time= 102.4 min (936.0 - 833.6)

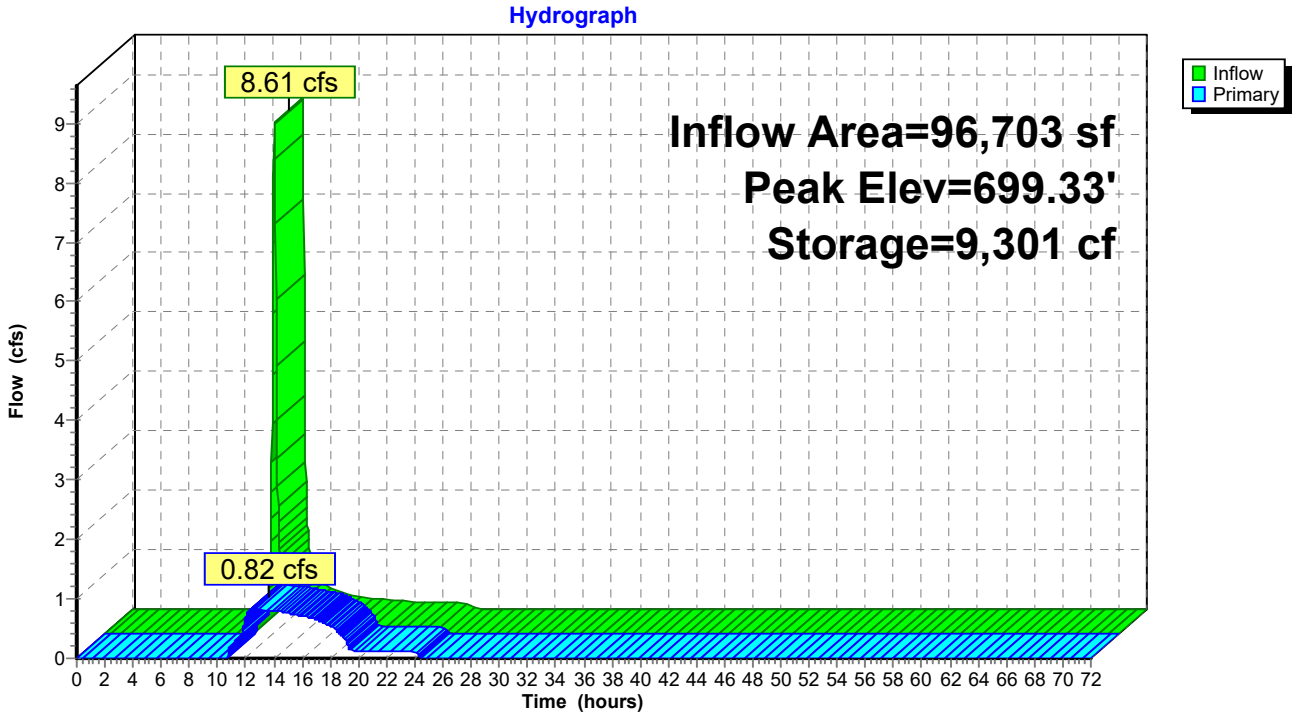
Volume	Invert	Avail.Storage	Storage Description
#1	695.44'	22,040 cf	**Custom Stage Data (Prismatic)** Listed below

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
695.44	0	0	0
696.00	292	82	82
697.00	1,309	801	882
698.00	2,953	2,131	3,013
699.00	5,510	4,232	7,245
700.00	6,790	6,150	13,395
701.00	10,501	8,646	22,040

Device	Routing	Invert	Outlet Devices
#1	Primary	695.33'	**18.0" Round Culvert** L= 64.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 695.33' / 695.00' S= 0.0052 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	695.33'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	700.00'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	700.50'	**6.0' long x 9.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.46 2.55 2.70 2.69 2.68 2.68 2.67 2.64 2.64 2.64 2.65 2.64 2.65 2.65 2.66 2.67 2.69

Primary OutFlow Max=0.82 cfs @ 12.68 hrs HW=699.33' TW=565.00' (Fixed TW Elev= 565.00')
- **1=Culvert** (Passes 0.82 cfs of 14.61 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.82 cfs @ 9.43 fps)
  - **3=Orifice/Grate** (Controls 0.00 cfs)
- **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 10DP: Detention Pond 3



Summary for Pond 10FP: FocalPoint 10

[92] Warning: Device #3 is above defined storage

Inflow Area = 96,703 sf, 64.41% Impervious, Inflow Depth = 2.73" for 5-year event
Inflow = 8.69 cfs @ 12.04 hrs, Volume= 22,004 cf
Outflow = 8.61 cfs @ 12.05 hrs, Volume= 21,319 cf, Atten= 1%, Lag= 0.9 min
Primary = 8.61 cfs @ 12.05 hrs, Volume= 21,319 cf
Routed to Pond 10DP : Detention Pond 3

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 699.98' @ 12.05 hrs Surf.Area= 1,358 sf Storage= 1,242 cf

Plug-Flow detention time= 28.0 min calculated for 21,310 cf (97% of inflow)
Center-of-Mass det. time= 9.7 min (833.6 - 823.9)

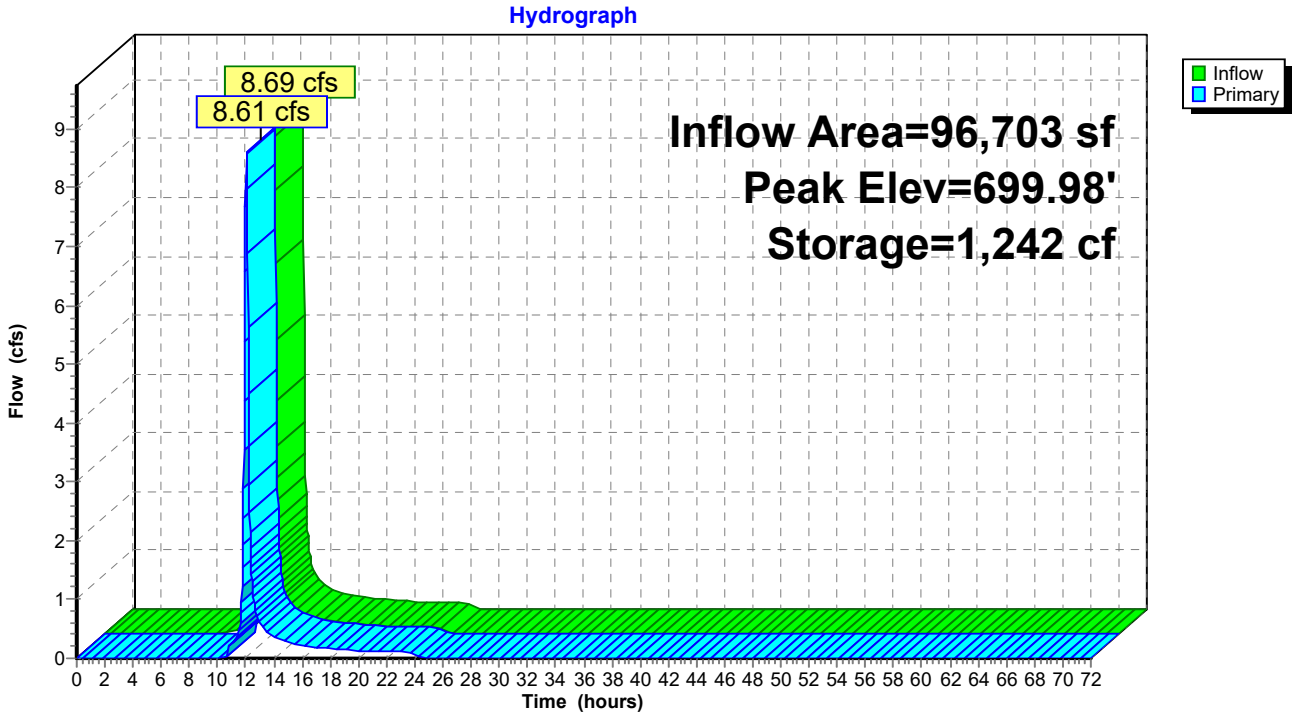
Volume	Invert	Avail.Storage	Storage Description
#1	696.00'	1,266 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
696.00	527	0.0	0	0
699.00	527	20.0	316	316
700.00	1,373	100.0	950	1,266

Device	Routing	Invert	Outlet Devices
#1	Primary	696.00'	**18.0" Round Culvert** L= 23.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 696.00' / 695.88' S= 0.0052 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**103.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=8.52 cfs @ 12.05 hrs HW=699.98' (Free Discharge)
└**1=Culvert** (Passes 8.52 cfs of 15.29 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 8.52 cfs @ 2.26 fps)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 10FP: FocalPoint 10

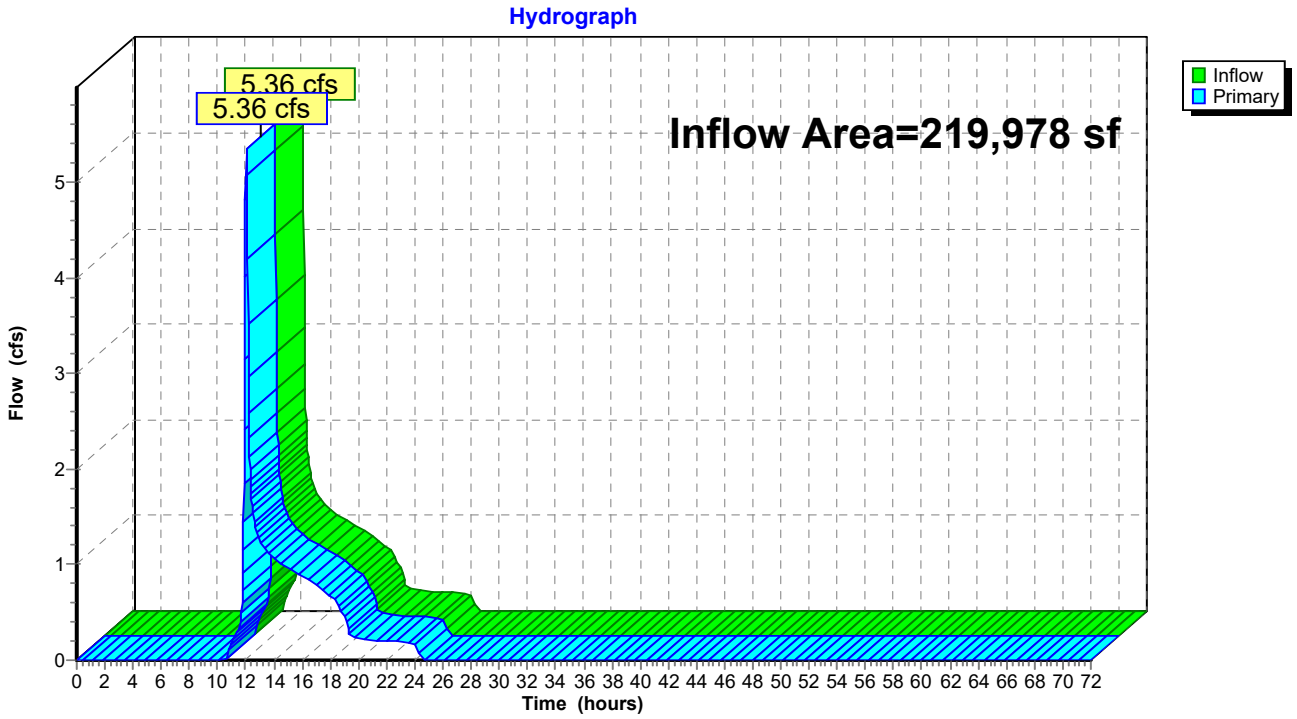


Summary for Link 6L: Outfall #3

Inflow Area = 219,978 sf, 42.38% Impervious, Inflow Depth = 1.83" for 5-year event
Inflow = 5.36 cfs @ 12.05 hrs, Volume= 33,630 cf
Primary = 5.36 cfs @ 12.05 hrs, Volume= 33,630 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs

Link 6L: Outfall #3



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment14S: Site Runoff Area=2.220 ac 64.41% Impervious Runoff Depth=3.32"
Flow Length=960' Tc=11.8 min CN=81 Runoff=10.53 cfs 26,782 cf

Subcatchment15S: Bypass Runoff Area=2.830 ac 25.09% Impervious Runoff Depth=1.60"
Flow Length=599' Tc=11.2 min CN=61 Runoff=6.41 cfs 16,465 cf

Pond 10DP: Detention Pond 3 Peak Elev=699.75' Storage=11,867 cf Inflow=10.79 cfs 26,097 cf
Outflow=0.87 cfs 26,097 cf

Pond 10FP: FocalPoint 10 Peak Elev=700.02' Storage=1,266 cf Inflow=10.53 cfs 26,782 cf
Outflow=10.79 cfs 26,097 cf

Link 6L: Outfall #3 Inflow=7.16 cfs 42,562 cf
Primary=7.16 cfs 42,562 cf

Total Runoff Area = 219,978 sf Runoff Volume = 43,247 cf Average Runoff Depth = 2.36"
57.62% Pervious = 126,760 sf 42.38% Impervious = 93,218 sf

Summary for Subcatchment 14S: Site

[47] Hint: Peak is 142% of capacity of segment #4

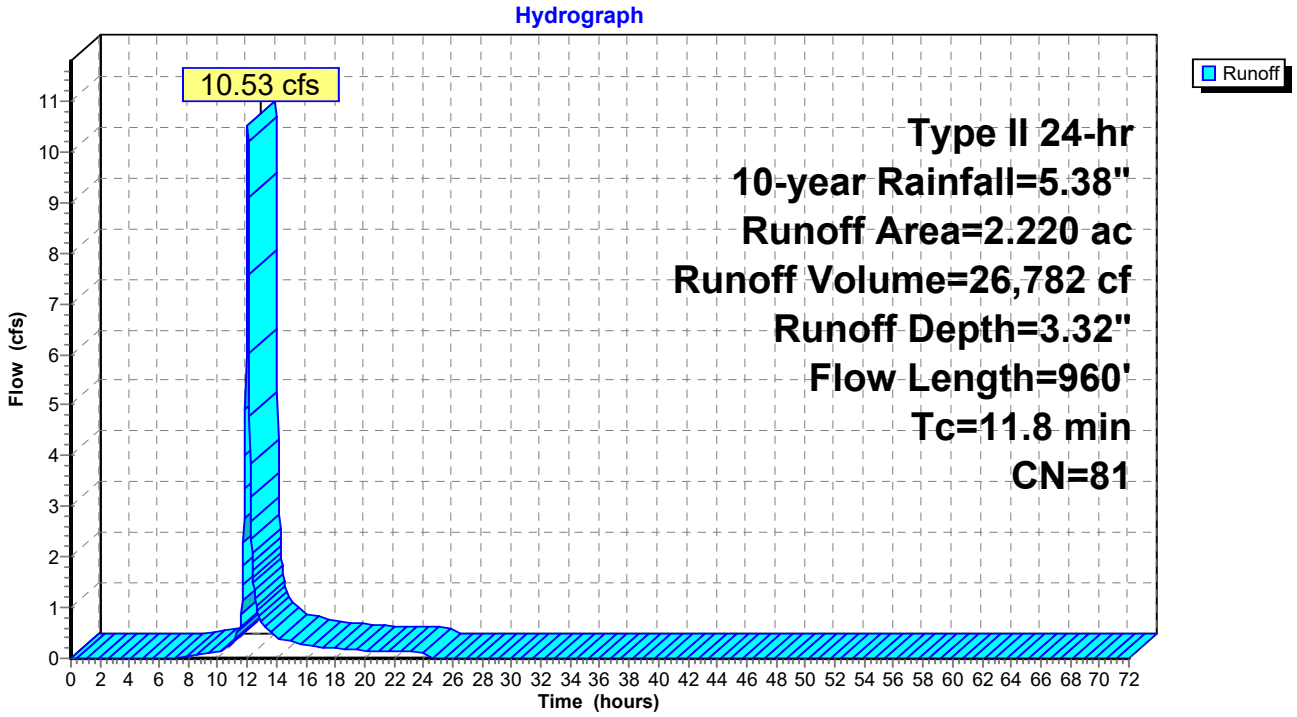
Runoff = 10.53 cfs @ 12.03 hrs, Volume= 26,782 cf, Depth= 3.32"
Routed to Pond 10FP : FocalPoint 10

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 10-year Rainfall=5.38"

Area (ac)	CN	Description
0.610	49	50-75% Grass cover, Fair, HSG A
0.070	69	50-75% Grass cover, Fair, HSG B
0.110	36	Woods, Fair, HSG A
1.430	98	Paved parking, HSG A
2.220	81	Weighted Average
0.790		35.59% Pervious Area
1.430		64.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	69	0.0140	0.14		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
0.1	28	0.2860	8.61		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
1.2	165	0.0220	2.39		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.3	78	0.0050	4.20	7.43	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013
2.0	620	0.0160	5.21	15.63	**Channel Flow,** Area= 3.0 sf Perim= 6.3' r= 0.48' n= 0.022 Earth, clean & straight
11.8	960	Total			

Subcatchment 14S: Site



Summary for Subcatchment 15S: Bypass

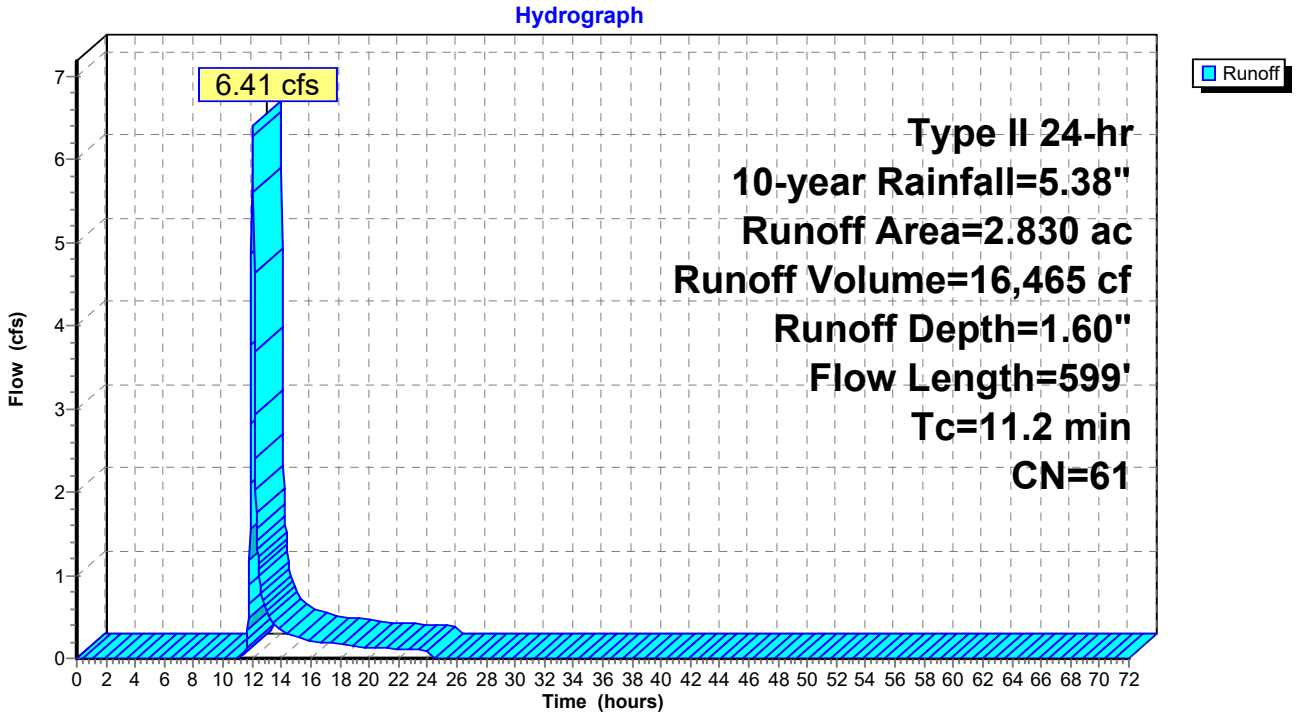
Runoff = 6.41 cfs @ 12.04 hrs, Volume= 16,465 cf, Depth= 1.60"
Routed to Link 6L : Outfall #3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 10-year Rainfall=5.38"

Area (ac)	CN	Description
2.010	49	50-75% Grass cover, Fair, HSG A
0.110	36	Woods, Fair, HSG A
0.710	98	Paved parking, HSG A
2.830	61	Weighted Average
2.120		74.91% Pervious Area
0.710		25.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	69	0.0120	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
2.2	434	0.0420	3.30		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.0	16	0.1562	6.36		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.3	80	0.0160	4.66	11.66	**Channel Flow,** Area= 2.5 sf Perim= 6.2' r= 0.40' n= 0.022 Earth, clean & straight
11.2	599	Total			

Subcatchment 15S: Bypass



Summary for Pond 10DP: Detention Pond 3

[44] Hint: Outlet device #2 is below defined storage
[81] Warning: Exceeded Pond 10FP by 0.15' @ 12.90 hrs

Inflow Area = 96,703 sf, 64.41% Impervious, Inflow Depth = 3.24" for 10-year event
Inflow = 10.79 cfs @ 12.03 hrs, Volume= 26,097 cf
Outflow = 0.87 cfs @ 12.78 hrs, Volume= 26,097 cf, Atten= 92%, Lag= 44.7 min
Primary = 0.87 cfs @ 12.78 hrs, Volume= 26,097 cf
Routed to Link 6L : Outfall #3

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 699.75' @ 12.78 hrs Surf.Area= 6,472 sf Storage= 11,867 cf

Plug-Flow detention time= 128.1 min calculated for 26,097 cf (100% of inflow)
Center-of-Mass det. time= 127.9 min (955.3 - 827.4)

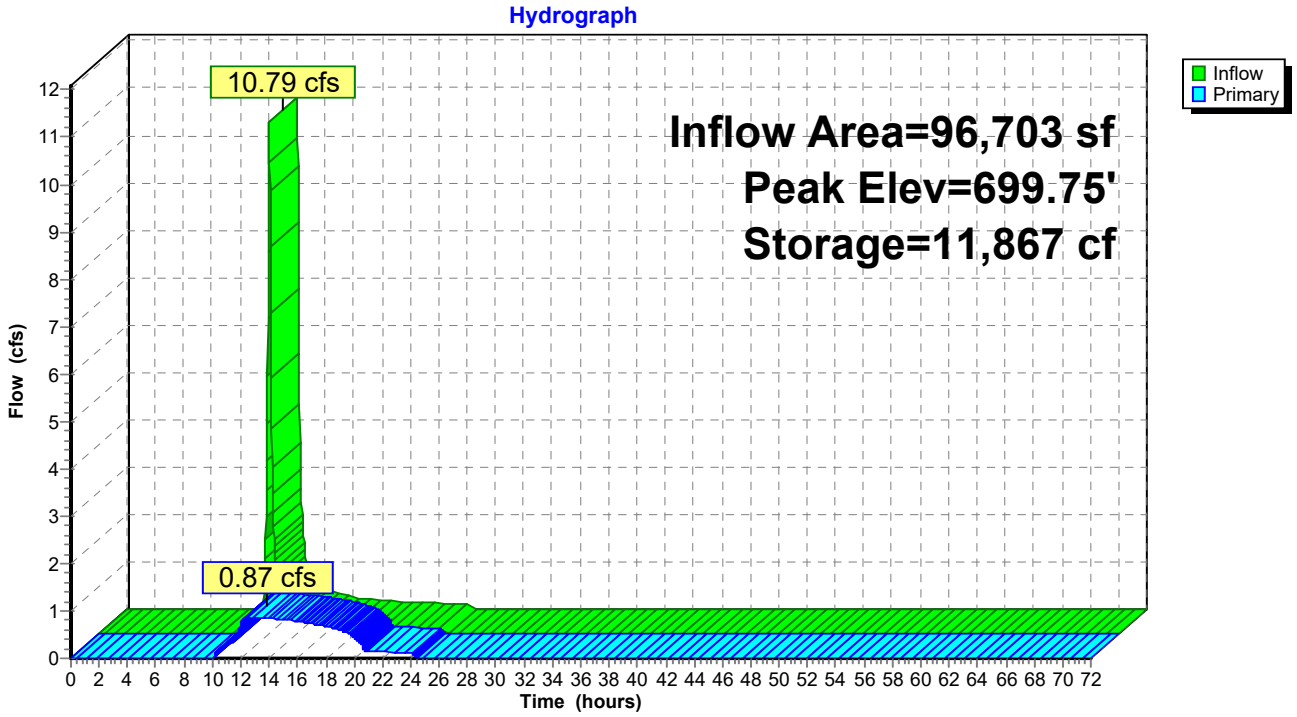
Volume	Invert	Avail.Storage	Storage Description
#1	695.44'	22,040 cf	**Custom Stage Data (Prismatic)** Listed below

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
695.44	0	0	0
696.00	292	82	82
697.00	1,309	801	882
698.00	2,953	2,131	3,013
699.00	5,510	4,232	7,245
700.00	6,790	6,150	13,395
701.00	10,501	8,646	22,040

Device	Routing	Invert	Outlet Devices
#1	Primary	695.33'	**18.0" Round Culvert** L= 64.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 695.33' / 695.00' S= 0.0052 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	695.33'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	700.00'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	700.50'	**6.0' long x 9.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.46 2.55 2.70 2.69 2.68 2.68 2.67 2.64 2.64 2.64 2.65 2.64 2.65 2.65 2.66 2.67 2.69

Primary OutFlow Max=0.87 cfs @ 12.78 hrs HW=699.75' TW=565.00' (Fixed TW Elev= 565.00')
- **1=Culvert** (Passes 0.87 cfs of 15.65 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.87 cfs @ 9.93 fps)
  - **3=Orifice/Grate** (Controls 0.00 cfs)
- **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 10DP: Detention Pond 3



Summary for Pond 10FP: FocalPoint 10

[92] Warning: Device #3 is above defined storage
[93] Warning: Storage range exceeded by 0.02'
[88] Warning: Qout>Qin may require smaller dt or Finer Routing

Inflow Area = 96,703 sf, 64.41% Impervious, Inflow Depth = 3.32" for 10-year event
Inflow = 10.53 cfs @ 12.03 hrs, Volume= 26,782 cf
Outflow = 10.79 cfs @ 12.03 hrs, Volume= 26,097 cf, Atten= 0%, Lag= 0.0 min
Primary = 10.79 cfs @ 12.03 hrs, Volume= 26,097 cf
Routed to Pond 10DP : Detention Pond 3

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 700.02' @ 12.03 hrs Surf.Area= 1,373 sf Storage= 1,266 cf

Plug-Flow detention time= 24.4 min calculated for 26,097 cf (97% of inflow)
Center-of-Mass det. time= 9.1 min (827.4 - 818.3)

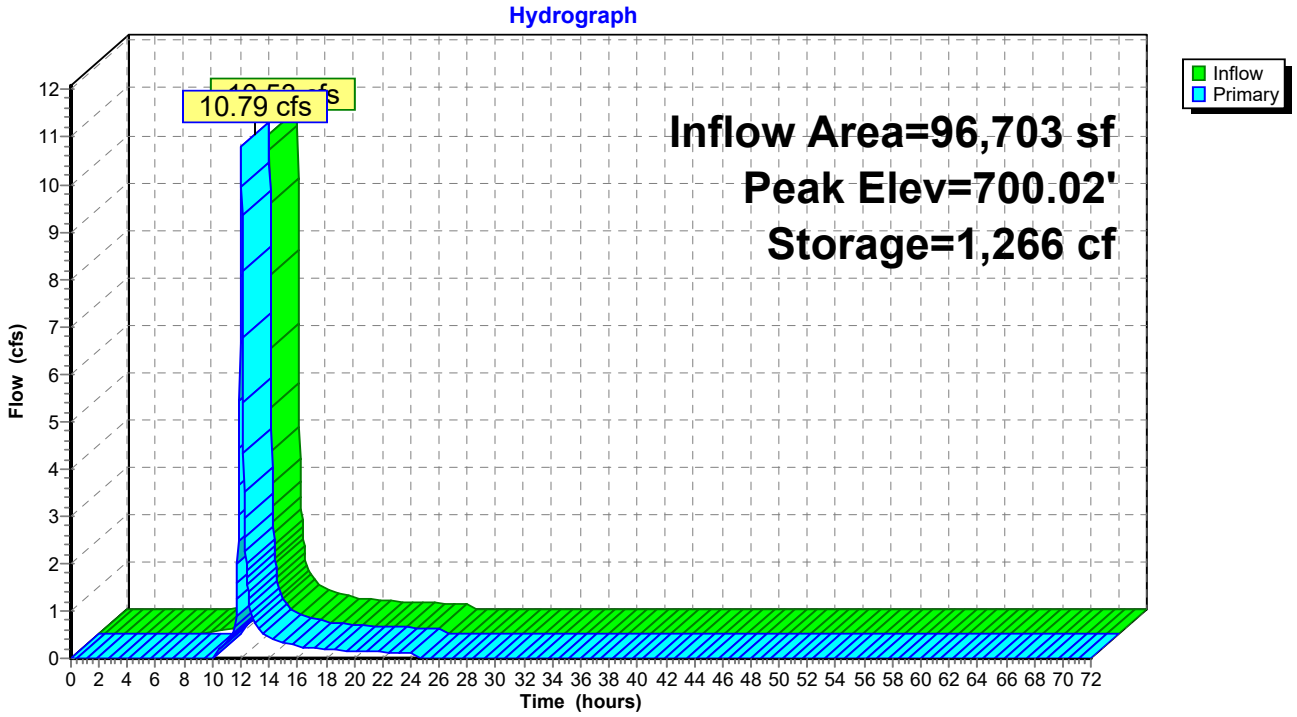
Volume	Invert	Avail.Storage	Storage Description
#1	696.00'	1,266 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
696.00	527	0.0	0	0
699.00	527	20.0	316	316
700.00	1,373	100.0	950	1,266

Device	Routing	Invert	Outlet Devices
#1	Primary	696.00'	**18.0" Round Culvert** L= 23.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 696.00' / 695.88' S= 0.0052 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**103.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=10.45 cfs @ 12.03 hrs HW=700.02' (Free Discharge)
└**1=Culvert** (Passes 9.68 cfs of 15.39 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 9.68 cfs @ 2.36 fps)
└**3=Broad-Crested Rectangular Weir** (Weir Controls 0.78 cfs @ 0.35 fps)

Pond 10FP: FocalPoint 10

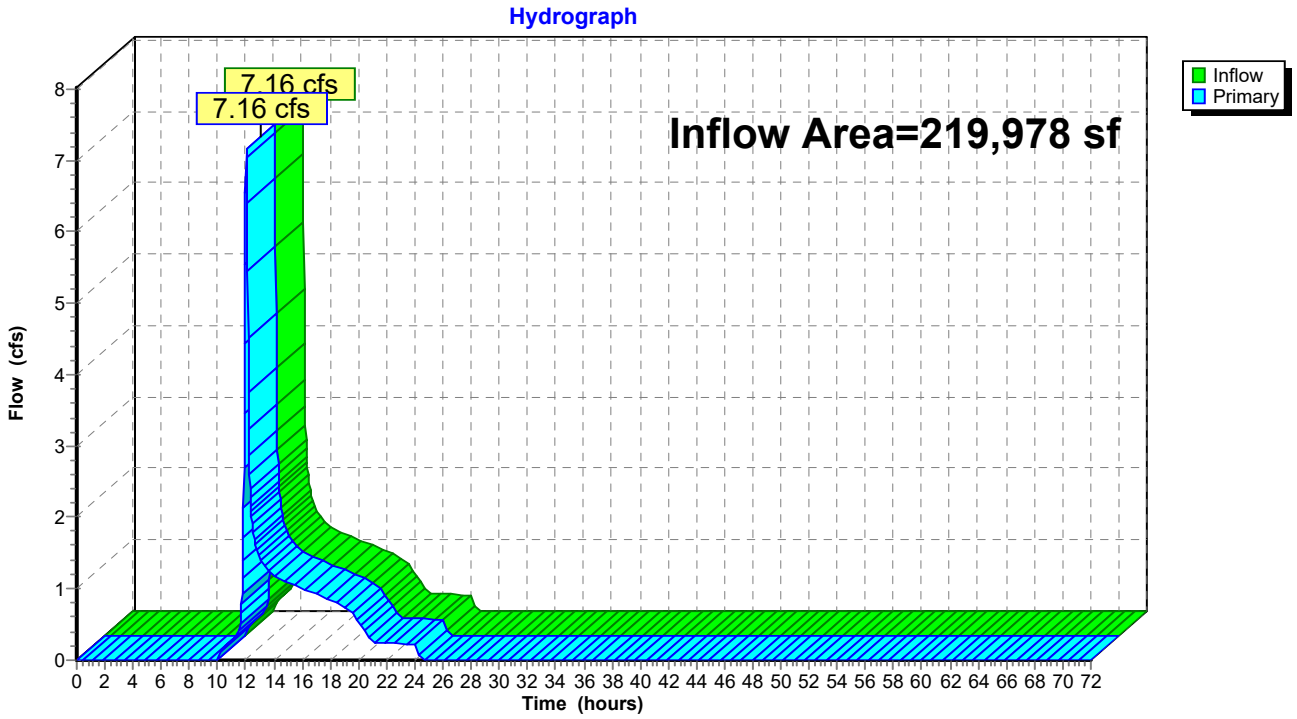


Summary for Link 6L: Outfall #3

Inflow Area = 219,978 sf, 42.38% Impervious, Inflow Depth = 2.32" for 10-year event
Inflow = 7.16 cfs @ 12.04 hrs, Volume= 42,562 cf
Primary = 7.16 cfs @ 12.04 hrs, Volume= 42,562 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs

Link 6L: Outfall #3



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment14S: Site Runoff Area=2.220 ac 64.41% Impervious Runoff Depth=4.16"
Flow Length=960' Tc=11.8 min CN=81 Runoff=13.08 cfs 33,509 cf

Subcatchment15S: Bypass Runoff Area=2.830 ac 25.09% Impervious Runoff Depth=2.21"
Flow Length=599' Tc=11.2 min CN=61 Runoff=9.03 cfs 22,691 cf

Pond 10DP: Detention Pond 3 Peak Elev=700.12' Storage=14,424 cf Inflow=13.26 cfs 32,823 cf
Outflow=1.97 cfs 32,823 cf

Pond 10FP: FocalPoint 10 Peak Elev=700.05' Storage=1,266 cf Inflow=13.08 cfs 33,509 cf
Outflow=13.26 cfs 32,823 cf

Link 6L: Outfall #3 Inflow=9.83 cfs 55,514 cf
Primary=9.83 cfs 55,514 cf

Total Runoff Area = 219,978 sf Runoff Volume = 56,200 cf Average Runoff Depth = 3.07"
57.62% Pervious = 126,760 sf 42.38% Impervious = 93,218 sf

Summary for Subcatchment 14S: Site

[47] Hint: Peak is 176% of capacity of segment #4

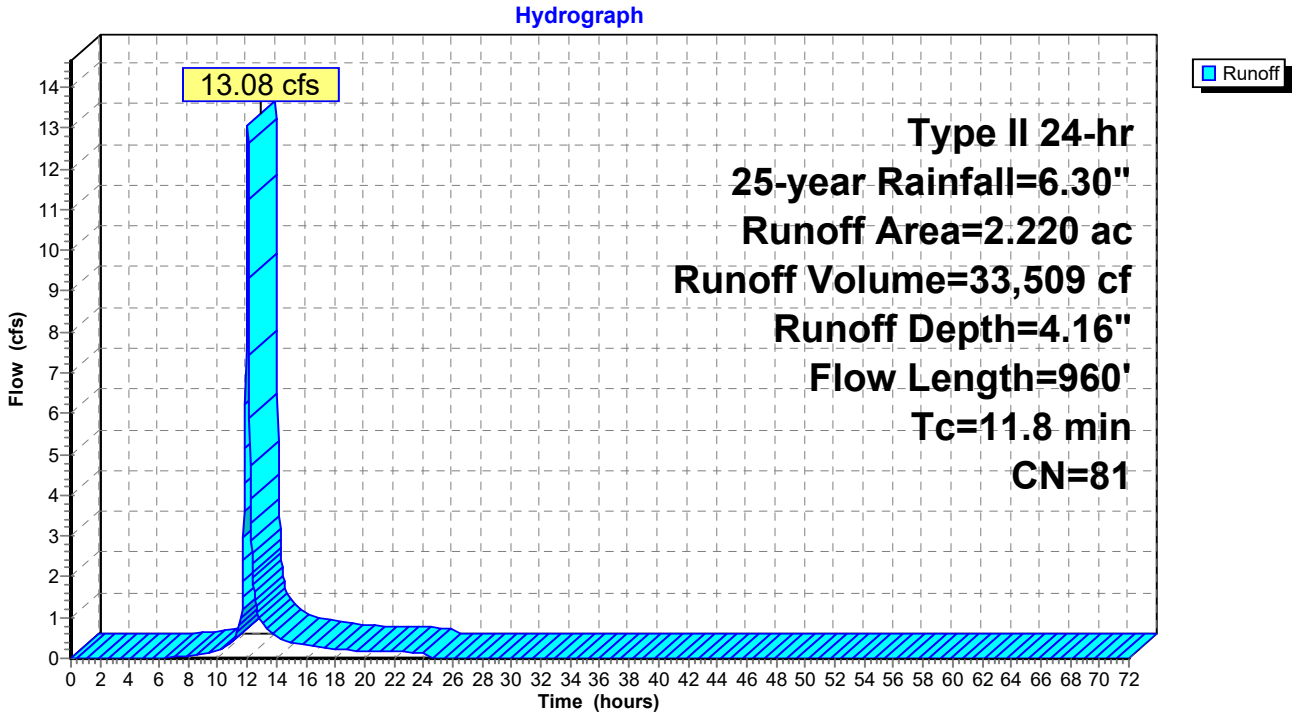
Runoff = 13.08 cfs @ 12.03 hrs, Volume= 33,509 cf, Depth= 4.16"
Routed to Pond 10FP : FocalPoint 10

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 25-year Rainfall=6.30"

Area (ac)	CN	Description
0.610	49	50-75% Grass cover, Fair, HSG A
0.070	69	50-75% Grass cover, Fair, HSG B
0.110	36	Woods, Fair, HSG A
1.430	98	Paved parking, HSG A
2.220	81	Weighted Average
0.790		35.59% Pervious Area
1.430		64.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	69	0.0140	0.14		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
0.1	28	0.2860	8.61		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
1.2	165	0.0220	2.39		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.3	78	0.0050	4.20	7.43	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013
2.0	620	0.0160	5.21	15.63	**Channel Flow,** Area= 3.0 sf Perim= 6.3' r= 0.48' n= 0.022 Earth, clean & straight
11.8	960	Total			

Subcatchment 14S: Site



Summary for Subcatchment 15S: Bypass

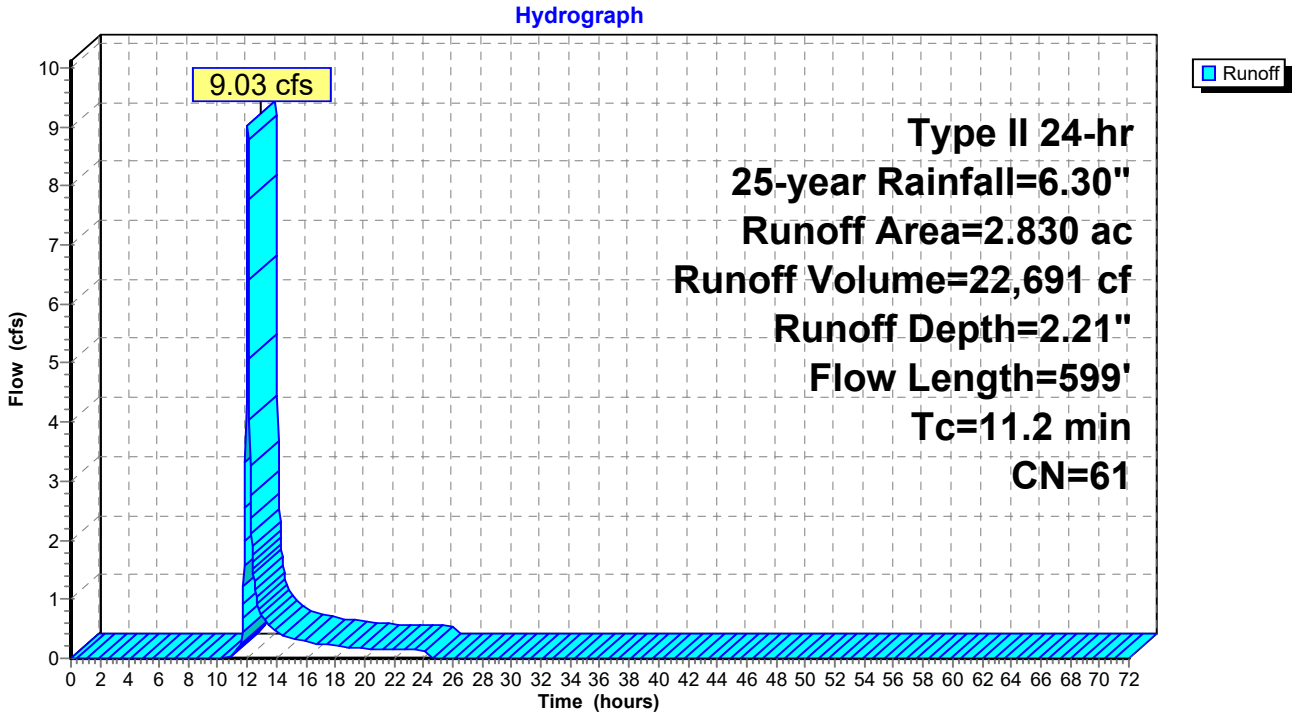
Runoff = 9.03 cfs @ 12.04 hrs, Volume= 22,691 cf, Depth= 2.21"
Routed to Link 6L : Outfall #3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 25-year Rainfall=6.30"

Area (ac)	CN	Description
2.010	49	50-75% Grass cover, Fair, HSG A
0.110	36	Woods, Fair, HSG A
0.710	98	Paved parking, HSG A
2.830	61	Weighted Average
2.120		74.91% Pervious Area
0.710		25.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	69	0.0120	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
2.2	434	0.0420	3.30		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.0	16	0.1562	6.36		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.3	80	0.0160	4.66	11.66	**Channel Flow,** Area= 2.5 sf Perim= 6.2' r= 0.40' n= 0.022 Earth, clean & straight
11.2	599	Total			

Subcatchment 15S: Bypass



Summary for Pond 10DP: Detention Pond 3

[44] Hint: Outlet device #2 is below defined storage
[81] Warning: Exceeded Pond 10FP by 0.46' @ 12.63 hrs

Inflow Area = 96,703 sf, 64.41% Impervious, Inflow Depth = 4.07" for 25-year event
Inflow = 13.26 cfs @ 12.03 hrs, Volume= 32,823 cf
Outflow = 1.97 cfs @ 12.44 hrs, Volume= 32,823 cf, Atten= 85%, Lag= 24.4 min
Primary = 1.97 cfs @ 12.44 hrs, Volume= 32,823 cf
Routed to Link 6L : Outfall #3

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 700.12' @ 12.44 hrs Surf.Area= 7,232 sf Storage= 14,424 cf

Plug-Flow detention time= 137.7 min calculated for 32,809 cf (100% of inflow)
Center-of-Mass det. time= 137.7 min (957.9 - 820.2)

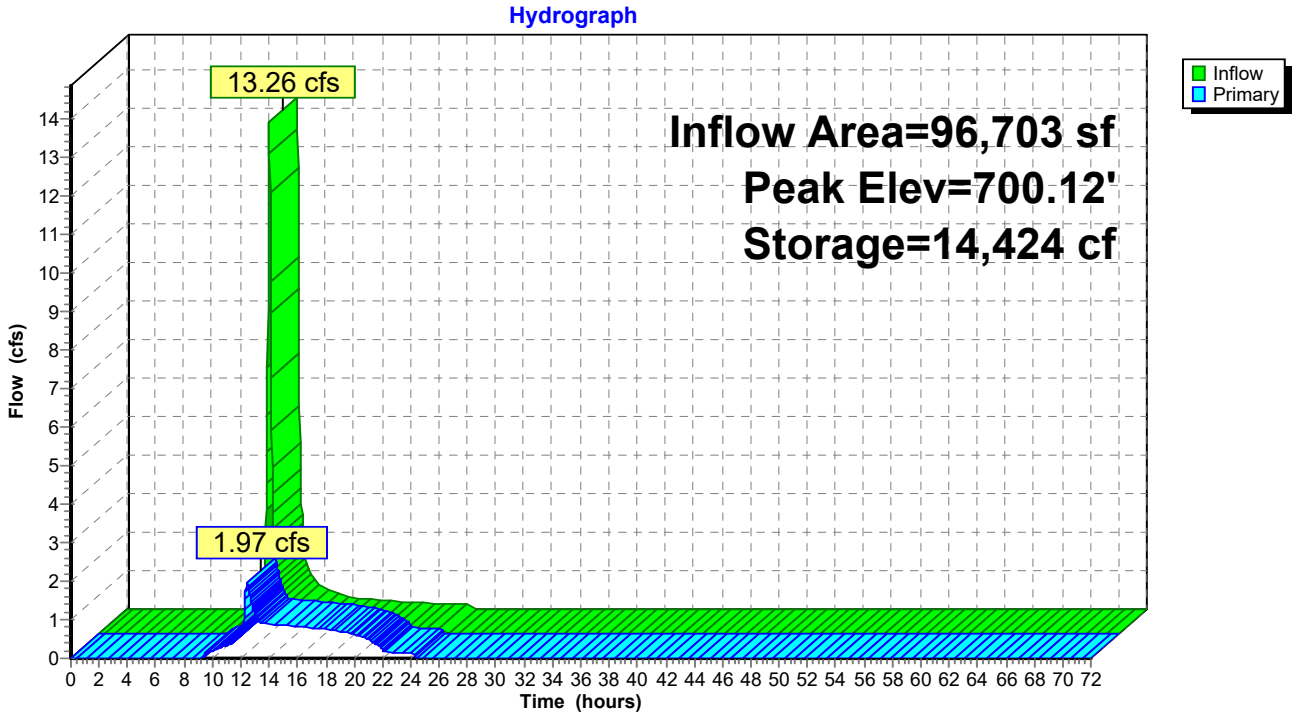
Volume	Invert	Avail.Storage	Storage Description
#1	695.44'	22,040 cf	**Custom Stage Data (Prismatic)** Listed below

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
695.44	0	0	0
696.00	292	82	82
697.00	1,309	801	882
698.00	2,953	2,131	3,013
699.00	5,510	4,232	7,245
700.00	6,790	6,150	13,395
701.00	10,501	8,646	22,040

Device	Routing	Invert	Outlet Devices
#1	Primary	695.33'	**18.0" Round Culvert** L= 64.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 695.33' / 695.00' S= 0.0052 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	695.33'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	700.00'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	700.50'	**6.0' long x 9.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.46 2.55 2.70 2.69 2.68 2.68 2.67 2.64 2.64 2.64 2.65 2.64 2.65 2.65 2.66 2.67 2.69

Primary OutFlow Max=1.96 cfs @ 12.44 hrs HW=700.12' TW=565.00' (Fixed TW Elev= 565.00')
- **1=Culvert** (Passes 1.96 cfs of 16.51 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.90 cfs @ 10.35 fps)
  - **3=Orifice/Grate** (Weir Controls 1.05 cfs @ 1.13 fps)
- **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 10DP: Detention Pond 3



Summary for Pond 10FP: FocalPoint 10

[92] Warning: Device #3 is above defined storage
[93] Warning: Storage range exceeded by 0.05'
[88] Warning: Qout>Qin may require smaller dt or Finer Routing

Inflow Area = 96,703 sf, 64.41% Impervious, Inflow Depth = 4.16" for 25-year event
Inflow = 13.08 cfs @ 12.03 hrs, Volume= 33,509 cf
Outflow = 13.26 cfs @ 12.03 hrs, Volume= 32,823 cf, Atten= 0%, Lag= 0.0 min
Primary = 13.26 cfs @ 12.03 hrs, Volume= 32,823 cf
Routed to Pond 10DP : Detention Pond 3

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 700.05' @ 12.03 hrs Surf.Area= 1,373 sf Storage= 1,266 cf

Plug-Flow detention time= 20.8 min calculated for 32,823 cf (98% of inflow)
Center-of-Mass det. time= 8.3 min (820.2 - 811.9)

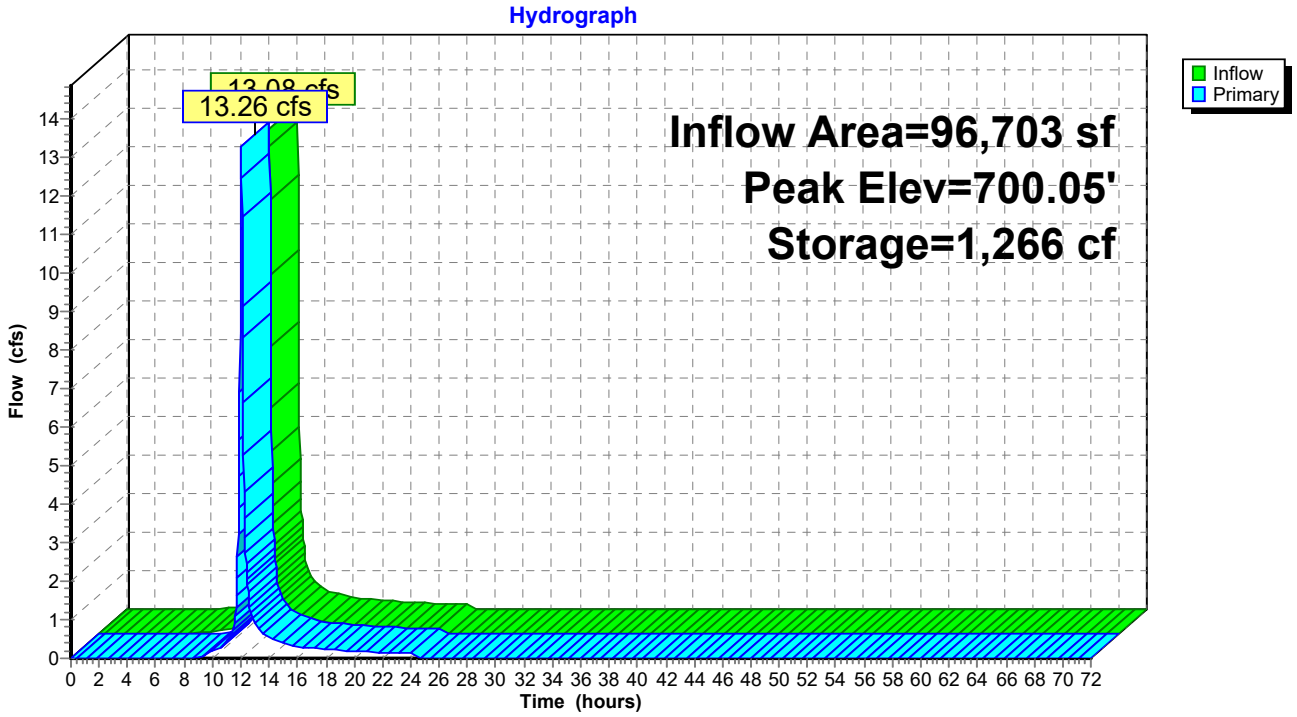
Volume	Invert	Avail.Storage	Storage Description
#1	696.00'	1,266 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
696.00	527	0.0	0	0
699.00	527	20.0	316	316
700.00	1,373	100.0	950	1,266

Device	Routing	Invert	Outlet Devices
#1	Primary	696.00'	**18.0" Round Culvert** L= 23.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 696.00' / 695.88' S= 0.0052 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**103.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=13.09 cfs @ 12.03 hrs HW=700.05' (Free Discharge)
└**1=Culvert** (Passes 10.45 cfs of 15.45 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 10.45 cfs @ 2.42 fps)
└**3=Broad-Crested Rectangular Weir** (Weir Controls 2.65 cfs @ 0.52 fps)

Pond 10FP: FocalPoint 10

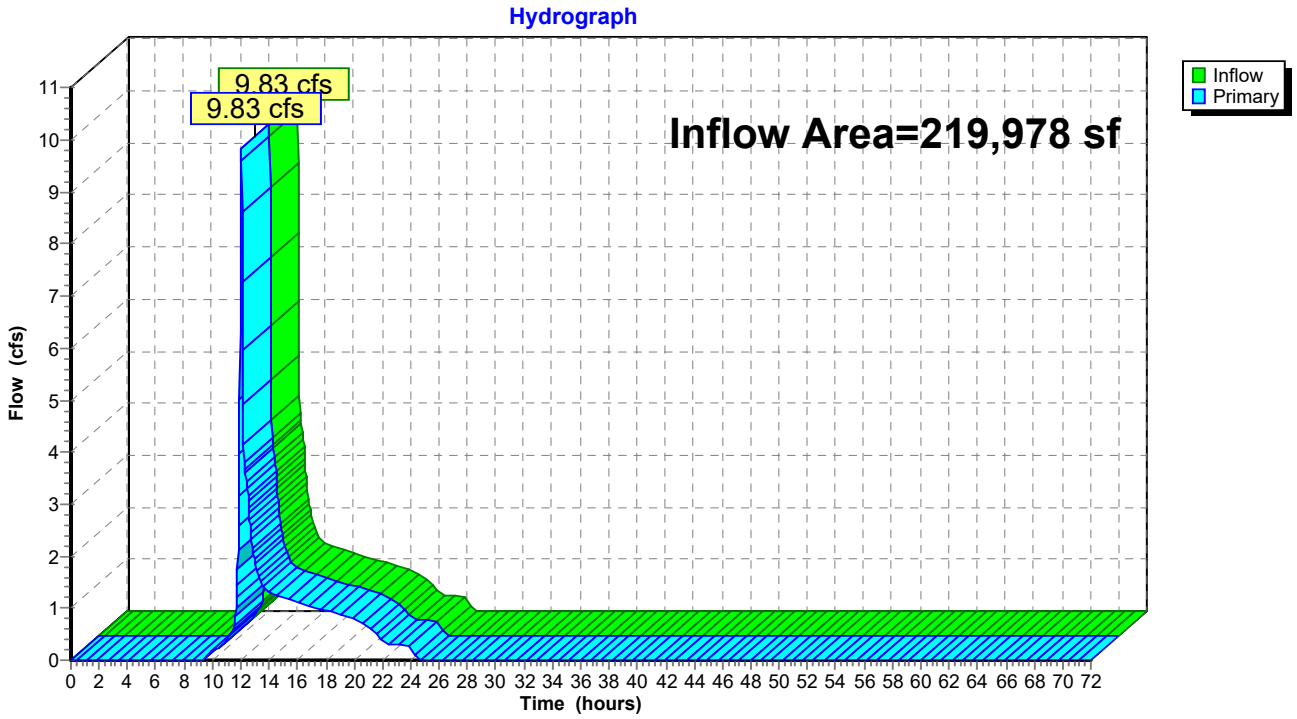


Summary for Link 6L: Outfall #3

Inflow Area = 219,978 sf, 42.38% Impervious, Inflow Depth = 3.03" for 25-year event
Inflow = 9.83 cfs @ 12.04 hrs, Volume= 55,514 cf
Primary = 9.83 cfs @ 12.04 hrs, Volume= 55,514 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs

Link 6L: Outfall #3



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment14S: Site Runoff Area=2.220 ac 64.41% Impervious Runoff Depth=4.82"
Flow Length=960' Tc=11.8 min CN=81 Runoff=15.08 cfs 38,872 cf

Subcatchment15S: Bypass Runoff Area=2.830 ac 25.09% Impervious Runoff Depth=2.72"
Flow Length=599' Tc=11.2 min CN=61 Runoff=11.21 cfs 27,905 cf

Pond 10DP: Detention Pond 3 Peak Elev=700.25' Storage=15,516 cf Inflow=15.24 cfs 38,186 cf
Outflow=4.05 cfs 38,186 cf

Pond 10FP: FocalPoint 10 Peak Elev=700.07' Storage=1,266 cf Inflow=15.08 cfs 38,872 cf
Outflow=15.24 cfs 38,186 cf

Link 6L: Outfall #3 Inflow=12.04 cfs 66,092 cf
Primary=12.04 cfs 66,092 cf

Total Runoff Area = 219,978 sf Runoff Volume = 66,777 cf Average Runoff Depth = 3.64"
57.62% Pervious = 126,760 sf 42.38% Impervious = 93,218 sf

Summary for Subcatchment 14S: Site

[47] Hint: Peak is 203% of capacity of segment #4

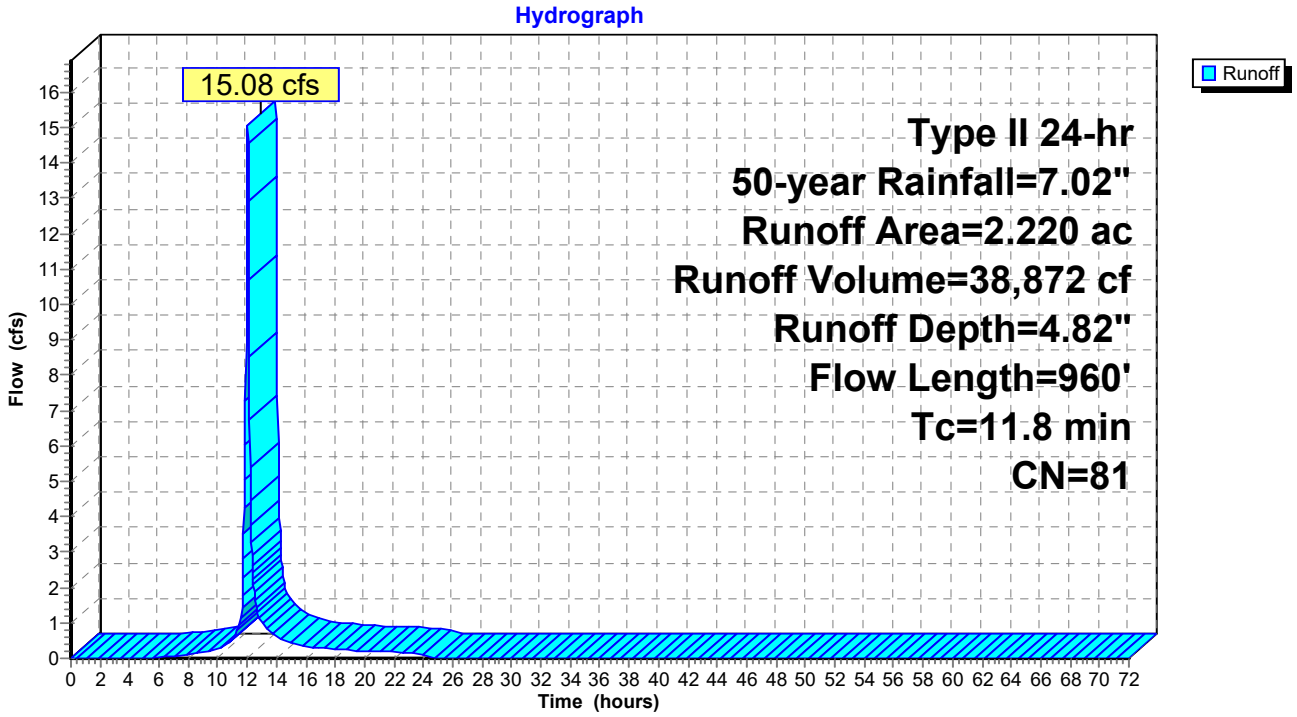
Runoff = 15.08 cfs @ 12.03 hrs, Volume= 38,872 cf, Depth= 4.82"
Routed to Pond 10FP : FocalPoint 10

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 50-year Rainfall=7.02"

Area (ac)	CN	Description
0.610	49	50-75% Grass cover, Fair, HSG A
0.070	69	50-75% Grass cover, Fair, HSG B
0.110	36	Woods, Fair, HSG A
1.430	98	Paved parking, HSG A
2.220	81	Weighted Average
0.790		35.59% Pervious Area
1.430		64.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	69	0.0140	0.14		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
0.1	28	0.2860	8.61		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
1.2	165	0.0220	2.39		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.3	78	0.0050	4.20	7.43	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013
2.0	620	0.0160	5.21	15.63	**Channel Flow,** Area= 3.0 sf Perim= 6.3' r= 0.48' n= 0.022 Earth, clean & straight
11.8	960	Total			

Subcatchment 14S: Site



Summary for Subcatchment 15S: Bypass

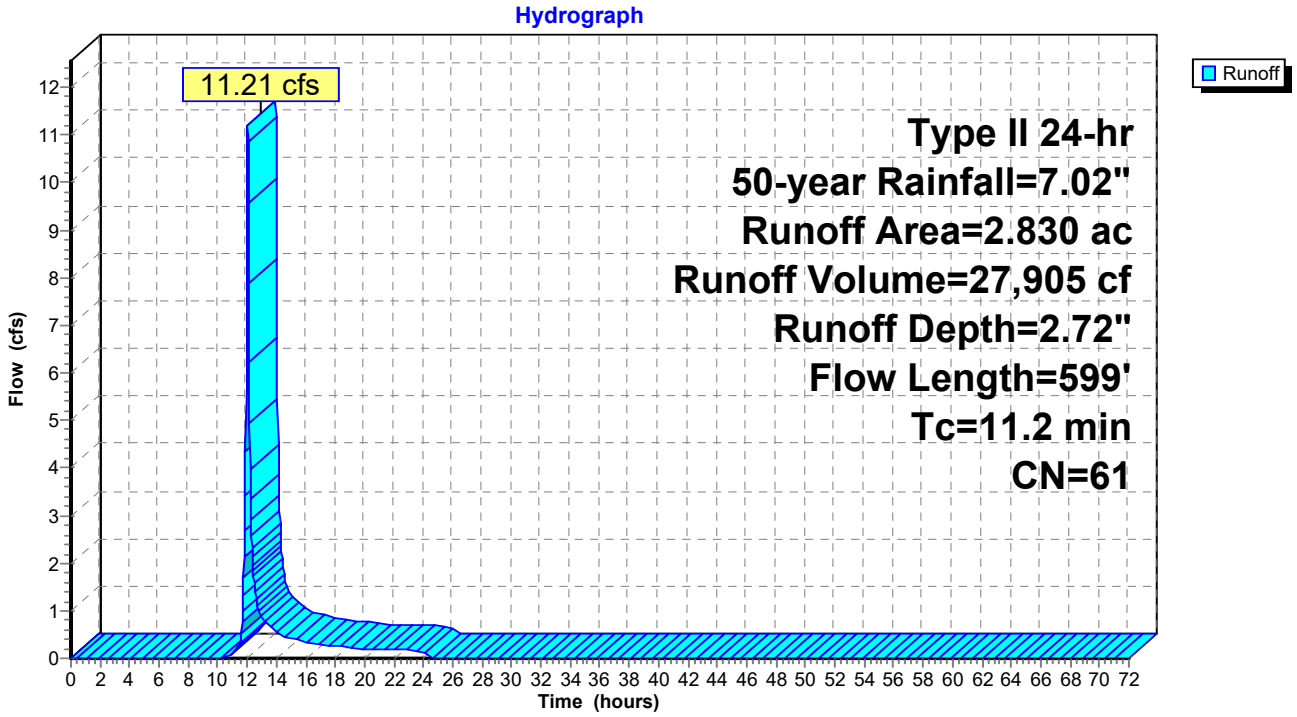
Runoff = 11.21 cfs @ 12.04 hrs, Volume= 27,905 cf, Depth= 2.72"
Routed to Link 6L : Outfall #3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 50-year Rainfall=7.02"

Area (ac)	CN	Description
2.010	49	50-75% Grass cover, Fair, HSG A
0.110	36	Woods, Fair, HSG A
0.710	98	Paved parking, HSG A
2.830	61	Weighted Average
2.120		74.91% Pervious Area
0.710		25.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	69	0.0120	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
2.2	434	0.0420	3.30		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.0	16	0.1562	6.36		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.3	80	0.0160	4.66	11.66	**Channel Flow,** Area= 2.5 sf Perim= 6.2' r= 0.40' n= 0.022 Earth, clean & straight
11.2	599	Total			

Subcatchment 15S: Bypass



Summary for Pond 10DP: Detention Pond 3

[44] Hint: Outlet device #2 is below defined storage
[81] Warning: Exceeded Pond 10FP by 0.50' @ 12.42 hrs

Inflow Area = 96,703 sf, 64.41% Impervious, Inflow Depth = 4.74" for 50-year event
Inflow = 15.24 cfs @ 12.03 hrs, Volume= 38,186 cf
Outflow = 4.05 cfs @ 12.28 hrs, Volume= 38,186 cf, Atten= 73%, Lag= 14.8 min
Primary = 4.05 cfs @ 12.28 hrs, Volume= 38,186 cf
Routed to Link 6L : Outfall #3

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 700.25' @ 12.28 hrs Surf.Area= 7,700 sf Storage= 15,516 cf

Plug-Flow detention time= 128.8 min calculated for 38,171 cf (100% of inflow)
Center-of-Mass det. time= 128.7 min (944.3 - 815.5)

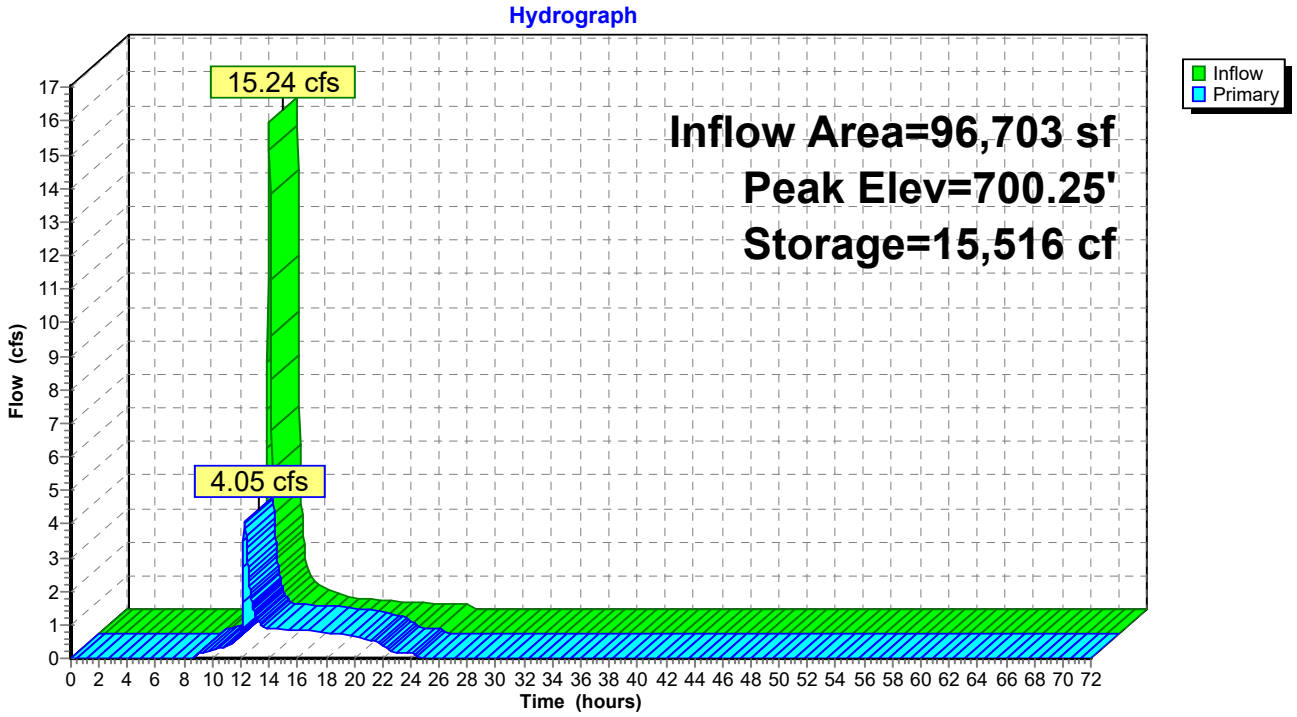
Volume	Invert	Avail.Storage	Storage Description
#1	695.44'	22,040 cf	**Custom Stage Data (Prismatic)** Listed below

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
695.44	0	0	0
696.00	292	82	82
697.00	1,309	801	882
698.00	2,953	2,131	3,013
699.00	5,510	4,232	7,245
700.00	6,790	6,150	13,395
701.00	10,501	8,646	22,040

Device	Routing	Invert	Outlet Devices
#1	Primary	695.33'	**18.0" Round Culvert** L= 64.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 695.33' / 695.00' S= 0.0052 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	695.33'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	700.00'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	700.50'	**6.0' long x 9.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.46 2.55 2.70 2.69 2.68 2.68 2.67 2.64 2.64 2.64 2.65 2.64 2.65 2.65 2.66 2.67 2.69

Primary OutFlow Max=4.02 cfs @ 12.28 hrs HW=700.24' TW=565.00' (Fixed TW Elev= 565.00')
- **1=Culvert** (Passes 4.02 cfs of 16.79 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.92 cfs @ 10.49 fps)
  - **3=Orifice/Grate** (Weir Controls 3.10 cfs @ 1.62 fps)
- **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 10DP: Detention Pond 3



Summary for Pond 10FP: FocalPoint 10

[92] Warning: Device #3 is above defined storage
[93] Warning: Storage range exceeded by 0.07'
[88] Warning: Qout>Qin may require smaller dt or Finer Routing

Inflow Area = 96,703 sf, 64.41% Impervious, Inflow Depth = 4.82" for 50-year event
Inflow = 15.08 cfs @ 12.03 hrs, Volume= 38,872 cf
Outflow = 15.24 cfs @ 12.03 hrs, Volume= 38,186 cf, Atten= 0%, Lag= 0.0 min
Primary = 15.24 cfs @ 12.03 hrs, Volume= 38,186 cf
Routed to Pond 10DP : Detention Pond 3

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 700.07' @ 12.03 hrs Surf.Area= 1,373 sf Storage= 1,266 cf

Plug-Flow detention time= 18.7 min calculated for 38,171 cf (98% of inflow)
Center-of-Mass det. time= 7.8 min (815.5 - 807.7)

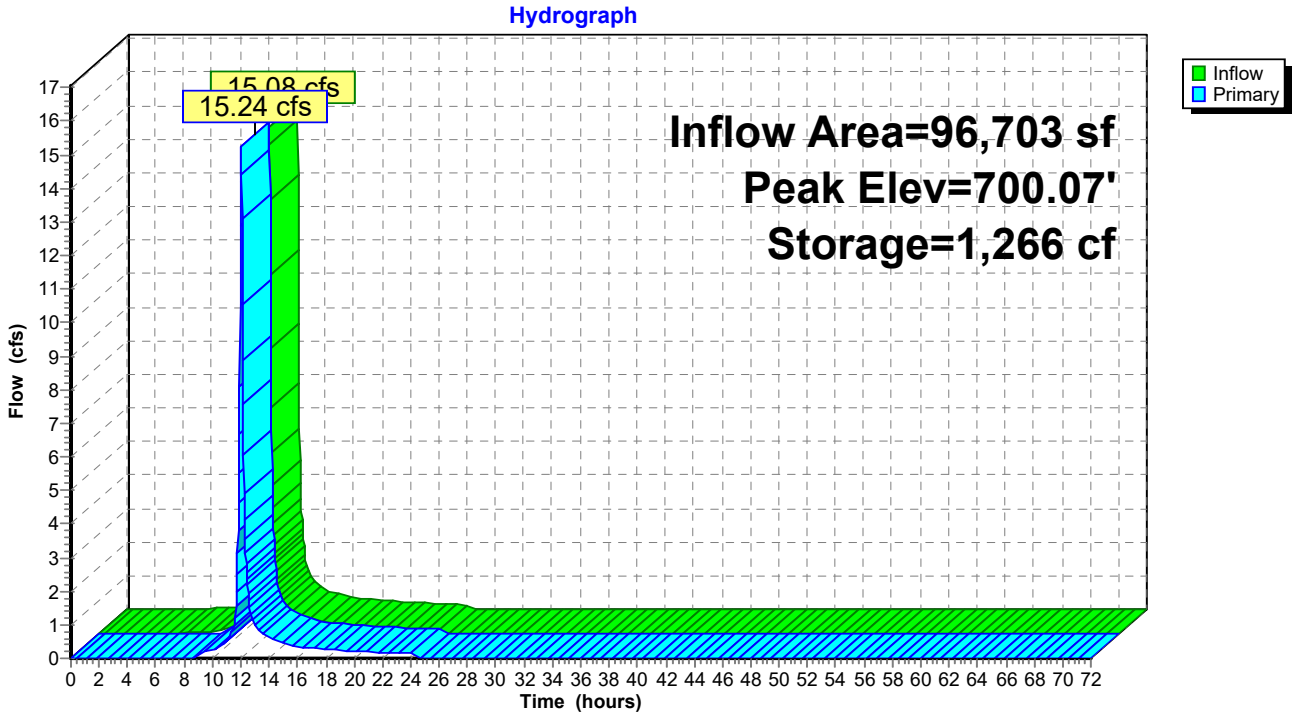
Volume	Invert	Avail.Storage	Storage Description
#1	696.00'	1,266 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
696.00	527	0.0	0	0
699.00	527	20.0	316	316
700.00	1,373	100.0	950	1,266

Device	Routing	Invert	Outlet Devices
#1	Primary	696.00'	**18.0" Round Culvert** L= 23.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 696.00' / 695.88' S= 0.0052 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**103.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=15.05 cfs @ 12.03 hrs HW=700.07' (Free Discharge)
└**1=Culvert** (Passes 10.93 cfs of 15.49 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 10.93 cfs @ 2.46 fps)
└**3=Broad-Crested Rectangular Weir** (Weir Controls 4.12 cfs @ 0.61 fps)

Pond 10FP: FocalPoint 10

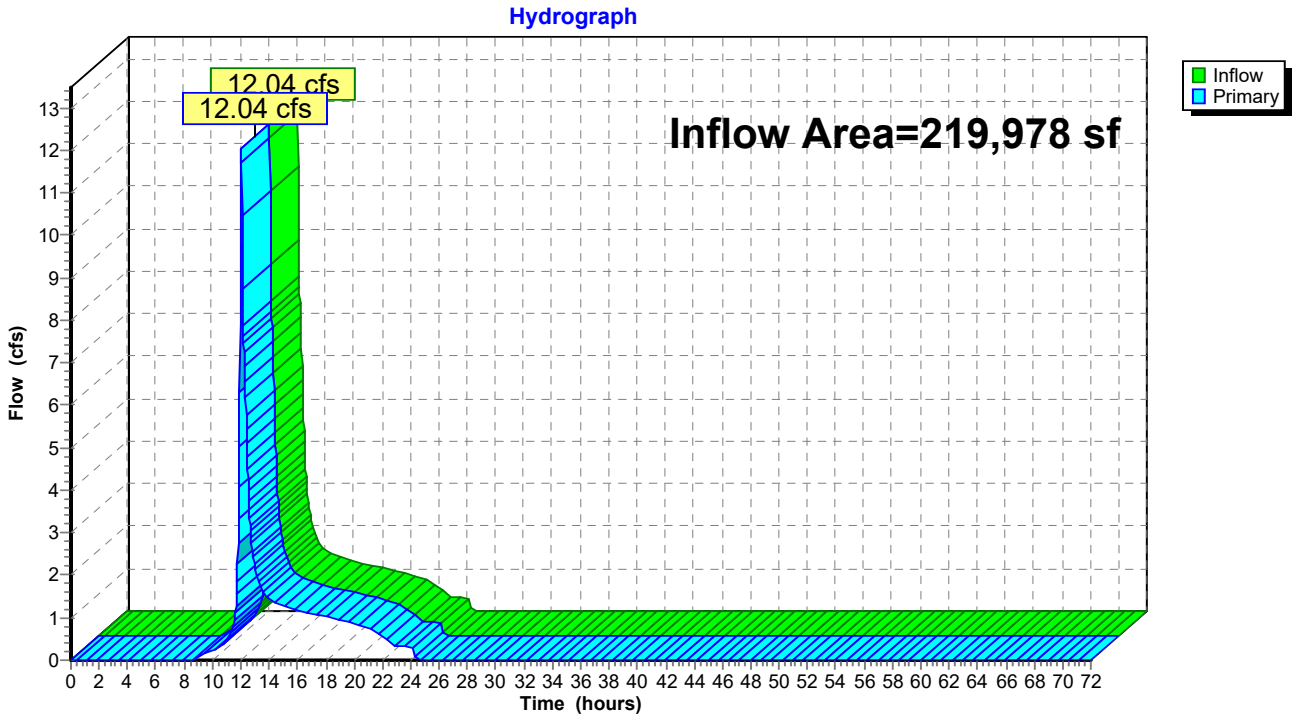


Summary for Link 6L: Outfall #3

Inflow Area = 219,978 sf, 42.38% Impervious, Inflow Depth = 3.61" for 50-year event
Inflow = 12.04 cfs @ 12.04 hrs, Volume= 66,092 cf
Primary = 12.04 cfs @ 12.04 hrs, Volume= 66,092 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs

Link 6L: Outfall #3



Time span=0.00-72.00 hrs, dt=0.03 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment14S: Site Runoff Area=2.220 ac 64.41% Impervious Runoff Depth=5.53"
Flow Length=960' Tc=11.8 min CN=81 Runoff=17.17 cfs 44,528 cf

Subcatchment15S: Bypass Runoff Area=2.830 ac 25.09% Impervious Runoff Depth=3.27"
Flow Length=599' Tc=11.2 min CN=61 Runoff=13.57 cfs 33,596 cf

Pond 10DP: Detention Pond 3 Peak Elev=700.37' Storage=16,568 cf Inflow=17.13 cfs 43,843 cf
Outflow=6.65 cfs 43,843 cf

Pond 10FP: FocalPoint 10 Peak Elev=700.08' Storage=1,266 cf Inflow=17.17 cfs 44,528 cf
Outflow=17.13 cfs 43,843 cf

Link 6L: Outfall #3 Inflow=14.43 cfs 77,438 cf
Primary=14.43 cfs 77,438 cf

Total Runoff Area = 219,978 sf Runoff Volume = 78,124 cf Average Runoff Depth = 4.26"
57.62% Pervious = 126,760 sf 42.38% Impervious = 93,218 sf

Summary for Subcatchment 14S: Site

[47] Hint: Peak is 231% of capacity of segment #4
[47] Hint: Peak is 110% of capacity of segment #5

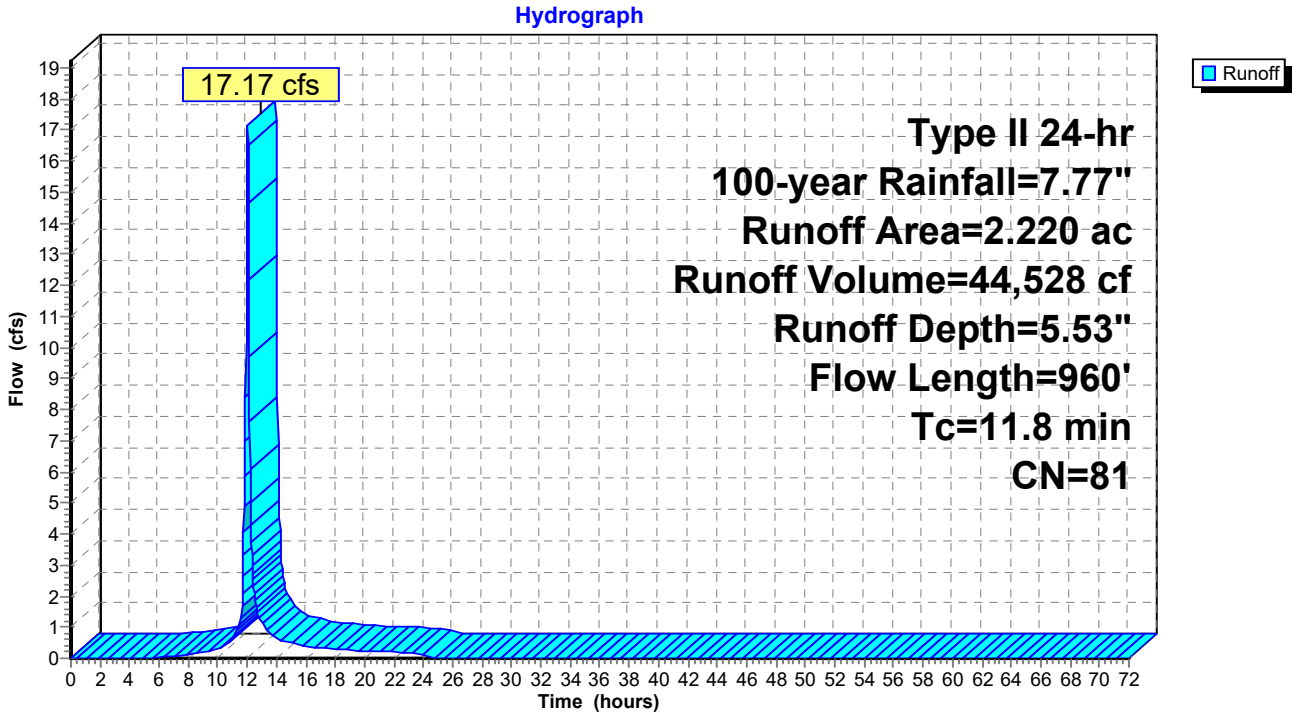
Runoff = 17.17 cfs @ 12.03 hrs, Volume= 44,528 cf, Depth= 5.53"
Routed to Pond 10FP : FocalPoint 10

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 100-year Rainfall=7.77"

Area (ac)	CN	Description
0.610	49	50-75% Grass cover, Fair, HSG A
0.070	69	50-75% Grass cover, Fair, HSG B
0.110	36	Woods, Fair, HSG A
1.430	98	Paved parking, HSG A
2.220	81	Weighted Average
0.790		35.59% Pervious Area
1.430		64.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	69	0.0140	0.14		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
0.1	28	0.2860	8.61		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
1.2	165	0.0220	2.39		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.3	78	0.0050	4.20	7.43	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013
2.0	620	0.0160	5.21	15.63	**Channel Flow,** Area= 3.0 sf Perim= 6.3' r= 0.48' n= 0.022 Earth, clean & straight
11.8	960	Total			

Subcatchment 14S: Site



Summary for Subcatchment 15S: Bypass

[47] Hint: Peak is 116% of capacity of segment #4

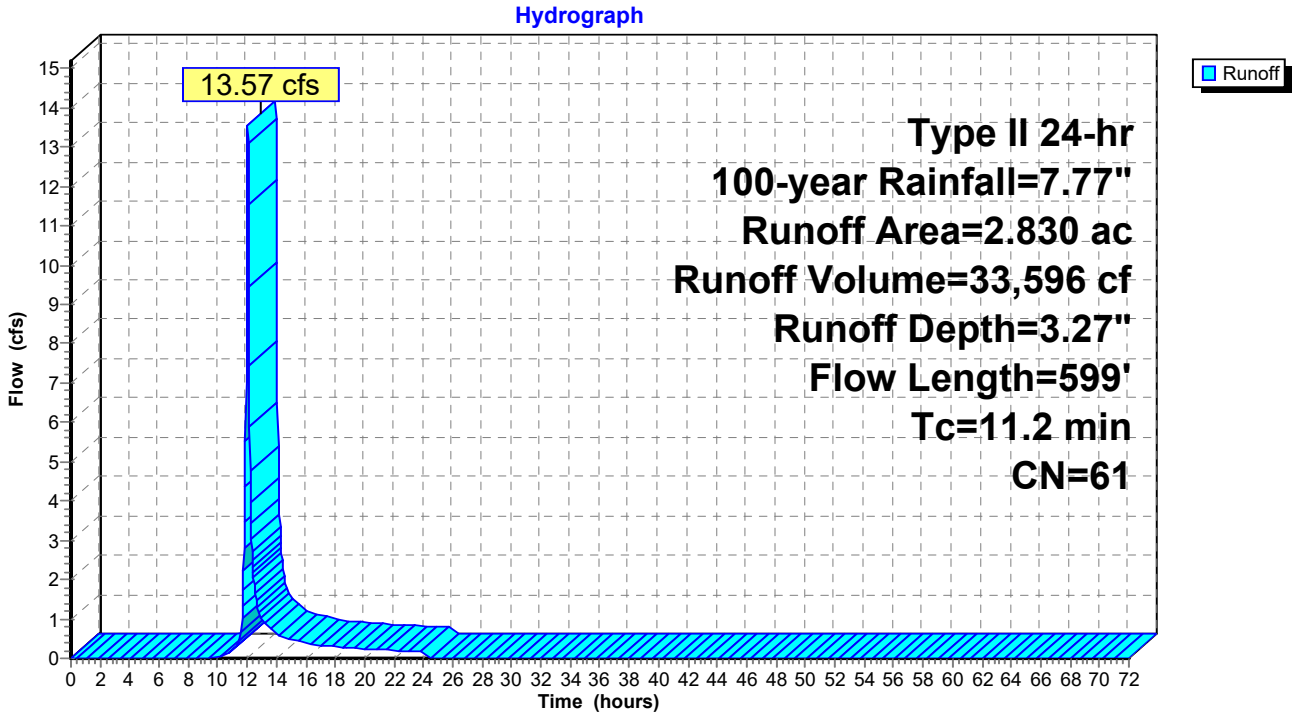
Runoff = 13.57 cfs @ 12.03 hrs, Volume= 33,596 cf, Depth= 3.27"
Routed to Link 6L : Outfall #3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Type II 24-hr 100-year Rainfall=7.77"

Area (ac)	CN	Description
2.010	49	50-75% Grass cover, Fair, HSG A
0.110	36	Woods, Fair, HSG A
0.710	98	Paved parking, HSG A
2.830	61	Weighted Average
2.120		74.91% Pervious Area
0.710		25.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	69	0.0120	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.39"
2.2	434	0.0420	3.30		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.0	16	0.1562	6.36		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.3	80	0.0160	4.66	11.66	**Channel Flow,** Area= 2.5 sf Perim= 6.2' r= 0.40' n= 0.022 Earth, clean & straight
11.2	599	Total			

Subcatchment 15S: Bypass



Summary for Pond 10DP: Detention Pond 3

[44] Hint: Outlet device #2 is below defined storage
[81] Warning: Exceeded Pond 10FP by 0.54' @ 12.33 hrs

Inflow Area = 96,703 sf, 64.41% Impervious, Inflow Depth = 5.44" for 100-year event
Inflow = 17.13 cfs @ 12.06 hrs, Volume= 43,843 cf
Outflow = 6.65 cfs @ 12.22 hrs, Volume= 43,843 cf, Atten= 61%, Lag= 9.5 min
Primary = 6.65 cfs @ 12.22 hrs, Volume= 43,843 cf
Routed to Link 6L : Outfall #3

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 700.37' @ 12.22 hrs Surf.Area= 8,152 sf Storage= 16,568 cf

Plug-Flow detention time= 121.3 min calculated for 43,825 cf (100% of inflow)
Center-of-Mass det. time= 121.3 min (932.5 - 811.2)

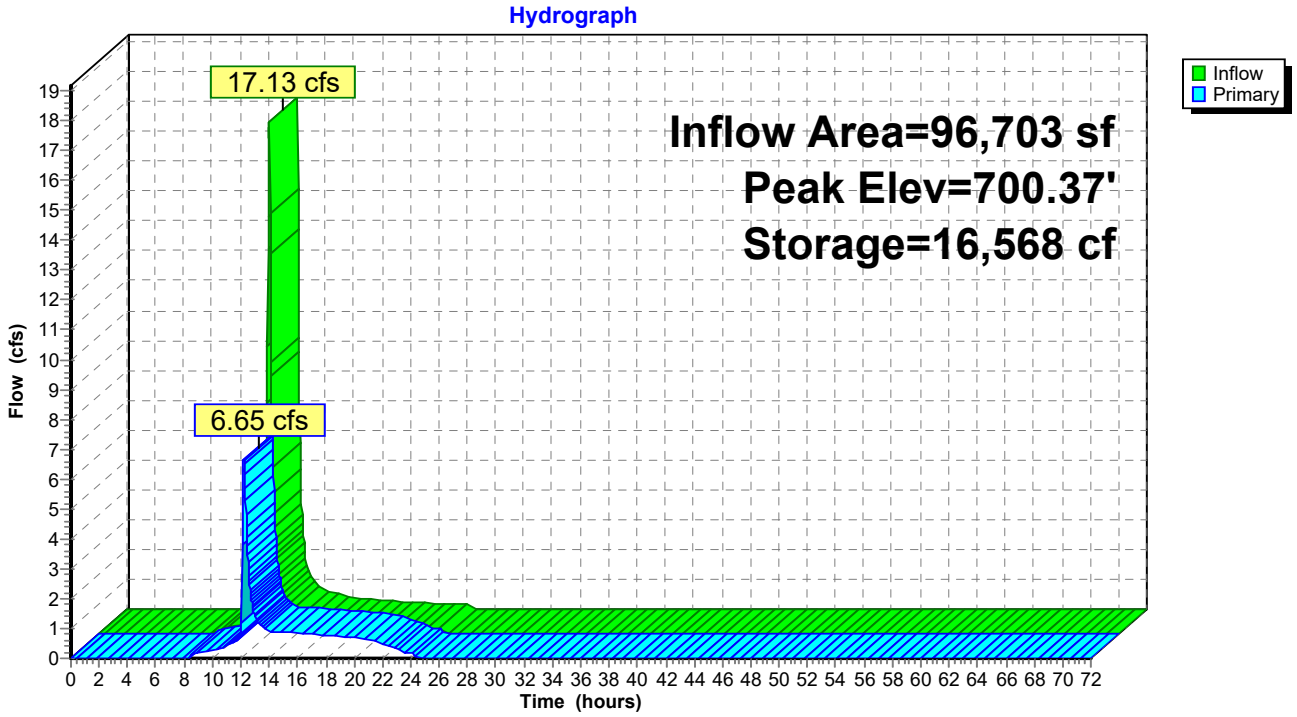
Volume	Invert	Avail.Storage	Storage Description
#1	695.44'	22,040 cf	**Custom Stage Data (Prismatic)** Listed below

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
695.44	0	0	0
696.00	292	82	82
697.00	1,309	801	882
698.00	2,953	2,131	3,013
699.00	5,510	4,232	7,245
700.00	6,790	6,150	13,395
701.00	10,501	8,646	22,040

Device	Routing	Invert	Outlet Devices
#1	Primary	695.33'	**18.0" Round Culvert** L= 64.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 695.33' / 695.00' S= 0.0052 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	695.33'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	700.00'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	700.50'	**6.0' long x 9.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.46 2.55 2.70 2.69 2.68 2.68 2.67 2.64 2.64 2.64 2.65 2.64 2.65 2.65 2.66 2.67 2.69

Primary OutFlow Max=6.59 cfs @ 12.22 hrs HW=700.37' TW=565.00' (Fixed TW Elev= 565.00')
- **1=Culvert** (Passes 6.59 cfs of 17.06 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.93 cfs @ 10.62 fps)
  - **3=Orifice/Grate** (Weir Controls 5.66 cfs @ 1.98 fps)
- **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 10DP: Detention Pond 3



Summary for Pond 10FP: FocalPoint 10

[92] Warning: Device #3 is above defined storage
[93] Warning: Storage range exceeded by 0.08'

Inflow Area = 96,703 sf, 64.41% Impervious, Inflow Depth = 5.53" for 100-year event
Inflow = 17.17 cfs @ 12.03 hrs, Volume= 44,528 cf
Outflow = 17.13 cfs @ 12.06 hrs, Volume= 43,843 cf, Atten= 0%, Lag= 1.7 min
Primary = 17.13 cfs @ 12.06 hrs, Volume= 43,843 cf
Routed to Pond 10DP : Detention Pond 3

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs
Peak Elev= 700.08' @ 12.06 hrs Surf.Area= 1,373 sf Storage= 1,266 cf

Plug-Flow detention time= 17.0 min calculated for 43,825 cf (98% of inflow)
Center-of-Mass det. time= 7.4 min (811.2 - 803.9)

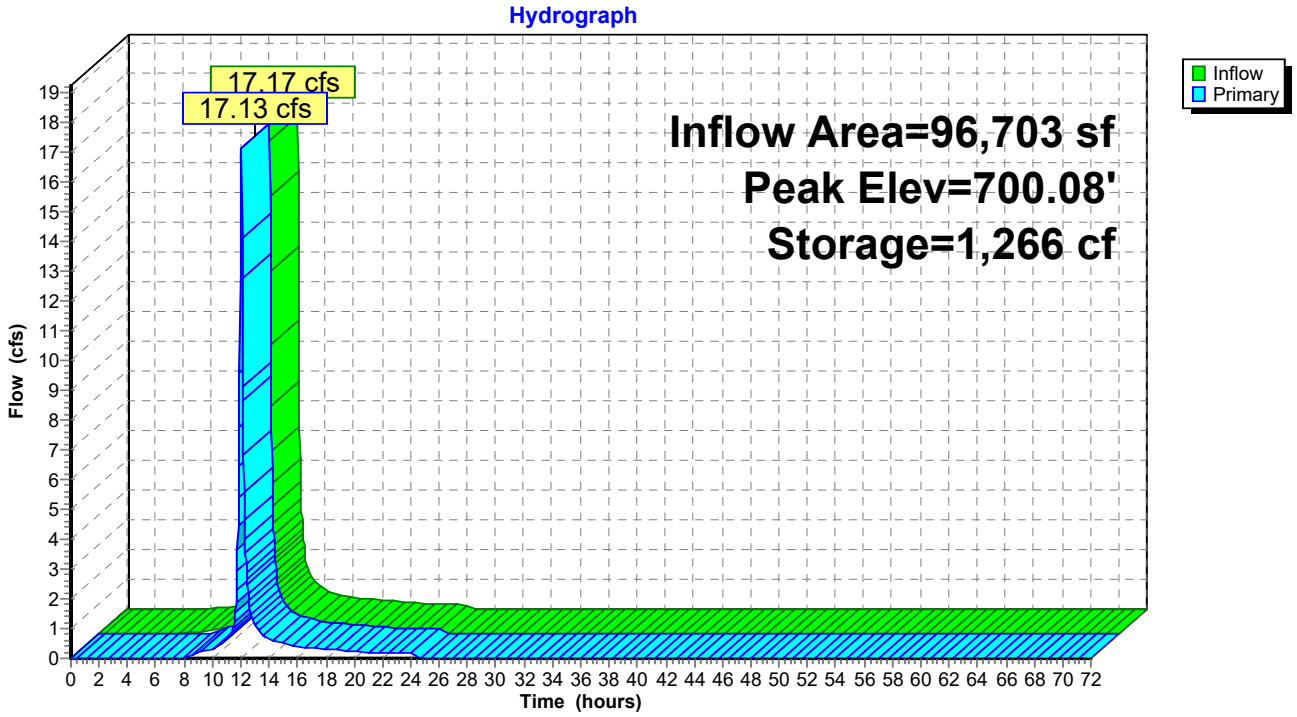
Volume	Invert	Avail.Storage	Storage Description
#1	696.00'	1,266 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
696.00	527	0.0	0	0
699.00	527	20.0	316	316
700.00	1,373	100.0	950	1,266

Device	Routing	Invert	Outlet Devices
#1	Primary	696.00'	**18.0" Round Culvert** L= 23.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 696.00' / 695.88' S= 0.0052 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	699.50'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	700.00'	**103.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=17.11 cfs @ 12.06 hrs HW=700.08' (Free Discharge)
- **1=Culvert** (Passes 11.40 cfs of 15.53 cfs potential flow)
  - **2=Orifice/Grate** (Weir Controls 11.40 cfs @ 2.49 fps)
- **3=Broad-Crested Rectangular Weir** (Weir Controls 5.71 cfs @ 0.68 fps)

Pond 10FP: FocalPoint 10

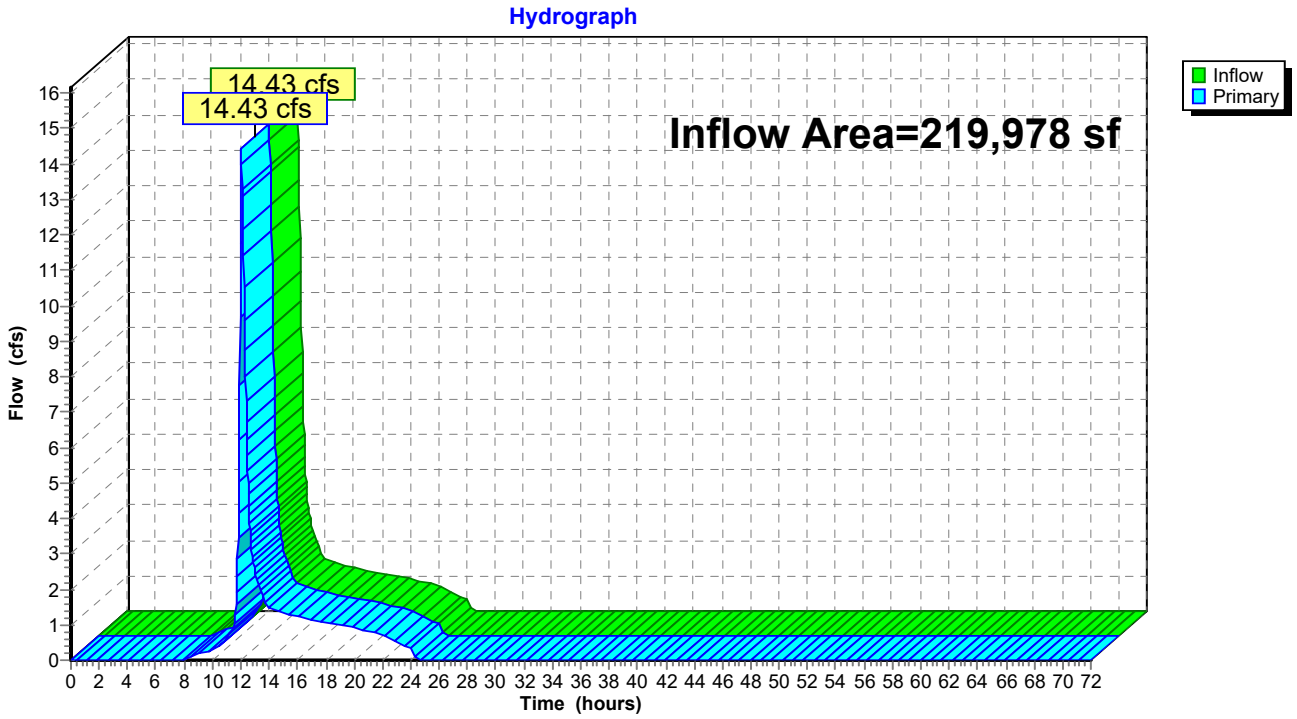


Summary for Link 6L: Outfall #3

Inflow Area = 219,978 sf, 42.38% Impervious, Inflow Depth = 4.22" for 100-year event
Inflow = 14.43 cfs @ 12.03 hrs, Volume= 77,438 cf
Primary = 14.43 cfs @ 12.03 hrs, Volume= 77,438 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.03 hrs

Link 6L: Outfall #3



USDA Web Soil Survey

Map—Hydrologic Soil Group (Morning Pointe - Columbia)



Map Scale: 1:3,570 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

Table—Hydrologic Soil Group (Morning Pointe - Columbia)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Ae	Armour silt loam, eroded gently sloping phase	B	1.6	10.5%
Hp	Huntington silt loam, depressional phosphatic phase	B	0.7	4.7%
Mb	Maury silt loam, eroded gently sloping phase	A	9.6	64.3%
Me	Maury silty clay loam, eroded sloping phase	A	3.1	20.5%
Totals for Area of Interest			**15.0**	**100.0%**

Rating Options—Hydrologic Soil Group (Morning Pointe - Columbia)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Morning Pointe/ Preliminary & Final Plat

Project #:	26-0149 / 26-0150	Location:	Rutherford Lane
Applicant:	Stephen Vander Horst	Case Type(s):	Preliminary/Final Plat
Staff Planner:	Austin Brass, AICP City Planner	Proposed Use:	Morning Pointe Assisted Living Facility

PROJECT SUMMARY

The applicant requests approval of a Preliminary Plat & Final Plat to for the creation of three lots located along Rutherford Lane with a PUD-MU Zoning District.

- The proposal is subject to the current Zoning Ordinance 4400 with this Preliminary & Final Plat.
- A Final PUD Master Plan has been submitted in association with the Preliminary & Final Plat for the construction of a 111,000 SF Assisted Living Facility.
- The DRC reviewed this proposal at its May 2026 meeting. Staff review included standard comments and requests for technical corrections.
- Full technical comments are provided in the agenda packet.
- The Planning Commission is the **Decision-Making Authority** for the Preliminary and Final Plat.
- Templates are provided at the end of the report to assist the Planning Commission in crafting properly formatted motions.

SITE INFORMATION

CURRENT ZONING	EXISTING USE	EXISTING IMP.	LAND AREA
PUD MU	Vacant	111,000 SF Assisted Living Facility	+/-12.86 Acres



FUTURE LAND USE MAP (Suburban Neighborhoods)	ZONING MAP (PUD-MU)





SITE CONTEXT/ADJACENT PROPERTIES			
	Future Land Use	Zoning	Current Use
Subject Property	Suburban Neighborhoods	PUD-MU	Vacant
North	Suburban Neighborhoods	CIVIC	Woodard School
South	Suburban Neighborhoods	PUD-MU	Vacant
East	Suburban Neighborhoods	CD-3	Single-Family
West	Suburban Neighborhoods	PUD-MU	Vacant

CONFORMITY WITH ZONING ORDINANCE

The Preliminary and Final Plat conform to the standards of the Preliminary & Final PUD Master plan submitted in association with this request.

REVIEW PROCESS

The Development Review Committee reviewed the proposed Final Plat at its May 2026 meeting, as directed by § **8.3.7** of the Zoning Ordinance. Technical comments are provided in the agenda package and summarized above.

Section **§ 8.5.24** of the Zoning Ordinance directs the Planning Commission to review Subdivision Plats for conformity with the standards of the Ordinance and the City Subdivision Regulations. The Ordinance indicates that all Preliminary and Final Plats must be prepared, submitted, reviewed and acted upon in accordance with the Subdivision Regulations.

The Planning Commission is the Decision-Making Authority for Final Plats under **§ 8.3.3.B.1** of the Zoning Ordinance and **§ 2.3** of the Subdivision Regulations.

Section **§2.2.6** of the Subdivision Regulations establishes the review criteria for approval of Preliminary Plats.

A. Recommendations and final action on a Preliminary Plat shall be based on consideration of the following criteria:

1. *Whether the proposed Preliminary Plat complies with the applicable zoning district and overlay districts;*

2. *Whether the proposed Preliminary Plat is consistent with all standards of the Subdivision Regulations and other related codes and ordinances enforced by the City; and*

3. *Whether the CMPC determines that the particular site is suitable for the type of platting and development proposed.*

In the event of a denial, **§ 2.2.5** of the Subdivision Regulations requires the Planning Commission to identify the specific parts of applicable plans and regulations with which the plat does not comply.

Section **§ 2.3.10** of the Subdivision Regulations establishes the review criteria for approval of Final Plats.

A. *Recommendations and final action on a Final Plat shall be based on consideration of the following criteria:*

   1. *Whether the proposed Final Plat complies with the applicable zoning district and overlay districts;*

   2. *Whether the proposed Final Plat is consistent with all standards of the Subdivision Regulations and other related codes and ordinances enforced by the City; and*

   3. *Whether the proposed Final Plat meets all the requirements or conditions of any applicable development approvals, such as development plans or associated modification of standards.*

B. *Final Plat approval shall be subject to the completion of required improvements, or in lieu, the CMPC may approve a Performance Agreement.*

In the event of a denial, **§ 2.3.5** of the Subdivision Regulations requires the Planning Commission to identify the specific parts of applicable plans and regulations with which the plat does not comply.

SAMPLE MOTIONS

Approve:

Move to approve revisions to the Final Planned Unit Development Master Plan as presented and find that the Master Plan conforms to the applicable zoning ordinance, [subject to remaining technical comments from staff].

Approve with Conditions:

Move to approve revisions to the Final Planned Unit Development Master Plan, subject to the following conditions: [list conditions of approval crafted by Planning Commission].

Defer for Continued Review:

Move to find that there is insufficient information to make a decision, defer the application for continued review, and request that the applicant provide: [list additional information] for review at the next regularly scheduled meeting of the Planning Commission.

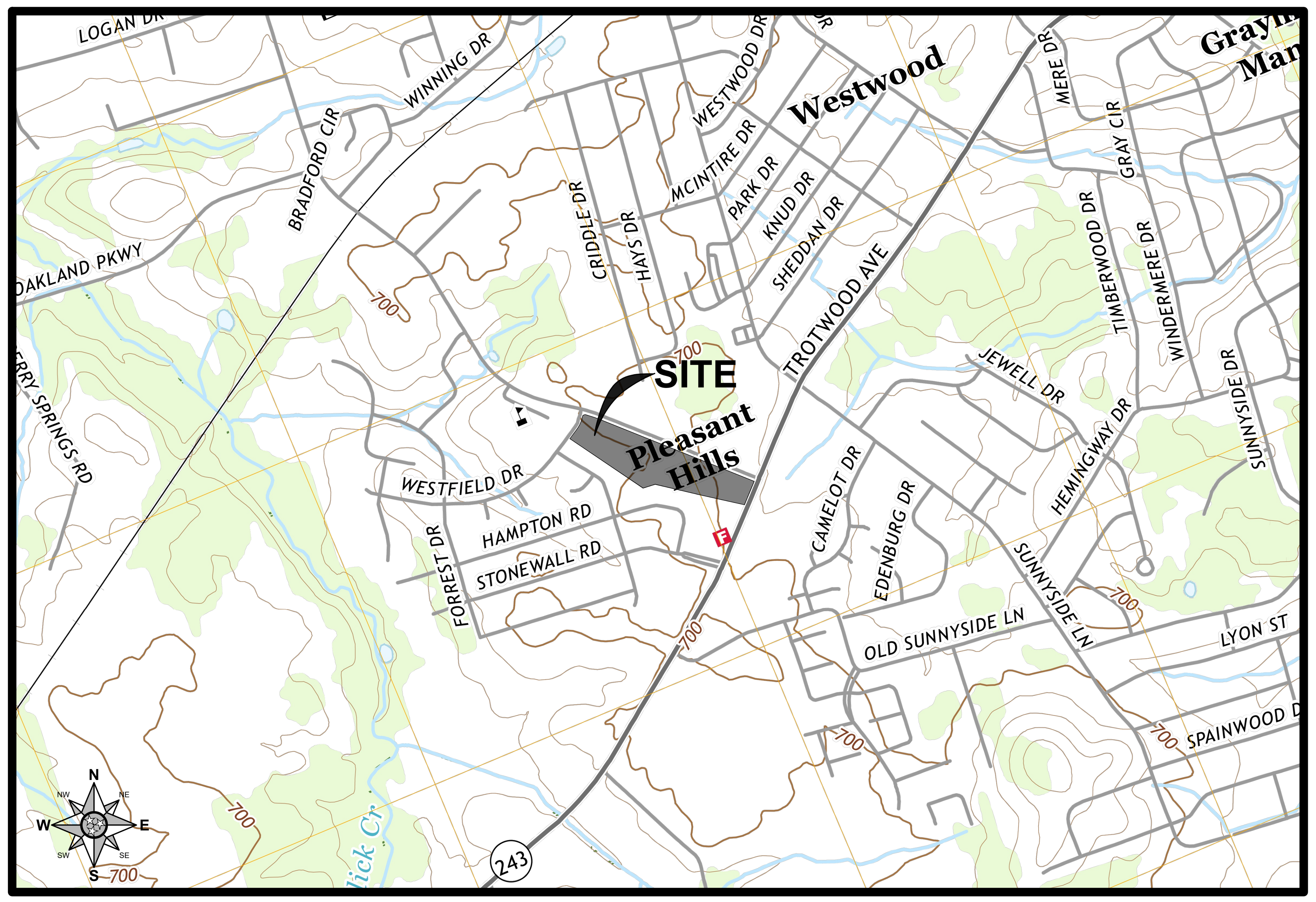
Deny:

Move to find that the revisions to the Final Planned Unit Development Master Plan as presented do not conform to the applicable zoning ordinance, and deny the request due to [list specific deficiencies].

PRELIMINARY PLAT FOR
MORNING POINTE
RUTHERFORD LANE @ WESTFIELD DRIVE
CITY OF COLUMBIA
MAURY COUNTY, TENNESSEE 38401
PARCEL ID: 112 00307 000
JUNE 2026

GENERAL NOTES:

1. THE CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION OR EARTH MOVING OPERATIONS. INFORM ENGINEER OF ANY CONFLICTS DETRIMENTAL TO THE DESIGN INTENT.
2. 72 HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AGENCIES: TENNESSEE 811 AND ALL OTHER AGENCIES THAT MAY HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NON-MEMBERS OF TENNESSEE 811.
3. THE CONTRACTOR AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR COMPLYING WITH APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SUBCONTRACTORS TO INITIATE, MAINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.
4. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER AND OWNER'S REPRESENTATIVE FOR ANY AND ALL INJURIES AND/OR DAMAGES TO PERSONNEL, EQUIPMENT AND/OR EXISTING FACILITIES OCCURRING IN THE COURSE OF THE DEMOLITION AND CONSTRUCTION DESCRIBED IN THE PLANS AND SPECIFICATIONS.
5. CONTRACTOR SHALL OBTAIN A PERMIT FOR ALL CONSTRUCTION ACTIVITIES AND PERFORM SAID ACTIVITIES IN ACCORDANCE WITH ALL LOCAL, STATE, FEDERAL & OSHA REGULATIONS.
6. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL CODES, OBTAIN ALL APPLICABLE PERMITS, AND PAY ALL REQUIRED FEES PRIOR TO BEGINNING WORK.
7. ANY WORK PERFORMED IN THE LOCAL RIGHT OF WAYS SHALL BE IN ACCORDANCE WITH THE APPLICABLE LOCAL REQUIREMENTS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE NECESSARY PERMITS FOR THE WORK, SCHEDULE NECESSARY INSPECTIONS, AND PROVIDE THE NECESSARY TRAFFIC CONTROL MEASURES AND DEVICES, ETC., FOR WORK PERFORMED IN THE RIGHT OF WAYS.
8. THE PROPOSED SITE IMPROVEMENTS WILL REQUIRE COVERAGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT AS THE TOTAL SITE DISTURBANCE IS MORE THAN 1.0 ACRE.
9. CONTRACTOR SHALL IMPLEMENT ALL SOIL AND EROSION CONTROL, PRACTICES REQUIRED BY THE CITY OF COLUMBIA AND TDEC.
10. ALL GROUND SURFACE AREAS THAT HAVE BEEN EXPOSED OR LEFT BARE AS A RESULT OF CONSTRUCTION AND ARE TO FINAL GRADE AND ARE TO REMAIN SO, SHALL BE PERMANENTLY STABILIZED AS SOON AS PRACTICAL IN ACCORDANCE WITH SPECIFICATIONS.
11. ALL WORK SHALL COMPLY WITH CITY OF COLUMBIA SPECIFICATIONS, AND ALL CONSTRUCTION WORK SHALL BE DONE ACCORDING TO SAID SPECIFICATIONS AND IN ACCORDANCE WITH APPLICABLE STANDARDS OF THE CITY OF COLUMBIA.
12. ALL WORK PERFORMED BY THE CONTRACTOR SHALL CONFORM TO THE LATEST REGULATIONS OF THE AMERICANS WITH DISABILITIES ACT.
13. CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION. IT IS NOT THE ENGINEER'S INTENT THAT ANY SINGLE PLAN SHEET IN THIS SET OF DOCUMENTS FULLY DEPICT ALL WORK ASSOCIATED WITH THE PROJECT.
14. BEFORE INSTALLATION OF STORM OR SANITARY SEWER, OR OTHER UTILITY THE CONTRACTOR SHALL VERIFY ALL CROSSINGS, BY EXCAVATION WHERE NECESSARY, AND INFORM THE OWNER AND THE ENGINEER OF ANY CONFLICTS. THE ENGINEER WILL BE HELD HARMLESS IN THE EVENT THEY ARE NOT NOTIFIED OF DESIGN CONFLICTS PRIOR TO CONSTRUCTION.
15. WHERE CURB IS PRESENT, DIMENSIONS ARE SHOWN TO THE FACE OF CURB, OTHERWISE DIMENSIONS ARE SHOWN TO THE EDGE OF PAVEMENT AND/OR EDGE OF BUILDING UNLESS OTHERWISE NOTED.
16. SITE SIGNAGE AND STRIPING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.).
17. CONSTRUCTION OF ALL ROADWAYS AND SIDEWALKS SHALL MEET THE REQUIREMENTS OF CITY OF COLUMBIA PUBLIC WORKS ROADWAY CONSTRUCTION CRITERIA AND STANDARD DETAILS.
18. CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH STATE DEPARTMENT OF TRANSPORTATION REGULATIONS AND AS REQUIRED BY LOCAL AGENCIES WHEN WORKING IN AND/OR ALONG STREETS, ROADS, HIGHWAYS, ETC. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN APPROVAL AND COORDINATE WITH LOCAL AND/OR STATE AGENCIES REGARDING THE NEED, EXTENT AND LIMITATIONS ASSOCIATED WITH INSTALLING AND MAINTAINING TRAFFIC CONTROL MEASURES.
19. ALL TRENCHING, PIPE LAYING AND BACKFILLING SHALL BE IN ACCORDANCE WITH ALL FEDERAL OSHA REGULATIONS. CONTRACTOR TO PAY PARTICULAR ATTENTION TO 29 CFR PART 1926, SUBPARTS M AND P.
20. THE PURPOSE OF THIS PLAT IS TO CREATE 3 LOTS, AS WELL AS ESTABLISH PERTINENT EASEMENTS AND SETBACKS.
21. BEARINGS ARE BASED ON THE TENNESSEE STATE PLANE COORDINATE SYSTEM (NAD83, 2011).
22. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88, GEOID 18). CONTOURS ARE SHOWN AT 1-FOOT INTERVALS.
23. THE FIELD SURVEY WAS COMPLETED ON SEPTEMBER 11, 2025.
24. ALL DEED BOOK AND PLAT REFERENCES PERTAIN TO THE REGISTER'S OFFICE FOR MAURY COUNTY, TENNESSEE.
25. ADJOINING PROPERTY LINES SHOWN WERE PLOTTED FROM INFORMATION TAKEN FROM EITHER DEED DESCRIPTION, RECORD PLATS, OR TAX MAPS.
26. PROPERTY CORNERS SET THIS SURVEY ARE 18" #4 REBAR WITH ORANGE PLASTIC CAP STAMPED "M2 GROUP", 18" #5 REBAR WITH YELLOW PLASTIC CAP STAMPED "M2 GROUP, LLC", OR PK NAIL WITH STAINLESS STEEL WASHER STAMPED "M2 GROUP, LLC", UNLESS NOTED OTHERWISE.
27. UTILITIES SHOWN HEREON WERE COMPILED FROM VISIBLE STRUCTURES AT THE SITE, INFORMATION FROM PLANS, AND PHYSICAL MARKINGS AND COMBINED TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES. HOWEVER, LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY, AND RELIABLY DEPICTED. IN ADDITION, IN SOME JURISDICTIONS, 811 OR OTHER SIMILAR UTILITY LOCATE REQUESTS FROM SURVEYORS MAY BE IGNORED OR RESULT IN AN INCOMPLETE RESPONSE. THIS SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THIS SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. VERIFICATION OF EXISTENCE, LOCATIONS, AND DEPTH SHOULD BE MADE BEFORE CONDUCTING ANY EXCAVATION IN THE VICINITY OF THE UTILITY.
28. THE PROPERTY SHOWN HEREON IS LOCATED IN A FLOOD HAZARD ZONE "X" (AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN) ACCORDING TO F.I.R.M. MAP "MAURY COUNTY, TENNESSEE" PANEL 280 OF 440, MAP NUMBER 47119C0280E, EFFECTIVE APRIL 16, 2007.
29. LOTS 1-3 ARE CURRENTLY ZONED "PUD-MU" (PLANNED UNIT DEVELOPMENT - MIXED USE), BASED ON THE OFFICIAL ZONING MAP FOR CITY OF COLUMBIA, TENNESSEE. A CURRENT ZONING REPORT AND/OR ZONING LETTER HAS NOT BEEN PROVIDED TO THE SURVEYOR. REFER TO THE SETBACK DATA TABLE FOR "PUD-MU" ZONING SETBACK REQUIREMENTS.
30. THE SUBJECT PROPERTY HAS DIRECT AND CONTIGUOUS ACCESS TO RUTHERFORD LANE, A 80-FOOT PUBLIC RIGHT-OF-WAY, TROTWOOD AVENUE, A 60-FOOT PUBLIC RIGHT-OF-WAY, AND WESTFIELD DRIVE, A 50-FOOT PUBLIC RIGHT-OF-WAY.
31. ALL PUBLIC UTILITY AND DRAINAGE EASEMENTS LOCATED ON PROPOSED LOTS ARE TO BE MAINTAINED BY THE INDIVIDUAL PROPERTY OWNER FOR SAID LOT.
32. LOT #3 - 40' MAXIMUM SETBACK ALONG TROTWOOD AVENUE MAY BE EXTENDED TO 85' WHEN PARKING DESIGN IS LOCATED IN THE FIRST LAYER, PER CITY OF COLUMBIA ZONING ORDINANCE TABLE 4.3.1-E (EFFECTIVE DATE 07/14/2022).



VICINITY MAP
SCALE: 1" = 1,000'
SOURCE: USGS

OWNER:
CBP, LLC
700 NORTH MAIN STREET
COLUMBIA, TN 38401
CONTACT NAME: ANDY CRICHTON
PHONE NO.: 931-398-5533
EMAIL: ACRICHTON@ATHENSINC.COM

DEVELOPER:
MORNING POINTE SENIOR LIVING
2050 UNION PLACE
COLUMBIA, TN 38401
CONTACT NAME: FRANKLIN FARROW
PHONE NO.: 423-322-3446
EMAIL: FFARROW@IHPLLC.COM

CIVIL ENGINEER:
FULMER LUCAS ENGINEERING, LLC
2002 RICHARD JONES ROAD - SUITE B200
NASHVILLE, TN 37215
CONTACT NAME: JASON MORELOCK
PHONE NO.: 615-516-8477
EMAIL: JASON@FULMERLUCAS.COM

SURVEYOR:
M2 GROUP, LLC
P.O. BOX 2543
BRENTWOOD, TN 37024-2543
CONTACT NAME: STEPHEN VANDER HORST, RLS, CFS
PHONE NO.: 615-656-0257
EMAIL: STEPHEN@M2GROUPLLC.COM

ARCHITECT:
NEUHOFF TAYLOR ARCHITECTS, AIA
699 DALLAS ROAD
CHATTANOOGA, TN 37405
CONTACT NAME: RANDALL TAYLOR
PHONE NO.: 423-265-3272
EMAIL: RANDALL.TAYLOR@NEUHOFFTAYLOR.COM

SHEET LIST TABLE

SHEET NUMBER	SHEET TITLE
C0.0	COVER SHEET
C1.0	OVERALL EXISTING CONDITIONS
SV-01	BOUNDARY & TOPOGRAPHIC SURVEY
C2.0	PRELIMINARY PLAT
C2.1	PRELIMINARY PLAT
C2.2	PRELIMINARY PLAT
L1.0	TREE PRESERVATION PLAN
L1.1	LANDSCAPE PLAN

SITE DATA TABLE

ZONING	PUD-MU	
TOTAL PROJECT AREA	12.86	AC
TOTAL PROJECT AREA	560,245	SF
PARKING SPACES REQUIRED	51	EA
PARKING SPACES PROVIDED	140	EA

SETBACK DATA:

LOT 1 (PUD-MU*):

MINIMUM FRONT SETBACK:	0'
MAXIMUM FRONT SETBACK:	20'
SECOND LAYER DEPTH**:	20'
SIDE SETBACK:	10'
REAR SETBACK:	N/R

LOT 2 (PUD-MU*):

MINIMUM FRONT SETBACK:	0'
MAXIMUM FRONT SETBACK:	20'
SECOND LAYER DEPTH**:	20'
SIDE SETBACK:	10'
REAR SETBACK:	N/R

LOT 3 (PUD-MU*):

MINIMUM FRONT SETBACK:	0'
MAXIMUM FRONT SETBACK:	20'
SECOND LAYER DEPTH**:	20'
SIDE SETBACK:	10'
REAR SETBACK:	N/R'

**PER CITY OF COLUMBIA ZONING ORDINANCE, TABLE 4.3.1-M*
***PER CITY OF COLUMBIA ZONING ORDINANCE, ARTICLE 9, DEFINITIONS ("LAYER")*

SUBJECT PROPERTY INFORMATION

ADDRESS:	PARCEL NUMBER:	OWNER:
RUTHERFORD LANE	P/O 112 00307 000	CBP, LLC

Know what's below. Call before you dig.

SURVEY INFO
PROVIDED BY: M2 GROUP, LLC
DATUM: TENNESSEE STATE PLANE (NAD83 & NAVD 88)

FULMER LUCAS
2002 RICHARD JONES RD - SUITE B200
NASHVILLE, TENNESSEE 37215
INFO@FULMERLUCAS.COM - (615) 345-3770

JASON C. MORELOCK
REGISTERED ENGINEER
AGRICULTURE COMMERCE
No. 108803
STATE OF TENNESSEE
06/08/2026

PRELIMINARY PLAT FOR:
MORNING POINTE
RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401

DR.	DATE	DESCRIPTION

COVER SHEET

C0.0

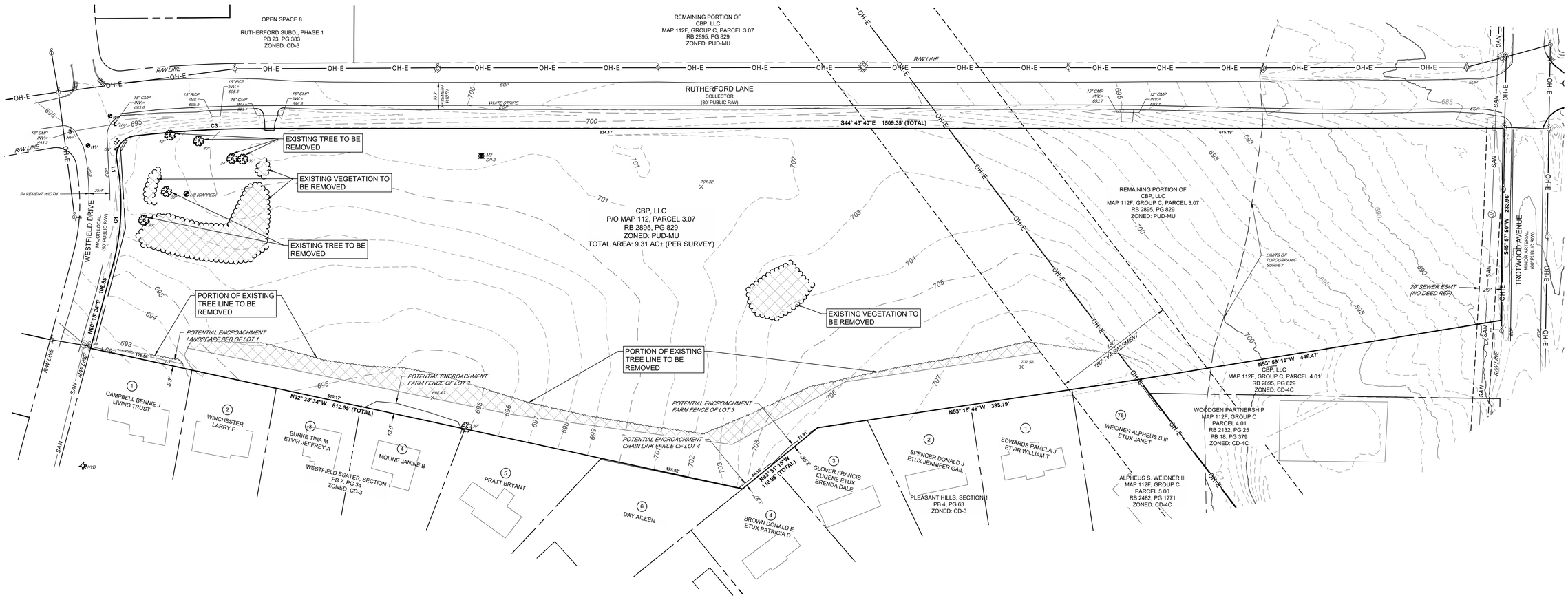
1421-01 MORNING POINTE

LEGEND:

	EXISTING PROPERTY LINE	HB	HOSE BIB
	EXISTING RIGHT-OF-WAY	S	SANITARY SEWER MANHOLE
	EXISTING ADJACENT PROPERTY LINE		CURB INLET
	EXISTING EASEMENT		INLET (SQUARE)
MBSL	MINIMUM BUILDING SETBACK LINE	GV	GAS BOX (GAS VALVE)
700	EXISTING INDEX CONTOUR		HIGH TENSION TOWER
	EXISTING INTERMEDIATE CONTOUR		POWER POLE
	EXISTING FARM FENCE		GUY WIRE
	EXISTING WOOD FENCE		TRAFFIC PULL BOX
	EXISTING CHAIN-LINK FENCE		COMMUNICATION PEDESTAL
SAN	EXISTING SANITARY SEWER LINE		FIBER OPTIC PULL BOX
W	EXISTING WATER LINE		TREE, DECIDUOUS
OHE	EXISTING OVERHEAD ELECTRIC	700.00	EXISTING SPOT ELEVATION
	EXISTING TREELINE	(POI)	POINT OF INSERTION
	IRON REBAR FOUND (IRF)	HW	HEADWALL
	IRON PIPE FOUND (IPF)	LS	LANDSCAPE BED
	IRON REBAR SET W/CAP (IRS)	EOP	EDGE OF PAVEMENT
	BENCHMARK / SURVEY CONTROL	1	LOT NUMBER
WV	WATER VALVE	EXC. #3	SCHEDULE B PART II EXCEPTION
	FIRE HYDRANT		

N NE E SE S SW W NW

60' 0 60' 120'
GRAPHIC SCALE



811
Know what's **below.**
Call before you dig.

SURVEY INFO
PROVIDED BY: M2 GROUP, LLC
DATUM: TENNESSEE STATE PLANE (NAD83 & NAVD 88)

FULMER LUCAS
2002 RICHARD JONES RD - SUITE B200
NASHVILLE, TENNESSEE 37215
INFO@FULMERLUCAS.COM - (615) 345-3770

JASON C. MORELOS
REGISTERED ENGINEER
AGRICULTURE
No. 108603
STATE OF TENNESSEE
06/08/2026

PRELIMINARY PLAT FOR:
MORNING POINTE
RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401

DR.	DATE	DESCRIPTION

OVERALL EXISTING CONDITIONS

C1.0

1421-01 MORNING POINTE

LEGAL DESCRIPTION (PER TITLE COMMITMENT)

THE LAND REFERRED TO HEREIN BELOW IN SITUATED IN THE COUNTY OF MAURY, STATE OF TENNESSEE, AND DESCRIBED AS FOLLOWS:

TRACT III:

PARCEL NO. 1:

BOUNDED ON THE NORTH BY L AND N RAILROAD AND RUTHERFORD LANE; EAST BY CRIDDLE MEADOWS SUBDIVISION AND DR. DAN GRAY; SOUTH BY MT. PLEASANT PIKE OR U.S. NO. 43 HIGHWAY, PLEASANT HILLS SUBDIVISION, J.A. MORGAN AND OTHERS; WEST BY RIDLEY BROTHERS. BEGINNING AT AN IRON PIN IN THE EAST LINE OF RIDLEY BROTHERS TRACT AT THE SOUTHWEST CORNER OF THE HEREIN DESCRIBED TRACT: THENCE WITH RIDLEY BROTHERS AND GENERALLY FOLLOWING A FENCE NORTH 5 DEGREES 16 MINUTES EAST, 1,127.65 FEET TO AN IRON PIN; THENCE WITH SAME NORTH 87 DEGREES 32 MINUTES WEST, 946.15 FEET TO AN IRON PIN; THENCE WITH SAME NORTH 0 DEGREES 50 MINUTES EAST, 359.97 FEET TO A SPIKE IN THE CENTER LINE OF L AND N RAILROAD; THENCE FOLLOWING A STAKED LINE WITH IRON PINS ALONG CENTER LINE OF L AND N RAILROAD AS FOLLOWS: NORTH 53 DEGREES 29 MINUTES EAST, 2,326.46 FEET, NORTH 56 DEGREES 09 MINUTES EAST, 352.0 FEET; NORTH 59 DEGREES 31 MINUTES EAST, 326.96 FEET; NORTH 62 DEGREES 32 MINUTES EAST, 264.30 FEET; NORTH 65 DEGREES 18 MINUTES EAST, 278.60 FEET; NORTH 67 DEGREES 39 MINUTES EAST, 221.60 FEET TO AN IRON PIN; THENCE LEAVING RAILROAD AND GENERALLY FOLLOWING A FENCE ALONG THE SOUTH MARGIN OF RUTHERFORD LANE SOUTH 87 DEGREES 27 MINUTES EAST, 916.74 FEET TO AN IRON PIN; THENCE WITH SAME SOUTH 86 DEGREES 19 MINUTES EAST, 149.18 FEET TO A STAKE; THENCE WITH THE WEST LINE OF CRIDDLE MEADOWS SUBDIVISION SOUTH 4 DEGREES 04 MINUTES WEST, 2,743.39 FEET TO AN IRON PIN; THENCE WITH THE SOUTH LINE OF CRIDDLE MEADOWS SUBDIVISION SOUTH 85 DEGREES 56 MINUTES EAST, 400.0 FEET TO AN IRON PIN; THENCE WITH SAME SOUTH 84 DEGREES 29 MINUTES EAST, 221.98 FEET TO AN IRON PIN; THENCE WITH DR. DAN GRAY SOUTH 13 DEGREES 46 MINUTES EAST, 24.80 FEET TO AN IRON PIN; THENCE WITH SAME SOUTH 55 DEGREES 24 MINUTES WEST, 95.22 FEET TO AN IRON PIN; THENCE WITH SAME SOUTH 42 DEGREES 15 MINUTES EAST, 93.35 FEET TO AN IRON PIN; THENCE WITH SAME SOUTH 24 DEGREES 43 MINUTES EAST, 99.95 FEET TO AN IRON PIN; THENCE WITH SAME SOUTH 55 DEGREES 50 MINUTES WEST, 178.04 FEET TO AN IRON PIN; THENCE WITH SAME SOUTH 39 DEGREES 27 MINUTES EAST, 820.80 FEET TO AN IRON PIN; THENCE WITH THE NORTH MARGIN OF MT. PLEASANT PIKE SOUTH 42 DEGREES 32 MINUTES WEST, 506.57 FEET TO AN IRON PIN; THENCE WITH J. A. MORGAN AND OTHERS NORTH 58 DEGREES 05 MINUTES WEST, 424.19 FEET TO AN IRON PIN; THENCE WITH SAME AND WITH PLEASANT HILLS SUBDIVISION NORTH 57 DEGREES 35 MINUTES WEST, 418.17 FEET TO AN IRON PIN; THENCE WITH PLEASANT HILLS SUBDIVISION NORTH 88 DEGREES 01 MINUTES WEST, 680.26 FEET TO AN IRON PIN; THENCE WITH SAME NORTH 88 DEGREES 21 MINUTES WEST, 514.0 FEET TO AN IRON PIN; THENCE WITH SAME NORTH 88 DEGREES 01 MINUTES WEST, 308.0 FEET TO AN IRON PIN; THENCE WITH SAME NORTH 87 DEGREES 37 MINUTES WEST, 431.0 FEET TO AN IRON PIN; THENCE WITH PROPOSED PLEASANT HILLS SUBDIVISION, SECTION 4; AND J. A. MORGAN AND OTHERS NORTH 87 DEGREES 23 MINUTES WEST, 919.68 FEET TO AN IRON PIN; THENCE WITH J. A. MORGAN AND OTHERS NORTH 86 DEGREES 26 MINUTES WEST, 310.82 FEET TO THE POINT OF BEGINNING.

THERE IS A TVA POWER LINE HAVING A 250 RIGHT-OF-WAY ACROSS THE EAST PORTION OF THE ABOVE DESCRIBED TRACT. THERE IS A 100-FOOT CHARTERED RAILROAD RIGHT-OF- WAY ON THIS TRACT ALONG THE RAILROAD LINE.

PARCEL NO. 2:

BOUNDED ON THE NORTH BY RAYMOND MCMEEN AND TOM BURT; C. C. PINCKNEY; W. CLYDE BAKER AND RUTHERFORD LANE; EAST AND SOUTH BY L AND N RAILROAD AND WEST BY RIDLEY BROTHERS. BEGINNING AT AN IRON PIN IN MCMEEN AND BURT'S SOUTH LINE; SAID POINT BEING THE NORTHWEST CORNER OF THE HEREIN DESCRIBED TRACT; THENCE WITH MCMEEN AND BURT FARM, C. C. PINCKNEY AND W. CLYDE BAKER GENERALLY FOLLOWING A FENCE SOUTH 87 DEGREES 52 MINUTES EAST, 1079.03 FEET TO AN IRON PIN; THENCE WITH BAKER GENERALLY FOLLOWING A FENCE SOUTH 85 DEGREES 57 MINUTES EAST, 400.23 FEET TO AN IRON PIN; THENCE WITH SAME SOUTH 85 DEGREES 46 MINUTES EAST, 371.10 FEET TO AN IRON PIN; THENCE WITH SAME NORTH 5 DEGREES 29 MINUTES EAST, 342.33 FEET TO AN IRON PIN; THENCE WITH SAME SOUTH 87 DEGREES 35 MINUTES EAST, 504.44 FEET TO AN IRON PIN; THENCE WITH SAME SOUTH 88 DEGREES 15 MINUTES EAST, 300.05 FEET TO AN IRON PIN; THENCE WITH THE SOUTH MARGIN OF RUTHERFORD LANE SOUTH 89 DEGREES 17 MINUTES EAST, 1,160.19 FEET TO AN IRON PIN; THENCE WITH SAME SOUTH 87 DEGREES 27 MINUTES EAST, 13.46 FEET TO AN IRON PIN IN CENTER LINE OF L AND N RAILROAD; THENCE WITH THE CENTER LINE OF L AND N RAILROAD FOLLOWING A STAKED LINE WITH IRON PINS AS FOLLOWS: SOUTH 67 DEGREES 39 MINUTES WEST, 221.60 FEET; SOUTH 65 DEGREES 18 MINUTES WEST, 278.60 FEET; SOUTH 62 DEGREES 32 MINUTES WEST, 264.30 FEET; SOUTH 59 DEGREES 31 MINUTES WEST, 326.96 FEET; SOUTH 56 DEGREES 09 MINUTES WEST, 252.0 FEET; SOUTH 53 DEGREES 29 MINUTES WEST, 2,305.30 FEET; THENCE LEAVING RAILROAD AND WITH RIDLEY BROTHERS GENERALLY FOLLOWING A FENCE AS FOLLOWS: NORTH 20 DEGREES 46 MINUTES WEST, 328.63 FEET TO AN IRON PIN; NORTH 32 DEGREES 52 MINUTES WEST, 326.42 FEET TO AN IRON PIN; NORTH 23 DEGREES 49 MINUTES WEST, 428.85 FEET TO AN IRON PIN; NORTH 17 DEGREES 02 MINUTES WEST, 922.55 FEET TO THE POINT OF BEGINNING, THERE IS A 100-FOOT CHARTERED RIGHT-OF-WAY ON THIS TRACT ALONG THE RAILROAD LINE.

TRACT IV:

LOCATED IN THE NINTH (9TH) CIVIL DISTRICT OF MAURY COUNTY, TENNESSEE, NEAR THE INTERSECTION OF WEST PARK DRIVE AND THE L AND N RAILROAD. BOUNDED ON THE NORTH BY L AND N RAILROAD; EAST BY WEST PARK DRIVE; SOUTH AND WEST BY A. D. CRICHTON AND OTHERS, AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A SPIKE IN THE CENTER OF L AND N RAILROAD, SAID POINT IS ALSO IN THE WEST MARGIN OF WEST PARK DRIVE; SAID POINT IS IN THE NORTHEAST CORNER OF THE HEREIN DESCRIBED TRACT; THENCE WITH THE WEST MARGIN OF WEST PARK DRIVE SOUTH 34 DEGREES 10 MINUTES EAST, 517.77 FEET TO AN IRON PIN AT POINT OF CURVE; THENCE ON A CHORD TO A 5 DEGREES 11 MINUTES CURVE HAVING A CENTRAL ANGLE OF 22 DEGREES 09 MINUTES FEET SOUTH 30 DEGREES 56 MINUTES EAST, 125.0 FEET TO AN IRON PIN; THENCE WITH A. D. CRICHTON AND OTHERS SOUTH 53 DEGREES 29 MINUTES WEST, 644.71 FEET TO AN IRON PIN; THENCE WITH SAME NORTH 36 DEGREES 31 MINUTES WEST, 660.91 FEET TO A SPIKE IN THE CENTER OF L AND N RAILROAD; THENCE WITH L AND N RAILROAD NORTH 53 DEGREES 29 MINUTES EAST, 287.17 FEET TO A SPIKE; THENCE WITH SAME ON A CHORD TO A 1 DEGREES CURVE NORTH 56 DEGREES 04 MINUTES EAST 352.0 FEET TO A SPIKE; THENCE WITH SAME ON A CHORD TO CURVE NORTH 57 DEGREES 57 MINUTES EAST, 39.21 FEET TO THE POINT OF BEGINNING.

TRACT V:

THIS IS A TRACT OR PARCEL OF LAND LOCATED IN THE NINTH CIVIL DISTRICT OF MAURY COUNTY, TENNESSEE BOUNDED ON THE NORTH BY DON CRICHTON AND OTHERS; EAST BY PROPOSED NEW ROAD; SOUTH AND WEST BY DON CRICHTON AND OTHERS AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT AN IRON PIN IN THE WEST MARGIN OF NEW PROPOSED ROAD AT THE SOUTHWEST CORNER OF THE HEREIN DESCRIBED TRACT, SAID POINT BEING NORTH 48 DEGREES 53 MINUTES WEST, 1,473.45 FEET FROM THE NORTH MARGIN OF U. S. HIGHWAY NO. 43 OR MT. PLEASANT PIKE, SAID POINT IN NORTH MARGIN OF HIGHWAY IS SOUTH 41 DEGREES 57 MINUTES WEST, 236.16 FEET FROM THE MOST SOUTHERLY SOUTHWEST CORNER OF THE DON CRICHTON AND OTHERS FARM; THENCE WITH DON CRICHTON AND OTHERS SOUTH 56 DEGREES 07 MINUTES WEST, 255.0 FEET TO AN IRON PIN; THENCE WITH SAME, NORTH 48 DEGREES 53 MINUTES WEST, 175.0 FEET TO AN IRON PIN, THENCE WITH SAME NORTH 56 DEGREES 07 MINUTES EAST, 246.70 FEET TO AN IRON PIN; THENCE WITH THE WEST MARGIN OF THE NEW PROPOSED ROAD ON A 4 DEGREES 07 MINUTES CURVE HAVING A CENTRAL ANGLE OF 9 DEGREES 54 MINUTES A DISTANCE ON CURVE OF 149.30 FEET TO P.C. OF CURVE; THENCE WITH SAME ON A TANGENT SOUTH 48 DEGREES 53 MINUTES EAST, 28.0 FEET TO THE POINT OF BEGINNING.

TRACT VI:

ANY PORTION OF OLD RUTHERFORD LANE THAT BOUNDS SAID PROPERTY OWNED BY ANDREW D. CRICHTON, JOHN B. JEWELL, III, AND JAMES W. JEWELL, UP TO THE CENTERLINE OF SAID LANE.

FIRST PARTY ALSO QUITCLAIMS ANY AND ALL RIGHTS IN AND TO OLD RUTHERFORD LANE ACQUIRED BY VIRTUE OF THE FOREGOING DEED OR OTHERWISE.

INCLUDED IN THE FOREGOING DESCRIPTION, BUT EXPRESSLY EXCLUDED THEREFROM, IS PROPERTY CONVEYED BY THE FOLLOWING; ALL OF RECORD IN THE REGISTER'S OFFICE OF MAURY COUNTY, TENNESSEE.

1. ALL LOTS IN WESTFIELD SUBDIVISION, SECTIONS 1, 2,3, 4, AND 4A, WITH THE EXCEPTION OF LOT 114 WESTFIELD SUBDIVISION, SECTION 4 AS SHOWN ON PLAT OF RECORD IN PLAT BOOK 8, PAGE 21, REGISTER'S OFFICE OF MAURY COUNTY, TENNESSEE.
2. DEED TO THE INDUSTRIAL DEVELOPMENT BOARD OF MAURY COUNTY, TENNESSEE IN BOOK 563, PAGE 204;
3. DEED TO MAURY COUNTY, TENNESSEE IN BOOK 591, PAGE 180;
4. DEED TO HERMAN L. LEWIS IN BOOK 607, PAGE 512;
5. DEED TO COLCO, INC., A TENNESSEE CORPORATION IN BOOK 655, PAGE 709;
6. DEED TO RICHARD A. BRICKNER AND WIFE, JUDITH BRICKNER, AS TENANTS IN THE ENTIRETY IN BOOK 675, PAGE 50;
7. DEED TO MAURY COUNTY, TENNESSEE IN BOOK 675, PAGE 354;
8. DEED TO GAITHER FRIERSON GARY IN BOOK 679, PAGE 508;
9. DEED TO STEVEN G. HALL IN BOOK 711, PAGE 531;
10. DEED TO MAURY COUNTY BOARD OF EDUCATION IN BOOK 803, PAGE 174;
11. DEED TO DAVID L. SCHWAB AND JOHN G. MITCHELL, AS EQUAL TENANTS IN COMMON IN BOOK 1114, PAGE 276;
12. DEED EUGENE L. HELLER IN BOOK 1145, PAGE 580; AND
13. DEED TO MAURY COUNTY, STATE OF TENNESSEE IN BOOK R2839, PAGE 368.

BEING PART OF THE SAME PROPERTY CONVEYED TO CBP, LLC, A TENNESSEE LIMITED LIABILITY COMPANY, BY DEED FROM CRICHTON WELTON PARTNERS, G.P., A TENNESSEE GENERAL PARTNERSHIP, OF RECORD IN BOOK R2895, PAGE 1276, IN THE REGISTER'S OFFICE OF MAURY COUNTY, TENNESSEE.

LEGAL DESCRIPTION (PER SURVEY)

LOCATED IN THE 9TH CIVIL DISTRICT OF MAURY COUNTY, TENNESSEE, BEING A PORTION OF THE CBP, LLC PROPERTY, AS REFERENCED IN RECORD BOOK 2895, PAGE 829 OF THE REGISTER'S OFFICE OF MAURY COUNTY, TENNESSEE (ROMCT) AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT AN IRON REBAR (SET), ON THE EASTERLY RIGHT-OF-WAY LINE OF WESTFIELD DRIVE AND THE NORTHEASTERLY CORNER OF LOT 1, WESTFIELD ESTATES, SECTION 1 PROPERTY, PLAT BOOK 7, PAGE 34 (ROMCT), HAVING A TENNESSEE STATE PLANE COORDINATE VALUE OF NORTH: 460,158.17 US FEET, EAST: 1,640,747.93 US FEET (NAD83, 2011);

THENCE, WITH WESTFIELD DRIVE, THE FOLLOWING FOUR (4) CALLS:
1. NORTH 60° 15' 34" EAST 105.85 FEET TO AN IRON PIPE (FOUND);
2. ALONG A CURVE TO THE LEFT, HAVING A RADIUS OF 282.23 FEET, AN ARC LENGTH OF 108.50 FEET, AND A CHORD BEARING OF NORTH 49° 15' 42" EAST 107.83 FEET TO AN IRON PIPE (FOUND);
3. NORTH 36° 46' 42" EAST 18.65 FEET TO AN IRON PIPE (FOUND);
4. ALONG A CURVE TO THE RIGHT, HAVING A RADIUS OF 25.00 FEET, AN ARC LENGTH OF 42.59 FEET, AND A CHORD BEARING OF NORTH 80° 41' 30" EAST 37.63 FEET TO AN IRON PIPE (FOUND) IN THE WESTERLY RIGHT-OF-WAY OF RUTHERFORD LANE;

THENCE, WITH RUTHERFORD LANE, THE FOLLOWING TWO (2) CALLS:
1. ALONG A CURVE TO THE RIGHT, HAVING A RADIUS OF 1392.39 FEET, AN ARC LENGTH OF 157.80 FEET, AND A CHORD BEARING OF SOUTH 47° 58' 28" EAST 157.71 FEET TO AN IRON REBAR (SET);
2. SOUTH 44° 43' 40" EAST 834.17 FEET TO AN IRON REBAR (SET) BEING IN THE CENTERLINE OF A 150' TVA EASEMENT;

THENCE, SEVERING CBP, LLC, SOUTH 08° 07' 07" WEST 383.66 FEET TO AN IRON PIPE (FOUND) BEING THE NORTHEAST CORNER OF THE ALPHEUS S. WEIDNER III PROPERTY, RECORD BOOK 2482, PAGE 1271 (ROMCT);

THENCE, WITH WEIDNER AND THE NORTHERLY LINE OF PLEASANT HILLS, SECTION 1, PLAT BOOK 4, PAGE 63 (ROMCT), THE FOLLOWING TWO (2) CALLS:
1. NORTH 53° 16' 46" WEST 395.79 FEET TO AN IRON REBAR (FOUND);
2. NORTH 83° 51 15" WEST 118.06 FEET TO THE SOUTHEAST CORNER OF LOT 6 OF SAID WESTFIELD ESTATES, SECTION 1;

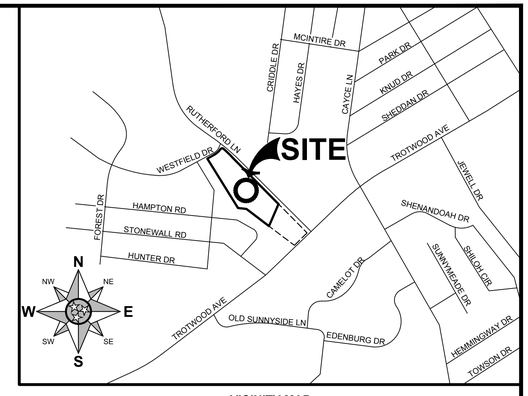
THENCE WITH WESTFIELD ESTATES, NORTH 32° 33 34" WEST 812.55 FEET TO THE POINT OF BEGINNING, CONTAINING IN ALL 9.13 ACRES, MORE OR LESS.

GENERAL NOTES:

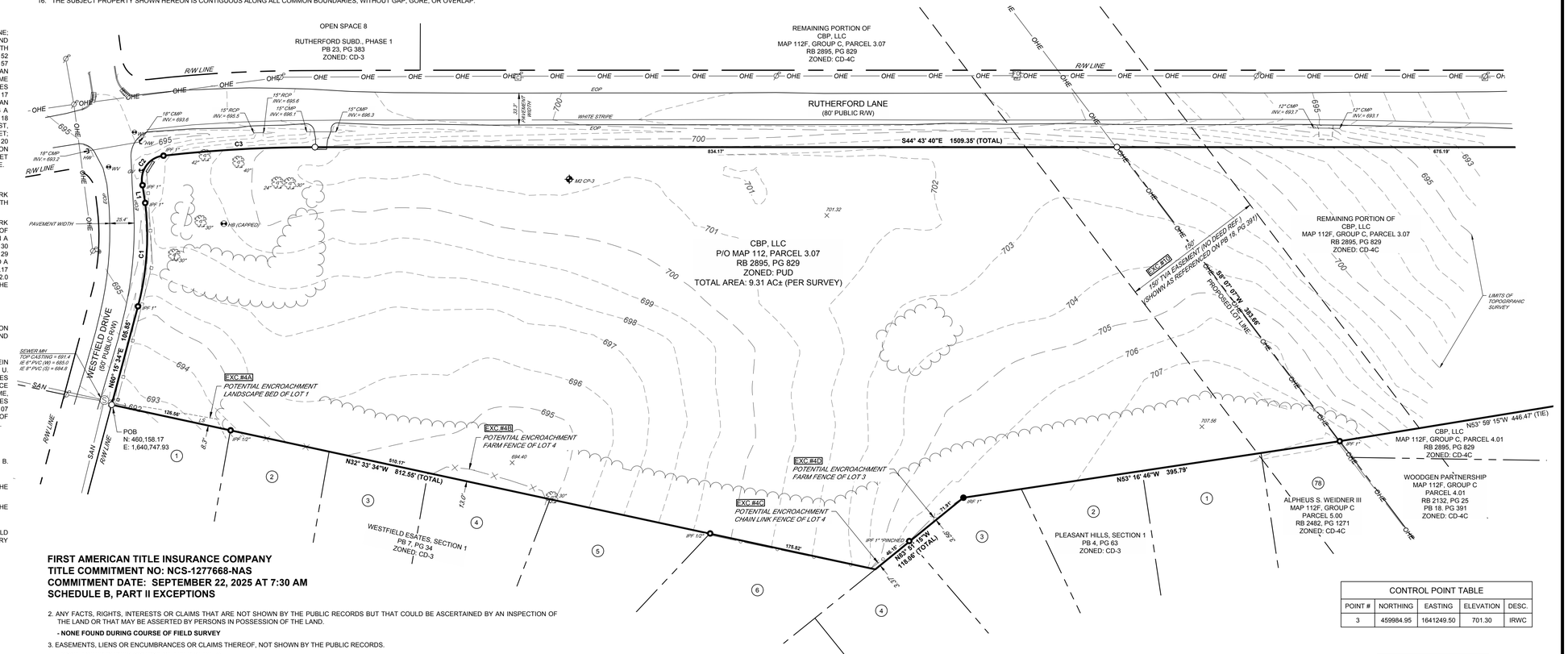
1. BEARINGS ARE BASED ON THE TENNESSEE STATE PLANE COORDINATE SYSTEM (NAD83, 2011).
2. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88, GEOID 18). CONTOURS ARE SHOWN AT 1-FOOT INTERVALS.
3. THE PROPERTY SHOWN HEREON IS THE SAME PROPERTY AS REFERENCED IN THE FIRST AMERICAN TITLE INSURANCE COMPANY, TITLE COMMITMENT NO. NAS-1277668-NAS.
4. THE FIELD SURVEY WAS COMPLETED ON SEPTEMBER 11, 2025.
5. THIS SURVEY WAS PREPARED USING THE TITLE COMMITMENT, AS REFERENCED HEREON, ALONG WITH CURRENT DEEDS AND PLATS OF RECORD.
6. ALL DEED BOOK AND PLAT REFERENCES PERTAIN TO THE REGISTER'S OFFICE FOR MAURY COUNTY, TENNESSEE.
7. ADJOINING PROPERTY LINES SHOWN WERE PLOTTED FROM INFORMATION TAKEN FROM EITHER DEED DESCRIPTION, RECORD PLATS, OR TAX MAPS.
8. PROPERTY CORNERS SET THIS SURVEY ARE 18" #4 REBAR WITH ORANGE PLASTIC CAP STAMPED "M2 GROUP", 18" #5 REBAR WITH YELLOW PLASTIC CAP STAMPED "M2 GROUP, LLC", OR PK NAIL WITH STAINLESS STEEL WASHER STAMPED "M2 GROUP, LLC", UNLESS NOTED OTHERWISE.
9. UTILITIES SHOWN HEREON WERE COMPILED FROM VISIBLE STRUCTURES AT THE SITE, INFORMATION FROM PLANS, AND PHYSICAL MARKINGS AND COMBINED TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES. HOWEVER, LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY, AND RELIABLY DEPICTED. IN ADDITION, IN SOME JURISDICTIONS, 811 OR OTHER SIMILAR UTILITY LOCATE REQUESTS FROM SURVEYORS MAY BE IGNORED OR RESULT IN AN INCOMPLETE RESPONSE. THIS SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THIS SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. VERIFICATION OF EXISTENCE, LOCATIONS, AND DEPTH SHOULD BE MADE BEFORE CONDUCTING ANY EXCAVATION IN THE VICINITY OF THE UTILITY.
10. THE PROPERTY SHOWN HEREON IS LOCATED IN A FLOOD HAZARD ZONE "X" (AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN) ACCORDING TO F.I.R.M. MAP "MAURY COUNTY, TENNESSEE" PANEL 280 OF 440, MAP NUMBER 47119C0280E, EFFECTIVE APRIL 16, 2007.
11. THE SUBJECT PROPERTY IS CURRENTLY ZONED "PUD" (PLANNED UNIT DEVELOPMENT) , BASED ON THE OFFICIAL ZONING MAP FOR CITY OF COLUMBIA, TENNESSEE. A CURRENT ZONING REPORT AND/OR ZONING LETTER HAS NOT BEEN PROVIDED TO THE SURVEYOR. THE MINIMUM BUILDING SETBACK REQUIREMENTS FOR "PUD" ZONING SHOULD BE CONFIRMED WITH THE CONTROLLING JURISDICTION.
13. THE SUBJECT PROPERTY HAS DIRECT AND CONTIGUOUS ACCESS TO RUTHERFORD LANE, A 80-FOOT PUBLIC RIGHT-OF-WAY, TROTWOOD AVENUE, A 60-FOOT PUBLIC RIGHT-OF-WAY, AND WESTFIELD DRIVE, A 50-FOOT PUBLIC RIGHT-OF-WAY.
14. THERE WAS NO EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS OBSERVED DURING THE COURSE OF FIELD SURVEY.
15. NO EVIDENCE OF PROPOSED CHANGES IN THE STREET RIGHT OF WAY LINES, OR OF RECENT STREET OR SIDEWALK CONSTRUCTION, OR REPAIRS, WAS OBSERVED DURING THE COURSE OF FIELD SURVEY.
16. THE SUBJECT PROPERTY SHOWN HEREON IS CONTIGUOUS ALONG ALL COMMON BOUNDARIES, WITHOUT GAP, GORE, OR OVERLAP.

LEGEND:

	EXISTING PROPERTY LINE	HB	HOSE BIB
	EXISTING RIGHT-OF-WAY		SANITARY SEWER MANHOLE
	EXISTING ADJACENT PROPERTY LINE		CURB INLET
	EXISTING EASEMENT		INLET (SQUARE)
MBSL	MINIMUM BUILDING SETBACK LINE	GV	GAS BOX (GAS VALVE)
700	EXISTING INDEX CONTOUR		HIGH TENSION TOWER
	EXISTING INTERMEDIATE CONTOUR		POWER POLE
	EXISTING FARM FENCE		GUY WIRE
	EXISTING WOOD FENCE		TRAFFIC PULL BOX
	EXISTING CHAIN-LINK FENCE		COMMUNICATION PEDESTAL
SAN	EXISTING SANITARY SEWER LINE		FIBER OPTIC PULL BOX
W	EXISTING WATER LINE		TREE, DECIDUOUS
OHE	EXISTING OVERHEAD ELECTRIC	700.00	EXISTING SPOT ELEVATION
	EXISTING TREELINE	(POI)	POINT OF INSERTION
	IRON REBAR FOUND (IRF)	HW	HEADWALL
	IRON PIPE FOUND (IPF)	LS	LANDSCAPE BED
	IRON REBAR SET W/CAP (IRS)	EOP	EDGE OF PAVEMENT
	BENCHMARK / SURVEY CONTROL	1	LOT NUMBER
WV	WATER VALVE	EXC. #3	SCHEDULE B PART II EXCEPTION
	FIRE HYDRANT		



VICINITY MAP
SCALE: 1"=1000'



FIRST AMERICAN TITLE INSURANCE COMPANY
TITLE COMMITMENT NO: NCS-1277668-NAS
COMMITMENT DATE: SEPTEMBER 22, 2025 AT 7:30 AM
SCHEDULE B, PART II EXCEPTIONS

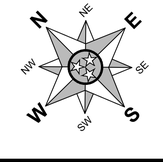
2. ANY FACTS, RIGHTS, INTERESTS OR CLAIMS THAT ARE NOT SHOWN BY THE PUBLIC RECORDS BUT THAT COULD BE ASCERTAINED BY AN INSPECTION OF THE LAND OR THAT MAY BE ASSERTED BY PERSONS IN POSSESSION OF THE LAND.
   - NONE FOUND DURING COURSE OF FIELD SURVEY
3. EASEMENTS, LIENS OR ENCUMBRANCES OR CLAIMS THEREOF, NOT SHOWN BY THE PUBLIC RECORDS.
   - NONE FOUND DURING COURSE OF FIELD SURVEY
4. ANY ENCROACHMENT, ENCUMBRANCE, VIOLATION, VARIATION, OR ADVERSE CIRCUMSTANCE AFFECTING THE TITLE THAT WOULD BE DISCLOSED BY AN ACCURATE AND COMPLETE LAND SURVEY OF THE LAND AND NOT SHOWN BY THE PUBLIC RECORDS.
   (A) - ENCROACHMENT OF LANDSCAPE BED FROM LOT 1, WESTFIELD ESTATES, SECT. 1, AS SHOWN AND NOTED HEREON
   (B) - ENCROACHMENT OF FARM FENCE FROM LOT 4, WESTFIELD ESTATES, SECT. 1, AS SHOWN AND NOTED HEREON
   (C) - ENCROACHMENT OF CHAIN LINK FENCE FROM LOT 4, PLEASANT HILLS, SECT. 1, AS SHOWN AND NOTED HEREON
   (D) - ENCROACHMENT OF FARM FENCE FROM LOT 3, PLEASANT HILLS, SECT. 1, AS SHOWN AND NOTED HEREON
10. ALL MATTERS SHOWN ON PLAT(S) OF RECORD IN BOOK 8, PAGE 21; PLAT BOOK P18, PAGE 379; AND PLAT BOOK P23, PAGE 348, IN THE REGISTER'S OFFICE OF MAURY COUNTY, TENNESSEE.
   - PLAT BOOK 8, PAGE 21 AND PLAT BOOK 23, PAGE 348, DO NOT AFFECT THE SUBJECT PROPERTY
   - PLAT BOOK 18, PAGE 379, REFERENCES A 150' TVA OVERHEAD POWER LINE EASEMENT THAT DOES AFFECT THE SUBJECT PROPERTY AS SHOWN AND NOTED HEREON
   - PLAT BOOK 18, PAGE 391, IS NOT LISTED IN EXCEPTION ABOVE, BUT DOES REFERENCE SAME 150' TVA OVERHEAD POWER LINE EASEMENT THAT DOES AFFECT THE SUBJECT PROPERTY AS SHOWN AND NOTED HEREON
11. RIGHT OF WAY AND LIFE ESTATE CONTAINED IN DEED OF RECORDED IN BOOK 595, PAGE 486, IN THE REGISTER'S OFFICE OF MAURY COUNTY, TENNESSEE.
   - DOES NOT AFFECT THE SUBJECT PROPERTY
12. TERMS AND PROVISIONS OF RIGHT OF WAY OR EASEMENT, BY AND BETWEEN THOMAS J. BURT AND RAYMOND MCMEEN AND CITY OF COLUMBIA, TENNESSEE, A MUNICIPAL CORPORATION, OF RECORD IN BOOK 609, PAGE 309, IN THE REGISTER'S OFFICE OF MAURY COUNTY, TENNESSEE.
   - DOES NOT AFFECT THE SUBJECT PROPERTY
13. TERMS AND PROVISIONS OF RIGHT-OF-WAY OR EASEMENT, BY AND BETWEEN ANDREW DON CRICHTON, JAMES W. JEWELL AND JOHN B. JEWELL, III AND CITY OF COLUMBIA, ITS SUCCESSORS AND ASSIGNS, OF RECORD IN BOOK R1924, PAGE 1092, IN THE REGISTER'S OFFICE OF MAURY COUNTY, TENNESSEE.
   - DOES NOT AFFECT THE SUBJECT PROPERTY
15. TERMS AND PROVISIONS OF GRADING AND CONSTRUCTION EASEMENT AGREEMENT, BY AND BETWEEN WELTON INVESTMENTS, LLC, A TENNESSEE LIMITED LIABILITY COMPANY AND COLUMBIA RETAIL PARTNERS, A TENNESSEE GENERAL PARTNERSHIP, OF RECORD IN BOOK R2113, PAGE 557, IN THE REGISTER'S OFFICE OF MAURY COUNTY, TENNESSEE.
   - DOES NOT AFFECT THE SUBJECT PROPERTY
17. TERMS AND PROVISIONS OF SANITARY SEWER EASEMENT, BY AND BETWEEN CBP, LLC, A TENNESSEE LIMITED LIABILITY COMPANY AND CITY OF COLUMBIA, STATE OF TENNESSEE, ITS SUCCESSORS AND ASSIGNS, OF RECORD IN BOOK R2931, PAGE 1096, IN THE REGISTER'S OFFICE OF MAURY COUNTY, TENNESSEE.
   - DOES NOT AFFECT THE SUBJECT PROPERTY
20. RIGHTS OF THE RAILROAD COMPANY TO EXPAND ITS RIGHT OF WAY TO ITS FULL CHARTER WIDTH.
   - DOES NOT AFFECT THE SUBJECT PROPERTY



SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THE INFORMATION SHOWN HEREON IS TRUE AND ACCURATE TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND BELIEF. THE SURVEY SHOWN HEREON REPRESENTS A CATEGORY I SURVEY, HAVING A LINEAR ERROR OF CLOSURE WHICH IS EQUAL TO OR LESS THAN 1 FOOT PER 10,000 FEET OF LAND (1:10,000). THIS SURVEY WAS MADE IN COMPLIANCE WITH THE CURRENT TENNESSEE MINIMUM STANDARDS OF PRACTICE.

60' 0 60' 120'
GRAPHIC SCALE



GPS SURVEY DATA INFORMATION:

- TYPE OF GPS SURVEY: RTK
- POSITIONAL ACCURACY: 0.07 FEET
- DATUM/EPOCH: NAD83 (2011) EPOCH 2010.00
- PUBLISHED/FIXED CONTROL USED: TGRN
- GEOID MODEL: GEOID 18
- COMBINED GRID SCALE FACTOR: 0.9999285106
- UNITS: (US FEET)(GRID)

REVISION #	DATE	DESCRIPTION

BOUNDARY & TOPOGRAPHIC SURVEY
P/O MAP 112, PARCEL 3.07
RUTHERFORD LANE
CITY OF COLUMBIA
9TH CIVIL DISTRICT
MAURY COUNTY, TENNESSEE

DATE :	OCTOBER 22, 2025	DRAWN BY :	PMK
PROJECT NUMBER :	25-215	CHECKED BY :	EDC

M2 GROUP
P.O. BOX 2543
BRENTWOOD, TN 37024-2543
615-656-0257 / M2GROUPLLC.COM

SHEET NUMBER: SV-01

25-215_RUTHERFORD

CONTROL POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESC.
3	459984.95	1641249.50	701.30	IRWC

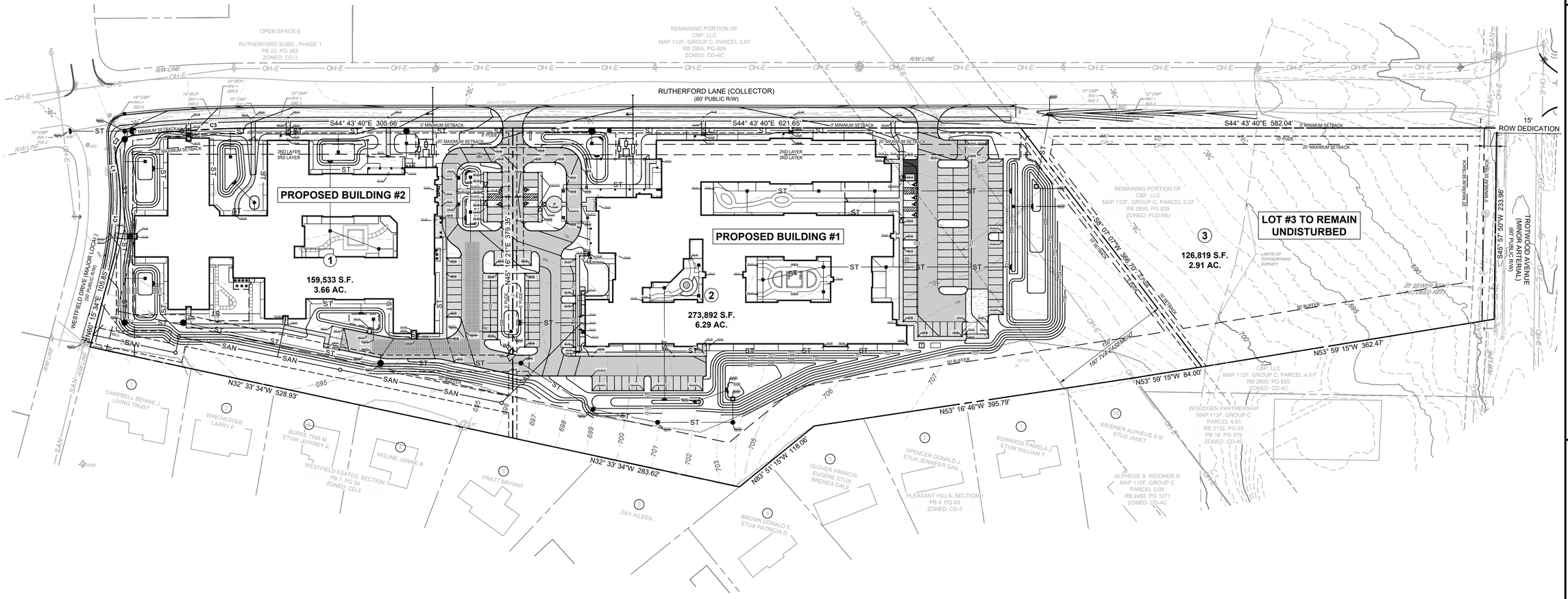
LINE TABLE		
LINE #	LENGTH	DIRECTION
L1	18.65	N36° 46' 42"E

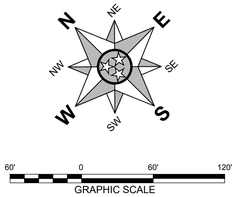
CURVE TABLE				
CURVE #	LENGTH	RADIUS	CHORD BRNG	CHORD LENGTH
C1	108.50	282.23	N49° 15' 42"E	107.83
C2	42.59	25.00	N80° 41' 30"E	37.63
C3	157.80	1392.39	S47° 58' 28"E	157.71

LOT AREA TABLE		
LOT #	AREA (S.F.)	AREA (AC.)
1	159,533	3.66
2	273,892	6.29
3	126,819	2.91

LEGEND:

- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING ADJACENT PROPERTY LINE
- EXISTING EASEMENT
- MBSL MINIMUM BUILDING SETBACK LINE
- 700 EXISTING INDEX CONTOUR
- EXISTING INTERMEDIATE CONTOUR
- EXISTING FARM FENCE
- EXISTING WOOD FENCE
- EXISTING CHAIN-LINK FENCE
- SAN EXISTING SANITARY SEWER LINE
- W EXISTING WATER LINE
- OHE EXISTING OVERHEAD ELECTRIC
- EXISTING TREELINE
- IRON REBAR FOUND (IRF)
- IRON PIPE FOUND (IPF)
- IRON REBAR SET W/CAP (IRS)
- BENCHMARK / SURVEY CONTROL
- WV WATER VALVE
- FIRE HYDRANT
- HB HOSE BIB
- SANITARY SEWER MANHOLE
- CURB INLET
- INLET (SQUARE)
- GV GAS BOX (GAS VALVE)
- HIGH TENSION TOWER
- POWER POLE
- GUY WIRE
- TRAFFIC PULL BOX
- COMMUNICATION PEDESTAL
- FIBER OPTIC PULL BOX
- TREE, DECIDUOUS
- 700.00 EXISTING SPOT ELEVATION
- (POI) POINT OF INSERTION
- HW HEADWALL
- LS LANDSCAPE BED
- EOP EDGE OF PAVEMENT
- 1 LOT NUMBER
- EXC. #3 SCHEDULE B PART II EXCEPTION





Know what's below. Call before you dig.

SURVEY INFO
PROVIDED BY: M2 GROUP, LLC
DATUM: TENNESSEE STATE PLANE (NAD83 & NAVD 88)

FULMER LUCAS
2002 RICHARD JONES RD - SUITE B200
NASHVILLE, TENNESSEE 37215
INFO@FULMERLUCAS.COM - (615) 345-3770

JASON C. MORENO
REGISTERED
LANDSCAPE
ARCHITECT
AGRICULTURE
No. 109809
STATE OF TENNESSEE
06/09/2026

PRELIMINARY PLAT FOR:

MORNING POINTE

RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401

DR.	DATE	DESCRIPTION

PRELIMINARY PLAT

C2.0

1421-01 MORNING POINTE

CONTROL POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESC.
3	459984.95	1641249.50	701.30	IRWC

LINE TABLE		
LINE #	LENGTH	DIRECTION
L1	18.65	N36° 46' 42"E

CURVE TABLE				
CURVE #	LENGTH	RADIUS	CHORD BRNG	CHORD LENGTH
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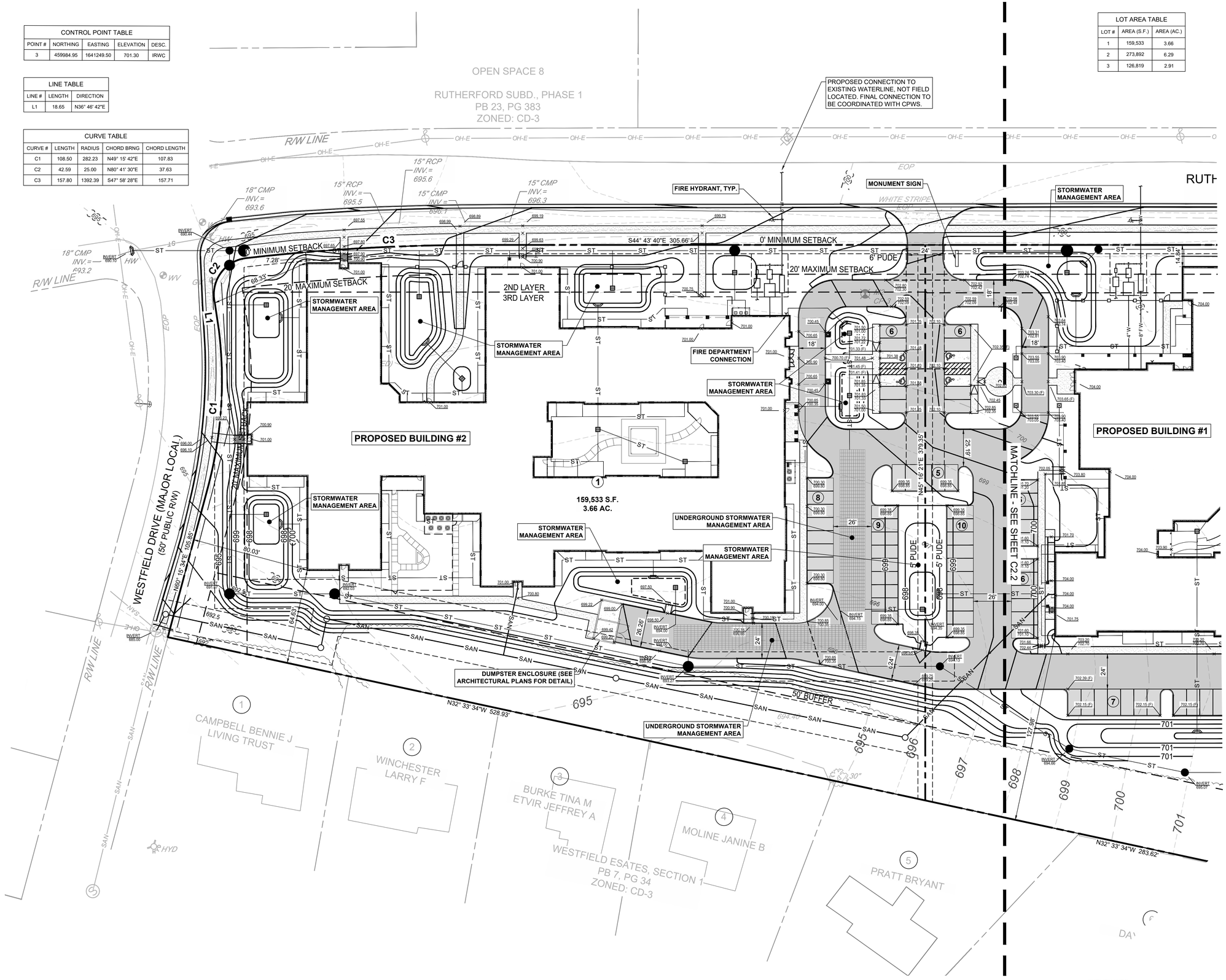

FULMER LUCAS
2002 RICHARD JONES RD - SUITE B200
NASHVILLE, TENNESSEE 37215
INFO@FULMERLUCAS.COM - (615) 345-3770

JASON C. MORELAND
REGISTERED
LANDSCAPE ARCHITECT
AGRICULTURE
No. 108893
STATE OF TENNESSEE
4/06/2026

PRELIMINARY PLAT FOR:

MORNING POINTE

RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401

DR.	DATE	DESCRIPTION

Know what's **below.**
Call before you dig.

PRELIMINARY PLAT

C2.1

1421-01 MORNING POINTE

CONTROL POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESC.
3	459984.95	1641249.50	701.30	IRWC

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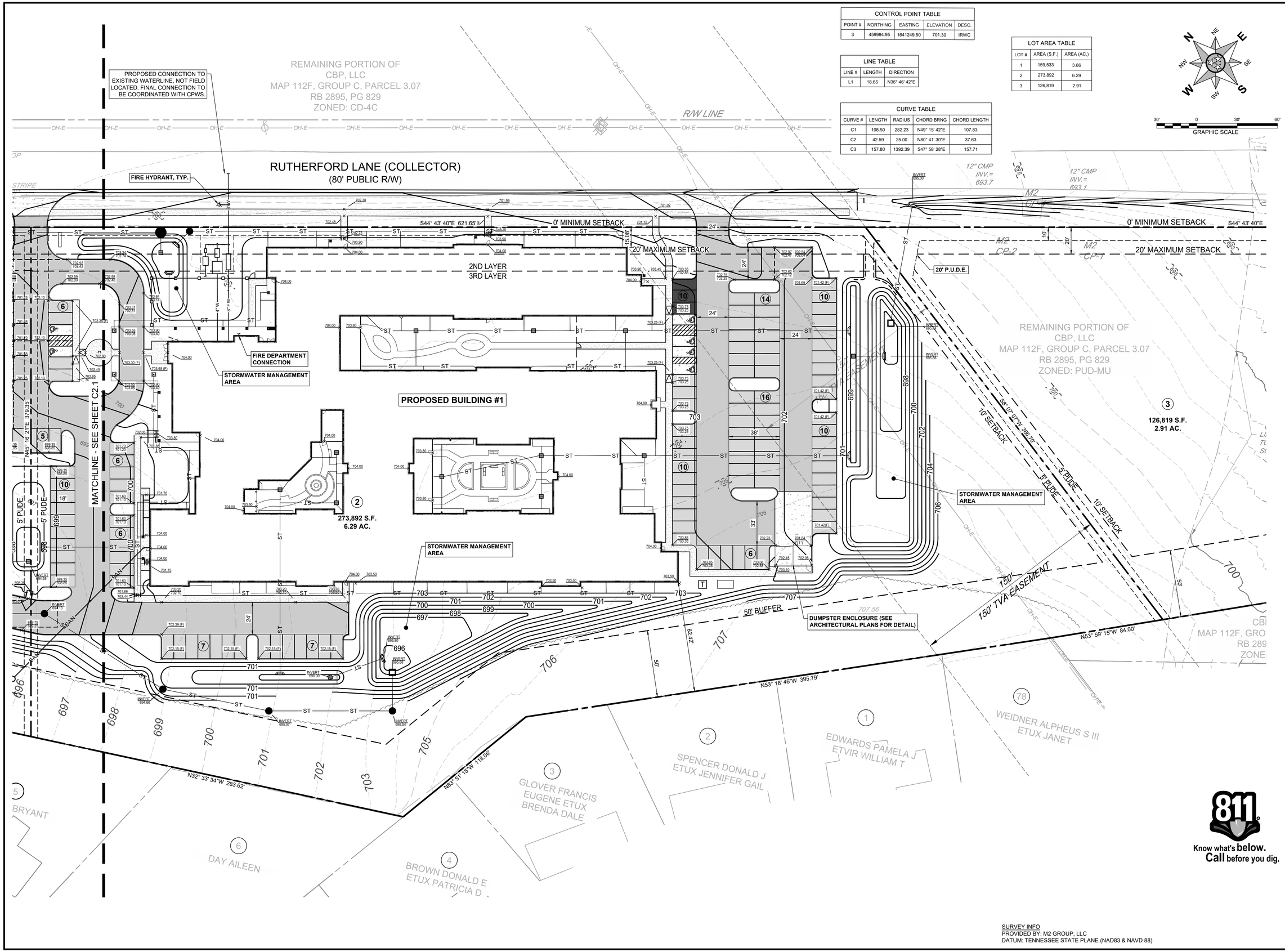


Know what's below. Call before you dig.

SURVEY INFO
PROVIDED BY: M2 GROUP, LLC
DATUM: TENNESSEE STATE PLANE (NAD83 & NAVD 88)

FULMER LUCAS
2002 RICHARD JONES RD - SUITE B200
NASHVILLE, TENNESSEE 37215
INFO@FULMERLUCAS.COM - (615) 345-3770

JASON C. MORELO
REGISTERED ENGINEER
AGRICULTURE
No. 108603
STATE OF TENNESSEE
06/08/2026

PRELIMINARY PLAT FOR:
MORNING POINTE
RUTHERFORD LANE @ WESTFIELD DRIVE
COLUMBIA, MAURY COUNTY, TENNESSEE 38401

DR.	DATE	DESCRIPTION

PRELIMINARY PLAT

C2.2

1421-01 MORNING POINTE

May 18, 2026

City of Columbia – Development Services
Attn: Austin Brass
700 North Garden Street
Columbia, TN, 3840
Phone: (931) 560-1560
Fax: (931) 560-1541

RE: Development Review Committee Meeting
Morning Pointe – Preliminary Plat
Project Number: 26-0149

M2 Group, LLC (M2) has received the comments dated 5-12-2026 regarding the Morning Pointe – Preliminary Plat Project Development Review. Please allow this letter to serve as a response to the review comments. A digital copy of the revised Site Plan has been included in this resubmittal.

Review Comments

Planning

1. The lead case planner for this review will be Austin Brass, AICP. Please email all correspondence to abrass@columbiatn.gov. Please provide a response to comment letter by the 5-18 resubmittal date including updated Preliminary Plat.
   Acknowledged.
2. Indicate minimum setback line that also includes maximum setbacks shown. Provide update to note 9 that indicates zoning as PUD-MU.
   Setbacks updated to reflect appropriate minimum and maximum requirements per PUD-MU zoning. Table provided for clarity and note 9 updated accordingly, refer to sheet C2.0.
3. Provide notation that further division of property with building sites would be reflected in approved PUD Master Plan.
   Acknowledged. Please provide exact language being requested for this note. Based on the wording above, we are unclear as to what is required.

Engineering

4. Subject to Construction Plan approval

   Acknowledged.

5. Coordinate with E-911 for addressing

   Addresses have been coordinated with E-911 and will be provided upon receipt.

6. Stormwater and grading shall be evaluated fully during the site construction plans review

   Acknowledged.

7. Provide surveyor's stamp on survey and engineer's stamp on all design sheets

   Acknowledged.

8. Provide dedication of right-of-way along Trotwood avenue of 15 feet. (ESS 3.6.4)

   15' dedication provided, refer to sheet C2.0.

Columbia Power

9. Columbia Power System has an existing power line near your proposed residential development. We are willing to serve this development subject to all Columbia Power System policies and procedures in effect at actual time service is rendered provided an approved final plat and complete electrical load information is furnished as soon as possible prior to start of actual construction.
   - Unfortunately, due to current supply chain challenges, no timeframe can be guaranteed regarding the availability of meters or transformers appropriate for your development

   Acknowledged.

ATT

10. ATT to Serve.

    Acknowledged.

Wastewater

11. On tree preservation/landscaping plans: trees will not be allowed within 10-15 ft of a sewer main depending on sewer depth as according to specs.

    Acknowledged, landscape plan adjusted accordingly.

Columbia Water

12. A water availability letter was issued on November 19, 2026, it remains valid until May 19, 2026. The availability of capacity to serve is based on a determination by the Fire Marshal of fire flow requirements and the information submitted on the Water Service Availability Request application. Any off-site improvements detailed in the availability letter are the responsibility of the developer/owner. All public water system improvements are subject to the preparation and approval of detailed construction plans prepared in accordance with CPWS and Tennessee Department of Environment and Conservation requirements.
    Acknowledged.

If you have any questions, please feel free to contact me at 615.656.0257 or stephen@m2groupllc.com.

Sincerely,

M2 Group, LLC
Stephen Vander Horst, RLS, CFS

CITY OF
COLUMBIA
TENNESSEE

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

DEVELOPMENT REVEW COMMITTEE MEETING
Tuesday, May 12, 2026

ITEM NO.
26-0149

DESCRIPTION: Rutherford Lane - Westfield Park - Morning Pointe

COMMENTS:

Planning

1. The lead case planner for this review will be Austin Brass, AICP. Please email all correspondence to abrass@columbiatn.gov. Please provide a response to comment letter by the 5-18 resubmittal date including updated Preliminary Plat.
2. Indicate minimum setback line that also includes maximum setbacks shown. Provide update to note 9 that indicates zoning as PUD-MU
3. Provide notation that further division of property with building sites would be reflected in approved PUD Master Plan.

Engineering

4. Subject to Construction Plan approval
5. Coordinate with E-911 for addressing
6. Stormwater and grading shall be evaluated fully during the site construction plans review.
7. Provide surveyor's stamp on survey and engineer's stamp on all design sheets
8. Provide dedication of right-of-way along trotwood avenue of 15 feet. (ESS 3.6.4)

Columbia Power

9. Columbia Power System has an existing power line near your proposed residential development. We are willing to serve this development subject to all Columbia Power System policies and procedures in effect at actual time service is rendered provided an approved final plat and complete electrical load information is furnished as soon as possible prior to start of actual construction.
   . Unfortunately, due to current supply chain challenges, no timeframe can be guaranteed regarding the availability of meters or transformers appropriate for your development.

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

Building

10. No comment.

Police

11. No comment.

City Attorney

12. No Comment.

ATT

13. ATT To Serve.

Fire

14. No comments

Wastewater

15. On tree preservation/landscaping plans: trees will not be allowed within 10-15 ft of a sewer main depending on sewer depth as according to specs.

Maury County Schools

16. No comment.

Columbia Water

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

17. A water availability letter was issued on November 19, 2026, it remains valid until May 19, 2026. The availability of capacity to serve is based on a determination by the Fire Marshal of fire flow requirements and the information submitted on the Water Service Availability Request application. Any off-site improvements detailed in the availability letter are the responsibility of the developer/owner. All public water system improvements are subject to the preparation and approval of detailed construction plans prepared in accordance with CPWS and Tennessee Department of Environment and Conservation requirements.

Public Works

18. No comments.

Duck River Electric Membership Corp

19. No comments.

Maury County Highway Dept.

20. No comment.

Resubmittal Guidelines

Please provide a comment response letter as well as digital copies of revised plans and supporting documentation. Submit all required documents electronically through the online portal: columbia.onlama.com. If the files are oversized, please provide a file sharing link.

Please contact the case planner identified in the Planning Comments with any questions about the review process.

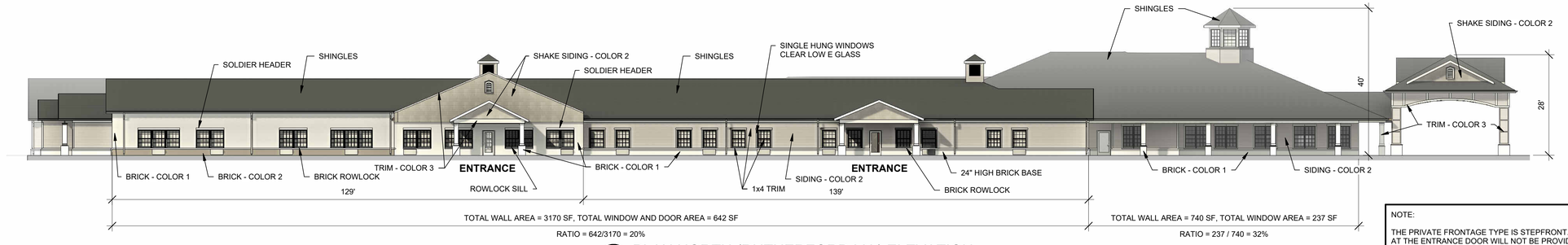
CITY OF
COLUMBIA
TENNESSEE

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

Please contact pkeltner@columbiatn.gov or msanders@columbiatn.gov if you encounter difficulties with the online portal.

You will receive an invoice for required advertising and mailing fees. All fees must be paid by the Friday following resubmittal in order advance to the Planning Commission agenda.

NOTE: All resubmittals must demonstrate compliance with city standards prior to Planning Commission review. Requests which do not adhere to regulations and/or remain unresponsive to technical comments will not be forwarded to the next agenda until such items are amended. Final Plat applications which are not ready to proceed to Planning Commission following the first resubmittal deadline will be added to the following DRC agenda to confirm the status of required infrastructure and utilities. Applications which remain incomplete following two resubmittal deadlines will be closed.



2 PLAN NORTH (RUTHERFORD LN) ELEVATION
1/16" = 1'-0"

NOTE:

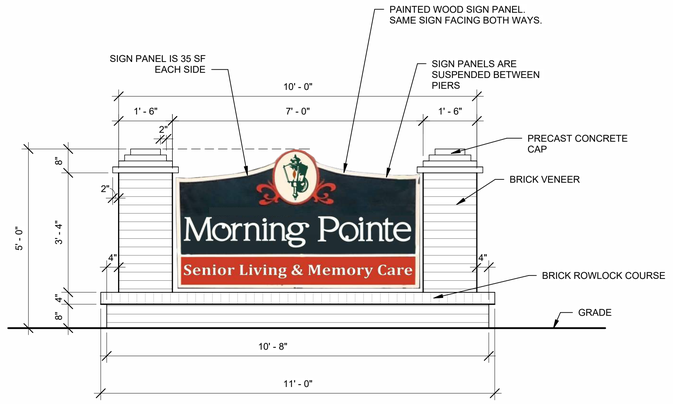
THE PRIVATE FRONTAGE TYPE IS STEPFRONT. A STEP AT THE ENTRANCE DOOR WILL NOT BE PROVIDED TO COMPLY THE BUILDING CODE REQUIREMENT FOR A LEVEL EGRESS.

ALL ROOF SLOPES TO BE BETWEEN 6:12 AND 14:12.

ALL CEILING HEIGHTS WILL BE LESS THAN 25 FEET.



1 PLAN SOUTH (FACING LANDSCAPE BUFFER) ELEVATION
1/16" = 1'-0"



5 MORNING POINTE SIGN
1/2" = 1'-0"



3 PLAN WEST ELEVATION
1/16" = 1'-0"



4 PLAN EAST ELEVATION
1/16" = 1'-0"

REVISIONS

699 DALLAS ROAD
CHATTANOOGA, TN 37405
(423) 265-3272
FAX (423)266-5502

NEUHOFF TAYLOR ARCHITECTS

MORNING POINTE OF COLUMBIA
ASSISTED LIVING AND MEMORY CARE FACILITY
RUTHERFORD LANE
COLUMBIA, TENNESSEE

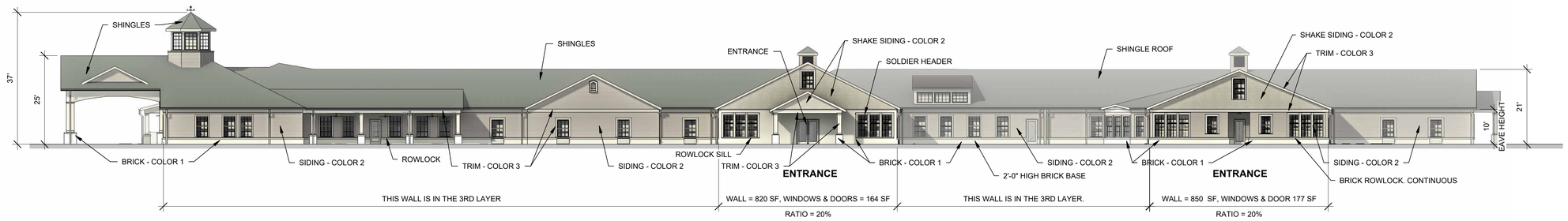
RANDALL P. TAYLOR
REGISTERED ARCHITECT
STATE OF TENNESSEE
12-23-25

PROJECT #
25049

DATE
12-15-25

DRAWING NAME
ELEVATIONS

SHEET #
A2



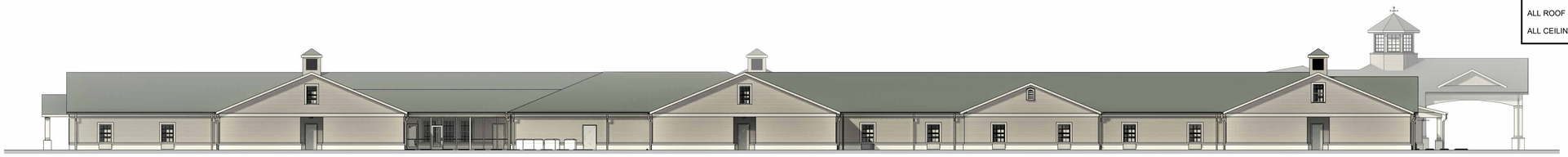
1 PLAN NORTH (RUTHERFORD LN) ELEVATION
1/16" = 1'-0"

NOTE:

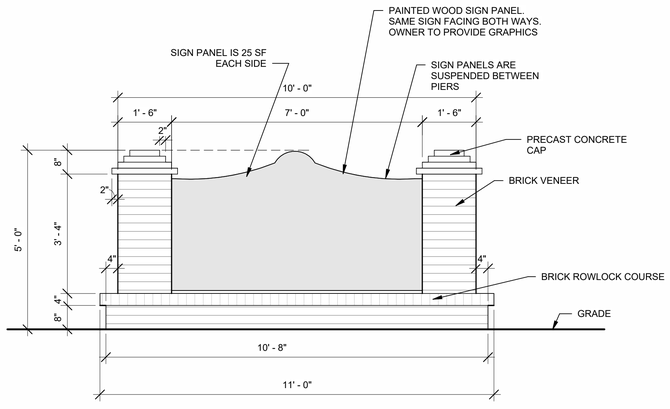
THE PRIVATE FRONTAGE TYPE IS STEPFRONT. A STEP AT THE ENTRANCE DOOR WILL NOT BE PROVIDED TO COMPLY THE BUILDING CODE REQUIREMENT FOR A LEVEL EGRESS.

ALL ROOF SLOPES TO BE BETWEEN 6:12 AND 14:12.

ALL CEILING HEIGHTS WILL BE LESS THAN 25 FEET.



2 PLAN SOUTH (FACING LANDSCAPE BUFFER) ELEVATION
1/16" = 1'-0"



5 MORNING POINTE SIGN
1/2" = 1'-0"



3 PLAN WEST (WESTFIELD) ELEVATION
1/16" = 1'-0"



4 PLAN EAST ELEVATION
1/16" = 1'-0"

REVISIONS

699 DALLAS ROAD
CHATTANOOGA, TN 37405
(423) 265-3272
FAX (423)266-5502

NEUHOFF TAYLOR ARCHITECTS

THE LANTERN AT MORNING POINTE
ALZHEIMER'S CENTER OF EXCELLENCE COLUMBIA

RUTHERFORD LANE
COLUMBIA, TN

RANDALL P. TAYLOR
REGISTERED ARCHITECT
STATE OF TENNESSEE
No. 16021
1-23-26

PROJECT #
25048

DATE
1-23-26

DRAWING NAME
ELEVATIONS

SHEET #
A4

November 19, 2025

Mr. Jay Fulmer
Fulmer Lucas Engineering
2002 Richard Jones Rd., Suite B200
Nashville, TN 37215
Sent via email: jay@fulmerlucas.com

RE: Water Availability Letter Expires: 5/19/2026
Morning Pointe Assisted Living
Rutherford Lane at Westfield Drive (southwest corner)
Tax Map & Parcel 11200307000
Columbia, TN

Dear Mr. Lucas:

Columbia Power & Water Systems ("the Utility"/CPWS) is a municipal corporation authorized to provide water services in accordance with State law. CPWS has adopted rules, regulations, and standard operation procedures, prescribing the conditions under which CPWS will furnish water service. In addition, certain State laws delegate authority to the Tennessee Department of Environment and Conservation (TDEC), various Planning Commissions, and other authorities in Cities and Counties. These Cities and Counties have also adopted rules and regulations. Water service will be made available on a first-come, first-served basis, subject to the payment of all charges and fees imposed by CPWS and the approval of any and all required governmental agencies. Water service is subject to availability of all CPWS furnished equipment and materials appropriate for the development and provided the applicant complies with all rules and regulations of CPWS and conditions set out herein.

The proposed development is a 145 bed assisted living facility in two buildings. CPWS has evaluated the projected water demands for the proposed development in the water system hydraulic model. CPWS can provide water for the proposed development according to the following criteria and requirements:

- Source water capacity is vested when CPWS has provided approval to proceed to construction and appropriate Impact Fees are paid.
- The current CPWS system is only able to support a fire flow up to 750 gpm at this location until (planned) additional improvements in the Southside distribution area are completed.
    - After completion of the Southside distribution area improvements, available fire flow will be up to 1,250 gpm.

- The number and sizes of service meters assumed for this letter is based on Applicant's description of the project features. Actual meter count and sizing will be updated or verified during the Design Review phase of the Project:
    - 114,340 sf of commercial assisted living space (two buildings)
    - Assume Fire Service meter: One (1) at 6-inch
    - Assumed Commercial Service meters: Two (2) at 2-inch
    - Assumed Landscape Irrigation meter: One (1) at ¾-inch
- The above request translates to a 41 Single Family Unit (SFU) flow demand equivalent.
- Separate irrigation meters with backflow devices will be required to serve the proposed Project.
- If fire sprinkler systems are requested or required, separate fire meters with backflow devices will be required to serve the proposed Project.

All of the above requirements up to and including the meter(s) are to be constructed and paid for by the Applicant and dedicated to CPWS once complete. No construction of water infrastructure shall be initiated until final construction plans have been approved by CPWS (including TDEC approval, if required).

This Water Availability Letter will expire in six months unless vested by payment of water service fees and impact fees for the proposed project. Any request for water availability after the expiration date of this letter will be considered a new application.

Once you have received this Water Availability Letter, next steps in the process to vest water service from CPWS are as follows:

- Remit to CPWS new water service fees for plan review, TDEC coordination, and inspection as follows: $1,500 + $370 per SFU equivalent
- Applicant will prepare design drawings for review and approval by CPWS for construction of the proposed water system improvements.
    - Provide design drawings in AutoCAD and .pdf format for CPWS review of proposed development. Include design drawings for grading, drainage, roadway improvements, buried (wet and dry) utilities, water systems, and surface improvements.
    - Once CPWS approves the Construction Drawings for the proposed system improvements, Applicant will submit proposed improvements design to TDEC for review and approval (if TDEC review required).
    - CPWS will prepare hydraulic calculations and a Utility Approval Letter to accompany the plans submittal to TDEC.
- Current water service fees due prior to CPWS review of design plans are listed in the table below. *Note that payment of Water Service Fees will extend the expiration of this*

Water Availability Letter for one year, while the applicant is working with CPWS on design and review of the improvement drawings.

New Water Service Fees	SFUs	Total
$1,500 + 370 per SFU	41	**$16,670**

- Upon Construction Drawing approval by CPWS, applicant may then pay Impact Fees and Meter Fees and schedule the pre-construction meeting. Pre-construction meeting will be canceled and re-scheduled unless all impact fees are paid at least 48 hours prior, or surety is provided in lieu of full payment.
- Water meters will be ordered by CPWS once meter fees are paid by the Applicant.
    - Meter fees are subject to change based on final design and the prevailing Board-approved rates at time of payment.
    - If surety is provided in lieu of payment, meters are not ordered until fees are paid and may result in extended lead-times.
- Applicants will be charged Impact Fees and Meter Fees in effect at time of payment. Please see CPWS website for schedule of impact fees and timing of planned fee escalations. Anticipated meter costs and impact fees for this project are according to the following table:

Impact Fees and Meter Costs	Number	$ / Unit	Total
¾" Landscape Irrigation Meter Cost	1	$540	$540
2" Service Meter Cost	2	Current Price	Deferred
6" Fire Meter Cost	1	Current Price	Deferred
Current Impact Fee for ¾" Service Meter	1	$5,500	$5,500
Current Impact Fee for 2" Service Meter	2	$30,000	$60,000
Estimate of Fees Due Prior to Pre-Construction Meeting =			**$66,040**

- After the pre-construction meeting, CPWS will then issue a formal Notice to Proceed.
- Applicant is required to construct all public water infrastructure per CPWS standard specifications and provide CPWS personnel unregulated access to the site to inspect the construction of the water infrastructure.
- No construction of water improvements may take place prior to the Notice to Proceed or without a CPWS inspector present.

Please feel free to contact me at 931-388-4833 x7655 or Matt.Wheeler@cpws.com if you have questions or would like to discuss.

Sincerely,



Matthew J. Wheeler, P.E.
Vice President of Water Resources, CPWS

cc: Franklin Farrow, Morning Pointe
Bart Anderson, CPWS
File 25-036

CITY OF COLUMBIA
TENNESSEE

WASTEWATER DEPARTMENT

23 October 2025

Jay Fulmer
Fulmer Lucas Engineering, LLC
2002 Richard Jones Rd, B200
Nashville, TN 37215

RE: Rutherford Ln Map 112 Parcel 3.07, Columbia, TN 38401; Morning Pointe 145 Bed Assisted Living Facility

Jay,

This letter serves as confirmation that the City of Columbia Wastewater Department has the available capacity to service the subject development. Any extension to the existing sewer infrastructure will be initiated by the owner/developer, reviewed by our department and approved by the State of Tennessee. The project must be advanced in accordance with local, state and federal rules, regulations and policies. Funding and construction of those improvements will remain the responsibility of the owner/developer. New customers will be required to pay all fees applicable at the time of connection. Any Final Plat approval and Dedication are both subject to installation and function, as determined by our Department. No detailed design plan for an extension of the sewer has been proposed at this time.

Donnie Boshers, Director
City of Columbia, TN
Wastewater Department

CITY OF COLUMBIA TENNESSEE

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

Preliminary Plat, Site Development Plan, and PUD Checklist

Development: MORNING POINTE

This checklist shall be completed, and included with the submittal documents. If the submittal does not contain a completed checklist, it shall be deemed incomplete. All below listed items shall be included in the submittal documents and plans, as well as any further information required by the City of Columbia to evaluate compliance and to perform a full and complete review. See Zoning Ordinance Article 8 and Subdivision Regulations.

General

- ☑ Name of development
- ☑ Contact info for the owner and licensed design professional(s) preparing plan: name, address, email, phone
- ☑ Plan sealed by a design professional licensed in the State of Tennessee.
- ☑ North Arrow, legend, and site vicinity map
- ☑ Graphic Scale: between 1 in. = 10 ft. and 1 in. =100 ft.
- ☑ Survey stamped by a State of Tennessee Licensed Professional Land Surveyor, with all project boundaries including bearings and angles to the nearest hundredth, utilities, and existing streets and rights-of-way.
- ☑ Note referencing Tennessee State Plane Coordinate System, NAD 83 Datum
- ☑ All property boundaries, existing easements, and encumbrances
- ☑ Parcel identification, owner, and deed and plat references of adjoining properties
- ☑ Proposed phasing and timetable for all phases of development
- ☐ Traffic Impact Study, as required.
- ☑ The substance of all existing and proposed covenants, easements, or other restrictions.

Lots and Land-Use

- ☑ The size of total property to be developed in square feet and acres
- ☑ Lot numbers of all proposed lots, with dimensions, locations, and square footage
- ☑ A tabulation of the land area to be devoted to various uses and activities and overall densities.
- ☐ Typical lot layout depicting proposed setbacks, yards, and easements, where applicable

Structures

- ☑ Location and approximate dimensions of all existing and proposed structures.
- ☐ Location of all earth retaining structures, with approximate top and bottom of wall elevations.
- ☑ Existing and intended use of all buildings and structures on site, including the number of dwelling units and density, where applicable
- ☑ Location, type, and size of proposed signs
- ☑ Approximate height, bulk, and the utilization of structures including activities and the number of living units.

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TENNESSEE

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Grading, Drainage, and Storm

- ☑ Existing conditions and contours at vertical intervals of not more than two (2) feet
- ☑ General proposed contours at vertical intervals of not more than two (2) feet
- ☑ FEMA Special Flood Hazard Area (SFHA), 100-year Floodplain (F-P), and Floodway (F-W) boundaries with elevations and the exact location of the nearest benchmark. Indicate the Flood Insurance Rate Map (FIRM) panel number, its effective date, and flood insurance zones
- ☐ Location and dimension of aquatic buffer zones
- ☑ General layout of the proposed storm drainage system including surface and subsurface drainage systems, areas for detention, and water quality devices.
- ☐ Identification of all critical lots

Streets, Parking, and Pedestrian Elements

- ☑ Proposed street and alley rights-of-way, typical sections, widths, classification, names, and proposed ownership and maintenance responsibility
- ☑ Proposed connections to existing and proposed streets (including classification) located outside the development
- ☐ Proposed improvements as identified in the Traffic Impact Study, as required
- ☑ Existing and proposed sidewalks, trails, and other pedestrian elements
- ☑ Existing and proposed on-street and off-street parking and loading areas
- ☑ Summary of all provided and required parking

Landscaping, Open Space, and Amenities

- ☑ Natural features on site including, but not limited to, wetlands, streams, ponds, springs, sinkholes, wells, rock outcroppings, excessive slopes, and forested areas
- ☑ Landscaped areas and buffers with details on proposed plantings, existing vegetation, and other features.
- ☑ The location and size of all common open space, parkland dedications, and dedications and reservations of land for public uses.
- ☑ Any amenity features and structures for private or public benefit.
- ☑ Location, dimension, and materials of fences and walls
- ☑ Tree Canopy retention

Utilities

- ☑ General layout and location of existing and proposed utilities and utility features including, but not limited to potable water, fire hydrants, sanitary sewer, storm sewer, and power and communication facilities.
- ☑ Acknowledgement from water, sewer, and power utility providers that the proposed development may be adequately served with existing infrastructure, or if improvements are required to adequately serve the development, a general statement of the improvements.

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PUD Specific Items

- ❑ List of all deviations from PUD Standards requested
- ❑ The nature of the landholder's interest in the land proposed to be developed and a written statement of concurrence from all parties having a beneficial interest in the affected property.
- ❑ Location and approximate dimensions of all existing and proposed structures including approximate height, bulk, and the utilization of structures including activities and the number of living units. Include architectural renderings of all proposed structures with materials listed.
- ❑ The substance of covenants, grants of easements or other restrictions to be imposed upon the use of the land, buildings and structures including proposed easements for public utilities on the property or documentation of off-site easements.
- ❑ Exterior lighting plan.

If the application is deemed incomplete by the Zoning Administrator, a written request shall be made within ten days after the original submittal, for further information. In such case the application shall be held in abeyance until deemed complete for final review. No plan shall be formally presented for Planning Commission action until such plan is found complete, compliant with City standards, and ready for review.

Checklist Completed By:

STEPHEN VANDER HORST		04/20/2026
Print Name	Signature	Date

BK/PG:R2895/829-838
23000133

10 PGS : QUITCLAIM DEED	
NANCY MCMEEN 295732 - 23000133	
01/04/2023 - 08:10 AM	
VALUE	
MORTGAGE TAX	0.00
TRANSFER TAX	0.00
RECORDING FEE	50.00
DP FEE	2.00
REGISTER'S FEE	0.00
TOTAL AMOUNT	52.00

STATE of TENNESSEE, MAURY COUNTY
JOHN FLEMING
REGISTER OF DEEDS

QUITCLAIM DEED

MICHELLE MARIE MONTAGUE NOTARY PUBLIC STATE OF TENNESSEE DAVIDSON COUNTY MY COMMISSION EXPIRES JULY 6, 2026

STATE OF TENNESSEE, COUNTY OF DAVIDSON

THE ACTUAL CONSIDERATION OR VALUE, WHICHEVER IS GREATER FOR THIS TRANSFER IS $0.00.

Affiant

Subscribed and sworn to me on this 7th day of December 2022.

NOTARY PUBLIC

My Commission Expires:

THIS INSTRUMENT WAS PREPARED BY:

ORTALE KELLEY (JHC)
330 Commerce Street, Suite 110
Nashville, TN 37201

NOTE: THIS QUITCLAIM DEED WAS PREPARED BY INFORMATION PROVIDED BY THE PARTIES. NO TITLE SEARCH WAS PERFORMED BY THE PREPARER

NAME/ADDRESS OF NEW OWNER:	SEND TAX BILLS TO:	MAP – PARCEL #
Crichton Welton Partners, G.P. 6471 Ridley Jewell Road Columbia, TN 38401	NEW OWNER	073-018.04 073-018.06 073-018.08 073-018.09 073-018.10 073-018.11 112-003.00 112-003.00-001 112F-C-004.01

FOR AND IN CONSIDERATION of Ten ($10.00) Dollars, cash in hand paid by the hereinafter named Grantees, and other good and valuable considerations, the receipt and sufficiency of which are hereby acknowledged, WELTON INVESTMENTS, LLC, a Tennessee limited liability company, hereinafter called **"GRANTOR,"** does hereby quitclaim and convey all of his rights, title and interest unto CRICHTON WELTON PARTNERS, G.P., a Tennessee general partnership, hereinafter called **"GRANTEE,"** its successors and assigns, certain tracts or parcels of land in Maury County, State of Tennessee, and more fully described as follows:

SEE EXHIBIT A ATTACHED

IN WITNESS WHEREOF, the Grantor, by its duly authorized officer, has caused its name to be affixed hereto on this 31st day of December, 2022.

WELTON INVESTMENTS, LLC

By:_____
John B. Jewell, IV,
Managing Member

STATE OF TENNESSEE)
COUNTY OF Davidson)

Before me, a Notary Public of said County and State, personally appeared John B. Jewell, IV, with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence), and who, upon oath, acknowledged himself to be the Managing Member of Welton Investments, LLC, a Tennessee limited liability company (the "Company"), the within named bargainor, and that he, as the Managing Member of the Company executed the foregoing instrument for the purposes therein contained.

Witness my hand and seal, this 7th day of December, 2022.

J WALKER LEWIS
STATE OF TENNESSEE NOTARY PUBLIC
DAVIDSON COUNTY
MY COMMISSION EXPIRES NOVEMBER 5, 2025

_____
Notary Public, State of Tennessee

My Commission Expires: 11-5-2025

EXHIBIT A
Legal Description

Located in the Ninth (9th) Civil District of Maury County, Tennessee, and more particularly described as follows:

Tract I (Map 112F, Group C, Parcel 4.01):

Parcel 1: Located in the Ninth (9th) Civil District of Maury County, Tennessee, and more particularly described as follows:

Being a tract as shown on the J.A. Morgan and Katherine S. Morgan Plat, containing 0.85 acre as shown in Plat Book 6, Page 564-B, Register's Office of Maury County, Tennessee.

Being the same property conveyed to Andrew D. Crichton, John B. Jewell, III, and James W. Jewell, as equal tenants in common, by deed of record in Book 1407, Page 349, Register's Office of Maury County, Tennessee and also referred to in Deed of Trust of record in Book 1678, Page 162, Register's Office of Maury County, Tennessee.

Parcel 2: Bounded on the North by Crichton, on the South by Morgan and others, on the East by Mt. Pleasant Pike, and on the West by Lot 78, Pleasant Hills Subdivision, and being more particularly described as follows:

Beginning at a post in the Western margin of the Mt. Pleasant Pike, 30 feet from the centerline of said road, said point also being the Southeast corner of what is now the Crichton property; thence with the Western margin of the MI. Pleasant Pike, South 41 degrees 51 minutes West 152.28 feet to an iron pin, Morgan and others corner; thence leaving highway and with Morgan, North 58 degrees 05 minutes West, 339.94 feet to an iron pin, said point being in the Eastern line of Lot 78 of Pleasant Hills S/D; thence with the Eastern line of Lot 78, North 3 degrees 50 minutes East, 170.24 feet to an iron pin in Crichton's South line; thence with Crichton's South line, South 57 degrees 35 minutes East, 22.16 feet to a post; thence with same, South 58 degrees 05 minutes East, 424.19 feet to the point of beginning, and containing 1.35 acres, by survey made November 16, 1968, by Paul J. Boatright, Registered Land Surveyor No. 244.

Being the same properly conveyed to Andrew D. Crichton, James W. Jewell, and John B. Jewell, Ill, as equal tenants in common, by deed of record in Book 1340, Page 102, Register's Office of Maury County, Tennessee and also referred to in Deed of Trust of record in Book 1678, Page 162, Register's Office of Maury County, Tennessee.

Less and Except that portion of the above described property conveyed in Book 2113, Page 537, Register's Office of Maury County, Tennessee

Tract III (Part of Map 112, Parcel 003.00)

Parcel No. 1:

Bounded on the North by L and N Railroad and Rutherford Lane; East by Criddle Meadows Subdivision and Dr. Dan Gray; South by Mt. Pleasant Pike or U.S. No. 43 Highway, Pleasant Hills Subdivision, J.A. Morgan and Others; West by Ridley brothers. Beginning at an iron pin in the East line of Ridley brothers tract at the Southwest corner of the herein described tract: thence with Ridley brothers and generally following a fence North 5 degrees 16 minutes East, 1,127.65 feet to an iron pin; thence with same North 87 degrees 32 minutes West, 946.15 feet to an iron pin; thence with same North 0 degrees 50 minutes East, 359.97 feet to a spike in the center line of L and N Railroad; thence following a staked line with iron pins along center line of L and N Railroad as follows: North 53 degrees 29 minutes East, 2,326.46 feet, North 56 degrees 09 minutes East, 352.0 feet; North 59 degrees 31 minutes East, 326.96 feet; North 62 degrees 32 minutes East, 264.30 feet; North 65 degrees 18 minutes East, 278.60 feet; North 67 degrees 39 minutes East, 221.60 feet to an iron pin; thence leaving railroad and generally following a fence along the South margin of Rutherford Lane South 87 degrees 27 minutes East, 916.74 feet to an iron pin; thence with same South 86 degrees 19 minutes East, 149.18 feet to a stake; thence with the West line of Criddle Meadows Subdivision South 4 degrees 04 minutes West, 2,743.39 feet to an iron pin; thence with the South line of Criddle Meadows Subdivision South 85 degrees 56 minutes East, 400.0 feet to an iron pin; thence with same South 84 degrees 29 minutes East, 221.98 feet to an iron pin; thence with Dr. Dan Gray South 13 degrees 46 minutes East, 24.80 feet to an iron pin; thence with same South 55 degrees 24 minutes West, 95.22 feet to an iron pin; thence with same South 42 degrees 15 minutes East, 93..35 feet to an iron pin; thence with same South 24 degrees 43 minutes East, 99.95 feet to an iron pin; thence with same South 55 degrees 50 minutes West, 178.04 feet to an iron pin: thence with same South 39 degrees 27 minutes East, 820.80 feet to an iron pin; thence with the North margin of Mt. Pleasant Pike South 42 degrees 32 minutes West, 506.57 feet to an iron pin; thence with J. A. Morgan and others North 58 degrees 05 minutes West, 424.19 feet to an iron pin; thence with same and with Pleasant Hills Subdivision North 57 degrees 35 minutes West, 418.17 feet to an iron pin; thence with Pleasant Hills Subdivision North 88 degrees 01 minutes West, 680.26 feet to an iron pin; thence with same North 88 degrees 21 minutes West, 514.0 feet to an iron pin; thence with same North 88 degrees 01 minutes West, 308.0 feet to an iron pin; thence with same North 87 degrees 37 minutes West, 431.0 feet to an iron pin; thence with proposed Pleasant Hills Subdivision, Section 4; and J. A. Morgan and Others North 87 degrees 23 minutes West, 919.68 feet to an iron pin; thence with J. A. Morgan and Others North 86 degrees 26 minutes West, 310.82 feet to the point of beginning, containing by survey 269.70 acres.

There is a TVA power line having a 250 right-of-way across the East portion of the above described tract. There is a 100-foot chartered railroad right-of- way on this tract along the railroad line.

Parcel No. 2:

Bounded on the North by Raymond McMeen and Tom Burt; C. C. Pinckney; W. Clyde Baker and Rutherford Lane; East and South by L and N Railroad and West by Ridley brothers.

Beginning at an iron pin in McMeen and Burt's South line, said point being the Northwest corner of the herein described tract; thence with McMeen and Burt farm, C. C. Pinckney and W. Clyde Baker generally following a fence South 87 degrees 52 minutes East, 1079.03 feet to an iron pin; thence with Baker generally following a fence South 85 degrees 57 minutes Fast, 400.23 feet to an iron pin; thence with same South 85 degrees 46 minutes East, 371.10 feet to an iron pin; thence with same North 5 degrees 29 minutes East, 342.33 feet to an iron pin; thence with same South 87 degrees 35 minutes East, 504.44 feet to an iron pin; thence with same South 88 degrees 15 minutes East, 300.05 feet to an iron pin; thence with the South margin of Rutherford Lane South 89 degrees 17 minutes East, 1,160.19 feet to an iron pin; thence with same South 87 degrees 27 minutes East, 13.46 feet to an iron pin in center line of L and N Railroad; thence with the center line of L and N Railroad following a staked line with iron pins as follows: South 67 degrees 39 minutes West, 221.60 feet; South 65 degrees 18 minutes West, 278.60 feet; South 62 degrees 32 minutes West, 264.30 feet; South 59 degrees 31 minutes West, 326.96 feet; South 56 degrees 09 minutes West, 252.0 feet; South 53 degrees 29 minutes West, 2,305.30 feet; thence leaving railroad and with Ridley brothers generally following a fence as follows: North 20 degrees 46 minutes West, 328.63 feet to an iron pin; North 32 degrees 52 minutes West, 326.42 feet to an iron pin; North 23 degrees 49 minutes West, 428.85 feet to an iron pin; North 17 degrees 02 minutes West, 922.55 feet to the point of beginning, containing by survey 78.34 acres. There is a 100-foot chartered right-of-way on this tract along the railroad line. The above descriptions are according to a survey made on June 15, 1973 by John J. Harris, Registered Land Surveyor, Maury County, Tennessee.

Exclusions from Tract III, Parcel No. 1:

1. 7.93 acres conveyed in Book 607, page 512, Register's Office of Maury County, Tennessee.

2. 10.0 acres conveyed in Book 655, Page 709, Register's Office of Maury County, Tennessee.

3. 10.0 acres conveyed in Book 711, Page 531, Register's Office of Maury County, Tennessee.

4. 12.1 acres conveyed in Book 803, Page 174, register's Office of Maury County, Tennessee.

5. 0.52 acres conveyed in Book 675, Page 50, Register's Office of Maury County, Tennessee.

6. 0.36 acres conveyed in Book 679, Page 508, Register's Office of Maury County, Tennessee.

7. 2.55 acres conveyed in Book 679, Page 511, Register's Office of Maury County, Tennessee.

8. All Lots in Westfield Subdivision, Sections 1, 2,3, 4, and 4A, with the exception of Lot

114 Westfield Subdivision, Section 4 as shown on plat of record in Plat Book 8, Page 21, Register's Office of Maury County, Tennessee.

Exclusion from Tract III, Parcel No. 2:

1. 25.53 acres conveyed in Book 563, Page 204, Register's Office of Maury County, Tennessee.

Exclusions from Tract III, Parcel Nos. 1 and 2:

1. 9.4 acres conveyed in Book 591, Page 180, Register's Office of Maury County, Tennessee.

2. 1.356 acres conveyed in Book 675, Page 374, Register's Office of Maury County, Tennessee.

3. 17.55 acres conveyed in Book 1114, Page 276, Register's Office of Maury County, Tennessee.

4. 65.65 acres conveyed in Book 2839, Page 368, Register's Office of Maury County, Tennessee.

Being the same property conveyed to Andrew Donelson Crichton, James W. Jewell and John B. Jewell, III, as equal tenants in common, by deed of record in Book 559, Page 698, Register's Office of Maury County, Tennessee and also referred to in Deed of Trust of record in Book 1678, Page 162, Register's Office of Maury County, Tennessee.

Tract IV (Part of Map 112, Parcel 003.00)

Located in the Ninth (9th) Civil District of Maury County, Tennessee, near the intersection of West Park Drive and the L and N Railroad. Bounded on the North by L and N Railroad; East by West Park Drive; South and West by A. D. Crichton and others, and more particularly described as follows:

Beginning at a spike in the center of L and N Railroad, said point is also in the West margin of West Park Drive, said point is in the Northeast corner of the herein described tract; thence with the West margin of West Park Drive South 34 degrees 10 minutes East, 517.77 feet to an iron pin at point of curve; thence on a chord to a 5 degrees 11 minutes curve having a central angle of 22 degrees 09 minutes feet South 30 degrees 56 minutes East, 125.0 feet to an iron pin; thence with A. D. Crichton and others South 53 degrees 29 minutes West, 644.71 feet to an iron pin; thence with same North 36 degrees 31 minutes West, 660.91 feet to a spike in the center of L and N Railroad; thence with L and N Railroad North 53 degrees 29 minutes East, 287.17 feet to a spike; thence with same on a chord to a 1 degrees curve North 56 degrees 04 minutes East 352.0 feet to a spike; thence with same on a chord to curve North 57 degrees 57 minutes East, 39.21 feet to the point of beginning, containing by Survey of John J. Harris dated October 1, 1979, 10.0 acres.

Being the same property conveyed to John B. Jewell, III, Andrew D. Crichton, and James W.

Jewell, as equal tenants in common, by deed of record in Book R1913, Page 123, Register's Office of Maury County, Tennessee.

Tract V (Part of Map 112, Parcel 003.00)

This is a tract or parcel of land located in the Ninth Civil District of Maury County, Tennessee bounded on the North by Don Crichton and Others; East by proposed new road; South and West by Don Crichton and Others and more particularly described as follows:

Beginning at an iron pin in the West margin of new proposed Road at the Southwest corner of the herein described tract, said point being North 48 degrees 53 minutes West, 1,473.45 feet from the North margin of U. S. Highway No. 43 or Mt. Pleasant Pike, said point in North margin of highway is South 41 degrees 57 minutes West, 236.16 feet from the most Southerly Southwest corner of the Don Crichton and Others farm; thence with Don Crichton and Others South 56 degrees 07 minutes West, 255.0 feet to an iron pin; thence with same, North 48 degrees 53 minutes West, 175.0 feet to an iron pin, thence with same North 56 degrees 07 minutes East, 246.70 feet to an iron pin; thence with the West margin of the new proposed road on a 4 degrees 07 minutes curve having a central angle of 9 degrees 54 minutes a distance on curve of 149.30 feet to P.C. of curve; thence with same on a tangent South 48 degrees 53 minutes East, 28.0 feet to the Point of beginning, containing by survey 1.0 acre.

Being the same property conveyed to Andrew Donelson Crichton, James W. Jewell and John B. Jewell, III, as tenants in common, by deed of record in Book 559, Page 698, Register's Office of Maury County, Tennessee.

Being the same property conveyed to Porter House and wife, Linnie Louise Rose House, by deed of life estate of record in Book 595, Page 486, Register's Office of Maury County, Tennessee. Both Porter House and wife, Linnie Louise Rose House are deceased.

Tract VI (Part of Map 112, Parcel 003.00)

Any portion of Old Rutherford Lane that bounds said property owned by Andrew D. Crichton, John B. Jewell, III, and James W. Jewell, up to the centerline of said Lane.

First party also quitclaims any and all rights in and to Old Rutherford lane acquired by virtue of the foregoing deed or otherwise.

Being the same property conveyed to Andrew D. Crichton, John B. Jewell, Ill, and James W. Jewell, as equal tenants in common, by deed of record in Book 819, Page 53, Register's Office of Maury County, Tennessee.

Being a portion of the same property conveyed to Welton Investments, LLC by Quitclaim deed from John B. Jewell, III, Andrew D. Crichton and James W. Jewell, as equal tenants in common of record in Book R2077, page 1007 Register's Office for Maury County, Tennessee, dated April 28, 2009 and recorded on April 06, 2009.

Tract VII:

Tract 1: (Map 73, Parcel 18.04)

Located in the Fourth (4th) Civil District of Maury County, Tennessee, and being Tract 3 on the plat of survey for Barker Enterprises, Inc., containing 1.64 acres, as shown on plat of record in Plat Book 5, Page 182, Register's Office of Maury County, Tennessee.

Being the same property conveyed to Welton Investments, a Tennessee General Partnership, by deed of record in Book 1245, Page 299, Register's Office of Maury County, Tennessee. Being a portion of the same property conveyed Welton Investments, a Tennessee General Partnership, by deed of record in Book 1518, Page 557, Register's Office of Maury County, Tennessee.

Tract VIII: (Map 73, Parcel 18.06)

Located in the Fourth (4th) Civil District of Maury County, Tennessee, and being Tract 5 of the plat of survey for Barker Enterprises, Inc., containing 2.37 acres, as shown on plat of record in Plat Book 5, Page 182, Register's Office of Maury County, Tennessee.

Being the same property conveyed to Welton Investments, by deed of record in Book 1245, Page 637, Register's Office of Maury County, Tennessee.

Being a portion of the same property conveyed to Welton Investment, LLC, a Limited Liability Company by Quitclaim deed from Welton Investments, a Tennessee Partnership of record in Book R1518, page 557 Register's Office for Maury County, Tennessee, dated January 18, 2001 and recorded on January 23, 2001.

Tract IX:

Parcel 1: (Map 73, Parcel 18.10)

Located in the Fourth (4th) Civil District of Maury County, Tennessee, and being Tract 6 on the plat of survey for Barker Enterprises, Inc., containing 0.77 acres, as shown on plat of record in Plat Book 5, Page 182, Register's Office of Maury County, Tennessee.

Parcel 2: (Map 73, Parcel 18.11)

Located in the Fourth (4th) Civil District of Maury County, Tennessee, and being Tract 4 on the plat of survey for Barker Enterprises, Inc., containing 1.98 acres, as shown on plat of record in Plat Book 5, Page 182, Register's Office of Maury County, Tennessee.

Being the same property conveyed to Welton Investments by deed of record in Book 1245, Page 635, Register's Office of Maury County, Tennessee. Being a portion of the same property conveyed to Welton Investment, LLC, a Limited Liability Company by Quitclaim deed from Welton Investments, a Tennessee Partnership of record in Book R1518, page 557 Register's Office for Maury County, Tennessee, dated January 18, 2001 and recorded on January 23, 2001.

Tract X:

Located in the Fourth (4th) Civil District of Maury County, Tennessee, more particularly described as follows:

Parcel 1: (Map 73, Parcels 18.08)

Being Tract No. 8, as shown on plat of survey for Baker Enterprises, Inc., containing 2.03 acres, as shown on plat of record in Plat Book 5, Page 182, Register's Office of Maury County, Tennessee.

Parcel 2: (Map 73, Parcels 18.09)

Being Tract No. 7, as shown on plat of survey for Baker Enterprises, Inc., containing 2.17 acres, as shown on plat of record in Plat Book 5, Page 182, Register's Office of Maury County, Tennessee.

Being a portion of the same property conveyed to Welton Investment, LLC by Warranty deed from Rayburn C. Barker of record in Book R1508, page 534 Register's Office for Maury County, Tennessee, dated October 26, 2000 and recorded on October 27, 2000.

Tennessee Certification of Electronic Document

I, Jeremy H. Cherry, do hereby make oath that I am a licensed attorney and/or the custodian of the original version of the electronic document tendered for registration herewith and that this electronic document is a true and exact copy of the original document executed and authenticated according to law on December 31, 2022 (date of document).

Affiant Signature

January 3, 2023
Date

State of Tennessee

County of Davidson

Sworn to and subscribed before me this 3rd day of January, 2023.

Notary's Signature

MY COMMISSION EXPIRES:

NOTARY'S SEAL

MICHELLE MARIE MONTAGUE
STATE OF TENNESSEE NOTARY PUBLIC
DAVIDSON COUNTY
MY COMMISSION EXPIRES JULY 6, 2026

Jay Fulmer

From: Andy Crichton <acrichton@athensins.com>
Sent: Tuesday, November 11, 2025 3:57 PM
To: Franklin Farrow
Cc: Jay Fulmer; 'Chae Hart-Whitworth'
Subject: Property on Rutherford Lane

November, 11th 2025

City Of Columbia
Development Services
700 North Garden Street
Columbia, TN 38401

To Whom It May Concern:

CBP, LLC the Crichton brothers currently own property fronting on Rutherford Lane. Approximately 9 acres of the property is being sold to the principals of Morning Pointe Senior Living Greg Vital and Franklin Farrow.
Moring Pointe had been a provider of assisted living services in Columbia for the past 20+ years and is seeking to expand their services at this new wonderful location.

Vital and Farrow are the owners and co-founders of Morning Pointe which is a Tennessee base senior living company with 27 years of experience in this sector. CBP, LLC the Crichton brothers are pleased to sell this
property once approvals are all received.

Kind Regards,

Andy Crichton, *Agent ~ CBP, LLC Managaing Member*
Columbia, TN 38401
Office: 931.398.5533
Cell: 615.714.2452
www.athensins.com

Morning Pointe/ Preliminary & Final Plat

Project #:	26-0149 / 26-0150	Location:	Rutherford Lane
Applicant:	Stephen Vander Horst	Case Type(s):	Preliminary/Final Plat
Staff Planner:	Austin Brass, AICP City Planner	Proposed Use:	Morning Pointe Assisted Living Facility

PROJECT SUMMARY

The applicant requests approval of a Preliminary Plat & Final Plat to for the creation of three lots located along Rutherford Lane with a PUD-MU Zoning District.

- The proposal is subject to the current Zoning Ordinance 4400 with this Preliminary & Final Plat.
- A Final PUD Master Plan has been submitted in association with the Preliminary & Final Plat for the construction of a 111,000 SF Assisted Living Facility.
- The DRC reviewed this proposal at its May 2026 meeting. Staff review included standard comments and requests for technical corrections.
- Full technical comments are provided in the agenda packet.
- The Planning Commission is the **Decision-Making Authority** for the Preliminary and Final Plat.
- Templates are provided at the end of the report to assist the Planning Commission in crafting properly formatted motions.

SITE INFORMATION

CURRENT ZONING	EXISTING USE	EXISTING IMP.	LAND AREA
PUD MU	Vacant	111,000 SF Assisted Living Facility	+/-12.86 Acres



FUTURE LAND USE MAP (Suburban Neighborhoods)	ZONING MAP (PUD-MU)





SITE CONTEXT/ADJACENT PROPERTIES			
	Future Land Use	Zoning	Current Use
Subject Property	Suburban Neighborhoods	PUD-MU	Vacant
North	Suburban Neighborhoods	CIVIC	Woodard School
South	Suburban Neighborhoods	PUD-MU	Vacant
East	Suburban Neighborhoods	CD-3	Single-Family
West	Suburban Neighborhoods	PUD-MU	Vacant

CONFORMITY WITH ZONING ORDINANCE

The Preliminary and Final Plat conform to the standards of the Preliminary & Final PUD Master plan submitted in association with this request.

REVIEW PROCESS

The Development Review Committee reviewed the proposed Final Plat at its May 2026 meeting, as directed by § **8.3.7** of the Zoning Ordinance. Technical comments are provided in the agenda package and summarized above.

Section **§ 8.5.24** of the Zoning Ordinance directs the Planning Commission to review Subdivision Plats for conformity with the standards of the Ordinance and the City Subdivision Regulations. The Ordinance indicates that all Preliminary and Final Plats must be prepared, submitted, reviewed and acted upon in accordance with the Subdivision Regulations.

The Planning Commission is the Decision-Making Authority for Final Plats under **§ 8.3.3.B.1** of the Zoning Ordinance and **§ 2.3** of the Subdivision Regulations.

Section **§2.2.10** of the Subdivision Regulations establishes the review criteria for approval of Preliminary Plats.

> *A. Recommendations and final action on a Preliminary Plat shall be based on consideration of the following criteria:*
>
> *1. Whether the proposed Preliminary Plat complies with the applicable zoning district and overlay districts;*
>
> *2. Whether the proposed Preliminary Plat is consistent with all standards of the Subdivision Regulations and other related codes and ordinances enforced by the City; and*

3. *Whether the CMPC determines that the particular site is suitable for the type of platting and development proposed.*

In the event of a denial, **§ 2.2.5** of the Subdivision Regulations requires the Planning Commission to identify the specific parts of applicable plans and regulations with which the plat does not comply.

Section **§ 2.3.6** of the Subdivision Regulations establishes the review criteria for approval of Final Plats.

A. *Recommendations and final action on a Final Plat shall be based on consideration of the following criteria:*

   1. *Whether the proposed Final Plat complies with the applicable zoning district and overlay districts;*

   2. *Whether the proposed Final Plat is consistent with all standards of the Subdivision Regulations and other related codes and ordinances enforced by the City; and*

   3. *Whether the proposed Final Plat meets all the requirements or conditions of any applicable development approvals, such as development plans or associated modification of standards.*

B. *Final Plat approval shall be subject to the completion of required improvements, or in lieu, the CMPC may approve a Performance Agreement.*

In the event of a denial, **§ 2.3.5** of the Subdivision Regulations requires the Planning Commission to identify the specific parts of applicable plans and regulations with which the plat does not comply.

SAMPLE MOTIONS

Approve:

Move to approve revisions to the Final Planned Unit Development Master Plan as presented and find that the Master Plan conforms to the applicable zoning ordinance, [subject to remaining technical comments from staff].

Approve with Conditions:

Move to approve revisions to the Final Planned Unit Development Master Plan, subject to the following conditions: [list conditions of approval crafted by Planning Commission].

Defer for Continued Review:

Move to find that there is insufficient information to make a decision, defer the application for continued review, and request that the applicant provide: [list additional information] for review at the next regularly scheduled meeting of the Planning Commission.

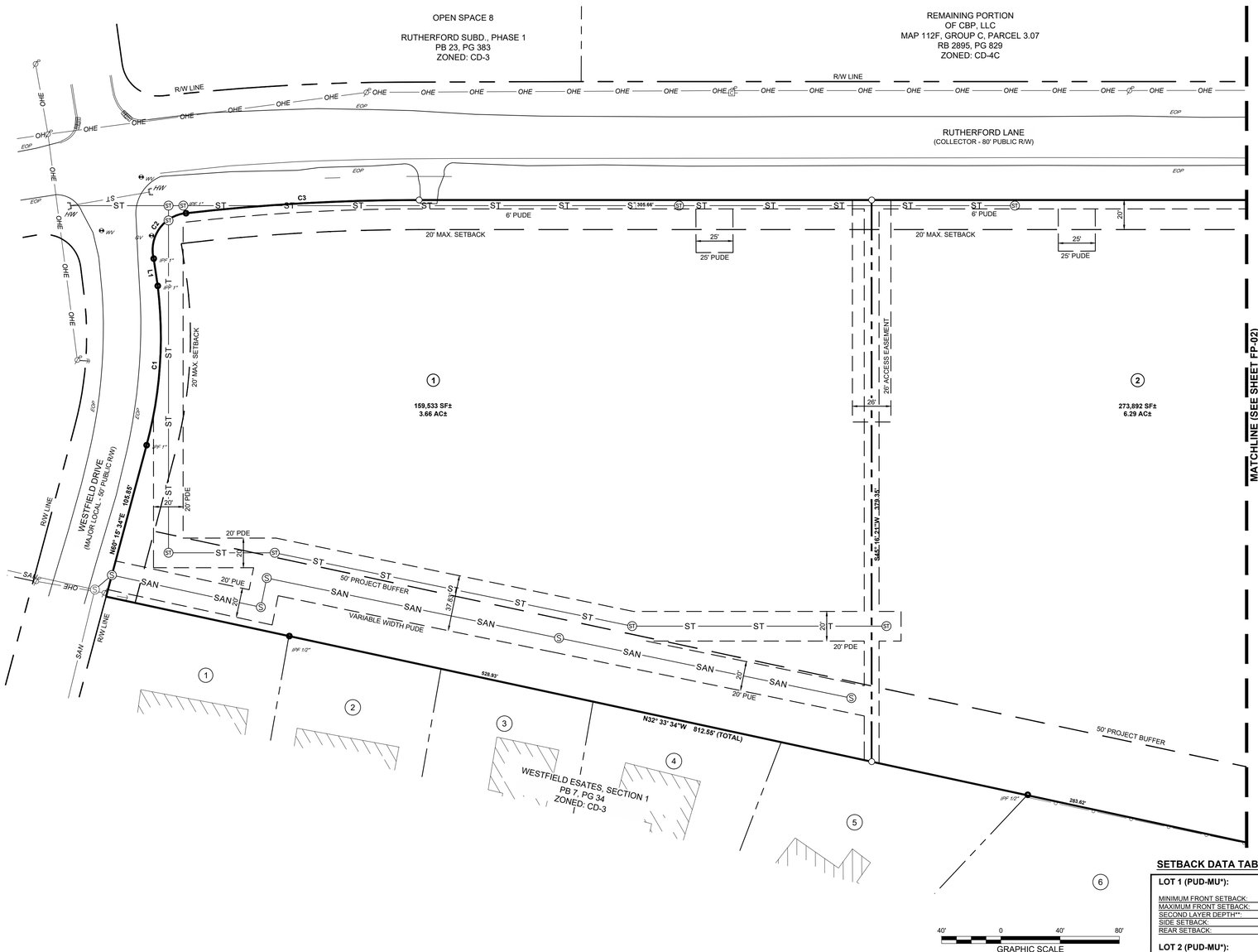
Deny:

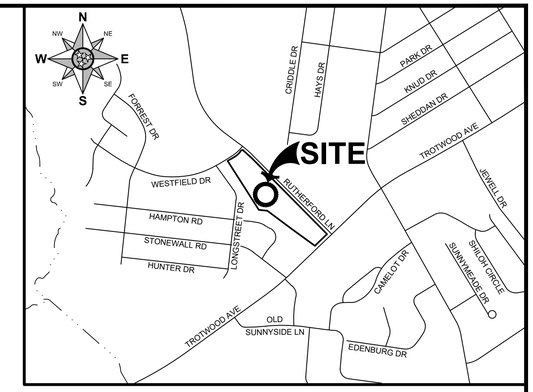
Move to find that the revisions to the Final Planned Unit Development Master Plan as presented do not conform to the applicable zoning ordinance, and deny the request due to [list specific deficiencies].



SUBJECT PROPERTY INFORMATION:

- OWNER: CBP LLC
- TAX MAP 112, PARCEL 3.07
- INSTRUMENT: DB 2895, PG 829
- TOTAL AREA = 12.86 AC (560,245 SF) ±
- ZONING: PUD (PLANNED UNIT DEVELOPMENT)





VICINITY MAP
SCALE: 1"=1000'

GENERAL NOTES:

1. THE PURPOSE OF THIS PLAT IS TO CREATE 3 LOTS, AS WELL AS ESTABLISH PERTINENT EASEMENTS AND SETBACKS.
2. BEARINGS ARE BASED ON THE TENNESSEE STATE PLANE COORDINATE SYSTEM (NAD83, 2011).
3. THE FIELD SURVEY WAS COMPLETED ON SEPTEMBER 11, 2025.
4. ALL DEED BOOK AND PLAT REFERENCES PERTAIN TO THE REGISTER'S OFFICE FOR MAURY COUNTY, TENNESSEE.
5. ADJOINING PROPERTY LINES SHOWN WERE PLOTTED FROM INFORMATION TAKEN FROM EITHER DEED DESCRIPTION, RECORD PLATS, OR TAX MAPS.
6. PROPERTY CORNERS SET THIS SURVEY ARE 18" #4 REBAR WITH ORANGE PLASTIC CAP STAMPED "M2 GROUP", 18" #5 REBAR WITH YELLOW PLASTIC CAP STAMPED "M2 GROUP, LLC", OR PK NAIL WITH STAINLESS STEEL WASHER STAMPED "M2 GROUP, LLC", UNLESS NOTED OTHERWISE.
7. UTILITIES SHOWN HEREON WERE COMPILED FROM VISIBLE STRUCTURES AT THE SITE, INFORMATION FROM PLANS, AND PHYSICAL MARKINGS AND COMBINED TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES. HOWEVER, LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY, AND RELIABLY DEPICTED. IN ADDITION, IN SOME JURISDICTIONS, 811 OR OTHER SIMILAR UTILITY LOCATE REQUESTS FROM SURVEYORS MAY BE IGNORED OR RESULT IN AN INCOMPLETE RESPONSE. THIS SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THIS SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. VERIFICATION OF EXISTENCE, LOCATIONS, AND DEPTH SHOULD BE MADE BEFORE CONDUCTING ANY EXCAVATION IN THE VICINITY OF THE UTILITY.
8. THE PROPERTY SHOWN HEREON IS LOCATED IN A FLOOD HAZARD ZONE "X" (AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN) ACCORDING TO F.I.R.M. MAP "MAURY COUNTY, TENNESSEE" PANEL 280 OF 440, MAP NUMBER 47119C0280E, EFFECTIVE APRIL 16, 2007.
9. LOTS 1 & 2 IS CURRENTLY ZONED "PUD-MU" (PLANNED UNIT DEVELOPMENT - MIXED USE) AND LOT 3 IS CURRENTLY ZONED "CD-4C" (GENERAL URBAN CORRIDOR CHARACTER DISTRICT), BASED ON THE OFFICIAL ZONING MAP FOR CITY OF COLUMBIA, TENNESSEE. A CURRENT ZONING REPORT AND/OR ZONING LETTER HAS NOT BEEN PROVIDED TO THE SURVEYOR. REFER TO THE SETBACK DATA TABLE FOR "PUD-MU" & CD-4C" ZONING SETBACK REQUIREMENTS.
10. THE SUBJECT PROPERTY HAS DIRECT AND CONTIGUOUS ACCESS TO RUTHERFORD LANE, A 80-FOOT PUBLIC RIGHT-OF-WAY, TROTWOOD AVENUE, A 60-FOOT PUBLIC RIGHT-OF-WAY, AND WESTFIELD DRIVE, A 50-FOOT PUBLIC RIGHT-OF-WAY.
11. ALL PUBLIC UTILITY AND DRAINAGE EASEMENTS LOCATED ON PROPOSED LOTS ARE TO BE MAINTAINED BY THE INDIVIDUAL PROPERTY OWNER FOR SAID LOT.
12. PROPERTY IS SUBJECT TO A STORMWATER MAINTENANCE AGREEMENT, RECORD BOOK ____, PAGE ____, RECORDED WITH THE MAURY COUNTY REGISTER OF DEEDS.

LINE TABLE		
LINE #	DIRECTION	LENGTH
L1	N36° 46' 42"E	18.65

CURVE TABLE				
CURVE #	RADIUS	LENGTH	CHORD BRNG	CHORD LENGTH
C1	282.23	108.50	N49° 15' 42"E	107.83
C2	25.00	42.59	N80° 41' 30"E	37.63
C3	1392.39	157.80	S47° 58' 28"E	157.71

SETBACK DATA TABLE:

LOT 1 (PUD-MU*):

MINIMUM FRONT SETBACK:	0'
MAXIMUM FRONT SETBACK:	20'
SECOND LAYER DEPTH**:	20'
SIDE SETBACK:	10'
REAR SETBACK:	N/R

LOT 2 (PUD-MU*):

MINIMUM FRONT SETBACK:	0'
MAXIMUM FRONT SETBACK:	20'
SECOND LAYER DEPTH**:	20'
SIDE SETBACK:	10'
REAR SETBACK:	N/R

LOT 3 (PUD-MU*):

MINIMUM FRONT SETBACK:	0'
MAXIMUM FRONT SETBACK:	20'
SECOND LAYER DEPTH**:	20'
SIDE SETBACK:	10'
REAR SETBACK:	N/R

*PER CITY OF COLUMBIA ZONING ORDINANCE, TABLE 4.3.1-M
**PER CITY OF COLUMBIA ZONING ORDINANCE, ARTICLE 9, DEFINITIONS ("LAYER")

LEGEND:

- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING ADJACENT PROPERTY LINE
- EXISTING EASEMENT
- MBSL — MINIMUM BUILDING SETBACK LINE
- EXISTING FARM FENCE
- EXISTING WOOD FENCE
- EXISTING CHAIN-LINK FENCE
- SAN — EXISTING SANITARY SEWER LINE
- W — EXISTING WATER LINE
- OHE — EXISTING OVERHEAD ELECTRIC
- SAN — PROPOSED SANITARY SEWER LINE
- ST — PROPOSED STORM SEWER LINE
- EXISTING TREELINE
- IRON REBAR FOUND (IRF)
- IRON PIPE FOUND (IPF)
- IRON REBAR SET W/CAP (IRS)
- WV — WATER VALVE
- FH — FIRE HYDRANT
- HB — HOSE BIB
- S — SANITARY SEWER MANHOLE
- ST — STORM MANHOLE
- CURB INLET
- INLET (SQUARE)
- GV — GAS BOX (GAS VALVE)
- HIGH TENSION TOWER
- POWER POLE
- GUY WIRE
- TRAFFIC PULL BOX
- COMMUNICATION PEDESTAL
- FIBER OPTIC PULL BOX
- TREE, DECIDUOUS
- (POI) — POINT OF INSERTION
- HW — HEADWALL
- EOP — EDGE OF PAVEMENT
- 1 — LOT NUMBER

STEPHEN VANDAL HAYS
REGISTERED
LAND SURVEYOR
STATE OF
TENNESSEE
2504
4/5/26
TENNESSEE NO. 2504

CERTIFICATE OF OWNERSHIP AND DEDICATION

I (WE) HEREBY CERTIFY THAT I AM (WE ARE) THE OWNER(S) OF THE PROPERTY SHOWN AND DESCRIBED HEREON AS EVIDENCED IN BOOK 2895, PAGE 1276, MAURY COUNTY REGISTERS OFFICE, AND ADOPT THIS FINAL SUBDIVISION PLAT OF THE PROPERTY AS SHOWN HEREON AND DEDICATE ALL PUBLIC WAYS AND EASEMENTS AS NOTED WITH MY (OUR) FREE CONSENT.

OWNER(S) — DATE

TITLE (IF ACTING FOR CORPORATION OR PARTNERSHIP)

CERTIFICATE OF SANITARY SEWER SYSTEM

I HEREBY CERTIFY THAT THE SANITARY SEWER SYSTEM OUTLINED OR INDICATED ON THIS FINAL SUBDIVISION PLAT HAS BEEN INSTALLED IN ACCORDANCE WITH THE CURRENT LOCAL AND STATE GOVERNMENT REQUIREMENTS, OR A SUFFICIENT BOND OR OTHER SURETY HAS BEEN FILED TO GUARANTEE SAID INSTALLATION.

DIRECTOR OF WASTEWATER DEPARTMENT
COLUMBIA, TENNESSEE — DATE

CERTIFICATE OF SUBDIVISION NAME AND STREET NAMES

SUBDIVISION NAME AND STREET NAMES APPROVED BY THE CITY ENGINEERING DEPARTMENT AND BY E-911 MAURY COUNTY.

MAURY COUNTY E-911 — DATE

CERTIFICATE OF SURVEY ACCURACY

I (WE) HEREBY CERTIFY THAT TO THE BEST OF MY (OUR) KNOWLEDGE AND BELIEF THIS IS A TRUE AND ACCURATE SURVEY OF THE PROPERTY SHOWN HEREON; THAT THIS IS A CLASS "____" LAND SURVEY AS DEFINED IN TITLE 62, CHAPTER 18, TENNESSEE CODE ANNOTATED, AND THAT THE RATIO OF PRECISION IS GREATER THAN OR EQUAL TO 1: ____.

REGISTERED LAND SURVEYOR — DATE

NUMBER

CERTIFICATE OF COMPLIANCE

I HEREBY CERTIFY THAT THE FINAL SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE CITY OF COLUMBIA SUBDIVISION REGULATIONS AND OTHER ADOPTED ORDINANCES AND POLICIES.

CITY ENGINEER
COLUMBIA, TENNESSEE — DATE

CERTIFICATE OF WATER SYSTEM

I HEREBY CERTIFY THAT THE WATER SYSTEM(S) OUTLINED OR INDICATED ON THIS FINAL SUBDIVISION PLAT HAS/HAVE BEEN INSTALLED IN ACCORDANCE WITH CURRENT LOCAL AND STATE GOVERNMENT REQUIREMENTS, OR A SUFFICIENT BOND OR OTHER SURETY HAS BEEN FILED TO GUARANTEE SAID INSTALLATION.

NAME — DATE

TITLE — AUTHORIZING AGENCY

CERTIFICATE OF APPROVAL OF STREETS, DRAINAGE, AND UTILITIES

I HEREBY CERTIFY THAT THE STREETS, DRAINAGE, AND UTILITIES OUTLINED OR INDICATED ON THIS FINAL SUBDIVISION PLAT HAVE BEEN INSTALLED IN ACCORDANCE WITH CITY SPECIFICATIONS, OR A PERFORMANCE SURETY IN THE AMOUNT OF _____ FOR STREETS AND DRAINAGE HAS BEEN POSTED WITH THE CITY OF COLUMBIA, TENNESSEE, TO ASSURE COMPLETION OF SUCH IMPROVEMENTS.

CITY ENGINEER
COLUMBIA, TENNESSEE — DATE

CERTIFICATE OF APPROVAL OF RECORDING

I HEREBY CERTIFY THAT THE FINAL SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE CITY OF COLUMBIA SUBDIVISION REGULATIONS, WITH THE EXCEPTION OF SUCH VARIANCES, IF ANY, AS NOTED IN THE MINUTES OF THE COLUMBIA MUNICIPAL PLANNING COMMISSION, AND THAT IT HAS BEEN APPROVED FOR RECORDING IN THE OFFICE OF THE MAURY COUNTY REGISTER OF DEEDS.

PLANNING DIRECTOR
COLUMBIA, TENNESSEE — DATE

REVISION #	DATE	DESCRIPTION

FINAL PLAT
MORNING POINTE
RUTHERFORD LANE
CITY OF COLUMBIA
9TH CIVIL DISTRICT
MAURY COUNTY, TENNESSEE

M2 GROUP
P.O. BOX 2543
BRENTWOOD, TN 37024-2543
615-656-0257 / M2GROUPLLC.COM

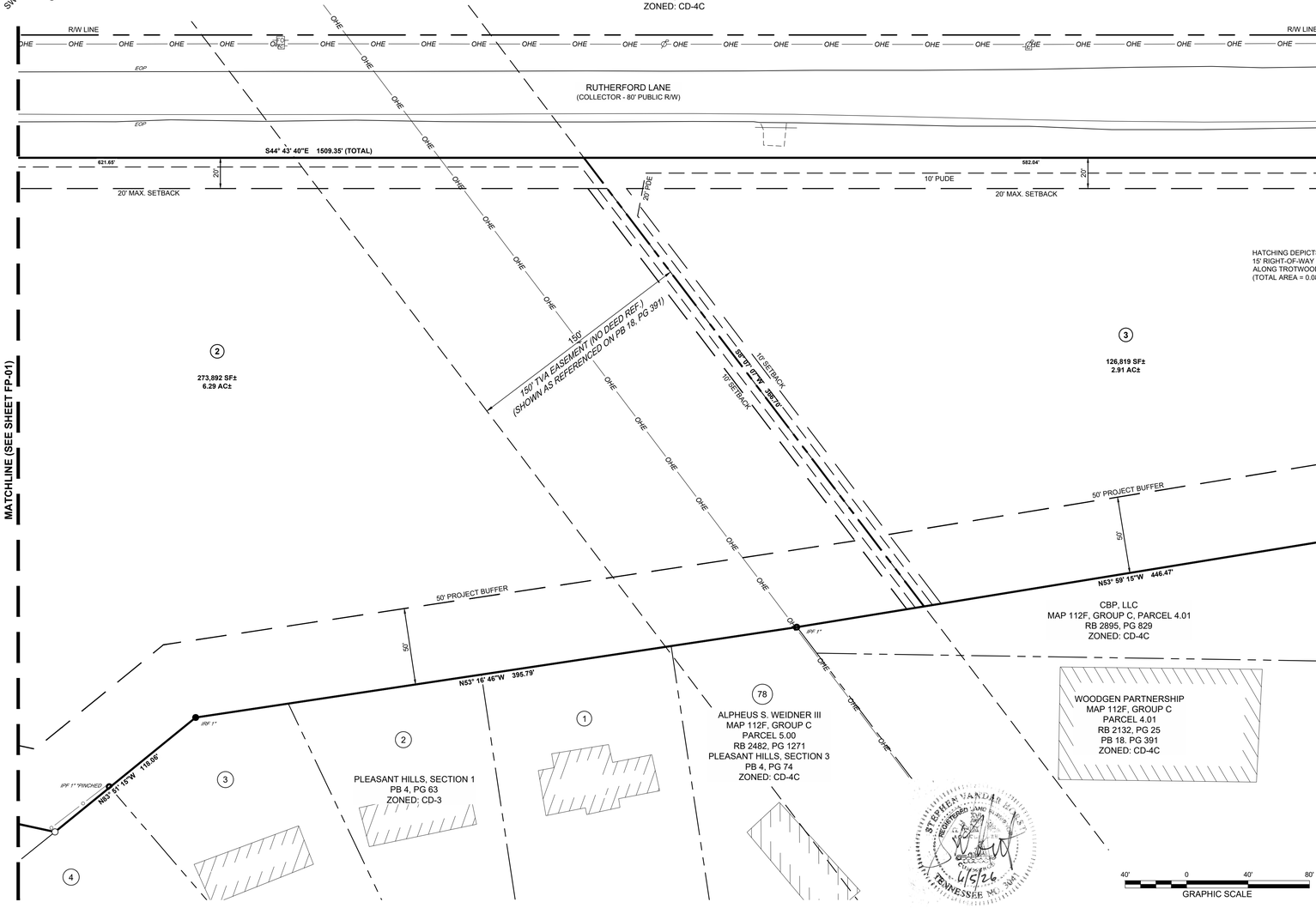
DATE :	JUNE 5, 2026	DRAWN BY :	ERG
PROJECT NUMBER :	25-215	CHECKED BY :	SVH

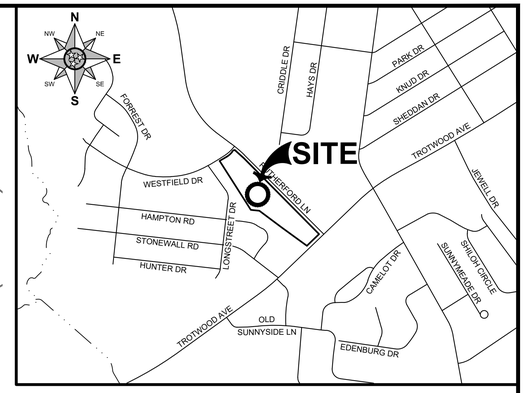
SHEET NUMBER: FP-01

25-215 MORNING POINTE_FP.DWG | Friday, June 5, 2026 8:16:56 AM

SUBJECT PROPERTY INFORMATION:

- OWNER: CBP LLC
- TAX MAP 112, PARCEL 3.07
- INSTRUMENT: DB 2895, PG 829
- TOTAL AREA = 12.86 AC (560,245 SF) ±
- ZONING: PUD (PLANNED UNIT DEVELOPMENT)





VICINITY MAP
SCALE: 1"=1000'

GENERAL NOTES:

1. THE PURPOSE OF THIS PLAT IS TO CREATE 3 LOTS, AS WELL AS ESTABLISH PERTINENT EASEMENTS AND SETBACKS.
2. BEARINGS ARE BASED ON THE TENNESSEE STATE PLANE COORDINATE SYSTEM (NAD83, 2011).
3. THE FIELD SURVEY WAS COMPLETED ON SEPTEMBER 11, 2025.
4. ALL DEED BOOK AND PLAT REFERENCES PERTAIN TO THE REGISTER'S OFFICE FOR MAURY COUNTY, TENNESSEE.
5. ADJOINING PROPERTY LINES SHOWN WERE PLOTTED FROM INFORMATION TAKEN FROM EITHER DEED DESCRIPTION, RECORD PLATS, OR TAX MAPS.
6. PROPERTY CORNERS SET THIS SURVEY ARE 18" #4 REBAR WITH ORANGE PLASTIC CAP STAMPED "M2 GROUP", 18" #5 REBAR WITH YELLOW PLASTIC CAP STAMPED "M2 GROUP, LLC", OR PK NAIL WITH STAINLESS STEEL WASHER STAMPED "M2 GROUP, LLC", UNLESS NOTED OTHERWISE.
7. UTILITIES SHOWN HEREON WERE COMPILED FROM VISIBLE STRUCTURES AT THE SITE, INFORMATION FROM PLANS, AND PHYSICAL MARKINGS AND COMBINED TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES. HOWEVER, LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY, AND RELIABLY DEPICTED. IN ADDITION, IN SOME JURISDICTIONS, 811 OR OTHER SIMILAR UTILITY LOCATE REQUESTS FROM SURVEYORS MAY BE IGNORED OR RESULT IN AN INCOMPLETE RESPONSE. THIS SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THIS SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. VERIFICATION OF EXISTENCE, LOCATIONS, AND DEPTH SHOULD BE MADE BEFORE CONDUCTING ANY EXCAVATION IN THE VICINITY OF THE UTILITY.
8. THE PROPERTY SHOWN HEREON IS LOCATED IN A FLOOD HAZARD ZONE "X" (AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN) ACCORDING TO F.I.R.M. MAP "MAURY COUNTY, TENNESSEE" PANEL 280 OF 440, MAP NUMBER 47119C0280E, EFFECTIVE APRIL 16, 2007.
9. LOTS 1 & 2 IS CURRENTLY ZONED "PUD-MU" (PLANNED UNIT DEVELOPMENT - MIXED USE) AND LOT 3 IS CURRENTLY ZONED "CD-4C" (GENERAL URBAN CORRIDOR CHARACTER DISTRICT), BASED ON THE OFFICIAL ZONING MAP FOR CITY OF COLUMBIA, TENNESSEE. A CURRENT ZONING REPORT AND/OR ZONING LETTER HAS NOT BEEN PROVIDED TO THE SURVEYOR. REFER TO THE SETBACK DATA TABLE FOR "PUD-MU" & CD-4C" ZONING SETBACK REQUIREMENTS.
10. THE SUBJECT PROPERTY HAS DIRECT AND CONTIGUOUS ACCESS TO RUTHERFORD LANE, A 80-FOOT PUBLIC RIGHT-OF-WAY, TROTWOOD AVENUE, A 60-FOOT PUBLIC RIGHT-OF-WAY, AND WESTFIELD DRIVE, A 50-FOOT PUBLIC RIGHT-OF-WAY.
11. ALL PUBLIC UTILITY AND DRAINAGE EASEMENTS LOCATED ON PROPOSED LOTS ARE TO BE MAINTAINED BY THE INDIVIDUAL PROPERTY OWNER FOR SAID LOT.
12. PROPERTY IS SUBJECT TO A STORMWATER MAINTENANCE AGREEMENT, RECORD BOOK ____, PAGE ____, RECORDED WITH THE MAURY COUNTY REGISTER OF DEEDS.

LINE TABLE		
LINE #	DIRECTION	LENGTH
L1	N36° 46' 42"E	18.65

CURVE TABLE				
CURVE #	RADIUS	LENGTH	CHORD BRNG	CHORD LENGTH
C1	282.23	108.50	N49° 15' 42"E	107.83
C2	25.00	42.59	N80° 41' 30"E	37.63
C3	1392.39	157.80	S47° 58' 28"E	157.71

SETBACK DATA TABLE:

LOT 1 (PUD-MU*):

MINIMUM FRONT SETBACK:	0'
MAXIMUM FRONT SETBACK:	20'
SECOND LAYER DEPTH**:	20'
SIDE SETBACK:	10'
REAR SETBACK:	N/R

LOT 2 (PUD-MU*):

MINIMUM FRONT SETBACK:	0'
MAXIMUM FRONT SETBACK:	20'
SECOND LAYER DEPTH**:	20'
SIDE SETBACK:	10'
REAR SETBACK:	N/R

LOT 3 (PUD-MU*):

MINIMUM FRONT SETBACK:	0'
MAXIMUM FRONT SETBACK:	20'
SECOND LAYER DEPTH**:	20'
SIDE SETBACK:	10'
REAR SETBACK:	N/R

*PER CITY OF COLUMBIA ZONING ORDINANCE, TABLE 4.3.1-M
**PER CITY OF COLUMBIA ZONING ORDINANCE, ARTICLE 9, DEFINITIONS ("LAYER")

LEGEND:

EXISTING PROPERTY LINE	FIRE HYDRANT
EXISTING RIGHT-OF-WAY	HB HOSE BIB
EXISTING ADJACENT PROPERTY LINE	SANITARY SEWER MANHOLE
EXISTING EASEMENT	ST STORM MANHOLE
MBSL MINIMUM BUILDING SETBACK LINE	CURB INLET
EXISTING FARM FENCE	INLET (SQUARE)
EXISTING WOOD FENCE	GV GAS BOX (GAS VALVE)
EXISTING CHAIN-LINK FENCE	HIGH TENSION TOWER
SAN EXISTING SANITARY SEWER LINE	POWER POLE
W W EXISTING WATER LINE	GUY WIRE
OHE EXISTING OVERHEAD ELECTRIC	TRAFFIC PULL BOX
SAN PROPOSED SANITARY SEWER LINE	COMMUNICATION PEDESTAL
ST PROPOSED STORM SEWER LINE	FIBER OPTIC PULL BOX
EXISTING TREELINE	TREE, DECIDUOUS
IRON REBAR FOUND (IRF)	(POI) POINT OF INSERTION
IRON PIPE FOUND (IPF)	HW HEADWALL
IRON REBAR SET W/CAP (IRS)	EOP EDGE OF PAVEMENT
WV WATER VALVE	1 LOT NUMBER

CERTIFICATE OF OWNERSHIP AND DEDICATION

I (WE) HEREBY CERTIFY THAT I AM (WE ARE) THE OWNER(S) OF THE PROPERTY SHOWN AND DESCRIBED HEREON AS EVIDENCED IN BOOK 2895, PAGE 1276, MAURY COUNTY REGISTERS OFFICE, AND ADOPT THIS FINAL SUBDIVISION PLAT OF THE PROPERTY AS SHOWN HEREON AND DEDICATE ALL PUBLIC WAYS AND EASEMENTS AS NOTED WITH MY (OUR) FREE CONSENT.

OWNER(S) DATE

TITLE (IF ACTING FOR CORPORATION OR PARTNERSHIP)

CERTIFICATE OF SANITARY SEWER SYSTEM

I HEREBY CERTIFY THAT THE SANITARY SEWER SYSTEM OUTLINED OR INDICATED ON THIS FINAL SUBDIVISION PLAT HAS BEEN INSTALLED IN ACCORDANCE WITH THE CURRENT LOCAL AND STATE GOVERNMENT REQUIREMENTS, OR A SUFFICIENT BOND OR OTHER SURETY HAS BEEN FILED TO GUARANTEE SAID INSTALLATION.

DIRECTOR OF WASTEWATER DEPARTMENT DATE
COLUMBIA, TENNESSEE

CERTIFICATE OF SUBDIVISION NAME AND STREET NAMES

SUBDIVISION NAME AND STREET NAMES APPROVED BY THE CITY ENGINEERING DEPARTMENT AND BY E-911 MAURY COUNTY.

MAURY COUNTY E-911 DATE

CERTIFICATE OF SURVEY ACCURACY

I (WE) HEREBY CERTIFY THAT TO THE BEST OF MY (OUR) KNOWLEDGE AND BELIEF THIS IS A TRUE AND ACCURATE SURVEY OF THE PROPERTY SHOWN HEREON; THAT THIS IS A CATEGORY I LAND SURVEY AS DEFINED IN TITLE 62, CHAPTER 18, TENNESSEE CODE ANNOTATED, AND THAT THE RATIO OF PRECISION IS GREATER THAN OR EQUAL TO 1:10,000.

REGISTERED LAND SURVEYOR DATE

NUMBER

CERTIFICATE OF COMPLIANCE

I HEREBY CERTIFY THAT THE FINAL SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE CITY OF COLUMBIA SUBDIVISION REGULATIONS AND OTHER ADOPTED ORDINANCES AND POLICIES.

CITY ENGINEER DATE
COLUMBIA, TENNESSEE

CERTIFICATE OF WATER SYSTEM

I HEREBY CERTIFY THAT THE WATER SYSTEM(S) OUTLINED OR INDICATED ON THIS FINAL SUBDIVISION PLAT HAS/HAVE BEEN INSTALLED IN ACCORDANCE WITH CURRENT LOCAL AND STATE GOVERNMENT REQUIREMENTS, OR A SUFFICIENT BOND OR OTHER SURETY HAS BEEN FILED TO GUARANTEE SAID INSTALLATION.

NAME DATE

TITLE AUTHORIZING AGENCY

CERTIFICATE OF APPROVAL OF STREETS, DRAINAGE, AND UTILITIES

I HEREBY CERTIFY THAT THE STREETS, DRAINAGE, AND UTILITIES OUTLINED OR INDICATED ON THIS FINAL SUBDIVISION PLAT HAVE BEEN INSTALLED IN ACCORDANCE WITH CITY SPECIFICATIONS, OR A PERFORMANCE SURETY IN THE AMOUNT OF _____ FOR STREETS AND DRAINAGE HAS BEEN POSTED WITH THE CITY OF COLUMBIA, TENNESSEE, TO ASSURE COMPLETION OF SUCH IMPROVEMENTS.

CITY ENGINEER DATE
COLUMBIA, TENNESSEE

CERTIFICATE OF APPROVAL OF RECORDING

I HEREBY CERTIFY THAT THE FINAL SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE CITY OF COLUMBIA SUBDIVISION REGULATIONS, WITH THE EXCEPTION OF SUCH VARIANCES, IF ANY, AS NOTED IN THE MINUTES OF THE COLUMBIA MUNICIPAL PLANNING COMMISSION, AND THAT IT HAS BEEN APPROVED FOR RECORDING IN THE OFFICE OF THE MAURY COUNTY REGISTER OF DEEDS.

PLANNING DIRECTOR DATE
COLUMBIA, TENNESSEE

REVISION #	DATE	DESCRIPTION

FINAL PLAT
MORNING POINTE
RUTHERFORD LANE
CITY OF COLUMBIA
9TH CIVIL DISTRICT
MAURY COUNTY, TENNESSEE

M2 GROUP
P.O. BOX 2543
BRENTWOOD, TN 37024-2543
615-656-0257 / M2GROUPLLC.COM

DATE :	JUNE 5, 2026	DRAWN BY :	ERG
PROJECT NUMBER :	25-215	CHECKED BY :	SVH

SHEET NUMBER: FP-02

25-215_MORNING POINTE_FP.DWG Friday, June 5, 2026 8:17:58 AM

MAY 14, 2026

RE: FINAL PLAT RESUBMITTAL
MORNING POINTE

M2 Group, LLC (M2) has received the comments dated May 14, 2026, regarding the Morning Pointe Final Plat. Please allow this letter to serve as a response to the review comments. A digital copy of the revised Final Plat has been included in this resubmittal.

Review Comments

Engineering

1. Final plat approval shall be subject to filing and recording the plat with the County Register within sixty (60) calendar days after final action. Failure to file and record the plat within sixty (60) calendar days, shall void any final action on the plat.
   Acknowledged.
2. Add PUDE note: There is a Public Utility and Drainage Easements (PUDE) ten (10) feet in width on all property lines parallel and abutting public roads or rights-of-way, and five (5) feet in width on all interior lot lines.
   A 10' PUDE has been provided along the road frontage of lot 3. A 6' PUDE has been provided along the road frontage of lots 1 and 2 to coincide with the originally approved building location and PUD Development Plan for said lots.
3. Remove General Note #2.
   General Note #2 removed.
4. Label all utilities not installed as proposed.
   All proposed utilities are listed in legend.
5. Add note: All public utility and drainage easements located on proposed lots are to be maintained by the individual property owner for said lot.
   Note added.
6. Provide right-of-way dedication along Trotwood Ave of 15 feet.
   Shown right-of-way dedication along Trotwood Avenue.

Planning

7. The lead case planner for this item will be Austin Brass. Please forward all correspondence to abrass@columbiatn.gov

   Acknowledged.

8. Provide the location of all existing structures adjacent to property.

   Structure footprints adjacent to subject property have been provided.

9. Provide update to note 9 that indicates zoning as PUD-MU.

   Updated zoning note to indicate PUD-MU.

10. Indicate minimum setback line that also includes maximum setbacks shown.

    Added table indicating minimum and maximum setbacks.

11. Indicate functional classification of Rutherford Lane & Westfield Drive.

    Added road classifications.

12. Provide notation that further division of property with building sites and would be reflected in approved PUD Master Plan.

    Acknowledged. Please provide exact language being requested for this note. Based on the wording above, we are unclear as to what is required.

Columbia Power

13. Columbia Power System has an existing power line near your proposed development. We are willing to serve this residential development subject to all Columbia Power System policies and procedures in effect at actual time service is rendered provided an approved final plat and complete electrical load information is furnished as soon as possible prior to start of actual construction.

    Unfortunately, due to current supply chain challenges, no timeframe can be guaranteed regarding the availability of meters or transformers appropriate for your development.

    Acknowledged.

City Attorney

14. No comment.

    Acknowledged.

Building

15. No comments.

    Acknowledged.

Public Works

16. No comments.

    Acknowledged.

ATT

17. ATT To Serve.

    Acknowledged.

Fire

18. No comments.

    Acknowledged.

Wastewater

19. Final plat sewer layout and signature is subject to Columbia WW plan review & approval of the sewer extension, complete with plan and profiles, as well as landscape/tree preservation comments. Surety must also be in place if sewer is not installed.

    Acknowledged.

Maury County Schools

20. No comment.

    Acknowledged.

Columbia Water

21. A water availability letter was issued on November 19, 2026, it remains valid until May 19, 2026. The availability of capacity to serve is based on a determination by the Fire Marshal of fire flow requirements and the information submitted on the Water Service Availability Request application. Any off-site improvements detailed in the availability letter are the responsibility of the developer/owner. All public water system improvements are subject to the preparation and approval of detailed construction plans prepared in accordance with CPWS and Tennessee Department of Environment and Conservation requirements.

    Acknowledged.

Maury County Highway Dept.

22. No comment.

    Acknowledged.

Police

23. No comments provided.

    Acknowledged.

Atmos Energy

24. No comments provided.

    Acknowledged.

Maury County E911

25. No comments provided.

    Acknowledged.

Duck River Electric Membership Corp

26. No comment.

    Acknowledged.

If you have any questions, please feel free to contact me at 615.656.0257 or stephen@m2groupllc.com.

Sincerely,



M2 Group, LLC
Stephen Vander Horst, RLS, CFS

CITY OF
COLUMBIA
TENNESSEE

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

DEVELOPMENT REVEW COMMITTEE MEETING
Tuesday, May 12, 2026

ITEM NO.
26-0150

DESCRIPTION: Rutherford Lane - Westfield Park - Morning Pointe

COMMENTS:

Engineering

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3. Remove General Note #2

4. Label all utilities not installed as proposed.
5. Add note: All public utility and drainage easements located on proposed lots are to be maintained by the individual property owner for said lot.
6. Provide right-of-way dedication along Trotwood Ave of 15 feet.

Planning

7. The lead case planner for this item will be Austin Brass. Please forward all correspondence to abrass@columbiatn.gov
8. Provide the location of all existing structures adjacent to property.
9. Provide update to note 9 that indicates zoning as PUD-MU.
10. Indicate minimum setback line that also includes maximum setbacks shown.
11. Indicate functional classification of Rutherford Lane & Westfield Drive.
12. Provide notation that further division of property with building sites and would be reflected in approved PUD Master Plan.

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plat and complete electrical load information is furnished as soon as possible prior to start of actual construction.
. Unfortunately, due to current supply chain challenges, no timeframe can be guaranteed regarding the availability of meters or transformers appropriate for your development.

City Attorney

14. No comment.

Building

15. No comments.

Public Works

16. No comments.

ATT

17. ATT To Serve.

Fire

18. No comments

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Department of Environment and Conservation requirements.

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22. No comment.

Police

23. No comments provided.

Atmos Energy

24. No comment provided.

Maury County E911

25. No comments provided.

Duck River Electric Membership Corp

26. No comment.

Resubmittal Guidelines

Please provide a comment response letter as well as digital copies of revised plans and supporting documentation. Submit all required documents electronically through the online portal: columbia.onlama.com. If the files are oversized, please provide a file sharing link.

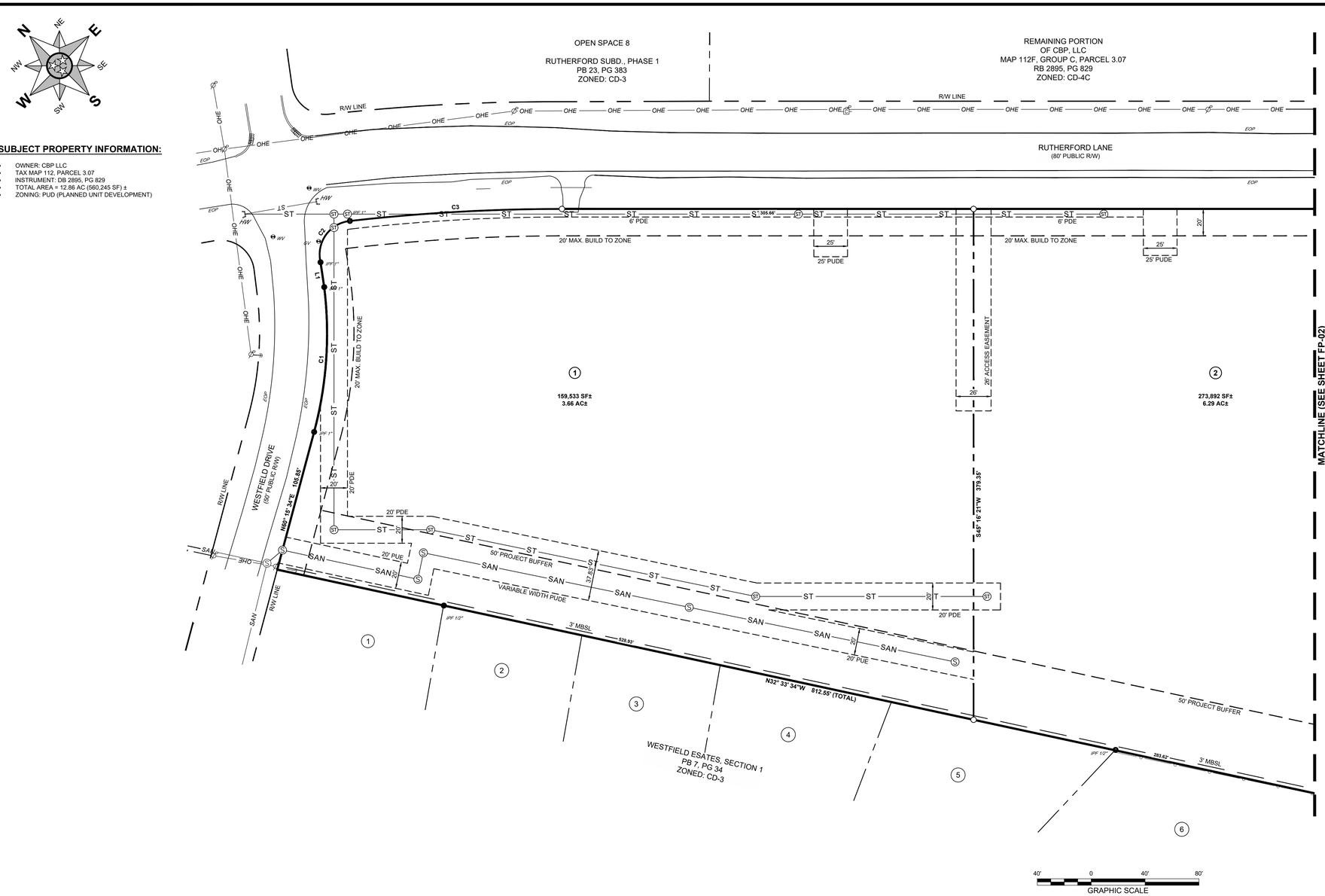
Please contact the case planner identified in the Planning Comments with any questions about the review process.

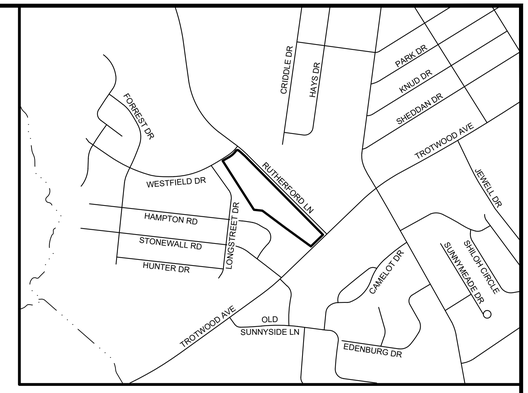
DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

Please contact pkeltner@columbiatn.gov or srichardson@columbiatn.gov if you encounter difficulties with the online portal.

You will receive an invoice for required advertising and mailing fees. All fees must be paid by the Friday following resubmittal in order advance to the Planning Commission agenda.

NOTE: All resubmittals must demonstrate compliance with city standards prior to Planning Commission review. Requests which do not adhere to regulations and/or remain unresponsive to technical comments will not be forwarded to the next agenda until such items are amended. Final Plat applications which are not ready to proceed to Planning Commission following the first resubmittal deadline will be added to the following DRC agenda to confirm the status of required infrastructure and utilities. Applications which remain incomplete following two resubmittal deadlines will be closed.





VICINITY MAP
SCALE: 1"=1000'

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- INSTRUMENT: DB 2895, PG 829
- TOTAL AREA = 12.86 AC (560,245 SF) ±
- ZONING: PUD (PLANNED UNIT DEVELOPMENT)

GENERAL NOTES:

1. BEARINGS ARE BASED ON THE TENNESSEE STATE PLANE COORDINATE SYSTEM (NAD83, 2011).
2. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88, GEOID 18). CONTOURS ARE SHOWN AT 1-FOOT INTERVALS.
3. THE FIELD SURVEY WAS COMPLETED ON SEPTEMBER 11, 2025.
4. ALL DEED BOOK AND PLAT REFERENCES PERTAIN TO THE REGISTER'S OFFICE FOR MAURY COUNTY, TENNESSEE.
5. ADJOINING PROPERTY LINES SHOWN WERE PLOTTED FROM INFORMATION TAKEN FROM EITHER DEED DESCRIPTION, RECORD PLATS, OR TAX MAPS.
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10. THE SUBJECT PROPERTY HAS DIRECT AND CONTIGUOUS ACCESS TO RUTHERFORD LANE, A 80-FOOT PUBLIC RIGHT-OF-WAY, TROTWOOD AVENUE, A 60-FOOT PUBLIC RIGHT-OF-WAY, AND WESTFIELD DRIVE, A 50-FOOT PUBLIC RIGHT-OF-WAY.
11. THERE WAS NO EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS OBSERVED DURING THE COURSE OF FIELD SURVEY.
12. NO EVIDENCE OF PROPOSED CHANGES IN THE STREET RIGHT OF WAY LINES, OR OF RECENT STREET OR SIDEWALK CONSTRUCTION, OR REPAIRS, WAS OBSERVED DURING THE COURSE OF FIELD SURVEY.
13. THE SUBJECT PROPERTY SHOWN HEREON IS CONTIGUOUS ALONG ALL COMMON BOUNDARIES, WITHOUT GAP, GORE, OR OVERLAP.
14. LOT #3 - 40' BUILD-TO-ZONE ALONG TROTWOOD AVENUE MAY BE EXTENDED TO 85' WHEN PARKING DESIGN IS LOCATED IN THE FIRST LAYER, PER CITY OF COLUMBIA ZONING ORDINANCE TABLE 4.3.1-E (EFFECTIVE DATE 07/14/2022).

LINE TABLE		
LINE #	DIRECTION	LENGTH
L1	N36° 46' 42"E	18.65

CURVE TABLE				
CURVE #	RADIUS	LENGTH	CHORD BRNG	CHORD LENGTH
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LEGEND:

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EXISTING WATER LINE	W	GUY WIRE	
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PROPOSED STORM SEWER LINE	ST	FIBER OPTIC PULL BOX	
EXISTING TREELINE		TREE, DECIDUOUS	
IRON REBAR FOUND (IRF)	(POI)	POINT OF INSERTION	
IRON PIPE FOUND (IPF)	HW	HEADWALL	
IRON REBAR SET W/CAP (IRS)	EOP	EDGE OF PAVEMENT	
WATER VALVE	1	LOT NUMBER	

CERTIFICATE OF OWNERSHIP AND DEDICATION

I (WE) HEREBY CERTIFY THAT I AM (WE ARE) THE OWNER(S) OF THE PROPERTY SHOWN AND DESCRIBED HEREON AS EVIDENCED IN BOOK 2895, PAGE 1276, MAURY COUNTY REGISTERS OFFICE, AND ADOPT THIS FINAL SUBDIVISION PLAT OF THE PROPERTY AS SHOWN HEREON AND DEDICATE ALL PUBLIC WAYS AND EASEMENTS AS NOTED WITH MY (OUR) FREE CONSENT.

OWNER(S) DATE

TITLE (IF ACTING FOR CORPORATION OR PARTNERSHIP)

CERTIFICATE OF SANITARY SEWER SYSTEM

I HEREBY CERTIFY THAT THE SANITARY SEWER SYSTEM OUTLINED OR INDICATED ON THIS FINAL SUBDIVISION PLAT HAS BEEN INSTALLED IN ACCORDANCE WITH THE CURRENT LOCAL AND STATE GOVERNMENT REQUIREMENTS, OR A SUFFICIENT BOND OR OTHER SURETY HAS BEEN FILED TO GUARANTEE SAID INSTALLATION.

DIRECTOR OF WASTEWATER DEPARTMENT DATE
COLUMBIA, TENNESSEE

CERTIFICATE OF SUBDIVISION NAME AND STREET NAMES

SUBDIVISION NAME AND STREET NAMES APPROVED BY THE CITY ENGINEERING DEPARTMENT AND BY E-911 MAURY COUNTY.

MAURY COUNTY E-911 DATE

CERTIFICATE OF SURVEY ACCURACY

I (WE) HEREBY CERTIFY THAT TO THE BEST OF MY (OUR) KNOWLEDGE AND BELIEF THIS IS A TRUE AND ACCURATE SURVEY OF THE PROPERTY SHOWN HEREON; THAT THIS IS A CLASS " " LAND SURVEY AS DEFINED IN TITLE 62, CHAPTER 18, TENNESSEE CODE ANNOTATED, AND THAT THE RATIO OF PRECISION IS GREATER THAN OR EQUAL TO 1: ____.

REGISTERED LAND SURVEYOR DATE

NUMBER

CERTIFICATE OF COMPLIANCE

I HEREBY CERTIFY THAT THE FINAL SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE CITY OF COLUMBIA SUBDIVISION REGULATIONS AND OTHER ADOPTED ORDINANCES AND POLICIES.

CITY ENGINEER DATE
COLUMBIA, TENNESSEE

CERTIFICATE OF WATER SYSTEM

I HEREBY CERTIFY THAT THE WATER SYSTEM(S) OUTLINED OR INDICATED ON THIS FINAL SUBDIVISION PLAT HAS/HAVE BEEN INSTALLED IN ACCORDANCE WITH CURRENT LOCAL AND STATE GOVERNMENT REQUIREMENTS, OR A SUFFICIENT BOND OR OTHER SURETY HAS BEEN FILED TO GUARANTEE SAID INSTALLATION.

NAME DATE

TITLE AUTHORIZING AGENCY

CERTIFICATE OF APPROVAL OF STREETS, DRAINAGE, AND UTILITIES

I HEREBY CERTIFY THAT THE STREETS, DRAINAGE, AND UTILITIES OUTLINED OR INDICATED ON THIS FINAL SUBDIVISION PLAT HAVE BEEN INSTALLED IN ACCORDANCE WITH CITY SPECIFICATIONS, OR A PERFORMANCE SURETY IN THE AMOUNT OF _____ FOR STREETS AND DRAINAGE HAS BEEN POSTED WITH THE CITY OF COLUMBIA, TENNESSEE, TO ASSURE COMPLETION OF SUCH IMPROVEMENTS.

CITY ENGINEER DATE
COLUMBIA, TENNESSEE

CERTIFICATE OF APPROVAL OF RECORDING

I HEREBY CERTIFY THAT THE FINAL SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE CITY OF COLUMBIA SUBDIVISION REGULATIONS, WITH THE EXCEPTION OF SUCH VARIANCES, IF ANY, AS NOTED IN THE MINUTES OF THE COLUMBIA MUNICIPAL PLANNING COMMISSION, AND THAT IT HAS BEEN APPROVED FOR RECORDING IN THE OFFICE OF THE MAURY COUNTY REGISTER OF DEEDS.

PLANNING DIRECTOR DATE
COLUMBIA, TENNESSEE

REVISION #	DATE	DESCRIPTION

FINAL PLAT
MORNING POINTE
RUTHERFORD LANE
CITY OF COLUMBIA
9TH CIVIL DISTRICT
MAURY COUNTY, TENNESSEE

DATE :	**APRIL 20, 2026**	**DRAWN BY :**	**ERG**
PROJECT NUMBER :	**25-215**	**CHECKED BY :**	**SVH**

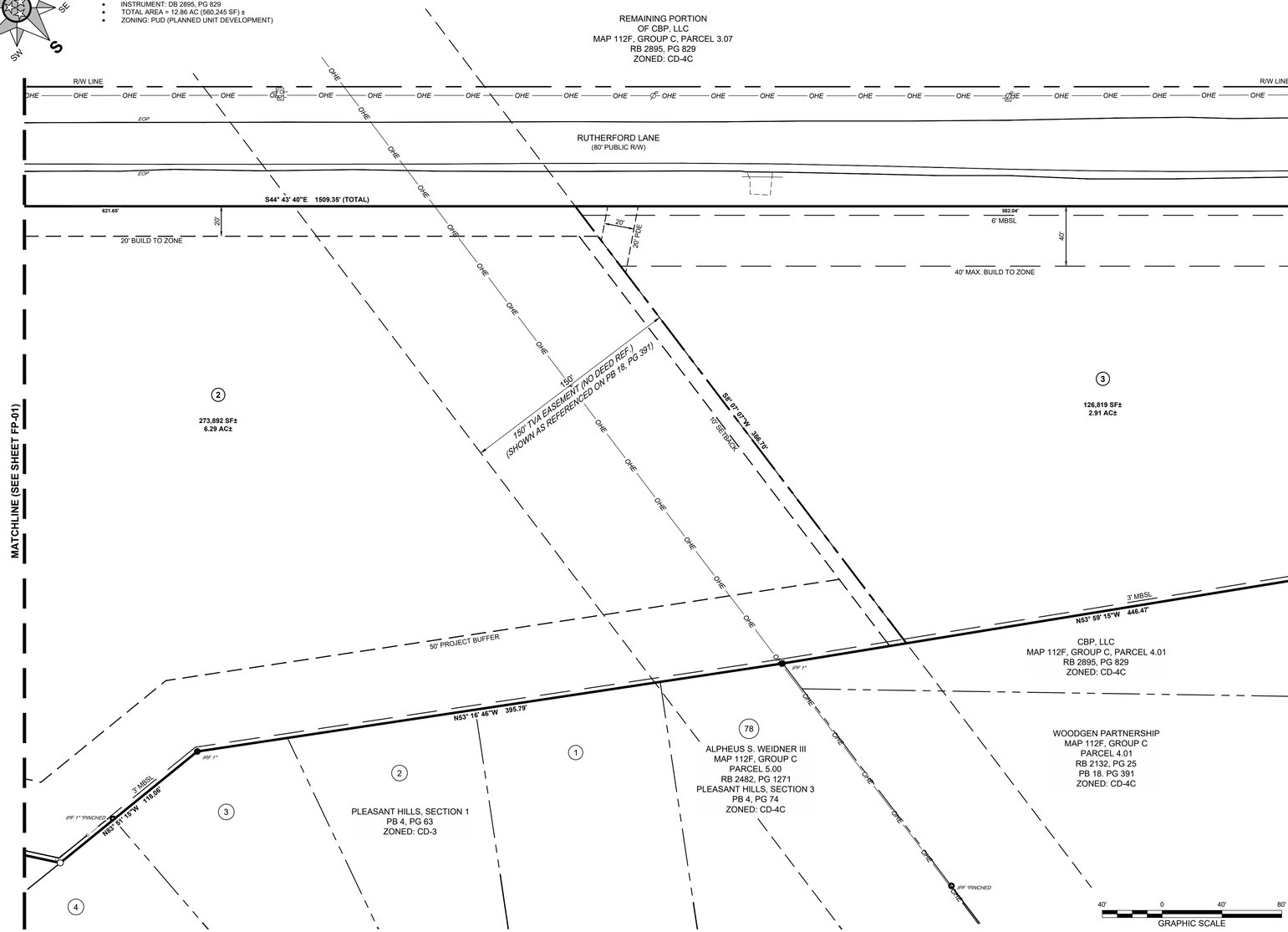
M2 GROUP
P.O. BOX 2543
BRENTWOOD, TN 37024-2543
615-656-0257 / M2GROUPLLC.COM

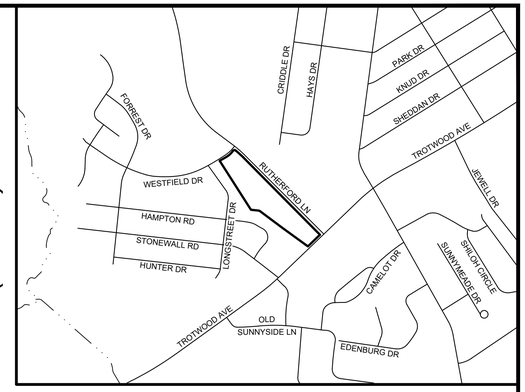
SHEET NUMBER: FP-01

25-215_MORNING POINTE_FP.DWG | Friday, April 17, 2026 4:35:26 PM

SUBJECT PROPERTY INFORMATION:

- OWNER: CBP LLC
- TAX MAP 112, PARCEL 3.07
- INSTRUMENT: DB 2895, PG 829
- TOTAL AREA = 12.86 AC (560,245 SF) ±
- ZONING: PUD (PLANNED UNIT DEVELOPMENT)





VICINITY MAP
SCALE: 1"=1000'

GENERAL NOTES:

1. BEARINGS ARE BASED ON THE TENNESSEE STATE PLANE COORDINATE SYSTEM (NAD83, 2011).
2. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88, GEOID 18). CONTOURS ARE SHOWN AT 1-FOOT INTERVALS.
3. THE FIELD SURVEY WAS COMPLETED ON SEPTEMBER 11, 2025.
4. ALL DEED BOOK AND PLAT REFERENCES PERTAIN TO THE REGISTER'S OFFICE FOR MAURY COUNTY, TENNESSEE.
5. ADJOINING PROPERTY LINES SHOWN WERE PLOTTED FROM INFORMATION TAKEN FROM EITHER DEED DESCRIPTION, RECORD PLATS, OR TAX MAPS.
6. PROPERTY CORNERS SET THIS SURVEY ARE 18" #4 REBAR WITH ORANGE PLASTIC CAP STAMPED "M2 GROUP", 18" #5 REBAR WITH YELLOW PLASTIC CAP STAMPED "M2 GROUP, LLC", OR PK NAIL WITH STAINLESS STEEL WASHER STAMPED "M2 GROUP, LLC", UNLESS NOTED OTHERWISE.
7. UTILITIES SHOWN HEREON WERE COMPILED FROM VISIBLE STRUCTURES AT THE SITE, INFORMATION FROM PLANS, AND PHYSICAL MARKINGS AND COMBINED TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES. HOWEVER, LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY, AND RELIABLY DEPICTED. IN ADDITION, IN SOME JURISDICTIONS, 811 OR OTHER SIMILAR UTILITY LOCATE REQUESTS FROM SURVEYORS MAY BE IGNORED OR RESULT IN AN INCOMPLETE RESPONSE. THIS SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THIS SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. VERIFICATION OF EXISTENCE, LOCATIONS, AND DEPTH SHOULD BE MADE BEFORE CONDUCTING ANY EXCAVATION IN THE VICINITY OF THE UTILITY.
8. THE PROPERTY SHOWN HEREON IS LOCATED IN A FLOOD HAZARD ZONE "X" (AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN) ACCORDING TO F.I.R.M. MAP "MAURY COUNTY, TENNESSEE" PANEL 280 OF 440, MAP NUMBER 47119C0280E, EFFECTIVE APRIL 16, 2007.
9. THE SUBJECT PROPERTY IS CURRENTLY ZONED "PUD" (PLANNED UNIT DEVELOPMENT), BASED ON THE OFFICIAL ZONING MAP FOR CITY OF COLUMBIA, TENNESSEE. A CURRENT ZONING REPORT AND/OR ZONING LETTER HAS NOT BEEN PROVIDED TO THE SURVEYOR. THE MINIMUM BUILDING SETBACK REQUIREMENTS FOR "PUD" ZONING SHOULD BE CONFIRMED WITH THE CONTROLLING JURISDICTION.
10. THE SUBJECT PROPERTY HAS DIRECT AND CONTIGUOUS ACCESS TO RUTHERFORD LANE, A 80-FOOT PUBLIC RIGHT-OF-WAY, TROTWOOD AVENUE, A 60-FOOT PUBLIC RIGHT-OF-WAY, AND WESTFIELD DRIVE, A 50-FOOT PUBLIC RIGHT-OF-WAY.
11. THERE WAS NO EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS OBSERVED DURING THE COURSE OF FIELD SURVEY.
12. NO EVIDENCE OF PROPOSED CHANGES IN THE STREET RIGHT OF WAY LINES, OR OF RECENT STREET OR SIDEWALK CONSTRUCTION, OR REPAIRS, WAS OBSERVED DURING THE COURSE OF FIELD SURVEY.
13. THE SUBJECT PROPERTY SHOWN HEREON IS CONTIGUOUS ALONG ALL COMMON BOUNDARIES, WITHOUT GAP, GORE, OR OVERLAP.
14. LOT #3 - 40' BUILD-TO-ZONE ALONG TROTWOOD AVENUE MAY BE EXTENDED TO 85' WHEN PARKING DESIGN IS LOCATED IN THE FIRST LAYER, PER CITY OF COLUMBIA ZONING ORDINANCE TABLE 4.3.1-E (EFFECTIVE DATE 07/14/2022).

LINE TABLE		
LINE #	DIRECTION	LENGTH
L1	N36° 46' 42"E	18.65

CURVE TABLE				
CURVE #	RADIUS	LENGTH	CHORD BRNG	CHORD LENGTH
C1	282.23	108.50	N49° 15' 42"E	107.83
C2	25.00	42.59	N80° 41' 30"E	37.63
C3	1392.39	157.80	S47° 58' 28"E	157.71

LEGEND:

EXISTING PROPERTY LINE		FIRE HYDRANT	
EXISTING RIGHT-OF-WAY		HOSE BIB	HB
EXISTING ADJACENT PROPERTY LINE		SANITARY SEWER MANHOLE	S
EXISTING EASEMENT		STORM MANHOLE	ST
MINIMUM BUILDING SETBACK LINE	MBSL	CURB INLET	
EXISTING FARM FENCE		INLET (SQUARE)	
EXISTING WOOD FENCE		GAS BOX (GAS VALVE)	GV
EXISTING CHAIN-LINK FENCE		HIGH TENSION TOWER	
EXISTING SANITARY SEWER LINE	SAN	POWER POLE	
EXISTING WATER LINE	W	GUY WIRE	
EXISTING OVERHEAD ELECTRIC	OHE	TRAFFIC PULL BOX	
PROPOSED SANITARY SEWER LINE	SAN	COMMUNICATION PEDESTAL	
PROPOSED STORM SEWER LINE	ST	FIBER OPTIC PULL BOX	
EXISTING TREELINE		TREE, DECIDUOUS	
IRON REBAR FOUND (IRF)		POINT OF INSERTION	(POI)
IRON PIPE FOUND (IPF)		HEADWALL	HW
IRON REBAR SET W/CAP (IRS)		EDGE OF PAVEMENT	EOP
WATER VALVE	WV	LOT NUMBER	1

CERTIFICATE OF OWNERSHIP AND DEDICATION

I (WE) HEREBY CERTIFY THAT I AM (WE ARE) THE OWNER(S) OF THE PROPERTY SHOWN AND DESCRIBED HEREON AS EVIDENCED IN BOOK 2895, PAGE 1276, MAURY COUNTY REGISTERS OFFICE, AND ADOPT THIS FINAL SUBDIVISION PLAT OF THE PROPERTY AS SHOWN HEREON AND DEDICATE ALL PUBLIC WAYS AND EASEMENTS AS NOTED WITH MY (OUR) FREE CONSENT.

OWNER(S) _____ DATE _____

TITLE (IF ACTING FOR CORPORATION OR PARTNERSHIP) _____

CERTIFICATE OF SANITARY SEWER SYSTEM

I HEREBY CERTIFY THAT THE SANITARY SEWER SYSTEM OUTLINED OR INDICATED ON THIS FINAL SUBDIVISION PLAT HAS BEEN INSTALLED IN ACCORDANCE WITH THE CURRENT LOCAL AND STATE GOVERNMENT REQUIREMENTS, OR A SUFFICIENT BOND OR OTHER SURETY HAS BEEN FILED TO GUARANTEE SAID INSTALLATION.

DIRECTOR OF WASTEWATER DEPARTMENT _____ DATE _____
COLUMBIA, TENNESSEE

CERTIFICATE OF SUBDIVISION NAME AND STREET NAMES

SUBDIVISION NAME AND STREET NAMES APPROVED BY THE CITY ENGINEERING DEPARTMENT AND BY E-911 MAURY COUNTY.

MAURY COUNTY E-911 _____ DATE _____

CERTIFICATE OF SURVEY ACCURACY

I (WE) HEREBY CERTIFY THAT TO THE BEST OF MY (OUR) KNOWLEDGE AND BELIEF THIS IS A TRUE AND ACCURATE SURVEY OF THE PROPERTY SHOWN HEREON; THAT THIS IS A CLASS "_____" LAND SURVEY AS DEFINED IN TITLE 62, CHAPTER 18, TENNESSEE CODE ANNOTATED, AND THAT THE RATIO OF PRECISION IS GREATER THAN OR EQUAL TO 1: _____.

REGISTERED LAND SURVEYOR _____ DATE _____

NUMBER _____

CERTIFICATE OF COMPLIANCE

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CITY ENGINEER _____ DATE _____
COLUMBIA, TENNESSEE

CERTIFICATE OF WATER SYSTEM

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NAME _____ DATE _____

TITLE _____ AUTHORIZING AGENCY _____

CERTIFICATE OF APPROVAL OF STREETS, DRAINAGE, AND UTILITIES

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CITY ENGINEER _____ DATE _____
COLUMBIA, TENNESSEE

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PLANNING DIRECTOR _____ DATE _____
COLUMBIA, TENNESSEE

REVISION #	DATE	DESCRIPTION

FINAL PLAT
MORNING POINTE
RUTHERFORD LANE
CITY OF COLUMBIA
9TH CIVIL DISTRICT
MAURY COUNTY, TENNESSEE

DATE :	APRIL 20, 2026	DRAWN BY :	ERG
PROJECT NUMBER :	25-215	CHECKED BY :	SVH

M2 GROUP
P.O. BOX 2543
BRENTWOOD, TN 37024-2543
615-656-0257 / M2GROUPLLC.COM

SHEET NUMBER: FP-02

25-215_MORNING POINTE_FP.DWG / Friday, April 17, 2026 4:35:27 PM

Development Agreement to be provided on re-submittal, not available at this time

Jay Fulmer

From: Andy Crichton <acrichton@athensins.com>
Sent: Tuesday, November 11, 2025 3:57 PM
To: Franklin Farrow
Cc: Jay Fulmer; 'Chae Hart-Whitworth'
Subject: Property on Rutherford Lane

November, 11th 2025

City Of Columbia
Development Services
700 North Garden Street
Columbia, TN 38401

To Whom It May Concern:

CBP, LLC the Crichton brothers currently own property fronting on Rutherford Lane. Approximately 9 acres of the property is being sold to the principals of Morning Pointe Senior Living Greg Vital and Franklin Farrow.
Moring Pointe had been a provider of assisted living services in Columbia for the past 20+ years and is seeking to expand their services at this new wonderful location.

Vital and Farrow are the owners and co-founders of Morning Pointe which is a Tennessee base senior living company with 27 years of experience in this sector. CBP, LLC the Crichton brothers are pleased to sell this
property once approvals are all received.

Kind Regards,

Andy Crichton, *Agent ~ CBP, LLC Managaing Member*
Columbia, TN 38401
Office: 931.398.5533
Cell: 615.714.2452
www.athensins.com

CITY OF COLUMBIA
TENNESSEE

WASTEWATER DEPARTMENT

23 October 2025

Jay Fulmer
Fulmer Lucas Engineering, LLC
2002 Richard Jones Rd, B200
Nashville, TN 37215

RE: Rutherford Ln Map 112 Parcel 3.07, Columbia, TN 38401; Morning Pointe 145 Bed Assisted Living Facility

Jay,

This letter serves as confirmation that the City of Columbia Wastewater Department has the available capacity to service the subject development. Any extension to the existing sewer infrastructure will be initiated by the owner/developer, reviewed by our department and approved by the State of Tennessee. The project must be advanced in accordance with local, state and federal rules, regulations and policies. Funding and construction of those improvements will remain the responsibility of the owner/developer. New customers will be required to pay all fees applicable at the time of connection. Any Final Plat approval and Dedication are both subject to installation and function, as determined by our Department. No detailed design plan for an extension of the sewer has been proposed at this time.

Donnie Boshers, Director
City of Columbia, TN
Wastewater Department

November 19, 2025

Mr. Jay Fulmer
Fulmer Lucas Engineering
2002 Richard Jones Rd., Suite B200
Nashville, TN 37215
Sent via email: jay@fulmerlucas.com

RE: Water Availability Letter Expires: 5/19/2026
Morning Pointe Assisted Living
Rutherford Lane at Westfield Drive (southwest corner)
Tax Map & Parcel 11200307000
Columbia, TN

Dear Mr. Lucas:

Columbia Power & Water Systems ("the Utility"/CPWS) is a municipal corporation authorized to provide water services in accordance with State law. CPWS has adopted rules, regulations, and standard operation procedures, prescribing the conditions under which CPWS will furnish water service. In addition, certain State laws delegate authority to the Tennessee Department of Environment and Conservation (TDEC), various Planning Commissions, and other authorities in Cities and Counties. These Cities and Counties have also adopted rules and regulations. Water service will be made available on a first-come, first-served basis, subject to the payment of all charges and fees imposed by CPWS and the approval of any and all required governmental agencies. Water service is subject to availability of all CPWS furnished equipment and materials appropriate for the development and provided the applicant complies with all rules and regulations of CPWS and conditions set out herein.

The proposed development is a 145 bed assisted living facility in two buildings. CPWS has evaluated the projected water demands for the proposed development in the water system hydraulic model. CPWS can provide water for the proposed development according to the following criteria and requirements:

- Source water capacity is vested when CPWS has provided approval to proceed to construction and appropriate Impact Fees are paid.
- The current CPWS system is only able to support a fire flow up to 750 gpm at this location until (planned) additional improvements in the Southside distribution area are completed.
    - After completion of the Southside distribution area improvements, available fire flow will be up to 1,250 gpm.

- The number and sizes of service meters assumed for this letter is based on Applicant's description of the project features. Actual meter count and sizing will be updated or verified during the Design Review phase of the Project:
    - 114,340 sf of commercial assisted living space (two buildings)
    - Assume Fire Service meter: One (1) at 6-inch
    - Assumed Commercial Service meters: Two (2) at 2-inch
    - Assumed Landscape Irrigation meter: One (1) at ¾-inch
- The above request translates to a 41 Single Family Unit (SFU) flow demand equivalent.
- Separate irrigation meters with backflow devices will be required to serve the proposed Project.
- If fire sprinkler systems are requested or required, separate fire meters with backflow devices will be required to serve the proposed Project.

All of the above requirements up to and including the meter(s) are to be constructed and paid for by the Applicant and dedicated to CPWS once complete. No construction of water infrastructure shall be initiated until final construction plans have been approved by CPWS (including TDEC approval, if required).

This Water Availability Letter will expire in six months unless vested by payment of water service fees and impact fees for the proposed project. Any request for water availability after the expiration date of this letter will be considered a new application.

Once you have received this Water Availability Letter, next steps in the process to vest water service from CPWS are as follows:

- Remit to CPWS new water service fees for plan review, TDEC coordination, and inspection as follows: $1,500 + $370 per SFU equivalent
- Applicant will prepare design drawings for review and approval by CPWS for construction of the proposed water system improvements.
    - Provide design drawings in AutoCAD and .pdf format for CPWS review of proposed development. Include design drawings for grading, drainage, roadway improvements, buried (wet and dry) utilities, water systems, and surface improvements.
    - Once CPWS approves the Construction Drawings for the proposed system improvements, Applicant will submit proposed improvements design to TDEC for review and approval (if TDEC review required).
    - CPWS will prepare hydraulic calculations and a Utility Approval Letter to accompany the plans submittal to TDEC.
- Current water service fees due prior to CPWS review of design plans are listed in the table below. *Note that payment of Water Service Fees will extend the expiration of this*

Water Availability Letter for one year, while the applicant is working with CPWS on design and review of the improvement drawings.

New Water Service Fees	SFUs	Total
$1,500 + 370 per SFU	41	**$16,670**

- Upon Construction Drawing approval by CPWS, applicant may then pay Impact Fees and Meter Fees and schedule the pre-construction meeting. Pre-construction meeting will be canceled and re-scheduled unless all impact fees are paid at least 48 hours prior, or surety is provided in lieu of full payment.
- Water meters will be ordered by CPWS once meter fees are paid by the Applicant.
    - Meter fees are subject to change based on final design and the prevailing Board-approved rates at time of payment.
    - If surety is provided in lieu of payment, meters are not ordered until fees are paid and may result in extended lead-times.
- Applicants will be charged Impact Fees and Meter Fees in effect at time of payment. Please see CPWS website for schedule of impact fees and timing of planned fee escalations. Anticipated meter costs and impact fees for this project are according to the following table:

Impact Fees and Meter Costs	Number	$ / Unit	Total
¾" Landscape Irrigation Meter Cost	1	$540	$540
2" Service Meter Cost	2	Current Price	Deferred
6" Fire Meter Cost	1	Current Price	Deferred
Current Impact Fee for ¾" Service Meter	1	$5,500	$5,500
Current Impact Fee for 2" Service Meter	2	$30,000	$60,000
Estimate of Fees Due Prior to Pre-Construction Meeting =			**$66,040**

- After the pre-construction meeting, CPWS will then issue a formal Notice to Proceed.
- Applicant is required to construct all public water infrastructure per CPWS standard specifications and provide CPWS personnel unregulated access to the site to inspect the construction of the water infrastructure.
- No construction of water improvements may take place prior to the Notice to Proceed or without a CPWS inspector present.

Please feel free to contact me at 931-388-4833 x7655 or Matt.Wheeler@cpws.com if you have questions or would like to discuss.

Sincerely,



Matthew J. Wheeler, P.E.
Vice President of Water Resources, CPWS

cc: Franklin Farrow, Morning Pointe
Bart Anderson, CPWS
File 25-036

BK/PG:R2895/829-838
23000133

10 PGS : QUITCLAIM DEED	
NANCY MCMEEN 295732 - 23000133	
01/04/2023 - 08:10 AM	
VALUE	
MORTGAGE TAX	0.00
TRANSFER TAX	0.00
RECORDING FEE	50.00
DP FEE	2.00
REGISTER'S FEE	0.00
TOTAL AMOUNT	52.00

STATE of TENNESSEE, MAURY COUNTY
JOHN FLEMING
REGISTER OF DEEDS

QUITCLAIM DEED

MICHELLE MARIE MONTAGUE NOTARY PUBLIC STATE OF TENNESSEE DAVIDSON COUNTY MY COMMISSION EXPIRES JULY 6, 2026

STATE OF TENNESSEE, COUNTY OF DAVIDSON

THE ACTUAL CONSIDERATION OR VALUE, WHICHEVER IS GREATER FOR THIS TRANSFER IS $0.00.

Affiant

Subscribed and sworn to me on this 7th day of December 2022.

NOTARY PUBLIC

My Commission Expires:

THIS INSTRUMENT WAS PREPARED BY:

ORTALE KELLEY (JHC)
330 Commerce Street, Suite 110
Nashville, TN 37201

NOTE: THIS QUITCLAIM DEED WAS PREPARED BY INFORMATION PROVIDED BY THE PARTIES. NO TITLE SEARCH WAS PERFORMED BY THE PREPARER

NAME/ADDRESS OF NEW OWNER:	SEND TAX BILLS TO:	MAP – PARCEL #
Crichton Welton Partners, G.P. 6471 Ridley Jewell Road Columbia, TN 38401	NEW OWNER	073-018.04 073-018.06 073-018.08 073-018.09 073-018.10 073-018.11 112-003.00 112-003.00-001 112F-C-004.01

FOR AND IN CONSIDERATION of Ten ($10.00) Dollars, cash in hand paid by the hereinafter named Grantees, and other good and valuable considerations, the receipt and sufficiency of which are hereby acknowledged, WELTON INVESTMENTS, LLC, a Tennessee limited liability company, hereinafter called **"GRANTOR,"** does hereby quitclaim and convey all of his rights, title and interest unto CRICHTON WELTON PARTNERS, G.P., a Tennessee general partnership, hereinafter called **"GRANTEE,"** its successors and assigns, certain tracts or parcels of land in Maury County, State of Tennessee, and more fully described as follows:

SEE EXHIBIT A ATTACHED

IN WITNESS WHEREOF, the Grantor, by its duly authorized officer, has caused its name to be affixed hereto on this 31st day of December, 2022.

WELTON INVESTMENTS, LLC

By: _____
John B. Jewell, IV,
Managing Member

STATE OF TENNESSEE)
COUNTY OF Davidson)

Before me, a Notary Public of said County and State, personally appeared John B. Jewell, IV, with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence), and who, upon oath, acknowledged himself to be the Managing Member of Welton Investments, LLC, a Tennessee limited liability company (the "Company"), the within named bargainor, and that he, as the Managing Member of the Company executed the foregoing instrument for the purposes therein contained.

Witness my hand and seal, this 7th day of December, 2022.

J. WALKER LEWIS
STATE OF TENNESSEE NOTARY PUBLIC
DAVIDSON COUNTY
MY COMMISSION EXPIRES NOVEMBER 5, 2025

_____
Notary Public, State of Tennessee

My Commission Expires: 11-5-2025

EXHIBIT A
Legal Description

Located in the Ninth (9th) Civil District of Maury County, Tennessee, and more particularly described as follows:

Tract I (Map 112F, Group C, Parcel 4.01):

Parcel 1: Located in the Ninth (9th) Civil District of Maury County, Tennessee, and more particularly described as follows:

Being a tract as shown on the J.A. Morgan and Katherine S. Morgan Plat, containing 0.85 acre as shown in Plat Book 6, Page 564-B, Register's Office of Maury County, Tennessee.

Being the same property conveyed to Andrew D. Crichton, John B. Jewell, III, and James W. Jewell, as equal tenants in common, by deed of record in Book 1407, Page 349, Register's Office of Maury County, Tennessee and also referred to in Deed of Trust of record in Book 1678, Page 162, Register's Office of Maury County, Tennessee.

Parcel 2: Bounded on the North by Crichton, on the South by Morgan and others, on the East by Mt. Pleasant Pike, and on the West by Lot 78, Pleasant Hills Subdivision, and being more particularly described as follows:

Beginning at a post in the Western margin of the Mt. Pleasant Pike, 30 feet from the centerline of said road, said point also being the Southeast corner of what is now the Crichton property; thence with the Western margin of the MI. Pleasant Pike, South 41 degrees 51 minutes West 152.28 feet to an iron pin, Morgan and others corner; thence leaving highway and with Morgan, North 58 degrees 05 minutes West, 339.94 feet to an iron pin, said point being in the Eastern line of Lot 78 of Pleasant Hills S/D; thence with the Eastern line of Lot 78, North 3 degrees 50 minutes East, 170.24 feet to an iron pin in Crichton's South line; thence with Crichton's South line, South 57 degrees 35 minutes East, 22.16 feet to a post; thence with same, South 58 degrees 05 minutes East, 424.19 feet to the point of beginning, and containing 1.35 acres, by survey made November 16, 1968, by Paul J. Boatright, Registered Land Surveyor No. 244.

Being the same properly conveyed to Andrew D. Crichton, James W. Jewell, and John B. Jewell, Ill, as equal tenants in common, by deed of record in Book 1340, Page 102, Register's Office of Maury County, Tennessee and also referred to in Deed of Trust of record in Book 1678, Page 162, Register's Office of Maury County, Tennessee.

Less and Except that portion of the above described property conveyed in Book 2113, Page 537, Register's Office of Maury County, Tennessee

Tract III (Part of Map 112, Parcel 003.00)

Parcel No. 1:

Bounded on the North by L and N Railroad and Rutherford Lane; East by Criddle Meadows Subdivision and Dr. Dan Gray; South by Mt. Pleasant Pike or U.S. No. 43 Highway, Pleasant Hills Subdivision, J.A. Morgan and Others; West by Ridley brothers. Beginning at an iron pin in the East line of Ridley brothers tract at the Southwest corner of the herein described tract: thence with Ridley brothers and generally following a fence North 5 degrees 16 minutes East, 1,127.65 feet to an iron pin; thence with same North 87 degrees 32 minutes West, 946.15 feet to an iron pin; thence with same North 0 degrees 50 minutes East, 359.97 feet to a spike in the center line of L and N Railroad; thence following a staked line with iron pins along center line of L and N Railroad as follows: North 53 degrees 29 minutes East, 2,326.46 feet, North 56 degrees 09 minutes East, 352.0 feet; North 59 degrees 31 minutes East, 326.96 feet; North 62 degrees 32 minutes East, 264.30 feet; North 65 degrees 18 minutes East, 278.60 feet; North 67 degrees 39 minutes East, 221.60 feet to an iron pin; thence leaving railroad and generally following a fence along the South margin of Rutherford Lane South 87 degrees 27 minutes East, 916.74 feet to an iron pin; thence with same South 86 degrees 19 minutes East, 149.18 feet to a stake; thence with the West line of Criddle Meadows Subdivision South 4 degrees 04 minutes West, 2,743.39 feet to an iron pin; thence with the South line of Criddle Meadows Subdivision South 85 degrees 56 minutes East, 400.0 feet to an iron pin; thence with same South 84 degrees 29 minutes East, 221.98 feet to an iron pin; thence with Dr. Dan Gray South 13 degrees 46 minutes East, 24.80 feet to an iron pin; thence with same South 55 degrees 24 minutes West, 95.22 feet to an iron pin; thence with same South 42 degrees 15 minutes East, 93..35 feet to an iron pin; thence with same South 24 degrees 43 minutes East, 99.95 feet to an iron pin; thence with same South 55 degrees 50 minutes West, 178.04 feet to an iron pin: thence with same South 39 degrees 27 minutes East, 820.80 feet to an iron pin; thence with the North margin of Mt. Pleasant Pike South 42 degrees 32 minutes West, 506.57 feet to an iron pin; thence with J. A. Morgan and others North 58 degrees 05 minutes West, 424.19 feet to an iron pin; thence with same and with Pleasant Hills Subdivision North 57 degrees 35 minutes West, 418.17 feet to an iron pin; thence with Pleasant Hills Subdivision North 88 degrees 01 minutes West, 680.26 feet to an iron pin; thence with same North 88 degrees 21 minutes West, 514.0 feet to an iron pin; thence with same North 88 degrees 01 minutes West, 308.0 feet to an iron pin; thence with same North 87 degrees 37 minutes West, 431.0 feet to an iron pin; thence with proposed Pleasant Hills Subdivision, Section 4; and J. A. Morgan and Others North 87 degrees 23 minutes West, 919.68 feet to an iron pin; thence with J. A. Morgan and Others North 86 degrees 26 minutes West, 310.82 feet to the point of beginning, containing by survey 269.70 acres.

There is a TVA power line having a 250 right-of-way across the East portion of the above described tract. There is a 100-foot chartered railroad right-of- way on this tract along the railroad line.

Parcel No. 2:

Bounded on the North by Raymond McMeen and Tom Burt; C. C. Pinckney; W. Clyde Baker and Rutherford Lane; East and South by L and N Railroad and West by Ridley brothers.

Beginning at an iron pin in McMeen and Burt's South line, said point being the Northwest corner of the herein described tract; thence with McMeen and Burt farm, C. C. Pinckney and W. Clyde Baker generally following a fence South 87 degrees 52 minutes East, 1079.03 feet to an iron pin; thence with Baker generally following a fence South 85 degrees 57 minutes Fast, 400.23 feet to an iron pin; thence with same South 85 degrees 46 minutes East, 371.10 feet to an iron pin; thence with same North 5 degrees 29 minutes East, 342.33 feet to an iron pin; thence with same South 87 degrees 35 minutes East, 504.44 feet to an iron pin; thence with same South 88 degrees 15 minutes East, 300.05 feet to an iron pin; thence with the South margin of Rutherford Lane South 89 degrees 17 minutes East, 1,160.19 feet to an iron pin; thence with same South 87 degrees 27 minutes East, 13.46 feet to an iron pin in center line of L and N Railroad; thence with the center line of L and N Railroad following a staked line with iron pins as follows: South 67 degrees 39 minutes West, 221.60 feet; South 65 degrees 18 minutes West, 278.60 feet; South 62 degrees 32 minutes West, 264.30 feet; South 59 degrees 31 minutes West, 326.96 feet; South 56 degrees 09 minutes West, 252.0 feet; South 53 degrees 29 minutes West, 2,305.30 feet; thence leaving railroad and with Ridley brothers generally following a fence as follows: North 20 degrees 46 minutes West, 328.63 feet to an iron pin; North 32 degrees 52 minutes West, 326.42 feet to an iron pin; North 23 degrees 49 minutes West, 428.85 feet to an iron pin; North 17 degrees 02 minutes West, 922.55 feet to the point of beginning, containing by survey 78.34 acres. There is a 100-foot chartered right-of-way on this tract along the railroad line. The above descriptions are according to a survey made on June 15, 1973 by John J. Harris, Registered Land Surveyor, Maury County, Tennessee.

Exclusions from Tract III, Parcel No. 1:

1. 7.93 acres conveyed in Book 607, page 512, Register's Office of Maury County, Tennessee.

2. 10.0 acres conveyed in Book 655, Page 709, Register's Office of Maury County, Tennessee.

3. 10.0 acres conveyed in Book 711, Page 531, Register's Office of Maury County, Tennessee.

4. 12.1 acres conveyed in Book 803, Page 174, register's Office of Maury County, Tennessee.

5. 0.52 acres conveyed in Book 675, Page 50, Register's Office of Maury County, Tennessee.

6. 0.36 acres conveyed in Book 679, Page 508, Register's Office of Maury County, Tennessee.

7. 2.55 acres conveyed in Book 679, Page 511, Register's Office of Maury County, Tennessee.

8. All Lots in Westfield Subdivision, Sections 1, 2,3, 4, and 4A, with the exception of Lot

114 Westfield Subdivision, Section 4 as shown on plat of record in Plat Book 8, Page 21, Register's Office of Maury County, Tennessee.

Exclusion from Tract III, Parcel No. 2:

1. 25.53 acres conveyed in Book 563, Page 204, Register's Office of Maury County, Tennessee.

Exclusions from Tract III, Parcel Nos. 1 and 2:

1. 9.4 acres conveyed in Book 591, Page 180, Register's Office of Maury County, Tennessee.

2. 1.356 acres conveyed in Book 675, Page 374, Register's Office of Maury County, Tennessee.

3. 17.55 acres conveyed in Book 1114, Page 276, Register's Office of Maury County, Tennessee.

4. 65.65 acres conveyed in Book 2839, Page 368, Register's Office of Maury County, Tennessee.

Being the same property conveyed to Andrew Donelson Crichton, James W. Jewell and John B. Jewell, III, as equal tenants in common, by deed of record in Book 559, Page 698, Register's Office of Maury County, Tennessee and also referred to in Deed of Trust of record in Book 1678, Page 162, Register's Office of Maury County, Tennessee.

Tract IV (Part of Map 112, Parcel 003.00)

Located in the Ninth (9th) Civil District of Maury County, Tennessee, near the intersection of West Park Drive and the L and N Railroad. Bounded on the North by L and N Railroad; East by West Park Drive; South and West by A. D. Crichton and others, and more particularly described as follows:

Beginning at a spike in the center of L and N Railroad, said point is also in the West margin of West Park Drive, said point is in the Northeast corner of the herein described tract; thence with the West margin of West Park Drive South 34 degrees 10 minutes East, 517.77 feet to an iron pin at point of curve; thence on a chord to a 5 degrees 11 minutes curve having a central angle of 22 degrees 09 minutes feet South 30 degrees 56 minutes East, 125.0 feet to an iron pin; thence with A. D. Crichton and others South 53 degrees 29 minutes West, 644.71 feet to an iron pin; thence with same North 36 degrees 31 minutes West, 660.91 feet to a spike in the center of L and N Railroad; thence with L and N Railroad North 53 degrees 29 minutes East, 287.17 feet to a spike; thence with same on a chord to a 1 degrees curve North 56 degrees 04 minutes East 352.0 feet to a spike; thence with same on a chord to curve North 57 degrees 57 minutes East, 39.21 feet to the point of beginning, containing by Survey of John J. Harris dated October 1, 1979, 10.0 acres.

Being the same property conveyed to John B. Jewell, III, Andrew D. Crichton, and James W.

Jewell, as equal tenants in common, by deed of record in Book R1913, Page 123, Register's Office of Maury County, Tennessee.

Tract V (Part of Map 112, Parcel 003.00)

This is a tract or parcel of land located in the Ninth Civil District of Maury County, Tennessee bounded on the North by Don Crichton and Others; East by proposed new road; South and West by Don Crichton and Others and more particularly described as follows:

Beginning at an iron pin in the West margin of new proposed Road at the Southwest corner of the herein described tract, said point being North 48 degrees 53 minutes West, 1,473.45 feet from the North margin of U. S. Highway No. 43 or Mt. Pleasant Pike, said point in North margin of highway is South 41 degrees 57 minutes West, 236.16 feet from the most Southerly Southwest corner of the Don Crichton and Others farm; thence with Don Crichton and Others South 56 degrees 07 minutes West, 255.0 feet to an iron pin; thence with same, North 48 degrees 53 minutes West, 175.0 feet to an iron pin, thence with same North 56 degrees 07 minutes East, 246.70 feet to an iron pin; thence with the West margin of the new proposed road on a 4 degrees 07 minutes curve having a central angle of 9 degrees 54 minutes a distance on curve of 149.30 feet to P.C. of curve; thence with same on a tangent South 48 degrees 53 minutes East, 28.0 feet to the Point of beginning, containing by survey 1.0 acre.

Being the same property conveyed to Andrew Donelson Crichton, James W. Jewell and John B. Jewell, III, as tenants in common, by deed of record in Book 559, Page 698, Register's Office of Maury County, Tennessee.

Being the same property conveyed to Porter House and wife, Linnie Louise Rose House, by deed of life estate of record in Book 595, Page 486, Register's Office of Maury County, Tennessee. Both Porter House and wife, Linnie Louise Rose House are deceased.

Tract VI (Part of Map 112, Parcel 003.00)

Any portion of Old Rutherford Lane that bounds said property owned by Andrew D. Crichton, John B. Jewell, III, and James W. Jewell, up to the centerline of said Lane.

First party also quitclaims any and all rights in and to Old Rutherford lane acquired by virtue of the foregoing deed or otherwise.

Being the same property conveyed to Andrew D. Crichton, John B. Jewell, Ill, and James W. Jewell, as equal tenants in common, by deed of record in Book 819, Page 53, Register's Office of Maury County, Tennessee.

Being a portion of the same property conveyed to Welton Investments, LLC by Quitclaim deed from John B. Jewell, III, Andrew D. Crichton and James W. Jewell, as equal tenants in common of record in Book R2077, page 1007 Register's Office for Maury County, Tennessee, dated April 28, 2009 and recorded on April 06, 2009.

Tract VII:

Tract 1: (Map 73, Parcel 18.04)

Located in the Fourth (4th) Civil District of Maury County, Tennessee, and being Tract 3 on the plat of survey for Barker Enterprises, Inc., containing 1.64 acres, as shown on plat of record in Plat Book 5, Page 182, Register's Office of Maury County, Tennessee.

Being the same property conveyed to Welton Investments, a Tennessee General Partnership, by deed of record in Book 1245, Page 299, Register's Office of Maury County, Tennessee. Being a portion of the same property conveyed Welton Investments, a Tennessee General Partnership, by deed of record in Book 1518, Page 557, Register's Office of Maury County, Tennessee.

Tract VIII: (Map 73, Parcel 18.06)

Located in the Fourth (4th) Civil District of Maury County, Tennessee, and being Tract 5 of the plat of survey for Barker Enterprises, Inc., containing 2.37 acres, as shown on plat of record in Plat Book 5, Page 182, Register's Office of Maury County, Tennessee.

Being the same property conveyed to Welton Investments, by deed of record in Book 1245, Page 637, Register's Office of Maury County, Tennessee.

Being a portion of the same property conveyed to Welton Investment, LLC, a Limited Liability Company by Quitclaim deed from Welton Investments, a Tennessee Partnership of record in Book R1518, page 557 Register's Office for Maury County, Tennessee, dated January 18, 2001 and recorded on January 23, 2001.

Tract IX:

Parcel 1: (Map 73, Parcel 18.10)

Located in the Fourth (4th) Civil District of Maury County, Tennessee, and being Tract 6 on the plat of survey for Barker Enterprises, Inc., containing 0.77 acres, as shown on plat of record in Plat Book 5, Page 182, Register's Office of Maury County, Tennessee.

Parcel 2: (Map 73, Parcel 18.11)

Located in the Fourth (4th) Civil District of Maury County, Tennessee, and being Tract 4 on the plat of survey for Barker Enterprises, Inc., containing 1.98 acres, as shown on plat of record in Plat Book 5, Page 182, Register's Office of Maury County, Tennessee.

Being the same property conveyed to Welton Investments by deed of record in Book 1245, Page 635, Register's Office of Maury County, Tennessee. Being a portion of the same property conveyed to Welton Investment, LLC, a Limited Liability Company by Quitclaim deed from Welton Investments, a Tennessee Partnership of record in Book R1518, page 557 Register's Office for Maury County, Tennessee, dated January 18, 2001 and recorded on January 23, 2001.

Tract X:

Located in the Fourth (4th) Civil District of Maury County, Tennessee, more particularly described as follows:

Parcel 1: (Map 73, Parcels 18.08)

Being Tract No. 8, as shown on plat of survey for Baker Enterprises, Inc., containing 2.03 acres, as shown on plat of record in Plat Book 5, Page 182, Register's Office of Maury County, Tennessee.

Parcel 2: (Map 73, Parcels 18.09)

Being Tract No. 7, as shown on plat of survey for Baker Enterprises, Inc., containing 2.17 acres, as shown on plat of record in Plat Book 5, Page 182, Register's Office of Maury County, Tennessee.

Being a portion of the same property conveyed to Welton Investment, LLC by Warranty deed from Rayburn C. Barker of record in Book R1508, page 534 Register's Office for Maury County, Tennessee, dated October 26, 2000 and recorded on October 27, 2000.

Tennessee Certification of Electronic Document

I, Jeremy H. Cherry, do hereby make oath that I am a licensed attorney and/or the custodian of the original version of the electronic document tendered for registration herewith and that this electronic document is a true and exact copy of the original document executed and authenticated according to law on December 31, 2022 (date of document).

Affiant Signature

January 3, 2023
Date

State of Tennessee

County of Davidson

Sworn to and subscribed before me this 3rd day of January, 2023.

Notary's Signature

MY COMMISSION EXPIRES:

NOTARY'S SEAL

MICHELLE MARIE MONTAGUE
STATE OF TENNESSEE NOTARY PUBLIC
DAVIDSON COUNTY
MY COMMISSION EXPIRES JULY 6, 2026

The James Phase 2 (Previously Water's Edge at Taylor Bend) Final PUD Master Plan

Project #:	26-0148	**Location:**	090 007.12
Applicant:	Greg Gamble	**Case Type(s):**	Final PUD Master Plan
Staff Planner(s):	Charles Rush, Principal Planner/ Austin Brass, AICP, City Planner	**Proposed Use:**	Multi-Family Residential

PROJECT SUMMARY

The applicant is seeking approval for a Final PUD Master Plan to establish a Planned Unit Development Mixed Use (PUD-MU). The PUD proposes a total of 94 units, which have a combination of townhomes and multi-family buildings (82) dwelling units in 5 multi-family buildings, and 12 dwelling units from townhomes) for a total Density of 18.8 DUA.

- The Final PUD Master Plan removes the loading zone shown on the Preliminary PUD Master Plan, as a loading zone is not required for developments containing fewer than 100 multi-family dwelling units. The applicant is also proposing 203 parking stalls, compared to the 209 stalls shown on the Preliminary PUD Master Plan. Despite this reduction, the development continues to comply with the applicable parking requirements, and the change remains within the allowable 3% deviation from the Preliminary PUD Master Plan.
- Each of the proposed buildings is on its own building site. A total of 17 building sites are within the proposed PUD-MU development.
- Per the zoning PUD-MU standards, a total of 20% of building sites are allowed to front a pedestrian way instead of a thoroughfare. A total of two (2) of the proposed 17 buildings (Buildings 16 & 17) are proposed to be enfronted by a pedestrian way, which makes 12% of the building sites.
- **Deviations Request**: Façade Window Sill Height, if residential: 5 ft min. above average grade at façade (proposed 4 ft min). This is an approved request that was within the Preliminary PUD Master Plan.
- The DRC reviewed this proposal at its May 2026 meeting. Full technical comments are provided in the agenda packet.
- CPWS has issued a Water Availability Letter that expires 2/26/27.

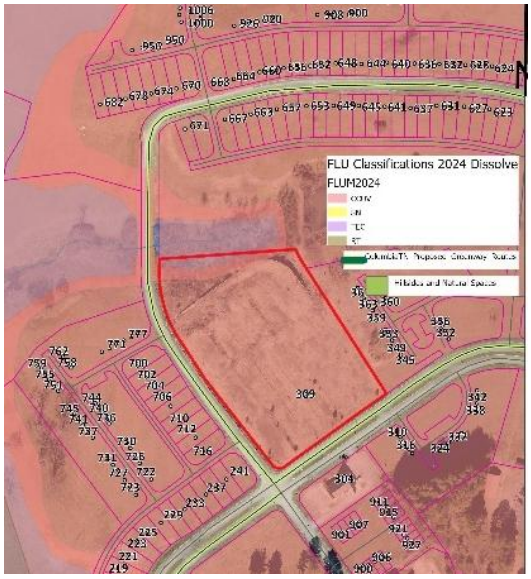
- Staff review included standard comments and requests for technical corrections.
- The Planning Commission is the **Approving Body** for a Final PUD Master Plan. This item was deferred at their June meeting.
- Templates are provided at the end of the report to assist the Planning Commission in crafting properly formatted motions.

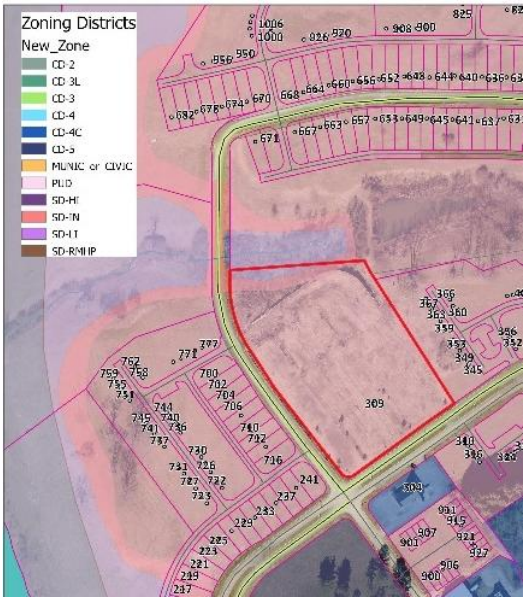
SITE INFORMATION

CURRENT ZONING	EXISTING USE	EXISTING IMP.	LAND AREA
PUD-MU	In Development	Vacant	+/-5 Acres



FUTURE LAND USE MAP	ZONING MAP





SITE CONTEXT/ADJACENT PROPERTIES			
	Future Land Use	Zoning	Current Use
Subject Property	City Center Urban Village	PUD	Undeveloped
North	City Center Urban Village	PUD	Townhomes
South	City Center Urban Village	PUD/CD-4C	Commercial
East	City Center Urban Village	PUD	Townhomes
West	City Center Urban Village	PUD	Townhomes/Undeveloped

The subject site is currently undeveloped. The property is surrounded by townhomes to the east and west and by a realtor's office to the south.

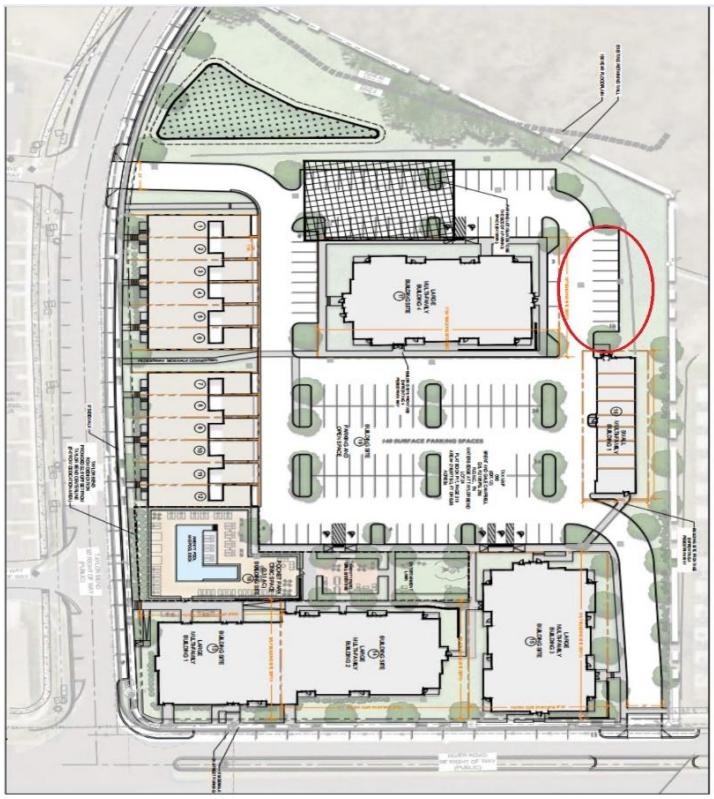
CONFORMITY WITH ZONING ORDINANCE

Deviation Requests that adhere to the approved Preliminary PUD Master Plan:

- Façade Window Sill Height, if residential: 5 ft min. above average grade at façade (proposed 4 ft min).
- The Final PUD Master Plan removes the loading zone shown on the Preliminary PUD Master Plan, as a loading zone is not required for developments containing fewer than 100 multi-family dwelling units. *See image below.*



Plan above indicates loading zone as approved on Preliminary PUD Master Plan.



Plan below indicates removal of loading zone as off-street parking. A loading zone is not required for developments containing fewer than 100 multi-family dwelling units.

Table 1 (PUD-MU) Mixed Use Planned Unit Development Bulk Standards		
Bulk Standards:	**Required**	**Proposed**
Minimum Lot/ Building Site Width Minimum and Maximum:	18 ft. min/ 180 ft. max (except townhomes) 18 ft. min/ 24 ft. max for townhomes with a max of 6 units attached (100' max). Small Multifamily Buildings are 100' max.	Townhome Building Site 1: 20' Townhome Building Site 2: 20' Townhome Building Site 3: 20' Townhome Building Site 4: 20' Townhome Building Site 5: 20' Townhome Building Site 6: 20' Townhome Building Site 7: 20' Townhome Building Site 8: 20' Townhome Building Site 9: 20' Townhome Building Site 10: 20' Townhome Building Site 11: 20' Townhome Building Site 12: 20' Large Multi-family Building Site 13: 91.5' Large Multi-family Building Site 14: 137.3 Large Multi-family Building Site 15: 97.8' Small Multi-Family Building Site 16: 46' Large Multi-family Building Site 17: 170.4'
Lot/Building Enfrontment:	Facades must have main entrance in principle of building frontage (up to 20% of building sites are allowed to enfront a pedestrian way instead of thoroughfares)	The façade of the building enfronts a dedicated thoroughfare. Building Sites 16 and Building 17 enfronts a pedestrian way, proposed 12%
Building Height:	2 stories minimum **Subject to adjacent uses in PUD MU per Planning Commission*	All proposed structures meet or exceed requirements.
Frontage Buildout:	60% minimum	Townhome Building Site 1: 66.7% Townhome Building Site 2: 100% Townhome Building Site 3: 100% Townhome Building Site 4: 100% Townhome Building Site 5: 100% Townhome Building Site 6: 66.7% Townhome Building Site 7: 66.7% Townhome Building Site 8: 100% Townhome Building Site 9: 100% Townhome Building Site 10: 100% Townhome Building Site 11: 100%

		Townhome Building Site 12: 66.7% Large Multi-family Building Site 13: 97% Large Multi-family Building Site 14: 86% Large Multi-family Building Site 15: 81% Small Multi-Family Building Site 16: **62%** Large Multi-family Building Site 17: 79%
Setbacks:	**Principal Buildings** **Front:** 0-20 ft. **Front (Secondary**): 0-20' **Side:** 0' attached, otherwise 10 ft- 24ft. **Rear:** NR.	**Front:** 10-13' Townhomes; 10-15' Multi-family **Front (Secondary**): 4' **Side:** - 0'; 10'-24' **Rear:** NR

Table-2 (PUD-MU) Mixed Use Planned Unit Development Architectural Standards		
Design Standards:	**Required**	**Proposed**
Main Entrance:	Main Entrance must be in Façade of Principal Frontages.	Main entrance enfronts a defined street section or pedestrian way.
Vertical Composition:	Identifiable Base, Middle, & Cap.	The facade includes a defined base and cap.
Façade Position & Façade Articulation:	Main entrance at façade & position parallel to frontage line. A façade greater than 100' shall be differentiated so that it appears to be comprised of two or more adjacent buildings.	The principal frontage is parallel to the frontage line and provides the façade into segments separated by cornice height and wall materials and includes modulation every 100' by separation of vertical and horizontal elements.
Façade Openings:	20 ft. or less spacing for windows/doors.	All windows appear to be 20 ft or less with no blank facades.
Façade Glazing:	20-60 % non-shopfront, 50% for shopfront.	All façade elevations adhere to a minimum of 20% glazing requirements.
Window Shape:	Square or vertical proportions.	All windows are square or vertically proportioned
Window Alignment:	Upper-floor windows and other features must be aligned with those of the first floor.	Buildings conform to this requirement (see elevations)

Window Types:	Single-hung, double-hung, casement.	All windows adhere to the window type standards as described.
Window Glazing Material:	Clear	All windows are proposed to be clear glass.
Window Trim in 1st Layer:	Min 4 in. trim with sill and top plate/ soldier course above lintel and rowlock course below sill	Elevations contain window trim and rowlock and solider course around window areas where brick is used as a façade material.
Shutters:	Functional to cover half of window width/ shutter dogs	Shutters are not proposed on windows.
Façade Window Sill Height:	5 ft. min above grade (residential only)	(proposed 4 ft min). Deviation approved in PUD Master Plan
Façade Variety:	No façade may exist more than once on a block face or within view of same façade	Requirement is met.
Roof Type & Pitch:	Flat/ Shed (P at rear only and if ridge is attached to an exterior Building wall; except for porches, stoops or dormers which may have a shed roof anywhere on the Building) Hip/ Gable/ Pitch 6:12-14:12, (except for shed roofs which may be 3;12-14;12 and except roof pitch may match the primary roof	Flat & Gable
Primary Building Materials:	Brick, Natural Stone, Wood, Cementitious Siding, Authentic stucco over masonry	Brick & Cementitious siding
Foundation Cladding:	Brick or Natural Stone	Brick
Building Colors:	Up to 3 colors, including the natural color of any allowed materials, but excluding trim color.	Does not exceed 3 colors.

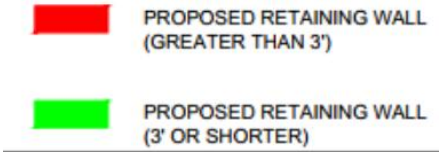
CHANGES FROM APPROVED PRELIMINARY PUD TO FINAL PUD

(Parking) Preliminary PUD: Attached dwellings, except for Two Family Dwellings, parking requirement is 2 per Dwelling Unit in PUD-R & PUD-MU. 94 units x 2 per unit = 188 total parking spaces needed. 1 parking space is needed per 5,000 sq ft of civic space (3 parking spaces meet the requirement). 188+3=191 parking spaces are required, and 209 parking spaces was shown.
Final PUD: 203 parking spaces are provided with the current plan, and the applicant's response The total number of parking stalls proposed with this final PUD has been reduced due to site grading and accessibility constraints. The applicant has removed a loading area to provide parking that complies with the applicable parking requirements, and the change remains within the allowable 3% deviation from the Preliminary PUD Master Plan.

(Grading) Final PUD: Buildings 3&4 have shifted east to allow for more grading area into Building 4 entry from the ROW.

(Site Layout) Final PUD: Parking lot layout (loading area, ADA stalls, etc.) has shifted in order to better accommodate site grading. Building Site 6 footprint has been revised. Stormwater pipe layout has been adjusted to better collect parking lot flow. Pond design has been revised to better work with existing grades. Waterline layout has been adjusted based on feedback from CPWS. Updated survey information has been incorporated since the Preliminary PUD.

Retaining walls have been added/adjusted throughout the plan due to grading refinement.





Elevations Grading) Final PUD: The 1st-floor elevations are to be coordinated with site grading for the following buildings: Large multifamily buildings 1, 2, and 3; Small multifamily building 1; and Townhouses (see sheets A201, A202, A204, A205, A206).

(Elevations Changes) Final PUD: Elevations remain similar from the Preliminary PUD Plan as indicated below.

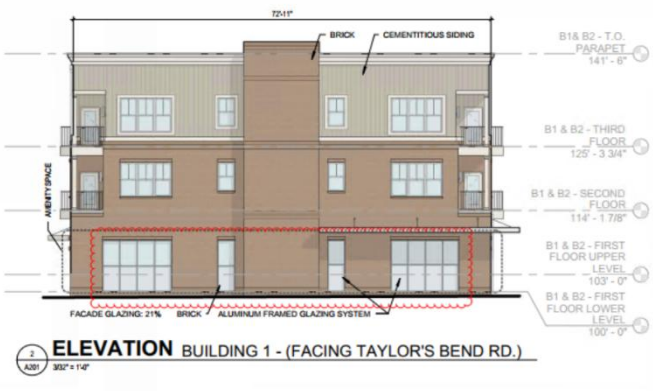
Preliminary PUD





Final PUD





Preliminary PUD



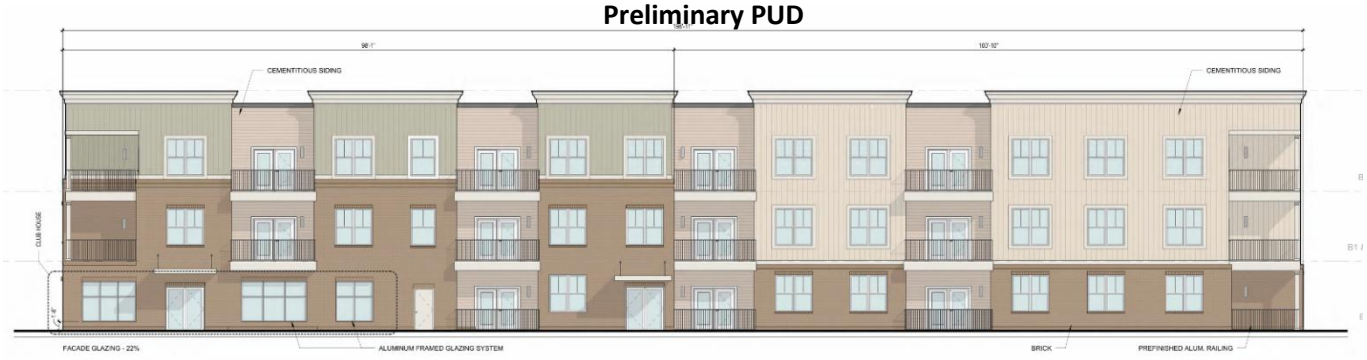
ELEVATION BUILDING 1&2 - (FACING PARKING LOT)

Final PUD



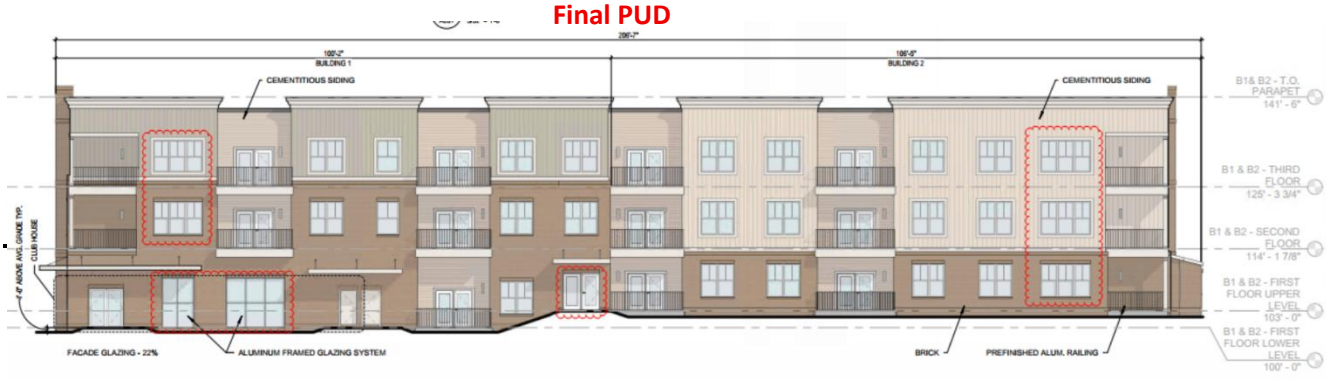
ELEVATION BUILDING 1&2 - (FACING PARKING LOT)

Preliminary PUD



ELEVATION BUILDING 1&2 - (FACING RIVER RD.)

Final PUD



ELEVATION BUILDING 1&2 - (FACING RIVER RD.)

Preliminary PUD



ELEVATION BUILDING 3 - (FACING BLDG 1&2)

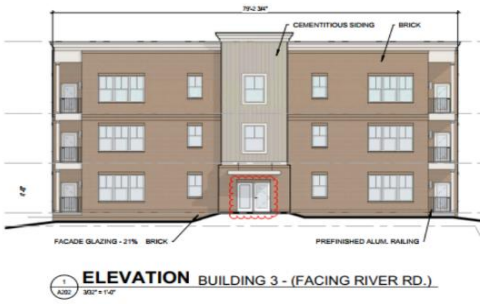


ELEVATION BUILDING 3 - (FACING RIVER RD.)

Final PUD



ELEVATION BUILDING 3 - (FACING BLDG 1&2)



ELEVATION BUILDING 3 - (FACING RIVER RD.)

Preliminary PUD



ELEVATION BUILDING 4 - (FACING PARKING LOT)



ELEVATION BUILDING 4 - (FACING WATER DETENTION AREA)

Final PUD



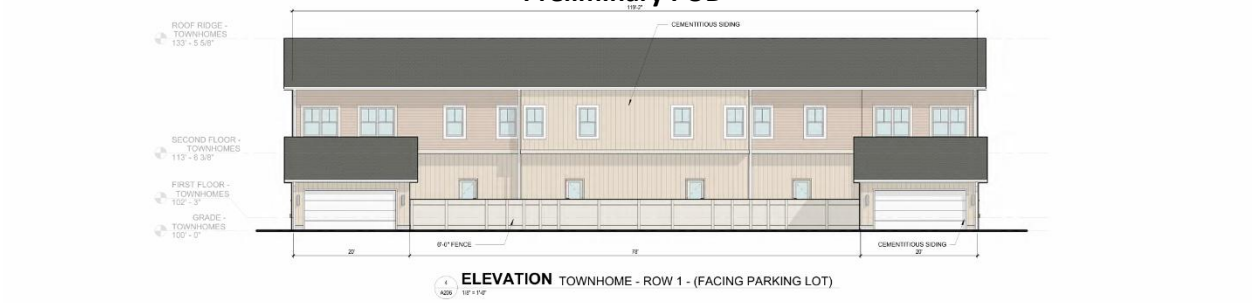
ELEVATION BUILDING 4 - (FACING PARKING LOT)



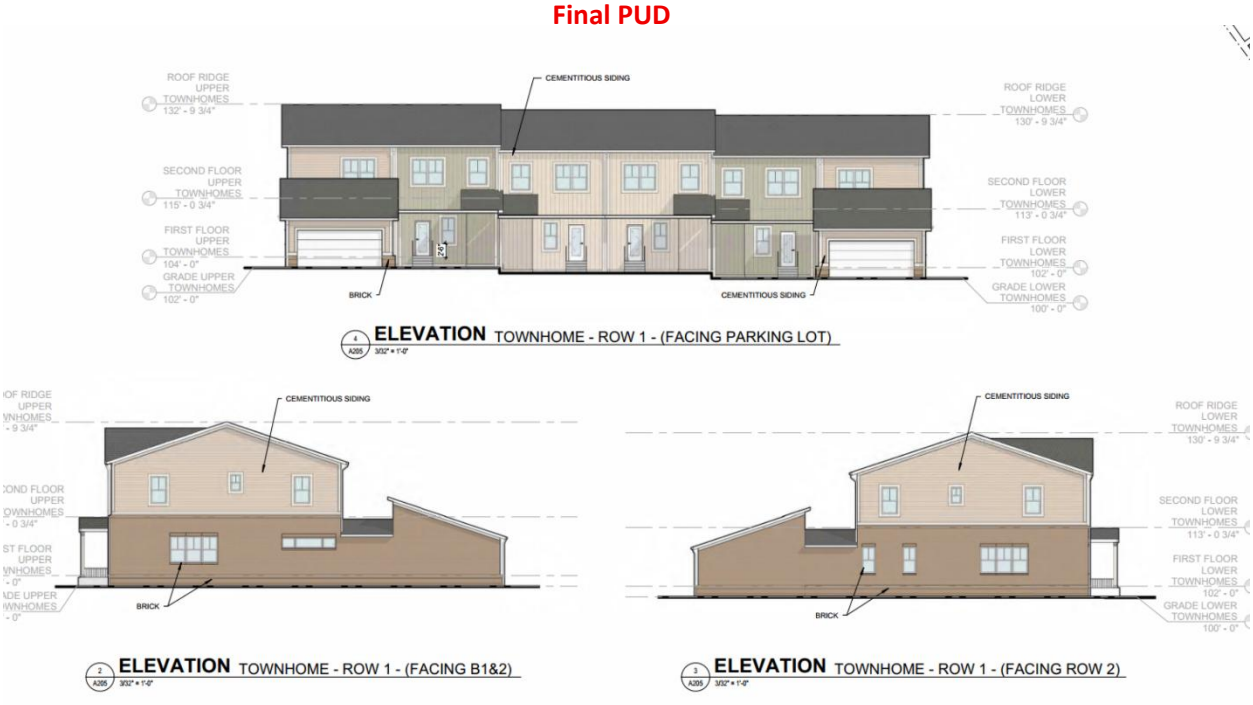
ELEVATION BUILDING 4 - (FACING STORM DETENTION AREA)

(Townhome Elevations) Final PUD: Added windows on the side and rear elevations of the townhomes to coordinate with floor plan development (see sheets A205 and A206). The fence was part of an earlier design iteration. As this was building designed was refined, the team decided to remove the privacy fence.

Preliminary PUD



Final PUD



REVIEW PROCESS

The Development Review Committee evaluated the proposed Final PUD Master Plan at its May 2026 meeting, as directed by section **8.3.7** of the Zoning Ordinance. Technical comments are provided in the agenda package. Listed below is the review criteria for Planning Commission regarding approval of a Final PUD Master Plan.

8.5.21 (Q). Final Master PUD Development Plan - General.

1. In reviewing a Final Master PUD Development Plan or amendment to Final Master PUD Development Plan, the function of the reviewing agencies is twofold: a. First, the plan or amendment must be found to be in substantial compliance with the approved Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan. b. Second, all new or revised information that was not in the previously approved Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan must be reviewed to determine its quality and compliance with all applicable requirements of this Ordinance.

2. The Final Master PUD Development Plan or amendment to Final Master PUD Development Plan shall be deemed in substantial compliance with the approved Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan provided any modifications by the applicant do not involve changes which in aggregate would: a. Violate any provisions of this Ordinance; b. Change the Lot or Building Site Area requirement as submitted in the Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan by more than 10%; c. Involve any increase in the number of Dwelling Units approved for the site in the Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan; d. Involve a reduction of more than 3% of the area shown on the Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan as reserved for Common Open Space; e. Increase the Floor Area shown on the Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan for non-Residential Uses by more than 5%; or f. Alter the mix of Building Types or Uses shown on the Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan by more than 3% in any category or Uses or any one or more Building Types from that proposed in the Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan.

8.5.21.R. Planning Commission Action.

1. The Planning Commission may approve, approve with conditions or modifications, or disapprove the final Master PUD Development Plan or Amendment to existing Master PUD Development Plan.
2. The Planning Commission may approve the Final Master PUD Development Plan or amendment to Final Master PUD Development Plan if it finds: a. That the Final Master PUD Development Plan or amendment to Final Master PUD Development Plan meets the provisions for substantial compliance with the Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan, and b. The Final Master PUD Development Plan or amendment to Final Master PUD Development Plan complies with all other standards for review which were not considered when the Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan was approved.

SAMPLE MOTIONS

Recommend Approval:

Move to find, based on the information presented by the applicant and the analysis provided by city staff, that the criteria listed in sections, and of the City of Columbia Zoning Ordinance have been satisfied, and recommend approval of the - Final Planned Unit Development Master Plan as presented *[, subject to technical comments and other conditions presented by planning staff*].

Recommend Approval Subject to Conditions:

Move to find, based on the information presented by the applicant and the analysis provided by city staff, that the criteria listed in sections of the City of Columbia Zoning Ordinance have been satisfied, and recommend approval of the Final Planned Unit Development Master Plan, subject to the following conditions: [*list conditions of approval crafted by Planning Commission*].

Recommend Denial:

Move to recommend denial of the Final PUD-MU having found, based on the information presented by the applicant and the analysis provided by city staff, that the criteria listed in sections of the City of Columbia Zoning Ordinance, are not satisfied [*list specific reasons for denial*].

Defer:

Move to find that there is insufficient information to make a decision, defer the matter to the next regularly scheduled meeting of the Planning Commission, and request that the [*applicant/staff*] provide: [*list additional information*] for review at a future meeting.

Kimley»Horn

July 20, 2026

Austin Brass, City Planner
Development Services, City of Columbia TN
700 North Garden Street
Columbia, TN 38401

RE: ***Resubmittal: Waters Edge at Taylor Bend FMDP; Item #: 26-0148***

Dear Mr. Brass,

We requested a deferral from the June Planning Commission agenda in order to further study the parking area for this property. The property currently has a total of 203 parking spaces, which is less than 3% change from the 209 spaces shown on the previously approved PMDP.

Between the approval of the PMDP and the initial submittal of the FMDP, the building floorplans and location of ADA accessible units and routes were refined. This, as well as additional survey information, resulted in many updates to the grading on the site. This can be seen in the inclusion of some small site walls and visible elevation changes on the architectural elevations. This also impacted our parking layout.

Between the FMDP and FMDP, we have made several small changes to the parking area. For example, where previously we were showing parallel parking spaces along the drive aisle entering the site from River Road, it was later determined that this location would not meet the ideal slope conditions for parking. As a result, the loading zone, which was not required by the zoning code, has been removed and replaced with parallel parking spaces. This change, as well as a few other shifts due to grading, accessibility, and utility conflicts, caused the total number of parking spaces to reduce by six spaces from the approved PMDP. However, the site still has twelve (12) more parking spaces provided than is required by the zoning code.

Below is additional information as requested by Staff to explain other updates between the approved PMDP and the FMDP submitted to the Planning Commission for approval.

- Parking quantity reduction. An effort was made to maintain as many parking stalls as possible. The total number of parking stalls proposed with this final PUD has reduced due to site grading and accessibility constraints. Code requires 191 parking spaces. The PMDP showed a total of 209 parking spaces. The FMDP shows a total of 203 parking spaces, which is less than a 3% change in the parking quantity.
- Building frontage at Large MF Building 4. Parking has been removed from this area.
- Canopy Trees on the code minimum plan. Canopy Trees between the small multi-family building and adjacent property to the east have been added to the code minimum plans. These trees were intended to be included as part of the final site landscape treatment, and have been added to this permit set for clarity.

- Additional information regarding the privacy fence on the rear townhome elevation. The fence was part of an earlier design iteration. As this was building designed was refined, the team decided to remove the privacy fence.
- Additional information concerning the building elevation at the amenity/club house area. After the PUD Preliminary Master Plan was approved, our architectural team progressed the architectural design of the building towards a detailed design for final coordination. Open Architecture was informed by staff that the design of the building needed to be final in elevation form before the PUD Final Site Plan application was filed. Open Architecture contacted the Interior Design firm to finalize the amenity area to ensure the floor plan was complete and final for the upcoming PUD submission. During the interior design process, the following items were addressed and coordinated between the plan and elevation, along the pool side of clubhouse elevation (see elevation 4/A201).
    - One window sill was raised to coordinate with site grading.
    - One large glazed opening was slightly reduced in width to coordinate with the final floor plan.
    - Two double doors were revised to single doors.
    - A sidelight was added to the clubhouse entry door to maintain alignment with the window openings above to keep in spirit of the underling code.
    - These revisions are to fully coordinate with the floor plan which has been finalized as part of our final development plan and site grading plan.
- Percent of glazing on the facades. Glazing percentages on the facade match what was shown and approved on the FMDP. However, due to the refinement of the floorplans, the elevations also adjusted slightly. This causes slight adjustments in the window sizes. Below is a listing of the adjustments made to ensure that the glazing percentages did not change.
    - Large Multifamily 1-2: Increased window sizes, changed single glass doors back to double doors.
    - Large Multifamily 3: Changed single glass doors back to double doors.
    - Large Multifamily 4: Increased window sizes, changed single glass doors back to double doors
    - Small multifamily 1: Decreased windows on front, increased on rear.
    - Townhomes = no change.
- Three exterior doors moved slightly: two stair doors, and the dog wash entry door. Sidewalks were adjusted accordingly.

If you have any additional questions or concerns, please contact Greg Gamble at greg.gamble@kimley-horn.com or Keli Frymire at 706.566.6480 or keli.frymire@kimley-horn.com

Sincerely,

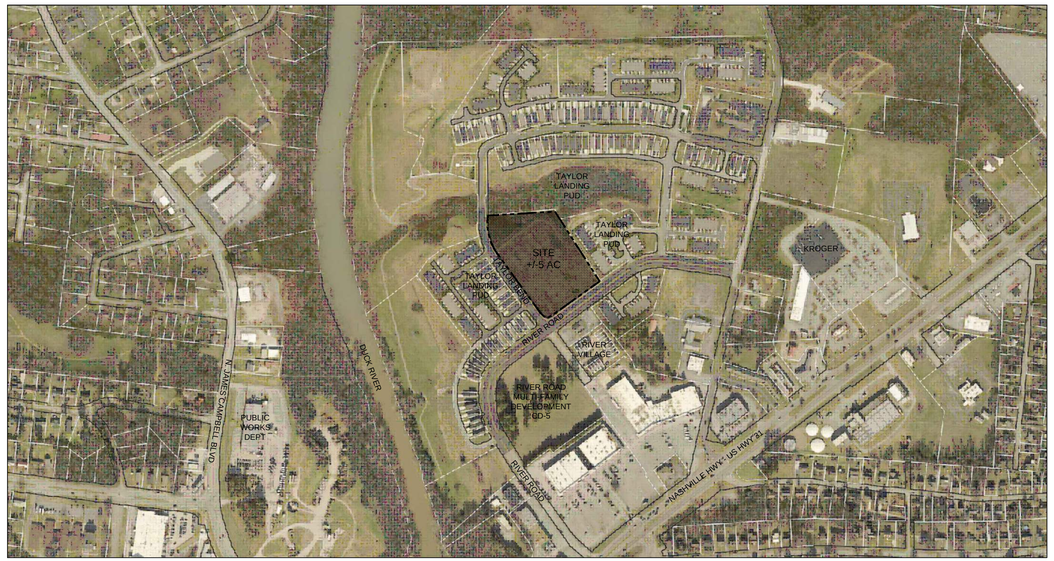


Keli Frymire, Landscape Architect

THE JAMES PHASE 2

FINAL PUD MASTER DEVELOPMENT PLAN

INTERSECTION OF RIVER ROAD AND TAYLOR BEND ROAD
COLUMBIA, TENNESSEE



LOCATION MAP

0 400 800
GRAPHIC SCALE 1"=400'-0"

OWNER:
BRENT CAMPBELL
1187 GLENBROOK DR
FRANKLIN, TN 37064

DEVELOPER:
CPS LAND
213 OVERLOOK CIRCLE, SUITE B2
BRENTWOOD, TN 37027
CLIFF SMITH
cliff.smith@cpsland.com

APPLICANT/ LAND PLANNER:
KIMLEY-HORN
4031 ASPEN GROVE DRIVE, SUITE 200
FRANKLIN, TN 37067
GREG GAMBLE
greg.gamble@kimley-horn.com

ENGINEER:
KIMLEY-HORN
4031 ASPEN GROVE DRIVE, SUITE 200
FRANKLIN, TN 37067
GRAY HARRISON, P.E.
615.564.2701
gray.harrison@kimley-horn.com

ARCHITECT:
OPEN ARCHITECTURE
ERIC CLAUS
513.403.7019
ERIC.CLAUS@OPENARCHITECTURE.COM

SHEET INDEX

C0.0	COVER SHEET
C1.0	EXISTING CONDITIONS
C2.0	PRELIMINARY PUD MASTER DEVELOPMENT PLAN
C3.0	CONCEPTUAL GRADING, STORM, UTILITIES
C3.1	RETAINING WALL SHEET
L1.0	TREE CANOPY COVERAGE
L2.0	CODE MINIMUM LANDSCAPE PLAN
L2.1	CODE MINIMUM LANDSCAPE PLAN
A201	ARCHITECTURAL ELEVATIONS
A202	ARCHITECTURAL ELEVATIONS
A203	ARCHITECTURAL ELEVATIONS
A204	ARCHITECTURAL ELEVATIONS
A205	ARCHITECTURAL ELEVATIONS
A206	ARCHITECTURAL ELEVATIONS

PRE-APP: FEB. 4, 2026
INITIAL SUBMITTAL: APRIL 20, 2026
RESUBMITTAL: MAY 18, 2026
RESUBMITTAL: JUNE 03, 2026
RESUBMITTAL: JUNE 29, 2026

DRAKE A. REINER REGISTERED LANDSCAPE ARCHITECT TENNESSEE No. 2178



NOTES

1. THE INFORMATION SHOWN ON THIS PLAN IS BASED UPON THE TENNESSEE STATE NAD83 COORDINATE SYSTEM.
2. NO PROPOSED BUILDINGS FALL WITHIN THE 100 YEAR FLOODPLAIN, PER THE FEMA FIRM MAP NUMBER 47119C0170E EFFECTIVE APRIL 16, 2007.
3. PORTIONS OF EXISTING SEWER LINE TO BE ABANDONED. LINE TO BE FILLED WITH CLASS C FLOWABLE FILL AND REMOVED FROM THE EXISTING LIVE SYSTEM WITH PROPER CONCRETE PATCHING.

GRAPHIC SCALE IN FEET
0 15 30 60

NORTH

Kimley»Horn
4031 Aspen Grove Drive, Franklin, TN 37204
Main: 615.564.2701 | www.kimley-horn.com

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THE JAMES 2 FINAL PUD MASTER DEVELOPMENT PLAN

RIVER ROAD & TAYLOR BEND RD, COLUMBIA TN

SOPHIA CLOSE
REGISTERED ENGINEER
COMMERCE
No. 131262
STATE OF TENNESSEE
Sophia Close
04/29/2026

No.	REVISIONS	DATE	BY
1	SURVEY UPDATE	5/18/26	
2	PARKING ADJUSTMENTS	06/03/26	
3	CITY COMMENTS	06/29/26	
4			
5			
6			
7			
8			
9			
10			

DESIGNED BY:	SAC
DRAWN BY:	MEN
CHECKED BY:	SAC
DATE:	04/20/2026

KIMLEY-HORN PROJECT NO.
118119003

OVERALL EXISTING CONDITIONS

SHEET NUMBER
C1.0

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Drawing name: K:\FRA_LDEV\118119003 - Waters Edge\4-CADD\PlanSheets\C1.0 OVERALL EXISTING CONDITIONS.dwg C1.0 OVERALL EXISTING CONDITIONS Jun 29, 2026 3:07pm by: Sophia.Close

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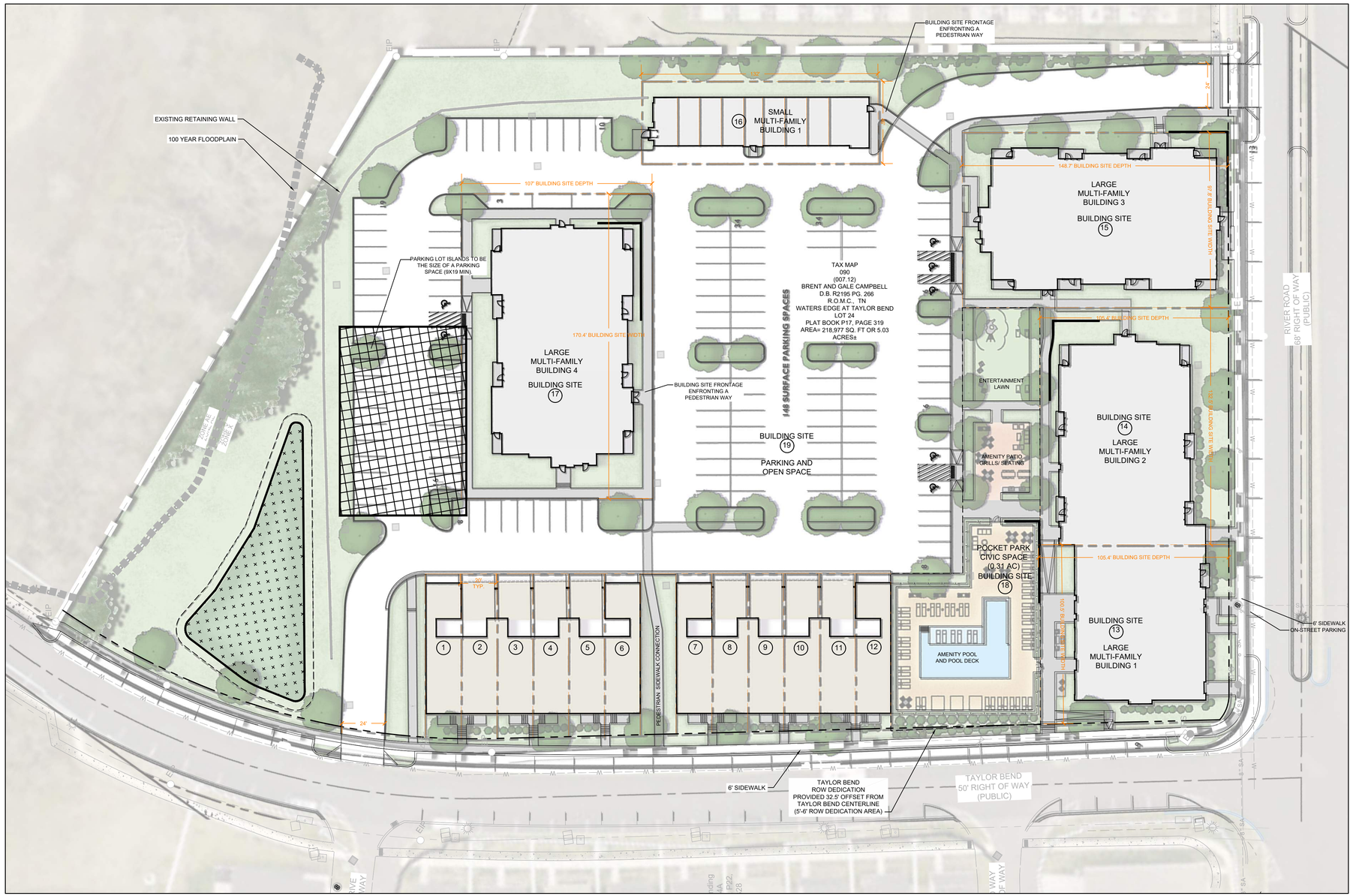
LEGAL DESCRIPTION OF PROPERTY:
WATERS EDGE AT TAYLOR BEND
PROPERTY MAP 090, PARCEL 007.03
RIVER ROAD
CITY OF COLUMBIA, MAURY COUNTY, TENNESSEE

Being a certain tract or parcel of land lying and being in the Ninth (9th) Civil District of Maury County, city of Columbia, Tennessee and being more particularly described as follows:

Being Tract 24, a 5.026-acre tract as shown on the final plat entitled "Waters Edge at Taylor Bend" of record in Plat Book P17, page 319, Register's Office for Maury County, Tennessee to which plat reference is hereby made for a more complete description of the subject property.

No field work has been performed by Kimley-Horn Associates to verify the accuracy of the property lines, corners or areas shown on said recorded plats.



FINAL MASTER DEVELOPMENT PLAN SITE DATA:

TOTAL SITE AREA: +/-5.0 AC
EXISTING ZONING: PUD
FUTURE LAND USE: CCUV - CITY CENTER URBAN VILLAGE
PREVIOUS PUD MASTER PLAN: WATERS EDGE PUD; ORDINANCE 4262; NOV. 14, 2019
PRELIMINARY PUD MASTER DEVELOPMENT PLAN: ORDINANCE 4563; APPROVED JAN. 8, 2026

NEW PUDS DEVELOPING IN THE CCUV FUTURE LAND USE DISTRICT ARE REQUIRED TO BE ZONED PUD-MU. IN ORDER TO CREATE A MASTER PLAN IN KEEPING WITH THE FORM AND AESTHETIC OF THIS SURROUNDING AREA, THE PROPOSED PUD MASTER PLAN COMPLIES WITH THE PUD-MU REQUIREMENTS.

NOTE: THIS DEVELOPMENT WILL CONFORM TO ALL PUD-MU STANDARDS.

NOTE: THE SUBJECT PARCEL IS LESS THAN 10 ACRES IN SIZE, DOES NOT INCLUDE THE CREATION OF A NEW THOROUGHFARE OR INTERNAL DRIVE, AND THEREFORE IS NOT A DEVELOPMENT PARCEL. AS SUCH, THIS PARCEL IS EXEMPT FROM SOME TYPICAL PUD-MU CRITERIA: DENSITY, BLOCK SIZE, AND CERTAIN CIVIC SPACE REQUIREMENTS.

TOTAL DWELLING UNITS: 94 UNITS
TOTAL DENSITY: 18.8 DUA

BUILDING BREAKDOWN:
TOTAL MULTI-FAMILY UNITS: 82 DWELLING UNITS
- LARGE MULTI-FAMILY BLDG 1: 12 DU
- LARGE MULTI-FAMILY BLDG 2: 18 DU
- LARGE MULTI-FAMILY BLDG 3: 24 DU
- LARGE MULTI-FAMILY BLDG 4: 24 DU
- SMALL MULTI-FAMILY BLDG 1: 4 DU; 7-GARAGE PARKING SPACES

TOWNHOMES: 12 DWELLING UNITS
- TOWNHOME 1, 6, 7, 12: 1 CODE COMPLIANT GARAGE SPACE
- TOWNHOME 2-5; 8-11: 2 COVERED PARKING SPACES

BUILDING SITES:
PRINCIPAL STRUCTURE SETBACKS:
- FRONT SETBACK PUD-MU STANDARD: 0'-20'
- PROVIDED SETBACK: 10'-13' TOWNHOMES; 4'-12' LARGE MULTI-FAMILY;

- FRONT SETBACK SECONDARY PUD-MU STANDARD: 0'-20'
- PROVIDED SETBACK: 9' LARGE MULTI-FAMILY

- SIDE SETBACK PUD-MU STANDARD: 0' MIN. ATTACHED; OTHERWISE 10' - 24'
- PROVIDED SETBACK: 0'; 10' MIN. - 24' MAX.

- REAR SETBACK: NOT REGULATED

ENFRONTMENT PUD-MU STANDARD: UP TO 20% OF BUILDING SITE ARE ALLOWED TO FRONT PEDESTRIAN WAYS INSTEAD OF THOROUGHFARES.
- TOTAL NUMBER OF BUILDING SITES: 17
- BUILDING SITES ENFRONTING PEDESTRIAN WAYS: 2 (12% OF BUILDING SITES)
- BUILDING SITES 16 AND 17 ENFRONT PEDESTRIAN WAYS.

PARKING SUMMARY:
- TOTAL DWELLING UNITS: 94 UNITS
- REQUIRED MINIMUM PARKING RATIO: 2 SPACES PER UNIT
- REQUIRED CIVIC SPACE PARKING: 1 SPACE PER 5,000 SF OF REQUIRED CIVIC SPACE
- TOTAL REQUIRED PARKING: 191 SPACES
  (188 PARKING RESIDENTIAL SPACES; 3 CIVIC PARKING SPACES)

- TOTAL PROVIDED: 203 SPACES

- TOWNHOMES: 20 SPACES TOTAL
  16 COVERED CARPORT SPACES PROVIDED ON-LOT, 4 GARAGE SPACES (10' X 20')

- SMALL MULTI-FAMILY BUILDING 1: 7 GARAGE SPACES (10'X20')

- SURFACE AND ON-STREET PARKING: 176 SPACES

TOTAL CIVIC SPACE: 0.31 AC
- REQUIRED 5% OF GROSS SITE AREA: 0.25 AC
- PROVIDED: 0.31AC (6.2%)
- POCKET PARK - TO INCLUDE COMMUNITY AMENITIES SUCH AS A POOL, PATIO AND GRILLING AREA.

FRONTAGE CALCULATIONS

BUILDING SITE	BUILDING TYPE	BUILDING SITE WIDTH	FRONTAGE BUILD-OUT
1	TOWNHOME	20 LF	20 LF; 100%
2	TOWNHOME	20 LF	20 LF; 100%
3	TOWNHOME	20 LF	20 LF; 100%
4	TOWNHOME	20 LF	20 LF; 100%
5	TOWNHOME	20 LF	20 LF; 100%
6	TOWNHOME	20 LF	20 LF; 100%
7	TOWNHOME	20 LF	20 LF; 100%
8	TOWNHOME	20 LF	20 LF; 100%
9	TOWNHOME	20 LF	20 LF; 100%
10	TOWNHOME	20 LF	20 LF; 100%
11	TOWNHOME	20 LF	20 LF; 100%
12	TOWNHOME	20 LF	20 LF; 100%
13	LARGE MULTI-FAMILY 1	100.5 LF	89 LF; 89%
14	LARGE MULTI-FAMILY 2	132.5 LF	118 LF; 86%
15	LARGE MULTI-FAMILY 3	97.8 LF	79 LF; 81%
16	SMALL MULTI-FAMILY 1	46 LF	28.5 LF; 62%
17	LARGE MULTI-FAMILY 4	170.4 LF	135 LF; 79%

PUD-MU DESIGN STANDARDS DEVIATION REQUESTS:

TABLE 4.3.1-M; FACADE

CURRENT TEXT:
FACADE WINDOW SILL HEIGHT. IF RESIDENTIAL: 5 FT. MIN. ABOVE AVERAGE GRADE AT FACADE.

REQUESTED DEVIATION:
FACADE WINDOW SILL HEIGHT. IF RESIDENTIAL: 4 FT. MIN. ABOVE AVERAGE GRADE AT FACADE.

SEE ARCHITECTURAL SHEETS FOR ADDITIONAL DETAILS.

N

0 30 60 90
GRAPHIC SCALE 1"=30'-0"

NOTE:

THE SUBJECT PARCEL IS LESS THAN 10 ACRES IN SIZE, DOES NOT INCLUDE THE CREATION OF A NEW THOROUGHFARE OR INTERNAL DRIVE, AND THEREFORE IS NOT A DEVELOPMENT PARCEL.

Kimley»Horn
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THE JAMES 2
FINAL PUD MASTER DEVELOPMENT PLAN
RIVER ROAD & TAYLOR BEND RD, COLUMBIA TN

DRAKE A. REELEY REGISTERED LANDSCAPE ARCHITECT TENNESSEE NO. 2310

No.	REVISIONS	DATE	BY
1	SURVEY UPDATE	5/19/26	
2	PARKING ADJUSTMENTS	06/03/26	
3	CITY COMMENTS	06/29/26	
4			
5			
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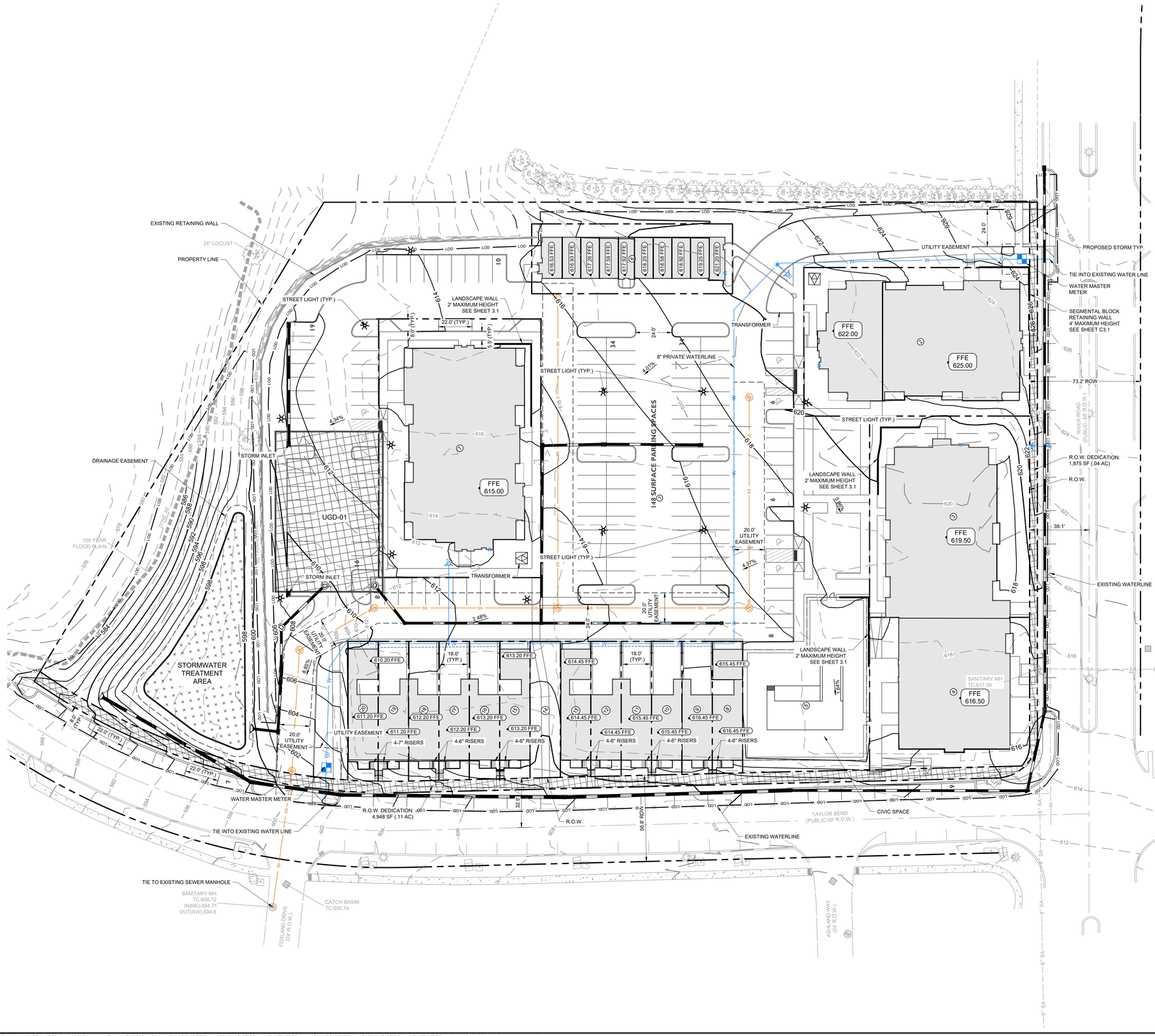
9			
10			

DESIGNED BY:
DRAWN BY:
CHECKED BY:
DATE: 04/20/2026
KIMLEY-HORN PROJECT NO. 118119003

FINAL MASTER DEVELOPMENT PLAN

SHEET NUMBER
C2.0

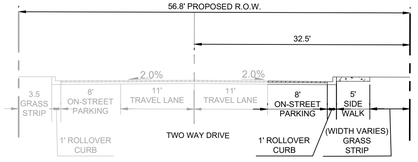


NOTES

1. THE INFORMATION SHOWN ON THIS PLAN IS BASED UPON THE TENNESSEE STATE NAD83 COORDINATE SYSTEM.
2. NO PROPOSED BUILDINGS FALL WITHIN THE 100 YEAR FLOODPLAIN, PER THE FEMA FIRM MAP NUMBER 47119C0170E EFFECTIVE APRIL 16, 2007.
3. SITE TO BE SERVED VIA PRIVATE TRASH SERVICE.
4. FINAL REVIEW OF GRADING AND STORMWATER TO BE PROVIDED WITH CONSTRUCTION PLANS.
5. THIS DEVELOPMENT PLAN WILL CONFORM TO ALL PUD-MU STANDARDS UNLESS THE DEVIATION WAS REQUESTED AND THIS APPLICATION APPROVED BY THE PLANNING COMMISSION.

RETAINING WALL NOTE

EXISTING RETAINING WALL TO BE EXAMINED AND CERTIFIED PRIOR TO FINAL CONSTRUCTION DOCUMENTS.



TAYLOR BEND STREET SECTION
(PUBLIC - 56.8 R.O.W.)

LEGEND

- SANITARY SEWER MANHOLE
- SANITARY SEWER LINE
- WATER LINE
- STORM LINE
- FIRE HYDRANT ASSEMBLY
- FIRE DEPARTMENT CONNECTION
- UNDERGROUND DETENTION
- BIORETENTION

PARCEL AREA TABLE

PARCEL #	AREA (SF)
1	111039.33
2	15034.07
3	14631.75
4	10805.71
5	14669.57
6	6082.69
7	18233.16
8	1769.29
9	1786.41
10	1804.09
11	1815.14
12	1824.83
13	1815.93
14	1861.26
15	1832.90
16	1838.82
17	1836.77
18	1829.75
19	1822.50
20	1806.37

GRAPHIC SCALE IN FEET
0 15 30 60

NORTH

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THE JAMES 2
FINAL PUD MASTER DEVELOPMENT PLAN
RIVER ROAD & TAYLOR BEND RD, COLUMBIA TN

SOPHIA CLOSE
REGISTERED ENGINEER
AGRICULTURE COMMERCE
No. 131261
STATE OF TENNESSEE
5/20/2026

No	REVISIONS	DATE	BY
1	SURVEY UPDATE	5/18/26	
2	PARKING ADJUSTMENTS	06/03/26	
3	CITY COMMENTS	06/29/26	

DESIGNED BY: SAC
DRAWN BY: MEN
CHECKED BY: SAC
DATE: 04/20/2026
KIMLEY-HORN PROJECT NO. 118119003

CONCEPTUAL GRADING STORM AND UTILITIES

SHEET NUMBER
C3.0

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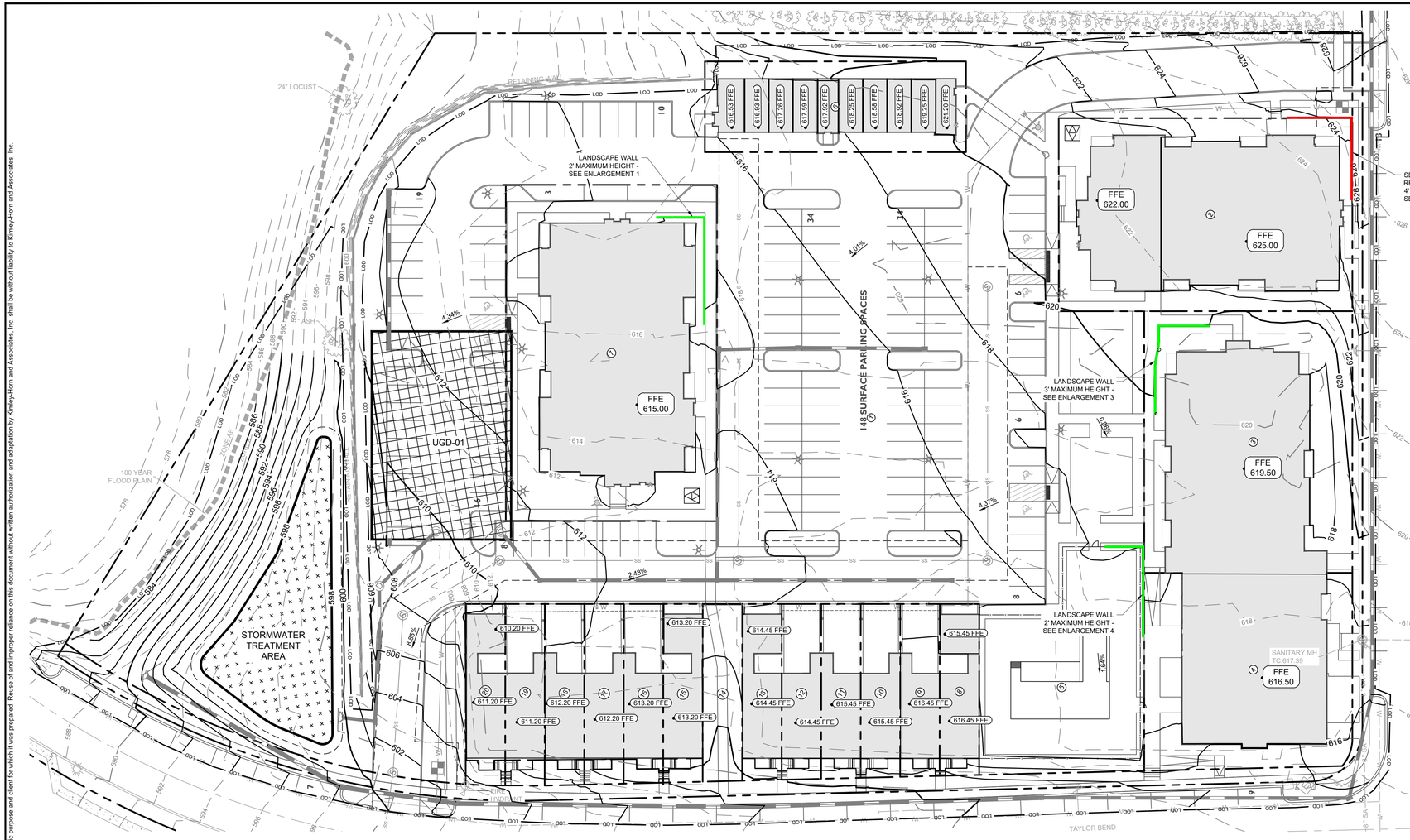
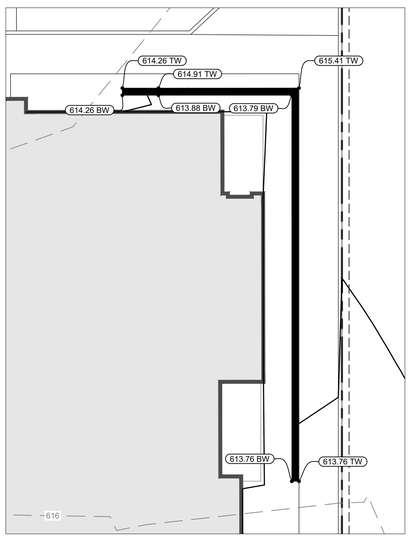
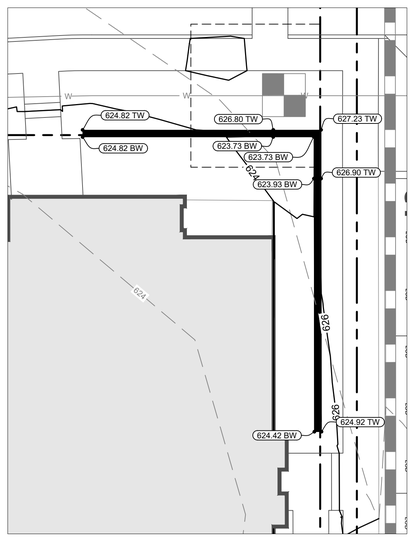
Drawing name: K:\FRA_LDEV\118119003 - Waters Edge\4-CADD\PlanSheets\C1.1 CONCEPTUAL GRADING STORM AND UTILITIES.dwg C3.0 CONCEPTUAL GARDING STORM AND UTILITIES Jul 20, 2026 5:04pm by: Mackie.Nicholas

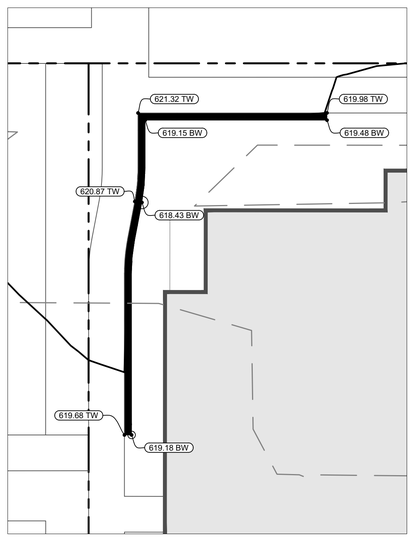




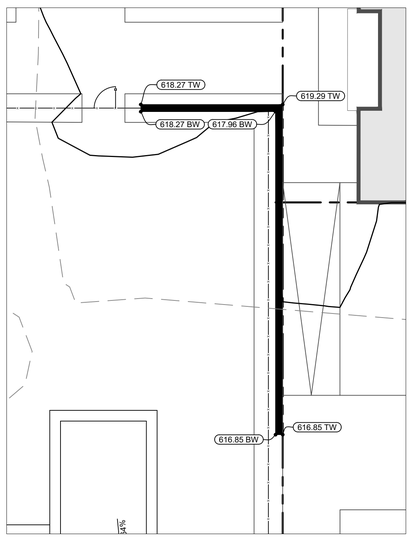
ENLARGEMENT 1



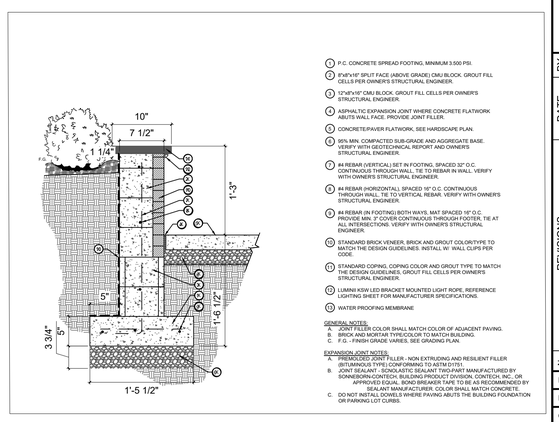
ENLARGEMENT 2



ENLARGEMENT 3



ENLARGEMENT 4



1. P.C. CONCRETE SPREAD FOOTING, MINIMUM 3,500 PSI.
2. 8"x8"x16" SPLIT FACE (ABOVE GRADE) CMU BLOCK, GROUT FILL CELLS PER OWNER'S STRUCTURAL ENGINEER.
3. 12"x8"x16" CMU BLOCK. GROUT FILL CELLS PER OWNER'S STRUCTURAL ENGINEER.
4. ASPHALTIC EXPANSION JOINT WHERE CONCRETE FLATWORK ABUTS WALL FACE. PROVIDE JOINT FILLER.
5. CONCRETE/PAVER FLATWORK, SEE HARDSCAPE PLAN.
6. 95% MIN. COMPACTED SUB-GRADE AND AGGREGATE BASE. VERIFY WITH GEOTECHNICAL REPORT AND OWNER'S STRUCTURAL ENGINEER.
7. #4 REBAR (VERTICAL) SET IN FOOTING, SPACED 32" O.C. CONTINUOUS THROUGH WALL. TIE TO REBAR IN WALL. VERIFY WITH OWNER'S STRUCTURAL ENGINEER.
8. #4 REBAR (HORIZONTAL) SPACED 16" O.C. CONTINUOUS THROUGH WALL. TIE TO VERTICAL REBAR. VERIFY WITH OWNER'S STRUCTURAL ENGINEER.
9. #4 REBAR (IN FOOTING) BOTH WAYS, MAT SPACED 16" O.C. PROVIDE MIN. 3" COVER CONTINUOUS THROUGH FOOTER. TIE AT ALL INTERSECTIONS. VERIFY WITH OWNER'S STRUCTURAL ENGINEER.
10. STANDARD BRICK VENEER, BRICK AND GROUT COLOR/TYPE TO MATCH THE DESIGN GUIDELINES. INSTALL W/ WALL CLIPS PER CODE.
11. STANDARD COPING, COPING COLOR AND GROUT TYPE TO MATCH THE DESIGN GUIDELINES. GROUT FILL CELLS PER OWNER'S STRUCTURAL ENGINEER.
12. LUMINI KSW LED BRACKET MOUNTED LIGHT ROPE, REFERENCE LIGHTING SHEET FOR MANUFACTURER SPECIFICATIONS.
13. WATER PROOFING MEMBRANE

GENERAL NOTES:
A. JOINT FILLER COLOR SHALL MATCH COLOR OF ADJACENT PAVING.
B. BRICK AND MORTAR TYPE/COLOR TO MATCH BUILDING.
C. F.G. - FINISH GRADE VARIES, SEE GRADING PLAN.

EXPANSION JOINT NOTES:
A. PREMOLDED JOINT FILLER - NON EXTRUDING AND RESILIENT FILLER (BITUMINOUS TYPE) CONFORMING TO ASTM D1751.
B. JOINT SEALANT - SONOLASTIC SEALANT TWO-PART MANUFACTURED BY SONNEBORN-CONTECH, BUILDING PRODUCT DIVISION, CONTECH, INC., OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S SEE AS RECOMMENDED BY SEALANT MANUFACTURER. COLOR SHALL MATCH CONCRETE.
C. DO NOT INSTALL DOWELS WHERE PAVING ABUTS THE BUILDING FOUNDATION OR PARKING LOT CURBS.

1 LANDSCAPE WALL - DETAIL
NOT TO SCALE

GRAPHIC SCALE IN FEET
0 5 10 20
NORTH

NOTES

1. THE INFORMATION SHOWN ON THIS PLAN IS BASED UPON THE TENNESSEE STATE NAD83 COORDINATE SYSTEM.
2. NO PROPOSED BUILDINGS FALL WITHIN THE 100 YEAR FLOODPLAIN, PER THE FEMA FIRM MAP NUMBER 47119C0170E EFFECTIVE APRIL 16, 2007.
3. SITE TO BE SERVED VIA PRIVATE TRASH SERVICE.
4. FINAL REVIEW OF GRADING AND STORMWATER TO BE PROVIDED WITH CONSTRUCTION PLANS.
5. THIS DEVELOPMENT PLAN WILL CONFORM TO ALL PUD-MU STANDARDS UNLESS THE DEVIATION WAS REQUESTED AND THIS APPLICATION APPROVED BY THE PLANNING COMMISSION.

RETAINING WALL NOTE

EXISTING RETAINING WALL TO BE EXAMINED AND CERTIFIED PRIOR TO FINAL CONSTRUCTION DOCUMENTS.

GRADING PLAN LEGEND

- 476.17 — SPOT ELEVATION (TW TOP OF WALL, BW BOTTOM OF WALL)
- FFE ### — FINISH FLOOR ELEVATION
- PROPOSED RETAINING WALL (GREATER THAN 3')
- PROPOSED RETAINING WALL (3' OR SHORTER)

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THE JAMES 2
FINAL PUD MASTER DEVELOPMENT PLAN
RIVER ROAD & TAYLOR BEND RD, COLUMBIA TN

No.	REVISIONS	DATE	BY
1	SURVEY UPDATE	5/18/26	
2	PARKING ADJUSTMENTS	06/03/26	
3	CITY COMMENTS	06/29/26	
4			
5			
6			
7			
8			
9			
10			

DESIGNED BY: SAC
DRAWN BY: MEN
CHECKED BY: SAC
DATE: 04/20/2026
KIMLEY-HORN PROJECT NO. 118119003

SOPHIA CLOSE — REGISTERED ENGINEER — AGRICULTURE COMMERCE — No. 131261 — STATE OF TENNESSEE — 4/20/2026

RETAINING WALL SHEET

SHEET NUMBER
C3.1

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Drawing name: K:\FRA_LDEV\118119003 - Waters Edge\4-CADD\PlanSheets\C1.2 RETAINING WALL ENLARGMENT.dwg C3.1 RETAINING WALL SHEET Jul 20, 2026 5:04pm by: Mackie.Nicholas

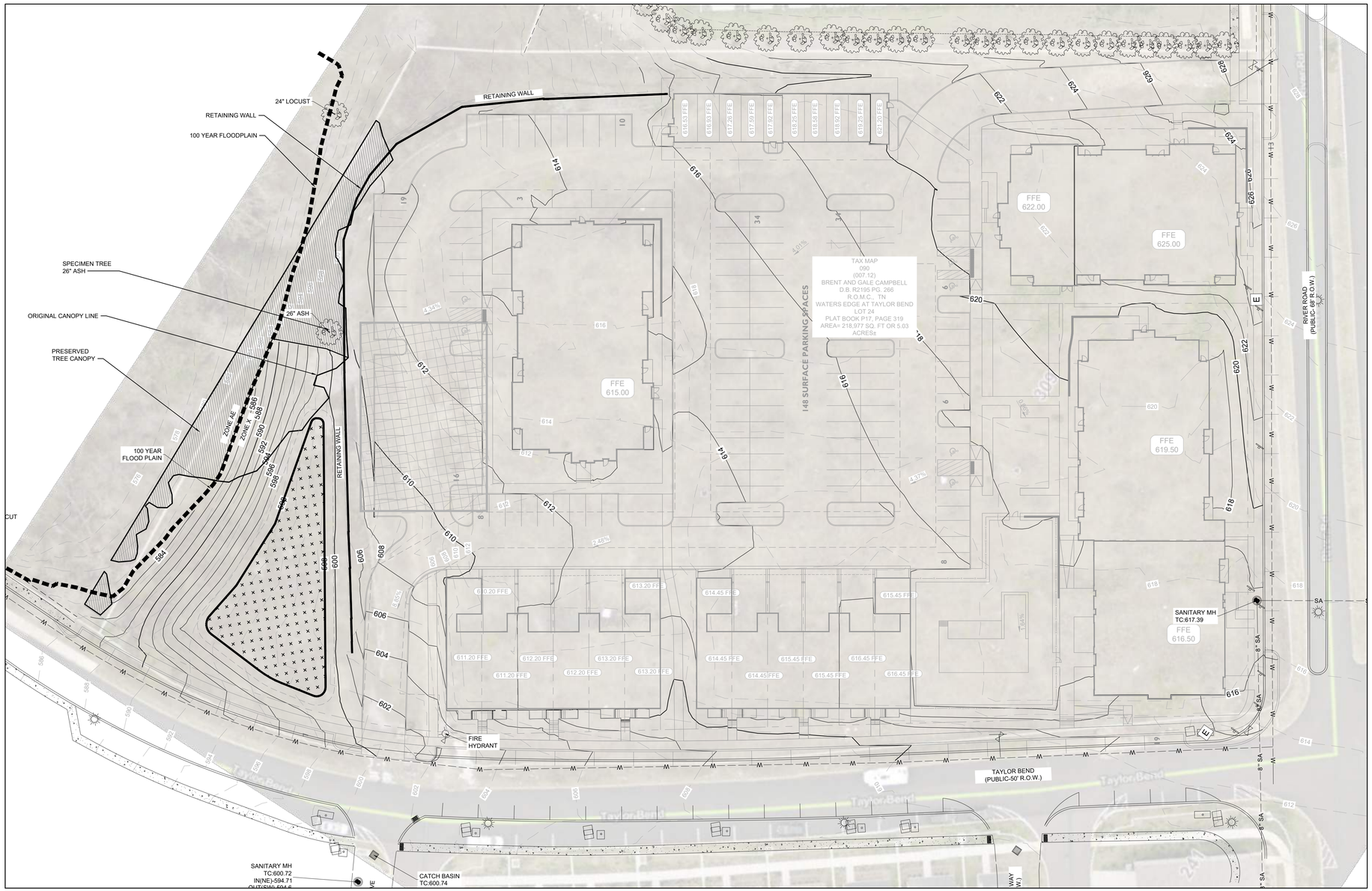
FINAL PUD DEVELOPMENT PLAN SITE DATA:

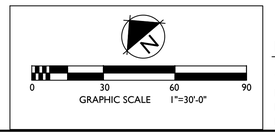
TOTAL SITE AREA: +/-5.0 AC
EXISTING ZONING: PUD
FUTURE LAND USE: CCUV - CITY CENTER URBAN VILLAGE
PREVIOUS PUD MASTER PLAN: WATERS EDGE PUD; ORDINANCE 4262; NOV. 14, 2019
PRELIMINARY PUD MASTER DEVELOPMENT PLAN: ORDINANCE 4563; APPROVED JAN. 8, 2026

THE SITE WAS PREVIOUSLY CLEARED IN ACCORDANCE WITH AN APPROVED SITE PLAN. BRUSH/VOLUNTEER GROWTH HAS OCCURRED IN THE DISTURBED AREA.

SPECIMEN TREES: 1 ON SITE
26" ASH - PRESERVED

EXISTING TREE CANOPY: 8,388.3 SF (0.19 AC); 3.8% OF TOTAL SITE AREA
PUD-MU TREE CANOPY RETENTION STANDARD: 54% PRESERVATION
TREE CANOPY PRESERVATION AREA: 5,817.3 SF (.13 AC) - 70% OF ORIGINAL CANOPY COVER PRESERVED





NOTE:

THE SUBJECT PARCEL IS LESS THAN 10 ACRES IN SIZE, DOES NOT INCLUDE THE CREATION OF A NEW THOROUGHFARE OR INTERNAL DRIVE, AND THEREFORE IS NOT A DEVELOPMENT PARCEL.

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THE JAMES 2
FINAL PUD MASTER DEVELOPMENT PLAN
RIVER ROAD & TAYLOR BEND RD, COLUMBIA TN

DRAKE A. REEDER
REGISTERED
AGRICULTURE
COMMERCE
TENNESSEE No. 1218
LANDSCAPE ARCHITECT

No.	REVISIONS	DATE	BY
1	SURVEY UPDATE	5/18/26	
2	PARKING ADJUSTMENTS	06/03/26	
3	CITY COMMENTS	06/29/26	
4			
5			
6			
7			
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10			

DESIGNED BY:
DRAWN BY:
CHECKED BY:
DATE: 04/20/2026
KIMLEY-HORN PROJECT NO. 118119003

TREE PRESERVATION

SHEET NUMBER
L1.0

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Drawing name: K:\FRA_LAP_GDC\!development\CPS - Columbia Taylors Bend\06 FMDP PUD\02 CAD\L1.0.dwg L1.0 Jun 29, 2026 3:39pm by: Rose.Goodwin

REQUIRED LANDSCAPE CALCULATIONS:

THIS LANDSCAPE PLAN HAS BEEN DESIGNED TO MEET THE MINIMUM REQUIREMENTS FOR THE CITY OF COLUMBIA BASED ON REQUIREMENTS OF SEC 4.3.16, 4.3.12.C, 4.3.1.M, AND 5.2.3.

SEC 4.3.12.C.14 - PARKING AREA REQUIREMENTS	REQUIRED	PROVIDED
1 SHADE TREE PER PARKING ISLAND 2 SHADE TREES PER DOUBLE LENGTH ISLAND	28 SHADE TREES	30 SHADE TREES
1 SHADE TREE PER 2,000 SF OF PARKING AREA TOTAL PARKING AREA: 58,864 SF	30 SHADE TREES	30 SHADE TREES
REQUIRED: NO PARKING SPACE MORE THAN 72' FROM A TREE WITHIN THE LOT PROVIDED: ALL PARKING SPOTS HAVE A TREE WITHIN THE REQUIRED DISTANCE		

SEC 4.3.1.M - PRIVATE LANDSCAPE STANDARDS FOR PUD - MU CHARACTER DISTRICT

REQUIRED: LAYER 1 - > 3 FT, 30% OF LAYER 1 MUST BE LANDSCAPED WITH A CONTINUOUS SHRUB HEDGE ALONG FOUNDATION AT FACADE.

PROVIDED: 230 SHURBS TO SATISFY THESE REQUIREMENTS IN LAYER 1

REQUIRED: LAYER 1 - > 15', SOD AND 1 TREE PER 50' OF FRONTAGE.

PROVIDED: 0 TREES ALONG TAYLOR BEND ROAD DUE TO LAYER 1 LESS THAN 15 FT
6 TREES ALONG RIVER ROAD
0 TREES BUILDING SITE 16 AND 17 DUE TO DISTANCE BEING LESS THAN 15 FT

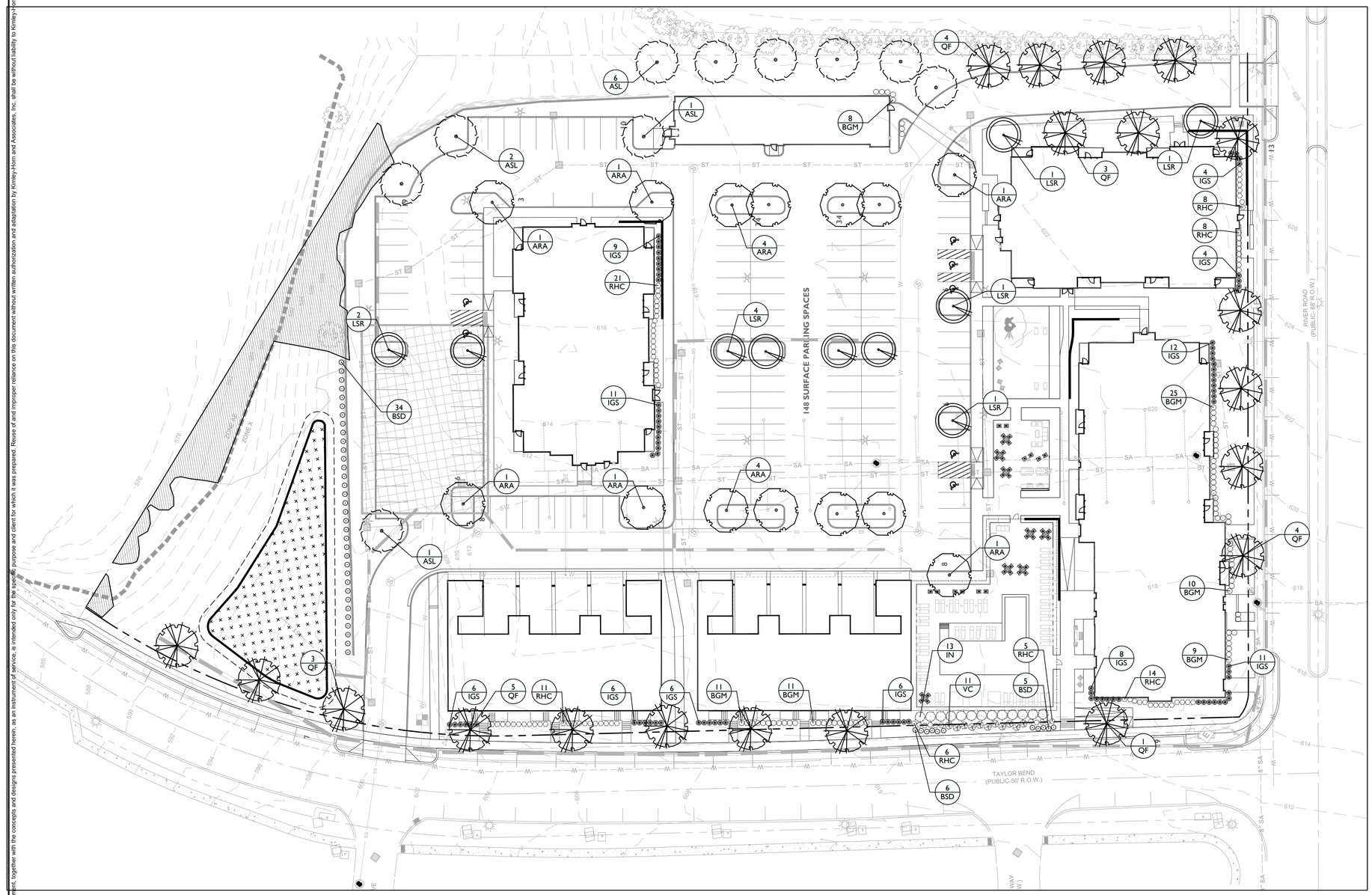
SEC 4.3.11.H PARCEL BUFFER
NOT APPLICABLE: DEVELOPMENT DOES NOT ABUT ANY SINGLE FAMILY OR TWO-FAMILY DETACHED RESIDENTIAL DWELLINGS.

SEC 5.2.3.G PUBLIC FRONTAGES
PUBLIC FRONTAGE TREES SHALL BE PLACED A MIN. 3 FT AWAY FROM WALKWAYS AND 6 FT AWAY FROM PORCH EAVES, AWNINGS, AND SIMILAR OVERHEAD OBSTRUCTIONS
FRONTAGE TREES NOT REQUIRED ADJACENT TO CIVIC SPACE.

PROVIDED: 10 TREES ALONG TAYLOR BEND
0 TREES ALONG RIVER ROAD
ROW IS AT BACK OF SIDEWALK AND DOES NOT ALLOW FOR FRONTAGE TREES.

SEC 5.5 PROJECT BUFFERS
NOT APPLICABLE: PROPOSED PUD DEVELOPMENT IS ADJACENT TO OTHER PUD ZONED PROPERTIES

PER PLANNING COMMISSION'S CONDITIONS OF APPROVAL LANDSCAPE SCREEN BETWEEN AMENITY AND R.O.W.



0 40 80 120
GRAPHIC SCALE 1"=40'-0"

NOTE:

THE SUBJECT PARCEL IS LESS THAN 10 ACRES IN SIZE, DOES NOT INCLUDE THE CREATION OF A NEW THOROUGHFARE OR INTERNAL DRIVE, AND THEREFORE IS NOT A DEVELOPMENT PARCEL.

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THE JAMES 2
FINAL PUD MASTER DEVELOPMENT PLAN
RIVER ROAD & TAYLOR BEND RD, COLUMBIA TN

DRAKE A. REILEY REGISTERED LANDSCAPE ARCHITECT TENNESSEE NO. 329

No.	REVISIONS	DATE	BY
1	SURVEY UPDATE	5/18/26	
2	PARKING ADJUSTMENTS	06/03/26	
3	CITY COMMENTS	06/29/26	
4			
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DESIGNED BY:
DRAWN BY:
CHECKED BY:
DATE: 04/20/2026
KIMLEY-HORN PROJECT NO. 118119003

FINAL MASTER DEVELOPMENT PLAN

SHEET NUMBER
L2.0

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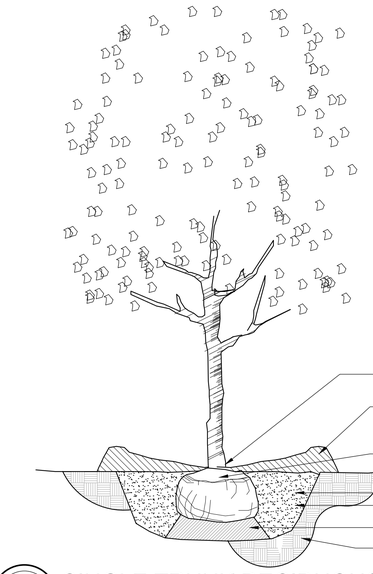
PLANT SCHEDULE - CODE MINIMUM

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	HEIGHT	LEAF	SPACING	REMARKS
CANOPY TREES								
ARA	14	Acer rubrum 'Autumn Flame'	Autumn Flame Red Maple	2.5" Cal. B&B	12`-14`	DECIDUOUS	AS SHOWN	CENTRAL LEADER
ASL	10	Acer saccharum 'Legacy'	Legacy Sugar Maple	2.5" Cal. B&B	12`-14`	DECIDUOUS	AS SHOWN	CENTRAL LEADER
LSR	10	Liquidambar styraciflua 'Rotundiloba'	Fruitless Narrow Sweet Gum	2.5" Cal. B&B	12`-14`	DECIDUOUS	AS SHOWN	CENTRAL LEADER
QF	20	Quercus falcata	Southern Red Oak	2.5" Cal. B&B	12`-14`	DECIDUOUS	AS SHOWN	SINGLE-STRAIGHT CENTRAL LEADER
	54	(SUBTOTAL)						
SHRUBS								
BSD	34	Buxus sempervirens 'Dee Runk'	Dee Runk Common Boxwood		30"	EVERGREEN	36" O.C.	
BGM	74	Buxus x 'Green Mountain'	Green Mountain Boxwood	3 gal.	24"	EVERGREEN	36" O.C.	
IGS	83	Ilex glabra 'Shamrock'	Shamrock Inkberry Holly	3 gal.	30"	EVERGREEN	36" O.C.	
RHC	73	Rhododendron x 'Conleb'	Autumn Embers Encore Azalea		24"	EVERGREEN	36" O.C.	
	264	(SUBTOTAL)						

PLANT SCHEDULE - AMENITY BUFFER

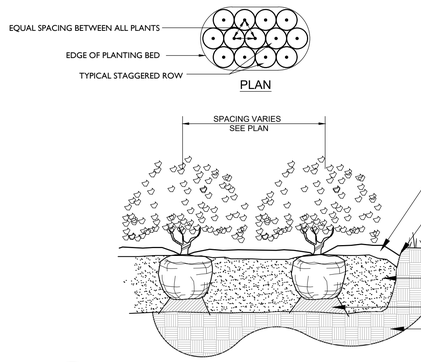
CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	HEIGHT	LEAF	SPACING
SHRUBS							
BSD	11	Buxus sempervirens 'Dee Runk'	Dee Runk Common Boxwood		30"	EVERGREEN	36" O.C.
IN	13	Ilex x 'Nellie R. Stevens'	Nellie R. Stevens Holly		4`	EVERGREEN	6` O.C.
RHC	11	Rhododendron x 'Conleb'	Autumn Embers Encore Azalea		24"	EVERGREEN	36" O.C.
VC	11	Viburnum x burkwoodii `Chenaultii`	Chenault Viburnum		36"	EVERGREEN	AS SHOWN



GENERAL NOTES:

1. All trees are to be nursery grown, burlap and ball (B&B). Minimum tree size is per schedule (measured 6" above root ball).
2. Remove all treated or plastic-coated burlap, strapping, wire or nylon twine from root ball. After setting in hole, cut away top and sides of wire basket, if any.
3. Install top of plant ball even with or up to 2" above existing grade.
4. Set tree in vertical position; stake if necessary for stabilization.
5. Soak plant ball and pit immediately after installation. Place 3" of seasoned mulch or pine needles around base of tree, 3' diameter minimum.

1 L1.0 SECTION — SINGLE TRUNK DECIDUOUS TREE — DETAIL # NTS



GENERAL NOTES:

1. Install top of plant ball shall be level with finished grade.
2. Tamp planting mix firmly as pit is filled around each plant ball.
3. Soak each plant ball and pit immediately after installation.
4. Cut and remove burlap from top 1/3 of root ball. Non-degradable burlap shall be removed or rolled under ball after replacement of plant.
5. Combustible mulch shall not be applied or maintained within two feet of any building around entire exterior perimeter.

2 L1.0 SECTION — SHRUB PLANTING — DETAIL # NTS

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THE JAMES 2
FINAL PUD MASTER DEVELOPMENT PLAN
RIVER ROAD & TAYLOR BEND RD, COLUMBIA TN

DRAKE A. REELNER REGISTERED AGRICULTURE TENNESSEE No. 2178 LANDSCAPE ARCHITECT

No.	REVISIONS	DATE	BY
1	SURVEY UPDATE	5/18/26	
2	PARKING ADJUSTMENTS	06/03/26	
3	CITY COMMENTS	06/29/26	
4			
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10			

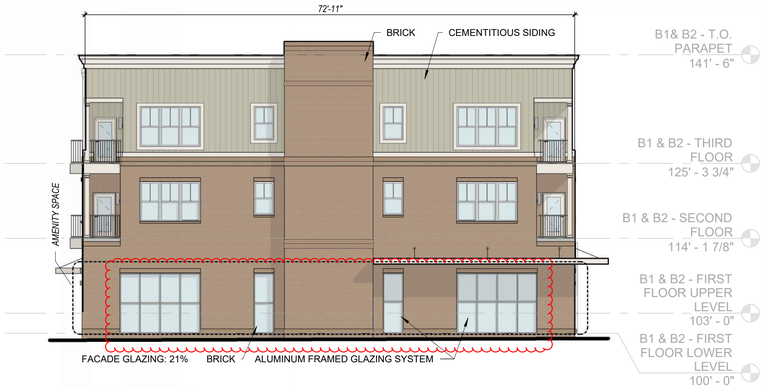
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DATE: 04/20/2026
KIMLEY-HORN PROJECT NO. 118119003

FINAL MASTER DEVELOPMENT PLAN

SHEET NUMBER
L2.1



3 A201 **ELEVATION** BUILDING 2 - (FACING BLDG 3)
3/32" = 1'-0"



2 A201 **ELEVATION** BUILDING 1 - (FACING TAYLOR'S BEND RD.)
3/32" = 1'-0"



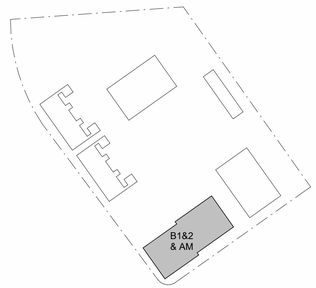
4 A201 **ELEVATION** BUILDING 1&2 - (FACING PARKING LOT)
3/32" = 1'-0"



1 A201 **ELEVATION** BUILDING 1&2 - (FACING RIVER RD.)
3/32" = 1'-0"

* SILL HEIGHT NOTE: PUD-MU ZONING CODE REQUIRES THE RESIDENTIAL SILL TO BE 5' MIN. ABOVE AVERAGE GRADE AT FACADE. APPLICANT IS REQUESTING STAFF LEVEL ALLOWABLE DEVIATION TO REDUCE THE MIN. DIMENSION TO 4' (20%) MIN. ABOVE AVERAGE GRADE AT FACADE FOR ALL BUILDINGS THAT ARE PARALLEL TO STRAIGHT FRONTAGE LINES OR TANGENT OF CURVED FRONTAGE LINE.

KEY PLAN



OPEN
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1201 HARRISON AVE.
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NOT FOR CONSTRUCTION

BARLOW BUILDERS & CPS LAND
THE JAMES (PHASE 2)
COLUMBIA, TN

ISSUANCES

NO.	DATE	DESCRIPTION
	2025.05.19	ZONING SUBMISSION
	2025.09.16	CITY COMMENTS REVISION
	2026.04.20	SITE DEVELOPMENT PLAN SUBMISSION
	2026.05.18	FINAL PUD SUBMISSION

2026.07.15 **REVISED** FINAL PUD SUBMISSION

PROJECT NO:
26008

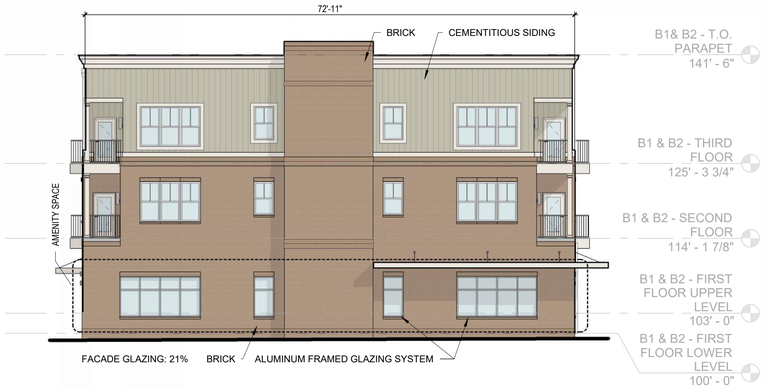
SHEET TITLE:
BUILDING 1/2 ELEVATIONS

SHEET NUMBER:
A201

7/15/2026 11:21:23 AM



3 A201 **ELEVATION** BUILDING 2 - (FACING BLDG 3)
3/32" = 1'-0"



2 A201 **ELEVATION** BUILDING 1 - (FACING TAYLOR'S BEND RD.)
3/32" = 1'-0"

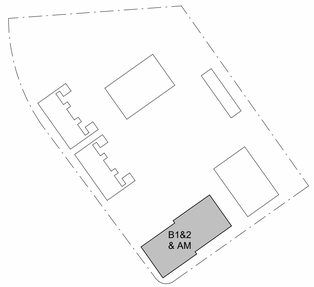


4 A201 **ELEVATION** BUILDING 1&2 - (FACING PARKING LOT)
3/32" = 1'-0"



1 A201 **ELEVATION** BUILDING 1&2 - (FACING RIVER RD.)
3/32" = 1'-0"

KEY PLAN



*PREVIOUS FINAL PUD SUBMISSION FOR COMPARISON

2026.05.18

* SILL HEIGHT NOTE: PUD-MU ZONING CODE REQUIRES THE RESIDENTIAL SILL TO BE 5' MIN. ABOVE AVERAGE GRADE AT FACADE. APPLICANT IS REQUESTING STAFF LEVEL ALLOWABLE DEVIATION TO REDUCE THE MIN. DIMENSION TO 4' (20%) MIN. ABOVE AVERAGE GRADE AT FACADE FOR ALL BUILDINGS THAT ARE PARALLEL TO STRAIGHT FRONTAGE LINES OR TANGENT OF CURVED FRONTAGE LINE.

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BARLOW BUILDERS & CPS LAND
THE JAMES (PHASE 2)
COLUMBIA, TN

ISSUANCES

NO.	DATE	DESCRIPTION
	2025.05.19	ZONING SUBMISSION
	2025.09.16	CITY COMMENTS REVISION
	2026.04.20	SITE DEVELOPMENT PLAN SUBMISSION
	2026.05.18	FINAL PUD SUBMISSION

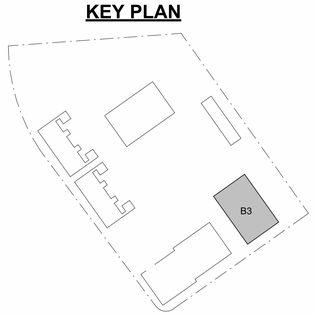
PROJECT NO:
26008

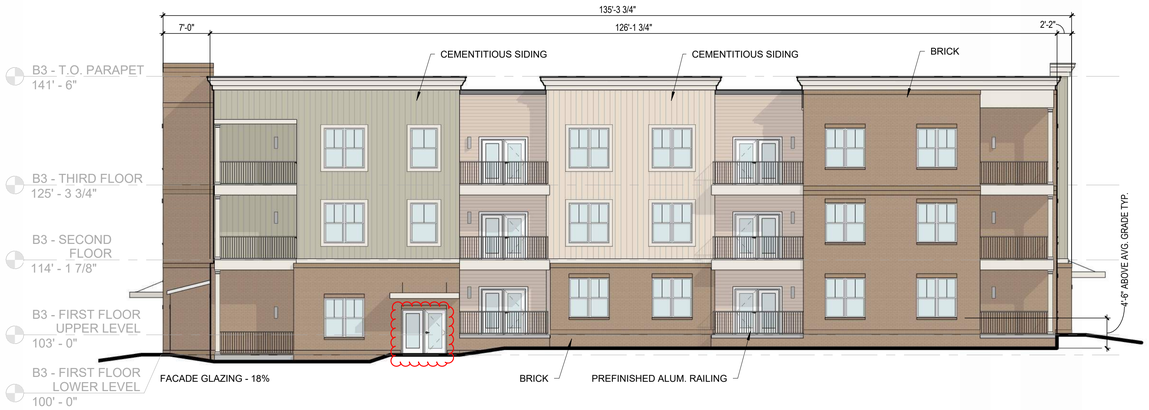
SHEET TITLE:
BUILDING 1/2 ELEVATIONS

SHEET NUMBER:
A201

5/15/2026 2:46:22 PM

KEY PLAN





3 A202 **ELEVATION** BUILDING 3 - (FACING BLDG 1&2)
3/32" = 1'-0"



1 A202 **ELEVATION** BUILDING 3 - (FACING RIVER RD.)
3/32" = 1'-0"



4 A202 **ELEVATION** BUILDING 3 - (FACING BACK OF PROPERTY)
3/32" = 1'-0"



2 A202 **ELEVATION** BUILDING 3 - (FACING PARKING LOT)
3/32" = 1'-0"

* SILL HEIGHT NOTE: PUD-MU ZONING CODE REQUIRES THE RESIDENTIAL SILL TO BE 5' MIN. ABOVE AVERAGE GRADE AT FACADE. APPLICANT IS REQUESTING STAFF LEVEL ALLOWABLE DEVIATION TO REDUCE THE MIN. DIMENSION TO 4' (20%) MIN. ABOVE AVERAGE GRADE AT FACADE FOR ALL BUILDINGS THAT ARE PARALLEL TO STRAIGHT FRONTAGE LINES OR TANGENT OF CURVED FRONTAGE LINE.

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COLUMBIA, TN

ISSUANCES

NO.	DATE	DESCRIPTION
	2025.05.19	ZONING SUBMISSION
	2025.09.16	CITY COMMENTS REVISION
	2026.04.20	SITE DEVELOPMENT PLAN SUBMISSION
	2026.05.18	FINAL PUD SUBMISSION

2026.06.24 **REVISED** FINAL PUD SUBMISSION

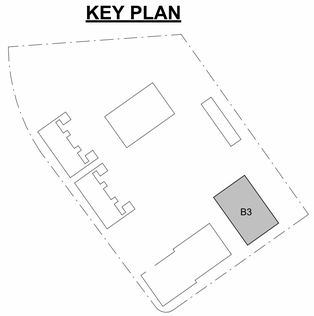
PROJECT NO:
26008

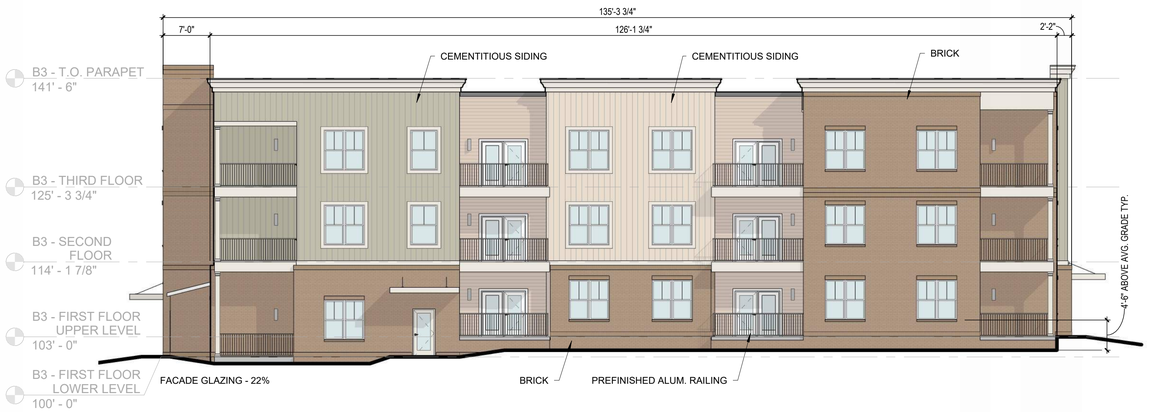
SHEET TITLE:
BUILDING 3 ELEVATIONS

SHEET NUMBER:
A202

6/24/2026 12:06:33 PM

KEY PLAN





3 A202 **ELEVATION** BUILDING 3 - (FACING BLDG 1&2)
3/32" = 1'-0"



1 A202 **ELEVATION** BUILDING 3 - (FACING RIVER RD.)
3/32" = 1'-0"



4 A202 **ELEVATION** BUILDING 3 - (FACING BACK OF PROPERTY)
3/32" = 1'-0"



2 A202 **ELEVATION** BUILDING 3 - (FACING PARKING LOT)
3/32" = 1'-0"

*PREVIOUS FINAL PUD SUBMISSION FOR COMPARISON

2026.05.18

* SILL HEIGHT NOTE: PUD-MU ZONING CODE REQUIRES THE RESIDENTIAL SILL TO BE 5' MIN. ABOVE AVERAGE GRADE AT FACADE. APPLICANT IS REQUESTING STAFF LEVEL ALLOWABLE DEVIATION TO REDUCE THE MIN. DIMENSION TO 4' (20%) MIN. ABOVE AVERAGE GRADE AT FACADE FOR ALL BUILDINGS THAT ARE PARALLEL TO STRAIGHT FRONTAGE LINES OR TANGENT OF CURVED FRONTAGE LINE.

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	2026.05.18	FINAL PUD SUBMISSION

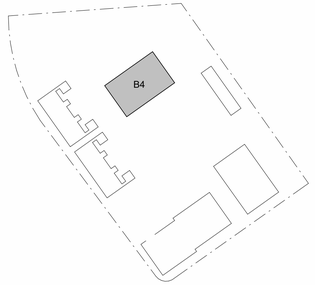
PROJECT NO:
26008

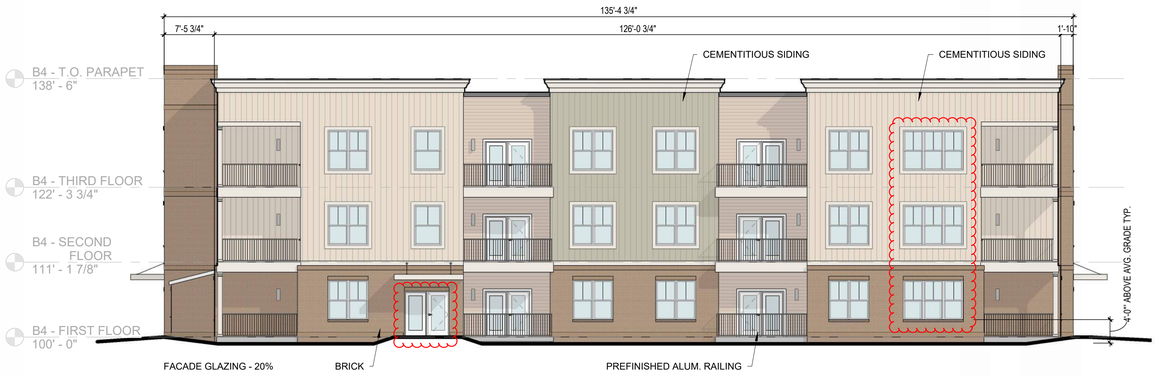
SHEET TITLE:
BUILDING 3 ELEVATIONS

SHEET NUMBER:
A202

5/15/2026 2:46:26 PM

KEY PLAN





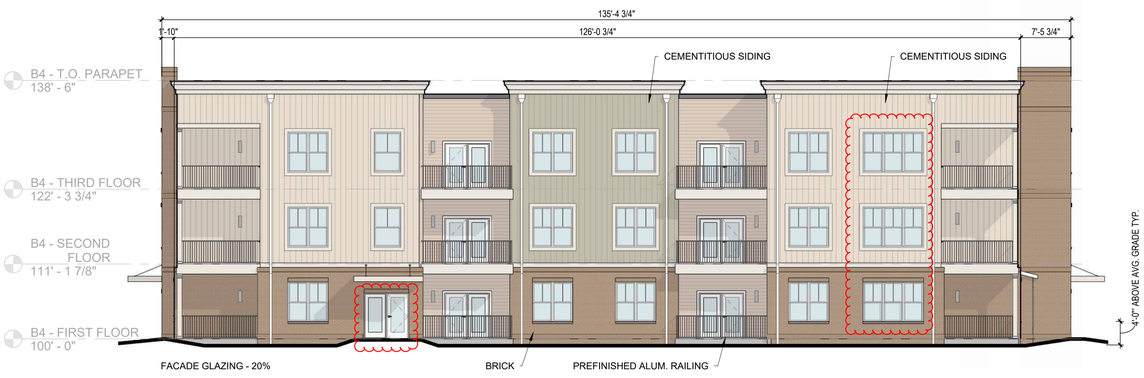
4 A203 **ELEVATION** BUILDING 4 - (FACING PARKING LOT)

3/32" = 1'-0"



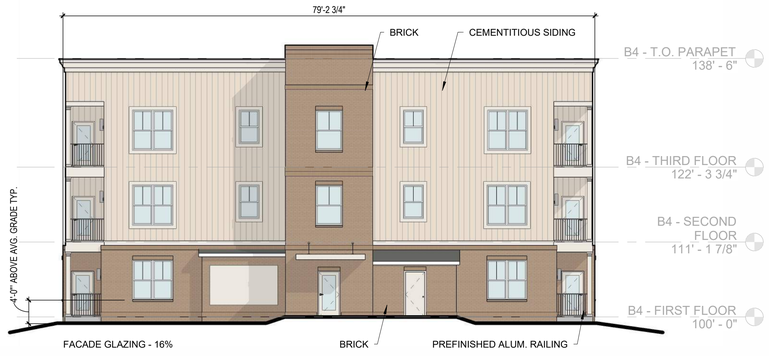
1 A203 **ELEVATION** BUILDING 4 - (FACING TOWNHOMES)

3/32" = 1'-0"



2 A203 **ELEVATION** BUILDING 4 - (FACING STORM DETENTION AREA)

3/32" = 1'-0"



3 A203 **ELEVATION** BUILDING 4 - (FACING BACK OF PROPERTY)

3/32" = 1'-0"

* SILL HEIGHT NOTE: PUD-MU ZONING CODE REQUIRES THE RESIDENTIAL SILL TO BE 5' MIN. ABOVE AVERAGE GRADE AT FACADE. APPLICANT IS REQUESTING STAFF LEVEL ALLOWABLE DEVIATION TO REDUCE THE MIN. DIMENSION TO 4' (20%) MIN. ABOVE AVERAGE GRADE AT FACADE FOR ALL BUILDINGS THAT ARE PARALLEL TO STRAIGHT FRONTAGE LINES OR TANGENT OF CURVED FRONTAGE LINE.

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ISSUANCES

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	2026.04.20	SITE DEVELOPMENT PLAN SUBMISSION
	2026.05.18	FINAL PUD SUBMISSION

2026.06.24 **REVISED** FINAL PUD SUBMISSION

PROJECT NO:

26008

SHEET TITLE:

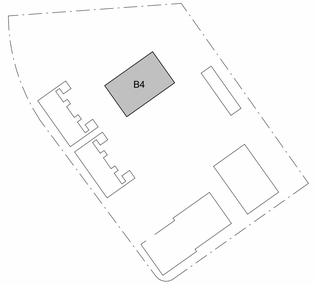
BUILDING 4 ELEVATIONS

SHEET NUMBER:

A203

6/24/2026 12:06:37 PM

KEY PLAN





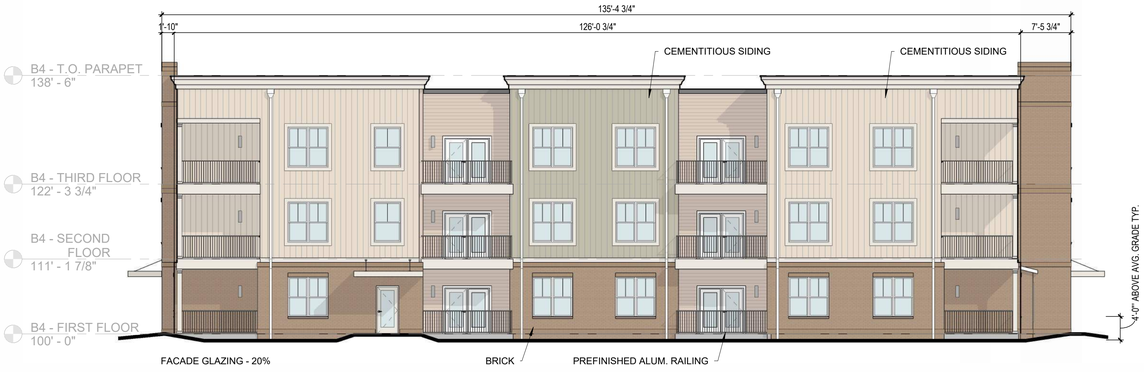
4 A203 ELEVATION BUILDING 4 - (FACING PARKING LOT)

3/32" = 1'-0"



1 A203 ELEVATION BUILDING 4 - (FACING TOWNHOMES)

3/32" = 1'-0"



2 A203 ELEVATION BUILDING 4 - (FACING STORM DETENTION AREA)

3/32" = 1'-0"



3 A203 ELEVATION BUILDING 4 - (FACING BACK OF PROPERTY)

3/32" = 1'-0"

*PREVIOUS FINAL PUD SUBMISSION FOR COMPARISON

2026.05.18

* SILL HEIGHT NOTE: PUD-MU ZONING CODE REQUIRES THE RESIDENTIAL SILL TO BE 5' MIN. ABOVE AVERAGE GRADE AT FACADE. APPLICANT IS REQUESTING STAFF LEVEL ALLOWABLE DEVIATION TO REDUCE THE MIN. DIMENSION TO 4' (20%) MIN. ABOVE AVERAGE GRADE AT FACADE FOR ALL BUILDINGS THAT ARE PARALLEL TO STRAIGHT FRONTAGE LINES OR TANGENT OF CURVED FRONTAGE LINE.

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	2026.05.18	FINAL PUD SUBMISSION

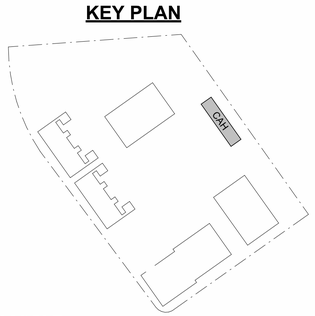
PROJECT NO:
26008

SHEET TITLE:
BUILDING 4 ELEVATIONS

SHEET NUMBER:
A203

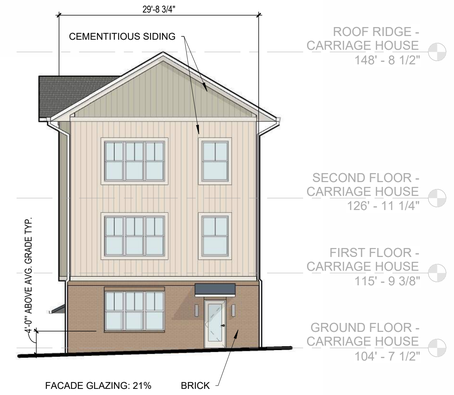
5/15/2026 2:46:31 PM

KEY PLAN





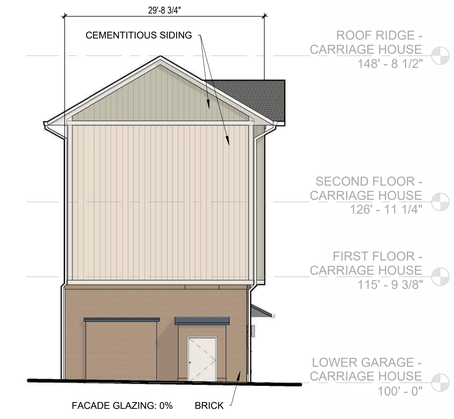
1 A204 **ELEVATION** CARRIAGE HOUSE - (FACING PARKING LOT)
3/32" = 1'-0"



4 A204 **ELEVATION** CARRIAGE HOUSE - (FACING RIVER RD.)
3/32" = 1'-0"



3 A204 **ELEVATION** CARRIAGE HOUSE - (FACING BACK OF PROPERTY)
3/32" = 1'-0"



2 A204 **ELEVATION** CARRIAGE HOUSE - (FACING WATER DETENTION AREA.)
3/32" = 1'-0"

* SILL HEIGHT NOTE: PUD-MU ZONING CODE REQUIRES THE RESIDENTIAL SILL TO BE 5' MIN. ABOVE AVERAGE GRADE AT FACADE. APPLICANT IS REQUESTING STAFF LEVEL ALLOWABLE DEVIATION TO REDUCE THE MIN. DIMENSION TO 4' (20%) MIN. ABOVE AVERAGE GRADE AT FACADE FOR ALL BUILDINGS THAT ARE PARALLEL TO STRAIGHT FRONTAGE LINES OR TANGENT OF CURVED FRONTAGE LINE.

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2026.06.24 **REVISED** FINAL PUD SUBMISSION

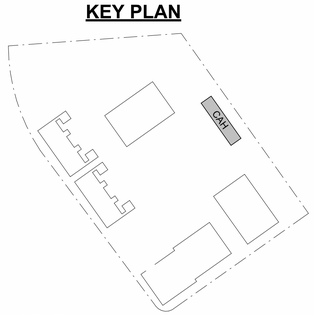
PROJECT NO:
26008

SHEET TITLE:
CARRIAGE HOUSE ELEVATIONS

SHEET NUMBER:
A204

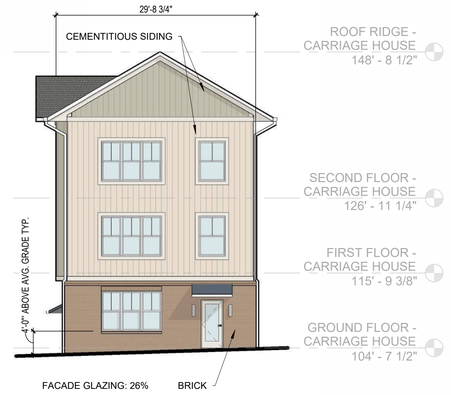
6/24/2026 12:06:41 PM

KEY PLAN





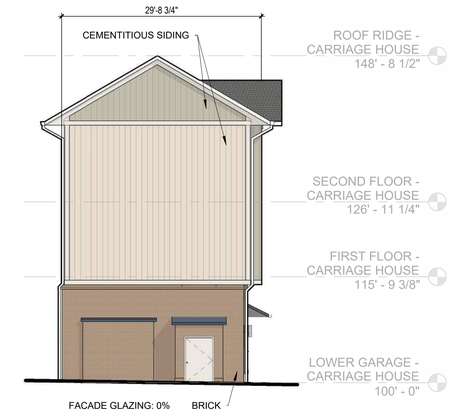
1 A204 **ELEVATION** CARRIAGE HOUSE - (FACING PARKING LOT)
3/32" = 1'-0"



4 A204 **ELEVATION** CARRIAGE HOUSE - (FACING RIVER RD.)
3/32" = 1'-0"



3 A204 **ELEVATION** CARRIAGE HOUSE - (FACING BACK OF PROPERTY)
3/32" = 1'-0"



2 A204 **ELEVATION** CARRIAGE HOUSE - (FACING WATER DETENTION AREA.)
3/32" = 1'-0"

*PREVIOUS FINAL PUD SUBMISSION FOR COMPARISON

2026.05.18

* SILL HEIGHT NOTE: PUD-MU ZONING CODE REQUIRES THE RESIDENTIAL SILL TO BE 5' MIN. ABOVE AVERAGE GRADE AT FACADE. APPLICANT IS REQUESTING STAFF LEVEL ALLOWABLE DEVIATION TO REDUCE THE MIN. DIMENSION TO 4' (20%) MIN. ABOVE AVERAGE GRADE AT FACADE FOR ALL BUILDINGS THAT ARE PARALLEL TO STRAIGHT FRONTAGE LINES OR TANGENT OF CURVED FRONTAGE LINE.

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ISSUANCES

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	2026.04.20	SITE DEVELOPMENT PLAN SUBMISSION
	2026.05.18	FINAL PUD SUBMISSION

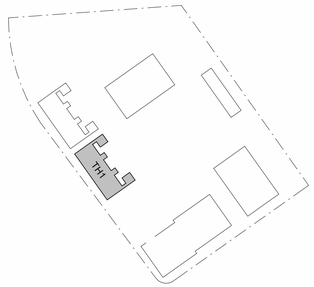
PROJECT NO:
26008

SHEET TITLE:
CARRIAGE HOUSE ELEVATIONS

SHEET NUMBER:
A204

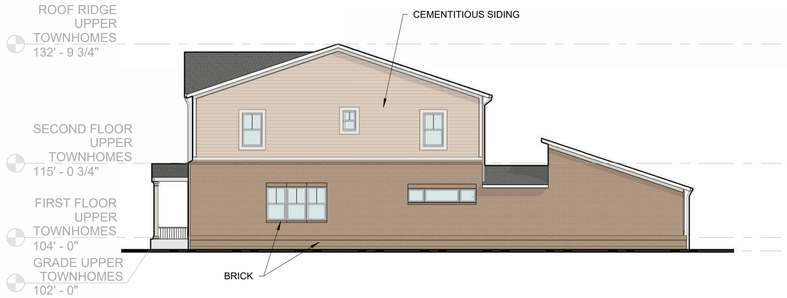
5/15/2026 2:46:35 PM

KEY PLAN

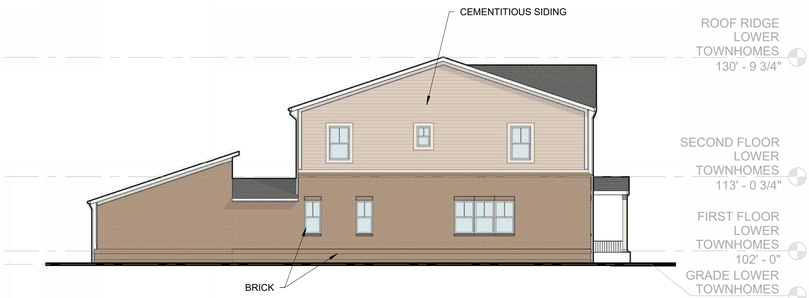




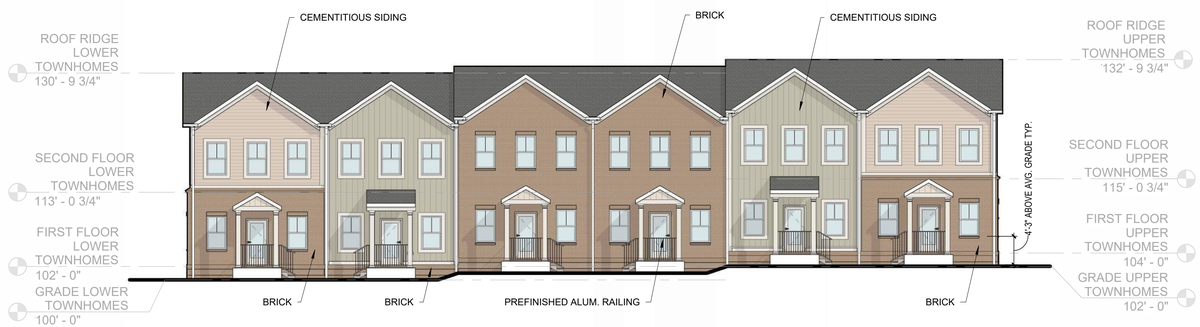
4 A205 **ELEVATION** TOWNHOME - ROW 1 - (FACING PARKING LOT)
3/32" = 1'-0"



2 A205 **ELEVATION** TOWNHOME - ROW 1 - (FACING B1&2)
3/32" = 1'-0"



3 A205 **ELEVATION** TOWNHOME - ROW 1 - (FACING ROW 2)
3/32" = 1'-0"



1 A205 **ELEVATION** TOWNHOME - ROW 1 - (FACING TAYLOR'S BEND RD.)
3/32" = 1'-0"

* SILL HEIGHT NOTE: PUD-MU ZONING CODE REQUIRES THE RESIDENTIAL SILL TO BE 5' MIN. ABOVE AVERAGE GRADE AT FACADE. APPLICANT IS REQUESTING STAFF LEVEL ALLOWABLE DEVIATION TO REDUCE THE MIN. DIMENSION TO 4' (20%) MIN. ABOVE AVERAGE GRADE AT FACADE FOR ALL BUILDINGS THAT ARE PARALLEL TO STRAIGHT FRONTAGE LINES OR TANGENT OF CURVED FRONTAGE LINE.

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ISSUANCES

NO.	DATE	DESCRIPTION
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	2025.09.16	CITY COMMENTS REVISION
	2026.04.20	SITE DEVELOPMENT PLAN SUBMISSION
	2026.05.18	FINAL PUD SUBMISSION

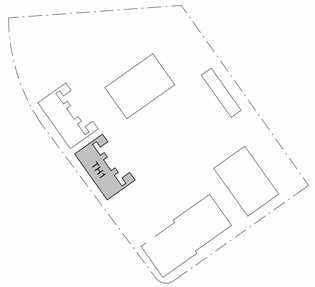
PROJECT NO:
26008

SHEET TITLE:
TOWNHOME ELEVATIONS

SHEET NUMBER:
A205

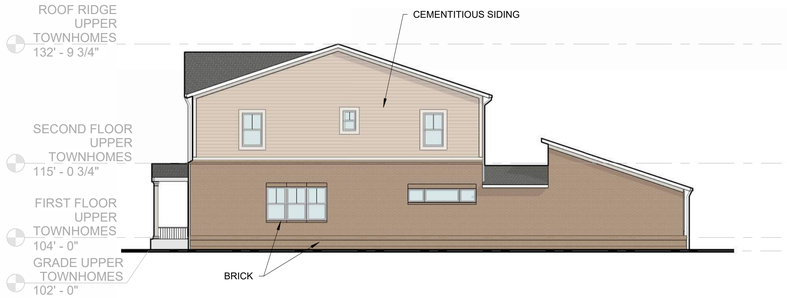
6/24/2026 3:35:22 PM

KEY PLAN

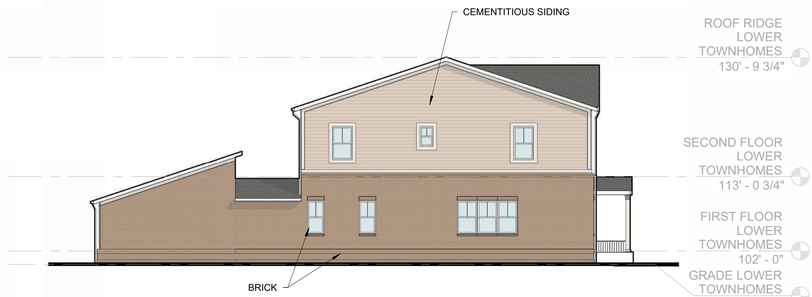




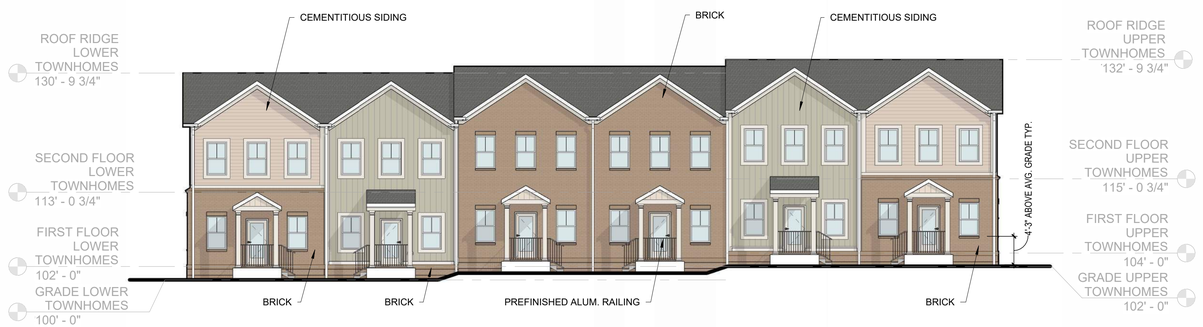
4 A205 **ELEVATION** TOWNHOME - ROW 1 - (FACING PARKING LOT)
3/32" = 1'-0"



2 A205 **ELEVATION** TOWNHOME - ROW 1 - (FACING B1&2)
3/32" = 1'-0"



3 A205 **ELEVATION** TOWNHOME - ROW 1 - (FACING ROW 2)
3/32" = 1'-0"



1 A205 **ELEVATION** TOWNHOME - ROW 1 - (FACING TAYLOR'S BEND RD.)
3/32" = 1'-0"

* SILL HEIGHT NOTE: PUD-MU ZONING CODE REQUIRES THE RESIDENTIAL SILL TO BE 5' MIN. ABOVE AVERAGE GRADE AT FACADE. APPLICANT IS REQUESTING STAFF LEVEL ALLOWABLE DEVIATION TO REDUCE THE MIN. DIMENSION TO 4' (20%) MIN. ABOVE AVERAGE GRADE AT FACADE FOR ALL BUILDINGS THAT ARE PARALLEL TO STRAIGHT FRONTAGE LINES OR TANGENT OF CURVED FRONTAGE LINE.

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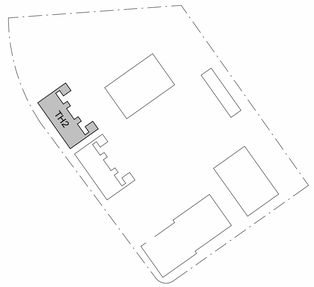
	2026.05.18	FINAL PUD SUBMISSION

PROJECT NO:
26008

SHEET TITLE:
TOWNHOME ELEVATIONS

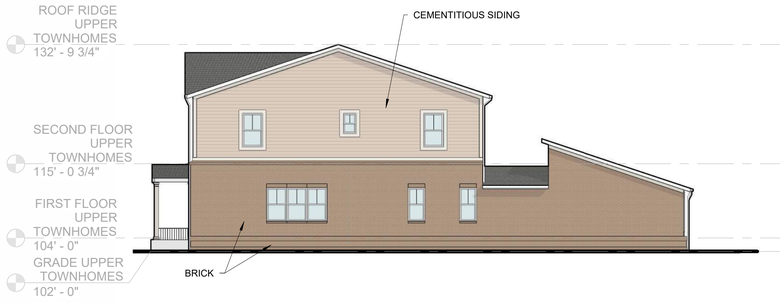
SHEET NUMBER:
A205

KEY PLAN

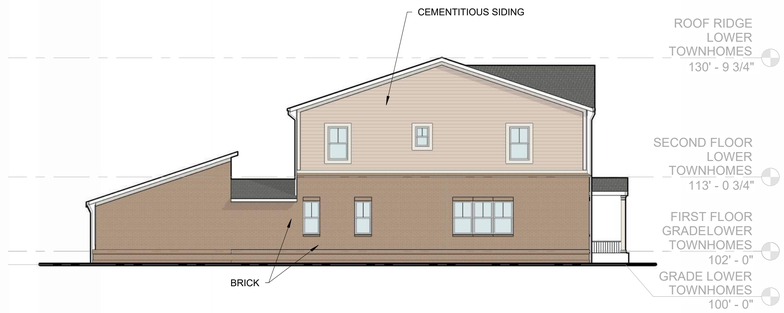




2 A206 **ELEVATION** TOWNHOME - ROW 2 - (FACING PARKING LOT)
3/32" = 1'-0"



3 A206 **ELEVATION** TOWNHOME - ROW 2 - (FACING ROW 1)
3/32" = 1'-0"



4 A206 **ELEVATION** TOWNHOME - ROW 2 - FACING WATER DETENTION AREA)
3/32" = 1'-0"



1 A206 **ELEVATION** TOWNHOME - ROW 2 - (FACING TAYLOR'S BEND RD.)
3/32" = 1'-0"

* SILL HEIGHT NOTE: PUD-MU ZONING CODE REQUIRES THE RESIDENTIAL SILL TO BE 5' MIN. ABOVE AVERAGE GRADE AT FACADE. APPLICANT IS REQUESTING STAFF LEVEL ALLOWABLE DEVIATION TO REDUCE THE MIN. DIMENSION TO 4' (20%) MIN. ABOVE AVERAGE GRADE AT FACADE FOR ALL BUILDINGS THAT ARE PARALLEL TO STRAIGHT FRONTAGE LINES OR TANGENT OF CURVED FRONTAGE LINE.

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	2026.05.18	FINAL PUD SUBMISSION

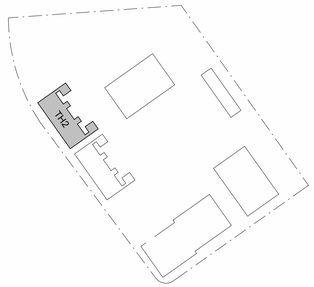
PROJECT NO:
26008

SHEET TITLE:
TOWNHOME ELEVATIONS

SHEET NUMBER:
A206

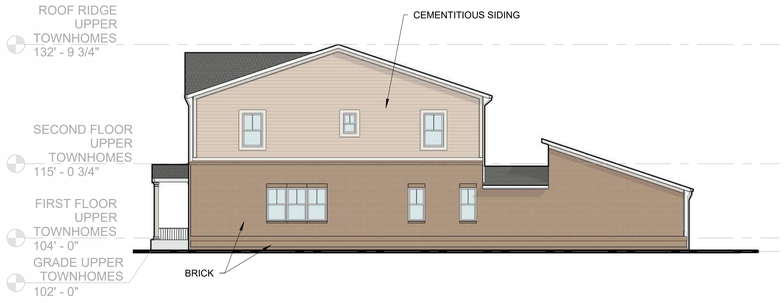
6/24/2026 3:35:25 PM

KEY PLAN

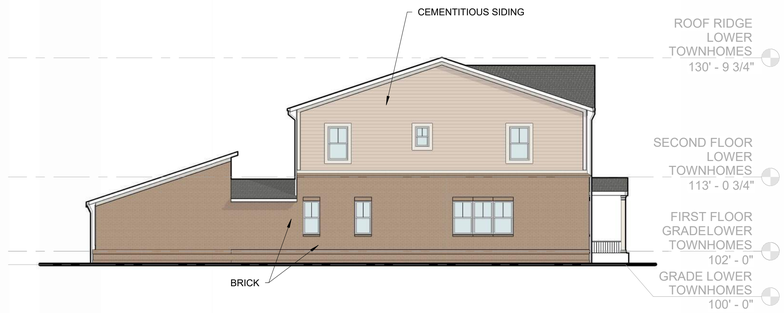




2 A206 **ELEVATION** TOWNHOME - ROW 2 - (FACING PARKING LOT)
3/32" = 1'-0"



3 A206 **ELEVATION** TOWNHOME - ROW 2 - (FACING ROW 1)
3/32" = 1'-0"



4 A206 **ELEVATION** TOWNHOME - ROW 2 - FACING WATER DETENTION AREA)
3/32" = 1'-0"



1 A206 **ELEVATION** TOWNHOME - ROW 2 - (FACING TAYLOR'S BEND RD.)
3/32" = 1'-0"

* SILL HEIGHT NOTE: PUD-MU ZONING CODE REQUIRES THE RESIDENTIAL SILL TO BE 5' MIN. ABOVE AVERAGE GRADE AT FACADE. APPLICANT IS REQUESTING STAFF LEVEL ALLOWABLE DEVIATION TO REDUCE THE MIN. DIMENSION TO 4' (20%) MIN. ABOVE AVERAGE GRADE AT FACADE FOR ALL BUILDINGS THAT ARE PARALLEL TO STRAIGHT FRONTAGE LINES OR TANGENT OF CURVED FRONTAGE LINE.

5/15/2026 2:46:44 PM

OPEN
ARCHITECTURE
1201 HARRISON AVE.
CINCINNATI, OH, 45214
OPENARCHITECTURE.COM

NOT FOR CONSTRUCTION

BARLOW BUILDERS & CPS LAND
THE JAMES (PHASE 2)
COLUMBIA, TN

ISSUANCES

NO.	DATE	DESCRIPTION
	2025.05.19	ZONING SUBMISSION
	2025.09.16	CITY COMMENTS REVISION
	2026.04.20	SITE DEVELOPMENT PLAN SUBMISSION
	2026.05.18	FINAL PUD SUBMISSION

PROJECT NO:
26008

SHEET TITLE:
TOWNHOME ELEVATIONS

SHEET NUMBER:
A206

Melissa Sanders

From: Charles Rush
Sent: Tuesday, June 9, 2026 2:13 PM
To: Melissa Sanders
Subject: FW: Waters Edge FMDP Deferral Request

CHARLES RUSH
Development Services
Principal Planner
Office: (931) 560-1531
CRush@ColumbiaTN.gov
www.ColumbiaTN.gov
700 N Garden Street, Columbia, TN 38401

From: Frymire, Keli <Keli.Frymire@kimley-horn.com>
Sent: Tuesday, June 9, 2026 2:11 PM
To: Charles Rush <CRush@Columbiatn.gov>; Austin Brass <ABrass@Columbiatn.gov>; Paul Keltner <PKeltner@Columbiatn.gov>
Cc: Gamble, Greg <Greg.Gamble@kimley-horn.com>; Cliff Smith <cliff.smith@cpsland.com>
Subject: [Caution External Email] - Waters Edge FMDP Deferral Request

Charles,
We would like to request a deferral for the Waters Edge FMDP from the June Planning Commission agenda to the July Planning Commission agenda so that we can reevaluate our parking area.

Please confirm receipt of this request.

Thank you,

****Please note our new contact information as GDC has merged with Kimley-Horn****

Keli Frymire, PLA
Kimley-Horn | 4031 Aspen Grove Drive, Suite 200, Franklin, TN 37067
Direct/Mobile: 706.566.6480 | Office: 615.208.6930
Connect with us: LinkedIn | Facebook | Instagram

Melissa Sanders

From: Ayanna Jetton <noreply@adv.actionnetwork.org>
Sent: Monday, June 8, 2026 4:47 PM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

I am a Taylor Landing resident and respectfully request that the Planning Commission deny or defer consideration of the Waters Edge at Taylor Landing (recently renamed The James Phase 2 by the Developers) Final PUD Master Plan.

A lawsuit is currently pending in Maury County Chancery Court challenging the validity of the underlying ordinance and approval process used to advance this project. Before additional approvals are granted, the City should allow those legal questions to be resolved.

Taylor Landing homeowners and residents have repeatedly raised concerns regarding traffic, public safety, infrastructure capacity, school capacity, water availability, parking, and the cumulative impact of continued high-density development in this area. Recent incidents in and around our community have only heightened those concerns. In addition, the developer has recently submitted significant revisions to the project, including changes to building elevations, site layout, and decreased parking capacity.

Regardless of one's position on the project itself, moving forward with Final PUD approval while the underlying approvals are being challenged in court risks creating unnecessary uncertainty, expense, and additional litigation.

I respectfully ask the Planning Commission to deny or defer action on the Final PUD Master Plan until the Court has ruled on the pending challenge.

Thank you for your consideration.

Ayanna Jetton
ayannaaa.jetton@gmail.com
924 Oak Ridge Ln
Columbia, Tennessee 38401

Melissa Sanders

From: Natalie Anderson <noreply@adv.actionnetwork.org>
Sent: Tuesday, June 9, 2026 3:08 PM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

I am a Taylor Landing resident and respectfully request that the Planning Commission deny or defer consideration of the Waters Edge at Taylor Landing (recently renamed The James Phase 2 by the Developers) Final PUD Master Plan.

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Thank you for your consideration.

Natalie Anderson
njanderson2014@yahoo.com
825 Arrington Way
Columbia , Tennessee 38401

Melissa Sanders

From: Rose Marie Arnold <noreply@adv.actionnetwork.org>
Sent: Tuesday, June 9, 2026 6:47 PM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

I am a Taylor Landing resident and respectfully request that the Planning Commission deny or defer consideration of the Waters Edge at Taylor Landing (recently renamed The James Phase 2 by the Developers) Final PUD Master Plan.

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Thank you for your consideration.

Rose Marie Arnold
rma.walker@yahoo.com
734 Prairie View Drive
Columbia, Tennessee 38401

Melissa Sanders

From: Steve Baker <noreply@adv.actionnetwork.org>
Sent: Monday, June 8, 2026 3:08 PM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

I am a Taylor Landing resident and respectfully request that the Planning Commission deny or defer consideration of the Waters Edge at Taylor Landing (recently renamed The James Phase 2 by the Developers) Final PUD Master Plan.

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Thank you for your consideration.

Steve Baker

Steve Baker
stevenbaker828@gmail.com

Melissa Sanders

From: Kurt Bartlett <noreply@adv.actionnetwork.org>
Sent: Monday, June 8, 2026 10:00 PM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

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Thank you for your consideration.

Kurt Bartlett
kurt.bartlett@gmail.com
205 River Road
Columbia , Tennessee 38401

Melissa Sanders

From: Luke Bogda <noreply@adv.actionnetwork.org>
Sent: Monday, June 8, 2026 2:59 PM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

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Thank you for your consideration.

Luke Bogda
payton34rulz@gmail.com
928 Oak Ridge Lane
Columbia , Tennessee 38401

Melissa Sanders

From: DeeAnna Crumley <noreply@adv.actionnetwork.org>
Sent: Tuesday, June 9, 2026 8:53 AM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

I am a Taylor Landing resident and respectfully request that the Planning Commission deny or defer consideration of the Waters Edge at Taylor Landing (recently renamed The James Phase 2 by the Developers) Final PUD Master Plan.

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Thank you for your consideration.

DeeAnna Crumley
dccookiesncream@gmail.com
McKee ct
Columbia , Tennessee 38401

Melissa Sanders

From: Christy Daus <noreply@adv.actionnetwork.org>
Sent: Monday, June 8, 2026 2:38 PM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

I am a Taylor Landing resident and respectfully request that the Planning Commission deny or defer consideration of the Waters Edge at Taylor Landing (recently renamed The James Phase 2 by the Developers) Final PUD Master Plan.

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Thank you for your consideration.

Christy Daus
krittidee@hotmail.com
710 TAYLOR BEND RD
Columbia, Tennessee 38401

Melissa Sanders

From: Timothy J Davis <noreply@adv.actionnetwork.org>
Sent: Tuesday, June 9, 2026 9:42 AM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

I am a Taylor Landing resident and respectfully request that the Planning Commission deny or defer consideration of the Waters Edge at Taylor Landing (recently renamed The James Phase 2 by the Developers) Final PUD Master Plan.

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Thank you for your consideration.

Timothy J Davis
tim347davis@gmail.com
334 Seaton Way
Columbia, Tennessee 38401

Melissa Sanders

From: Brooke Delahunty <noreply@adv.actionnetwork.org>
Sent: Monday, June 8, 2026 3:33 PM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

I am a Taylor Landing resident and respectfully request that the Planning Commission deny or defer consideration of the Waters Edge at Taylor Landing (recently renamed The James Phase 2 by the Developers) Final PUD Master Plan.

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Thank you for your consideration.

Brooke Delahunty
brookedelahunty@gmail.com
674 Taylor Bend Rd
Columbia, Tennessee 38401

Melissa Sanders

From: Kristina Dickson <noreply@adv.actionnetwork.org>
Sent: Monday, June 8, 2026 5:11 PM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

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Thank you for your consideration.

Kristina Dickson
kdickson1112@gmail.com
758 Prairie View Drive
Columbia, Tennessee 38401

Melissa Sanders

From: Kaylon Evans <noreply@adv.actionnetwork.org>
Sent: Monday, June 8, 2026 4:49 PM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

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Thank you for your consideration.

Kaylon Evans
jettontawana3@gmail.com
924 Oak Ridge Ln
Columbia, Tennessee 38401

Melissa Sanders

From: Ryon Evans jr <noreply@adv.actionnetwork.org>
Sent: Monday, June 8, 2026 4:48 PM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

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Thank you for your consideration.

Ryon Evans jr
jettontawana3@gmail.com
924 Oak Ridge Ln
Columbia, Tennessee 38401

Melissa Sanders

From: Brianne Hopson <noreply@adv.actionnetwork.org>
Sent: Monday, June 8, 2026 3:39 PM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

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Thank you for your consideration.

Brianne Hopson
littlebhopson@gmail.com
950 oak ridge lane
Columbia, Tennessee 38401

Melissa Sanders

From: Tawana Jetton <noreply@adv.actionnetwork.org>
Sent: Monday, June 8, 2026 4:46 PM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

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Thank you for your consideration.

Tawana Jetton
jettontawana3@gmail.com
924 Oak Ridge Ln
Columbia, Tennessee 38401

Melissa Sanders

From: Justin Keller <noreply@adv.actionnetwork.org>
Sent: Monday, June 8, 2026 6:25 PM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

I am a Taylor Landing resident and respectfully request that the Planning Commission deny or defer consideration of the Waters Edge at Taylor Landing (recently renamed The James Phase 2 by the Developers) Final PUD Master Plan.

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Thank you for your consideration.

Justin Keller
pastor.justin.keller@gmail.com
654 Taylor Bend Rd
Columbia, Tennessee 38401

Melissa Sanders

From: Barbara Kolberg <noreply@adv.actionnetwork.org>
Sent: Monday, June 8, 2026 6:35 PM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

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Thank you for your consideration.

Barbara Kolberg
barbeticket@gmail.com
312 Seaton wat
Columbia , Tennessee 38401

Melissa Sanders

From: Robert W Migliavacca <noreply@adv.actionnetwork.org>
Sent: Monday, June 8, 2026 3:02 PM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

I am a Taylor Landing resident and respectfully request that the Planning Commission deny or defer consideration of the Waters Edge at Taylor Landing (recently renamed The James Phase 2 by the Developers) Final PUD Master Plan.

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Thank you for your consideration.

Robert W Migliavacca
rwmiglia@gmail.com
767 Foxland Dr
COLUMBIA, Tennessee 38401

Melissa Sanders

From: Floyd Miles <noreply@adv.actionnetwork.org>
Sent: Tuesday, June 9, 2026 2:46 PM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

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Thank you for your consideration.

Floyd Miles
gaspts@yahoo.com
956 Oak Ridge Ln
Columbia, Tennessee 38401

Melissa Sanders

From: Matthew Minner <noreply@adv.actionnetwork.org>
Sent: Monday, June 8, 2026 2:57 PM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

I am a Taylor Landing resident and respectfully request that the Planning Commission deny or defer consideration of the Waters Edge at Taylor Landing (recently renamed The James Phase 2 by the Developers) Final PUD Master Plan.

A lawsuit is currently pending in Maury County Chancery Court challenging the validity of the underlying ordinance and approval process used to advance this project. Before additional approvals are granted, the City should allow those legal questions to be resolved.

Taylor Landing homeowners and residents have repeatedly raised concerns regarding traffic, public safety, infrastructure capacity, school capacity, water availability, parking, and the cumulative impact of continued high-density development in this area. Recent incidents in and around our community have only heightened those concerns. In addition, the developer has recently submitted significant revisions to the project, including changes to building elevations, site layout, and decreased parking capacity.

Regardless of one's position on the project itself, moving forward with Final PUD approval while the underlying approvals are being challenged in court risks creating unnecessary uncertainty, expense, and additional litigation.

I respectfully ask the Planning Commission to deny or defer action on the Final PUD Master Plan until the Court has ruled on the pending challenge.

Thank you for your consideration.

Matthew Minner
matthewfminner@gmail.com
636 Taylor Bend Rd
Columbia, Tennessee 38401

Melissa Sanders

From: Joshua Moore <noreply@adv.actionnetwork.org>
Sent: Tuesday, June 9, 2026 9:32 PM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

I am a Taylor Landing resident and respectfully request that the Planning Commission deny or defer consideration of the Waters Edge at Taylor Landing (recently renamed The James Phase 2 by the Developers) Final PUD Master Plan.

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Thank you for your consideration.

Joshua Moore
moorejd@rose-hulman.edu
360 Coleman Ct
Columbia, Tennessee 38401

Melissa Sanders

From: Garrett Morrison <noreply@adv.actionnetwork.org>
Sent: Monday, June 8, 2026 3:37 PM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

I am a Taylor Landing resident and respectfully request that the Planning Commission deny or defer consideration of the Waters Edge at Taylor Landing (recently renamed The James Phase 2 by the Developers) Final PUD Master Plan.

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Due to the recent uptick in crime I also oppose this development. There will be an increase in traffic through our area and it will result in increased crime. We already are unable to get any additional patrols through the neighborhood.

Thank you for your consideration.

Melissa Sanders

From: Betty Niemeyer <noreply@adv.actionnetwork.org>
Sent: Tuesday, June 9, 2026 5:26 AM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

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Thank you for your consideration.

Betty Niemeyer
margueritejohann@gmail.com
429 Palmetto Dr, Lot 121
Columbia, Tennessee 38401

Melissa Sanders

From: Andrew Parisek <noreply@adv.actionnetwork.org>
Sent: Monday, June 8, 2026 3:47 PM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

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Thank you for your consideration.

Andrew Parisek
baazetu@gmail.com
620 Taylor Bend Rd
Columbia, Tennessee 38401

Melissa Sanders

From: Kyle Anne Prock <noreply@adv.actionnetwork.org>
Sent: Tuesday, June 9, 2026 3:30 PM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

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Thank you for your consideration.

Kyle Anne Prock
jpkp1022@gmail.com
662 Taylor Bend Road
Columbia, Tennessee 38401

Melissa Sanders

From: Patricia Sawatzki <noreply@adv.actionnetwork.org>
Sent: Tuesday, June 9, 2026 3:12 AM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

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Thank you for your consideration.

Patricia Sawatzki
pm1950@yahoo.com
601 Taylor Bend Rd
Columbia, Tennessee 38401

Melissa Sanders

From: Arnel A Tirones <noreply@adv.actionnetwork.org>
Sent: Tuesday, June 9, 2026 12:57 PM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideratjion of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

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Thank you for your consideration.

Arnel A Tirones
a.tirones@yahoo.com
369 Coleman Ct
Columbia, Tennessee 38401

Melissa Sanders

From: Les Valentín <noreply@adv.actionnetwork.org>
Sent: Monday, June 8, 2026 2:44 PM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

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Thank you for your consideration.

Les Valent□n
leslievalentin01@gmail.com
843 Longleaf LN
Columbia , Tennessee 38401

Melissa Sanders

From: George Victory <noreply@adv.actionnetwork.org>
Sent: Tuesday, June 9, 2026 8:58 AM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

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Thank you for your consideration.

George Victory
gvict2017@gmail.com
625 Taylor Bend Rd
Columbia, Tennessee 38401

Melissa Sanders

From: Marieva Walsh (Sciumbato) <noreply@adv.actionnetwork.org>
Sent: Monday, June 8, 2026 2:33 PM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

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Thank you for your consideration.

Marieva Walsh (Sciumbato)
mgwalsh413@gmail.com
605 Taylor Bend Rd
Columbia, Tennessee 38401

Melissa Sanders

From: Greg Wood <noreply@adv.actionnetwork.org>
Sent: Monday, June 8, 2026 2:55 PM
To: Melissa Sanders
Subject: [Caution External Email] - Please Deny or Defer Consideration of the Waters Edge Final PUD Master Plan

Planner Melissa Sanders,

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Thank you for your consideration.

Greg Wood
g.a.wood@outlook.com
414 Palmetto Dr
Columbia, Tennessee 38401

Kimley»Horn

June 4, 2026

Charles Rush, Principal Planner
Development Services, City of Columbia TN
700 North Garden Street
Columbia, TN 38401

RE: ***Resubmittal: Waters Edge at Taylor Bend FMDP; Item #: 26-0148***

Dear Mr. Rush,

Thank you for the opportunity to provide additional information regarding the submittal. We have uploaded a revised FMDP Sheet Set, which includes the update L2.0 sheet and layouts showing the parking removed from the frontage of large multi-family building 4. Below are the items for which Staff requested additional information.

- Parking quantity reduction. An effort was made to maintain as many parking stalls as possible. The total number of parking stalls proposed with this final PUD has reduced due to site grading and accessibility constraints
- Building frontage at Large MF Building 4. Parking has been removed from this area.
- Canopy Trees on the code minimum plan. Canopy Trees between the small multi-family building and adjacent property to the east have been added to the code minimum plans. These trees were intended to be included as part of the final site landscape treatment, and have been added to this permit set for clarity.
- Additional information regarding the privacy fence on the rear townhome elevation. The fence was part of an earlier design iteration. As this was building designed was refined, the team decided to remove the privacy fence.
- Additional information concerning the building elevation at the amenity/club house area. After the PUD Preliminary Master Plan was approved, our architectural team progressed the architectural design of the building towards a detailed design for final coordination. Open Architecture was informed by staff that the design of the building needed to be final in elevation form before the PUD Final Site Plan application was filed. Open Architecture contacted the Interior Design firm to finalize the amenity area to ensure the floor plan was complete and final for the upcoming PUD submission. During the interior design process, the following items were addressed and coordinated between the plan and elevation, along the pool side of clubhouse elevation (see elevation 4/A201).
    - One window sill was raised to coordinate with site grading.
    - One large glazed opening was slightly reduced in width to coordinate with the final floor plan.
    - Two double doors were revised to single doors.
    - A sidelight was added to the clubhouse entry door to maintain alignment with the window openings above to keep in spirit of the underling code.
    - These revisions are to fully coordinate with the floor plan which has been finalized as part of our final development plan and site grading plan.

If you have any additional questions or concerns, please contact Greg Gamble at greg.gamble@kimley-horn.com or Keli Frymire at 706.566.6480 or keli.frymire@kimley-horn.com

Sincerely,



Keli Frymire
Landscape Architect

THE JAMES PHASE 2

FINAL PUD MASTER DEVELOPMENT PLAN

INTERSECTION OF RIVER ROAD AND TAYLOR BEND ROAD
COLUMBIA, TENNESSEE



LOCATION MAP

0 400 800
GRAPHIC SCALE 1"=400'-0"

SHEET INDEX

C0.0	COVER SHEET
C1.0	EXISTING CONDITIONS
C2.0	PRELIMINARY PUD MASTER DEVELOPMENT PLAN
C3.0	CONCEPTUAL GRADING, STORM, UTILITIES
C3.1	RETAINING WALL SHEET
L1.0	TREE CANOPY COVERAGE
L2.0	CODE MINIMUM LANDSCAPE PLAN
L2.1	CODE MINIMUM LANDSCAPE PLAN
A201	ARCHITECTURAL ELEVATIONS
A202	ARCHITECTURAL ELEVATIONS
A203	ARCHITECTURAL ELEVATIONS
A204	ARCHITECTURAL ELEVATIONS
A205	ARCHITECTURAL ELEVATIONS
A206	ARCHITECTURAL ELEVATIONS

OWNER:
BRENT CAMPBELL
1187 GLENBROOK DR
FRANKLIN, TN 37064

DEVELOPER:
CPS LAND
213 OVERLOOK CIRCLE, SUITE B2
BRENTWOOD, TN 37027
CLIFF SMITH
cliff.smith@cpsland.com

APPLICANT/ LAND PLANNER:
KIMLEY-HORN
4031 ASPEN GROVE DRIVE, SUITE 200
FRANKLIN, TN 37067
GREG GAMBLE
greg.gamble@kimley-horn.com

ENGINEER:
KIMLEY-HORN
4031 ASPEN GROVE DRIVE, SUITE 200
FRANKLIN, TN 37067
GRAY HARRISON, P.E.
615.564.2701
gray.harrison@kimley-horn.com

ARCHITECT:
OPEN ARCHITECTURE
ERIC CLAUS
513.403.7019
ERIC.CLAUS@OPENARCHITECTURE.COM

GREGORY C. GAMBLE
REGISTERED
LANDSCAPE ARCHITECT
TENNESSEE

PRE-APP: FEB. 4, 2026
INITIAL SUBMITTAL: APRIL 20, 2026
RESUBMITTAL: MAY 18, 2026



GRAPHIC SCALE IN FEET
0 15 30 60

NORTH

NOTES

1. THE INFORMATION SHOWN ON THIS PLAN IS BASED UPON THE TENNESSEE STATE NAD83 COORDINATE SYSTEM.
2. NO PROPOSED BUILDINGS FALL WITHIN THE 100 YEAR FLOODPLAIN, PER THE FEMA FIRM MAP NUMBER 47119C0170E EFFECTIVE APRIL 16, 2007.
3. PORTIONS OF EXISTING SEWER LINE TO BE ABANDONED. LINE TO BE FILLED WITH CLASS C FLOWABLE FILL AND REMOVED FROM THE EXISTING LIVE SYSTEM WITH PROPER CONCRETE PATCHING.

Kimley»Horn
4031 Aspen Grove Drive, Franklin, TN 37204
Main: 615.564.2701 | www.kimley-horn.com

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THE JAMES 2
FINAL PUD MASTER DEVELOPMENT PLAN
RIVER ROAD & TAYLOR BEND RD, COLUMBIA TN

SOPHIA CLOSE
REGISTERED ENGINEER
COMMERCE
No. 131263
STATE OF TENNESSEE
Sophia Close
05/18/2026

No.	REVISIONS	DATE	BY
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

DESIGNED BY:	SAC
DRAWN BY:	MEN
CHECKED BY:	SAC
DATE:	05/18/2026

KIMLEY-HORN PROJECT NO.
118119003

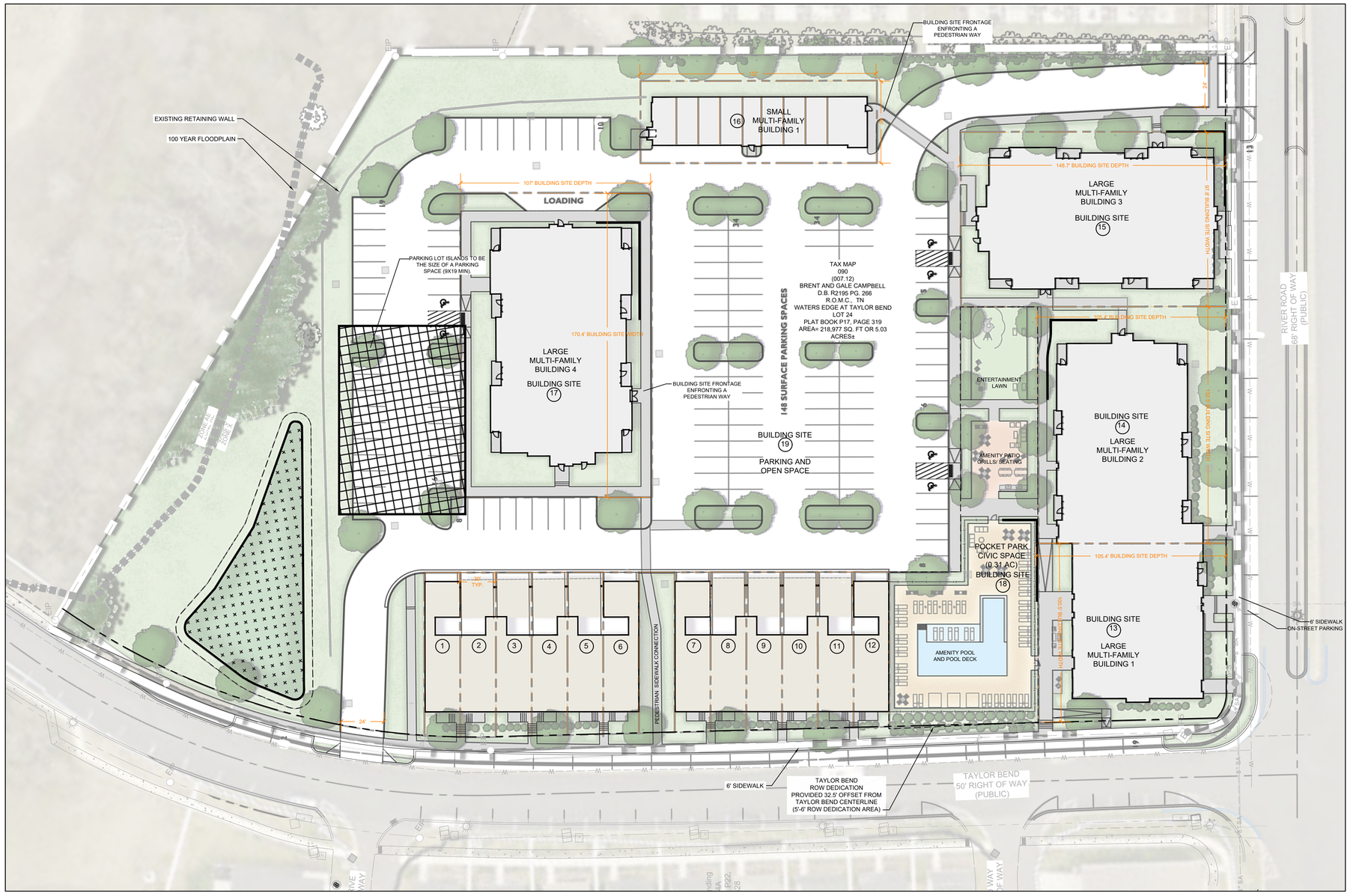
OVERALL EXISTING CONDITIONS

SHEET NUMBER
C1.0

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

Drawing name: K:\FRA_LDEV\118119003 - Waters Edge\4-CADD\PlanSheets\C1.0 OVERALL EXISTING CONDITIONS.dwg C1.0 OVERALL EXISTING CONDITIONS Jun 03, 2026 3:49pm by: Sophia.Close

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



LEGAL DESCRIPTION OF PROPERTY:
WATERS EDGE AT TAYLOR BEND
PROPERTY MAP 090, PARCEL 007.03
RIVER ROAD
CITY OF COLUMBIA, MAURY COUNTY, TENNESSEE

Being a certain tract or parcel of land lying and being in the Ninth (9th) Civil District of Maury County, city of Columbia, Tennessee and being more particularly described as follows:

Being Tract 24, a 5.026-acre tract as shown on the final plat entitled "Waters Edge at Taylor Bend" of record in Plat Book P17, page 319, Register's Office for Maury County, Tennessee to which plat reference is hereby made for a more complete description of the subject property.

No field work has been performed by Kimley-Horn Associates to verify the accuracy of the property lines, corners or areas shown on said recorded plats.

FINAL MASTER DEVELOPMENT PLAN SITE DATA:

TOTAL SITE AREA: +/-5.0 AC
EXISTING ZONING: PUD
FUTURE LAND USE: CCUV - CITY CENTER URBAN VILLAGE
PREVIOUS PUD MASTER PLAN: WATERS EDGE PUD; ORDINANCE 4262; NOV. 14, 2019
PRELIMINARY PUD MASTER DEVELOPMENT PLAN: ORDINANCE 4563; APPROVED JAN. 8, 2026

NEW PUDS DEVELOPING IN THE CCUV FUTURE LAND USE DISTRICT ARE REQUIRED TO BE ZONED PUD-MU. IN ORDER TO CREATE A MASTER PLAN IN KEEPING WITH THE FORM AND AESTHETIC OF THIS SURROUNDING AREA, THE PROPOSED PUD MASTER PLAN COMPLIES WITH THE PUD-MU REQUIREMENTS.

NOTE: THIS DEVELOPMENT WILL CONFORM TO ALL PUD-MU STANDARDS.

NOTE: THE SUBJECT PARCEL IS LESS THAN 10 ACRES IN SIZE, DOES NOT INCLUDE THE CREATION OF A NEW THOROUGHFARE OR INTERNAL DRIVE, AND THEREFORE IS NOT A DEVELOPMENT PARCEL. AS SUCH, THIS PARCEL IS EXEMPT FROM SOME TYPICAL PUD-MU CRITERIA: DENSITY, BLOCK SIZE, AND CERTAIN CIVIC SPACE REQUIREMENTS.

TOTAL DWELLING UNITS: 94 UNITS
TOTAL DENSITY: 18.8 DUA

BUILDING BREAKDOWN:
TOTAL MULTI-FAMILY UNITS: 82 DWELLING UNITS
- LARGE MULTI-FAMILY BLDG 1: 12 DU
- LARGE MULTI-FAMILY BLDG 2: 18 DU
- LARGE MULTI-FAMILY BLDG 3: 24 DU
- LARGE MULTI-FAMILY BLDG 4: 24 DU
- SMALL MULTI-FAMILY BLDG 1: 4 DU; 7-GARAGE PARKING SPACES

TOWNHOMES: 12 DWELLING UNITS
- TOWNHOME 1, 6, 7, 12: 1 CODE COMPLIANT GARAGE SPACE
- TOWNHOME 2-5; 8-11: 2 COVERED PARKING SPACES

BUILDING SITES:
PRINCIPAL STRUCTURE SETBACKS:
- FRONT SETBACK PUD-MU STANDARD: 0'-20'
- PROVIDED SETBACK: 10'-13' TOWNHOMES; 4'-12' LARGE MULTI-FAMILY;
- FRONT SETBACK SECONDARY PUD-MU STANDARD: 0'-20'
- PROVIDED SETBACK: 9' LARGE MULTI-FAMILY
- SIDE SETBACK PUD-MU STANDARD: 0' MIN. ATTACHED; OTHERWISE 10' - 24'
- PROVIDED SETBACK: 0'; 10' MIN. - 24' MAX.
- REAR SETBACK: NOT REGULATED

ENFRONTMENT PUD-MU STANDARD: UP TO 20% OF BUILDING SITE ARE ALLOWED TO FRONT PEDESTRIAN WAYS INSTEAD OF THOROUGHFARES.
- TOTAL NUMBER OF BUILDING SITES: 17
- BUILDING SITES ENFRONTING PEDESTRIAN WAYS: 2 (12% OF BUILDING SITES)
- BUILDING SITES 16 AND 17 ENFRONT PEDESTRIAN WAYS.

PARKING SUMMARY:
- TOTAL DWELLING UNITS: 94 UNITS
- REQUIRED MINIMUM PARKING RATIO: 2 SPACES PER UNIT
- REQUIRED CIVIC SPACE PARKING: 1 SPACE PER 5,000 SF OF REQUIRED CIVIC SPACE
- TOTAL REQUIRED PARKING: 191 SPACES (188 PARKING RESIDENTIAL SPACES; 3 CIVIC PARKING SPACES)
- TOTAL PROVIDED: 196 SPACES
- TOWNHOMES: 20 SPACES TOTAL
  16 COVERED CARPORT SPACES PROVIDED ON-LOT, 4 GARAGE SPACES (10' X 20')
- SMALL MULTI-FAMILY BUILDING 1: 7 GARAGE SPACES (10'X20')
- SURFACE PARKING: 134 SPACES
- ON-STREET PARKING: 33 SPACES

TOTAL CIVIC SPACE: 0.31 AC
- REQUIRED 5% OF GROSS SITE AREA: 0.25 AC
- PROVIDED: 0.31AC (6.2%)
- POCKET PARK - TO INCLUDE COMMUNITY AMENITIES SUCH AS A POOL, PATIO AND GRILLING AREA.

FRONTAGE CALCULATIONS

BUILDING SITE	BUILDING TYPE	BUILDING SITE WIDTH	FRONTAGE BUILD-OUT
1	TOWNHOME	20 LF	20 LF; 100%
2	TOWNHOME	20 LF	20 LF; 100%
3	TOWNHOME	20 LF	20 LF; 100%
4	TOWNHOME	20 LF	20 LF; 100%
5	TOWNHOME	20 LF	20 LF; 100%
6	TOWNHOME	20 LF	20 LF; 100%
7	TOWNHOME	20 LF	20 LF; 100%
8	TOWNHOME	20 LF	20 LF; 100%
9	TOWNHOME	20 LF	20 LF; 100%
10	TOWNHOME	20 LF	20 LF; 100%
11	TOWNHOME	20 LF	20 LF; 100%
12	TOWNHOME	20 LF	20 LF; 100%
13	LARGE MULTI-FAMILY 1	100.5 LF	89 LF; 89%
14	LARGE MULTI-FAMILY 2	132.5 LF	118 LF; 86%
15	LARGE MULTI-FAMILY 3	97.8 LF	79 LF; 81%
16	SMALL MULTI-FAMILY 1	46 LF	28.5 LF; 62%
17	LARGE MULTI-FAMILY 4	170.4 LF	135 LF; 79%

PUD-MU DESIGN STANDARDS DEVIATION REQUESTS:

TABLE 4.3.I-M; FACADE

CURRENT TEXT:
FACADE WINDOW SILL HEIGHT. IF RESIDENTIAL: 5 FT. MIN. ABOVE AVERAGE GRADE AT FACADE.

REQUESTED DEVIATION:
FACADE WINDOW SILL HEIGHT. IF RESIDENTIAL: 4 FT. MIN. ABOVE AVERAGE GRADE AT FACADE.

SEE ARCHITECTURAL SHEETS FOR ADDITIONAL DETAILS.

0 30 60 90
GRAPHIC SCALE 1"=30'-0"

NOTE:

THE SUBJECT PARCEL IS LESS THAN 10 ACRES IN SIZE, DOES NOT INCLUDE THE CREATION OF A NEW THOROUGHFARE OR INTERNAL DRIVE, AND THEREFORE IS NOT A DEVELOPMENT PARCEL.

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THE JAMES 2
FINAL PUD MASTER DEVELOPMENT PLAN
RIVER ROAD & TAYLOR BEND RD, COLUMBIA TN

GREGORY C. GAMBILL — REGISTERED LANDSCAPE ARCHITECT — TENNESSEE — 3320

No.	REVISIONS	DATE	BY
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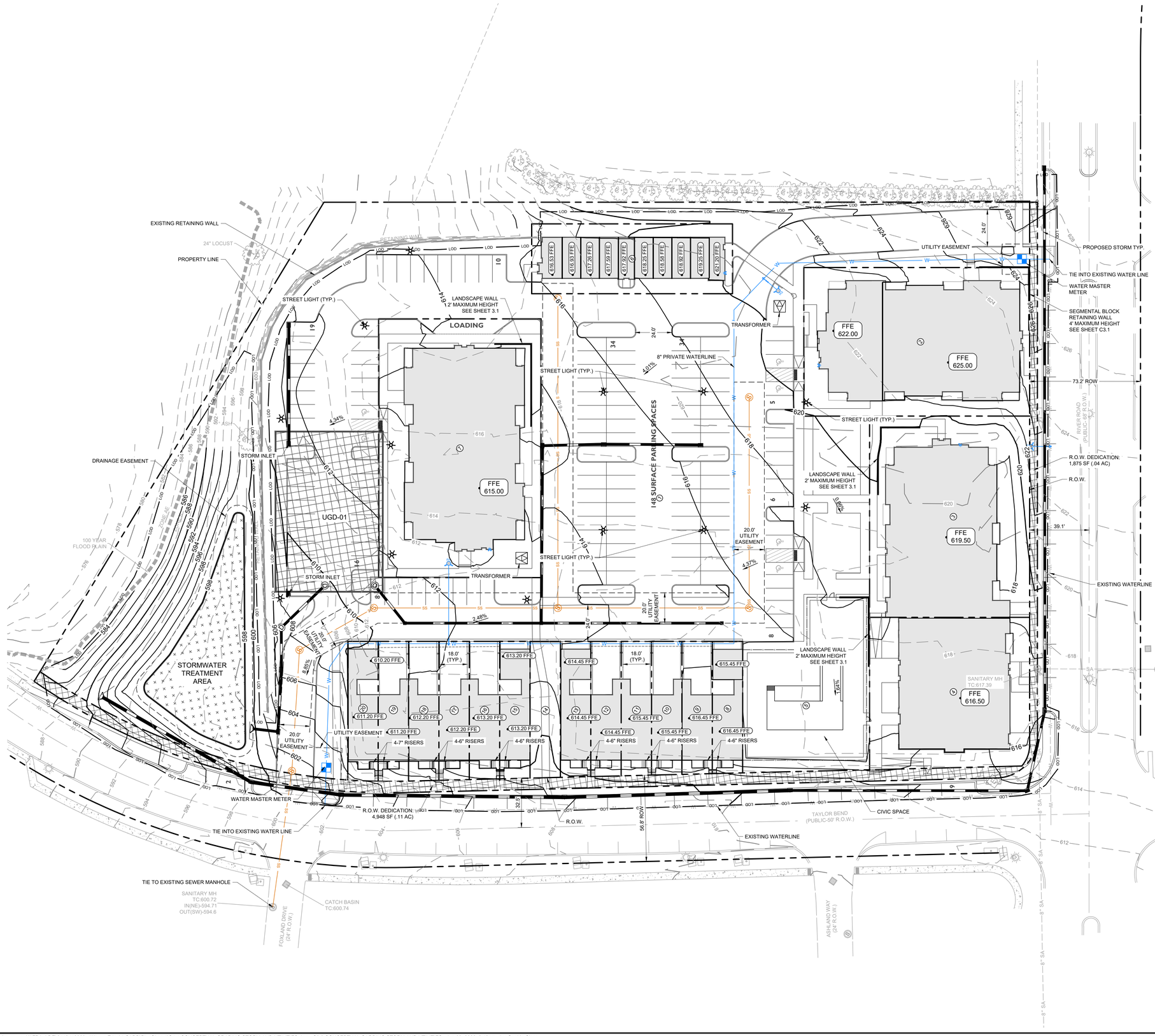
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DATE: 05/18/2026
KIMLEY-HORN PROJECT NO. 118119003

FINAL MASTER DEVELOPMENT PLAN

SHEET NUMBER
C2.0

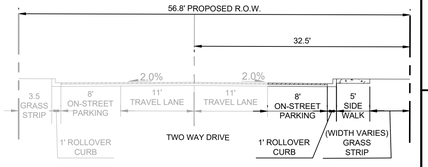


NOTES

1. THE INFORMATION SHOWN ON THIS PLAN IS BASED UPON THE TENNESSEE STATE NAD83 COORDINATE SYSTEM.
2. NO PROPOSED BUILDINGS FALL WITHIN THE 100 YEAR FLOODPLAIN, PER THE FEMA FIRM MAP NUMBER 47119C0170E EFFECTIVE APRIL 16, 2007.
3. SITE TO BE SERVED VIA PRIVATE TRASH SERVICE.
4. FINAL REVIEW OF GRADING AND STORMWATER TO BE PROVIDED WITH CONSTRUCTION PLANS.
5. THIS DEVELOPMENT PLAN WILL CONFORM TO ALL PUD-MU STANDARDS UNLESS THE DEVIATION WAS REQUESTED AND THIS APPLICATION APPROVED BY THE PLANNING COMMISSION.

RETAINING WALL NOTE

EXISTING RETAINING WALL TO BE EXAMINED AND CERTIFIED PRIOR TO FINAL CONSTRUCTION DOCUMENTS.



TAYLOR BEND STREET SECTION
(PUBLIC - 56.8 R.O.W.)

LEGEND

- SANITARY SEWER MANHOLE
- SANITARY SEWER LINE
- WATER LINE
- STORM LINE
- FIRE HYDRANT ASSEMBLY
- FIRE DEPARTMENT CONNECTION
- UNDERGROUND DETENTION
- BIORETENTION

PARCEL AREA TABLE

PARCEL #	AREA (SF)
1	111039.33
2	15034.07
3	14631.75
4	10805.71
5	14669.57
6	6082.69
7	18233.16
8	1769.29
9	1786.41
10	1804.09
11	1815.14
12	1824.83
13	1815.93
14	1861.26
15	1832.90
16	1838.82
17	1836.77
18	1829.75
19	1822.50
20	1806.37

GRAPHIC SCALE IN FEET
0 15 30 60

NORTH

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THE JAMES 2
FINAL PUD MASTER DEVELOPMENT PLAN
RIVER ROAD & TAYLOR BEND RD, COLUMBIA TN

SOPHIA CLOSE
REGISTERED ENGINEER
No. 121363
STATE OF TENNESSEE
05/19/26

No	REVISIONS	DATE	BY
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DESIGNED BY:	SAC
DRAWN BY:	MEN
CHECKED BY:	SAC
DATE:	05/18/2026

KIMLEY-HORN PROJECT NO. 118119003

CONCEPTUAL GRADING STORM AND UTILITIES

SHEET NUMBER
C3.0

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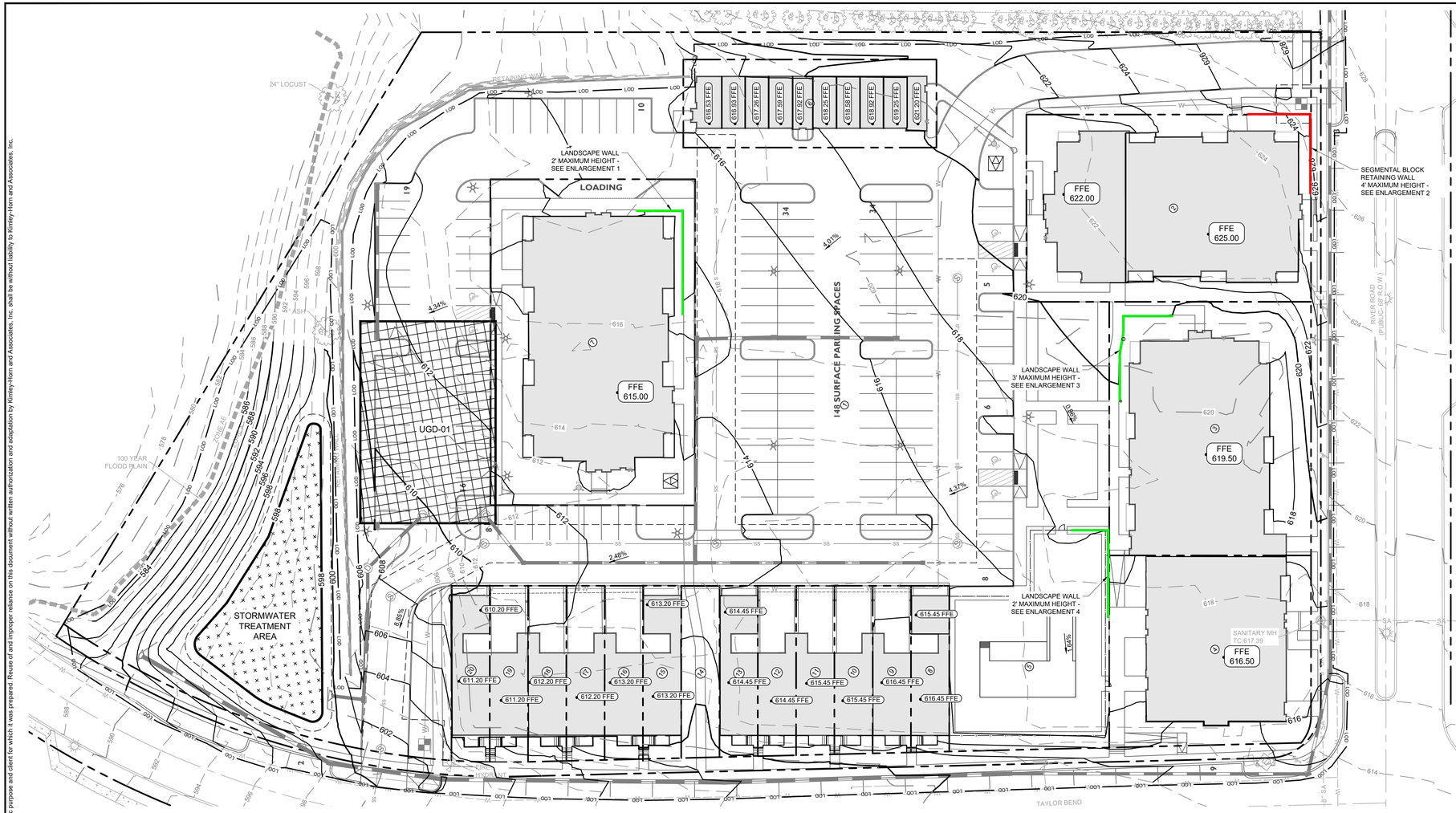

NOTES

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RETAINING WALL NOTE

EXISTING RETAINING WALL TO BE EXAMINED AND CERTIFIED PRIOR TO FINAL CONSTRUCTION DOCUMENTS.

GRADING PLAN LEGEND

- 476.17 — SPOT ELEVATION (TW TOP OF WALL, BW BOTTOM OF WALL)
- FFE ### — FINISH FLOOR ELEVATION
- PROPOSED RETAINING WALL (GREATER THAN 3')
- PROPOSED RETAINING WALL (3' OR SHORTER)

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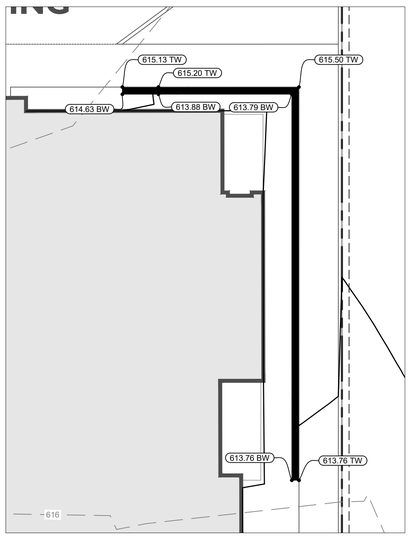
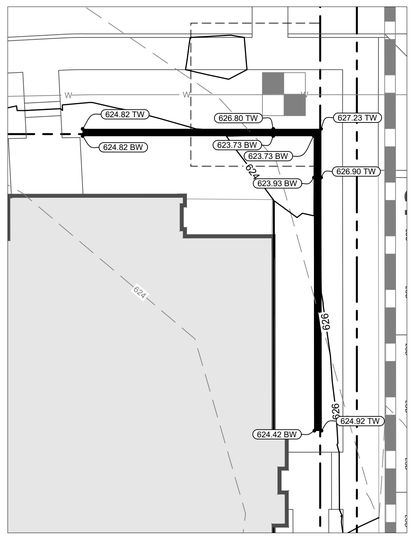
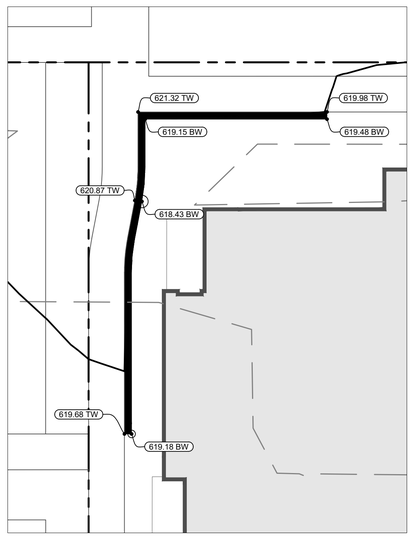
THE JAMES 2
FINAL PUD MASTER DEVELOPMENT PLAN
RIVER ROAD & TAYLOR BEND RD, COLUMBIA TN



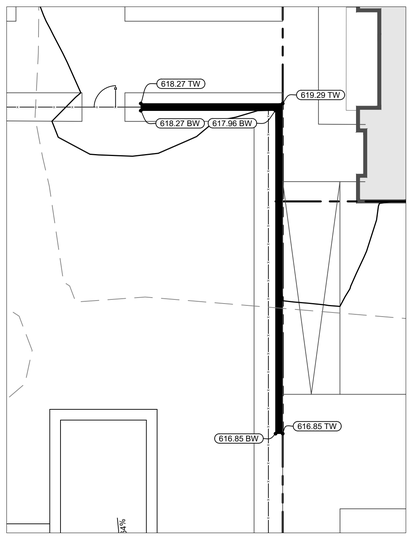
ENLARGEMENT 1



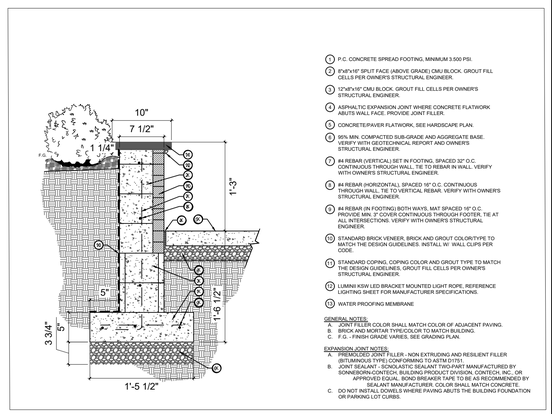
ENLARGEMENT 2



ENLARGEMENT 3



ENLARGEMENT 4



1. P.C. CONCRETE SPREAD FOOTING, MINIMUM 3,500 PSI.
2. 8"x8"x16" SPLIT FACE (ABOVE GRADE) CMU BLOCK, GROUT FILL CELLS PER OWNER'S STRUCTURAL ENGINEER.
3. 12"x8"x16" CMU BLOCK, GROUT FILL CELLS PER OWNER'S STRUCTURAL ENGINEER.
4. ASPHALTIC EXPANSION JOINT WHERE CONCRETE FLATWORK ABUTS WALL FACE. PROVIDE JOINT FILLER.
5. CONCRETE/PAVER FLATWORK, SEE HARDSCAPE PLAN.
6. 95% MIN. COMPACTED SUB-GRADE AND AGGREGATE BASE. VERIFY WITH GEOTECHNICAL REPORT AND OWNER'S STRUCTURAL ENGINEER.
7. #4 REBAR (VERTICAL) SET IN FOOTING, SPACED 32" O.C. CONTINUOUS THROUGH WALL. TIE TO REBAR IN WALL. VERIFY WITH OWNER'S STRUCTURAL ENGINEER.
8. #4 REBAR (HORIZONTAL), SPACED 16" O.C. CONTINUOUS THROUGH WALL. TIE TO VERTICAL REBAR. VERIFY WITH OWNER'S STRUCTURAL ENGINEER.
9. #4 REBAR (IN FOOTING) BOTH WAYS, MAT SPACED 16" O.C. PROVIDE MIN. 3" COVER CONTINUOUS THROUGH FOOTER, TIE AT ALL INTERSECTIONS. VERIFY WITH OWNER'S STRUCTURAL ENGINEER.
10. STANDARD BRICK VENEER, BRICK AND GROUT COLOR/TYPE TO MATCH THE DESIGN GUIDELINES. INSTALL W/ WALL CLIPS PER CODE.
11. STANDARD COPING, COPING COLOR AND GROUT TYPE TO MATCH THE DESIGN GUIDELINES. GROUT FILL CELLS PER OWNER'S STRUCTURAL ENGINEER.
12. LUMINI KSW LED BRACKET MOUNTED LIGHT ROPE, REFERENCE LIGHTING SHEET FOR MANUFACTURER SPECIFICATIONS.
13. WATER PROOFING MEMBRANE

GENERAL NOTES:
A. JOINT FILLER COLOR SHALL MATCH COLOR OF ADJACENT PAVING.
B. BRICK AND MORTAR TYPE/COLOR TO MATCH BUILDING.
C. F.G. - FINISH GRADE VARIES, SEE GRADING PLAN.

EXPANSION JOINT NOTES:
A. PREMOLDED JOINT FILLER - NON EXTRUDING AND RESILIENT FILLER (BITUMINOUS TYPE) CONFORMING TO ASTM D1751.
B. JOINT SEALANT - SONOLASTIC SEALANT TWO-PART MANUFACTURED BY SONNEBORN-CONTECH, BUILDING PRODUCT DIVISION, CONTECH INC., OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S SEE AS RECOMMENDED BY SEALANT MANUFACTURER. COLOR SHALL MATCH CONCRETE.
C. DO NOT INSTALL DOWELS WHERE PAVING ABUTS THE BUILDING FOUNDATION OR PARKING LOT CURBS.

1 LANDSCAPE WALL - DETAIL
NOT TO SCALE

GRAPHIC SCALE IN FEET
0 5 10 20
NORTH

SOPHIA CLOSE
REGISTERED ENGINEER
STATE OF TENNESSEE
No. 121857
COMMERCE
05/29/2026

No.	REVISIONS	DATE	BY
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DRAWN BY:	MEN
CHECKED BY:	SAC
DATE:	05/18/2026

KIMLEY-HORN PROJECT NO. 118119003

RETAINING WALL SHEET

SHEET NUMBER
C3.1

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Drawing name: K:\FRA_LDEV\118119003 - Waters Edge\4-CADD\PlanSheets\C1.2 RETAINING WALL ENLARGMENT.dwg C3.1 RETAINING WALL SHEET Jun 03, 2026 3:49pm by: Sophia.Close

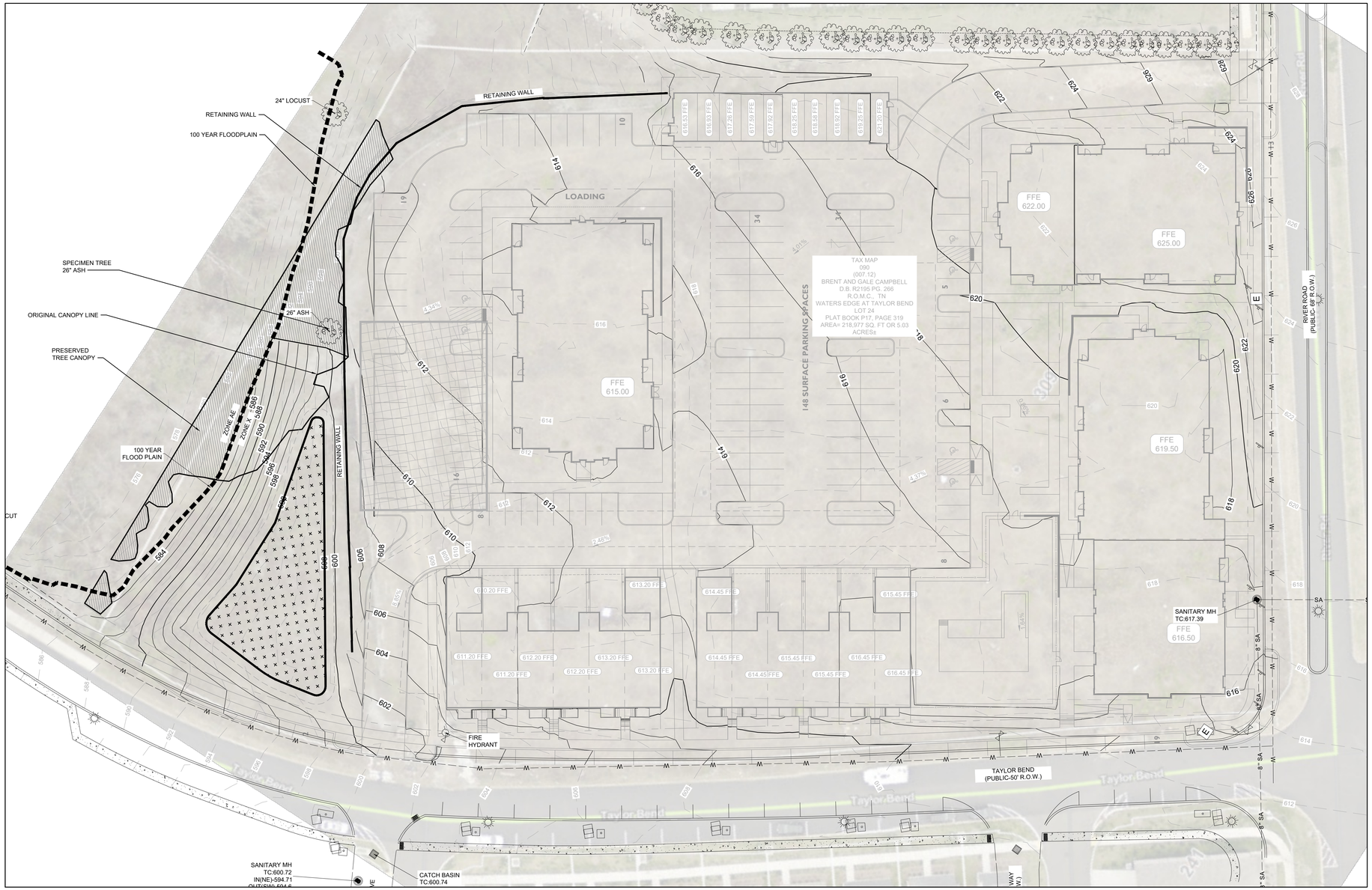
FINAL PUD DEVELOPMENT PLAN SITE DATA:

TOTAL SITE AREA: +/-5.0 AC
EXISTING ZONING: PUD
FUTURE LAND USE: CCUV - CITY CENTER URBAN VILLAGE
PREVIOUS PUD MASTER PLAN: WATERS EDGE PUD; ORDINANCE 4262; NOV. 14, 2019
PRELIMINARY PUD MASTER DEVELOPMENT PLAN: ORDINANCE 4563; APPROVED JAN. 8, 2026

THE SITE WAS PREVIOUSLY CLEARED IN ACCORDANCE WITH AN APPROVED SITE PLAN. BRUSH/VOLUNTEER GROWTH HAS OCCURRED IN THE DISTURBED AREA.

SPECIMEN TREES: 1 ON SITE
26" ASH - PRESERVED

EXISTING TREE CANOPY: 8,388.3 SF (0.19 AC); 3.8% OF TOTAL SITE AREA
PUD-MU TREE CANOPY RETENTION STANDARD: 54% PRESERVATION
TREE CANOPY PRESERVATION AREA: 5,817.3 SF (.13 AC) - 70% OF ORIGINAL CANOPY COVER PRESERVED



0 30 60 90
GRAPHIC SCALE 1"=30'-0"

NOTE:

THE SUBJECT PARCEL IS LESS THAN 10 ACRES IN SIZE, DOES NOT INCLUDE THE CREATION OF A NEW THOROUGHFARE OR INTERNAL DRIVE, AND THEREFORE IS NOT A DEVELOPMENT PARCEL.

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THE JAMES 2 FINAL PUD MASTER DEVELOPMENT PLAN

RIVER ROAD & TAYLOR BEND RD, COLUMBIA TN

GREGORY C. GAMBLE
REGISTERED LANDSCAPE ARCHITECT
TENNESSEE, MISSISSIPPI
10/3/2026

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DATE: 05/18/2026
KIMLEY-HORN PROJECT NO. 118119003

TREE PRESERVATION

SHEET NUMBER
L1.0

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Drawing name: K:\FRA_LAP_GDC\!development\CPS - Columbia Taylors Bend\06 FMDP PUD\02 CAD\L1.0.dwg L1.0 Jun 03, 2026 4:21pm by: Rose.Goodwin

REQUIRED LANDSCAPE CALCULATIONS:

THIS LANDSCAPE PLAN HAS BEEN DESIGNED TO MEET THE MINIMUM REQUIREMENTS FOR THE CITY OF COLUMBIA BASED ON REQUIREMENTS OF SEC 4.3.16, 4.3.12.C, 4.3.1.M, AND 5.2.3.

SEC 4.3.12.C.14 - PARKING AREA REQUIREMENTS	REQUIRED	PROVIDED
1 SHADE TREE PER PARKING ISLAND 2 SHADE TREES PER DOUBLE LENGTH ISLAND	28 SHADE TREES	30 SHADE TREES
1 SHADE TREE PER 2,000 SF OF PARKING AREA TOTAL PARKING AREA: 58,864 SF	30 SHADE TREES	30 SHADE TREES
REQUIRED: NO PARKING SPACE MORE THAN 72' FROM A TREE WITHIN THE LOT PROVIDED: ALL PARKING SPOTS HAVE A TREE WITHIN THE REQUIRED DISTANCE		

SEC 4.3.1.M - PRIVATE LANDSCAPE STANDARDS FOR PUD - MU CHARACTER DISTRICT

REQUIRED: LAYER 1 - > 3 FT, 30% OF LAYER 1 MUST BE LANDSCAPED WITH A CONTINUOUS SHRUB HEDGE ALONG FOUNDATION AT FACADE.

PROVIDED: 230 SHURBS TO SATISFY THESE REQUIREMENTS IN LAYER 1

REQUIRED: LAYER 1 - > 15', SOD AND 1 TREE PER 50' OF FRONTAGE.

PROVIDED: 0 TREES ALONG TAYLOR BEND ROAD DUE TO LAYER 1 LESS THAN 15 FT
6 TREES ALONG RIVER ROAD
0 TREES BUILDING SITE 16 AND 17 DUE TO DISTANCE BEING LESS THAN 15 FT

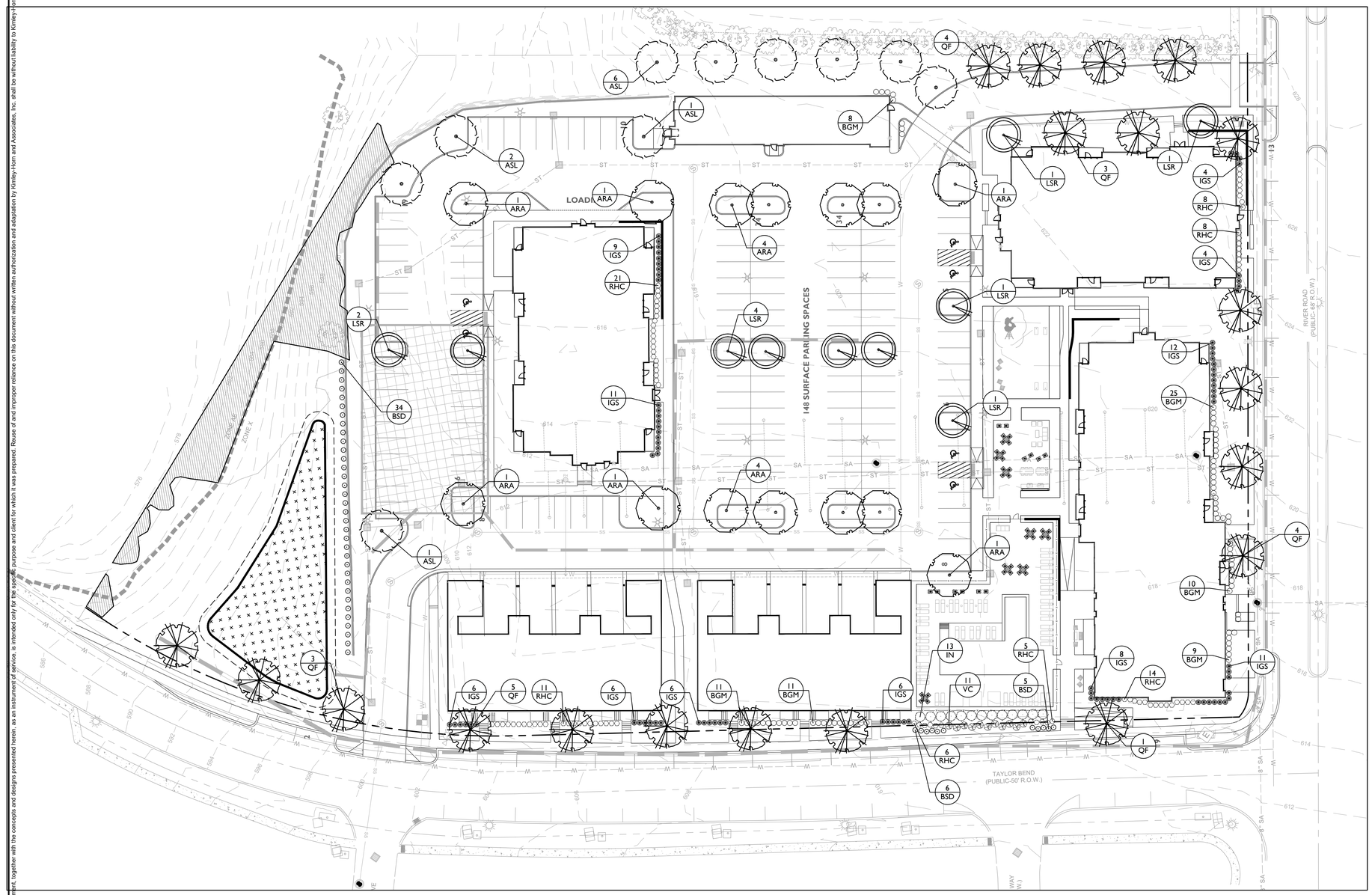
SEC 4.3.11.H PARCEL BUFFER
NOT APPLICABLE: DEVELOPMENT DOES NOT ABUT ANY SINGLE FAMILY OR TWO-FAMILY DETACHED RESIDENTIAL DWELLINGS.

SEC 5.2.3.G PUBLIC FRONTAGES
PUBLIC FRONTAGE TREES SHALL BE PLACED A MIN. 3 FT AWAY FROM WALKWAYS AND 6 FT AWAY FROM PORCH EAVES, AWNINGS, AND SIMILAR OVERHEAD OBSTRUCTIONS
FRONTAGE TREES NOT REQUIRED ADJACENT TO CIVIC SPACE.

PROVIDED: 10 TREES ALONG TAYLOR BEND
0 TREES ALONG RIVER ROAD
ROW IS AT BACK OF SIDEWALK AND DOES NOT ALLOW FOR FRONTAGE TREES.

SEC 5.5 PROJECT BUFFERS
NOT APPLICABLE: PROPOSED PUD DEVELOPMENT IS ADJACENT TO OTHER PUD ZONED PROPERTIES

PER PLANNING COMMISSION'S CONDITIONS OF APPROVAL LANDSCAPE SCREEN BETWEEN AMENITY AND R.O.W.



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GRAPHIC SCALE 1"=40'-0"

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THE JAMES 2
FINAL PUD MASTER DEVELOPMENT PLAN
RIVER ROAD & TAYLOR BEND RD, COLUMBIA TN

GREGORY C. GAMBILL
TENNESSEE
LANDSCAPE ARCHITECT

No.	REVISIONS	DATE	BY
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DESIGNED BY:
DRAWN BY:
CHECKED BY:
DATE: 05/18/2026
KIMLEY-HORN PROJECT NO. 118119003

FINAL MASTER DEVELOPMENT PLAN

SHEET NUMBER
L2.0

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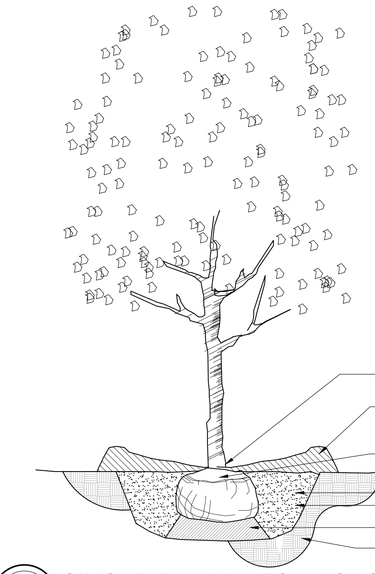
PLANT SCHEDULE - CODE MINIMUM

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	HEIGHT	LEAF	SPACING	REMARKS
CANOPY TREES								
ARA	14	Acer rubrum 'Autumn Flame'	Autumn Flame Red Maple	2.5" Cal. B&B	12`-14`	DECIDUOUS	AS SHOWN	CENTRAL LEADER
ASL	10	Acer saccharum 'Legacy'	Legacy Sugar Maple	2.5" Cal. B&B	12`-14`	DECIDUOUS	AS SHOWN	CENTRAL LEADER
LSR	10	Liquidambar styraciflua 'Rotundiloba'	Fruitless Narrow Sweet Gum	2.5" Cal. B&B	12`-14`	DECIDUOUS	AS SHOWN	CENTRAL LEADER
QF	20	Quercus falcata	Southern Red Oak	2.5" Cal. B&B	12`-14`	DECIDUOUS	AS SHOWN	SINGLE-STRAIGHT CENTRAL LEADER
	54	(SUBTOTAL)						
SHRUBS								
BSD	34	Buxus sempervirens 'Dee Runk'	Dee Runk Common Boxwood		30"	EVERGREEN	36" O.C.	
BGM	74	Buxus x 'Green Mountain'	Green Mountain Boxwood	3 gal.	24"	EVERGREEN	36" O.C.	
IGS	83	Ilex glabra 'Shamrock'	Shamrock Inkberry Holly	3 gal.	30"	EVERGREEN	36" O.C.	
RHC	73	Rhododendron x 'Conleb'	Autumn Embers Encore Azalea		24"	EVERGREEN	36" O.C.	
	264	(SUBTOTAL)						

PLANT SCHEDULE - AMENITY BUFFER

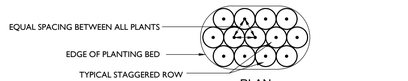
CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	HEIGHT	LEAF	SPACING
SHRUBS							
BSD	11	Buxus sempervirens 'Dee Runk'	Dee Runk Common Boxwood		30"	EVERGREEN	36" O.C.
IN	13	Ilex x 'Nellie R. Stevens'	Nellie R. Stevens Holly		4`	EVERGREEN	6` O.C.
RHC	11	Rhododendron x 'Conleb'	Autumn Embers Encore Azalea		24"	EVERGREEN	36" O.C.
VC	11	Viburnum x burkwoodii `Chenaultii`	Chenault Viburnum		36"	EVERGREEN	AS SHOWN



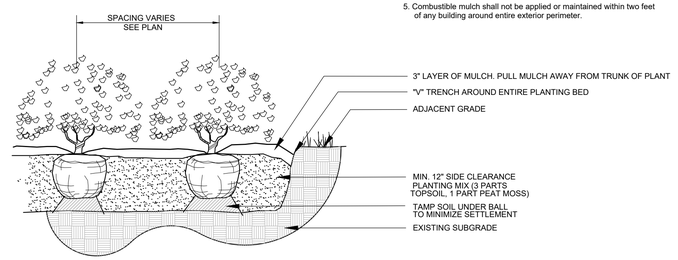
1 L1.0 SINGLE TRUNK DECIDUOUS TREE — SECTION — DETAIL # NTS

GENERAL NOTES:

1. All trees are to be nursery grown, burlap and ball (B&B). Minimum tree size is per schedule (measured 6" above root ball).
2. Remove all treated or plastic-coated burlap, strapping, wire or nylon twine from root ball. After setting in hole, cut away top and sides of wire basket, if any.
3. Install top of plant ball even with or up to 2" above existing grade.
4. Set tree in vertical position; stake if necessary for stabilization.
5. Soak plant ball and pit immediately after installation. Place 3" of seasoned mulch or pine needles around base of tree, 3' diameter minimum.



PLAN



2 L1.0 SHRUB PLANTING — SECTION — DETAIL # NTS

GENERAL NOTES:

1. Install top of plant ball shall be level with finished grade.
2. Tamp planting mix firmly as pit is filled around each plant ball.
3. Soak each plant ball and pit immediately after installation.
4. Cut and remove burlap from top 1/3 of root ball. Non-degradable burlap shall be removed or rolled under ball after replacement of plant.
5. Combustible mulch shall not be applied or maintained within two feet of any building around entire exterior perimeter.

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THE JAMES 2
FINAL PUD MASTER DEVELOPMENT PLAN
RIVER ROAD & TAYLOR BEND RD, COLUMBIA TN

GREGORY C. GAMBILL — 328 — REGISTERED LANDSCAPE ARCHITECT — TENNESSEE

No.	REVISIONS	DATE	BY
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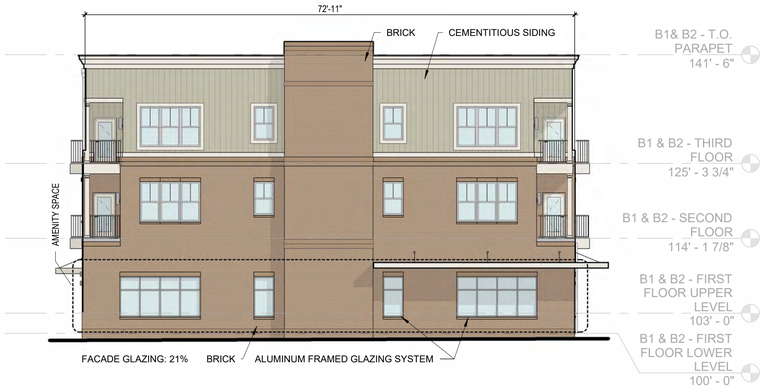
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DATE: 05/18/2026
KIMLEY-HORN PROJECT NO. 118119003

FINAL MASTER DEVELOPMENT PLAN

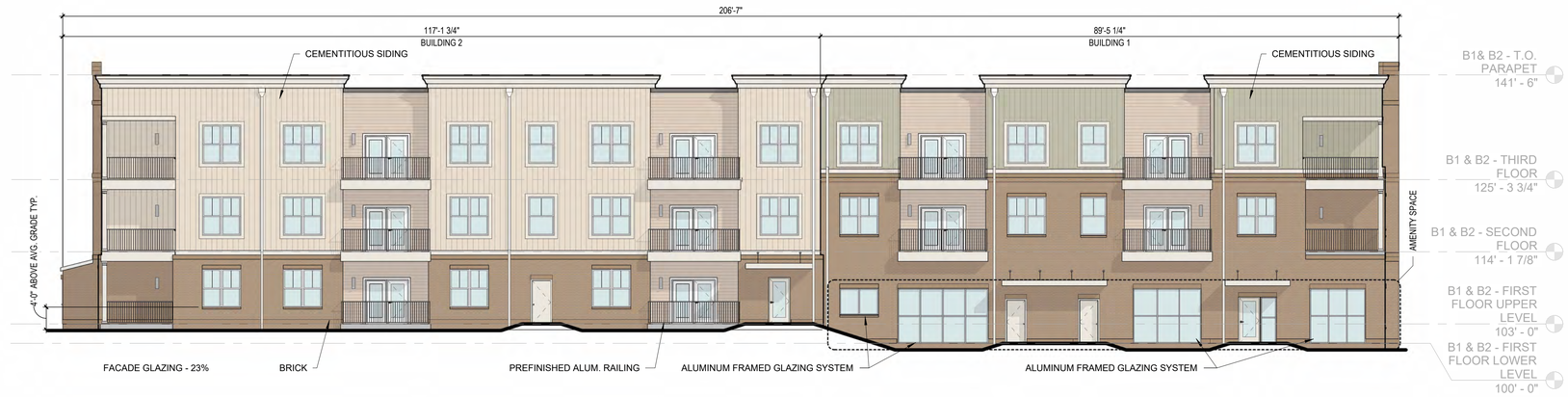
SHEET NUMBER L2.1



3 A201 **ELEVATION** BUILDING 2 - (FACING BLDG 3)
3/32" = 1'-0"



2 A201 **ELEVATION** BUILDING 1 - (FACING TAYLOR'S BEND RD.)
3/32" = 1'-0"



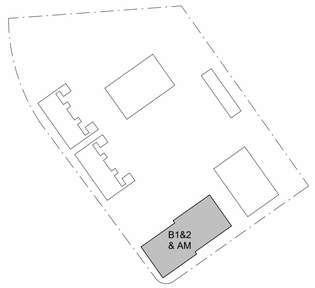
4 A201 **ELEVATION** BUILDING 1&2 - (FACING PARKING LOT)
3/32" = 1'-0"



1 A201 **ELEVATION** BUILDING 1&2 - (FACING RIVER RD.)
3/32" = 1'-0"

* SILL HEIGHT NOTE: PUD-MU ZONING CODE REQUIRES THE RESIDENTIAL SILL TO BE 5' MIN. ABOVE AVERAGE GRADE AT FACADE. APPLICANT IS REQUESTING STAFF LEVEL ALLOWABLE DEVIATION TO REDUCE THE MIN. DIMENSION TO 4' (20%) MIN. ABOVE AVERAGE GRADE AT FACADE FOR ALL BUILDINGS THAT ARE PARALLEL TO STRAIGHT FRONTAGE LINES OR TANGENT OF CURVED FRONTAGE LINE.

KEY PLAN



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BARLOW BUILDERS & CPS LAND
THE JAMES (PHASE 2)
COLUMBIA, TN

ISSUANCES

NO.	DATE	DESCRIPTION
	2025.05.19	ZONING SUBMISSION
	2025.09.16	CITY COMMENTS REVISION
	2026.04.20	SITE DEVELOPMENT PLAN SUBMISSION
	2026.05.18	FINAL PUD SUBMISSION

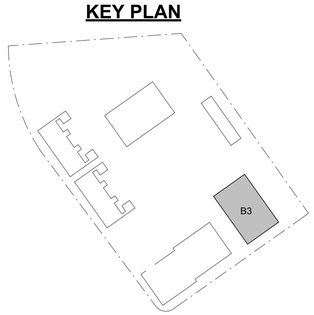
PROJECT NO:
26008

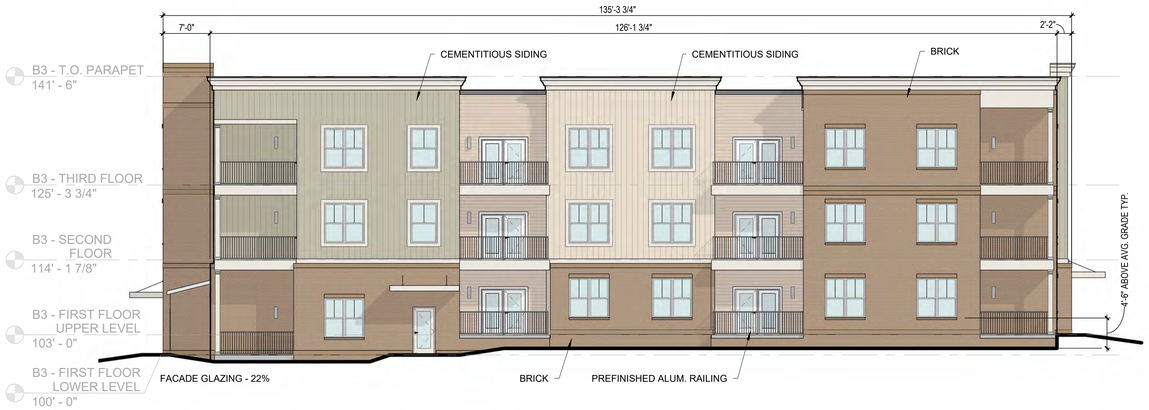
SHEET TITLE:
BUILDING 1/2 ELEVATIONS

SHEET NUMBER:
A201

5/15/2026 2:46:22 PM

KEY PLAN





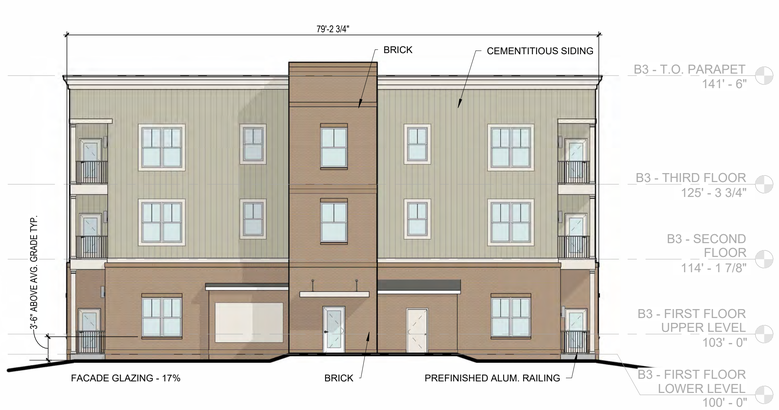
3 A202 **ELEVATION** BUILDING 3 - (FACING BLDG 1&2)
3/32" = 1'-0"



1 A202 **ELEVATION** BUILDING 3 - (FACING RIVER RD.)
3/32" = 1'-0"



4 A202 **ELEVATION** BUILDING 3 - (FACING BACK OF PROPERTY)
3/32" = 1'-0"



2 A202 **ELEVATION** BUILDING 3 - (FACING PARKING LOT)
3/32" = 1'-0"

* SILL HEIGHT NOTE: PUD-MU ZONING CODE REQUIRES THE RESIDENTIAL SILL TO BE 5' MIN. ABOVE AVERAGE GRADE AT FACADE. APPLICANT IS REQUESTING STAFF LEVEL ALLOWABLE DEVIATION TO REDUCE THE MIN. DIMENSION TO 4' (20%) MIN. ABOVE AVERAGE GRADE AT FACADE FOR ALL BUILDINGS THAT ARE PARALLEL TO STRAIGHT FRONTAGE LINES OR TANGENT OF CURVED FRONTAGE LINE.

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COLUMBIA, TN

ISSUANCES

NO.	DATE	DESCRIPTION
	2025.05.19	ZONING SUBMISSION
	2025.09.16	CITY COMMENTS REVISION
	2026.04.20	SITE DEVELOPMENT PLAN SUBMISSION
	2026.05.18	FINAL PUD SUBMISSION

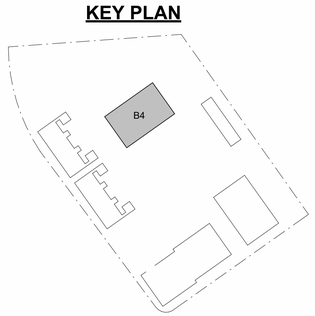
PROJECT NO:
26008

SHEET TITLE:
BUILDING 3 ELEVATIONS

SHEET NUMBER:
A202

5/15/2026 2:46:26 PM

KEY PLAN





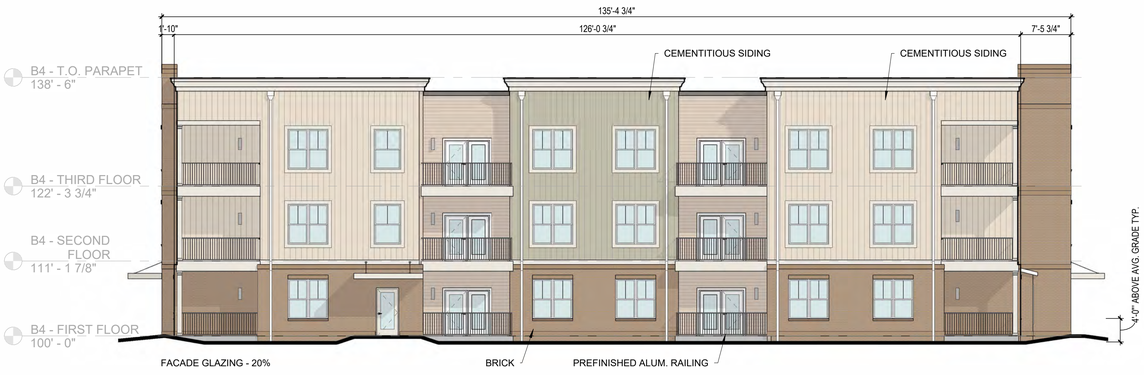
4 A203 **ELEVATION** BUILDING 4 - (FACING PARKING LOT)

3/32" = 1'-0"



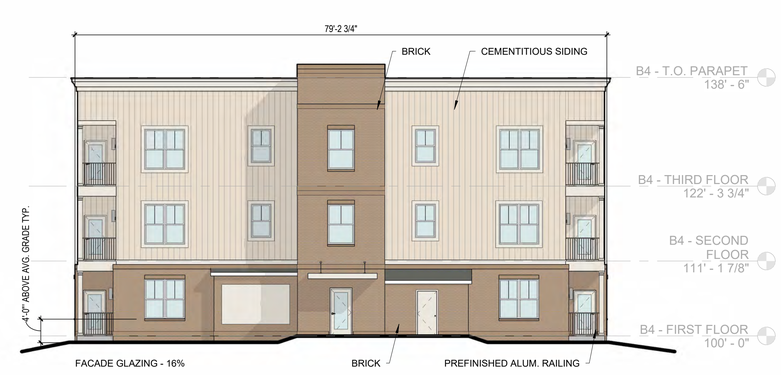
1 A203 **ELEVATION** BUILDING 4 - (FACING TOWNHOMES)

3/32" = 1'-0"



2 A203 **ELEVATION** BUILDING 4 - (FACING STORM DETENTION AREA)

3/32" = 1'-0"



3 A203 **ELEVATION** BUILDING 4 - (FACING BACK OF PROPERTY)

3/32" = 1'-0"

* SILL HEIGHT NOTE: PUD-MU ZONING CODE REQUIRES THE RESIDENTIAL SILL TO BE 5' MIN. ABOVE AVERAGE GRADE AT FACADE. APPLICANT IS REQUESTING STAFF LEVEL ALLOWABLE DEVIATION TO REDUCE THE MIN. DIMENSION TO 4' (20%) MIN. ABOVE AVERAGE GRADE AT FACADE FOR ALL BUILDINGS THAT ARE PARALLEL TO STRAIGHT FRONTAGE LINES OR TANGENT OF CURVED FRONTAGE LINE.

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THE JAMES (PHASE 2)

COLUMBIA, TN

ISSUANCES

NO.	DATE	DESCRIPTION
	2025.05.19	ZONING SUBMISSION
	2025.09.16	CITY COMMENTS REVISION
	2026.04.20	SITE DEVELOPMENT PLAN SUBMISSION
	2026.05.18	FINAL PUD SUBMISSION

PROJECT NO:

26008

SHEET TITLE:

BUILDING 4 ELEVATIONS

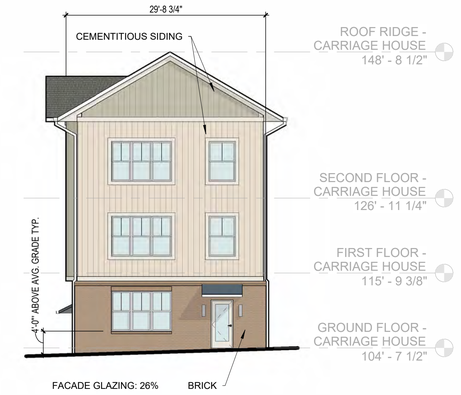
SHEET NUMBER:

A203

5/15/2026 2:46:31 PM



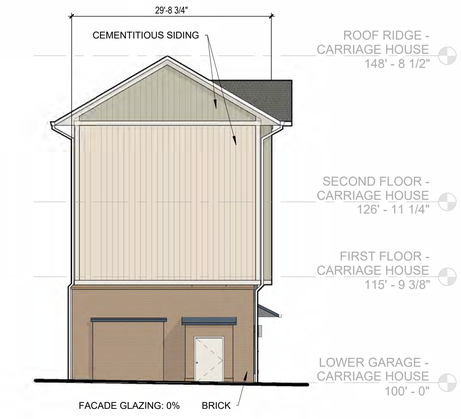
1 A204 **ELEVATION** CARRIAGE HOUSE - (FACING PARKING LOT)
3/32" = 1'-0"



4 A204 **ELEVATION** CARRIAGE HOUSE - (FACING RIVER RD.)
3/32" = 1'-0"

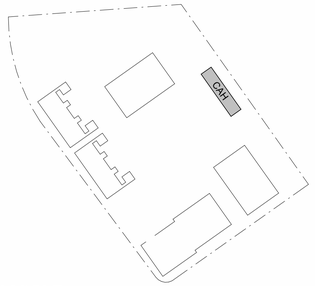


3 A204 **ELEVATION** CARRIAGE HOUSE - (FACING BACK OF PROPERTY)
3/32" = 1'-0"



2 A204 **ELEVATION** CARRIAGE HOUSE - (FACING WATER DETENTION AREA.)
3/32" = 1'-0"

KEY PLAN



* SILL HEIGHT NOTE: PUD-MU ZONING CODE REQUIRES THE RESIDENTIAL SILL TO BE 5' MIN. ABOVE AVERAGE GRADE AT FACADE. APPLICANT IS REQUESTING STAFF LEVEL ALLOWABLE DEVIATION TO REDUCE THE MIN. DIMENSION TO 4' (20%) MIN. ABOVE AVERAGE GRADE AT FACADE FOR ALL BUILDINGS THAT ARE PARALLEL TO STRAIGHT FRONTAGE LINES OR TANGENT OF CURVED FRONTAGE LINE.

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ISSUANCES

NO.	DATE	DESCRIPTION
	2025.05.19	ZONING SUBMISSION
	2025.09.16	CITY COMMENTS REVISION
	2026.04.20	SITE DEVELOPMENT PLAN SUBMISSION
	2026.05.18	FINAL PUD SUBMISSION

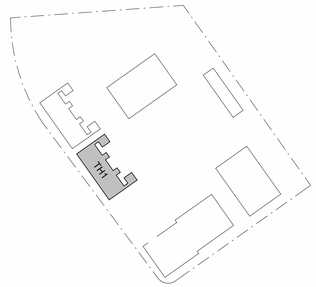
PROJECT NO:
26008

SHEET TITLE:
CARRIAGE HOUSE ELEVATIONS

SHEET NUMBER:
A204

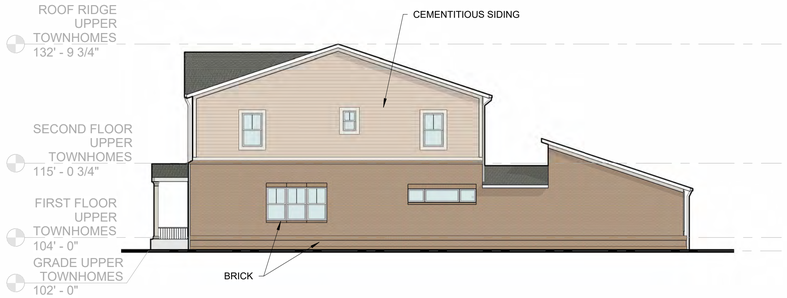
5/15/2026 2:46:35 PM

KEY PLAN

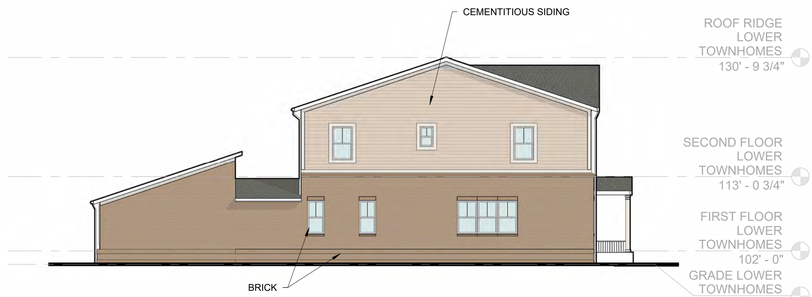




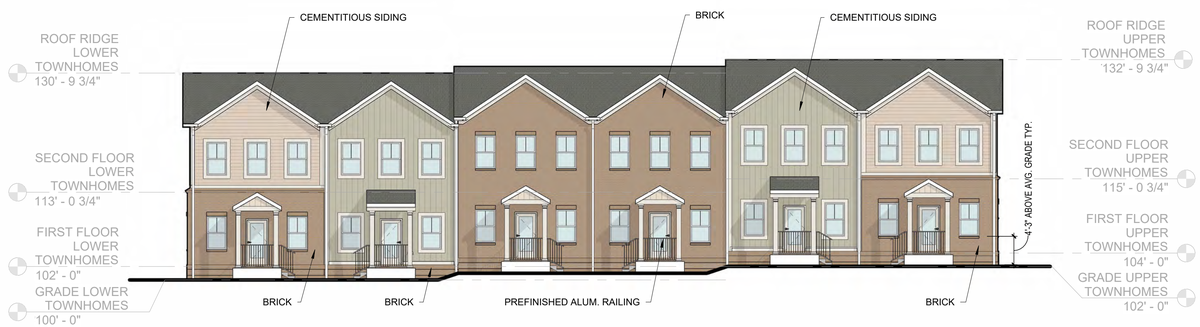
4 A205 **ELEVATION** TOWNHOME - ROW 1 - (FACING PARKING LOT)
3/32" = 1'-0"



2 A205 **ELEVATION** TOWNHOME - ROW 1 - (FACING B1&2)
3/32" = 1'-0"



3 A205 **ELEVATION** TOWNHOME - ROW 1 - (FACING ROW 2)
3/32" = 1'-0"



1 A205 **ELEVATION** TOWNHOME - ROW 1 - (FACING TAYLOR'S BEND RD.)
3/32" = 1'-0"

* SILL HEIGHT NOTE: PUD-MU ZONING CODE REQUIRES THE RESIDENTIAL SILL TO BE 5' MIN. ABOVE AVERAGE GRADE AT FACADE. APPLICANT IS REQUESTING STAFF LEVEL ALLOWABLE DEVIATION TO REDUCE THE MIN. DIMENSION TO 4' (20%) MIN. ABOVE AVERAGE GRADE AT FACADE FOR ALL BUILDINGS THAT ARE PARALLEL TO STRAIGHT FRONTAGE LINES OR TANGENT OF CURVED FRONTAGE LINE.

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COLUMBIA, TN

ISSUANCES

NO.	DATE	DESCRIPTION
	2025.05.19	ZONING SUBMISSION
	2025.09.16	CITY COMMENTS REVISION
	2026.04.20	SITE DEVELOPMENT PLAN SUBMISSION
	2026.05.18	FINAL PUD SUBMISSION

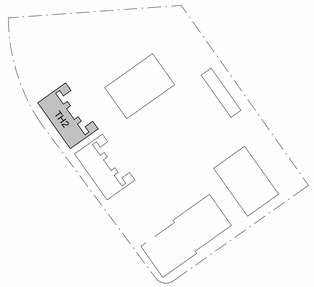
PROJECT NO:
26008

SHEET TITLE:
TOWNHOME ELEVATIONS

SHEET NUMBER:
A205

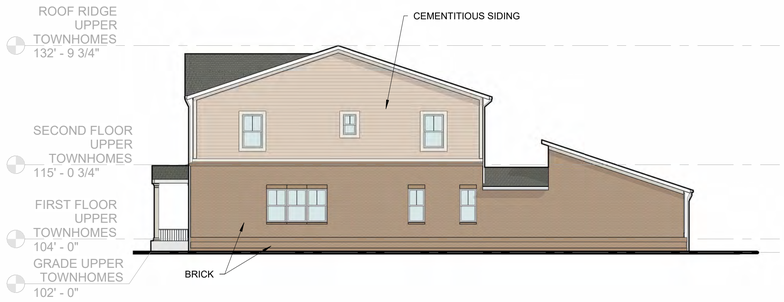
5/15/2026 2:46:39 PM

KEY PLAN

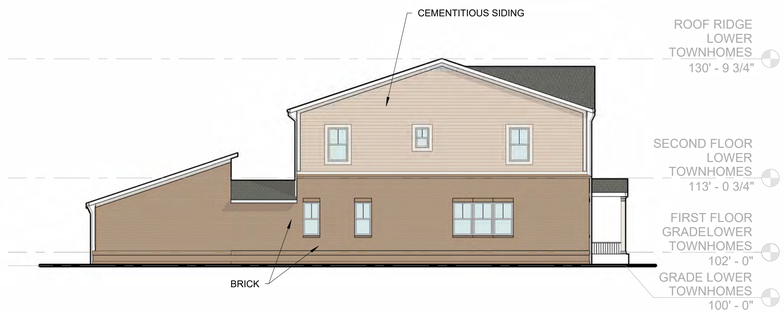




2 A206 **ELEVATION** TOWNHOME - ROW 2 - (FACING PARKING LOT)
3/32" = 1'-0"



3 A206 **ELEVATION** TOWNHOME - ROW 2 - (FACING ROW 1)
3/32" = 1'-0"



4 A206 **ELEVATION** TOWNHOME - ROW 2 - FACING WATER DETENTION AREA)
3/32" = 1'-0"



1 A206 **ELEVATION** TOWNHOME - ROW 2 - (FACING TAYLOR'S BEND RD.)
3/32" = 1'-0"

* SILL HEIGHT NOTE: PUD-MU ZONING CODE REQUIRES THE RESIDENTIAL SILL TO BE 5' MIN. ABOVE AVERAGE GRADE AT FACADE. APPLICANT IS REQUESTING STAFF LEVEL ALLOWABLE DEVIATION TO REDUCE THE MIN. DIMENSION TO 4' (20%) MIN. ABOVE AVERAGE GRADE AT FACADE FOR ALL BUILDINGS THAT ARE PARALLEL TO STRAIGHT FRONTAGE LINES OR TANGENT OF CURVED FRONTAGE LINE.

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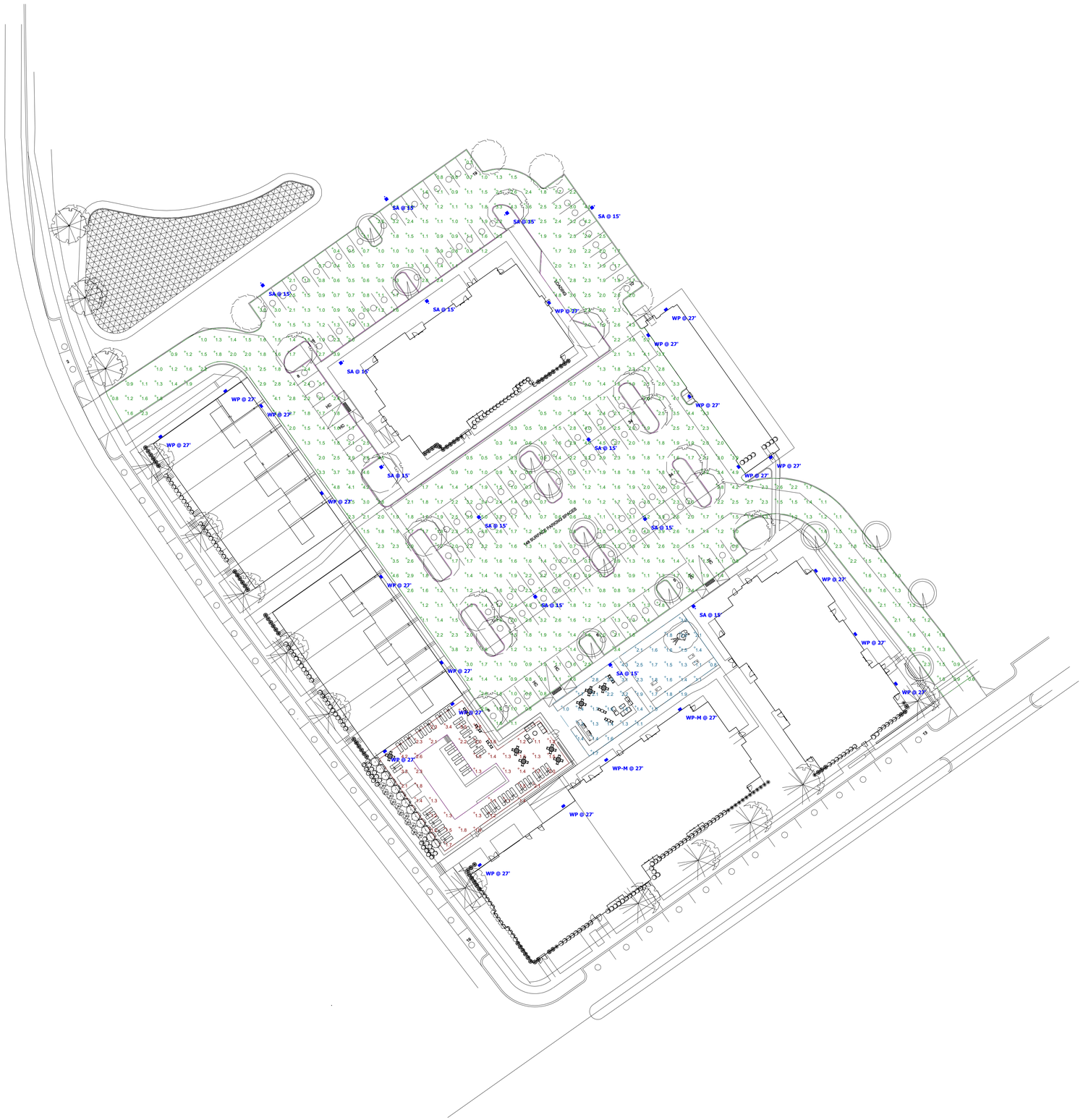
ISSUANCES

NO.	DATE	DESCRIPTION
	2025.05.19	ZONING SUBMISSION
	2025.09.16	CITY COMMENTS REVISION
	2026.04.20	SITE DEVELOPMENT PLAN SUBMISSION
	2026.05.18	FINAL PUD SUBMISSION

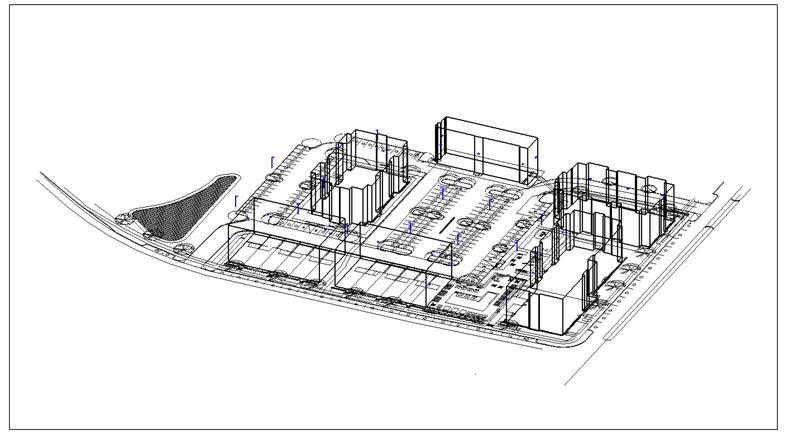
PROJECT NO:
26008

SHEET TITLE:
TOWNHOME ELEVATIONS

SHEET NUMBER:
A206



Plan View
Scale - 1" = 35ft



SOUTHWEST_VIEW

Schedule

Symbol	Label	QTY	Catalog Number	Description	Number Lamps	Lumens per Lamp	LLF	Wattage	Polar Plot
	SA	13	KT-ALED140PS-M2-OSB-PMA-8CSB-VDIM-P (T5) 3000K	(1) head mounted on 15' pole. 15'AFF. Type V, calculated at 3000° K, 70W. (.50 lumen multiplier used for calcualtion to simulate 70W setting)	1	18820	0.96	147.98	Max: 6269cd
	WP	19	WPT-80UX/CT	Wall Mounted at 27' AFF. Calculated at 3000° K.	1	9733	0.96	80.37	Max: 3868cd
	WP-M	2	WPT-80UX/CT	Wall Mounted at 27' AFF. Calculated at 3000° K., 32W. (.40 lumen multiplier used for calcualtion to simulate 32W setting)	1	9733	0.96	80.37	Max: 3868cd

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Civic_Area_0ft_AFF	+	1.8 fc	4.3 fc	0.8 fc	5.4:1	2.3:1
Lot_PVA_0ft_AFF	+	1.9 fc	5.2 fc	0.3 fc	17.3:1	6.3:1
Pool_Deck_0ftAFF	+	1.9 fc	4.8 fc	1.1 fc	4.4:1	1.7:1

Note

1. For budget purposes only.
2. Direct calculation only.
3. Calculations taken at ground (0ft AFG) unless otherwise noted.
4. Levels not guaranteed. Estimation based on info provided.
5. Confirm all voltages, finishes and mounting prior to order.





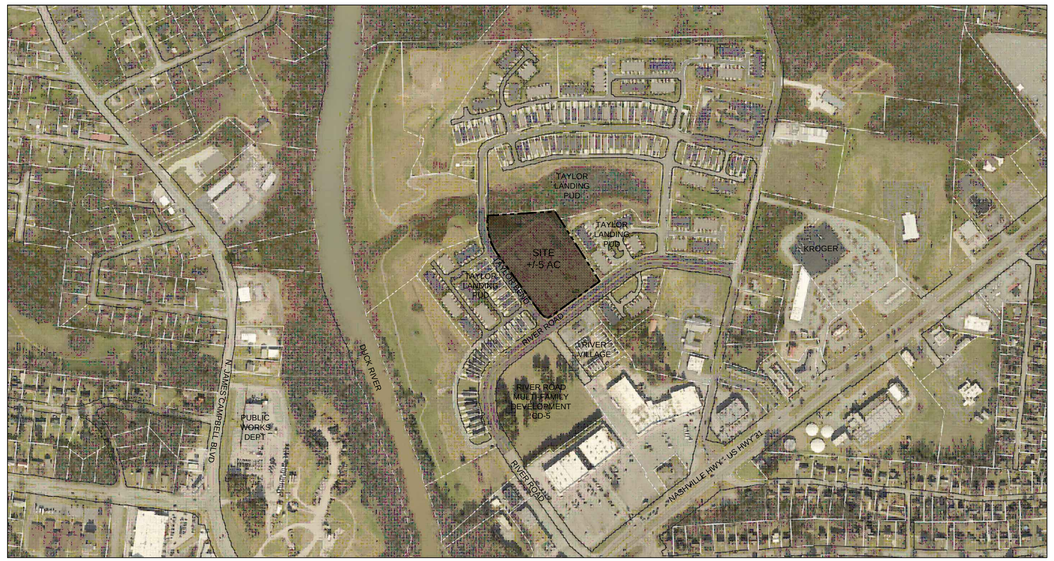
River Road Phase 2 - The James
Proposed Lighting Layout

Designer
AP
Date
05/15/2026
Scale
Not to Scale
Drawing No.
002
Summary
LED PHOTOMETRICS

THE JAMES PHASE 2

FINAL PUD MASTER DEVELOPMENT PLAN

INTERSECTION OF RIVER ROAD AND TAYLOR BEND ROAD
COLUMBIA, TENNESSEE



LOCATION MAP

0 400 800
GRAPHIC SCALE 1"=400'-0"

SHEET INDEX

C0.0	COVER SHEET
C1.0	EXISTING CONDITIONS
C2.0	PRELIMINARY PUD MASTER DEVELOPMENT PLAN
C3.0	CONCEPTUAL GRADING, STORM, UTILITIES
C3.1	RETAINING WALL SHEET
L1.0	TREE CANOPY COVERAGE
L2.0	CODE MINIMUM LANDSCAPE PLAN
L2.1	CODE MINIMUM LANDSCAPE PLAN
A201	ARCHITECTURAL ELEVATIONS
A202	ARCHITECTURAL ELEVATIONS
A203	ARCHITECTURAL ELEVATIONS
A204	ARCHITECTURAL ELEVATIONS
A205	ARCHITECTURAL ELEVATIONS
A206	ARCHITECTURAL ELEVATIONS

OWNER:
BRENT CAMPBELL
1187 GLENBROOK DR
FRANKLIN, TN 37064

DEVELOPER:
CPS LAND
213 OVERLOOK CIRCLE, SUITE B2
BRENTWOOD, TN 37027
CLIFF SMITH
cliff.smith@cpsland.com

APPLICANT/ LAND PLANNER:
KIMLEY-HORN
4031 ASPEN GROVE DRIVE, SUITE 200
FRANKLIN, TN 37067
GREG GAMBLE
greg.gamble@kimley-horn.com

ENGINEER:
KIMLEY-HORN
4031 ASPEN GROVE DRIVE, SUITE 200
FRANKLIN, TN 37067
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GREGORY C. GAMBLE
LICENSED
LANDSCAPE ARCHITECT
TENNESSEE NO.
OCT 13/26

PRE-APP: FEB. 4, 2026
INITIAL SUBMITTAL: APRIL 20, 2026
RESUBMITTAL: MAY 18, 2026



GRAPHIC SCALE IN FEET
0 15 30 60

NORTH

NOTES

1. THE INFORMATION SHOWN ON THIS PLAN IS BASED UPON THE TENNESSEE STATE NAD83 COORDINATE SYSTEM.
2. NO PROPOSED BUILDINGS FALL WITHIN THE 100 YEAR FLOODPLAIN, PER THE FEMA FIRM MAP NUMBER 47119C0170E EFFECTIVE APRIL 16, 2007.
3. PORTIONS OF EXISTING SEWER LINE TO BE ABANDONED. LINE TO BE FILLED WITH CLASS C FLOWABLE FILL AND REMOVED FROM THE EXISTING LIVE SYSTEM WITH PROPER CONCRETE PATCHING.

Kimley»Horn
4031 Aspen Grove Drive, Franklin, TN 37204
Main: 615.564.2701 | www.kimley-horn.com

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THE JAMES 2
FINAL PUD MASTER DEVELOPMENT PLAN
RIVER ROAD & TAYLOR BEND RD, COLUMBIA TN

SOPHIA CLOSE
REGISTERED ENGINEER
NORTH CAROLINA
COMMERCE
No. 131263
STATE OF TENNESSEE
05/18/2026

No.	REVISIONS	DATE	BY
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

DESIGNED BY:	SAC
DRAWN BY:	MEN
CHECKED BY:	SAC
DATE:	05/18/2026

KIMLEY-HORN PROJECT NO.
118119003

OVERALL EXISTING CONDITIONS

SHEET NUMBER
C1.0

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

Drawing name: K:\FRA_LDEV\118119003 - Waters Edge\4-CADD\PlanSheets\C1.0 OVERALL EXISTING CONDITIONS.dwg C1.0 OVERALL EXISTING CONDITIONS May 18, 2026 12:01pm by: Mackie.Nicholas

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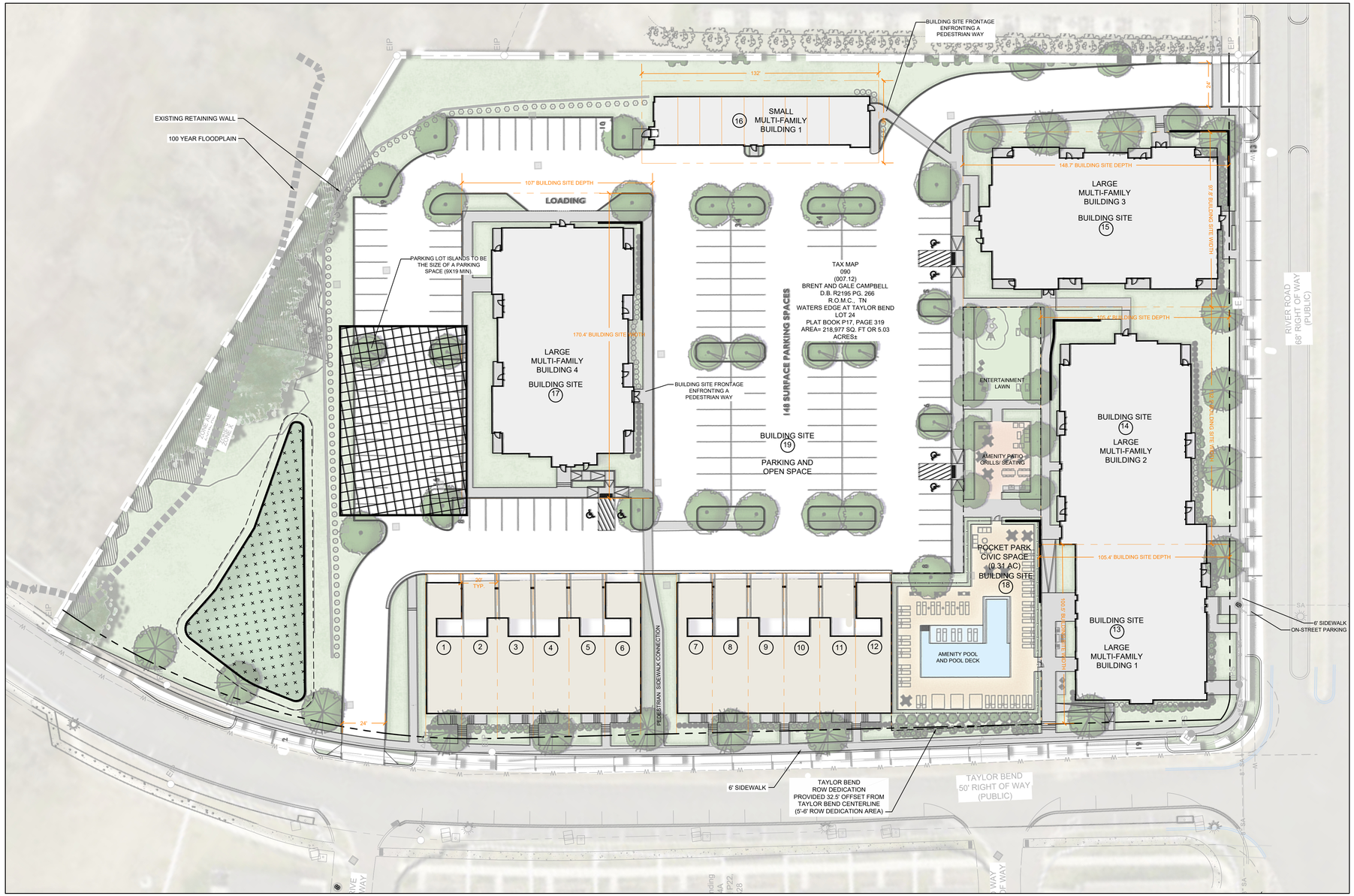
LEGAL DESCRIPTION OF PROPERTY:

WATERS EDGE AT TAYLOR BEND
PROPERTY MAP 090, PARCEL 007.03
RIVER ROAD
CITY OF COLUMBIA, MAURY COUNTY, TENNESSEE

Being a certain tract or parcel of land lying and being in the Ninth (9th) Civil District of Maury County, city of Columbia, Tennessee and being more particularly described as follows:

Being Tract 24, a 5.026-acre tract as shown on the final plat entitled "Waters Edge at Taylor Bend" of record in Plat Book P17, page 319, Register's Office for Maury County, Tennessee to which plat reference is hereby made for a more complete description of the subject property.

No field work has been performed by Kimley-Horn Associates to verify the accuracy of the property lines, corners or areas shown on said recorded plats.



FINAL MASTER DEVELOPMENT PLAN SITE DATA:

TOTAL SITE AREA: +/-5.0 AC
EXISTING ZONING: PUD
FUTURE LAND USE: CCUV - CITY CENTER URBAN VILLAGE
PREVIOUS PUD MASTER PLAN: WATERS EDGE PUD; ORDINANCE 4262; NOV. 14, 2019
PRELIMINARY PUD MASTER DEVELOPMENT PLAN: ORDINANCE 4563; APPROVED JAN. 8, 2026

NEW PUDS DEVELOPING IN THE CCUV FUTURE LAND USE DISTRICT ARE REQUIRED TO BE ZONED PUD-MU. IN ORDER TO CREATE A MASTER PLAN IN KEEPING WITH THE FORM AND AESTHETIC OF THIS SURROUNDING AREA, THE PROPOSED PUD MASTER PLAN COMPLIES WITH THE PUD-MU REQUIREMENTS.

NOTE: THIS DEVELOPMENT WILL CONFORM TO ALL PUD-MU STANDARDS.

NOTE: THE SUBJECT PARCEL IS LESS THAN 10 ACRES IN SIZE, DOES NOT INCLUDE THE CREATION OF A NEW THOROUGHFARE OR INTERNAL DRIVE, AND THEREFORE IS NOT A DEVELOPMENT PARCEL. AS SUCH, THIS PARCEL IS EXEMPT FROM SOME TYPICAL PUD-MU CRITERIA: DENSITY, BLOCK SIZE, AND CERTAIN CIVIC SPACE REQUIREMENTS.

TOTAL DWELLING UNITS: 94 UNITS
TOTAL DENSITY: 18.8 DUA

BUILDING BREAKDOWN:
TOTAL MULTI-FAMILY UNITS: 82 DWELLING UNITS
- LARGE MULTI-FAMILY BLDG 1: 12 DU
- LARGE MULTI-FAMILY BLDG 2: 18 DU
- LARGE MULTI-FAMILY BLDG 3: 24 DU
- LARGE MULTI-FAMILY BLDG 4: 24 DU
- SMALL MULTI-FAMILY BLDG 1: 4 DU; 7-GARAGE PARKING SPACES

TOWNHOMES: 12 DWELLING UNITS
- TOWNHOME 1, 6, 7, 12: 1 CODE COMPLIANT GARAGE SPACE
- TOWNHOME 2-5; 8-11: 2 COVERED PARKING SPACES

BUILDING SITES:
PRINCIPAL STRUCTURE SETBACKS:
- FRONT SETBACK PUD-MU STANDARD: 0'-20'
- PROVIDED SETBACK: 10'-13' TOWNHOMES; 4'-12' LARGE MULTI-FAMILY;
- FRONT SETBACK SECONDARY PUD-MU STANDARD: 0'-20'
- PROVIDED SETBACK: 9' LARGE MULTI-FAMILY
- SIDE SETBACK PUD-MU STANDARD: 0' MIN. ATTACHED; OTHERWISE 10' - 24'
- PROVIDED SETBACK: 0'; 10' MIN. - 24' MAX.
- REAR SETBACK: NOT REGULATED

ENFRONTMENT PUD-MU STANDARD: UP TO 20% OF BUILDING SITE ARE ALLOWED TO FRONT PEDESTRIAN WAYS INSTEAD OF THOROUGHFARES.
- TOTAL NUMBER OF BUILDING SITES: 17
- BUILDING SITES ENFRONTING PEDESTRIAN WAYS: 2 (12% OF BUILDING SITES)
- BUILDING SITES 16 AND 17 ENFRONT PEDESTRIAN WAYS.

PARKING SUMMARY:
- TOTAL DWELLING UNITS: 94 UNITS
- REQUIRED MINIMUM PARKING RATIO: 2 SPACES PER UNIT
- REQUIRED CIVIC SPACE PARKING: 1 SPACE PER 5,000 SF OF REQUIRED CIVIC SPACE
- TOTAL REQUIRED PARKING: 191 SPACES (188 PARKING RESIDENTIAL SPACES; 3 CIVIC PARKING SPACES)
- TOTAL PROVIDED: 196 SPACES
- TOWNHOMES: 20 SPACES TOTAL; 16 COVERED CARPORT SPACES PROVIDED ON-LOT, 4 GARAGE SPACES (10' X 20')
- SMALL MULTI-FAMILY BUILDING 1: 7 GARAGE SPACES (10'X20')
- SURFACE PARKING: 134 SPACES
- ON-STREET PARKING: 33 SPACES

TOTAL CIVIC SPACE: 0.31 AC
- REQUIRED 5% OF GROSS SITE AREA: 0.25 AC
- PROVIDED: 0.31AC (6.2%)
- POCKET PARK - TO INCLUDE COMMUNITY AMENITIES SUCH AS A POOL, PATIO AND GRILLING AREA.

FRONTAGE CALCULATIONS			
BUILDING SITE	BUILDING TYPE	BUILDING SITE WIDTH	FRONTAGE BUILD-OUT
1	TOWNHOME	20 LF	20 LF; 100%
2	TOWNHOME	20 LF	20 LF; 100%
3	TOWNHOME	20 LF	20 LF; 100%
4	TOWNHOME	20 LF	20 LF; 100%
5	TOWNHOME	20 LF	20 LF; 100%
6	TOWNHOME	20 LF	20 LF; 100%
7	TOWNHOME	20 LF	20 LF; 100%
8	TOWNHOME	20 LF	20 LF; 100%
9	TOWNHOME	20 LF	20 LF; 100%
10	TOWNHOME	20 LF	20 LF; 100%
11	TOWNHOME	20 LF	20 LF; 100%
12	TOWNHOME	20 LF	20 LF; 100%
13	LARGE MULTI-FAMILY 1	100.5 LF	89 LF; 89%
14	LARGE MULTI-FAMILY 2	132.5 LF	118 LF; 86%
15	LARGE MULTI-FAMILY 3	97.8 LF	79 LF; 81%
16	SMALL MULTI-FAMILY 1	46 LF	28.5 LF; 62%
17	LARGE MULTI-FAMILY 4	170.4 LF	135 LF; 79%

PUD-MU DESIGN STANDARDS DEVIATION REQUESTS:

TABLE 4.3.1-M; FACADE

CURRENT TEXT:
FACADE WINDOW SILL HEIGHT. IF RESIDENTIAL: 5 FT. MIN. ABOVE AVERAGE GRADE AT FACADE.

REQUESTED DEVIATION:
FACADE WINDOW SILL HEIGHT. IF RESIDENTIAL: 4 FT. MIN. ABOVE AVERAGE GRADE AT FACADE.

SEE ARCHITECTURAL SHEETS FOR ADDITIONAL DETAILS.

GRAPHIC SCALE 0 30 60 90 1"=30'-0"

NOTE:

THE SUBJECT PARCEL IS LESS THAN 10 ACRES IN SIZE, DOES NOT INCLUDE THE CREATION OF A NEW THOROUGHFARE OR INTERNAL DRIVE, AND THEREFORE IS NOT A DEVELOPMENT PARCEL.

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THE JAMES 2
FINAL PUD MASTER DEVELOPMENT PLAN
RIVER ROAD & TAYLOR BEND RD, COLUMBIA TN

GREGORY C. GAMBLE — TENNESSEE — 2026.05.18 — LANDSCAPE ARCHITECT — SEE NOTES

No.	REVISIONS	DATE	BY
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DESIGNED BY:
DRAWN BY:
CHECKED BY:
DATE: 05/18/2026
KIMLEY-HORN PROJECT NO. 118119003

FINAL MASTER DEVELOPMENT PLAN

SHEET NUMBER
C2.0

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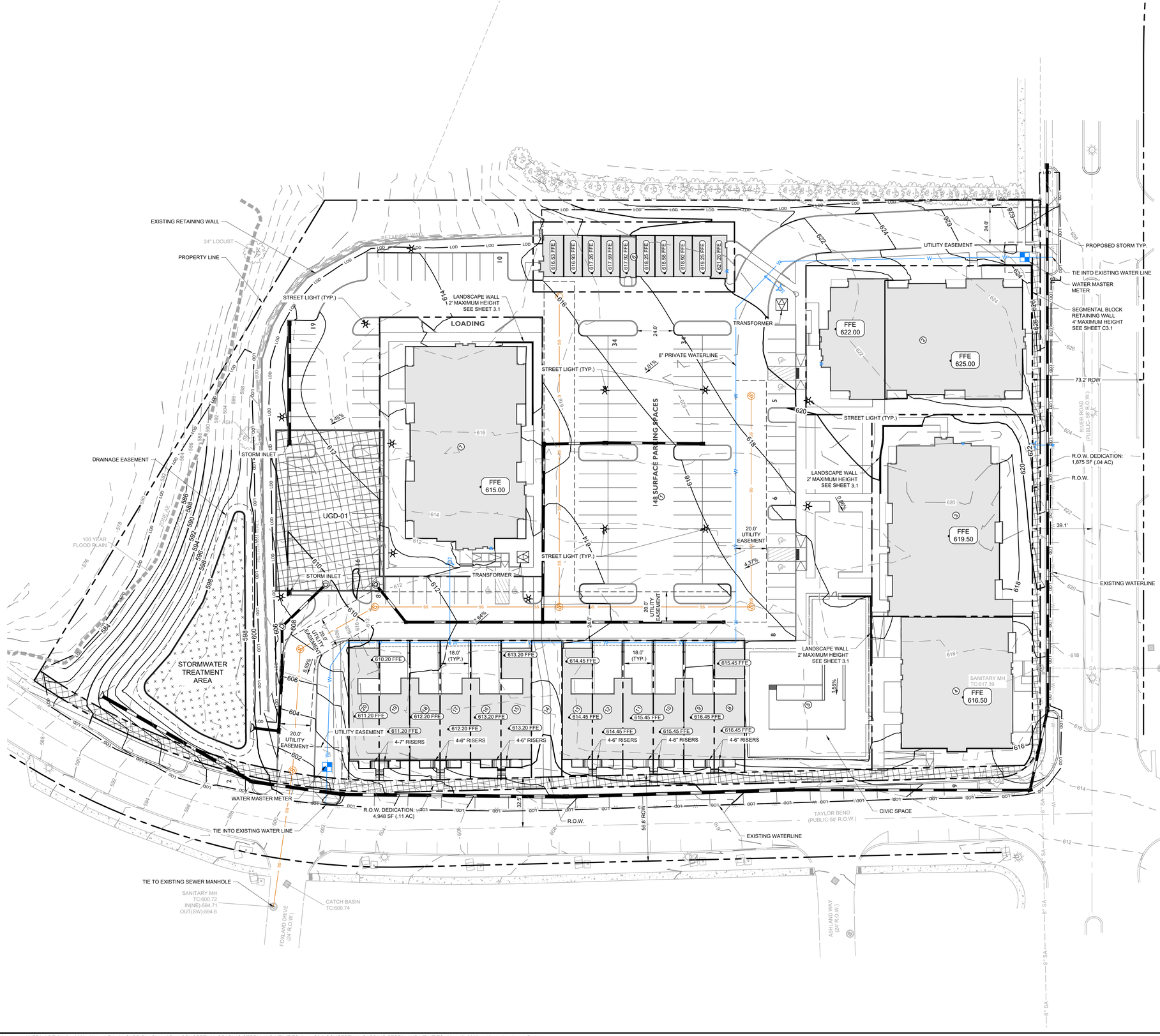
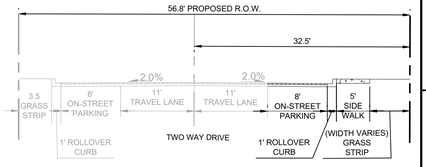
NOTES

1. THE INFORMATION SHOWN ON THIS PLAN IS BASED UPON THE TENNESSEE STATE NAD83 COORDINATE SYSTEM.
2. NO PROPOSED BUILDINGS FALL WITHIN THE 100 YEAR FLOODPLAIN, PER THE FEMA FIRM MAP NUMBER 47119C0170E EFFECTIVE APRIL 16, 2007.
3. SITE TO BE SERVED VIA PRIVATE TRASH SERVICE.
4. FINAL REVIEW OF GRADING AND STORMWATER TO BE PROVIDED WITH CONSTRUCTION PLANS.
5. THIS DEVELOPMENT PLAN WILL CONFORM TO ALL PUD-MU STANDARDS UNLESS THE DEVIATION WAS REQUESTED AND THIS APPLICATION APPROVED BY THE PLANNING COMMISSION.

RETAINING WALL NOTE

EXISTING RETAINING WALL TO BE EXAMINED AND CERTIFIED PRIOR TO FINAL CONSTRUCTION DOCUMENTS.





TAYLOR BEND STREET SECTION
(PUBLIC - 56.8 R.O.W.)

LEGEND

- SANITARY SEWER MANHOLE
- SANITARY SEWER LINE
- WATER LINE
- STORM LINE
- FIRE HYDRANT ASSEMBLY
- FIRE DEPARTMENT CONNECTION
- UNDERGROUND DETENTION
- BIORETENTION

PARCEL AREA TABLE

PARCEL #	AREA (SF)
1	111039.33
2	15034.07
3	14631.75
4	10805.71
5	14669.57
6	6082.69
7	18233.16
8	1769.29
9	1786.41
10	1804.09
11	1815.14
12	1824.83
13	1815.93
14	1861.26
15	1832.90
16	1838.82
17	1836.77
18	1829.75
19	1822.50
20	1806.37

GRAPHIC SCALE IN FEET
0 15 30 60

NORTH

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THE JAMES 2
FINAL PUD MASTER DEVELOPMENT PLAN
RIVER ROAD & TAYLOR BEND RD, COLUMBIA TN

SOPHIA CLOSE
REGISTERED ENGINEER
STATE OF TENNESSEE
1/16/2026

No	REVISIONS	DATE	BY
1			
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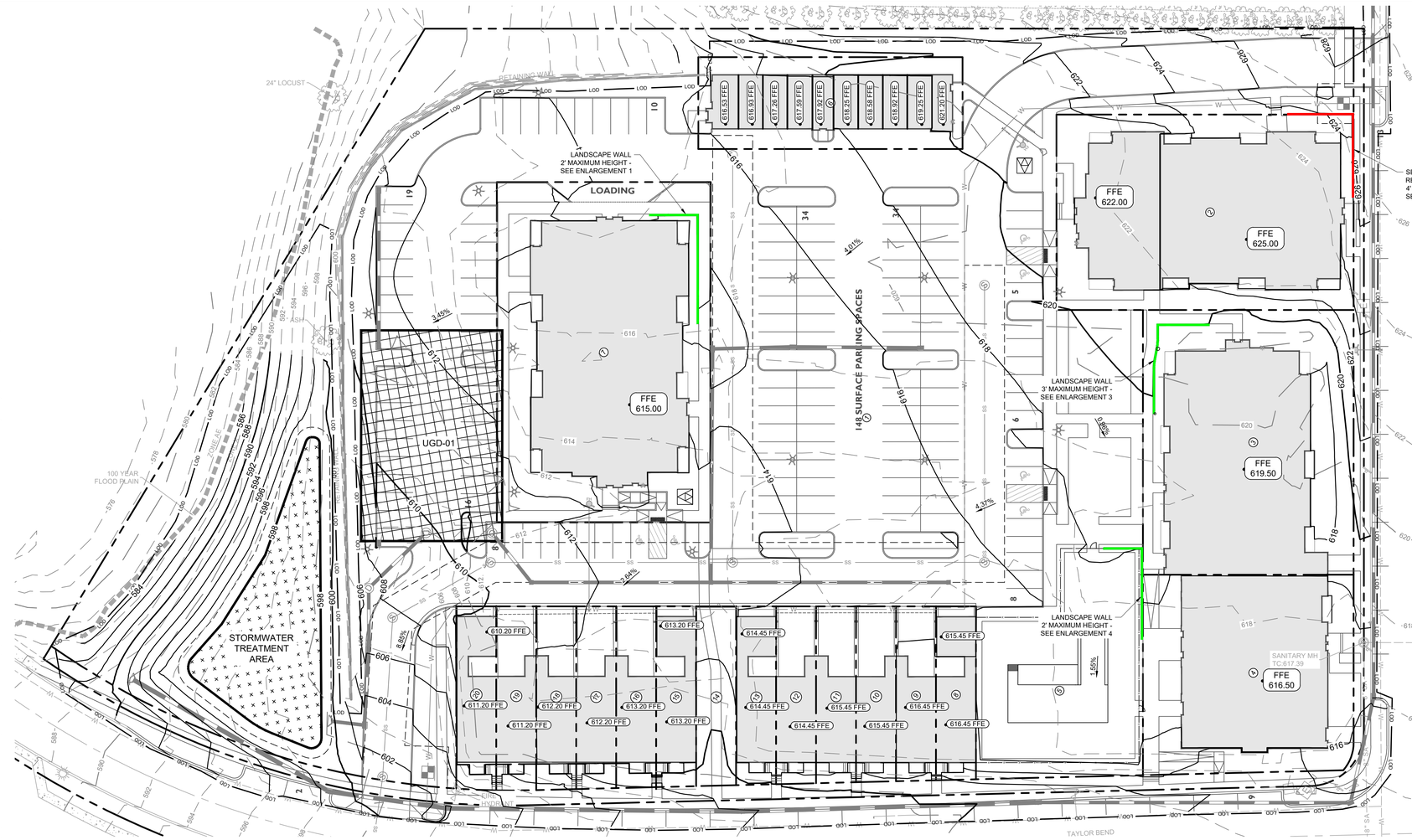
DESIGNED BY:	SAC
DRAWN BY:	MEN
CHECKED BY:	SAC
DATE:	05/18/2026

KIMLEY-HORN PROJECT NO. 118119003

CONCEPTUAL GRADING STORM AND UTILITIES

SHEET NUMBER
C3.0



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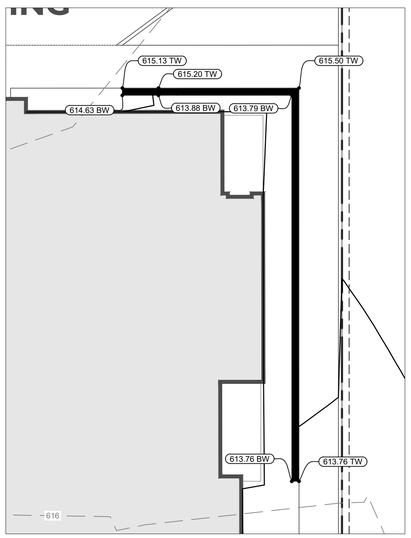
RETAINING WALL NOTE

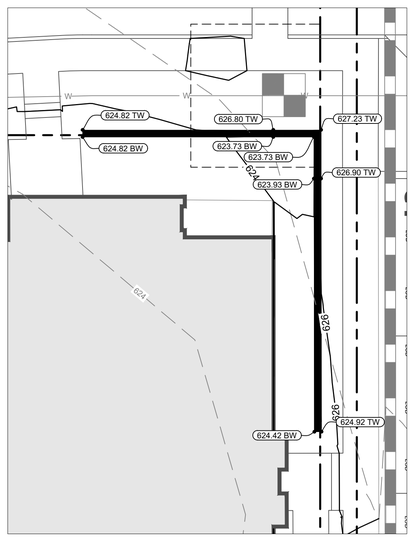
EXISTING RETAINING WALL TO BE EXAMINED AND CERTIFIED PRIOR TO FINAL CONSTRUCTION DOCUMENTS.

GRADING PLAN LEGEND

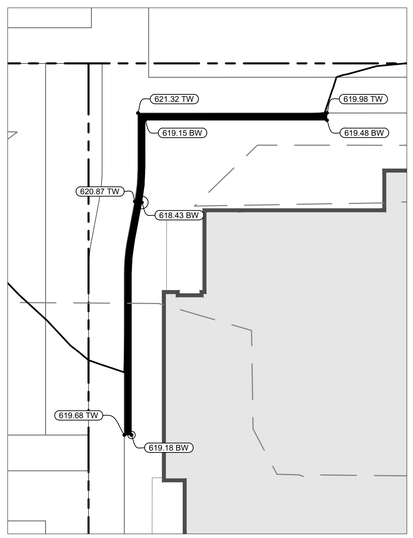
- 476.17 — SPOT ELEVATION (TW TOP OF WALL, BW BOTTOM OF WALL)
- FFE ### — FINISH FLOOR ELEVATION
- PROPOSED RETAINING WALL (GREATER THAN 3')
- PROPOSED RETAINING WALL (3' OR SHORTER)



ENLARGEMENT 1



ENLARGEMENT 2



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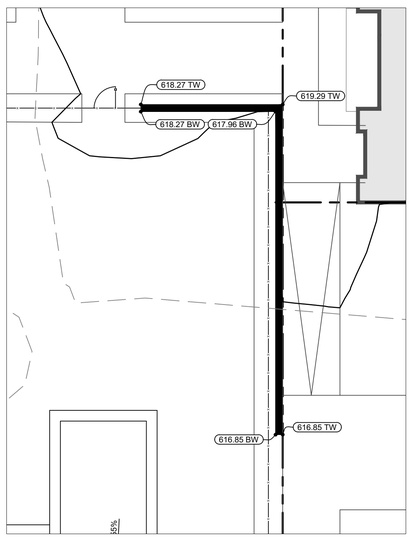

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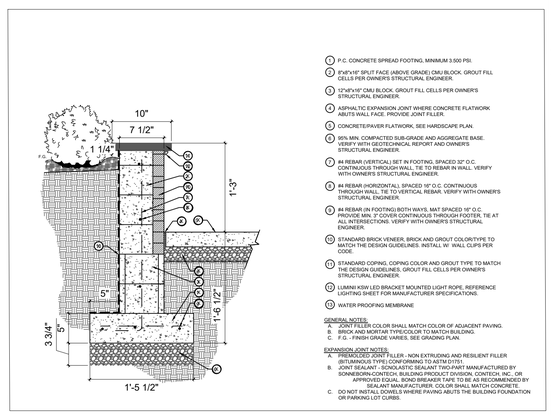

1. P.C. CONCRETE SPREAD FOOTING, MINIMUM 3,500 PSI.
2. 8"x8"x16" SPLIT FACE (ABOVE GRADE) CMU BLOCK. GROUT FILL CELLS PER OWNER'S STRUCTURAL ENGINEER.
3. 12"x8"x16" CMU BLOCK. GROUT FILL CELLS PER OWNER'S STRUCTURAL ENGINEER.
4. ASPHALTIC EXPANSION JOINT WHERE CONCRETE FLATWORK ABUTS A WALL FACE. PROVIDE JOINT FILLER.
5. CONCRETE/PAVER FLATWORK, SEE HARDSCAPE PLAN.
6. 95% MIN. COMPACTED SUB-GRADE AND AGGREGATE BASE. VERIFY WITH GEOTECHNICAL REPORT AND OWNER'S STRUCTURAL ENGINEER.
7. #4 REBAR (VERTICAL) SET IN FOOTING, SPACED 32" O.C. CONTINUOUS THROUGH WALL. TIE TO REBAR IN WALL. VERIFY WITH OWNER'S STRUCTURAL ENGINEER.
8. #4 REBAR (HORIZONTAL), SPACED 16" O.C. CONTINUOUS THROUGH WALL. TIE TO VERTICAL REBAR. VERIFY WITH OWNER'S STRUCTURAL ENGINEER.
9. #4 REBAR (IN FOOTING) BOTH WAYS, MAT SPACED 16" O.C. PROVIDE MIN. 3" COVER CONTINUOUS THROUGH FOOTER, TIE AT ALL INTERSECTIONS. VERIFY WITH OWNER'S STRUCTURAL ENGINEER.
10. STANDARD BRICK VENEER, BRICK AND GROUT COLOR/TYPE TO MATCH THE DESIGN GUIDELINES. INSTALL W. WALL CLIPS PER CODE.
11. STANDARD COPING, COPING COLOR AND GROUT TYPE TO MATCH THE DESIGN GUIDELINES. GROUT FILL CELLS PER OWNER'S STRUCTURAL ENGINEER.
12. LUMINII KSW LED BRACKET MOUNTED LIGHT ROPE, REFERENCE LIGHTING SHEET FOR MANUFACTURER SPECIFICATIONS.
13. WATER PROOFING MEMBRANE

GENERAL NOTES:
A. JOINT FILLER COLOR SHALL MATCH COLOR OF ADJACENT PAVING.
B. BRICK AND MORTAR TYPE/COLOR TO MATCH BUILDING.
C. F.G. - FINISH GRADE VARIES, SEE GRADING PLAN.

EXPANSION JOINT NOTES:
A. PREMOLDED JOINT FILLER - NON EXTRUDING AND RESILIENT FILLER (BITUMINOUS TYPE) CONFORMING TO ASTM D1751.
B. JOINT SEALANT - SONOLASTIC SEALANT TWO-PART MANUFACTURED BY SONNEBORN-CONTECH, BUILDING PRODUCT DIVISION, CONTECH, INC., OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S INSTRUCTIONS BY SEALANT MANUFACTURER. COLOR SHALL MATCH CONCRETE.
C. DO NOT INSTALL DOWELS WHERE PAVING ABUTS THE BUILDING FOUNDATION OR PARKING LOT CURBS.

1 LANDSCAPE WALL - DETAIL
NOT TO SCALE

GRAPHIC SCALE IN FEET
0 5 10 20
NORTH

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THE JAMES 2
FINAL PUD MASTER DEVELOPMENT PLAN
RIVER ROAD & TAYLOR BEND RD, COLUMBIA TN

SOPHIA CLOSE
REGISTERED ENGINEER
STATE OF TENNESSEE
No. 131191

No.	REVISIONS	DATE	BY
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DESIGNED BY:	SAC
DRAWN BY:	MEN
CHECKED BY:	SAC
DATE:	05/18/2026

KIMLEY-HORN PROJECT NO. 118119003

RETAINING WALL SHEET

SHEET NUMBER
C3.1

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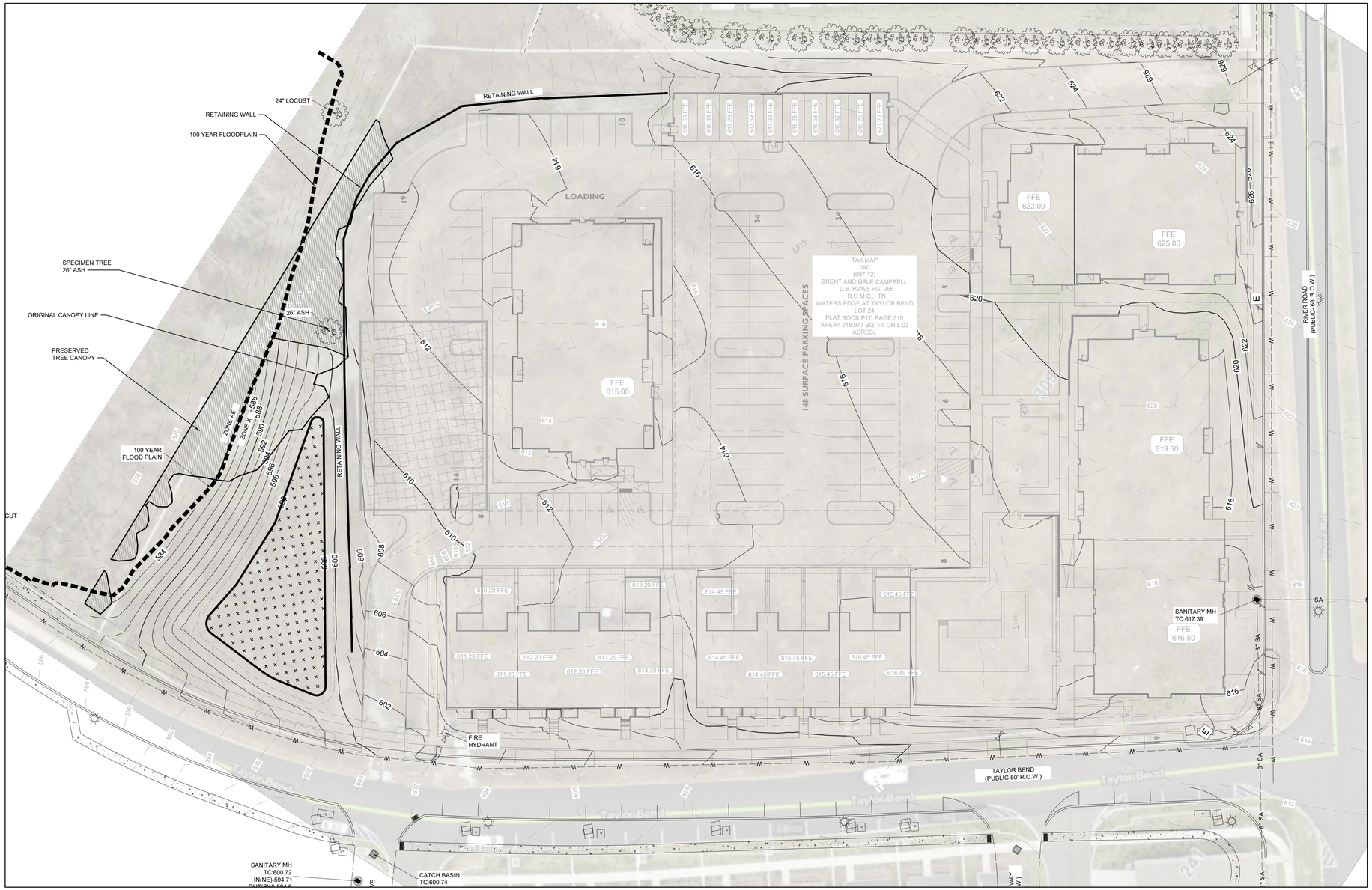
FINAL PUD DEVELOPMENT PLAN SITE DATA:

TOTAL SITE AREA: +/-5.0 AC
EXISTING ZONING: PUD
FUTURE LAND USE: CCUV - CITY CENTER URBAN VILLAGE
PREVIOUS PUD MASTER PLAN: WATERS EDGE PUD; ORDINANCE 4262; NOV. 14, 2019
PRELIMINARY PUD MASTER DEVELOPMENT PLAN: ORDINANCE 4563; APPROVED JAN. 8, 2026

THE SITE WAS PREVIOUSLY CLEARED IN ACCORDANCE WITH AN APPROVED SITE PLAN. BRUSH/VOLUNTEER GROWTH HAS OCCURRED IN THE DISTURBED AREA.

SPECIMEN TREES: 1 ON SITE
26" ASH - PRESERVED

EXISTING TREE CANOPY: 8,388.3 SF (0.19 AC); 3.8% OF TOTAL SITE AREA
PUD-MU TREE CANOPY RETENTION STANDARD: 54% PRESERVATION
TREE CANOPY PRESERVATION AREA: 5,817.3 SF (.13 AC) - 70% OF ORIGINAL CANOPY COVER PRESERVED



0 30 60 90
GRAPHIC SCALE 1"=30'-0"

NOTE:

THE SUBJECT PARCEL IS LESS THAN 10 ACRES IN SIZE, DOES NOT INCLUDE THE CREATION OF A NEW THOROUGHFARE OR INTERNAL DRIVE, AND THEREFORE IS NOT A DEVELOPMENT PARCEL.

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THE JAMES 2
FINAL PUD MASTER DEVELOPMENT PLAN
RIVER ROAD & TAYLOR BEND RD, COLUMBIA TN

GREGORY C. GAMBLE
REGISTERED PROFESSIONAL ENGINEER
LANDSCAPE ARCHITECT
05/18/26

No.	REVISIONS	DATE	BY
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DESIGNED BY:
DRAWN BY:
CHECKED BY:
DATE: 05/18/2026
KIMLEY-HORN PROJECT NO. 118119003

TREE PRESERVATION

SHEET NUMBER
L1.0

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Drawing name: K:\FRA_LAP_GDC\!development\CPS - Columbia Taylors Bend\06 FMDP PUD\02 CAD\L1.0.dwg L1.0 May 18, 2026 3:28pm by: Rose.Goodwin

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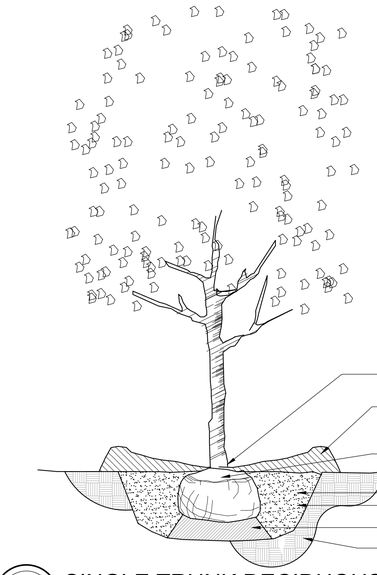
PLANT SCHEDULE - CODE MINIMUM

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	HEIGHT	LEAF	SPACING	REMARKS
CANOPY TREES								
ARA	14	Acer rubrum 'Autumn Flame'	Autumn Flame Red Maple	2.5" Cal. B&B	12`-14`	DECIDUOUS	AS SHOWN	CENTRAL LEADER
ASL	4	Acer saccharum 'Legacy'	Legacy Sugar Maple	2.5" Cal. B&B	12`-14`	DECIDUOUS	AS SHOWN	CENTRAL LEADER
LSR	12	Liquidambar styraciflua 'Rotundiloba'	Fruitless Narrow Sweet Gum	2.5" Cal. B&B	12`-14`	DECIDUOUS	AS SHOWN	CENTRAL LEADER
QF	16	Quercus falcata	Southern Red Oak	2.5" Cal. B&B	12`-14`	DECIDUOUS	AS SHOWN	SINGLE-STRAIGHT CENTRAL LEADER
	46	(SUBTOTAL)						
SHRUBS								
BGM	74	Buxus x 'Green Mountain'	Green Mountain Boxwood	3 gal.	24"	EVERGREEN	36" O.C.	
IGS	83	Ilex glabra 'Shamrock'	Shamrock Inkberry Holly	3 gal.	30"	EVERGREEN	36" O.C.	
RHC	115	Rhododendron x 'Conleb'	Autumn Embers Encore Azalea	3 gal.	30"	EVERGREEN	36" O.C.	
BSD	46	Buxus sempervirens 'Dee Runk'	Dee Runk Common Boxwood		30"	EVERGREEN	36" O.C.	
	318	(SUBTOTAL)						

PLANT SCHEDULE - AMENITY BUFFER

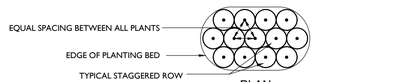
CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	HEIGHT	LEAF	SPACING
SHRUBS							
BSD	11	Buxus sempervirens 'Dee Runk'	Dee Runk Common Boxwood		30"	EVERGREEN	36" O.C.
IN	13	Ilex x 'Nellie R. Stevens'	Nellie R. Stevens Holly		4`	EVERGREEN	6` O.C.
RHC	11	Rhododendron x 'Conleb'	Autumn Embers Encore Azalea		24"	EVERGREEN	36" O.C.
VC	11	Viburnum x burkwoodii `Chenaultii`	Chenault Viburnum		36"	EVERGREEN	AS SHOWN



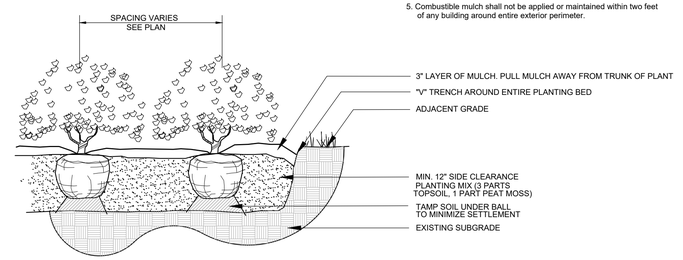
1 L1.0 SINGLE TRUNK DECIDUOUS TREE — SECTION — DETAIL # NTS

GENERAL NOTES:

1. All trees are to be nursery grown, burlap and ball (B&B). Minimum tree size is per schedule (measured 6" above root ball).
2. Remove all treated or plastic-coated burlap, strapping, wire or nylon twine from root ball. After setting in hole, cut away top and sides of wire basket, if any.
3. Install top of plant ball even with or up to 2" above existing grade.
4. Set tree in vertical position; stake if necessary for stabilization.
5. Soak plant ball and pit immediately after installation. Place 3" of seasoned mulch or pine needles around base of tree, 3' diameter minimum.



PLAN



2 L1.0 SHRUB PLANTING — SECTION — DETAIL # NTS

GENERAL NOTES:

1. Install top of plant ball shall be level with finished grade.
2. Tamp planting mix firmly as pit is filled around each plant ball.
3. Soak each plant ball and pit immediately after installation.
4. Cut and remove burlap from top 1/3 of root ball. Non-degradable burlap shall be removed or rolled under ball after replacement of plant.
5. Combustible mulch shall not be applied or maintained within two feet of any building around entire exterior perimeter.

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THE JAMES 2
FINAL PUD MASTER DEVELOPMENT PLAN
RIVER ROAD & TAYLOR BEND RD, COLUMBIA TN

GREGORY C. GAMBLE — REGISTERED LANDSCAPE ARCHITECT — STATE OF TENNESSEE NO. 329 — 05/18/26

No.	REVISIONS	DATE	BY
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

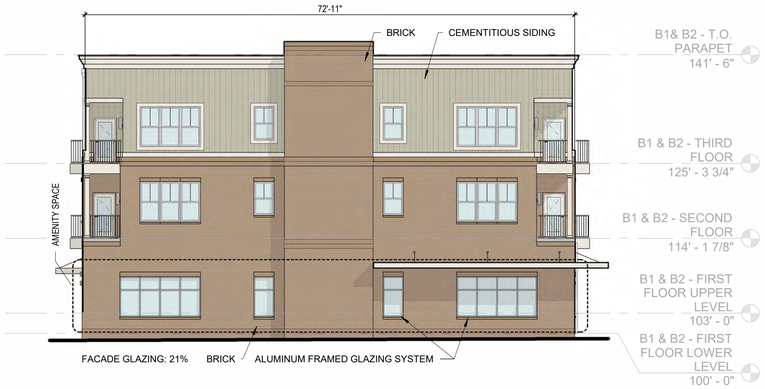
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DATE: 05/18/2026
KIMLEY-HORN PROJECT NO. 118119003

FINAL MASTER DEVELOPMENT PLAN

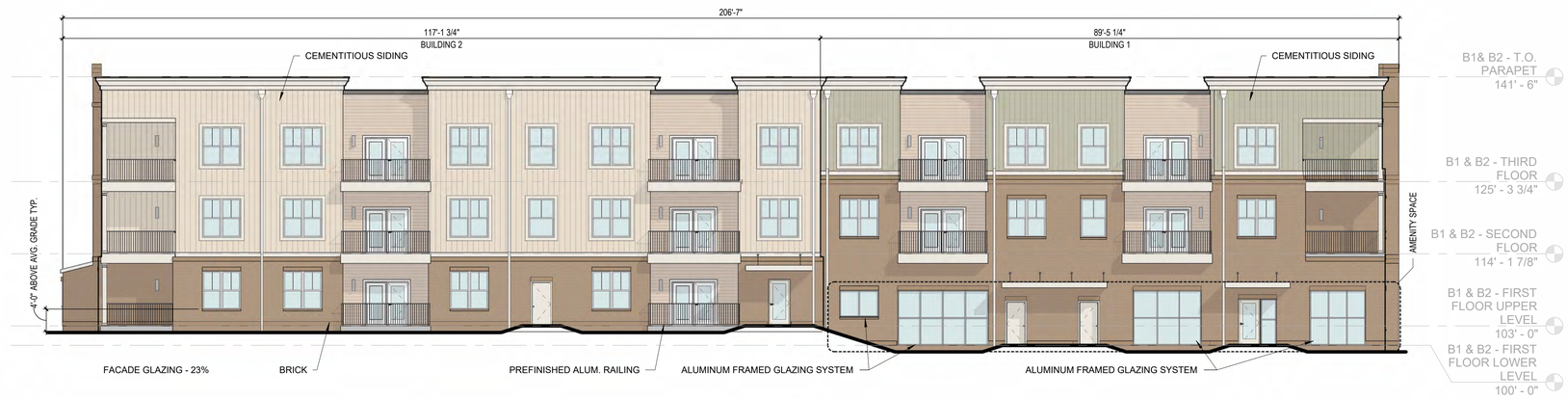
SHEET NUMBER L2.1



3 A201 **ELEVATION** BUILDING 2 - (FACING BLDG 3)
3/32" = 1'-0"



2 A201 **ELEVATION** BUILDING 1 - (FACING TAYLOR'S BEND RD.)
3/32" = 1'-0"



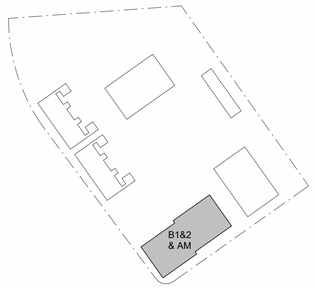
4 A201 **ELEVATION** BUILDING 1&2 - (FACING PARKING LOT)
3/32" = 1'-0"



1 A201 **ELEVATION** BUILDING 1&2 - (FACING RIVER RD.)
3/32" = 1'-0"

* SILL HEIGHT NOTE: PUD-MU ZONING CODE REQUIRES THE RESIDENTIAL SILL TO BE 5' MIN. ABOVE AVERAGE GRADE AT FACADE. APPLICANT IS REQUESTING STAFF LEVEL ALLOWABLE DEVIATION TO REDUCE THE MIN. DIMENSION TO 4' (20%) MIN. ABOVE AVERAGE GRADE AT FACADE FOR ALL BUILDINGS THAT ARE PARALLEL TO STRAIGHT FRONTAGE LINES OR TANGENT OF CURVED FRONTAGE LINE.

KEY PLAN



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BARLOW BUILDERS & CPS LAND
THE JAMES (PHASE 2)
COLUMBIA, TN

ISSUANCES

NO.	DATE	DESCRIPTION
	2025.05.19	ZONING SUBMISSION
	2025.09.16	CITY COMMENTS REVISION
	2026.04.20	SITE DEVELOPMENT PLAN SUBMISSION
	2026.05.18	FINAL PUD SUBMISSION

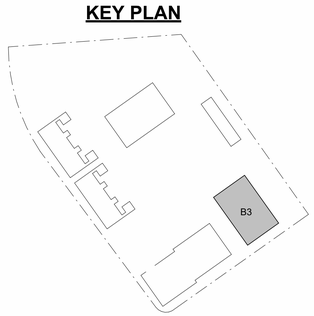
PROJECT NO:
26008

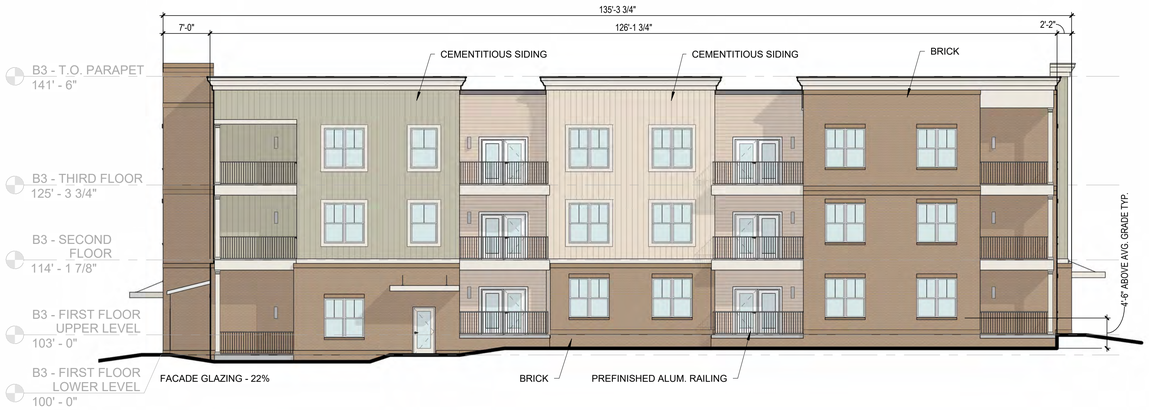
SHEET TITLE:
BUILDING 1/2 ELEVATIONS

SHEET NUMBER:
A201

5/15/2026 2:46:22 PM

KEY PLAN





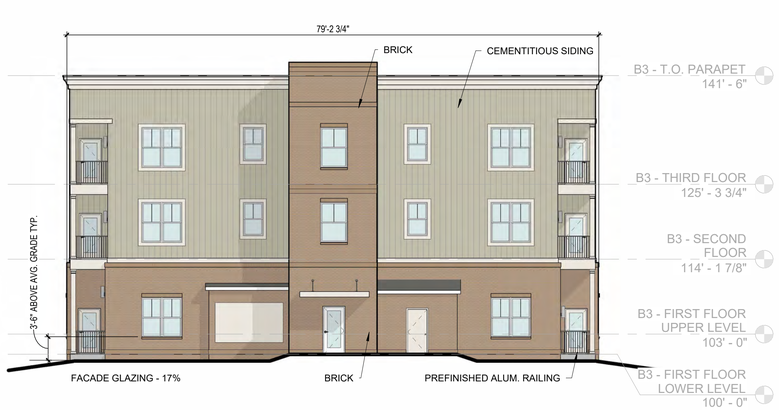
3 A202 **ELEVATION** BUILDING 3 - (FACING BLDG 1&2)
3/32" = 1'-0"



1 A202 **ELEVATION** BUILDING 3 - (FACING RIVER RD.)
3/32" = 1'-0"



4 A202 **ELEVATION** BUILDING 3 - (FACING BACK OF PROPERTY)
3/32" = 1'-0"



2 A202 **ELEVATION** BUILDING 3 - (FACING PARKING LOT)
3/32" = 1'-0"

* SILL HEIGHT NOTE: PUD-MU ZONING CODE REQUIRES THE RESIDENTIAL SILL TO BE 5' MIN. ABOVE AVERAGE GRADE AT FACADE. APPLICANT IS REQUESTING STAFF LEVEL ALLOWABLE DEVIATION TO REDUCE THE MIN. DIMENSION TO 4' (20%) MIN. ABOVE AVERAGE GRADE AT FACADE FOR ALL BUILDINGS THAT ARE PARALLEL TO STRAIGHT FRONTAGE LINES OR TANGENT OF CURVED FRONTAGE LINE.

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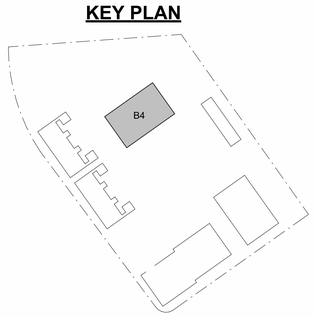
PROJECT NO:
26008

SHEET TITLE:
BUILDING 3 ELEVATIONS

SHEET NUMBER:
A202

5/15/2026 2:46:26 PM

KEY PLAN





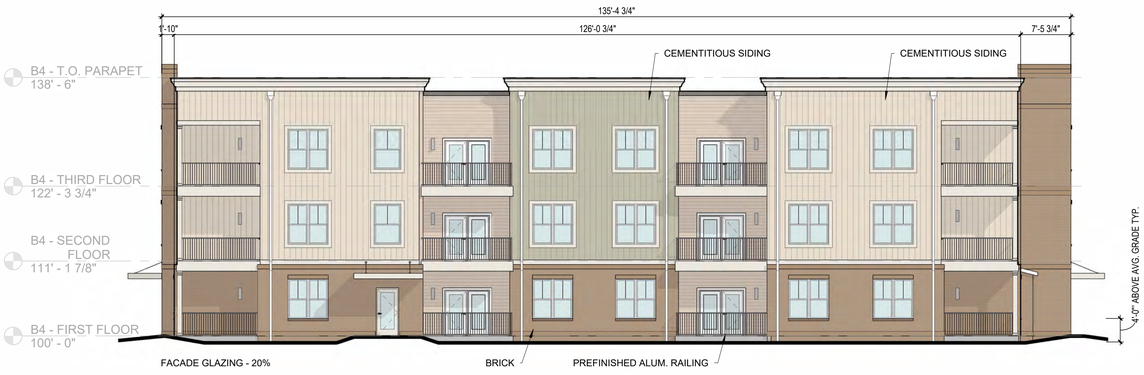
4 A203 **ELEVATION** BUILDING 4 - (FACING PARKING LOT)

3/32" = 1'-0"



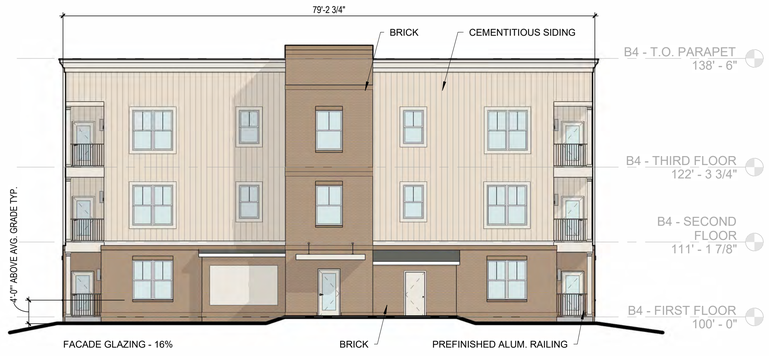
1 A203 **ELEVATION** BUILDING 4 - (FACING TOWNHOMES)

3/32" = 1'-0"



2 A203 **ELEVATION** BUILDING 4 - (FACING STORM DETENTION AREA)

3/32" = 1'-0"



3 A203 **ELEVATION** BUILDING 4 - (FACING BACK OF PROPERTY)

3/32" = 1'-0"

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PROJECT NO:

26008

SHEET TITLE:

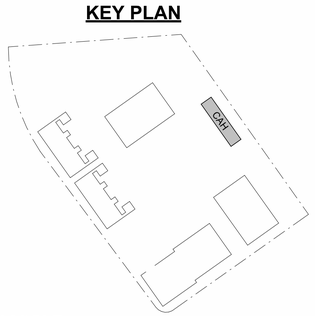
BUILDING 4 ELEVATIONS

SHEET NUMBER:

A203

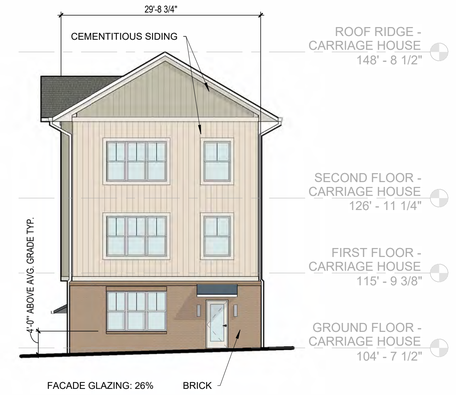
5/15/2026 2:46:31 PM

KEY PLAN





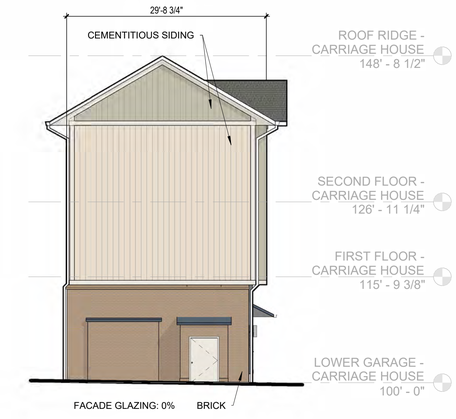
1 A204 **ELEVATION** CARRIAGE HOUSE - (FACING PARKING LOT)
3/32" = 1'-0"



4 A204 **ELEVATION** CARRIAGE HOUSE - (FACING RIVER RD.)
3/32" = 1'-0"



3 A204 **ELEVATION** CARRIAGE HOUSE - (FACING BACK OF PROPERTY)
3/32" = 1'-0"



2 A204 **ELEVATION** CARRIAGE HOUSE - (FACING WATER DETENTION AREA.)
3/32" = 1'-0"

* SILL HEIGHT NOTE: PUD-MU ZONING CODE REQUIRES THE RESIDENTIAL SILL TO BE 5' MIN. ABOVE AVERAGE GRADE AT FACADE. APPLICANT IS REQUESTING STAFF LEVEL ALLOWABLE DEVIATION TO REDUCE THE MIN. DIMENSION TO 4' (20%) MIN. ABOVE AVERAGE GRADE AT FACADE FOR ALL BUILDINGS THAT ARE PARALLEL TO STRAIGHT FRONTAGE LINES OR TANGENT OF CURVED FRONTAGE LINE.

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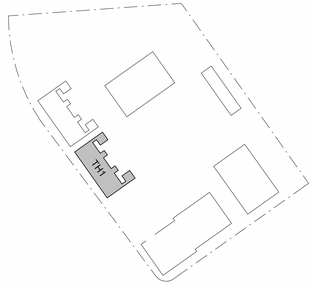
PROJECT NO:
26008

SHEET TITLE:
CARRIAGE HOUSE ELEVATIONS

SHEET NUMBER:
A204

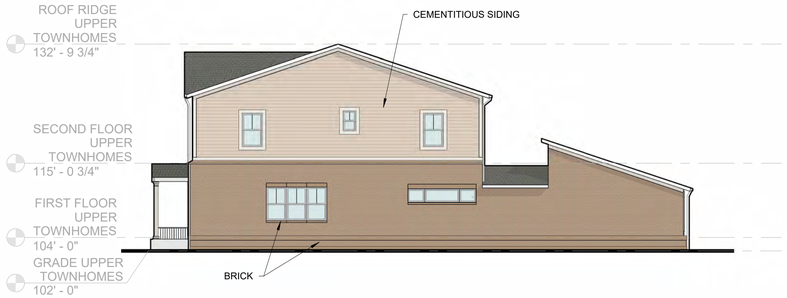
5/15/2026 2:46:35 PM

KEY PLAN

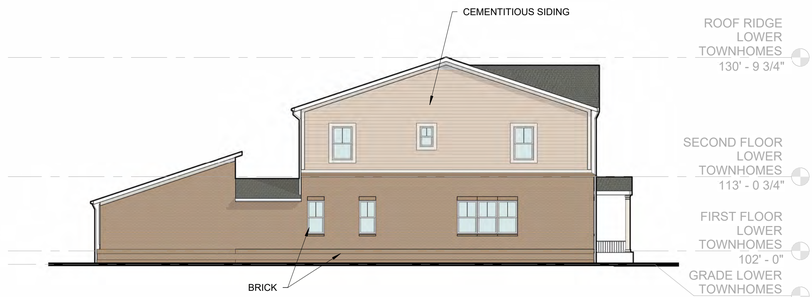




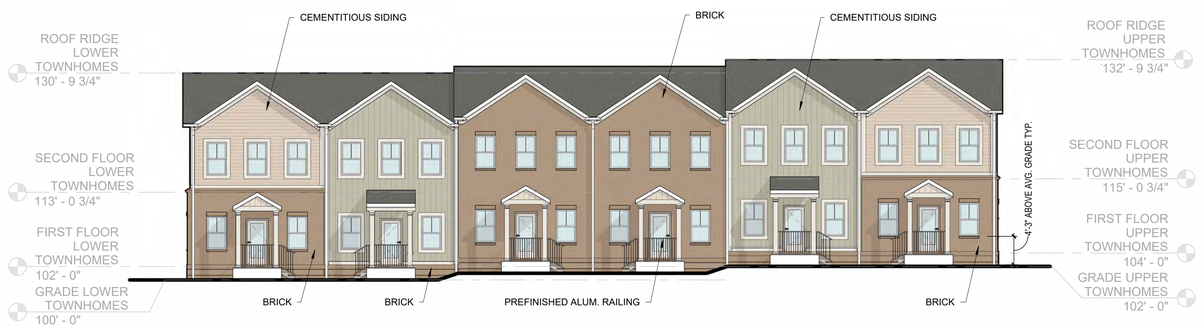
4 A205 **ELEVATION** TOWNHOME - ROW 1 - (FACING PARKING LOT)
3/32" = 1'-0"



2 A205 **ELEVATION** TOWNHOME - ROW 1 - (FACING B1&2)
3/32" = 1'-0"



3 A205 **ELEVATION** TOWNHOME - ROW 1 - (FACING ROW 2)
3/32" = 1'-0"



1 A205 **ELEVATION** TOWNHOME - ROW 1 - (FACING TAYLOR'S BEND RD.)
3/32" = 1'-0"

* SILL HEIGHT NOTE: PUD-MU ZONING CODE REQUIRES THE RESIDENTIAL SILL TO BE 5' MIN. ABOVE AVERAGE GRADE AT FACADE. APPLICANT IS REQUESTING STAFF LEVEL ALLOWABLE DEVIATION TO REDUCE THE MIN. DIMENSION TO 4' (20%) MIN. ABOVE AVERAGE GRADE AT FACADE FOR ALL BUILDINGS THAT ARE PARALLEL TO STRAIGHT FRONTAGE LINES OR TANGENT OF CURVED FRONTAGE LINE.

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	2026.05.18	FINAL PUD SUBMISSION

PROJECT NO:
26008

SHEET TITLE:
TOWNHOME ELEVATIONS

SHEET NUMBER:
A205

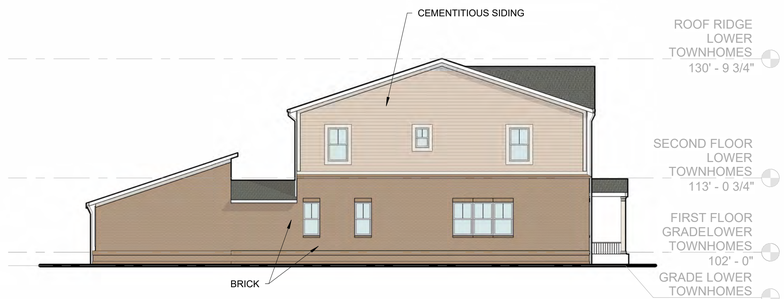
5/15/2026 2:46:39 PM



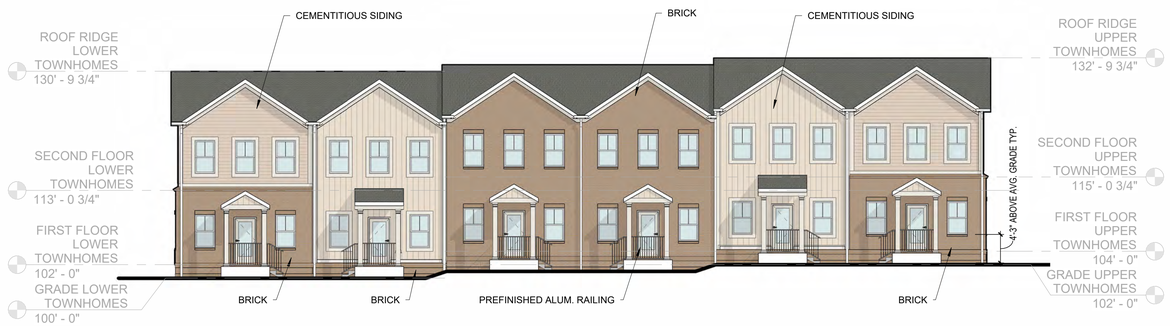
2 A206 **ELEVATION** TOWNHOME - ROW 2 - (FACING PARKING LOT)
3/32" = 1'-0"



3 A206 **ELEVATION** TOWNHOME - ROW 2 - (FACING ROW 1)
3/32" = 1'-0"



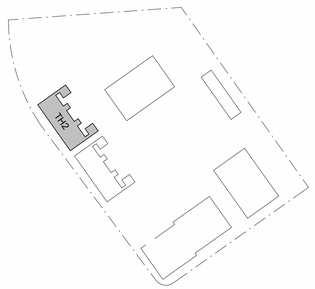
4 A206 **ELEVATION** TOWNHOME - ROW 2 - FACING WATER DETENTION AREA)
3/32" = 1'-0"



1 A206 **ELEVATION** TOWNHOME - ROW 2 - (FACING TAYLOR'S BEND RD.)
3/32" = 1'-0"

* SILL HEIGHT NOTE: PUD-MU ZONING CODE REQUIRES THE RESIDENTIAL SILL TO BE 5' MIN. ABOVE AVERAGE GRADE AT FACADE. APPLICANT IS REQUESTING STAFF LEVEL ALLOWABLE DEVIATION TO REDUCE THE MIN. DIMENSION TO 4' (20%) MIN. ABOVE AVERAGE GRADE AT FACADE FOR ALL BUILDINGS THAT ARE PARALLEL TO STRAIGHT FRONTAGE LINES OR TANGENT OF CURVED FRONTAGE LINE.

KEY PLAN



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	2026.05.18	FINAL PUD SUBMISSION

PROJECT NO:
26008

SHEET TITLE:
TOWNHOME ELEVATIONS

SHEET NUMBER:
A206

5/15/2026 2:46:44 PM

Kimley»Horn

May 18, 2026

Charles Rush, Principal Planner
Development Services, City of Columbia TN
700 North Garden Street
Columbia, TN 38401

RE: ***Resubmittal: Waters Edge at Taylor Bend FMDP; Item #: 26-0148***

Dear Mr. Rush,

This cover letter accompanies the submittal of revised FMDP sheets for the Waters Edge at Taylor Bend FMDP. Below is a narrative of the plan updates between this FMDP and the previously approved PMDP. Also included are comment responses to the Development Review Committee Meeting Comments from May 12, 2026.

Prior to the FMDP submittal, the applicant had additional survey work done on site. This updated survey has been incorporated into the submittal. While most layout impacts were subtle, some new information has been added to the plans. For example, the survey team was able to identify a specimen tree and confirm the limits of the tree canopy. Sheet L1.0 reflects this updated tree information. Additionally, during this time the architects worked to further refine the floorplans and associated elevations of the proposed townhomes and multi-family buildings. These updates are reflected in the revised elevations. And finally, the applicant was asked to show additional layout information for the amenity space, which has been included in the updated layout.

A list of the specific updates between the approved PMDP and the FMDP is below:

1. The 1st floor floor elevations step to coordinate with site grading for the following buildings: Large multifamily buildings 1, 2, and 3, Small multifamily building 1 and Townhouses (see sheets A201, A202, A204, A205, A206).
2. Large multifamily building 1: 1st floor awning expanded, over amenity space windows (see sheet A201).
3. Windows shifted at secondary elevations of Large Multifamily buildings 1 and 3, to coordinate with floor plan development. The required glazing percentages are maintained. (See sheets A201 and A202).
4. Changed the side entry/exit doors from double doors to single doors on Large multifamily buildings (see A201, A202, A203).
5. Added windows on the side and rear elevations of the townhomes to coordinate with floor plan development (see sheets A205 and A206).
6. Buildings 3&4 have shifted east to allow for more grading room into building 4 entry from ROW.
7. Parking lot layout (loading area, ADA stalls, etc.) has shifted in order to better accommodate site grading.
8. Building 6 footprint has revised.
9. Stormwater pipe layout has adjusted to better collect parking lot flow. Pond design has revised to better work with existing grades.
10. Waterline layout has adjusted based on feedback from CPWS.
11. Updated survey information has been incorporated since the preliminary PUD.
12. Retaining walls have been added/adjusted throughout plan due to grading refinement.

13. Specimen tree has been identified and existing/preserved tree canopy area updated.
14. Parking lot landscape placement has adjusted where necessary to react to layout changes. Screening shrubs have been added to the base of the existing retaining wall at the request of staff.

Comment Responses:

Planning:

1. The lead staff person will be Charles Rush, Principal Planner (crush@columbiatn.gov).
   Response: Noted.
2. Upload all responses to comments by resubmittal date.
   Response: Noted.
3. 2 trees are missing at the corner of Taylor's Dent and River Road (provide explanation, tree counts have stayed the same, but the plan has lost 2 trees).
   Response: After a review of the plan with verified survey information and clear utility placement, the landscape architect was concerned for utility interference and intersection site visibility. The two trees previously shown in the corner landscape island were shifted out of the island and proposed near Large Multi-Family Building 3.
4. Add note that the landscape island will be the size of a parking space (9'x19').
   Response: This note has been added to C2.0.
5. Provide an explanation of the loading area change at the large multi-family building 4
   Response: Loading area location shifted due to the grading near the retaining wall.
6. List driveway widths
   Response: These dimensions have been added to C2.0.
7. Provide a statement that this development will conform to all PUD-MU standards unless a deviation was requested in this application and approved by the Planning Commission.
   Response: This note is on C2.0.
8. Provide a retaining wall sheet with materials (TOW/BOW). Retaining walls require landscaping.
   Response: Proposed cast in place retaining wall has been removed. Retaining wall enlargement has been provided on sheet C3.1 with elevations and general details. Please see Sheets L2.0-L2.1 for the addition of shrubs at the base of the existing retaining wall within the limits of disturbance.
9. The photometric plan needs to reflect 1.0 – 2.0 FC.
   Response: Photometric plan has been updated.
10. Provide a list of all changes from the approved preliminary PUD to the submitted Final PUD. Include elevations since those have changed as well. Provide explanation for each change (e.g., 6' fence removed, windows ripple to double, etc).
    Response: Please see the narrative above.
11. Townhome facades do not comply with the elevation requirements of the district. Window alignment: "Upper floor windows and other features must be aligned with those on the first floor".
    Response: Please refer to the revised exterior elevation drawings on sheets A205 and A206. The upper floor windows on the primary, street-facing façade have been revised to align vertically with the first floor openings.
12. Review façade and PUD-MU standards to match district standards, or deviations will need to be requested.
    Response: No new deviations are requested. Deviation to utilize a window sill height 4' above the average grade at facades instead of 5' was granted with the previously approved Preliminary PUD Master Development Plan and is utilized in this FMDP.

Engineering:

13. Retaining walls or walls shall not be designed to primarily retain surface waters. Walls shall be designed in a manner to reinforce and support soils.
    Response: Design has been revised and the free standing wall has been removed. An underground detention system will be utilized.
14. Existing retaining wall will require certification from geotechnical engineer attesting to the installation, design, and structural integrity.
    Response: Response: Note stating such is on sheet C3.0. Existing wall has been reviewed/inspected by geotechnical engineer. Geotechnical report is included in this resubmittal.
15. Minimum ROW for Taylor Bend Rd is 65 ft. Provide half the required ROW to meet the minimum required width (32.5 ft from CL of existing ROW). Additional ROW may be required along River Rd to construct sidewalk within it.
    Response: ROW dedication along Taylor Bend has been adjusted to be 32.5' from centerline. ROW along River Road is shown where public access easement was previously proposed.
16. Final review of grading and stormwater will be conducted with site construction plans review.
    Response: Understood
17. Check grading in relation to FFE with buildings 3 and 4.
    Response: Buildings 3 & 4 grading has been reviewed. FFEs are set based on maintaining ADA access to the building from the intersection of River Road and Taylor Bend.
18. Subject to TIS and construction plans review.
    Response: Understood
19. Suggest grading section of driveway behind townhomes as alley cross section with drainage located in the middle of the section.
    Response: Grading has been revised.
20. Check FFEs of rear of townhomes in relation to road elevation to ensure proper drainage.
    Response: Grading has been reviewed, townhome driveways to drain to alley section behind.

Columbia Power:

21. Columbia Power System has an existing power line near your proposed development. We are willing to serve this new development subject to all Columbia Power System policies and procedures in effect at actual time service is rendered provided an approved final plat and complete electrical load information is furnished as soon as possible prior to start of actual construction.
. Unfortunately, due to current supply chain challenges, no timeframe can be guaranteed regarding the availability of meters or transformers appropriate for your development.
Response: Noted.

Police:

22. No comments provided.

City Attorney:

23. No comments provided.

Building:

24. No comments provided.

ATT:

25. ATT to serve

Fire:

26. No comments.

Wastewater:

27. Wastewater availability letter must be updated.
    Response: Request for updated letter submitted to City on 5/15/2026.
28. Final PUD/Plat signature is subject to Columbia WW plan review approval or installation.
    Response: Noted.

Public Works:

29. Private sanitation services, including dumpsters, compactors, individual receptacles or valet services, may be utilized for townhome residents and multi-family residents. Individual trash receptacles will not be provided by the City of Columbia to townhome residents. Please see the attached City of Columbia Dumpster Guidelines & Accessibility Requirements.
    a. DUMPSTER GUIDELINES AND ACCESSIBILITY REQUIREMENTS
    DUMPSTER AND COMPACTOR STANDARDS
    GENERAL
    All requirements for collection and accessibility to containers apply, regardless of whether
    collection is public or private.
    GUIDELINES FOR DUMPSTERS
    The number and capacity of dumpsters must be adequate to serve the disposal needs of the
    business, development or complex. Collection must occur at least one time per week, with
    special approval needed for every other week (EOW) collection. Each dumpster must be easily
    accessible, as determined by the Public Works Department, and of a size compatible with
    equipment of the department. If the dumpster is in an enclosed area, there must be at least 2 feet
    and 6 inches of clearance on each side of the dumpster.
    DUMPSTER PAD REQUIREMENTS
    1. The concrete dumpster pad shall be at least 12 feet by 12 feet.
    2. The pad(s) shall be 8-inch-thick concrete, reinforced with rebar to support a 30-ton loadbearing
    capacity.
    3. A 14-foot-wide by 40-foot-long straight and clear access approach to each dumpster for
    the truck is required.
    4. Clearance at each side of the dumpster must be at least 2 feet and 6 inches.
    5. If a gated enclosure is utilized, the gates must be lockable in the open position to prevent
    the gates from swinging into the path of the truck during servicing.
    Response: Site to be served via private trash service. See note 3 on Sheet C3.0

30. Two 6-inch diameter concrete filled steel bollards must be placed in the concrete pad to the rear of each dumpster, 2 feet from the back edge of the dumpster pad, spaced 4 feet apart and centered side to side. The bollards will rise 6 feet above the pad and extend 32 inches below the pad into the concrete footers.
    7. If the box is enclosed, it is recommended that there be pedestrian access in addition to service gates.
    8. Access area, approach and pad must be level.
    9. Standard pads with no drain should be elevated approximately 1-1/2 inches above the surrounding pavement.
    ACCESSIBILITY REQUIREMENTS FOR DUMPSTERS AND COMPACTORS
    1. Access must accommodate a 40-foot-long truck, with a 45-foot turning radius. Circular movement through the complex for the vehicles is highly recommended.
    2. The collection truck shall not be required to back-up for no more than 200 feet.
    3. No backing into or across a public right-of-way.
    4. No overhead obstructions at waste handling or access area. Refuse collection trucks need a minimum of a 25-foot vertical clearance to service containers.
    5. Heavy duty pavement is required for the collection truck's path through the complex. City of Columbia Public Works will not be responsible for the repair of asphalt or concrete which has been damaged due to normal usage.
    6. Gates must be unlocked and open for collection.
    Response: Site to be served via private trash service. See note 3 on Sheet C3.0

Maury County Schools:

31. Riverside Elementary, Cox Middle School, Central High School. The development combined with current neighborhoods and additional approved developments in these zones may require new construction or realignment of school zones to accommodate new students.
    Response: Noted.

Columbia Water:

32. A water availability letter was issued on December 1, 2025, it remains valid until February 26, 2027. The availability of capacity to serve is based on a determination by the Fire Marshal of fire flow requirements and the information submitted on the Water Service Availability Request application. Any off-site improvements detailed in the availability letter are the responsibility of the developer/owner. All public water system improvements are subject to the preparation and approval of detailed construction plans prepared in accordance with CPWS and Tennessee Department of Environment and Conservation requirements.
    Response: Noted.

Maury County Highway Dept:

33. No Comment

Atmos Energy:

34. No Comment

Maury County E911:

35. No Comments provided

Duck River Electric Membership Corp:

36. No Comments

If you have any additional questions or concerns, please contact Greg Gamble at greg.gamble@kimley-horn.com or Keli Frymire at 706.566.6480 or keli.frymire@kimley-horn.com

Sincerely,



Keli Frymire
Landscape Architect

CITY OF
COLUMBIA
TENNESSEE

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

DEVELOPMENT REVEW COMMITTEE MEETING
Tuesday, May 12, 2026

ITEM NO.
26-0148

DESCRIPTION: Waters Edge at Taylor Bend PUD

COMMENTS:

Planning

1. The lead staff person will be Charles Rush, Principal Planner (crush@columbiatn.gov).
2. Upload all responses to comments by resubmittal date.
3. 2 trees are missing at the corner of Taylor's Dent and River Road (provide explanation, tree counts have stayed the same, but the plan has lost 2 trees).
4. Add note that the landscape island will be the size of a parking space (9'x19').
5. Provide an explanation of the loading area change at the large multi-family building 4
6. List driveway widths
7. Provide a statement that this development will conform to all PUD-MU standards unless a deviation was requested in this application and approved by the Planning Commission.
8. Provide a retaining wall sheet with materials (TOW/BOW). Retaining walls require landscaping
9. The photometric plan needs to reflect 1.0 – 2.0 FC.
10. Provide a list of all changes from the approved preliminary PUD to the submitted Final PUD. Include elevations since those have changed as well. Provide explanation for each change (e.g., 6' fence removed, windows ripple to double, etc).
11. Townhome facades do not comply with the elevation requirements of the district. Window alignment: "Upper floor windows and other features must be aligned with those on the first floor".
12. Review façade and PUD-MU standards to match district standards, or deviations will need to be requested.

Engineering

13. Retaining walls or walls shall not be designed to primarily retain surface waters. Walls shall be designed in a manner to reinforce and support soils.
14. Existing retaining wall will require certification from geotechnical engineer attesting to the installation, design, and structural integrity.

15. Minimum ROW for Taylor Bend Rd is 65 ft. Provide half the required ROW to meet the minimum required width (32.5 ft from CL of existing ROW). Additional ROW may be required along River Rd to construct sidewalk within it.
16. Final review of grading and stormwater will be conducted with site construction plans review.
17. Check grading in relation to FFE with buildings 3 and 4.
18. Subject to TIS and construction plans review.
19. Suggest grading section of driveway behind townhomes as alley cross section with drainage located in the middle of the section.
20. Check FFEs of rear of townhomes in relation to road elevation to ensure proper drainage.

Columbia Power

21. Columbia Power System has an existing power line near your proposed development. We are willing to serve this new development subject to all Columbia Power System policies and procedures in effect at actual time service is rendered provided an approved final plat and complete electrical load information is furnished as soon as possible prior to start of actual construction.
    . Unfortunately, due to current supply chain challenges, no timeframe can be guaranteed regarding the availability of meters or transformers appropriate for your development.

Police

22. No comments provided.

City Attorney

23. No comments provided.

Building

24. No comments.

ATT

25. ATT To Serve.

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

Fire

26. No comments

Wastewater

27. Wastewater availability letter must be updated.
28. Final PUD/Plat signature is subject to Columbia WW plan review approval or installation.

Public Works

29. Private sanitation services, including dumpsters, compactors, individual receptacles or valet services, may be utilized for townhome residents and multi-family residents. Individual trash receptacles will not be provided by the City of Columbia to townhome residents. Please see the attached City of Columbia Dumpster Guidelines & Accessibility Requirements.
30. DUMPSTER GUIDELINES AND ACCESSIBILITY REQUIREMENTS
    DUMPSTER AND COMPACTOR STANDARDS
    GENERAL
    All requirements for collection and accessibility to containers apply, regardless of whether collection is public or private.
    GUIDELINES FOR DUMPSTERS
    The number and capacity of dumpsters must be adequate to serve the disposal needs of the business, development or complex. Collection must occur at least one time per week, with special approval needed for every other week (EOW) collection. Each dumpster must be easily accessible, as determined by the Public Works Department, and of a size compatible with equipment of the department. If the dumpster is in an enclosed area, there must be at least 2 feet
    and 6 inches of clearance on each side of the dumpster.
    DUMPSTER PAD REQUIREMENTS
    1. The concrete dumpster pad shall be at least 12 feet by 12 feet.
    2. The pad(s) shall be 8-inch-thick concrete, reinforced with rebar to support a 30-ton loadbearing
    capacity.
    3. A 14-foot-wide by 40-foot-long straight and clear access approach to each dumpster for the truck is required.
    4. Clearance at each side of the dumpster must be at least 2 feet and 6 inches.
    5. If a gated enclosure is utilized, the gates must be lockable in the open position to prevent the gates from swinging into the path of the truck during servicing.

31. 6. Two 6-inch diameter concrete filled steel bollards must be placed in the concrete pad to the rear of each dumpster, 2 feet from the back edge of the dumpster pad, spaced 4 feet apart and centered side to side. The bollards will rise 6 feet above the pad and extend 32 inches below the pad into the concrete footers.
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32. Riverside Elementary, Cox Middle School, Central High School. The development combined with current neighborhoods and additional approved developments in these zones may require new construction or realignment of school zones to accommodate new students.

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    of capacity to serve is based on a determination by the Fire Marshal of fire flow requirements and the
    information submitted on the Water Service Availability Request application. Any off-site improvements detailed in
    the availability letter are the responsibility of the developer/owner. All public water system improvements are subject to
    the preparation and approval of detailed construction plans prepared in accordance with CPWS and Tennessee Department of Environment and Conservation requirements.

CITY OF COLUMBIA TENNESSEE

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

Maury County Highway Dept.

34. No comment.

Atmos Energy

35. No comments provided.

Maury County E911

36. No comments provided.

Duck River Electric Membership Corp

37. No comment.

Resubmittal Guidelines

Please provide a comment response letter as well as digital copies of revised plans and supporting documentation. Submit all required documents electronically through the online portal: columbia.onlama.com. If the files are oversized, please provide a file sharing link.

Please contact the case planner identified in the Planning Comments with any questions about the review process.

Please contact pkeltner@columbiatn.gov or srichardson@columbiatn.gov if you encounter difficulties with the online portal.

You will receive an invoice for required advertising and mailing fees. All fees must be paid by the Friday following resubmittal in order advance to the Planning Commission agenda.

NOTE: All resubmittals must demonstrate compliance with city standards prior to Planning Commission review. Requests which do not adhere to regulations and/or remain unresponsive to technical comments will not be forwarded to the next agenda until such items are amended. Final Plat applications which are not ready to proceed to Planning Commission following the first resubmittal deadline will be added to the following DRC agenda to confirm the status of required infrastructure and utilities. Applications which remain incomplete following two resubmittal deadlines will be closed.

WATERS EDGE

FINAL PUD MASTER DEVELOPMENT PLAN

INTERSECTION OF RIVER ROAD AND TAYLOR BEND ROAD
COLUMBIA, TENNESSEE



LOCATION MAP

0 400 800
GRAPHIC SCALE 1"=400'-0"

SHEET INDEX

C0.0	COVER SHEET
C1.0	SURVEY
C2.0	PRELIMINARY PUD MASTER DEVELOPMENT PLAN
C3.0	CONCEPTUAL GRADING, STORM, UTILITIES
L1.0	TREE CANOPY COVERAGE
L2.0	CODE MINIMUM LANDSCAPE PLAN
L2.1	CODE MINIMUM LANDSCAPE PLAN
A1.0	ARCHITECTURAL ELEVATIONS

OWNER:
BRENT CAMPBELL
1187 GLENBROOK DR
FRANKLIN, TN 37064

DEVELOPER:
CPS LAND
213 OVERLOOK CIRCLE, SUITE B2
BRENTWOOD, TN 37027
CLIFF SMITH
cliff.smith@cpsland.com

APPLICANT/ LAND PLANNER:
GAMBLE DESIGN COLLABORATIVE
3020 STANSBERRY LANE, SUITE 201
FRANKLIN, TN 37064
GREG GAMBLE
615-975-5765
greg.gamble@gdc-tn.com

ENGINEER:
KIMLEY-HORN
4031 ASPEN GROVE DRIVE, SUITE 200
FRANKLIN, TN 37067
GRAY HARRISON, P.E.
615.564.2701
gray.harrison@kimley-horn.com

ARCHITECT:
OPEN ARCHITECTURE
ERIC CLAUS
513.403.7019
ERIC.CLAUS@OPENARCHITECTURE.COM

DRAKE A. REEDER
REGISTERED
LANDSCAPE ARCHITECT
TENNESSEE No. 1218
4/17/26

PRE-APP: FEB. 4, 2026
INITIAL SUBMITTAL: APRIL 20, 2026

GAMBLE DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE



NOTES

1. THE INFORMATION SHOWN ON THIS PLAN IS BASED UPON THE TENNESSEE STATE NAD83 COORDINATE SYSTEM.
2. NO PROPOSED BUILDINGS FALL WITHIN THE 100 YEAR FLOODPLAIN, PER THE FEMA FIRM MAP NUMBER 47119C0170E EFFECTIVE APRIL 16, 2007.
3. PORTIONS OF EXISTING SEWER LINE TO BE ABANDONED. LINE TO BE FILLED WITH CLASS C FLOWABLE FILL AND REMOVED FROM THE EXISTING LIVE SYSTEM WITH PROPER CONCRETE PATCHING.

GRAPHIC SCALE IN FEET
0 15 30 60

NORTH

GAMBLE DESIGN COLLABORATIVE

DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

THE JAMES PHASE 2
REVISED PRELIMINARY PUD DEVELOPMENT PLAN
RIVER ROAD & TAYLOR BEND RD, COLUMBIA TN

SOPHIA CLOSE
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 131269
STATE OF TENNESSEE
Sophia Close
4/16/2026

Date: APRIL 15, 2026

Revision Date
△
△
△

OVERALL EXISTING CONDITIONS

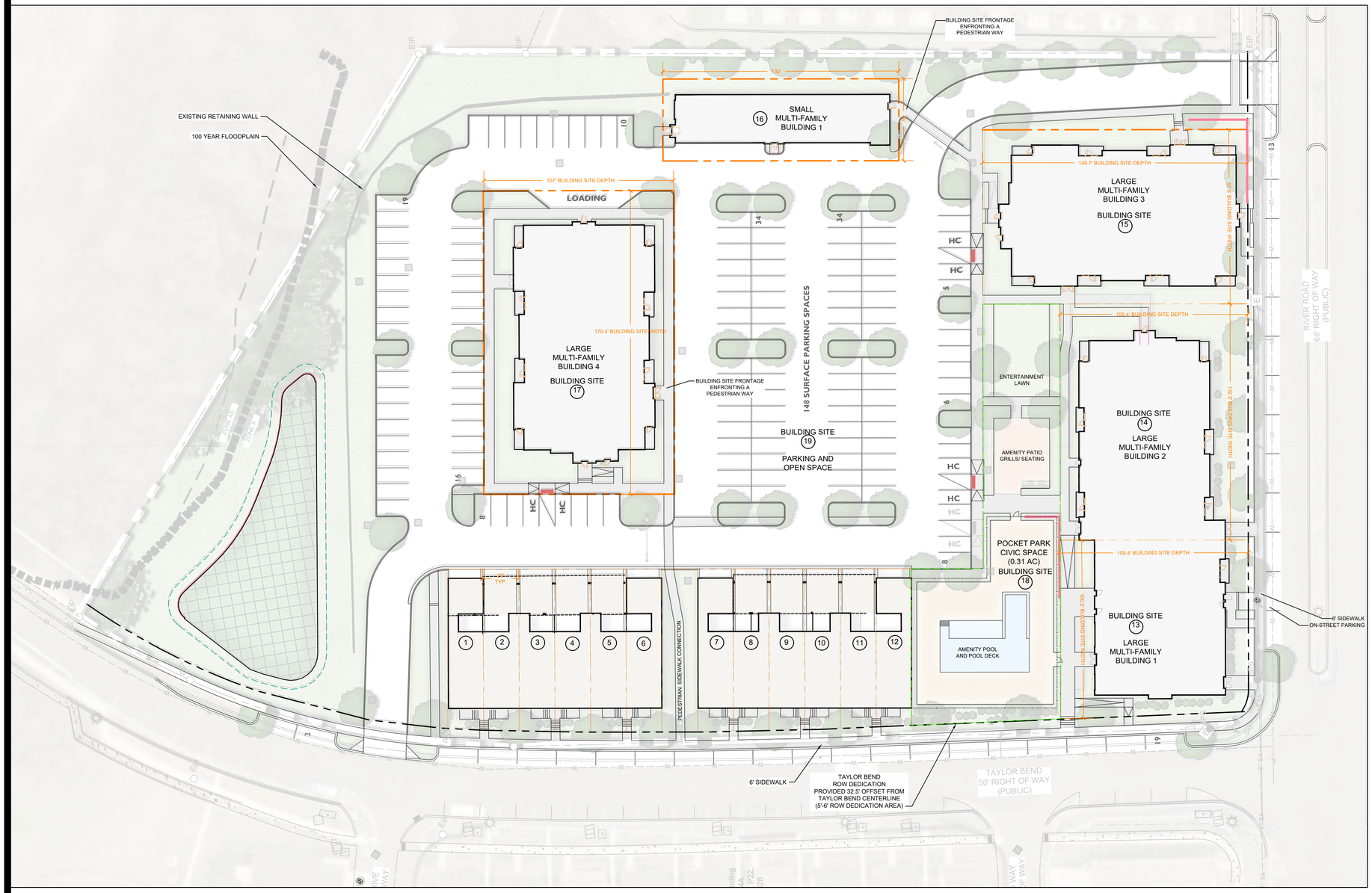
C1.0

LEGAL DESCRIPTION OF PROPERTY:
WATERS EDGE AT TAYLOR BEND
PROPERTY MAP 090, PARCEL 007.03
RIVER ROAD
CITY OF COLUMBIA, MAURY COUNTY, TENNESSEE

Being a certain tract or parcel of land lying and being in the Ninth (9th) Civil District of Maury County, city of Columbia, Tennessee and being more particularly described as follows:

Being Tract 24, a 5.026-acre tract as shown on the final plat entitled "Waters Edge at Taylor Bend" of record in Plat Book P17, page 319, Register's Office for Maury County, Tennessee to which plat reference is hereby made for a more complete description of the subject property.

No field work has been performed by Kimley-Horn Associates to verify the accuracy of the property lines, corners or areas shown on said recorded plats.



FINAL MASTER DEVELOPMENT PLAN SITE DATA:

TOTAL SITE AREA: +/-5.0 AC
EXISTING ZONING: PUD
FUTURE LAND USE: CCUV - CITY CENTER URBAN VILLAGE
PREVIOUS PUD MASTER PLAN: WATERS EDGE PUD; ORDINANCE 4262; NOV. 14, 2019
PRELIMINARY PUD MASTER DEVELOPMENT PLAN: ORDINANCE 4563; APPROVED JAN. 8, 2026

NEW PUDS DEVELOPING IN THE CCUV FUTURE LAND USE DISTRICT ARE REQUIRED TO BE ZONED PUD-MU. IN ORDER TO CREATE A MASTER PLAN IN KEEPING WITH THE FORM AND AESTHETIC OF THIS SURROUNDING AREA, THE PROPOSED PUD MASTER PLAN COMPLIES WITH THE PUD-MU REQUIREMENTS. .

NOTE: THE SUBJECT PARCEL IS LESS THAN 10 ACRES IN SIZE, DOES NOT INCLUDE THE CREATION OF A NEW THOROUGHFARE OR INTERNAL DRIVE, AND THEREFORE IS NOT A DEVELOPMENT PARCEL. AS SUCH, THIS PARCEL IS EXEMPT FROM SOME TYPICAL PUD-MU CRITERIA: DENSITY, BLOCK SIZE, AND CERTAIN CIVIC SPACE REQUIREMENTS.

TOTAL DWELLING UNITS: 94 UNITS
TOTAL DENSITY: 18.8 DUA

BUILDING BREAKDOWN:

TOTAL MULTI-FAMILY UNITS: 82 DWELLING UNITS
- LARGE MULTI-FAMILY BLDG 1: 12 DU
- LARGE MULTI-FAMILY BLDG 2: 18 DU
- LARGE MULTI-FAMILY BLDG 3: 24 DU
- LARGE MULTI-FAMILY BLDG 4: 24 DU
- SMALL MULTI-FAMILY BLDG 1: 4 DU; 7-GARAGE PARKING SPACES

TOWNHOMES: 12 DWELLING UNITS
- TOWNHOME 1, 6, 7, 12: 1 CODE COMPLIANT GARAGE SPACE
- TOWNHOME 2-5; 8-11: 2 COVERED PARKING SPACES

BUILDING SITES:
PRINCIPAL STRUCTURE SETBACKS:
- FRONT SETBACK PUD-MU STANDARD: 0'-20'
  PROVIDED SETBACK: 10'-13' TOWNHOMES; 4'-12' LARGE MULTI-FAMILY;
- FRONT SETBACK SECONDARY PUD-MU STANDARD: 0'-20'
  PROVIDED SETBACK: 9' LARGE MULTI-FAMILY
- SIDE SETBACK PUD-MU STANDARD: 0' MIN. ATTACHED; OTHERWISE 10' - 24'
  PROVIDED SETBACK: 0'; 10' MIN. - 24' MAX.
- REAR SETBACK: NOT REGULATED

ENFRONTMENT PUD-MU STANDARD: UP TO 20% OF BUILDING SITE ARE ALLOWED TO FRONT PEDESTRIAN WAYS INSTEAD OF THOROUGHFARES.
- TOTAL NUMBER OF BUILDING SITES: 17
- BUILDING SITES ENFRONTING PEDESTRIAN WAYS: 2 (12% OF BUILDING SITES)
- BUILDING SITES 16 AND 17 ENFRONT PEDESTRIAN WAYS.

PARKING SUMMARY:
- TOTAL DWELLING UNITS: 94 UNITS
- REQUIRED MINIMUM PARKING RATIO: 2 SPACES PER UNIT
- REQUIRED CIVIC SPACE PARKING: 1 SPACE PER 5,000 SF OF REQUIRED CIVIC SPACE
- TOTAL REQUIRED PARKING: 191 SPACES
  (188 PARKING RESIDENTIAL SPACES; 3 CIVIC PARKING SPACES)
- TOTAL PROVIDED: 194 SPACES
- TOWNHOMES: 20 SPACES TOTAL
  16 COVERED CARPORT SPACES PROVIDED ON-LOT, 4 GARAGE SPACES (10' X 20')
- SMALL MULTI-FAMILY BUILDING 1: 7 GARAGE SPACES (10'X20')
- SURFACE PARKING: 134 SPACES
- ON-STREET PARKING: 33 SPACES

TOTAL CIVIC SPACE: 0.31 AC
- REQUIRED 5% OF GROSS SITE AREA: 0.25 AC
- PROVIDED: 0.31AC (6.2%)
- POCKET PARK - TO INCLUDE COMMUNITY AMENITIES SUCH AS A POOL, PATIO AND GRILLING AREA.

FRONTAGE CALCULATIONS

BUILDING SITE	BUILDING TYPE	BUILDING SITE WIDTH	FRONTAGE BUILD-OUT
1	TOWNHOME	20 LF	20 LF; 100%
2	TOWNHOME	20 LF	20 LF; 100%
3	TOWNHOME	20 LF	20 LF; 100%
4	TOWNHOME	20 LF	20 LF; 100%
5	TOWNHOME	20 LF	20 LF; 100%
6	TOWNHOME	20 LF	20 LF; 100%
7	TOWNHOME	20 LF	20 LF; 100%
8	TOWNHOME	20 LF	20 LF; 100%
9	TOWNHOME	20 LF	20 LF; 100%
10	TOWNHOME	20 LF	20 LF; 100%
11	TOWNHOME	20 LF	20 LF; 100%
12	TOWNHOME	20 LF	20 LF; 100%
13	LARGE MULTI-FAMILY 1	100.5 LF	89 LF; 89%
14	LARGE MULTI-FAMILY 2	132.5 LF	118 LF; 86%
15	LARGE MULTI-FAMILY 3	97.8 LF	79 LF; 81%
16	SMALL MULTI-FAMILY 1	46 LF	28.5 LF; 62%
17	LARGE MULTI-FAMILY 4	170.4 LF	135 LF; 79%

PUD-MU DESIGN STANDARDS DEVIATION REQUESTS:

TABLE 4.3.1-M; FACADE

CURRENT TEXT:
FACADE WINDOW SILL HEIGHT. IF RESIDENTIAL: 5 FT. MIN. ABOVE AVERAGE GRADE AT FACADE.

REQUESTED DEVIATION:
FACADE WINDOW SILL HEIGHT. IF RESIDENTIAL: 4 FT. MIN. ABOVE AVERAGE GRADE AT FACADE.

SEE ARCHITECTURAL SHEETS FOR ADDITIONAL DETAILS.

N

0 30 60 90
GRAPHIC SCALE 1"=30'-0"

NOTE:

THE SUBJECT PARCEL IS LESS THAN 10 ACRES IN SIZE, DOES NOT INCLUDE THE CREATION OF A NEW THOROUGHFARE OR INTERNAL DRIVE, AND THEREFORE IS NOT A DEVELOPMENT PARCEL.

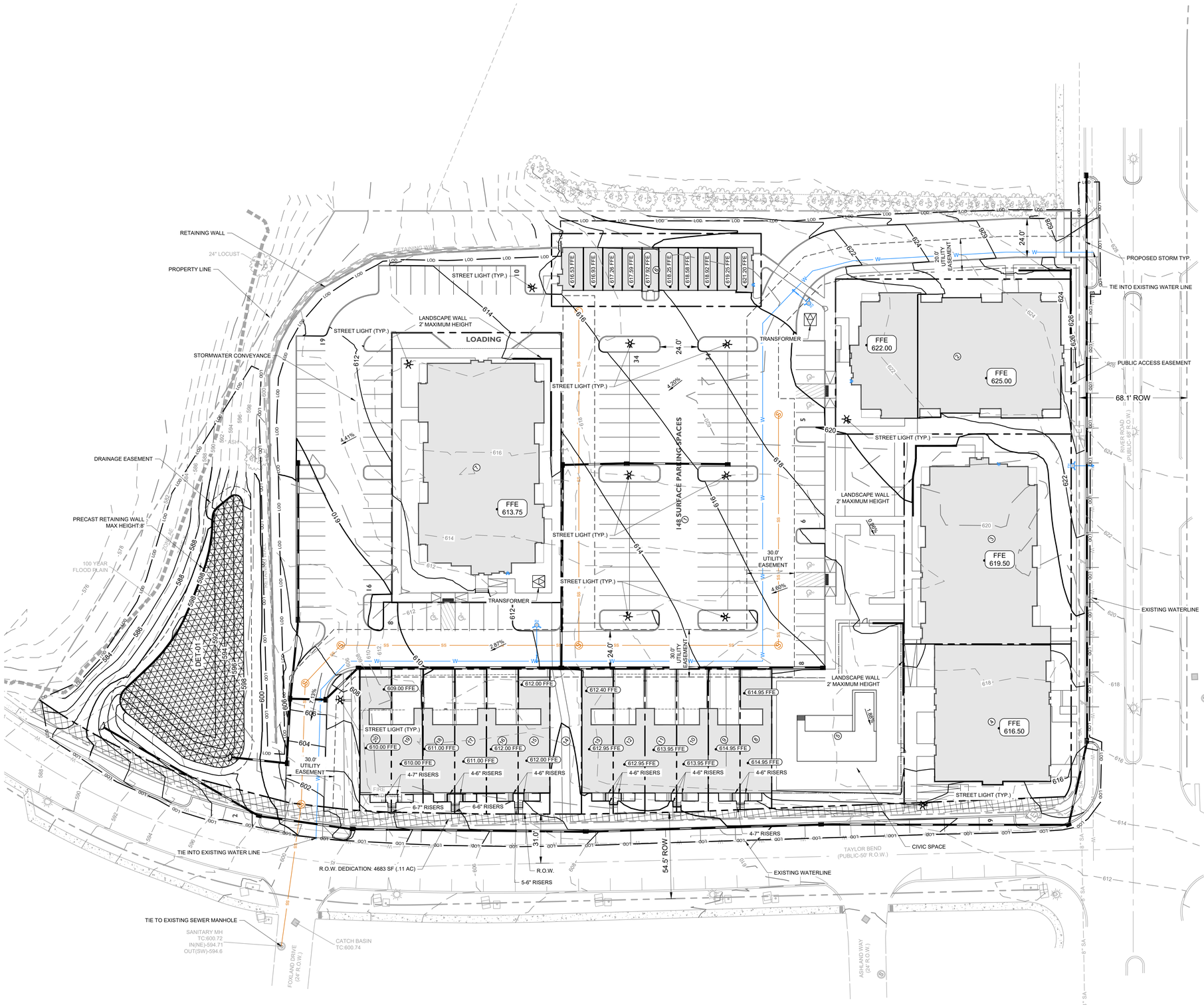
GAMBLE DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

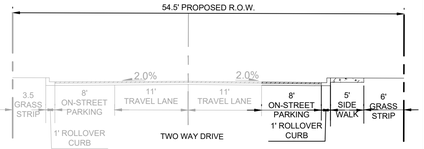
WATERS EDGE
FINAL PUD DEVELOPMENT PLAN
RIVER ROAD & TAYLOR BEND RD, COLUMBIA TN

DRAKE A. REEDER REGISTERED LANDSCAPE ARCHITECT TENNESSEE No. 2216

Date: April 20, 2026
Revision Date
△
△
△

FINAL MASTER DEVELOPMENT PLAN
SHEET
C2.0





TAYLOR'S BEND STREET SECTION
(PUBLIC - 54.5 R.O.W.)

NOTES

1. THE INFORMATION SHOWN ON THIS PLAN IS BASED UPON THE TENNESSEE STATE NAD83 COORDINATE SYSTEM.
2. NO PROPOSED BUILDINGS FALL WITHIN THE 100 YEAR FLOODPLAIN, PER THE FEMA FIRM MAP NUMBER 47119C0170E EFFECTIVE APRIL 16, 2007.
3. SITE TO BE SERVED VIA PRIVATE TRASH SERVICE

RETAINING WALL NOTE

EXISTING RETAINING WALL TO BE EXAMINED AND CERTIFIED PRIOR TO FINAL CONSTRUCTION DOCUMENTS.

LEGEND

- SANITARY SEWER MANHOLE
- SANITARY SEWER LINE
- WATER LINE
- FIRE WATER LINE
- FIRE HYDRANT ASSEMBLY
- FIRE DEPARTMENT CONNECTION

PARCEL AREA TABLE

PARCEL #	AREA (SF)
1	111039.33
2	15034.07
3	14631.75
4	10805.71
5	14669.57
6	6082.69
7	18233.16
8	1769.29
9	1786.41
10	1804.09
11	1815.14
12	1824.83
13	1815.93
14	1861.26
15	1832.90
16	1838.82
17	1836.77
18	1829.75
19	1822.50
20	1806.37

GRAPHIC SCALE IN FEET
0 15 30 60

NORTH

GAMBLE DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

THE JAMES PHASE 2
REVISED PRELIMINARY PUD DEVELOPMENT PLAN
RIVER ROAD & TAYLOR BEND RD, COLUMBIA TN

SOPHIA CLOSE REGISTERED ENGINEER AGRICULTURE COMMERCE No. 131262 STATE OF TENNESSEE
4/16/2026

Date: APRIL 15, 2026
Revision Date
△
△
△

CONCEPTUAL GRADING STORM AND UTILITIES

C3.0

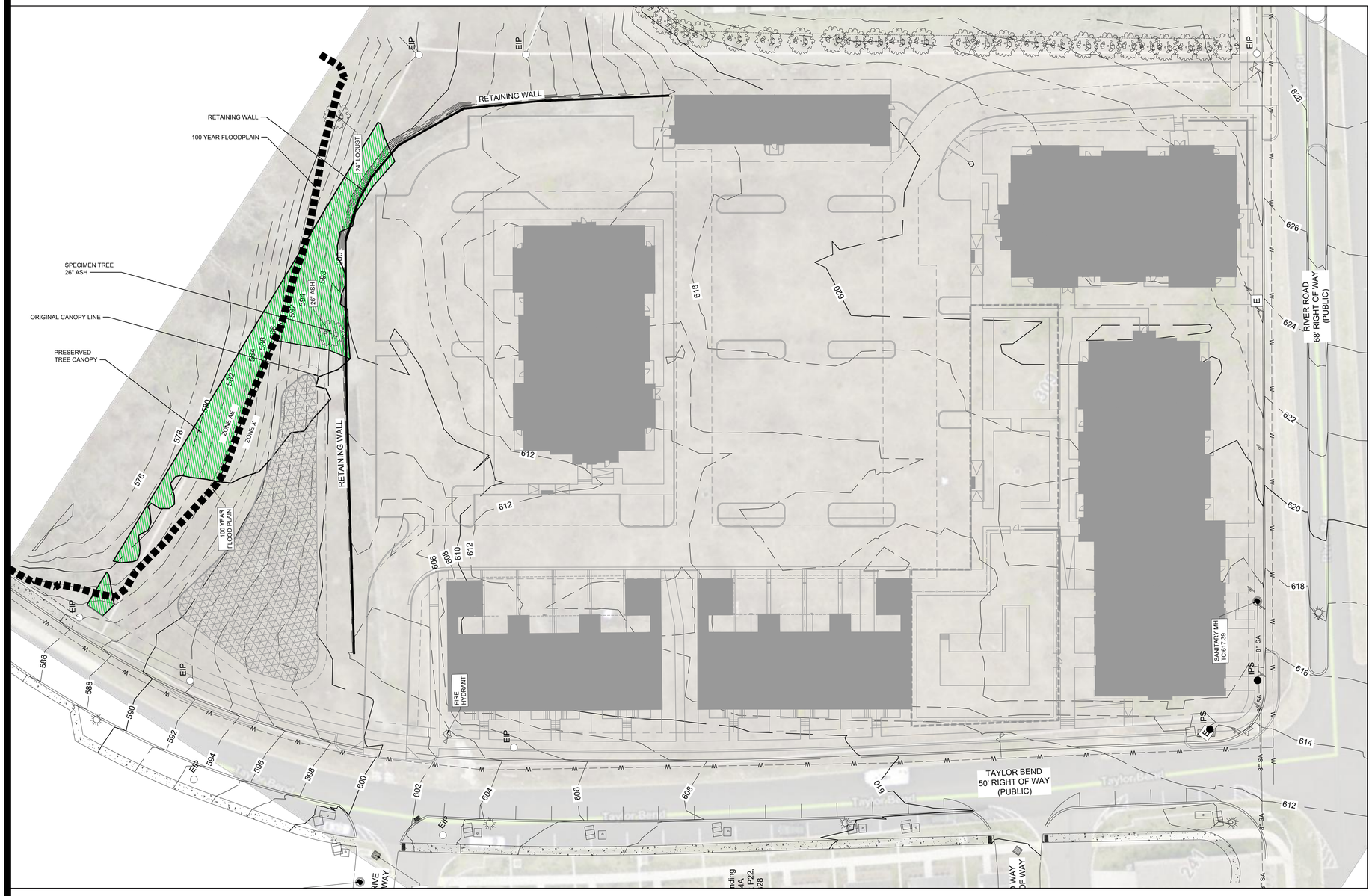
FINAL PUD DEVELOPMENT PLAN SITE DATA:

TOTAL SITE AREA: +/-5.0 AC
EXISTING ZONING: PUD
FUTURE LAND USE: CCUV - CITY CENTER URBAN VILLAGE
PREVIOUS PUD MASTER PLAN: WATERS EDGE PUD; ORDINANCE 4262; NOV. 14, 2019
PRELIMINARY PUD MASTER DEVELOPMENT PLAN: ORDINANCE 4563; APPROVED JAN. 8, 2026

THE SITE WAS PREVIOUSLY CLEARED IN ACCORDANCE WITH AN APPROVED SITE PLAN. BRUSH/VOLUNTEER GROWTH HAS OCCURRED IN THE DISTURBED AREA.

SPECIMEN TREES: 1 ON SITE
26" ASH - PRESERVED

EXISTING TREE CANOPY: 8,388.3 SF (0.19 AC); 3.8% OF TOTAL SITE AREA
PUD-MU TREE CANOPY RETENTION STANDARD: 54% PRESERVATION
TREE CANOPY PRESERVATION AREA: 5,817.3 SF (.13 AC) - 70% OF ORIGINAL CANOPY COVER PRESERVED



0 30 60 90
GRAPHIC SCALE 1"=30'-0"

NOTE:

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GAMBLE DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

WATERS EDGE
FINAL PUD DEVELOPMENT PLAN
RIVER ROAD & TAYLOR BEND RD, COLUMBIA TN

DRAKE A. REEDER REGISTERED LANDSCAPE ARCHITECT TENNESSEE No.: 3218

Date: April 20, 2026

Revision Date
△
△
△

TREE PRESERVATION

SHEET
L1.0

REQUIRED LANDSCAPE CALCULATIONS:

THIS LANDSCAPE PLAN HAS BEEN DESIGNED TO MEET THE MINIMUM REQUIREMENTS FOR THE CITY OF COLUMBIA BASED ON REQUIREMENTS OF SEC 4.3.16, 4.3.12.C, 4.3.1.M, AND 5.2.3.

SEC 4.3.12.C.14 - PARKING AREA REQUIREMENTS	REQUIRED	PROVIDED
1 SHADE TREE PER PARKING ISLAND 2 SHADE TREES PER DOUBLE LENGTH ISLAND	28 SHADE TREES	30 SHADE TREES
1 SHADE TREE PER 2,000 SF OF PARKING AREA TOTAL PARKING AREA: 58,864 SF	30 SHADE TREES	30 SHADE TREES
REQUIRED: NO PARKING SPACE MORE THAN 72' FROM A TREE WITHIN THE LOT PROVIDED: ALL PARKING SPOTS HAVE A TREE WITHIN THE REQUIRED DISTANCE		

SEC 4.3.1.M - PRIVATE LANDSCAPE STANDARDS FOR PUD - MU CHARACTER DISTRICT
REQUIRED: LAYER 1 - > 3 FT, 30% OF LAYER 1 MUST BE LANDSCAPED WITH A CONTINUOUS SHRUB HEDGE ALONG FOUNDATION AT FACADE. PROVIDED: 230 SHURBS TO SATISFY THESE REQUIREMENTS IN LAYER 1 REQUIRED: LAYER 1 - > 15', SOD AND 1 TREE PER 50' OF FRONTAGE. PROVIDED: 0 TREES ALONG TAYLOR BEND ROAD DUE TO LAYER 1 LESS THAN 15 FT 6 TREES ALONG RIVER ROAD 0 TREES BUILDING SITE 16 AND 17 DUE TO DISTANCE BEING LESS THAN 15 FT

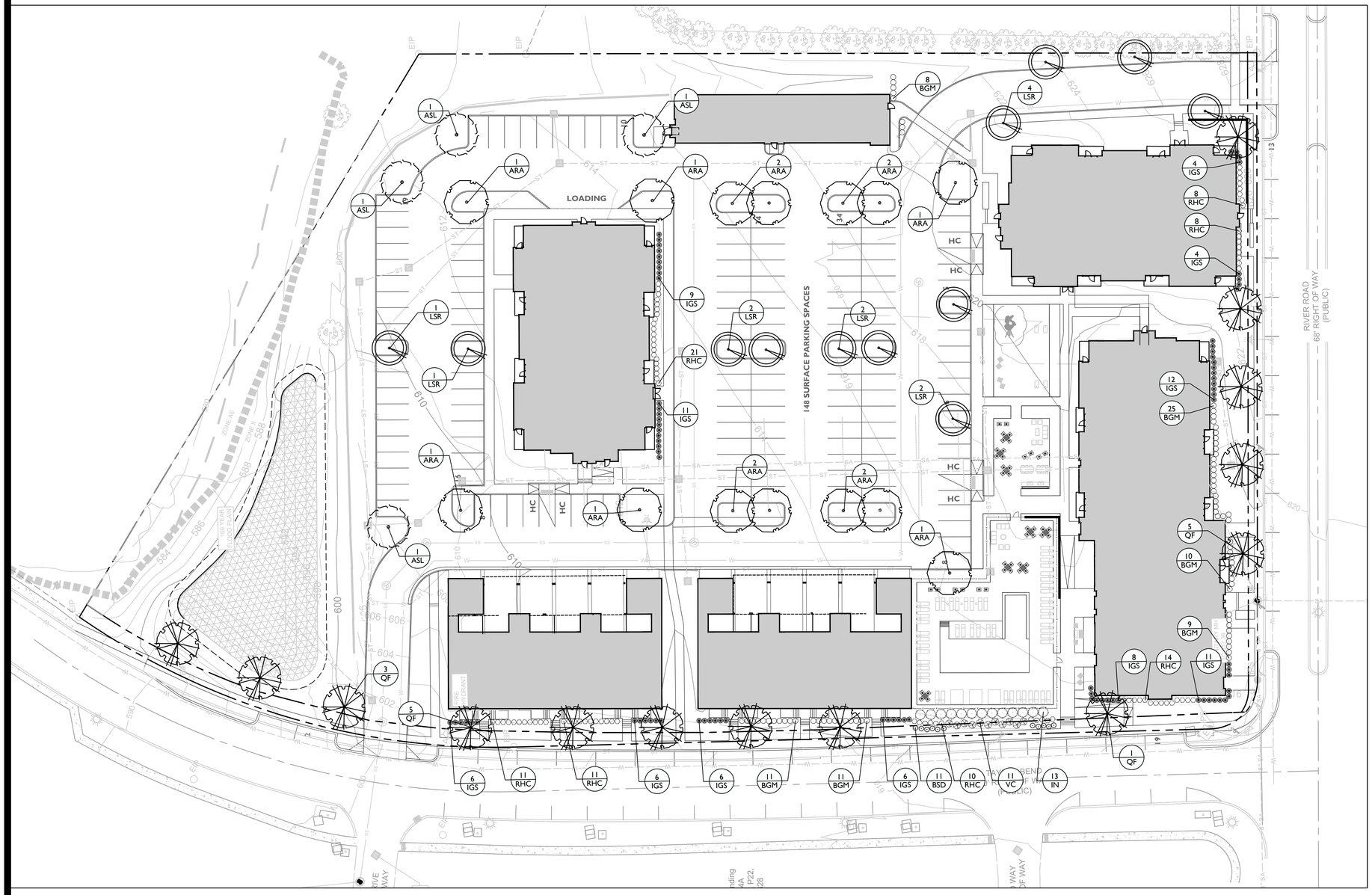
SEC 4.3.11.H PARCEL BUFFER
NOT APPLICABLE: DEVELOPMENT DOES NOT ABUT ANY SINGLE FAMILY OR TWO-FAMILY DETACHED RESIDENTIAL DWELLINGS.

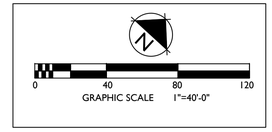
SEC 5.2.3.G PUBLIC FRONTAGES
PUBLIC FRONTAGE TREES SHALL BE PLACED A MIN. 3 FT AWAY FROM WALKWAYS AND 6 FT AWAY FROM PORCH EAVES, AWNINGS, AND SIMILAR OVERHEAD OBSTRUCTIONS
FRONTAGE TREES NOT REQUIRED ADJACENT TO CIVIC SPACE.

PROVIDED: 10 TREES ALONG TAYLOR BEND
0 TREES ALONG RIVER ROAD
ROW IS AT BACK OF SIDEWALK AND DOES NOT ALLOW FOR FRONTAGE TREES.

SEC 5.5 PROJECT BUFFERS
NOT APPLICABLE: PROPOSED PUD DEVELOPMENT IS ADJACENT TO OTHER PUD ZONED PROPERTIES

PER PLANNING COMMISSION'S CONDITIONS OF APPROVAL LANDSCAPE SCREEN BETWEEN AMENITY AND R.O.W.





NOTE:

THE SUBJECT PARCEL IS LESS THAN 10 ACRES IN SIZE, DOES NOT INCLUDE THE CREATION OF A NEW THOROUGHFARE OR INTERNAL DRIVE, AND THEREFORE IS NOT A DEVELOPMENT PARCEL.

GAMBLE DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

WATERS EDGE
PRELIMINARY PUD DEVELOPMENT PLAN
RIVER ROAD & TAYLOR BEND RD, COLUMBIA TN

DRAKE A. REEDER
REGISTERED
COMMERCE
TENNESSEE No. 1218
LANDSCAPE ARCHITECT
4/17/26

Date: April 20, 2026
Revision Date

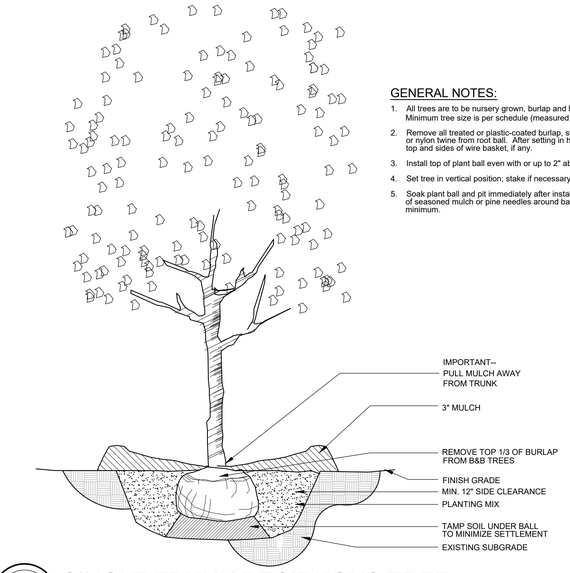
FINAL MASTER DEVELOPMENT PLAN
SHEET
L2.0

PLANT SCHEDULE - CODE MINIMUM

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	HEIGHT	LEAF	SPACING	REMARKS
CANOPY TREES								
ARA	14	Acer rubrum 'Autumn Flame'	Autumn Flame Red Maple	2.5" Cal. B&B	12`-14`	DECIDUOUS	AS SHOWN	CENTRAL LEADER
ASL	4	Acer saccharum 'Legacy'	Legacy Sugar Maple	2.5" Cal. B&B	12`-14`	DECIDUOUS	AS SHOWN	CENTRAL LEADER
LSR	12	Liquidambar styraciflua 'Rotundiloba'	Fruitless Narrow Sweet Gum	2.5" Cal. B&B	12`-14`	DECIDUOUS	AS SHOWN	CENTRAL LEADER
QF	16	Quercus falcata	Southern Red Oak	2.5" Cal. B&B	12`-14`	DECIDUOUS	AS SHOWN	SINGLE-STRAIGHT CENTRAL LEADER
	46	(SUBTOTAL)						
SHRUBS								
BGM	74	Buxus x 'Green Mountain'	Green Mountain Boxwood	3 gal.	24"	EVERGREEN	36" O.C.	
IGS	83	Ilex glabra 'Shamrock'	Shamrock Inkberry Holly	3 gal.	30"	EVERGREEN	36" O.C.	
RHC	73	Rhododendron x 'Conleb'	Autumn Embers Encore Azalea	3 gal.	30"	EVERGREEN	36" O.C.	
	230	(SUBTOTAL)						

PLANT SCHEDULE - AMENITY BUFFER

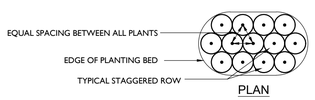
CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	HEIGHT	LEAF	SPACING
SHRUBS							
BSD	11	Buxus sempervirens 'Dee Runk'	Dee Runk Common Boxwood		30"	EVERGREEN	36" O.C.
IN	13	Ilex x 'Nellie R. Stevens'	Nellie R. Stevens Holly		4`	EVERGREEN	6` O.C.
RHC	11	Rhododendron x 'Conleb'	Autumn Embers Encore Azalea		24"	EVERGREEN	36" O.C.
VC	11	Viburnum x burkwoodii `Chenaultii`	Chenault Viburnum		36"	EVERGREEN	AS SHOWN



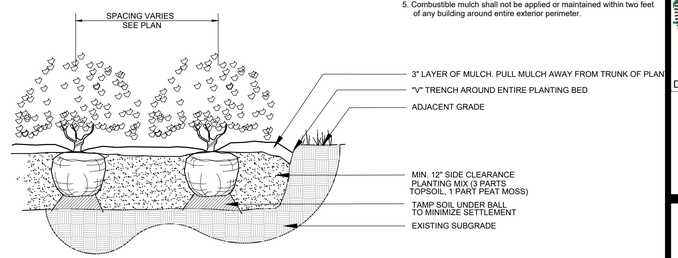
1 / L1.0 SECTION — **SINGLE TRUNK DECIDUOUS TREE** — DETAIL # NTS

GENERAL NOTES:

1. All trees are to be nursery grown, burlap and ball (B&B). Minimum tree size is per schedule (measured 6" above root ball).
2. Remove all treated or plastic-coated burlap, strapping, wire or nylon twine from root ball. After setting in hole, cut away top and sides of wire basket, if any.
3. Install top of plant ball even with or up to 2" above existing grade.
4. Set tree in vertical position; stake if necessary for stabilization.
5. Soak plant ball and pit immediately after installation. Place 3" of seasoned mulch or pine needles around base of tree, 3` diameter minimum.



PLAN



2 / L1.0 SECTION — **SHRUB PLANTING** — DETAIL # NTS

GENERAL NOTES:

1. Install top of plant ball shall be level with finished grade.
2. Tamp planting mix firmly as pit is filled around each plant ball.
3. Soak each plant ball and pit immediately after installation.
4. Cut and remove burlap from top 1/3 of root ball. Non-degradable burlap shall be removed or rolled under ball after replacement of plant.
5. Combustible mulch shall not be applied or maintained within two feet of any building around entire exterior perimeter.

GAMBLE DESIGN COLLABORATIVE
DEVELOPMENT PLANNING AND LANDSCAPE ARCHITECTURE

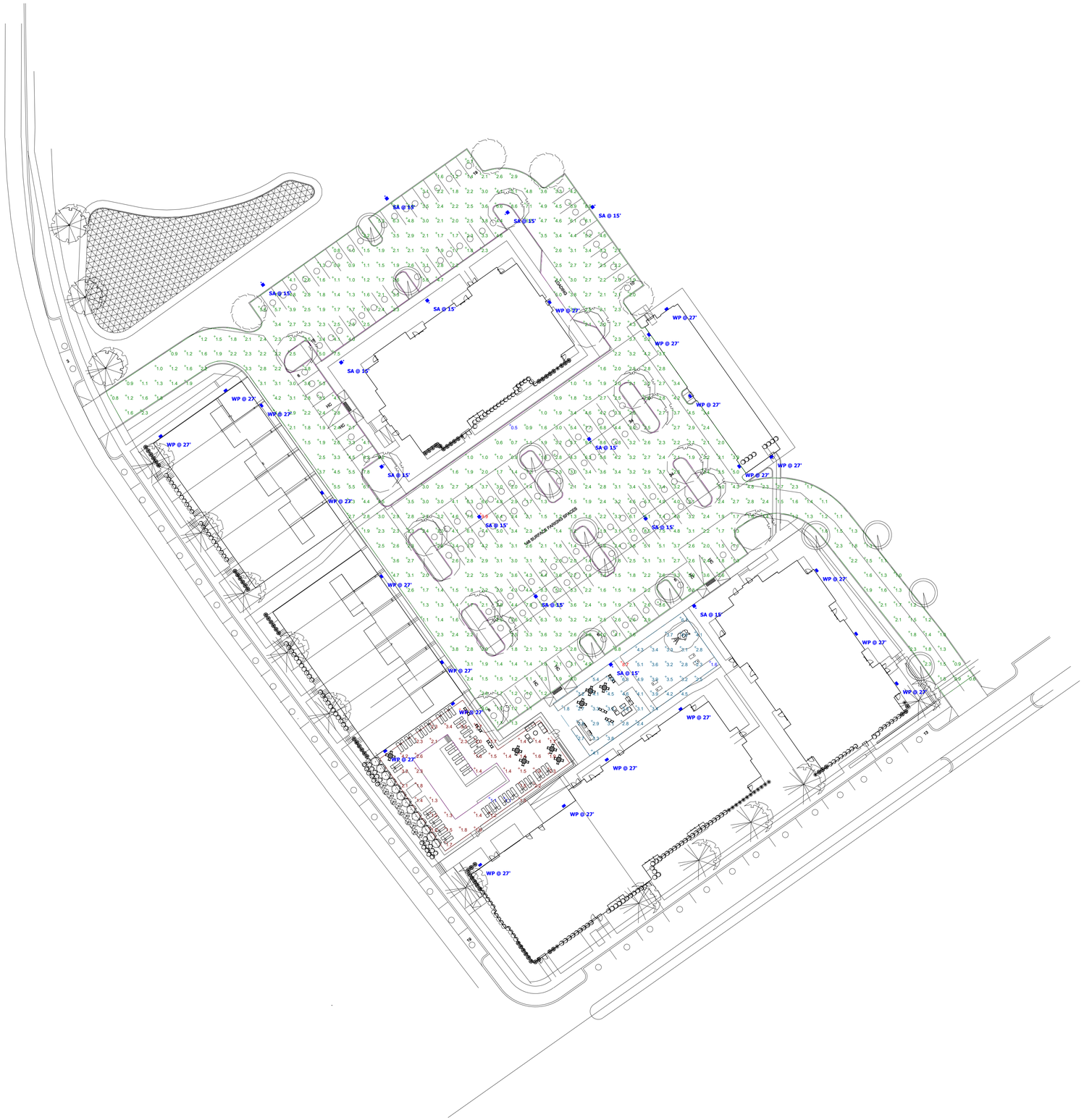
WATERS EDGE
PRELIMINARY PUD DEVELOPMENT PLAN
RIVER ROAD & TAYLOR BEND RD, COLUMBIA TN

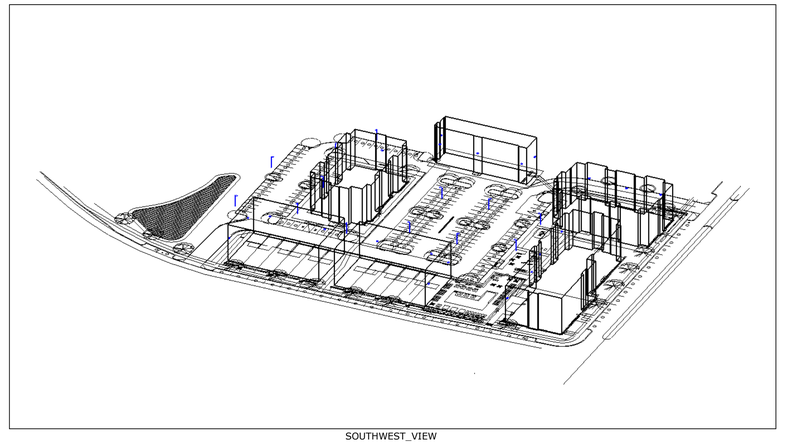
BRAKE A. REEDER III REGISTERED LANDSCAPE ARCHITECT TENNESSEE No. 1235

Date: April 20, 2026

Revision Date

FINAL MASTER DEVELOPMENT PLAN
SHEET
L2.1





SOUTHWEST_VIEW

Schedule

Symbol	Label	QTY	Catalog Number	Description	Number Lamps	Lumens per Lamp	LLF	Wattage	Polar Plot
	SA	13	KT-ALED140PS-M2-OSB-PMA-8CSB-VDIM-P (T5) 3000K 480V	(1) head mounted on 15' pole. 15'AFF. Type V, calculated at 3000° K.	1	18820	0.96	147.98	Max: 6269cd
	WP	21	WPT-80UX/CT	Wall Mounted at 27' AFF. Calculated at 3000° K.	1	9733	0.96	80.37	Max: 3868cd

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Civic_Area_0ft_AFF	+	3.8 fc	8.7 fc	1.6 fc	5.4:1	2.4:1
Lot_PVA_0ft_AFF	+	2.9 fc	9.9 fc	0.5 fc	19.8:1	5.8:1
Pool_Deck_0ftAFF	+	1.9 fc	4.9 fc	1.1 fc	4.5:1	1.7:1

Note

1. For budget purposes only.
2. Direct calculation only.
3. Calculations taken at ground (0ft AFG) unless otherwise noted.
4. Levels not guaranteed. Estimation based on info provided.
5. Confirm all voltages, finishes and mounting prior to order.



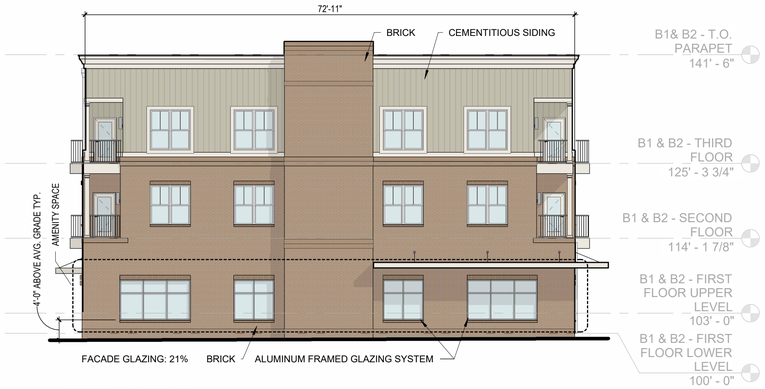


River Road Phase 2 - The James
Proposed Lighting Layout

Designer
AP
Date
04/16/2026
Scale
Not to Scale
Drawing No.
001
Summary
LED PHOTOMETRICS



3 A201 **ELEVATION** BUILDING 2 - (FACING BLDG 3)
3/32" = 1'-0"



2 A201 **ELEVATION** BUILDING 1 - (FACING TAYLOR'S BEND RD.)
3/32" = 1'-0"



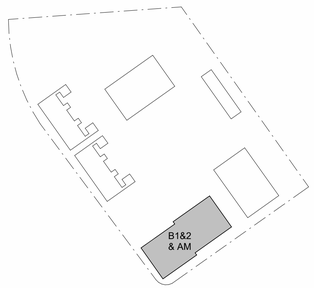
4 A201 **ELEVATION** BUILDING 1&2 - (FACING PARKING LOT)
3/32" = 1'-0"



1 A201 **ELEVATION** BUILDING 1&2 - (FACING RIVER RD.)
3/32" = 1'-0"

* SILL HEIGHT NOTE: PUD-MU ZONING CODE REQUIRES THE RESIDENTIAL SILL TO BE 5' MIN. ABOVE AVERAGE GRADE AT FACADE. APPLICANT IS REQUESTING STAFF LEVEL ALLOWABLE DEVIATION TO REDUCE THE MIN. DIMENSION TO 4' (20%) MIN. ABOVE AVERAGE GRADE AT FACADE FOR ALL BUILDINGS THAT ARE PARALLEL TO STRAIGHT FRONTAGE LINES OR TANGENT OF CURVED FRONTAGE LINE.

KEY PLAN



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BARLOW BUILDERS & CPS LAND
THE JAMES (PHASE 2)
COLUMBIA, TN

ISSUANCES

NO.	DATE	DESCRIPTION
	2025.05.19	ZONING SUBMISSION
	2025.09.16	CITY COMMENTS REVISION
	2026.04.20	SITE DEVELOPMENT PLAN SUBMISSION

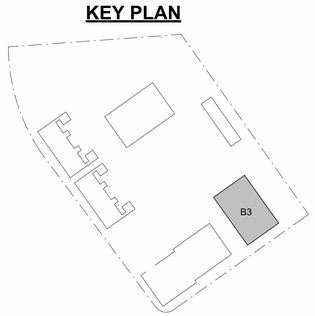
PROJECT NO:
26008

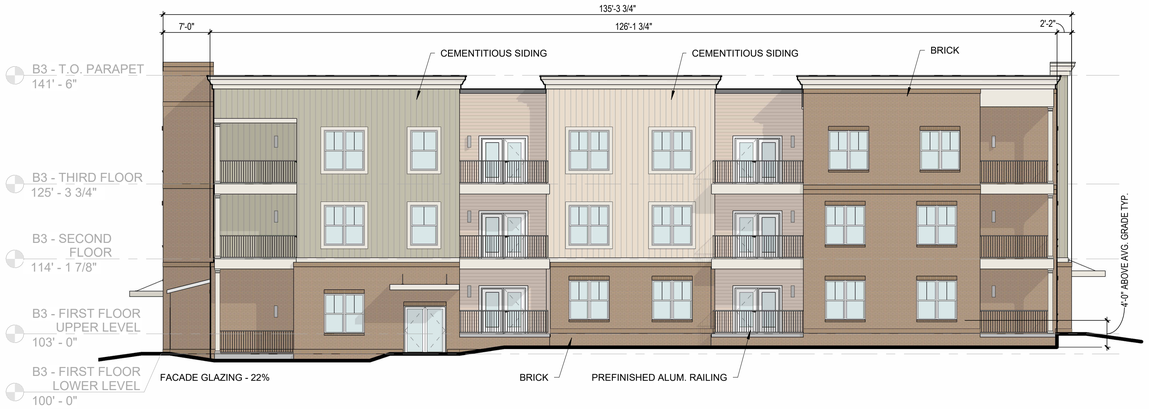
SHEET TITLE:
BUILDING 1/2 ELEVATIONS

SHEET NUMBER:
A201

4/16/2026 10:38:58 AM

KEY PLAN





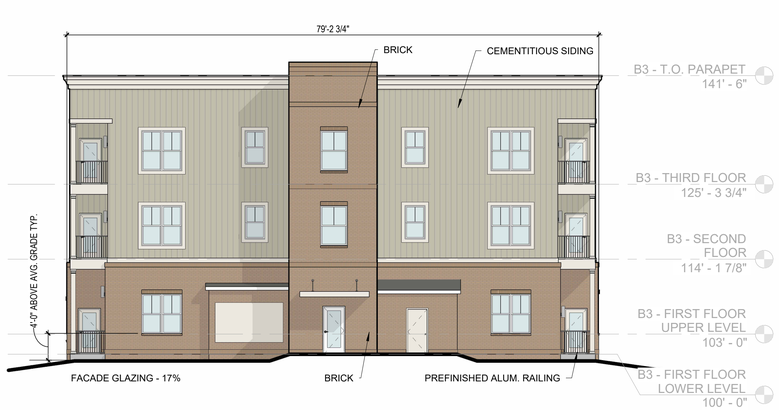
3 A202 **ELEVATION** BUILDING 3 - (FACING BLDG 1&2)
3/32" = 1'-0"



1 A202 **ELEVATION** BUILDING 3 - (FACING RIVER RD.)
3/32" = 1'-0"



4 A202 **ELEVATION** BUILDING 3 - (FACING BACK OF PROPERTY)
3/32" = 1'-0"



2 A202 **ELEVATION** BUILDING 3 - (FACING PARKING LOT)
3/32" = 1'-0"

* SILL HEIGHT NOTE: PUD-MU ZONING CODE REQUIRES THE RESIDENTIAL SILL TO BE 5' MIN. ABOVE AVERAGE GRADE AT FACADE. APPLICANT IS REQUESTING STAFF LEVEL ALLOWABLE DEVIATION TO REDUCE THE MIN. DIMENSION TO 4' (20%) MIN. ABOVE AVERAGE GRADE AT FACADE FOR ALL BUILDINGS THAT ARE PARALLEL TO STRAIGHT FRONTAGE LINES OR TANGENT OF CURVED FRONTAGE LINE.

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ISSUANCES

NO.	DATE	DESCRIPTION
	2025.05.19	ZONING SUBMISSION
	2025.09.16	CITY COMMENTS REVISION
	2026.04.20	SITE DEVELOPMENT PLAN SUBMISSION

PROJECT NO:
26008

SHEET TITLE:
BUILDING 3 ELEVATIONS

SHEET NUMBER:
A202

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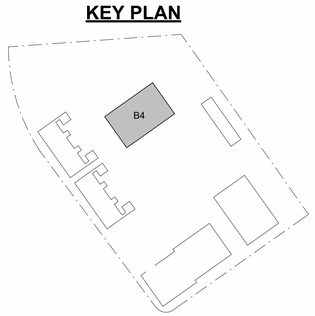
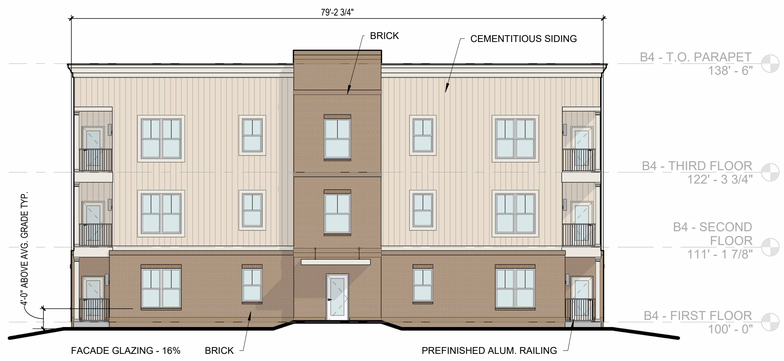
KEY PLAN





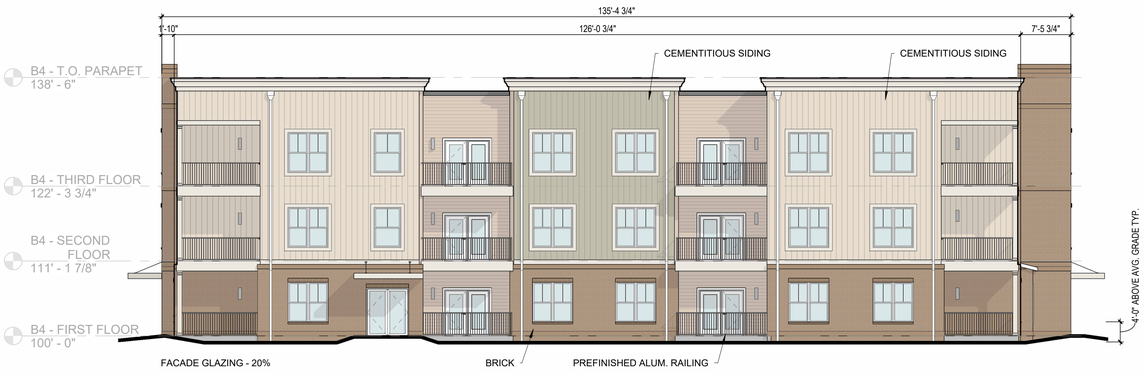
ELEVATION BUILDING 4 - (FACING PARKING LOT)

4 / A203 — 3/32" = 1'-0"



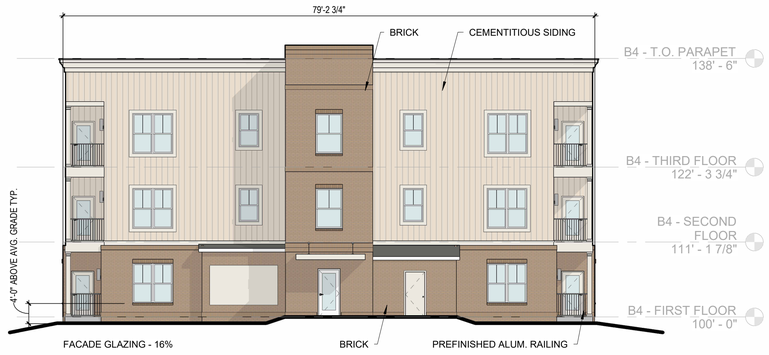
ELEVATION BUILDING 4 - (FACING TOWNHOMES)

1 / A203 — 3/32" = 1'-0"



ELEVATION BUILDING 4 - (FACING STORM DETENTION AREA)

2 / A203 — 3/32" = 1'-0"



ELEVATION BUILDING 4 - (FACING BACK OF PROPERTY)

3 / A203 — 3/32" = 1'-0"

* SILL HEIGHT NOTE: PUD-MU ZONING CODE REQUIRES THE RESIDENTIAL SILL TO BE 5' MIN. ABOVE AVERAGE GRADE AT FACADE. APPLICANT IS REQUESTING STAFF LEVEL ALLOWABLE DEVIATION TO REDUCE THE MIN. DIMENSION TO 4' (20%) MIN. ABOVE AVERAGE GRADE AT FACADE FOR ALL BUILDINGS THAT ARE PARALLEL TO STRAIGHT FRONTAGE LINES OR TANGENT OF CURVED FRONTAGE LINE.

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COLUMBIA, TN

ISSUANCES

NO.	DATE	DESCRIPTION
	2025.05.19	ZONING SUBMISSION
	2025.09.16	CITY COMMENTS REVISION
	2026.04.20	SITE DEVELOPMENT PLAN SUBMISSION

PROJECT NO:

26008

SHEET TITLE:

BUILDING 4 ELEVATIONS

SHEET NUMBER:

A203

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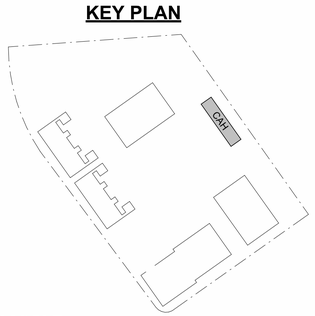
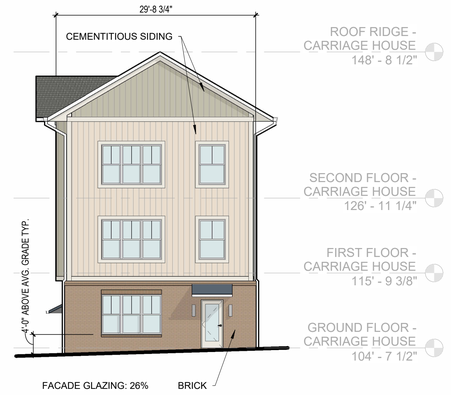
KEY PLAN





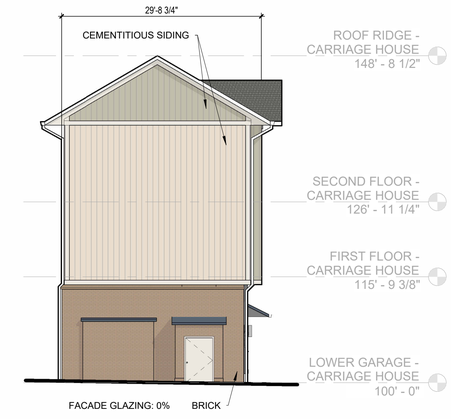
1 A204 **ELEVATION** CARRIAGE HOUSE - (FACING PARKING LOT)
3/32" = 1'-0"



4 A204 **ELEVATION** CARRIAGE HOUSE - (FACING RIVER RD.)
3/32" = 1'-0"



3 A204 **ELEVATION** CARRIAGE HOUSE - (FACING BACK OF PROPERTY)
3/32" = 1'-0"



2 A204 **ELEVATION** CARRIAGE HOUSE - (FACING WATER DETENTION AREA.)
3/32" = 1'-0"

* SILL HEIGHT NOTE: PUD-MU ZONING CODE REQUIRES THE RESIDENTIAL SILL TO BE 5' MIN. ABOVE AVERAGE GRADE AT FACADE. APPLICANT IS REQUESTING STAFF LEVEL ALLOWABLE DEVIATION TO REDUCE THE MIN. DIMENSION TO 4' (20%) MIN. ABOVE AVERAGE GRADE AT FACADE FOR ALL BUILDINGS THAT ARE PARALLEL TO STRAIGHT FRONTAGE LINES OR TANGENT OF CURVED FRONTAGE LINE.

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COLUMBIA, TN

ISSUANCES

NO.	DATE	DESCRIPTION
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	2025.09.16	CITY COMMENTS REVISION
	2026.04.20	SITE DEVELOPMENT PLAN SUBMISSION

PROJECT NO:
26008

SHEET TITLE:
CARRIAGE HOUSE ELEVATIONS

SHEET NUMBER:
A204

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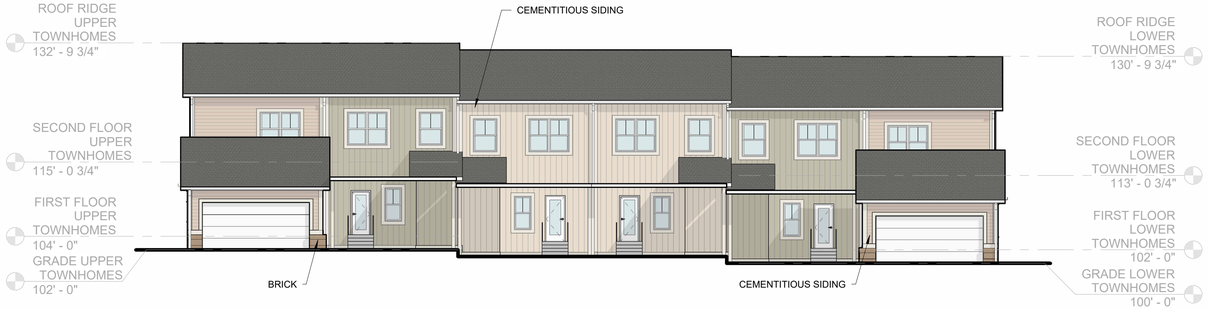
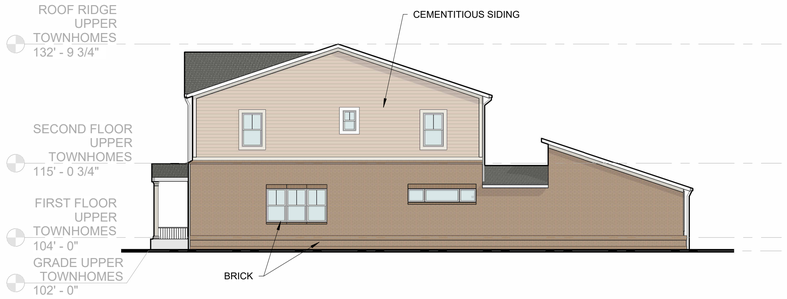
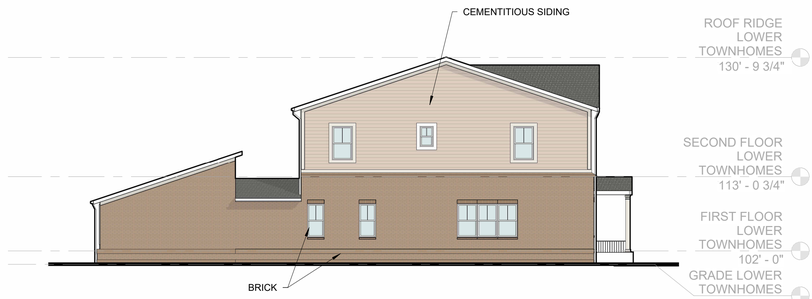


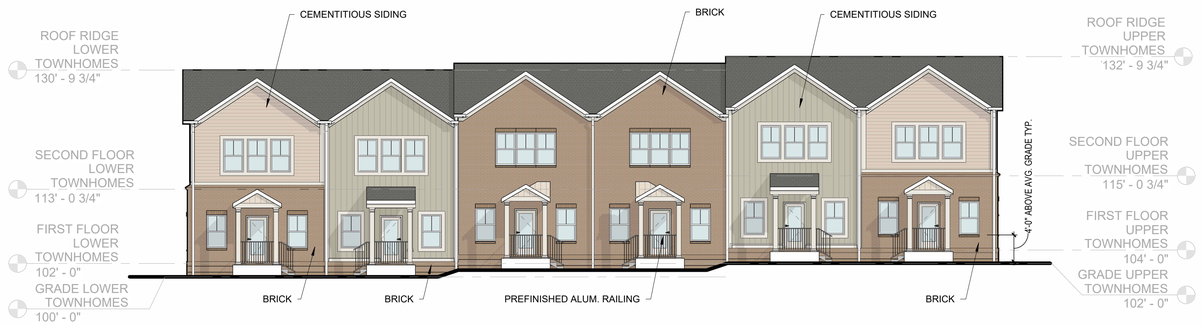
4 A205 **ELEVATION** TOWNHOME - ROW 1 - (FACING PARKING LOT)
3/32" = 1'-0"



2 A205 **ELEVATION** TOWNHOME - ROW 1 - (FACING B1&2)
3/32" = 1'-0"



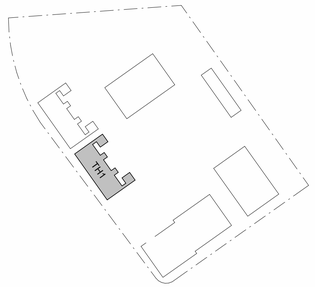
3 A205 **ELEVATION** TOWNHOME - ROW 1 - (FACING ROW 2)
3/32" = 1'-0"



1 A205 **ELEVATION** TOWNHOME - ROW 1 - (FACING TAYLOR'S BEND RD.)
3/32" = 1'-0"

* SILL HEIGHT NOTE: PUD-MU ZONING CODE REQUIRES THE RESIDENTIAL SILL TO BE 5' MIN. ABOVE AVERAGE GRADE AT FACADE. APPLICANT IS REQUESTING STAFF LEVEL ALLOWABLE DEVIATION TO REDUCE THE MIN. DIMENSION TO 4' (20%) MIN. ABOVE AVERAGE GRADE AT FACADE FOR ALL BUILDINGS THAT ARE PARALLEL TO STRAIGHT FRONTAGE LINES OR TANGENT OF CURVED FRONTAGE LINE.

KEY PLAN



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BARLOW BUILDERS & CPS LAND
THE JAMES (PHASE 2)
COLUMBIA, TN

ISSUANCES

NO.	DATE	DESCRIPTION
	2025.05.19	ZONING SUBMISSION
	2025.09.16	CITY COMMENTS REVISION
	2026.04.20	SITE DEVELOPMENT PLAN SUBMISSION

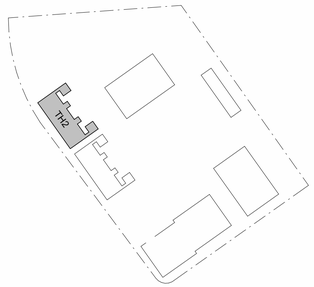
PROJECT NO:
26008

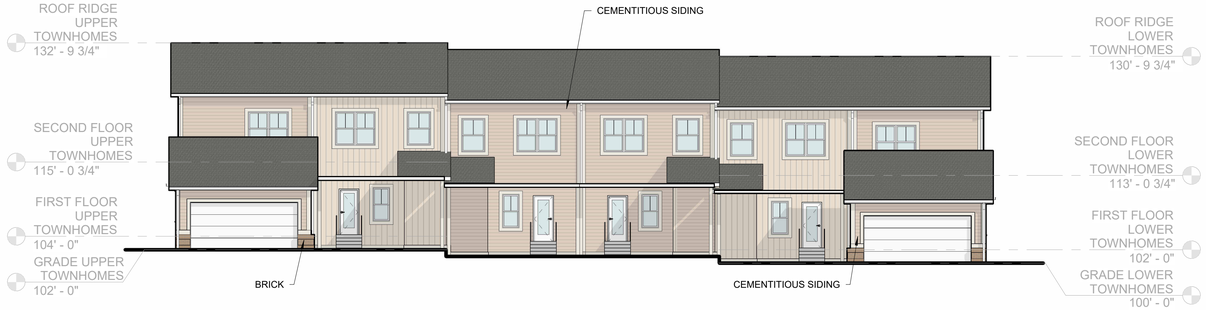
SHEET TITLE:
TOWNHOME ELEVATIONS

SHEET NUMBER:
A205

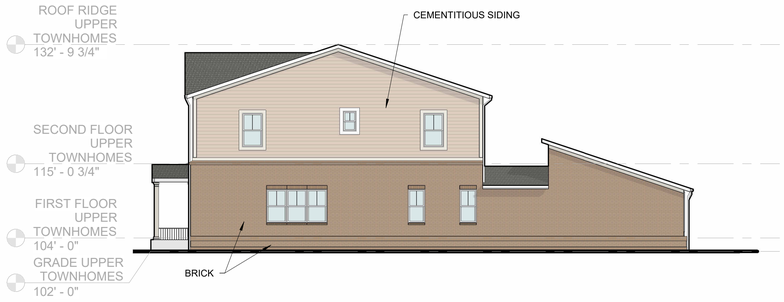
4/16/2026 10:39:10 AM

KEY PLAN

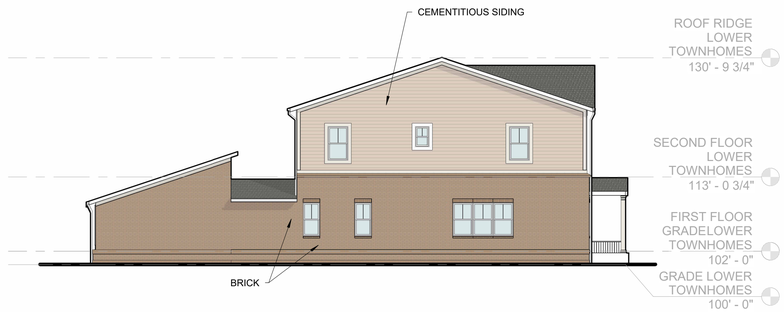




2 A206 **ELEVATION** TOWNHOME - ROW 2 - (FACING PARKING LOT)
3/32" = 1'-0"



3 A206 **ELEVATION** TOWNHOME - ROW 2 - (FACING ROW 1)
3/32" = 1'-0"



4 A206 **ELEVATION** TOWNHOME - ROW 2 - FACING WATER DETENTION AREA)
3/32" = 1'-0"



1 A206 **ELEVATION** TOWNHOME - ROW 2 - (FACING TAYLOR'S BEND RD.)
3/32" = 1'-0"

* SILL HEIGHT NOTE: PUD-MU ZONING CODE REQUIRES THE RESIDENTIAL SILL TO BE 5' MIN. ABOVE AVERAGE GRADE AT FACADE. APPLICANT IS REQUESTING STAFF LEVEL ALLOWABLE DEVIATION TO REDUCE THE MIN. DIMENSION TO 4' (20%) MIN. ABOVE AVERAGE GRADE AT FACADE FOR ALL BUILDINGS THAT ARE PARALLEL TO STRAIGHT FRONTAGE LINES OR TANGENT OF CURVED FRONTAGE LINE.

OPEN
ARCHITECTURE

1201 HARRISON AVE.
CINCINNATI, OH, 45214
OPENARCHITECTURE.COM

NOT FOR CONSTRUCTION

BARLOW BUILDERS & CPS LAND
THE JAMES (PHASE 2)
COLUMBIA, TN

ISSUANCES

NO.	DATE	DESCRIPTION
	2025.05.19	ZONING SUBMISSION
	2025.09.16	CITY COMMENTS REVISION
	2026.04.20	SITE DEVELOPMENT PLAN SUBMISSION

PROJECT NO:
26008

SHEET TITLE:
TOWNHOME ELEVATIONS

SHEET NUMBER:
A206

4/16/2026 10:39:13 AM

December 1, 2025

Mr. Keyshawn Gallon
Kimley-Horn
4031 Aspen Grove Drive, Suite 200
Franklin, TN 37067
Sent via email: *keyshaw.gallon@kimley-horn.com*

RE: **Water Availability Letter**
Waters Edge Apartments
Northeast Intersection at Taylors Ben and River Road
Tax Map 90, Parcel 7.12
Columbia*, Maury County, TN*

NWSF Paid: 2/26/2026
WAL Expires: 2/26/2027

Dear Mr. Gallon:

Columbia Power & Water Systems ("the Utility"/CPWS) is a municipality authorized to provide water services in accordance with State law. CPWS has adopted rules, regulations, and standard operation procedures, prescribing the conditions under which CPWS will furnish water service. In addition, certain State laws delegate authority to the Tennessee Department of Environment and Conservation (TDEC), various Planning Commissions, and other authorities in Cities and Counties. These Cities and Counties have also adopted rules and regulations. Water service will be made available on a first-come, first-served basis, subject to the payment of all charges and fees imposed by CPWS and the approval of any and all required governmental agencies. Water service is subject to availability of all CPWS furnished equipment and materials appropriate for the development and provided the applicant complies with all rules and regulations of CPWS and conditions set out herein.

The proposed development consists of 82 multi-family units and 12 townhome units, with an amenity center. CPWS has evaluated the projected water demands for the proposed development in the water system hydraulic model and is able to provide domestic and fire protection service while maintaining state standards for level of service and pressures in this portion of the distribution system. CPWS can provide water for the proposed development according to the following criteria and requirements:

- This Water Availability Letter (WAL) represents a planning-level indication of current source water availability for the Phase and Unit Count described above in the proposed development project.
- Development projects with multiple phases must be evaluated as a whole and with each phase individually for distribution system infrastructure sizing and sequencing.

- Each Phase of the development will be considered individually (with a separate WAL) to make sure source water capacity is available to support the additional demands of that Phase at the time the application is made.
- Based on State requirements, project phases will be constructed and activated as whole units.
    - CPWS will not accept ownership of or activate portions of the water system that are smaller than the entirety of the infrastructure approved by the State on a single permitted set of construction documents.
    - Phase boundaries should be defined with this in mind, as no water connections in the Phase will be activated until the entire Phase of construction is completed and accepted.
- Water system infrastructure will be connected to the existing 8-inch water mains located on Taylors Bend and/or River Rd
- Multifamily buildings must be served by master meters. Any sub-metering will be the responsibility of the property owner. Current WAL assumes water service to all units will be through master meters (to be verified during Design Review process).
- Fire flow availability up to 1,650 gpm is based on Fire Flow Requirements letter dated 8/27/2024 submitted with application.
- Assumed water meters are listed below based on preliminary description of project. Actual meter count and sizes will be verified during the Design Review process.
    - 12 Service Meters (3/4" size) for townhomes
    - One (1) Landscape Irrigation Meters (1" size)
    - Three (3) Master Service Meters (3" and 4" sizes) for multifamily buildings
    - Two (2) Fire Meters (6" size) for private hydrants and fire sprinklers to buildings
- Separate irrigation meters with backflow devices will be required to serve the proposed Project.
- If fire sprinkler systems are requested or required, separate fire meters with backflow devices will be required to serve the proposed Project.

All of the above requirements up to and including the meter(s) are to be constructed and paid for by the Applicant and deeded over to CPWS once complete.

New Water Service (NWS) Fees have been paid by the applicant which initiated Design Review and Coordination with CPWS. As such, this Water Availability Letter is extended to the date listed on the first page to provide time for completing the design and review process. Any request for water availability after the expiration date of this letter will be considered a new application.

The next steps in the process of obtaining water service from CPWS are as follows:

- Applicant will prepare design drawings for review and approval by CPWS for construction of the proposed water system improvements.

  - Provide design drawings in AutoCAD and .pdf format for CPWS review of proposed development. Include design drawings for grading, drainage, roadway improvements, buried (wet and dry) utilities, water systems, surface improvements, and landscaping.
  - Once CPWS approves the Construction Drawings for the proposed system improvements, Applicant will submit proposed improvements design to TDEC for review and approval.
  - CPWS will prepare hydraulic calculations and a Utility Approval Letter to accompany the plans submittal to TDEC.
- Upon Construction Drawing approval by CPWS, applicant may then schedule the pre-construction meeting.
- After the pre-construction meeting, CPWS will then issue a formal Notice to Proceed.
- Applicant is required to construct all public water infrastructure per CPWS standard specifications and provide CPWS personnel unregulated access to the site to inspect the construction of the water infrastructure.
- Applicant may pay Impact Fees at time of application for Building Permit.
  - Applicants will be charged Impact Fees and Meter Fees in effect at time of payment.
  - Please see CPWS website for schedule of impact fees and timing of planned fee escalations.
  - Water meters will be ordered by CPWS once meter fees are paid by the Applicant.
  - Meter fees are subject to change based on final design and the prevailing Board-approved rates at time of payment.
  - No water meters will be placed prior to payment of Impact Fees.
- An estimate of anticipated meter costs and impact fees for this project is provided below for planning purposes:

Impact Fees and Meter Costs	Number	$ / Unit	Total
¾" Service Meter Cost	12	$540	$6,480
1" Irrigation Meter Cost	1	$710	$710
3" Domestic Service (Master) Meter Cost	2	Current Price	Deferred
4" Domestic Service (Master) Meter Cost	1	Current Price	Deferred
6" Fire Meter Cost	2	Current Price	Deferred
Current Impact Fee for ¾" Service Meter	12	$5,500	$165,000
Current Impact Fee for 1" Service Meter	1	$9,200	$9,200
Current Impact Fee for 3" Service Meter	2	$92,000	$184,000
Current Impact Fee for 4" Service Meter	1	$184,000	$184,000
Estimate of Fees Due Prior to Pre-Construction Meeting =			**$549,390**

- No construction of water improvements may take place prior to the Notice to Proceed or without a CPWS inspector present.

Please feel free to contact me at 931-388-4833 x7655 or Matt.Wheeler@cpws.com if you have questions or would like to discuss.

Sincerely,



Matthew J. Wheeler, P.E.
Vice President of Water Resources, CPWS

cc: Cliff Smith, CPS Land
Sophia Close, Kimley-Horn
Bart Anderson, CPWS
Eric King, Inflo Design Group
File 24-062

CITY OF COLUMBIA
TENNESSEE

WASTEWATER DEPARTMENT

20 May 2026

Gabe Sanz
Kimley-Horn
4031 Aspen Grove Drive, Suite 200
Franklin, TN 37067

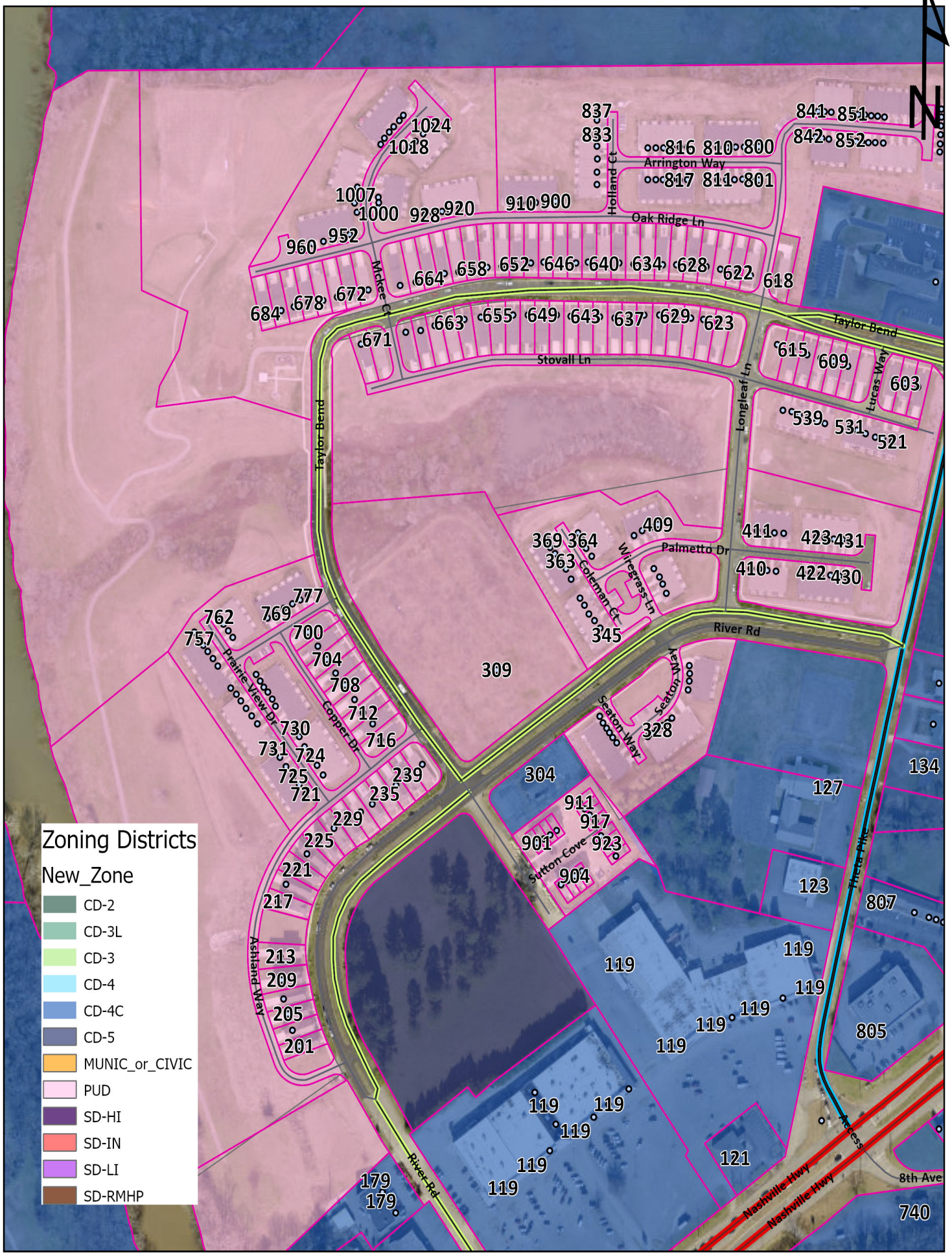
RE: 090 007.12, River Road, Columbia, TN 38401; The James Phase 2, 94 units

Gabe,

This letter serves as confirmation that the City of Columbia Wastewater Department has the available capacity to service the subject development. Any extension to the existing sewer infrastructure will be initiated by the owner/developer, reviewed by our department and approved by the State of Tennessee. The project must be advanced in accordance with local, state and federal rules, regulations and policies. Funding and construction of those improvements will remain the responsibility of the owner/developer. New customers will be required to pay all fees applicable at the time of connection. Any Final Plat approval and Dedication are both subject to installation and function, as determined by our Department. No detailed design plan for an extension of the sewer has been proposed at this time.

There is a possibility that additional sanitary sewer fees will be implemented in the future which would be paid at the building permit stage.

Donnie Boshers, Director
City of Columbia, TN
Wastewater Department



Case 26-0148
Water's Edge at Taylor Landing

City of Columbia
Development Services
700 N. Garden Street
Columbia, TN 38401
www.columbiatn.com

6218 Cayce Ln Rezoning

Project #:	26-0195	Location:	6218 Cayce Ln.
Applicant:	Michael Shamsie	Case Type(s):	Rezoning
Staff Planner:	Jeremy Humphrey, Planner II	Proposed Use:	Single Family

PROJECT SUMMARY

The applicant requests rezoning of +/-30.67 acres from CD-2 (Rural Character District) to CD-3L (Large Lot Neighborhood Character District). The current CD-2 zoning permits large-lot semi-rural estates, open spaces, and legacy agricultural operations in low-density single-family detached residential areas, at one (1) density unit per acre. The requested CD-3L zoning permits a medium-density single-family detached residential area in which houses are the predominant building types, at two (2) density units per acre.

- The requested zoning is consistent with the Suburban Neighborhoods (SN) future land use classification in Connect Columbia.
- The applicant has provided a concept plan depicting division of the property into 44 lots.
- The subject property has been reviewed previously by the Planning Commission under Case Nos. 22-0324, 23-0238, and 26-0020. Case No. 22-0324 was denied by City Council on June 8th, 2023, for a requested zone of CD-3. Case No. 23-0328 was denied by City Council on January 11th, 2024, for a requested zone of CD-3L. Case 26-0020 received a denial recommendation by the Planning Commission on March 11, 2026 (was withdrawn before Council meeting and did not go before Council).
- Subsequent development and division of the property will require additional reviews.
- The Planning Commission is the **recommending body** for rezoning requests.
- Templates are provided at the end of the report to assist the Planning Commission in crafting properly formatted motions.

SITE INFORMATION

CURRENT ZONING	EXISTING USE	EXISTING IMP.	LAND AREA
CD-2	Residential	House	+/- 30.67



FUTURE LAND USE MAP (SN)	ZONING MAP (CD-2)

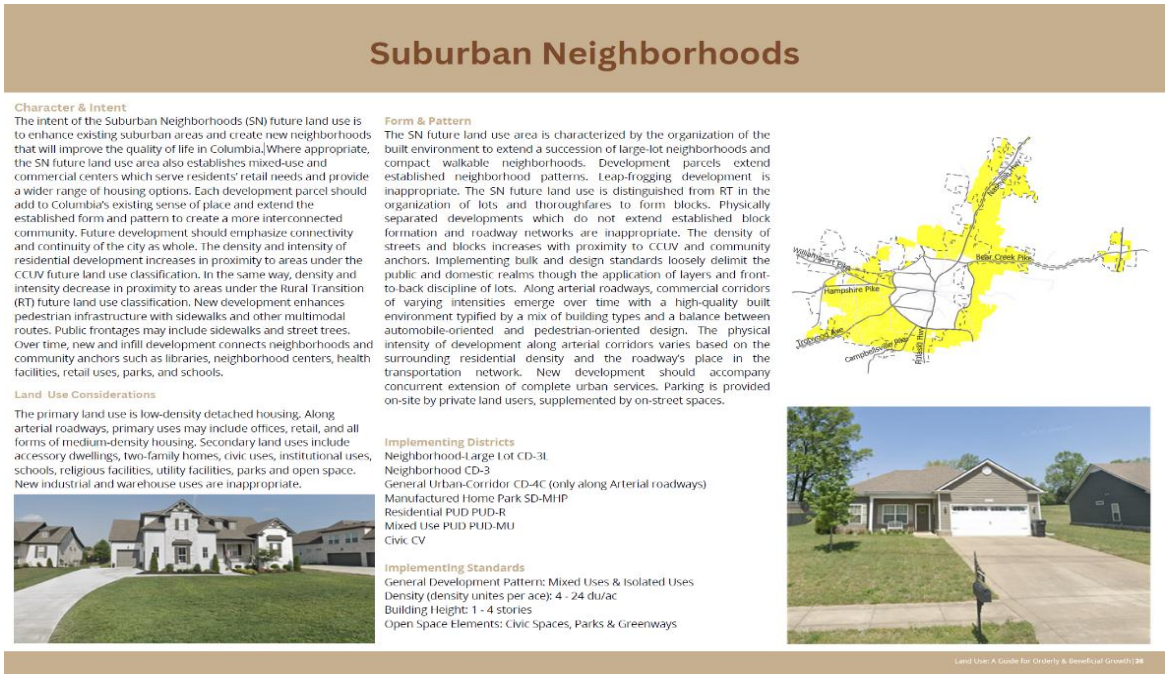




SITE CONTEXT/ADJACENT PROPERTIES			
	Future Land Use	Zoning	Current Use
Subject Property	Suburban Neighborhoods (SN)	CD-2	Single Family
North	SN	CD-2	Single Family
South	SN	CD-2 & CD-3	Single Family
East	SN	CD-3	Single Family
West	SN	CD-2	Single Family

CONSISTENCY WITH CONNECT COLUMBIA

Suburban Neighborhoods: The requested rezoning is consistent with the Future Land Use Map. The future land use of the subject site is Suburban Neighborhoods (SN). The SN future land use area is intended to enhance existing suburban areas and create new neighborhoods that improve quality of life in Columbia. Where appropriate, the SN future land use area also establishes mixed-use and commercial centers which serve residents' retail needs and provide a wider range of housing options (Connect Columbia, p. 36). Each development parcel should add to Columbia's existing sense of place and extend established form and pattern to create a more interconnected community. Future development should emphasize connectivity and continuity of the City as a whole. The density and intensity of residential development increases in proximity to areas under the SN future land use classification.



Suburban Neighborhoods

Character & Intent

The intent of the Suburban Neighborhoods (SN) future land use is to enhance existing suburban areas and create new neighborhoods that will improve the quality of life in Columbia. Where appropriate, the SN future land use area also establishes mixed-use and commercial centers which serve residents' retail needs and provide a wider range of housing options. Each development parcel should add to Columbia's existing sense of place and extend the established form and pattern to create a more interconnected community. Future development should emphasize connectivity and continuity of the city as whole. The density and intensity of residential development increases in proximity to areas under the CCUV future land use classification. In the same way, density and intensity decrease in proximity to areas under the Rural Transition (RT) future land use classification. New development enhances pedestrian infrastructure with sidewalks and other multimodal routes. Public frontages may include sidewalks and street trees. Over time, new and infill development connects neighborhoods and community anchors such as libraries, neighborhood centers, health facilities, retail uses, parks, and schools.

Land Use Considerations

The primary land use is low-density detached housing. Along arterial roadways, primary uses may include offices, retail, and all forms of medium-density housing. Secondary land uses include accessory dwellings, two-family homes, civic uses, institutional uses, schools, religious facilities, utility facilities, parks and open space. New industrial and warehouse uses are inappropriate.

Form & Pattern

The SN future land use area is characterized by the organization of the built environment to extend a succession of large-lot neighborhoods and compact walkable neighborhoods. Development parcels extend established neighborhood patterns. Leap-frogging development is inappropriate. The SN future land use is distinguished from RT in the organization of lots and thoroughfares to form blocks. Physically separated developments which do not extend established block formation and roadway networks are inappropriate. The density of streets and blocks increases with proximity to CCUV and community anchors. Implementing bulk and design standards loosely delimit the public and domestic realms though the application of layers and front-to-back discipline of lots. Along arterial roadways, commercial corridors of varying intensities emerge over time with a high-quality built environment typified by a mix of building types and a balance between automobile-oriented and pedestrian-oriented design. The physical intensity of development along arterial corridors varies based on the surrounding residential density and the roadway's place in the transportation network. New development should accompany concurrent extension of complete urban services. Parking is provided on-site by private land users, supplemented by on-street spaces.

Implementing Districts

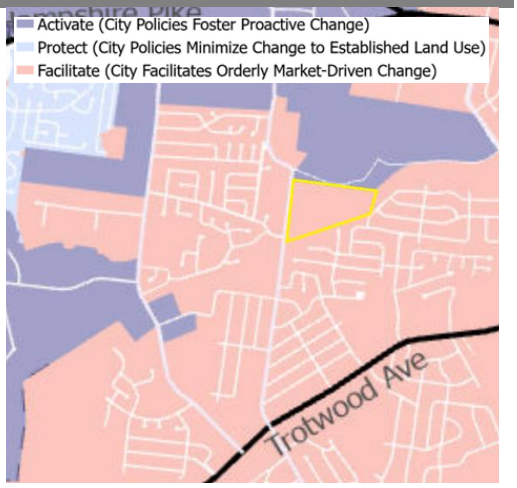
Neighborhood-Large Lot CD-3L
Neighborhood CD-3
General Urban-Corridor CD-4C (only along Arterial roadways)
Manufactured Home Park SD-MHP
Residential PUD PUD-R
Mixed Use PUD PUD-MU
Civic CV

Implementing Standards

General Development Pattern: Mixed Uses & Isolated Uses
Density (density unites per ace): 4 - 24 du/ac
Building Height: 1 - 4 stories
Open Space Elements: Civic Spaces, Parks & Greenways

AREA OF CHANGE

Connect Columbia identifies the Area of Change policy designation for the subject site as Facilitate (market-driven change). This designation generally applies to established neighborhoods and commercial areas that have, or could experience, continued investment to improve quality of place. These areas benefit from existing municipal services and enhancement projects to improve walkability, create a sense of place, and enhance connectivity. Change in these areas is market-driven. New and infill development should maintain or improve the level of service for municipal services. City policies facilitate change through a process of public deliberation and high standards for the built environment (Connect Columbia, p. 32).



CONFORMITY WITH ZONING ORDINANCE

As part of the rezoning application, the applicant provided a concept plan (i.e., "Sketch Development Plan"). The purpose of the concept plan is to demonstrate that the site could be developed in conformity with the standards of the requested character district. This request for rezoning establishes entitlements under the zoning ordinance and does not vest a right to develop the site as depicted in the concept plan.

Lots, Building Sites & Bulk Standards

- **The concept demonstrates that it is possible to subdivide the site in conformity with the bulk and design standard of the Ordinance at Table 4.3.1-D.**
    - The concept plan indicates that it is possible to divide the property into conforming CD-3L lots, with 44 lots shown in the concept plan.
- **The current request establishes the applicable standards for future reviews. The concept plan is not a plan of development and approval of the rezoning request does not establish a vested right.**
    - If the rezoning is successful and the site develops, Planning Staff will perform zoning compliance review to determine conformity with the standards of the Ordinance.

- Lots – Planning & Zoning will ensure that lots conform to the dimensional standards of the Ordinance at the time of subdivision.
- Buildings – Staff will evaluate any proposed structures for zoning compliance as part of the building permit review.

REVIEW PROCESS

The Development Review Committee evaluated the proposed rezoning at its June 2026 meeting, as directed by Section 8.3.7 of the Zoning Ordinance. Technical comments are provided in the agenda package.

Section **8.5.19** of the Zoning Ordinance directs the Planning Commission to review and make a recommendation on all proposed changes to the Official Zoning Map. The Planning Commission is the recommending body for rezonings under **§ 8.3.3.B.3** of the Zoning Ordinance.

Section **8.5.19.H.4** of the Zoning Ordinance establishes the review criteria for approval of all changes to the Official Zoning Map:

a. *The Rezoning is consistent and not in conflict with the Comprehensive Plan or other applicable approved local plans for the area;*
b. It has been determined that the legal purposes for which zoning exists, as set forth in Section 1.5;
c. *It has been determined that there will be no adverse effect upon Adjoining property owners unless such effect can be justified by the overwhelming public good or welfare;*
d. *It has been determined that no one property owner or small group of property owners will benefit materially from the change to the detriment of the general public;*
e. It has been determined that conditions affecting the area have changed to a sufficient degree to warrant the Zoning Map Amendment or that the existing zoning of the property was the result of a mistake;
f. It has been determined that adequate school, road, parks, wastewater treatment, water supply, and storm water drainage facilities are available.

SUMMARY OF DEVELOPMENT REVIEW COMMITTEE COMMENTS

The DRC reviewed this proposal at its June 2026 meeting. A full list of comments, and the applicant's responses, is provided in the agenda packet. Some key comments are noted below.

- Planning requested a narrative response to criterion at Section 8.5.19.H.4(e) explaining why the applicant believes conditions affecting the area have changed sufficiently to warrant the Zoning Map Amendment, or why the existing zoning should be considered a mistake, including discussion of any changed conditions since prior Planning Commission reviews (Case Nos. 22-0324 and 23-0238).
- Utilities / Fire Flow: The application file includes a Columbia Power and Water Systems (CPWS) Water Availability Letter dated July 23, 2025 (expires April 24, 2027) for a 60-unit development at 6218 Cayce Lane (Tax Map 101, Parcel 39). The letter indicates a domestic water connection to the existing 12-inch water main on Cayce Lane, minimum 8-inch looped water mains throughout the development, and that CPWS's hydraulic model can meet a fire-flow capacity of 1,000 gpm while maintaining the existing level of service and pressures in this portion of the distribution system. The current concept plan depicts 44 lots; utility documentation should be aligned with the final unit count during subsequent review stages.
- Sanitary Sewer / Other Utilities: Sanitary sewer service, storm water facilities, and other utility coordination will be reviewed and confirmed during subsequent subdivision and engineering review stages, consistent with City standards and applicable departmental requirements.

COMMENTARY FROM PROFESSIONAL PLANNING STAFF

The requested CD-3L zoning is consistent with Connect Columbia. As discussed above, the subject site's future land use classification is Suburban Neighborhoods (SN). The requested CD-3L (Neighborhood Character District) character district implements the future land use. The Area of Change Policy for the property is Facilitate, indicating that the city encourages beneficial changes to the land use pattern in the area.

Any division of the property must conform to the standards of the Ordinance and Subdivision Regulations. Rezoning amends the regulatory map and determines which section of the Ordinance applies to the site. Zoning map amendments do not approve any specific plan of development. The applicant provided a concept plan for the rezoning which indicates the parcel is of sufficient size to create more than one conforming CD-3L lot. Subdivision of the property will require a plat prepared by a registered land surveyor. If the applicant succeeds in rezoning the property, additional applications prepared with the aid of qualified professionals will be necessary to accomplish the goal of subdividing the property.

SAMPLE MOTIONS

Approve:

Move to find, based on the information presented by the applicant and the analysis provided by city staff, that the criteria listed in sections **8.5.19.H** of the City of Columbia Zoning Ordinance have been satisfied and recommend approval of the proposed rezoning *[, subject to technical comments and other conditions presented by planning staff*].

Deny:

Move to recommend denial of the requested rezoning having found, based on the information presented by the applicant and the analysis provided by city staff, that the criteria listed in section **8.5.19.H** of the City of Columbia Zoning Ordinance are not satisfied [*list specific reasons for denial*].

Defer:

Move to find that there is insufficient information to decide, defer the matter to the next regularly scheduled meeting of the Planning Commission, and request that the [*applicant/staff*] provide: [*list additional information*] for review at a future meeting.

CITY OF
COLUMBIA
TENNESSEE

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

DEVELOPMENT REVEW COMMITTEE MEETING
Tuesday, June 9, 2026 --- Responses Noted Below in Blue
By Michael Shamsie, PE – June 12th 2026

ITEM NO.
26-0195
DESCRIPTION: 6218 Cayce Ln

COMMENTS:

Planning

1. The lead staff person on this case will be Jeremy Humphrey, Planner II. Please email all correspondence to jhumphrey@columbiatn.gov. **– OK, so Noted**
2. Please submit all written responses to comments before re-submittal date. **– OK, so Noted**

Engineering

3. No comments on rezoning. **– OK, so Noted**

Fire

4. No comments **– OK, so Noted**

Maury County E911

5. Street name request will need to be submitted through Maury911.0rg **– – OK, so Noted, will apply**

ATT

6. ATT intends to serve. **– OK, so Noted**

Maury County Schools

7. Woodard Elementary, Whitthorne Middle, Central High School **– OK, so Noted**
8. The development combined with current neighborhoods and additional approved developments in these zones may require new construction or realignment of school zones to accommodate new students. **– OK, so Noted**
9. Enrollment/capacity numbers are attached. **– OK, so Noted**

CITY OF COLUMBIA TENNESSEE

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

Wastewater

10. No comments. **– OK, so Noted**

Columbia Water

11. A water availability letter was issued on April 24, 2026. It remains valid until April 24, 2027.
12. The availability of capacity to serve is based on determination by the Fire Marshal of fire flow requirements and the information submitted on the Water Service Availability Request application. **– OK, so Noted**
13. Any off-site improvements detailed in the availability letter are the responsibility of the developer/owner. **– OK, so Noted**
14. All public water system improvements are subject to the preparation and approval of detailed construction plans prepared in accordance with CPWS and Tennessee Department of Environment and Conservation requirements. **– OK, so Noted**

Resubmittal Guidelines

Please provide a comment response letter as well as digital copies of revised plans and supporting documentation. Submit all required documents electronically through the online portal: columbia.onlama.com. If the files are oversized, please provide a file sharing link. **– OK, so Noted**

Please contact the case planner identified in the Planning Comments with any questions about the review process. **– OK, so Noted**

Please contact pkeltner@columbiatn.gov or msanders@columbiatn.gov if you encounter difficulties with the online portal. **– OK, so Noted**

You will receive an invoice for required advertising and mailing fees. All fees must be paid by the Friday following resubmittal in order advance to the Planning Commission agenda. **– OK, so Noted**

NOTE: All resubmittals must demonstrate compliance with city standards prior to Planning Commission review. Requests which do not adhere to regulations and/or remain unresponsive to technical comments will not be forwarded to the next agenda until such items are amended. Final Plat applications which are not ready to proceed to Planning Commission following the first resubmittal deadline will be added to the following DRC agenda to confirm the status of required infrastructure and utilities. Applications which remain incomplete following two resubmittal deadlines will be closed. **– OK, so Noted**

CITY OF
COLUMBIA
TENNESSEE

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

DEVELOPMENT REVEW COMMITTEE MEETING
Tuesday, June 9, 2026

ITEM NO.
26-0195

DESCRIPTION: 6218 Cayce Ln

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DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

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CITY OF
COLUMBIA
TENNESSEE

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

You will receive an invoice for required advertising and mailing fees. All fees must be paid by the Friday following resubmittal in order advance to the Planning Commission agenda.

NOTE: All resubmittals must demonstrate compliance with city standards prior to Planning Commission review. Requests which do not adhere to regulations and/or remain unresponsive to technical comments will not be forwarded to the next agenda until such items are amended. Final Plat applications which are not ready to proceed to Planning Commission following the first resubmittal deadline will be added to the following DRC agenda to confirm the status of required infrastructure and utilities. Applications which remain incomplete following two resubmittal deadlines will be closed.

CD-3L Zoning
44 Single Family Homes

Cayce Place

6218 Cayce Lane, Columbia, TN

1" = 60 feet

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50' Heavily Landscaped Buffer

Open Space
0.84 Acres

Detention Basin
1.79 Acres

Open Space
0.26 Acres

Youth Soccer Field

Open Space / Park
2.31 Acres

Open Space
2.67 Acres

Open Space
1.75 Acres

Detention Basin
0.90 Acres

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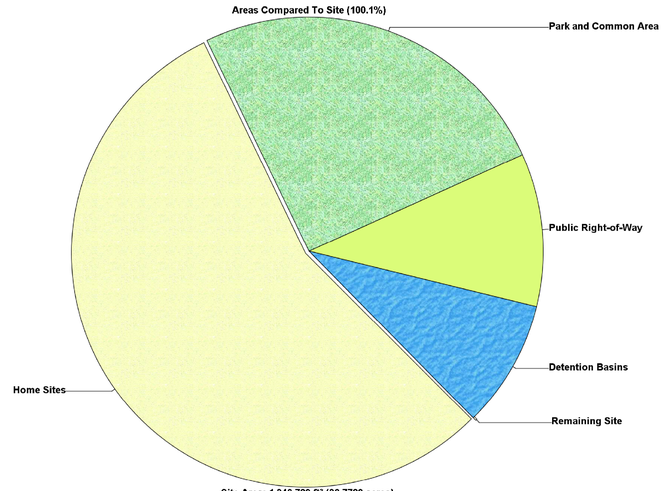
KCS

KCS Property, LLC
1985 Ridgecrest Drive
Columbia, TN 38401



Site Area: 1,340,729 ft² (30.7789 acres)

Remaining Site.....	-0.1%	-1,481 ft²	(-0.0340 acres)
Detention Basins....	8.8%	118,201 ft²	(2.7135 acres)
Public Right-of-Way.	10.5%	141,412 ft²	(3.2464 acres)
Park and Common Area	25.4%	340,735 ft²	(7.8222 acres)
Home Sites.....	55.3%	741,862 ft²	(17.0308 acres)

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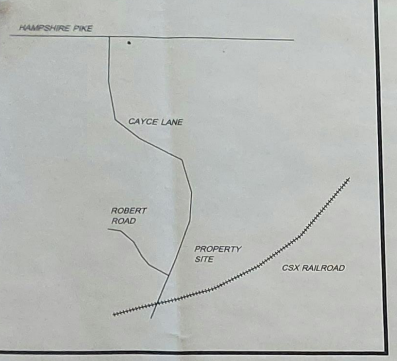


LOCATION MAP (N.T.S.)

General Notes:

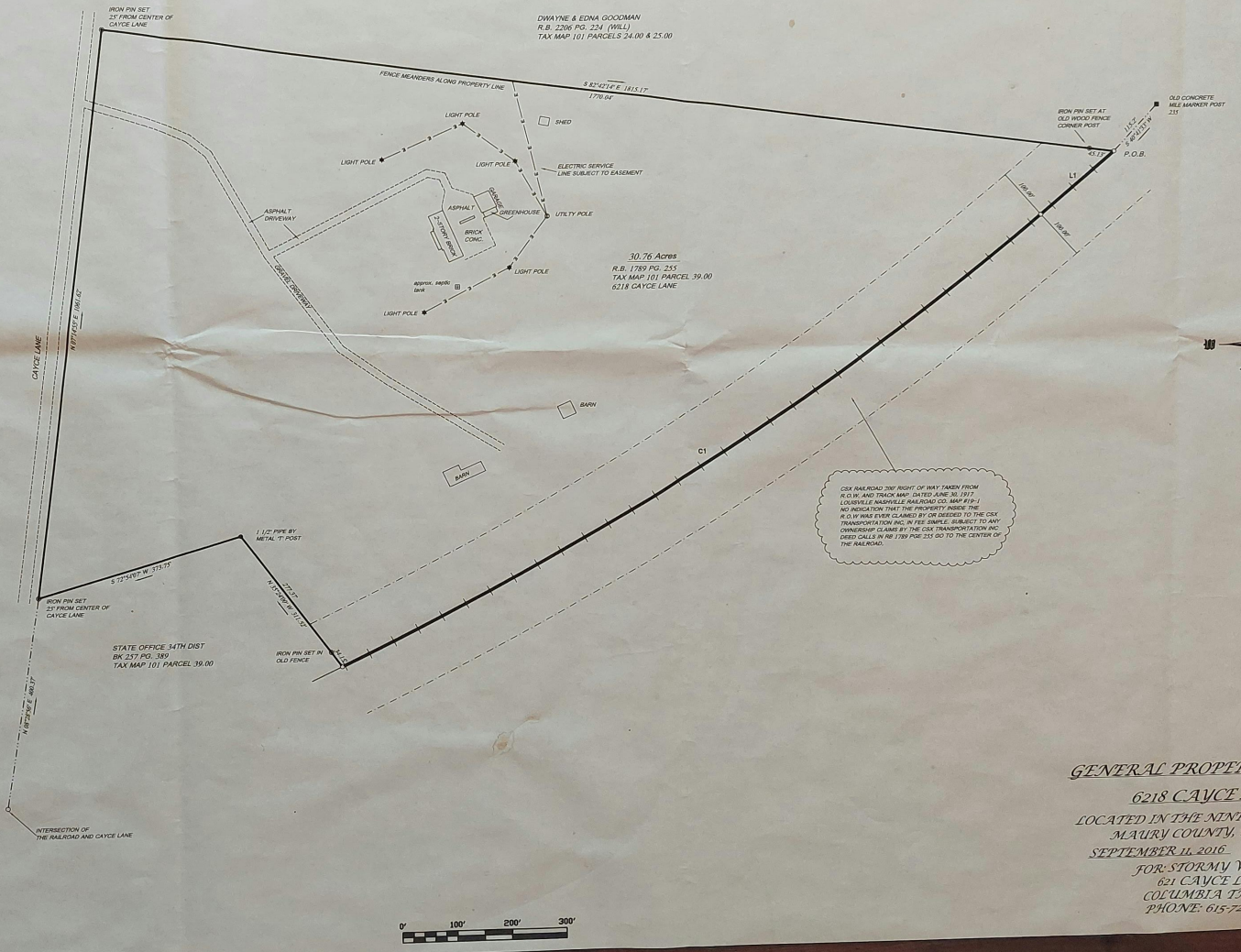
Area: 30.76 Acres
This tract is not in a Flood Hazard Area
(Reference: F.I.R.M. Map 47119C0280E)
Iron pins placed or found on all corners unless noted.
This plat represents the property recorded in:
R.B. 1789, Pg. 255
Subject to a 10' wide sewer easement
recorded in RB 1622 Pg. 741
Subject to a water line easement
recorded in bk 379 pg. 427

NOTE: THIS PLAT IS SUBJECT TO ANY AND ALL RIGHTS-OF-WAY, EASEMENTS AND/OR RESTRICTIONS THAT MAY EXIST, WRITTEN OR UNWRITTEN.

THE LOCATION & SIZE OF THE UNDERGROUND UTILITIES SHOWN ARE BASED UPON FIELD OBSERVATION OF ABOVE GROUND APPURTENANCES AND MARKINGS, AND SHOULD BE VERIFIED BY THE UTILITY AUTHORITY HAVING JURISDICTION PRIOR TO CONSTRUCTION.

CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	1528.36'	5674.41'	15°25'56"	S 56°08'55" W	1523.75'

LINE	BEARING	DISTANCE
L1	S 48°04'58" W	43.12'



LEGEND

- PNS POINT NOT SET
- IPS IRON PIN SET (5/8" REBAR W/CAP)
- IPF IRON PIPE FOUND
- CM CONCRETE MONUMENT
- ES EXISTING STONE
- SSMH SANITARY SEWER MANHOLE
- WM WATER METER
- PP POWER POLE
- W/P WOOD FENCE POST

T. K. B. R.L.S. #2312

THIS IS A CATEGORY IV SURVEY

I HEREBY CERTIFY THAT THE SURVEY WAS DONE IN COMPLIANCE WITH CURRENT TENNESSEE MINIMUM STANDARDS OF PRACTICE AND THIS PLAT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND WAS PREPARED FROM AN ACTUAL SURVEY OF THE PROPERTY BY ME OR UNDER MY SUPERVISION

MICHAEL D. LOWE R.L.S. No. 2312

MICHAEL D. LOWE REGISTERED LAND SURVEYOR XVI AGRICULTURE TENNESSEE No. 2312

TELLICO LAND SURVEYING L.L.C.
195 H and H Road
Tellico Plains, Tennessee 37385
Telephone (423) 253-5439

GENERAL PROPERTY SURVEY

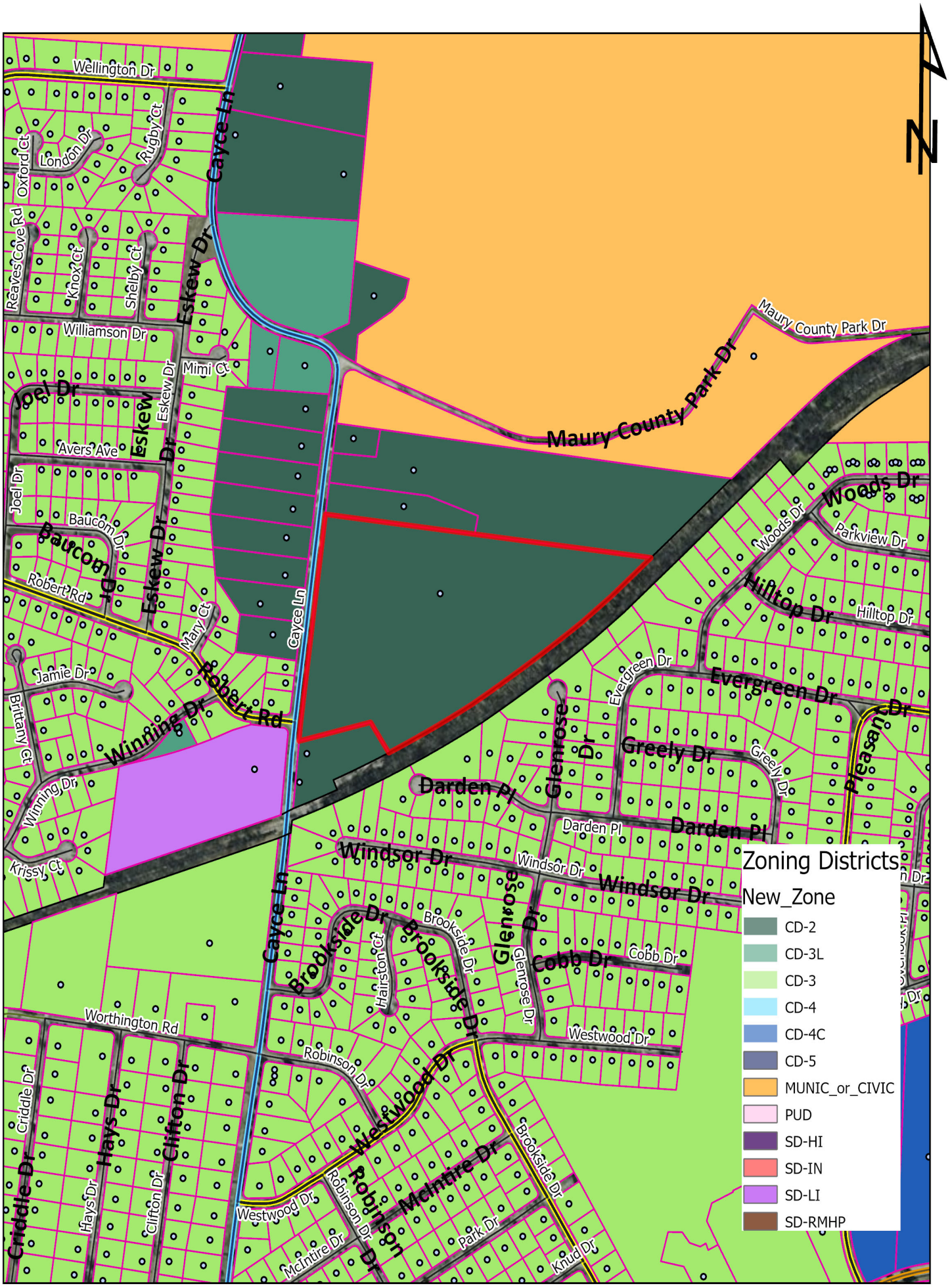
6218 CAYCE LANE

LOCATED IN THE NINTH CIVIL DISTRICT
MAURY COUNTY, TENNESSEE

SEPTEMBER 11, 2016 JOB No. 16-099

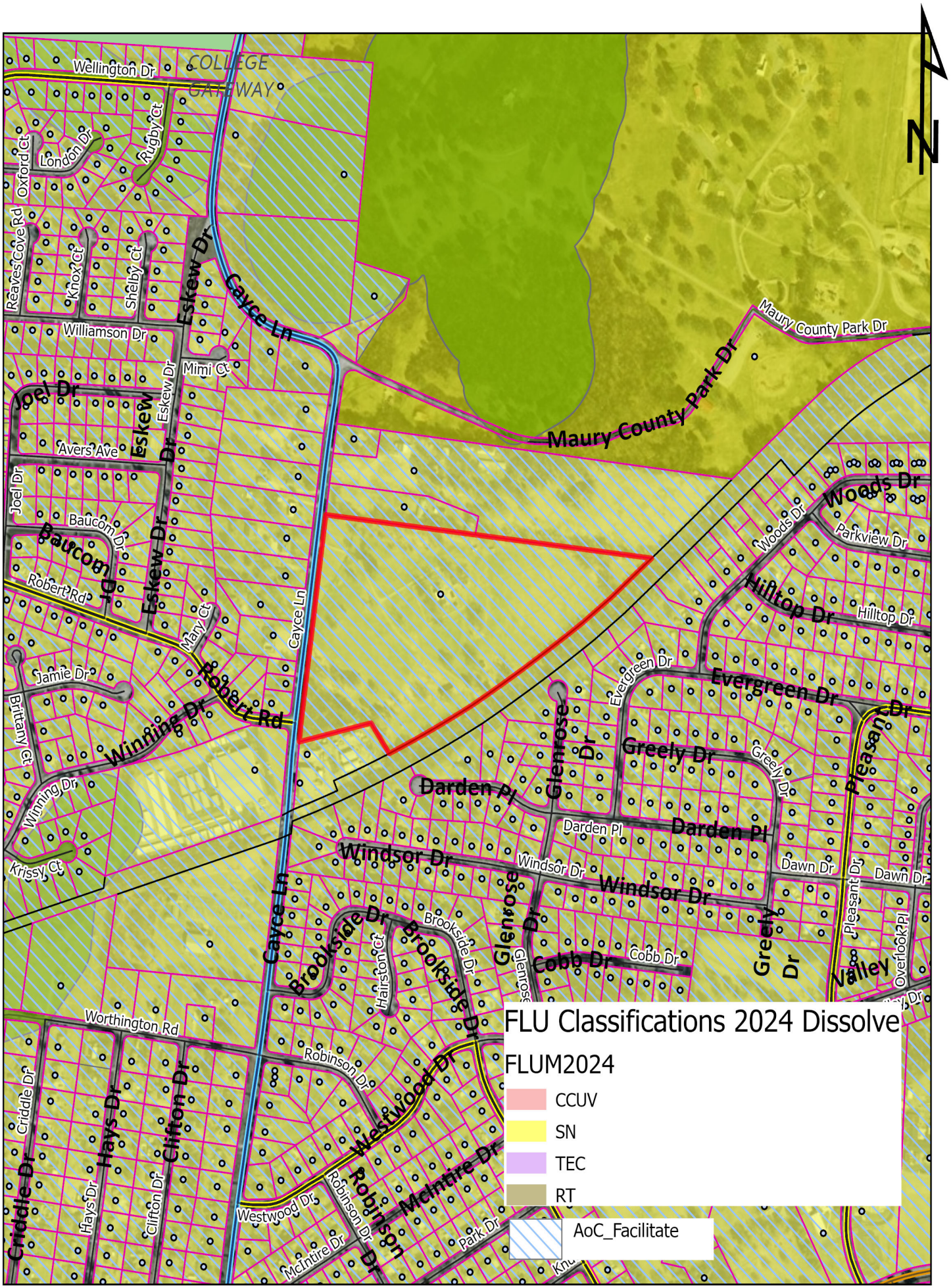
FOR: STORMY WALKER
621 CAYCE LANE
COLUMBIA TN 38402
PHONE: 615-720-8039

MAP No. C-240



Case #26-0195
6218 Cayce Lane

City of Columbia
Development Services
700 N. Garden Street
Columbia, TN 38401
www.columbiatn.gov



Case #26-0195
6218 Cayce Lane

City of Columbia
Development Services
700 N. Garden Street
Columbia, TN 38401
www.columbiatn.gov

April 24, 2026

Blake Seeberger
KCS Property, LLC
1985 Ridgecrest Drive
Columbia, TN 38401
Sent via email: BSeeberger@kcsllc.com

RE: **Water Availability Letter** Expires: 4/24/2027
6218 Cacye Lane – 60 Units
Tax Map 101, Parcel 39
Columbia, TN

Dear Mr. Seeberger:

Columbia Power & Water Systems ("the Utility"/CPWS) is a municipality authorized to provide water services in accordance with State law. CPWS has adopted rules, regulations, and standard operation procedures, prescribing the conditions under which CPWS will furnish water service. In addition, certain State laws delegate authority to the Tennessee Department of Environment and Conservation (TDEC), various Planning Commissions, and other authorities in Cities and Counties. These Cities and Counties have also adopted rules and regulations. Water service will be made available on a first-come, first-served basis, subject to the payment of all charges and fees imposed by CPWS and the approval of any and all required governmental agencies. Water service is subject to availability of all CPWS furnished equipment and materials appropriate for the development and provided the applicant complies with all rules and regulations of CPWS and conditions set out herein.

The updated development proposal consists of up to 60 single-family residential units. New Water Service (NWS) Fees have been paid by the applicant which initiates Design Review and Coordination with CPWS. As such, this Water Availability Letter will expire in one-year to provide time for the design and review process.

CPWS has evaluated the projected water demands for the proposed development in the water system hydraulic model and is able to provide domestic and fire protection service while maintaining state standards for level of service and pressures in this portion of the distribution system. CPWS can provide water for the proposed development according to the following criteria and requirements:

- This Water Availability Letter (WAL) represents a planning-level indication of current source water availability for the Phase and Unit Count described above in the proposed development project.
- Development projects with multiple phases must be evaluated as a whole and with each phase individually for distribution system infrastructure sizing and sequencing.
- Each Phase of the development will be considered individually (with a separate WAL) to make sure source water capacity is available to support the additional demands of that Phase at the time the application is made.
- Based on State requirements, project phases will be constructed and activated as whole units.
    - CPWS will not accept ownership of or activate portions of the water system that are smaller than the entirety of the infrastructure approved by the State on a single permitted set of construction documents.
    - Phase boundaries should be defined with this in mind, as no water connections in the Phase will be activated until the entire Phase of construction is completed and accepted.
- Domestic waterline connection will be made to the existing 12-inch water main located on Cayce Lane.
- Minimum size 8-inch diameter, looped water mains will be required throughout the development.
- Available fire flow capacity is up to 1,000 gpm.
- The above request translates to a 60 Single Family Unit (SFU) flow demand equivalent.
- Assumed water meters are listed below based on preliminary description of project. Actual meter count and sizes will be verified during the Design Review process.
    - 60 Service Meters (3/4" size)
    - Two (2) Landscape Irrigation Meters (3/4" size)
- Separate irrigation meters with backflow devices will be required to serve the proposed Project.
- If fire sprinkler systems are requested or required, separate fire meters with backflow devices will be required to serve the proposed Project.

All of the above requirements up to and including the meter(s) are to be constructed and paid for by the Applicant and deeded over to CPWS once complete. No construction of water infrastructure shall be initiated until final construction plans have been approved by CPWS (including TDEC approval).

The next steps in the process to obtain water service from CPWS are as follows:

- Applicant will prepare design drawings for review and approval by CPWS for construction of the proposed water system improvements.
    - Provide design drawings in AutoCAD and .pdf format for CPWS review of proposed development. Include design drawings for grading, drainage,

roadway improvements, buried (wet and dry) utilities, water systems, surface improvements, and landscaping.
    - Once CPWS approves the Construction Drawings for the proposed system improvements, Applicant will submit proposed improvements design to TDEC for review and approval.
    - CPWS will prepare hydraulic calculations and a Utility Approval Letter to accompany the plans submittal to TDEC.
- Upon Construction Drawing approval by CPWS, applicant may then schedule the pre-construction meeting.
- After the pre-construction meeting, CPWS will then issue a formal Notice to Proceed.
- Applicant is required to construct all public water infrastructure per CPWS standard specifications and provide CPWS personnel unregulated access to the site to inspect the construction of the water infrastructure.
- Applicant may pay Impact Fees at time of application for Building Permit.
    - Applicants will be charged Impact Fees and Meter Fees in effect at time of payment.
    - See CPWS website for schedule of impact fees and planned fee escalations.
    - Meters will be ordered by CPWS once meter fees are paid by the Applicant.
    - Meter fees are subject to change based on final design and the prevailing Board-approved rates at time of payment.
    - No water meters will be placed prior to payment of Impact Fees.
- An estimate of anticipated meter costs and impact fees for this project is provided below for planning purposes (fees noted below are effective 7/1/26):

Impact Fees and Meter Costs	Number	$ / Unit	Total
¾" Service Meter Cost	60	$540	$32,400
¾" Irrigation Meter Cost	2	$540	$1,080
Current Impact Fee for ¾" Service Meter	62	$6,000	$372,000
Estimate of Impact and Meter Fees =			**$405,480**

- No construction of water improvements may take place prior to the Notice to Proceed or without a CPWS inspector present.

Please feel free to contact me at 931-388-4833 x7655 or Matt.Wheeler@cpws.com if you have questions or would like to discuss.

Sincerely,



Matthew J. Wheeler, P.E.
Vice President of Water Resources, CPWS

cc: Michael Shamsie, Landmark Engineering Group
Bart Anderson, CPWS
Eric King, Inflo Design Group
File 22-096

Columbia Fire & Rescue

Fire Flow Requirements

Water Purveyor: Columbia Power & Water System

Date: May 7th 2026
Name: Michael Shamsie, PE
Phone: 309.755.3400 ext 1200
Email: mike.shamsie@landgroup.biz
Address/Parcel ID: Tax Map 101, Parcel 39
Property Type: (•) Residential ( ) Commercial ( ) Industrial
Construction Type: Wood Frame
Enclosed Area (ft²): 60 homes, 2,000 sf each

FILLED OUT BY COLUMBIA FIRE AND RESCUE

NFPA Sprinkler Type: NFPA 13D

Water System Demand without Sprinkler Credit

Fire flow Requirements (International Fire Code Appendix B)

Fire Flow: 1,000 gpm Duration: 1 hours

Fire Hydrant Location and Distribution (International Fire Code Appendix C)

Minimum number of hydrants: 1

Average spacing between hydrants: 500 ft.

Maximum distance from frontage to hydrant: 250 ft.

Water System Demand with Sprinkler Credit

Fire flow requirements (International Fire Code Appendix B)

Fire Flow: 500 gpm Duration: 1/2 hours

Fire Hydrant Location and Distribution (International Fire Code Appendix C)

Minimum number of hydrants: 1

Average spacing between hydrants: 500 ft.

Maximum distance from frontage to hydrant: 250 ft.

Fire Plan Reviewer: Brad Massey Date: 5/12/2026

Columbia Fire & Rescue can add up to 600gpm, with our tanker truck operation, to the gpm that CPWS can supply. If CPWS cannot supply the required fire flow, please contact our office to see how much can be added by Columbia Fire at the site in question.

CD-3L Zoning
60 Single Family Homes

Cayce Place

6218 Cayce Lane, Columbia, TN

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1" = 60 feet

Open Space
0.83 Acres

50' Heavily Landscaped Buffer

Youth Soccer Field

Open Space / Park
2.40 Acres

Detention Basin
1.79 Acres

Open Space
2.67 Acres

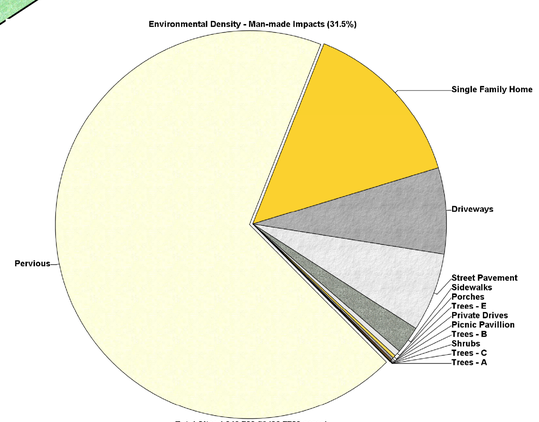
Open Space
1.72 Acres

Detention Basin
0.90 Acres

Fountain
Picnic Pavilion
Gazebo
Mail Kiosk
Sports Set
Climbing Structure
Youth Play Structure

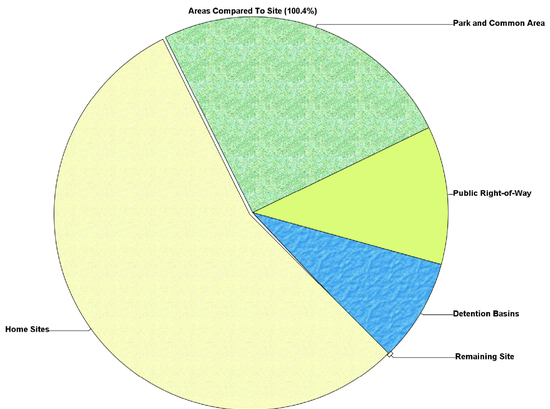
KCS

KCS Property, LLC
1985 Ridgecrest Drive
Columbia, TN 38401



Total Site: 1,340,729 ft² (30.7789 acres)

Trees - A	0.0%	273 ft²	(0.0063 acres)	Trees - C	0.0%	303 ft²	(0.0070 acres)
Shrubs	0.0%	459 ft²	(0.0105 acres)	Trees - B	0.1%	996 ft²	(0.0229 acres)
Picnic Pavillion	0.1%	1,000 ft²	(0.0230 acres)	Private Drives	0.2%	2,379 ft²	(0.0546 acres)
Trees - E	0.2%	3,335 ft²	(0.0766 acres)	Porches	0.5%	6,850 ft²	(0.1573 acres)
Sidewalks	2.3%	30,795 ft²	(0.7070 acres)	Street Pavement	6.6%	88,038 ft²	(2.0211 acres)
Driveways	7.2%	96,207 ft²	(2.2086 acres)	Single Family Home	14.3%	191,595 ft²	(4.3984 acres)
Pervious	68.5%	918,499 ft²	(21.0858 acres)				



Site Area: 1,340,729 ft² (30.7789 acres)

Remaining Site	-0.4%	-5,831 ft²	(-0.1339 acres)
Detention Basins	8.7%	116,611 ft²	(2.6770 acres)
Public Right-of-Way	11.4%	152,683 ft²	(3.5051 acres)
Park and Common Area	25.2%	337,664 ft²	(7.7517 acres)
Home Sites	55.2%	739,602 ft²	(16.9789 acres)

Landmark Engineering Group, Inc.

LandMentor

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CITY OF COLUMBIA
TENNESSEE

WASTEWATER DEPARTMENT

3 February 2026

Blake Seeberger
KCS Property, LLC
1985 Ridgecrest Dr
Columbia, TN 38401-7272

RE: 6218 Cayce Lane, Columbia, TN 38401; Cayce Place

Blake,

This letter serves as confirmation that the City of Columbia Wastewater Department has the available capacity to service the subject development. Any extension to the existing sewer infrastructure will be initiated by the owner/developer, reviewed by our department and approved by the State of Tennessee. The project must be advanced in accordance with local, state and federal rules, regulations and policies. Funding and construction of those improvements will remain the responsibility of the owner/developer. New customers will be required to pay all fees applicable at the time of connection. Any Final Plat approval and Dedication are both subject to installation and function, as determined by our Department. No detailed design plan for an extension of the sewer has been proposed at this time.

Donnie Boshers, Director
City of Columbia, TN
Wastewater Department

File No.: 2022-06-269 Agent ID: 6354.1.72.42

LEGAL DESCRIPTION - EXHIBIT A

Being in the Ninth (9th) Civil District of Maury County Tennessee in the city limits of Columbia Tennessee.

Beginning at a point in the center of the CSX Railroad, said point is located S 40°41'33" W a distance of 115.2" from an old concrete mile marker post (235).

Thence with the center of the railroad S 48°04'58" W a distance of 176.44; Thence with a curve with an arc length of 1528.36 with a radius of 5674.41 with a chord bearing of S 56°08'55" W with a chord length of 1523.75 to a point in the center of the railroad; Thence leaving the railroad and running with the land of the TDOT 34th District N 35° 24'00" W a distance of 34.15 to a iron pin set in an old fence running parallel to the railroad; Thence N 35°24'00" W a distance of 277.37 to a 1 1/2" pipe; Thence S 72°54'07" W a distance of 373.75 to a iron pin set in the East line of Cayce Lane; Thence running with the east line of Cayce Lane N 07°14'55" E a distance of 1061.62 to a iron pin set. Thence leaving Cayce Lane and running with the line of Goodman S 82°42'14" E a distance of 1770.04 to a iron pin set at an old Wood Fence Post; Thence S 82°42'14"E a distance of 45.13 to the point of beginning having an area of 30.76.

Being the same property conveyed to KCS Property LLC, a Tennessee Limited Liability Company by virtue of a deed recorded on September 30, 2022 at 10:42am as Instrument #22018670 in Book R2877, Page 600 in the official records of the Maury County Register of Deeds.

6218 Cayce Lane Statement of Compliance with Comprehensive Plan

CONSISTENCY with the COMPREHENSIVE PLAN:

Suburban Neighborhood: The future land use of the subject property is Suburban Neighborhood. The classification is characterized by residential neighborhoods with limited intermixed and compatible civic uses. The requested CD-3L zoning designation is consistent with the Suburban Neighborhood future land use classification.

Review of Section 8.5.19.H.4 in relation to this request finds the following:

Whether the Rezoning is consistent and not in conflict with the Comprehensive Plan or other applicable approved local plans for the area; The subject property has a future land use classification of Suburban Neighborhood (Connect Columbia Map 4). The proposed change, from a low-density CD-2 rural character district to a medium-density CD-3L neighborhood character district, is consistent with the Suburban Corridor future land use classification (Connect Columbia p.22; Table 3.7.1 p.36 and 86 of Zoning Ordinance; Table 4.3.1-C, p. 66). The property is not located in an Area of Change (Connect Columbia Map 3), meaning that in 2017-2018, the Planning Commission determined that the development pattern was established and changes to overall character of the area should rarely occur.

Michael Shamsie, P.E.

May 7th 2026
Date

May 14th 2026

Description of Requested Zone

30.67 Acres
6218 Cayce Lane
Columbia, TN

The requested zoning is CD-3L Suburban Neighborhood which is compatible with the surrounding residential properties and subdivisions. The 30.67 acres has one structure on it and will developed with approximately 44 homes which is in accordance with CD-3L zoning.

Michael Shamsie, P.E.

800 S James M. Campbell Blvd Preliminary/ Final Plat

Project #:	26-0209	Location:	800 S James. M. Campbell Blvd.
Applicant:	Jeff K. Kimbro, PLS	Case Type(s):	Preliminary/Final Plat
Staff Planner:	Austin Brass, AICP	Proposed Use:	Valvoline Oil

PROJECT SUMMARY

The applicant requests approval of a Preliminary Plat and Final Plat to create a new lot for the future construction of a Valvoline Quick Service Oil Change facility. The proposed parcel will be created from residual open space within the Columbia Center development and will consist of approximately 21,257 square feet. The property is zoned CD-4C (*General Urban Corridor-Character District*). Frontage for the new lot will be provided by an internal drive thoroughfare that was previously platted as part of the overall development.

- Planning Commission approved a Final Plat for existing drive sections to be platted as a throughfare type of Internal Drive for future subdividing of the overall Columbia Center Site Development Plan on July 9, 2025. This Final Plat was formally recorded on August 28, 2025.
- The lot proposed with the Preliminary and Final Plat meet all standards for lot width and enfrontment within a CD-4C District.
- CPWS issued a water availability letter for the proposed use in association with this plat on June 18, 2026, that remains valid until December 18, 2026. Likewise, a Wastewater will serve letter has been issued on July 13, 2026.
- Full technical comments, along with the applicant's responses, are provided in the agenda packet.
- The Planning Commission is the **Decision-Making Authority** for this Preliminary & Final Plat.
- Templates are provided at the end of the report to assist the Planning Commission in crafting properly formatted motions.

SITE INFORMATION

CURRENT ZONING	EXISTING USE	EXISTING IMP.	LAND AREA
CD-4C	Vacant	Infrastructure for Development	0.488 +/- acres



FUTURE LAND USE MAP (CCUV)	ZONING MAP (CD-4C)





SITE CONTEXT/ADJACENT PROPERTIES			
	Future Land Use	Zoning	Current Use
Subject Property	City Center Urban Village	CD-4C	Vacant/Developing
North	City Center Urban Village	CD-4C	Retail/ Commercial
South	City Center Urban Village	CD-4C	Retail/ Commercial
East	City Center Urban Village	CD-4C	Retail/ Commercial
West	City Center Urban Village	CD-4C	Retail/ Commercial

CONFORMITY WITH ZONING ORDINANCE

The subject site is being created from residual space as part of the Columbia Center Development (former Columbia Mall). The Preliminary and Final Plat conforms to the Subdivision Regulations as well as the CD-4C standards of the Zoning Ordinance.

REVIEW PROCESS

The Development Review Committee evaluated the proposed Preliminary/Final Plat at its July 2026 meeting, as directed by section **8.3.7** of the Zoning Ordinance. Technical comments are provided in the agenda package and summarized above.

Section **8.5.24** of the Zoning Ordinance directs the Planning Commission to review Subdivision Plats for conformity with the standards of the Ordinance and the City Subdivision Regulations. The Ordinance indicates that all Preliminary and Final Plats must be prepared, submitted, reviewed and acted upon in accordance with the Subdivision Regulations.

The Planning Commission is the Decision-Making Authority for Final Plats under **§ 8.3.3.B.1** of the Zoning Ordinance and **§ 2.3** of the Subdivision Regulations.

Section **2.2.6** of the Subdivision Regulations establishes the review criteria for approval of Preliminary Plats.

> *Recommendations and final action on a Preliminary Plat shall be based on consideration of the following criteria:*
>
> *A. Whether the proposed Preliminary Plat complies with the applicable zoning district and overlay districts;*

B. Whether the proposed Preliminary Plat is consistent with all standards of these Subdivision Regulations and other related codes and ordinances enforced by the City; and

C. Whether the CMPC determines that the particular site is suitable for the type of platting and development proposed.

In the event of a denial, **§ 2.2.5** of the Subdivision Regulations requires the Planning Commission to identify the specific parts of applicable plans and regulations with which the plat does not comply.

Section **2.3.6** of the Subdivision Regulations establishes the review criteria for approval of Final Plats.

A. Recommendations and final action on a Final Plat shall be based on consideration of the following criteria:

1. Whether the proposed Final Plat complies with the applicable zoning district and overlay districts;

2. Whether the proposed Final Plat is consistent with all standards of these Subdivision Regulations and other related codes and ordinances enforced by the City; and

3. Whether the proposed Final Plat meets all the requirements or conditions of any applicable development approvals, such as development plans or associated modification of standards.

In the event of a denial, **§ 2.3.5** of the Subdivision Regulations requires the Planning Commission to identify the specific parts of applicable plans and regulations with which the plat does not comply.

SAMPLE MOTIONS

Approve:

Move to approve the Preliminary/Final Plat as presented and find that the plat conforms to the applicable zoning ordinance, the Subdivision Regulations, and the Preliminary/Final Plat [subject to remaining technical comments from staff].

Approve with Conditions:

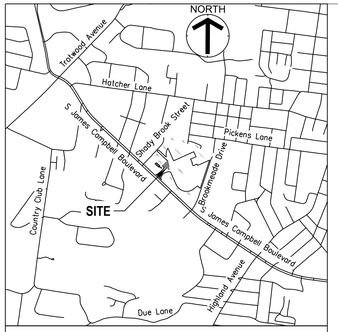
Move to approve the Preliminary/Final Plat as presented and find that the plat conforms to the applicable zoning ordinance, the Subdivision Regulations, and the Preliminary/Final Plat, subject to the following conditions: [list conditions of approval crafted by Planning Commission].

Defer for Continued Review:

Move to find that there is insufficient information to make a decision, defer the application for continued review, and request that the applicant provide: [list additional information] for review at the next regularly scheduled meeting of the Planning Commission.

Deny:

Move to find that the Preliminary/Final Plat as presented does not conform to the applicable zoning ordinance, the Subdivision Regulations, or the approved Preliminary Plat, and deny the request due to [list specific deficiencies].



VICINITY MAP - NOT TO SCALE

LAT / LONG: N035.597957 / W087.056875

CURVE TABLE				
Curve	Delta	Radius	Arc Length	Chord
C1	45° 00' 09"	318.00'	249.77'	N10° 38' 41"E, 243.40'
C2	16° 03' 07"	318.00'	89.09'	N41° 10' 17"E, 88.80'
C3	4° 31' 33"	316.82'	25.03'	S54° 53' 20"W, 25.02'
C4	45° 12' 53"	316.82'	250.02'	S79° 43' 34"W, 243.58'
C5	54° 11' 24"	316.28'	299.14'	N50° 37' 46"W, 288.11'
C6	76° 51' 35"	45.00'	60.37'	N62° 02' 09"W, 55.94'
C7	36° 12' 54"	233.22'	147.41'	S61° 15' 37"W, 144.97'
C8	6° 57' 32"	145.00'	17.61'	S25° 29' 25"W, 17.60'
C9	48° 07' 50"	45.00'	37.80'	S1° 38' 51"E, 36.70'
C10	11° 17' 01"	145.00'	28.56'	S31° 45' 05"E, 28.51'
C11	57° 18' 29"	54.30'	54.31'	S31° 06' 13"W, 52.08'
C12	74° 54' 02"	25.00'	32.68'	N74° 14' 56"W, 30.40'
C13	43° 05' 11"	35.00'	26.32'	N80° 42' 01"E, 25.70'
C14	8° 51' 02"	275.00'	42.48'	N54° 43' 54"E, 42.44'
C15	16° 52' 36"	43.00'	12.67'	N40° 06' 11"E, 12.62'
C16	37° 21' 44"	49.00'	31.95'	N12° 59' 01"E, 31.39'
C17	35° 08' 20"	43.00'	26.37'	N23° 16' 00"W, 25.96'

TOPOGRAPHIC LEGEND

- Anchor Pole
- Catch Basin Square
- Communications Box
- Curb Inlet
- Electric Line Marker
- Electric Meter
- Fire Hydrant
- Gas Marker
- Guy Wire
- Light Pole
- Power Pole
- Power Telephone Light Pole
- Power Telephone Pole
- Sanitary Manhole
- Water Meter
- Water Valve
- G — Gas Line
- W — Water Line
- UGE — Underground Electric (Per Plan)
- COM — Underground Communications
- OHL — Overhead Utility Line
- STM — Storm Sewer
- SAN — Sanitary Sewer

Public Utility, Drainage & Access Easement (P.U.D.A.E.) USE NOTE:

Should P.U.D.A.E. 1 & 2 ever be utilized, either individually or collectively, by Tax Map 100N Group "L" Parcel 005.00 and/or 005.01, an Access and Maintenance Agreement should be required amongst the Property Owners. (Plat Book P24, Page 200-Register's Office of Maury County, Tennessee).

Public Utility Drainage & Access Easement (P.U.D.A.E.) 1

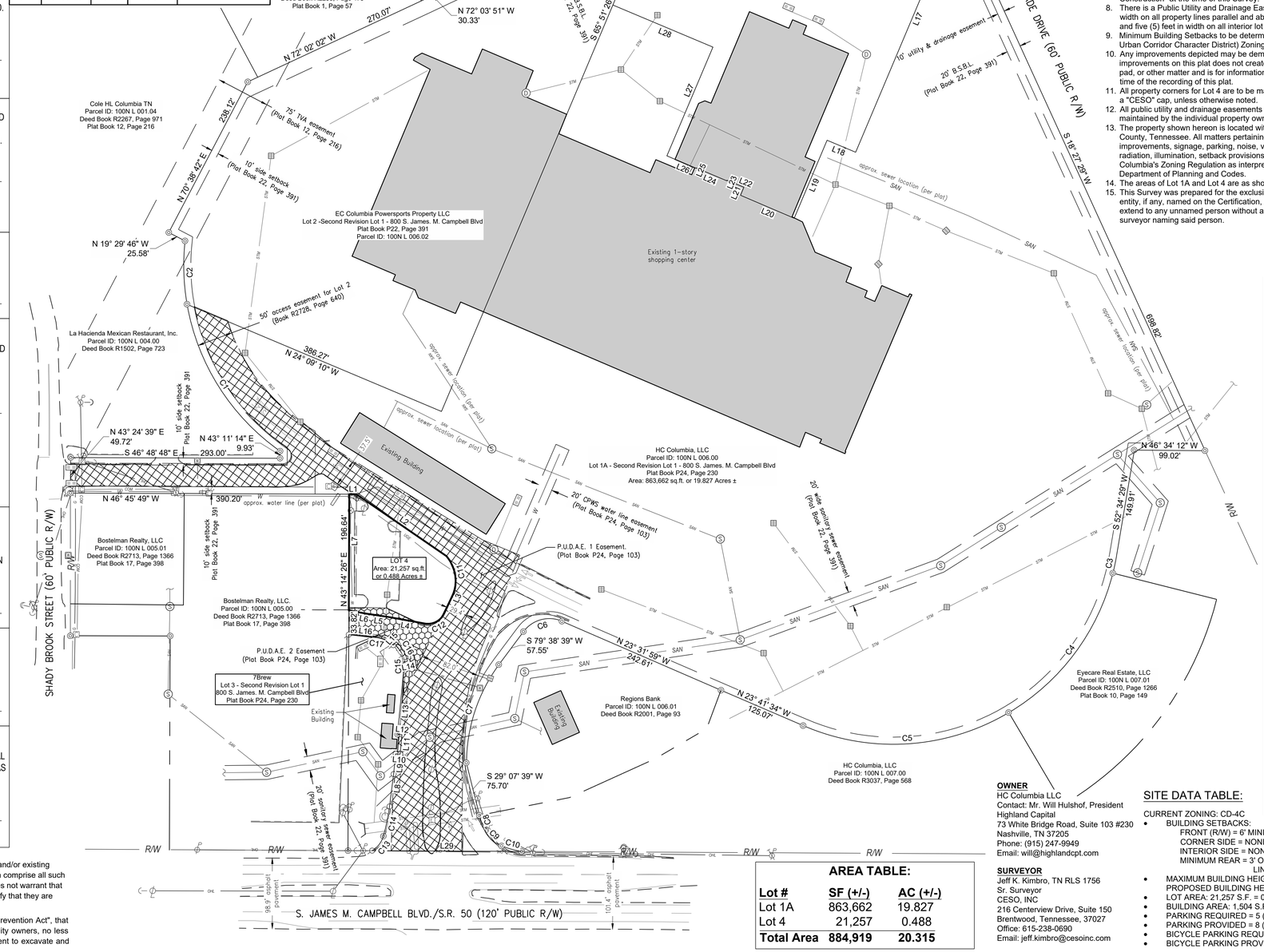
Public Utility Drainage & Access Easement (P.U.D.A.E.) 2

SURVEY LEGEND

- Iron Pin Found
- Mag Nail Found

BASIS OF BEARINGS
Tennessee Grid North
Horizontal Datum - NAD83
Vertical Datum - NAVD88
(TDOT CORS NETWORK)

80 0 80
GRAPHIC SCALE (IN FEET)



LINE TABLE		
Line #	Direction	Length
L1	S46° 45' 49"E	10.00'
L2	S12° 29' 01"E	152.52'
L3	S67° 54' 19"W	32.73'
L4	N36° 47' 55"W	52.53'
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L21	N65° 45' 51"E	12.04'
L22	N24° 07' 31"W	25.50'
L23	S65° 52' 29"W	0.81'
L24	N24° 10' 17"W	46.53'
L25	S66° 00' 31"W	0.50'
L26	N23° 59' 29"W	44.36'
L27	N65° 57' 03"E	165.34'
L28	N24° 10' 02"W	151.87'
L29	N46° 42' 21"W	208.79'

SURVEYOR'S CERTIFICATE

I (WE) HEREBY CERTIFY THAT TO THE BEST OF MY (OUR) KNOWLEDGE AND BELIEF THIS IS A TRUE AND ACCURATE SURVEY OF THE PROPERTY SHOWN HEREON; THAT THIS IS A CATEGORY I LAND SURVEY AS DEFINED IN TITLE 62, CHAPTER 18, TENNESSEE CODE ANNOTATED, AND THAT THE RATIO OF PRECISION IS GREATER THAN OR EQUAL TO 1:10,000.

JEFFREY K. KIMBRO, TN RLS No. 1756 — DATE: July 17, 2026
SR. SURVEYOR, CESO, INC.
EMAIL: jeff.kimbro@cesoinc.com

CERTIFICATE OF OWNERSHIP AND DEDICATION

I (WE) HEREBY CERTIFY THAT I AM (WE ARE) THE OWNER(S) OF THE PROPERTY SHOWN AND DESCRIBED HEREON AS EVIDENCED IN BOOK xxxx, PAGE xxx, MAURY COUNTY REGISTER'S OFFICE, AND ADOPT THIS FINAL SUBDIVISION PLAT OF THE PROPERTY AS SHOWN HEREON.

HC COLUMBIA, LLC — DATE

NAME

CERTIFICATE OF SUBDIVISION NAME AND STREET NAMES

SUBDIVISION NAME AND STREET NAMES APPROVED BY THE CITY ENGINEERING DEPARTMENT AND BY E-911 MAURY COUNTY.

MAURY COUNTY E-911 — DATE

CERTIFICATE OF APPROVAL OF WATER SYSTEM

I HEREBY CERTIFY THAT THE WATER SYSTEM(S) OUTLINED OR INDICATED ON THIS FINAL SUBDIVISION PLAT HAS/HAVE BEEN INSTALLED IN ACCORDANCE WITH CURRENT LOCAL AND STATE GOVERNMENT REQUIREMENTS, OR A SUFFICIENT BOND OR OTHER SURETY HAS BEEN FILED TO GUARANTEE SAID INSTALLATION.

NAME — DATE

TITLE

COLUMBIA POWER & WATER SYSTEMS

CERTIFICATE OF APPROVAL FOR RECORDING

I HEREBY CERTIFY THAT THE FINAL SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE CITY OF COLUMBIA SUBDIVISION REGULATIONS, WITH THE EXCEPTION OS SUCH VARIANCES, IF ANY, AS NOTED IN THE MINUTES OF THE COLUMBIA MUNICIPAL PLANNING COMMISSION, AND THAT IT HAS BEEN APPROVED FOR RECORDING IN THE OFFICE OF THE MAURY COUNTY REGISTER OF DEEDS.

PLANNING DIRECTOR - COLUMBIA, TENNESSEE — DATE

CERTIFICATE OF COMPLIANCE

I HEREBY CERTIFY THAT THE FINAL SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE CITY OF COLUMBIA SUBDIVISION REGULATIONS AND OTHER ADOPTED ORDINANCES AND POLICIES.

CITY ENGINEER - COLUMBIA, TENNESSEE — DATE

CERTIFICATE OF SANITARY SEWER SYSTEM

I HEREBY CERTIFY THAT THE SANITARY SEWER SYSTEM OUTLINED OR INDICATED ON THIS FINAL SUBDIVISION PLAT HAS BEEN INSTALLED IN ACCORDANCE WITH THE CURRENT LOCAL AND STATE GOVERNMENT REQUIREMENTS, OR A SUFFICIENT BOND OR OTHER SURETY HAS BEEN FILED TO GUARANTEE SAID INSTALLATION.

DIRECTOR OF WASTEWATER DEPARTMENT COLUMBIA, TENNESSEE — DATE

UTILITY DISCLAIMER

The utilities shown hereon have been located from field survey information and/or existing drawings. The surveyor makes no guarantee that the utilities located hereon comprise all such utilities in the area, either in service or abandoned. The surveyor further does not warrant that the utilities located are in the exact location indicated although he does certify that they are located as accurately as possible from information available.

In Tennessee, it is a requirement, per "The Underground Utility Damage Prevention Act", that anyone who engages in excavation must notify all known underground utility owners, no less than three (3) or more than (10) working days prior to the date of their intent to excavate and also to avoid any possible hazard or conflict. Tennessee One Call 811.

AREA TABLE:		
Lot #	SF (+/-)	AC (+/-)
Lot 1A	863,662	19.827
Lot 4	21,257	0.488
Total Area	884,919	20.315

OWNER
HC Columbia LLC
Contact: Mr. Will Hulshof, President
Highland Capital
73 White Bridge Road, Suite 103 #230
Nashville, TN 37205
Phone: (915) 247-9949
Email: will@highlandcpt.com

SURVEYOR
Jeff K. Kimbro, TN RLS 1756
Sr. Surveyor
CESO, INC
216 Centerview Drive, Suite 150
Brentwood, Tennessee, 37027
Office: 615-238-0690
Email: jeff.kimbro@cesoinc.com

SITE DATA TABLE:

CURRENT ZONING: CD-4C

- BUILDING SETBACKS:
  - FRONT (R/W) = 6' MINIMUM, 40' MAXIMUM
  - CORNER SIDE = NONE STATED
  - INTERIOR SIDE = NONE
  - MINIMUM REAR = 3' OR 15' MINIMUM FROM CENTER LINE OF REAR ALLEY
- MAXIMUM BUILDING HEIGHT ALLOWED = 4 STORIES
- PROPOSED BUILDING HEIGHT PROVIDED = 1 STORY
- LOT AREA: 21,257 S.F. = 0.488 ACRES
- BUILDING AREA: 1,504 S.F. (GROSS AREA)
- PARKING REQUIRED = 5 (1 ACCESS. PARKING SPACES)
- PARKING PROVIDED = 8 (1 ACCESS. PARKING SPACES)
- BICYCLE PARKING REQUIRED = 0
- BICYCLE PARKING PROVIDED = 2

SURVEYOR NOTES:

1. The purpose of this Plat is to create one (1) lot (Lot 4).
2. The Tennessee State Plane Coordinates were established using Category IV Survey Methods and was done in compliance with the Tennessee Standards of Practice, Rule 0820-03-..11 as adopted by the Tennessee Board of Examiners for Land Surveyors. RTK GPS positional data was observed 02/2026 utilizing a multi-frequency receiver. The grid coordinates are expressed in the Tennessee State Plane Coordinate System, Zone 5301, Fipszone 4100 (NAD 83), derived using a VRS network of CORS stations referenced to NAD83 (2011)epoch 2010), geoid 18. Positional accuracy of the GPS vectors does not exceed: Horizontal = 0.02'; Vertical = 0.05'.
3. No title opinion is expressed or implied. Additional easements beyond those shown on this work may exist.
4. The elements shown on the remainder of Lot 1A, Lot 1B, and Lot 2 were not field surveyed and have been graphically depicted from record data and information provided to surveyor by client, and City of Columbia. Lots 1A and 1B shall be considered a remainder composite sketch. The Final Plat entitled: "Second Revision Lot 1 - 800 South James M. Campbell Boulevard" as recorded in Plat Book P24, Page 230 in the Register's Office of Maury County, Tennessee should be referred to for any pertinent information regarding Lot 1A, and/or Lot 1B.
5. The utilities shown on Lot 4 are located from field survey information and/or existing drawings supplied by client and the City of Columbia. All other utilities shown are based on previously recorded Plats. The surveyor makes no guarantee that the utilities located comprise all such utilities in the area, either in service or abandoned. The surveyor further does not warrant that the utilities located are in the exact location indicated although the surveyor does certify that they are located as accurately as possible from information available. For utility lines or service locations on private property CESO recommends contracting a private underground utility location service. Utilities were marked by a 3rd party utility locating service; The Underground Detective Utility Locate Scan WO# 00025744 dated 9/9/2025.
6. Parcel is located within Zone "X" (Area of Minimal Flood Hazard) as indicated by the Flood Insurance Rate Map (FIRM) Number 47119C0285E, effective date: 4/16/2007, published by the Federal Emergency Management Agency.
7. Lots 3 & 4 along with the areas immediately adjacent were "Under Construction" at the time of this Survey.
8. There is a Public Utility and Drainage Easement (PUDE) ten (10) feet in width on all property lines parallel and abutting public roads or rights-of-way, and five (5) feet in width on all interior lot lines.
9. Minimum Building Setbacks to be determined by the current CD-4C (General Urban Corridor Character District) Zoning Classification.
10. Any improvements depicted may be demolished. The depiction of any improvements on this plat does not create any easement, setback, building pad, or other matter and is for informational purposed only as of the date and time of the recording of this plat.
11. All property corners for Lot 4 are to be marked with 5/8" diameter rebar with a "CESO" cap, unless otherwise noted.
12. All public utility and drainage easements located on proposed lots are to be maintained by the individual property owner for said lot.
13. The property shown hereon is located within the City of Columbia, Maury County, Tennessee. All matters pertaining to construction, use, location of improvements, signage, parking, noise, vibration, emissions, fire hazards, radiation, illumination, setback provisions, etc. are subject to the City of Columbia's Zoning Regulation as interpreted and regulated by the Department of Planning and Codes.
14. The areas of Lot 1A and Lot 4 are as shown hereon.
15. This Survey was prepared for the exclusive use of the person, persons, or entity, if any, named on the Certification, hereon. Said Certificate does not extend to any unnamed person without an express re-certification by the surveyor naming said person.

CESO
WWW.CESOINC.COM
216 Centerview Dr., Suite 150
Brentwood, TN 37027
Phone: 615.928.5120 Fax: 888.208.4826

JEFFREY K. KIMBRO REGISTERED LAND SURVEYOR TENNESSEE No. 1756 July 17, 2026

Final Plat
City of Columbia Item No. 26-0209

Fourth Revision-Lot 1
800 South James M. Campbell Boulevard

800 South James M. Campbell Boulevard
Columbia, Maury County, Tennessee

Revisions / Submissions

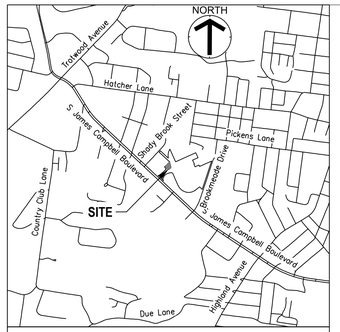
ID	Description	Date
1	Addressed Comments.	07/07/2026
2	Addressed Comments per DRC.	07/17/2026

© 2026 CESO, INC.

Project Number:	767022
Scale:	1" = 80'
Drawn By:	CDV/jkK
Checked By:	jkK
Date:	July 17, 2026
Issue:	

Drawing Title:
Final Plat

1 of 1



VICINITY MAP - NOT TO SCALE

LAT / LONG: 35.597957 / -87.056875

CURVE TABLE				
Curve	Delta	Radius	Arc Length	Chord
C1	45° 00' 09"	318.00'	249.77'	N10° 38' 41"E, 243.40'
C2	16° 03' 07"	318.00'	89.09'	N41° 10' 17"E, 88.80'
C3	4° 31' 33"	316.82'	25.03'	S54° 53' 20"W, 25.02'
C4	45° 12' 53"	316.82'	250.02'	S79° 43' 34"W, 243.58'
C5	54° 11' 24"	316.28'	299.14'	N50° 37' 46"W, 288.11'
C6	76° 51' 35"	45.00'	60.37'	N62° 02' 09"W, 55.94'
C7	36° 12' 54"	233.22'	147.41'	S61° 15' 37"W, 144.97'
C8	6° 57' 32"	145.00'	17.61'	S25° 29' 25"W, 17.60'
C9	48° 07' 50"	45.00'	37.80'	S1° 38' 51"E, 36.70'
C10	11° 17' 01"	145.00'	28.56'	S31° 45' 05"E, 28.51'
C11	57° 18' 29"	54.30'	54.31'	S31° 06' 13"W, 52.08'
C12	74° 54' 02"	25.00'	32.68'	N74° 14' 56"W, 30.40'
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TOPOGRAPHIC LEGEND

- Anchor Pole
- Catch Basin Square
- Communications Box
- Curb Inlet
- Electric Line Marker
- Electric Meter
- Fire Hydrant
- Gas Marker
- Guy Wire
- Light Pole
- Power Pole
- Power Telephone Light Pole
- Power Telephone Pole
- Sanitary Manhole
- Water Meter
- Water Valve

- G — Gas Line
- W — Water Line
- UGE — Underground Electric (Per Plan)
- UE — UE — Underground Electric Service (Proposed)
- COM — Underground Communications
- OHL — Overhead Utility Line
- STM — Storm Sewer
- SAN — Sanitary Sewer

SURVEY LEGEND

- Iron Pin Found
- Mag Nail Found

Public Utility, Drainage & Access Easement (P.U.D.A.E.) USE NOTE:

Should P.U.D.A.E. 1 & 2 ever be utilized, either individually or collectively, by Tax Map 100N Group "L" Parcel 005.00 and/or 005.01, an Access and Maintenance Agreement should be required amongst the Property Owners.

Public Utility Drainage & Access Easement (P.U.D.A.E.) 1

Public Utility Drainage & Access Easement (P.U.D.A.E.) 2

SURVEYOR NOTES:

1. The purpose of this Plat is to create one (1) lot (Lot 4).
2. The Tennessee State Plane Coordinates were established using Category IV Survey Methods and was done in compliance with the Tennessee Standards of Practice, Rule 0820-03-.11 as adopted by the Tennessee Board of Examiners for Land Surveyors. RTK GPS positional data was observed 02/2026 utilizing a multi-frequency receiver. The grid coordinates are expressed in the Tennessee State Plane Coordinate System, Zone 5301, Fipszone 4100 (NAD 83), derived using a VRS network of CORS stations referenced to NAD83 (2011)(epoch 2010), geoid 18. Positional accuracy of the GPS vectors does not exceed: Horizontal = 0.02'; Vertical = 0.05'.
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7. The Partial Topographic Survey Area depicted hereon was "Under Construction" during the course of this Survey.
8. There is a Public Utility and Drainage Easement (PUDE) ten (10) feet in width on all property lines parallel and abutting public roads or rights-of-way, and five (5) feet in width on all interior lot lines.
9. Minimum Building Setbacks to be determined by the current CD-4C (General Urban Corridor Character District) Zoning Classification.
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14. The areas of Lot 1A and Lot 4 are as shown hereon.
15. This Survey was prepared for the exclusive use of the person, persons, or entity, if any, named on the Certification, hereon. Said Certificate does not extend to any unnamed person without an express re-certification by the surveyor naming said person.

SITE DATA TABLE:

CURRENT ZONING: CD-4C

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  - FRONT (R/W) = 6' MINIMUM, 40' MAXIMUM
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  - INTERIOR SIDE = NONE
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- BUILDING AREA: 1,504 S.F. (GROSS AREA)
- PARKING REQUIRED = 5 (1 ACCESS. PARKING SPACES)
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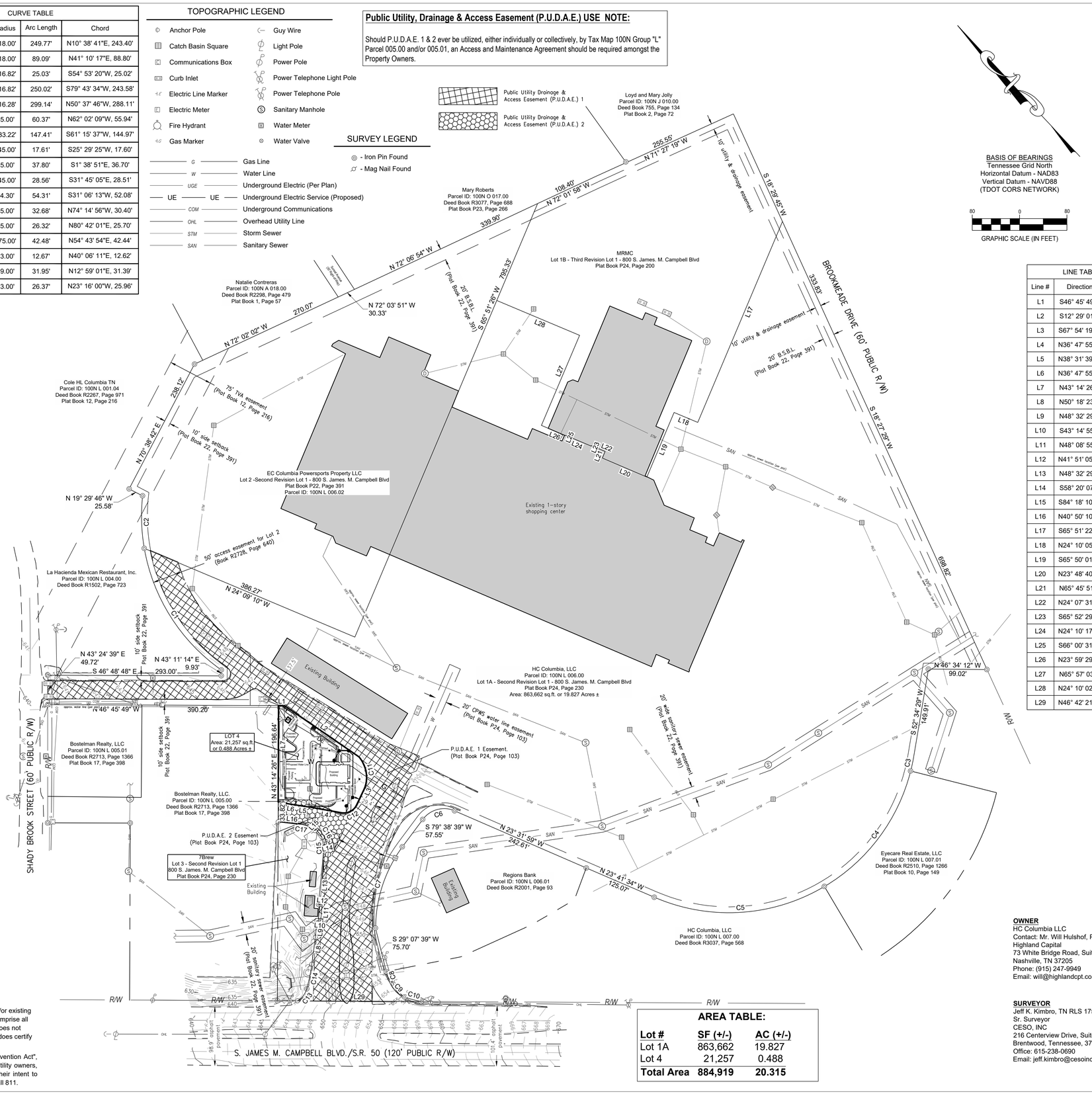

AREA TABLE:		
Lot #	**SF (+/-)**	**AC (+/-)**
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Lot 4	21,257	0.488
Total Area	**884,919**	**20.315**

BASIS OF BEARINGS
Tennessee Grid North
Horizontal Datum - NAD83
Vertical Datum - NAVD88
(TDOT CORS NETWORK)

80 0 80

GRAPHIC SCALE (IN FEET)

LINE TABLE		
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L27	N65° 57' 03"E	165.34'
L28	N24° 10' 02"W	151.87'
L29	N46° 42' 21"W	208.79'

OWNER
HC Columbia LLC
Contact: Mr. Will Hulshof, President
Highland Capital
73 White Bridge Road, Suite 103 #230
Nashville, TN 37205
Phone: (915) 247-9949
Email: will@highlandcpt.com

SURVEYOR
Jeff K. Kimbro, TN RLS 1756
Sr. Surveyor
CESO, INC
216 Centerview Drive, Suite 150
Brentwood, Tennessee, 37027
Office: 615-238-0690
Email: jeff.kimbro@cesoinc.com

CESO
WWW.CESOINC.COM
216 Centerview Dr., Suite 150
Brentwood, TN 37027
Phone: 615.928.5120 Fax: 888.208.4826

Preliminary Plat
City of Columbia Item No. 26-0209

Fourth Revision-Lot 1
800 South James M. Campbell Boulevard

800 South James M. Campbell Boulevard
Columbia, Maury County, Tennessee

Revisions / Submissions

ID	Description	Date
1	Addressed Comments.	07/08/2026

© 2026 CESO, INC.

Project Number:	767022
Scale:	1" = 80'
Drawn By:	CDV/jkK
Checked By:	jkK
Date:	July 8, 2026
Issue:	Resubmittal

Drawing Title:
Preliminary Plat

1 of 1

July 17, 2026

City of Columbia Item No. 26-0209

"Fourth Revision Lot 1 – 800 South James M. Campbell Boulevard"

RESPONSES TO 07/14/2026 COMMENTS:

TO: City of Columbia
FROM: CESO, Inc.
Jeff K. Kimbro, PLS, CFS
216 Centerview Drive, Suite 150
Brentwood, Tennessee 37027
(615) 238-0690 jeff.kimbro@cesoinc.com

City of Columbia Comments (July 14, 2026):

CESO Responses (July 17, 2026):

Engineering

1. Final Plat approval shall be subject to filing and recording the plat with the County Register within sixty (60) calendar days after final action. Failure to file and record the plat within sixty (60) calendar days, shall void any final action on the plat.
   - Acknowledged.
2. Remove proposed structures from the final plat
   - Removed proposed structures and features from Final Plat, as requested.

Fire

3. No Comments.
   - Acknowledged.

Planning

4. The lead staff person will be Austin Brass, City Planner *abrass@columbiatn.gov*.
   - Acknowledged

5. Upload all responses to comments by resubmittal date.

- Acknowledged. The attached responses to comments will be uploaded with the revised Final Plat by the resubmittal date, as requested.

6. Provide a preliminary plat and a final plat. Preliminary and Final plat needs to reflect the preliminary plat requirements found in the City of Columbia subdivision.

- This Resubmittal to include the previously submitted Preliminary Plat adhering to Section 2.2.8 Contents of the Preliminary Plat Submittal and a revised Final Plat adhering to Section 2.3.10 Contents of the Final Plat Submittal including addressing the necessary comments, as requested.

7. Please provide as wastewater will serve letter.

- Wastewater will serve letter received from City of Columbia Wastewater Department (dated: July 13, 2026) to be included with this submittal, as requested.

Maury County Schools

8. No Comment. Attached are enrollment/capacity numbers.

- Acknowledged.

Public Works

9. Please see the attached City of Columbia Dumpster Guidelines & Accessibility Requirements.

- Acknowledged.

10. Private sanitation services may be utilized.

- Acknowledged.

11. Please see the attached City of Columbia Dumpster Guidelines & Accessibility Requirements. Private sanitation services may be utilized.

- Acknowledged.

12. DUMPSTER GUIDELINES AND ACCESSIBILITY REQUIREMENTS
DUMPSTER AND COMPACTOR STANDARDS
GENERAL
All requirements for collection and accessibility to containers apply, regardless of whether collection is public or private.

GUIDELINES FOR DUMPSTERS

The number and capacity of dumpsters must be adequate to serve the disposal needs of the business, development or complex. Collection must occur at least one time per week, with special approval needed for every other week (EOW) collection. Each dumpster must be easily accessible, as determined by the Public Works Department, and of a size compatible with equipment of the department. If the dumpster is in an enclosed area, there must be at least 2 feet and 6 inches of clearance on each side of the dumpster.

DUMPSTER PAD REQUIREMENTS

1. The concrete dumpster pad shall be at least 12 feet by 12 feet.
2. The pad(s) shall be 8-inch-thick concrete, reinforced with rebar to support a 30-ton loadbearing capacity.
3. A 14-foot-wide by 40-foot-long straight and clear access approach to each dumpster for the truck is required.
4. Clearance at each side of the dumpster must be at least 2 feet and 6 inches.
5. If a gated enclosure is utilized, the gates must be lockable in the open position to prevent the gates from swinging into the path of the truck during servicing.

- Acknowledged.

13. 6. Two 6-inch diameter concrete filled steel bollards must be placed in the concrete pad to the rear of each dumpster, 2 feet from the back edge of the dumpster pad, spaced 4 feet apart and centered side to side. The bollards will rise 6 feet above the pad and extend 32 inches below the pad into the concrete footers.
7. If the box is enclosed, it is recommended that there be pedestrian access in addition to service gates.
8. Access area, approach and pad must be level.
9. Standard pads with no drain should be elevated approximately 1-1/2 inches above the surrounding pavement.

ACCESSIBILITY REQUIREMENTS FOR DUMPSTERS AND COMPACTORS

1. Access must accommodate a 40-foot-long truck, with a 45-foot turning radius. Circular movement through the complex for the vehicles is highly recommended.
2. The collection truck shall not be required to back-up for no more than 200 feet.
3. No backing into or across a public right-of-way.

4. No overhead obstructions at waste handling or access area. Refuse collection trucks need a minimum of a 25-foot vertical clearance to service containers.
5. Heavy duty pavement is required for the collection truck's path through the complex. City of Columbia Public Works will not be responsible for the repair of asphalt or concrete which has been damaged due to normal usage.
6. Gates must be unlocked and open for collection.

- Acknowledged.

ATT

14. No comment.

- Acknowledged.

Columbia Water

15. July DRC Comment: A water availability letter was issued on June 18, 2026, it remains valid until December 18, 2026. The availability of capacity to serve is based on a determination by the Fire Marshal of fire flow requirements and the information submitted on the Water Service Availability Request application. Any off-site improvements detailed in the availability letter are the responsibility of the developer/owner. All public water system improvements are subject to the preparation and approval of detailed construction plans prepared in accordance with CPWS and Tennessee Department of Environment and Conservation requirements.
(Access and Circulation)

- Acknowledged.

City Attorney

16. No comments provided.

- Acknowledged.

Police

17. No comments provided.

- Acknowledged.

Building

18. No comments.

- Acknowledged.

Columbia Power

19. Columbia Power System has an existing power line near your proposed development. We are willing to serve this new development subject to all Columbia Power System policies and procedures in effect at actual time service is rendered provided an approved final plat and complete electrical load information is furnished as soon as possible prior to start of actual construction. Unfortunately, due to current supply chain challenges, no timeframe can be guaranteed regarding the availability of meters or transformers appropriate for your development.

- Acknowledged.

Duck River Electric Membership Corp

20. No comment.

- Acknowledged.

Maury County Highway Dept.

21. No comment.

- Acknowledged.

Atmos Energy

22. No comments provided.

- Acknowledged.

Maury County E911

23. No comments provided.

- Acknowledged.

Resubmittal Guidelines

Please provide a comment response letter as well as digital copies of revised plans and supporting documentation. Submit all required documents electronically through the online portal: columbia.onlama.com. If the files are oversized, please provide a file sharing link.

Please contact the case planner identified in the Planning Comments with any questions about the review process.

Please contact pkeltner@columbiatn.gov or srichardson@columbiatn.gov if you encounter difficulties with the online portal.

You will receive an invoice for required advertising and mailing fees. All fees must be paid by the Friday following resubmittal in order advance to the Planning Commission agenda.

NOTE: All resubmittals must demonstrate compliance with city standards prior to Planning Commission review. Requests which do not adhere to regulations and/or remain unresponsive to technical comments will not be forwarded to the next agenda until such items are amended. Final Plat applications which are not ready to proceed to Planning Commission following the first resubmittal deadline will be added to the following DRC agenda to confirm the status of required infrastructure and utilities. Applications which remain incomplete following two resubmittal deadlines will be closed.

- Acknowledged.

Please review and advise at your convenience. As always, please never hesitate to contact us if you have any questions and/or require anything further. We eagerly anticipate working with the City of Columbia to get this Plat finalized and recorded to create Lot 4.

Kindest Regards;

Jeff K. Kimbro, PLS, CFS
Senior Surveyor
CESO, Inc.
216 Centerview Drive, Suite 150
Brentwood, Tennessee 37205

CITY OF
COLUMBIA
TENNESSEE

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

DEVELOPMENT REVEW COMMITTEE MEETING
Tuesday, July 14, 2026

ITEM NO.
26-0209

DESCRIPTION: 800 S James M. Campbell Boulevard

COMMENTS:

Engineering

1. Final Plat approval shall be subject to filing and recording the plat with the County Register within sixty (60) calendar days after final action. Failure to file and record the plat within sixty (60) calendar days, shall void any final action on the plat.
2. Remove proposed structures from the final plat

Fire

3. No comments

Planning

4. The lead staff person will be Austin Brass, City Planner abrass@columbiatn.gov
5. Upload all responses to comments by resubmittal date.
6. Provide a preliminary plat and a final plat. Preliminary and Final plat needs to reflect the preliminary plat requirements found in the City of Columbia subdivision

7. Please provide as wastewater will serve letter.

Maury County Schools

8. No Comment. Attached are enrollment/capacity numbers.

Public Works

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    DUMPSTER AND COMPACTOR STANDARDS
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Department of Environment and Conservation requirements.
(Access and Circulation)

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June 18, 2026

Brian Wellert
CESO Inc.
3601 Rigby Road, Suite 300
Dayton, OH 45342
Sent via email: Brian.Wellert@cesoinc.com

RE: **Water Availability Letter** Expires: 12/18/2026
Valvoline at Columbia Mall
800 S. James Campbell Blvd.
Tax Map 100N, Group "L", Parcel 6.00
Columbia, TN

Dear Mr. Wellert:

Columbia Power & Water Systems ("the Utility"/CPWS) is a municipality authorized to provide water services in accordance with State law. CPWS has adopted rules, regulations, and standard operation procedures, prescribing the conditions under which CPWS will furnish water service. In addition, certain State laws delegate authority to the Tennessee Department of Environment and Conservation (TDEC), various Planning Commissions, and other authorities in Cities and Counties. These Cities and Counties have also adopted rules and regulations. Water service will be made available on a first-come, first-served basis, subject to the payment of all charges and fees imposed by CPWS and the approval of any and all required governmental agencies. Water service is subject to availability of all CPWS furnished equipment and materials appropriate for the development and provided the applicant complies with all rules and regulations of CPWS and conditions set out herein.

The proposed development is a 2,673 square foot commercial retail building within the City of Columbia. CPWS has evaluated the projected water demands for the proposed development in the water system hydraulic model and is able to provide domestic and fire protection service while maintaining state standards for level of service and pressures in this portion of the distribution system. CPWS can provide water for the proposed development according to the following criteria and requirements:

- This Water Availability Letter (WAL) represents a planning-level indication of current source water availability for the Phase and Unit Count described above in the proposed development project.
- Available fire flow capacity at the proposed development is 1,500 gpm.
- The above request translates to a 1.5 Single Family Unit (SFU) flow demand equivalent.

- Assumed water meters are listed below based on preliminary description of project. Actual meter count and sizes will be verified during the Design Review process.
    - One (1) Commercial Service Meter (3/4" size)
    - One (1) Landscape Irrigation Meter (3/4" size)
- Separate irrigation meters with backflow devices will be required to serve the proposed Project.
- If fire sprinkler systems are requested or required, separate fire meters with backflow devices will be required to serve the proposed Project.

All of the above requirements up to and including the meter(s) are to be constructed and paid for by the Applicant and deeded over to CPWS once complete. No construction of water infrastructure shall be initiated until final construction plans have been approved by CPWS (including TDEC approval if required).

This Water Availability Letter will expire in six months unless applicant moves into the Design Review phase by payment of New Water Service Fees. Any request for water availability after the expiration date of this letter will be considered a new application.

Once you have received this Water Availability Letter, next steps in the process to obtain water service from CPWS are as follows:

- Remit to CPWS new water service fees for plan review, TDEC coordination, and inspection as follows: $1,750 + $440 per SFU equivalent
- Applicant will prepare design drawings for review and approval by CPWS for construction of the proposed water system improvements.
    - Provide design drawings in AutoCAD and .pdf format for CPWS review of proposed development. Include design drawings for grading, drainage, roadway improvements, buried (wet and dry) utilities, water systems, surface improvements, and landscaping.
    - Once CPWS approves the Construction Drawings for the proposed system improvements, Applicant will submit proposed improvements design to TDEC for review and approval (if TDEC approval required).
    - CPWS will prepare hydraulic calculations and a Utility Approval Letter to accompany the plans submittal to TDEC.
- Current water service fees due prior to CPWS review of design plans are listed in the table below. *Note that payment of Water Service Fees will extend the expiration of this Water Availability Letter for one year, while the applicant is working with CPWS on design and review of the improvement drawings.*

New Water Service Fees	SFUs	Total
$1,750 + 440 per SFU	1.5	**$2,410**

- Upon Construction Drawing approval by CPWS, applicant may then schedule the pre-construction meeting.

- After the pre-construction meeting, CPWS will then issue a formal Notice to Proceed.
- Applicant is required to construct all public water infrastructure per CPWS standard specifications and provide CPWS personnel unregulated access to the site to inspect the construction of the water infrastructure.
- Applicant may pay Impact Fees at time of application for Building Permit.
    - Applicants will be charged Impact Fees and Meter Fees in effect at time of payment.
    - Please see CPWS website for schedule of impact fees and timing of planned fee escalations.
    - Water meters will be ordered by CPWS once meter fees are paid by the Applicant.
    - Meter fees are subject to change based on final design and the prevailing Board-approved rates at time of payment.
    - No water meters will be placed prior to payment of Impact Fees.
- An estimate of anticipated meter costs and impact fees for this project is provided below for planning purposes:

Impact Fees and Meter Costs	Number	$ / Unit	Total
¾" Service Meter Cost	1	$540	$540
¾" Irrigation Meter Cost	1	$540	$540
(6/1/26) Impact Fee for ¾" Meter	2	$6,000	$12,000
Estimate of Impact and Meter Fees =			**$13,080**

- No construction of water improvements may take place prior to the Notice to Proceed or without a CPWS inspector present.

Please feel free to contact me at 931-388-4833 x7655 or Matt.Wheeler@cpws.com if you have questions or would like to discuss.

Sincerely,

Matthew J. Wheeler, P.E.
Vice President of Water Resources, CPWS

cc: Will Hulshof, Highland Capital
Bart Anderson, CPWS
Eric King, Inflo Design Group
File 26-005

CITY OF COLUMBIA
TENNESSEE

WASTEWATER DEPARTMENT

13 July 2026

Jim Douthit
Valvoline LLC
100 Valvoline Way
Lexington, TN 40509

RE: 890 James Campbell Blvd, Columbia, TN 38401; Valvoline Instant Oil Change

Jim,

This letter serves as confirmation that the City of Columbia Wastewater Department has the available capacity to service the subject development. Any extension to the existing sewer infrastructure will be initiated by the owner/developer, reviewed by our department and approved by the State of Tennessee. The project must be advanced in accordance with local, state and federal rules, regulations and policies. Funding and construction of those improvements will remain the responsibility of the owner/developer. New customers will be required to pay all fees applicable at the time of connection. Any Final Plat approval and Dedication are both subject to installation and function, as determined by our Department. No detailed design plan for an extension of the sewer has been proposed at this time.

Donnie Boshers, Director
City of Columbia, TN
Wastewater Department

CITY OF COLUMBIA
TENNESSEE

WASTEWATER DEPARTMENT

19 May 2026

Will Hulshof, President
HC Columbia LLC
73 White Bridge Road, Ste 103 #230
Nashville, TN 37205

RE: Project Name: Valvoline (162 linear feet)

Dear Will Hulshof:

Columbia Wastewater System has received notification from the Tennessee Department of Environment and Conservation of the design approval for the sewer line extension subject project. **Please submit, no later than 6/30/2026, the following items:**

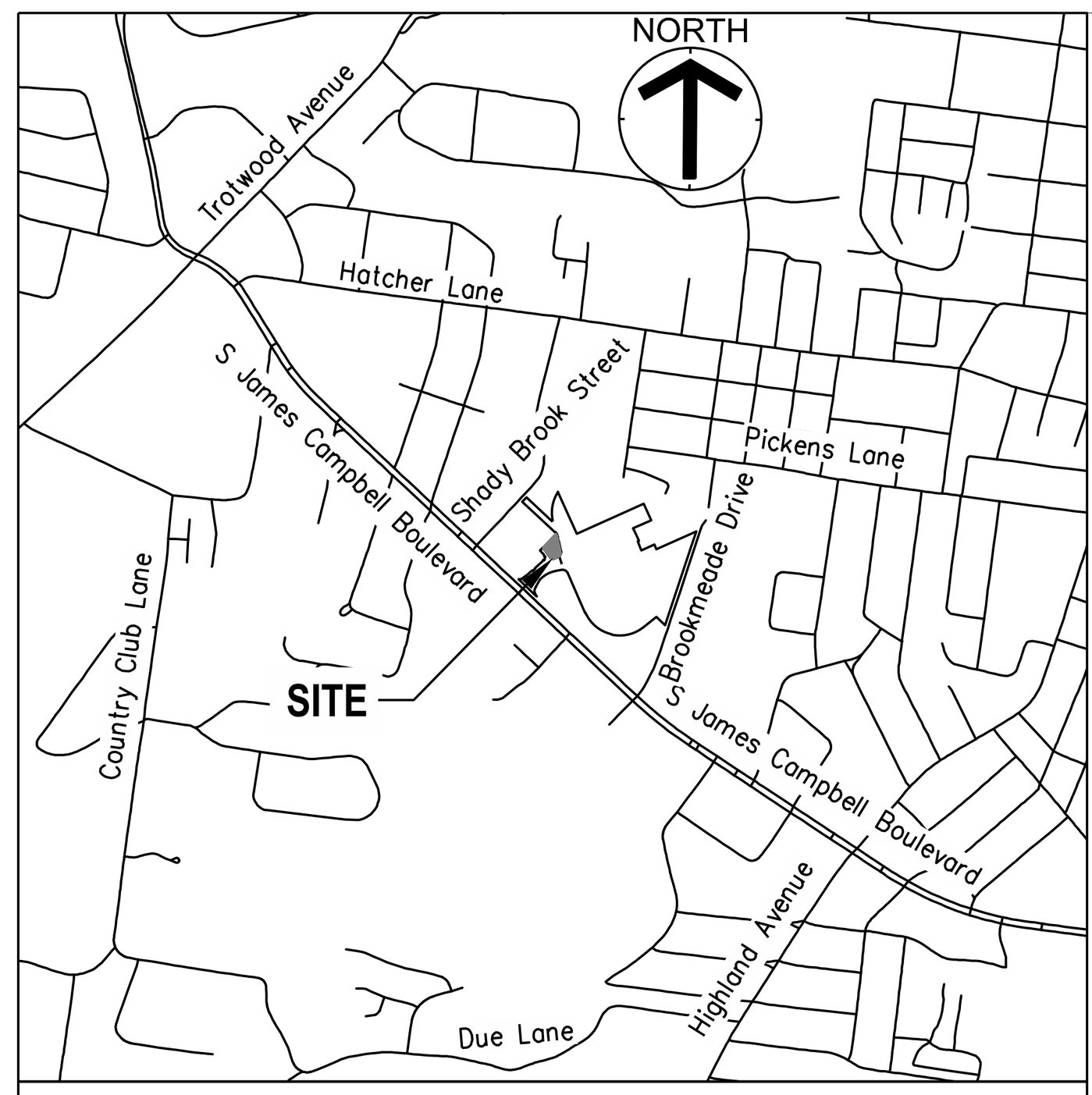
- Surety (Letter of Credit) for Sewer Improvements ($15,714.00)
- Inspection Fees ($324.00 - Payable to City of Columbia)
- Contractor Information
- Confirmation & Status of Any Related Permits (See Notes)

The approved plans and the Notice to Proceed will be issued upon the successful completion of the items stated.

Notes
Approval of these construction documents should not be construed as a permit for any activities related to this project. Activities which may require a permit under the WQC Act and Regulations include, but are not limited to, the following: stream bank vegetation removal; creek crossing(s) for equipment or utility lines; construction within twenty (20) feet of a stream bank; construction in or near a marshy area or wetland, and/or land disturbance greater than one acre. The Water Pollution Control Office should be contacted for determination regarding whether an Aquatic Resource Alteration Permit (ARAP) and/or a National Pollutant Discharge Elimination System (NPDES) Construction Storm water permit will need to be obtained prior to the beginning of construction of this project.

Sincerely,

Donald J. Boshers, Director
Columbia Wastewater System



VICINITY MAP - NOT TO SCALE

LAT / LONG: N035.597957 / W087.056875

SURVEYOR'S CERTIFICATE

I (WE) HEREBY CERTIFY THAT TO THE BEST OF MY (OUR) KNOWLEDGE AND BELIEF THIS IS A TRUE AND ACCURATE SURVEY OF THE PROPERTY SHOWN HEREON; THAT THIS IS A CATEGORY I LAND SURVEY AS DEFINED IN TITLE 62, CHAPTER 18, TENNESSEE CODE ANNOTATED, AND THAT THE RATIO OF PRECISION IS GREATER THAN OR EQUAL TO 1:10,000.

July 7, 2026

JEFFREY K. KIMBRO, TN PLS No. 1756 — DATE
SR. SURVEYOR, CESO, INC.
EMAIL: jeff.kimbro@cesoinc.com

CERTIFICATE OF OWNERSHIP AND DEDICATION

I (WE) HEREBY CERTIFY THAT I AM (WE ARE) THE OWNER(S) OF THE PROPERTY SHOWN AND DESCRIBED HEREON AS EVIDENCED IN BOOK xxxx, PAGE xxx, MAURY COUNTY REGISTER'S OFFICE, AND ADOPT THIS FINAL SUBDIVISION PLAT OF THE PROPERTY AS SHOWN HEREON.

HC COLUMBIA, LLC — DATE

NAME

CERTIFICATE OF SUBDIVISION NAME AND STREET NAMES

SUBDIVISION NAME AND STREET NAMES APPROVED BY THE CITY ENGINEERING DEPARTMENT AND BY E-911 MAURY COUNTY.

MAURY COUNTY E-911 — DATE

CERTIFICATE OF APPROVAL OF WATER SYSTEM

I HEREBY CERTIFY THAT THE WATER SYSTEM(S) OUTLINED OR INDICATED ON THIS FINAL SUBDIVISION PLAT HAS/HAVE BEEN INSTALLED IN ACCORDANCE WITH CURRENT LOCAL AND STATE GOVERNMENT REQUIREMENTS, OR A SUFFICIENT BOND OR OTHER SURETY HAS BEEN FILED TO GUARANTEE SAID INSTALLATION.

NAME — DATE

TITLE

COLUMBIA POWER & WATER SYSTEMS

CERTIFICATE OF APPROVAL FOR RECORDING

I HEREBY CERTIFY THAT THE FINAL SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE CITY OF COLUMBIA SUBDIVISION REGULATIONS, WITH THE EXCEPTION OS SUCH VARIANCES, IF ANY, AS NOTED IN THE MINUTES OF THE COLUMBIA MUNICIPAL PLANNING COMMISSION, AND THAT IT HAS BEEN APPROVED FOR RECORDING IN THE OFFICE OF THE MAURY COUNTY REGISTER OF DEEDS.

PLANNING DIRECTOR - COLUMBIA, TENNESSEE — DATE

CERTIFICATE OF COMPLIANCE

I HEREBY CERTIFY THAT THE FINAL SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE CITY OF COLUMBIA SUBDIVISION REGULATIONS AND OTHER ADOPTED ORDINANCES AND POLICIES.

CITY ENGINEER - COLUMBIA, TENNESSEE — DATE

CERTIFICATE OF SANITARY SEWER SYSTEM

I HEREBY CERTIFY THAT THE SANITARY SEWER SYSTEM OUTLINED OR INDICATED ON THIS FINAL SUBDIVISION PLAT HAS BEEN INSTALLED IN ACCORDANCE WITH THE CURRENT LOCAL AND STATE GOVERNMENT REQUIREMENTS, OR A SUFFICIENT BOND OR OTHER SURETY HAS BEEN FILED TO GUARANTEE SAID INSTALLATION.

DIRECTOR OF WASTEWATER DEPARTMENT — DATE
COLUMBIA, TENNESSEE

UTILITY DISCLAIMER

The utilities shown hereon have been located from field survey information and/or existing drawings. The surveyor makes no guarantee that the utilities located hereon comprise all such utilities in the area, either in service or abandoned. The surveyor further does not warrant that the utilities located are in the exact location indicated although he does certify that they are located as accurately as possible from information available.

In Tennessee, it is a requirement, per "The Underground Utility Damage Prevention Act", that anyone who engages in excavation must notify all known underground utility owners, no less than three (3) or more than (10) working days prior to the date of their intent to excavate and also to avoid any possible hazard or conflict. Tennessee One Call 811.

CURVE TABLE

Curve	Delta	Radius	Arc Length	Chord
C1	45° 00' 09"	318.00'	249.77'	N10° 38' 41"E, 243.40'
C2	16° 03' 07"	318.00'	89.09'	N41° 10' 17"E, 88.80'
C3	4° 31' 33"	316.82'	25.03'	S54° 53' 20"W, 25.02'
C4	45° 12' 53"	316.82'	250.02'	S79° 43' 34"W, 243.58'
C5	54° 11' 24"	316.28'	299.14'	N50° 37' 46"W, 288.11'
C6	76° 51' 35"	45.00'	60.37'	N62° 02' 09"W, 55.94'
C7	36° 12' 54"	233.22'	147.41'	S61° 15' 37"W, 144.97'
C8	6° 57' 32"	145.00'	17.61'	S25° 29' 25"W, 17.60'
C9	48° 07' 50"	45.00'	37.80'	S1° 38' 51"E, 36.70'
C10	11° 17' 01"	145.00'	28.56'	S31° 45' 05"E, 28.51'
C11	57° 18' 29"	54.30'	54.31'	S31° 06' 13"W, 52.08'
C12	74° 54' 02"	25.00'	32.68'	N74° 14' 56"W, 30.40'
C13	43° 05' 11"	35.00'	26.32'	N80° 42' 01"E, 25.70'
C14	8° 51' 02"	275.00'	42.48'	N54° 43' 54"E, 42.44'
C15	16° 52' 36"	43.00'	12.67'	N40° 06' 11"E, 12.62'
C16	37° 21' 44"	49.00'	31.95'	N12° 59' 01"E, 31.39'
C17	35° 08' 20"	43.00'	26.37'	N23° 16' 00"W, 25.96'

TOPOGRAPHIC LEGEND

- Anchor Pole
- Catch Basin Square
- Communications Box
- Curb Inlet
- Electric Line Marker
- Electric Meter
- Fire Hydrant
- Gas Marker
- Guy Wire
- Light Pole
- Power Pole
- Power Telephone Light Pole
- Power Telephone Pole
- Sanitary Manhole
- Water Meter
- Water Valve
- G — Gas Line
- W — Water Line
- UGE — Underground Electric (Per Plan)
- UE — UE — Underground Electric Service (Proposed)
- COM — Underground Communications
- OHL — Overhead Utility Line
- STM — Storm Sewer
- SAN — Sanitary Sewer

Public Utility, Drainage & Access Easement (P.U.D.A.E.) USE NOTE:

Should P.U.D.A.E. 1 & 2 ever be utilized, either individually or collectively, by Tax Map 100N Group "L" Parcel 005.00 and/or 005.01, an Access and Maintenance Agreement should be required amongst the Property Owners.

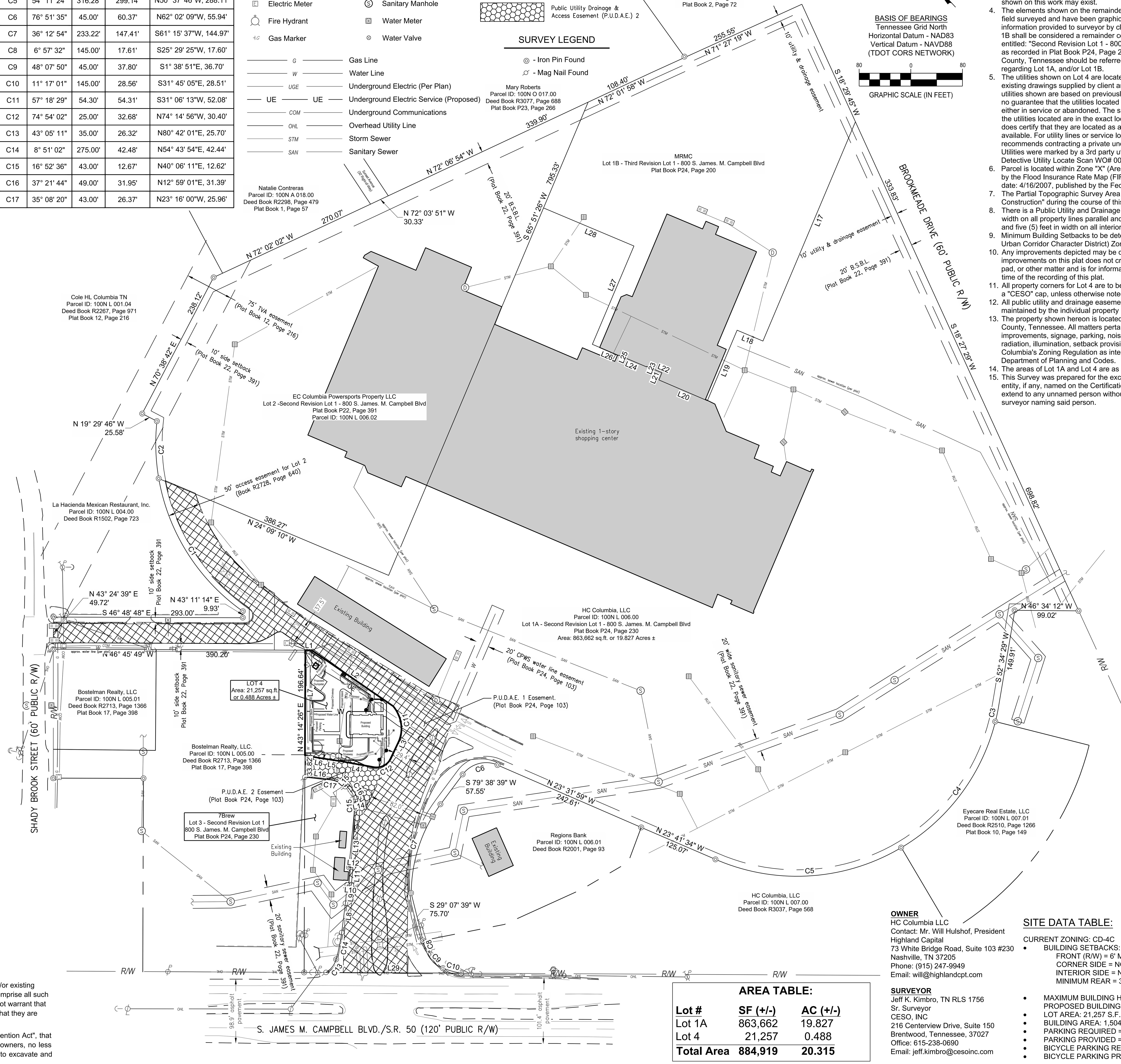
Public Utility Drainage & Access Easement (P.U.D.A.E.) 1
Public Utility Drainage & Access Easement (P.U.D.A.E.) 2

SURVEY LEGEND

- Iron Pin Found
- Mag Nail Found

BASIS OF BEARINGS
Tennessee Grid North
Horizontal Datum - NAD83
Vertical Datum - NAVD88
(TDOT CORS NETWORK)

80 0 80
GRAPHIC SCALE (IN FEET)



SURVEYOR NOTES:

1. The purpose of this Plat is to create one (1) lot (Lot 4).
2. The Tennessee State Plane Coordinates were established using Category IV Survey Methods and was done in compliance with the Tennessee Standards of Practice, Rule 0820-03-.11 as adopted by the Tennessee Board of Examiners for Land Surveyors. RTK GPS positional data was observed 02/2026 utilizing a multi-frequency receiver. The grid coordinates are expressed in the Tennessee State Plane Coordinate System, Zone 5301, Fipszone 4100 (NAD 83), derived using a VRS network of CORS stations referenced to NAD83 (2011)(epoch 2010), geoid 18. Positional accuracy of the GPS vectors does not exceed: Horizontal = 0.02'; Vertical = 0.05'.
3. No title opinion is expressed or implied. Additional easements beyond those shown on this work may exist.
4. The elements shown on the remainder of Lot 1A, Lot 1B, and Lot 2 were not field surveyed and have been graphically depicted from record data and information provided to surveyor by client, and City of Columbia. Lots 1A and 1B shall be considered a remainder composite sketch. The Final Plat entitled: "Second Revision Lot 1 - 800 South James M. Campbell Boulevard" as recorded in Plat Book P24, Page 230 in the Register's Office of Maury County, Tennessee should be referred to for any pertinent information regarding Lot 1A, and/or Lot 1B.
5. The utilities shown on Lot 4 are located from field survey information and/or existing drawings supplied by client and the City of Columbia. All other utilities shown are based on previously recorded Plats. The surveyor makes no guarantee that the utilities located comprise all such utilities in the area, either in service or abandoned. The surveyor further does not warrant that the utilities located are in the exact location indicated although the surveyor does certify that they are located as accurately as possible from information available. For utility lines or service locations on private property CESO recommends contracting a private underground utility location service. Utilities were marked by a 3rd party utility locating service: The Underground Detective Utility Locate Scan WO# 00025744 dated 9/9/2025.
6. Parcel is located within Zone "X" (Area of Minimal Flood Hazard) as indicated by the Flood Insurance Rate Map (FIRM) Number 47119C0285E, effective date: 4/16/2007, published by the Federal Emergency Management Agency.
7. The Partial Topographic Survey Area depicted hereon was "Under Construction" during the course of this Survey.
8. There is a Public Utility and Drainage Easement (PUDE) ten (10) feet in width on all property lines parallel and abutting public roads or rights-of-way, and five (5) feet in width on all interior lot lines.
9. Minimum Building Setbacks to be determined by the current CD-4C (General Urban Corridor Character District) Zoning Classification.
10. Any improvements depicted may be demolished. The depiction of any improvements on this plat does not create any easement, setback, building pad, or other matter and is for informational purposed only as of the date and time of the recording of this plat.
11. All property corners for Lot 4 are to be marked with 5/8" diameter rebar with a "CESO" cap, unless otherwise noted.
12. All public utility and drainage easements located on proposed lots are to be maintained by the individual property owner for said lot.
13. The property shown hereon is located within the City of Columbia, Maury County, Tennessee. All matters pertaining to construction, use, location of improvements, signage, parking, noise, vibration, emissions, fire hazards, radiation, illumination, setback provisions, etc. are subject to the City of Columbia's Zoning Regulation as interpreted and regulated by the Department of Planning and Codes.
14. The areas of Lot 1A and Lot 4 are as shown hereon.
15. This Survey was prepared for the exclusive use of the person, persons, or entity, if any, named on the Certification, hereon. Said Certificate does not extend to any unnamed person without an express re-certification by the surveyor naming said person.

LINE TABLE

Line #	Direction	Length
L1	S46° 45' 49"E	10.00'
L2	S12° 29' 01"E	152.52'
L3	S67° 54' 19"W	32.73'
L4	N36° 47' 55"W	52.53'
L5	N38° 31' 39"W	29.83'
L6	N36° 47' 55"W	25.47'
L7	N43° 14' 26"E	162.82'
L8	N50° 18' 23"E	45.76'
L9	N48° 32' 29"E	28.33'
L10	S43° 14' 55"E	6.40'
L11	N48° 08' 55"E	27.43'
L12	N41° 51' 05"W	6.21'
L13	N48° 32' 29"E	88.84'
L14	S58° 20' 07"E	6.00'
L15	S84° 18' 10"W	6.00'
L16	N40° 50' 10"W	38.86'
L17	S65° 51' 22"W	368.60'
L18	N24° 10' 05"W	43.36'
L19	S65° 50' 01"W	118.49'
L20	N23° 48' 40"W	81.77'
L21	N65° 45' 51"E	12.04'
L22	N24° 07' 31"W	25.50'
L23	S65° 52' 29"W	0.81'
L24	N24° 10' 17"W	46.53'
L25	S66° 00' 31"W	0.50'
L26	N23° 59' 29"W	44.36'
L27	N65° 57' 03"E	165.34'
L28	N24° 10' 02"W	151.87'
L29	N46° 42' 21"W	208.79'

AREA TABLE:

Lot #	SF (+/-)	AC (+/-)
Lot 1A	863,662	19.827
Lot 4	21,257	0.488
Total Area	884,919	20.315

OWNER
HC Columbia LLC
Contact: Mr. Will Hulshof, President
Highland Capital
73 White Bridge Road, Suite 103 #230
Nashville, TN 37205
Phone: (915) 247-9949
Email: will@highlandcpt.com

SURVEYOR
Jeff K. Kimbro, TN RLS 1756
Sr. Surveyor
CESO, INC
216 Centerview Drive, Suite 150
Brentwood, Tennessee, 37027
Office: 615-238-0690
Email: jeff.kimbro@cesoinc.com

SITE DATA TABLE:

CURRENT ZONING: CD-4C

- BUILDING SETBACKS:
  - FRONT (R/W) = 6' MINIMUM, 40' MAXIMUM
  - CORNER SIDE = NONE STATED
  - INTERIOR SIDE = NONE
  - MINIMUM REAR = 3' OR 15' MINIMUM FROM CENTER LINE OF REAR ALLEY
- MAXIMUM BUILDING HEIGHT ALLOWED = 4 STORIES
  PROPOSED BUILDING HEIGHT PROVIDED = 1 STORY
- LOT AREA: 21,257 S.F. = 0.488 ACRES
- BUILDING AREA: 1,504 S.F. (GROSS AREA)
- PARKING REQUIRED = 5 (1 ACCESS. PARKING SPACES)
- PARKING PROVIDED = 8 (1 ACCESS. PARKING SPACES)
- BICYCLE PARKING REQUIRED = 0
- BICYCLE PARKING PROVIDED = 2

CESO
WWW.CESOINC.COM
216 Centerview Dr., Suite 150
Brentwood, TN 37027
Phone: 615.928.5120 Fax: 888.208.4826

JEFFREY K. KIMBRO
REGISTERED LAND SURVEYOR
AGRICULTURE COMMERCE
TENNESSEE No. 1756
July 7, 2026

Final Plat
City of Columbia Item No. 26-0209

Fourth Revision-Lot 1
800 South James M. Campbell Boulevard

800 South James M. Campbell Boulevard
Columbia, Maury County, Tennessee

Revisions / Submissions

ID	Description	Date
1	Addressed Comments.	07/07/2026

© 2026 CESO, INC.

Project Number:	767022
Scale:	1" = 80'
Drawn By:	CDV/jkK
Checked By:	jkK
Date:	July 7, 2026
Issue:	Resubmittal

Drawing Title:
Final Plat

1 of 1

July 7, 2026

City of Columbia Item No. 26-0209

"Fourth Revision Lot 1 – 800 South James M. Campbell Boulevard"

RESPONSES TO 06/09/2026 COMMENTS:

TO: City of Columbia
FROM: CESO, Inc.
Jeff K. Kimbro, PLS, CFS
216 Centerview Drive, Suite 150
Brentwood, Tennessee 37027
(615) 238-0690 jeff.kimbro@cesoinc.com

City of Columbia Comments (June 9, 2026):

CESO Responses (July 7, 2026):

1. Show proposed development on preliminary plat. Remove certificates.

- Added Proposed Building, Drive/Parking, and Utilities, as requested.
- Removed ALL certificates from Preliminary Plat, as requested.

2. Final plat should be reflective of the two most recently recorded plats for the Columbia mall property. MRMC and 7 Brew.

- Incorporated all pertinent information from two (2) most recently recorded plats: "Second Revision Lot 1 – 800 South James M. Campbell Boulevard" which created Lot 3 (7 Brew), as of record in Plat Book P24, Page 230, and "3rd Revision Lot 1 – 800 South James M. Campbell Boulevard" which created Lot 1A (MRMC), as of record in Plat Book P24, Page 200, as requested.

3. Final Plat approval shall be subject to filing and recording the plat with the County Register within sixty (60) calendar days after final action. Failure to file and record the plat within sixty (60) calendar days, shall void any final action on the plat.

- Acknowledged.

4. Add PUDE note: There is a Public Utility and Drainage Easements (PUDE) ten (10) feet in width on all property lines parallel and abutting public roads or rights-of-way, and five (5) feet in width on all interior lot lines.

- Added as Note No. 8, as requested.

5. Show and label all utilities.

- All utilities affecting Lot 4 and adjoining area of Lot 1A depicted on Plats, as requested.

6. No comments.

- Acknowledged.

7. The lead staff person will be Charles Rush, Principal Planner (crush@columbiatn.gov).

- Acknowledged.

8. Upload all responses to comments by resubmittal date.

- This Responses Letter to be resubmitted with Revised Plats, as requested.

9. Provide a preliminary plat and a final plat. Preliminary and Final plat needs to reflect the preliminary plat requirements found in the City of Columbia subdivision.

- This Resubmittal to include a Preliminary Plat adhering to Section 2.2.8 Contents of the Preliminary Plat Submittal and a Final Plat adhering to Section 2.3.10 Contents of the Final Plat Submittal, as requested.

10. Please provide as wastewater will serve letter. Note, pending any water availability response from Columbia Water.

- Wastewater will serve letter received and submitted (by others), as requested.

11. No Comment. Attached are enrollment/capacity numbers.

- Acknowledged.

12. Please see the attached City of Columbia Dumpster Guidelines & Accessibility Requirements.

- Acknowledged.

13. Private sanitation services may be utilized.

- Acknowledged.

14. No Comment.

- Acknowledged.

15. Some of the private sanitary sewer is not shown on the plat, some near Lot 2 and some in the front of Lot 1 and back of Lot 1.

- Added Sewer Lines from latest recorded Plats to Lot 2, along with additional Sewer Lines crossing the “front” or westerly side of Lot 1A, and crossing the “back” or easterly side of Lot 1A, as requested.

16. A water availability letter is required when/if development of the lot moves forward.

- Acknowledged.

Please review and advise at your convenience. As always, please never hesitate to contact us if you have any questions and/or require anything further. We eagerly anticipate working with the City of Columbia to get this Plat finalized and recorded to create Lot 4.

Kindest Regards;

Jeff K. Kimbro, PLS, CFS
Senior Surveyor
CESO, Inc.
216 Centerview Drive, Suite 150
Brentwood, Tennessee 37205

CITY OF
COLUMBIA
TENNESSEE

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

DEVELOPMENT REVEW COMMITTEE MEETING
Tuesday, June 9, 2026

ITEM NO.
26-0209

DESCRIPTION: 800 S James M. Campbell Boulevard

COMMENTS:

Engineering

1. Show proposed development on preliminary plat. Remove certificates.
2. Final plat should be reflective of the two most recently recorded plats for the columbia mall property. MRMC and 7 Brew.
3. Final Plat approval shall be subject to filing and recording the plat with the County Register within sixty (60) calendar days after final action. Failure to file and record the plat within sixty (60) calendar days, shall void any final action on the plat.
4. Add PUDE note: There is a Public Utility and Drainage Easements (PUDE) ten (10) feet in width on all property lines parallel and abutting public roads or rights-of-way, and five (5) feet in width on all interior lot lines
5. Show and label all utilities

Fire

6. No comments

Planning

7. The lead staff person will be Charles Rush, Principal Planner (crush@columbiatn.gov).
8. Upload all responses to comments by resubmittal date.
9. Provide a preliminary plat and a final plat. Preliminary and Final plat needs to reflect the preliminary plat requirements found in the City of Columbia subdivision

10. Please provide as wastewater will serve letter. Note, pending any water avalilability resposne from Columbia Water.

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

Maury County Schools

11. No Comment. Attached are enrollment/capacity numbers.

Public Works

12. Please see the attached City of Columbia Dumpster Guidelines & Accessibility Requirements.
13. Private sanitation services may be utilized.

ATT

14. No comment.

Wastewater

15. Some of the provate sanitary sewer is not shown on the plat, some near Lot 2 and some in the front of Lot 1 and back of Lot 1.

Columbia Water

16. A water availability letter is required when/if development of the lot moves forward.

Resubmittal Guidelines

Please provide a comment response letter as well as digital copies of revised plans and supporting documentation. Submit all required documents electronically through the online portal: columbia.onlama.com. If the files are oversized, please provide a file sharing link.

Please contact the case planner identified in the Planning Comments with any questions about the review process.

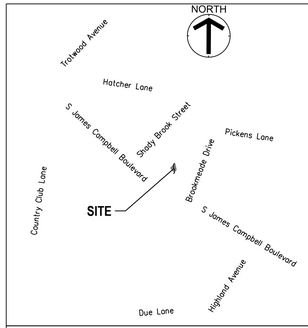
CITY OF
COLUMBIA
TENNESSEE

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

Please contact pkeltner@columbiatn.gov or msanders@columbiatn.gov if you encounter difficulties with the online portal.

You will receive an invoice for required advertising and mailing fees. All fees must be paid by the Friday following resubmittal in order advance to the Planning Commission agenda.

NOTE: All resubmittals must demonstrate compliance with city standards prior to Planning Commission review. Requests which do not adhere to regulations and/or remain unresponsive to technical comments will not be forwarded to the next agenda until such items are amended. Final Plat applications which are not ready to proceed to Planning Commission following the first resubmittal deadline will be added to the following DRC agenda to confirm the status of required infrastructure and utilities. Applications which remain incomplete following two resubmittal deadlines will be closed.



VICINITY MAP - NOT TO SCALE

LAT / LONG: N035.597957 / W087.056875

CURVE TABLE				
Curve	Delta	Radius	Arc Length	Chord
C1	45° 00' 09"	318.00'	249.77'	S10° 38' 41"W, 243.40'
C2	16° 03' 07"	318.00'	89.09'	S41° 10' 17"W, 88.80'
C3	4° 31' 33"	316.82'	25.03'	N54° 53' 20"E, 25.02'
C4	45° 12' 53"	316.82'	250.02'	N79° 43' 34"E, 243.58'
C5	54° 11' 24"	316.28'	299.14'	S50° 37' 46"E, 288.11'
C6	76° 51' 35"	45.00'	60.37'	N62° 02' 09"W, 55.94'
C7	36° 12' 54"	233.22'	147.41'	S61° 15' 37"W, 144.97'
C8	6° 57' 32"	145.00'	17.61'	S25° 29' 25"W, 17.60'
C9	48° 07' 50"	45.00'	37.80'	S1° 38' 51"E, 36.70'
C10	11° 28' 56"	145.00'	29.06'	S31° 37' 57"E, 29.01'
C11	57° 18' 29"	54.30'	54.31'	N31° 06' 13"E, 52.08'
C12	74° 54' 02"	25.00'	32.68'	S74° 14' 56"E, 30.40'

LINE TABLE		
Line #	Direction	Length
L1	N46° 45' 49"W	10.00'
L2	N12° 29' 01"W	152.52'
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L4	S36° 47' 55"E	52.53'
L5	S38° 31' 39"E	29.83'
L6	S36° 47' 55"E	25.36'
L7	S43° 12' 05"W	162.84'

SURVEYOR NOTES:

1. The purpose of this Plat is to create one (1) Lot.
2. Bearings shown hereon are relative to the Tennessee state plan coordinate system (4100) NAD83 (2011).
3. No title opinion is expressed or implied. Additional easements beyond those shown on this work may exist.
4. The elements shown on the remainder of Lot 1 were not field surveyed and have been graphically depicted from record data and information provided to surveyor by client.
   Lots 1A and 1B shall be considered a remainder composite sketch.
5. The utilities shown are located from field survey information and/or existing drawings supplied by client. The surveyor makes no guarantee that the utilities located comprise all such utilities in the area, either in service or abandoned. The surveyor further does not warrant that the utilities located are in the exact location indicated although the surveyor does certify that they are located as accurately as possible from information available. For utility lines or service locations on private property CESO recommends contracting a private underground utility location service. Utilities were marked by a 3rd party utility locating service: The Underground Detective Utility Locate Scan WO# 00025744 dated 9/9/2025.
6. Parcel is located within Zone "X" (Area of Minimal Flood Hazard) as indicated by the Flood Insurance Rate Map (FIRM) Number 47119C0285E, effective date: 4/16/2007, published by the Federal Emergency Management Agency.

SURVEYOR'S CERTIFICATE
I (WE) HEREBY CERTIFY THAT TO THE BEST OF MY (OUR) KNOWLEDGE AND BELIEF THIS IS A TRUE AND ACCURATE SURVEY OF THE PROPERTY SHOWN HEREON; THAT THIS IS A CLASS I LAND SURVEY AS DEFINED IN TITLE 62, CHAPTER 18, TENNESSEE CODE ANNOTATED, AND THAT THE RATIO OF PRECISION IS GREATER THAN OR EQUAL TO 1:10,000.

May 18, 2026
JEFFREY K. KIMBRO, TN PLS No. 1756 — DATE
SR. SURVEYOR, CESO, INC.
EMAIL: jeff.kimbro@cesoinc.com

CERTIFICATE OF OWNERSHIP AND DEDICATION
I (WE) HEREBY CERTIFY THAT I AM (WE ARE) THE OWNER(S) OF THE PROPERTY SHOWN AND DESCRIBED HEREON AS EVIDENCED IN BOOK xxxx, PAGE xxx, MAURY COUNTY REGISTER'S OFFICE, AND ADOPT THIS FINAL SUBDIVISION PLAT OF THE PROPERTY AS SHOWN HEREON.

HC COLUMBIA, LLC — DATE

NAME

CERTIFICATE OF SUBDIVISION NAME AND STREET NAMES
SUBDIVISION NAME AND STREET NAMES APPROVED BY THE CITY ENGINEERING DEPARTMENT AND BY E-911 MAURY COUNTY.

MAURY COUNTY E-911 — DATE

CERTIFICATE OF APPROVAL OF WATER SYSTEM
I HEREBY CERTIFY THAT THE WATER SYSTEM(S) OUTLINED OR INDICATED ON THIS FINAL SUBDIVISION PLAT HAS/HAVE BEEN INSTALLED IN ACCORDANCE WITH CURRENT LOCAL AND STATE GOVERNMENT REQUIREMENTS, OR A SUFFICIENT BOND OR OTHER SURETY HAS BEEN FILED TO GUARANTEE SAID INSTALLATION.

NAME — DATE

TITLE

COLUMBIA POWER & WATER SYSTEMS

CERTIFICATE OF APPROVAL FOR RECORDING
I HEREBY CERTIFY THAT THE FINAL SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE CITY OF COLUMBIA SUBDIVISION REGULATIONS, WITH THE EXCEPTION OS SUCH VARIANCES, IF ANY, AS NOTED IN THE MINUTES OF THE COLUMBIA MUNICIPAL PLANNING COMMISSION, AND THAT IT HAS BEEN APPROVED FOR RECORDING IN THE OFFICE OF THE MAURY COUNTY REGISTER OF DEEDS.

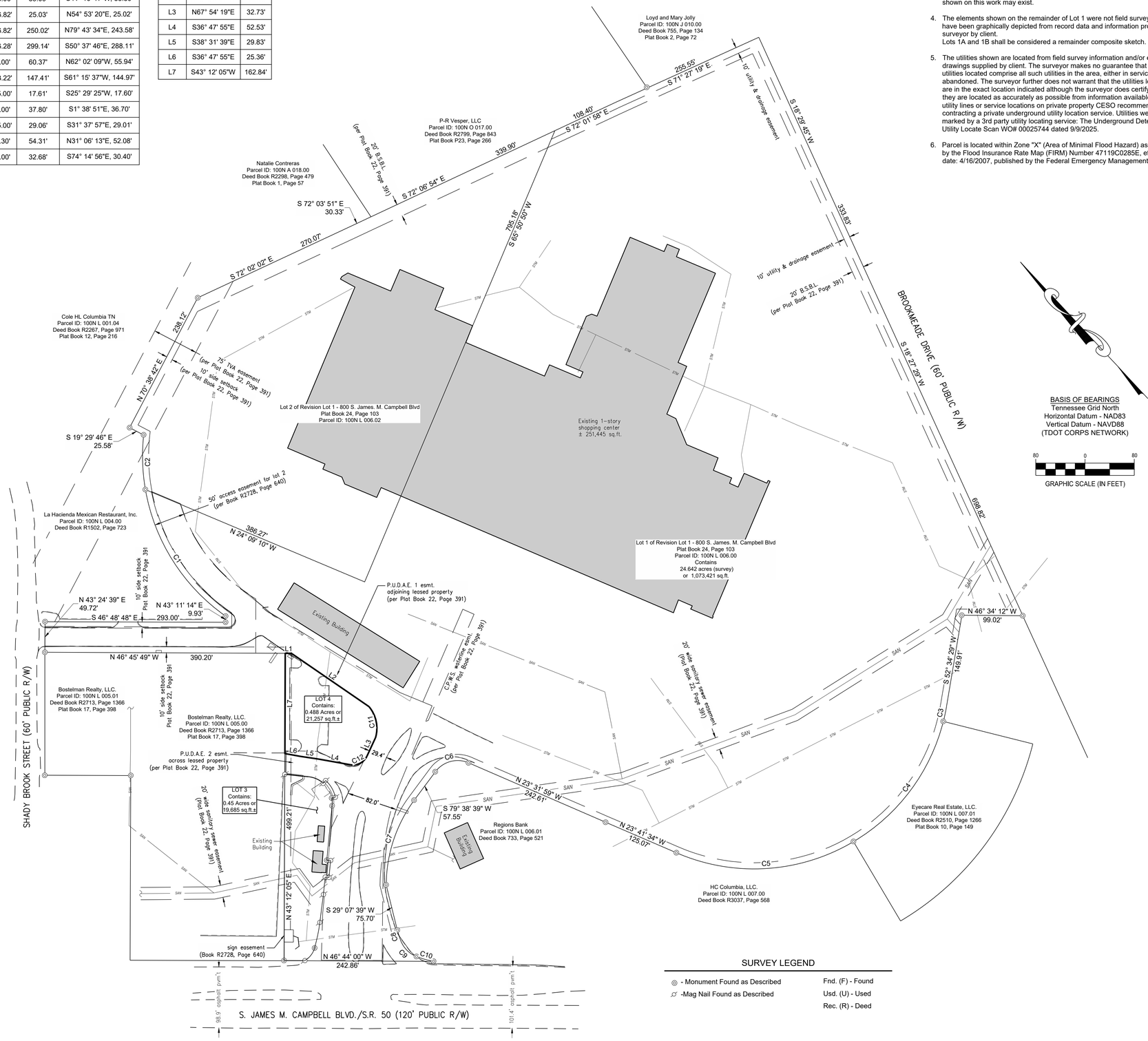
PLANNING DIRECTOR - COLUMBIA, TENNESSEE — DATE

CERTIFICATE OF COMPLIANCE
I HEREBY CERTIFY THAT THE FINAL SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE CITY OF COLUMBIA SUBDIVISION REGULATIONS AND OTHER ADOPTED ORDINANCES AND POLICIES.

CITY ENGINEER - COLUMBIA, TENNESSEE — DATE

CERTIFICATE OF SANITARY SEWER SYSTEM
I HEREBY CERTIFY THAT THE SANITARY SEWER SYSTEM OUTLINED OR INDICATED ON THIS FINAL SUBDIVISION PLAT HAS BEEN INSTALLED IN ACCORDANCE WITH THE CURRENT LOCAL AND STATE GOVERNMENT REQUIREMENTS, OR A SUFFICIENT BOND OR OTHER SURETY HAS BEEN FILED TO GUARANTEE SAID INSTALLATION.

DIRECTOR OF WASTEWATER DEPARTMENT — DATE
COLUMBIA, TENNESSEE



SURVEY LEGEND

- ◎ - Monument Found as Described
- ⌭ -Mag Nail Found as Described
- Fnd. (F) - Found
- Usd. (U) - Used
- Rec. (R) - Deed

CESO
WWW.CESOINC.COM
216 Centerview Dr., Suite 150
Brentwood, TN 37027
Phone: 615.928.5120 Fax: 888.208.4826

JEFFREY K. KIMBRO — REGISTERED LAND SURVEYOR — TENNESSEE No. 1756 — May 18, 2026

Third Revision-Lot 1
800 South James M. Campbell Boulevard
800 South James M. Campbell Boulevard
Columbia, Maury County, Tennessee

Final Plat

Revisions / Submissions

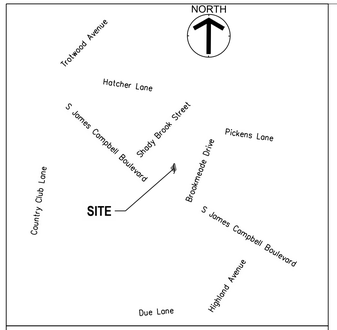
ID	Description	Date

© 2026 CESO, INC.

Project Number:	767022
Scale:	1" = 80'
Drawn By:	CDV
Checked By:	jkK
Date:	May 18, 2026
Issue:	Submittal

Drawing Title:
FINAL PLAT

1 of 1



VICINITY MAP - NOT TO SCALE

LAT / LONG: 35.597957 / -87.056875

CURVE TABLE				
Curve	Delta	Radius	Arc Length	Chord
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C3	4° 31' 33"	316.82'	25.03'	N54° 53' 20"E, 25.02'
C4	45° 12' 53"	316.82'	250.02'	N79° 43' 34"E, 243.58'
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C7	36° 12' 54"	233.22'	147.41'	S61° 15' 37"W, 144.97'
C8	6° 57' 32"	145.00'	17.61'	S25° 29' 25"W, 17.60'
C9	48° 07' 50"	45.00'	37.80'	S1° 38' 51"E, 36.70'
C10	11° 28' 56"	145.00'	29.06'	S31° 37' 57"E, 29.01'
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May 18, 2026

JEFFREY K. KIMBRO, TN LLS No. 1756 — DATE
SR. SURVEYOR, CESO, INC.
EMAIL: jeff.kimbro@cesoinc.com

CERTIFICATE OF OWNERSHIP AND DEDICATION

I (WE) HEREBY CERTIFY THAT I AM (WE ARE) THE OWNER(S) OF THE PROPERTY SHOWN AND DESCRIBED HEREON AS EVIDENCED IN BOOK xxxx, PAGE xxx, MAURY COUNTY REGISTER'S OFFICE, AND ADOPT THIS FINAL SUBDIVISION PLAT OF THE PROPERTY AS SHOWN HEREON.

HC COLUMBIA, LLC — DATE

NAME

CERTIFICATE OF SUBDIVISION NAME AND STREET NAMES

SUBDIVISION NAME AND STREET NAMES APPROVED BY THE CITY ENGINEERING DEPARTMENT AND BY E-911 MAURY COUNTY.

MAURY COUNTY E-911 — DATE

CERTIFICATE OF APPROVAL OF WATER SYSTEM

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NAME — DATE

TITLE

COLUMBIA POWER & WATER SYSTEMS

CERTIFICATE OF APPROVAL FOR RECORDING

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PLANNING DIRECTOR - COLUMBIA, TENNESSEE — DATE

CERTIFICATE OF COMPLIANCE

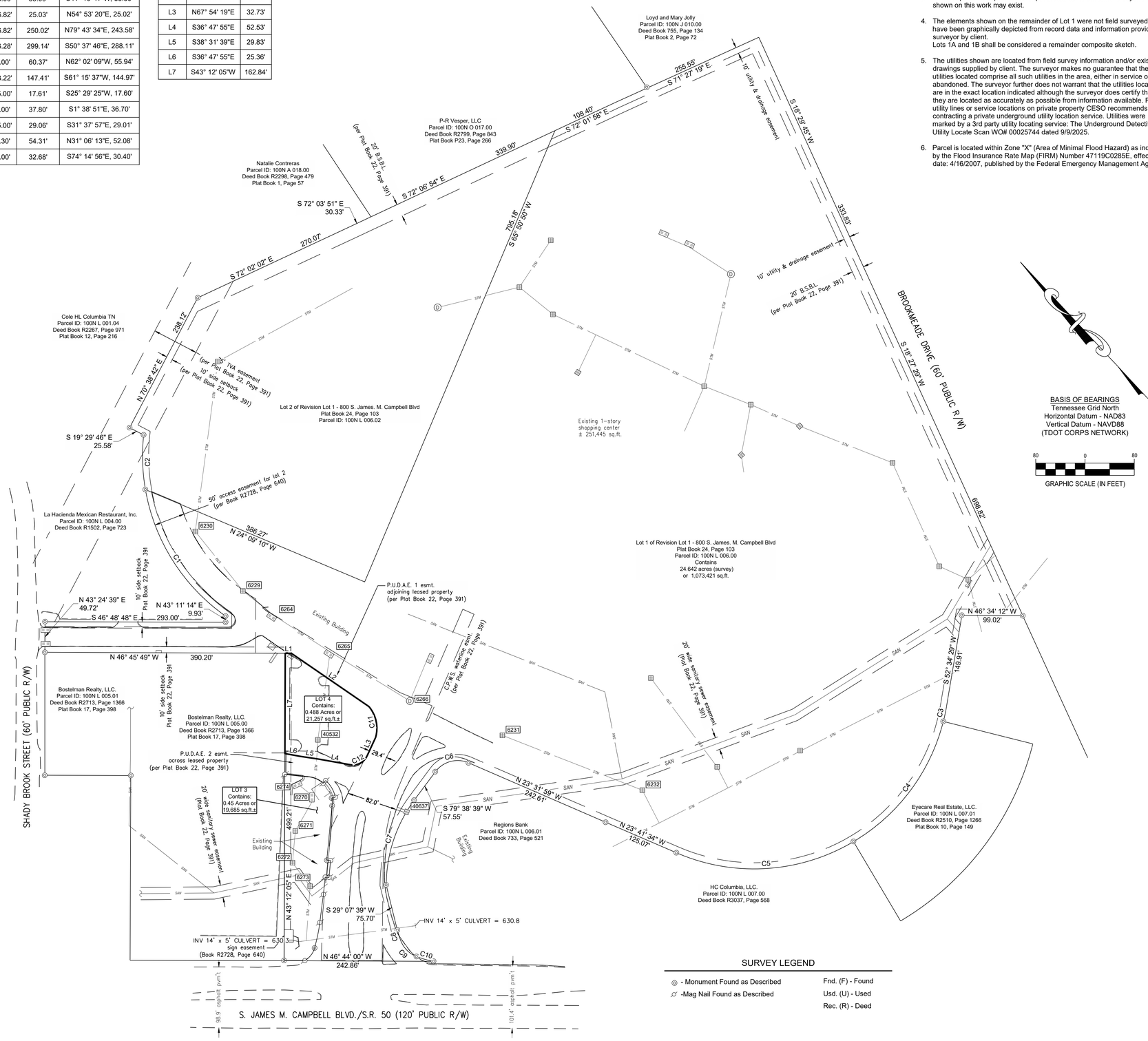
I HEREBY CERTIFY THAT THE FINAL SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE CITY OF COLUMBIA SUBDIVISION REGULATIONS AND OTHER ADOPTED ORDINANCES AND POLICIES.

CITY ENGINEER - COLUMBIA, TENNESSEE — DATE

CERTIFICATE OF SANITARY SEWER SYSTEM

I HEREBY CERTIFY THAT THE SANITARY SEWER SYSTEM OUTLINED OR INDICATED ON THIS FINAL SUBDIVISION PLAT HAS BEEN INSTALLED IN ACCORDANCE WITH THE CURRENT LOCAL AND STATE GOVERNMENT REQUIREMENTS, OR A SUFFICIENT BOND OR OTHER SURETY HAS BEEN FILED TO GUARANTEE SAID INSTALLATION.

DIRECTOR OF WASTEWATER DEPARTMENT, COLUMBIA, TENNESSEE — DATE



SURVEY LEGEND

◎ - Monument Found as Described
⌭ -Mag Nail Found as Described
Fnd. (F) - Found
Usd. (U) - Used
Rec. (R) - Deed

SURVEYOR NOTES:

1. The purpose of this Plat is to create one (1) Lot.
2. Bearings shown hereon are relative to the Tennessee state plan coordinate system (4100) NAD83 (2011).
3. No title opinion is expressed or implied. Additional easements beyond those shown on this work may exist.
4. The elements shown on the remainder of Lot 1 were not field surveyed and have been graphically depicted from record data and information provided to surveyor by client.
   Lots 1A and 1B shall be considered a remainder composite sketch.
5. The utilities shown are located from field survey information and/or existing drawings supplied by client. The surveyor makes no guarantee that the utilities located comprise all such utilities in the area, either in service or abandoned. The surveyor further does not warrant that the utilities located are in the exact location indicated although the surveyor does certify that they are located as accurately as possible from information available. For utility lines or service locations on private property CESO recommends contracting a private underground utility location service. Utilities were marked by a 3rd party utility locating service: The Underground Detective Utility Locate Scan WO# 00025744 dated 9/9/2025.
6. Parcel is located within Zone "X" (Area of Minimal Flood Hazard) as indicated by the Flood Insurance Rate Map (FIRM) Number 47119C0285E, effective date: 4/16/2007, published by the Federal Emergency Management Agency.

BASIS OF BEARINGS
Tennessee Grid North
Horizontal Datum - NAD83
Vertical Datum - NAVD88
(TDOT CORPS NETWORK)

80 0 80
GRAPHIC SCALE (IN FEET)

CESO
WWW.CESOINC.COM
216 Centerview Dr., Suite 150
Brentwood, TN 37027
Phone: 615.928.5120 Fax: 888.208.4826

JEFFREY K. KIMBRO
REGISTERED LAND SURVEYOR
TENNESSEE No. 1756
May 18, 2026

Preliminary Plat

Third Revision-Lot 1
800 South James M. Campbell Blvd

800 South James M. Campbell Boulevard
Columbia, Maury County, Tennessee

Revisions / Submissions

ID	Description	Date

© 2026 CESO, INC.

Project Number:	767022
Scale:	1" = 80'
Drawn By:	CDV
Checked By:	jkK
Date:	May 18, 2026
Issue:	Submittal

Drawing Title:
PRELIMINARY PLAT

1 of 1

May 18, 2026

RE: 3rd Revision-Lot 1 800 S. James M. Campbell Blvd. Preliminary & Final Plats

Dear City of Columbia;

The requested and required Documents, including the Surety, the Development Agreement, and the remaining requested Documents have all been requested and acquired in most cases. Those Documents have been included as a portion of the Engineering/Site Plan(s) prepared and submitted for this Project.

May we respectfully request to ensure that we are allowed to supplement this information prior to resubmitting the first round of comments received from the City of Columbia and reviewing agencies?

We thank you in advance for your assistance and continued patience with us on the Project.

Kindest Regards;

JKKimbro

Jeff K. Kimbro, PLS, CFS
Senior Surveyor
CESO, Inc.
216 Centerview Drive, Suite 150
Brentwood, Tennessee 37027
Jeff.kimbro@cesoinc.com
(615) 928-5120

606 Lion Parkway – Safe Storage
Architectural Design Review

Project #:	26-0224	**Location:**	606 Lion Parkway
Applicant:	Chet Rhodes/Bob Burklow	**Case Type(s):**	Architectural Design Review
Staff Planner:	Robert Archibald, Principal Planner	**Proposed Use:**	Commercial

PROJECT SUMMARY

The applicant is requesting Design Review approval for the exterior architectural elements applied to (4) four self-storage buildings located at 606 Lion Parkway. Square footage of each building is as follows: Building #1 (3,600-sf), Building #2 (7,800-sf), Building #3 (7,800-sf), and Building #4 (3,900-sf). The proposed site is located within a Special District (SD-LI), which mandates review and approval by the Architectural Design Review Commission.

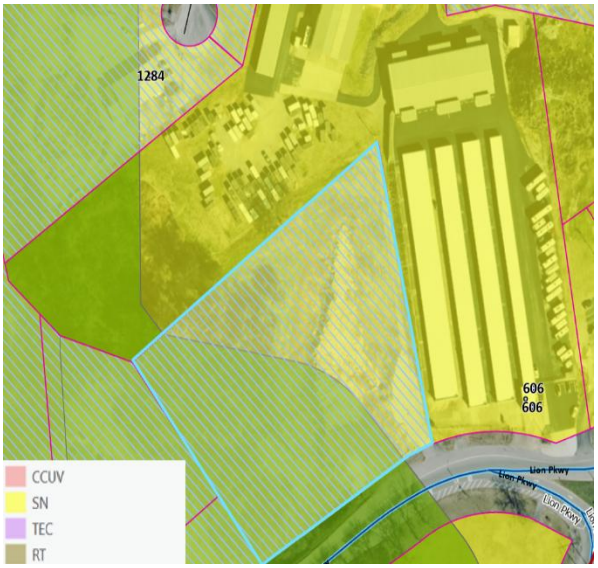
- The proposed structures are not considered Flex Buildings with an Industrial Use; therefore, architectural elements of the construction are subject to the Design Standards for the District found in §4.3.1-J of the Zoning Ordinance.
- The DRC reviewed this proposal at its July 2026 meeting. Staff review included standard comments. Full technical comments are provided in the agenda packet.
- The Planning Commission serving in its capacity as the Architectural Design Review Commission is the **Decision-Making Authority** for Design Review within an SD-LI District. Motion templates are provided at the end of this report to assist the Architectural Design Review Commission in making properly formatted motions.

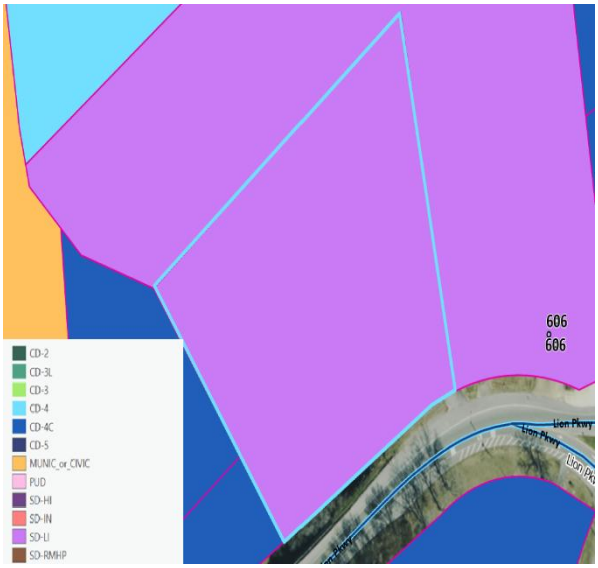
SITE INFORMATION

CURRENT ZONING	EXISTING USE	EXISTING IMP.	LAND AREA
SD-LI	UNDEVELOPED	Commercial Construction	+/- 0.53



FUTURE LAND USE MAP (Suburban Neighborhood)	CURRENT ZONING (SD-LI)





SITE CONTEXT/ADJACENT PROPERTIES			
	Future Land Use	Zoning	Current Use
Subject Property	SN	SD-LI	Vacant
North	SN	CD-4C	Vacant
South	SN	SD-LI	Commercial/Mix
East	SN	CD-4C	Office
West	SN	CD-4C	Commercial

CONFORMITY WITH ZONING ORDINANCE

SD-LI (Special District-Light Industrial) District Standards		
Bulk Standards:	**Required**	**Proposed**
Vertical Composition:	Each Principle Bldg. must have an identifiable Base, Middle, and Cap	The structures have been designed with a Stone Base, Fiber-Cement Paneling Middle, Capped with a Brick Soldier Course on Frontage-facing Facades
Main Entrance	Main Entrance must be in Façade of Principle Frontages	Main Entrances are shown on front Facades of all buildings parallel to the Principle Frontage (Lion Parkway).
Façade Glazing	20%-60% glazing required (50% for Shopfront Frontage Type), must be Clear Glass	A total of 22% glazing has been submitted for all elevations.
Window Trim in 1st Layer	Minimum 4 inch trim with sill and top plate if siding surrounds window; soldier course above lintel and rowlock course below sill if brick or stone surrounds window	All elevations at Primary Frontage have brick soldier courses above lintels and brick rowlock courses below sill.
Shop Frontages	For Shopfront Frontages – 12”-24” knee wall is required at Frontage	All elevations at Primary Frontage have a 2’11” knee wall below frontage windows.
Roof Type and Pitch	Flat roofs are permitted for all use types in this District	Flat roof system is shown for all buildings.

Primary Building Materials	Brick, Fiber Cement Board, Wood, and Authentic Stucco over Masonry is permitted	Elevations consist of the primary façade materials: Brick, Fiber Cement Panel, and Stone

REVIEW PROCESS

The Development Review Committee evaluated the proposed Design Review request at its July 2026 meeting, as directed by **§8.3.7** of the Zoning Ordinance. Full Technical comments are provided in the agenda package and summarized above. This review is subject to the standards and review criteria of the Zoning Ordinance, per **§8.36**, outlined below:

8.3.6 ARCHITECTURAL DESIGN REVIEW COMMISSION

A. Creation

1. There is hereby created the Architectural Design Review Commission for the purpose of reviewing Development applications that are subject to design review pursuant to this Ordinance.

2. As authorized by T.C.A. Section 6-54-133, the Columbia Municipal Planning Commission is designated the city's Architectural Design Review Commission, with the authority to develop, adopt, and apply general guidelines for the exterior appearance of properties within the City of Columbia.

B. Design Standards In addition to the design standards incorporated in this ordinance, the Planning Commission may develop and adopt exterior appearance guidelines that are applicable throughout the city as well as exterior appearance guidelines that are applicable only to specified areas within the city.

C. Powers & Duties

1. The Architectural Design Review Commission shall be responsible for reviewing proposals for Site Development Plan, Building Permit, or Planned Unit Development approval for compliance with the applicable architectural design standards.

2. The Architectural Design Review Commission may approve alternative materials and methods of compliance which, in the determination of the Planning Commission, provide aesthetic value which meets or exceeds the prescribed standards.

3. The Zoning Administrator may approve alternative materials and methods of compliance with design standards for existing structures and Site Development Plans for which the Zoning Administrator is the Decision-Making Authority. The alternative means of compliance must provide aesthetic value which meets or exceeds the prescribed standards. The Zoning Administrator may refer any determination of alternative compliance to the Architectural Design Review Commission. Any property owner may appeal the Zoning Administrator's determination to the Architectural Design Review Commission. The appeal shall by written notice to the Zoning Administrator, stating: the guidelines at issue; the alternative compliance proposed; and the owner's reasons for seeking relief from the guidelines. The appeal shall be treated as a site development plan for purposes of assessing fees and application requirements.

D. Appeals

Any property owner affected by the guidelines for exterior appearance may appeal a decision under those guidelines to the City Council. The appeal shall be by writing a notice to the Zoning Administrator stating: the guidelines at issue; the alternative compliance proposed; and the owner's reasons for seeking relief from the guidelines. The appeal shall be treated as a site development plan for purposes of assessing fees and application requirements.

SAMPE MOTIONS

Approve:
Move to approve the façade elevations as presented and find that the design confirms to the applicable standards of the Zoning Ordinance per section 8.3.6, and [subject to remaining technical comments from staff & staff conditions of approval as listed].

Approve Subject to Conditions:
Move to approve the façade elevations as presented and find that design conforms to the applicable zoning ordinance, subject to the following conditions: [list any additional conditions of approval crafted by Planning Commission].

Deny:
Move to find that the façade elevations as presented does not conform to the applicable Zoning Ordinance, and deny the request due to [list specific deficiencies].

Defer:
Move to find that there is insufficient information to make a decision, defer the application for continued review, and request that the applicant provide: [list additional information] for review at the next regularly scheduled meeting of the Planning Commission.

BOB BURKLOW
SAFE STORAGE
606 LION PARKWAY,
COLUMBIA, TN 38401
ACRES = 4.29
PARCEL ID: 100G A 033.02 00
ZONING: SD-LI



VICINITY MAP
SCALE: N.T.S.



AERIAL MAP
SCALE: N.T.S.

TENNESSEE CONSTRUCTION GENERAL PERMIT NOTICE OF COVERAGE NOC CERTIFICATION:

1. THE PROJECT ASSOCIATE WITH THESE SUBMITTED PLANS IS COVERED UNDER TENNESSEE CONSTRUCTION GENERAL PERMIT TN____APPLIED FOR____.

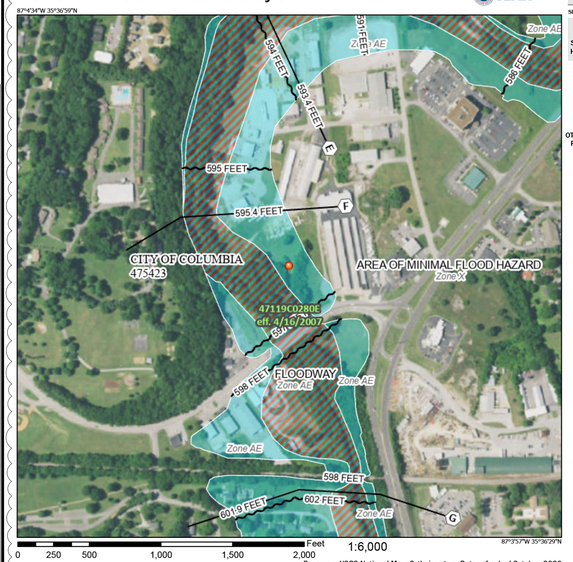
CHECK ALL THAT APPLY: THIS SITE DISCHARGES INTO WATERS IDENTIFIED BY TDEC AS:
☒ IMPAIRED FOR SILTATION ☐ IMPAIRED FOR HABITAT ALTERATION ☐ EXCEPTIONAL

Chester A. Rhodes — 1.96 of 4.29 ACRES DISTURBED
SIGNATURE — 04-30-2025 DATE

CIRCLE ONE: DEVELOPER (PROJECT ENGINEER) OTHER _____

NOTE: A PROJECT WILL NOT BE SCHEDULED FOR A PRE-CONSTRUCTION MEETING UNTIL THE STATE CONSTRUCTION GENERAL PERMIT NOC LETTER IS SUBMITTED.

National Flood Hazard Layer FIRMette



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

- SPECIAL FLOOD HAZARD AREAS: Without Base Flood Elevation (BFE) Zone A, V, A99; With BFE or Depth Zone AE, AO, AH, VE, AR; Regulatory Floodway
- OTHER AREAS OF FLOOD HAZARD: 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X; Future Conditions 1% Annual Chance Flood Hazard Zone X; Area with Reduced Flood Risk due to Levee. See Notes. Zone X; Area with Flood Risk due to Levee Zone D
- OTHER AREAS: NO SCREEN Area of Minimal Flood Hazard Zone X; Effective LOMRs; Area of Undetermined Flood Hazard Zone D
- GENERAL STRUCTURES: Channel, Culvert, or Storm Sewer; Levee, Dike, or Floodwall
- OTHER FEATURES: 20.2 / 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation; Coastal Transect; Base Flood Elevation Line (BFE); Limit of Study; Jurisdiction Boundary; Coastal Transect Baseline; Profile Baseline; Hydrographic Feature
- MAP PANELS: Digital Data Available; No Digital Data Available; Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/8/2021 at 12:31 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

GENERAL CODE ANALYSIS AND NOTES

BUILDING AND ZONING:

OCCUPANCY CLASSIFICATION:

S1 SELF-SERVICE STORAGE FACILITY

TYPE OF CONSTRUCTION:

5B METAL FRAME STRUCTURE. ONE STORY ON GRADE.

BUILDING 1: 3600 SQ FT / 500 GROSS = 8 PERSONS
BUILDING 2: 7800 SQ FT / 500 GROSS = 16 PERSONS
BUILDING 3: 7800 SQ FT / 500 GROSS = 16 PERSONS
BUILDING 4: 3900 SQ FT / 500 GROSS = 8 PERSONS

MEANS OF EGRESS / EXIT REQUIREMENTS

DESCRIPTION	BUSINESS	MAXIMUM TRAVEL DISTANCE	
OCCUPANCY	S1	ALLOWED	ACTUAL
AREA (SQ. FT.)	23,100	200'-0"	NOT EXCEEDED
SQ. FT. / PERSON	500 SQ. FT. / PERSON	*PER 2018 IBC	
OCCUPANT LOAD	48		
ACTUAL EXIT WIDTH PROVIDED	96"		

APPLICABLE CODE(S): (COLUMBIA, TN)

ACCESSIBLE AND USABLE BUILDING AND FACILITIES (2017 ICC A117.1)
INTERNATIONAL BUILDING CODE (2024)
INTERNATIONAL ENERGY CONSERVATION CODE (2024)
INTERNATIONAL EXISTING BUILDING CODE (2024)
INTERNATIONAL FIRE CODE (2024)
INTERNATIONAL FUEL GAS CODE (2024)
INTERNATIONAL MECHANICAL CODE (2024)
INTERNATIONAL PLUMBING CODE (2024)
INTERNATIONAL RESIDENTIAL CODE (2024)
NATIONAL ELECTRIC CODE (2017)*
*WITH LOCAL AMENDMENTS

GENERAL NOTE(S):

1. THE LIST OF "APPLICABLE CODES" IS PROVIDED AS A CONVENIENCE AND IS NOT TO BE CONSIDERED ALL INCLUSIVE OF CODES AND REGULATIONS THAT MAY APPLY. THE CONTRACTOR SHALL COMPLY WITH ALL PERTINENT CODES, STANDARDS, REGULATIONS AND LAWS.

SHEET INDEX

C-0.0	COVER SHEET
C-1.0	EXISTING CONDITIONS
C-2.0	PROPOSED SITE PLAN
C-3.0	GRADING & DRAINAGE
C-3.1	RETAINING WALLS
C-4.0	EPSC INITIAL
C-4.1	EPSC INTERM & FINAL
C-4.2	EPSC DETAILS
A-1.0	FLOOR PLANS
A-1.1	FOUNDATION PLAN
A-2.0	ELEVATIONS
A-2.1	ELEVATIONS
L-1.0	LANDSCAPE PLAN

LEE BURKLOW
SAFE STORAGE
3102 WEST END AVE., SUITE 200, NASHVILLE, TN 37203
Ph # 615-319-8040
EMAIL: leeburklow@morganstanley.com

CHESTER A. RHODES — REGISTERED ENGINEER — No. 025... — STATE OF TENNESSEE

7/20/2026

ENGINEER:
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CIVIL ENVIRONMENTAL
SITE DEVELOPMENT, WATER/WASTEWATER

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No.	Description	Date	Drawn	Design	Check	Approv
1	ADDED PERMETTE & NOC REVISED PLAN SET SHEETLIST	3/20/26	JAB	CAR	CAR	CAR
2	ADDED ARCHITECTURAL PLAN RELATED ITEMS	5/20/26	JAB	CAR	CAR	CAR

APPROVAL

DRAWN	____	
DESIGN	____	
CHECKED	____	
APPROVED	____	

SAVED DATE: 7/20/2026 1:47:47 PM lbrad

BOB BURKLOW
SAFE STORAGE
606 LION PARKWAY, COLUMBIA, TN 38401

COVER SHEET

DWG. No. C-0.0

SCALE: NOTED

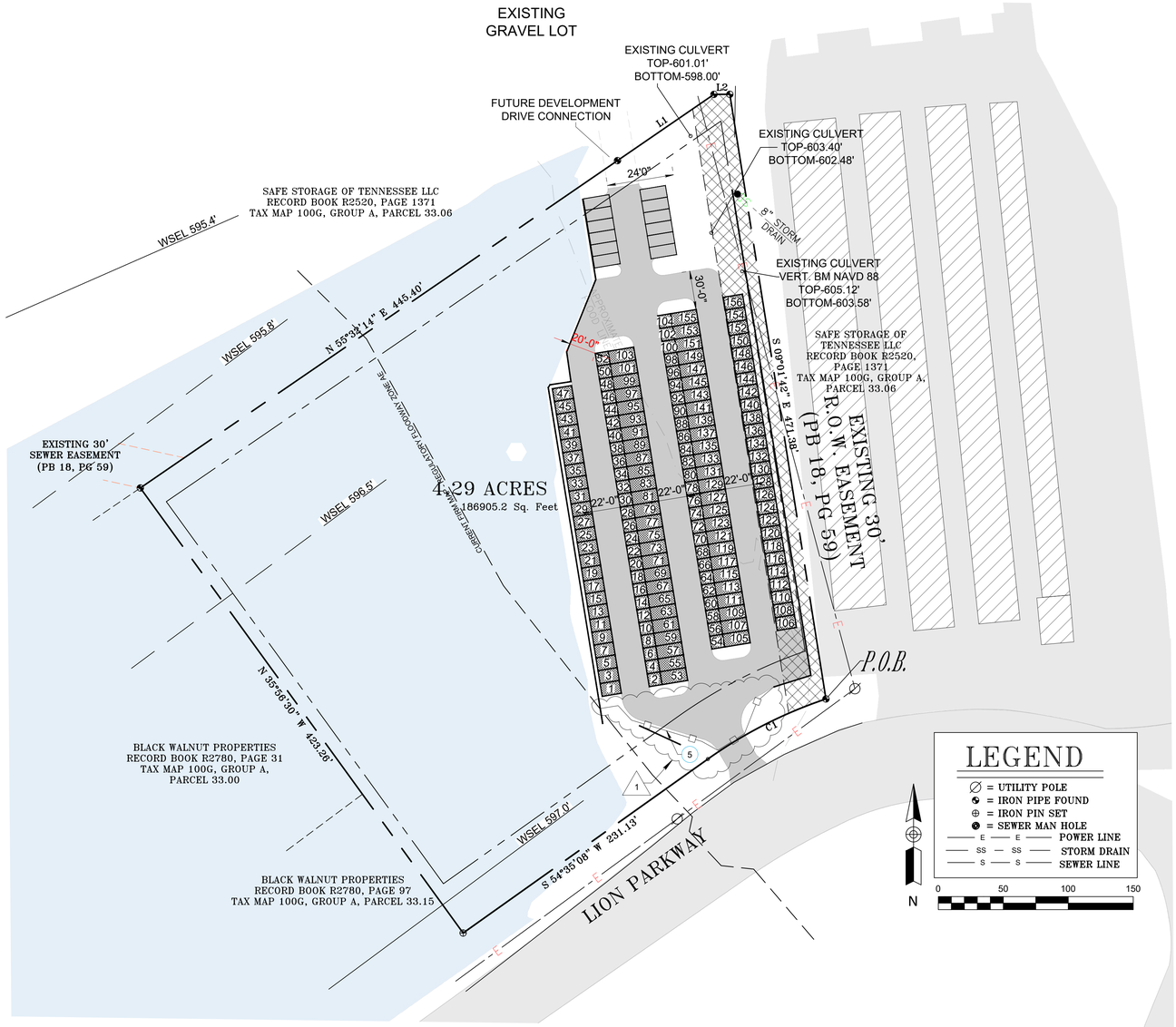
CADFILE:

JOB No. 26-0041

REV. 2

SCALE: NOTED

CALL BEFORE YOU DIG!



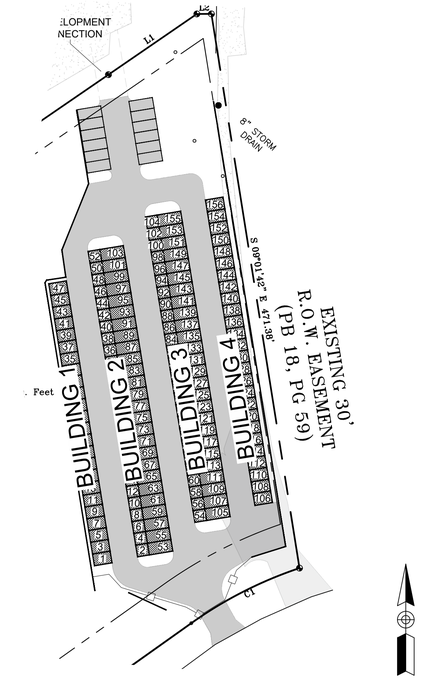
1 PROPOSED SITE PLAN
Scale: 1" = 50'

LINE	BEARING	DISTANCE
LI	N 55"30'51" E	90.08'
L2	N 89"46'30" E	12.24'

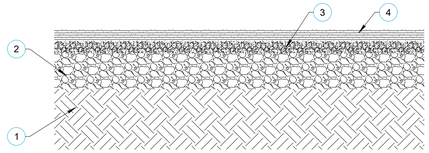
CURVE	RADIUS	CHORD BEARING	CHORD LENGTH
CI	346.50'	S 63"00'26" W	101.98'

TABLE 4.3.12.B-1 VEHICULAR PARKING REQ.
SELF SERVICE STORAGE 1 PER 2,000 SF OF STORAGE SPACE
3600 BLDG 1
7800 BLDG 2
7800 BLDG 3
+3900 BLDG 4
23100 TOTAL / 2000 = 11.5
12 SPACES REQ.

GRAPHIC SCALE
50 25 0 50 100
(IN FEET)
1 INCH = 50 FEET



2 BUILDING IDENTIFICATION
Scale: N.T.S.



3 ASPHALT PAVEMENT SECTION
Scale: N.T.S.

NOTES:

1. Subsoil compacted to a minimum of 12" at 97% Standard Proctor ±3% AMC per Columbia, TN. City Ordinance.
2. 6" Base of ¼" to ½" base stone #57.
3. 2" Asphaltic Binder
4. 1½" Final Asphalt Topping sealed with Coal Tar Asphalt Sealant.
5. Decorative fence and motorized gate to be constructed in property frontage. Knox switch required to open gate. Gate to open with yelp siren.

1

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CHESTER A. RHODES
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7/20/2026

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SITE DEVELOPMENT WATER/WASTEWATER

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Rev.	Description	Date	Drawn	Design	Check
1	ADDED DECORATIVE FENCE & KNOX SWITCH NOTE	3/30/26	JAB	CAR	CAR
2	ADDED DECORATIVE FENCE & KNOX SWITCH NOTE	7/13/26	JAB	CAR	CAR

APPROVAL

DRAWN	___	
DESIGN	___	
CHECKED	___	
APPROVED	___	

SAVED DATE: 7/20/2026 1:47:47 PM jbrad

BOB BURKLOW
SAFE STORAGE
606 LION PARKWAY, COLUMBIA, TN 38401

PROPOSED SITE PLAN - V3

DWG. No.
C-2.0

SCALE: NOTED

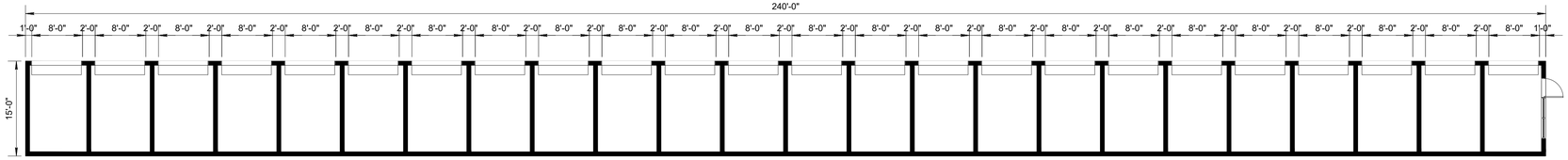
CADFILE:

JOB No. 26-0041

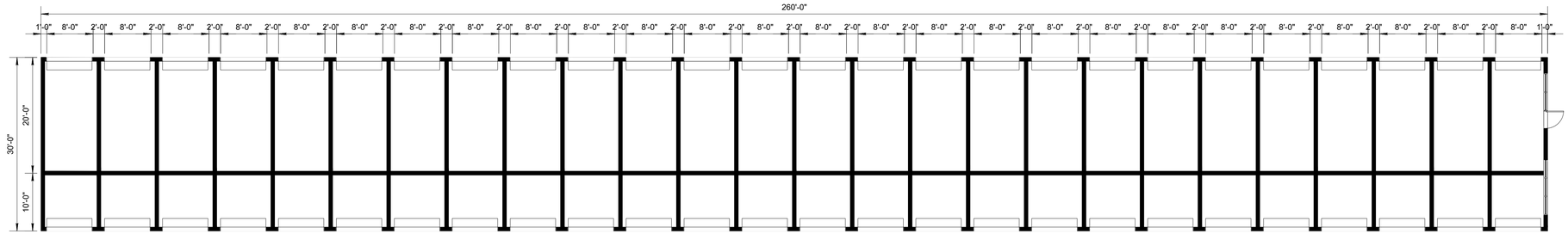
REV. 2

PROPOSED SITE PLAN - V3

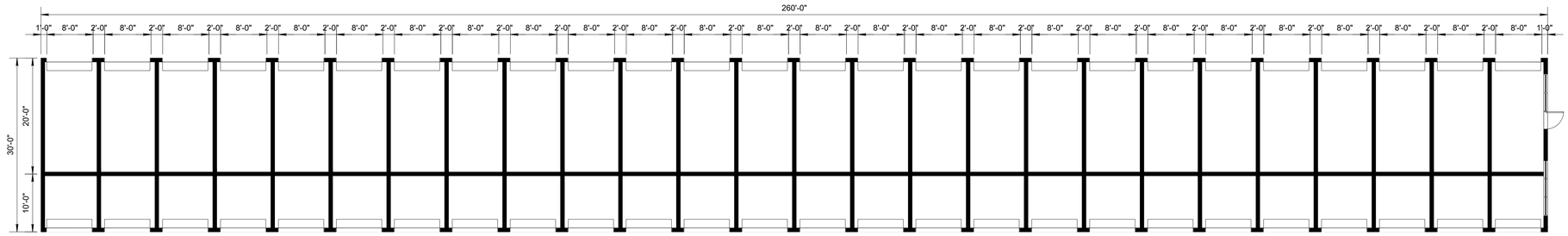
SCALE: NOTED



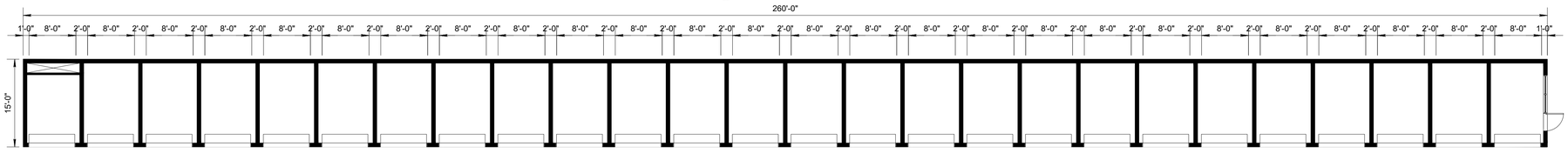
1 B1 FLOOR PLAN
Scale: 3/32" = 1'-0"



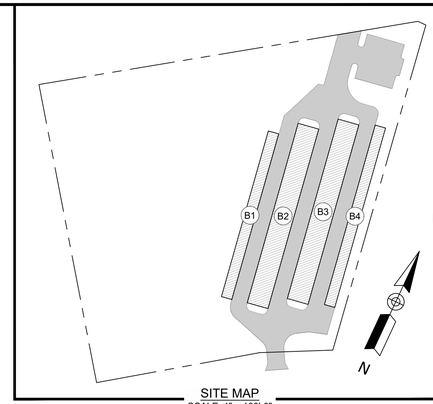
2 B2 FLOOR PLAN
Scale: 3/32" = 1'-0"



3 B3 FLOOR PLAN
Scale: 3/32" = 1'-0"



4 B4 FLOOR PLAN
Scale: 3/32" = 1'-0"



SITE MAP
SCALE: 1" = 100'-0"

3/32" = 1'-0"
0 5' 10' 20' 30' 40'

SCALE: AS NOTED

FLOOR PLANS

LEE BURKLOW
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3102 WEST END AVE., SUITE 200, NASHVILLE, TN 37203
Ph # 615-319-8040
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7/20/2026

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No.	REVISIONS	DATE	DRWN	CHKD	DESIGN	APPD
1	REVISED TO MEET §4.3.1-J REQUIREMENTS	7-17-26	JB	CR	CR	CR

APPROVAL

DRAWN	____	
DESIGN	____	
CHECKED	____	
APPROVED	____	

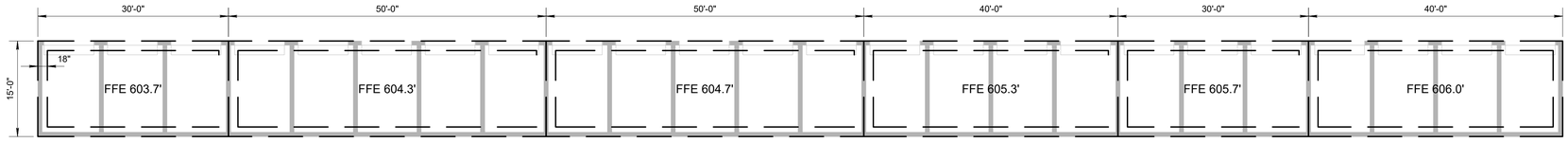
SAVED DATE: 7/20/2026 1:47:47 PM /brad

BOB BURKLOW
SAFE STORAGE
606 LION PARKWAY, COLUMBIA, TN 38401

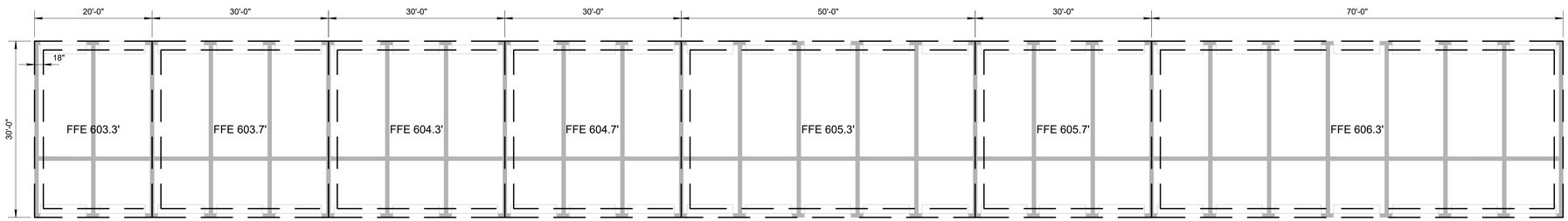
FLOOR PLANS

DWG. No.
A-1.0

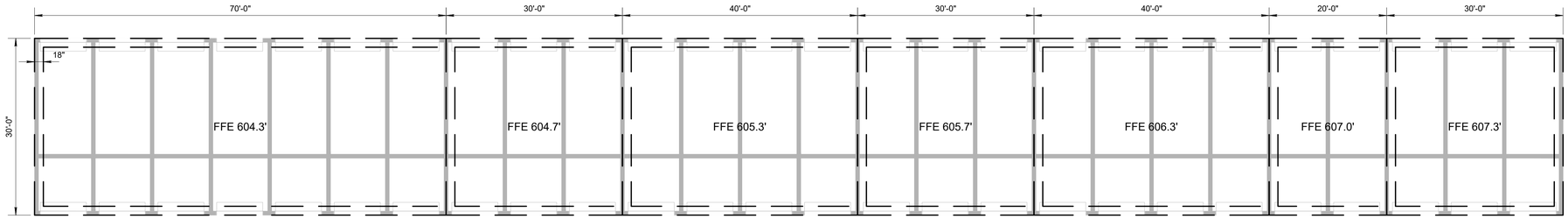
SCALE: NOTED
CADFILE: [illegible]
JOB No. 26-0041
REV. 1



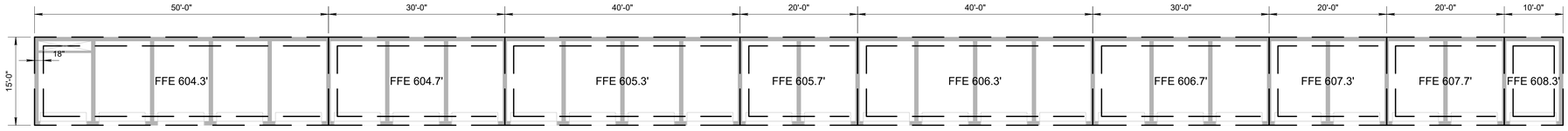
1 B1 FLOOR PLAN
Scale: 3/32" = 1'-0"



2 B2 FLOOR PLAN
Scale: 3/32" = 1'-0"



3 B3 FLOOR PLAN
Scale: 3/32" = 1'-0"



4 B4 FLOOR PLAN
Scale: 3/32" = 1'-0"

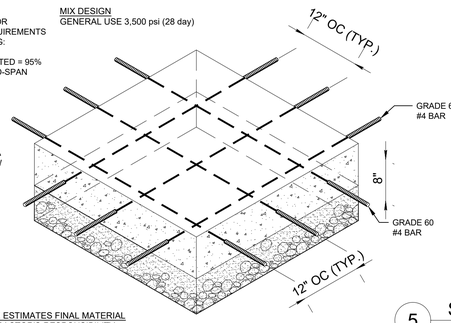
0 5' 10' 20' 30' 40'
3/32" = 1'-0"

EQUIPMENT SLAB ON GRADE
THICKNESS AND STEEL RATIO MEET OR EXCEED ACI-318, 302R AND 360R REQUIREMENTS DESIGN BASED UPON THE FOLLOWING:

-SUBGRADE MECHANICALLY COMPACTED = 95%
-JOINT SPACING: SINGLE JOINT AT MID-SPAN
-STEEL GRADE 60
-(3) UNIFORM LOADS, 357 Lb/FT^2, 28'L
-SAFETY FACTOR - 2X
-REINFORCEMENT NON-STRUCTURAL CRACK AND SHRINK CONTROL ONLY

VERIFIED REINFORCEMENT SPACING EXCEEDS SUBGRADE DRAG FORMULA TO COMPENSATE FOR FREEZE / THAW ENVIRONMENT.

MIX DESIGN
GENERAL USE 3,500 psi (28 day)



MATERIAL QUANTITY PROVIDED ARE ESTIMATES FINAL MATERIAL TAKE-OFF IS THE INSTALLING CONTRACTOR'S RESPONSIBILITY

SURFACE COURSE: 3,500 psi, 7 CUBIC YD
SUBBASE: #57 FINE / COURSE AGGERGATE, 9 CUBIC YD
STEEL: 650 LBS

TEST AND PERFORMANCE REQUIREMENTS @ CONTRACTOR'S EXPENSE
SUBGRADE MOISTURE CONTENT TO BE VERIFIED: 10% - 20% DURING COMPACTION AND RE-VERIFIED PRIOR TO SETTING THE CONCRETE. TEST AREA TO BE SETUP ADJACENT TO SLAB TO PERFORM TEST DAY OF POUR.

SUBGRADE DENSITY: 95% OF MAXIMUM PROCTOR DENSITY, REPORT TO BE PROVIDED PRIOR TO PLACEMENT OF SUBBASE.

SUBBASE DENSITY: 100%, REPORT TO BE PROVIDED PRIOR TO CONCRETE PLACEMENT.

CONCRETE SLUMP: 4"± 1" TO BE RECORDED AND PHOTOGRAPHED THE DAY OF THE POUR

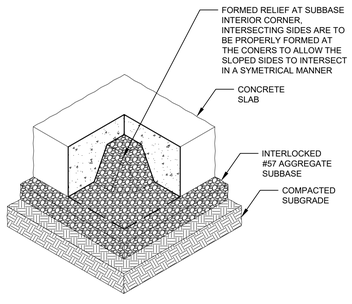
28 DAY COMPRESSION: MINIMUM 3,500 PSI, CYLINDER TO BE LEFT ONSITE IN TEST AREA DURING 28 DAY CURING PERIOD.

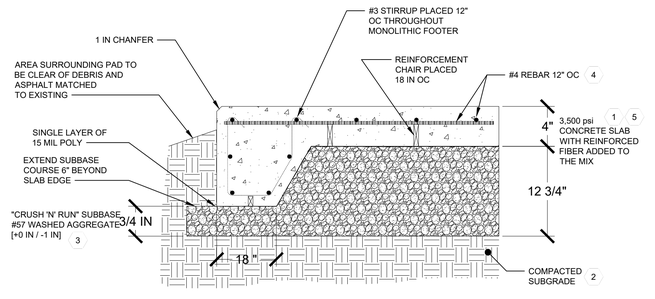
ALL TEST RESULTS ARE TO BE PROVIDED AS PART OF RECORD DOCUMENTATION SET, TIME SENSITIVE RESULTS ARE TO BE TURNED OVER TO THE GOV'T PROJECT SITE LEAD PRIOR TO COMMENCEMENT OF DEPENDANT TASK.

PAD DRAINAGE SLOPE
-1/4" / 10 FT SPAN

FINISH PROFILE
BROOM FINISH

5 SLAB FOUNDATION
Scale: N.T.S.





1 PLACE CONCRETE IN ACCORDANCE WITH THE FOLLOWING ACI GUIDES AND BEST PRACTICE FOR THE POUR ENVIRONMENT:

GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION ACI 302.1R LATEST EDITION.
HOT WEATHER CONCRETING ACI 305R LATEST EDITION.
GUIDE TO CURING CONCRETE ACI 308R LATEST EDITION.

WHEN ORDERING CONCRETE SPECIFY A BLEND OF FINE AND COURSE AGGERGATE, SIZE TO BE IN THE RANGE OF 1/4" TO 1", VERIFY MAX AGGREGATE SIZE DOES NOT TO EXCEED (3/4) THREE FOURTH OF OF THE MINIMUM CLEAR SPACE BETWEEN REINFORCEMENT BARS / WELDED WIRE FABRIC GRID SIZE (TO INCLUDE REINFORCEMENT TO BASE LAYER CLEARANCE, MIN 1-1/2").

2 SUBGRADE TO BE:
- A. FREE OF ORGANIC DECOMPOSABLE MATERIAL, TOP FILL ORGANIC SOIL TO BE REMOVED
- B. MOISTURE CONTENT TO BE WITHIN A RANGE OF 10% TO 20% (DURING COMPACTION AND CONCRETE PLACEMENT) USE THE HAND TEST AS A PRELIMINARY CHECK TO VERIFY MOSITURE CONTENT >> SQUEEZE A BALL OF SOIL IN YOUR HAND. IF IT'S POWDERY AND WON'T HOLD A SHAPE, IT'S TOO DRY; IF IT MOLDS INTO A BALL THEN BREAKS INTO A COUPLE OF PIECES WHEN DROPPED, IT'S ABOUT RIGHT; IF IT LEAVES MOISTURE ON YOUR HAND AND DOESN'T BREAK WHEN DROPPED, IT'S TOO WET.
- C. DURING COMPACTION WATER IS TO BE APPLIED IN A MISTED FORM UNIFORMALLY OVER THE SUBGRADE MATERIAL. CARE SHOULD BE TAKEN NOT TO PROVIDE TO MUCH WATER DURING THE CONSOLADTION PROCESS.
- D. COMPACTED TO MINIMUM 95% OF THE MAXIMUM MODIFIED PROCTOR DENSITY.

3 SUBBASE TO BE:
- A. COMPOSED OF #57 PARTIALLY CRUSHED AND UNCRUSHED COURSE AGGREGATE COMBINED WITH FINE AGGREGATES (SAND) AND SOIL.
- B. LEVELED AND MECHANICALLY COMPACTED TO PROVIDED UNIFORM, LEVEL SMOOTH SUPPORT THROUGHOUT.
- C. DROPPED IN 4 INCH LAYERS THROUGHOUT COMPACTION PROCESS
- D. DURING COMPACTION WATER IS TO BE APPLIED IN A MISTED FORM UNIFORMALLY OVER THE SUBBASE MATERIAL. CARE SHOULD BE TAKEN NOT TO PROVIDE TO MUCH WATER DURING THE CONSOLADTION PROCESS.
- E. COMPACTED TO 100% DENSITY

4 REINFORCEMENT TO BE:
- A. MAIN GRID SYSTEM TO HAVE A MINIMUM COVER OF 2", BAR ENDS MAY EXTEND INTO THE 1-3/4 - 1-1/2 RANGE
- B. FREE OF MUD, DIRT AND OIL
- C. SUPPORTED IN A MANNER THAT PROVIDES A CONSTANT ELEVATION THROUGHOUT, 36" MAX SUPPORT SPAN

5 IN HOT ENVIRONMENTS WHERE THE TEMPERATURE IS AT OR ABOVE 95°F. PRELIMINARY CURING STEPS
ARE REQUIRED EARLY IN THE SLAB SET PERIOD. TO AVOID PLASTIC SHRINKAGE A CURING COMPOUND
OR WET BURLAP NEED TO BE APPLIED TO THE SLAB TO PROMOTE A CURING PROCESS THAT REDUCES THE RISK
OF CRACKING DUE TO RAPID WATER EVAPORATION. REFER TO THE FOLLOWING CURING PROCESS GUIDELINES
BELOW. ENSURE THE SELECTED PROCESS CAN BE CARRIED OUT THROUGHOUT THE FULL CURING PROCESS:

CURING COMPOUND APPLICATION

PROVIDE AN ASTM C309 TYPE 2 CLASS MEMBRANE WHITE CURING COMPOUND WITH WHITE PIGMENT

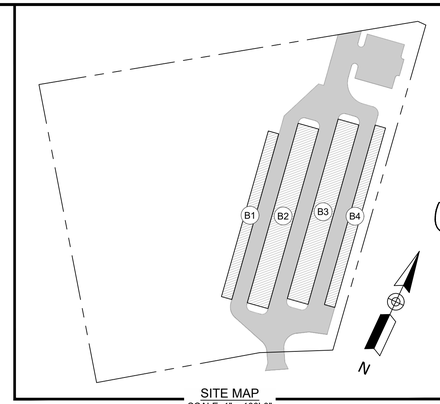
WITHIN TEN MINUTES OF FINISH WORK COMPLETION. APPLY A WHITE PIGMENTED MEMBRANE CURING COMPOUND.
APPLY TWO COATS AT A RATIO OF 4 LITER : 25 SQ. METER [1 GAL : 250 SQ FT]. APPLY COATS ONE MINUTE APART.

WATER SOAKED BURLAP

AFTER FINISH WORK COMPLETE AND SLAB SUFFICIENTLY HARD ENOUGH TO ALLOW WALKING ON
WITHOUT MARRING THE SLAB SURFACE. COVER SLAB COMPLETELY WITH WATER SOAKED BURLAP.

MAINTAIN DAMP BURLAP FOR 72 HOURS USING A WATER FOG SOAK OR SOAKER HOSES.

DURING THE 72 HOUR PERIOD KEEP WATER SOAKED BURLAP COVERED WITH A WHITE POLYETHYLENE 15 MIL POLYSHEET.



SITE MAP
SCALE: 1" = 100'-0"

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7/20/2026

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SITE DEVELOPMENT WATER/WASTEWATER

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APPD. | DESIGN | CHKD | DRWN | DATE | REVISIONS | #

APPROVAL		
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APPROVED	____	
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BOB BURKLOW
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DOUNDATION PLAN

DWG. No.
A-1.1

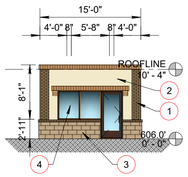
SCALE: NOTED
CADFILE:
JOB No. 26-0041
REV.

FOUNDATION PLAN

SCALE: AS NOTED

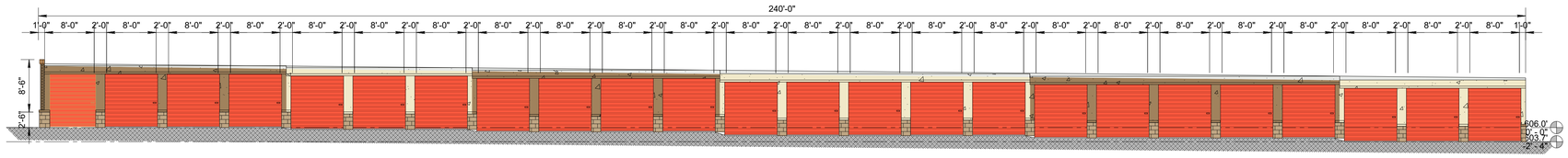
EXTERIOR FINISH SCHEDULE	
CALLOUT	MATERIAL
1	BRICK
2	FIBER CEMENT PANEL
3	STONE
4	CLEAR GLASS

FRONTAGE GLAZING			
	SURFACE AREA	GLAZED SURFACE	%
B1	165 SF	36 SF	22%
B2	330 SF	72 SF	22%



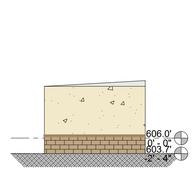
2 B1 SOUTH ELEVATION

Scale: 3/32" = 1'-0"



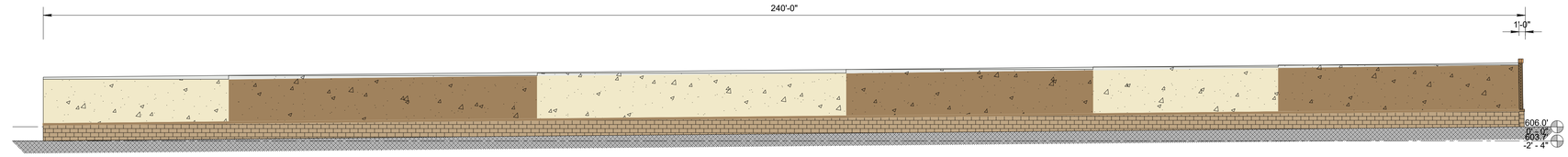
3 B1 EAST ELEVATION

Scale: 3/32" = 1'-0"



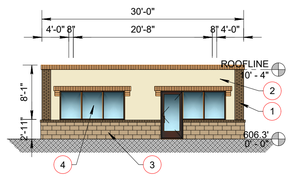
4 B1 NORTH ELEVATION

Scale: 3/32" = 1'-0"



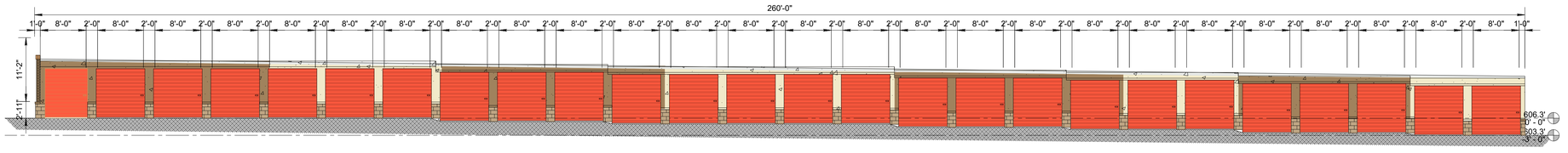
5 B1 WEST ELEVATION

Scale: 3/32" = 1'-0"



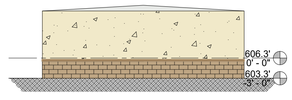
6 B2 SOUTH ELEVATION

Scale: 3/32" = 1'-0"



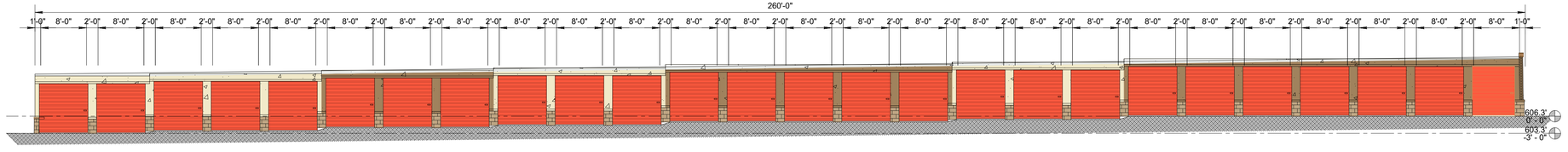
7 B2 EAST ELEVATION

Scale: 3/32" = 1'-0"



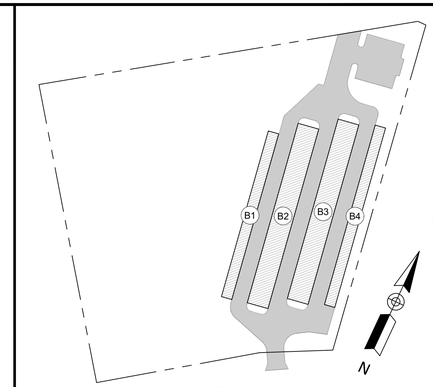
8 B2 NORTH ELEVATION

Scale: 3/32" = 1'-0"



9 B2 WEST ELEVATION

Scale: 3/32" = 1'-0"



SITE MAP

SCALE: 1" = 100'-0"

0 5' 10' 20' 30' 40'

3/32" = 1'-0"

SCALE: AS NOTED

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SITE DEVELOPMENT WATER/WASTEWATER

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No.	REVISIONS	DATE	DRWN	CHKD	DESIGN	APPD
1	REVISED TO MEET §4.3.1-J REQUIREMENTS	7-17-26	JB	CR	CR	CR

APPROVAL

DRAWN	----	
DESIGN	----	
CHECKED	----	
APPROVED	----	

SAVED DATE: 7/31/2026 11:47:44 AM jbrad

BOB BURKLOW
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ELEVATIONS

DWG. No.

A-2.0

SCALE: NOTED

CADFILE:

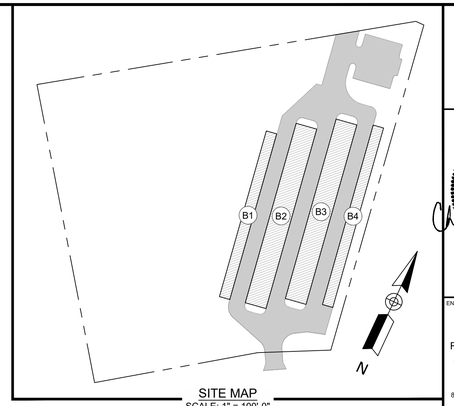
JOB No. 26-0041

REV. 1

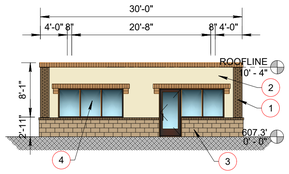
ELEVATIONS

EXTERIOR FINISH SCHEDULE	
CALLOUT	MATERIAL
1	BRICK
2	FIBER CEMENT PANEL
3	STONE
4	CLEAR GLASS

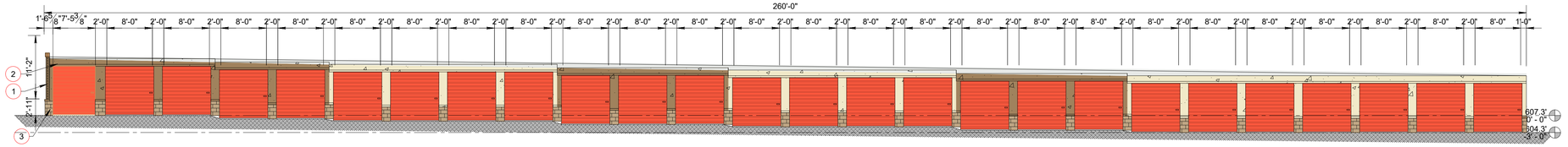
FRONTAGE GLAZING			
	SURFACE AREA	GLAZED SURFACE	%
B3	330 SF	72 SF	22%
B4	165 SF	36 SF	22%



SITE MAP
SCALE: 1" = 100'-0"



1 B3 SOUTH ELEVATION
Scale: 3/32" = 1'-0"



2 B3 EAST ELEVATION
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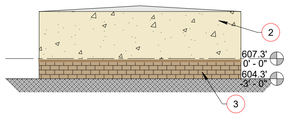
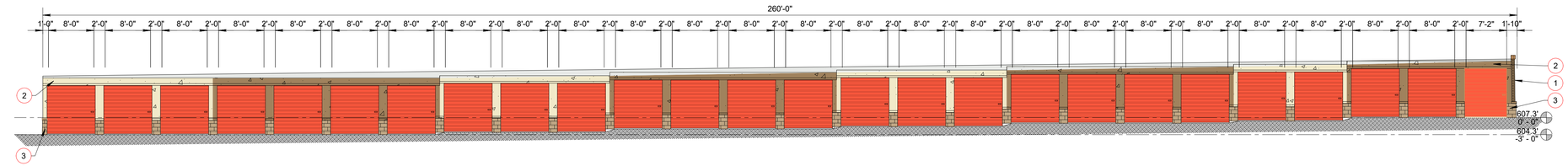


3 B3 NORTH ELEVATION
Scale: 3/32" = 1'-0"



4 B3 WEST ELEVATION
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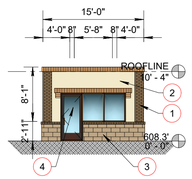
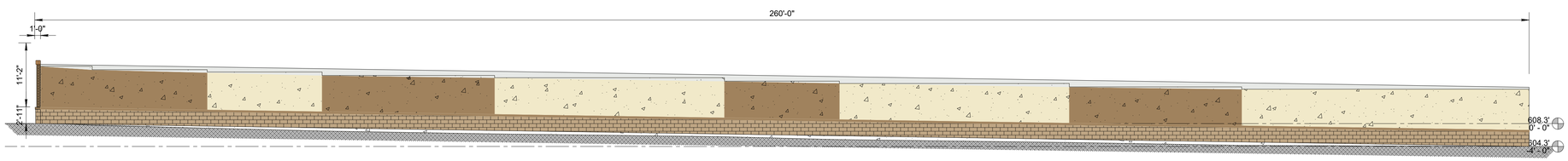


5 B4 SOUTH ELEVATION
Scale: 3/32" = 1'-0"



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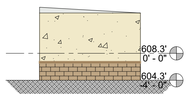

7 B4 NORTH ELEVATION
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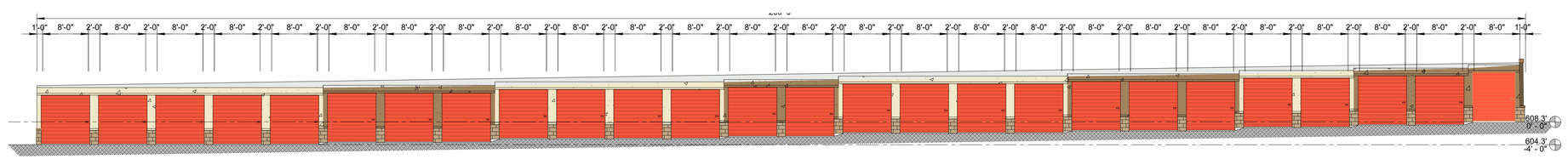

8 B4 WEST ELEVATION
Scale: 3/32" = 1'-0"

3/32" = 1'-0"
0 5' 10' 20' 30' 40'

ELEVATIONS

SCALE: AS NOTED

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No.	DATE	DRWN	CHKD	DESIGN	APPD
1	7-17-26	JB	CR	CR	CR

REVISIONS
REVISED TO MEET §4.3.1-J REQUIREMENTS

APPROVAL
DRAWN
DESIGN
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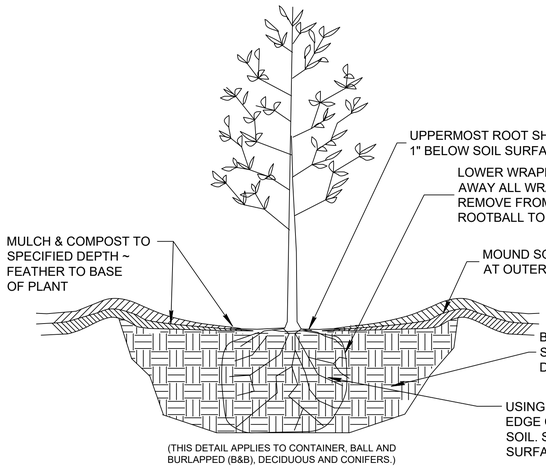
606 LION PARKWAY, COLUMBIA, TN 38401

ELEVATIONS

DWG. No.
A-2.1
SCALE: NOTED
CADFILE:
JOB No. 26-0041
REV. 1

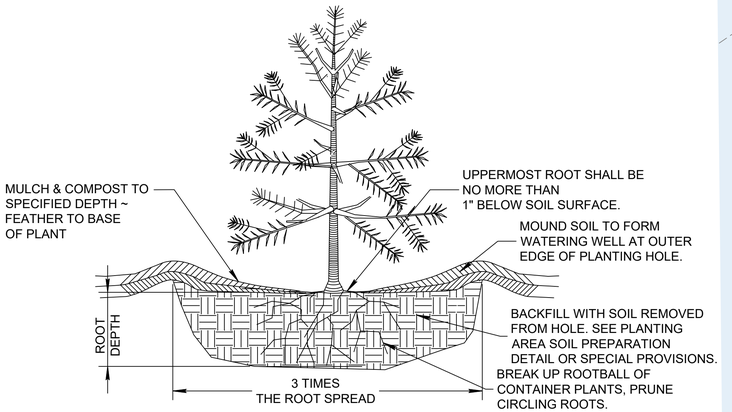
LINE	BEARING	DISTANCE
LI	N 55"30'51" E	90.08'
L2	N 89"46'30" E	12.24'

CURVE	RADIUS	CHORD BEARING	CHORD LENGTH
CI	346.50'	S 63"00'26" W	101.98'



2 TREE PLANTING & STAKING DETAIL

Scale: N.T.S.



3 SHRUB, TREE & GROUND COVER PLANTING DETAIL

Scale: N.T.S.

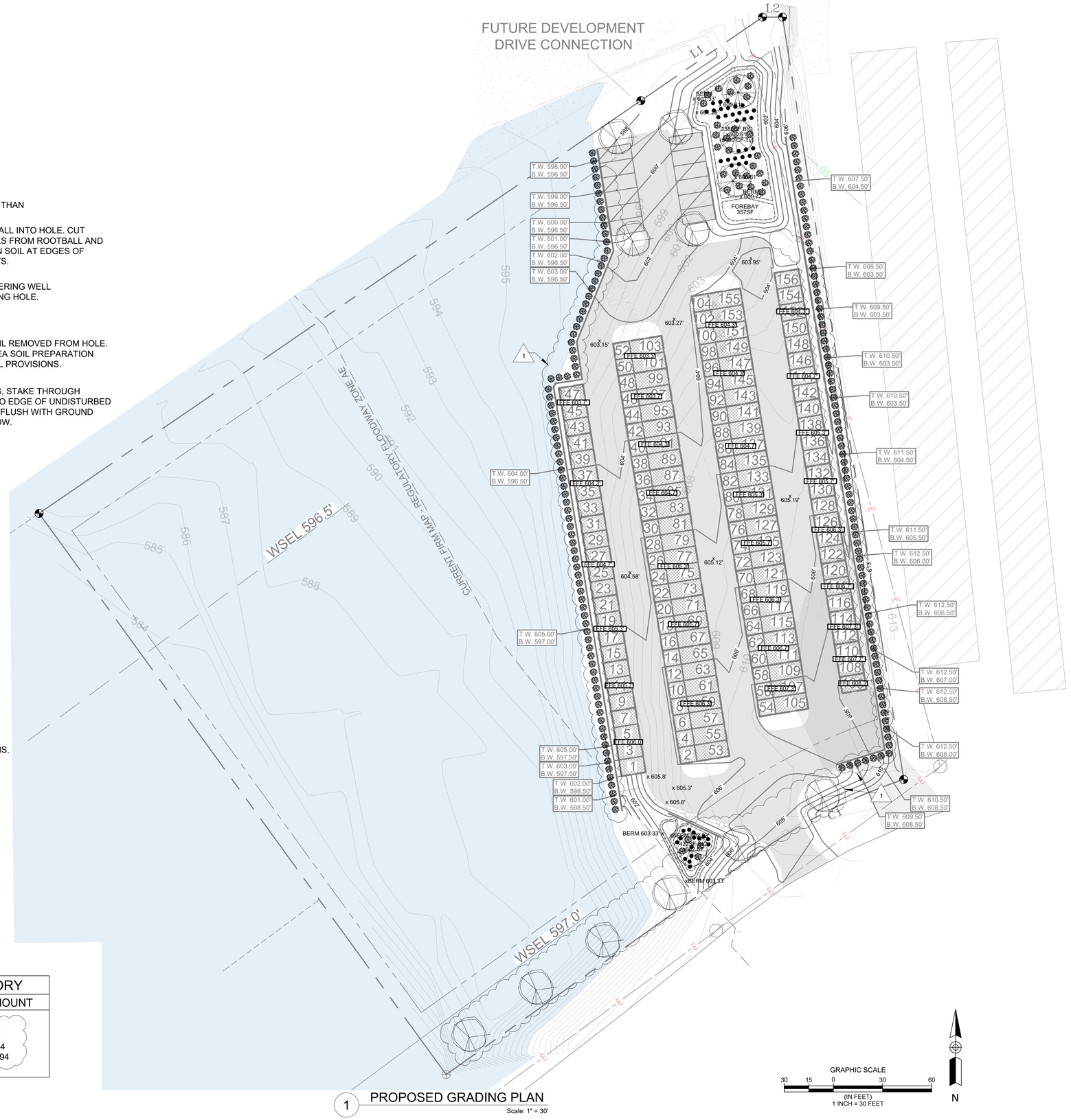
PLANTING NOTE:
IF SOIL REMOVED FROM HOLE IS POOR QUALITY, THE LANDSCAPE AREA SHALL HAVE UNCOMPACTED COARSE LOAM THAT IS A MINIMUM OF 12 INCHES DEEP. SOILS SHALL BE FREE OF GRAVEL STONES, RUBBLE AND/OR TRASH. ALL COMPACTED SOIL, CONTAMINATED SOIL OR ROADBASE BILL SHALL BE REMOVED. UNDER NO CIRCUMSTANCES SHALL SOILS WITH GREATER THAN 5% OR LESS THAN 0.5% ORGANIC MATTER BE ACCEPTED.

TREE LEGEND

ELEV	PLAN #	IMAGE	TREE TYPE	CAL	HT
TREE-FULL	1		BLACK GUM TREES NYSSA SYLVATICA	2"	10'-12'
TREE-FULL	2		RED MAPLE ACER RUBRUM	2"	10'-12'
BUSH	3		GLOSSY ABELIA ABELIA GRANDIFLORA	5 GAL	24" MIN
BUSH	4		SCHIP LAUREL PRUNUS LAUROCERASUS 'SCHIPKAENSIS'	5 GAL	30" MIN

PLANTING INVENTORY

TREE TYPE	AMOUNT
BLACK GUM	6
RED MAPLE	8
GLOSSY ABELIA	44
SCHIP LAUREL	194



1 PROPOSED GRADING PLAN

Scale: 1" = 30'

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7/20/2026

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SITE DEVELOPMENT WATER/WASTEWATER

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NO.	DESCRIPTION	DRAWN	DESIGN	CHECKED	APPROVED	DATE
1	ADDED ADDITIONAL FOLIAGE TO MEET ZONING 84.3.16	CAR	CAR	JAB		6/23/26

APPROVAL

DRAWN	—
DESIGN	—
CHECKED	—
APPROVED	—

SAVED DATE: 7/20/2026 1:47:47 PM jbrad

BOB BURKLOW
SAFE STORAGE
606 LION PARKWAY, COLUMBIA, TN 38401

LANDSCAPE PLAN

DWG. No.
L-1.0

SCALE: NOTED

CADFILE:

JOB No. 26-0041

REV. 1

LANDSCAPE PLAN

SCALE: AS NOTED

CITY OF
COLUMBIA
TENNESSEE

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

DEVELOPMENT REVEW COMMITTEE MEETING
Tuesday, July 14, 2026

ITEM NO.
26-0224

DESCRIPTION: Lion Pkwy - Safe Storage - ARC

COMMENTS:

Planning

1. The lead staff person for this case is Robert Archibald, Principal Planner. Please contact rarchibald@columbiatn.gov with questions about the development review process or technical comments. The case planner should be copied on all communication with other city staff.
2. At resubmittal, please provide a response letter addressing each comment along with any revised plans. If the nature of the comment does not warrant a response, or the comment was previously addressed, please simply note that the information has been acknowledged. Any documents or additional information that you want to present to the Planning Commission should be included in your resubmittal.
3. Provide owner/applicant signatures on Application.
4. The proposed structures are not considered Flex Buildings with an Industrial Use. The architecture, is therefore, subject to the Design Standards for the District found in §4.3.1-J of the Zoning Ordinance.
5. Metal cladding is not a permitted material for this Building Type without an Industrial Use. Update the design to comply with the permitted Building Materials table found in §4.3.1-J of the Zoning Ordinance.
6. EIFS is not a permitted building material. Please reference §4.3.1-J for allowable materials and update plans to show compliance.
7. The proposed facades, per building, set along Lion Parkway require glazing 20% min. - 60% max. Redesign front walls to be compliant.
8. Any glass installed must be clear glass.
9. Each building must have an identifiable Base, Middle, and Cap.
10. All proposed buildings have the associated frontage on Lion Parkway. A main entrance must be located in the facade area (end wall of all new structures facing Lion Parkway).

Maury County Schools

11. No Comment.

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

City Attorney

12. No comments provided.

Police

13. No comments provided.

Building

14. No comment.

Duck River Electric Membership Corp

15. No comment.

Columbia Power

16. Columbia Power System has an existing power line near your proposed development. We are willing to serve this new development subject to all Columbia Power System policies and procedures in effect at actual time service is rendered provided an approved final plat and complete electrical load information is furnished as soon as possible prior to start of actual construction. Unfortunately, due to current supply chain challenges, no timeframe can be guaranteed regarding the availability of meters or transformers appropriate for your development.

Engineering

17. No comments on architectural review.

Maury County Highway Dept.

18. No comment.

Public Works

19. Please see the attached City of Columbia Dumpster Guidelines & Accessibility Requirements. Safe Storage at 606 Lion Parkway already has City Sanitation Services; however, if an additional dumpster location is needed, please reference the attached file for specs.

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20. DUMPSTER GUIDELINES AND ACCESSIBILITY REQUIREMENTS

DUMPSTER AND COMPACTOR STANDARDS GENERAL

All requirements for collection and accessibility to containers apply, regardless of whether collection is public or private.

GUIDELINES FOR DUMPSTERS

The number and capacity of dumpsters must be adequate to serve the disposal needs of the business, development or complex. Collection must occur at least one time per week, with special approval needed for every other week (EOW) collection. Each dumpster must be easily accessible, as determined by the Public Works Department, and of a size compatible with equipment of the department. If the dumpster is in an enclosed area, there must be at least 2 feet and 6 inches of clearance on each side of the dumpster.

DUMPSTER PAD REQUIREMENTS

1. The concrete dumpster pad shall be at least 12 feet by 12 feet.
2. The pad(s) shall be 8-inch-thick concrete, reinforced with rebar to support a 30-ton loadbearing capacity.
3. A 14-foot-wide by 40-foot-long straight and clear access approach to each dumpster for the truck is required.
4. Clearance at each side of the dumpster must be at least 2 feet and 6 inches.
5. If a gated enclosure is utilized, the gates must be lockable in the open position to prevent the gates from swinging into the path of the truck during servicing.
6. Two 6-inch diameter concrete filled steel bollards must be placed in the concrete pad to the rear of each dumpster, 2 feet from the back edge of the dumpster pad, spaced 4 feet apart and centered side to side. The bollards will rise 6 feet above the pad and extend 32 inches below the pad into the concrete footers.
7. If the box is enclosed, it is recommended that there be pedestrian access in addition to service gates.
8. Access area, approach and pad must be level.
9. Standard pads with no drain should be elevated approximately 1-1/2 inches above the surrounding pavement.

ACCESSIBILITY REQUIREMENTS FOR DUMPSTERS AND COMPACTORS

1. Access must accommodate a 40-foot-long truck, with a 45-foot turning radius. Circular movement through the complex for the vehicles is highly recommended.
2. The collection truck shall not be required to back-up for no more than 200 feet.
3. No backing into or across a public right-of-way.
4. No overhead obstructions at waste handling or access area. Refuse collection trucks need a minimum of a 25-foot vertical clearance to service containers.
5. Heavy duty pavement is required for the collection truck's path through the complex. City of Columbia Public Works will not be responsible for the repair of asphalt or concrete which has been damaged due to normal usage.
6. Gates must be unlocked and open for collection.

CITY OF COLUMBIA TENNESSEE

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

Atmos Energy

21. No comments provided.

Maury County E911

22. No comments provided.

Columbia Water

23. No comments for architectural review.

Fire

24. No comments.

ATT

25. No comments provided.

Resubmittal Guidelines

Please provide a comment response letter as well as digital copies of revised plans and supporting documentation. Submit all required documents electronically through the online portal: columbia.onlama.com. If the files are oversized, please provide a file sharing link.

Please contact the case planner identified in the Planning Comments with any questions about the review process.

Please contact pkeltner@columbiatn.gov or srichardson@columbiatn.gov if you encounter difficulties with the online portal.

You will receive an invoice for required advertising and mailing fees. All fees must be paid by the Friday following resubmittal in order advance to the Planning Commission agenda.

NOTE: All resubmittals must demonstrate compliance with city standards prior to Planning Commission review. Requests which do not adhere to regulations and/or remain unresponsive to technical comments will not be forwarded to the next agenda until such items are amended. Final Plat applications which are not ready to proceed to Planning Commission following the first resubmittal deadline will be added to the following DRC agenda to confirm the status of required infrastructure and utilities. Applications which remain incomplete following two resubmittal deadlines will be closed.

RHODES ENGINEERING

Rhodes Engineering and Environmental Services, LLC

July 20, 2026

Development Services
700 N Garden Street,
Columbia, TN 38401

Re: Development Review Committee Meeting – July 14, 2026
Lion Pkwy – Safe Storage - Arc

City of Columbia Development Services,

Rhodes Engineering has revised the Plans for the Safe Storage project to address comments made during design review. These have been restated below followed by responses and change notes in **bold blue**.

Planning

1. The lead staff person for this case is Robert Archibald, Principal Planner. Please contact rarchibald@columbiatn.gov with questions about the development review process or technical comments. The case planner should be copied on all communication with other city staff.
   Understood.

2. At resubmittal, please provide a response letter addressing each comment along with any revised plans. If the nature of the comment does not warrant a response, or the comment was previously addressed, please simply note that the information has been acknowledged. Any documents or additional information that you want to present to the Planning Commission should be included in your resubmittal.
   Understood. This document is intended to serve this purpose.

3. Provide owner/applicant signatures on Application.
   Owner has now signed attached application.

4. The proposed structures are not considered Flex Buildings with an Industrial Use. The architecture, is therefore, subject to the Design Standards for the District found in §4.3.1-J of the Zoning Ordinance.
   Proposed structures have been revised to adhere to §4.3.1-J of the Zoning Ordinance.

5. Metal cladding is not a permitted material for this Building Type without an Industrial Use. Update the design to comply with the permitted Building Materials table found in §4.3.1-J of the Zoning Ordinance.
   Metal cladding has been replaced.

6. EIFS is not a permitted building material. Please reference §4.3.1-J for allowable materials and update plans to show compliance.
   EIFS referenced on sheets by Rapid Buildings plan sheets mentioned in comment 5 above to be superseded by A-sheets. Det. 1 on D1.1 similarly to be superseded. EIFS in plans to be Hardie

fiber cement panel primed stucco.

7. The proposed facades, per building, set along Lion Parkway require glazing 20% min. - 60% max. Redesign front walls to be compliant.
   Proposed structures have been revised to meet 20% glazing requirement.

8. Any glass installed must be clear glass.
   Understood.

9. Each building must have an identifiable Base, Middle, and Cap.
   Proposed structures have been revised to have a base, middle, and cap.

10. All proposed buildings have the associated frontage on Lion Parkway. A main entrance must be located in the facade area (end wall of all new structures facing Lion Parkway).
    Proposed structures have been revised to have a main entrance.

Maury County Schools

11. No Comment.

City Attorney

12. No comments provided.

Police

13. No comments provided.

Building

14. No comment.

Duck River Electric Membership Corp

15. No comment.

Columbia Power

16. Columbia Power System has an existing power line near your proposed development. We are willing to serve this new development subject to all Columbia Power System policies and procedures in effect at actual time service is rendered provided an approved final plat and complete electrical load information is furnished as soon as possible prior to start of actual construction. Unfortunately, due to current supply chain challenges, no timeframe can be guaranteed regarding the availability of meters or transformers appropriate for your development.
    Understood. Only power for exterior lighting is required.

Engineering

17. No comments on architectural review.

Maury County Highway Dept.

18. No comment.

Public Works

19. Please see the attached City of Columbia Dumpster Guidelines & Accessibility Requirements. Safe Storage at 606 Lion Parkway already has City Sanitation Services; however, if an additional dumpster location is needed, please reference the attached file for specs.

    No dumpster is needed for self-storage facility.

20. DUMPSTER GUIDELINES AND ACCESSIBILITY REQUIREMENTS DUMPSTER AND COMPACTOR STANDARDS GENERAL All requirements for collection and accessibility to containers apply, regardless of whether collection is public or private. GUIDELINES FOR DUMPSTERS The number and capacity of dumpsters must be adequate to serve the disposal needs of the business, development or complex. Collection must occur at least one time per week, with special approval needed for every other week (EOW) collection. Each dumpster must be easily accessible, as determined by the Public Works Department, and of a size compatible with equipment of the department. If the dumpster is in an enclosed area, there must be at least 2 feet and 6 inches of clearance on each side of the dumpster. DUMPSTER PAD REQUIREMENTS
    1. The concrete dumpster pad shall be at least 12 feet by 12 feet.
    2. The pad(s) shall be 8-inch-thick concrete, reinforced with rebar to support a 30-ton loadbearing capacity.
    3. A 14-foot-wide by 40-foot-long straight and clear access approach to each dumpster for the truck is required.
    4. Clearance at each side of the dumpster must be at least 2 feet and 6 inches. 5. If a gated enclosure is utilized, the gates must be lockable in the open position to prevent the gates from swinging into the path of the truck during servicing.
    6. Two 6-inch diameter concrete filled steel bollards must be placed in the concrete pad to the rear of each dumpster, 2 feet from the back edge of the dumpster pad, spaced 4 feet apart and centered side to side. The bollards will rise 6 feet above the pad and extend 32 inches below the pad into the concrete footers.
    7. If the box is enclosed, it is recommended that there be pedestrian access in addition to service gates.
    8. Access area, approach and pad must be level.
    9. Standard pads with no drain should be elevated approximately 1-1/2 inches above the surrounding pavement. ACCESSIBILITY REQUIREMENTS FOR DUMPSTERS AND COMPACTORS
        1. Access must accommodate a 40-foot-long truck, with a 45-foot turning radius. Circular movement through the complex for the vehicles is highly recommended.
        2. The collection truck shall not be required to back-up for no more than 200 feet.
        3. No backing into or across a public right-of-way.
        4. No overhead obstructions at waste handling or access area. Refuse collection trucks need a minimum of a 25-foot vertical clearance to service containers.
        5. Heavy duty pavement is required for the collection truck's path through the complex. City of Columbia Public Works will not be responsible for the repair of asphalt or concrete which has

been damaged due to normal usage.

6. Gates must be unlocked and open for collection.

See comment 19 above. No dumpster is proposed.

Atmos Energy

21. No comments provided.

Maury County E911

22. No comments provided.

Columbia Water

23. No comments for architectural review.

Fire

24. No comments.

ATT

25. No comments provided.

If you have any questions, please do not hesitate to reach out. You may contact me at the following numbers: (931) 548-2470 or (615) 480-7535

Sincerely,

Chester Rhodes

Chet Rhodes, PE
Rhodes Engineering, LLC
807 Nashville Hwy | Suite #1
Columbia, TN 38401

Cc: Robert Archibald
rarchibald@columbiatn.gov

Honey Farms Taco Bell Final PUD Master Plan

Project #:	26-0234	Location:	2250 Nashville Hwy
Applicant:	Palmer Engineering, LLC	Case Type(s):	Final PUD Master Plan
Staff Planner:	Austin Brass, AICP	Proposed Use:	2,524 SF Taco Bell Restaurant

PROJECT SUMMARY

The applicant seeks approval of a Final PUD Master Plan Revision for a 2,524 SF Quick Service Restaurant with associated drive thru. The Preliminary PUD Master Plan associated with this request was recommended for approval by the Planning Commission on April 8th, 2026, with subsequent final approval by City Council on July 11th, 2026.

- A PUD-MU district does not permit a freestanding sign. The applicant has requested a freestanding monument sign that would meet the signage standards of a general urban (CD-4C) corridor for a freestanding monument sign of 50 SF. This request was approved with the Preliminary PUD Master Plan.
- Glazing (*glass*) is required to be clear glass on all elevations within a PUD-MU district. The applicant has demonstrated this requirement on the front façade elevation.
- The only changes from the approved Preliminary PUD Master Plan is a minor footprint modification of the building by +/- 1'.
- The Planning Commission is the **decision-making authority** for approval of a Final PUD Master Plan per section 8.5.21.R of the Zoning Ordinance that lists the criteria for Planning Commission action.

SITE INFORMATION

CURRENT ZONING	EXISTING USE	EXISTING IMP.	LAND AREA
PUD-MU	Vacant Land	Quick Service Restaurant	+ /- 1.2 acres



FUTURE LAND USE MAP (Suburban Neighborhoods)	ZONING MAP (PUD-MU)





SITE CONTEXT/ADJACENT PROPERTIES			
	Future Land Use	**Zoning**	**Current Use**
Subject Property	**City Center & Urban Village**	**PUD-MU**	**Vacant**
North	**City Center & Urban Village**	**PUD-MU**	**Commercial (*McDonalds*)**
South	**City Center & Urban Village**	**PUD-MU**	**Vacant (*Future Commercial*)**
East	**City Cetner & Urban Village**	**PUD-MU**	**Commercial (*Self-Storage*)**
West	**City Center & Urban Village**	**PUD-MU**	**Vacant**

CONSISTENCY WITH CONNECT COLUMBIA



Character & Intent

The City Center & Urban Village (CCUV) future land use area comprises Columbia's iconic core and ancillary focal points. It includes the historic courthouse square and the places residents of Columbia associate with worship, commerce, the arts, community activities and government administration. The CCUV also supports the creation of urbanized nodes which provide identifiable commercial hubs for Columbia's emerging neighborhoods. Each development parcel should add to Columbia's existing sense of place and extend its established form and pattern to create a more interconnected community.

Primary Land Uses are horizontally and vertically mixed in a variety of structure types. The intensity and mix of uses is largely determined by context. New residential development provides a mixture of housing within walking distance of commercial and civic spaces. New non-residential development in established residential areas shall be comprised of low-intensity uses which serve residents' daily needs. Higher intensity uses should complement and extend the traditional pattern of development in Columbia's core, or establish identifiable centers for emerging nodes.

Future development should emphasize connectivity and continuity of the city as a whole. Additionally, new development shall create a pedestrian-friendly environment by filling gaps in sidewalks and enhancing multi-modal infrastructure. All new and infill development shall emphasize linkages to identifiable community anchors such as mixed-use commercial centers, schools, parks, or civic institutions.

Land Use Considerations

Primary uses include government, civic uses, parks, religious facilities, offices, retail, and all forms of medium-density housing. Secondary land uses include utility facilities, institutional uses, low-density housing, and neighborhood retail. New industrial and warehouse uses are inappropriate.

Form & Pattern

The CCUV includes established and infill neighborhoods at medium to high densities organized along a well-connected transportation network. Infill development supports and extends the formation of blocks and eliminates gaps in the built environment. The CCUV future land use is distinguished from Suburban Neighborhoods (SN) by the unambiguous prominence of public frontages. A high density of streets and thoroughfares with complete public frontages extends the public sphere outward from civic and commercial spaces. Implementing bulk and design standards clearly delineate the public and private realms though the application of layers and front-to-back discipline of lots. Bulk and design standards are occasionally modified to accommodate historic preservation, artistic innovation, redevelopment, and other place-based policies of the City. New development should accompany concurrent extension of complete urban services in places where they do not already exist. Parking is provided on an area-wide basis as a utility supplemented by private land users.

Implementing Districts
Neighborhood CD-3 (Only where compatible with established pattern)
General Urban CD-4
Urban Center CD-5
General Urban-Corridor CD-4C (only along Arterial roadways)
Urban Center – Corridor CD-5C (only along Arterial roadways)*
Mixed Use PUD PUD-MU
Civic CV

Implementing Standards
General Development Pattern: Mixed Uses & Isolated Uses
Density (density unites per ace): ≥ 12 du/ac
Building Height: 1-5 stories
Open Space Elements: Civic Spaces, Parks & Greenways

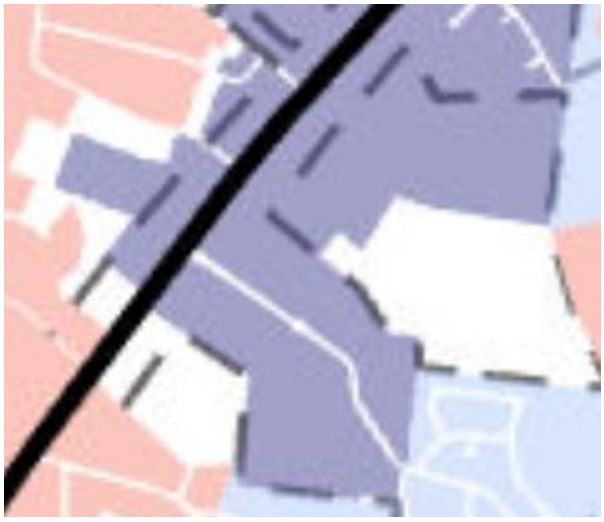
City Center & Urban Village:

The City Center & Urban Village (CCUV) future land use area comprises Columbia's iconic core and ancillary focal points. It includes the historic courthouse square and the places residents of Columbia associate with worship, commerce, the arts, community activities and government administration. The CCUV also supports the creation of urbanized nodes which provide identifiable commercial hubs for Columbia's emerging neighborhoods. Each development parcel should add to Columbia's existing sense of place and extend its established form and pattern to create a more interconnected community. Primary Land Uses are horizontally and vertically mixed in a variety of structure types. The intensity and mix of uses is largely determined by context. New residential development provides a mixture of housing within walking distance of commercial and civic spaces. New non-residential development in established residential areas shall be comprised of low intensity uses which serve residents' daily needs. Higher intensity uses should complement and extend the traditional pattern of development in Columbia's core, or

establish identifiable centers for emerging nodes. Future development should emphasize connectivity and continuity of the city as a whole. Additionally, new development shall create a Pedestrian-friendly environment by filling gaps in sidewalks and enhancing multi-modal infrastructure. All new and infill development shall emphasize linkages to identifiable community anchors such as mixed-use commercial centers, schools, parks, or civic institutions. This request includes a pedestrian connection to adjacent parcels in with a sidewalk that is located within the frontage of the site parallel to Nashville Hwy.

AREA OF CHANGE

Connect Columbia established the areas of change policy designation for the subject site as ***Activate*****.** The designation includes areas where significant and beneficial change is occurring or is desired. These areas are the focus of proactive City policies to bring the community's values to fruition. Public investment and increased coordination with the private sector will achieve transformational changes envisioned by the community (*Connect Columbia p. 32).*



CONFORMITY WITH ZONING ORDINANCE/ PRELIMINARY PUD MASTER PLAN

Lots, Building Sites & Bulk Standards:

- **The proposed Final PUD Master Plan conforms to the approved Preliminary PUD Master Site Plan.**
    - All architectural design standards adhere to the approved Preliminary PUD Master Plan when utilizing a two-story façade design with clear façade glazing and principal entrance at the street section enfronting Nashville Hwy.
    - All Site Development standards adhere to the approved Preliminary PUD Master Plan with all drive-thru stacking and adequate parking located with the 3rd layer of the site.

REVIEW PROCESS

The Development Review Committee reviewed this Final PUD Master Plan request at its July 2026 meeting, as directed by section **8.3.7** of the Zoning Ordinance. Technical comments are provided in the agenda package and summarized above. Section **8.5.21** (Planned Unit Development) outlines the procedural requirements for approval of a Final PUD Master Plan.

8.5.21 Q. Final Master PUD Development Plan General.

1. In reviewing a Final Master PUD Development Plan or amendment to Final Master PUD Development Plan, the function of the reviewing agencies is twofold: a. First, the plan or amendment must be found to be in substantial compliance with the approved Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan. b. Second, all new or revised information that was not in the previously approved Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan must be reviewed to determine its quality and compliance with all applicable requirements of this Ordinance.

2. The Final Master PUD Development Plan or amendment to Final Master PUD Development Plan shall be deemed in substantial compliance with the approved Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan provided any modifications by the applicant do not involve changes which in aggregate would: a. Violate any provisions of this Ordinance; b. Change the Lot or Building Site Area requirement as submitted in the Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan by more than 10%; c. Involve any increase in the number of Dwelling Units approved for the site in the Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan; d. Involve a reduction of more than 3% of the area shown on the Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan as reserved for Common Open Space; e. Increase the Floor Area shown on the Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan for non-Residential Uses by more than 5%; or f. Alter the mix of Building Types or Uses shown on the Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan by more than 3% in any category or Uses or any one or more Building Types from that proposed in the Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan.

8.5.21 R. Planning Commission Action.

1. The Planning Commission may approve, approve with conditions or modifications, or disapprove the final Master PUD Development Plan or Amendment to existing Master PUD Development Plan.

2. The Planning Commission may approve the Final Master PUD Development Plan or amendment to Final Master PUD Development Plan if it finds: a. That the Final Master PUD Development Plan or amendment to Final Master PUD Development Plan meets the provisions for substantial compliance with the Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan, and b. The Final Master PUD Development Plan or amendment to Final Master PUD Development Plan complies with all other standards for review which were not considered when the Preliminary Master PUD Development Plan or amendment to Preliminary Master PUD Development Plan was approved.

SUMMARY OF DEVELOPMENT REVIEW COMMITTEE COMMENTS

The DRC reviewed this proposal at its July 2026 meeting. A full list of comments, and the applicant's responses, is provided in the agenda packet. Some key comments are noted below.

- **Planning** noted to address any significant changes with this Final PUD Master Plan from approval of the Preliminary PUD Master Plan. The applicant acknowledged no changes with the exception of changes to the location of the site light poles than in turn resulted in an updated code compliant photometric plan.
- **Wastewater** noted that final sanitary sewer plans are subject to any technical comments in the building permit review.
- **Columbia Water** indicated no comments. The applicant has addressed water availability through impact fee payments to CPWS.

SAMPLE MOTIONS

Approve:

Move to find, based on the information presented by the applicant and the analysis provided by city staff, that the criteria listed in sections **8.5.21.Q**, & **8.5.21.R**, the City of Columbia Zoning Ordinance have been satisfied, and recommend approval of the Final Planned Unit Development Master Plan as presented *[subject to technical comments and other conditions presented by planning staff*].

Approve Subject to Conditions:

Move to find, based on the information presented by the applicant and the analysis provided by city staff, that the criteria listed in sections **8.5.21.**, **8.5.21.**, of the City of Columbia Zoning Ordinance have been satisfied, and recommend approval of the Final Planned Unit Development Master Plan, subject to the following conditions: [*list conditions of approval crafted by Planning Commission*].

Deny:

Move to recommend denial of the Final Planned Unit Development Master Plan having found, based on the information presented by the applicant and the analysis provided by city staff, that the criteria listed in sections **8.5.21 (same as above)** of the City of Columbia Zoning Ordinance, are not satisfied [*list specific reasons for denial*].

Defer:

Move to find that there is insufficient information to make a decision, defer the matter to the next regularly scheduled meeting of the Planning Commission, and request that the [*applicant/staff*] provide: [*list additional information*] for review at a future meeting.

FINAL PUD SITE PLAN SUBMITTAL FOR

TACO BELL

HONEY FARM CROSSING
COLUMBIA, TN 38401

PROJECT #: 12965

JOB SITE SAFETY

1. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE SAFETY DURING CONSTRUCTION. JOB SITE SAFETY IS OUTSIDE THE SCOPE OF WORK OF AMERICAN ENGINEERS, INC. AND NEITHER THE PROFESSIONAL ACTIVITIES OR THE PRESENCE OF AEI OR SUBCONSULTANTS AT THE CONSTRUCTION SITE SHALL RELIEVE THE CONTRACTOR OR ANY OTHER ENTITY OF THEIR OBLIGATION , DUTIES, AND RESPONSIBILITIES INCLUDED, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCES, TECHNIQUES, TO PROCEDURES NECESSARY FOR PERFORMING SUPERINTENDING OR COORDINATING ALL PORTIONS OF THE WORK OF CONSTRUCTION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ANY HEALTH AND SAFETY PRECAUTIONS REQUIRED BY GOOD CONSTRUCTION PRACTICES OR ANY REGULATORY AGENCIES. ANYONE USING INFORMATION FROM THESE PLANS ACKNOWLEDGES AND WARRANTS THAT AEI IS NOT RESPONSIBLE FOR SITE SAFETY IN ANY WAY.

ACCESSIBILITY INFORMATION:

1. ALL RAMPS SIDEWALKS AND APRONS SHALL BE COMPLIANT WITH THE MOST CURRENT DEPARTMENT OF JUSTICE ADA REQUIREMENTS (ADA STANDARDS FOR ACCESSIBLE DESIGN, CODE OF FEDERAL REGULATIONS, CURRENT EDITION).
   THE ELEVATION OF ALL EXTERIOR WALKS AND SLABS SHALL BE ADA COMPLIANT AND A ½" BELOW FINISH FLOOR AT ALL DOORS. AN ADA LANDING SHALL BE PROVIDED AT ALL DOORS.
2. ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL BE ADA COMPLIANT, NOT TO EXCEED 2% IN ANY DIRECTION.

811
Know what's below.
Call before you dig.

BEFORE YOU DIG

The contractor is instructed to call 1-800-351-1111 to reach TN 811, the one-call system for information on the location of existing underground utilities. The call is to be placed a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor should be aware that owners of underground facilities are not required to be members of the TN 811 one-call Before-U-Dig (BUD) service. The contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KTN 811. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area.

UTILITY CONTACTS

ELECTRIC, WATER, & SEWER

COLUMBIA POWER & WATER SYSTEMS
201 PICKENS LANE,
COLUMBIA, TN 38401
931-388-4833

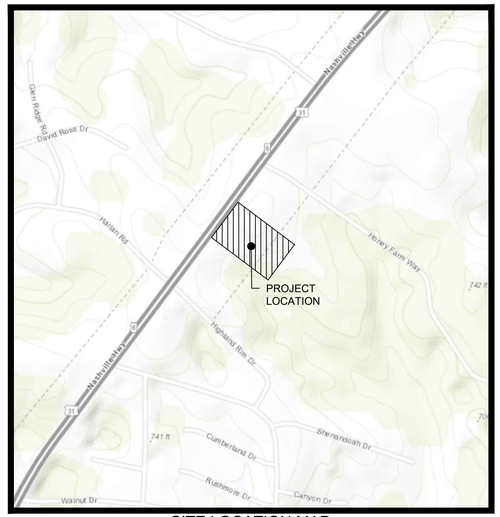
GAS

ATMOS ENERGY
810 NASHVILLE HWY,
COLUMBIA, TN 38401
931-388-9136

TELECOMMUNICATIONS

COMMUNICATION CONCEPTS
802 NASHVILLE HWY,
COLUMBIA, TN 38401
931-388-8682

SPECTRUM
405 S JAMES CAMPBELL BLVD,
COLUMBIA TN 48401
888-406-7063



SITE LOCATION MAP
NOT TO SCALE

CITY OF COLUMBIA
MAURY COUNTY, TN

INDEX OF SHEETS	
SHEET	SHEET DESCRIPTION
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GENERAL NOTES:

1. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED FEDERAL, STATE AND LOCAL PERMITS AND APPROVALS NECESSARY TO PERFORM AND COMPLETE THE PROJECT AS SHOWN ON THESE PLANS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL PERMIT AUTHORITIES. ALL PERMITS AND BONDS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
2. NO SITE GRADING, STRIPPING, EXCAVATION, FILLING OR OTHER DISTURBANCE OF THE NATURAL GROUND COVER SHALL TAKE PLACE UNTIL PROPOSED EROSION PREVENTION AND SEDIMENT CONTROL MEASURES ARE IN PLACE AND MEET/EXCEED LOCAL AND STATE REQUIREMENTS.
3. THE CONTRACTOR SHALL BID AND PERFORM THE WORK IN ACCORDANCE WITH ALL LOCAL, STATE AND NATIONAL CODES AND THE REQUIREMENTS OF LOCAL UTILITY COMPANIES.
4. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND WILL NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL BARRICADES, WARNING SIGNS, FLASHING LIGHTS AND COMPLY WITH OSHA REGULATIONS AND SAFETY REQUIREMENTS. JOB SITE SAFETY IS OUTSIDE THE SCOPE OF WORK OF PALMER ENGINEERING. ANYONE USING INFORMATION FROM THESE PLANS ACKNOWLEDGE AND WARRANTS THAT AEI IS NOT RESPONSIBLE FOR SAFETY IN ANY WAY.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE SAFETY OF ALL VEHICLE AND PEDESTRIAN TRAFFIC IN AND AROUND THE CONSTRUCTION AREA.
6. NOTIFY ENGINEER OF ANY DISCREPANCIES BETWEEN PLANS AND SPECIFICATIONS PRIOR TO CONSTRUCTION.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATIONS AND ELEVATIONS OF CONSTRUCTION. ANY CONFLICTS DISCOVERED BETWEEN EXISTING AND PROPOSED UTILITIES PRIOR TO OR AFTER CONSTRUCTION HAS BEGUN, SHALL BE CORRECTED AT CONTRACTOR'S EXPENSE.
8. CONSTRUCTION STAKING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
9. ALL WORK SHALL BE PERFORMED PER TACO BELL STANDARDS.
10. ANY AREAS DAMAGED OUTSIDE THE LIMITS OF CONSTRUCTION SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR TO THE SATISFACTION OF THE OWNER.
11. ALL QUANTITIES GIVEN ON THESE PRINTS, VERBALLY OR IN THE SCOPE OF WORK SECTION ARE ESTIMATES AND SHALL BE CONFIRMED BY THE BIDDING CONTRACTORS.
12. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS FOR EXCAVATIONS; FINAL RULE 29 CFR PART 1926, SUBPART "P" APPLIES TO ALL EXCAVATIONS EXCEEDING FIVE (5) FEET IN DEPTH. IN ADDITION, EXCAVATION EXCEEDING TWENTY (20) FEET IN DEPTH REQUIRE THE DESIGN OF A TRENCH SAFETY SYSTEM BY A REGISTERED PROFESSIONAL ENGINEER.
13. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER AND CONTRACTOR TO MAINTAIN QUALITY CONTROL THROUGHOUT THIS PROJECT.
14. TEMPORARY TRAFFIC CONTROL DURING CONSTRUCTION TO CONFORM TO APPLICABLE LOCAL STANDARDS.
15. BEARINGS, DIMENSIONS, AND EASEMENTS ARE SHOWN FOR REFERENCE ONLY. SEE RECORD SURVEYS AND PLATS FOR EXACT INFORMATION.
16. THE ENGINEER AND/OR OWNER DISCLAIM ANY ROLE IN THE CONSTRUCTION MEANS AND METHODS ASSOCIATED WITH THE PROJECT.
17. SEE ARCHITECTURAL PLANS FOR DETAILS OF BUILDING, BUILDING DIMENSIONS AND SIGNAGE SPECIFICATIONS. DO NOT STAKE BUILDING FROM THESE PLANS.
18. COORDINATE CONSTRUCTION ACTIVITIES WITH ADJOINING WORK IF APPLICABLE. VERIFY EXTENT OF ADJOINING WORK AND COORDINATE AS REQUIRED.
19. FIELD VERIFY EXISTING CURBS AND TAPER PROPOSED VERTICAL CURBS TO MATCH WITHIN A MIN. OF THREE (3) FEET.
20. ± DIMENSIONS INDICATE FIELD DIMENSION ADJUSTMENT AREA BASED ON ACTUAL FIELD LAYOUT COORDINATES.
21. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD DIMENSIONS. IF ANY DISCREPANCIES ARE FOUND IN THESE PLANS FROM ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
22. PROVIDE SMOOTH TRANSITION FROM NEWLY PAVED AREAS TO EXISTING AREAS AS NECESSARY. ALL AREAS WHERE PROPOSED PAVEMENT MEETS EXISTING PAVEMENT, THE EXISTING EDGE OF PAVEMENT SHALL BE FREE OF ALL LOOSE DEBRIS. THE EDGE OF EXISTING ASPHALT PAVEMENT SHALL BE PROPERLY SEALED WITH A TACK COAT MATERIAL IN ALL AREAS WHERE NEW ASPHALT PAVEMENT IS INDICATED TO JOIN EXISTING.
23. RESURFACE OR RECONSTRUCT AT LEAST TO ORIGINAL CONDITIONS ALL AREAS WHERE THE EXISTING PAVEMENT OR LAWNS ARE DAMAGED DURING CONSTRUCTION FROM TRAFFIC BY CONTRACTORS, SUBCONTRACTORS, OR SUPPLIERS AFTER CONSTRUCTION WORK IS COMPLETE.
24. CONTRACTOR SHALL PROTECT ALL PROPERTY LINES, CORNERS AND SURVEY PINS; ANY DAMAGES SHALL BE PAID BY THE CONTRACTOR AT THEIR EXPENSE.
25. REFER TO ARCHITECTURAL PLANS FOR BUILDING ACCESSORY DETAILS.
26. THE LOCATION OF EXISTING UTILITIES SHOWN HEREIN IS AN APPROXIMATION OF THEIR ACTUAL LOCATION AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO ASSUME ALL LIABILITY FOR ANY AND ALL DAMAGES WHICH MAY OCCUR DUE TO THE CONTRACTOR'S FAILURE TO PHYSICALLY LOCATE AND PRESERVE ANY AND ALL UTILITIES.
27. ALL PAVEMENT MARKINGS ON TDOT ROW SHALL BE THERMOPLASTIC.

GENERAL CONSTRUCTION NOTES:

1. ALL DIMENSIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY CONSTRUCTION MANAGER AND DESIGNER OF RECORD IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS SHOWN INCORRECTLY ON THESE PLANS, IF SUCH NOTIFICATION HAS NOT BEEN GIVEN TO THE AFOREMENTIONED PEOPLE, AND CHANGES APPROVED.
2. THIS PLAN HAS BEEN REVIEWED BY THE AUTHORITY HAVING JURISDICTION AND/OR ITS AUTHORIZED REPRESENTATIVE. BUT SUCH CHECKING AND/OR APPROVAL DOES NOT RELIEVE THE CONTRACTOR FROM THEIR RESPONSIBILITY TO CORRECT ERRORS, OMISSIONS OR MAKE CHANGES REQUIRED BY CONDITIONS DISCOVERED IN THE FIELD DURING THE COURSE OF CONSTRUCTION. TACO BELL CONSTRUCTION MANAGER & THE AUTHORITY HAVING JURISDICTION SHALL BE INFORMED IN WRITING OF ANY CHANGES MADE DURING CONSTRUCTION PRIOR TO EXECUTION OF SAID CHANGE.
3. ALL REVISIONS TO THIS PLAN MUST BE REVIEWED BY THE AUTHORITY HAVING JURISDICTION(S) PRIOR TO CONSTRUCTION AND SHALL BE ACCURATELY SHOWN ON REVISED PLANS STAMPED AND SIGNED BY THE APPROPRIATE PROFESSIONAL(S) PRIOR TO THE INSTALLATION OF THE IMPROVEMENTS.
4. THE CONTRACTOR SHALL NOT PERFORM ANY EXCAVATION OPERATIONS UNTIL ALL APPLICABLE UTILITY COMPANIES, COUNTY AND CITY AGENCIES HAVE BEEN NOTIFIED AND GIVEN THE OPPORTUNITY TO MARK THEIR FACILITIES IN THE FIELD. THE CONTRACTOR SHALL COORDINATE ALL FACILITIES MARKINGS.
5. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH THE APPROPRIATE AGENCIES, UTILITIES OR COMPANIES TO PROVIDE TEMPORARY ELECTRIC POWER, WATER SUPPLY AND SANITARY FACILITIES DURING DURATION OF CONSTRUCTION ACTIVITIES. ASSOCIATED COSTS SHALL BE INCIDENTAL TO PROJECT.
6. ALL WORK SHALL BE PER OSHA AND APPLICABLE FEDERAL, STATE AND LOCAL CODE REQUIREMENTS.
7. THE CONTRACTOR SHALL SECURE ALL REQUIRED ENCROACHMENT AND/OR OTHER PERMITS FROM ALL GOVERNING AGENCIES BEFORE THE COMMENCEMENT OF WORK. CONTRACTOR SHALL MINIMIZE INTERFERENCE WITH ADJOINING ROADS, STREETS, WALKS OR OTHER ADJACENT OCCUPIED OR USED FACILITIES. STREETS, WALKS OR OTHER ADJACENT OCCUPIED OR USED FACILITIES SHALL NOT BE CLOSED OR OBSTRUCTED WITHOUT PERMISSION FROM AUTHORITIES HAVING JURISDICTION; ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS SHALL BE PROVIDED IF REQUIRED BY AUTHORITIES HAVING JURISDICTION.
8. CONTRACTOR AGREES THAT THEY SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS. DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORK HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD HARMLESS THE OWNER, ARCHITECT, AND ENGINEER FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT; EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE FROM THE OWNER, ARCHITECT, OR ENGINEER. THE ENGINEER ASSUMES NO RESPONSIBILITY EXCEPT FOR THE ADEQUACY OF THEIR DESIGN CONTAINED HEREIN.
9. ALL GRADING TO BE IN ACCORDANCE WITH LOCAL ADOPTED CODES AND ASTM D1557. GRADING SHALL MATCH ALL SURROUNDING EXISTING GRADES.
10. THE SITE SHALL BE EITHER UNIFORMLY GRADED BETWEEN POINTS WHERE ELEVATIONS ARE GIVEN, BETWEEN SUCH POINTS AND EXISTING FINISHED GRADES, OR CONFORM POINTS (SMOOTH SURFACE, FREE OF IRREGULAR SURFACE CHANGES). IT SHALL COMPLY WITH THE GEOTECHNICAL'S REPORT COMPACTION REQUIREMENTS AND BE SLOPED TO DIRECT WATER AWAY FROM THE BUILDING AND TO PREVENT PONDING ANYWHERE ON SITE.
11. PRIOR TO PLACING AGGREGATE BASE OR PAVEMENT, THE SUBGRADE SHALL BE TREATED WITH A SOILS STERILIZATION TYPE WEED KILLER (EPA-REGISTERED) AND TERMITE CONTROL; WHERE REQUIRED.
12. CONTRACTOR IS RESPONSIBLE FOR RESETTING EXISTING MONITORING WELLS, MANHOLES, CLEAN-OUTS AND ANY OTHER STRUCTURE TO FINISH GRADE AS NECESSARY.
13. EXISTING ASPHALT PAVING AND/OR CONCRETE SHALL BE CUT TO A NEAT, STRAIGHT LINE (WHEN APPLICABLE). ALL EXPOSED VERTICAL SURFACES SHALL BE TACKED COATED BELOW FINISH GRADE LINE WITH ASPHALT EMULSION PRIOR TO PAVING.
14. ALL NEW CONCRETE PAVING SHALL BE SEALED. JOINT SEALANT SHALL BE APPLIED TO ALL EXPANSIONS AND ISOLATION JOINTS; AND CONTROL JOINTS IN DRIVEWAY SLABS.
15. 'SAW-CUTTING' TO CREATE CONTROL JOINTS SHALL BE DONE WITHIN 1 TO 4 HOURS (PENDING TEMPERATURE) AFTER THE HARDENING SUFFICIENTLY, TO PREVENT RAVELING OR DISLODGING OF AGGREGATES, OF THE CONCRETE.
16. UNLESS OTHERWISE NOTED, ALL CURBS SHALL HAVE A 6" CURB FACE.
17. ASPHALT PRIME COAT SHALL BE APPLIED TO THE COMPACTED AGGREGATE BASE PRIOR TO PLACING ASPHALTIC CONCRETE. THE RATE OF APPLICATION SHALL BETWEEN 0.2 AND 0.5 GALLONS PER SQUARE YARD.
18. ASPHALT TACK COAT SHALL BE APPLIED BELOW FINISHED GRADE TO ALL VERTICAL SURFACES IN CONTACT WITH THE ASPHALT PAVEMENT AND TO THE SURFACE OF THE BASE COURSE WITH FINISH COURSE PLACED ON DIFFERENT DAYS. TACK COAT SHALL BE APPLIED AT A RATE BETWEEN 0.05 AND 0.15 GALLONS PER SQUARE YARD.
19. SEAL COAT SHALL BE APPLIED TO ALL NEW ASPHALTIC PAVEMENT PER MANUFACTURER SPECIFICATIONS AND MCDONALDS PROJECT MANUAL.
20. ANY WORK THAT IMPACTS ACCESSIBILITY SHALL BE RESTORED TO COMPLY WITH ALL LOCAL, STATE AND FEDERAL ADOPTED CODES; MOST STRIGENT SHALL APPLY.
21. THE CONTRACTOR SHALL PROVIDE AN "AS-BUILT" PLAN WITH ALL MODIFICATIONS/CHANGES NOTED/SHOWN ON THE FINAL DRAWING SET.

Palmer ENGINEERING
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1040 MONARCH STREET
SUITE 210
LEXINGTON, KY 40513
(859) 389-9293

CONTRACT DATE:	06/15/2026
BUILDING TYPE:	END. MED40
PLAN VERSION:	TBD
SITE NUMBER:	TBD
STORE NUMBER:	TBD

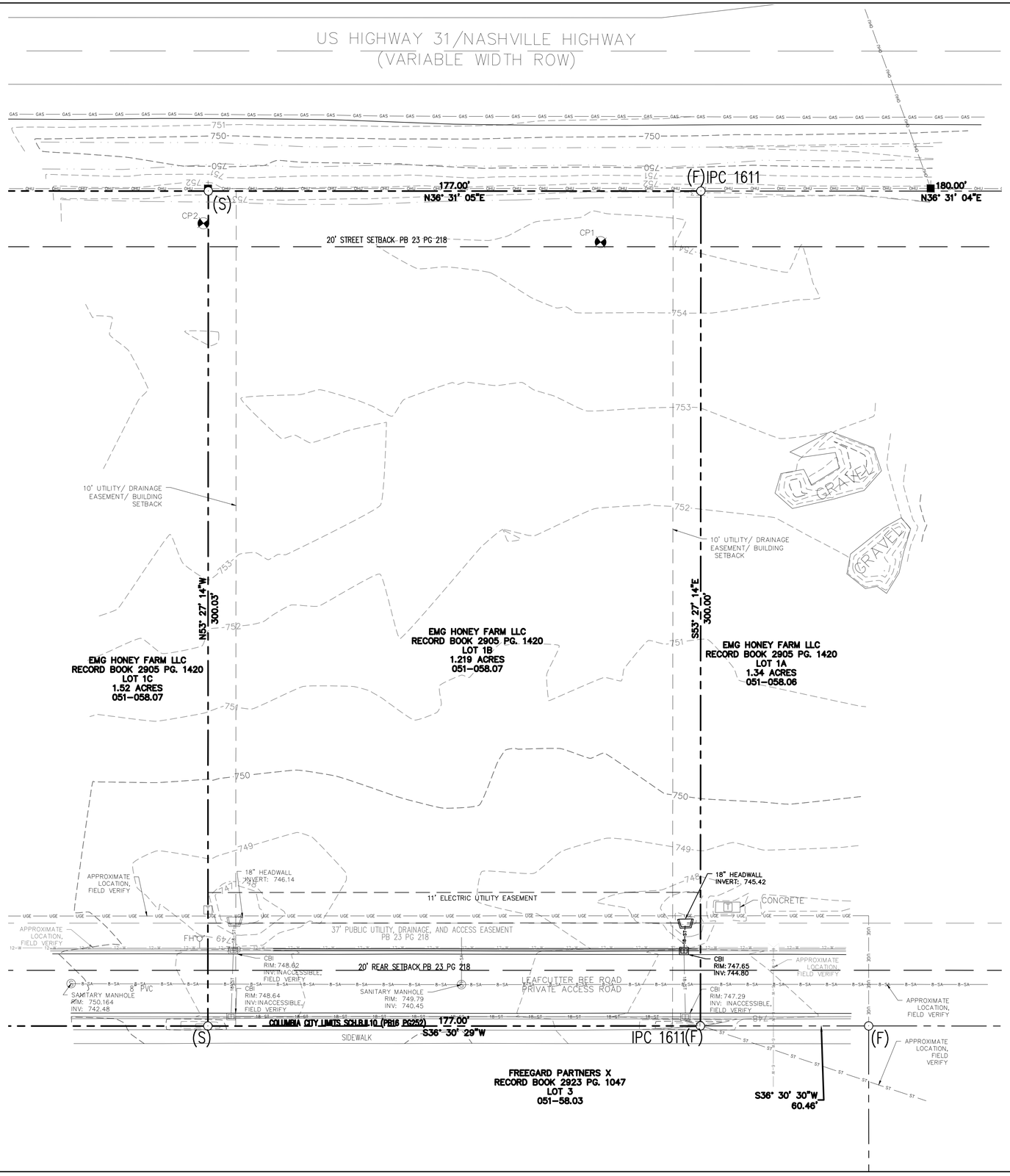
TACO BELL

HONEY FARM CROSSING
COLUMBIA, TN

COVER SHEET

C-0.0

PERMIT PLOT DATE: 06/15/2026



LEGEND

- PP – POWER POLE
- – WATER VALVE
- – SANITARY SEWER MANHOLE
- – CURB BOX INLET
- – HEADWALL
- – IRON PIN
- (F) – FOUND PROPERTY CORNER IRON PIN
- (S) – SET PROPERTY CORNER IRON PIN
- T – TRANSFORMER
- – PROPERTY BOUNDARY
- – ADJACENT BOUNDARY
- – EXISTING EASEMENT
- 935 – EXISTING MAJOR CONTOUR
- – EXISTING MINOR CONTOUR
- OHU – OVERHEAD UTILITY LINE
- ST – STORM SEWER LINE
- 18-ST – 18" HDPE STORM SEWER LINE
- 8-SA – SANITARY SEWER LINE
- GAS – GAS LINE
- 12-W – 12" WATER LINE
- 6-W – 6" WATER LINE
- – BUILDING SETBACK
- UGE – UNDERGROUND ELECTRIC LINE
- – UTILITY/ DRAINAGE EASEMENT SETBACK
- – ELECTRIC UTILITY EASEMENT

CONTROL POINT SCHEDULE (CP)

CP #	SURVEY COORDINATES 'X', 'Y' & 'Z'			BM LOCATION
CP1	X: 1674591.61	Y: 496057.78	Z: 754.47	IRON PIN
CP2	X: 1674501.18	Y: 495947.06	Z: 753.34	IRON PIN

SURVEY NOTES:

1. UNDERGROUND UTILITIES SHOWN APPROXIMATELY ONLY. NO EXCAVATION PERFORMED FOR THIS SURVEY. CONTACT ALL UTILITY OWNERS PRIOR TO ANY EXCAVATION.
2. THIS SITE IS NOT WITHIN THE 100 YEAR FLOOD PLAIN PER THE NATIONAL FLOOD INSURANCE RATE MAP FOR MAURY COUNTY, MAP NUMBER 47119C0180E, REVISED 04/16/2007.

811 Know what's below. Call before you dig.

1"=20'-0" 20 10 0 20'

NORTH INDICATED IS IN RELATION TO TENNESSEE STATE PLANE ZONE.

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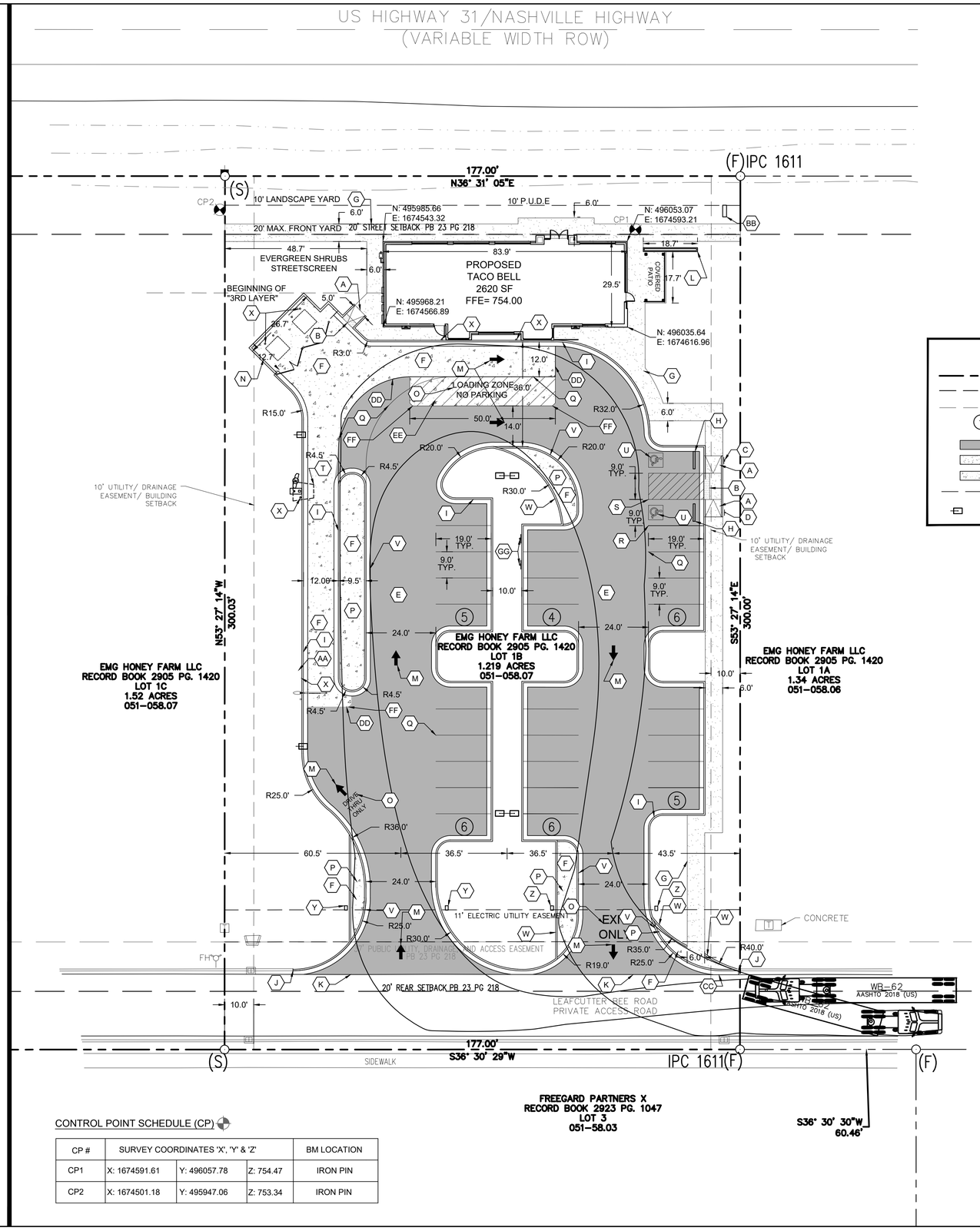
TACO BELL

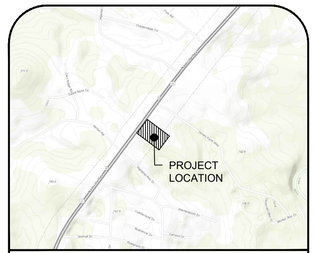
HONEY FARM CROSSING
COLUMBIA, TN

BOUNDARY AND TOPOGRAPHY SURVEY PLAN

C-0.1

PERMIT PLOT DATE: 06/15/2026





Columbia, Maury County, Tennessee

VICINITY MAP (N.T.S)

LEGEND

- PROPERTY LINE
- BUILDING SETBACK LINE
- PUBLIC UTILITY EASEMENT LINE
- (1) NUMBER OF PARKING SPACES
- HEAVY DUTY ASPHALT PAVEMENT
- CONCRETE PAVEMENT/SIDEWALK
- HEAVY DUTY CONCRETE PAVEMENT
- LANDSCAPE SETBACK
- PROPOSED LIGHT POLES (SEE SITE LIGHTING & PHOTOMETRICS PLAN

SITE DATA INFORMATION

LOT SIZE	53,103 SQ FT / 1.22 ACRES
PROPOSED USE	QUICK SERVICE RESTAURANT
ZONING	MU PUD
PROPOSED BUILDING HEIGHT	24'-0"
REQUIRED PARKING (1 PER 100 USABLE SPACE) MAX. 50% OVER MIN.	MIN.2,620 SF / 100 = 27 SPACES MAX. 27 X 50% = 41
PROPOSED PARKING	32 SPACES
QUEUING REQUIREMENTS	MIN. 8 SPACES
PROPOSED QUEUING	11 SPACES
PROPOSED IMPERVIOUS AREA	29,960 SQ FT
REQUIRED LOT WIDTH	18 FT MIN AND 180 FT MAX
LOT WIDTH	177 FT
REQUIRED FRONTAGE BUILDOUT	60% AND ADMINISTRATIVE 20% BUILDOUT ADJUSTMENT = 84.96' (177' X 60% = 106.2'; 106.2' X -20% = 84.96' WIDTH REQUIRED)
PROPOSED FRONTAGE BUILDOUT	132.6' FRONTAGE BUILDOUT (83.9' TOTAL BUILDING WIDTH AND 48.7' EVERGREEN SHRUB STREETSCREEN) 20% ALLOWABLE STREETSCREEN WIDTH = 26.5' (83.9' TOTAL BUILDING WIDTH AND ALLOWED 26.5' STREETSCREEN WIDTH = 110.4')

SITE PLAN NOTES:

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3. NO GRADING, STRIPPING, EXCAVATION, FILLING OR OTHER DISTURBANCE OF THE NATURAL GROUND COVER SHALL TAKE PLACE UNTIL PERIMETER EROSION CONTROL MEASURES ARE INSTALLED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY CITY OR STATE PERMITS.
4. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE PROJECT DOCUMENTS.
5. ALL SURVEY INFORMATION IS RELATIVE TO TENNESSEE STATE PLANE COORDINATE SYSTEM.
6. SEE ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS AND BOLLARD LOCATIONS.
7. SEE ELECTRICAL PLANS FOR SITE LIGHTING LOCATIONS.
8. ALL SIDEWALKS ADJACENT TO THE ADA PARKING SPACES ACCESSIBLE TO THE NEAREST DOOR SHALL BE IN COMPLIANCE WITH ADA REGULATIONS. NO SIDEWALKS SHALL HAVE GREATER THAN 5% RUNNING SLOPE OR HAVE MORE THAN A 2% CROSS SLOPE.
9. ADA PARKING STALLS AND ACCESS AISLE SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION.
10. COORDINATES AND DIMENSIONS SHOWN ARE TO EDGE OF PAVEMENT, EDGE OF BUILDING, OR FACE OF CURB.
11. ADA PARKING STALLS AND ACCESS AISLE SHALL BE MINIMUM 9'X19' IN DIMENSION (EACH).

SITE PLAN KEY:

KEY	DESCRIPTION	DETAIL
A	ADA ACCESSIBLE RAMP WITH 6' CURB TAPER (6' LONG, MAX SLOPE 12:1)	B/C-1.3
B	DETECTABLE WARNING	K/C-1.3
C	VAN ACCESSIBLE ADA PARKING SIGN	I/C-1.3
D	ADA ACCESSIBLE PARKING SIGN	I/C-1.3
E	HEAVY DUTY ASPHALT PAVEMENT	C/C-1.3
F	HEAVY DUTY CONCRETE PAVEMENT	D/C-1.3
G	CONCRETE SIDEWALK W/CURB WHERE APPLICABLE	A/C-1.3
H	RUBBER WHEEL STOP	M/C-1.4
I	24" CURB AND GUTTER	F/C-1.3
J	TIE TO EXISTING CURB AND GUTTER	
K	EDGE KEY	N/C-1.4
L	BRICK WALL (SEE ARCHITECTURAL PLANS)	
M	TRAFFIC ARROW (8 TOTAL)	L/C-1.3
N	DUMPSTER PAD AREA ENCLOSURE (SEE ARCHITECTURAL DRAWINGS)	
O	PAINTED WHITE LETTERING	
P	MOUNTABLE MEDIAN	P/C-1.4
Q	4" SOLID WHITE PAINT STRIPE	
R	4" SOLID BLUE PAINT STRIPE	
S	45° BLUE CROSS HATCH STRIPING	
T	MENU BOARD, CANOPY, SPEAKER BOX (SEE ARCHITECTURAL DRAWINGS)	
U	ADA ACCESSIBLE SYMBOL	J/C-1.3
V	ROLLED CURB AND GUTTER	O/C-1.4
W	6" HEADER CURB	E/C-1.3
X	BOLLARD	H/C-1.3
Y	TACO BELL ENTER SIGNAGE (SEE ARCHITECTURAL PLANS FOR DETAILS)	
Z	TACO BELL EXIT SIGN SIGNAGE (SEE ARCHITECTURAL PLANS FOR DETAILS)	
AA	OVERHEAD CLEARANCE BAR (SEE ARCHITECTURAL DRAWINGS)	
BB	MONUMENT SIGN (SEE ARCHITECTURAL PLANS FOR DETAILS)	
CC	REMOVE AND REPLACE EXISTING CBI (SEE C-3.0 FOR REPLACEMENT)	
DD	CONCRETE/ASPHALT JOINT	G/C-1.3
EE	45° WHITE CROSS HATCH STRIPING	
FF	1' CHAMFER	
GG	MOBILE ORDER PARKING ONLY SIGN (SEE DETAIL FOR POST INSTALLATION; OWNER TO PROVIDE SIGN)	I/C-1.3

CONTROL POINT SCHEDULE (CP)

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NBULUT@MRCO.NET

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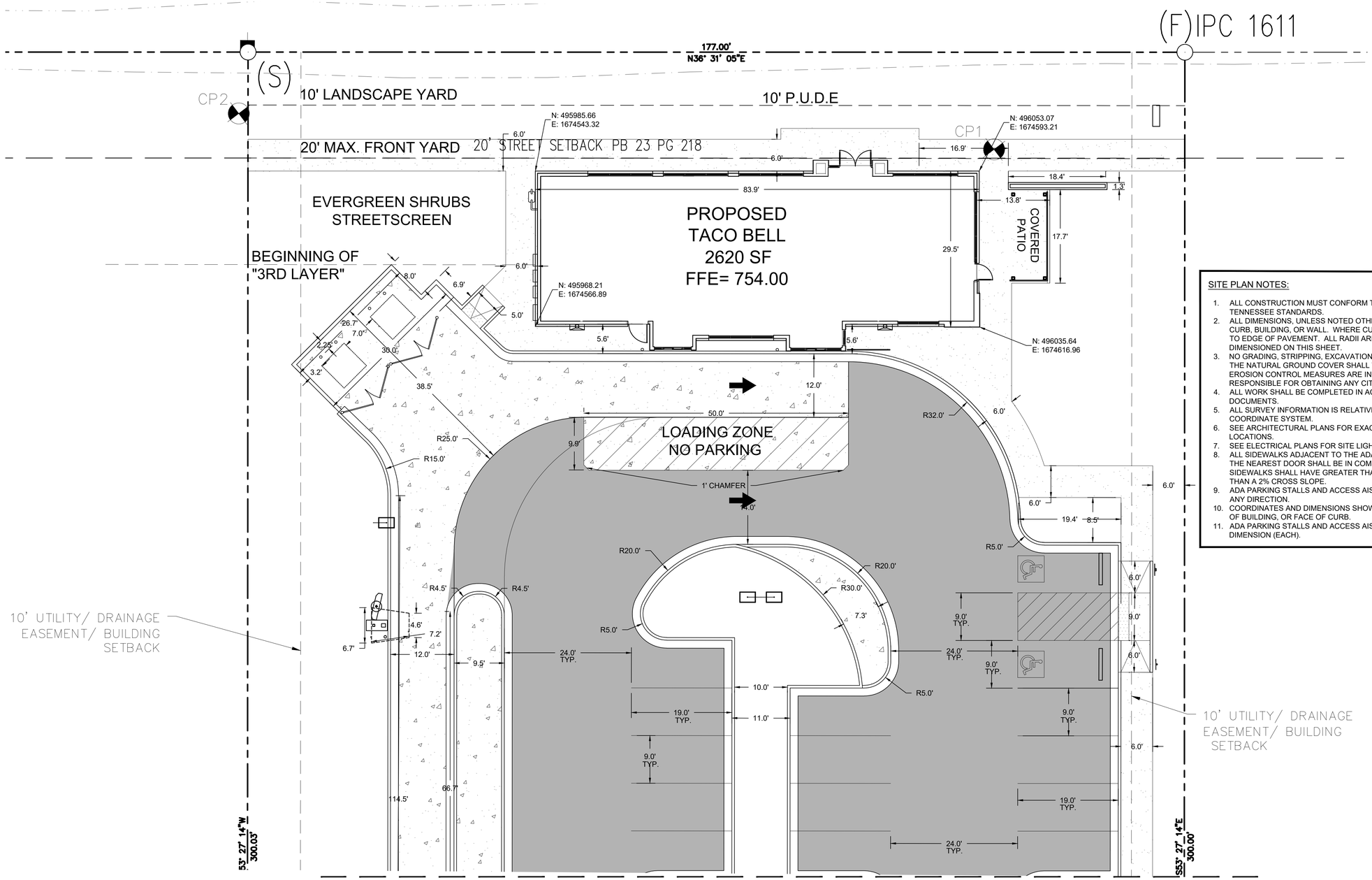
TACO BELL

HONEY FARM CROSSING
COLUMBIA, TN

SITE PLAN

C-1.0

PERMIT PLOT DATE: 06/15/2026



MATCHLINE SHEET C-1.2

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4. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE PROJECT DOCUMENTS.
5. ALL SURVEY INFORMATION IS RELATIVE TO TENNESSEE STATE PLANE COORDINATE SYSTEM.
6. SEE ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS AND BOLLARD LOCATIONS.
7. SEE ELECTRICAL PLANS FOR SITE LIGHTING LOCATIONS.
8. ALL SIDEWALKS ADJACENT TO THE ADA PARKING SPACES ACCESSIBLE TO THE NEAREST DOOR SHALL BE IN COMPLIANCE WITH ADA REGULATIONS. NO SIDEWALKS SHALL HAVE GREATER THAN 5% RUNNING SLOPE OR HAVE MORE THAN A 2% CROSS SLOPE.
9. ADA PARKING STALLS AND ACCESS AISLE SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION.
10. COORDINATES AND DIMENSIONS SHOWN ARE TO EDGE OF PAVEMENT, EDGE OF BUILDING, OR FACE OF CURB.
11. ADA PARKING STALLS AND ACCESS AISLE SHALL BE MINIMUM 9'X19' IN DIMENSION (EACH).

24-HOUR EMERGENCY CONTACT:
NURI BULUT: (615) 335-4264
NBULUT@MRCO.NET

811
Know what's below.
Call before you dig.

1"=10'-0"
10 5 0 10'

NORTH INDICATED IS IN RELATION TO TENNESSEE STATE PLANE ZONE.

Palmer ENGINEERING
PALMER ENGINEERING
1040 MONARCH STREET
SUITE 210
LEXINGTON, KY 40513
(859) 389-9293

CONTRACT DATE:	06/15/2026
BUILDING TYPE:	END. MED40
PLAN VERSION:	TBD
SITE NUMBER:	TBD
STORE NUMBER:	TBD

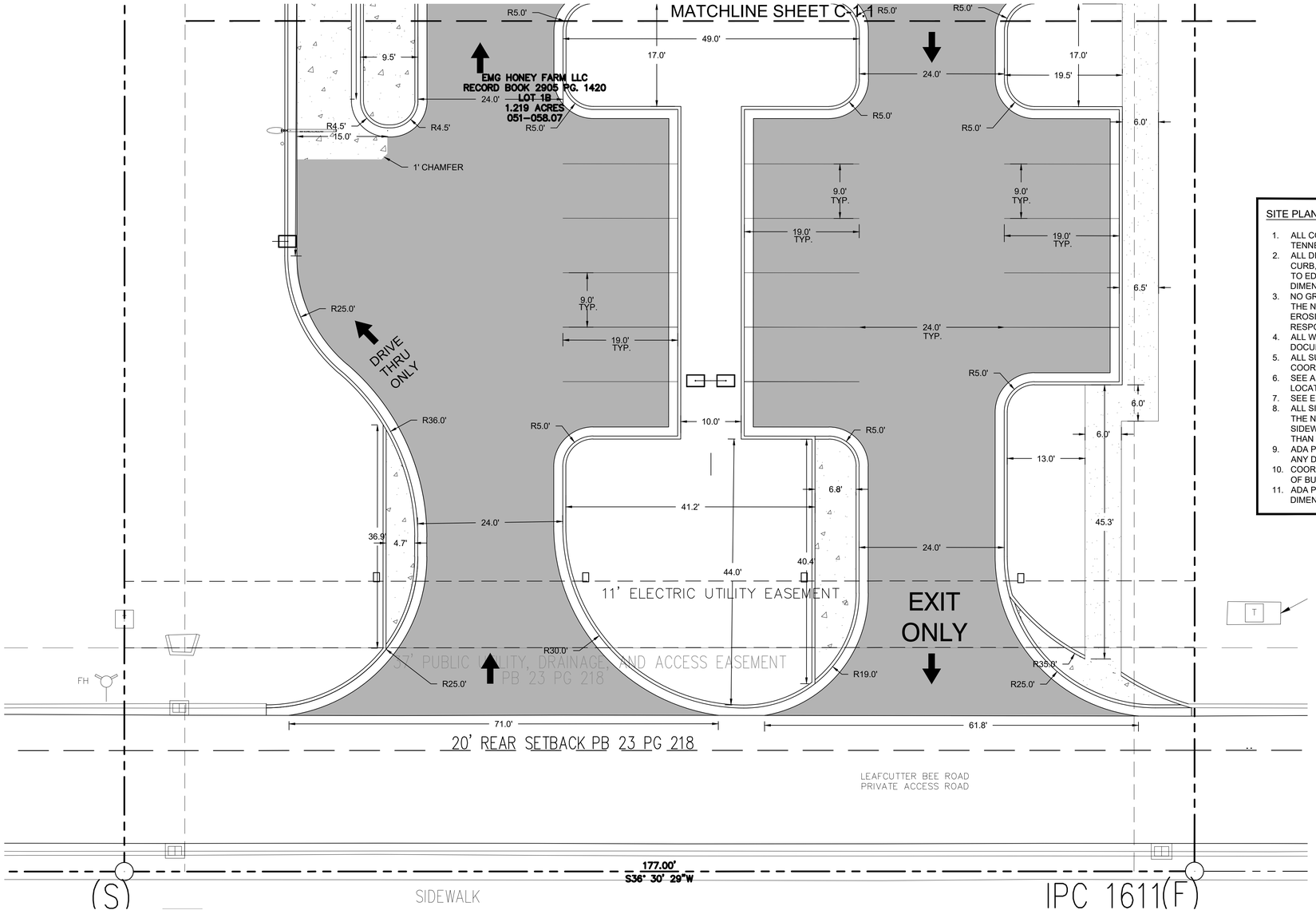
TACO BELL

HONEY FARM CROSSING
COLUMBIA, TN

ENLARGED SITE PLAN

C-1.1

PERMIT PLOT DATE: 06/15/2026



SITE PLAN NOTES:

1. ALL CONSTRUCTION MUST CONFORM TO CITY OF COLUMBIA AND STATE OF TENNESSEE STANDARDS.
2. ALL DIMENSIONS, UNLESS NOTED OTHERWISE ARE TO THE FACE OF THE CURB, BUILDING, OR WALL. WHERE CURB IS NOT PRESENT, DIMENSIONS ARE TO EDGE OF PAVEMENT. ALL RADII ARE 5 FEET UNLESS OTHERWISE DIMENSIONED ON THIS SHEET.
3. NO GRADING, STRIPPING, EXCAVATION, FILLING OR OTHER DISTURBANCE OF THE NATURAL GROUND COVER SHALL TAKE PLACE UNTIL PERIMETER EROSION CONTROL MEASURES ARE INSTALLED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY CITY OR STATE PERMITS.
4. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE PROJECT DOCUMENTS.
5. ALL SURVEY INFORMATION IS RELATIVE TO TENNESSEE STATE PLANE COORDINATE SYSTEM.
6. SEE ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS AND BOLLARD LOCATIONS.
7. SEE ELECTRICAL PLANS FOR SITE LIGHTING LOCATIONS.
8. ALL SIDEWALKS ADJACENT TO THE ADA PARKING SPACES ACCESSIBLE TO THE NEAREST DOOR SHALL BE IN COMPLIANCE WITH ADA REGULATIONS. NO SIDEWALKS SHALL HAVE GREATER THAN 5% RUNNING SLOPE OR HAVE MORE THAN A 2% CROSS SLOPE.
9. ADA PARKING STALLS AND ACCESS AISLE SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION.
10. COORDINATES AND DIMENSIONS SHOWN ARE TO EDGE OF PAVEMENT, EDGE OF BUILDING, OR FACE OF CURB.
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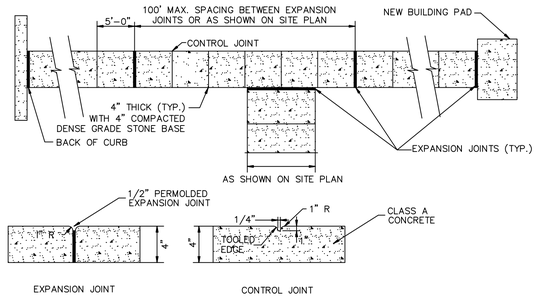
TACO BELL

HONEY FARM CROSSING
COLUMBIA, TN

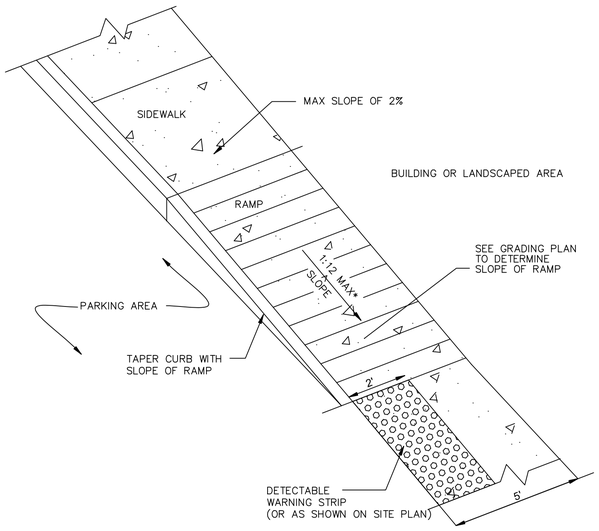
ENLARGED SITE PLAN

C-1.2

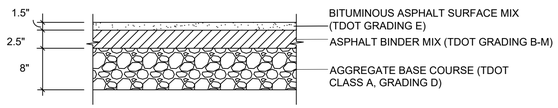
PERMIT PLOT DATE: 06/15/2026



CONCRETE SIDEWALK (A)
NOT TO SCALE

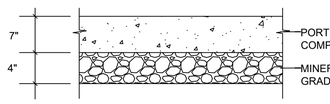


ADA ACCESSIBLE CURB RAMP DETAIL (B)
NOT TO SCALE



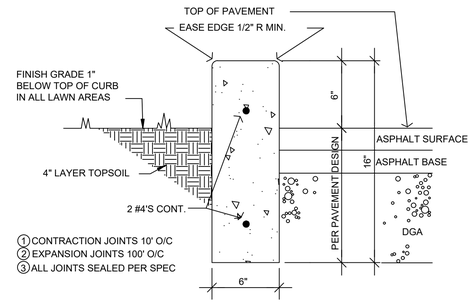
HEAVY DUTY ASPHALT PAVEMENT DETAIL (C)
NOT TO SCALE

NOTE: HEAVY DUTY ASPHALT PAVEMENT PER GEOTECHNICAL ENGINEER'S RECOMMENDATION IN COLUMBIA TACO BELL GEOTECHNICAL ENGINEERING REPORT BY TERRACON, DATED SEPTEMBER 10TH 2025.

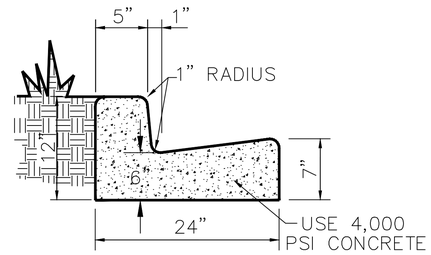


HEAVY DUTY CONCRETE PAVING DETAIL (D)
NOT TO SCALE

NOTE: HEAVY DUTY ASPHALT PAVEMENT PER GEOTECHNICAL ENGINEER'S RECOMMENDATION IN COLUMBIA TACO BELL GEOTECHNICAL ENGINEERING REPORT BY TERRACON, DATED SEPTEMBER 10TH 2025.

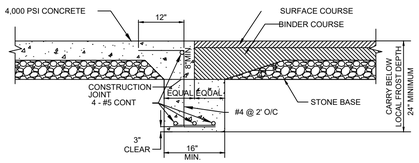


6" HEADER CURB DETAIL (E)
NOT TO SCALE

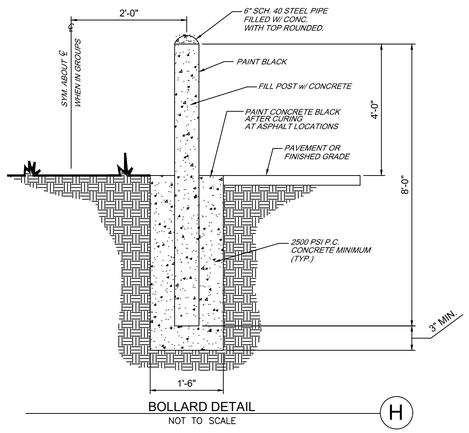


1. CONTRACTION JOINTS 10' O/C
2. EXPANSION JOINTS 100' O/C
3. ALL JOINTS SEALED PER SPEC
4. BASE AND SUBGRADE REQUIREMENTS SHALL MATCH ADJACENT PAVEMENT DETAIL
5. INSTALL PER CITY/STATE STANDARD DRAWINGS

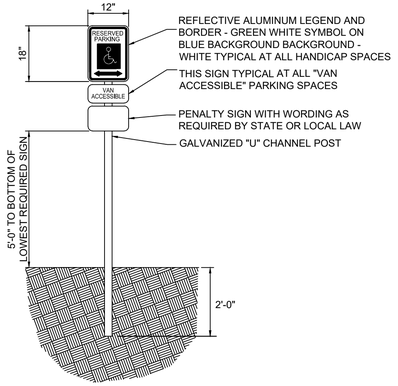
24" STANDARD CURB AND GUTTER (F)
NOT TO SCALE



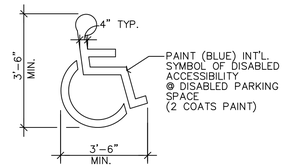
CONCRETE/ASPHALT JOINT DETAIL (G)
NOT TO SCALE



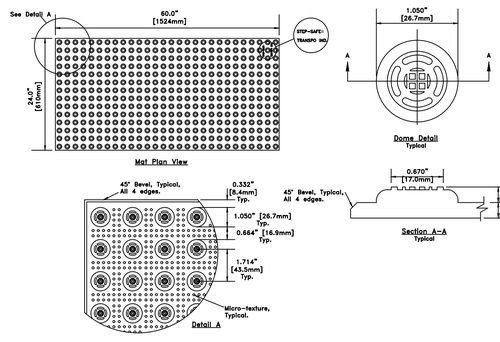
BOLLARD DETAIL (H)
NOT TO SCALE



ADA ACCESSIBLE PARKING SIGN (I)
NOT TO SCALE

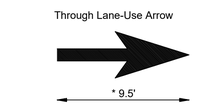


ADA ACCESSIBLE SYMBOL DETAIL (J)
NOT TO SCALE



*ALL DETECTABLE WARNING SHALL BE YELLOW

DETECTABLE WARNING (K)
NOT TO SCALE



* Minimum Sizes For Normal Installation.
For Proper Proportion, See Standard Alphabets For Highway Signs and Pavement Markings

TRAFFIC ARROWS (L)
NOT TO SCALE

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(859) 389-9293

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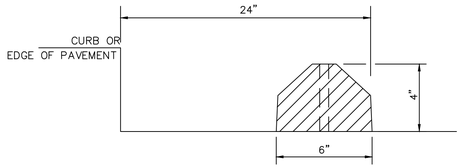
STORE NUMBER:	TBD

TACO BELL
HONEY FARM CROSSING
COLUMBIA, TN

SITE DETAILS

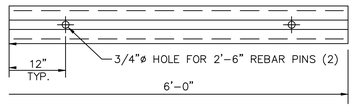
C-1.3

PERMIT PLOT DATE: 06/15/2026

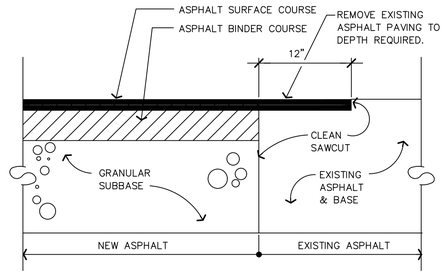


SECTION

RECYCLED RUBBER WHEEL STOPS WITH WHITE STRIPES (72"L x 6"W x 4"H); ACCESSIBLE PARKING WITH BLUE STRIPES

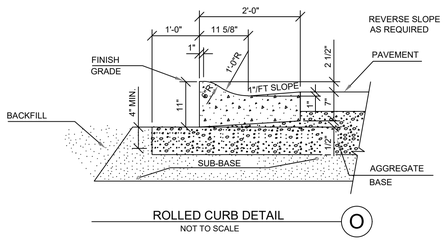


RECYCLED RUBBER WHEEL STOP (M)
NOT TO SCALE

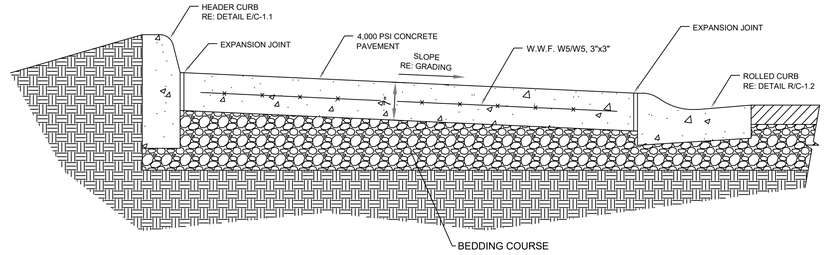


NOTE: TYPICAL AT NEW TO EXISTING PAVEMENT TIE-IN POINTS.

EDGE KEY DETAIL (N)
NOT TO SCALE



ROLLED CURB DETAIL (O)
NOT TO SCALE



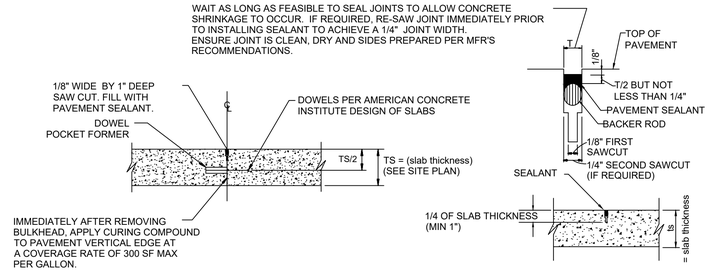
MOUNTABLE CONCRETE MEDIAN DETAIL (P)
NOT TO SCALE

Table 5.1—Dowel size and spacing for round, square, and rectangular dowels*

Slab depth, in. (mm)	Dowel dimensions,† in. (mm)			Dowel spacing center-to center, in. (mm)		
	Round	Square	Rectangular‡	Round	Square	Rectangular
5 to 6 (130 to 150)	3/4 x 14 (19 x 360)	3/4 x 14 (19 x 360)	3/8 x 2 x 12 (9 x 51 x 300)	12 (300)	14 (360)	19 (480)
7 to 8 (180 to 200)	1 x 16 (25 x 410)	1 x16 (25 x 410)	1/2 x 2-1/2 x 12 (13 x 64 x 300)	12 (300)	14 (360)	18 (460)
9 to 11 (230 to 280)	1-1/4 x 18 (32 x 460)	1-1/4 x 18 (30 x 450)	3/4 x 2-1/2 x 12 (19 x 64 x 300)	12 (300)	12 (300)	18 (460)

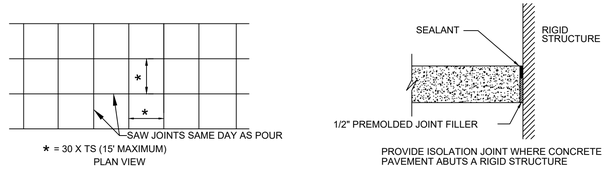
*ACI Committee 325 (1956); Walker and Holland (1998).
†Total dowel length includes allowance made for joint opening and minor errors in positioning dowels.
‡Rectangular plates are typically used in sawcut contraction joints.
Notes: Table values based on a maximum joint opening of 0.20 in. (5 mm). Dowels must be carefully aligned and supported during concrete operations. Misaligned dowels may lead to cracking.

NOTE: CLIP ABOVE FROM ACI 360R-06 DESIGN OF SLABS-ON-GROUND



CONSTRUCTION JOINT

SAW JOINT



CONCRETE PAVEMENT

ISOLATION JOINT

CONCRETE PAVEMENT JOINT DETAIL (Q)
NOT TO SCALE

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1040 MONARCH STREET
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STORE NUMBER: TBD

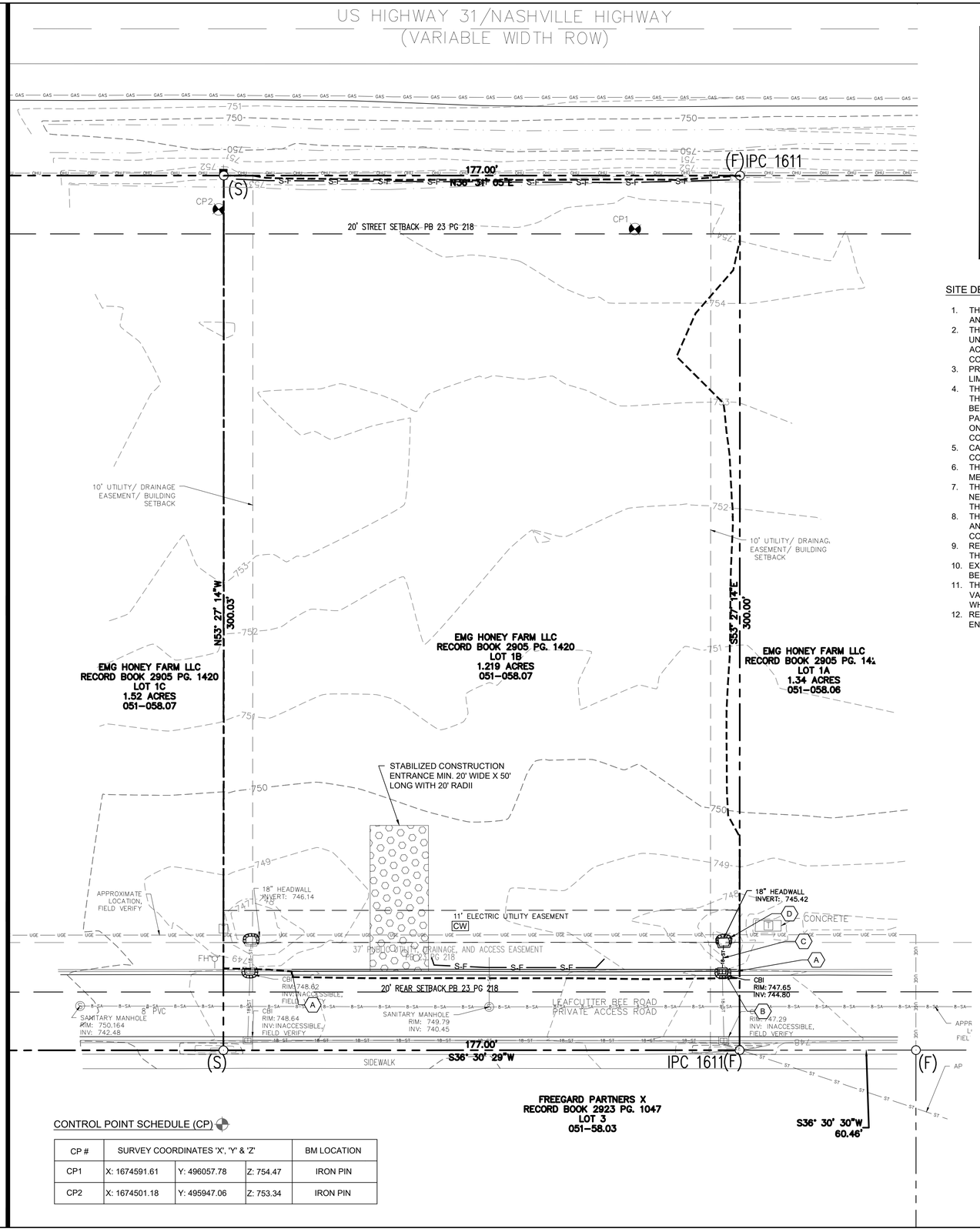
TACO BELL

HONEY FARM CROSSING
COLUMBIA, TN

SITE DETAILS

C-1.4

PERMIT PLOT DATE: 06/15/2026



LEGEND

- PROPERTY LINE
- BUILDING SETBACK LINE
- PUBLIC UTILITY EASEMENT LINE
- LANDSCAPE SETBACK
- LIMITS OF DISTURBANCE
- S-F — SILT FENCE
- TDOT INLET PROTECTION TYPE 1 AND 2 AND CULVERT PROTECTION TYPE 1
- TDEC CONSTRUCTION ENTRANCE
- CW — CONCRETE WASHOUT
- EROSION CONTROL BLANKET

SITE DEMOLITION NOTES:

1. THE CONTRACTOR SHALL CONFORM TO LOCAL CODES, OBTAIN ALL PERMITS AND GIVE ALL NOTICES REQUIRED FOR EXECUTION OF THE WORK.
2. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL CHARTED AND UNCHARTED UTILITIES THAT ARE TO REMAIN, REPAIR ANY DAMAGE ACCORDING TO LOCAL STANDARDS AND AT THE CONTRACTOR'S EXPENSE. COORDINATE ALL CONSTRUCTION WITH THE APPROPRIATE UTILITY COMPANY.
3. PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL VERIFY THE LIMITS OF DEMOLITION WITH THE OWNER'S REPRESENTATIVE.
4. THE CONTRACTOR SHALL COORDINATE PHASING OF THE DEMOLITION WITH THE OWNER'S REPRESENTATIVE AND LOCAL GOVERNING AGENCY PRIOR TO BEGINNING WORK. DISRUPTION OF EXISTING UTILITY SERVICES AND TRAFFIC PATTERNS SHALL BE MINIMIZED TO THE EXTENT POSSIBLE AND INITIATED ONLY AFTER APPROVAL BY THE LOCAL GOVERNING AGENCY AND THE UTILITY COMPANIES.
5. CAVITIES LEFT BY STRUCTURE REMOVAL SHALL BE SUITABLY BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS.
6. THE CONTRACTOR SHALL USE WATER SPRINKLING AND/OR OTHER SUITABLE METHODS AS NEEDED TO CONTROL DUST CAUSED BY THE DEMOLITION WORK
7. THE CONTRACTOR IS RESPONSIBLE FOR ALL DEMOLITION AND REMOVAL NECESSARY TO ACCOMPLISH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.
8. THE CONTRACTOR SHALL PRESERVE AND PROTECT SURVEY CONTROL POINTS AND SHALL BE RESPONSIBLE FOR REPLACEMENT OF ANY DISTURBED CONTROL POINTS AT NO COST TO THE OWNER.
9. RELOCATION OF EXISTING PLANT MATERIALS SHALL BE COORDINATED WITH THE OWNER AND RELOCATED TO A DESIGNATED AREA ON SITE.
10. EXISTING SHRUBS TO BE PRESERVED ARE TO BE BARRICADED BEFORE BEGINNING CONSTRUCTION.
11. THE CONTRACTOR SHALL INCORPORATE INTO HIS WORK ANY ISOLATION VALVES OR TEMPORARY PLUGS REQUIRED TO CONSTRUCT NEW UTILITY LINES WHILE DEMOLISHING EXISTING UTILITY LINES.
12. REMOVE ANY EXISTING STRUCTURES AND FOUNDATIONS TO SUBGRADE WHEN ENCOUNTERED DURING CONSTRUCTION.

DEMOLITION PLAN KEY:

KEY	DESCRIPTION
A	REMOVE EXISTING CURB AND GUTTER WHEN NEW ENTRANCES ARE INSTALLED
B	REMOVE EXISTING GRATE AND REPLACE WITH DBI WHEN NEW STORM SEWER SYSTEM IS INSTALLED
C	REMOVE 18" STORM PIPE AND REPLACE WHEN NEW STORM SEWER SYSTEM IS INSTALLED
D	REMOVE EXISTING HEADWALL WHEN NEW STORM SEWER SYSTEM IS INSTALLED

GENERAL NOTES:

1. THE APPROVED EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) PLAN SHALL BE IMPLEMENTED PRIOR TO ANY LAND DISTURBING ACTIVITIES ON THE CONSTRUCTION SITE. ANY MODIFICATIONS TO THE APPROVED EPSC PLAN MUST BE REVIEWED AND APPROVED BY THE ENGINEER. EPSC BMP'S SHALL BE INSTALLED PER THE PLAN AND THE ENGINEER.
2. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DETERMINED NECESSARY BY ON-SITE INSPECTION.
3. EROSION CONTROL MEASURES TO BE MAINTAINED AT ALL TIMES.
4. MAINTENANCE OF ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES, WHETHER TEMPORARY OR PERMANENT, SHALL BE AT ALL TIMES THE RESPONSIBILITY OF THE CONTRACTOR.
5. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE AT NO ADDITIONAL COST. CONTRACTOR SHALL PLAN ACCORDINGLY FOR EROSION CONTROL MEASURES.
6. THE RELEASE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENTATION CONTROL MEASURE AND PRACTICES AND SHALL OCCUR PRIOR TO OR CONCURRENT WITH LAND DISTURBING ACTIVITIES.
7. THE EROSION PREVENTION AND SEDIMENT CONTROL DEVICES SHOWN ON THIS PLAN SET ARE INTENDED TO BE THE MINIMUM CONTROL MEASURES. ADDITIONAL EPSC DEVICES MAY NEED TO BE INSTALLED AS NECESSARY BY THE CONTRACTOR TO PREVENT EROSION AND SEDIMENTATION RELEASE.
8. ALL EROSION SEDIMENT CONTROLS SHALL BE CHECKED AT THE BEGINNING AND END OF EACH DAY, WHEN CONSTRUCTION IS OCCURRING, TO ASCERTAIN THAT THE MEASURES ARE IN PLACE AND FUNCTIONING PROPERLY. EROSION SEDIMENT CONTROLS SHALL ALSO BE INSPECTED WEEKLY AND/OR AFTER RAINFALL EVENTS IN EXCESS OF 1/2" OVER A 24 HOUR PERIOD. ANY DAMAGE OBSERVED SHALL BE REPAIRED BY THE END OF THAT WORKING DAY. MEASURES SHALL BE MAINTAINED UNTIL THE ARCHITECT/ENGINEER DETERMINES THAT THEY ARE NO LONGER NEEDED.
9. THE CONTRACTOR SHALL BE REQUIRED TO CLEAN AND REMOVE SEDIMENT FROM SILT CHECKS, SILT FENCE, STONE BAGS, ETC., WHENEVER THEY BECOME ONE-HALF FULL, AND SHALL PROPERLY DISPOSE OF THE MATERIAL AT SITES APPROVED BY THE ENGINEER.
10. THE CONTRACTOR SHALL BE RESPONSIBLE TO TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.
11. THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE AS THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE.
12. STONE BAGS SHALL BE PLACED AT ALL DROP BOX INLETS, CONCRETE CHANNEL DRAIN, AND HEADWALL LOCATIONS.
13. DURING CONSTRUCTION OF STORM SEWERS, BULKHEADS (STONE BAGS) WILL BE USED TO PREVENT SEDIMENT FROM ENTERING PIPES. BEFORE BULKHEADS ARE REMOVED IN ORDER TO CONTINUE STORM SEWER INSTALLATION, THE EXCAVATION MUST BE DEWATERED INTO A FILTER BAG (COMMERCIALLY AVAILABLE) OR SILT BASIN APPROVED BY THE ENGINEER.
14. ALL DISTURBED AREAS SHALL RECEIVE A MINIMUM OF 6" OF TOPSOIL, SEED, FERTILIZE, AND MULCH, AND SHALL BE WATERED AS NECESSARY TO PROVIDE SUBSTANTIAL GROUND COVER.
15. AT THE END OF PROJECT, CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL STRUCTURES ON SITE.
16. WHERE CONSTRUCTION OR LAND DISTURBANCE ACTIVITY WILL OR HAS TEMPORARILY CEASED ON ANY PORTION OF A SITE, TEMPORARY SITE STABILIZATION MEASURES SHALL BE REQUIRED AS SOON AS PRACTICABLE, BUT NO LATER THAN 14 CALENDAR DAYS AFTER ACTIVITY HAS CEASED.
17. TEMPORARY SITE STABILIZATION MEASURES SHALL INCLUDE, BUT NOT LIMITED TO, STABILIZATION WITH MULCH OR TEMPORARY SEEDING, ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 30 DAYS SHALL BE STABILIZED WITH PERMANENT SEEDING.
18. SEDIMENT-LADEN GROUNDWATER ENCOUNTERED DURING TRENCHING, BORING OR OTHER EXCAVATION ACTIVITIES SHALL BE PUMPED TO A SEDIMENT TRAPPED DEVICE PRIOR TO BEING DISCHARGED INTO A STREAM, POND, SWALE OR CATCH BASIN.
19. AT THE END OF EACH WORK DAY, SITE SHALL BE CLEAN OF SEDIMENT AND DEBRIS. DISTURBED AREAS SHALL HAVE SILT CONTROL INSTALLED OR WILL BE STABILIZED SO THAT SEDIMENT WILL NOT GET OFF SITE OR INTO THE STORM SYSTEM DURING A RAIN EVENT.
20. ACTIONS MUST BE TAKEN TO MINIMIZE THE TRACKING OF MUD AND SOIL FROM CONSTRUCTION AREAS ONTO PUBLIC ROADWAYS. SOIL TRACKED ONTO THE ROADWAY SHALL BE REMOVED DAILY.
21. SOIL STOCKPILES SHALL BE LOCATED AWAY FROM STREAMS, PONDS, SWALES AND CATCH BASINS. STOCKPILES SHALL BE SEEDED, MULCHED, AND ADEQUATELY CONTAINED THROUGH THE USE OF SILT FENCE.

EROSION CONTROL / CONSTRUCTION PHASING:

A. CONSTRUCTION SHALL NOT COMMENCE UNTIL APPROVAL BY GOVERNING AUTHORITIES IS OBTAINED. IF NPDES PERMIT IS REQUIRED, CONTRACTOR TO SUBMIT PERMIT AND PREPARE SWPPP FOR THE CONSTRUCTION SITE.
B. INSTALL INLET PROTECTION ON EXISTING STORM SEWER STRUCTURES.
C. INSTALL PERIMETER SILT FENCE, CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT.
D. REMOVE OLD SILT FENCE ON THE SOUTH SIDE OF THE PROPERTY AND REPLACE IT WITH THE SILT FENCE SHOWN.
E. ONCE PRECONSTRUCTION MEETING HAS CONCLUDED AND INITIAL EROSION CONTROL MEASURES ARE APPROVED, PROCEED TO FINAL EROSION CONTROL PLAN PLAN - PHASE TWO, C-2.1.

CONTROL POINT SCHEDULE (CP)

CP #	SURVEY COORDINATES 'X', 'Y' & 'Z'			BM LOCATION
CP1	X: 1674591.61	Y: 496057.78	Z: 754.47	IRON PIN
CP2	X: 1674501.18	Y: 495947.06	Z: 753.34	IRON PIN

24-HOUR EMERGENCY CONTACT:
NURI BULUT: (615) 335-4264
NBULUT@MRCO.NET

811 Know what's below. Call before you dig.

1"=20'-0"

20 10 0 20'

NORTH INDICATED IS IN RELATION TO TENNESSEE STATE PLANE ZONE.

Palmer ENGINEERING
PALMER ENGINEERING
1040 MONARCH STREET
SUITE 210
LEXINGTON, KY 40513
(859) 389-9293

CONTRACT DATE: 06/15/2026
BUILDING TYPE: END. MED40
PLAN VERSION: TBD
SITE NUMBER: TBD
STORE NUMBER: TBD

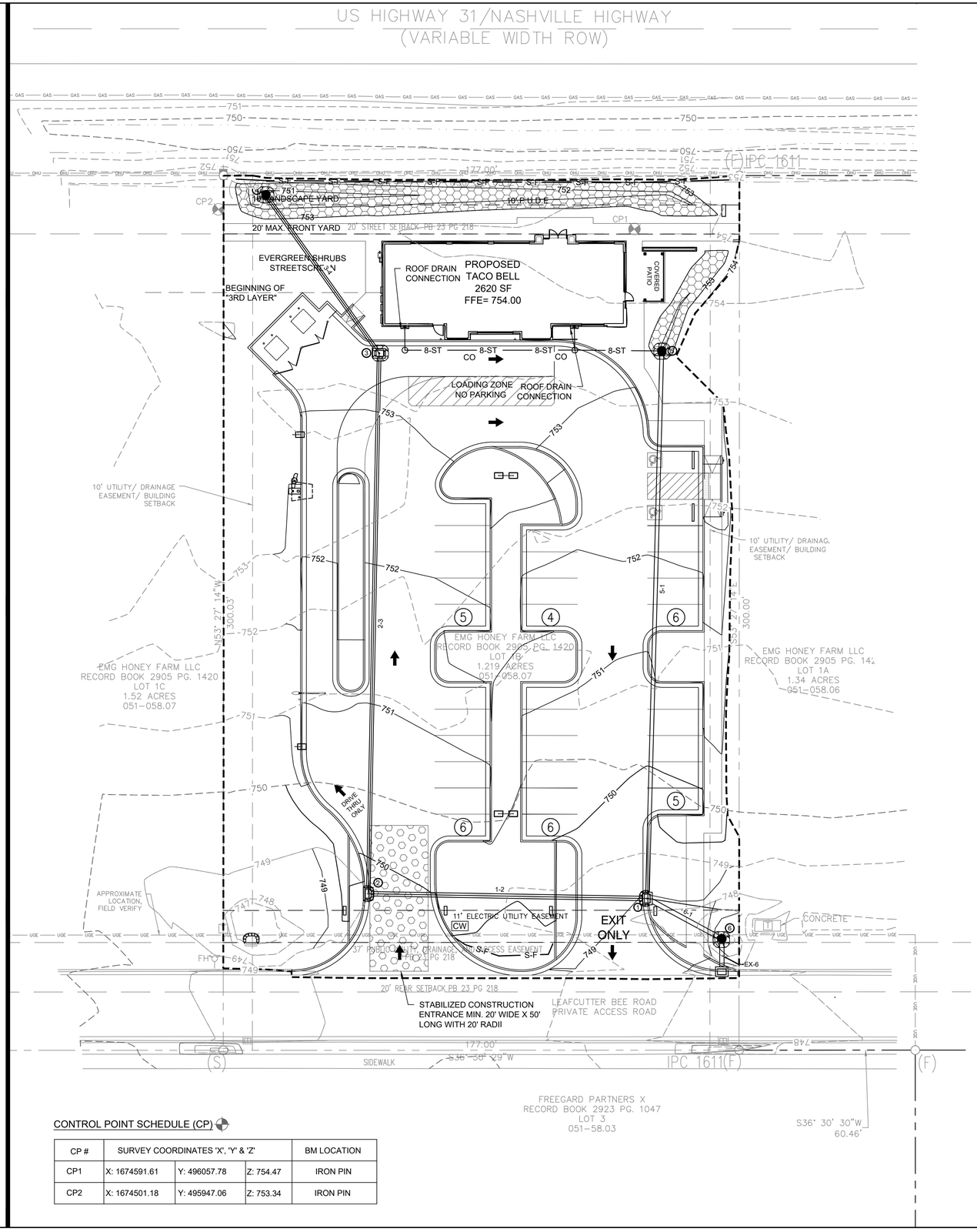
TACO BELL

HONEY FARM CROSSING
COLUMBIA, TN

DEMOLITION AND EROSION CONTROL PLAN PHASE 1

C-2.0

PERMIT PLOT DATE: 06/15/2026



LEGEND

- PROPERTY LINE
- BUILDING SETBACK LINE
- PUBLIC UTILITY EASEMENT LINE
- LANDSCAPE SETBACK
- LIMITS OF DISTURBANCE
- S-F — SILT FENCE
- INLET PROTECTION
- CONSTRUCTION ENTRANCE
- CW — CONCRETE WASHOUT
- EROSION CONTROL BLANKET

EROSION CONTROL NOTES:

1. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED FROM ALL GOVERNING AUTHORITIES.
2. NO LAND DISTURBING ACTIVITIES SHALL BEGIN UNTIL ALL PERIMETER EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED.
3. ALL EXPOSED AREAS SHALL BE SEEDED WITHIN 14 DAYS OF FINAL GRADING; EXCEPT THAT SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED WITHIN 7 DAYS.
4. SHOULD CONSTRUCTION STOP FOR LONGER THAN 14 DAYS, THE SITE SHALL BE SEEDED AS SPECIFIED.
5. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSPECTED BY THE CONTRACTOR AT LEAST TWICE WEEKLY AND PERFORMED AT LEAST 72 HOURS APART. WHERE SITES OR PORTIONS OF CONSTRUCTION SITES HAVE BEEN TEMPORARILY STABILIZED OR RUNOFF IS UNLIKELY DUE TO WINTER CONDITIONS (E.G. SITE COVERED WITH SNOW OR ICE), SUCH INSPECTION ONLY HAS TO BE CONDUCTED ONCE PER MONTH UNTIL THAWING RESULTS IN RUNOFF OR CONSTRUCTION ACTIVITY RESUMES.
6. THESE PLANS SHALL NOT BE CONSIDERED ALL INCLUSIVE AS THE GENERAL CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL AND SEDIMENT FROM LEAVING THE SITE. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ONSITE INSPECTIONS BY THE CONTRACTOR.
7. THE CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ESTABLISHMENT OF PERMANENT SOIL STABILIZATION.
9. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
10. AT LEAST ONE CONSTRUCTION ENTRANCE SHALL BE USED AT ALL TIMES WHILE CONSTRUCTION IS OCCURRING. STREETS AND PARKING AREAS ADJACENT TO THE CONSTRUCTION SITE MUST BE CLEARED OF DEBRIS TRACKED OUT OF THE CONSTRUCTION SITE.
11. ALL STOCKPILES SHALL BE LOCATED ON THIS SHEET WHEN PLACED. STOCKPILES SHALL BE SURROUNDED BY SILT FENCE. IF STOCKPILES ARE NOT USED FOR 14 DAYS OR MORE, TEMPORARY STABILIZATION THROUGH SEED AND/OR MULCH SHALL BE APPLIED.
12. ALL SANITARY WASTE FACILITIES, FUEL STORAGE INCLUDING SECONDARY CONTAINMENT, AND CONCRETE WASH OUT AREAS SHALL BE LOCATED ON THIS SHEET WHEN PLACED ONSITE.
13. ALL STORM INLETS, EXISTING AND PROPOSED, RECEIVING FLOW FROM THE CONSTRUCTION SITE SHALL HAVE INLET PROTECTION WHETHER OR NOT SPECIFICALLY SHOWN ON THIS PLAN SHEET.
14. DESIGN CRITERIA FOR EROSION CONTROL MEASURES ARE AS FOLLOWS: SILT FENCE 100 LF PER 1/4 ACRE DISTURBED. INLET PROTECTION OVERFLOW TO SAFELY PASS THE 5 YEAR STORM. ROLLED EROSION BLANKETS SHALL BE PROVIDED FOR SLOPES 2.5:1 OR STEEPER. OUTLET PROTECTION SHALL MEET A PEAK FLOW FROM THE 25 YEAR, 24 HOUR STORM OR DESIGN DISCHARGE FOR THE WATER CONVEYANCE STRUCTURE. WE TYPICALLY DESIGN OUR OUTLET PROTECTION FOR FLOW GENERATED BY THE STORM SEWER SYSTEM CHECK WHICH IS TYPICALLY 100 YEAR STORM.

EROSION CONTROL / CONSTRUCTION PHASING:

A. MAINTAIN EROSION CONTROL MEASURES FROM EROSION CONTROL PLAN - PHASE ONE.
B. BEGIN CLEARING AND GRUBBING OPERATIONS, IF APPLICABLE.
C. COMMENCE SITE GRADING.
D. SEED AND PROTECT EMBANKMENTS FOLLOWING INSTALLATION.
E. AS SITE APPROACHES GRADE, CONSTRUCT PROPOSED UNDERGROUND UTILITIES INCLUDING STORM DRAINAGE SYSTEMS.
F. INSTALL INLET PROTECTION AS EACH STORM SEWER STRUCTURE IS INSTALLED.
G. FINALIZE PAVEMENT SUBGRADE PREPARATION.
H. CONSTRUCT CURB AND GUTTER. CURB INLET PROTECTION, IF APPLICABLE, MAY BE TEMPORARILY MOVED FOR THIS CONSTRUCTION.
I. PRIOR TO PLACING STABILIZING BASE COURSE (WITHIN 48 HOURS), THE TEMPORARY INLET PROTECTION, IF APPLICABLE, WITHIN THE PAVEMENT MAY BE REMOVED. INLET PROTECTION SHALL BE REPLACED AFTER PAVING OPERATIONS AT ALL INLETS AND BE MAINTAINED UNTIL CONTRIBUTING AREAS ACHIEVE FINAL STABILIZATION AND/OR ALL POLLUTANT SOURCES ARE ELIMINATED.
J. PLACE BASE MATERIAL AS REQUIRED FOR PAVEMENT.
K. REMOVE ANY BUILT UP SEDIMENT FROM THE NEW STORM SEWER SYSTEM.
L. CARRY OUT FINAL GRADING, SODDING, SEEDING AND PLANTING IN ALL AREAS. AREAS 6:1 AND STEEPER SHALL BE MULCH PROTECTED, WHICH IS TO BE MAINTAINED UNTIL VEGETATION IS THOROUGHLY ESTABLISHED. AREAS STEEPER THAN 2.5:1 SHALL RECEIVE EROSION CONTROL BLANKET UNLESS OTHERWISE NOTED.
M. COMPLETE FINAL PAVING OPERATIONS. REMOVE TEMPORARY CONSTRUCTION ENTRANCE, IF APPLICABLE, PRIOR TO PAVEMENT CONSTRUCTION IN THAT AREA.
N. FINAL REMOVAL OF EROSION CONTROL MEASURES MAY ONLY OCCUR ONCE ALL PAVING IS COMPLETED AND ALL EXPOSED SURFACES ARE STABILIZED.
O. WHEN FINAL STABILIZATION IS COMPLETE, CONTRACTOR TO COORDINATE WITH ENGINEER TO REQUEST NOTICE OF TERMINATION WITH TDEC.

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TACO BELL

HONEY FARM CROSSING
COLUMBIA, TN

EROSION CONTROL PLAN PHASE 2

C-2.1

PERMIT PLOT DATE: 06/15/2026

SEEDING SPECIFICATION

GENERAL
SEEDING CAN BE USED FOR TEMPORARY OR PERMANENT STABILIZATION. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS CEASED FOR MORE THAN 14 DAYS SHALL BE TEMPORARILY SEEDED AND WATERED. AREAS WHERE FINAL GRADING HAS BEEN COMPLETED FOR MORE THAN 14 DAYS SHALL BE TEMPORARILY OR PERMANENTLY SEEDED. TEMPORARY SEED MIXTURES ARE SPECIFIED BELOW. PERMANENT SEED MIXTURES SHALL BE SEEDED DURING SEASON SPECIFIED.

SEEDING MIXTURES
SEE TEMPORARY AND PERMANENT SEEDING MIXTURES BELOW.

3:1 SLOPES OR FLATTER
APPLY AGRICULTURAL LIME AT A RATE OF 2 TONS PER ACRE. APPLY 10-10-10 COMMERCIAL ORGANIC FERTILIZER AT A RATE OF 1000 LBS. PER ACRE. APPLY SUPERPHOSPHHATE AT A RATE OF 500 LBS. PER ACRE – 20%. SEED IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:

TEMPORARY SEEDING

PLANTING DATES	SEED VARIETY	APPLICATION RATE
JANUARY 1 – MAY 1 (WEATHER PERMITTING)	ITALIAN RYE	33.33%
	KOREAN LESPEDEZA	33.33%
	SUMMER OATS	33.33%
MAY 1 – JULY 15: (WEATHER PERMITTING)	SUDAN-SORGHUM CROSSES OR STARR MILLET	100%
JULY 15–JANUARY 1 (WEATHER PERMITTING)	BALBOA RYE	66.66%
	ITALIAN RYE	33.33%

PERMANENT SEEDING

PLANTING DATES	SEED VARIETY	APPLICATION RATE
AUG 15–NOV 01	TALL FESCUE	120LBS./ACRE
NOV 01–MAR 01	TALL FESCUE	120LBS./ACRE
(Weather Permitting)	& ABRUZZI RYE	25LBS./ACRE
MAR 01–APR 15	TALL FESCUE	120LBS./ACRE
APR 15–JUL 30	HULLED COMMON BERMUDA GRASS	12LBS./ACRE
JUL 30–AUG 15	TALL FESCUE AND	60LBS./ACRE
	***BROWNTOP MILLET	35LBS./ACRE
	***OR SORGHUM-SUDAN HYBRIDS	30LBS./ACRE

MULCH SEEDED AREA WITH 2 TONS PER ACRE CLEAN GRAIN STRAW. ANCHOR STRAW WITH HYDRAULIC WOOD FIBER MULCH AT THE RATE OF 1000 LBS PER ACRE, OR 150–200 POUNDS OF ORGANIC MULCH TACKIFIER PER ACRE, OR USE NETTING, OR USE A MULCH ANCHORING TOOL.

SEED BED PREPARATION (PERMENTENT SEEDING)
SURFACE WATER CONTROL MEASURES SHALL BE IN PLACE. AREA TO BE SEEDED SHALL BE RIPPED AND SPREAD WITH AVAILABLE TOPSOIL. TOTAL SEEDBED PREPARED DEPTH SHOULD BE AT LEAST 4 INCHES. LOOSE ROCKS, ROOTS AND OTHER OBSTRUCTIONS NEED TO BE REMOVED FROM THE SURFACE SO THAT THEY WILL NOT INTERFERE WITH THE ESTABLISHMENT AND MAINTENANCE OF VEGETATION. SURFACE FOR FINAL SEEDBED PREPARATION SHOULD BE AT FINISH GRADE AND BE REASONABLY SMOOTH AND UNIFORM.

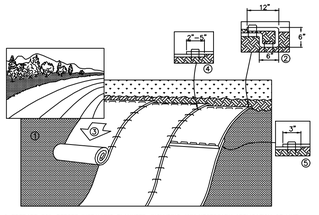
IF NO SOIL TEST IS TAKEN, FERTILIZER AND LIME SHOULD BE ACCORDING TO SEEDING SPECIFICATIONS. IF SOIL TEST IS TAKEN, APPLY FERTILIZER AND LIME ACCORDING TO SOIL TEST REPORT. FERTILIZER AND LIME SHALL BE APPLIED UNIFORMLY AND MIXED WITH THE SOIL DURING SEEDBED PREPARATION. WEIGHTS, SEED SPECIES AND PERCENTAGE OF PURITY AND GERMINATION MUST BE CHECKED PRIOR TO SEEDING.

SEEDING SHALL BE ACCOMPLISHED IN TWO DIRECTIONS AND AT RIGHT ANGLES TO EACH OTHER. LAWN AREAS SHALL BE SEEDED AT THE RATE INDICATED ON THE DRAWINGS BY SOWING EVENLY WITH AN APPROVED MECHANICAL CULTI-PACKER SEEDER TO COVER THE SEED AND FORM THE SEEDBED IN ONE OPERATION. IF BROADCAST SEEDER IS USED THE SEEDING RATE SHALL BE TWO (2) TIMES THE DRILL RATE. IN INACCESSIBLE AREAS, THE SEED SHALL BE LIGHTLY RAKED WITH FLEXIBLE RAKES AND ROLLED WITH A WATER BALAST ROLLER. AFTER ROLLING SEEDED AREAS ARE TO BE MULCHED ACCORDING TO SPECIFICATION. IF HYDROSEED OPERATION IS USED, SEEDING RATE SHALL BE FIVE (5) TIMES THE DRILL RATE INDICATED ON THE DRAWINGS.

IF SEEDING CAN NOT BE ACCOMPLISHED DUE TO SEASONAL CONSTRAINTS, APPLY STRAW MULCH AND TACKIFIER TO ALL SLOPES AND DISTURBED AREAS UNTIL PERMANENT SEEDING IS ALLOWED. IN THE EVENT SEEDING OCCURS OUT OF SEASON, MAINTENANCE SHALL OCCUR AND CONTINUE INTO THE FOLLOWING GROWING SEASON OR UNTIL A UNIFORM STAND OF THE SPECIFIED PERMANENT GRASSES HAVE BEEN ESTABLISHED AND THE SITE HAS REACHED 85% STABILIZATION. PERMANENT AND TEMPORARY SEEDING SHALL BE ACCOMPLISHED THROUGHOUT THE CONSTRUCTION PROCESS.

INSPECTION
INSPECT SEEDED AREAS FREQUENTLY. IF SEEDED AREAS FAIL TO GERMINATE, OR TO PROVIDE ADEQUATE GROUND COVERAGE, THE AREA SHALL BE RE-SEEDED UNTIL FINAL STABILIZATION IS ACHIEVED. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED TWICE WEEKLY AND PERFORMED AT LEAST 72 HOURS APART. WHERE SITES OR PORTIONS OF CONSTRUCTION SITES HAVE BEEN TEMPORARILY STABILIZED RUNOFF IS UNLIKELY DUE TO WINTER CONDITIONS (E.G. SITE COVERED WITH SNOW OR ICE), SUCH INSPECTION ONLY HAS TO BE CONDUCTED ONCE PER MONTH UNTIL THAWING RESULTS IN RUNOFF OR CONSTRUCTION ACTIVITY RESUMES. THROUGHOUT CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED.

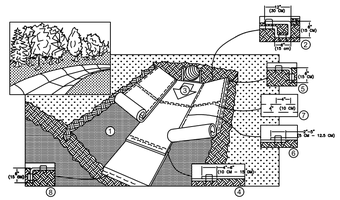
A SEEDING SPECIFICATIONS
NO SCALE



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. BACK FILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO PREPARED SOIL AND FOLD REMAINING 12" (30cm) PORTION OF THE BLANKET BACK OVER SEED AND SOIL. SECURE BLANKET OVER SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS DOWN ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH THE APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" (5cm-12.5cm) OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5cm) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30cm) APART ACROSS ENTIRE BLANKET WIDTH.
6. EROSION CONTROL BLANKETS SHALL BE INSTALLED FOLLOWING MANUFACTURERS SPECIFICATIONS.

NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.

B EROSION CONTROL BLANKET FOR SLOPE INSTALLATION
NO SCALE

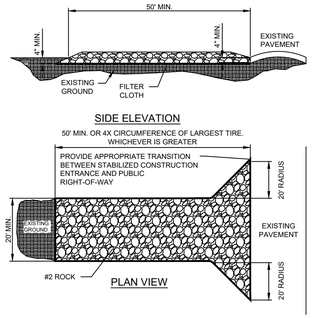


1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30cm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) ACROSS THE WIDTH OF THE BLANKET.
3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4"-6" (10cm-15cm) OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10cm) APART AND 4" (10cm) ON CENTER TO SECURE BLANKETS.
5. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ADJACENT BALNKETS MUST BE OVERLAPPED APPROXIMATELY 2"-5" (5cm-12.5cm)(DEPENDING ON BLANKET SIZE) AND STAPLED.
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30' TO 40' (9M-12M) INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10cm) APART AND 4" (10cm) ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
8. THE TERMINAL END OF BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

CRITICAL POINTS
A) OVERLAPS AND SEAMS
B) PROJECTED WATER LINE
C) CHANNEL BOTTOM/SIDE SLOPE VERTICES

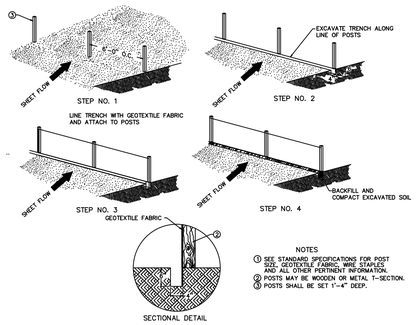
NOTE:
* HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.
** IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.

C EROSION CONTROL BLANKET FOR CHANNEL INSTALLATION
NO SCALE

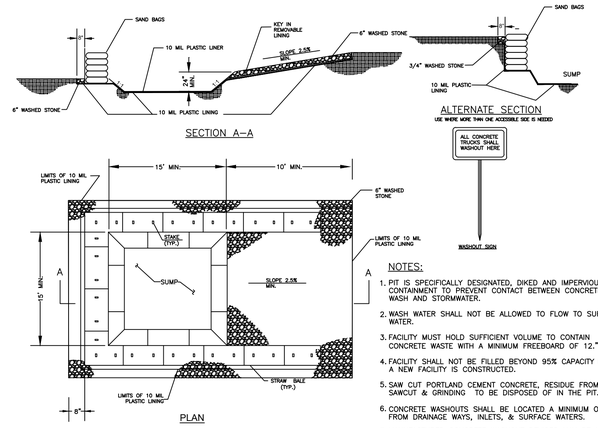


CONSTRUCTION SPECIFICATIONS
1. STONE - USE COARSE AGGREGATE (#2 ROCK)
2. LENGTH - AS EFFECTIVE, BUT NOT LESS THAN 50 FEET.
3. THICKNESS - NOT LESS THAN EIGHT (8) INCHES.
4. WIDTH - NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
5. WASHING - WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH, OR WATERCOURSE THROUGH USE OF SAND BAGS, GRAVEL, BOARDS OR OTHER APPROVED METHODS.
6. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
7. 12' X 24' METAL GRATE MAY BE USED. GRATE SHALL BE 25' AWAY FROM PAVEMENT AND APPROPRIATE SEDIMENT CONTROL TRAPPING DEVICE SHALL BE USED AT GRATE OUTLET POINT.

D STABILIZED CONSTRUCTION ENTRANCE
NO SCALE



E SILT FENCE
NO SCALE



NOTES:
1. PIT IS SPECIFICALLY DESIGNATED, DIKED AND IMPERVIOUS CONTAINMENT TO PREVENT CONTACT BETWEEN CONCRETE WASH AND STORMWATER.
2. WASH WATER SHALL NOT BE ALLOWED TO FLOW TO SURFACE WATER.
3. FACILITY MUST HOLD SUFFICIENT VOLUME TO CONTAIN CONCRETE WASTE WITH A MINIMUM FREEBOARD OF 12."
4. FACILITY SHALL NOT BE FILLED BEYOND 95% CAPACITY UNLESS A NEW FACILITY IS CONSTRUCTED.
5. SAW CUT PORTLAND CEMENT CONCRETE, RESIDUE FROM SAWCUT & GRINDING TO BE DISPOSED OF IN THE PIT.
6. CONCRETE WASHOUTS SHALL BE LOCATED A MINIMUM OF 100' FROM DRAINAGE WAYS, INLETS, & SURFACE WATERS.
7. MANUFACTURED CONCRETE WASHOUT DEVICES MAY BE USED IF REMOVED FROM THE SITE WHEN 95% FULL CAPACITY.

F CONCRETE WASHOUT PIT
NO SCALE

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TACO BELL
HONEY FARM CROSSING
COLUMBIA, TN

EROSION CONTROL DETAILS

C-2.2

PERMIT PLOT DATE: 06/15/2026

29-JUN-2017 14:38
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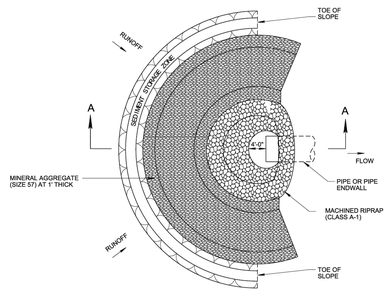
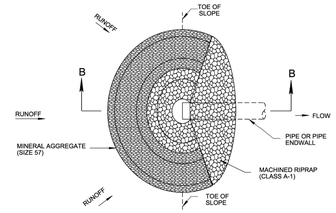
REV. 12-18-99: CHANGED DRAWING NO. FROM ESC-STR-11 TO EC-STR-11.

- REV.5-27-01: CHANGED ITEM NOS. 303-15.01 TO 303-10.01 AND 740-03.01 TO 740-10.03. CHANGED DESCRIPTION FOR ITEM NOS. 709-05.05, 709-05.06 AND 709-05.07.
- REV. 12-18-02: CHANGED GENERAL NOTE(G)
- REV. 1-22-03: ADDED ADDITIONAL GEOTEXTILE FABRIC TO ALL SECTIONAL VIEWS.
- REV. 4-15-06: REFORMATTED SHEET, REVISED NOTES, MISC. EDITS TO DRAWING.
- REV. 4-1-08: REMOVED DITCH AND SLOPE PROTECTION NOTE, RENAMED DRAWING, REVISED NOTES, MISC. EDITS TO DRAWING.
- REV. 8-1-12: MINOR EDITS TO GENERAL NOTES.
- REV. 3-16-17: CORRECTED PAY ITEM NO. 209-05.

DETAIL FOR UP TO 36" PIPE SIZE

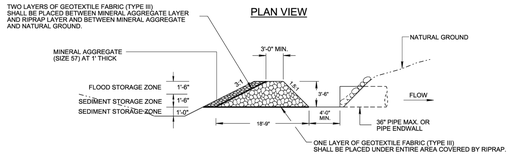


DETAIL FOR 18" TO 24" PIPE SIZE

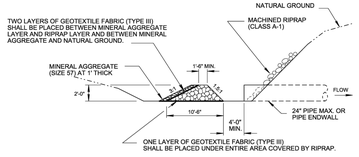


PLAN VIEW

PLAN VIEW



SECTION A - A



SECTION B - B

CULVERT PROTECTION TYPE 1 GENERAL NOTES

(A) CULVERT PROTECTION (TYPE 1) MAY BE USED AROUND A CULVERT INLET TO REDUCE FLOW VELOCITIES TO ALLOW SEDIMENTS TO DROP OUT. IT IS NORMALLY USED WHERE ALL OF THE INFLOW TO THE CULVERT IS ON-SITE RUNOFF. IT MAY ALSO BE USED WHERE A FILTRATION FUNCTION FOR VERY LOW FLOWS IS DESIRED.

(B) CULVERT PROTECTION (TYPE I) SHALL NOT BE USED IN STREAMS OR OTHER NATURAL WATER RESOURCES, UNLESS PROVIDED FOR IN THE PERMITS.

(C) CULVERT PROTECTION (TYPE I) SHOULD NOT BE USED IN DITCHES, SWALES, OR OTHER DEPRESSIONS WITH A DEPTH GREATER THAN 1 FOOT.

(D) CULVERT PROTECTION (TYPE1) SHOULD NOT BE USED AT THE CULVERT OUTLET.

(E) WHERE CONDITIONS OF HIGH SEDIMENT FLOW EXIST, MACHINED RIPRAP (CLASS A-3) MAY BE USED IN LIEU OF MACHINED RIPRAP (CLASS A-1) FOR PIPES UP TO 24 INCHES IN DIAMETER WITH A DRAINAGE AREA LESS THAN 3 ACRES. IT MAY ALSO BE USED FOR PIPE FROM 24 INCHES IN DIAMETER WITH A DRAINAGE AREA LESS THAN 6 ACRES.

(F) AT MOST SITES, THE MAXIMUM ALLOWABLE DRAINAGE AREA SHALL BE 30 ACRES. AT SITES WHICH DRAIN TO EXCEPTIONAL TENNESSEE WATERS OR SEDIMENT-IMPAIRED STREAMS, THE MAXIMUM ALLOWABLE DRAINAGE AREA SHALL BE 20 ACRES

(G) ONLY GEOTEXTILE FABRIC (TYPE III) LISTED ON THE QUALIFIED PRODUCTS LIST SHALL BE USED.

(H) CULVERT PROTECTION (TYPE 1) SHALL BE PAID FOR UNDER THE FOLLOWING ITEM NUMBERS:

203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	PER CUBIC YARD
303-10.01	MINERAL AGGREGATE (SIZE 57)	PER TON
709-05.05	MACHINED RIPRAP (CLASS A-3)	PER TON
709-05.06	MACHINED RIPRAP (CLASS A-1)	PER TON
740-10.03	GEOTEXTILE (TYPE III) (EROSION CONTROL)	PER SQUARE YARD

PAYMENT SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR CONSTRUCTION, MAINTENANCE, AND REMOVAL OF CULVERT PROTECTION (TYPE 1).

(I) SEDIMENT SHALL BE REMOVED FROM BEHIND THE CULVERT PROTECTION (TYPE 1) WHEN IT HAS ACCUMULATED TO ONE-HALF THE ORIGINAL HEIGHT OF THE STRUCTURE AND PAID FOR UNDER ITEM NUMBER 209-05, SEDIMENT REMOVAL PER CUBIC YARD.

EROSION CONTROL PLAN LEGEND: (C) CULVERT PROTECTION (TYPE 1)

☐ MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

NOT TO SCALE

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

CULVERT PROTECTION TYPE 1

10-26-92 | EC-STR-11

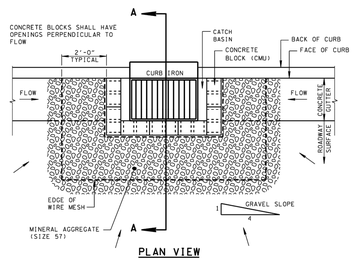
☐ REV. 4-15-06: REFORMATTED SHEET, REVISED NOTES, MISC. EDITS TO DRAWING.

☐ REV. 4-1-08: MISC. MINOR EDITS AND GENERAL NOTE REVISIONS.

☐ REV. 8-1-12: MINOR EDITS TO GENERAL NOTES.

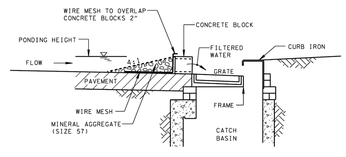
CURB INLET PROTECTION TYPE 1

LOW VOLUME, LOW SPEED TRAFFIC AREAS ONLY



PLAN VIEW

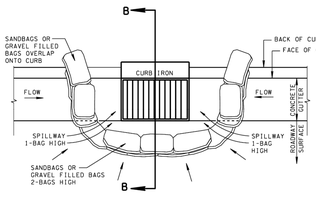
TYPICAL CMU



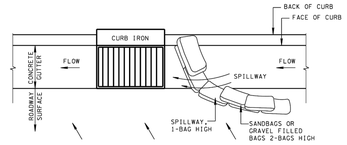
SECTION A-A

CURB INLET PROTECTION TYPE 2

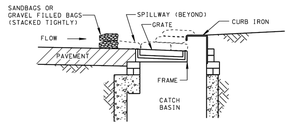
LOW VOLUME, LOW SPEED TRAFFIC AREAS ONLY



PLAN VIEW - INLET AT SAG



PLAN VIEW - INLET ON GRADE



SECTION B-B

CURB INLET PROTECTION TYPE 1 GENERAL NOTES

(A1) CURB INLET PROTECTION (TYPE 1) IS USED TO INTERCEPT SEDIMENT AND PREVENT SEDIMENT LADEN WATER FROM ENTERING STORM SEWER SYSTEMS. THIS DEVICE IS INTENDED AS A SECONDARY SEDIMENT CONTROL MEASURE. CURB INLET PROTECTION (TYPE 1) IS USED IN AREAS WHERE PONDING IS NOT A CONCERN AND ADEQUATE AREA IS AVAILABLE FOR PONDING.

(A2) MAXIMUM DRAINAGE AREA IS 1 ACRE.

(A3) CONCRETE BLOCKS SHALL BE PLACED LENGTHWISE ON THEIR SIDES IN A SINGLE ROW AROUND THE PERIMETER OF THE INLET. THE ENDS OF ADJACENT BLOCKS SHOULD ABUT TIGHTLY TOGETHER.

(A4) ADDITIONAL BLOCKS WITH OPENINGS PERPENDICULAR TO FLOW MAY BE REQUIRED DEPENDING ON AMOUNT OF FLOW AND AVAILABLE PONDING AREA.

(A5) WIRE MESH SHALL BE 19 GUAGE GALVANIZED HARDWARE CLOTH WITH ¾ INCH OPENINGS. WIRE SHALL BE SHAPED TO FIT SECURELY AGAINST CONCRETE BLOCK AND SHALL LAP OVER THE TOP OF THE BLOCK A MINIMUM OF 2 INCHES.

(A6) CURB INLET PROTECTION (TYPE 1) SHALL BE PAID FOR UNDER THE FOLLOWING ITEM NUMBER.

209-09.40 CURB INLET PROTECTION (TYPE 1) PER EACH

PAYMENT SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR CONSTRUCTION, MAINTENANCE, AND REMOVAL OF CURB INLET PROTECTION (TYPE 1).

(A7) ANY PRODUCT LISTED ON THE QUALIFIED PRODUCTS LIST AS AN APPROVED ALTERNATE IS ALSO ACCEPTABLE.

(A8) MAINTENANCE SHALL BE PERFORMED AS NEEDED. FOR PROPER FUNCTION, SEDIMENT REMOVAL SHALL BE PERFORMED CONTINUOUSLY AND/OR AFTER EVERY RAIN EVENT AND PAID FOR UNDER ITEM NUMBER 209-05, SEDIMENT REMOVAL, PER CUBIC YARD.

CURB INLET PROTECTION TYPE 2 GENERAL NOTES

(B1) CURB INLET PROTECTION (TYPE 2) IS USED TO INTERCEPT SEDIMENT AND PREVENT SEDIMENT LADEN WATER FROM ENTERING STORM SEWER SYSTEMS. THIS DEVICE IS INTENDED AS A SECONDARY SEDIMENT CONTROL MEASURE. CURB INLET PROTECTION (TYPE 2) IS USED IN AREAS WHERE PONDING IS NOT A CONCERN AND ADEQUATE AREA IS AVAILABLE FOR PONDING.

(B2) MAXIMUM DRAINAGE AREA IS 1 ACRE.

(B3) MAXIMUM TOP OF SPILLWAY ELEVATION = TOP OF CURB ELEVATION MINUS 1 INCH.

(B4) BAGS SHALL BE MADE OF EITHER BURLAP OR GEOTEXTILE FABRIC AND FILLED WITH CLEAN MINERAL AGGREGATE (SIZE 57) OR SAND.

(B5) PACK SAND/GRAVEL FILLED BAGS TIGHTLY TOGETHER END TO END TO ENSURE NO SEDIMENT FLOWS BETWEEN OR UNDERNEATH THE BAGS. WHERE TIGHT FIT IS UNACHIEVABLE, INSTALL GEOTEXTILE FABRIC (TYPE III) ALONG THE UPSTREAM FACE OF THE BAGS LAPPING OVER THE TOP BAGS 6 INCHES AND EXTENDING GEOTEXTILE FABRIC (TYPE III) A MINIMUM OF 18 INCHES UPSTREAM OF THE BAGS. COVER GEOTEXTILE FABRIC (TYPE III) WITH MINERAL AGGREGATE (SIZE 57) STONE WEDGE TO THE TOP OF THE BAGS.

(B6) ONLY GEOTEXTILE FABRIC (TYPE III) LISTED ON THE QUALIFIED PRODUCTS LIST SHALL BE USED.

(B7) AN OVERFLOW SPILLWAY SHALL BE PROVIDED BY LEAVING AN OPENING OF ONE SAND OR GRAVEL BAG WIDE AND HIGH AS SHOWN. STORMS GREATER THAN 2-YEAR, 24 HOUR STORM SHOULD NOT OVERTOP THE CURB.

(B8) CURB INLET PROTECTION (TYPE 2) SHALL BE PAID FOR UNDER THE FOLLOWING ITEM NUMBER:

209-09.41 CURB INLET PROTECTION (TYPE 2) PER EACH

PAYMENT SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR CONSTRUCTION, MAINTENANCE, AND REMOVAL OF CURB INLET PROTECTION (TYPE 2).

(B9) ANY PRODUCT LISTED ON THE QUALIFIED PRODUCTS LIST AS AN APPROVED ALTERNATE IS ALSO ACCEPTABLE.

(B10) MAINTENANCE SHALL BE PERFORMED AS NEEDED. FOR PROPER FUNCTION SEDIMENT REMOVAL SHALL BE PERFORMED CONTINUOUSLY AND/OR AFTER EVERY RAIN EVENT AND PAID FOR UNDER ITEM NUMBER 209-05, SEDIMENT REMOVAL, PER CUBIC YARD.

EROSION CONTROL PLAN LEGEND: (1) CURB INLET PROTECTION (TYPE 1) EROSION CONTROL PLAN LEGEND: (2) CURB INLET PROTECTION (TYPE 2)

☐ MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

NOT TO SCALE

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

CURB INLET PROTECTION TYPE 1 & 2

1-20-06 | EC-STR-39

Palmer ENGINEERING
PALMER ENGINEERING
1040 MONARCH STREET
SUITE 210
LEXINGTON, KY 40513
(859) 389-9293

CONTRACT DATE:	06/15/2026
BUILDING TYPE:	END. MED40
PLAN VERSION:	TBD
SITE NUMBER:	TBD
STORE NUMBER:	TBD

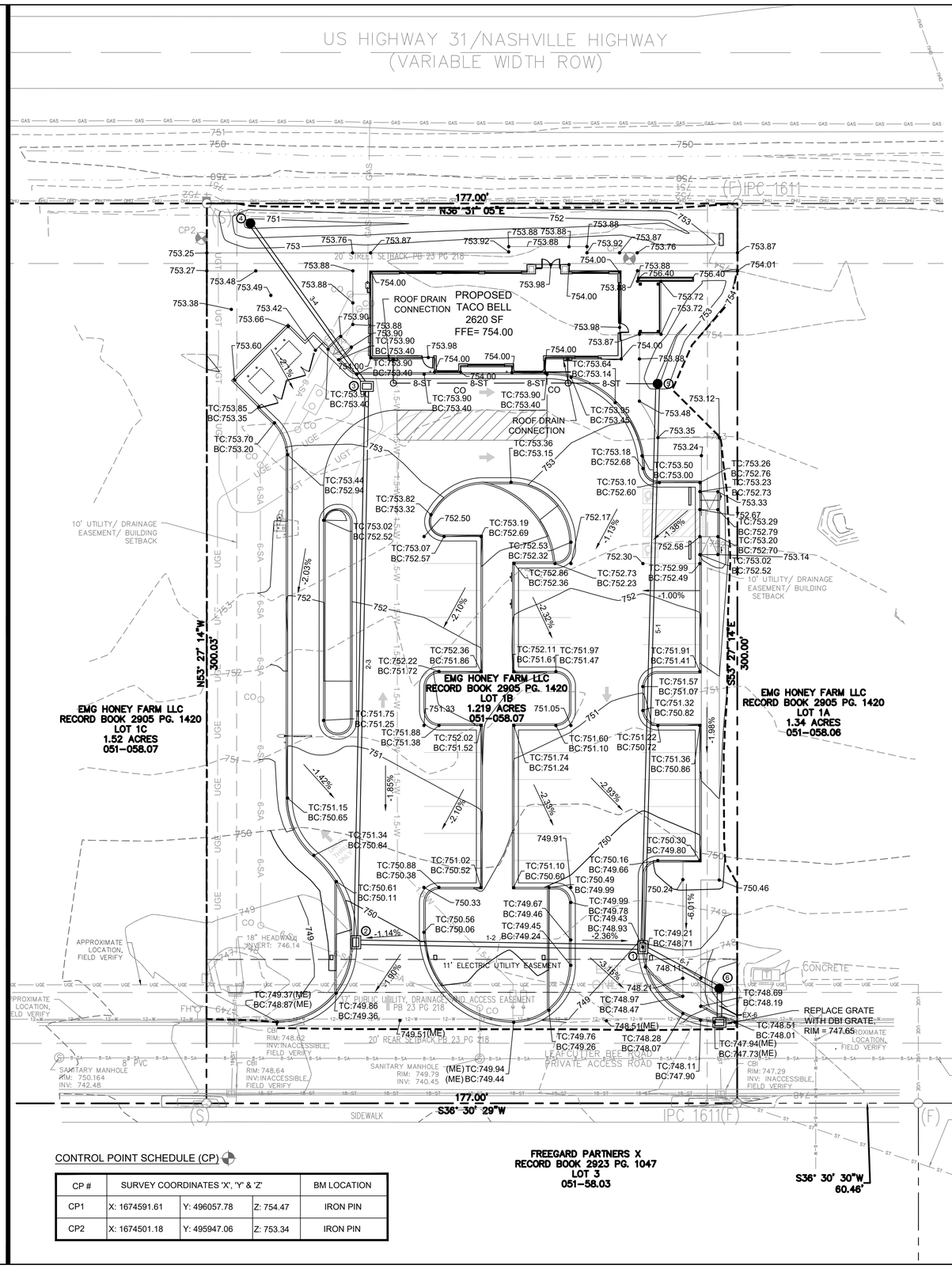
TACO BELL

HONEY FARM CROSSING
COLUMBIA, TN

EROSION CONTROL DETAILS

C-2.3

PERMIT PLOT DATE: 06/15/2026



LEGEND

- PROPERTY LINE
- EASEMENT
- 615 — EXISTING MAJOR CONTOUR
- 615 — EXISTING MINOR CONTOUR
- 8-ST — PROPOSED STORM PIPE
- 750 — PROPOSED MAJOR CONTOUR
- 751 — PROPOSED MINOR CONTOUR
- LIMITS OF DISTURBANCE
- 18-ST — EXISTING STORM LINE
- -1.00% — SURFACE SLOPE
- 752.00 — SURFACE SPOT ELEVATION
- 752.00 (ME) — MATCH EXISTING ELEVATION
- TC: 754.00 / BC: 753.50 — TOP / BOTTOM OF CURB
- CO — CLEAN OUT
- PROPOSED INLETS

NOTE:

WATER DETENTION IS ACCOUNTED FOR IN THE REGIONAL BASIN BEHIND THE STORAGE UNITS.

GRADING & DRAINAGE NOTES:

1. ALL EXISTING STRUCTURES, UNLESS OTHERWISE NOTED, INCLUDING TREES, FENCING, ETC. WITHIN THE CONSTRUCTION AREA SHALL BE REMOVED AND DISPOSED OF OFF SITE BY THE EXCAVATING CONTRACTOR.
2. BURNING WILL BE SUBJECT TO LOCAL REGULATIONS.
3. EXCAVATING CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES HAVING UNDERGROUND UTILITIES ON SITE PRIOR TO EXCAVATION.
4. SITE GRADING SHALL NOT COMMENCE UNTIL APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND APPROVAL HAS BEEN OBTAINED FROM ALL REGULATORY AGENCIES HAVING JURISDICTION.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE CIVIL AND GEOTECHNICAL ENGINEERS IF ON-SITE DISCREPANCIES ARE OBSERVED THAT WOULD AFFECT THE EARTHWORK QUANTITIES.
6. CONSULT WITH THE GEOTECHNICAL ENGINEER FOR PROPER STABILIZATION OF THE SITE. ANY STABILIZATION PROCEDURE SHOULD BE PERFORMED UNDER DIRECT SUPERVISION OF A QUALIFIED GEOTECHNICAL ENGINEER.
7. THE GEOTECHNICAL ENGINEER SHALL OBSERVE, INSPECT AND TEST ALL EARTHWORK OPERATIONS INCLUDING, BUT NOT LIMITED TO, CLEARING AND GRUBBING, SUB-GRADE PREPARATION, STRUCTURAL PREPARATION, STRUCTURAL AND TRENCH EXCAVATION AND BACKFILL, AND PLACEMENT AND COMPACTION OF FILL.
8. SUFFICIENT TEST OF FILL SOILS SHALL BE MADE TO VERIFY THAT SOIL PROPERTIES COMPLY WITH THE DESIGN REQUIREMENTS, AS DETERMINED BY THE GEOTECHNICAL ENGINEER ON SITE.
9. THE OWNER MAY REQUEST ADDITIONAL GEOTECHNICAL TESTING, AT THE OWNER'S EXPENSE, AS APPEARS NECESSARY.
10. POSITIVE DRAINAGE TO THE NEAREST DRAINAGE FEATURE MUST BE MAINTAINED AT ALL TIMES. NO PONDING WILL BE PERMITTED.
11. MAINTAIN SITE GRADING SUCH THAT ALL SURFACE WATER WITHIN EARTH DISTURBING LIMITS AND DEWATERING, IF REQUIRED, IS DIVERTED THROUGH EROSION AND SEDIMENT CONTROL MEASURES.
12. THE DIRECTION OF THE TEXT FOR CONTOUR LABELS INDICATES THE DIRECTION OF THE SLOPE.
13. FINAL DOWNSPOUT LOCATIONS PER ARCHITECTURAL PLANS.
14. NO SIDEWALK SHALL EXCEED 2% CROSS SLOPE OR 5% LONGITUDINAL SLOPE.
15. HANDICAP SPACES AND ASSOCIATED ACCESS AISLES SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION.
16. ALL PROPOSED PIPES SHALL BE EITHER RCP OR HDPE. CONTRACTOR TO COORDINATE WITH OWNER ON DECISION IN THE FIELD.
17. PIPE LENGTHS SHOWN ARE FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE AND ROUNDED UP TO THE NEAREST WHOLE NUMBER.
18. ALL STORM PIPE SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
19. DOWNSPOUTS/ROOF DRAINS SHALL BE TIED TO THE PROPOSED STORM SEWER SYSTEM OR NEAREST DRAINAGE FEATURE. CONTRACTOR TO INSTALL HEADER PIPES, AS NECESSARY, WITH SUFFICIENT PIPE SIZES (PER PLUMBING CODES) AND AT SUFFICIENT SLOPES (NOT LESS THAN 1%) TO CARRY ROOF DRAINAGE. INSTALL CLEANOUTS WHERE NECESSARY TO MAINTAIN ALL DOWNSPOUTS AND HEADER PIPES.
20. ALL IMPORT / EXCESS MATERIAL, UNLESS OTHERWISE COORDINATED WITH THE OWNER, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
21. WATER DETENTION IS ACCOUNTED FOR IN THE REGIONAL BASIN BEHIND THE STORAGE UNITS.
22. PER THE GEOTECHNICAL EXPLORATION REPORT AND DUE TO UNDOCUMENTED FILL BEING PLACED ON THE SITE, THE CONTRACTOR SHALL UNDERCUT A MINIMUM 3 FEET BELOW FOUNDATION BEARING LEVEL TO CONSTRUCT A MINIMUM 3 FOOT THICK "BUFFER" LAYER OF NEW ENGINEERED FULL BENEATH THE FOUNDATION BEARING LEVEL. UNDERCUT SHOULD EXTEND 1.5' BEYOND THE EXTERIOR EDGES OF THE FOUNDATIONS. LIFTS OF 2' AND 1' ARE RECOMMENDED FOR THIS INSTALLATION. SEE GEOTECHNICAL EXPLORATION REPORT FOR MORE DETAILS.

STORM STRUCTURE TABLE			
STRUCTURE #	DESCRIPTION	STRUCTURE DETAILS	COORDINATES
1	CBI	RIM = 749.26 INV IN = 745.53 INV IN = 747.64 INV OUT = 745.53	N=495924.67 E=1674778.76
2	DBI	RIM = 749.77 INV IN = 746.02 INV OUT = 746.02	N=495848.70 E=1674720.47
3	DBI	RIM = 753.38 INV IN = 746.94 INV OUT = 746.94	N=495962.40 E=1674573.88
4	YARD DRAIN	RIM = 750.47 INV OUT = 747.27	N=495963.10 E=1674506.93
5	YARD DRAIN	RIM = 751.77 INV OUT = 747.89	N=496040.45 E=1674630.78
6	YARD DRAIN	RIM = 746.75 INV IN = 744.98	N=495936.98 E=1674805.05

STORM PIPE TABLE				
PIPE #	SIZE	LENGTH	SLOPE	MATERIAL
EX-6	18"	10'	1.87%	HDPE / RCP
6-1	18"	29'	1.91%	HDPE / RCP
1-2	18"	96'	0.51%	HDPE / RCP
2-3	15"	185'	0.50%	HDPE / RCP
3-4	15"	67'	0.49%	HDPE / RCP
5-1	12"	188'	1.59%	HDPE / RCP

CONTROL POINT SCHEDULE (CP)

CP #	SURVEY COORDINATES 'X', 'Y' & 'Z'			BM LOCATION
CP1	X: 1674591.61	Y: 496057.78	Z: 754.47	IRON PIN
CP2	X: 1674501.18	Y: 495947.06	Z: 753.34	IRON PIN

24-HOUR EMERGENCY CONTACT:
NURI BULUT: (615) 335-4264
NBULUT@MRCO.NET

811 Know what's below. Call before you dig.

1"=20'-0"

20 10 0 20'

NORTH INDICATED IS IN RELATION TO TENNESSEE STATE PLANE ZONE.

Palmer ENGINEERING
PALMER ENGINEERING
1040 MONARCH STREET
SUITE 210
LEXINGTON, KY 40513
(859) 389-9293

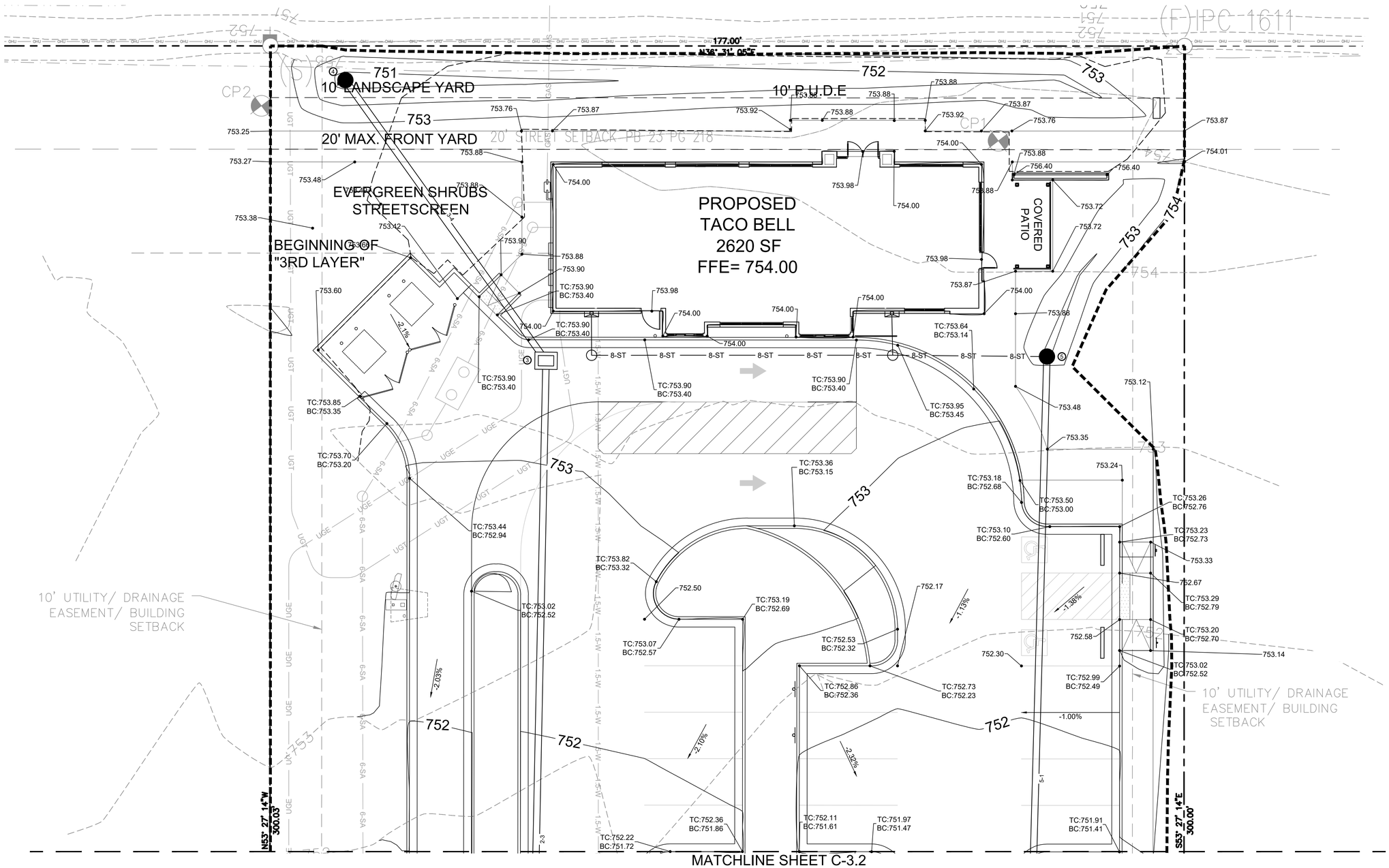
CONTRACT DATE: 06/15/2026
BUILDING TYPE: END. MED40
PLAN VERSION: TBD
SITE NUMBER: TBD
STORE NUMBER: TBD

TACO BELL
HONEY FARM CROSSING
COLUMBIA, TN

GRADING PLAN

C-3.0

PERMIT PLOT DATE: 06/15/2026



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10 5 0 10'

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TACO BELL

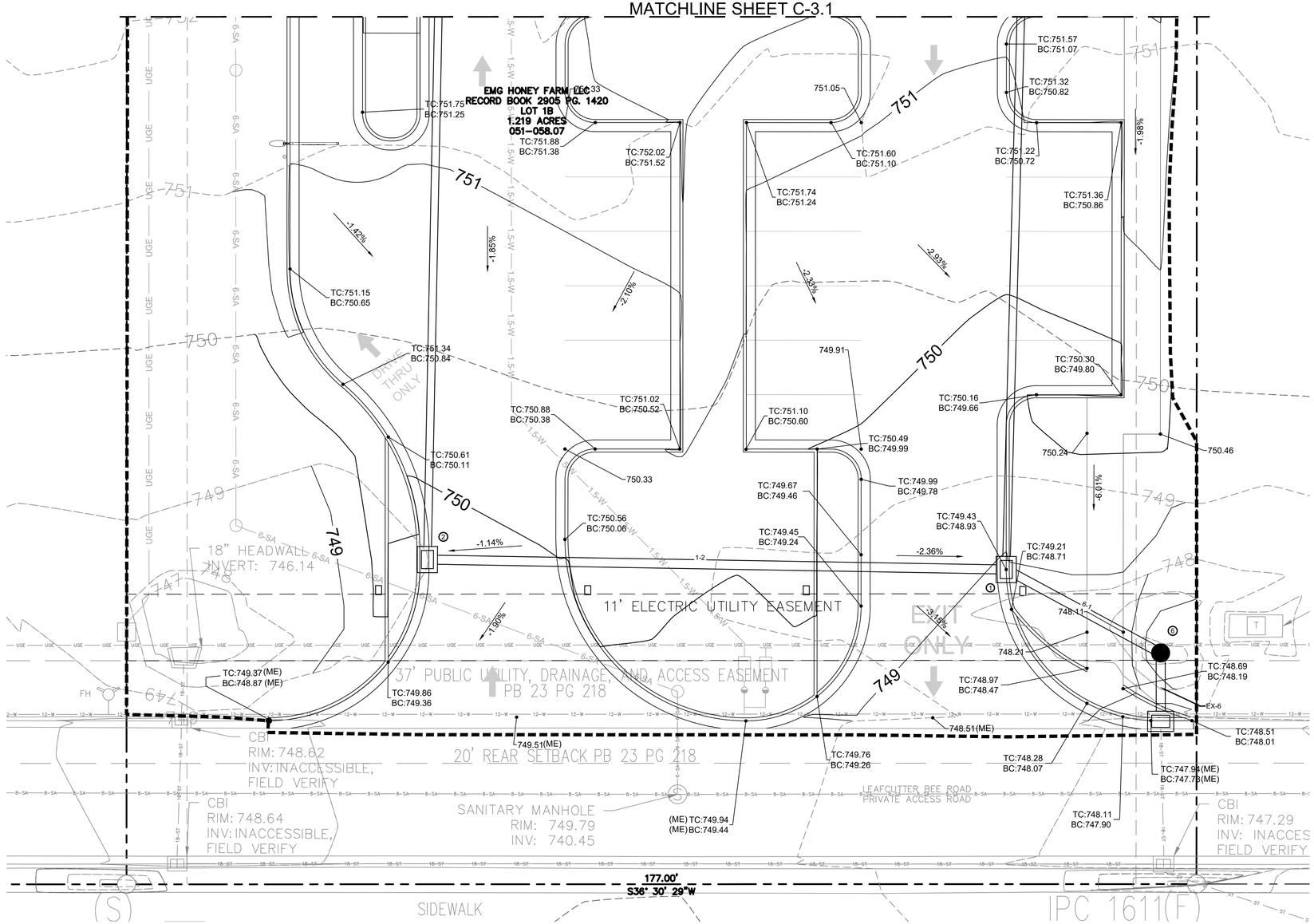
HONEY FARM CROSSING
COLUMBIA, TN

ENLARGED GRADING PLAN

C-3.1

PERMIT PLOT DATE: 06/15/2026

MATCHLINE SHEET C-3.1



CONTROL POINT SCHEDULE (CP)

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CP1	X: 1674591.61	Y: 496057.78	Z: 754.47	IRON PIN
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PALMER ENGINEERING
1040 MONARCH STREET
SUITE 210
LEXINGTON, KY 40513
(859) 389-9293

CONTRACT DATE:	06/15/2026
BUILDING TYPE:	END. MED40
PLAN VERSION:	TBD
SITE NUMBER:	TBD
STORE NUMBER:	TBD

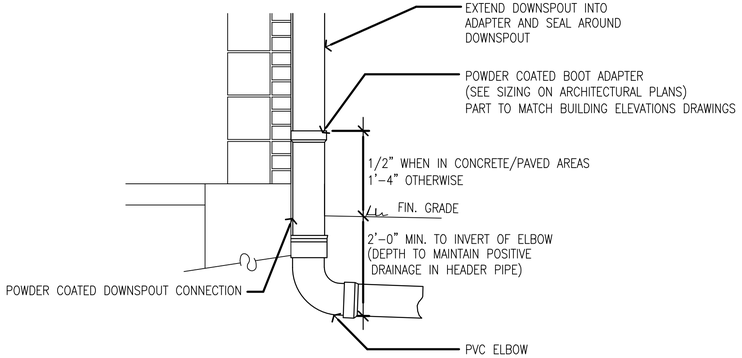
TACO BELL

HONEY FARM CROSSING
COLUMBIA, TN

ENLARGED GRADING PLAN

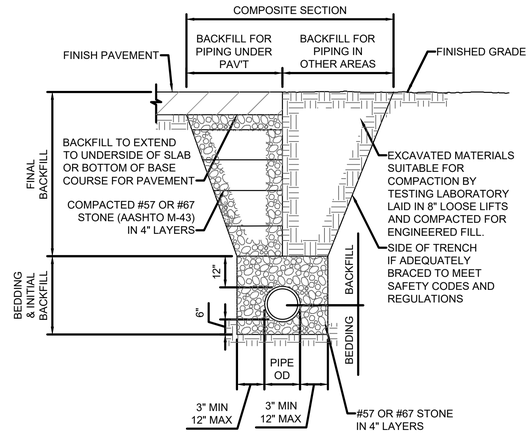
C-3.2

PERMIT PLOT DATE: 06/15/2026



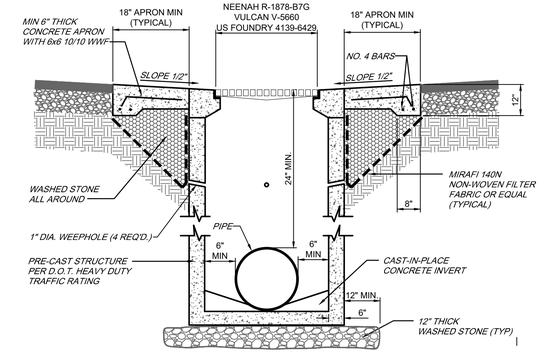
A DOWNSPOUT CONNECTION DETAIL

NOT TO SCALE



B PIPE BEDDING & BACKFILL DETAIL

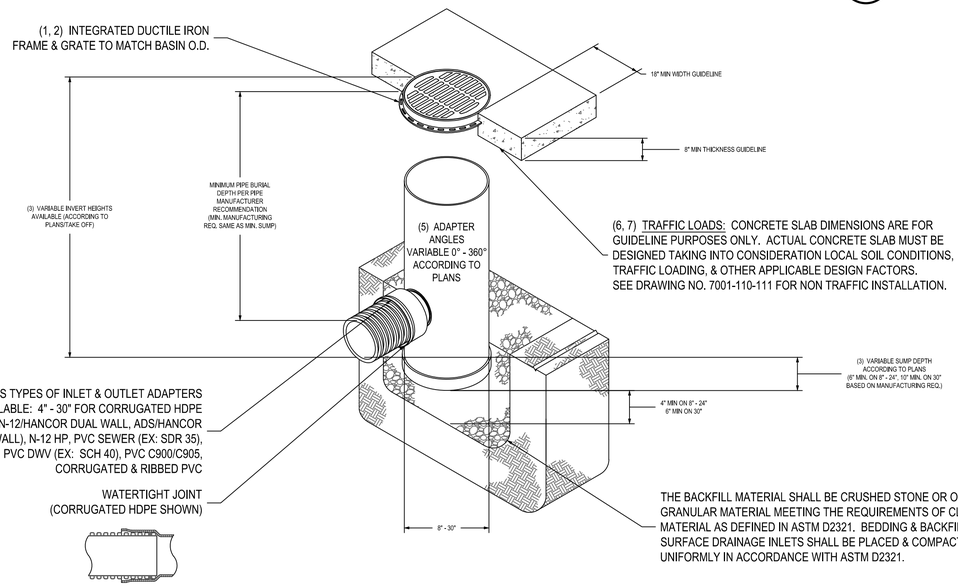
NOT TO SCALE



C DROP BOX INLET

NOT TO SCALE

NYLOPLAST DRAIN BASIN WITH STANDARD GRATE



(6, 7) TRAFFIC LOADS: CONCRETE SLAB DIMENSIONS ARE FOR GUIDELINE PURPOSES ONLY. ACTUAL CONCRETE SLAB MUST BE DESIGNED TAKING INTO CONSIDERATION LOCAL SOIL CONDITIONS, TRAFFIC LOADING, & OTHER APPLICABLE DESIGN FACTORS. SEE DRAWING NO. 7001-110-111 FOR NON TRAFFIC INSTALLATION.

THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS II MATERIAL AS DEFINED IN ASTM D2321. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.

1 - 8" - 30" STANDARD GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - 12" - 30" FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05. 8" & 10" STANDARD GRATES FIT DIRECTLY ONTO DRAIN BASINS WITH THE USE OF A PVC BODY TOP. SEE DRAWING NO. 7001-110-045.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4" - 24").
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
6 - 12" - 30" STANDARD GRATES SHALL MEET H-20 LOAD RATING.
7 - 8" & 10" STANDARD GRATES ARE RATED FOR LIGHT DUTY APPLICATIONS ONLY; NO CONCRETE COLLAR NEEDED FOR LIGHT DUTY RATING.

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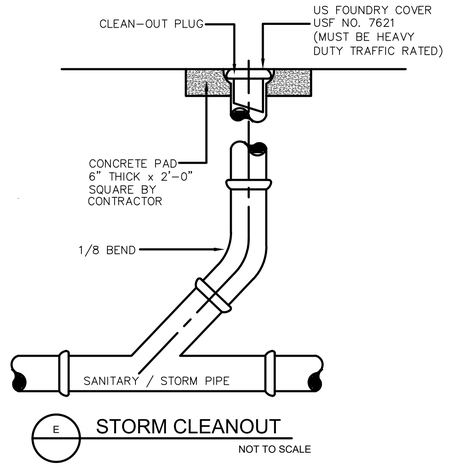
DRAWN BY EBC	MATERIAL	Nyloplast	3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com
DATE 1-23-06			
REVISED BY EBC	PROJECT NO./NAME	TITLE	DRAIN BASIN WITH STANDARD GRATE QUICK SPEC INSTALLATION DETAIL
DATE 3-3-10			
DWG SIZE A	SCALE 1:40 SHEET 1 OF 1	DWG NO. 7001-110-144	REV F

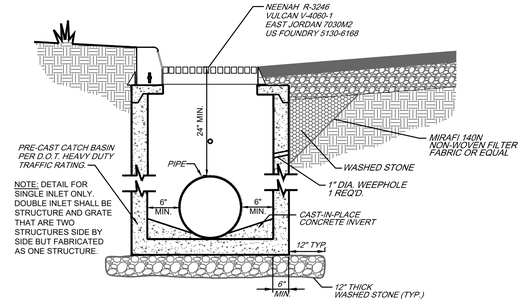
D YARD DRAIN

NOT TO SCALE



E STORM CLEANOUT

NOT TO SCALE



F CURB BOX INLET

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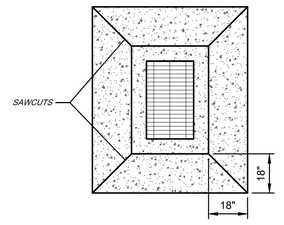


G INLET APRON

NOT TO SCALE

Palmer ENGINEERING
PALMER ENGINEERING
1040 MONARCH STREET
SUITE 210
LEXINGTON, KY 40513
(859) 389-9293

CONTRACT DATE:	06/15/2026
BUILDING TYPE:	END. MED40
PLAN VERSION:	TBD
SITE NUMBER:	TBD
STORE NUMBER:	TBD

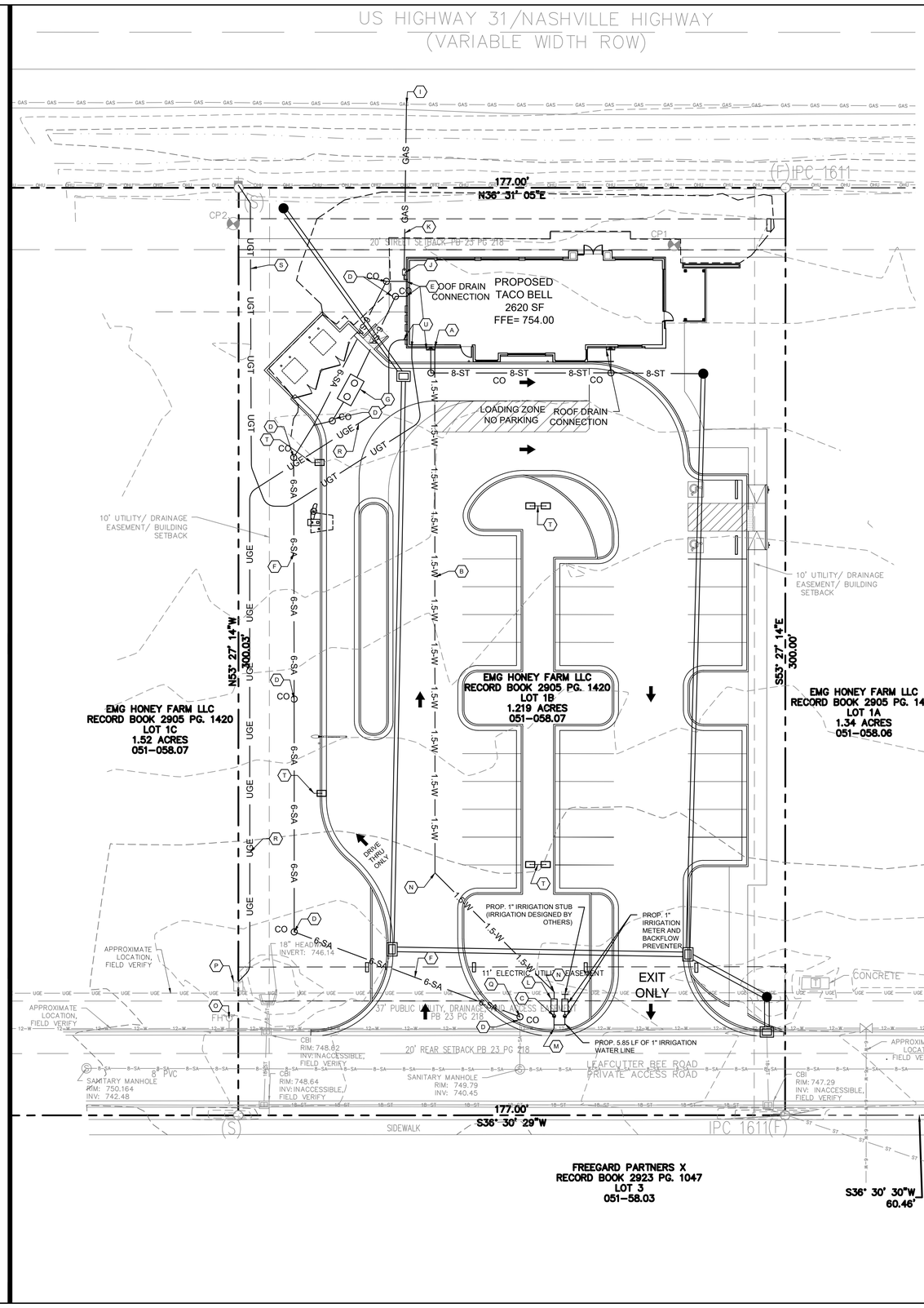
TACO BELL

HONEY FARM CROSSING
COLUMBIA, TN

DRAINAGE DETAILS

C-3.3

PERMIT PLOT DATE: 06/15/2026



UTILITY PLAN KEY NOTES:

KEY	DESCRIPTION
A	CONNECT 1.5" DOMESTIC WATER LINE TO BUILDING (SEE MEP PLANS)
B	WATER LINE TO BE COPPER TYPE K OR DIP TO METER
C	SET 1" PROPOSED DOMESTIC WATER METER WITH OUTLET GATE VALVE. CONTRACTOR TO COORDINATE WITH CITY OF COLUMBIA ON REQUIRED FEES. VERIFY RESPONSIBILITIES WITH COLUMBIA POWER AND WATER SYSTEMS
D	SANITARY SEWER CLEANOUT
E	CONNECT PROPOSED 6" SANITARY SEWER TO BUILDING ELEV=751.00; (3.0' BELOW FFE) (SEE MEP PLANS FOR ADDITIONAL INFORMATION)
F	6" SANITARY SEWER LATERAL (SDR 35) AT 1% MINIMUM SLOPE
G	1,000 GALLON GREASE TRAP (SEE MEP PLANS)
I	GAS TAP BY UTILITY COMPANY (CONTRACTOR TO COORDINATE)
J	GAS LINE FROM METER TO BUILDING BY UTILITY COMPANY
K	GAS LINE AND METER INSTALLATION BY UTILITY COMPANY
L	REDUCED PRESSURE BACKFLOW PREVENTION (RPBP)
M	WET TAP TO EXISTING WATER LINE (COORDINATE WITH UTILITY)
N	45 DEGREE BEND
O	EXISTING FIRE HYDRANT BY OVERALL DEVELOPER
P	EXISTING TRANSFORMER, CONTRACTOR TO VERIFY RESPONSIBILITIES WITH CP&W
Q	CONNECT 6" SANITARY SEWER LATERAL TO EXISTING SANITARY SEWER LATERAL LINE. INVERT ESTIMATED AT 741.60. CONTRACTOR TO FIELD VERIFY ACTUAL INVERT.
R	SEE MEP PLANS FOR COORDINATION OF SECONDARY AND PRIMARY UNDERGROUND ELECTRIC SERVICE
S	INSTALL 2" CONDUIT AND 100# PULL STRING (SEE MEP PLANS FOR SECONDARY UNDERGROUND TELECOMMUNICATION SERVICE)
T	PROPOSED LIGHT POLES (SEE SITE LIGHTING & PHOTOMETRICS PLAN)
U	SEE MEP PLANS FOR CONTINUATION OF ELECTRIC AND TELECOM LINES INTO THE BUILDING

UTILITY NOTES:

1. LOCATION OF SITE UTILITIES SHALL BE VERIFIED BY ALL CONTRACTORS BY EITHER CONTACTING THE UTILITY COMPANY PROVIDING THE SERVICE AND/OR CALLING 811.
2. ALL CONSTRUCTION MUST CONFORM TO CITY, COUNTY AND STATE STANDARDS.
3. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE PROJECT DOCUMENTS AND DETAILS.
4. THE CONTRACTOR SHALL HAVE APPROVAL OF ALL GOVERNING AGENCIES AND PROVIDERS HAVING JURISDICTION OVER THE SYSTEM PRIOR TO INSTALLATION.
5. ALL CONTRACTORS ARE RESPONSIBLE FOR ANY DAMAGE TO EXISTING STRUCTURES AND/OR UTILITIES DURING CONSTRUCTION.
6. THE CONTRACTOR SHALL PROVIDE A 2-FT x 2-FT x 6-IN THICK CONCRETE APRON AROUND ALL CLEANOUTS, VALVES, AND METERS OUTSIDE OF BUILDING.
7. DIMENSIONS SHOWN ARE TO CENTERLINE OF PIPE OR FITTING.
8. ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.
9. ALL SEWER WORK IS TO BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE LOCAL UTILITY.
10. UNLESS OTHERWISE SPECIFIED, NO 90 DEGREE BENDS SHALL BE USED IN THE WATER LINE INSTALLATION. THE CONTRACTOR SHALL MINIMIZE THE USE OF VERTICAL BENDS.
11. THRUST BLOCKS SHALL BE PROVIDED ON WATER LINES AT ALL BENDS AND TEES UNLESS OTHERWISE RESTRAINED.
12. ALL PROPOSED UTILITY CROSSINGS SHALL BE VERIFIED BY ANY CONTRACTOR DOING WORK. CONTRACTOR SHALL MAINTAIN A MINIMUM OF 18-IN SEPARATION AT NO COST TO THE OWNER. SEWER CROSSING WATER MAINS SHALL BE INSTALLED TO PROVIDE A VERTICAL DISTANCE OF 18 INCHES BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER. THE CROSSING SHALL BE ARRANGED SO THAT THE SEWER JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS. WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO THE WATER MAIN.
13. CLEANOUTS ON SANITARY LINES SHALL BE PLACED AT LEAST EVERY 100 FEET AND WITHIN FIVE (5) FEET OF THE BUILDING ON ALL GRAVITY SANITARY SEWER SERVICE LINES.
14. CONTRACTOR SHALL PERFORM ALL NECESSARY TESTING ON WATER AND SEWER LINES PER LOCAL UTILITY REQUIREMENTS. WATER AND SEWER CONNECTIONS SHALL BE MADE UNDER THE SUPERVISION OF THE LOCAL UTILITY. SITE CONTRACTOR SHALL MAINTAIN EXISTING WATER AND SEWER SERVICE TO EXISTING CUSTOMERS AT ALL TIMES.
15. ALL COPPER WATER SERVICE LINES SHALL BE WRAPPED IN 4 MILS OF HDPE WRAP OR 8 MILS OF LDPE WRAP. THE SEAMS SHALL BE SEALED WITH DUCT TAPE. WATERLINE SHALL BE PROVIDED A MINIMUM 36" OF COVER.
16. ALL SANITARY SEWER SHALL BE MARKED WITH DETECTABLE MYLAR SEWER LINE TAPE APPROVED BY THE ENGINEER (MINIMUM OF 18" DEEP).
17. ALL GRAVITY SANITARY SEWER LATERALS SHALL HAVE A MINIMUM SLOPE OF 1.0% UNLESS OTHERWISE NOTED.
18. ALL GRAVITY SANITARY SEWER LINES SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321 AND LOCAL UTILITY STANDARDS.
19. ALL SUB-CONTRACTORS SHALL BE RESPONSIBLE FOR SECURING AND COORDINATING TEMPORARY SERVICE IF NEEDED FOR CONSTRUCTION.
20. SITE CONTRACTOR SHALL BE RESPONSIBLE FOR BRINGING ALL UTILITIES TO WITHIN FIVE (5) FEET OF THE BUILDING.
21. ALL 6" SANITARY SEWER LATERAL LINES AND CLEANOUTS ARE PRIVATE SEWER LINES AND ARE TO BE MAINTAINED BY THE PROPERTY OWNER AND FUTURE OWNERS OF THE PROPERTY. ALL BURIED SANITARY PIPING SHALL BE SDR 35 WITH A MINIMUM OF 36" COVER.
22. CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING ALL FEES REQUIRED BY UTILITY COMPANIES.
23. SEE ELECTRICAL PLANS FOR ALL ELECTRICAL CONDUIT LOCATIONS AND SIZING, INCLUDING PRIMARY POWER, SECONDARY POWER, SITE LIGHTING AND SIGNAGE LIGHTING.
24. COORDINATE CONDUIT UTILITY LOCATIONS WITH GRAVITY LINES. GRAVITY LOCATIONS SHALL TAKE PRECEDENCE OVER CONDUITS.
25. SEE SITE LIGHTING PLAN FOR MORE DETAILS TO SITE LIGHTING LAYOUT.

UTILITY CONTACTS

ELECTRIC, WATER, & SEWER
COLUMBIA POWER & WATER SYSTEMS
201 PICKENS LANE,
COLUMBIA, TN 38401
931-388-4833

GAS
ATMOS ENERGY
810 NASHVILLE HWY,
COLUMBIA, TN 38401
931-388-9136

TELECOMMUNICATIONS
COMMUNICATION CONCEPTS
802 NASHVILLE HWY,
COLUMBIA, TN 38401
931-388-8662

SPECTRUM
405 S JAMES CAMPBELL BLVD,
COLUMBIA TN 48401
888-406-7063

LEGEND

- EXISTING 18" STORM LINE
- EXISTING OVERHEAD UTILITY
- EXISTING 8" SANITARY SEWER
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING UNDERGROUND ELECTRIC
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED GAS LINE BY UTILITY
- PROPOSED 6" SANITARY LATERAL
- PROPOSED 1.5" WATER LINE
- PROPOSED UNDERGROUND TELECOMMUNICATION LINE
- EXISTING SANITARY MANHOLE
- EXISTING UTILITY POLE
- PROPOSED CLEANOUT
- PROPOSED GAS METER
- PROPOSED 1,000 GAL GREASE TRAP
- PROPOSED STORM LINES
- PROPOSED STORM INLET
- PROPOSED LIGHT POLES (SEE SITE LIGHTING & PHOTOMETRICS PLAN
- EXISTING TRANSFORMER
- EXISTING FIRE HYDRANT

24-HOUR EMERGENCY CONTACT:
NURI BULUT: (615) 335-4264
NBULUT@MRCO.NET

811 Know what's below. Call before you dig.

1"=20'-0"

20 10 0 20'

NORTH INDICATED IS IN RELATION TO TENNESSEE STATE PLANE ZONE.

Palmer ENGINEERING
PALMER ENGINEERING
1040 MONARCH STREET
SUITE 210
LEXINGTON, KY 40513
(859) 389-9293

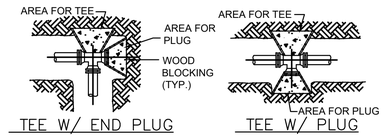
CONTRACT DATE: 06/15/2026
BUILDING TYPE: END. MED40
PLAN VERSION: TBD
SITE NUMBER: TBD
STORE NUMBER: TBD

TACO BELL
HONEY FARM CROSSING
COLUMBIA, TN

UTILITY PLAN

C-4.0

PERMIT PLOT DATE: 06/15/2026



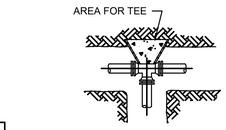
TEE W/ END PLUG

TEE W/ PLUG

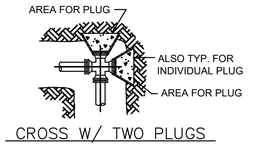
THRUST BLOCK AREAS IN SQ. FT.				
PIPE SIZE IN INCHES	90°BEND, TEES,PLUGS	45° BEND	22.5° BEND	11.25° BEND
4	1.6	0.9	0.4	0.2
6	3.6	1.9	1.0	0.5
8	6.4	3.5	1.8	0.9
10	10.0	5.4	2.8	1.4
12	14.4	7.8	4.0	2.0
16	25.2	13.6	7	3.5

NOTES

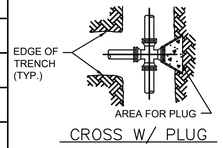
1. THRUST BLOCK BEARING AREAS SHALL BE POURED AGAINST UNDISTURBED MATERIAL WHERE TRENCH WALL HAS BEEN DISTURBED, EXCAVATE ALL LOOSE MATERIAL AND EXTEND TO UNDISTURBED MATERIAL.
2. EXTEND THRUST BLOCK FULL LENGTH OF FITTINGS. PUT BOARD IN FRONT OF PLUG BEFORE POURING CONCRETE. JOINTS SHALL NOT BE COVERED BY THRUST BLOCK.
3. ROUGH BLOCKING FORMS SHALL BE USED ALONG SIDE OF THRUST BLOCKS.
4. THRUST BLOCKS SHALL BE USED IN COMBINATION, AS REQUIRED, TO SUIT THE SPECIFIC FITTING ARRANGEMENT.
5. ALTERNATE DESIGNED RESTRAINING SYSTEMS SHALL BE PROVIDED WHERE STANDARD THRUST BLOCKING IS NOT SUITABLE, AND/OR SOIL BEARING CAPACITY IS LESS THAN 2,000 P.S.F. OR PIPE IS 16" OR GREATER.
6. ALL WOOD BLOCKING SHALL BE PRESSURE TREATED WITH PRESERVATIVE.
7. THRUST BLOCK AND RESTRAINING SEWER AND WATER MAIN SCHEDULES SHALL BE COMPLETED BY THE ENGINEER, BASED ON ALL DESIGN CONSIDERATIONS INCLUDING BUT NOT LIMITED TO THE FOLLOWING: PIPE TYPE, SOIL BEARING CAPACITY, SOIL TYPE, DEPTH OF COVER, TEST PRESSURE, LAYING CONDITIONS, SAFETY FACTOR.
8. STEEL REINFORCEMENT FOR "DEAD MAN" SHALL BE DETERMINED BY ENGINEER.
9. THRUST BLOCKS ALLOWED ONLY AT LOCATIONS PRE-APPROVED IN WRITING BY UTILITY COMPANY.



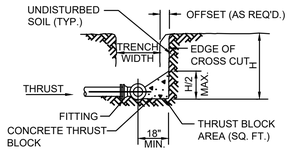
TEE



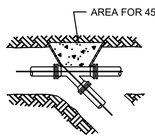
CROSS W/ TWO PLUGS



CROSS W/ PLUG



TYPICAL SECTION



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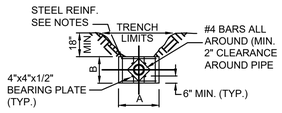
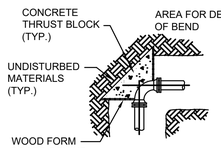
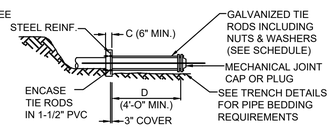


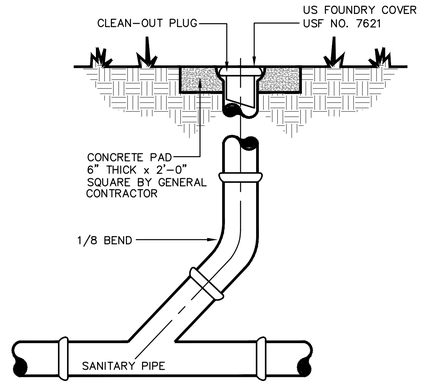


BENDS



"DEAD MAN" THRUST AND RESTRAINT

THRUST BLOCK DETAILS (A)
NOT TO SCALE



CLEANOUT DETAIL (B)
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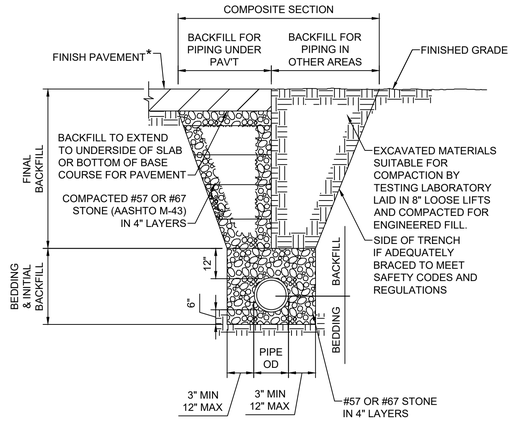

*FOR UTILITY TRENCH RESTORATION UNDEREXISTING PAVEMENT, SEE HEAVY DUTY ASPHALT DETAIL C / C-1.1.

PIPE BEDDING & BACKFILL DETAIL (C)
NOT TO SCALE

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(859) 389-9293

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TACO BELL
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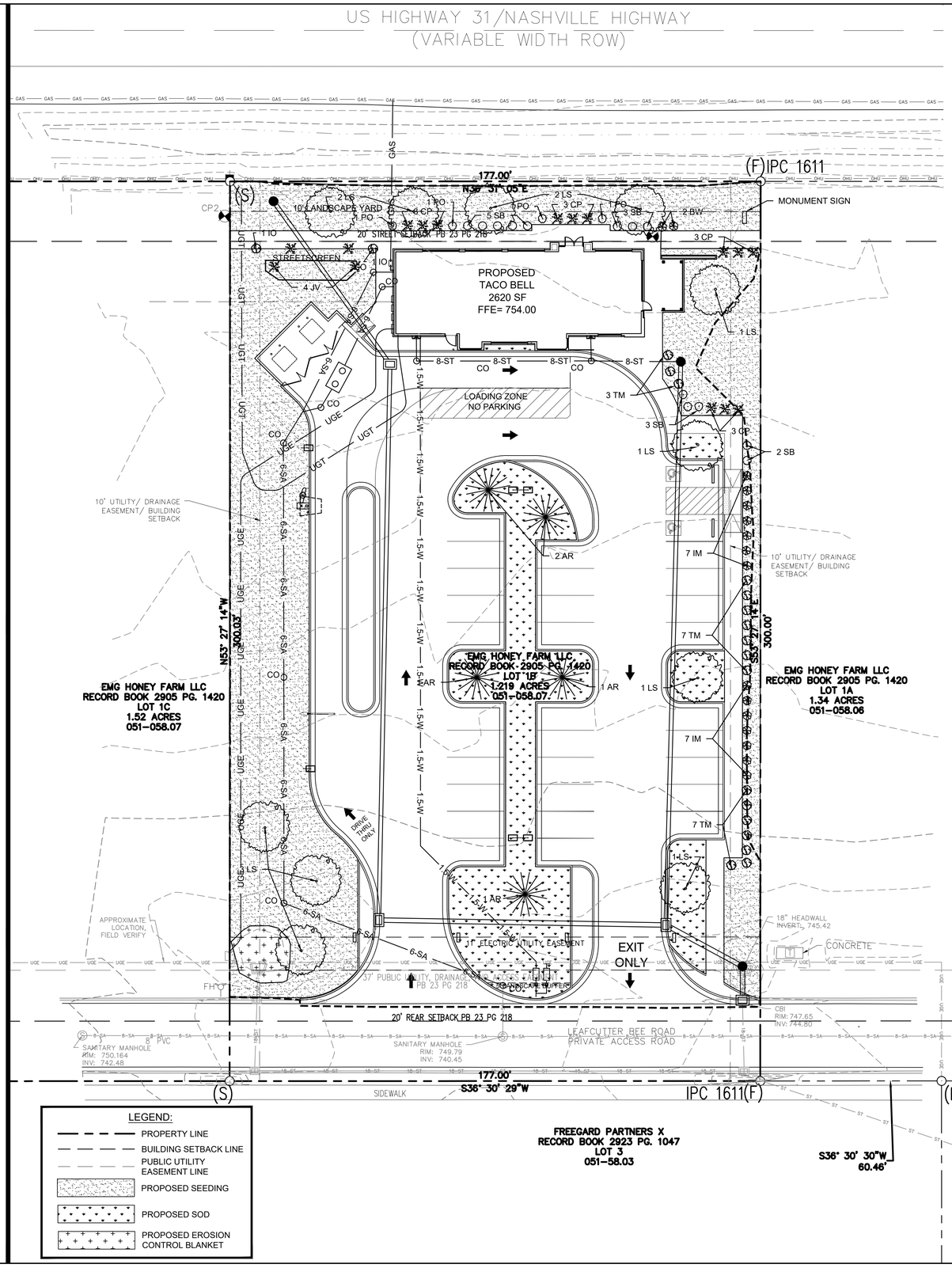
COLUMBIA, TN

UTILITY DETAILS

C-4.1

PERMIT PLOT DATE: 06/15/2026



LANDSCAPE DATA

SITE AREA: 1.22 ± ACRES ZONING: PUD-MU

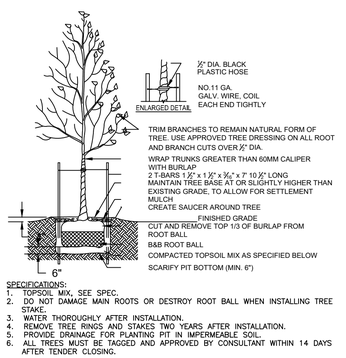
STATISTIC	REQUIREMENT	PROVIDED
LANDSCAPING	MIN. 30% OF 1ST LAYER MUST BE LANDSCAPED IN COMPLIANCE WITH SECTION 4.3.16 WITH: CONTINUOUS SHRUBS AROUND FOUNDATION AT FACADE (1 SHRUB FOR EVERY 10 LINEAR FEET OF FACADE) PLUS 1 TREE FOR EVERY 50' FOR FRONTAGE (1ST LAYER OVER 15 FEET) US HIGHWAY 31 - 177' FRONTAGE = 177' / 50 = 3.5 OR 4 TREES	CONTINUOUS SHRUBS (1 PER 10') ALONG BACK OF SIDEWALK WITH ZONING ADMINISTRATIONS APPROVAL 4 TREES
DRIVE AISLE	CONTINUOUS SHRUBS WHEN DRIVE AISLE IS WITHIN 1ST LAYER	CONTINUOUS SHRUBS ALONG DRIVE ISLAND IN 1ST LAYER
PARKING LOT SCREENING	PARKING MUST BE SCREENED FROM FRONTAGE BY BUILDING OR STREETSCREEN	HEDGE STREETSCREEN
INTERIOR PARKING LOT LANDSCAPE	1 LANDSCAPE ISLAND FOR EVERY 10 PARKING SPACES 1 SHADE TREE PER ISLAND (32 PARKING SPACES = 3 TREES) 1 TREE FOR EACH 2,000 SF OF PARKING AREA (9,737 / 2,000 SF = 4.87 OR 5 TREES)	3 TREES IN ISLANDS 6 TOTAL PARKING AREA TREES
PARKING FRONTING ON INTERNAL DRIVE	5' BUFFER	5' BUFFER

PLANT SCHEDULE

QUANTITY	ID	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
TREES					
5	AR	ACER RUBRUM	RED MAPLE	2 1/2" CAL	SINGLE STEM, WELL BRANCHED, B & B
2	IO	ILEX OPACA 'GREENLEAF'	GREENLEAF AMERICAN HOLLY	5-6' HT	UNIFORMLY BRANCHED, FULL, NO HOLES, 8' SPACING
4	JV	JUNIPERUS VIRGINIANA 'BRODIE'	BRODIE RED CEDAR	5-6' HT	UNIFORMLY BRANCHED, FULL, NO HOLES, 8' SPACING
11	LS	LIQUIDAMBAR STYRACIFLUA 'ROTUNDILOBA'	FRUITLESS SWEETGUM	2 1/2" CAL	SINGLE STEM, WELL BRANCHED, B & B
SHRUBS					
2	BW	BUXUS X 'WINTER GEM'	WINTER GEM BOXWOOD	3 GALL. CONT	FULL, 4' O.C., 30" HEIGHT / SPREAD
9	CP	CHAMAECYPARIS PISIFERA 'GOLDEN MOP'	GOLDEN MAP FALSE CYPRESS	3 GALL. CONT	FULL, 5' O.C., 30" HEIGHT / SPREAD
14	IM	ILEX X MESERVEAE 'BLUE BOY'	BLUE BOY HOLLY	3 GALL. CONT	FULL, 5' O.C., 30" HEIGHT / SPREAD
4	PO	PHYSOCARPUS OPULIFOLIUS 'TINY WINE'	TINY WINE NINEBARK	3 GALL. CONT	FULL, 5' O.C., 30" HEIGHT / SPREAD
13	SB	SPIREA X BUMALDA 'GOLDFLAME'	GOLDFLAME SPIREA	3 GALL. CONT	FULL, 5' O.C., 30" HEIGHT / SPREAD
17	TM	TAXUS X MEDIA 'DENSIFORMIS'	DENSE SPREADING YEW	3 GALL. CONT	FULL, 5' O.C., 30" HEIGHT / SPREAD
MULCH					
3" LANDSCAPE STONE ADJACENT TO BUILDING					
4" HARDWOOD MULCH PERIMETER BEDS					

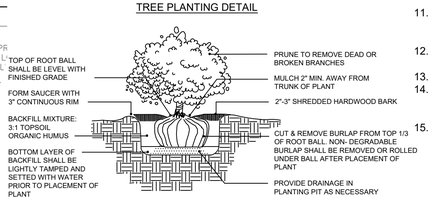
TURF ESTABLISHMENT:

1. THE LANDSCAPE CONTRACTOR SHALL PLACE A 4" COMPACTED LAYER OF TOPSOIL OVER ALL AREAS TO BE ESTABLISHED IN TURF. THE TOPSOIL LAYER SHALL BRING ALL TURF AREAS TO FINISH GRADE.
2. REMOVE STONES BIGGER THAN 1-1/2 INCHES IN ANY DIMENSION AND STICKS, ROOTS, RUBBISH AND OTHER EXTRANEOUS MATTER.
3. HYDROSEED ALL DISTURBED AREAS AS SPECIFIED UNLESS SOD IS SPECIFIED.
4. MIX SEED, FERTILIZER, AND PULVERIZED MULCH IN WATER, USING EQUIPMENT SPECIALLY DESIGNED FOR HYDROSEED APPLICATION.
5. APPLY SLURRY UNIFORMLY TO ALL AREAS TO BE SEEDED. RATE OF APPLICATION AS REQUIRED TO OBTAIN SPECIFIED SEED SOWING RATE.
6. LAY SOD WITHIN 24 HOURS OF STRIPPING. DO NOT LAY DORMANT SOD OR IF GROUND IS FROZEN. LAY SOD TO FORM A SOLID MASS WITH TIGHTLY FITTED JOINTS. DO NOT OVERLAP.
7. WATER SOD WITH FINE SPRAY IMMEDIATELY AFTER PLANTING. SOD SHOULD BE SOAKED TWICE DAILY DURING THE FIRST WEEK OF PLANTING.
8. CONTRACTOR TO PROVIDE WATERING UNTIL SOD AND PLANTS ARE ESTABLISHED.



SPECIFICATIONS:
1. TOPSOIL MIX, SEE SPEC.
2. DO NOT DAMAGE MAIN ROOTS OR DESTROY ROOT BALL WHEN INSTALLING TREE STAKE.
3. WATER THOROUGHLY AFTER INSTALLATION.
4. REMOVE TREE RINGS AND STAKES TWO YEARS AFTER INSTALLATION.
5. PROVIDE DRAINAGE FOR PLANTING PIT IN IMPERMEABLE SOIL.
6. ALL TREES MUST BE TAGGED AND APPROVED BY CONSULTANT WITHIN 14 DAYS AFTER TENDER CLOSING.

TREE PLANTING DETAIL



SHRUB PLANTING DETAIL
NOT TO SCALE

LANDSCAPE NOTES:

1. PRIOR TO CONSTRUCTION, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND SHALL AVOID DAMAGE TO ALL UTILITIES DURING THE COURSE OF THE WORK. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY AND ALL DAMAGES TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC., WHICH OCCUR AS A RESULT OF THE LANDSCAPE CONSTRUCTION.
2. ALL PLANTS SHALL BE HEALTHY, VIGOROUS MATERIALS FREE FROM DISEASE AND PESTS AND THAT COMPLY WITH THE LATEST EDITION OF THE PUBLICATION ANSI Z60 AMERICAN STANDARD FOR NURSERY STOCK BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.
3. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON THESE PLANS BEFORE PRICING THE WORK. ANY DIFFERENCE IN QUANTITIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER FOR CLARIFICATION.
4. THE LANDSCAPE CONTRACTOR SHALL COMPLETELY GUARANTEE ALL PLANT MATERIALS FOR THE PERIOD OF ONE (1) YEAR BEGINNING AT THE DATE OF TOTAL ACCEPTANCE BY THE OWNER. THE LANDSCAPE CONTRACTOR SHALL PROMPTLY MAKE ALL REPLACEMENTS BEFORE OR AT THE END OF THE GUARANTEE PERIOD AS THE GROWING SEASON PERMITS. THE OWNER MAY INSPECT THE PLANTS AT THE END OF THE GUARANTEE PERIOD. PLANTS THAT ARE DEAD OR NOT IN SATISFACTORY GROWTH SHALL BE REMOVED AND REPLACED DURING THE NEXT NORMAL PLANTING SEASON AT NO ADDITIONAL COST TO THE OWNER.
5. ALL PLANTS SHALL BE BALLED AND BURLAPPED OR CONTAINER AS INDICATED ON THE PLANT LIST. ALL TREES SHALL BE STRAIGHT TRUNKED, FULL HEADED AND MEET ALL REQUIREMENTS SPECIFIED. ALL TREES MUST BE GUYED OR STAKED.
6. ALL PLANTS AND INSTALLATION ARE SUBJECT TO THE APPROVAL OF THE OWNER.
7. ALL DISTURBED AREAS NOT RECEIVING PLANTINGS, EROSION CONTROL BLANKET, OR DESIGNATED FOR SODDING (INCLUDING RIGHT-OF-WAY) SHALL BE SEEDED.
8. ALL WORK SHALL BE DONE IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
9. ALL AREAS PLANTED WITH SHRUBS SHALL RECEIVE A 3" LAYER OF BROWN SHREDDED HARDWOOD MULCH OVER 10 MIL FABRIC EQUAL TO "WEEDBLOCK" BY "EASY GARDENER."
10. THE TOP OF ALL AREAS OF HARDWOOD MULCH SHALL BE AT GRADE OF ADJACENT CURB, WALK, OR EDGE OF PAVEMENT.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING SOD UNTIL WELL ESTABLISHED. IRRIGATION SHALL BE SUPPLIED BY TWO HOSE BIBS ON THE BUILDING AND IRRIGATION SYSTEM, WITH SEPARATE 1" LINE AND WATER METER AND TO BE INSTALLED BY EXTREME IRRIGATION OF NASHVILLE.
12. CONTRACTOR MUST CONTACT OWNER'S REPRESENTATIVE PRIOR TO INSTALLING LANDSCAPING TO APPROVE PLANT LOCATIONS.
13. SEE EROSION CONTROL DETAIL SHEET (C-2.1) FOR SEEDING SPECIFICATIONS.
14. RIVER ROCK SHALL BE A MIX OF MOSTLY TANS AND BEIGE ROCKS. IT SHOULD NOT BE ALL ONE COLOR NOR SIZE. ROCK SHALL RANGE FROM 2"-5" WITH APPROXIMATELY 30% 2", 40% 3"-4", AND 30% 5". ALL ROCK MUST BE FULLY WASHED BEFORE BEING PLACED.
15. A WEED FABRIC MUST BE PLACED ON TOP OF THE SOIL BEFORE THE LANDSCAPE RIVER ROCKS ARE PLACED.

24-HOUR EMERGENCY CONTACT:
NURI BULUT: (615) 335-4264
NBULUT@MRCO.NET

811 Know what's below. Call before you dig.

1"=20'-0"

20 10 0 20'

NORTH INDICATED IS IN RELATION TO TENNESSEE STATE PLANE ZONE.

Palmer ENGINEERING
PALMER ENGINEERING
1040 MONARCH STREET
SUITE 210
LEXINGTON, KY 40513
(859) 389-9293

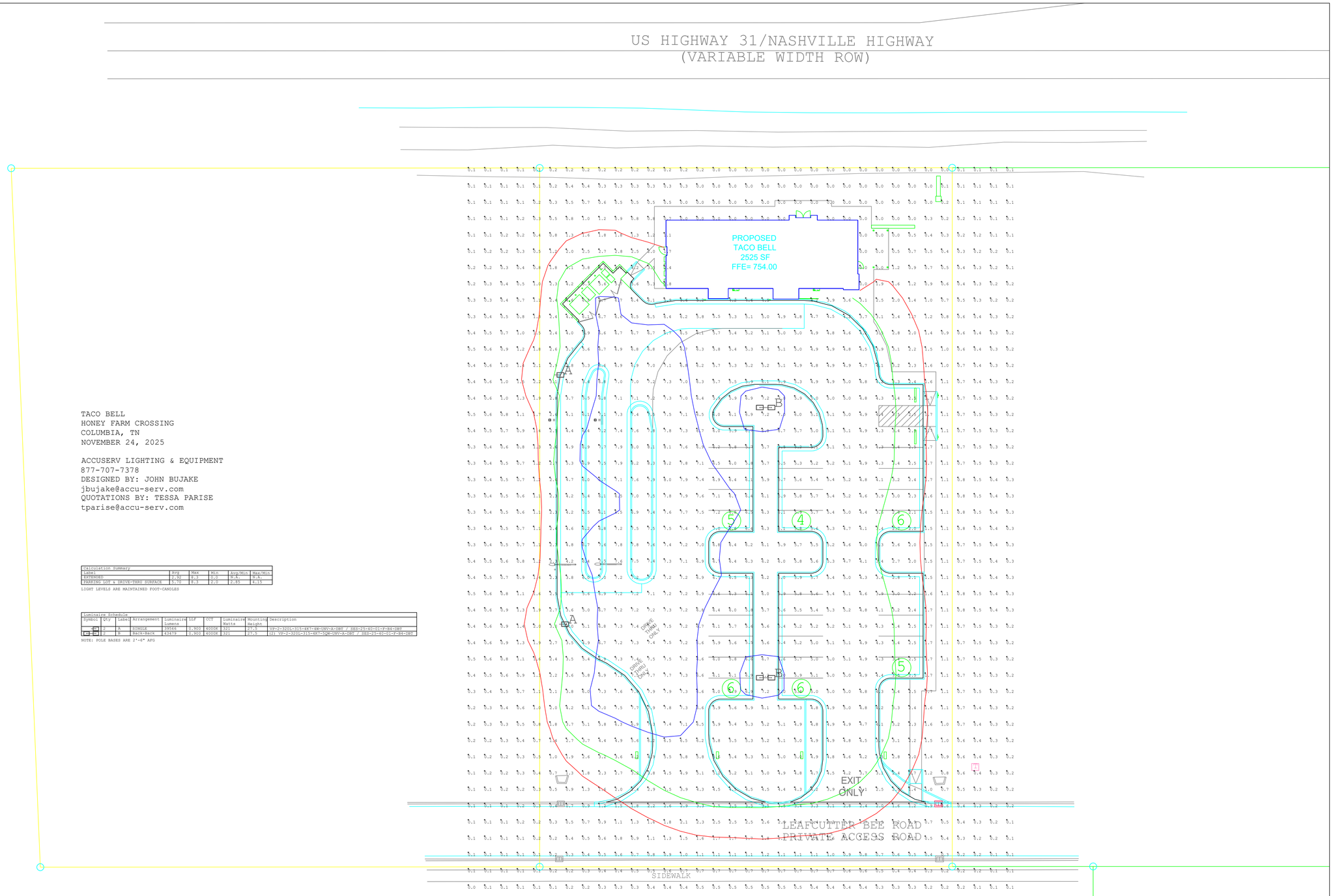
CONTRACT DATE:	06/15/2026
BUILDING TYPE:	END. MED40
PLAN VERSION:	TBD
SITE NUMBER:	TBD
STORE NUMBER:	TBD

TACO BELL
HONEY FARM CROSSING
COLUMBIA, TN

LANDSCAPE PLAN

C-5.0

PERMIT PLOT DATE: 06/15/2026



TACO BELL
HONEY FARM CROSSING
COLUMBIA, TN
NOVEMBER 24, 2025

ACCUSERV LIGHTING & EQUIPMENT
877-707-7378
DESIGNED BY: JOHN BUJAKE
jbujake@accu-serv.com
QUOTATIONS BY: TESSA PARISE
tparise@accu-serv.com

Calculation Summary					
Label	Avg	Max	Min	Avg/Min	Max/Min
EXTENDED	2.92	8.3	0.0	N.A.	N.A.
PARKING LOT & DRIVE-THRU SURFACE	5.70	8.3	2.0	2.85	4.15

LIGHT LEVELS ARE MAINTAINED FOOT-CANDLES

Luminaire Schedule									
Symbol	Qty	Label	Arrangement	Luminaire Lumens	LLF	CCT	Luminaire Watts	Mounting Height	Description
	2	A	SINGLE	39566	0.900	4000K	321	27.5	VF-2-320L-315-4R7-4W-UNV-A-DBT / SES-25-40-01-F-B4-DBT
	2	B	Back-Back	43479	0.900	4000K	321	27.5	(2) VF-2-320L-315-4R7-5QW-UNV-A-DBT / SES-25-40-01-F-B4-DBT

NOTE: POLE BASES ARE 2'-6" AFG

Accuserv
LIGHTING & EQUIPMENT
4325 SHEPHERDSVILLE RD, LOUISVILLE, KY
TOLL FREE: 877-707-7378 PHONE: 502-961-0096

No.	Issue	Date
1.	DESIGN SUBMITTAL	11/24/25

Taco Bell
Columbia, TN

ALL PLANS AND SPECIFICATIONS ARE THE PROPERTY OF ACCUSERV LIGHTING & EQUIPMENT. ALL DIMENSIONS SHALL BE VERIFIED ON SITE BY THE CONTRACTOR AND THEIR SUBCONTRACTORS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGNER AND ARCHITECT.

PURCHASING: ALL LIGHTING IS SUPPLIED BY ACCUSERV LIGHTING & EQUIPMENT. THE COMPLETE PACKAGE IS AVAILABLE AT ESTABLISHED DISCOUNTED PRICING FROM ACCUSERV. FOR PURCHASE ORDER PLACEMENT AND COORDINATING DELIVERY, CONTACT TESSA PARISE AT ACCUSERV, 877-707-7378, TPARISE@ACCU-SERV.COM, TO ARRANGE FOR LIGHTING FIXTURE PROCUREMENT AND SHIPPING INFORMATION.

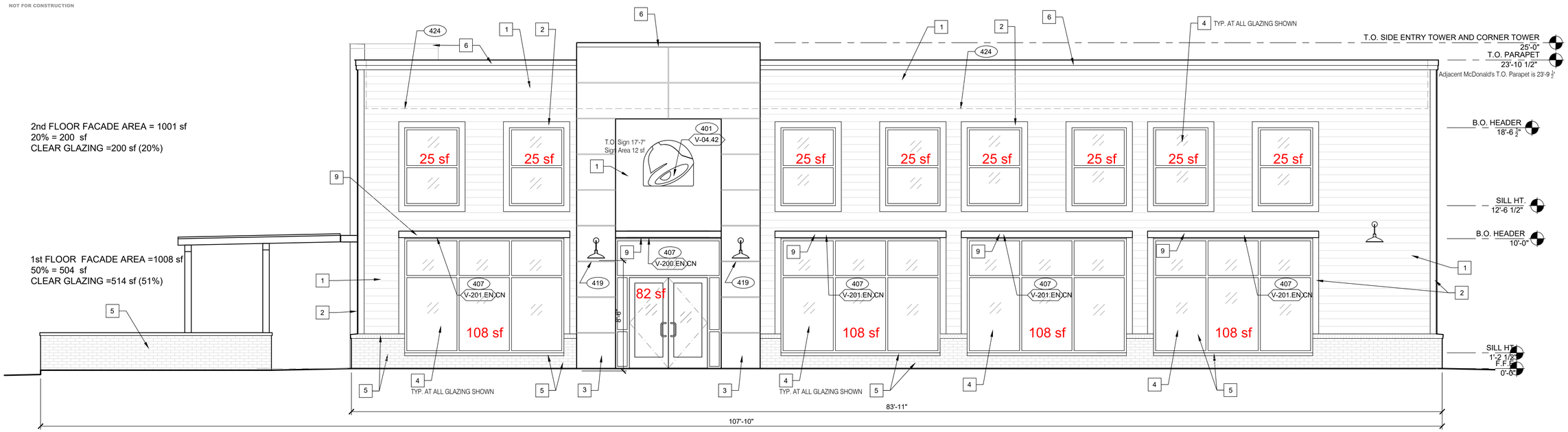
Sheet Title

SITE LIGHTING & PHOTOMETRICS PLAN

Scale	Date
AS SHOWN	11/24/25
Drawn By	Checked By
JB	JB
Job No.	

Sheet No.
LDE-1.0

NOT FOR CONSTRUCTION



STOREFRONT ELEVATION 1/4" = 1'-0" | **1**

TRANSPARENT GLAZING
ALL GLAZING SHOWN IS TRANSPARENT

TYPE MARK	QTY	ITEM DESCRIPTION	LOC
TOWER			
V-04.42	2	42" SWINGING BELL PURPLE LOGO FACE LIT	AS-2
V-09.14W	2	14" WHITE CHANNEL LETTERS VERTICAL	AS-2
NORTH			
V-202.EN.CN **	1	FRONT AWNING 17' 7" L x 6" H x 1' 4" D BLACK	AS-2
WEST			
V-04.42	1	42" SWINGING BELL PURPLE LOGO FACE LIT	AS-1
V-200.EN	1	SIDE ENTRY AWNING 8' 4" x 3' 0" BLACK	AS-1
V-201.EN.CN **	4	SIDE ENTRY EYEBROW 13' 0" L x 6" H x 1' 4" D BLACK	AS-1
SOUTH			
V-04.24	1	24" SWINGING BELL PURPLE LOGO FACE LIT	AS-2
V-09.12W	1	12" WHITE CHANNEL LETTERS HORIZONTAL	AS-2
DRIVE THRU SIDE			
V-101.DT **	1	DT AWNING (OVER DT) 7' 10" x 4' 0" BLACK	AS-2
V-102.DT **	1	DT AWNING (OVER PRE-PAY) 6' 10" x 4' 0" BLACK	AS-2
V-201.EN.CN **	1	DT SIDE EYEBROW 13' 0" L x 6" H x 1' 4" D BLACK	AS-2
V-203.EN	1	DT SIDE EYEBROW 7' 8" L x 6" H x 1' 4" D BLACK	AS-2
V-204.EN.CN **	1	AWINING (OVER WUW) 6' 0" x 4' 0" BLACK	AS-2

SIGNAGE | **E**

MISCELLANEOUS
A. SEE SHEET A1.1 "WINDOW TYPES" FOR WINDOW ELEVATIONS.

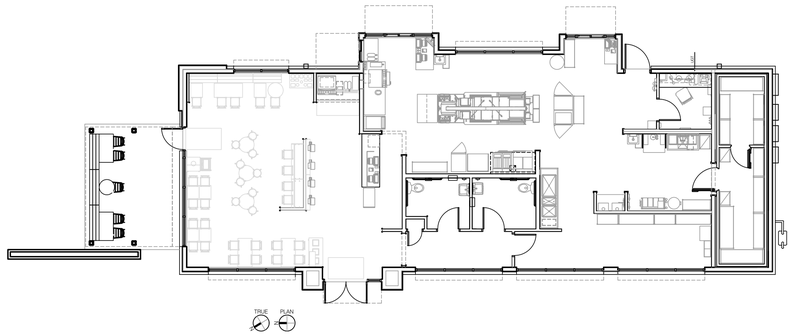
SEALERS (REFER TO SPECS)
A. SEALANT AT ALL WALL AND ROOF PENETRATIONS.
B. SEALANT AT ALL WINDOW AND DOOR FRAMES AND JAMB. DO NOT SEAL SILL @ WINDOWS.
C. APPLY NEOPRENE GASKET (CONT.) BETWEEN BUILDING AND CANOPY.

CRITICAL DIMENSIONS
A. REQUIRED CLEAR OPENING WIDTH TO ENSURE COORDINATION WITH STANDARD SIGNAGE/BUILDING ELEMENTS DIMENSIONS.

NOTE: NO EXTERIOR SIGNS ARE WITHIN THE SCOPE OF WORK COVERED BY THE BUILDING PERMIT APPLICATION. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL EXTERIOR SIGNS AND INSTALLATION OF REQUIRED BLOCKING AND ELECTRICAL CONNECTIONS FOR FINAL APPROVED SIGNS.

** SPECIFIC TO COLUMBIA TN NASHVILLE HWY PROJECT

GENERAL NOTES | **C**



FOR REFERENCE ONLY. FLOORPLAN TO BE REVIEWED AS PART OF BUILDING PLAN REVIEW.

KEY PLAN 3/32" = 1'-0" | **A**

SYMBOL	ITEM/MATERIAL	MANUFACTURER	MATERIAL SPEC	ALT. MANUFACTURER SPEC 'A'	ALT. MATERIAL SPEC 'A'	ALT. MANUFACTURER SPEC 'B'	ALT. MATERIAL SPEC 'B'	COLOR	CONTACT INFO
1	SIDING - HORIZONTAL APPLICATION	JAMES HARDIE	ARTISAN V-GROOVE 144"L X 8.25"W; 7" EXPOSURE COMES PRIMED FOR PAINT	WESTLAKE ROYAL BUILDING PRODUCTS	TruExterior V-RUSTIC 192"L x 7.5"W; 7" EXPOSURE; PRIMED FOR PAINT	NICHIHA	TruExterior V-RUSTIC 192"L x 7.5"W; 7" EXPOSURE; PRIMED FOR PAINT	WORLDLY GRAY (SW7043), SEMI-GLOSS	REFER TO EXTERIOR FINISH VENDOR CONTACTS ON A7.2 FOR TACO BELL NATIONAL ACCOUNT REPRESENTATIVES (DO NOT CALL MANUFACTURER 1-800 OR GENERAL CONTACT NUMBERS AS YOU WILL NOT RECEIVE CORRECT INFORMATION TO BRAND SPECIFIED PRODUCTS.
2	BUILDING TRIM	JAMES HARDIE	HARDIE TRIM 5/4 SMOOTH; 1"x5.5" PRIMED FOR PAINT	WESTLAKE ROYAL BUILDING PRODUCTS	TruExterior TRIM 5/4 x 6; 1" x 5.5" PRIMED FOR PAINT	NICHIHA	TruExterior TRIM 5/4 x 6; 1" x 5.5" PRIMED FOR PAINT	CYBERSPACE (SW7076), SEMI-GLOSS	
3	REVEAL PANEL	JAMES HARDIE	HARDIE PANEL VERTICAL SIDING W/ ALUM TRIM FROM FRY REGLET AND/OR TAMLYN	N/A	USE HARDIE PANEL	NICHIHA	USE HARDIE PANEL	CYBERSPACE (SW7076), SEMI-GLOSS	
4	TRANSPARENT GLAZING ALL GLAZING IS TO BE TRANSPARENT	VITROGLAZINGS	SOLARBAN 70 SOLAR CONTROL LOW-E GLASS					STOREFRONT TO BE DARK BRONZE	
5	BRICK WAINSCOT	BELDEN BRICK	"EBONY BLACK" FIRED CLAY MODULAR BRICK	----	----	----	----		
6	METAL PARAPET CAP	----	24GA GALVANIZED	----	----	----	----	CYBERSPACE (SW7076) KYNAR 500 COATING	
7	HOLLOW METAL DOOR	----	----	----	----	----	----	SW PURPLE (TB2603C), SEMI-GLOSS	
8	SCUPPERS & DOWNSPOUTS & ELECTRICAL PANELS	----	----	----	----	----	----	WORLDLY GRAY (SW7043), SEMI-GLOSS	
9	AWNINGS	BRAND APPROVED SIGNAGE VENDOR	----	----	----	----	----	BLACK (BY THE SIGNAGE VENDOR)	

EXTERIOR FINISH SCHEDULE | **D**

X	NAME	FAMILY	FRAME OR MURAL	SIZE	LOCATION
GS18	HYPNOTIZE ME BELL	D	M02	48x96	AS-2

401 BUILDING SIGN BY VENDOR. GC TO INSTALL BLOCKING PER VENDOR REQUIREMENTS. REQUIRES ELECTRICAL, SEE ELECTRICAL PLANS.
407 METAL CANOPIES BY VENDOR. GC TO INSTALL BLOCKING PER VENDOR REQUIREMENTS. REQUIRES ELECTRICAL, SEE ELECTRICAL PLANS.
408 CO2 FILL VALVE & COVER.
416 HOSE BIB BOX AT 18" A.F.F.
419 EXTERIOR LIGHT FIXTURE. SEE ELECTRICAL DRAWINGS.

424 LINE OF ROOF BEYOND.

NOT FOR CONSTRUCTION **KEY NOTES** | **B**

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FAX 512/467-2655

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Nashville Highway
Columbia TN 38401

TACO BELL
ENDEAVOR 2.0

REVISIONS	DATE

PROJECT NO.	2501
CAD FILE	AS-1
DRAWN BY	TO
CHECKED BY	MWH
DATE:	3.17.2026
SCALE:	AS NOTED

Exterior Elevations

AS-1

DWG . OF .



1st FLOOR FACADE AREA =1004 sf
20% = 201 sf
CLEAR GLAZING (CLEAR) =283 sf (28%)

TRANSPARENT GLAZING
ALL GLAZING SHOWN IS TRANSPARENT

SEE SHEET AS-1 FOR FINISH SCHEDULE

316 METAL PARAPET CAP.
329 MECHANICAL UNIT,
401 BUILDING SIGN BY VENDOR. REQUIRES ELECTRICAL,

402 DRIVE THRU WINDOW. .
407 METAL CANOPIES BY VENDOR. REQUIRES ELECTRICAL,

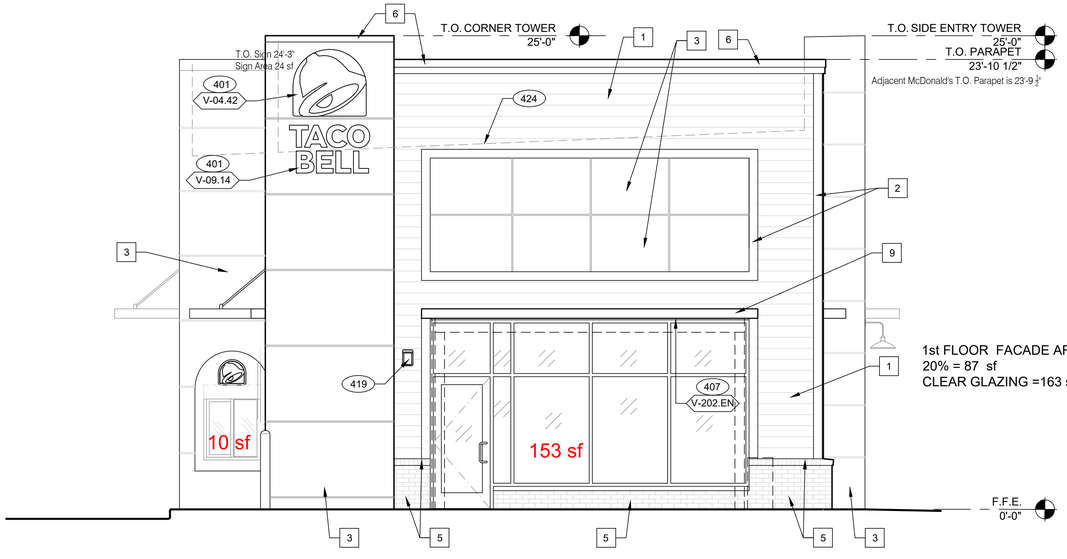
408 CO2 FILL VALVE & COVER.

409 ASSUME D/T LANE SURFACE IS 6" BELOW THE FINISH FLOOR. REFER TO GRADING & SITE PLAN.
411 CONCRETE CURB.
416 HOSE BIB BOX AT 18" A.F.F.
419 EXTERIOR LIGHT FIXTURE.

424 LINE OF ROOF BEYOND.

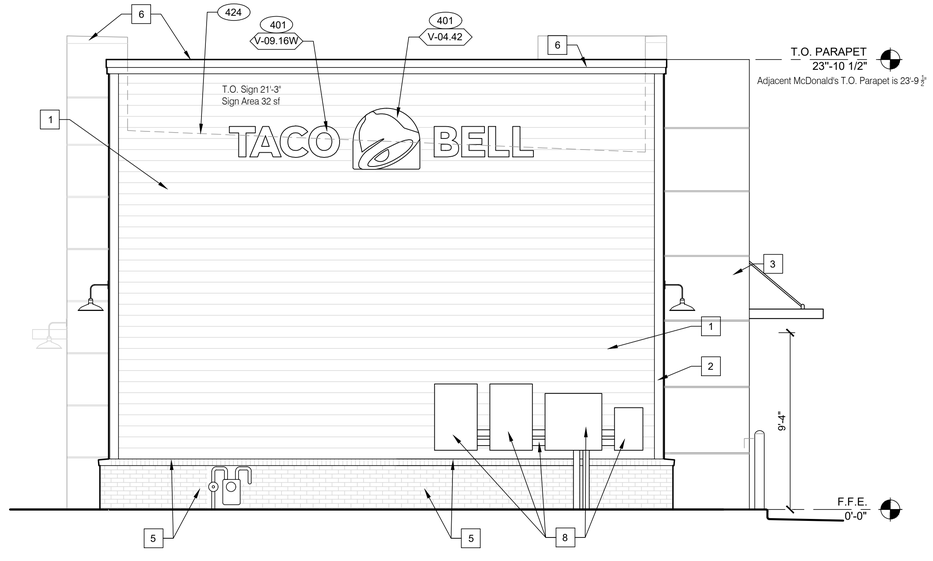
KEY NOTES | **A**

EAST ELEVATION 1/4" = 1'-0" | **1**



1st FLOOR FACADE AREA =434 sf
20% = 87 sf
CLEAR GLAZING =163 sf (38%)

NORTH ELEVATION 1/4" = 1'-0" | **2**



EXEMPT FACADE

SOUTH ELEVATION 1/4" = 1'-0" | **3**

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Columbia TN 38401

ENDEAVOR 2.0

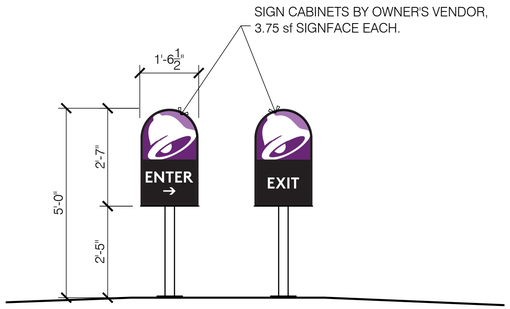
REVISIONS	DATE

PROJECT NO.	2501
CAD FILE	AS-2
DRAWN BY	TO
CHECKED BY	MWH
DATE:	3.17.2026
SCALE:	AS NOTED

Exterior Elevations

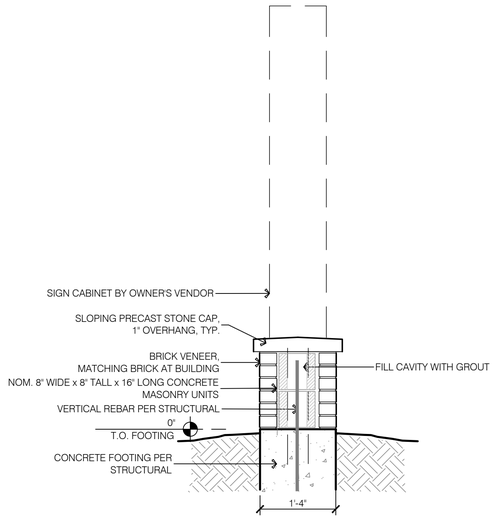
AS-2

DWG OF .

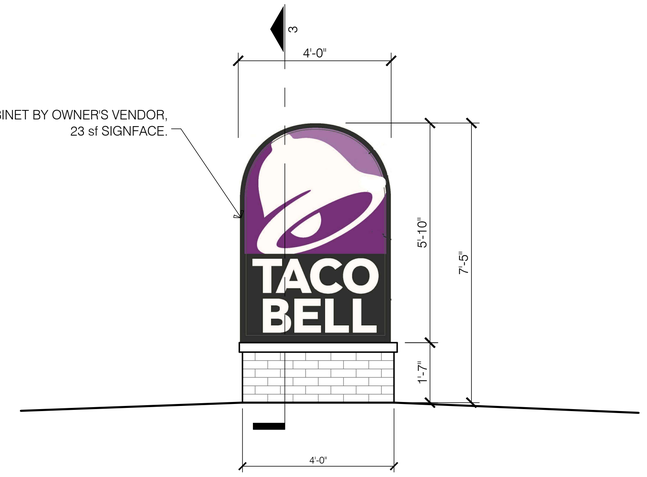


5 Enter Sign Elevation
SCALE: 1/2" = 1'-0"

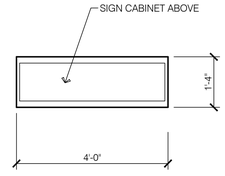
4 Exit Sign Elevation
SCALE: 1/2" = 1'-0"



3 Vertical Section
SCALE: 3/4" = 1'-0"



2 Monument Sign Elevation
SCALE: 1/2" = 1'-0"



1 Monument Sign Plan
SCALE: 1/2" = 1'-0"

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Columbia TN 38401

ENDEAVOR 2.0

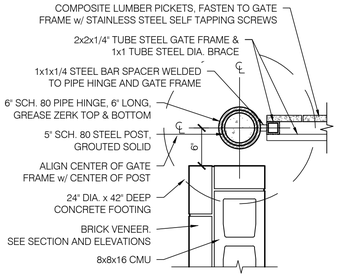
REVISIONS	DATE

PROJECT NO.	2501
CAD FILE	.
DRAWN BY	TO
CHECKED BY	MWH
DATE:	6.15.2026
SCALE:	

AS-3
SITE SIGNAGE

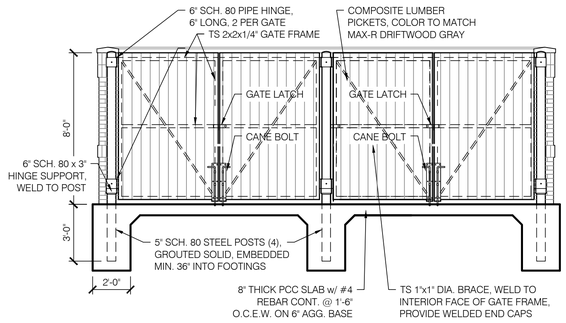
DWG OF .

NOT FOR CONSTRUCTION



5 Gate Detail

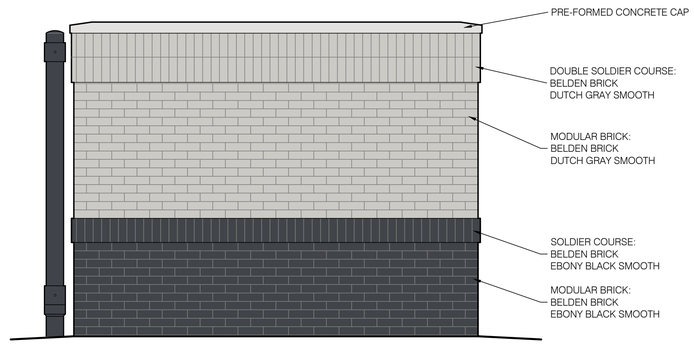
SCALE: 1" = 1'-0" Horizontal Section



GATE NOTES: ALL HARDWARE & ACCESSORIES SHALL BE HEAVY GALVANIZED. WELD AND GRIND SMOOTH ALL FRAME CONNECTIONS. PRIME AND PAINT ALL STEEL COMPONENTS SW 7076 CYBERSPACE.

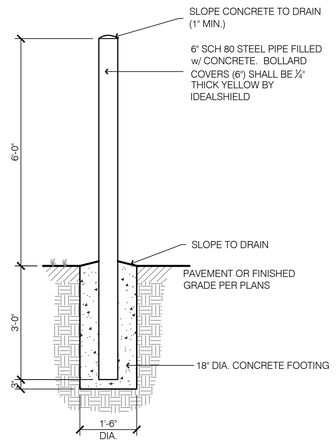
4 Enclosure Front Elevation

SCALE: 1/4" = 1'-0"



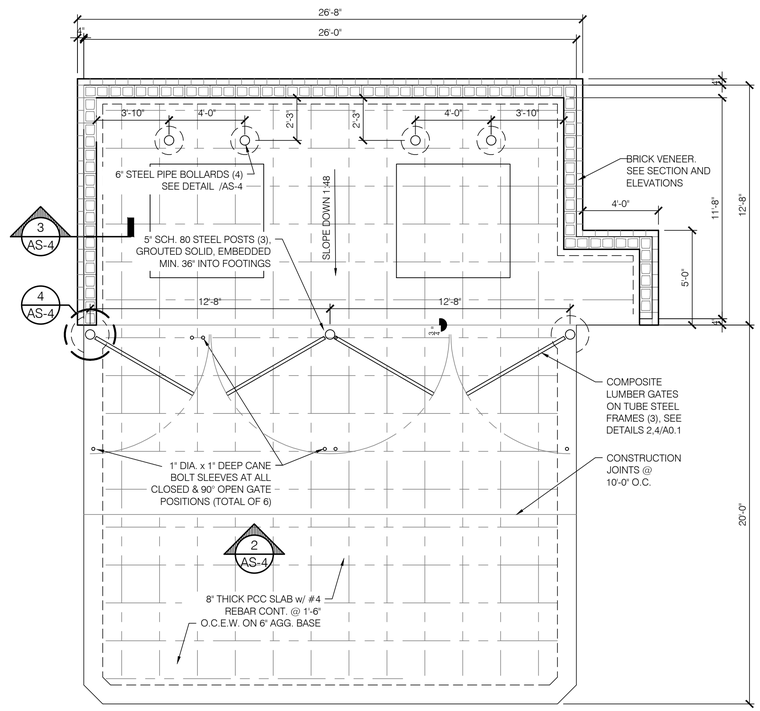
3 Enclosure Side Elevation

SCALE: 1/2" = 1'-0"



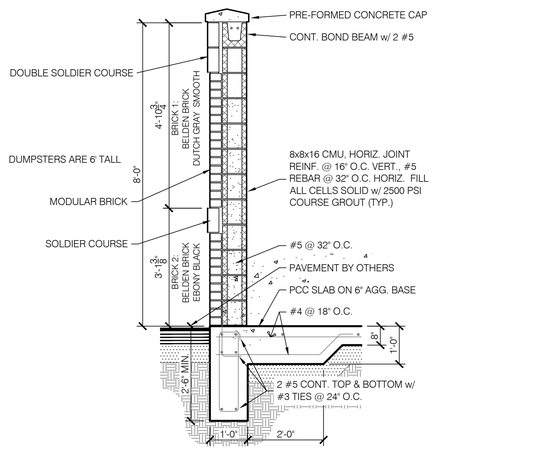
6 Bollard Detail

SCALE: 1" = 1'-0"



1 Enclosure Plan

SCALE: 1/4" = 1'-0"



2 Enclosure Vertical Section

SCALE: 1/2" = 1'-0"

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Columbia TN 38401

TACO BELL
ENDEAVOR 2.0

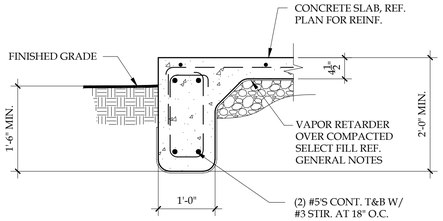
REVISIONS	DATE

PROJECT NO. 2501
CAD FILE . . .
DRAWN BY TO
CHECKED BY MWH
DATE: 2.16.2026
SCALE:

AS-4
DUMPSTER ENCLOSURE

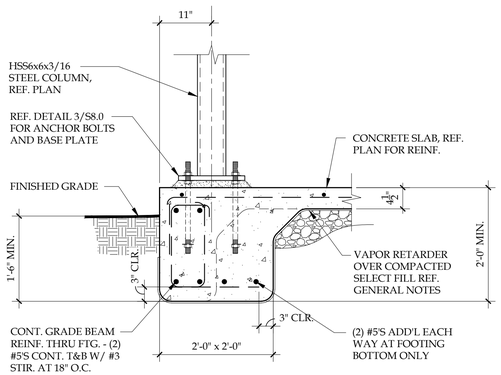
DWG OF .

NOT FOR CONSTRUCTION



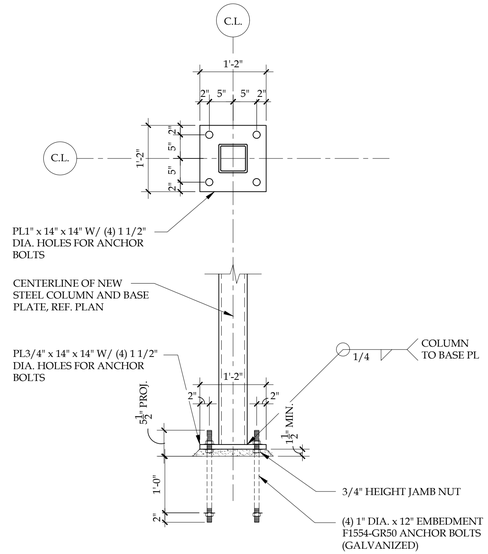
1. SECTION AT PATIO SLAB

3/4" = 1'-0"



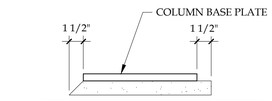
2. SECTION AT CANOPY COLUMN

3/4" = 1'-0"



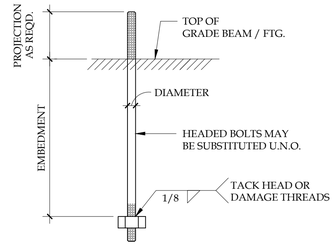
3. BASE PLATE AND ANCHOR BOLT DETAIL

3/4" = 1'-0"



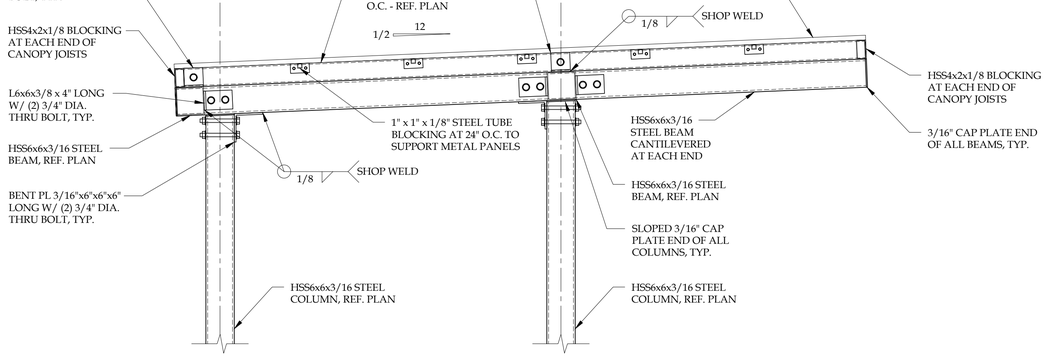
GROUT PLACEMENT

NO SCALE



ANCHOR BOLT DIAGRAM

NO SCALE



4. SECTION THROUGH CANOPY

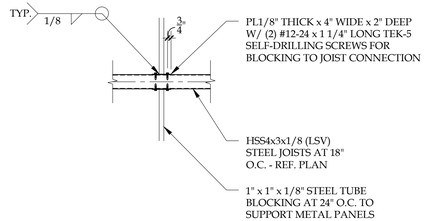
3/4" = 1'-0"

CANOPY NOTES

1. ALL SELF DRILLING SCREWS SHALL BE MINIMUM #12-24 x 1 1/4" LONG TEK-5 SELF-DRILLING WITH HEX WASHER HEAD. ALL SCREWS SHALL BE ZINC-PLATED. PROVIDE MINIMUM 3/4" EDGE DISTANCE, TYPICAL.

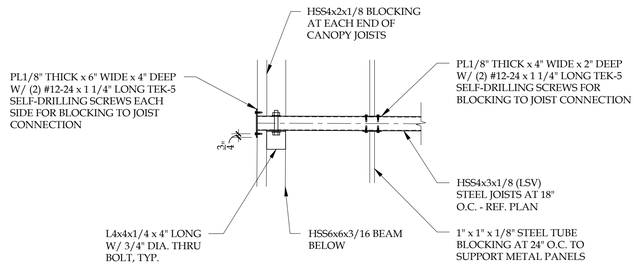
2. ALL WELDS AT CANOPY CONNECTIONS TO BE DONE IN SHOP WITH 1/8" FILLET WELDS. PROVIDE WELDS ALL AROUND.

3. 22 GAGE MAGNA-LOC 180 ROOF PANELS - ATTACH AT EDGE USING #12 X 3/4" SCREWS AT 6" O.C. AT EDGES AND 12" O.C. AT FIELD WITH NEOPRENE WASHERS - REFER TO MFR. INSTALLATION GUIDE FOR ADDITIONAL INFORMATION AND REQUIREMENTS.



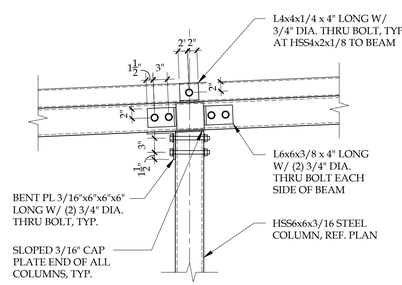
5. BLOCKING TO JOIST CONN.

3/4" = 1'-0"



6. END BLOCKING TO JOIST CONN.

3/4" = 1'-0"



7. COLUMN TO BEAM CONN.

3/4" = 1'-0"

JUSTIN BILLODEAU, P.E.
TN NO. 120934
9901 BRODIE LANE
SUITE 160 PMB 297
AUSTIN, TX 78748
512 328 5353 PHONE

STRUCTURAL ENGINEER:

JUSTIN BILLODEAU REGISTERED ENGINEER 120934 AGRICULTURE STATE OF TENNESSEE
Justin Billodeau
01.30.2026

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JUSTIN BILLODEAU (TN P.E. 120934) ON JANUARY 30, 2026.

CONTRACTORS SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT THE JOB SITE AND NOTIFY THE ARCHITECT OF ANY OMISSIONAL ERRORS. OMISSIONS OR DISCREPANCIES BEFORE BEGINNING OR FABRICATING ANY WORK. DO NOT SCALE THESE DRAWINGS.

Taco Bell
Nashville Highway
Columbia TN 38401

TACO BELL
ENDEAVOR 2.0

REVISIONS	DATE

PROJECT NO.	26003
CAD FILE	
DRAWN BY	JTB
CHECKED BY	JTB
DATE:	01.30.2026
SCALE:	3/4" = 1'-0"

CANOPY DETAILS

S8.0

DWG 15 OF 15

January 20, 2026

Mr. Chris Mischel
Palmer Engineering
1040 Monarch Street, Suite 210
Lexington, KY 40513
Sent via email: cmischel@palmernet.com

RE: Water Availability Letter Expires: 7/20/2026
Taco Bell Honey Farms Crossing
2240 Nashville Highway
Tax Map 51, Parcel 58 Lot 1B
Columbia, TN

Dear Mr. Mischel:

Columbia Power & Water Systems ("the Utility"/CPWS) is a municipal corporation authorized to provide water services in accordance with State law. CPWS has adopted rules, regulations, and standard operation procedures, prescribing the conditions under which CPWS will furnish water service. In addition, certain State laws delegate authority to the Tennessee Department of Environment and Conservation (TDEC), various Planning Commissions, and other authorities in Cities and Counties. These Cities and Counties have also adopted rules and regulations. Water service will be made available on a first-come, first-served basis, subject to the payment of all charges and fees imposed by CPWS and the approval of any and all required governmental agencies. Water service is subject to availability of all CPWS furnished equipment and materials appropriate for the development and provided the applicant complies with all rules and regulations of CPWS and conditions set out herein.

The proposed development is a 2,525 square foot retail restaurant building. CPWS has evaluated the projected water demands for the proposed development in the water system hydraulic model and is able to provide domestic and fire flow demand while maintaining state standards for level of service and pressures in this portion of the distribution system. CPWS can provide water for the proposed development according to the following criteria and requirements:

- Source water capacity for individual phases of the development is vested when CPWS has provided approval to proceed to construction and appropriate Impact Fees are paid.
- Available fire flow capacity at the proposed development is 1,750 gpm.

- Assumed water meters are listed below based on preliminary description of project. Actual meter count and sizes will be verified during the Design Review process.
    - One (1) 1" Service Meter
    - One (1) ¾" Landscape Irrigation Meter
- The above request translates to a 14 Single Family Unit (SFU) flow demand equivalent.
- Separate irrigation meters with backflow devices will be required to serve the proposed Project.
- If fire sprinkler systems are requested or required, separate fire meters with backflow devices will be required to serve the proposed Project.

All of the above requirements up to and including the meter(s) are to be constructed and paid for by the Applicant and dedicated to CPWS once complete. No construction of water infrastructure shall be initiated until final construction plans have been approved by CPWS (including TDEC approval if necessary).

This Water Availability Letter will expire in six months unless vested by payment of water service fees and impact fees for the proposed project. Any request for water availability after the expiration date of this letter will be considered a new application.

Once you have received this Water Availability Letter, next steps in the process to vest water service from CPWS are as follows:

- Remit to CPWS new water service fees for plan review, TDEC coordination, and inspection as follows: $1,500 + $370 per SFU equivalent
- Applicant will prepare design drawings for review and approval by CPWS for construction of the proposed water system improvements.
    - Provide design drawings in AutoCAD and .pdf format for CPWS review of proposed development. Include design drawings for grading, drainage, roadway improvements, buried (wet and dry) utilities, water systems, and surface improvements.
    - If required, once CPWS approves the Construction Drawings for the proposed system improvements, Applicant will submit proposed improvements design to TDEC for review and approval.
    - CPWS will prepare hydraulic calculations and a Utility Approval Letter to accompany the plans submittal to TDEC.
- Current water service fees due prior to CPWS review of design plans are listed in the table below.

New Water Service Fees	SFUs	Total
$1,500 + 370 per SFU	14	**$6,680**

- *Note that payment of Water Service Fees will extend the expiration of this Water Availability Letter for one year, while the applicant is working with CPWS on design and review of the improvement drawings.*

- Upon Construction Drawing approval by CPWS, applicant may then schedule the pre-construction meeting.
- After the pre-construction meeting, CPWS will then issue a formal Notice to Proceed.
- Applicant is required to construct all public water infrastructure per CPWS standard specifications and provide CPWS personnel unregulated access to the site to inspect the construction of the water infrastructure.
- Applicant may pay Impact Fees upon Construction Drawing approval by CPWS.
    - Applicants will be charged Impact Fees and Meter Fees in effect at time of payment.
    - Please see CPWS website for schedule of impact fees and timing of planned fee escalations.
    - Water meters will be ordered by CPWS once meter fees are paid.
    - Meter fees are subject to change based on final design and the prevailing Board-approved rates at time of payment.
- An estimate of anticipated meter costs and impact fees for this project is provided below for planning purposes:

Impact Fees and Meter Costs	Number	$ / Unit	Total
¾" Service Meter Cost	1	$540	$540
1" Service Meter Cost	1	$710	$710
Current Impact Fee for ¾" Service Meter	1	$5,500	$5,500
Current Impact Fee for 1" Service Meter	1	$9,200	$9,200
Estimate of Impact and Meter Fees =			**$15,950**

- No construction of water improvements may take place prior to the Notice to Proceed or without a CPWS inspector present.

Please feel free to contact me at 931-388-4833 x7655 or Matt.Wheeler@cpws.com if you have questions or would like to discuss.

Sincerely,

Matthew J. Wheeler, P.E.
Vice President of Water Resources, CPWS

cc: John Miljanich, MRCO
Bart Anderson, CPWS
File 25-038

Columbia Fire & Rescue

Fire Flow Requirements

Water Purveyor: Columbia Power & Water System

Date: 12/10/2025
Name: Chris Mischel
Phone: 859-389-9293
Email: cmischel@palmernet.com
Address/Parcel ID: 2240 Nashville Highway/Tax Map 51, Parcel 58, Lot 1B
Property Type: ○ Residential ◉ Commercial ○ Industrial
Construction Type: Single Story Brick wit
Enclosed Area (ft²): 2525

FILLED OUT BY COLUMBIA FIRE AND RESCUE

NFPA Sprinkler Type: NFPA 13

Water System Demand without Sprinkler Credit

Fire flow Requirements (International Fire Code Appendix B)

Fire Flow: 1,500 gpm Duration: 2 hours

Fire Hydrant Location and Distribution (International Fire Code Appendix C)

Minimum number of hydrants: 1

Average spacing between hydrants: 500 ft.

Maximum distance from frontage to hydrant: 250 ft.

Water System Demand with Sprinkler Credit

Fire flow requirements (International Fire Code Appendix B)

Fire Flow: 1,000 gpm Duration: 2 hours

Fire Hydrant Location and Distribution (International Fire Code Appendix C)

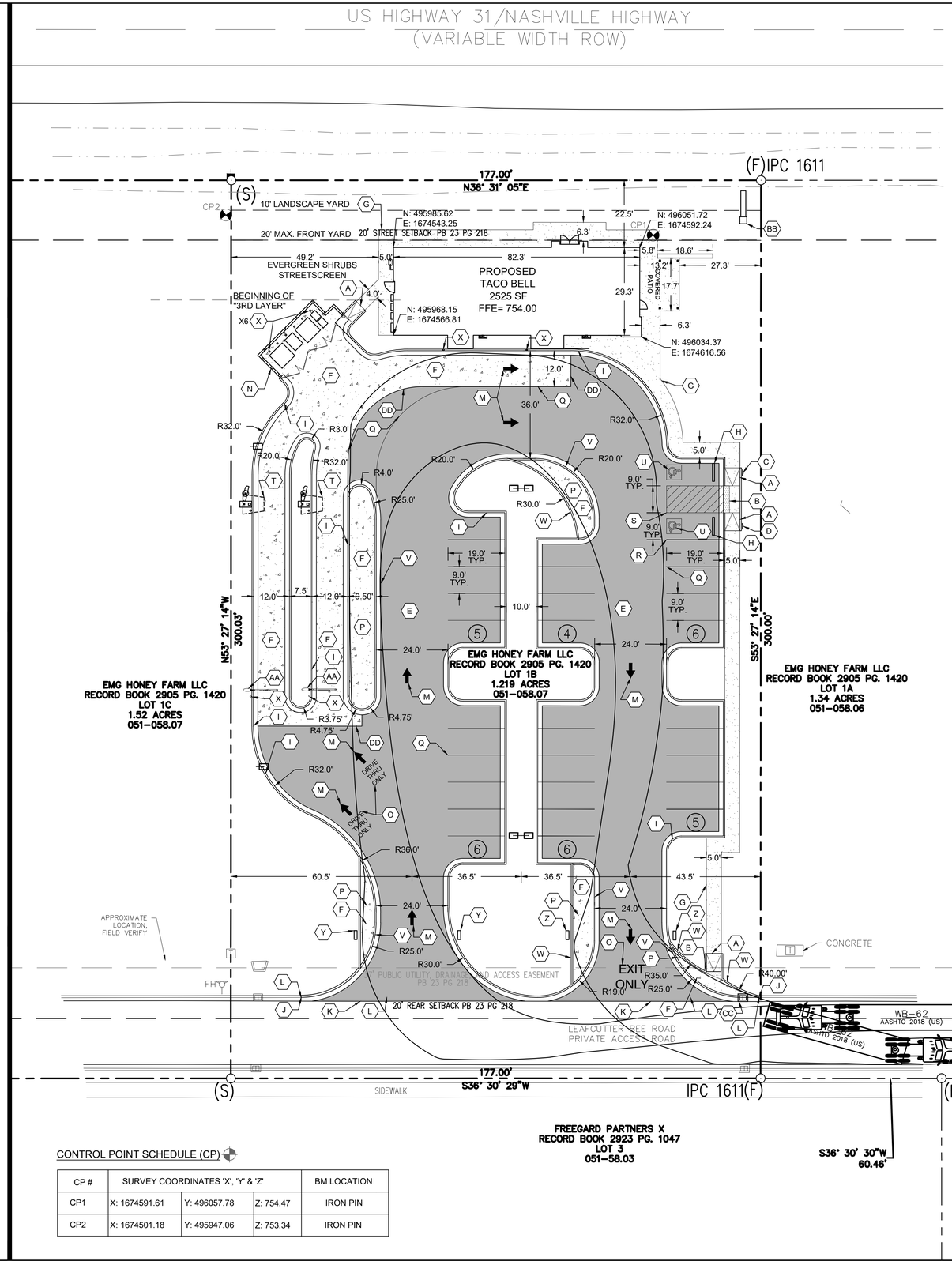
Minimum number of hydrants: 1

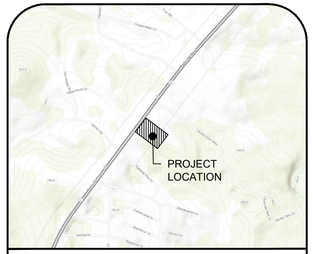
Average spacing between hydrants: 500 ft.

Maximum distance from frontage to hydrant: 250 ft.

Fire Plan Reviewer: Brad Massey Date: 12/10/2025

Columbia Fire & Rescue can add 600gpm, with our tanker truck, to the gpm that CPWS can supply





Columbia, Maury County, Tennessee

VICINITY MAP (N.T.S)

SITE DATA INFORMATION

LOT SIZE	53,103 SQ FT / 1.22 ACRES
PROPOSED USE	QUICK SERVICE RESTAURANT
ZONING	MU PUD
PROPOSED BUILDING HEIGHT	24'-0"
REQUIRED PARKING (1 PER 100 USABLE SPACE) MAX. 30% OVER MIN.	 MIN.2,525 SF / 100 = 26 SPACES MAX. 26 X 30% = 34
PROPOSED PARKING	32 SPACES
QUEUING REQUIREMENTS	MIN. 8 SPACES
PROPOSED QUEUING	16 SPACES
PROPOSED IMPERVIOUS AREA	30,840 SQ FT (70%)
REQUIRED LOT WIDTH	18 FT MIN AND 180 FT MAX
LOT WIDTH	177 FT
REQUIRED FRONTAGE BUILDOUT	90% AND ADMINISTRATIVE 20% BUILDOUT ADJUSTMENT = 127.44' (177' X 90% = 159.3; 159.3' X 20% = 127.44' WIDTH REQUIRED)
PROPOSED FRONTAGE BUILDOUT	155.9' FRONTAGE BUILDOUT (106.7' TOTAL BUILDING WIDTH AND 49.2' EVERGREEN SHRUB STREETSCREEN) 20% ALLOWABLE STREETSCREEN WIDTH = 31.2' (106.7' TOTAL BUILDING WIDTH AND ALLOWED 31.2' STREETSCREEN WIDTH = 137.9')

LEGEND

- PROPERTY LINE
- BUILDING SETBACK LINE
- PUBLIC UTILITY EASEMENT LINE
- (1) NUMBER OF PARKING SPACES
- HEAVY DUTY ASPHALT PAVEMENT
- CONCRETE PAVEMENT/SIDEWALK
- HEAVY DUTY CONCRETE PAVEMENT
- LANDSCAPE SETBACK
- PROPOSED LIGHT POLES (SEE SITE LIGHTING & PHOTOMETRICS PLAN

SITE PLAN NOTES:

1. ALL CONSTRUCTION MUST CONFORM TO CITY OF COLUMBIA AND STATE OF TENNESSEE STANDARDS.
2. ALL DIMENSIONS, UNLESS NOTED OTHERWISE ARE TO THE FACE OF THE CURB, BUILDING, OR WALL. WHERE CURB IS NOT PRESENT, DIMENSIONS ARE TO EDGE OF PAVEMENT. ALL RADII ARE 5 FEET UNLESS OTHERWISE DIMENSIONED ON THIS SHEET.
3. NO GRADING, STRIPPING, EXCAVATION, FILLING OR OTHER DISTURBANCE OF THE NATURAL GROUND COVER SHALL TAKE PLACE UNTIL PERIMETER EROSION CONTROL MEASURES ARE INSTALLED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY CITY OR STATE PERMITS.
4. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE PROJECT DOCUMENTS.
5. ALL SURVEY INFORMATION IS RELATIVE TO TENNESSEE STATE PLANE COORDINATE SYSTEM.
6. SEE ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS AND BOLLARD LOCATIONS.
7. SEE ELECTRICAL PLANS FOR SITE LIGHTING LOCATIONS.
8. ALL SIDEWALKS ADJACENT TO THE ADA PARKING SPACES ACCESSIBLE TO THE NEAREST DOOR SHALL BE IN COMPLIANCE WITH ADA REGULATIONS. NO SIDEWALKS SHALL HAVE GREATER THAN 5% RUNNING SLOPE OR HAVE MORE THAN A 2% CROSS SLOPE.
9. ADA PARKING STALLS AND ACCESS AISLE SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION.
10. COORDINATES AND DIMENSIONS SHOWN ARE TO EDGE OF PAVEMENT, EDGE OF BUILDING, OR FACE OF CURB.
11. ADA PARKING STALLS AND ACCESS AISLE SHALL BE MINIMUM 9'X18' IN DIMENSION (EACH).

SITE PLAN KEY:

KEY	DESCRIPTION	DETAIL
A	ADA ACCESSIBLE RAMP WITH 6' CURB TAPER (6' LONG, MAX SLOPE 12:1)	B/C-1.1
B	DETECTABLE WARNING	K/C-1.1
C	VAN ACCESSIBLE ADA PARKING SIGN	I/C-1.1
D	ADA ACCESSIBLE PARKING SIGN	I/C-1.1
E	HEAVY DUTY ASPHALT PAVEMENT	C/C-1.1
F	HEAVY DUTY CONCRETE PAVEMENT	D/C-1.1
G	CONCRETE SIDEWALK W/CURB WHERE APPLICABLE	A/C-1.1
H	RUBBER WHEEL STOP	M/C-1.2
I	24" CURB AND GUTTER	F/C-1.1
J	TIE TO EXISTING CURB AND GUTTER	
K	EDGE KEY	N/C-1.2
L	REMOVE EXISTING CURB AND GUTTER	
M	TRAFFIC ARROW (8 TOTAL)	L/C-1.1
N	DUMPSTER PAD AREA ENCLOSURE (SEE ARCHITECTURAL DRAWINGS)	
O	PAINTED WHITE LETTERING	
P	MOUNTABLE MEDIAN	P/C-1.2

KEY	DESCRIPTION	DETAIL
Q	4" SOLID WHITE PAINT STRIPE	
R	4" SOLID BLUE PAINT STRIPE	
S	45° BLUE CROSS HATCH STRIPING	
T	MENU BOARD, CANOPY, SPEAKER BOX (SEE ARCHITECTURAL DRAWINGS)	
U	ADA ACCESSIBLE SYMBOL	J/C-1.1
V	ROLLED CURB AND GUTTER	R/C-1.2
W	6" HEADER CURB	E/C-1.1
X	BOLLARD	H/C-1.1
Y	"ONE WAY ONLY" DIRECTIONAL SIGNAGE	O/C-1.2
Z	"ONE WAY ONLY DO NOT ENTER" DIRECTIONAL SIGNAGE	Q/C-1.2
AA	OVERHEAD CLEARANCE BAR (SEE ARCHITECTURAL DRAWINGS)	
BB	MONUMENT SIGN	
CC	REMOVE AND REPLACE EXISTING CBI (SEE C-3.0 FOR REPLACEMENT)	
DD	CONCRETE/ASPHALT JOINT	G/C-1.1

CONTROL POINT SCHEDULE (CP)

CP #	SURVEY COORDINATES 'X', 'Y' & 'Z'			BM LOCATION
CP1	X: 1674591.61	Y: 496057.78	Z: 754.47	IRON PIN
CP2	X: 1674501.18	Y: 495947.06	Z: 753.34	IRON PIN

811 Know what's below. Call before you dig.

1"=20'-0"

20 10 0 20'

NORTH INDICATED IS IN RELATION TO TENNESSEE STATE PLANE ZONE.

Palmer ENGINEERING
PALMER ENGINEERING
1040 MONARCH STREET
SUITE 210
LEXINGTON, KY 40513
(859) 389-9293

CONTRACT DATE: 12/09/2025
BUILDING TYPE: END. MED40
PLAN VERSION: TBD
SITE NUMBER: TBD
STORE NUMBER: TBD

TACO BELL

HONEY FARM CROSSING
COLUMBIA, TN

SITE PLAN

C-1.0

PERMIT PLOT DATE: 12/09/2025

CITY OF COLUMBIA
TENNESSEE

WASTEWATER DEPARTMENT

12 December 2025

Chris Mischel
Palmer Engineering
1040 Monarch Street, Suite 210
Lexington, KY 40515

RE: 2240 Nashville Highway; New Taco Bell in Columbia at Honey Farms Crossing

Chris,

This letter serves as confirmation that the City of Columbia Wastewater Department has the available capacity to service the subject development. Any extension to the existing sewer infrastructure will be initiated by the owner/developer, reviewed by our department and approved by the State of Tennessee. The project must be advanced in accordance with local, state and federal rules, regulations and policies. Funding and construction of those improvements will remain the responsibility of the owner/developer. New customers will be required to pay all fees applicable at the time of connection. Any final plat approval and dedication of the infrastructure are both subject to correct installation and function, as determined by our department. No detailed design plan for an extension of the sewer has been proposed at this time.

Donnie Boshers, Director
City of Columbia, TN
Wastewater Department

CITY OF COLUMBIA TENNESSEE

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

Preliminary Plat, Site Development Plan, and PUD Checklist

Development: Honey Farms - Taco Bell

This checklist shall be completed, and included with the submittal documents. If the submittal does not contain a completed checklist, it shall be deemed incomplete. All below listed items shall be included in the submittal documents and plans, as well as any further information required by the City of Columbia to evaluate compliance and to perform a full and complete review. See Zoning Ordinance Article 8 and Subdivision Regulations.

General

- ☑ Name of development
- ☑ Contact info for the owner and licensed design professional(s) preparing plan: name, address, email, phone
- ☑ Plan sealed by a design professional licensed in the State of Tennessee.
- ☑ North Arrow, legend, and site vicinity map
- ☑ Graphic Scale: between 1 in. = 10 ft. and 1 in. =100 ft.
- ☐ Survey stamped by a State of Tennessee Licensed Professional Land Surveyor, with all project boundaries including bearings and angles to the nearest hundredth, utilities, and existing streets and rights-of-way.
- ☑ Note referencing Tennessee State Plane Coordinate System, NAD 83 Datum
- ☑ All property boundaries, existing easements, and encumbrances
- ☑ Parcel identification, owner, and deed and plat references of adjoining properties
- n/a ☐ Proposed phasing and timetable for all phases of development
- n/a ☐ Traffic Impact Study, as required.
- ☑ The substance of all existing and proposed covenants, easements, or other restrictions.

Lots and Land-Use

- ☑ The size of total property to be developed in square feet and acres
- ☐ Lot numbers of all proposed lots, with dimensions, locations, and square footage
- ☐ A tabulation of the land area to be devoted to various uses and activities and overall densities.
- ☑ Typical lot layout depicting proposed setbacks, yards, and easements, where applicable

Structures

- ☑ Location and approximate dimensions of all existing and proposed structures.
- ☐ Location of all earth retaining structures, with approximate top and bottom of wall elevations.
- ☑ Existing and intended use of all buildings and structures on site, including the number of dwelling units and density, where applicable
- ☑ Location, type, and size of proposed signs
- ☐ Approximate height, bulk, and the utilization of structures including activities and the number of living units.

CITY OF COLUMBIA
TENNESSEE

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

Grading, Drainage, and Storm

- ☑ Existing conditions and contours at vertical intervals of not more than two (2) feet
- ☑ General proposed contours at vertical intervals of not more than two (2) feet
- n/a ☐ FEMA Special Flood Hazard Area (SFHA), 100-year Floodplain (F-P), and Floodway (F-W) boundaries with elevations and the exact location of the nearest benchmark. Indicate the Flood Insurance Rate Map (FIRM) panel number, its effective date, and flood insurance zones
- n/a ☐ Location and dimension of aquatic buffer zones
- ☑ General layout of the proposed storm drainage system including surface and subsurface drainage systems, areas for detention, and water quality devices.
- n/a ☐ Identification of all critical lots

Streets, Parking, and Pedestrian Elements

- n/a ☐ Proposed street and alley rights-of-way, typical sections, widths, classification, names, and proposed ownership and maintenance responsibility
- ☑ Proposed connections to existing and proposed streets (including classification) located outside the development
- n/a ☐ Proposed improvements as identified in the Traffic Impact Study, as required
- ☑ Existing and proposed sidewalks, trails, and other pedestrian elements
- ☑ Existing and proposed on-street and off-street parking and loading areas
- ☑ Summary of all provided and required parking

Landscaping, Open Space, and Amenities

- ☑ Natural features on site including, but not limited to, wetlands, streams, ponds, springs, sinkholes, wells, rock outcroppings, excessive slopes, and forested areas
- ☑ Landscaped areas and buffers with details on proposed plantings, existing vegetation, and other features.
- ☑ The location and size of all common open space, parkland dedications, and dedications and reservations of land for public uses.
- ☑ Any amenity features and structures for private or public benefit.
- ☑ Location, dimension, and materials of fences and walls
- ☑ Tree Canopy retention

Utilities

- ☑ General layout and location of existing and proposed utilities and utility features including, but not limited to potable water, fire hydrants, sanitary sewer, storm sewer, and power and communication facilities.
- ☐ Acknowledgement from water, sewer, and power utility providers that the proposed development may be adequately served with existing infrastructure, or if improvements are required to adequately serve the development, a general statement of the improvements.

CITY OF
COLUMBIA
TENNESSEE

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

PUD Specific Items

- ❑ List of all deviations from PUD Standards requested
- ❑ The nature of the landholder's interest in the land proposed to be developed and a written statement of concurrence from all parties having a beneficial interest in the affected property.
- ❑ Location and approximate dimensions of all existing and proposed structures including approximate height, bulk, and the utilization of structures including activities and the number of living units. Include architectural renderings of all proposed structures with materials listed.
- ❑ The substance of covenants, grants of easements or other restrictions to be imposed upon the use of the land, buildings and structures including proposed easements for public utilities on the property or documentation of off-site easements.
- ❑ Exterior lighting plan.

If the application is deemed incomplete by the Zoning Administrator, a written request shall be made within ten days after the original submittal, for further information. In such case the application shall be held in abeyance until deemed complete for final review. No plan shall be formally presented for Planning Commission action until such plan is found complete, compliant with City standards, and ready for review.

Checklist Completed By:

Print Name	Signature	Date



Case #26-0234
2250 Nashville Hwy.
Honey Farm Crossing Lot 1B

City of Columbia
Development Services
700 N. Garden Street
Columbia, TN 38401
www.columbiatn.gov

2520 McClure Blvd. – McClure Farms PUD
Final PUD Master Plan Revision (Architectural)

Project #:	26-0237	**Location:**	2520 McClure Blvd.
Applicant:	WES Engineers & Surveyors	**Case Type(s):**	Final PUD Master Plan Revision (Architectural)
Staff Planner:	Robert Archibald, Principal Planner	**Proposed Use:**	Residential

PROJECT SUMMARY

The applicant is requesting a revision to the Final Planned Unit Development (PUD) known as McClure Farms previously approved October 2025. This development consists of a total of 431 homes situated on a 95.24-acre site, which includes 116 single-family homes and 315 town homes with additional open space, roadway infrastructure, and utility extension.

- The development was approved under Ordinance 3638, in effect between 2006 and 2022. The approvals created a vested right to develop under the standards in effect at the time.
- The property is subject to a Final PUD Master Plan based on the RM-1 and RS-6 standards of the previous Zoning Ordinance. The applicant is requesting to revise the Master Plan regarding changes below:
    - Correct typo image from the previous pattern book.
    - Addition of an illustrative page showing window locations (secondary/rear elevations) and other exterior options available.
    - Provided clarification to the pattern book disclaimer.
    - Inclusion of updated elevations to the approved “Luca” town home plan.
    - Inclusion of elevations for the “Bedford” single-family plan, viewed internally as an elevate version of the approved “Pelham” plan.
- The DRC reviewed this proposal at its July 2026 meeting. Staff review included standard comments and requests for technical corrections as well as full technical comments provided in the agenda packet.

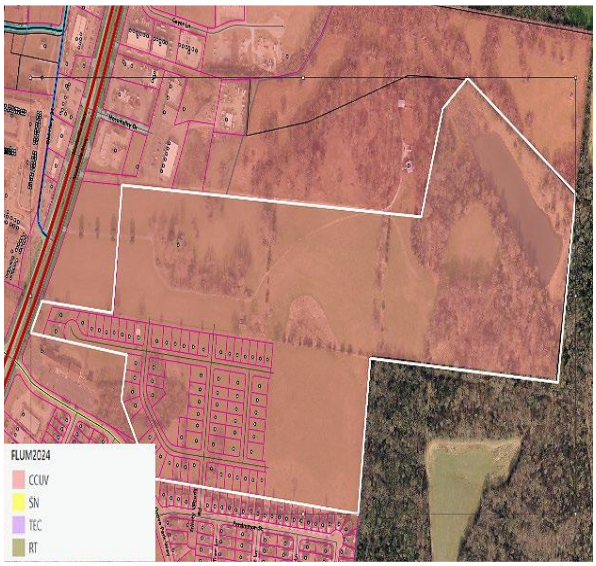
- The Planning Commission serving in its capacity as the Architectural Design Review Commission is the **Decision-Making Authority** for Design Review within all PUD Districts.
- Motion templates are provided at the end of this report to assist the Architectural Design Review Commission in making properly formatted motions.

SITE INFORMATION

CURRENT ZONING	EXISTING USE	EXISTING IMP.	LAND AREA
PUD-R	DEVELOPING	RESIDENTIAL	+/- 95.24



FUTURE LAND USE MAP (CCUV)	CURRENT ZONING (PUD-R)





SITE CONTEXT/ADJACENT PROPERTIES			
	Future Land Use	Zoning	Current Use
Subject Property	CCUV	PUD-R	Developing
North	CCUV	PUD-MU	Commercial
South	CCUV	PUD-R	Residential
East	CCUV	PUD-R	Vacant/Commercial
West	CCUV	PUD-MU	Developing

CONFORMITY WITH ZONING ORDINANCE

The revised Final PUD Master Plan conforms to the RM-1 and R-6 standards of the applicable Zoning Ordinance (Ordinance No. 3638), as modified by previous PUD approvals. The proposed structures comply with the setbacks and other bulk standards established by the approved Master Plan.

The revisions include updated architectural elevations for the previously approved Luca townhome plan, the addition of the Bedford single-family elevation to the approved pattern book, and additional page illustrating window locations on secondary and rear elevations, and other minor corrections and clarifications as necessary.

REVIEW PROCESS

The Development Review Committee evaluated the proposed Design Review request at its July 2026 meeting, as directed by **§8.3.7** of the Zoning Ordinance. Full Technical comments are provided in the agenda package and summarized above. This review is subject to the standards and review criteria of the Zoning Ordinance, per **§8.5.15 & 8.3.6**, outlined below:

Section 8.5.15-F of the Zoning Ordinance establishes the following Design Review Criteria to be considered:

a. Compatibility with the surrounding Structures; and
b. Compliance with applicable design standards and requirements of this Ordinance or the applicable Development Plan or Master PUD Development Plan.

Section 8.5.21-W.3(a) of the Zoning Ordinance authorizes the Planning Commission to approve minor modifications to a Final PUD Master Plan during the period of actual Development.

Section 8.5.21-W.3 establishes the criteria for Planning Commission review and action on revisions to a Final PUD Master Plan. The applicant's proposed changes meet these criteria.

Collectively, all such modifications approved by the Planning Commission shall not, in the aggregate, result in:

1. Any increase in the number of Dwelling Units that are approved in the Final Master PUD Development Plan or an amendment to the Final Master PUD Development Plan; or
2. An increase of more than 3% in the floor area for Commercial uses from that approved in the Final Master PUD Development Plan or an amendment to Final Master PUD Development Plan.

8.3.6 ARCHITECTURAL DESIGN REVIEW COMMISSION

A. Creation

1. There is hereby created the Architectural Design Review Commission for the purpose of reviewing Development applications that are subject to design review pursuant to this Ordinance.
2. As authorized by T.C.A. Section 6-54-133, the Columbia Municipal Planning Commission is designated the city's Architectural Design Review Commission, with the authority to

develop, adopt, and apply general guidelines for the exterior appearance of properties within the City of Columbia.

B. Design Standards In addition to the design standards incorporated in this ordinance, the Planning Commission may develop and adopt exterior appearance guidelines that are applicable throughout the city as well as exterior appearance guidelines that are applicable only to specified areas within the city.

C. Powers & Duties

1. The Architectural Design Review Commission shall be responsible for reviewing proposals for Site Development Plan, Building Permit, or Planned Unit Development approval for compliance with the applicable architectural design standards.
2. The Architectural Design Review Commission may approve alternative materials and methods of compliance which, in the determination of the Planning Commission, provide aesthetic value which meets or exceeds the prescribed standards.
3. The Zoning Administrator may approve alternative materials and methods of compliance with design standards for existing structures and Site Development Plans for which the Zoning Administrator is the Decision-Making Authority. The alternative means of compliance must provide aesthetic value which meets or exceeds the prescribed standards. The Zoning Administrator may refer any determination of alternative compliance to the Architectural Design Review Commission. Any property owner may appeal the Zoning Administrator's determination to the Architectural Design Review Commission. The appeal shall by written notice to the Zoning Administrator, stating: the guidelines at issue; the alternative compliance proposed; and the owner's reasons for seeking relief from the guidelines. The appeal shall be treated as a site development plan for purposes of assessing fees and application requirements.

D. Appeals

1. Any property owner affected by the guidelines for exterior appearance may appeal a decision under those guidelines to the City Council. The appeal shall be by writing a notice to the Zoning Administrator stating: the guidelines at issue; the alternative compliance proposed; and the owner's reasons for seeking relief from the guidelines. The appeal shall be treated as a site development plan for purposes of assessing fees and application requirements.

SAMPE MOTIONS

Approve:
Move to approve the façade elevations as presented and find that the design confirms to the applicable standards of the Zoning Ordinance per section 8.3.6, and [subject to remaining technical comments from staff & staff conditions of approval as listed].

Approve Subject to Conditions:
Move to approve the façade elevations as presented and find that design conforms to the applicable zoning ordinance, subject to the following conditions: [list any additional conditions of approval crafted by Planning Commission].

Deny:
Move to find that the façade elevations as presented does not conform to the applicable Zoning Ordinance, and deny the request due to [list specific deficiencies].

Defer:
Move to find that there is insufficient information to make a decision, defer the application for continued review, and request that the applicant provide: [list additional information] for review at the next regularly scheduled meeting of the Planning Commission.

CITY OF COLUMBIA TENNESSEE

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560

PLANNING COMMISSION
PROJECT DEVELOPMENT APPLICATION

SUBMITTAL REQUIREMENTS

Please submit scanned copy of the application online at City of Columbia | Permitting (onlama.com)
If there is no access to a computer, please submit all pertinent information on a flash drive as well as provide one hard copy. Additional fee may apply.

ADDRESS/LOCATION	MCCLURE FARMS PH 1-4 SUBDIVISION – 2504 NASHVILLE HWY		
	TAX MAP: 051	GROUP:	PARCEL: 006.00
SUMMARY OF NATURE OF REQUEST AND WORK	REQUEST TO APPROVE LATEST / UPDATED PATTERN BOOK FOR THE MCCLURE FARMS PUD PLAN		

DATE OF PRE-APPLICATION CONFERENCE	4/8/2026	*Pre-application meetings are scheduled for Wednesdays. Concept plan/fee due the Friday before the meeting.*

SELECT REQUEST	SUBMITTALS SHALL INCLUDE BUT NOT LIMITED TO:
❑ Comprehensive Plan Amendment ❑ Annexation ❑ Rezoning ❑ Preliminary Plat ❑ Final Plat ❑ PUD Preliminary Master Plan ❑ PUD Final Site Plan ❑ Site Development Plan ❑ ARC Alternative Compliance ❑ As Approved Plans ☑ Other: PUD Pattern Book Revision **File naming nomenclature examples:* *Freedom Point Site Plan* *Freedom Point Master Plan* *Freedom Point Final Plat*	**Annexations:** ❑ Annexation Permission Form **Annexations/Rezoning/Plan Amendments:** ❑ Requested Zone Listed ❑ Statement of Compliance with Comprehensive Plan ❑ Concept Plan **Preliminary Plats/Site Development Plans:** ❑ Plans and/or Plats conforming to City standards with signed and completed check list **All Annexations/Rezoning/Preliminary Plats/Site Development Plans and PUDS:** ❑ Receipt of Payment for Pre-Application Meeting ❑ Written Legal Description copy ❑ Columbia Water System Availability Letter ❑ Columbia Waste Water Department Will Serve Letter

	Plats/PUDs: ☑ Project Name (include Sections & Phases) McClure Farms Phases 1-4 ☑ Total Number of Lots/Residential Units 431 ☑ Square Footage of Non-Residential Floor Space N/A ☑ Total acreage 95.24

Applications and all required submittals must be filed with the Department of Development Services prior to the established deadline. Both the applicant and property owner (if different from applicant) must sign the application. Any requests to defer or move the item to future meeting dates must be requested by the resubmittal date listed on the Planning Commission schedule.

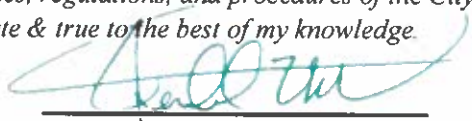
APPLICANT

All communications will go to the Applicant's email that is provided.

NAME	WES ENGINEERS & SURVEYORS	PHONE	931-388-2329
ADDRESS	2486 NASHVILLE HWY – 38401	EMAIL	GERALD@WESENGINEERS.COM

PROPERTY OWNER NAME	GH TENNESSEE, LLC	PHONE	615-981-0900
ADDRESS	4086 RURAL PLAINS CIRCLE, STE 170 FRANKLIN, TN 37026	EMAIL	ANDREWDAVIDSON@DRBGROUP.COM

If owner is not a natural person, documentation must be provided showing signing authority on behalf of the entity. If multiple persons are listed as owners in the records of the Maury County Assessor, all owners must sign or the signatory must provide documentation of authority to apply on behalf of record owner (i.e., Power of Attorney or notarized Letter of Authorization). In filling out this application, I attest that (1) I am familiar with the rules, regulations, and procedures of the City of Columbia & (2) all information contained herein is accurate & true to the best of my knowledge.

WES ENGINEERS & SURVEYORS APPLICANT NAME	 APPLICANT SIGNATURE	6/15/26 DATE
DRB Group Tennessee, LLC PROPERTY OWNER NAME	 PROPERTY OWNER SIGNATURE	6/15/26 DATE

McClure Farms

DRB Homes – Pattern Book

Submitted: 11-26-2025

Plans:

- **Lassiter (SF) -** #1, 2, 3, 4, 5, 7, 8, 9
- **Greenwich (SF) -** #1, 2, 3, 4, 5, 6
- **Chelsea (SF) -** #1, 2, 3, 4, 5, 6
- **Avondale (SF) -** #1, 2, 3, 4, 5, 6
- **Pelham (SF) -** #1, 2, 3, 4, 5, 6, 9
- **Wynwood (SF) -** #1, 2, 3, 4, 7, 9
- **Lavender (SF) -** #1, 2, 3, 4, 5, 6
- **Wagener (SF) -** #1, 2, 3, 4, 5, 6, 7, 8, 9
- **Luca (TH) -** #2, 3, 4, 5
- **Braden (TH) -** #2, 3
- **Allister (TH) -** #1, 2, 3

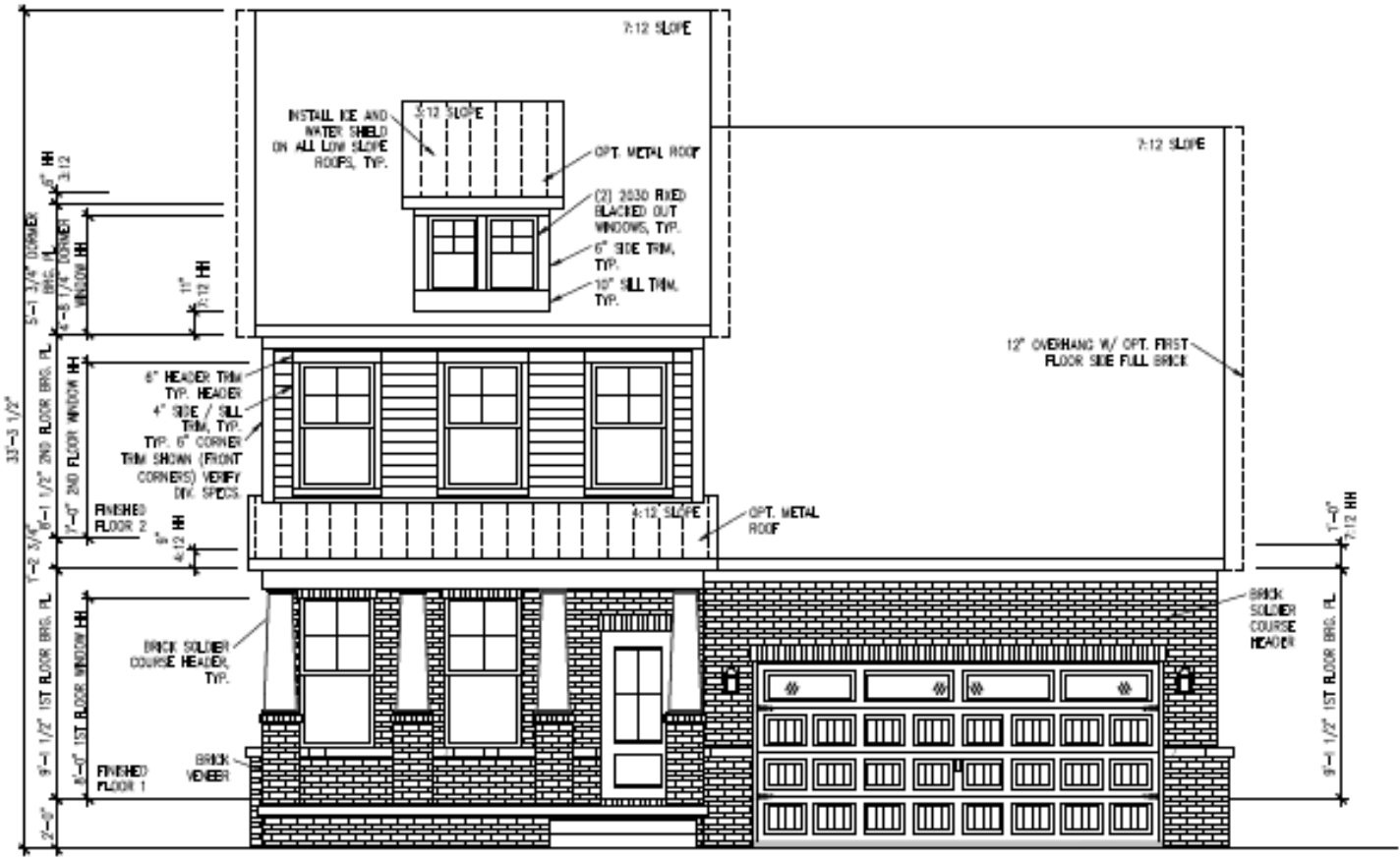
Standard Lot Spec Example

As Shown Options:

- Brick or stone facade
- Brick or stone columns
- ¾ lite front door
- Garage door windows and decorative hardware
- Metal roof (porch & dormer)
- 4/1 window grids
- Roof overhang

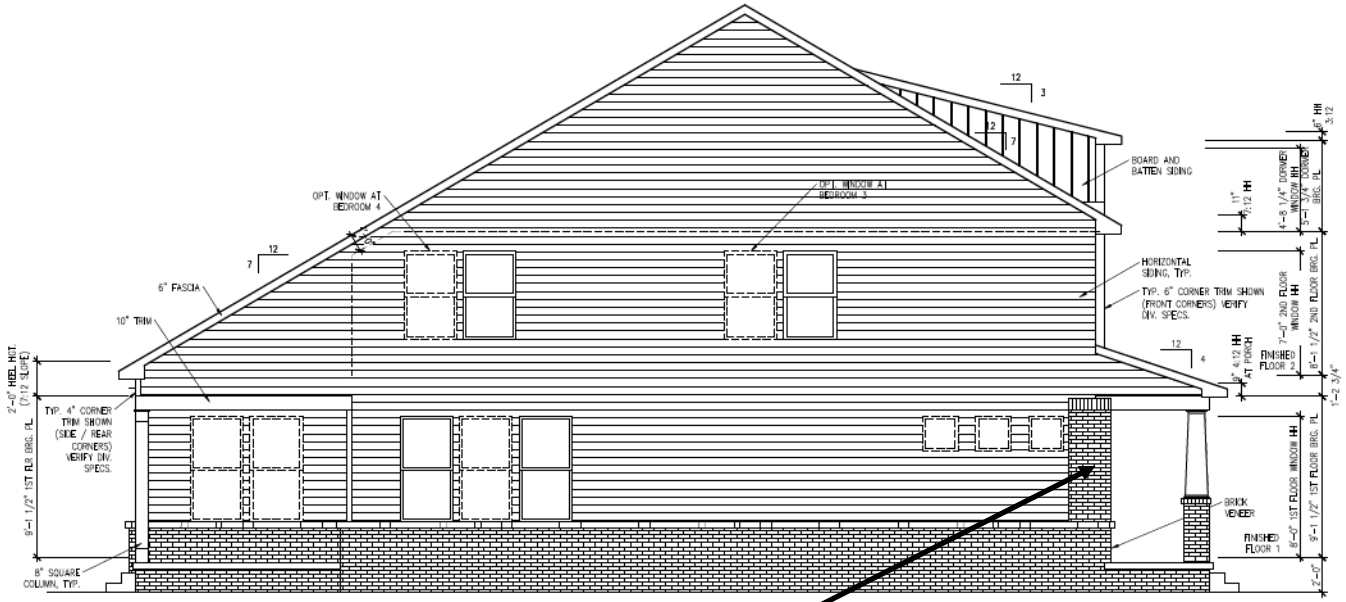
Additional Options:

- Extra bedroom
- 2nd floor balcony
- Front & rear patios
- Exterior fireplace
- Roof gables and dormers
- Siding materials (brick, stone, shake, cladding)

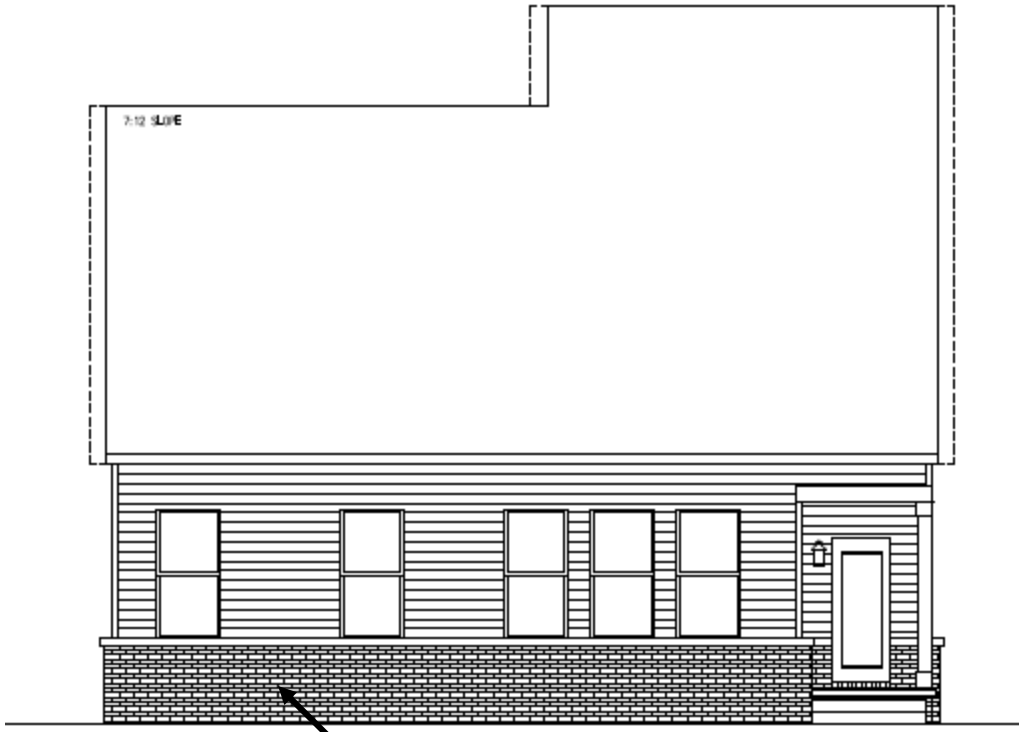


Options shown in this example are solely a representation of a To-be-built spec home. (Not included in every home)

Standard Lot Spec Example



2 Foot Masonry Returns



Masonry Water Table

Exterior Decoration Options

Note: Examples represent upgraded options (not included in every home)



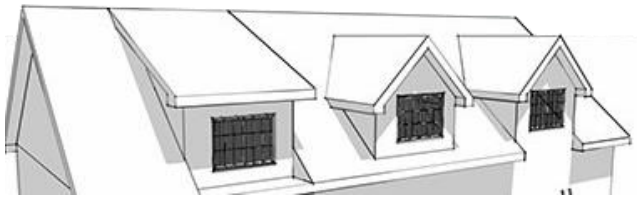
Lighting Options



Metal Roof Option



Roof Gable Option



Roof Dormer Options



Front Door Options

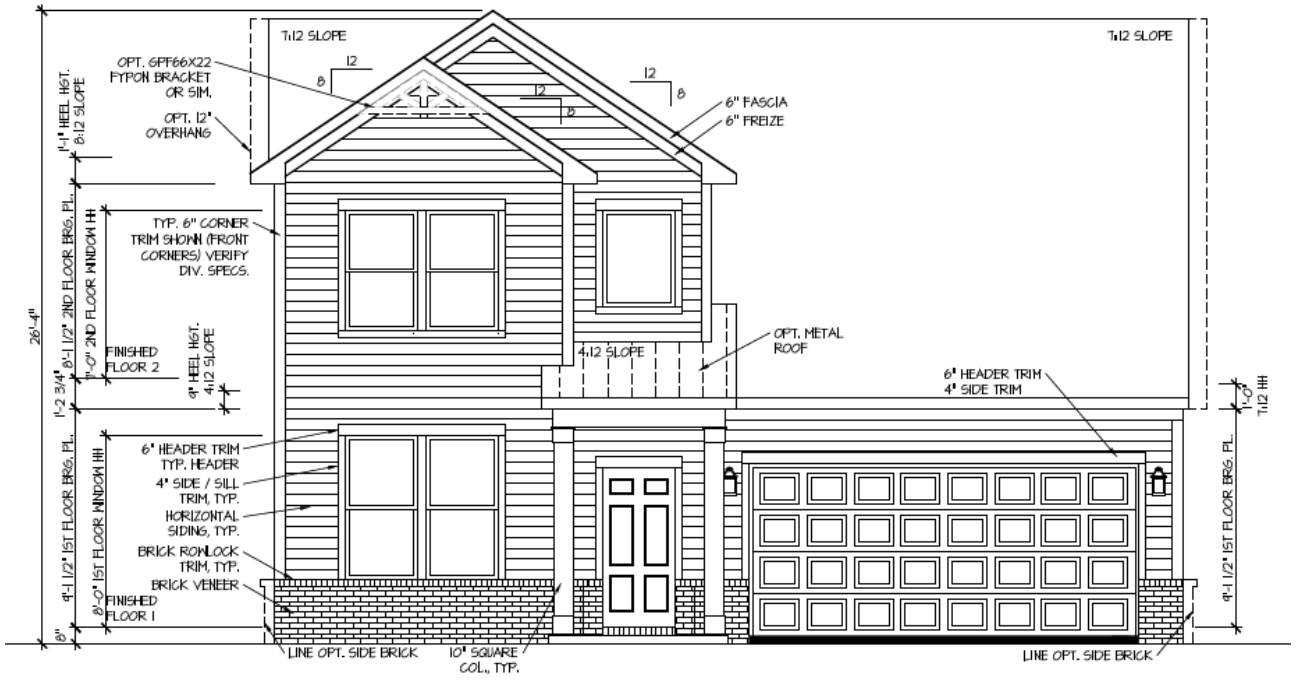


Window Grid Option

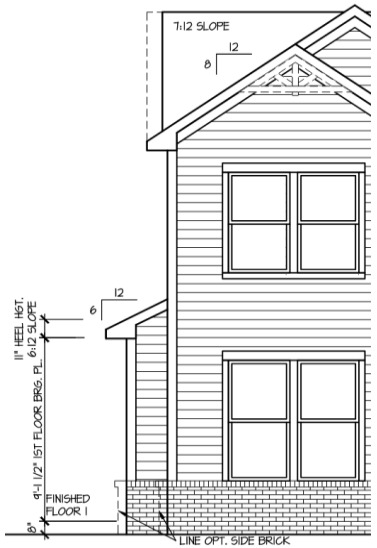


Column Options

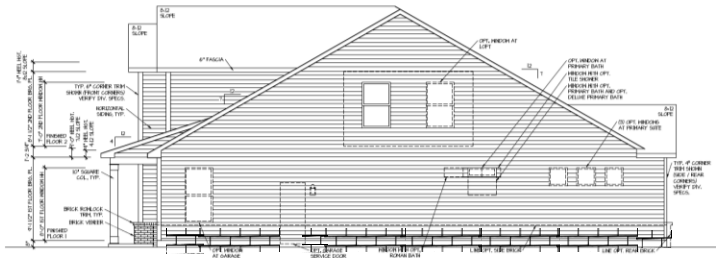
Lassiter (SF) - Elevation #1



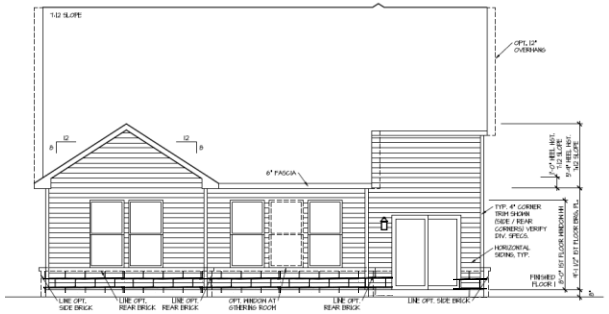
Front Elevation #1



(Optional) Side Bay

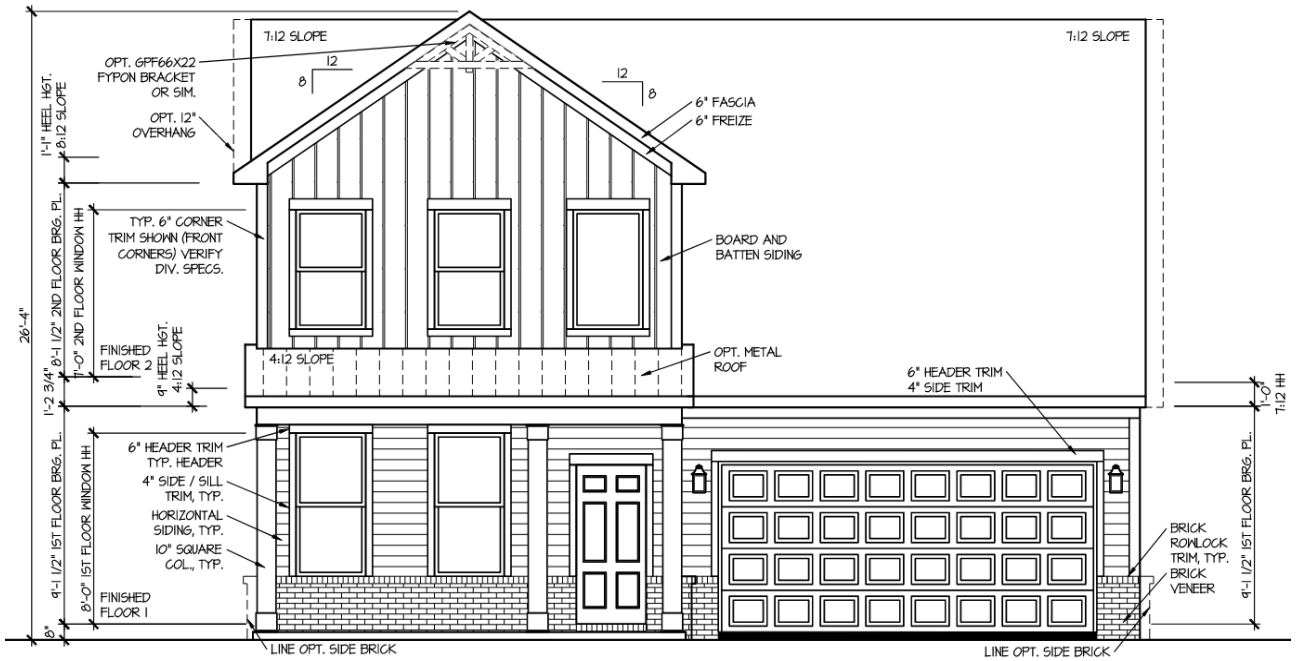


Side Elevation

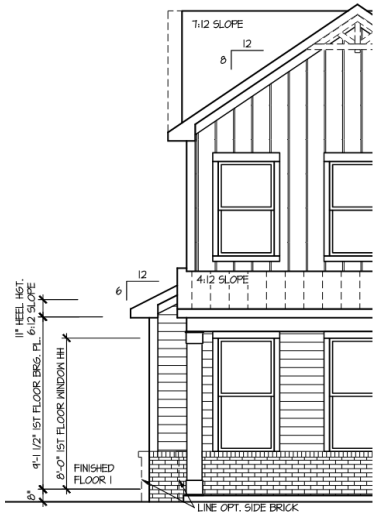


Rear Elevation

Lassiter (SF) - Elevation #2



Front Elevation #2



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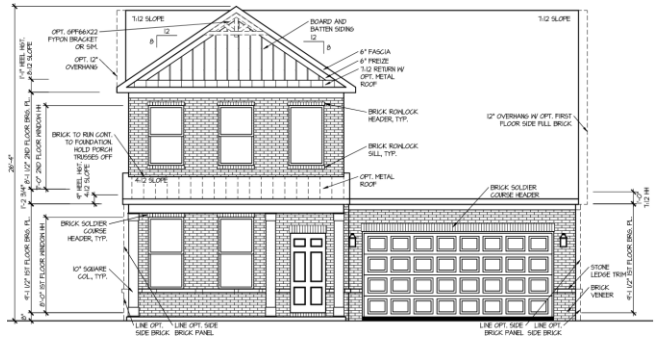
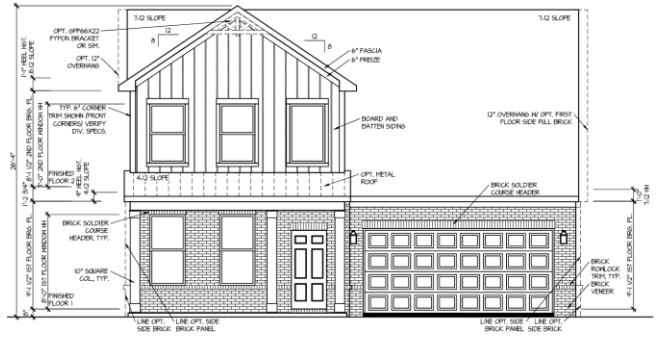
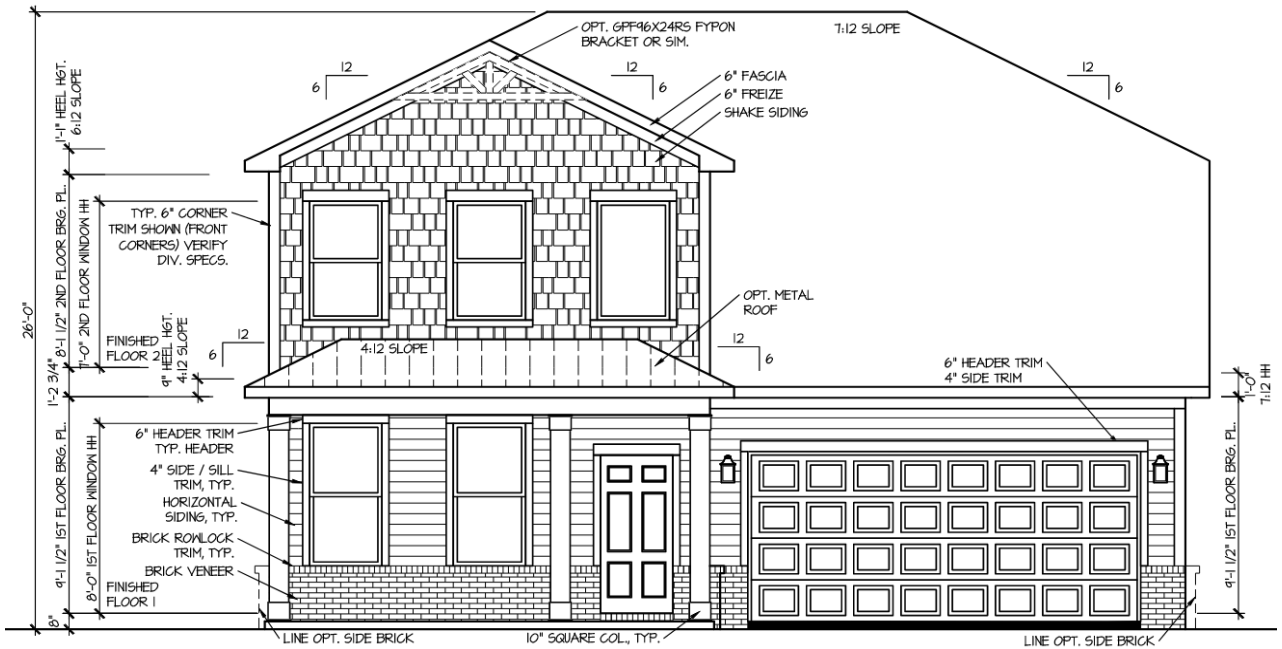


(Optional) Mixed Brick / Stone

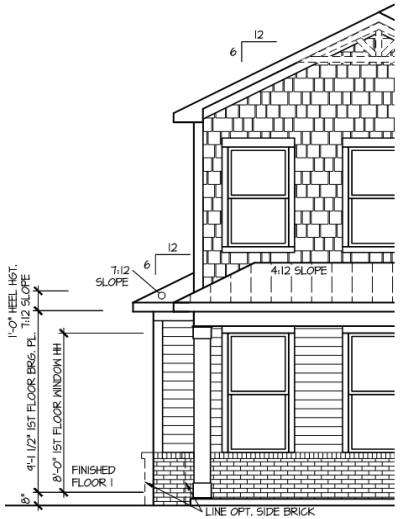


(Optional) First Floor Brick

Lassiter (SF) - Elevation #3



Front Elevation #3



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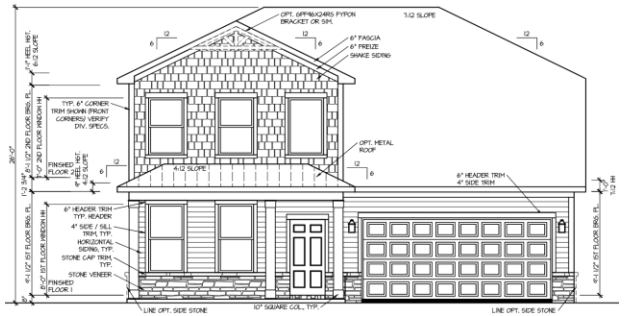

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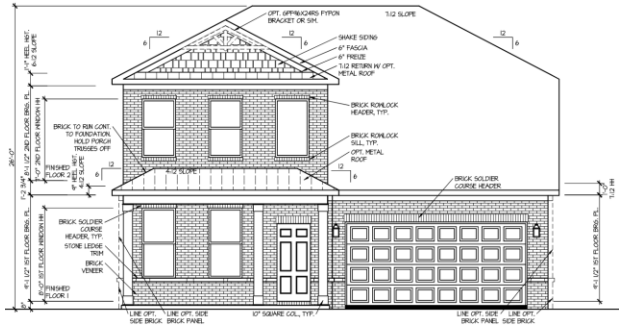

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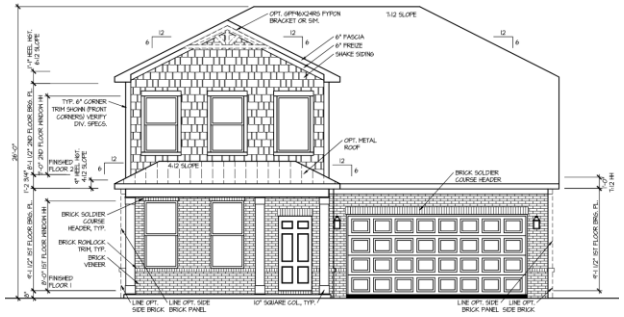
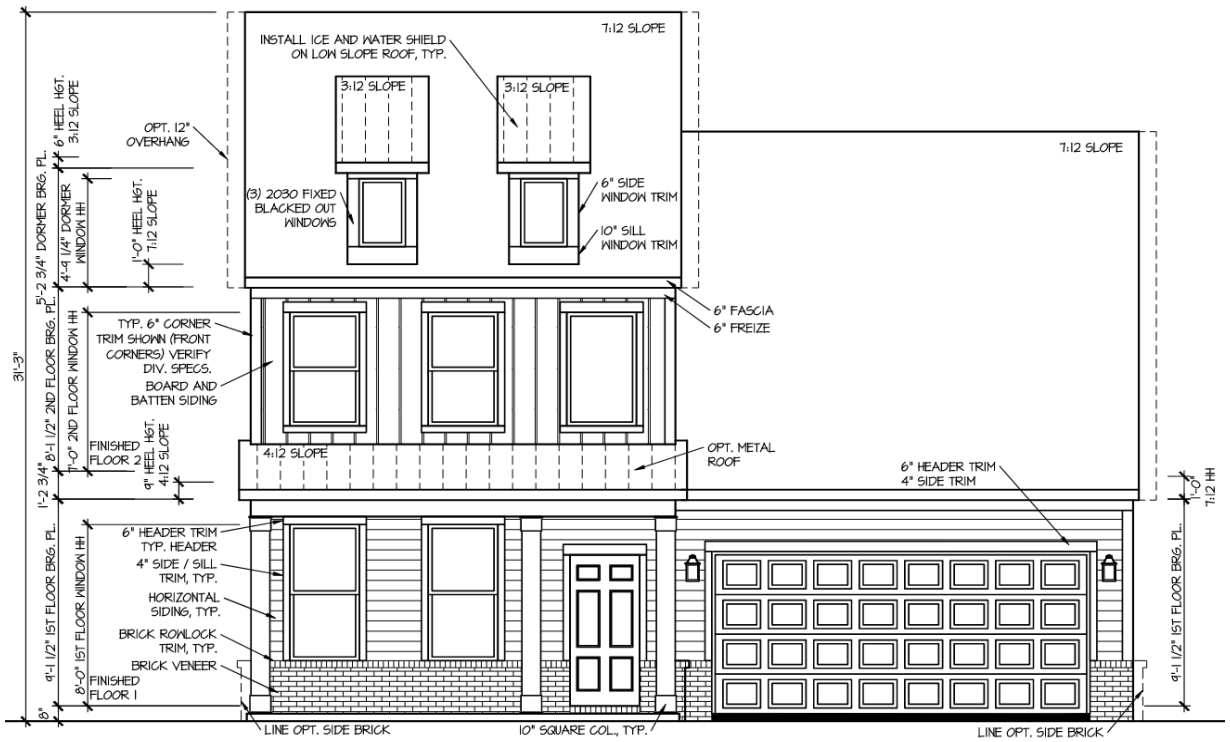
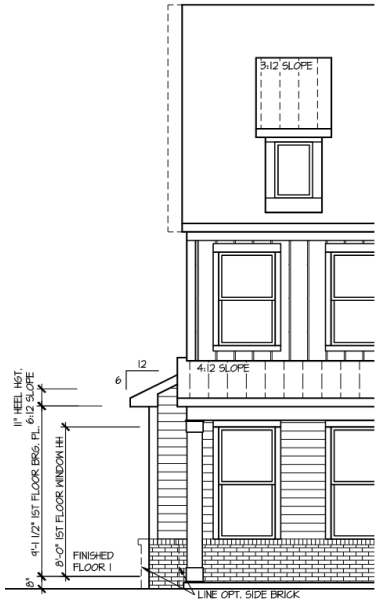


(Optional) First Floor Brick

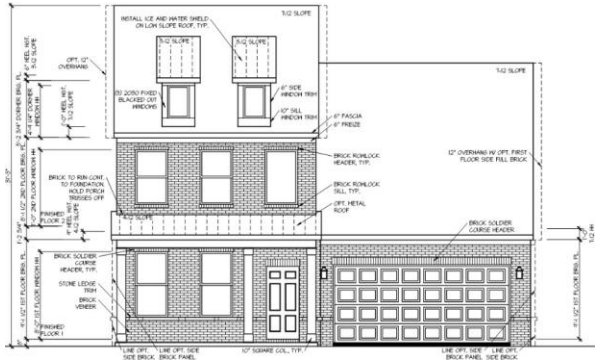
Lassiter (SF) - Elevation #4



Front Elevation #4



(Optional) Side Bay



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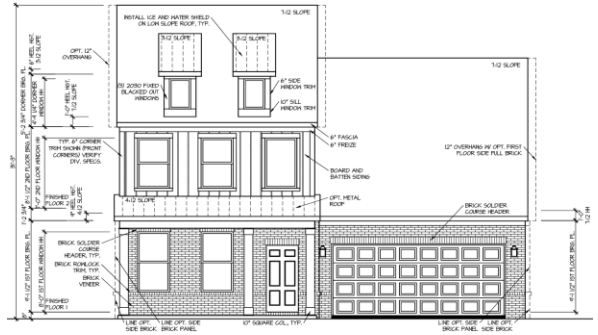
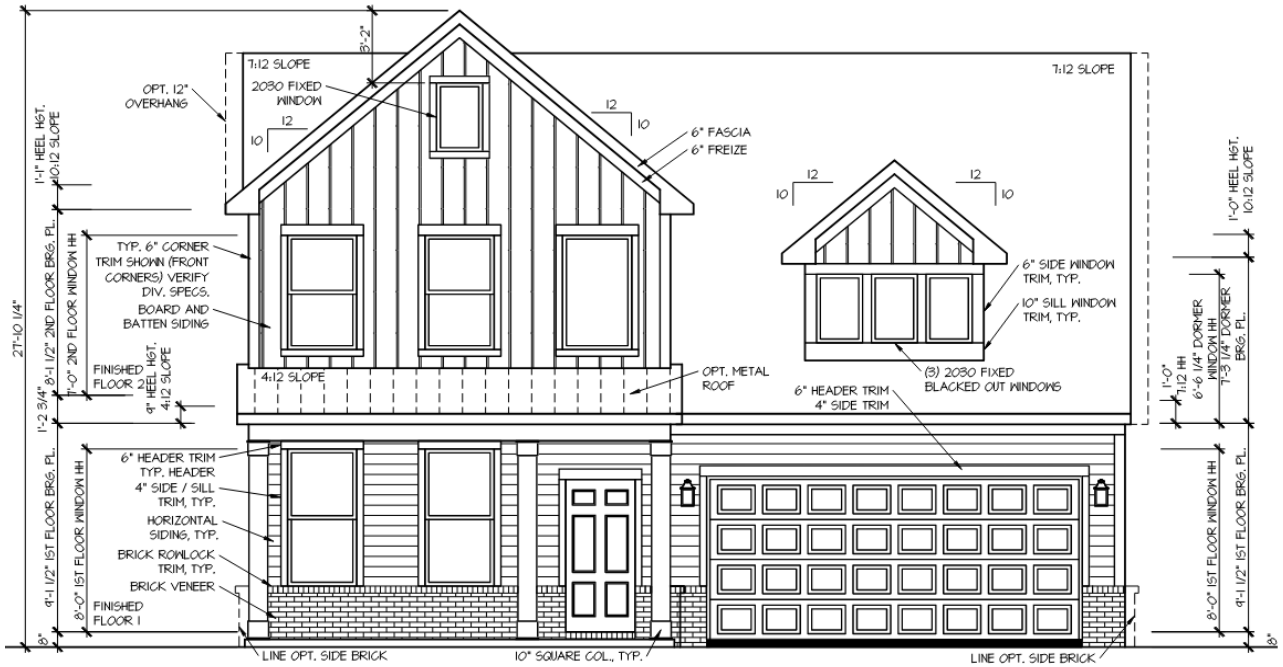
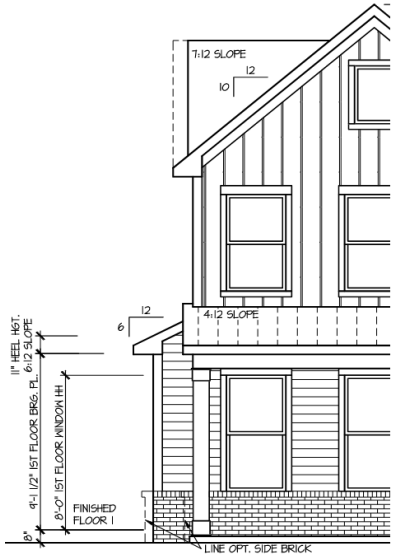


(Optional) First Floor Brick

Lassiter (SF) - Elevation #5



Front Elevation #5



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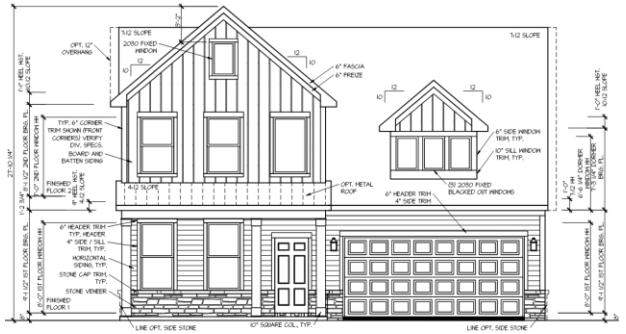
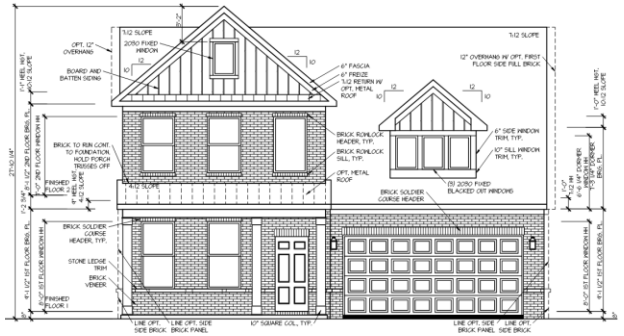


(Optional) Stone Water Table



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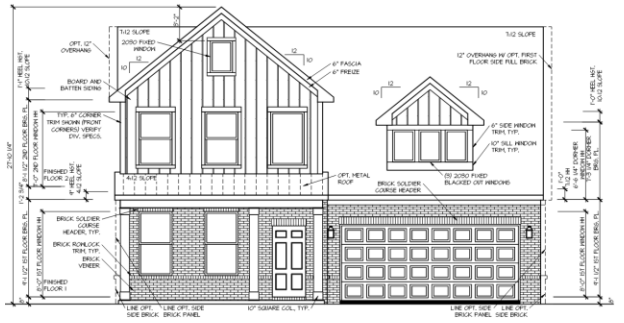
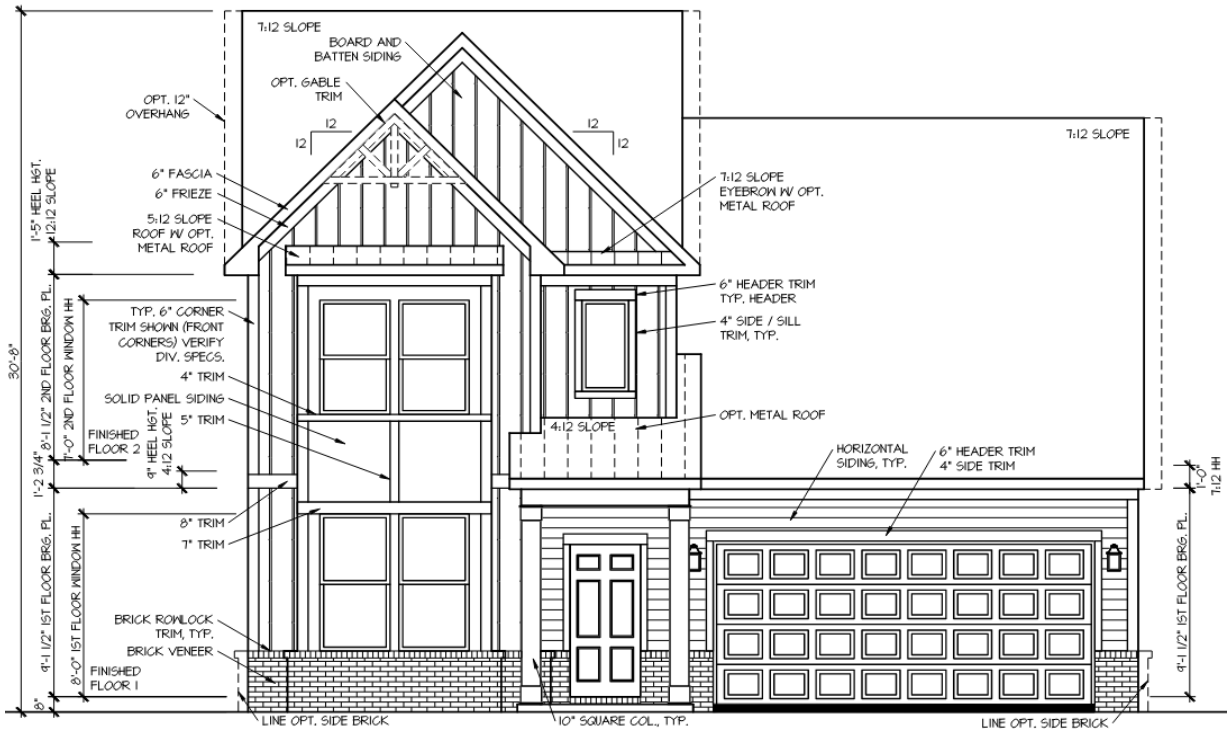
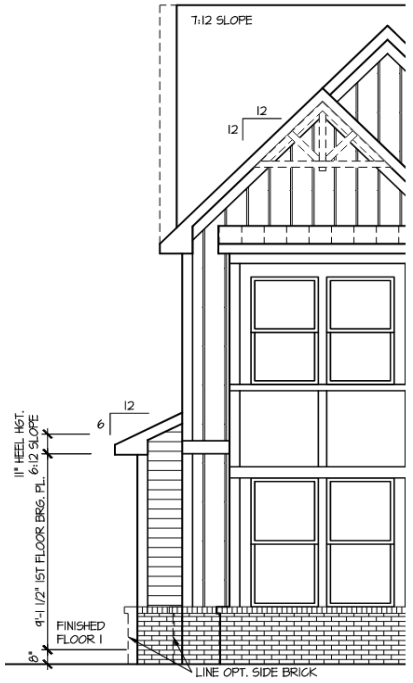


(Optional) First Floor Brick

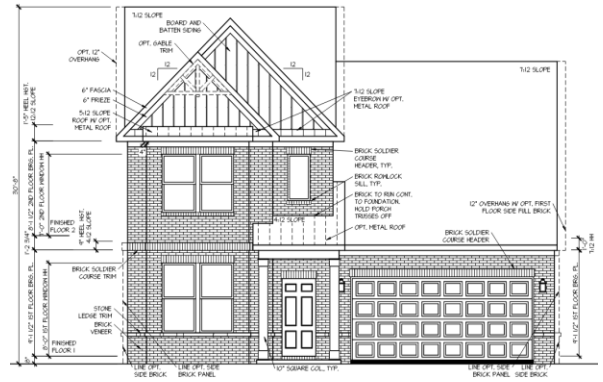
Lassiter (SF) - Elevation #7



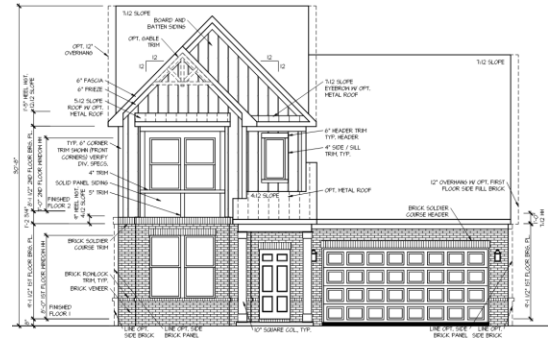
Front Elevation #7



(Optional) Side Bay

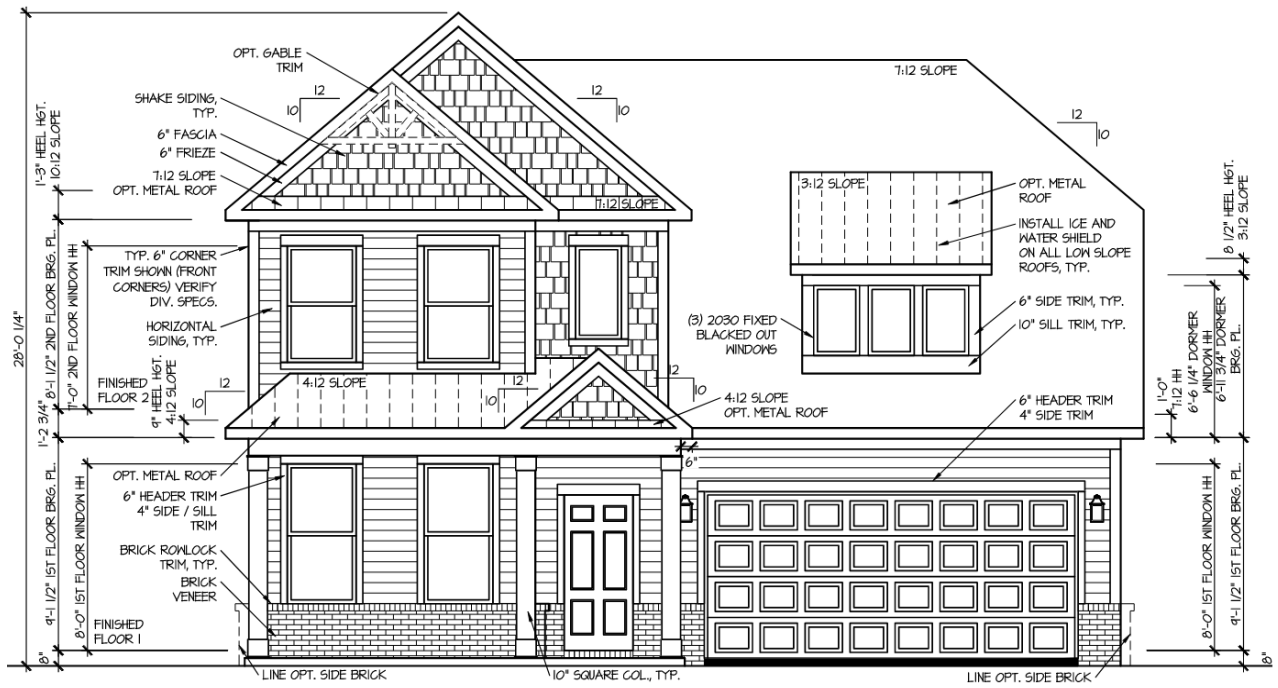


(Optional) Mixed Brick / Stone

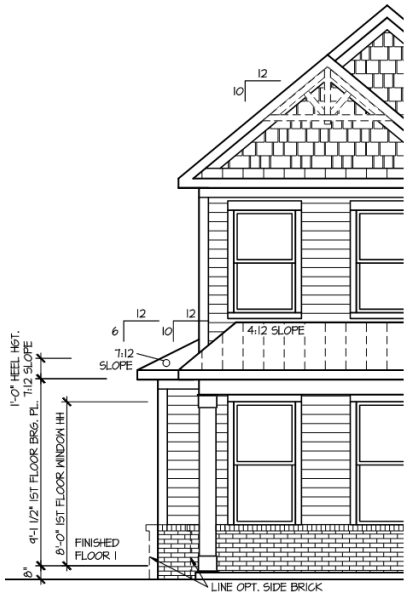


(Optional) First Floor Brick

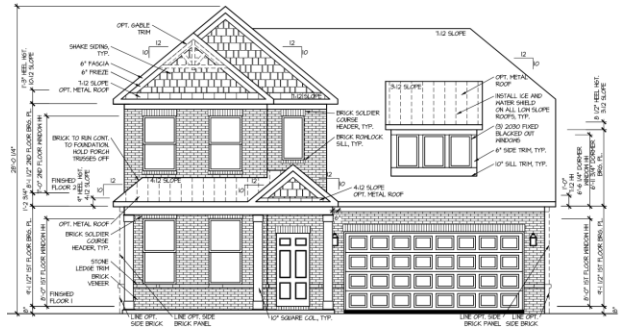
Lassiter (SF) - Elevation #8



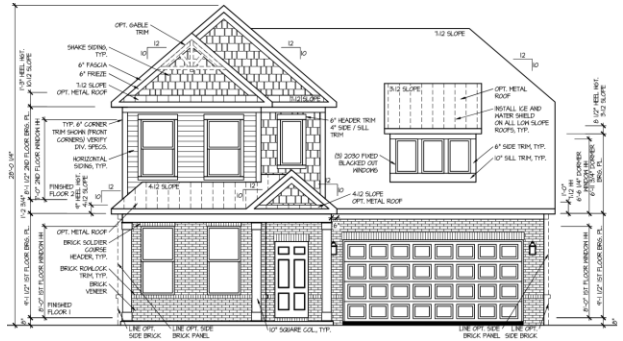
Front Elevation #8



(Optional) Side Bay

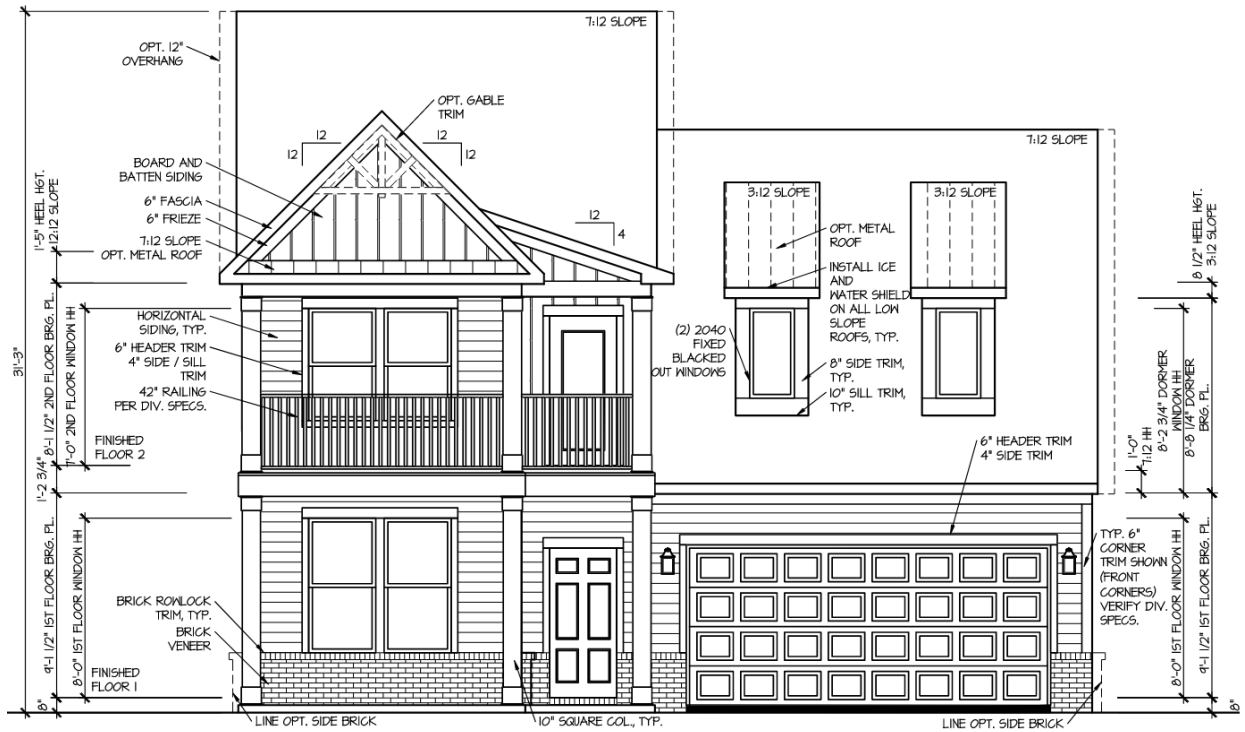


(Optional) Mixed Brick / Stone

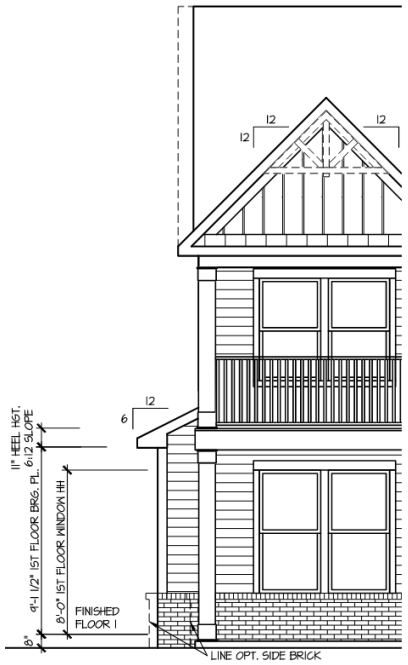


(Optional) First Floor Brick

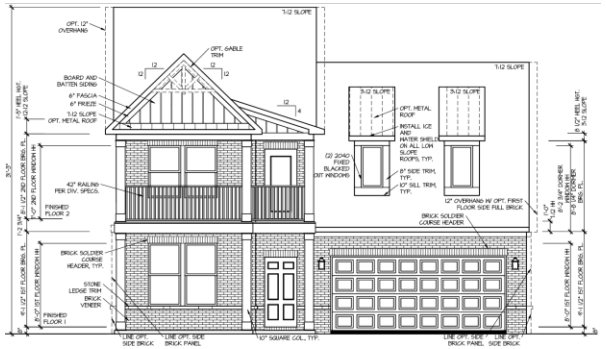
Lassiter (SF) - Elevation #9



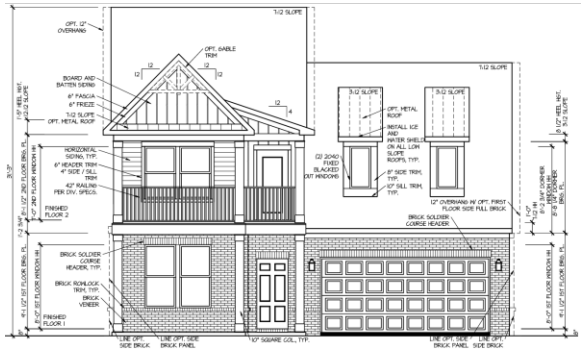
Front Elevation #9



(Optional) Side Bay



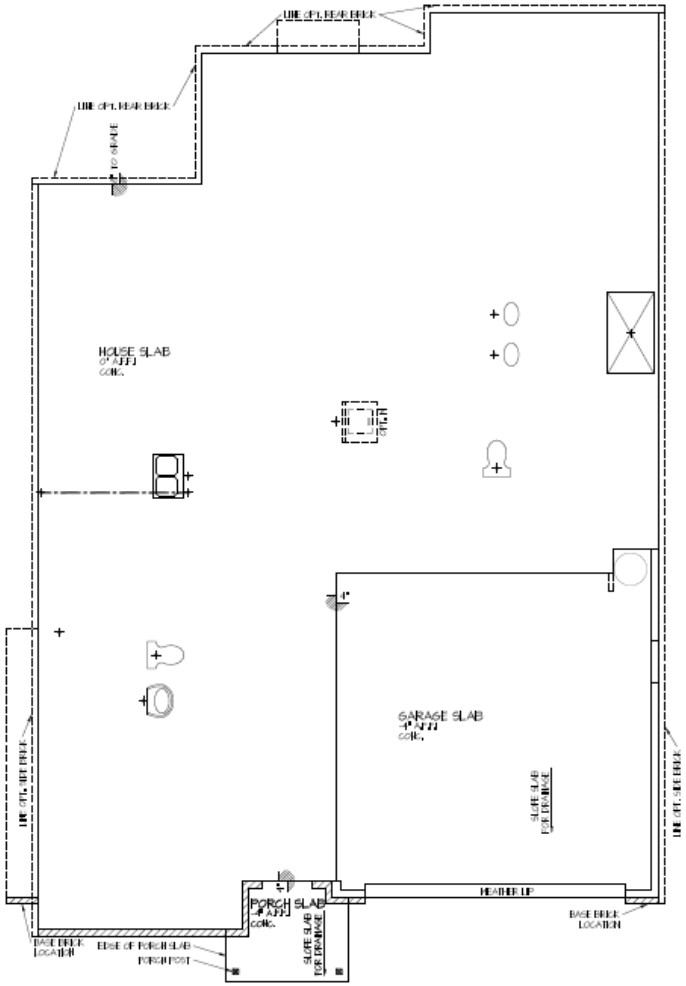
(Optional) Mixed Brick / Stone



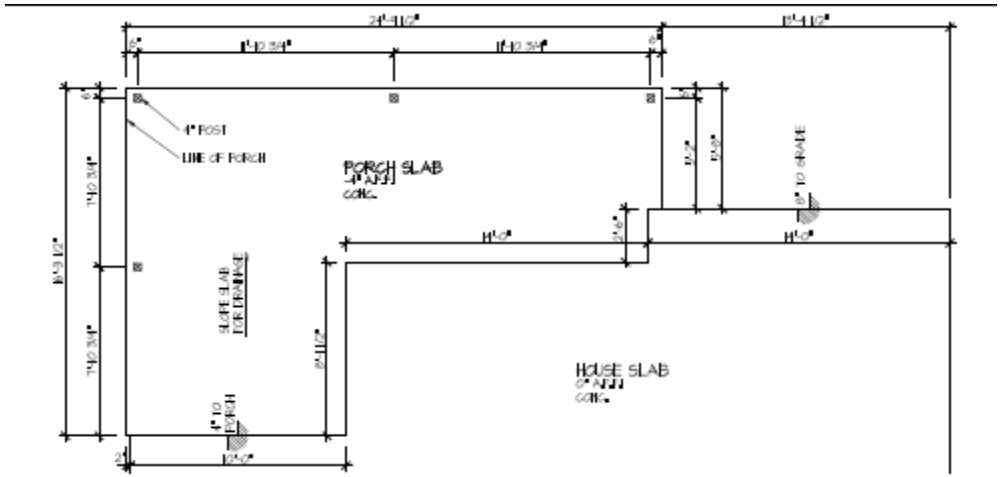
(Optional) First Floor Brick

Lassiter (SF) - Options

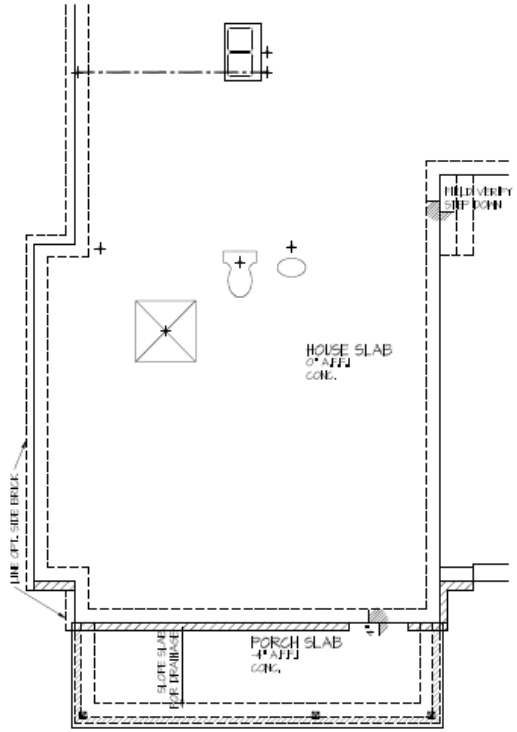
Note: Foundation Plan changes based on elevation and structural options.



Foundation

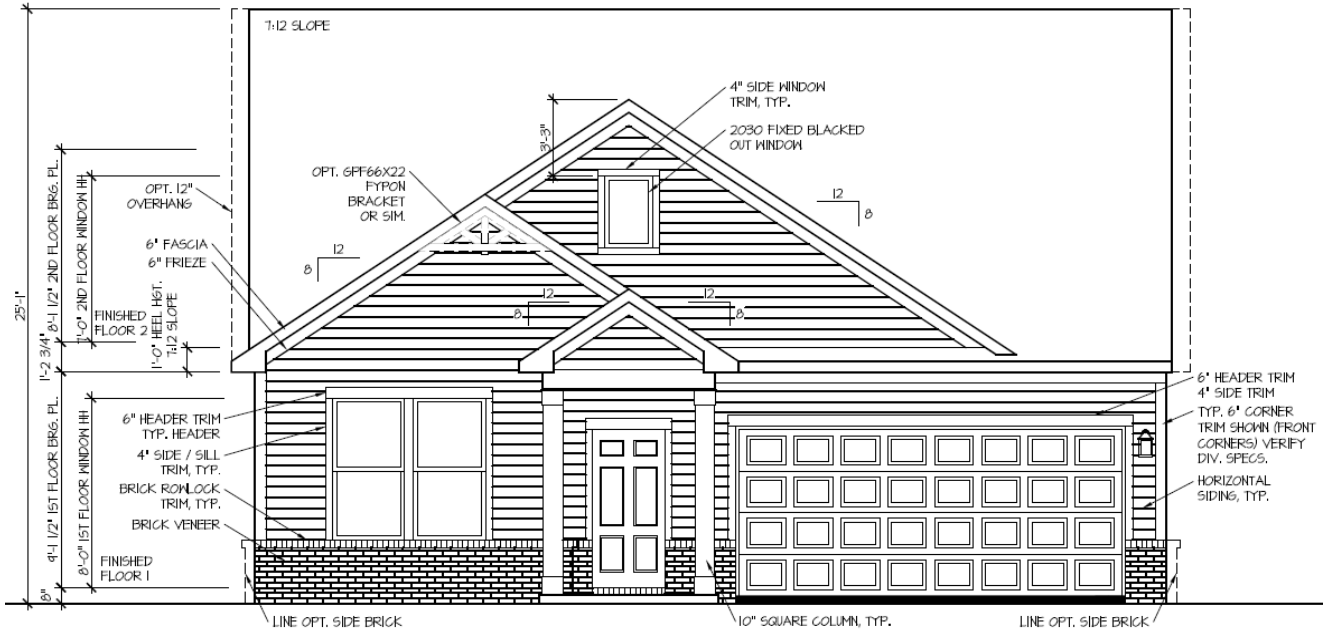


(Optional) Large Rear Porch

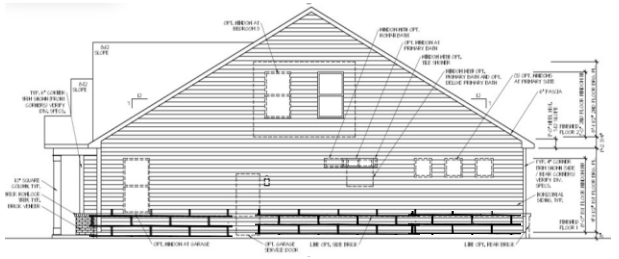


(Optional) 5 Bed / 4 Bath

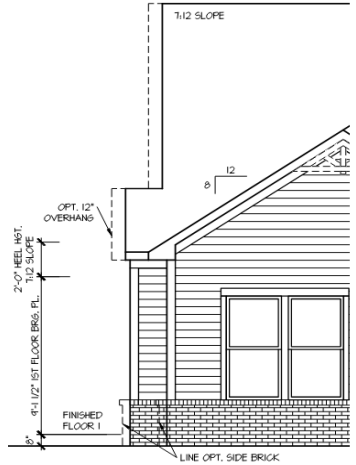
Greenwich (SF) - Elevation #1



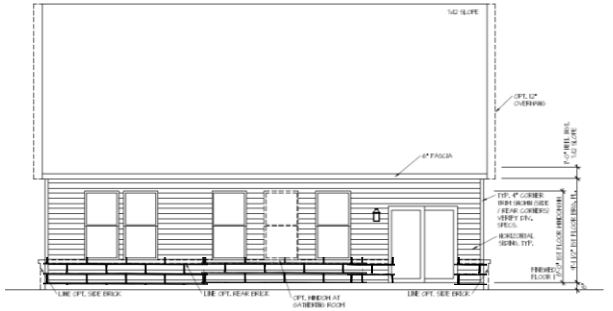
Front Elevation #1



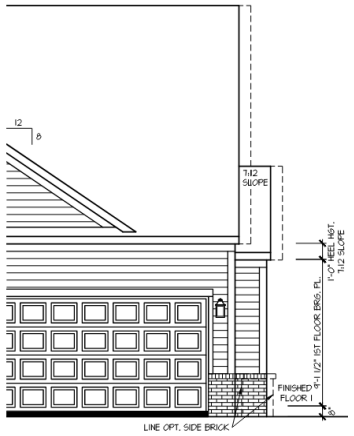
Side Elevation



(Optional) Side Bay

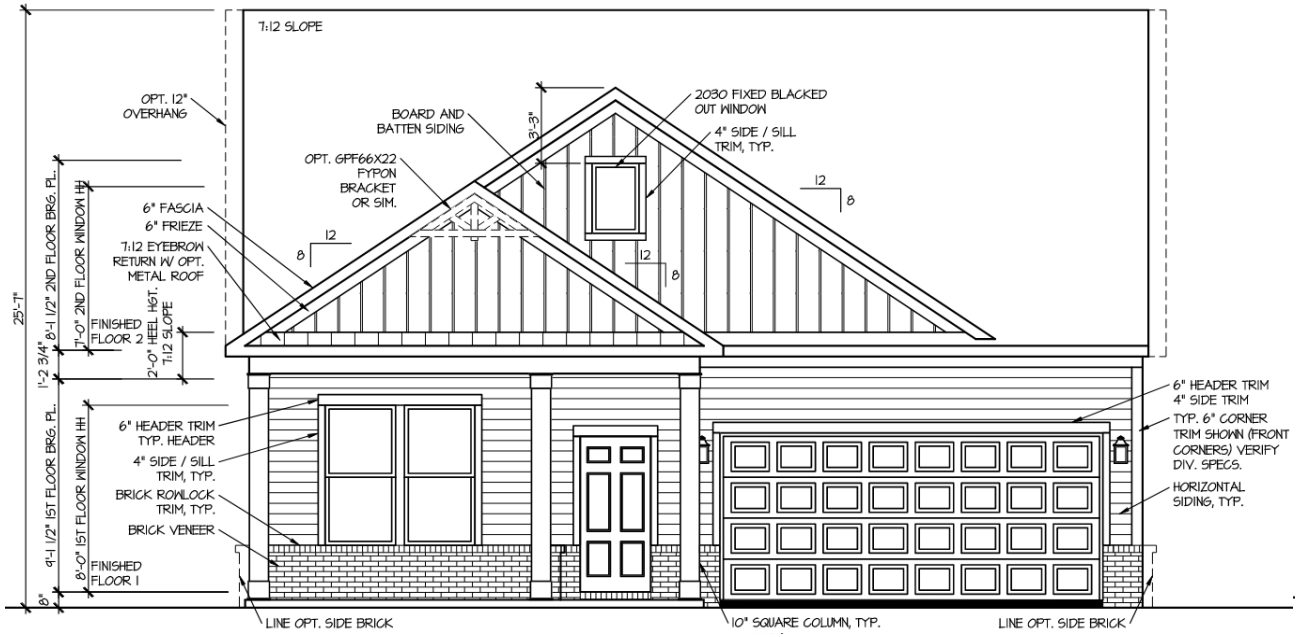


Rear Elevation

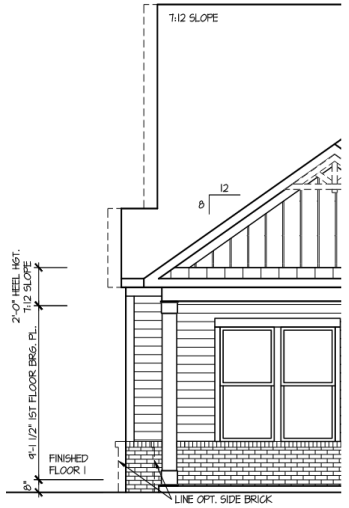


(Optional) Primary Suite Bay

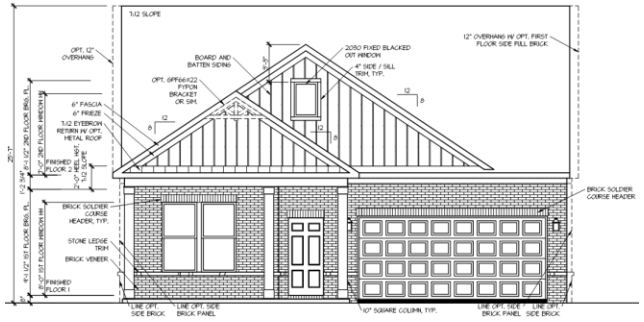
Greenwich (SF) - Elevation #2



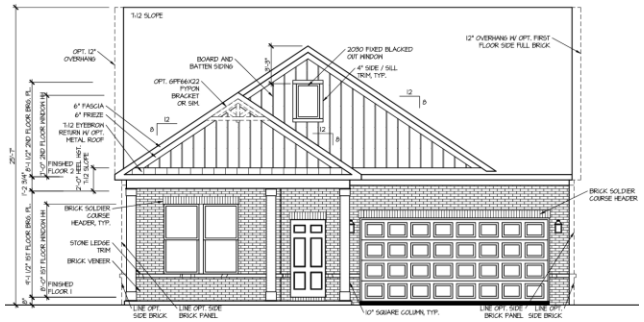
Front Elevation #2



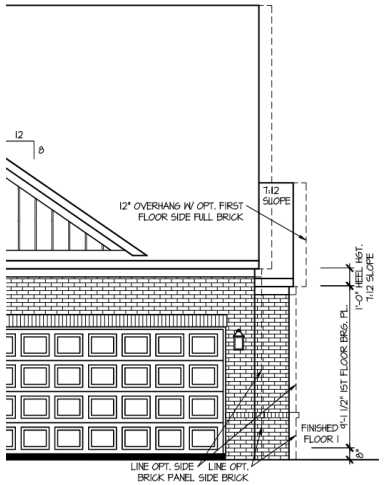
(Optional) Side Bay



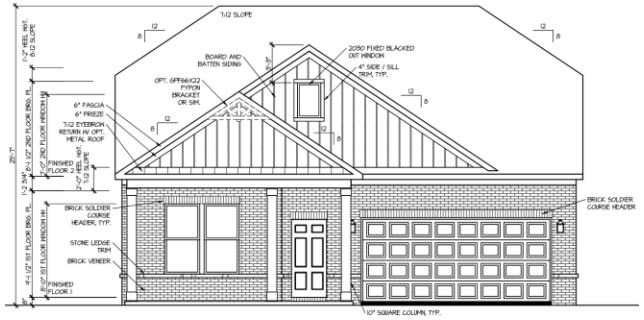
(Optional) Mixed Brick / Stone



(Optional) First Floor Brick

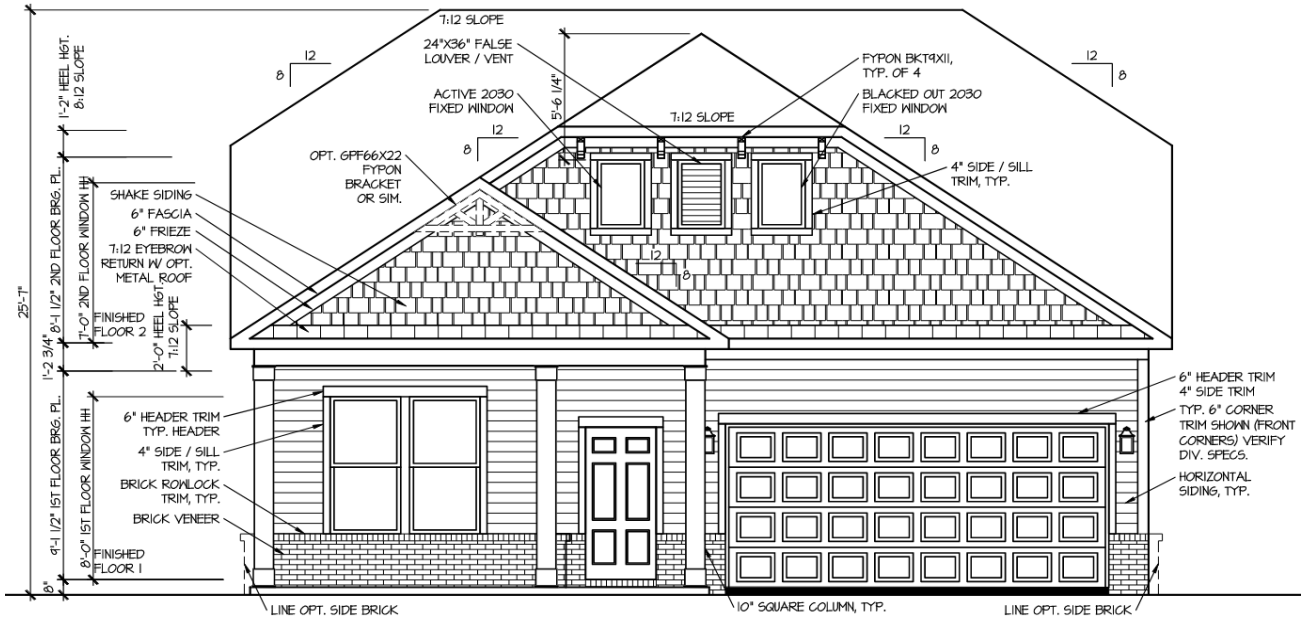


(Optional) Primary Suite Bay

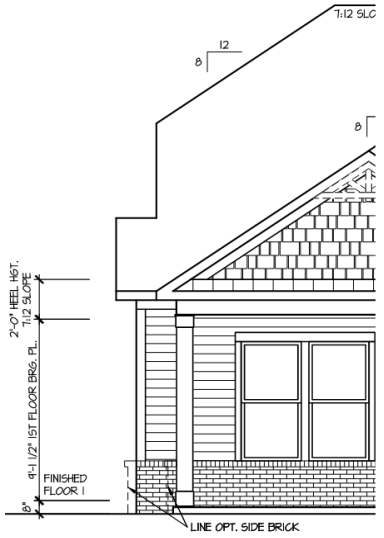


(Optional) Second Floor

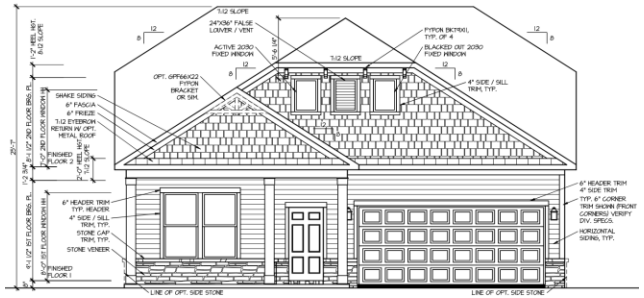
Greenwich (SF) - Elevation #3



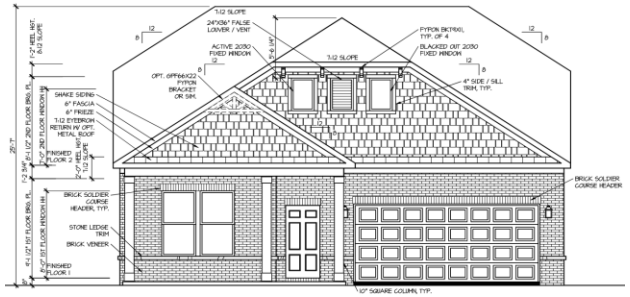
Front Elevation #3



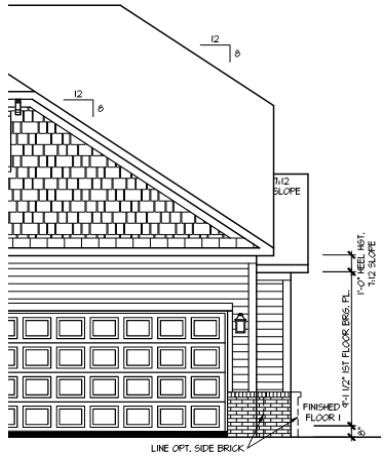
(Optional) Side Bay



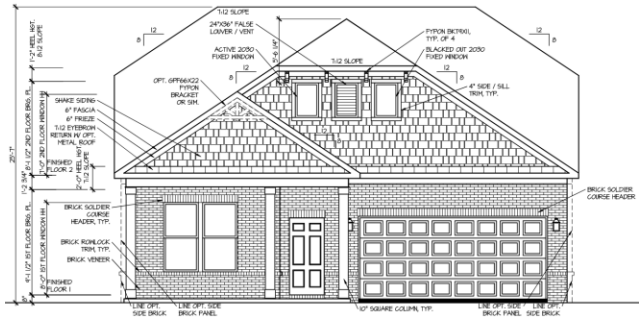
(Optional) Stone Water Table



(Optional) Mixed Brick / Stone

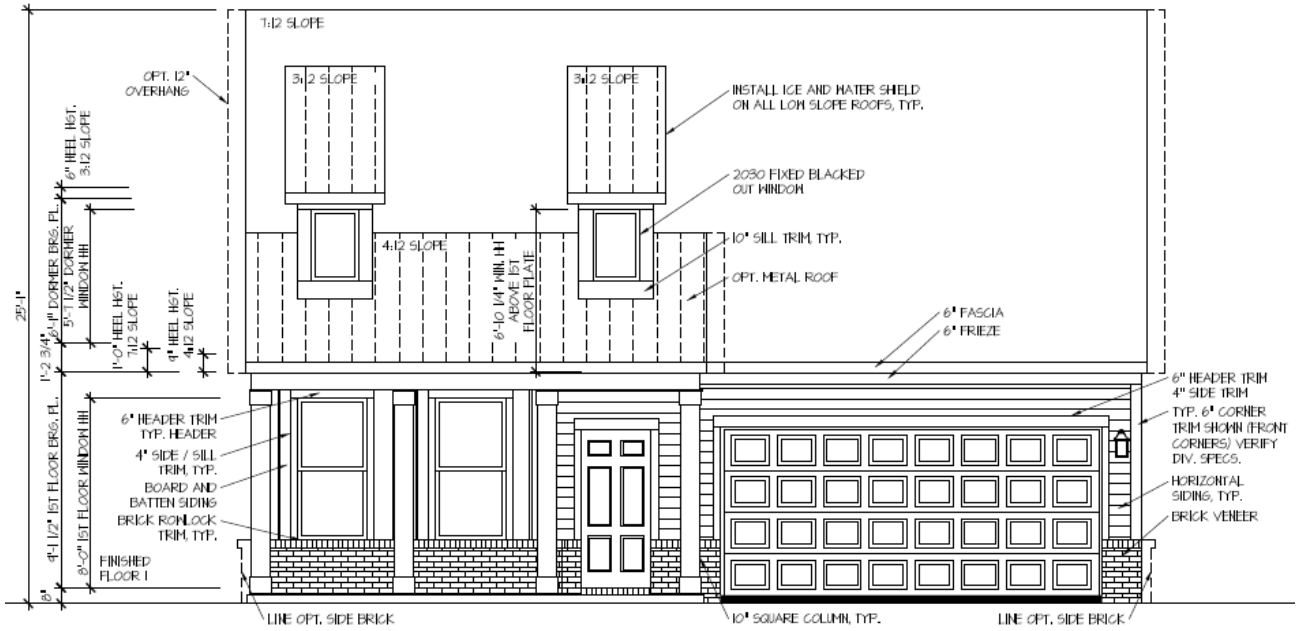


(Optional) Primary Suite Bay

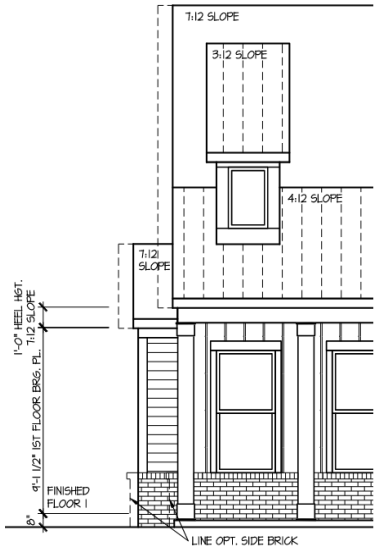


(Optional) First Floor Brick

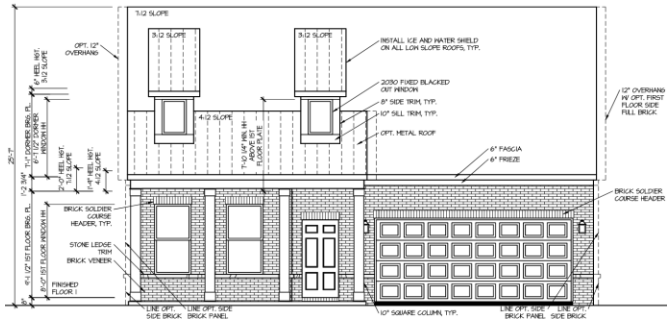
Greenwich (SF) - Elevation #4



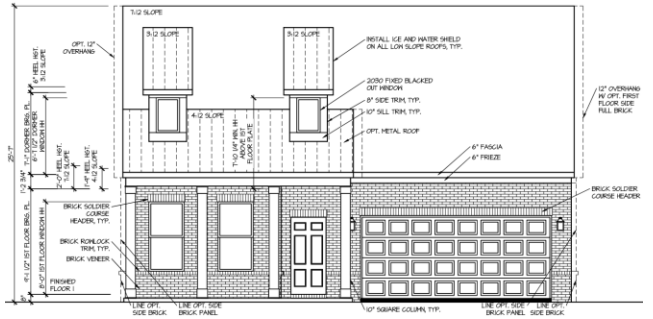
Front Elevation #4



(Optional) Side Bay

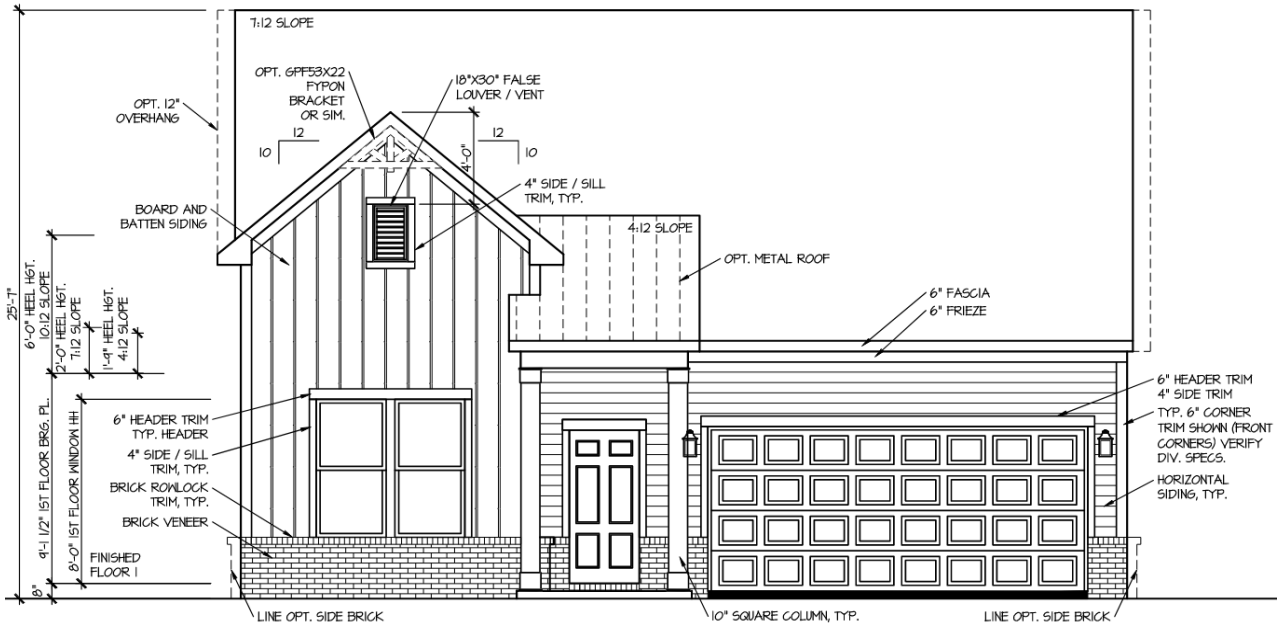


(Optional) Mixed Brick / Stone

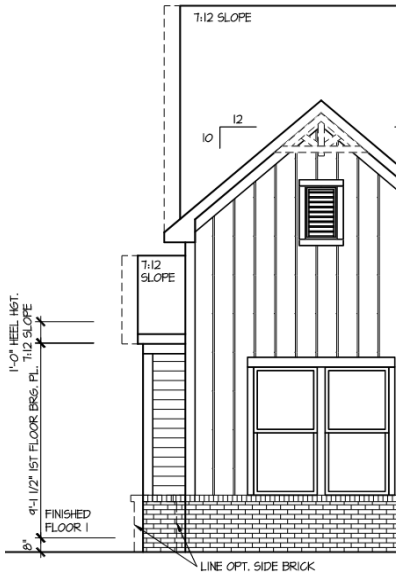


(Optional) First Floor Brick

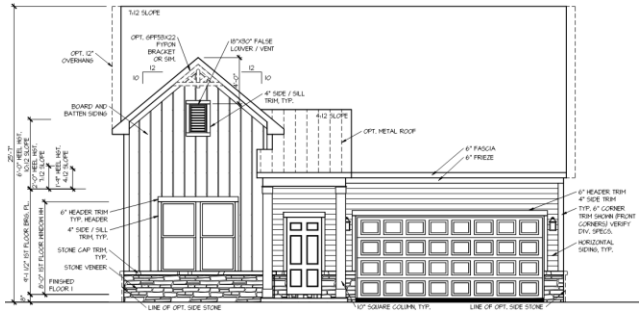
Greenwich (SF) - Elevation #5



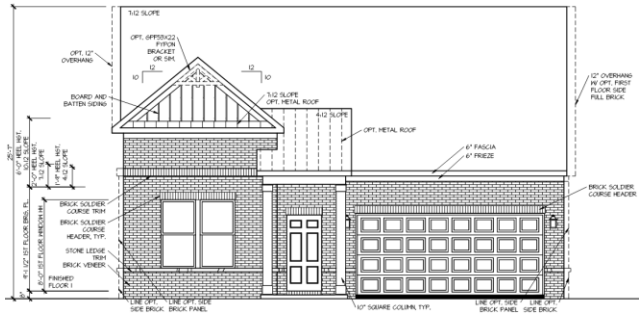
Front Elevation #5



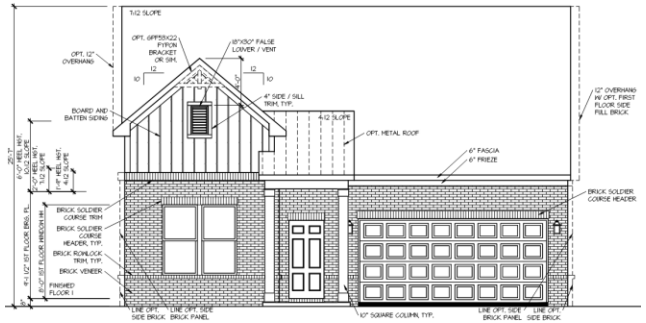
(Optional) Side Bay



(Optional) Stone Water Table

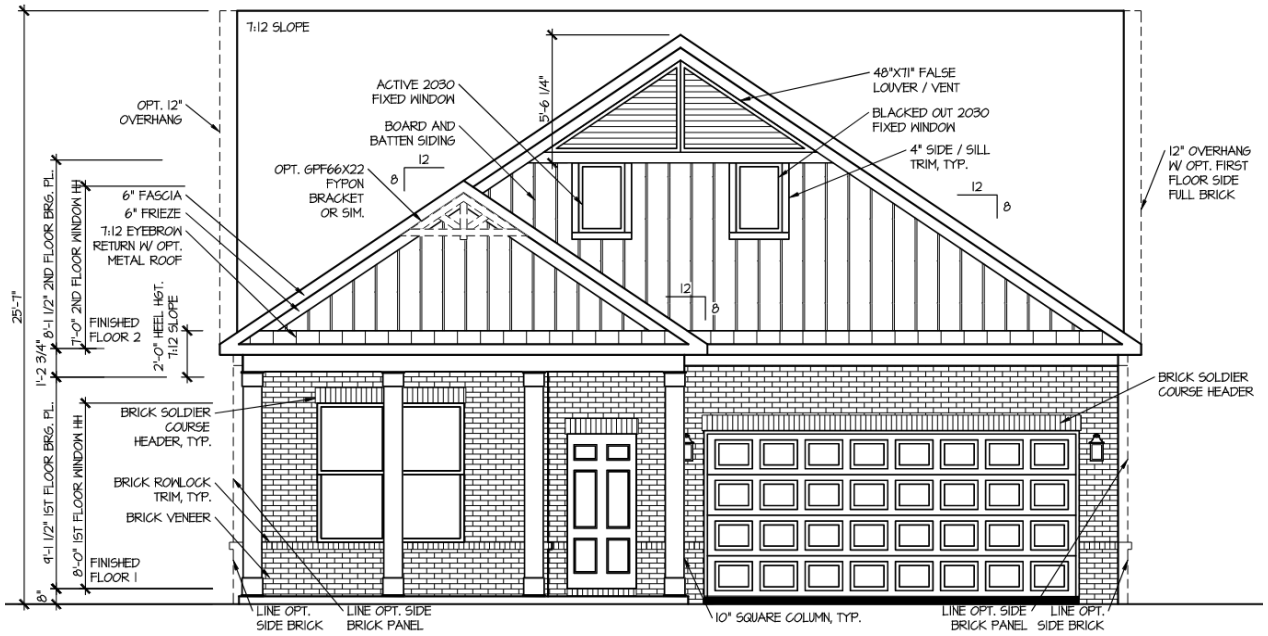


(Optional) Mixed Brick / Stone

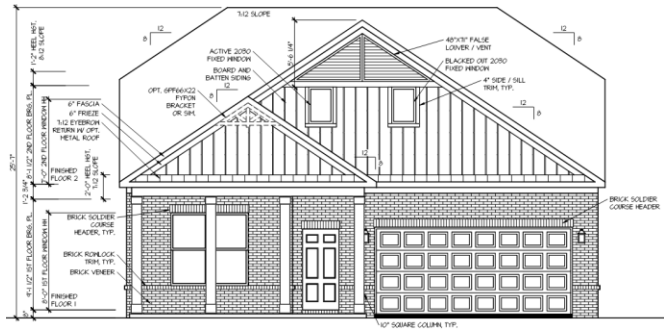


(Optional) First Floor Brick

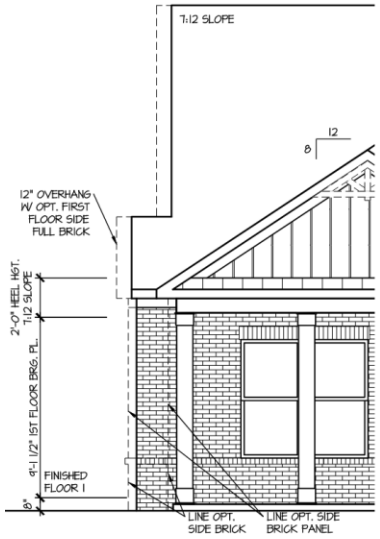
Greenwich (SF) - Elevation #6



Front Elevation #6



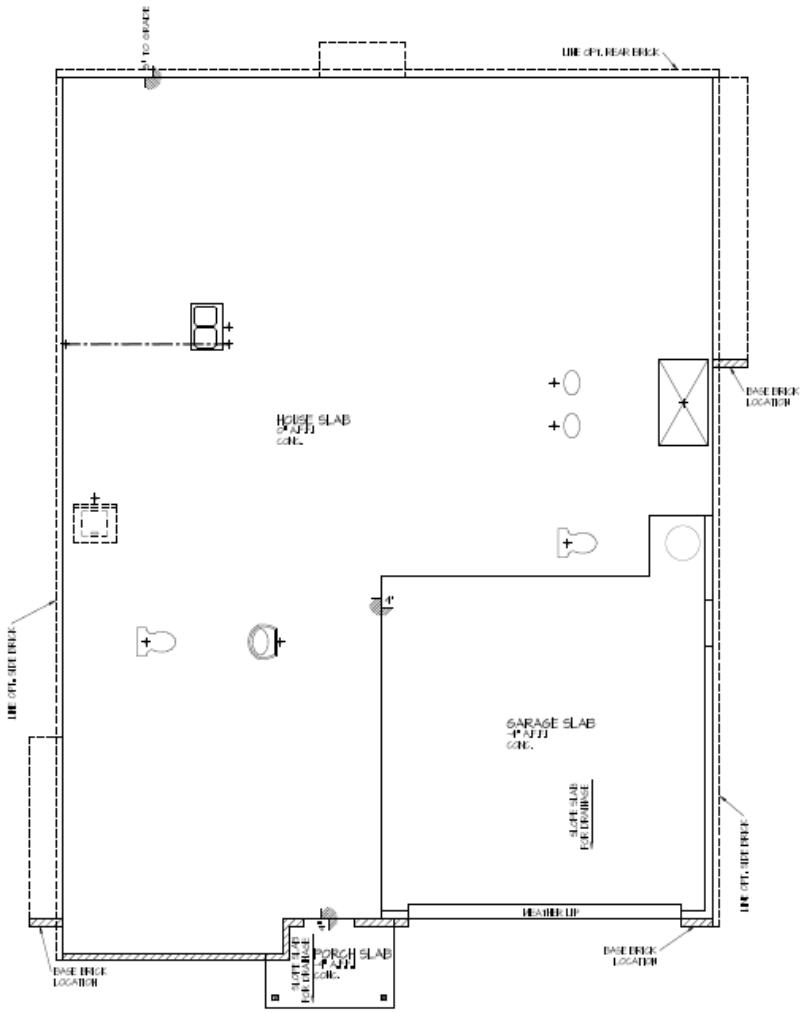
(Optional) Second Floor



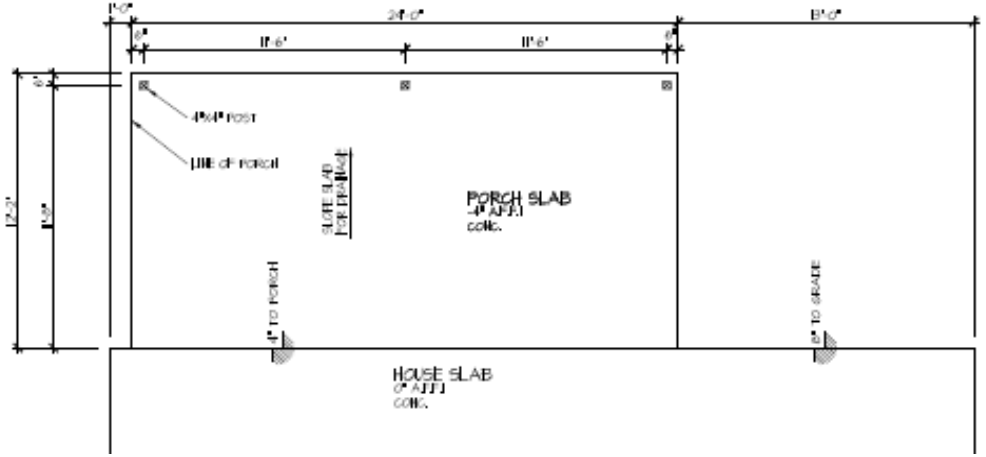
(Optional) Side Bay

Greenwich (SF) - Options

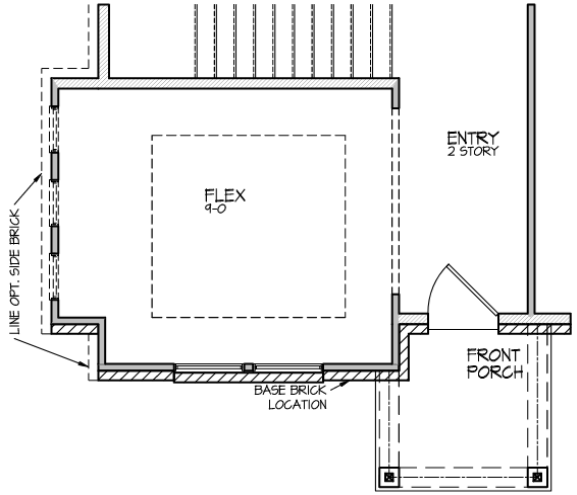
Note: Foundation Plan changes based on elevation and structural options.



Foundation

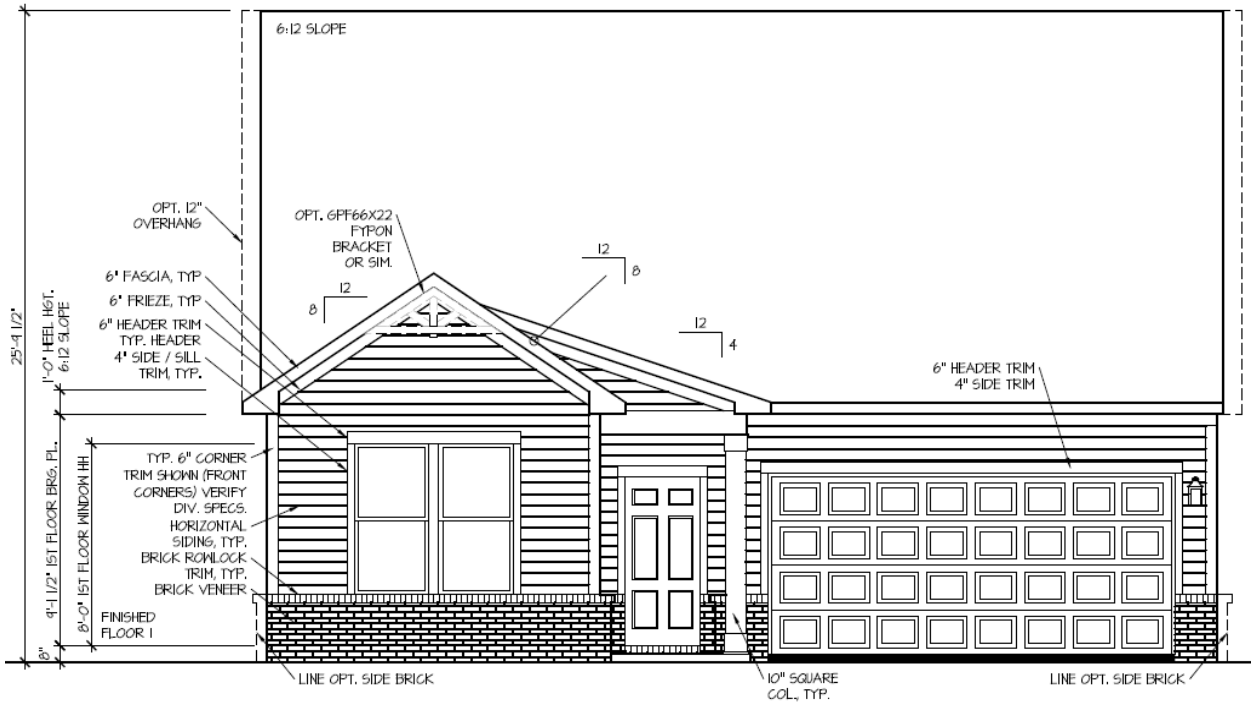


(Optional) Large Rear Porch

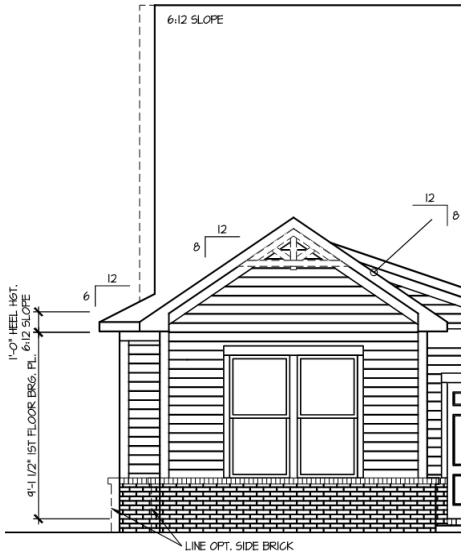


(Optional) Side Bay

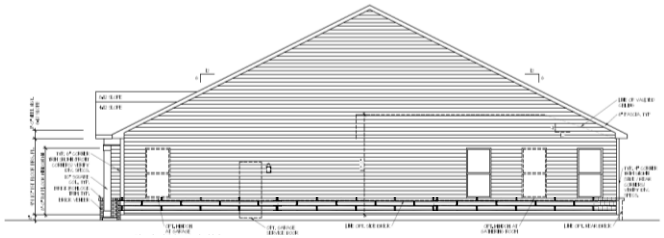
Chelsea (SF) - Elevation #1



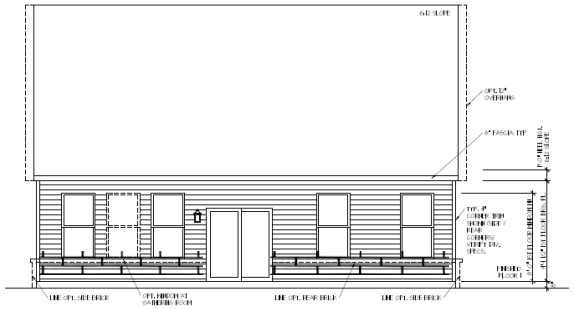
Front Elevation #1



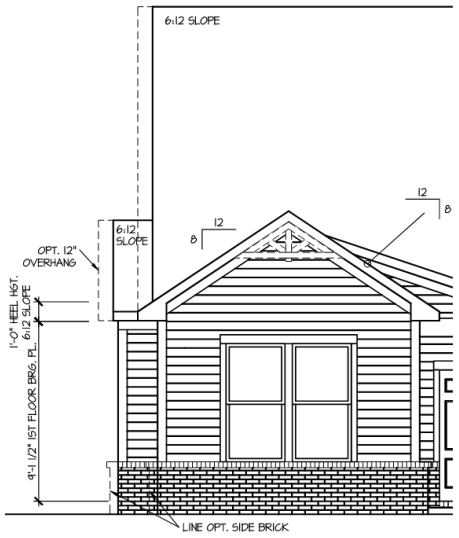
(Optional) Side Bay



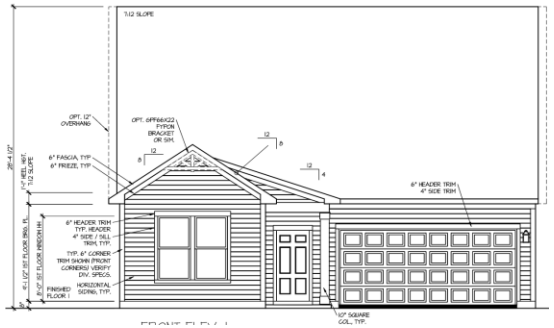
Side Elevation



Rear Elevation

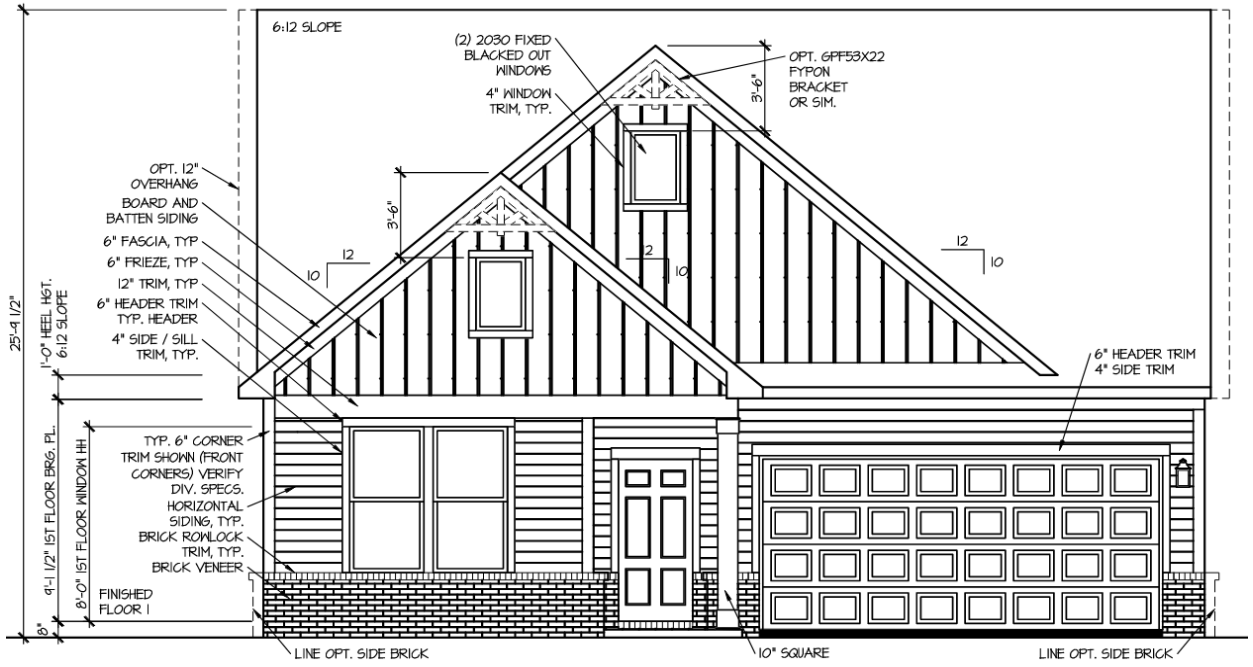


(Optional) Primary Suite Bay

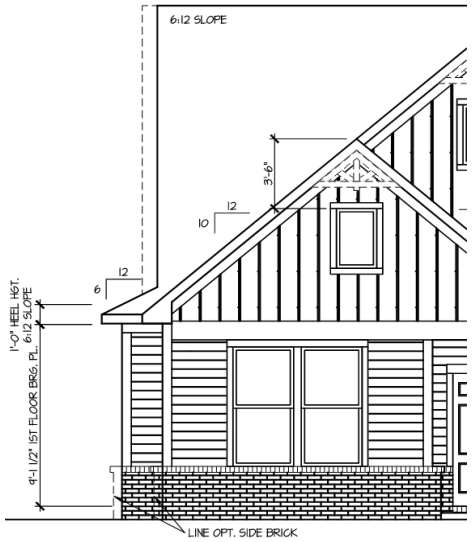


(Optional) Bonus Room

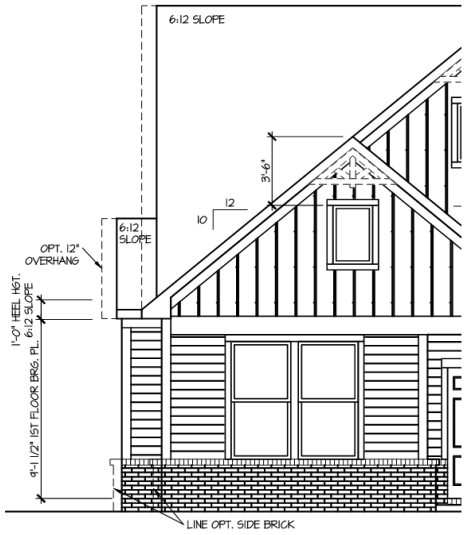
Chelsea (SF) - Elevation #2



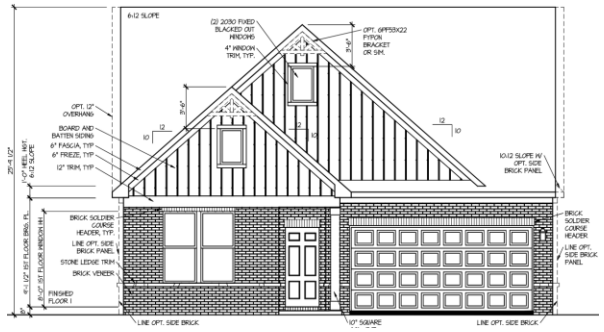
Front Elevation #2



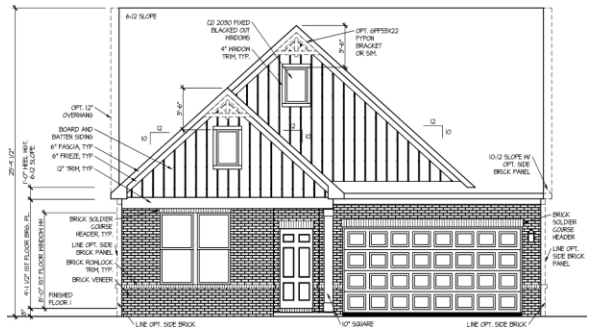
(Optional) Side Bay



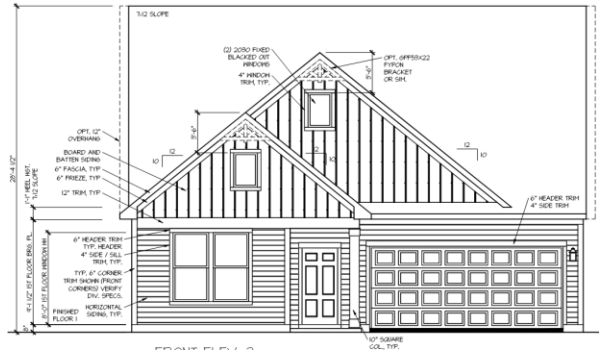
(Optional) Primary Suite Bay



(Optional) Mixed Brick / Stone

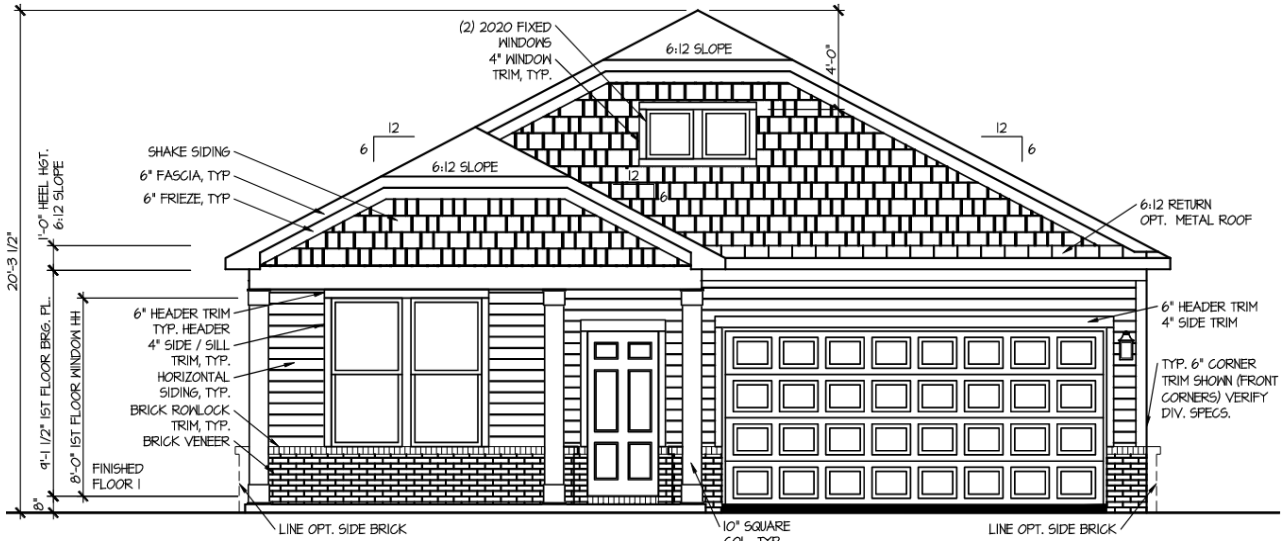


(Optional) First Floor Brick

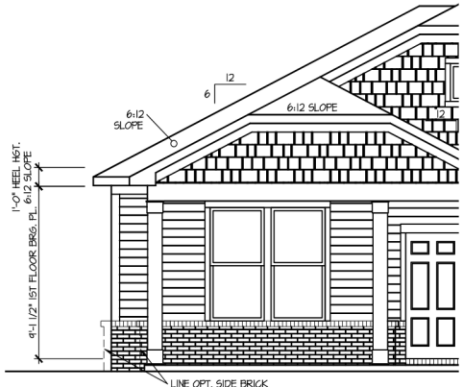


(Optional) Bonus Rooms

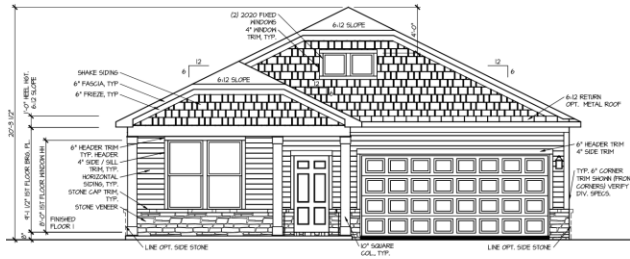
Chelsea (SF) - Elevation #3



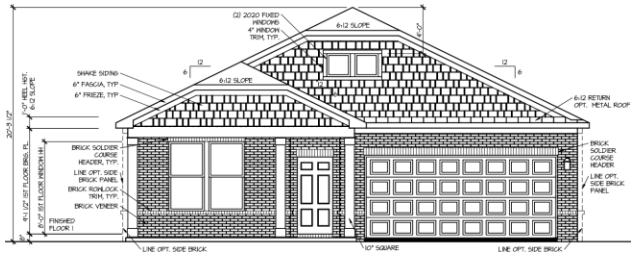
Front Elevation #3



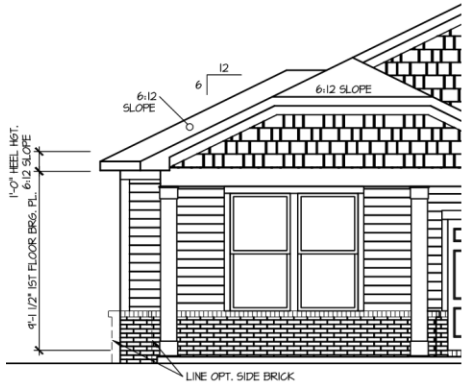
(Optional) Side Bay



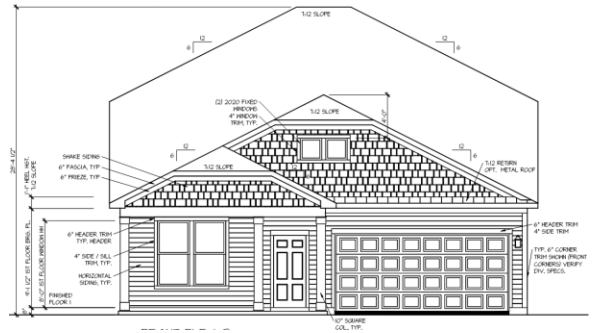
(Optional) Stone Water Table



(Optional) First Floor Brick + Mixed Brick / Stone

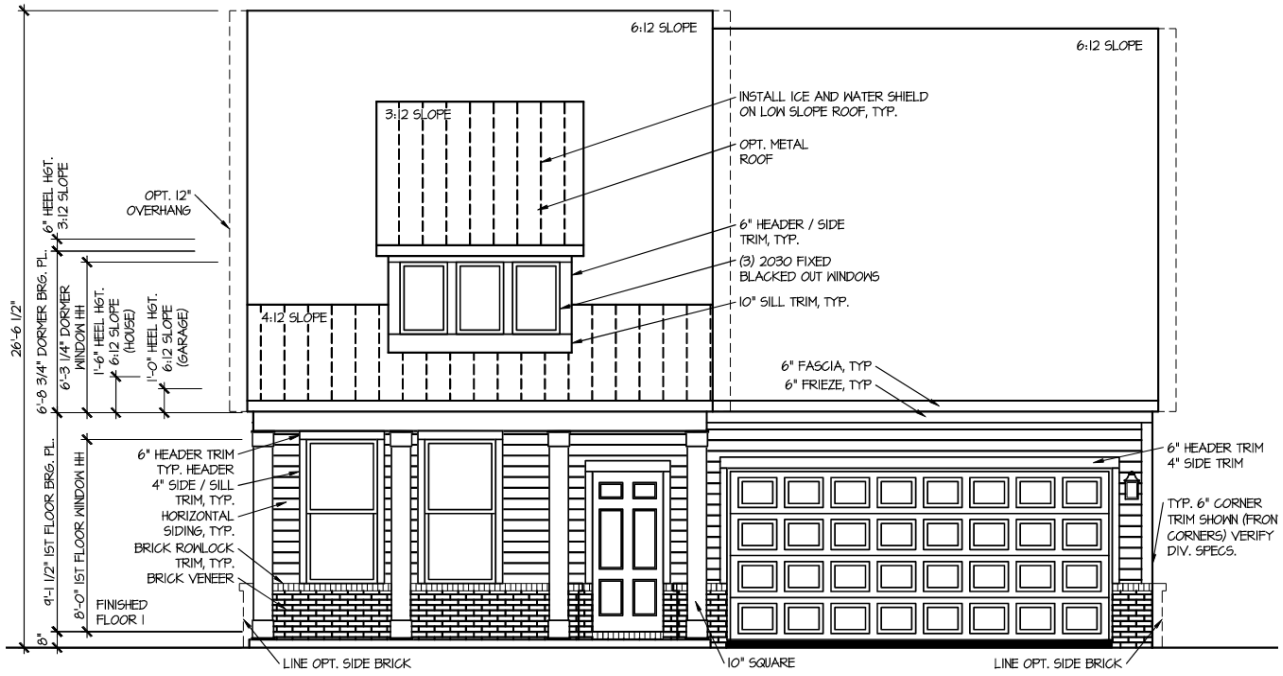


(Optional) Primary Suite Bay

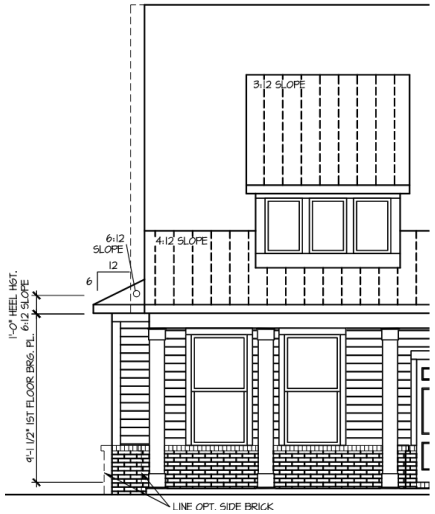


(Optional) Bonus Rooms

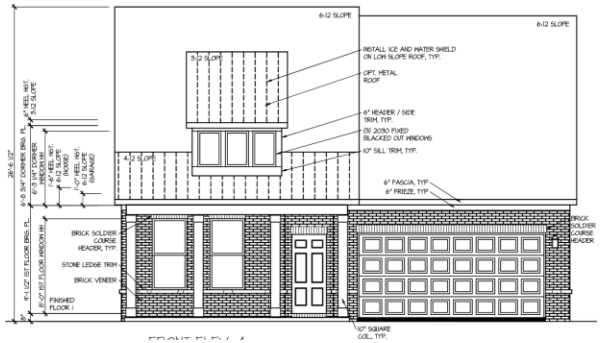
Chelsea (SF) - Elevation #4



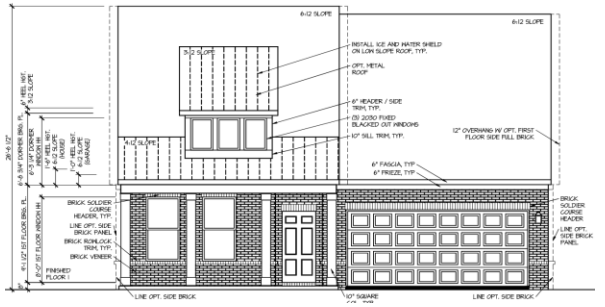
Front Elevation #4



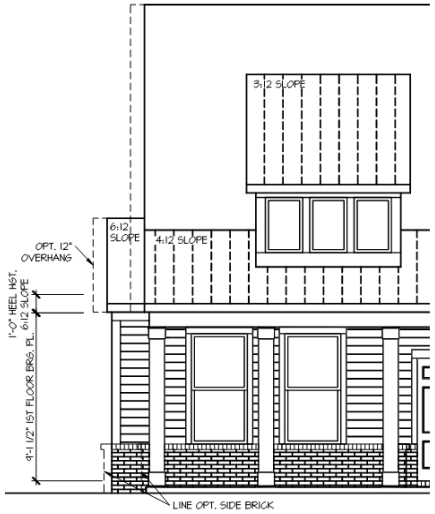
(Optional) Side Bay



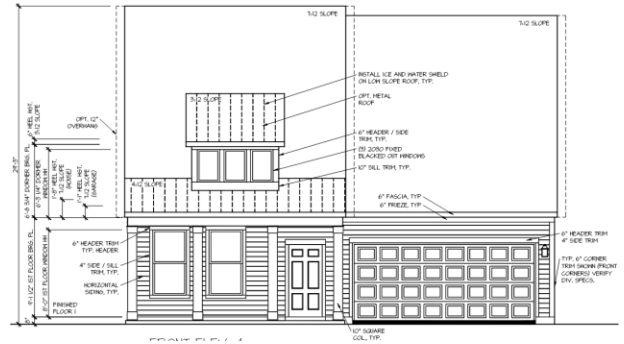
(Optional) Mixed Brick / Stone



(Optional) First Floor Brick

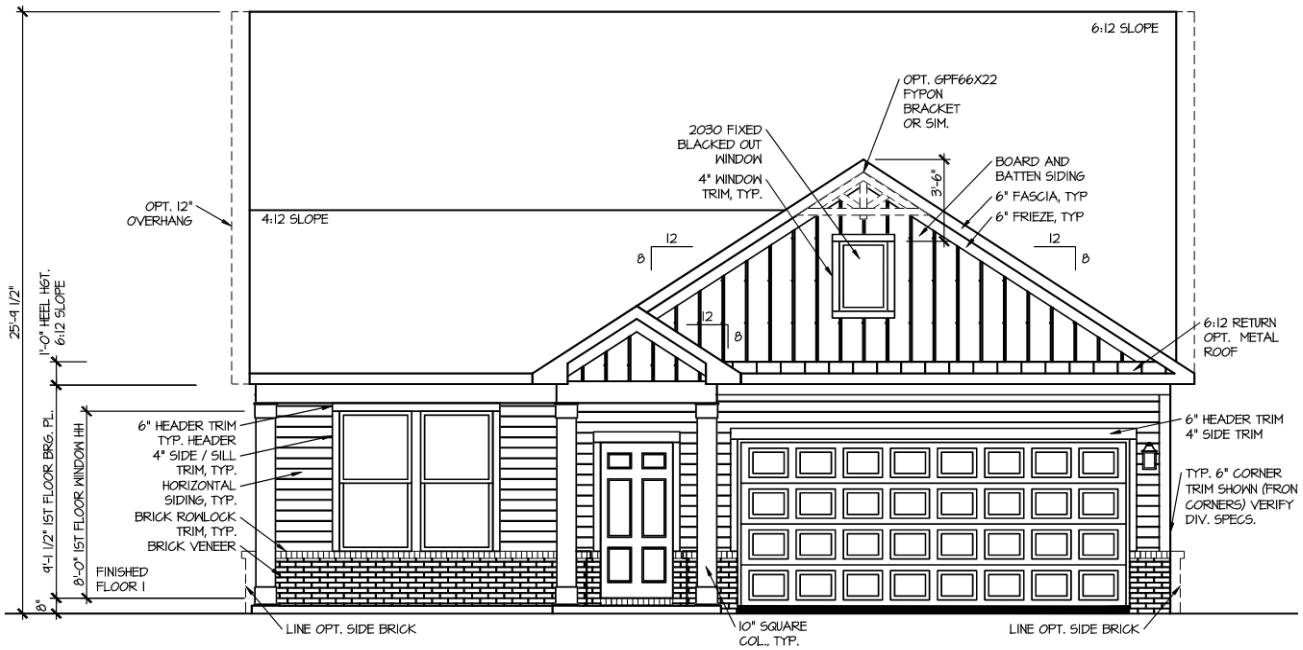


(Optional) Primary Suite Bay

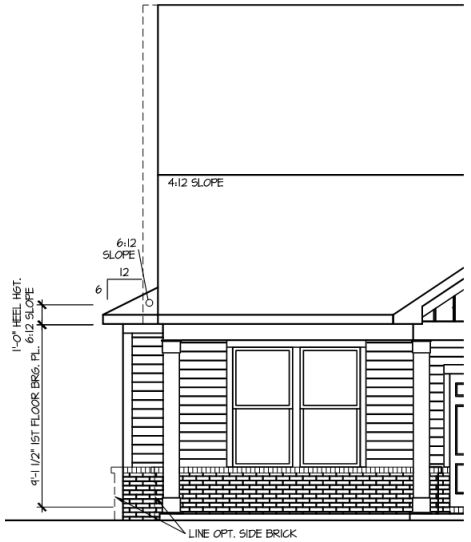


(Optional) Bonus Rooms

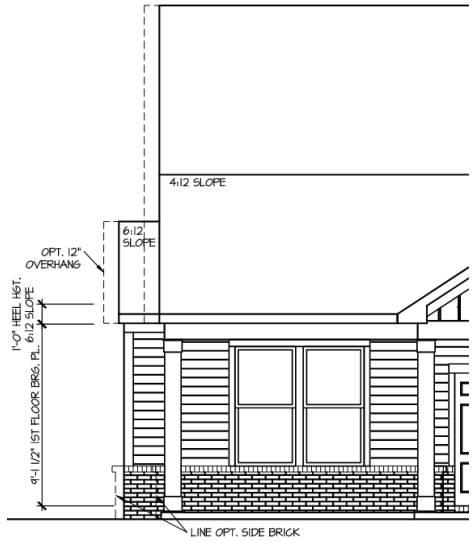
Chelsea (SF) - Elevation #5



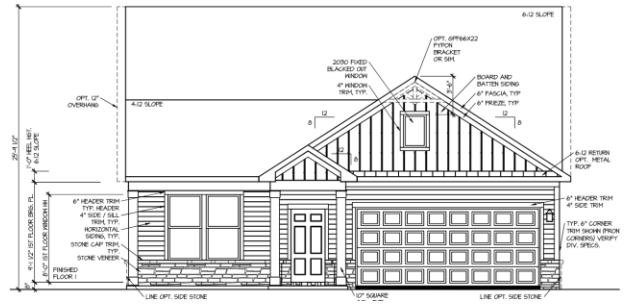
Front Elevation #5



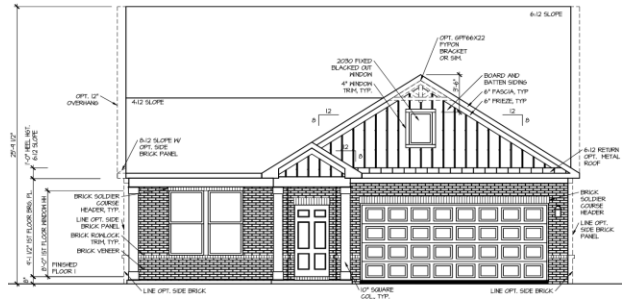
(Optional) Side Bay



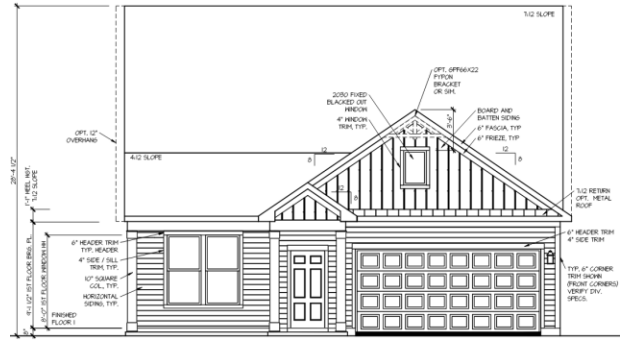
(Optional) Primary Suite Bay



(Optional) Stone Water Table

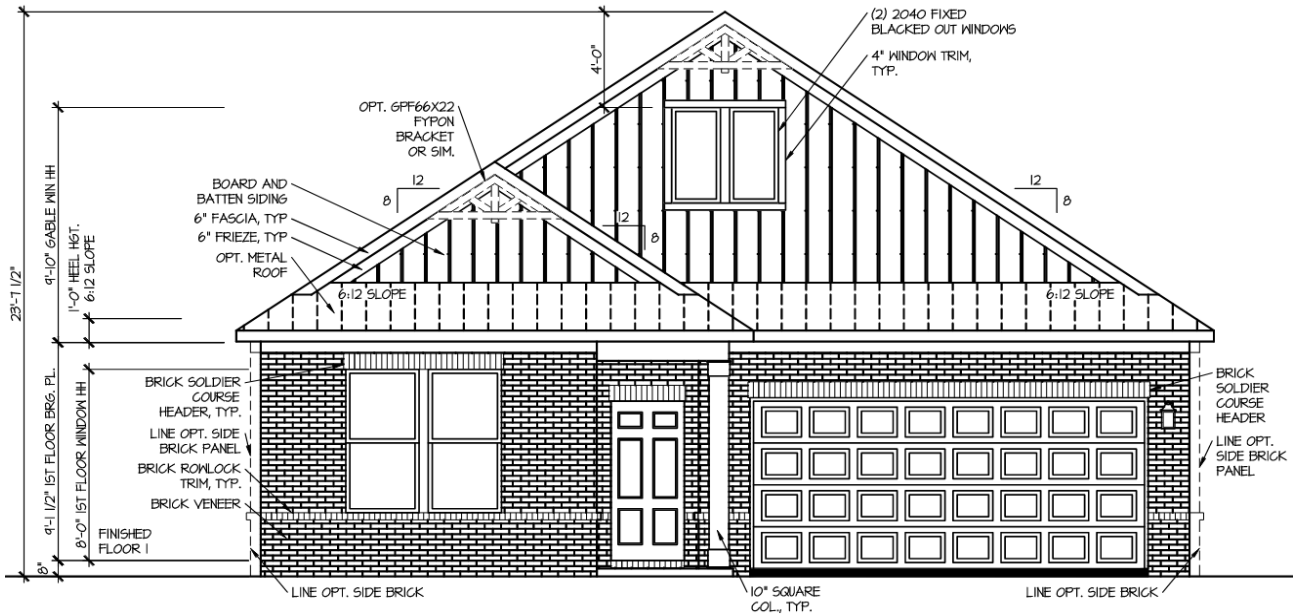


(Optional) First Floor Brick + Mixed Brick / Stone

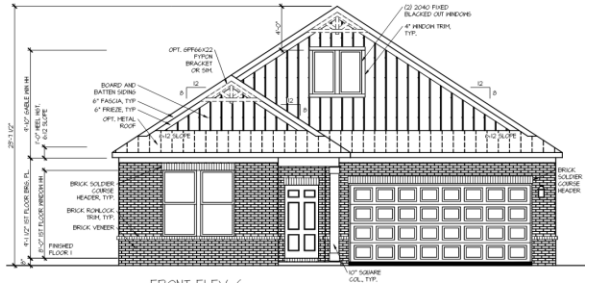


(Optional) Bonus Rooms

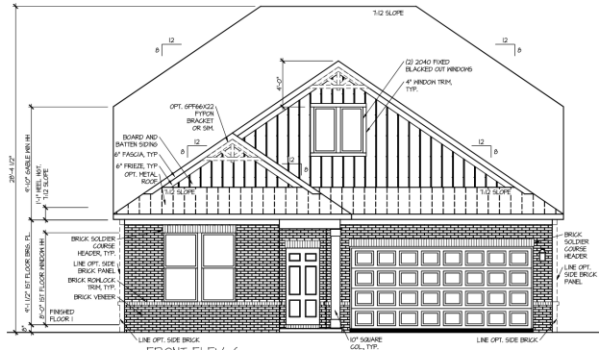
Chelsea (SF) - Elevation #6



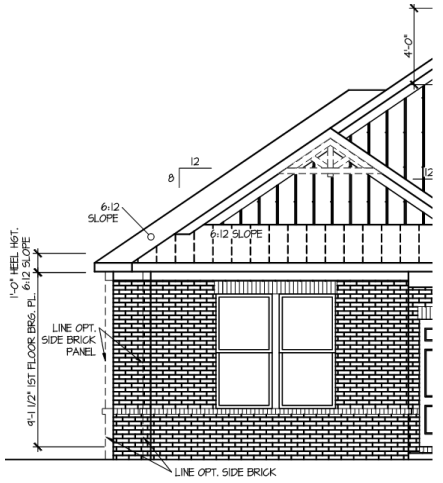
Front Elevation #6



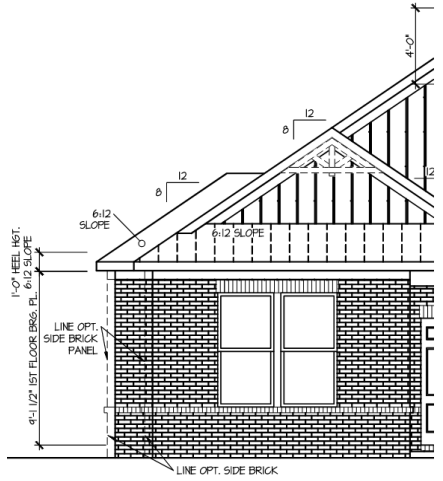
(Optional) Mixed Brick / Stone



(Optional) Bonus Room



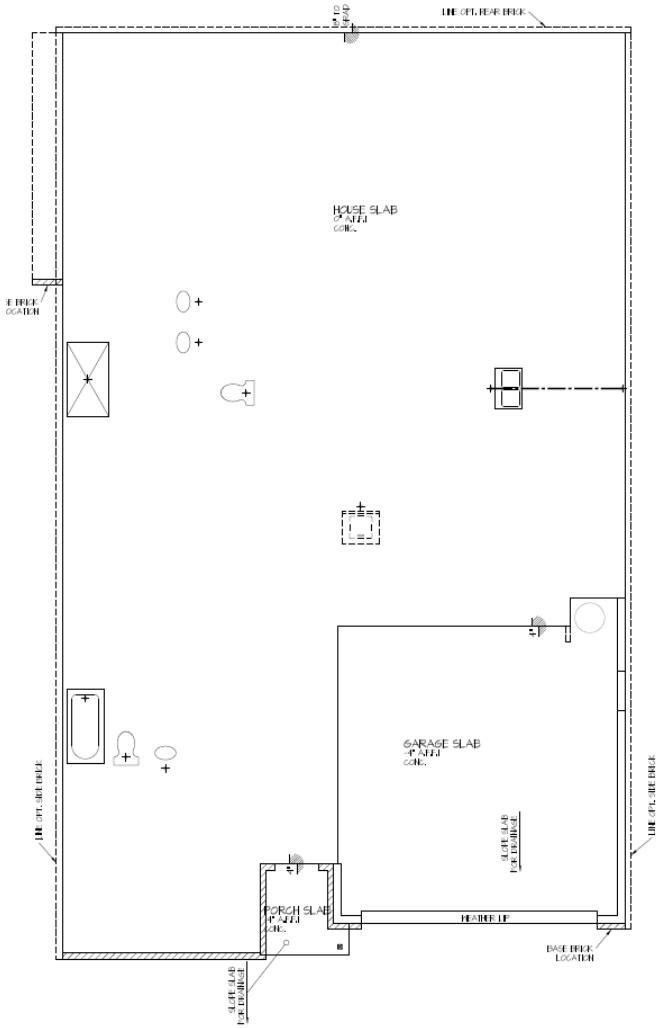
(Optional) Side Bay



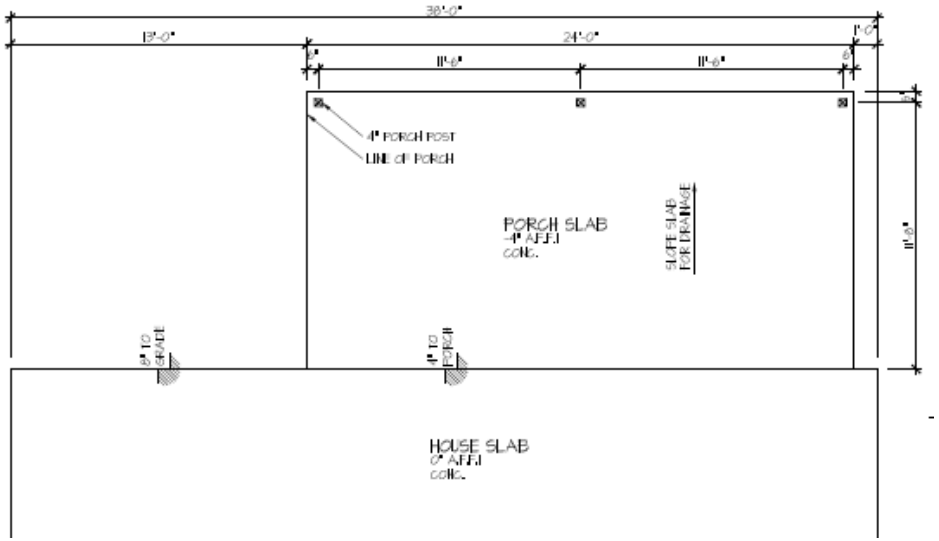
(Optional) Primary Suite Bay

Chelsea (SF) - Options

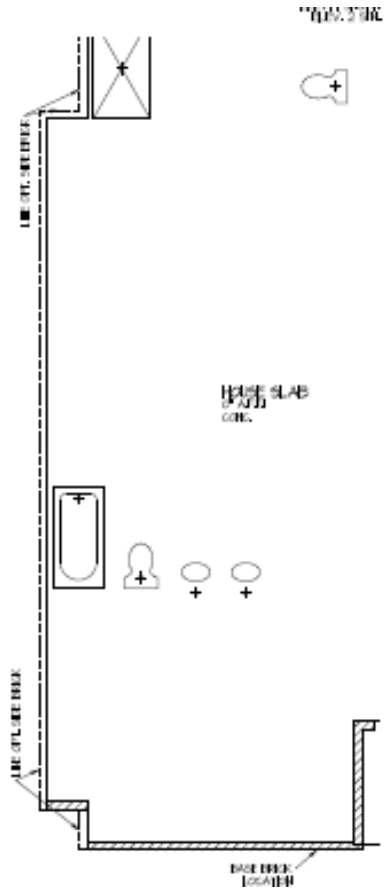
Note: Foundation Plan changes based on elevation and structural options.



Foundation

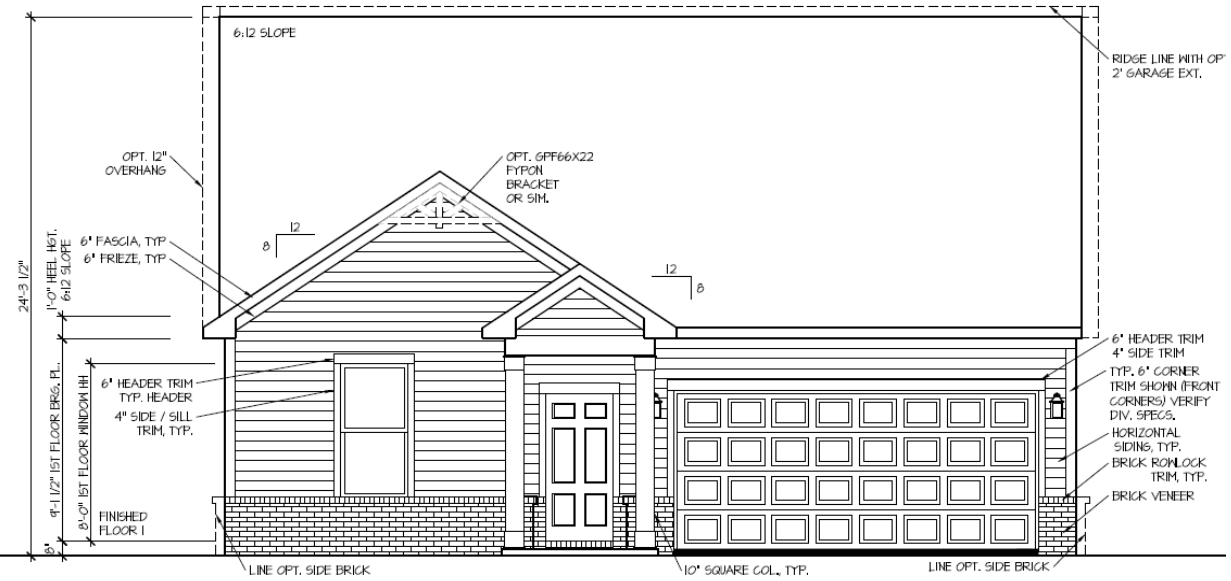


(Optional) Large Rear Porch

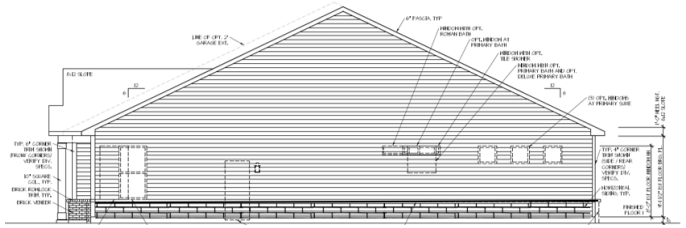


(Optional) Side Bay

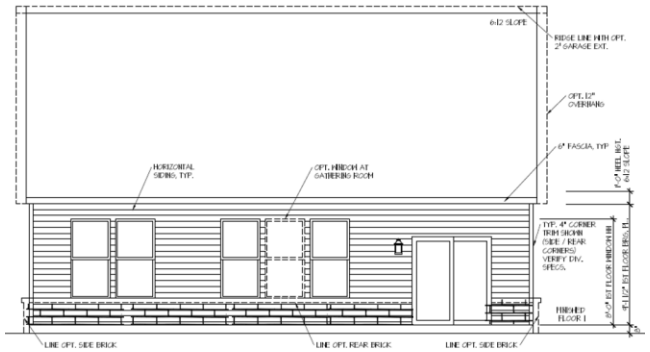
Avondale (SF) - Elevation #1



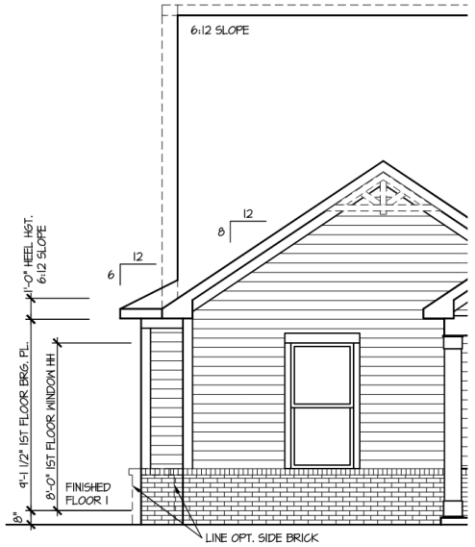
Front Elevation #1



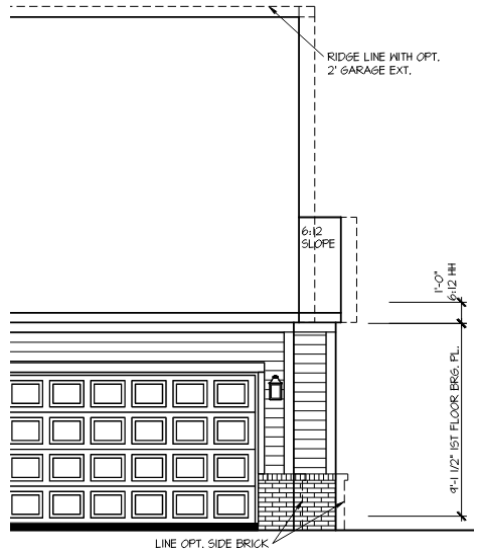
Side Elevation



Rear Elevation

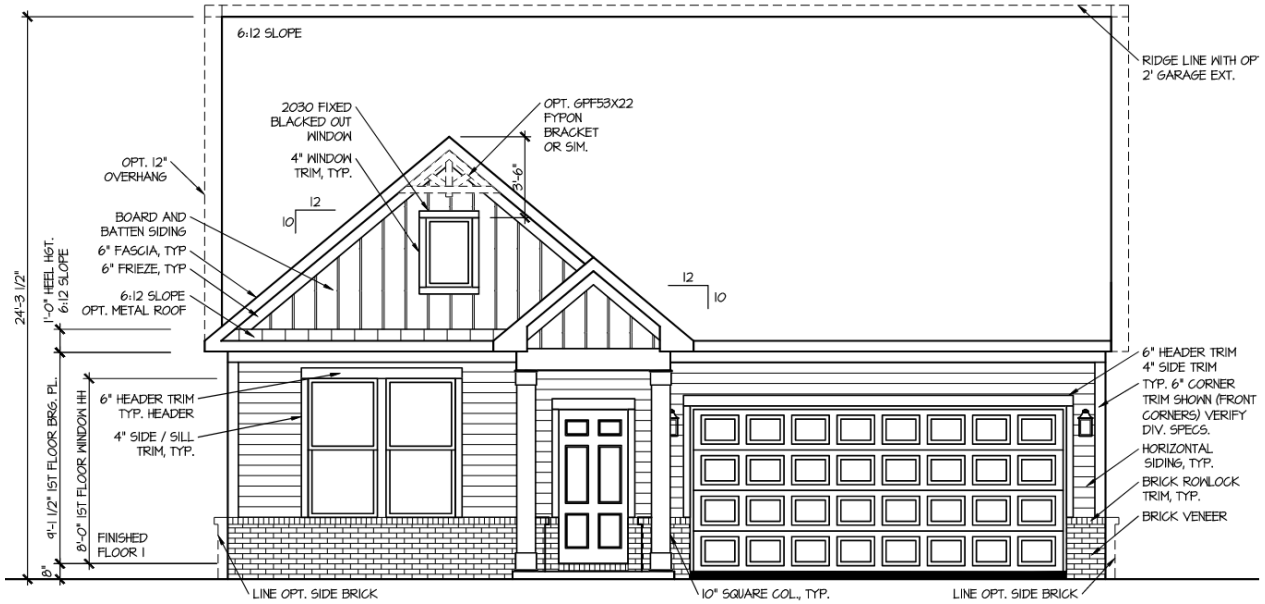


(Optional) Side Bay

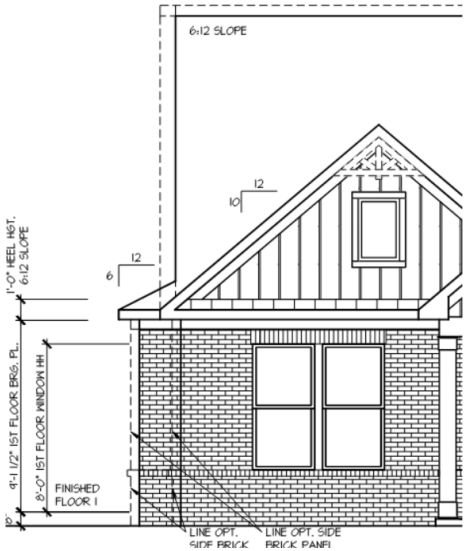


(Optional) Primary Side Bay

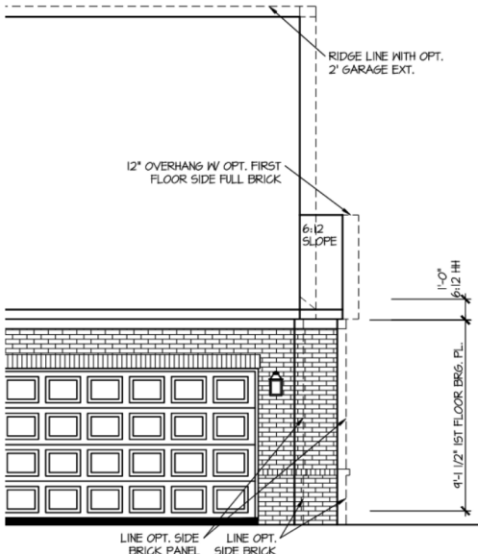
Avondale (SF) - Elevation #2



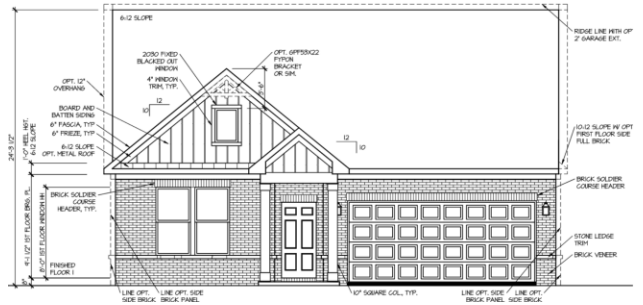
Front Elevation #2



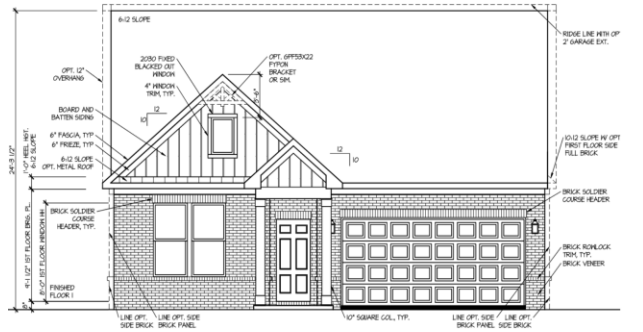
(Optional) Side Bay



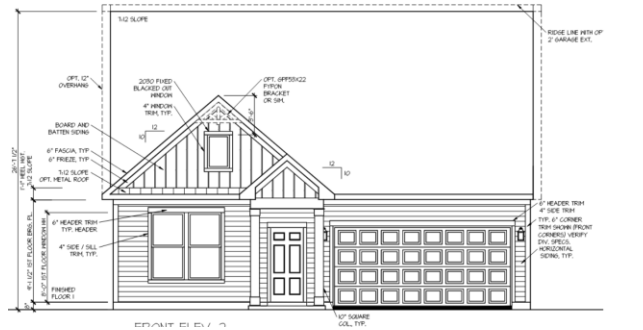
(Optional) Primary Suite Bay



(Optional) Mixed Brick / Stone

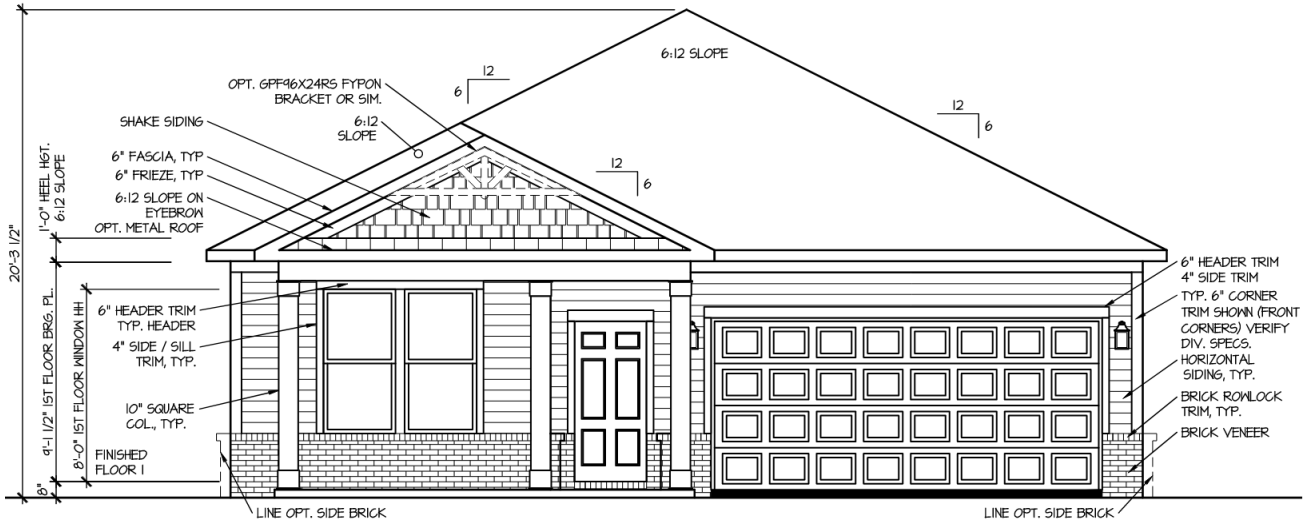


(Optional) First Floor Brick

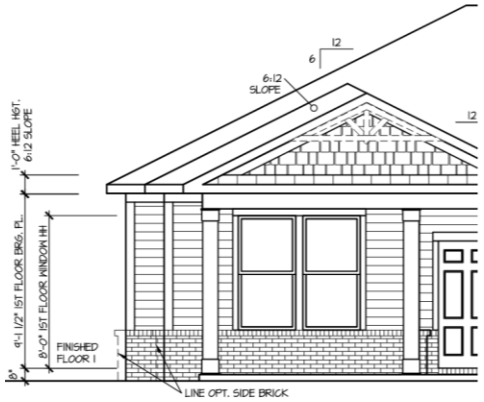


(Optional) Bonus Rooms

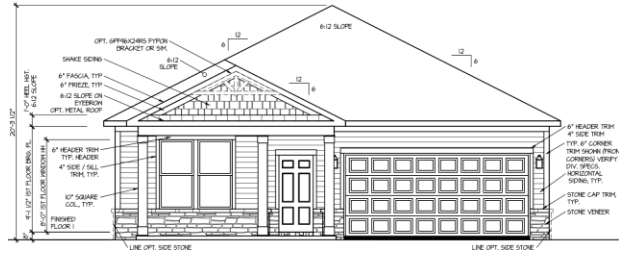
Avondale (SF) - Elevation #3



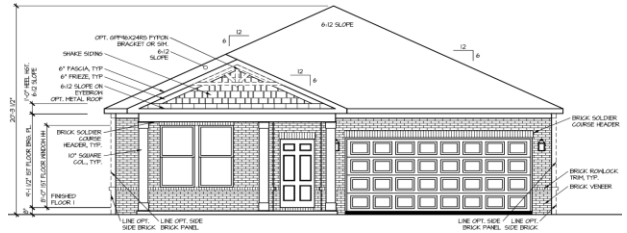
Front Elevation #3



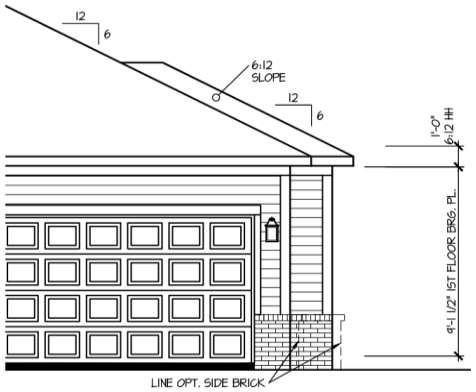
(Optional) Side Bay



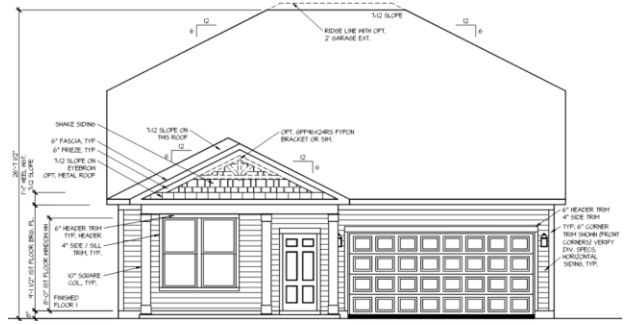
(Optional) Stone Water Table



(Optional) First Floor Brick + Mixed Brick / Stone

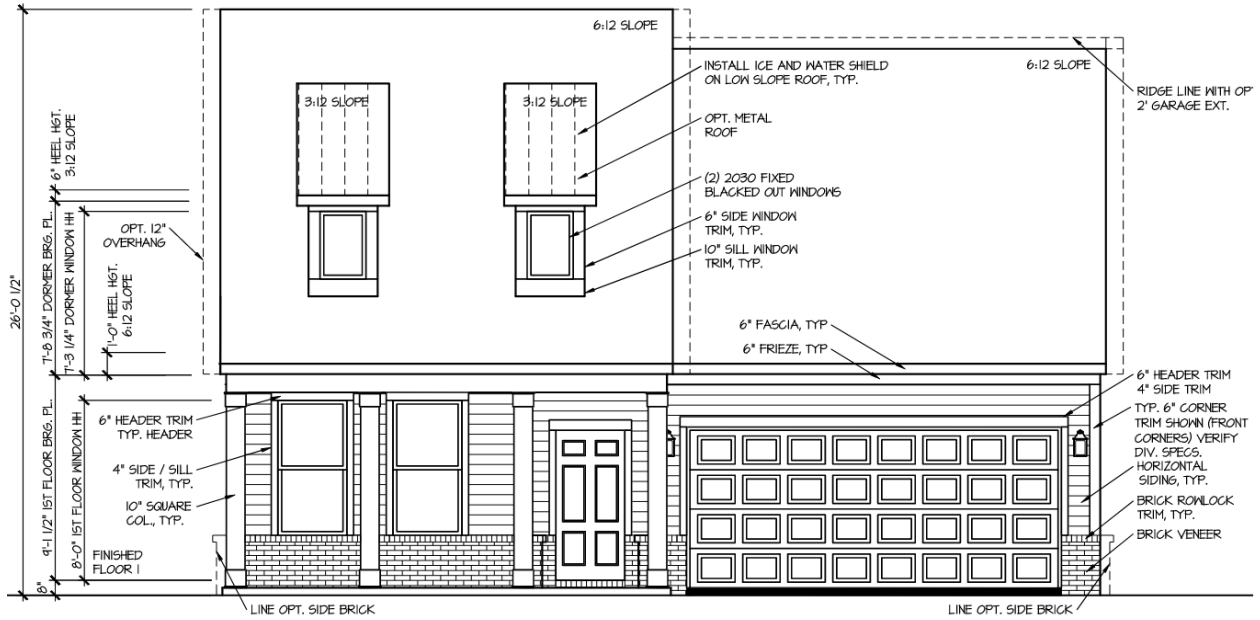


(Optional) Primary Suite Bay

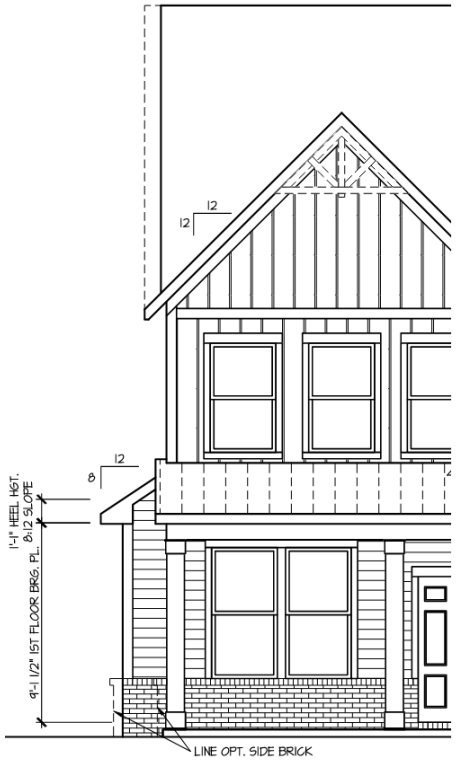


(Optional) Bonus Rooms

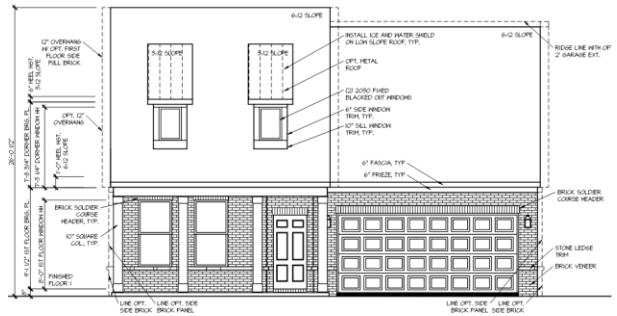
Avondale (SF) - Elevation #4



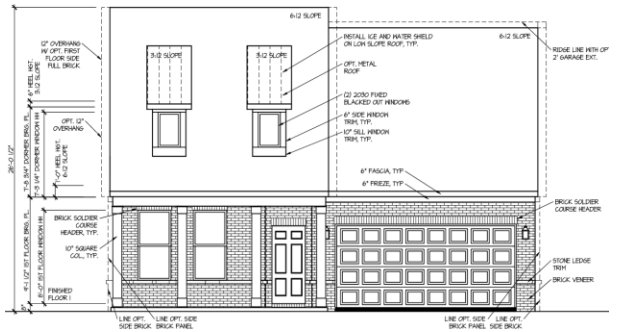
Front Elevation #4



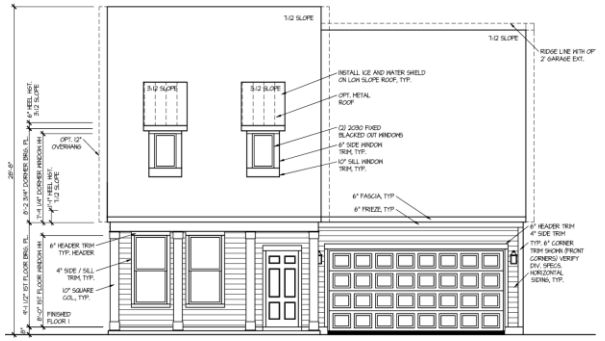
(Optional) Side Bay



(Optional) Mixed Brick / Stone

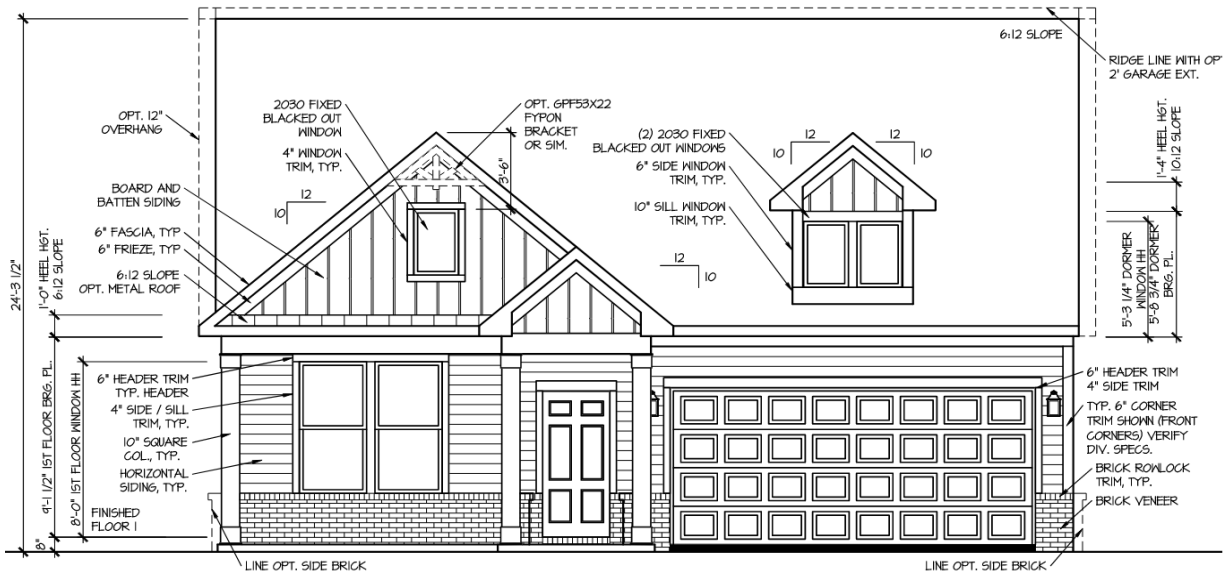


(Optional) First Floor Brick

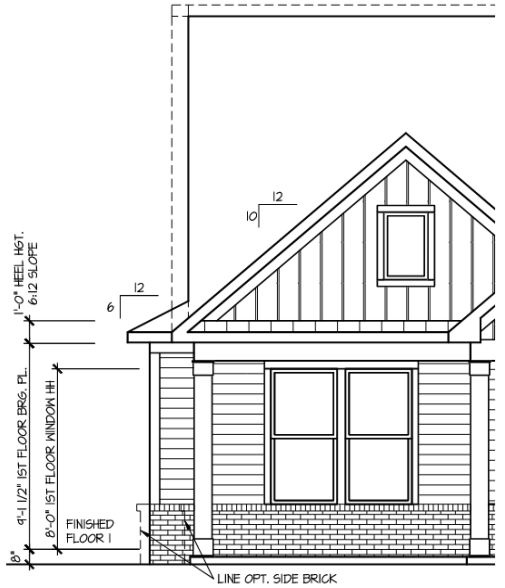


(Optional) Bonus Room

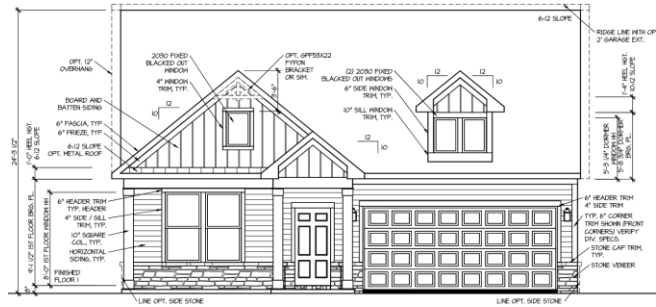
Avondale (SF) - Elevation #5



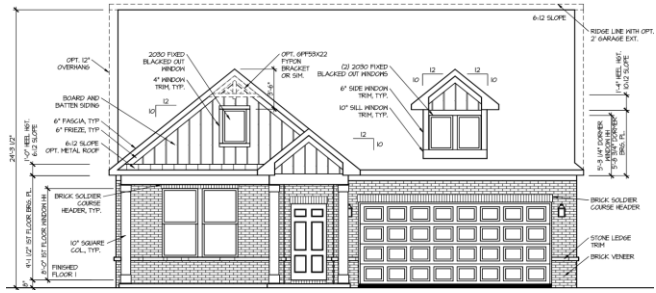
Front Elevation #5



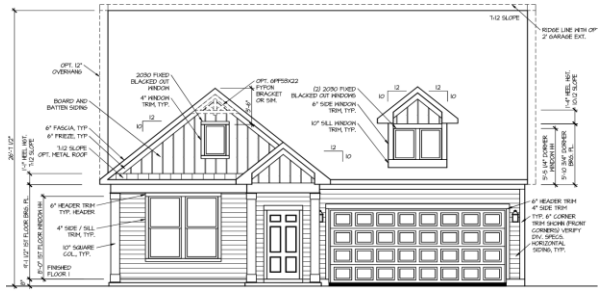
(Optional) Side Bay



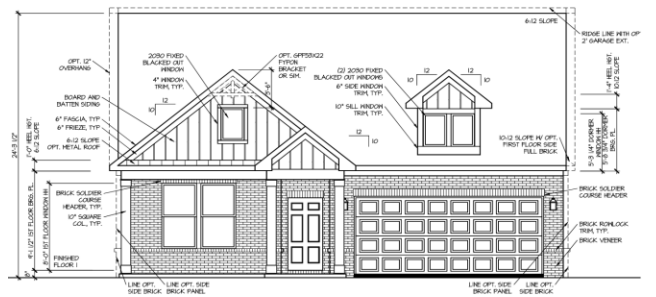
(Optional) Stone Water Table



(Optional) Mixed Brick / Stone

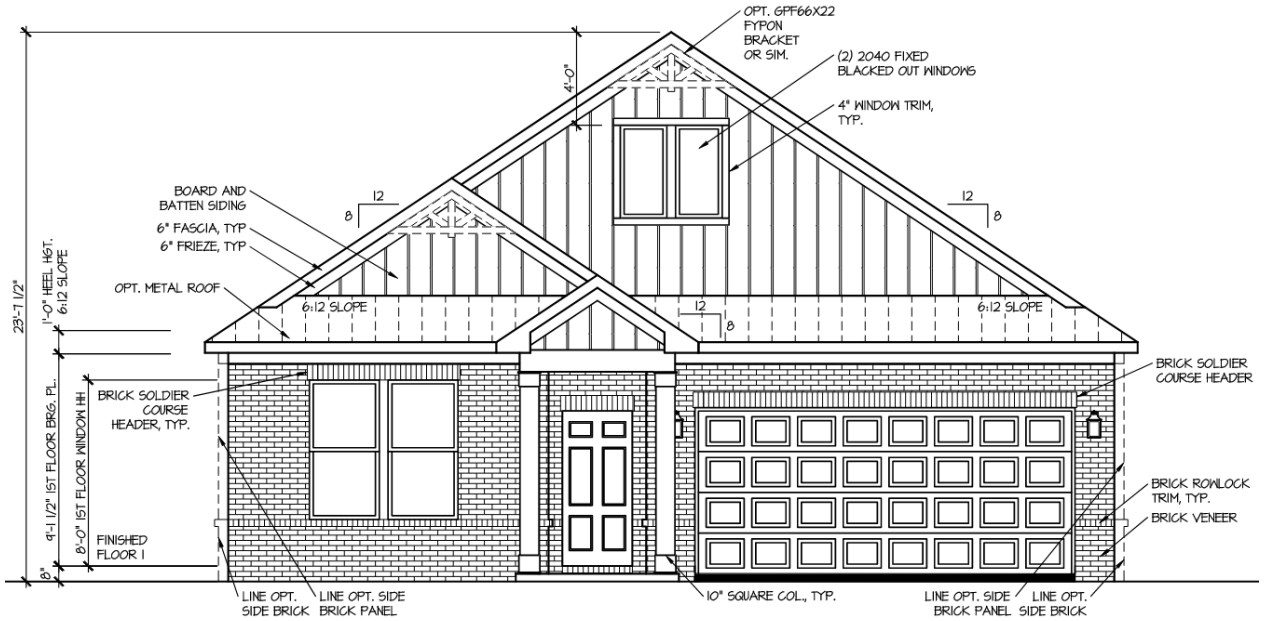


(Optional) Bonus Room

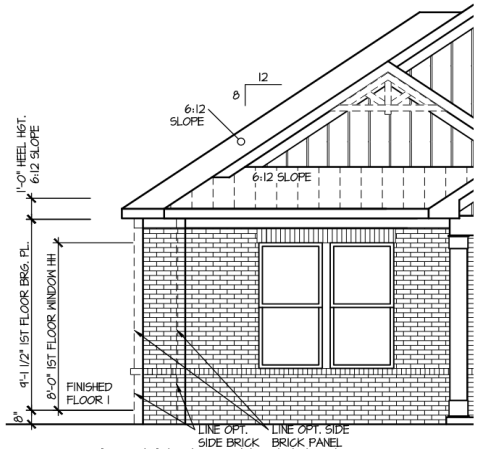


(Optional) First Floor Brick

Avondale (SF) - Elevation #6



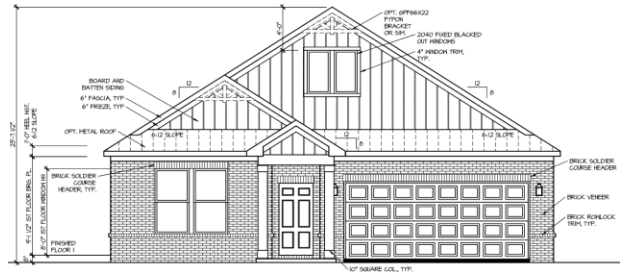
Front Elevation #6



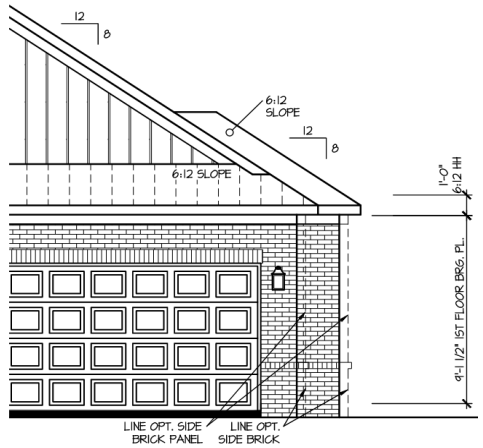
(Optional) Side Bay



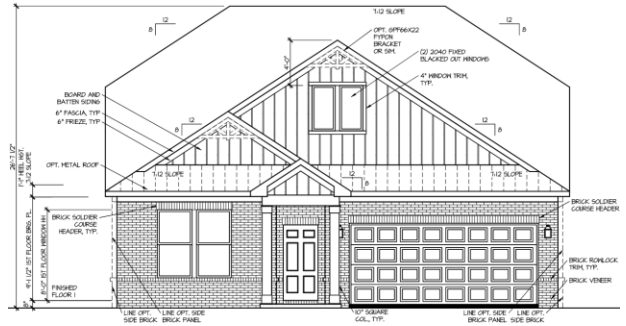
(Optional) Garage Extension



(Optional) Mixed Brick / Stone



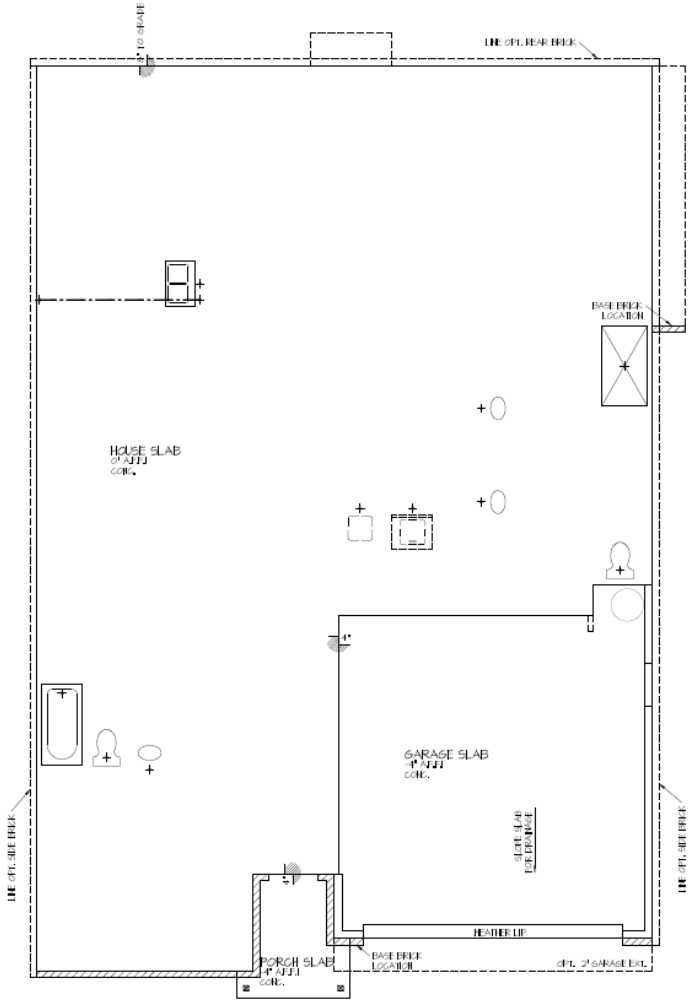
(Optional) Primary Suite Bay



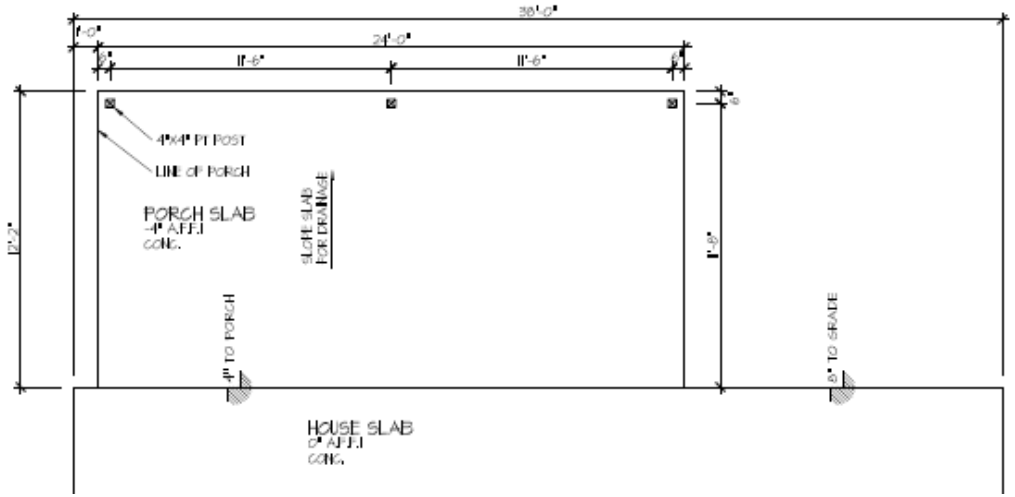
(Optional) Bonus Room

Avondale (SF) - Options

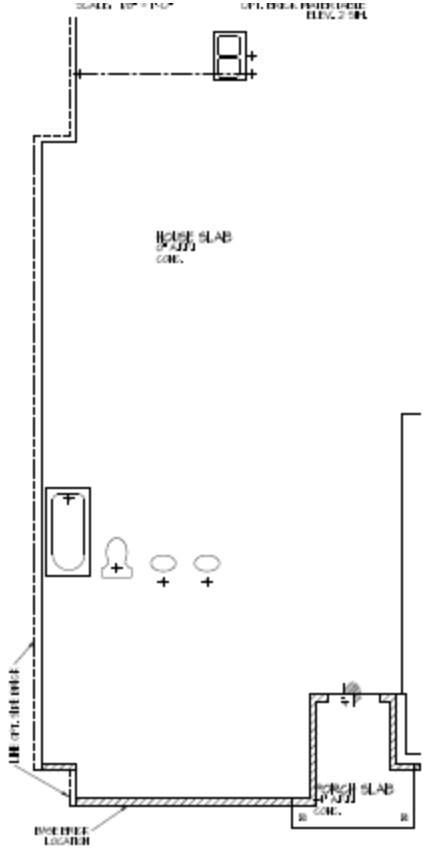
Note: Foundation Plan changes based on elevation and structural options.



Foundation

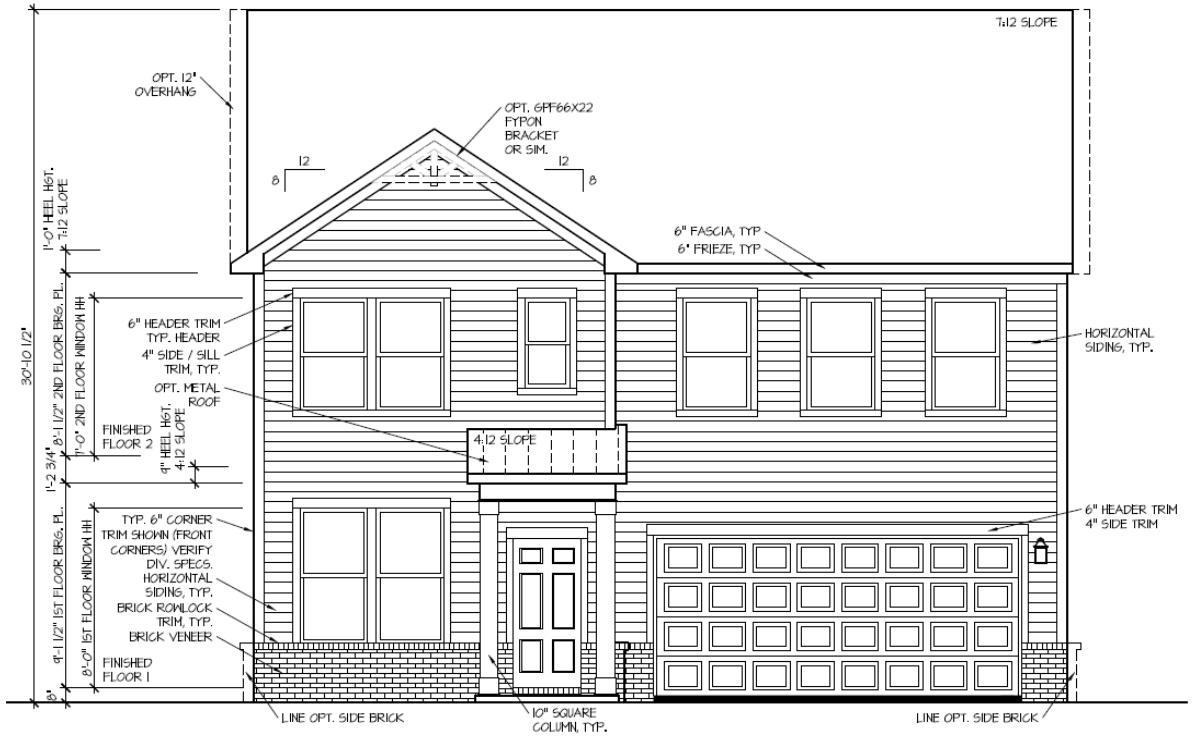


(Optional) Large Rear Porch

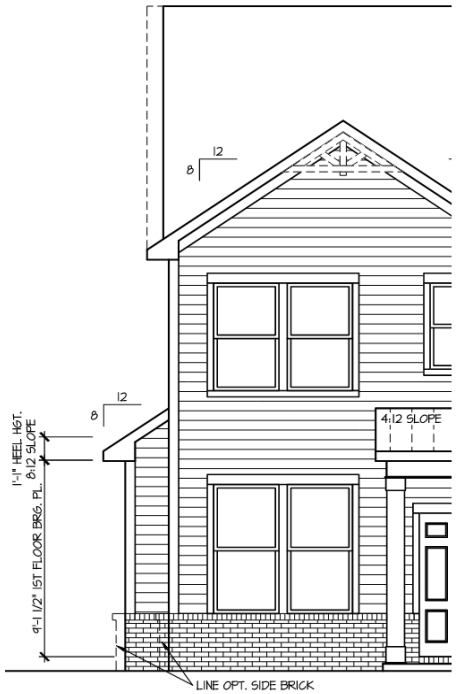


(Optional) Side Bay

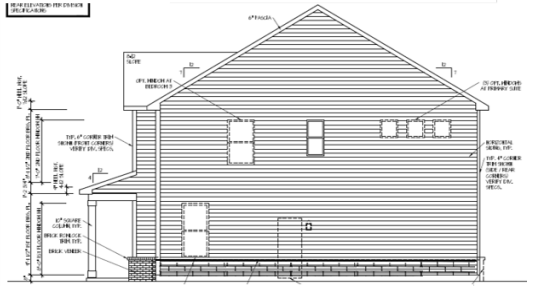
Pelham (SF) - Elevation #1



Front Elevation #1



(Optional) Side Bay



Side Elevation

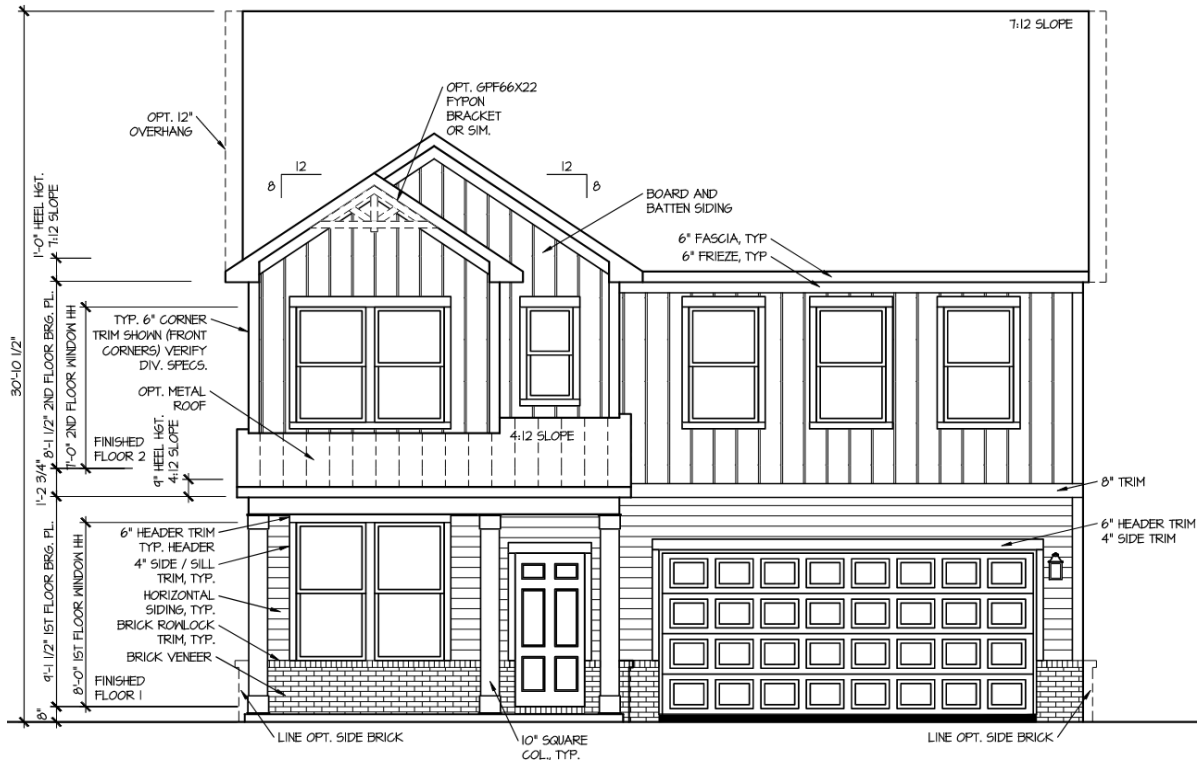


Rear Elevation

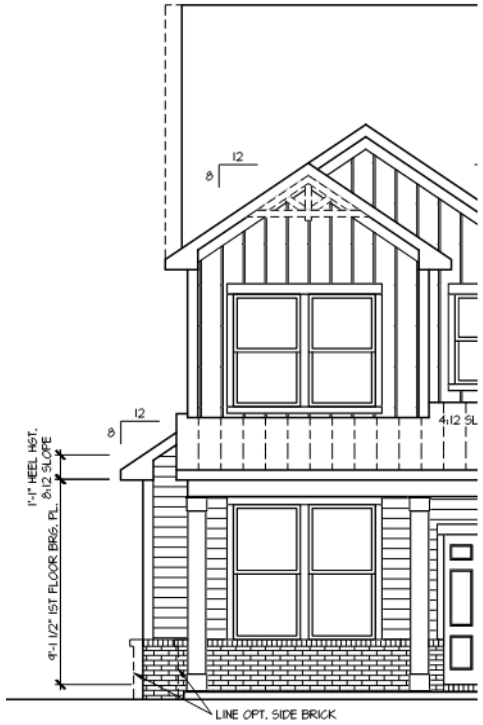


(Optional) Bonus Room

Pelham (SF) - Elevation #2



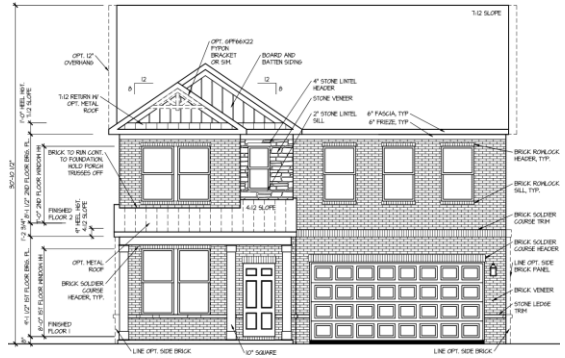
Front Elevation #2



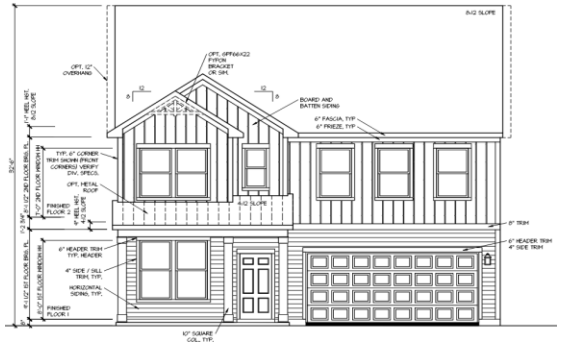
(Optional) Side Bay



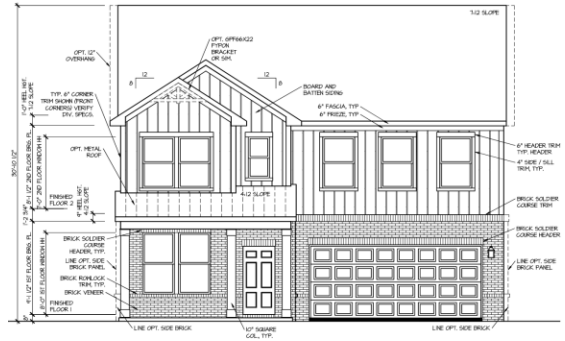
(Optional) Mixed Brick / Stone



(Optional) Full Brick

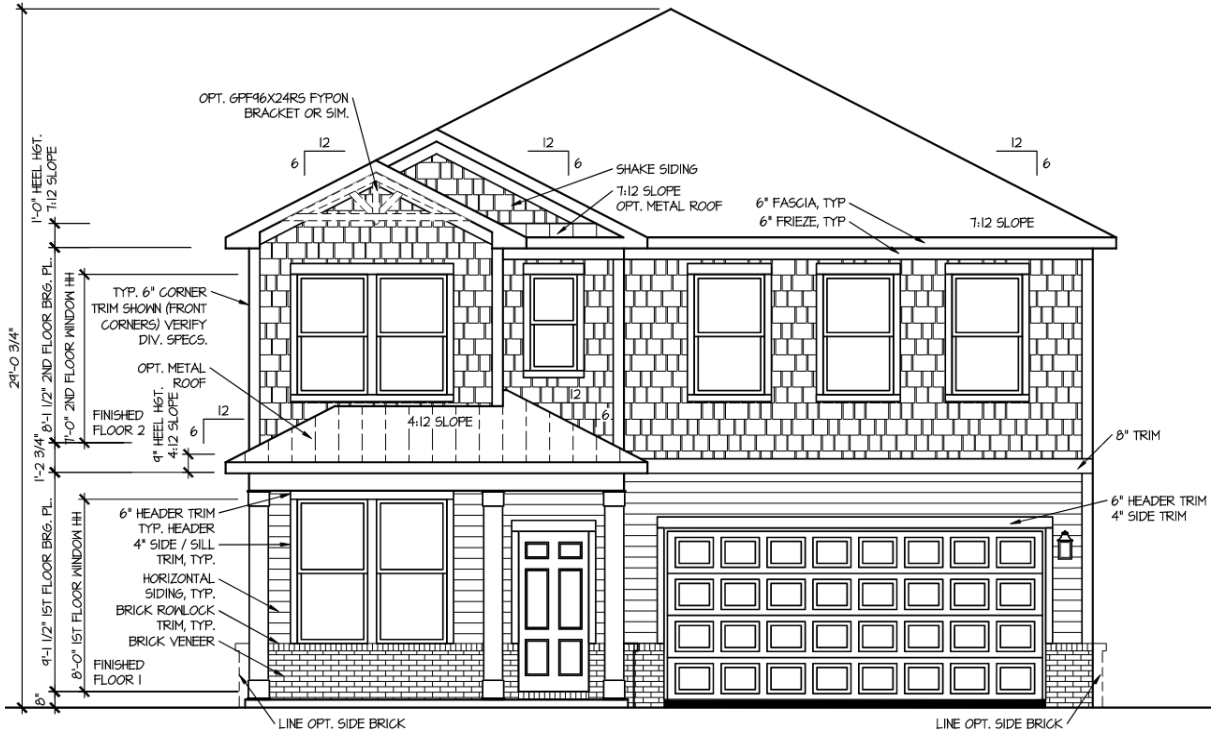


(Optional) Bonus Room

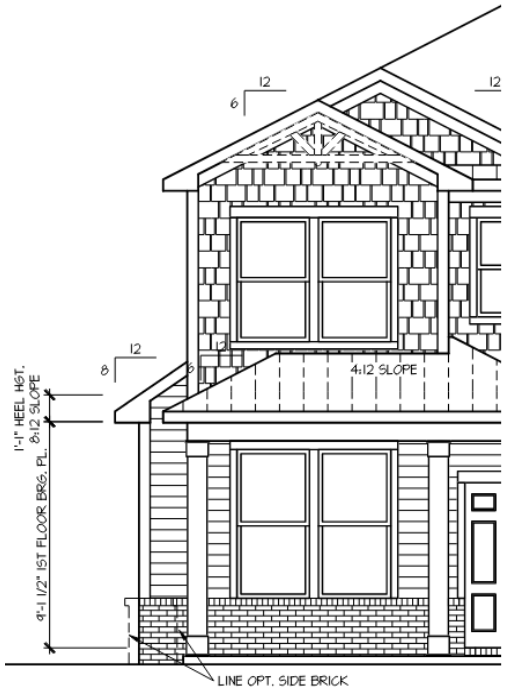


(Optional) First Floor Brick

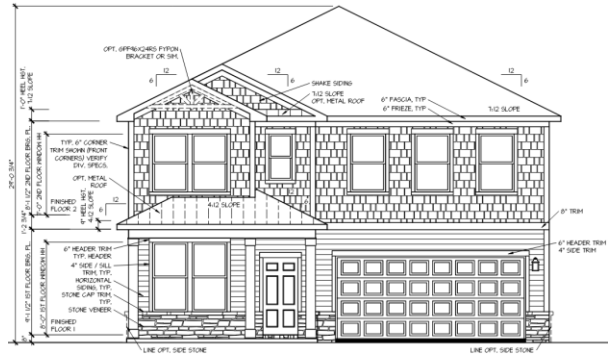
Pelham (SF) - Elevation #3



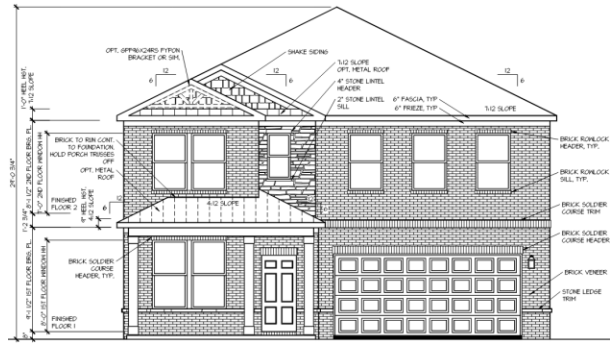
Front Elevation #3



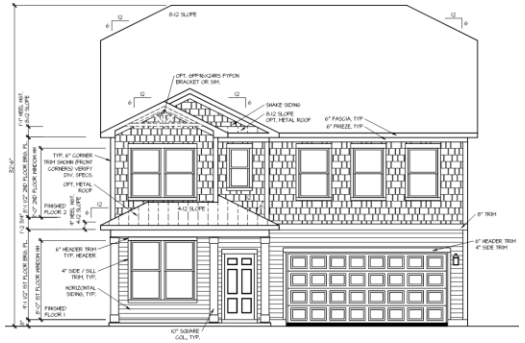
(Optional) Side Bay



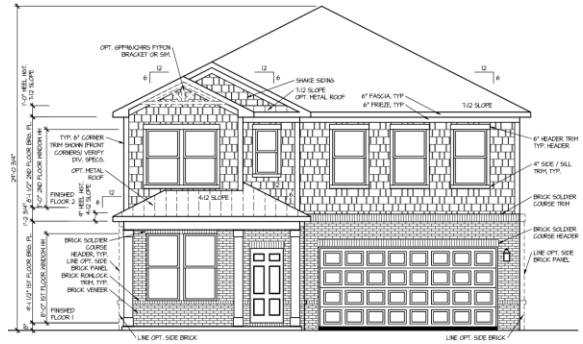
(Optional) Stone Water Table



(Optional) Full Brick + Mixed Brick / Stone

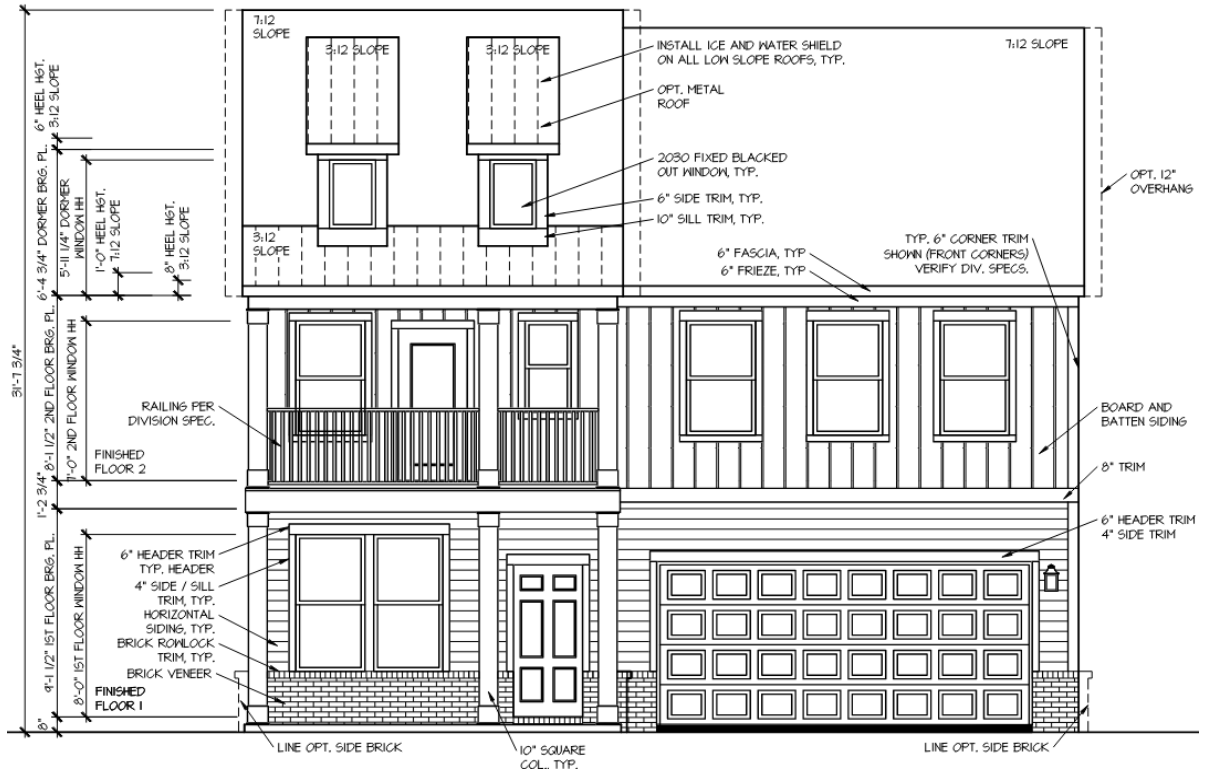


(Optional) Bonus Room

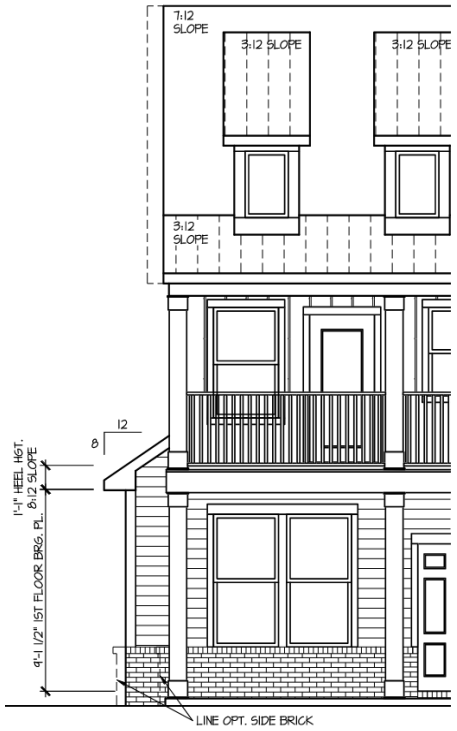


(Optional) First Floor Brick

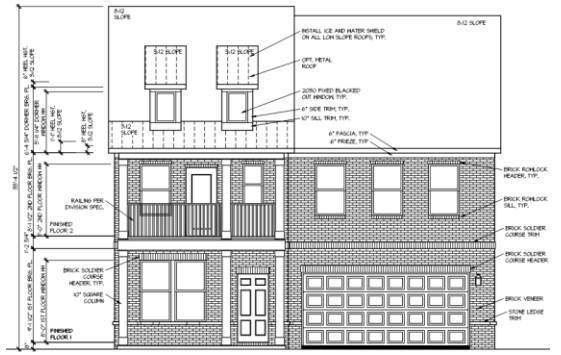
Pelham (SF) - Elevation #4



Front Elevation #4



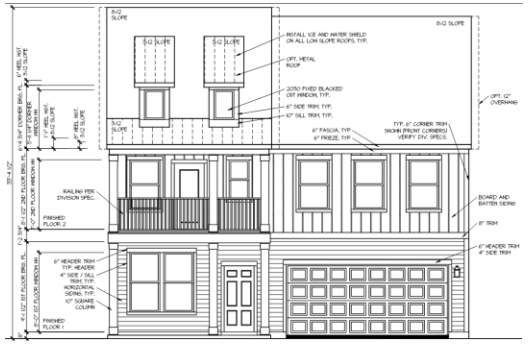
(Optional) Side Bay



(Optional) Mixed Brick / Stone



(Optional) Full Brick

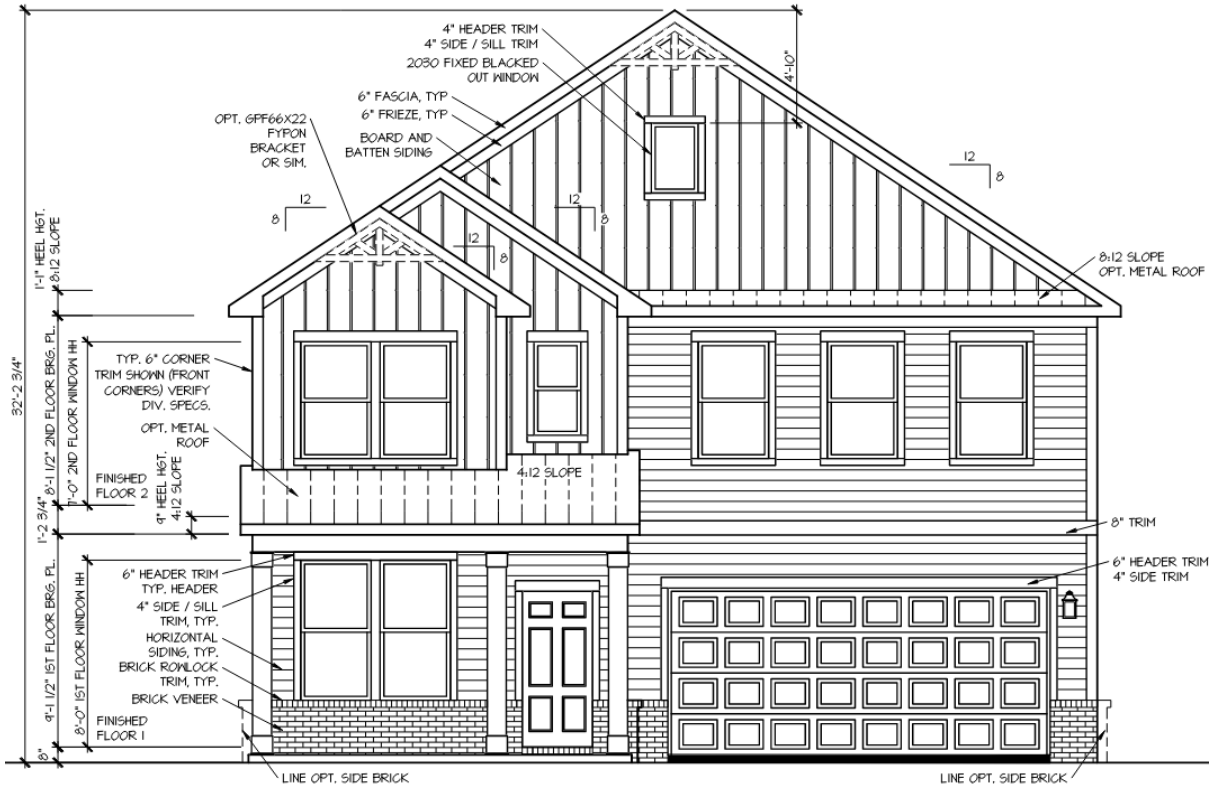


(Optional) Bonus Room

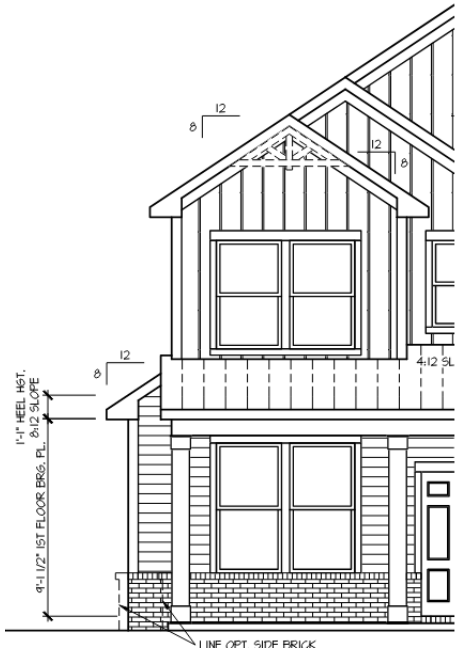


(Optional) First Floor Brick

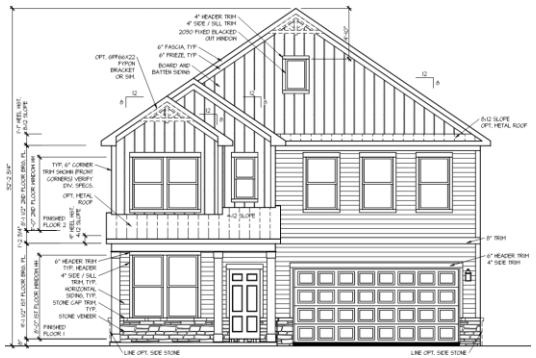
Pelham (SF) - Elevation #5



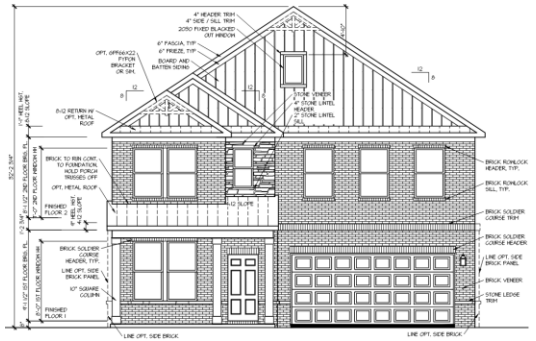
Front Elevation #5



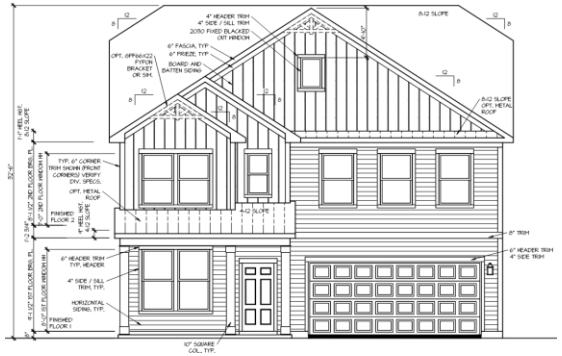
(Optional) Side Bay



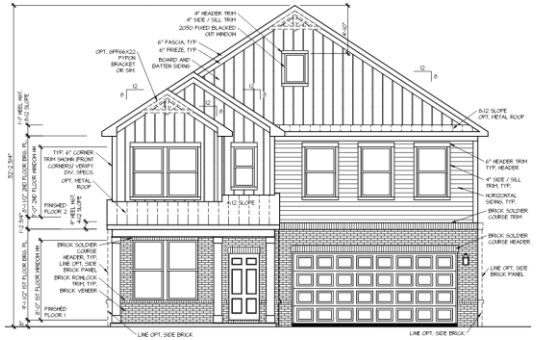
(Optional) Stone Water Table



(Optional) Full Brick + Mixed Brick / Stone

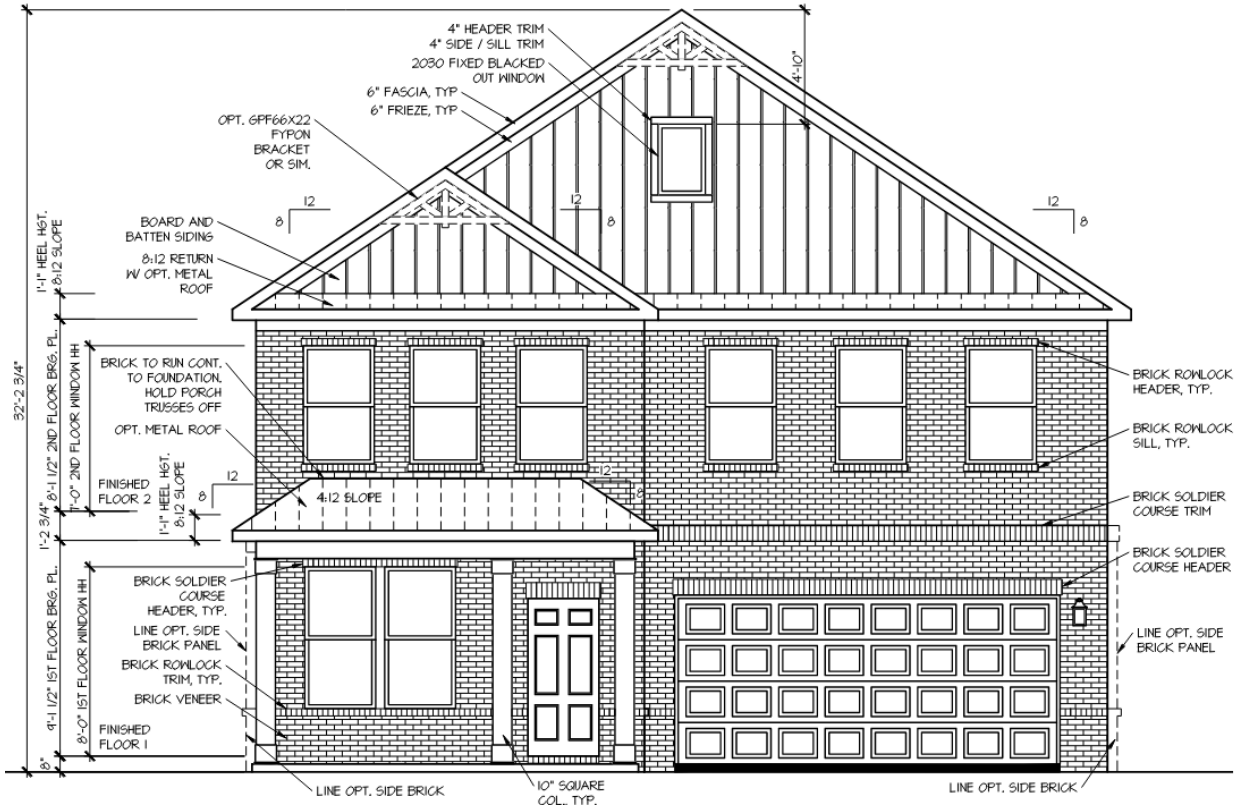


(Optional) Bonus Room

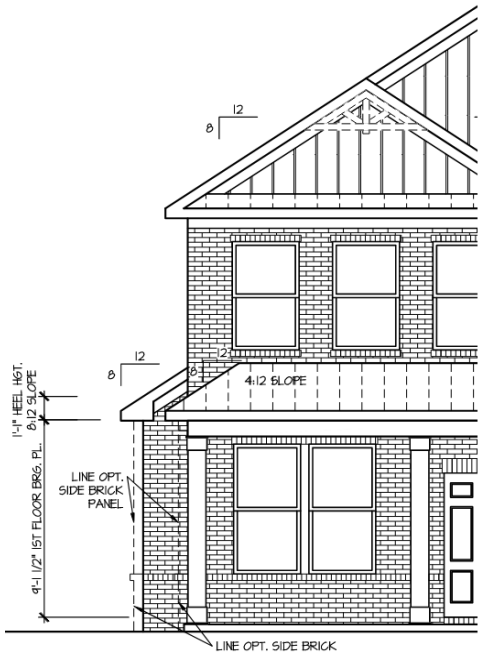


(Optional) First Floor Brick

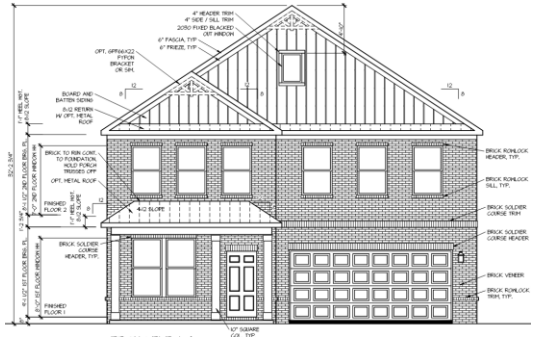
Pelham (SF) - Elevation #6



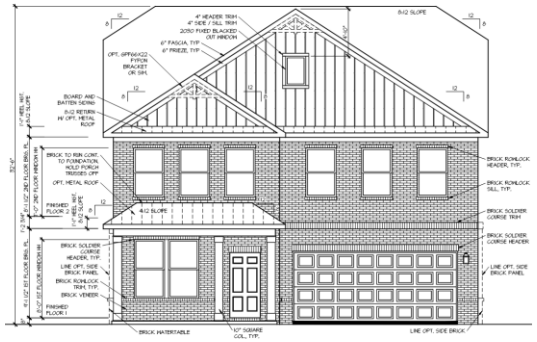
Front Elevation #6



(Optional) Side Bay

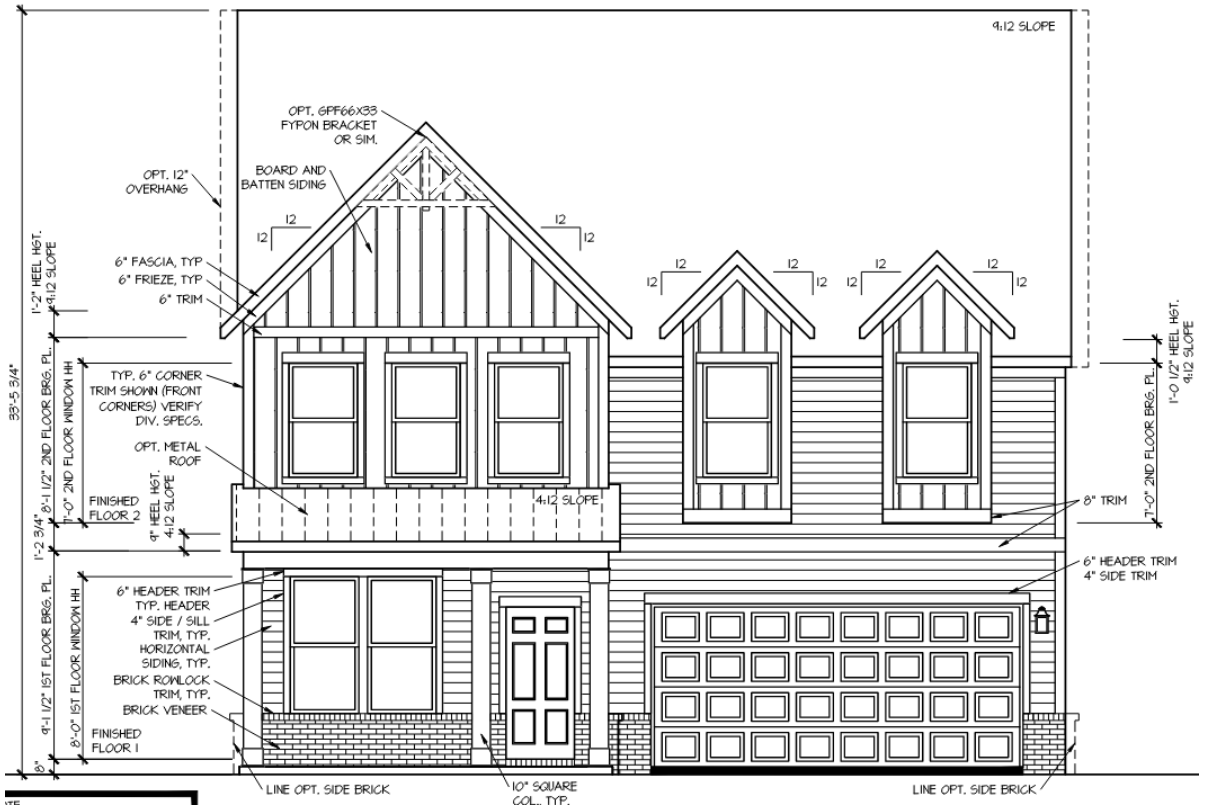


(Optional) Mixed Brick / Stone

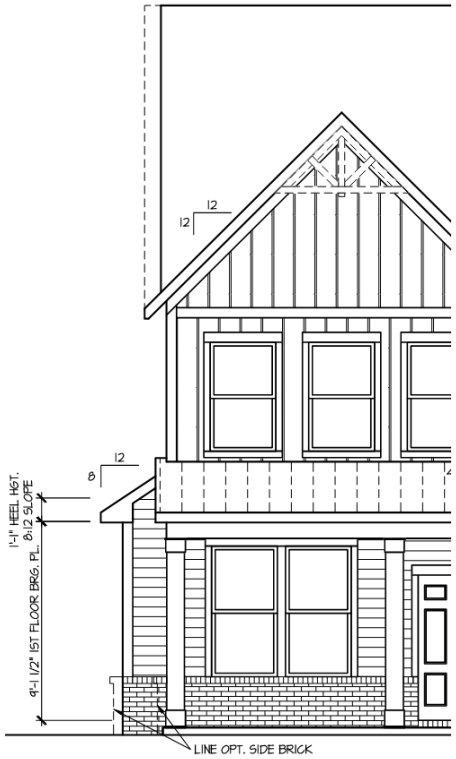


(Optional) Bonus Room

Pelham (SF) - Elevation #9



Front Elevation #9



(Optional) Side Bay



(Optional) Mixed Brick / Stone



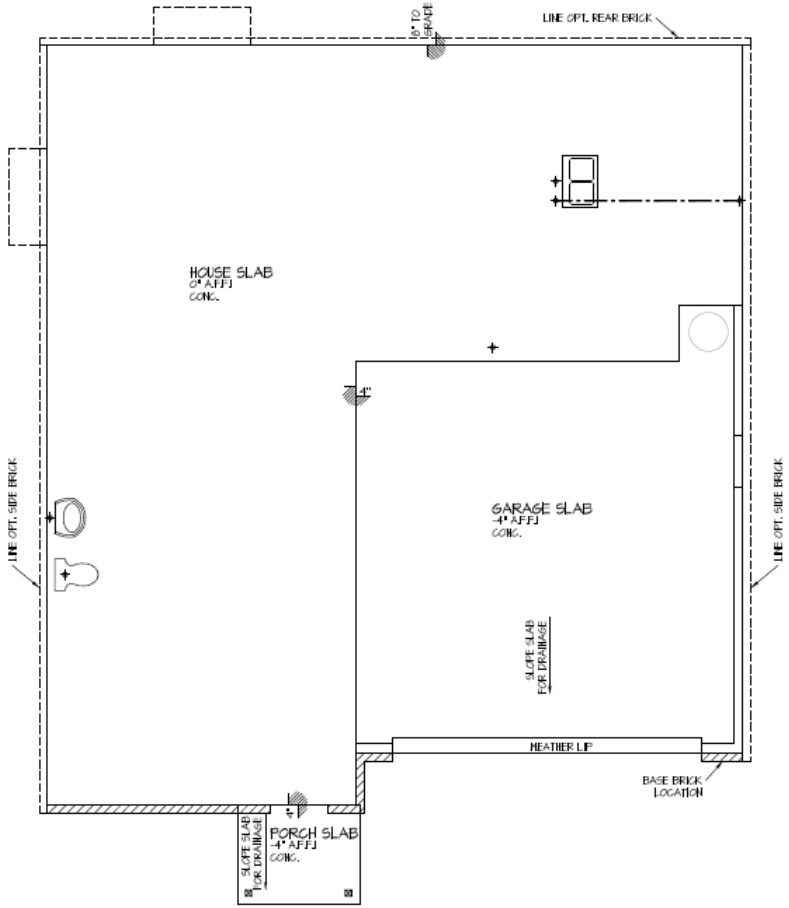
(Optional) Full Brick



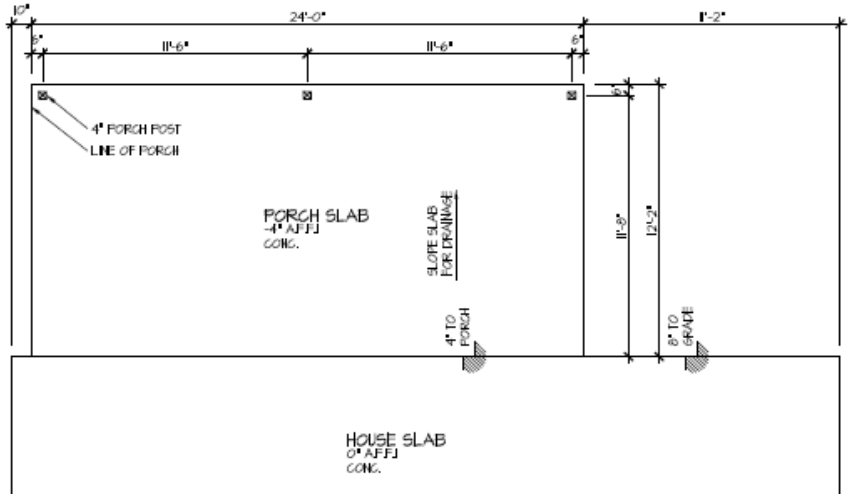
(Optional) First Floor Brick

Pelham (SF) - Options

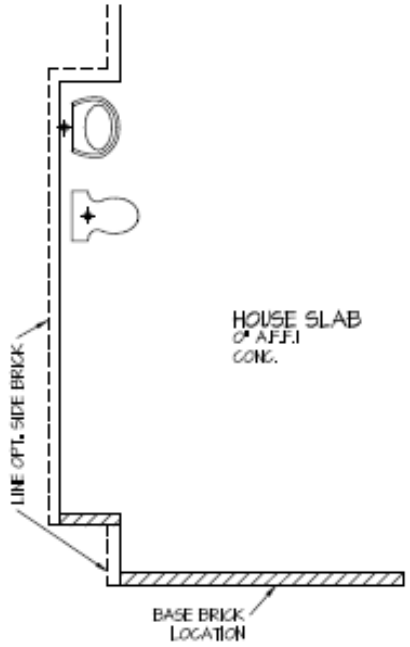
Note: Foundation Plan changes based on elevation and structural options.



Foundation

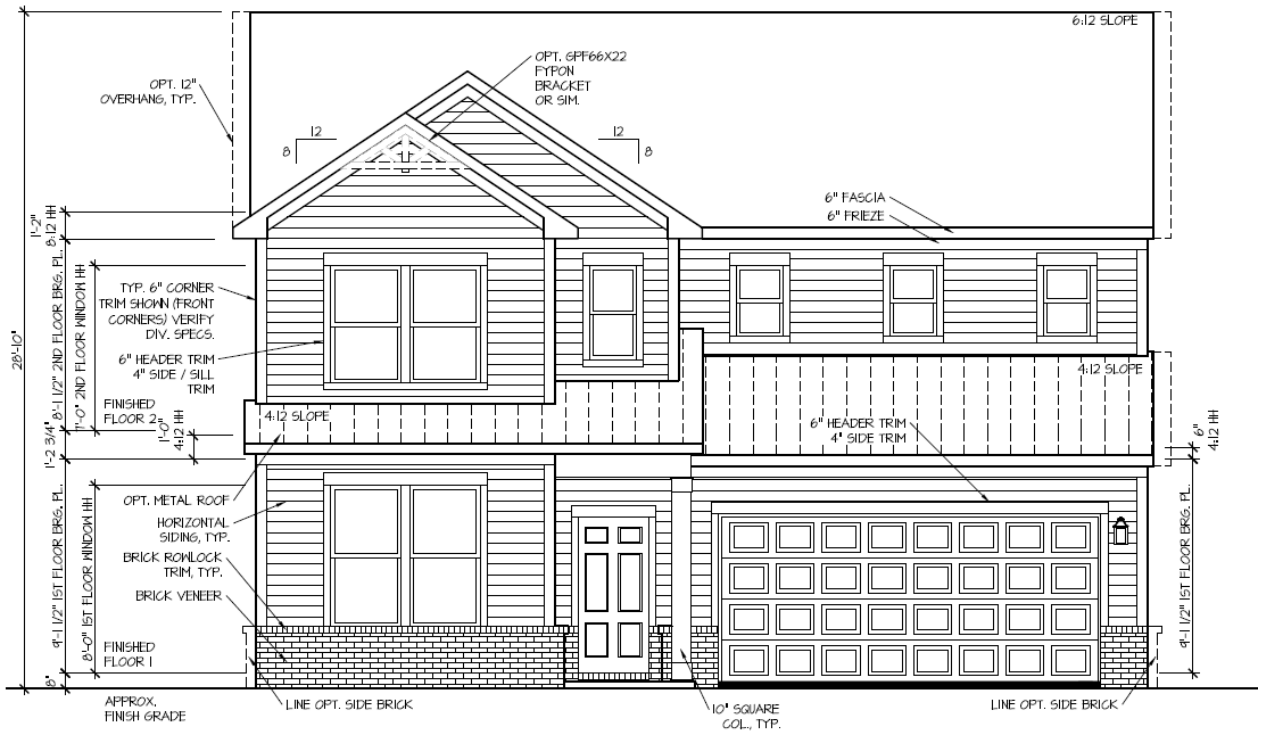


(Optional) Large Rear Porch

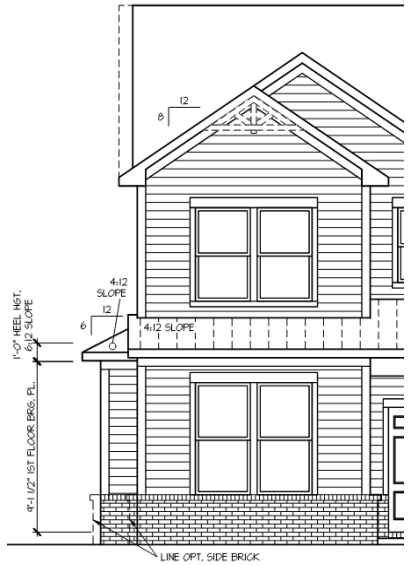


(Optional) Side Bay

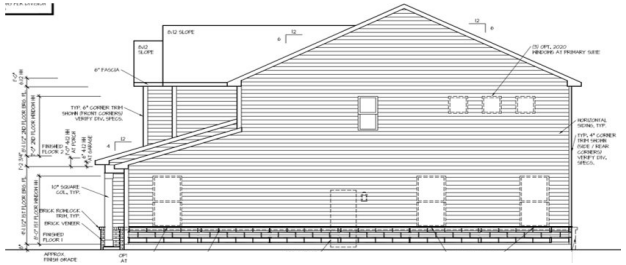
Wynwood (SF) - Elevation #1



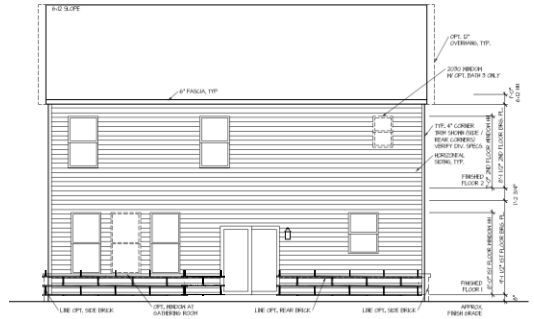
Front Elevation #1



(Optional) Side Bay



Side Elevation

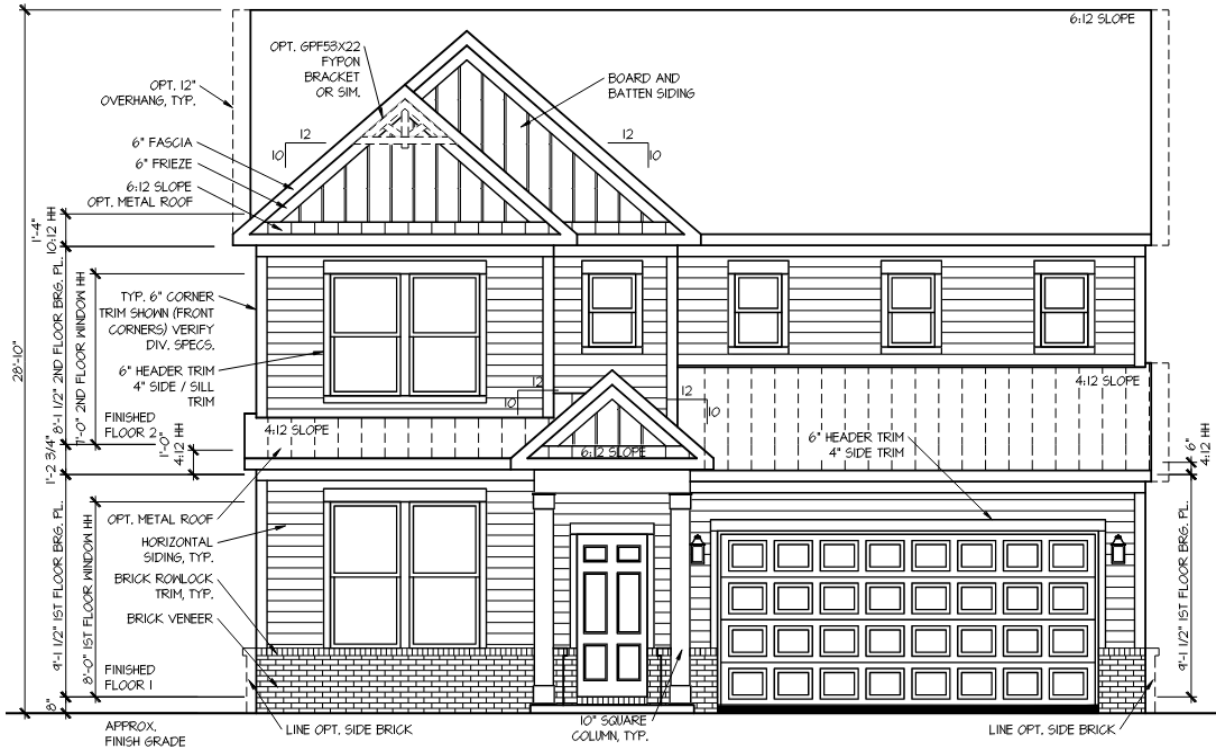


Rear Elevation

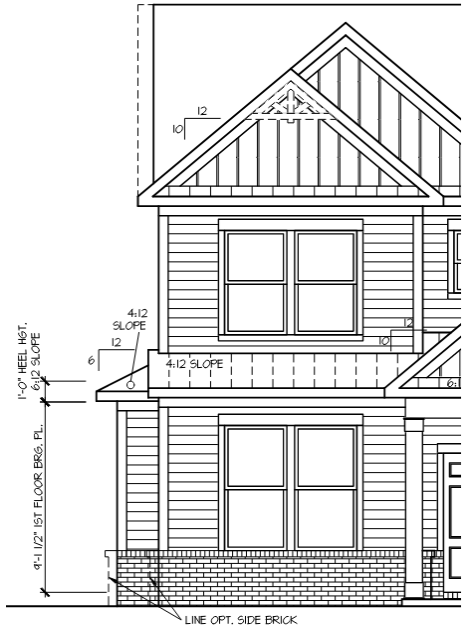


(Optional) Bonus Room

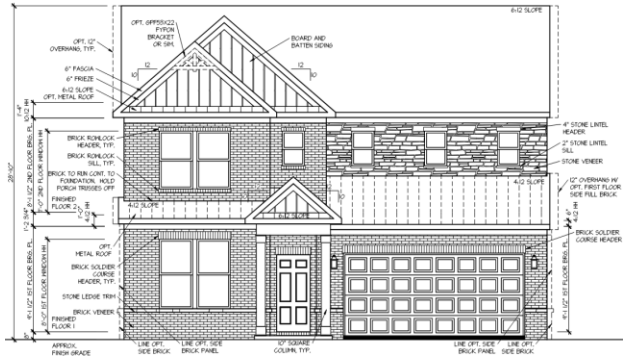
Wynwood (SF) - Elevation #2



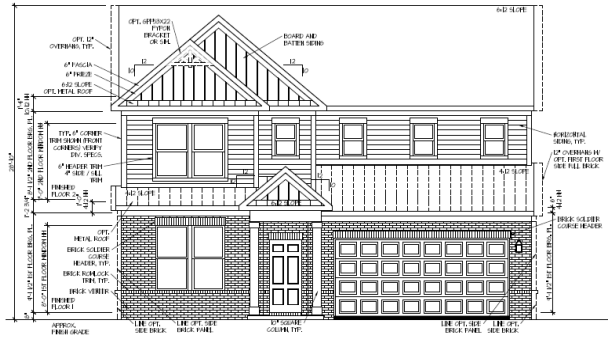
Front Elevation #2



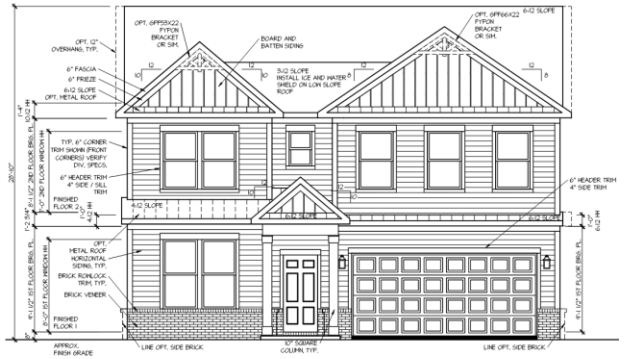
(Optional) Side Bay



(Optional) Mixed Brick / Stone

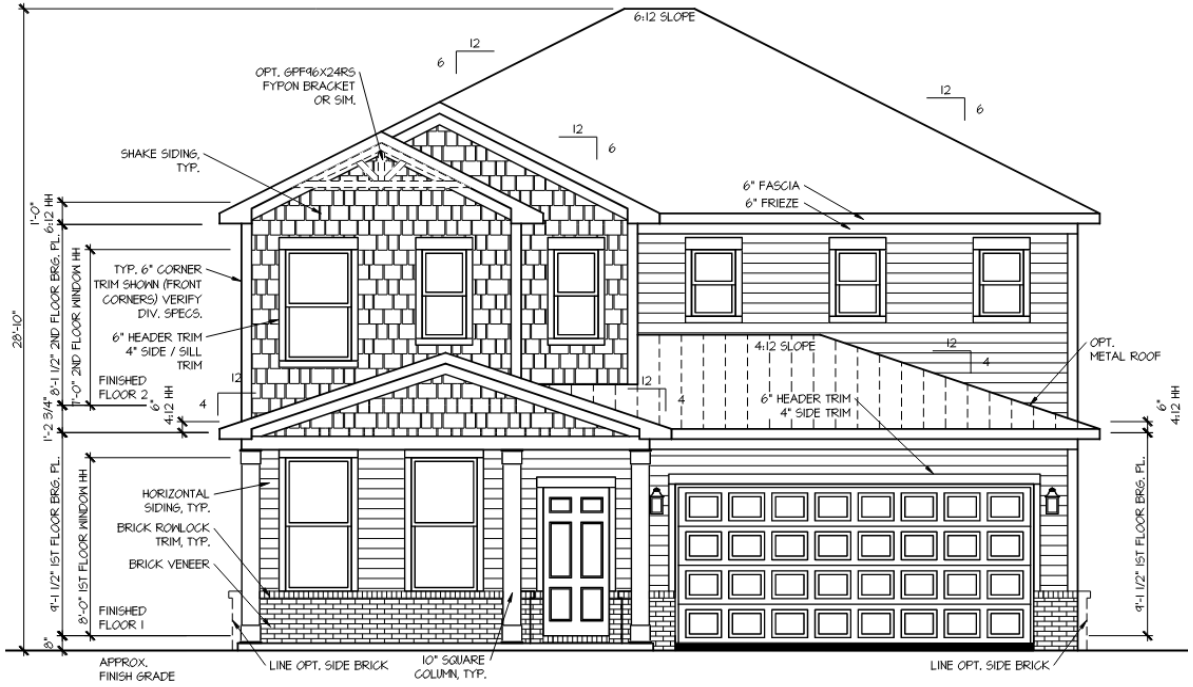


(Optional) First Floor Brick

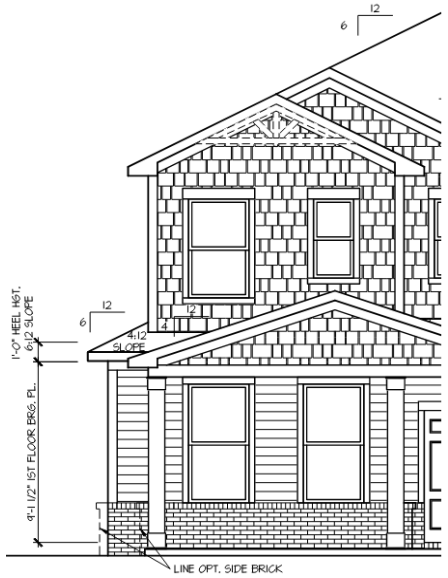


(Optional) Bonus Rooms

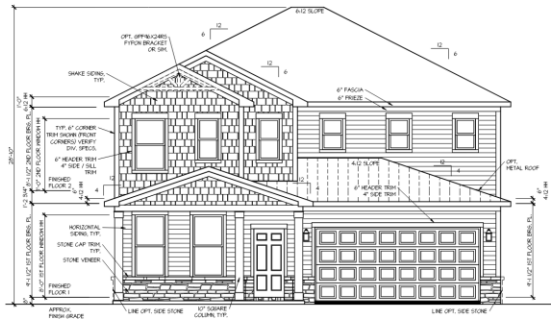
Wynwood (SF) - Elevation #3



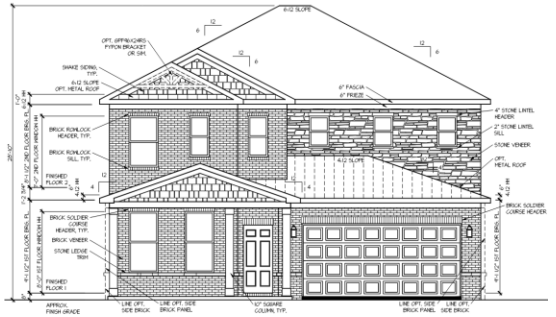
Front Elevation #3



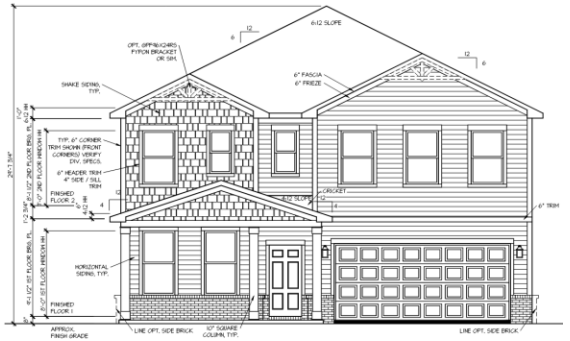
(Optional) Side Bay



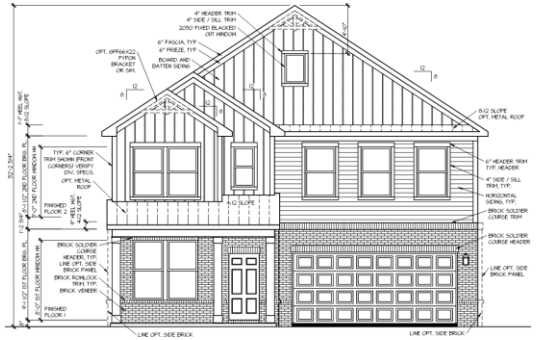
(Optional) Stone Water Table



(Optional) Mixed Brick / Stone

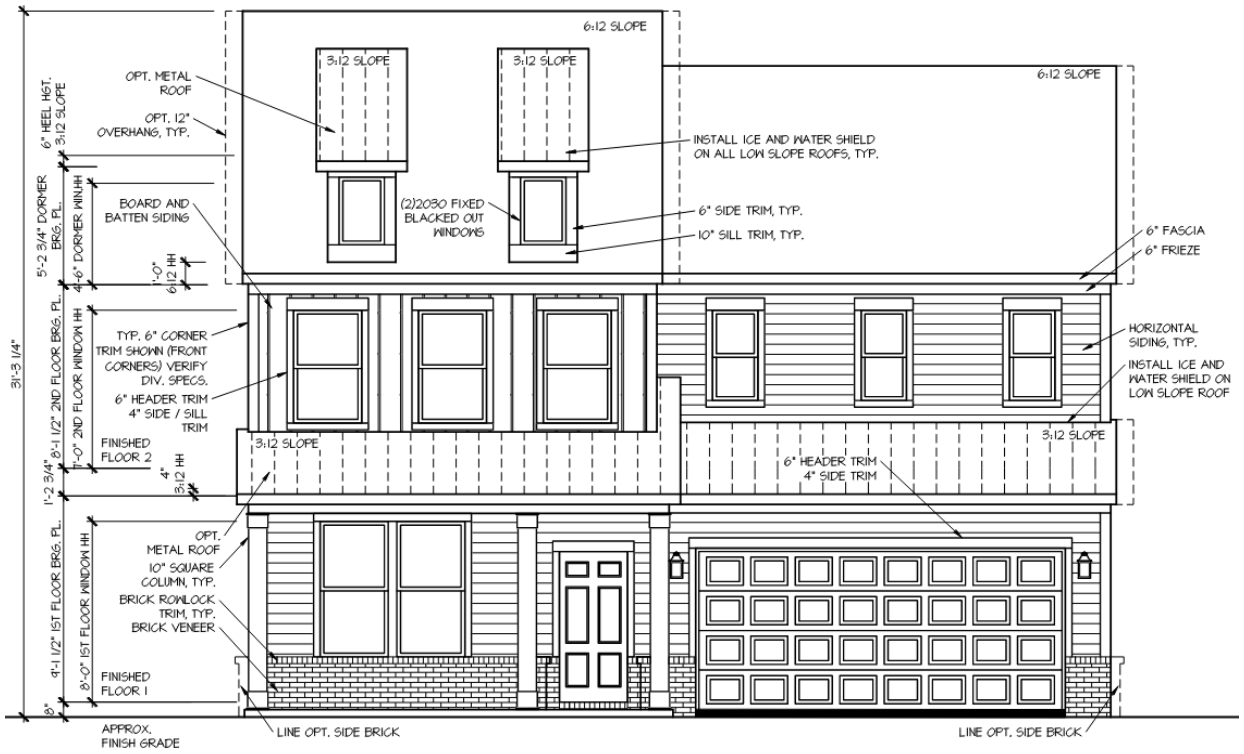


(Optional) Bonus Room

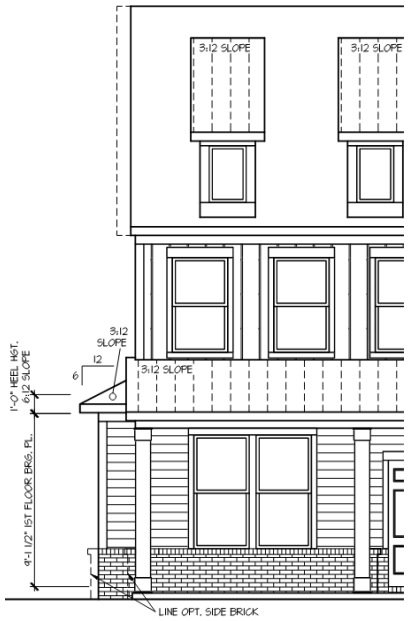


(Optional) First Floor Brick

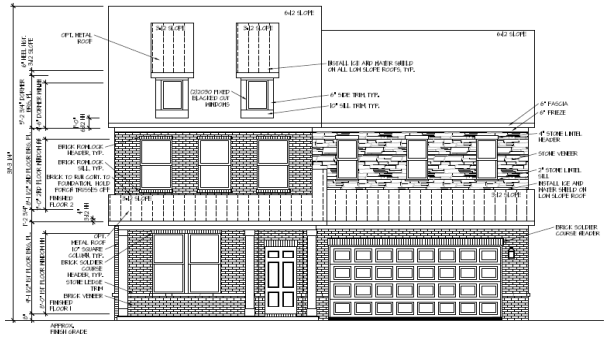
Wynwood (SF) - Elevation #4



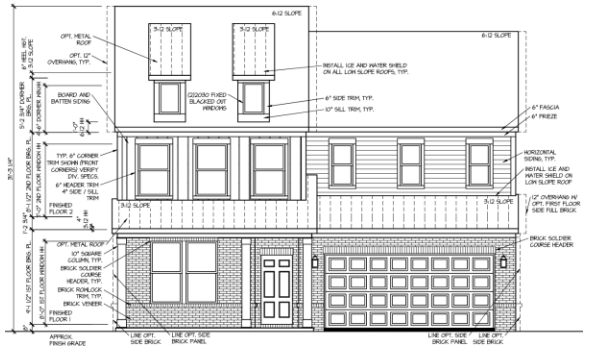
Front Elevation #4



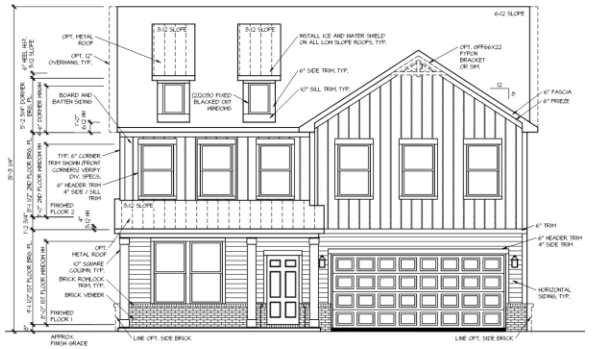
(Optional) Side Bay



(Optional) Mixed Brick / Stone

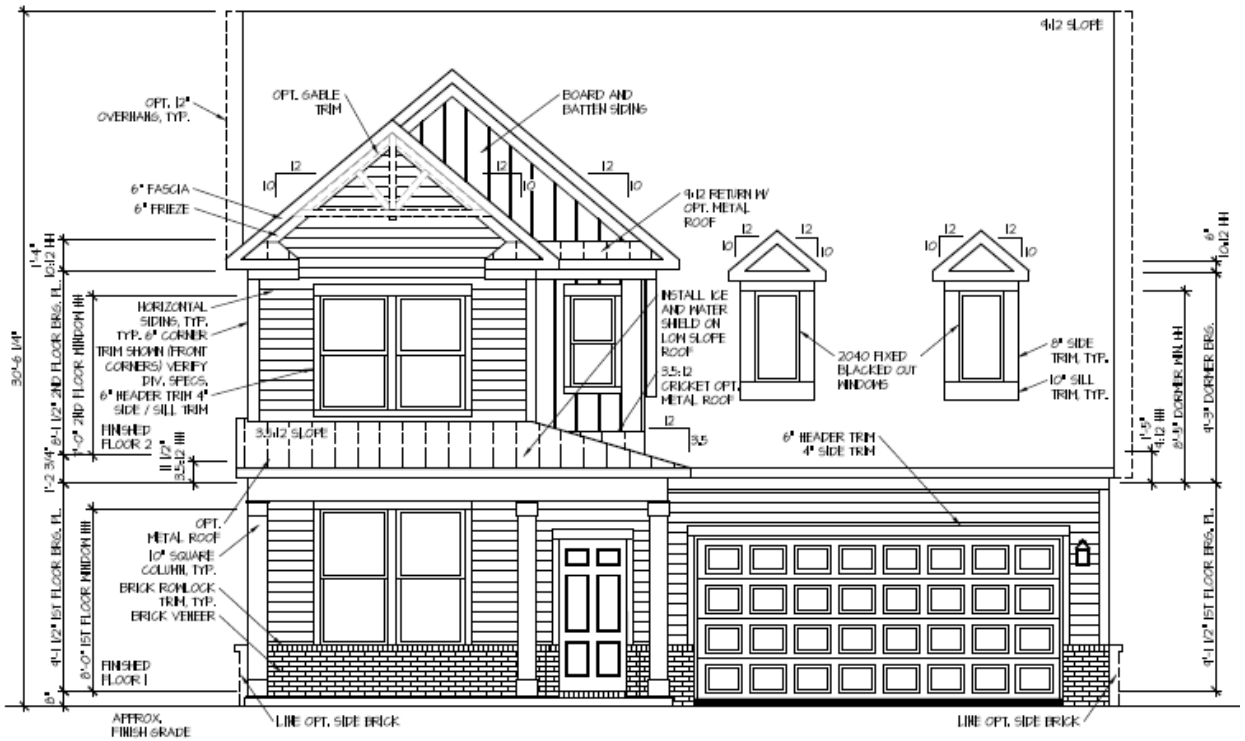


(Optional) First Floor Brick

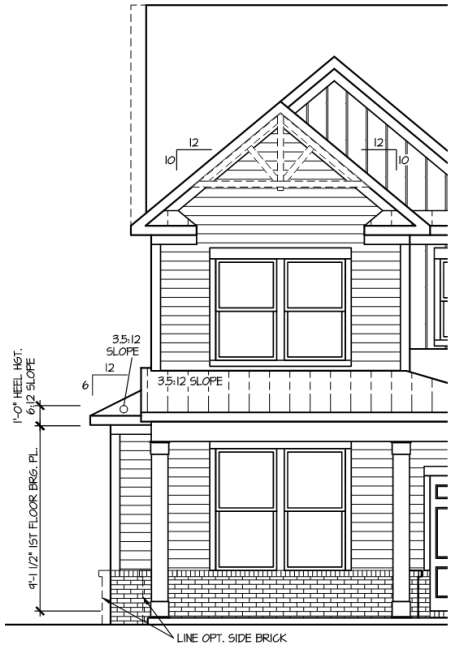


(Optional) Bonus Room

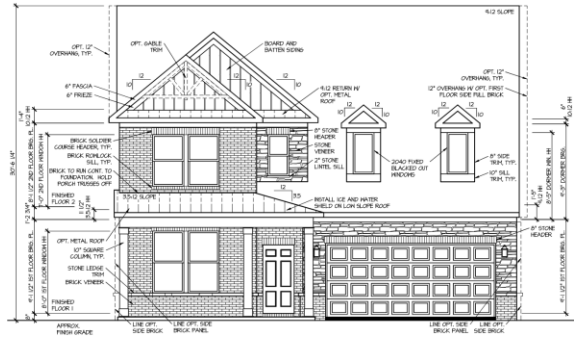
Wynwood (SF) - Elevation #7



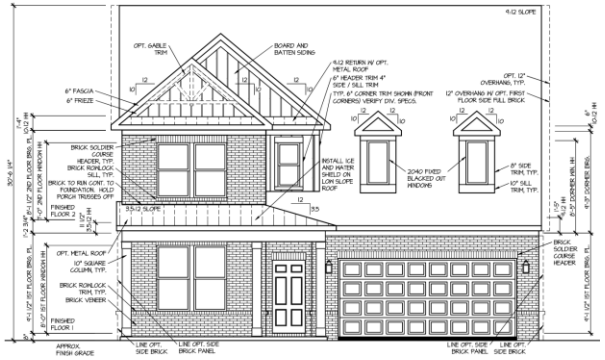
Front Elevation #7



(Optional) Side Bay



(Optional) Mixed Brick / Stone

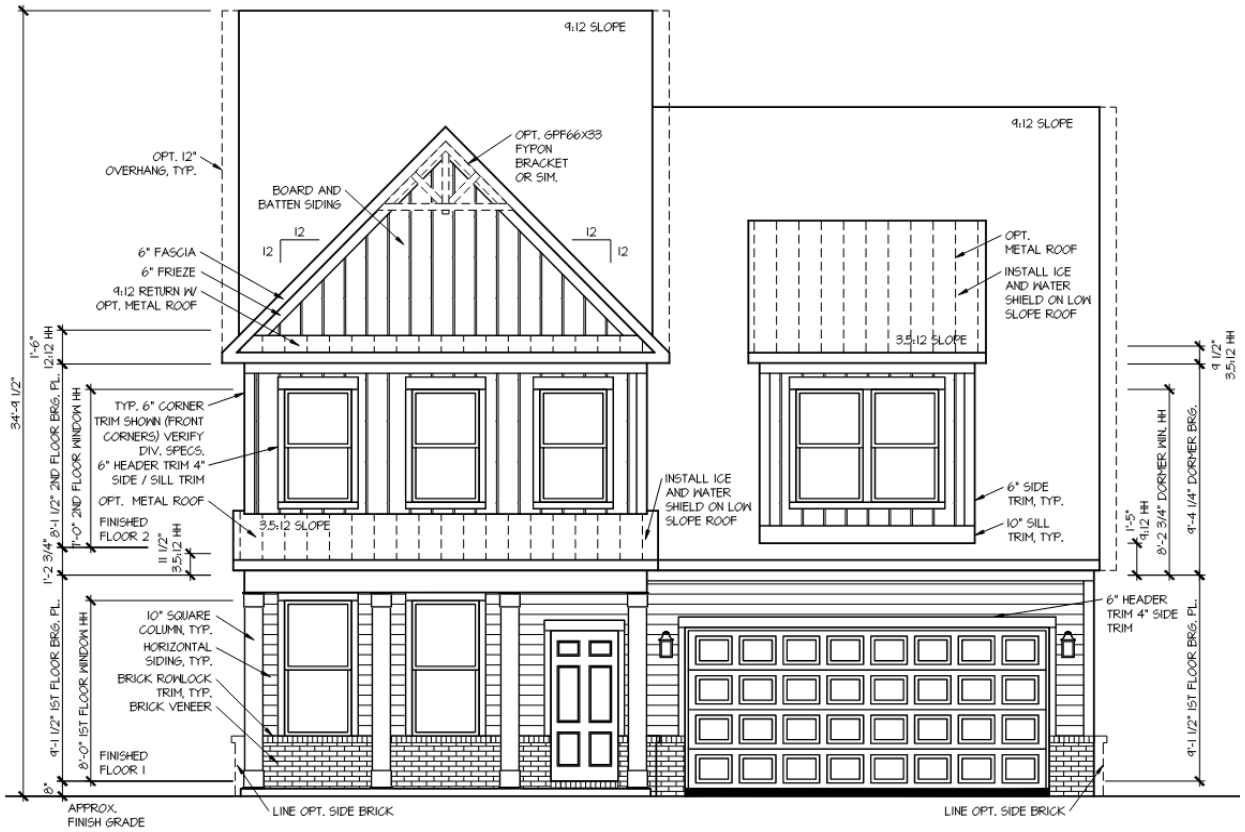


(Optional) First Floor Brick

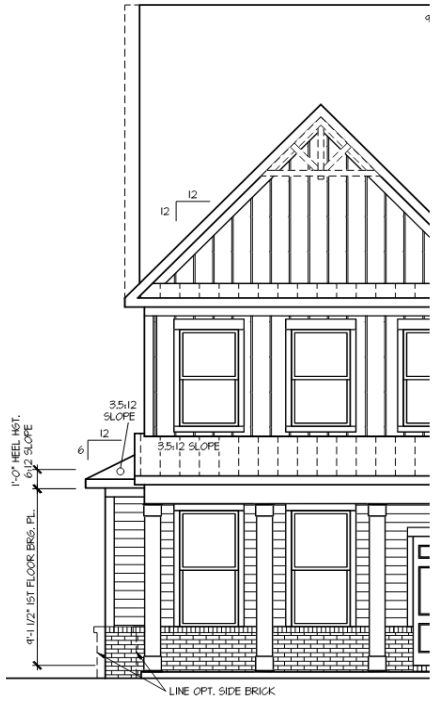


(Optional) Bonus Rooms

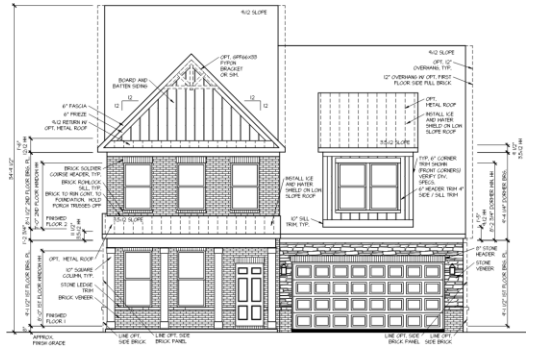
Wynwood (SF) - Elevation #9



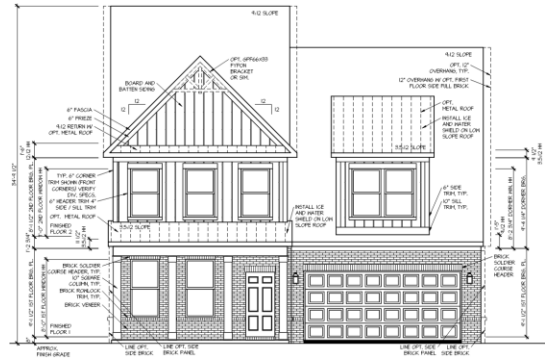
Front Elevation #9



(Optional) Side Bay



(Optional) Mixed Brick / Stone



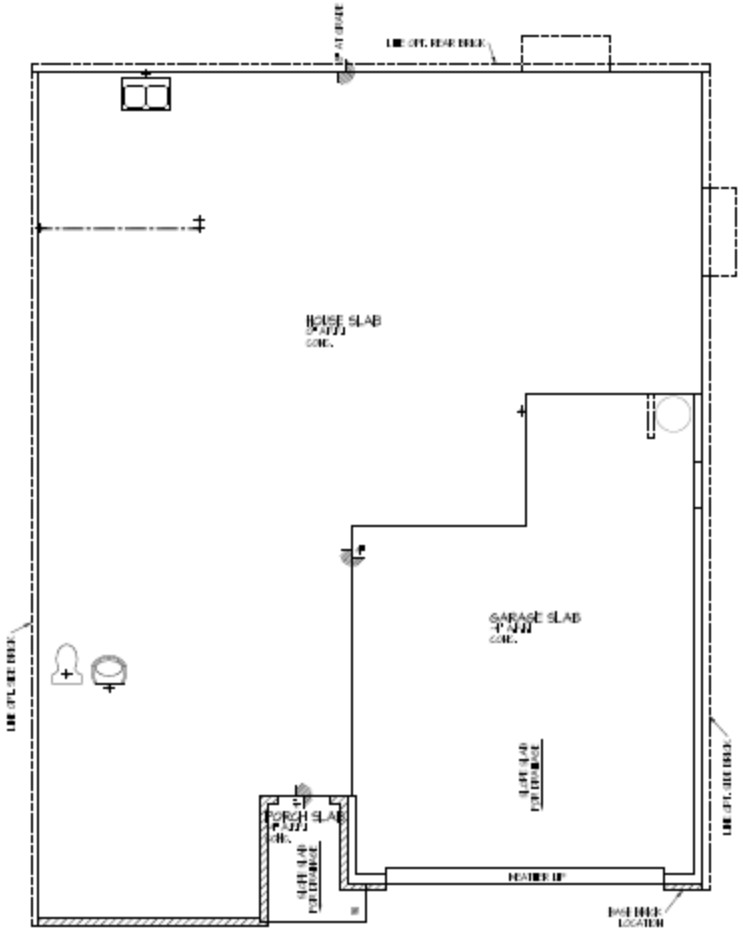
(Optional) First Floor Brick



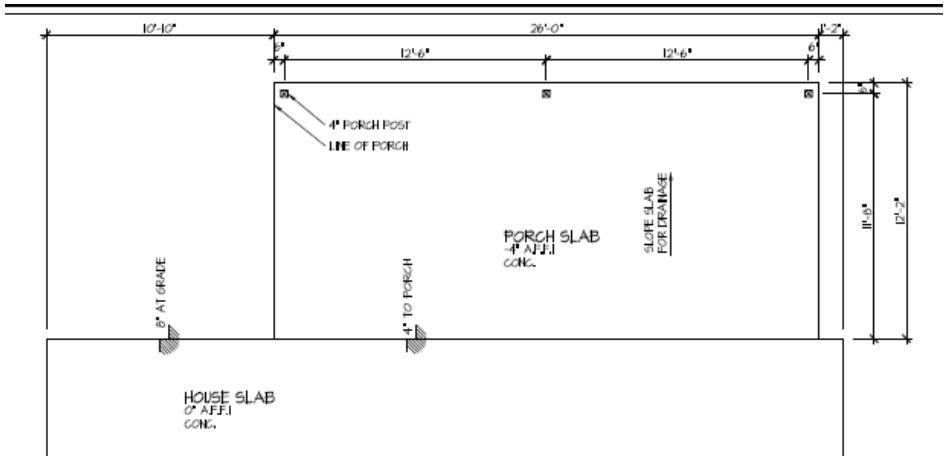
(Optional) Bonus Room

Wynwood (SF) - Options

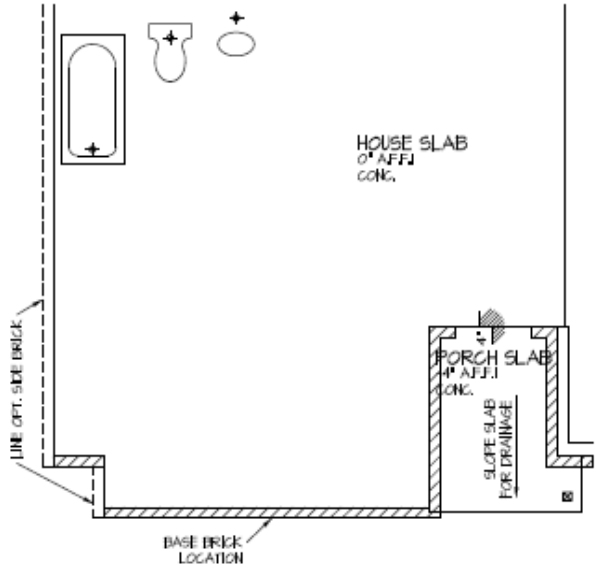
Note: Foundation Plan changes based on elevation and structural options.



Foundation

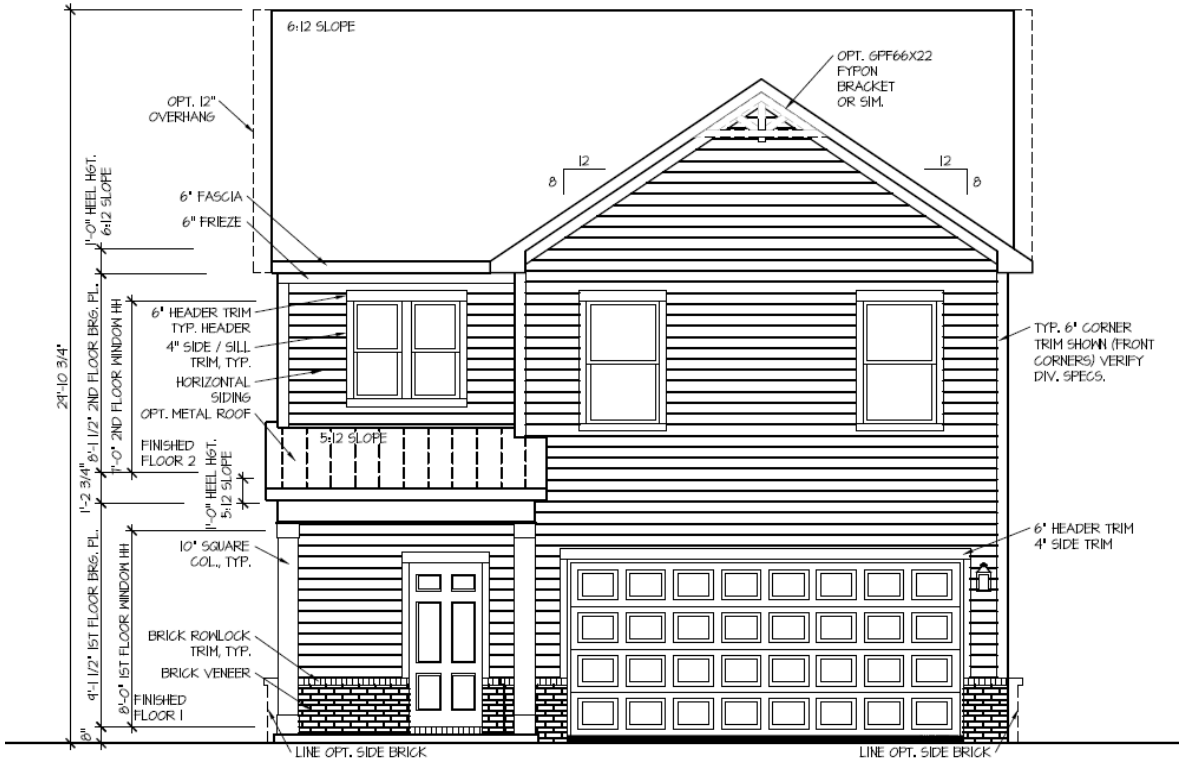


(Optional) Large Rear Porch

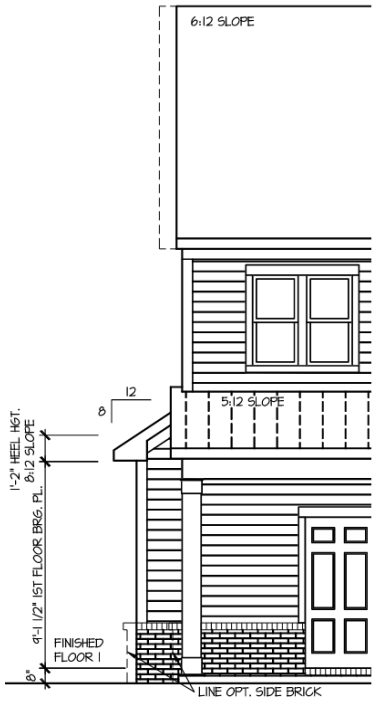


(Optional) Side Bay w/ Bedroom 5

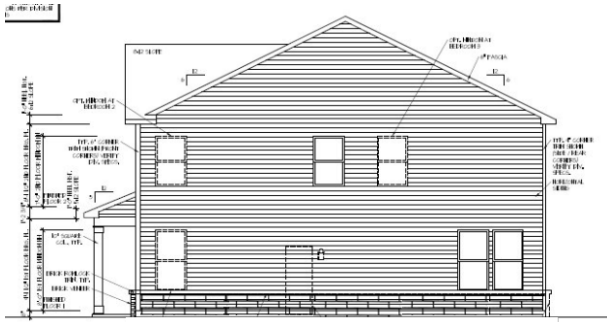
Lavender (SF) - Elevation #1



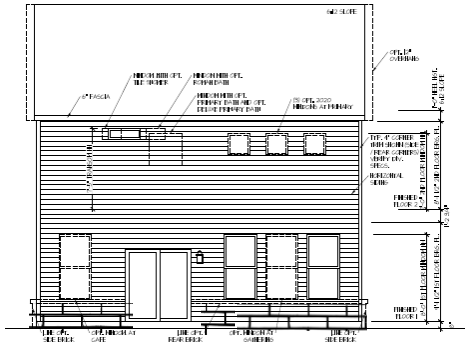
Front Elevation #1



(Optional) Side Bay

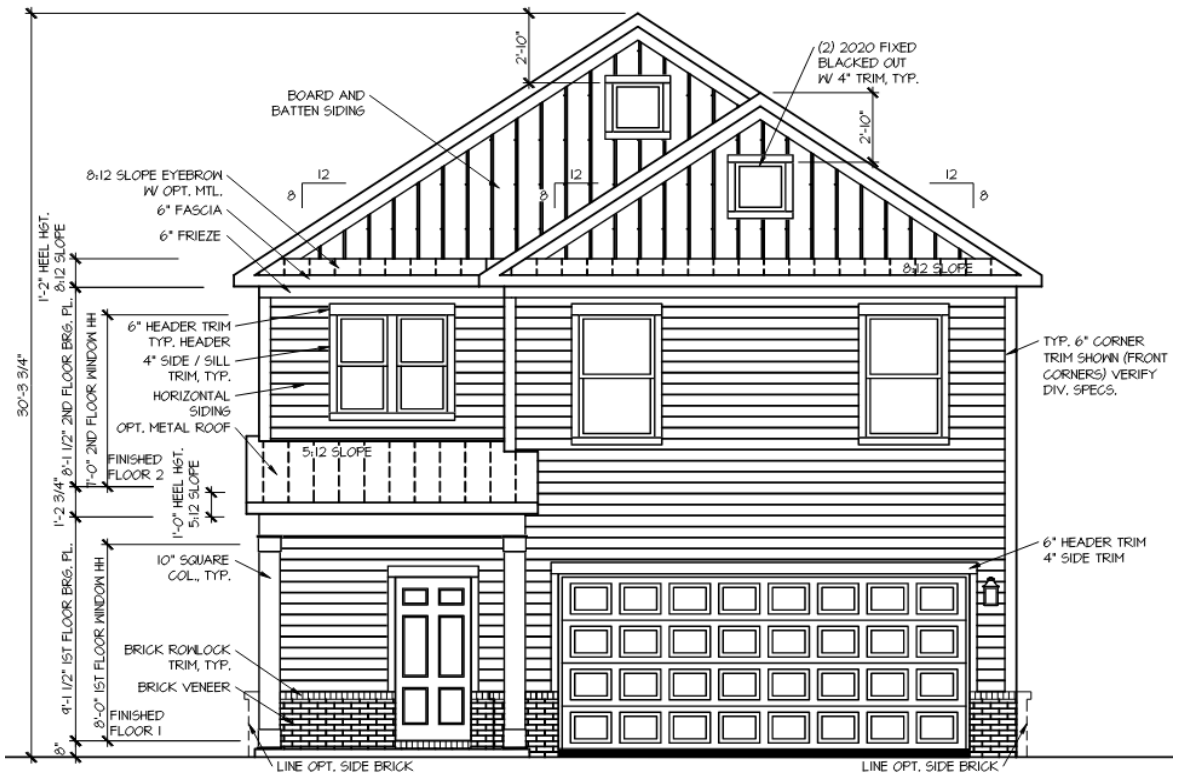


Side Elevation

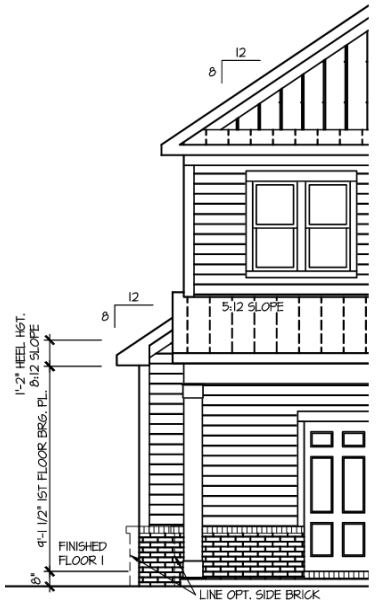


Rear Elevation

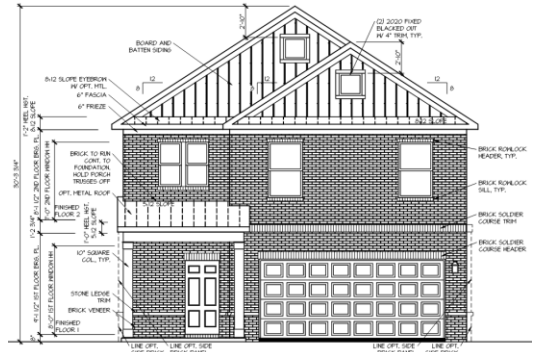
Lavender (SF) - Elevation #2



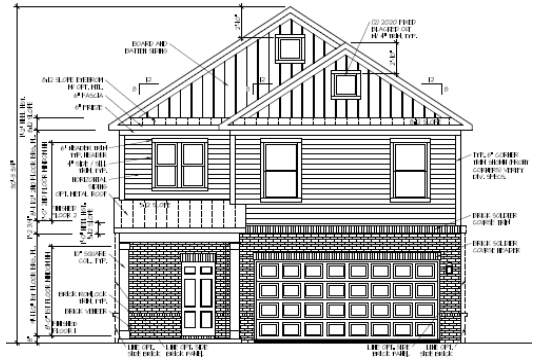
Front Elevation #2



(Optional) Side Bay

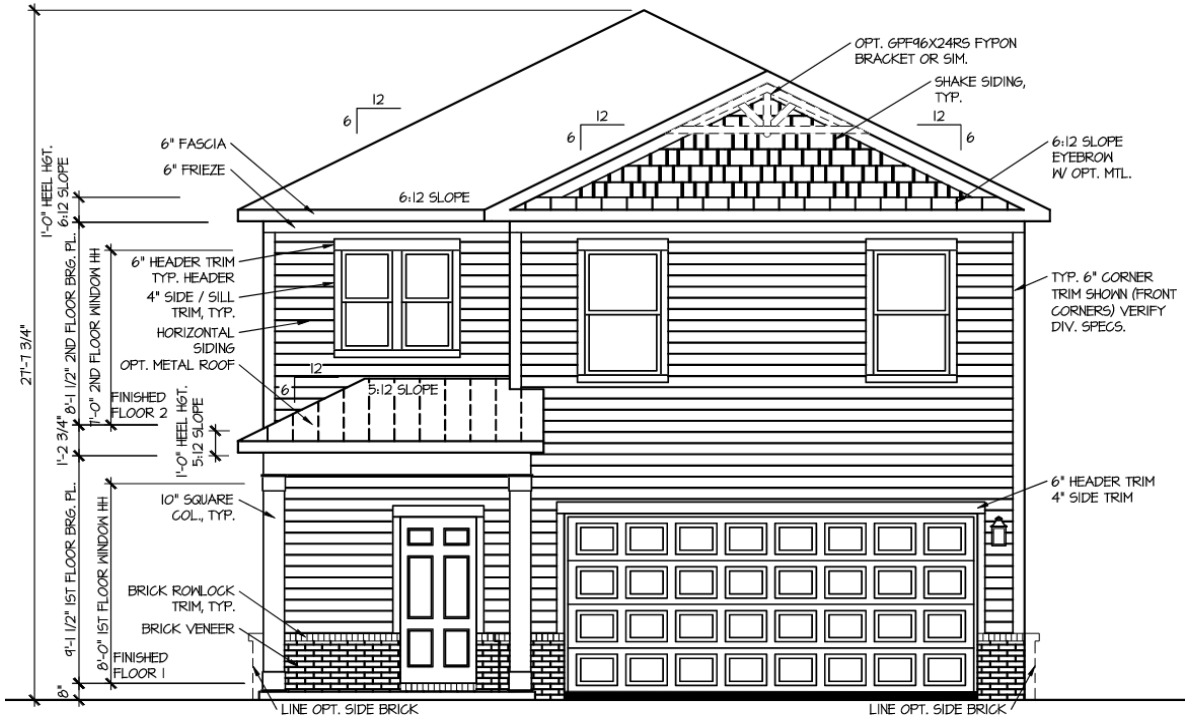


(Optional) Full Brick + Mixed Brick / Stone

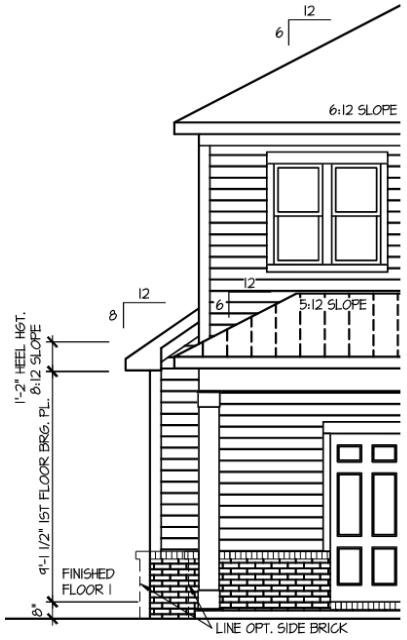


(Optional) First Floor Brick

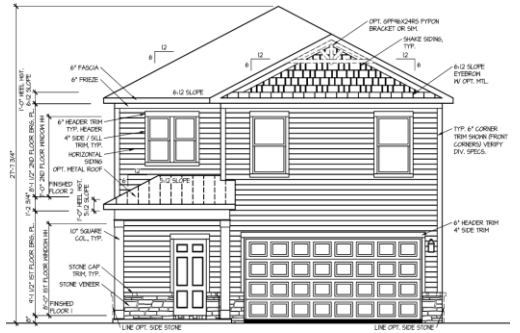
Lavender (SF) - Elevation #3



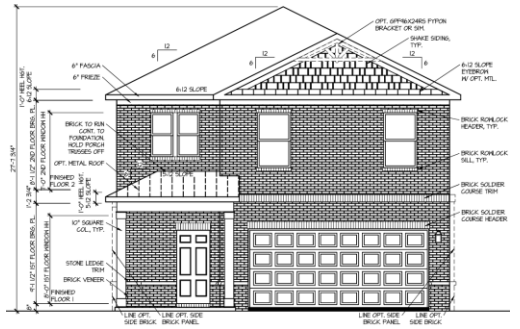
Front Elevation #3



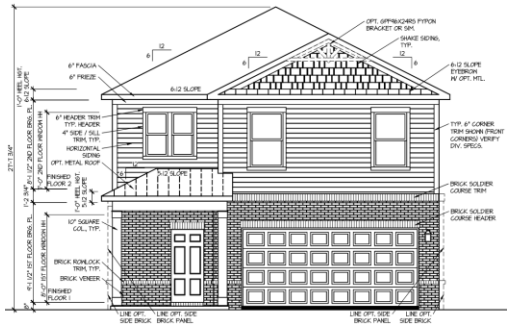
(Optional) Side Bay



(Optional) Stone Water Table



(Optional) Full Brick + Mixed Brick / Stone

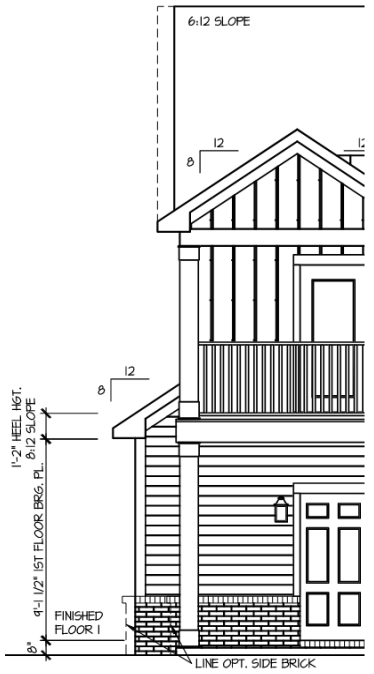


(Optional) First Floor Brick

Lavender (SF) - Elevation #4



Front Elevation #4



(Optional) Side Bay

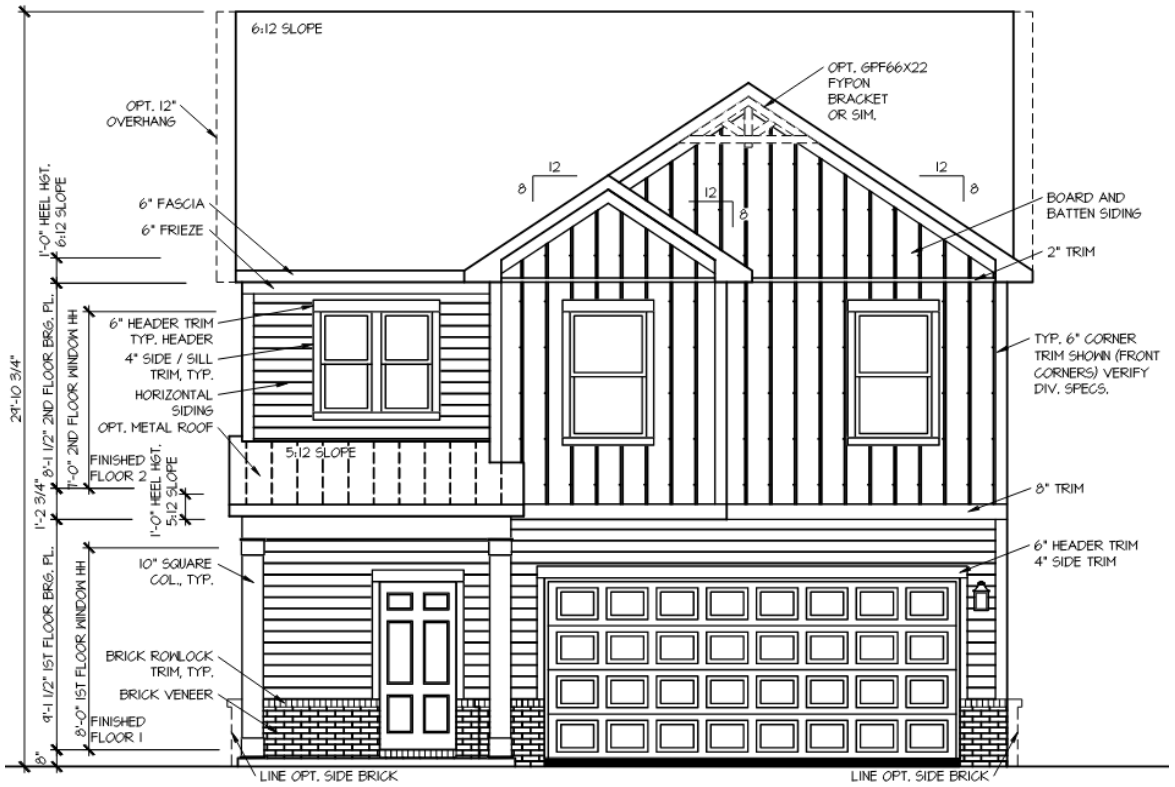


(Optional) Full Brick + Mixed Brick / Stone

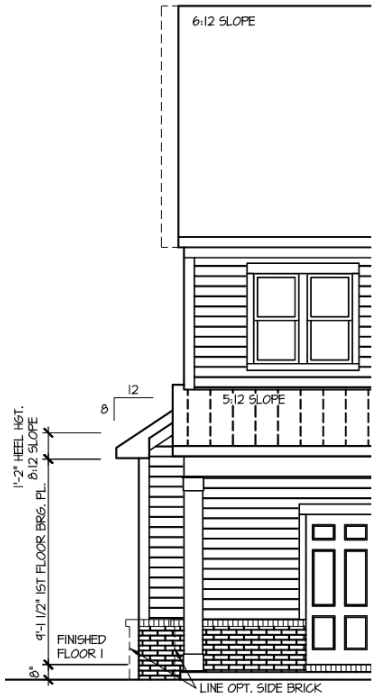


(Optional) First Floor Brick

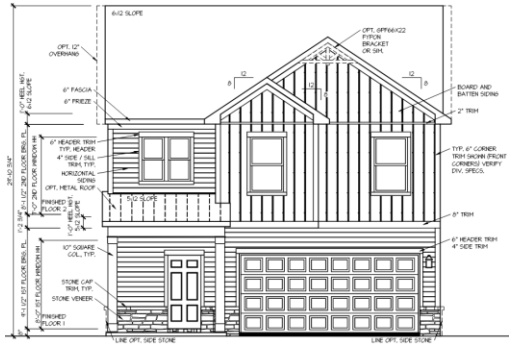
Lavender (SF) - Elevation #5



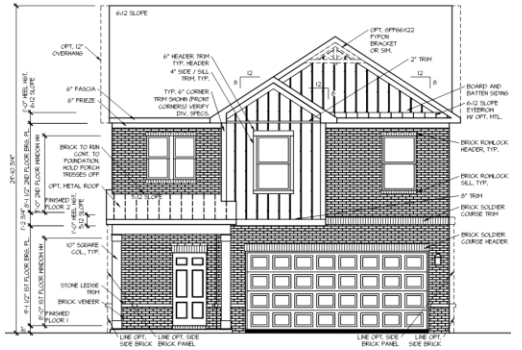
Front Elevation #5



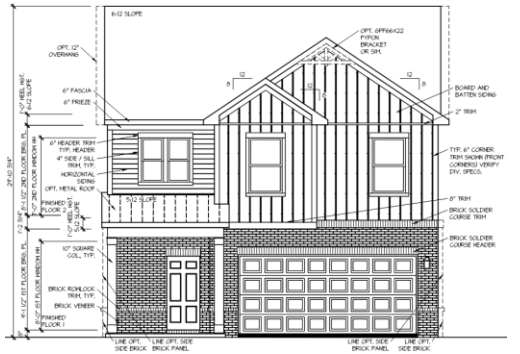
(Optional) Side Bay



(Optional) Stone Water Table

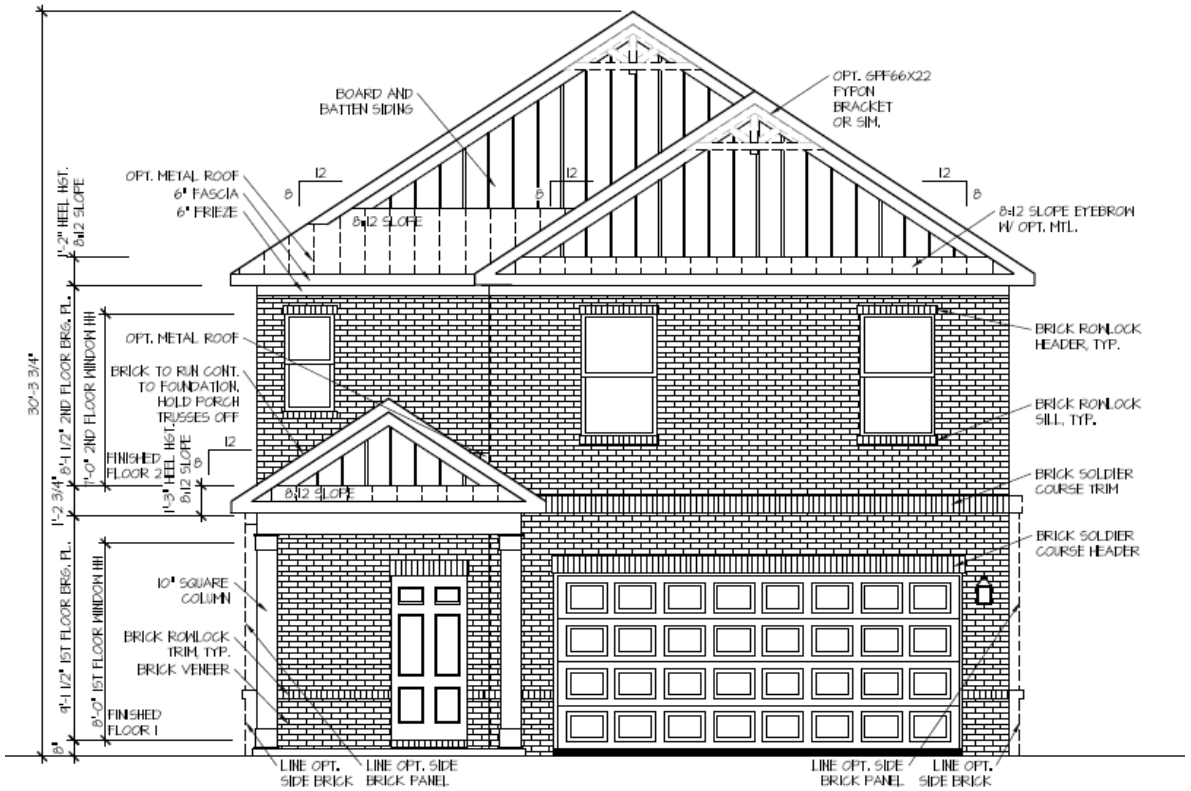


(Optional) Full Brick + Mixed Brick / Stone

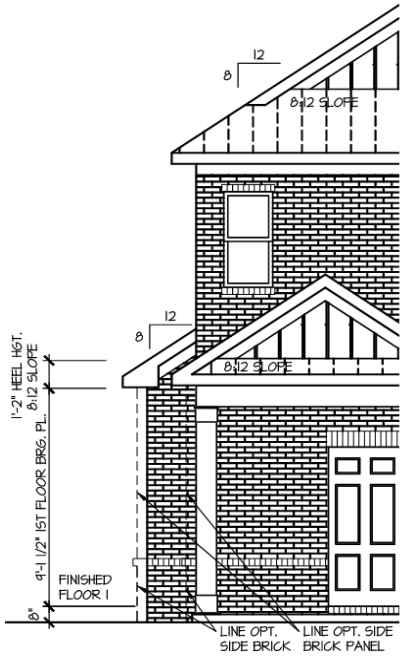


(Optional) First Floor Brick

Lavender (SF) - Elevation #6



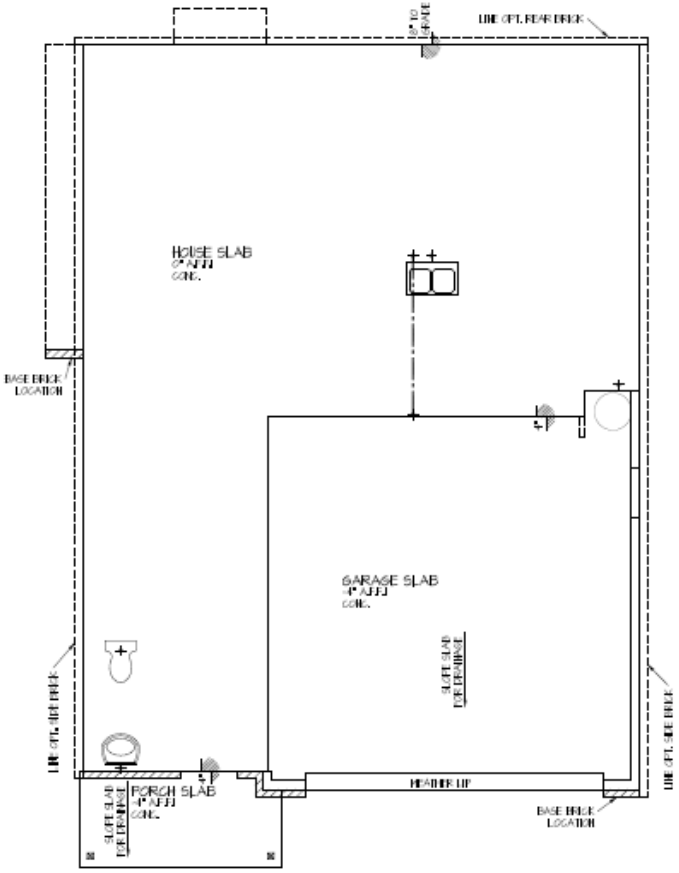
Front Elevation #6



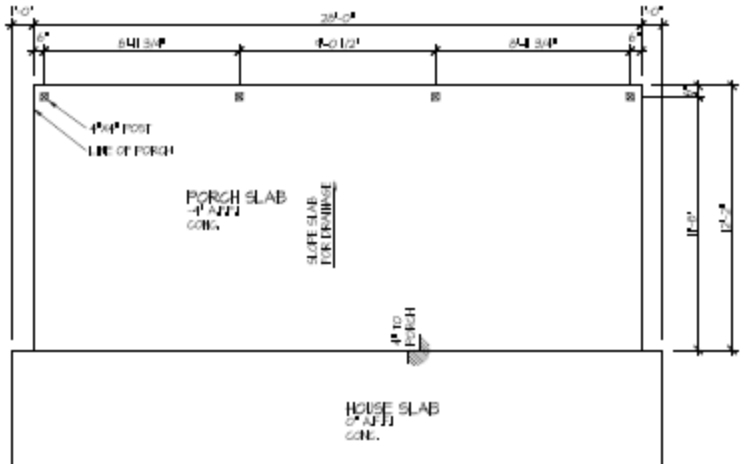
(Optional) Side Bay

Lavender (SF) - Options

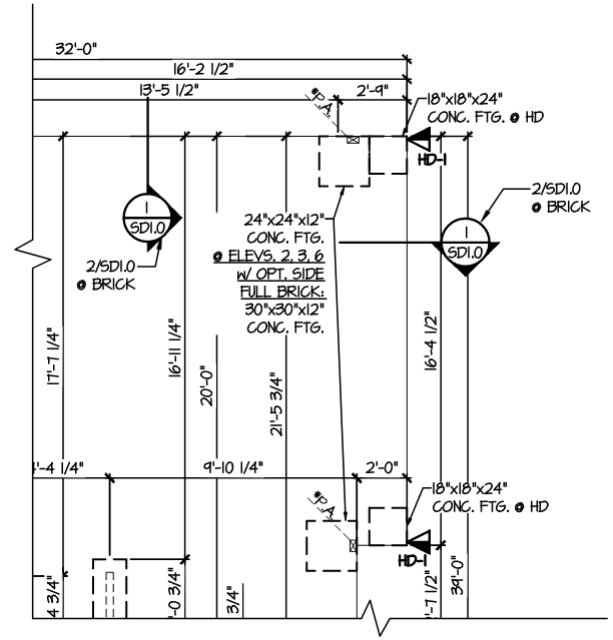
Note: Foundation Plan changes based on elevation and structural options.



Foundation

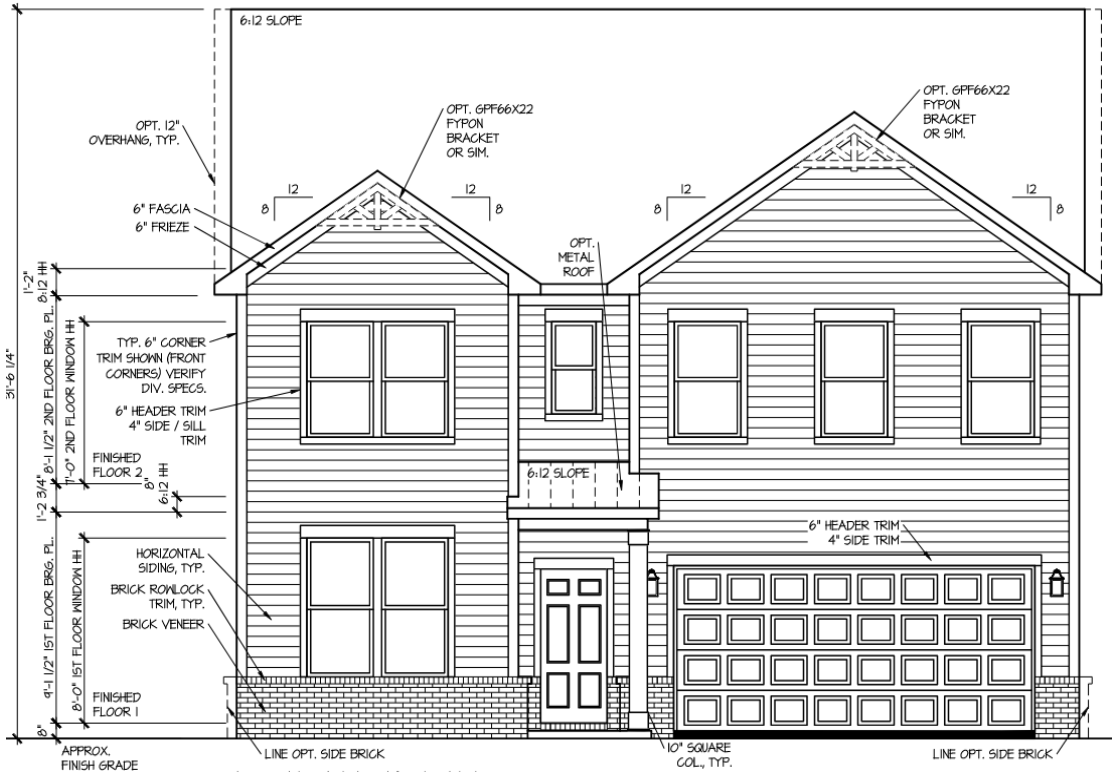


(Optional) Large Rear Porch

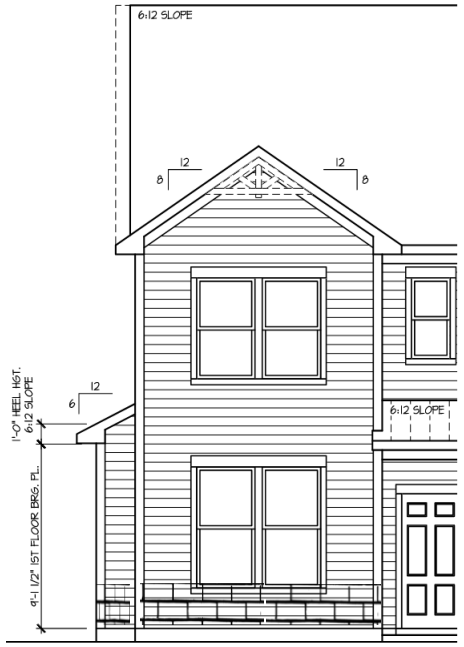


(Optional) Side Bay

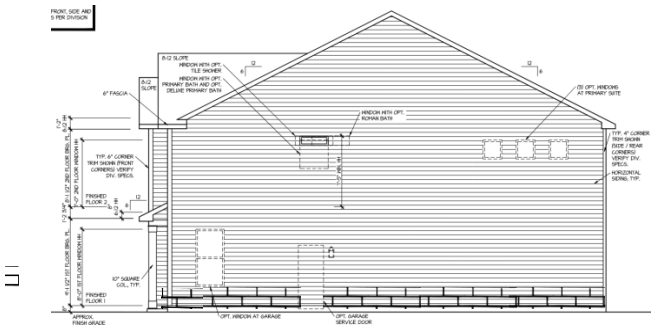
Wagener (SF) - Elevation #1



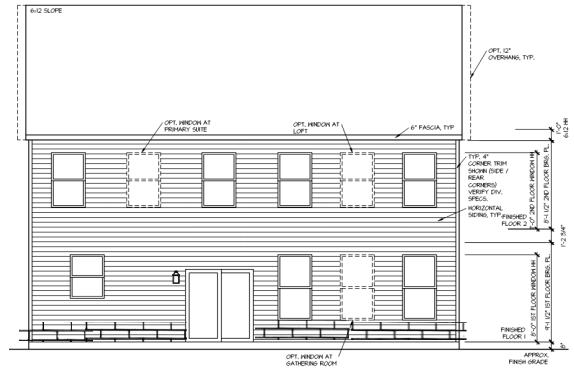
Front Elevation #1



(Optional) Side Bay

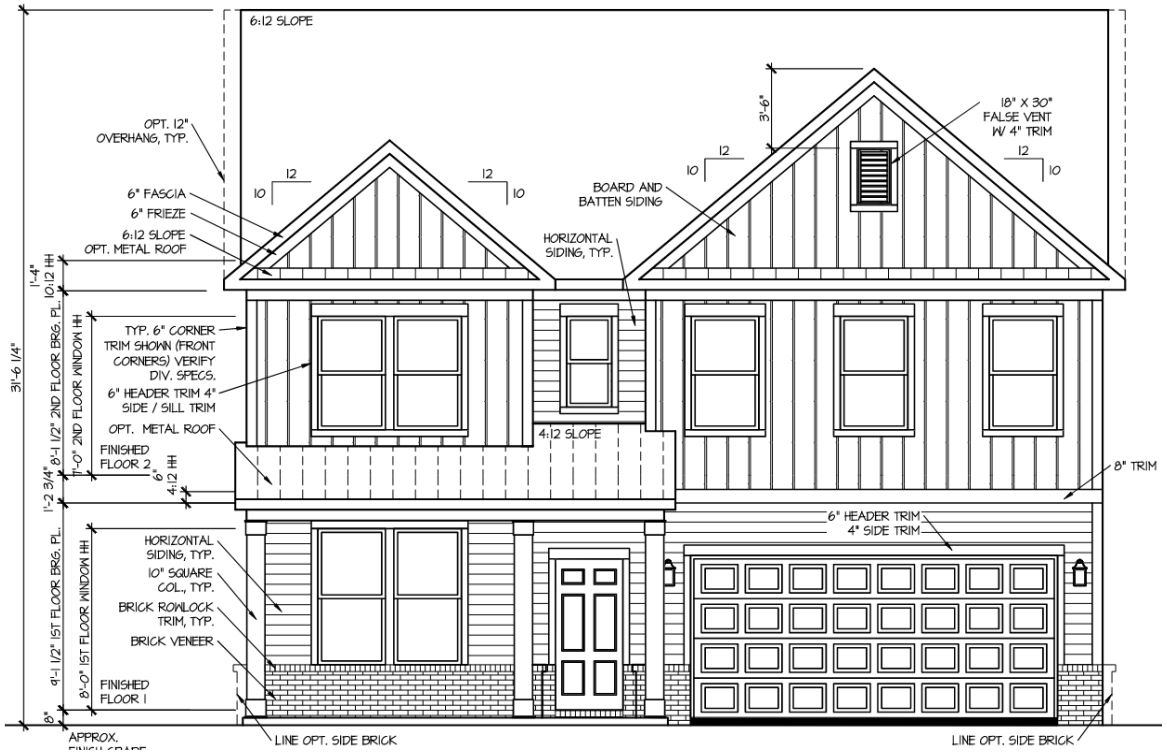


Side Elevation

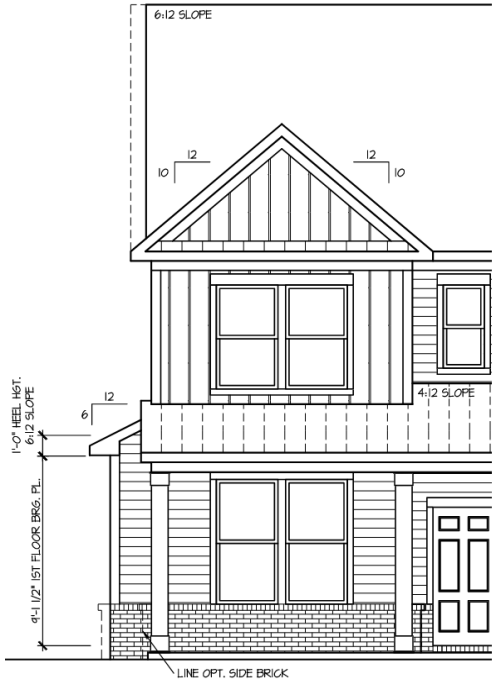


Rear Elevation

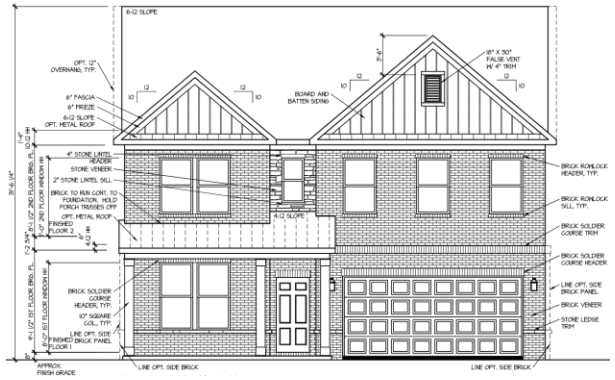
Wagener (SF) - Elevation #2



Front Elevation #2



(Optional) Side Bay

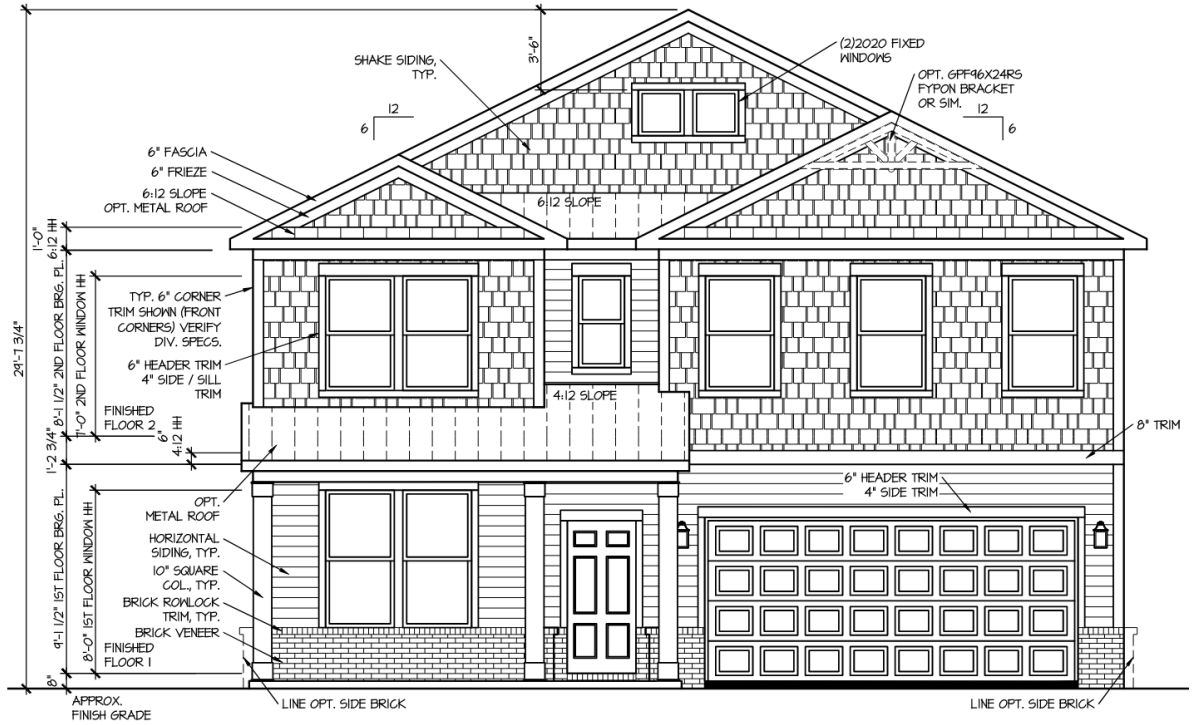


(Optional) Mixed Brick / Stone

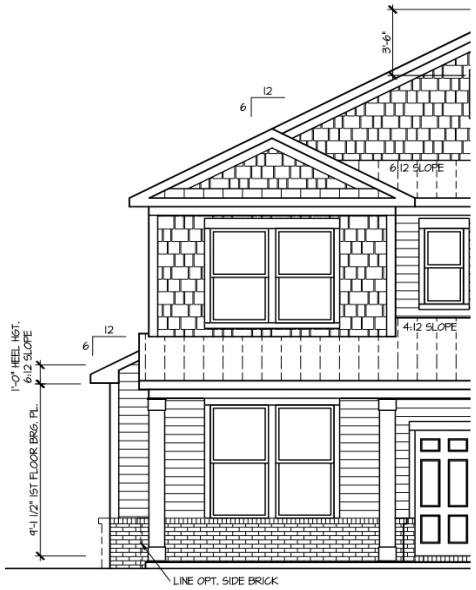


(Optional) First Floor Brick

Wagener (SF) - Elevation #3



Front Elevation #3



(Optional) Side Bay

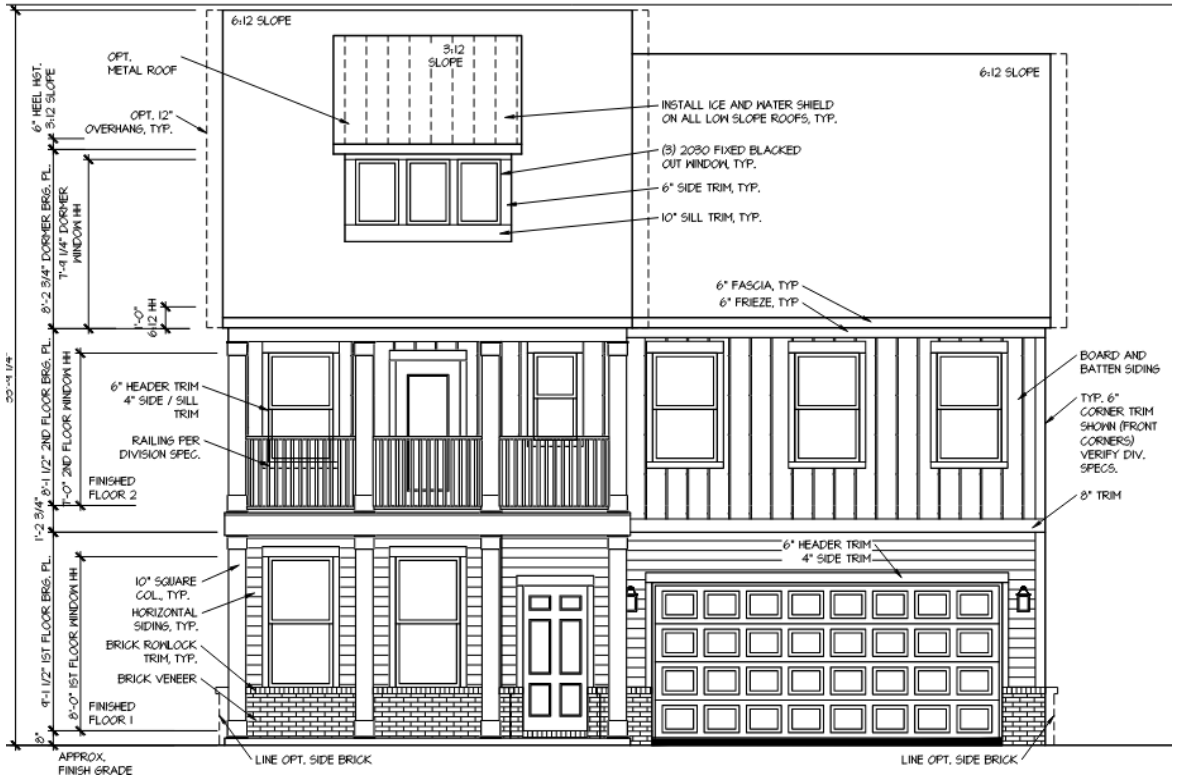


(Optional) Mixed Brick / Stone

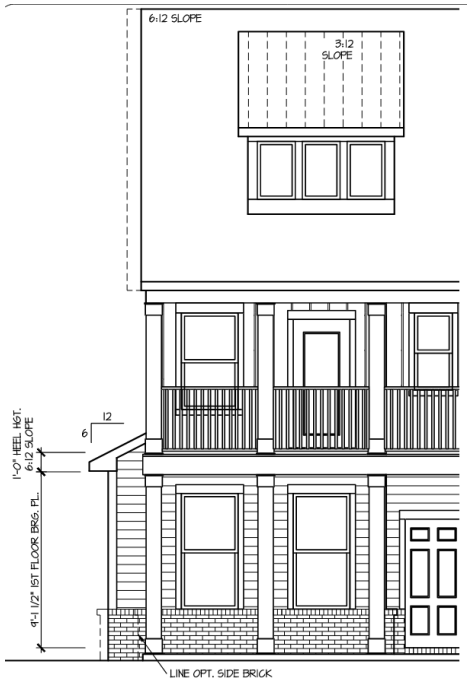


(Optional) First Floor Brick

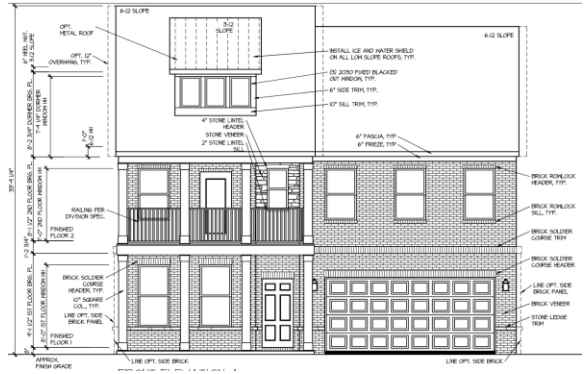
Wagener (SF) - Elevation #4



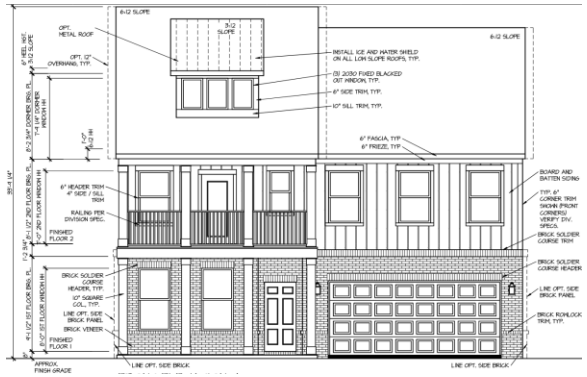
Front Elevation #4



(Optional) Side Bay



(Optional) Mixed Brick / Stone

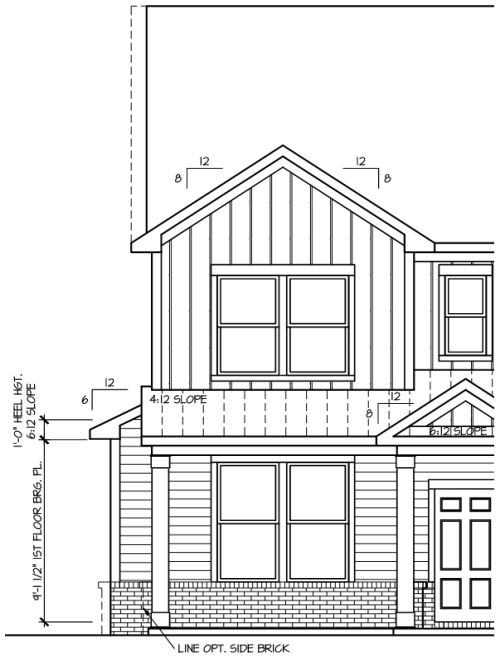


(Optional) First Floor Brick

Wagener (SF) - Elevation #5



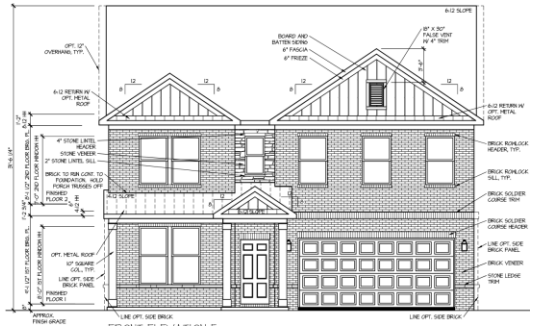
Front Elevation #5



(Optional) Side Bay



(Optional) Stone Water Table

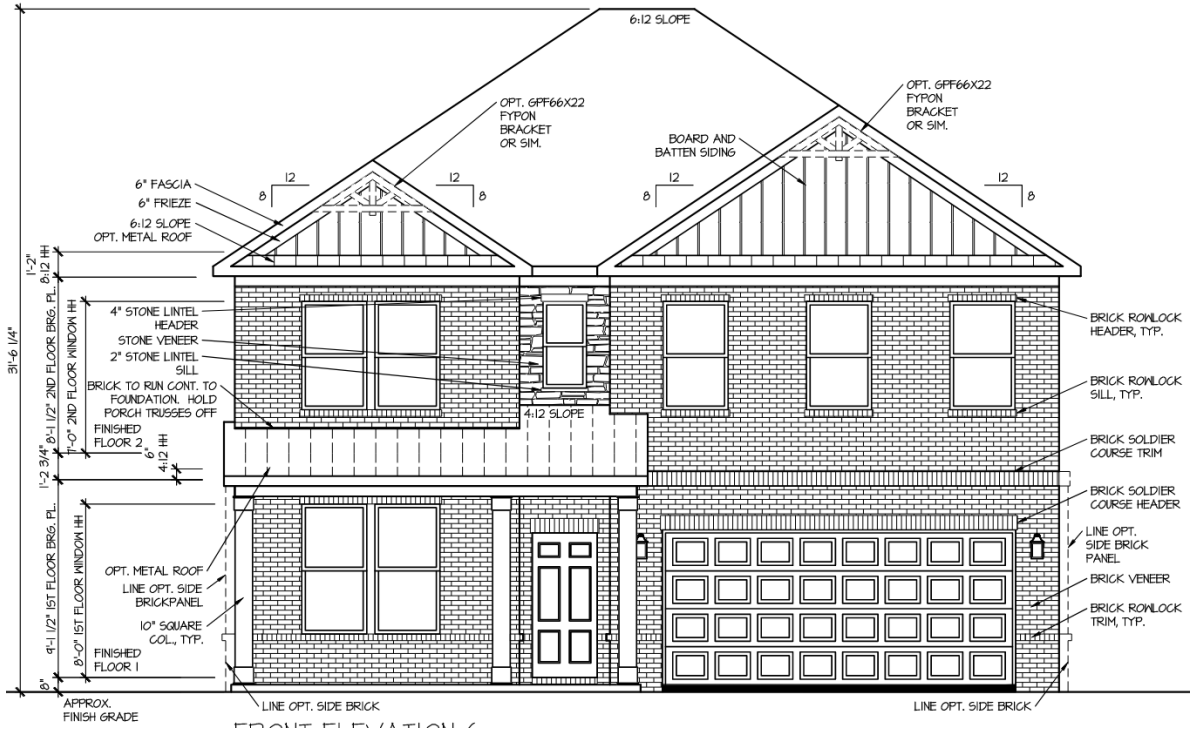


(Optional) Mixed Brick / Stone

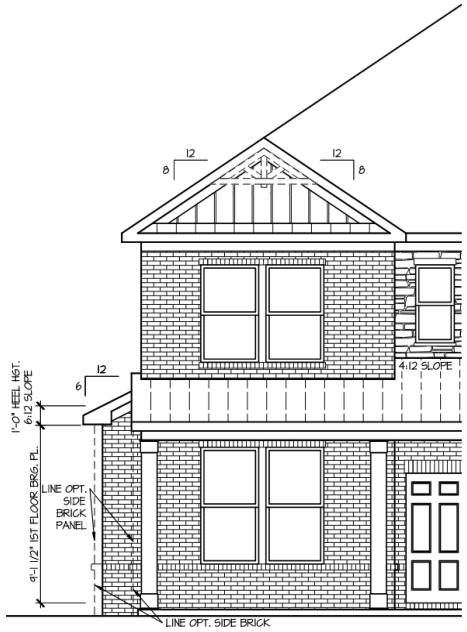


(Optional) First Floor Brick

Wagener (SF) - Elevation #6

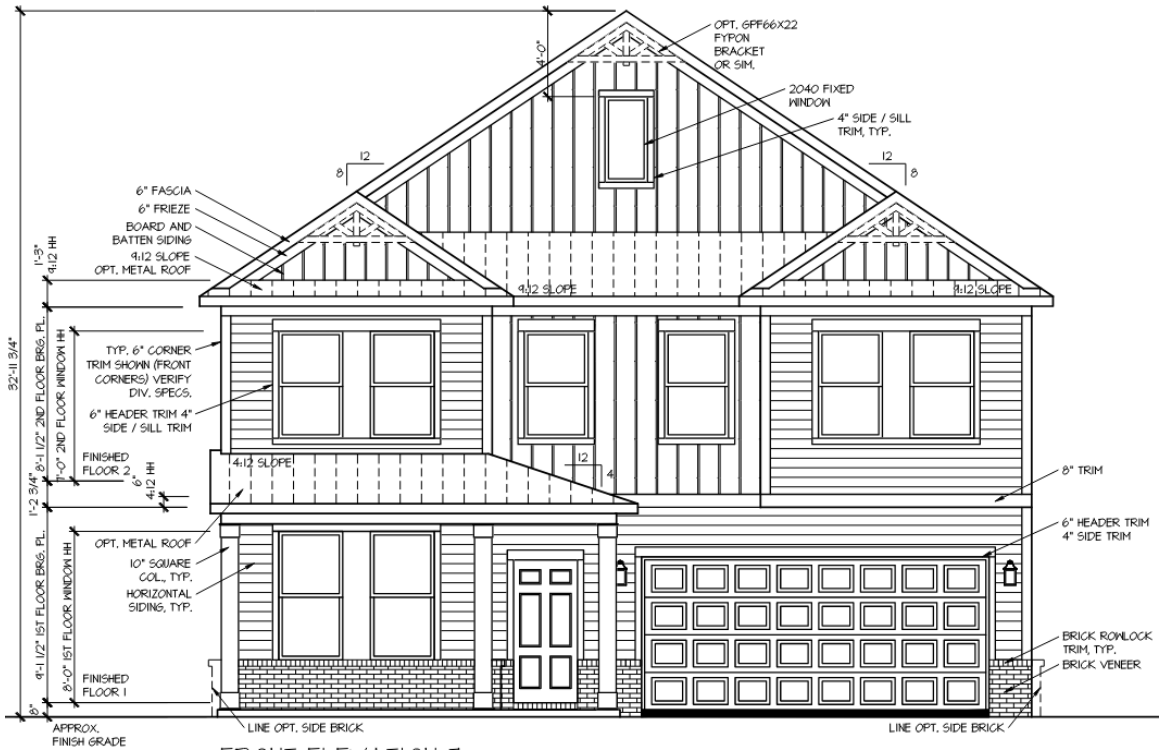


Front Elevation #6

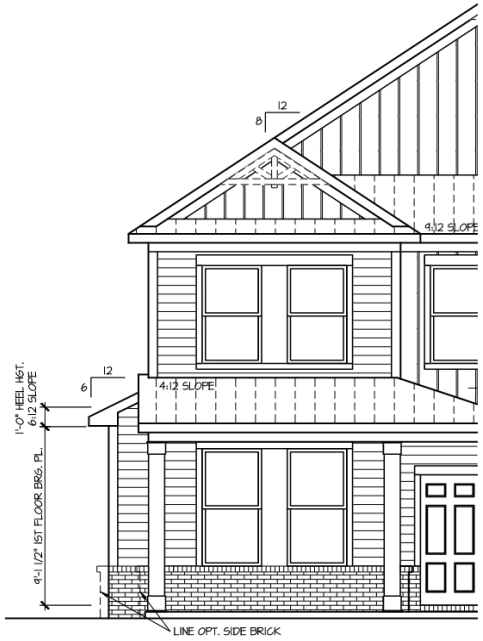


(Optional) Side Bay

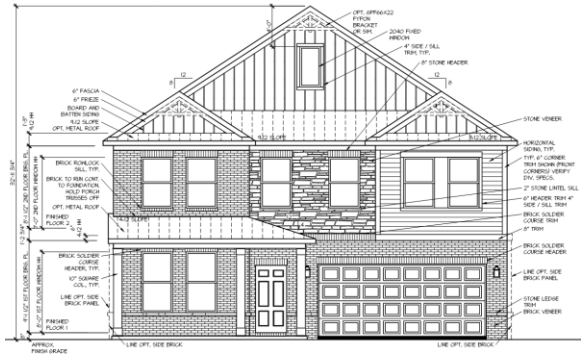
Wagener (SF) - Elevation #7



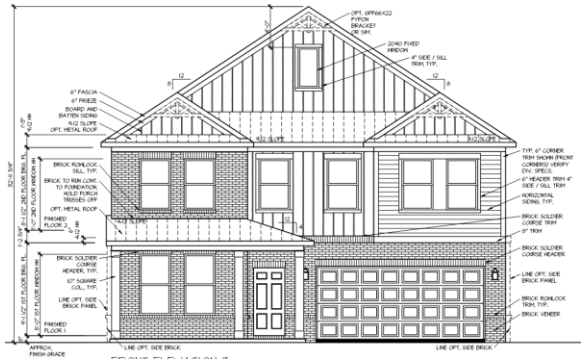
Front Elevation #7



(Optional) Side Bay

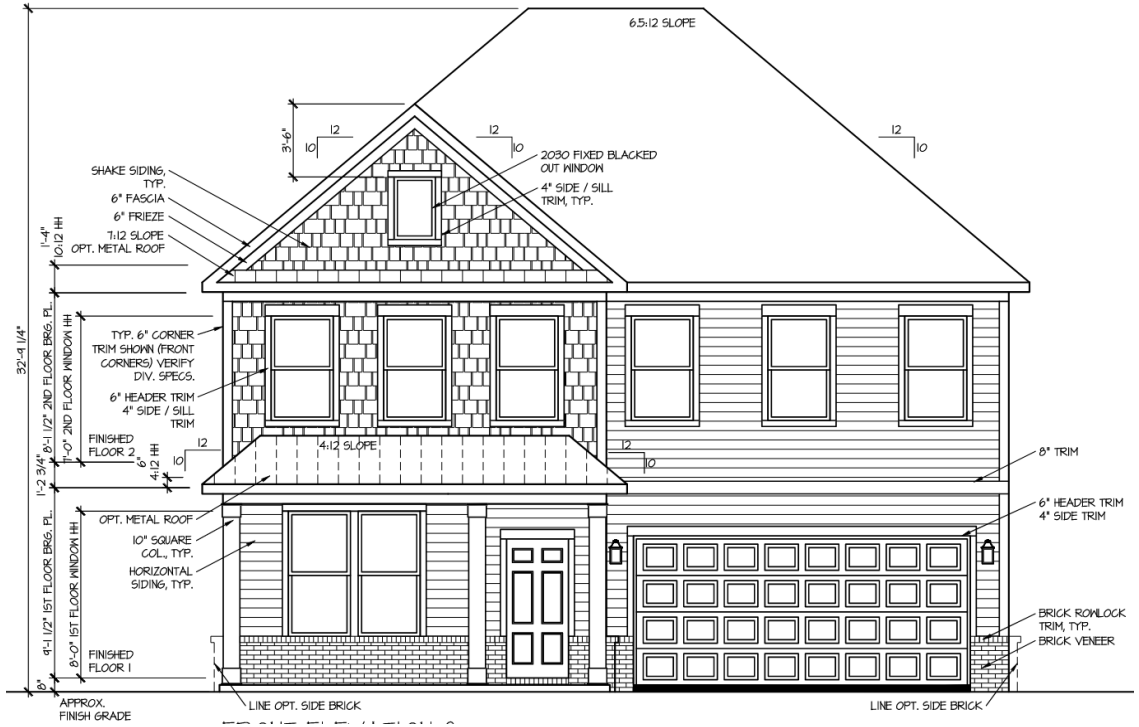


(Optional) Mixed Brick / Stone

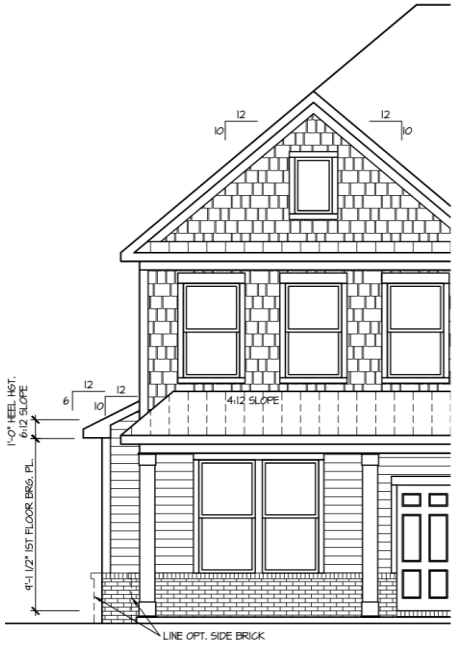


(Optional) First Floor Brick

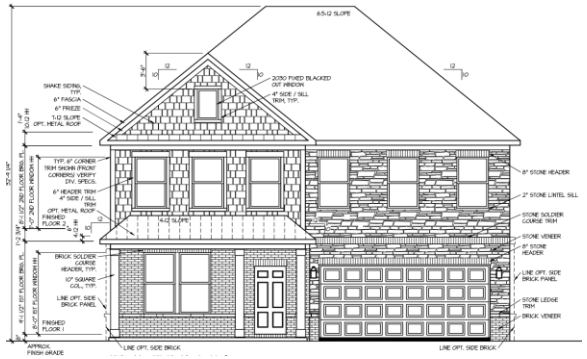
Wagener (SF) - Elevation #8



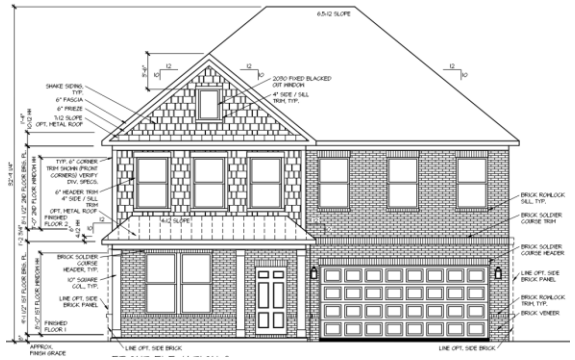
Front Elevation #8



(Optional) Side Bay

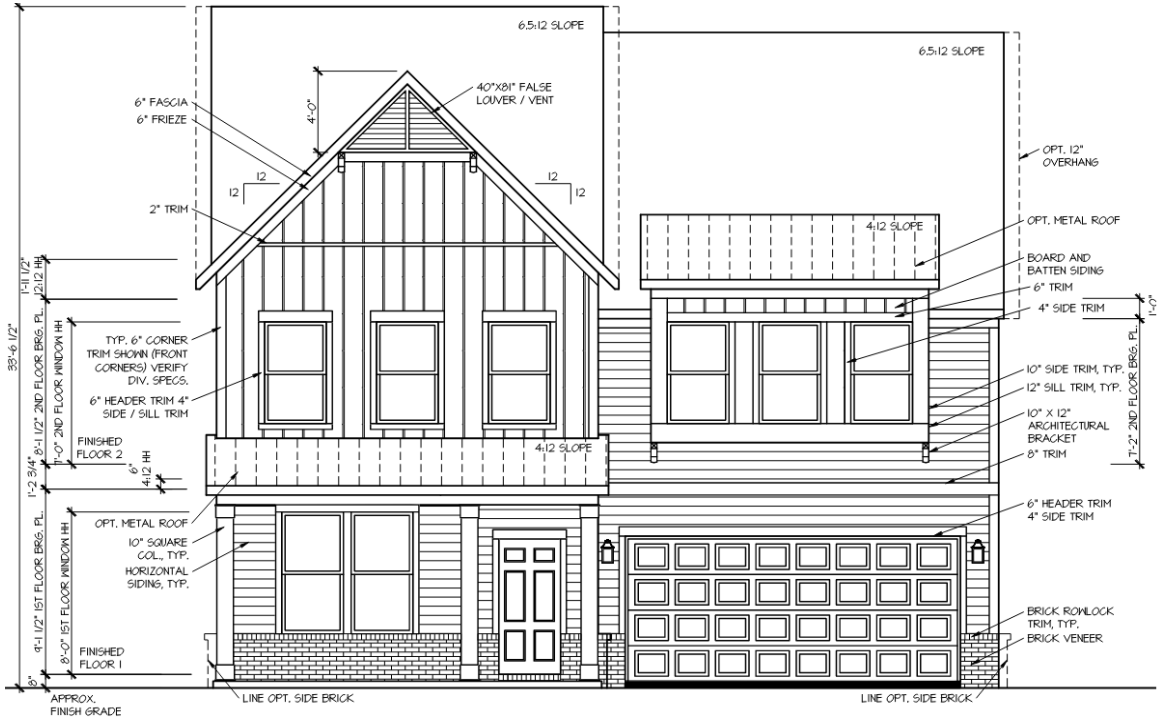


(Optional) Mixed Brick / Stone

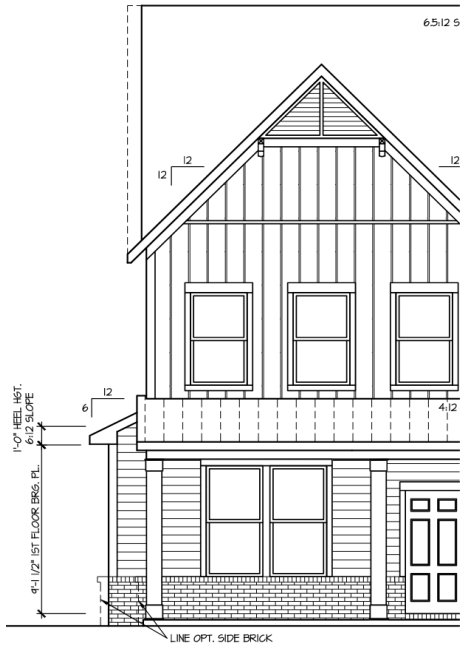


(Optional) First Floor Brick

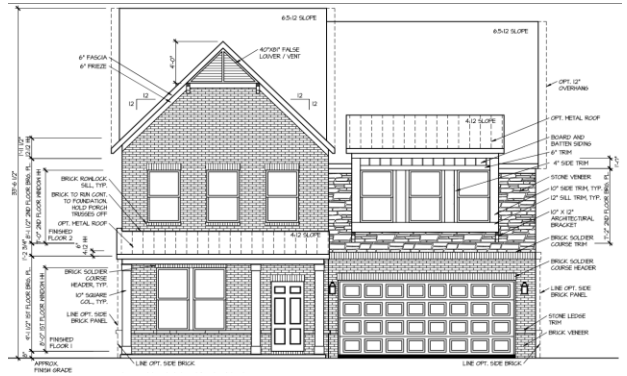
Wagener (SF) - Elevation #9



Front Elevation #9



(Optional) Side Bay



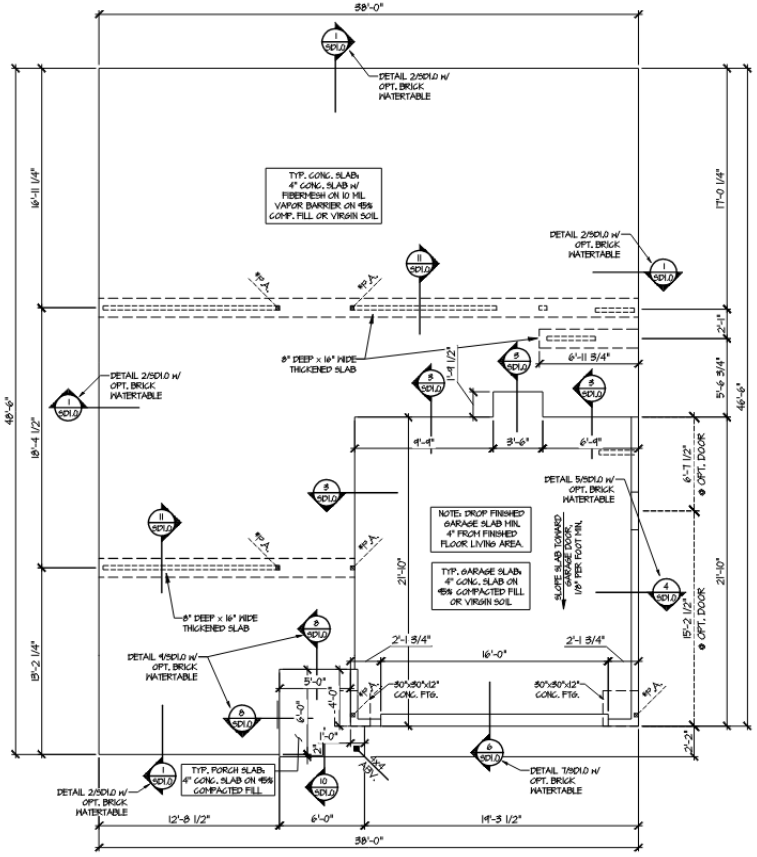
(Optional) Mixed Brick / Stone

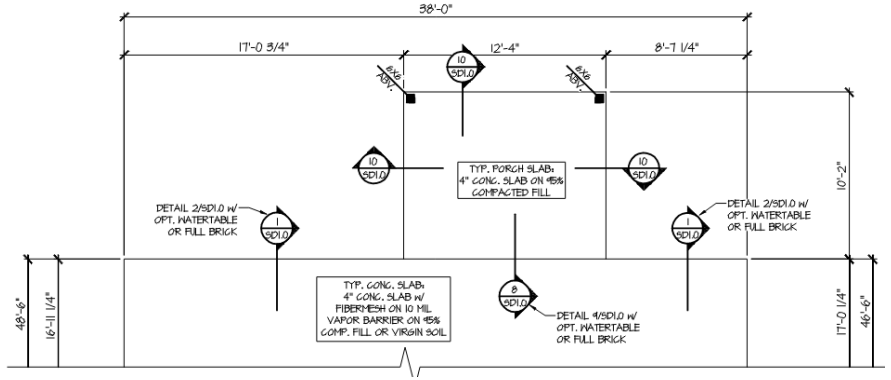


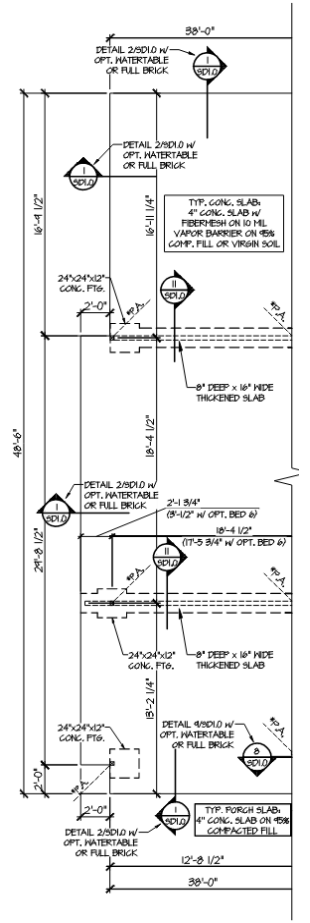
(Optional) First Floor Brick

Wagener (SF) - Options

Note: Foundation Plan changes based on elevation and structural options.





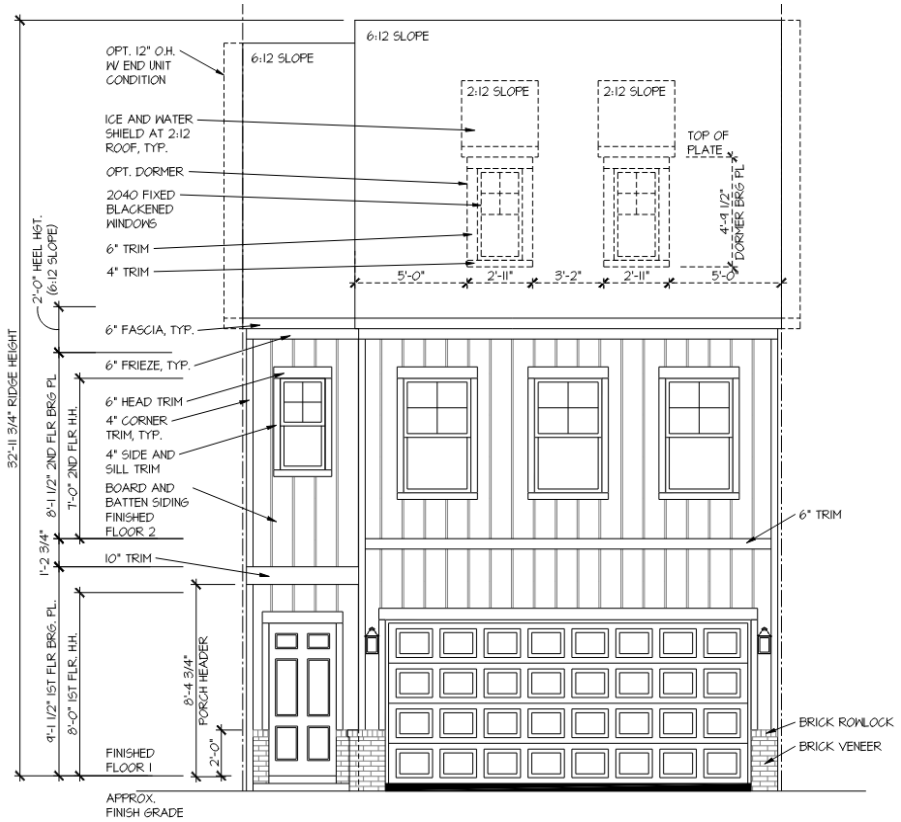


Foundation

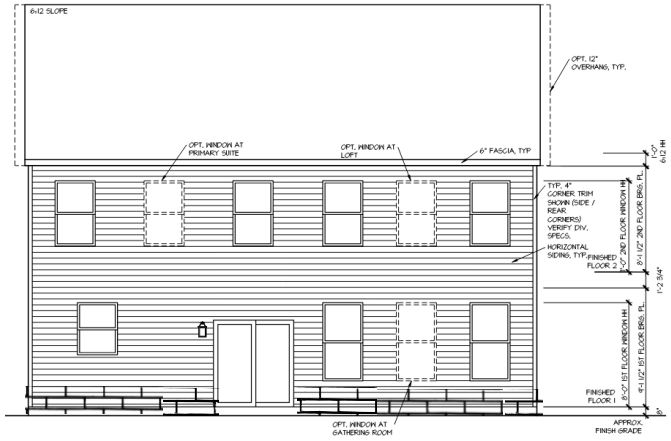
(Optional) Large Rear Porch

(Optional) Side Bay

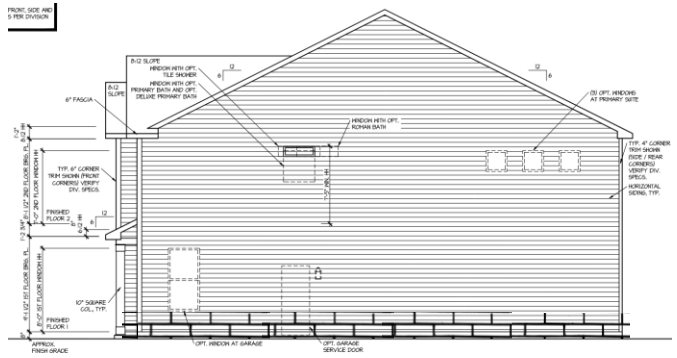
Luca (TH) - Elevation #2



Front Elevation #2

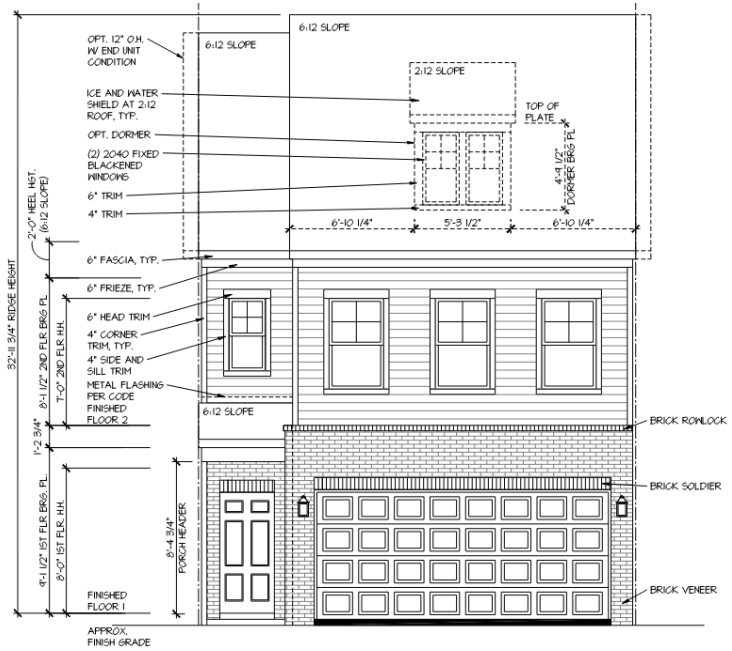


Rear Elevation

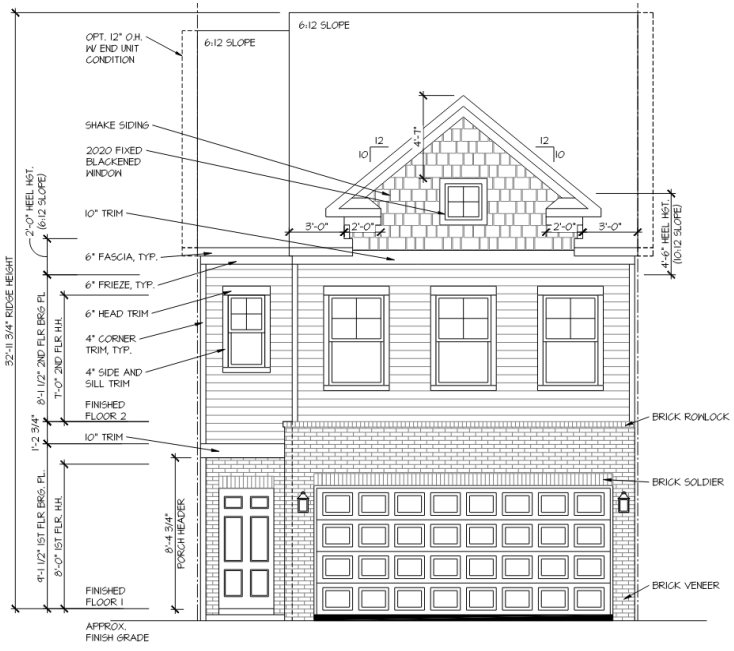


Side Elevation

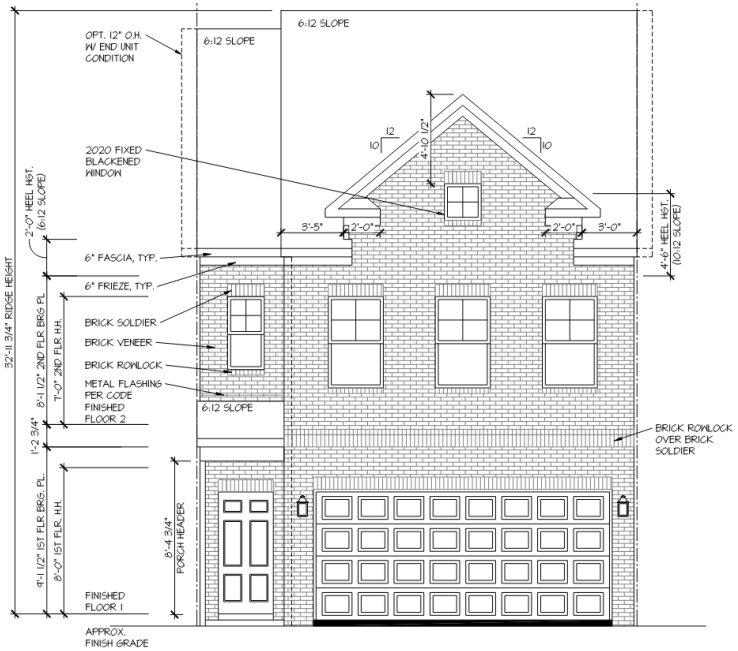
Luca (TH) - Elevation #3-5



Front Elevation #3



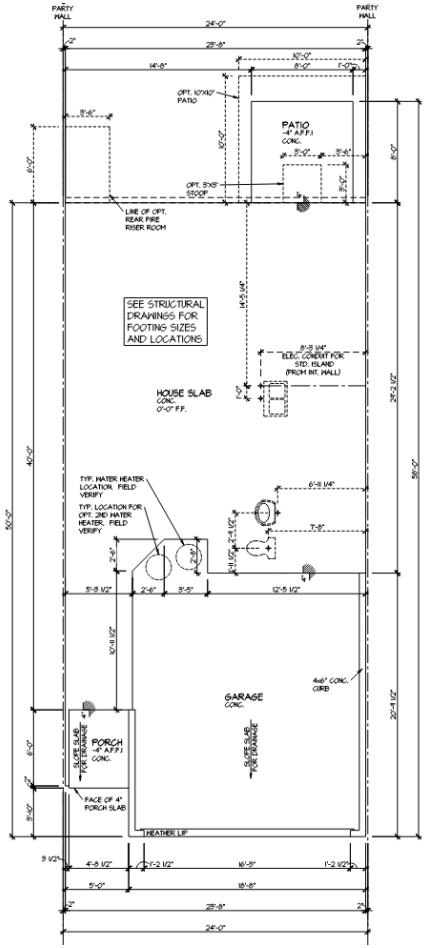
Front Elevation #4



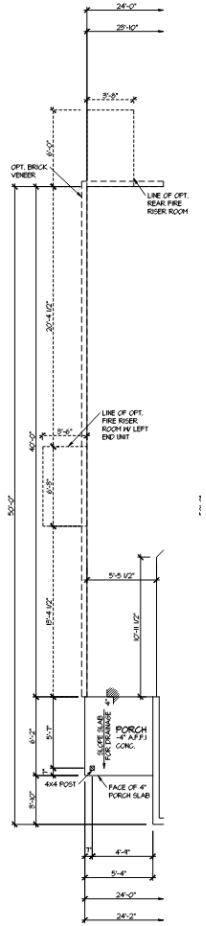
Front Elevation #5

Luca (TH) - Options

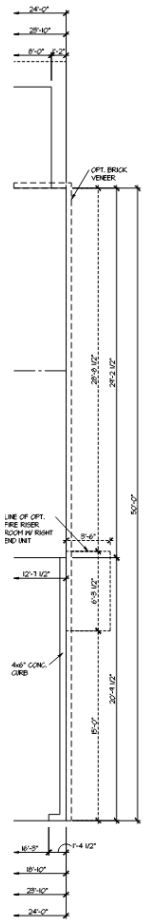
Note: Foundation Plan changes based on elevation and structural options.



Foundation

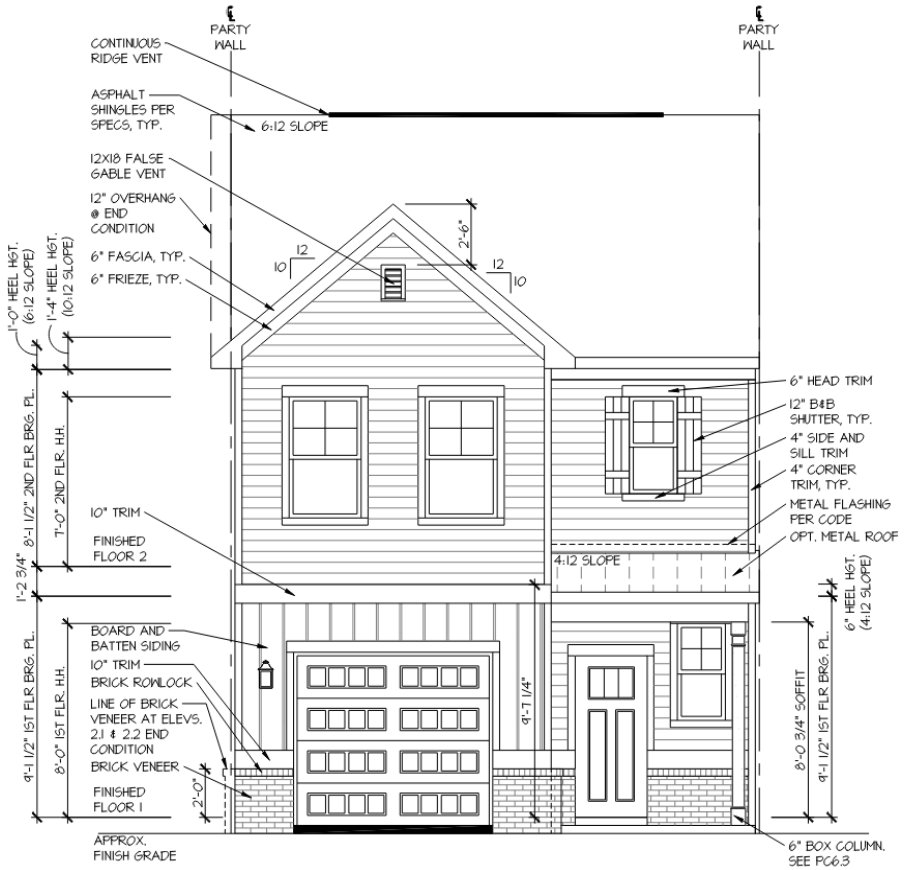


(Optional) Left End Unit

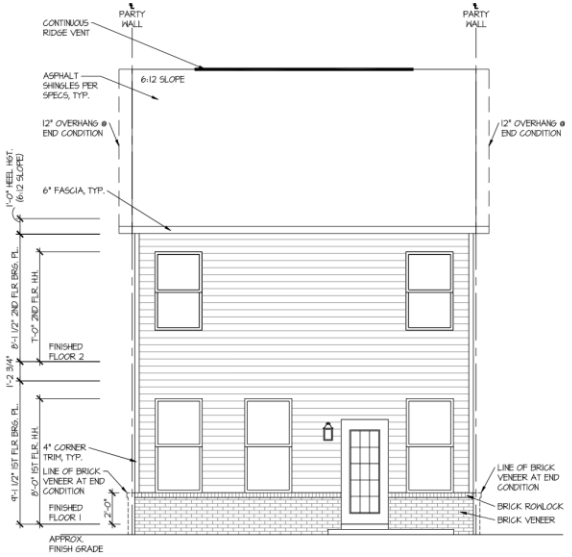


(Optional) Right End Unit

Braden (TH) - Elevation #2



Front Elevation #2

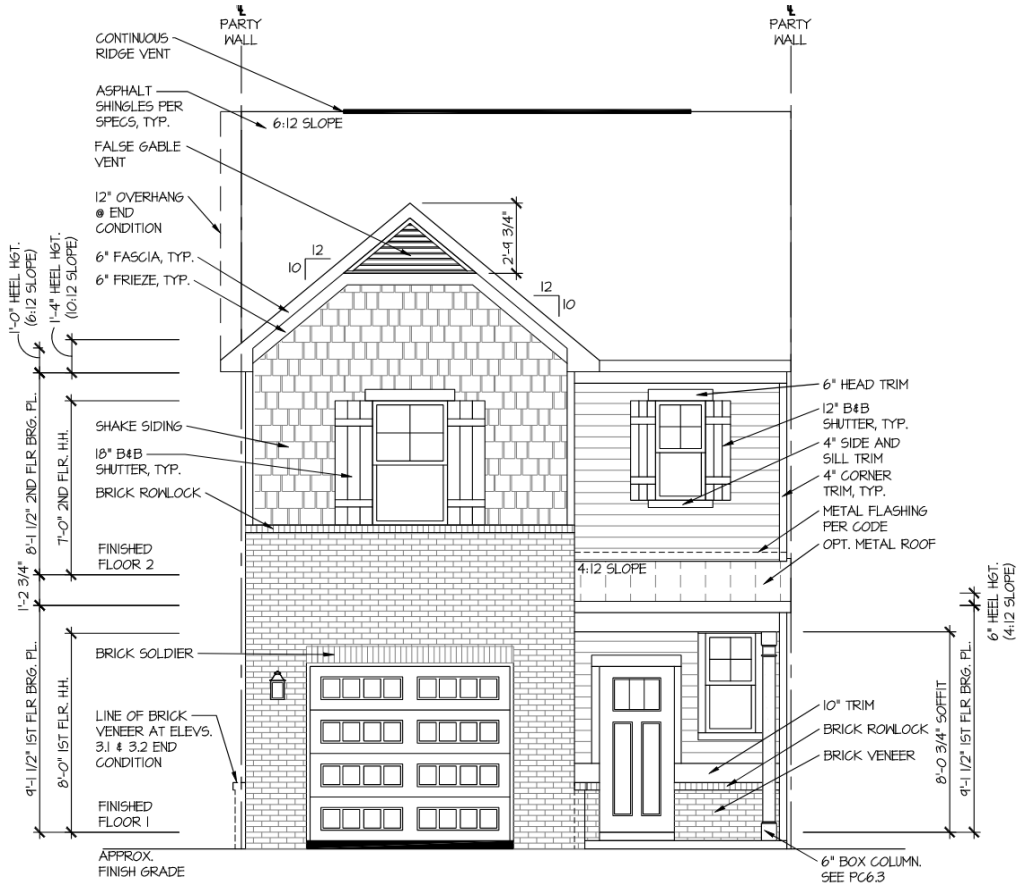


Rear Elevation



Side Elevation

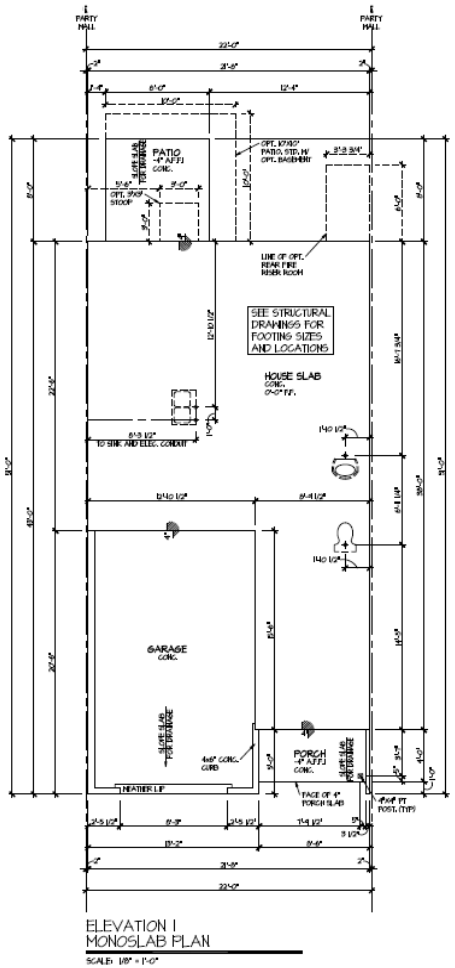
Braden (TH) - Elevation #3



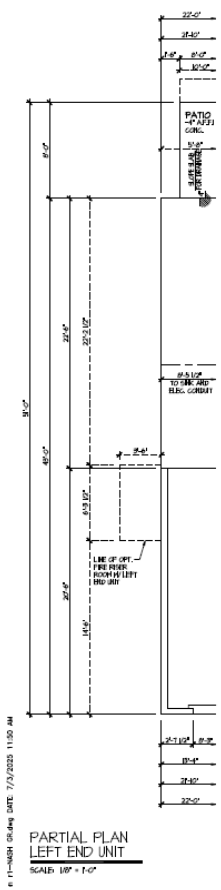
Front Elevation #3

Braden (TH) - Options

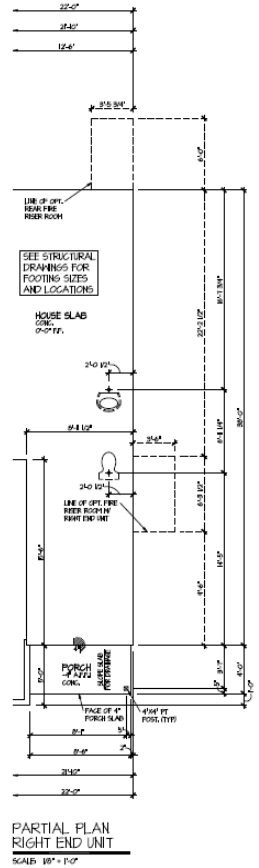
Note: Foundation Plan changes based on elevation and structural options.



Foundation

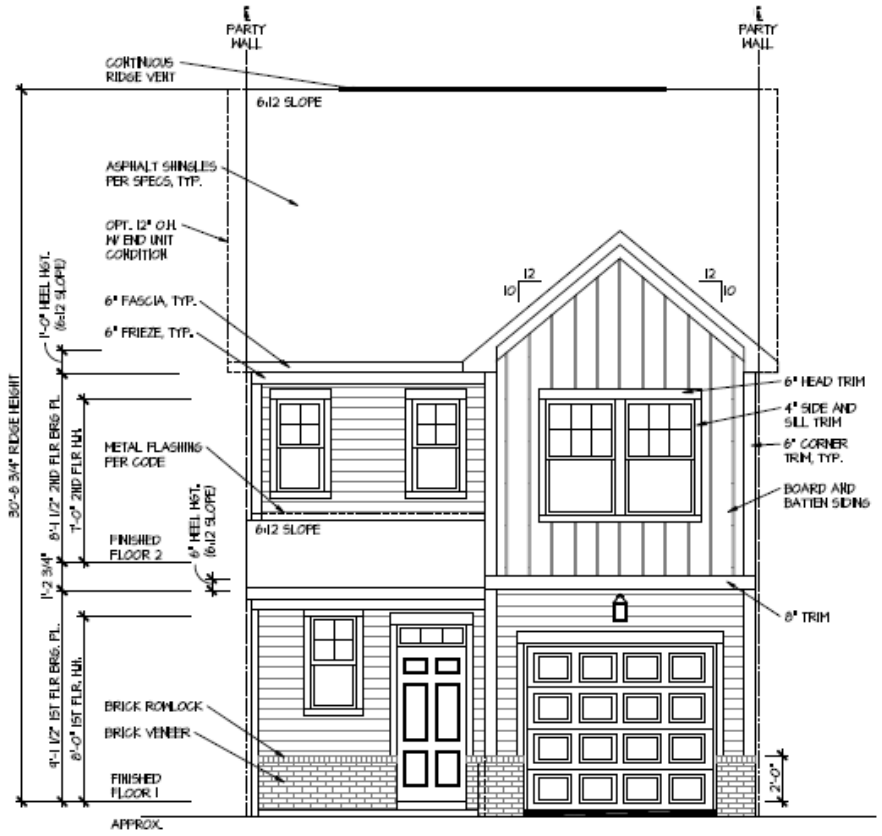


(Optional) Left End Unit

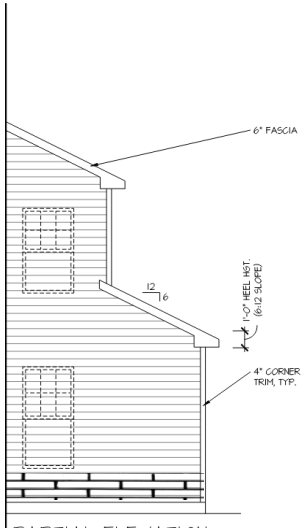


(Optional) Right End Unit

Allister (TH) - Elevation #1



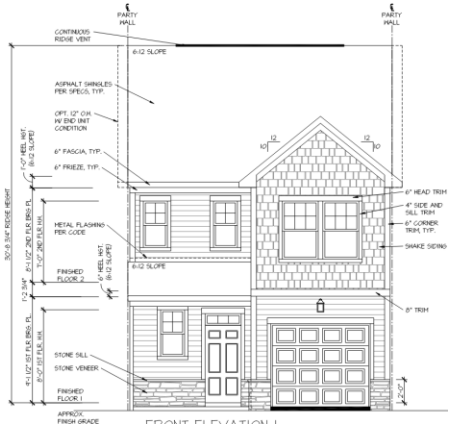
Front Elevation #1



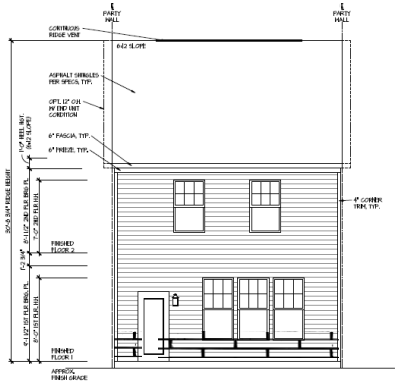
(Optional) Storage Shed



Side Elevation

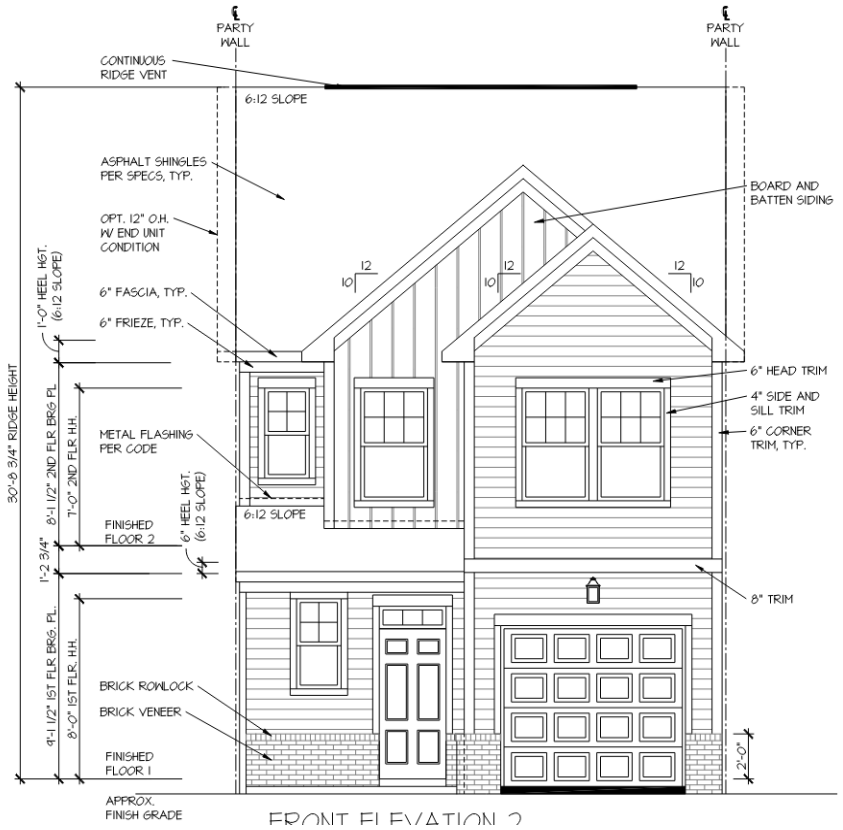


(Optional) Stone Water Table

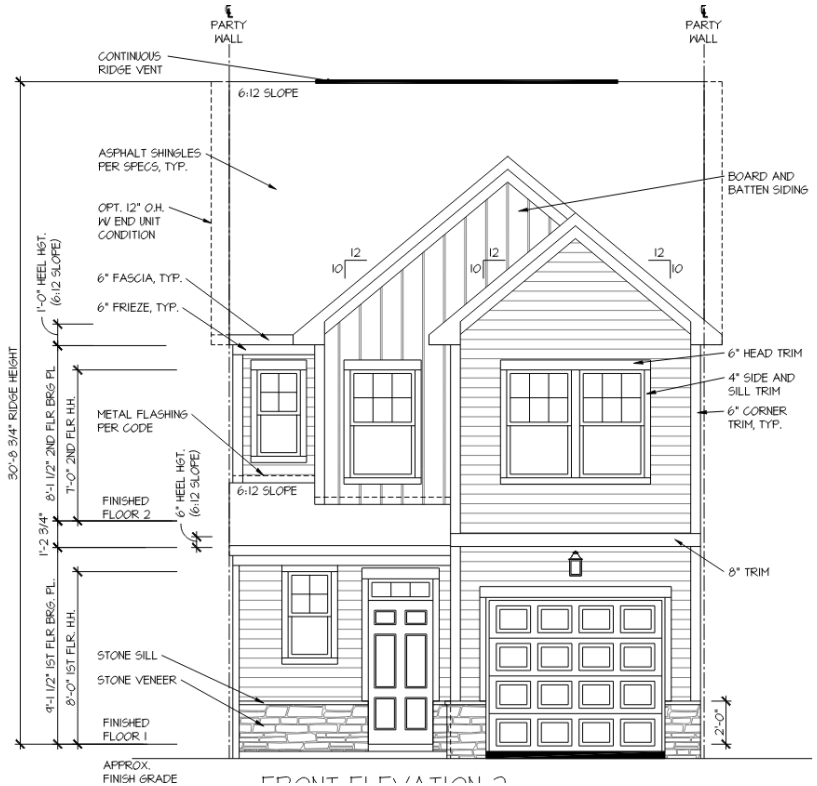


Rear Elevation

Allister (TH) - Elevation #2

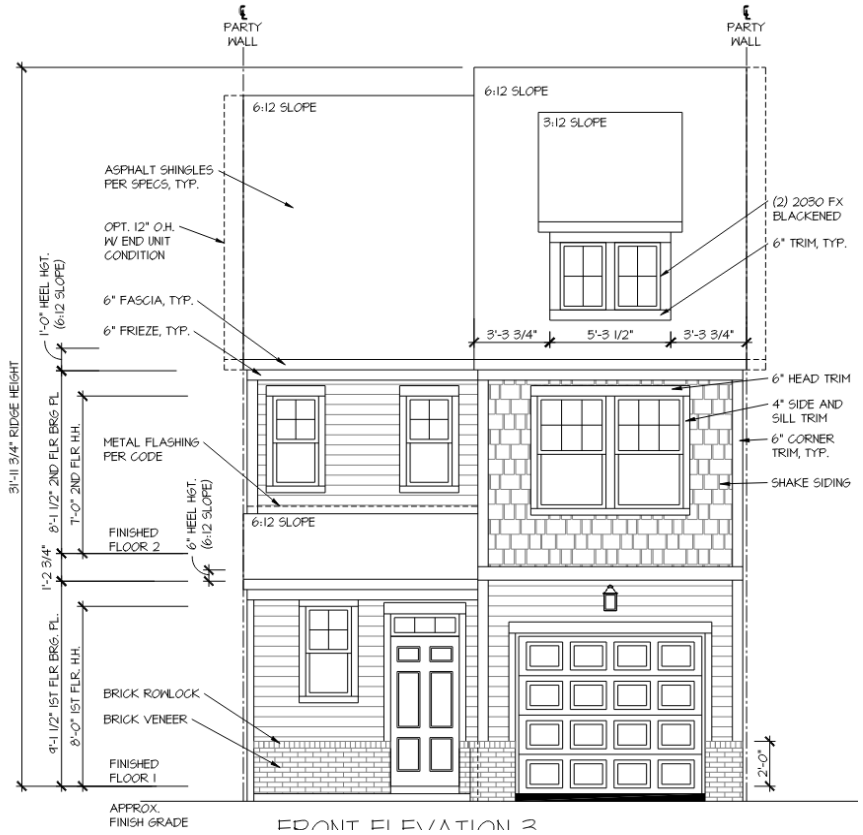


Front Elevation #2

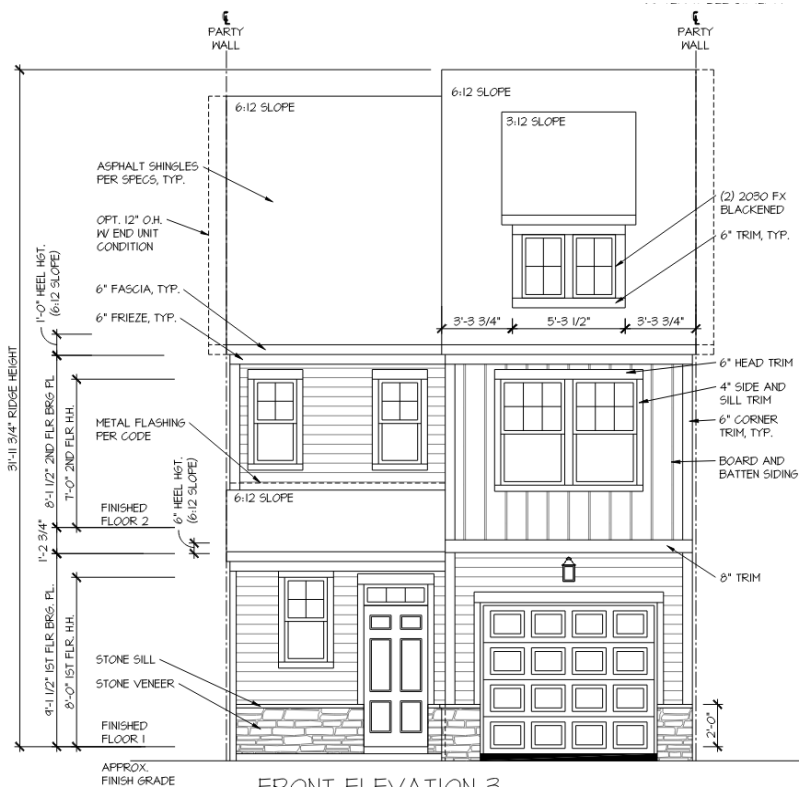


(Optional) Stone Water Table

Allister (TH) - Elevation #3



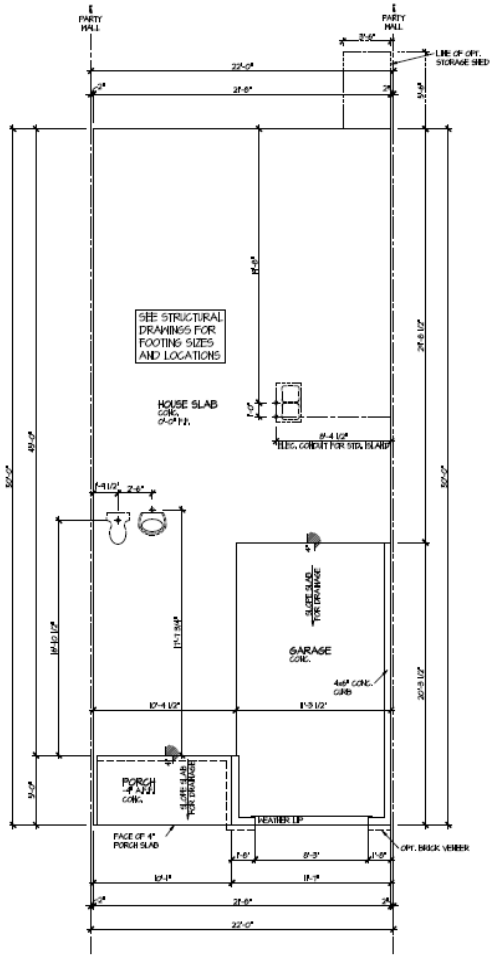
Front Elevation #3



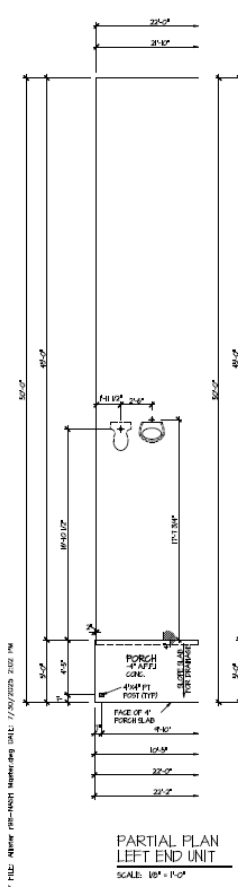
(Optional) Stone Water Table

Allister (TH) - Options

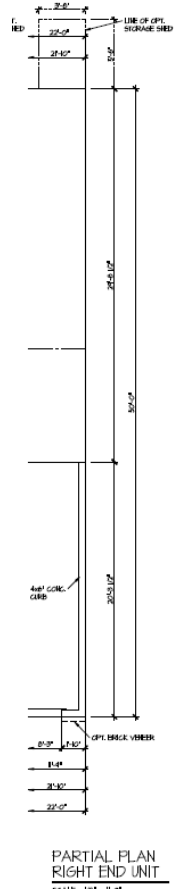
Note: Foundation Plan changes based on elevation and structural options.



Foundation



(Optional) Left End Unit



(Optional) Right End Unit


DRB
HOMES

McClure Farms

DRB Homes – Pattern Book

Resubmitted: 7-20-2026

Plans:

Single-Family Plans:

- **Lassiter (SF) -** #1, 2, 3, 4, 5, 7, 8, 9
- **Greenwich (SF) -** #1, 2, 3, 4, 5, 6
- **Chelsea (SF) -** #1, 2, 3, 4, 5, 6
- **Avondale (SF) -** #1, 2, 3, 4, 5, 6
- **Pelham (SF) -** #1, 2, 3, 4, 5, 6, 9
- **Wynwood (SF) -** #1, 2, 3, 4, 7, 9
- **Lavender (SF) -** #1, 2, 3, 4, 5, 6
- **Wagener (SF) -** #1, 2, 3, 4, 5, 6, 7, 8, 9
- **Bedford (SF) -** #1, 2, 4, 5, 6,

Townhouse Plans:

- **Luca (TH) -** #2, 3, 4, 5
- **Braden (TH) -** #2, 2.1, 3, 4, 4.1
- **Allister (TH) -** #1, 2, 3

**Elevations and configurations shown reflect intended community standards; minor additions, revisions, and variations may occur. City of Columbia Planning Department will determine if the intent of the approved pattern book has been met.*

Lot Spec Example With Options

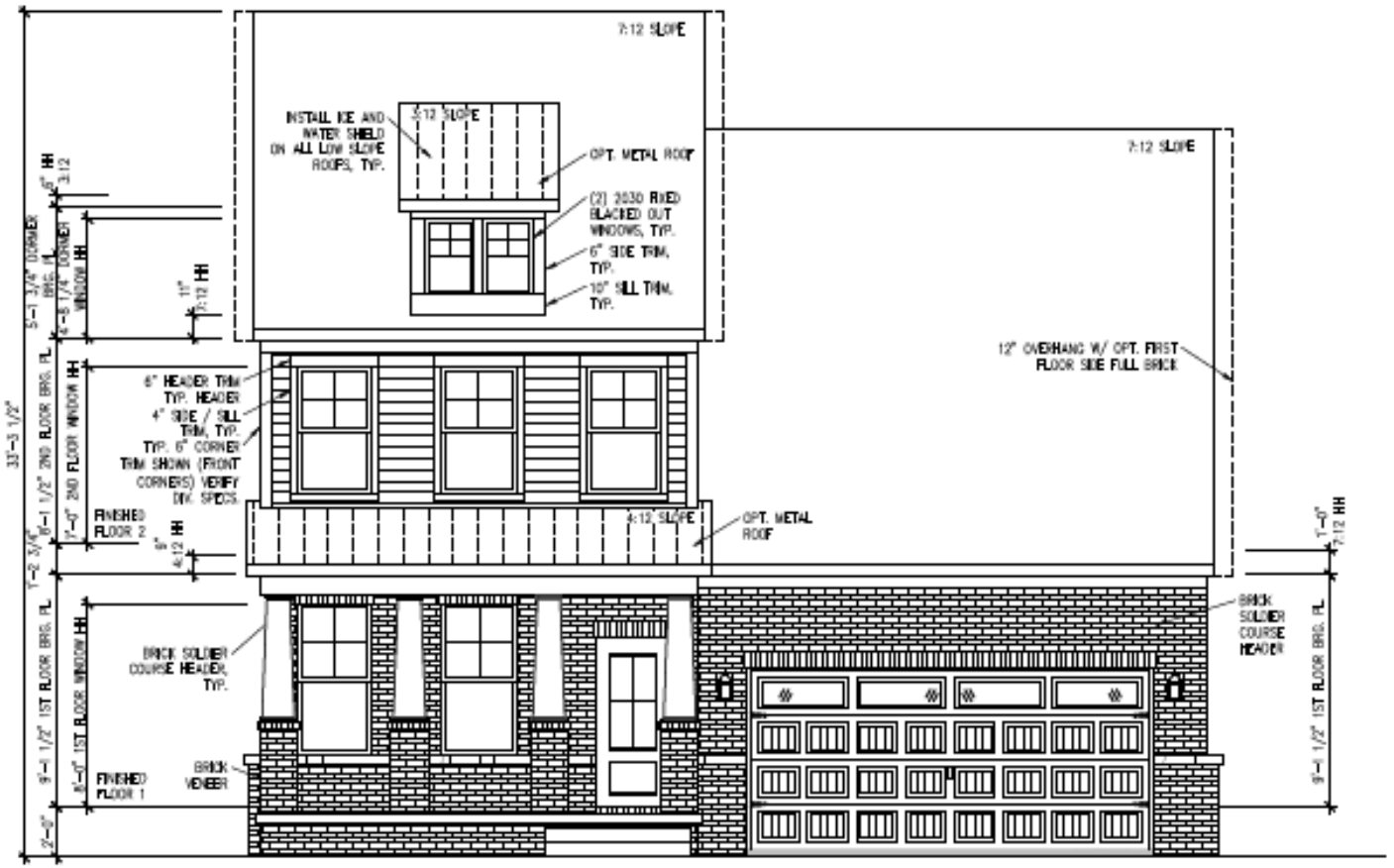
Options shown are to be used as an example, features not included on every home

As Shown Options:

- Brick or stone facade
- Brick or stone columns
- ¾ lite front door
- Garage door windows and decorative hardware
- Metal roof (porch & dormer)
- 4/1 window grids
- Roof overhang

Additional Options:

- Extra bedroom
- 2nd floor balcony
- Front & rear patios
- Exterior fireplace
- Roof gables and dormers
- Siding materials (brick, stone, shake, cladding)
- Window options & placement

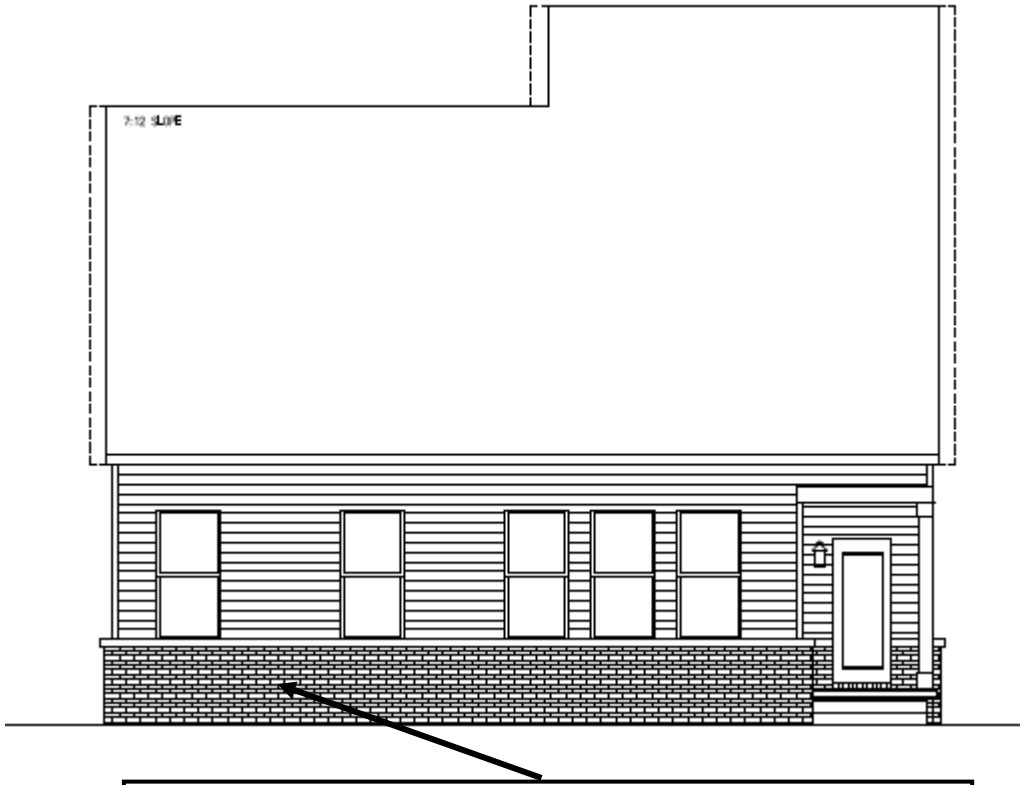


**Elevations and configurations shown reflect intended community standards; minor additions, revisions, and variations may occur. City of Columbia Planning Department will determine if the intent of the approved pattern book has been met.*

Lot Spec Example With Options



2 Foot Masonry Returns



Masonry Water Table (brick or stone)

**Elevations and configurations shown reflect intended community standards; minor additions, revisions, and variations may occur. City of Columbia Planning Department will determine if the intent of the approved pattern book has been met.*

Exterior Decoration Options

Exterior decorations are subject to change based upon elevation, included features, and customer input





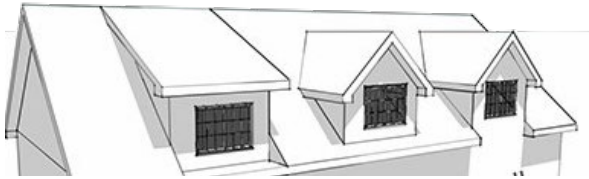
Lighting Options



Metal Roof Option



Roof Gable Option



Roof Dormer Options







Front Door Options



Window Options





Column Options

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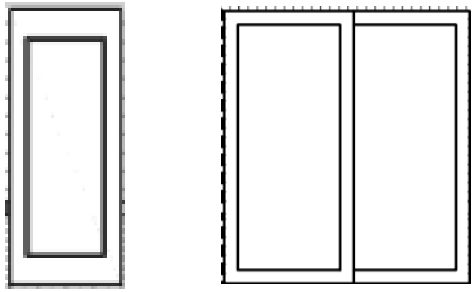
Window Options

Window locations and specifications are subject to change based upon elevation, included features, and customer input



Window Options



Sliding Glass Door

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Additional Options





Garage handing and pad elevation changes between units may alter the massing, resulting in roofline shifts such as a single- or double-gable condition.

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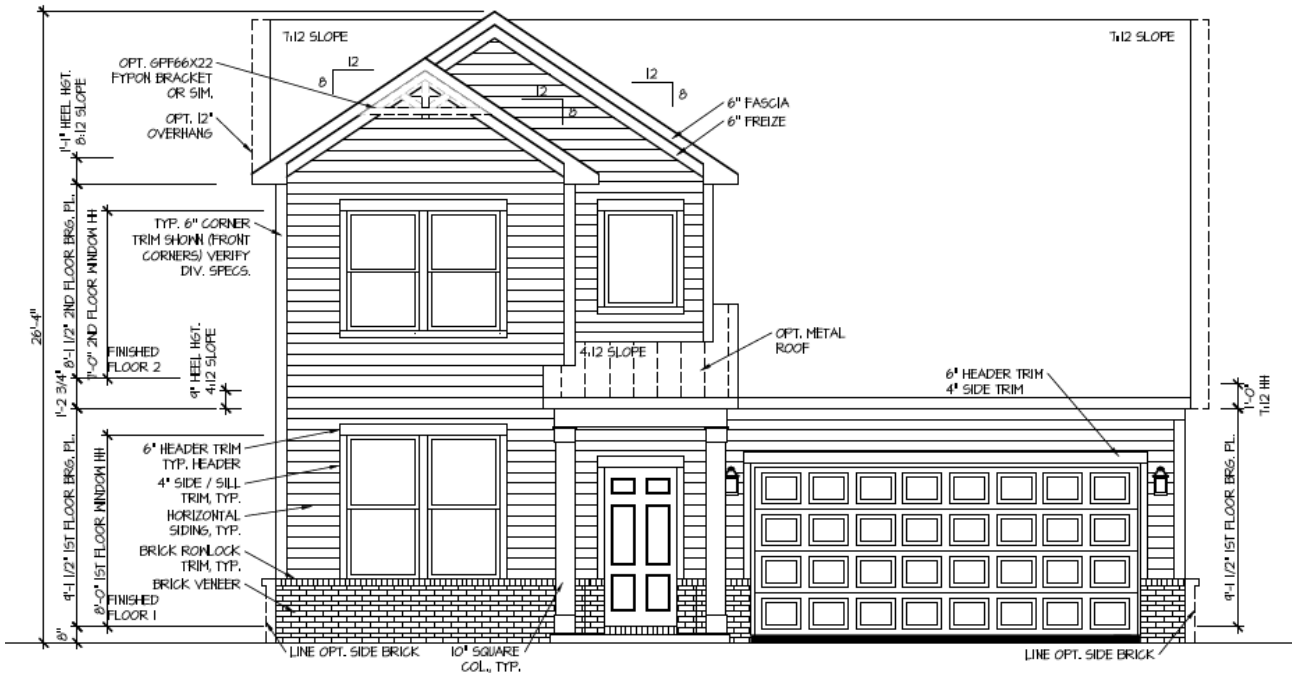
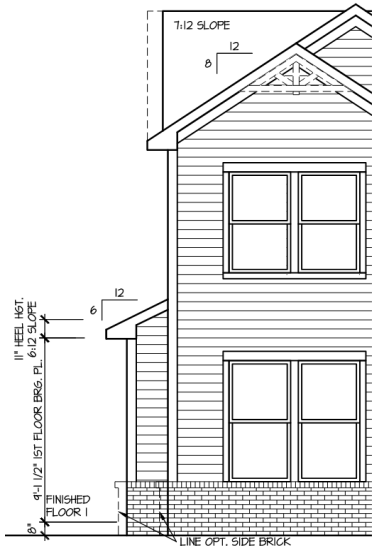
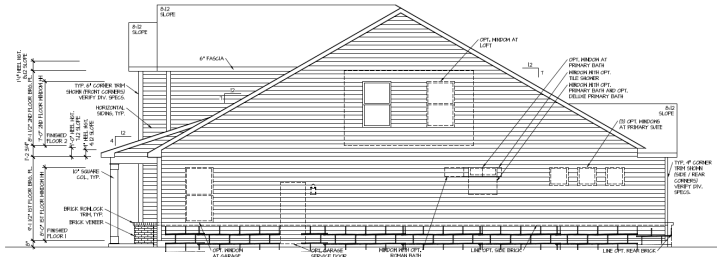
Lassiter (SF) - Elevation #1



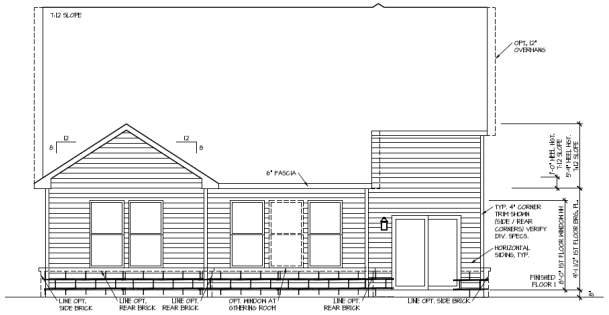
Front Elevation #1



(Optional) Side Bay



Side Elevation



Rear Elevation

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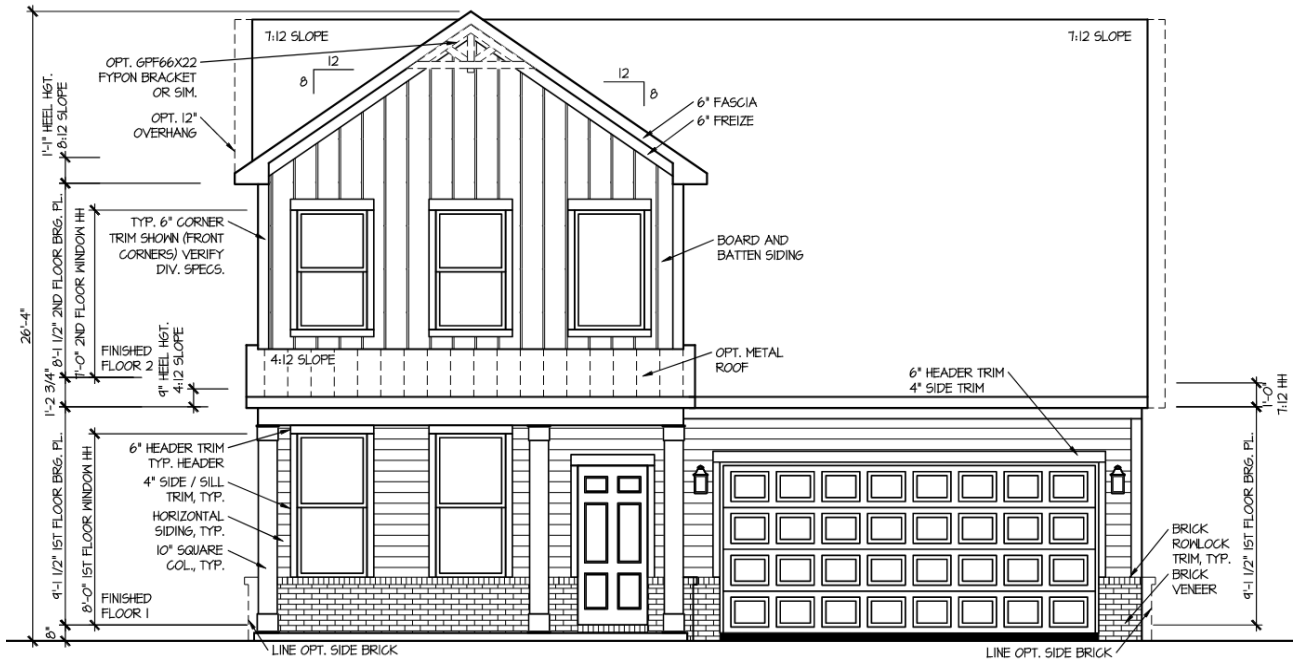
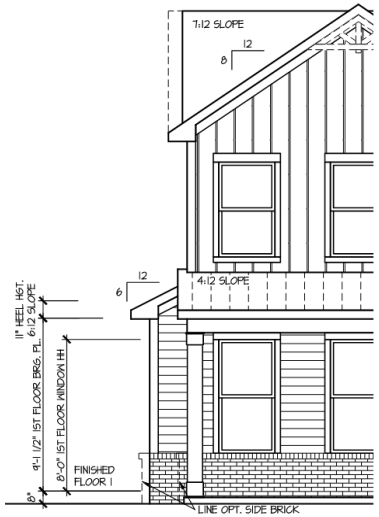
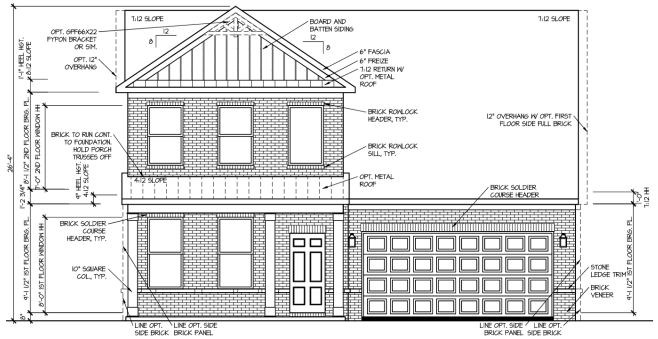
Lassiter (SF) - Elevation #2



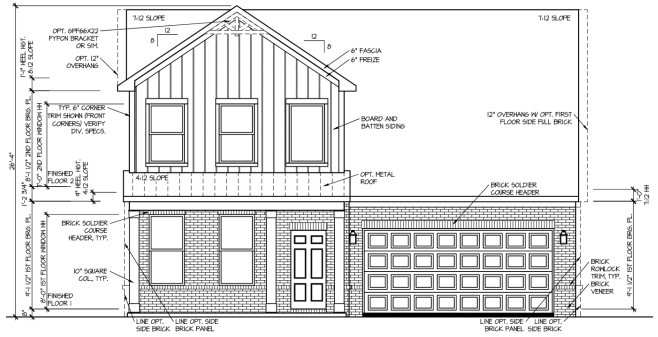
Front Elevation #2



(Optional) Side Bay



(Optional) Mixed Brick / Stone



(Optional) First Floor Brick

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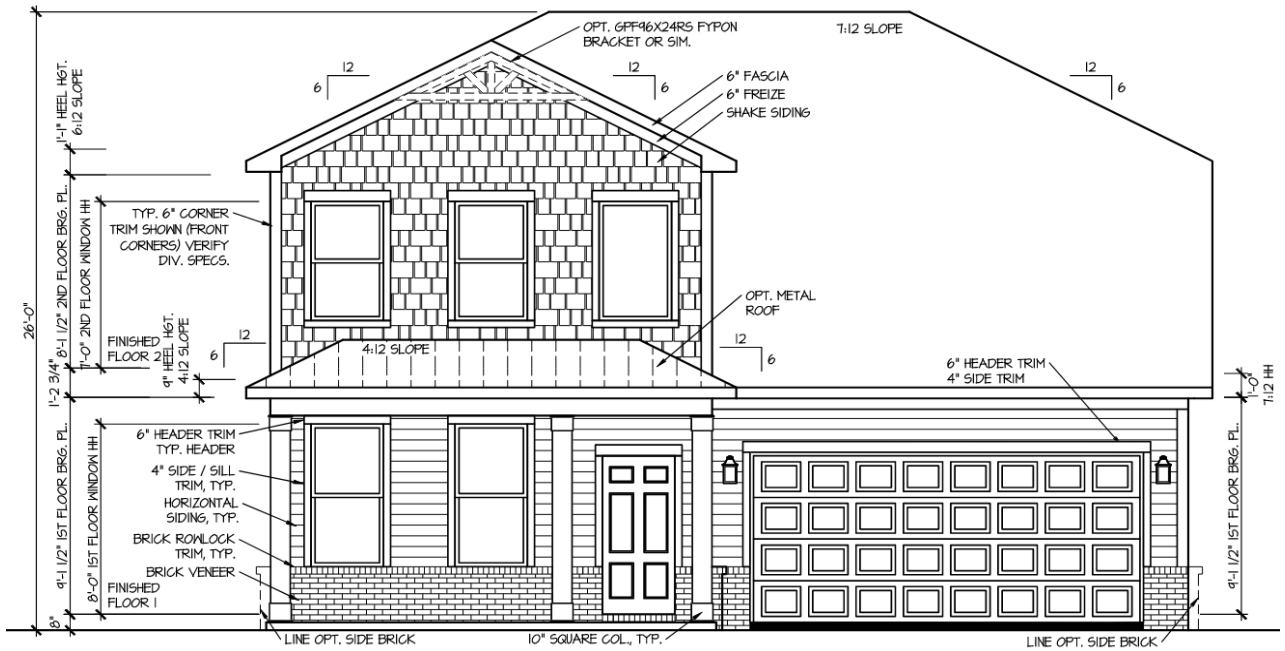
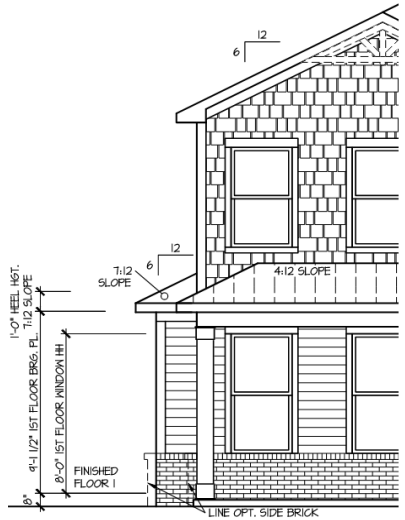
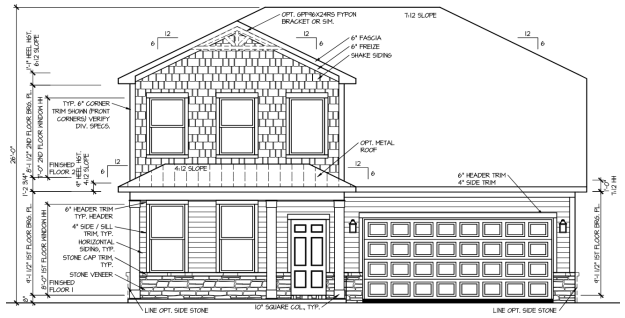
Lassiter (SF) - Elevation #3



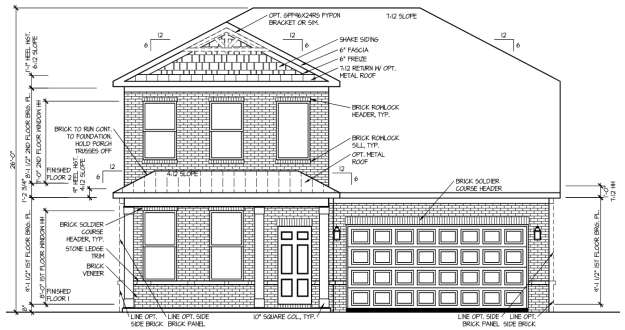
Front Elevation #3



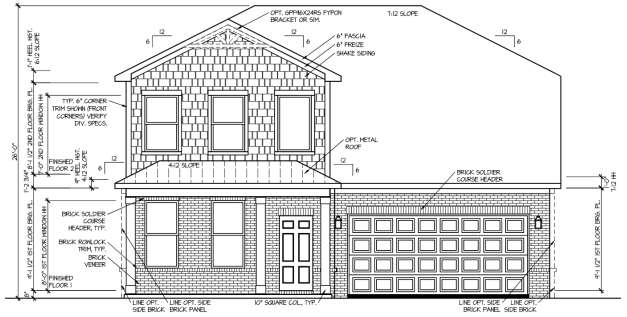
(Optional) Side Bay



(Optional) Stone Water Table



(Optional) Mixed Brick / Stone



(Optional) First Floor Brick

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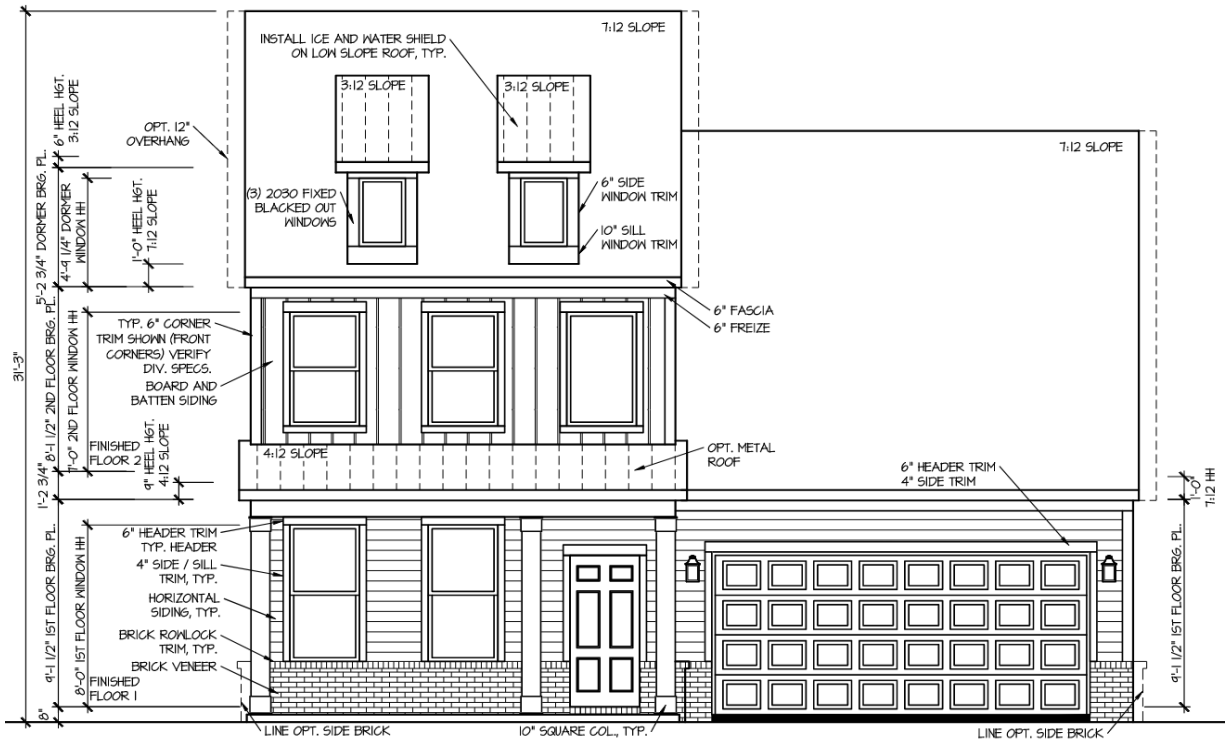
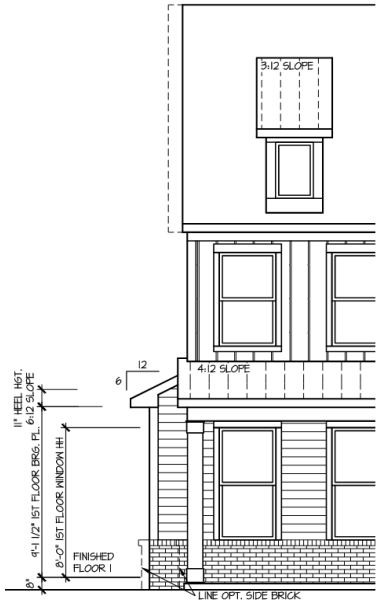
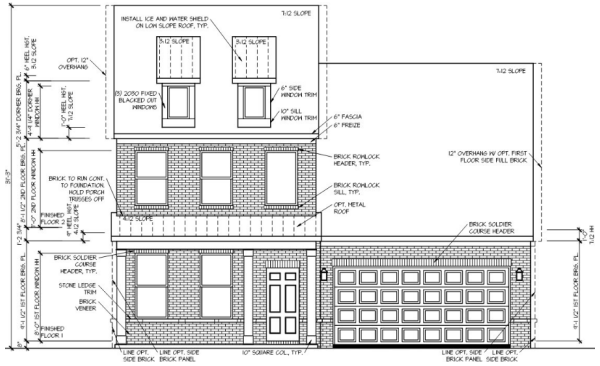
Lassiter (SF) - Elevation #4



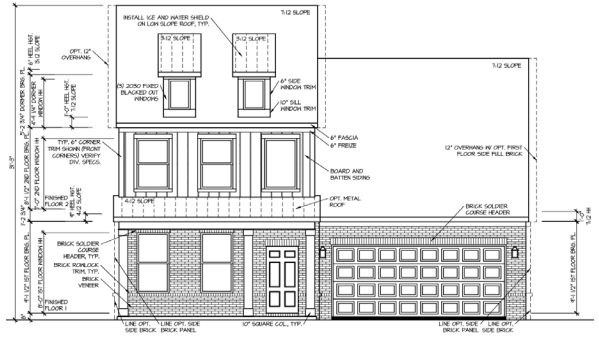
Front Elevation #4



(Optional) Side Bay



(Optional) Mixed Brick / Stone



(Optional) First Floor Brick

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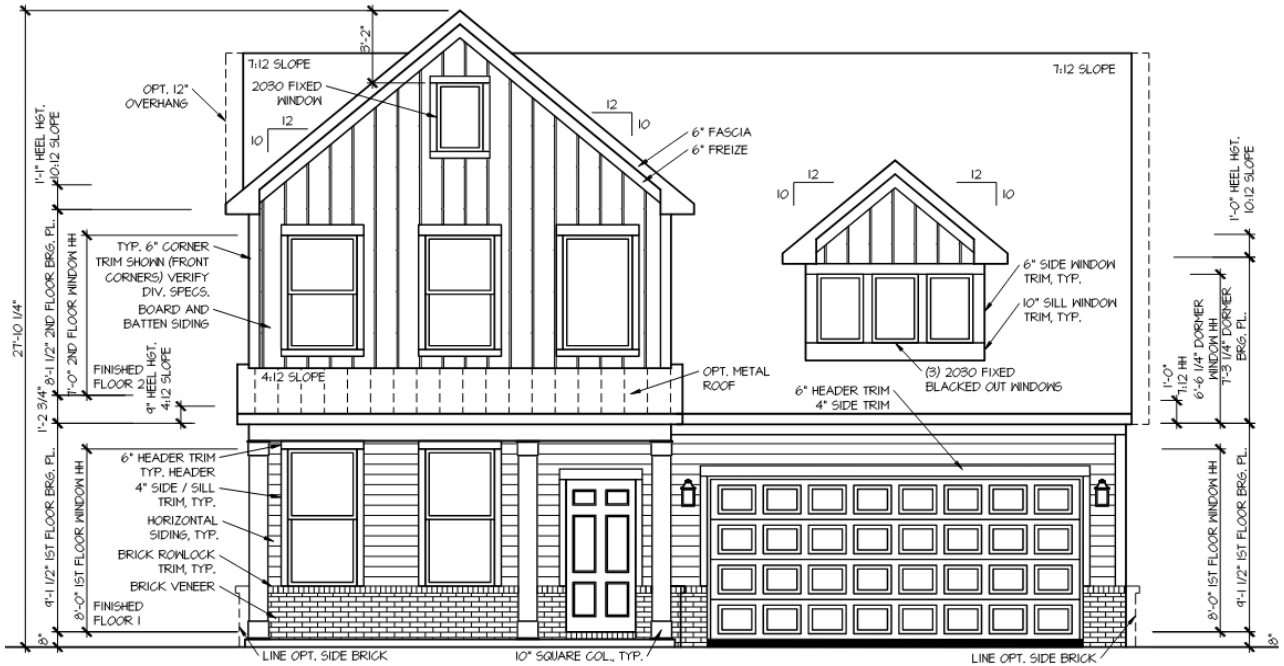
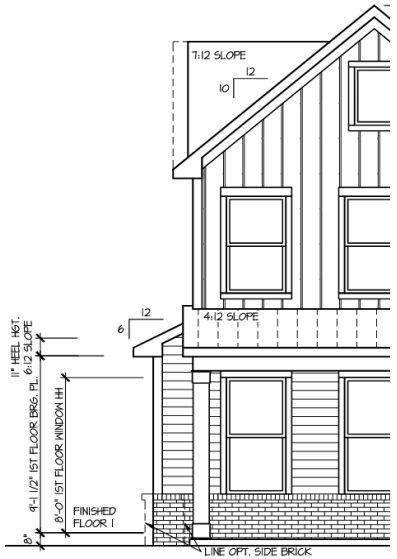
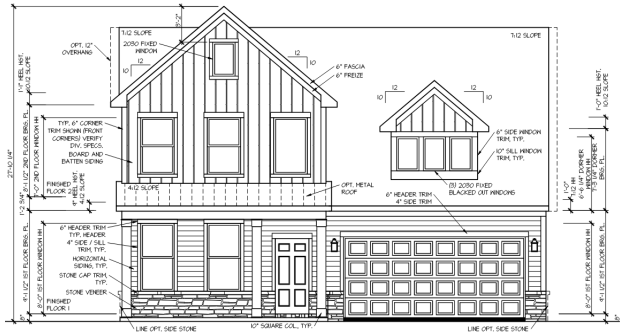
Lassiter (SF) - Elevation #5



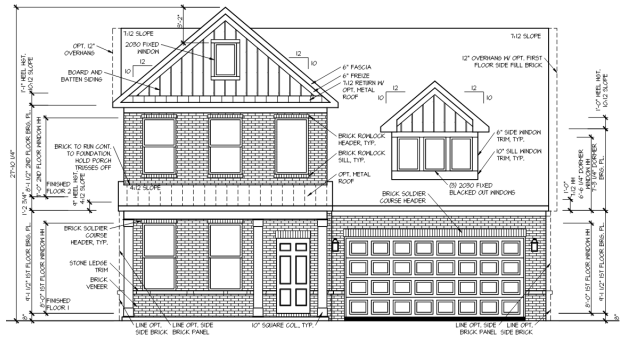
Front Elevation #5



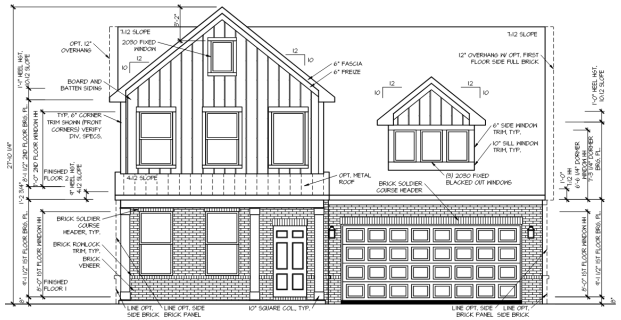
(Optional) Side Bay



(Optional) Stone Water Table



(Optional) Mixed Brick / Stone



(Optional) First Floor Brick

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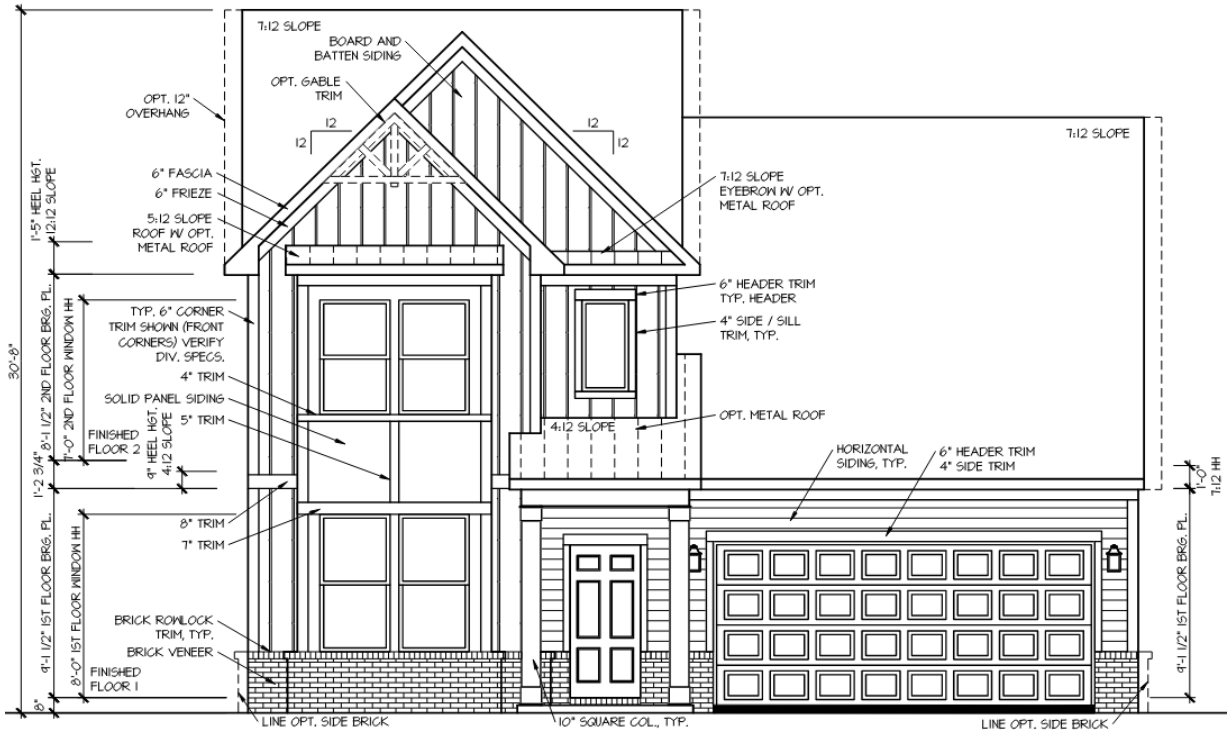
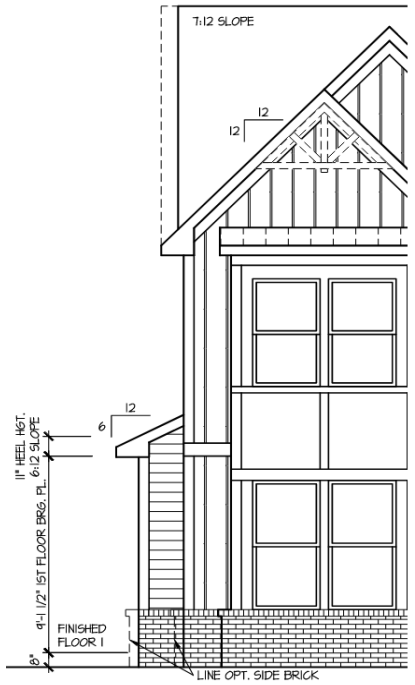
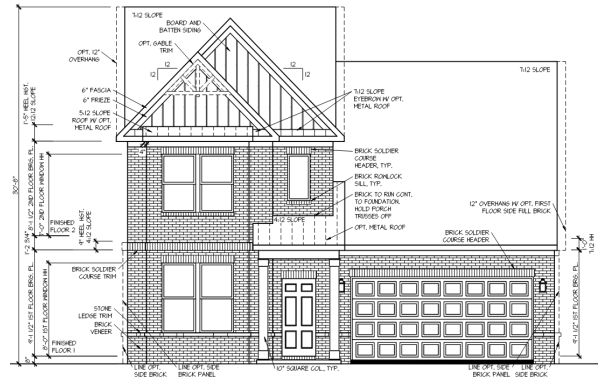
Lassiter (SF) - Elevation #7



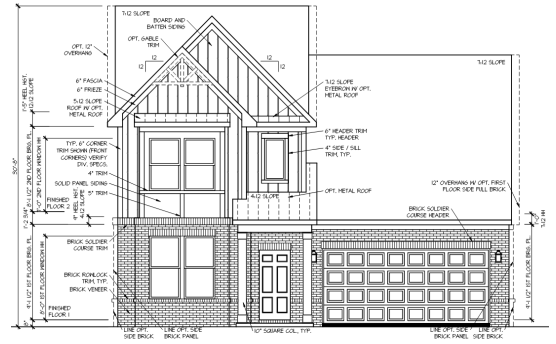
Front Elevation #7



(Optional) Side Bay



(Optional) Mixed Brick / Stone



(Optional) First Floor Brick

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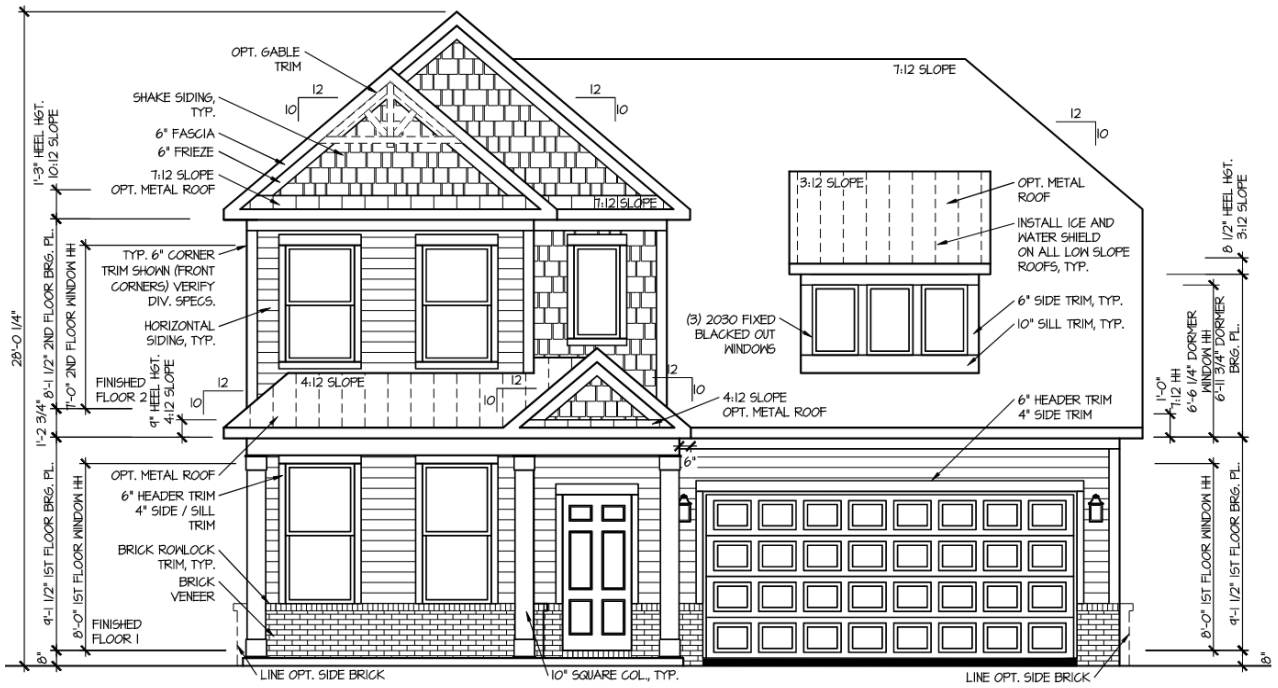
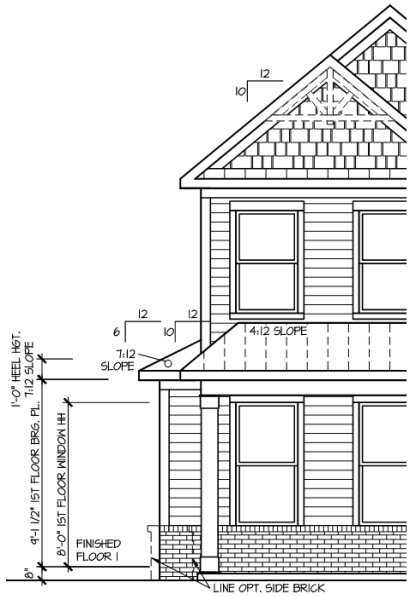
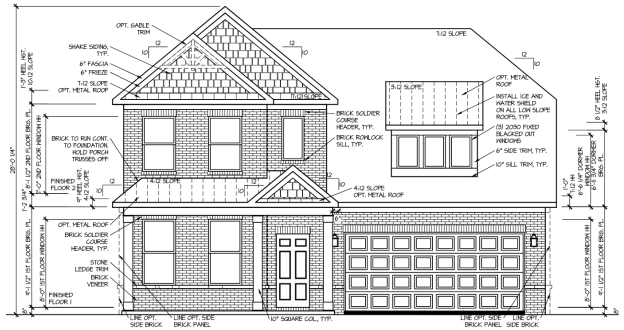
Lassiter (SF) - Elevation #8



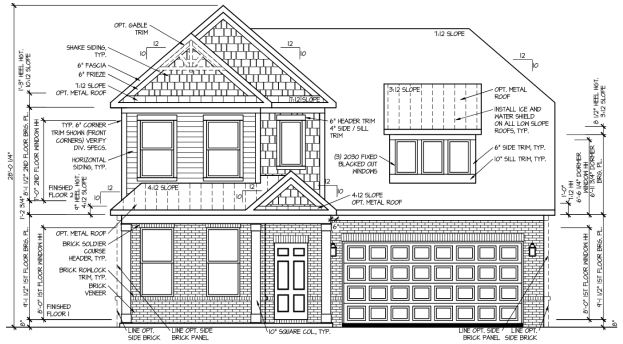
Front Elevation #8



(Optional) Side Bay



(Optional) Mixed Brick / Stone



(Optional) First Floor Brick

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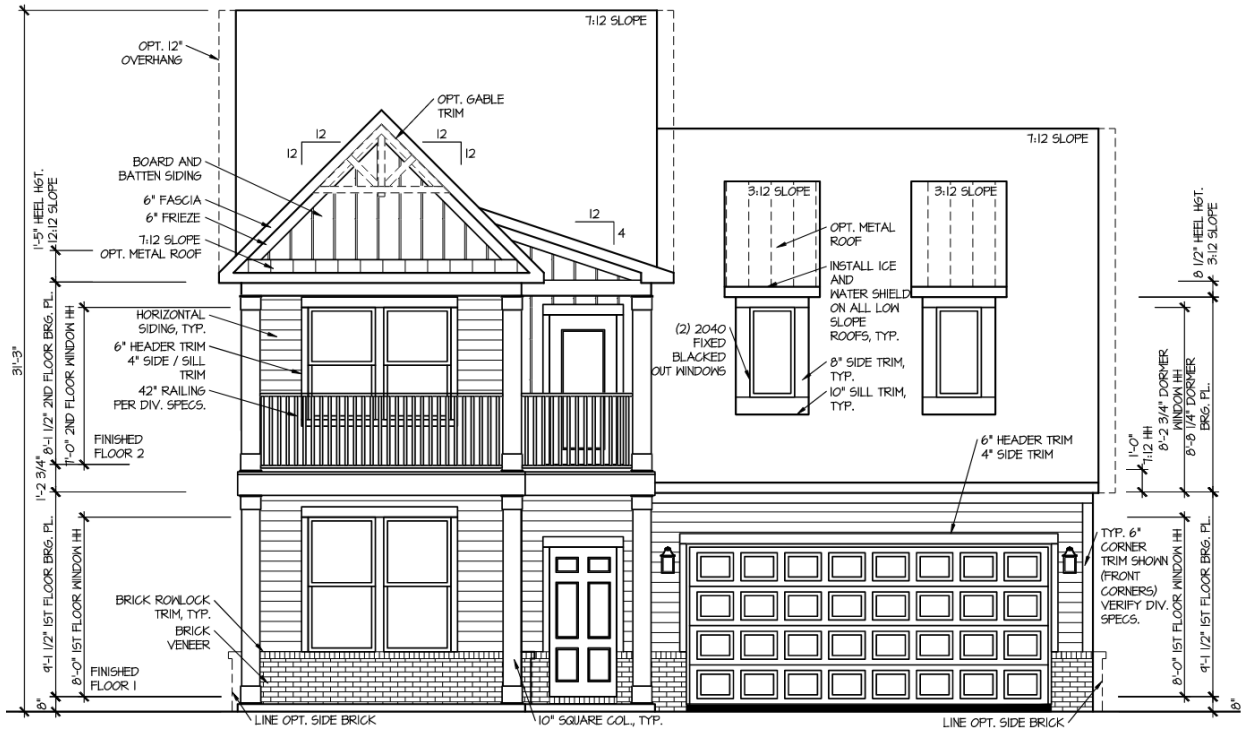
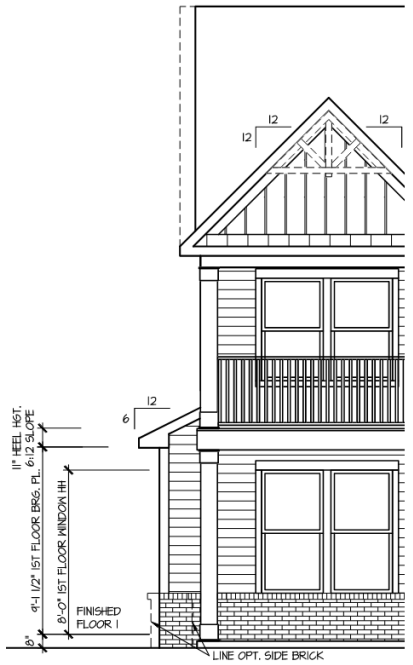
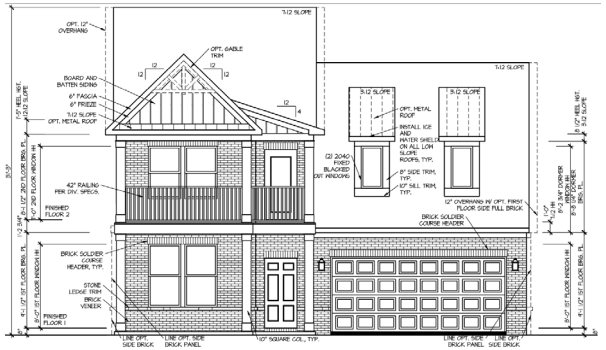
Lassiter (SF) - Elevation #9



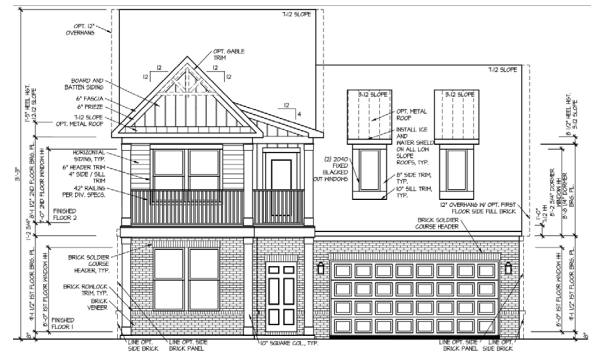
Front Elevation #9



(Optional) Side Bay



(Optional) Mixed Brick / Stone



(Optional) First Floor Brick

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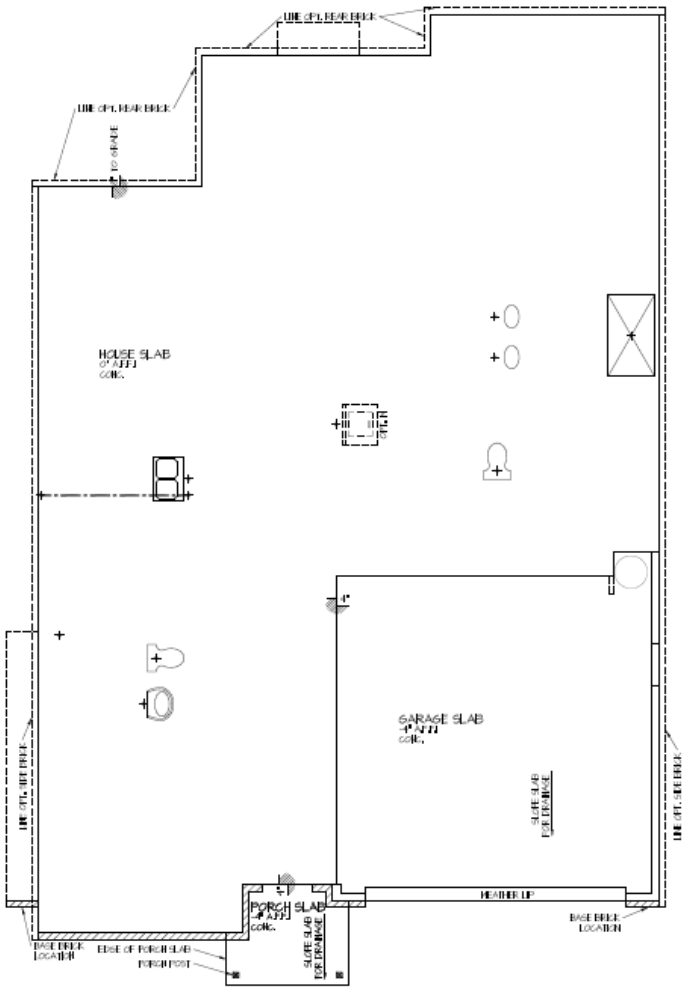
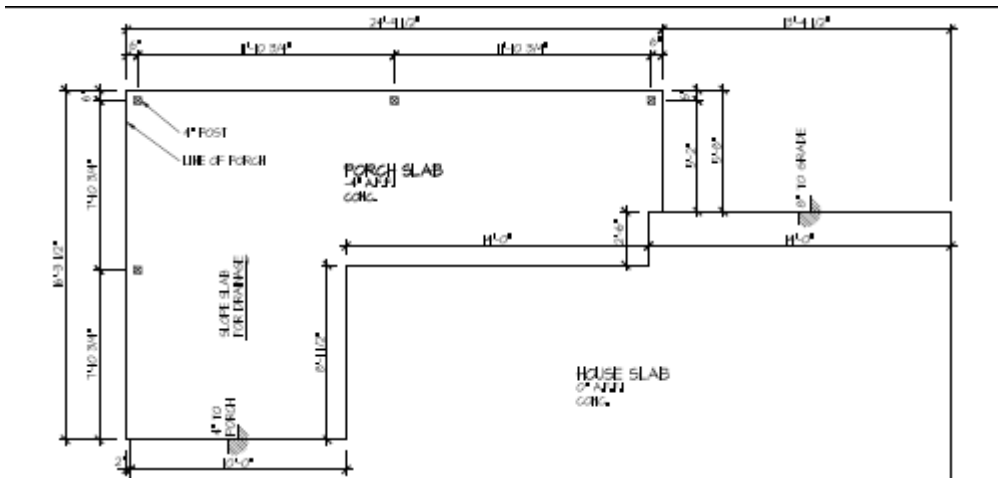
Lassiter (SF) - Options

Note: Foundation Plan changes based on elevation and structural options.

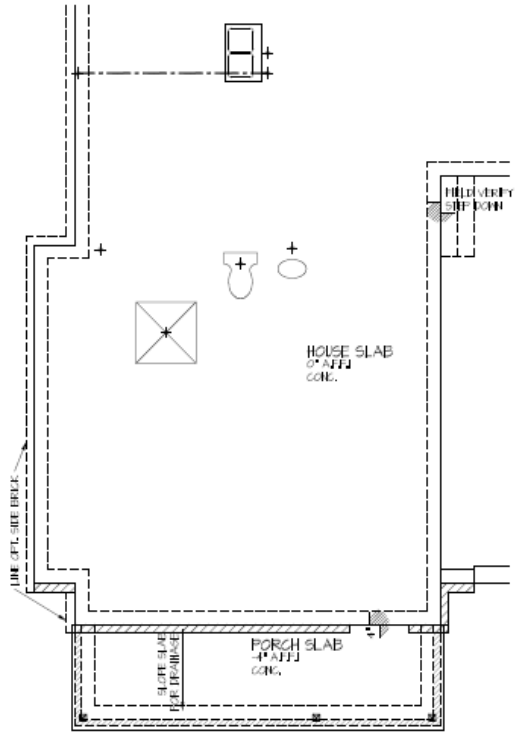
Illustrations shown reflect intended community standards; minor variations may occur. Compliance with the approved pattern book will be determined by the City of Columbia Planning Department.



Foundation

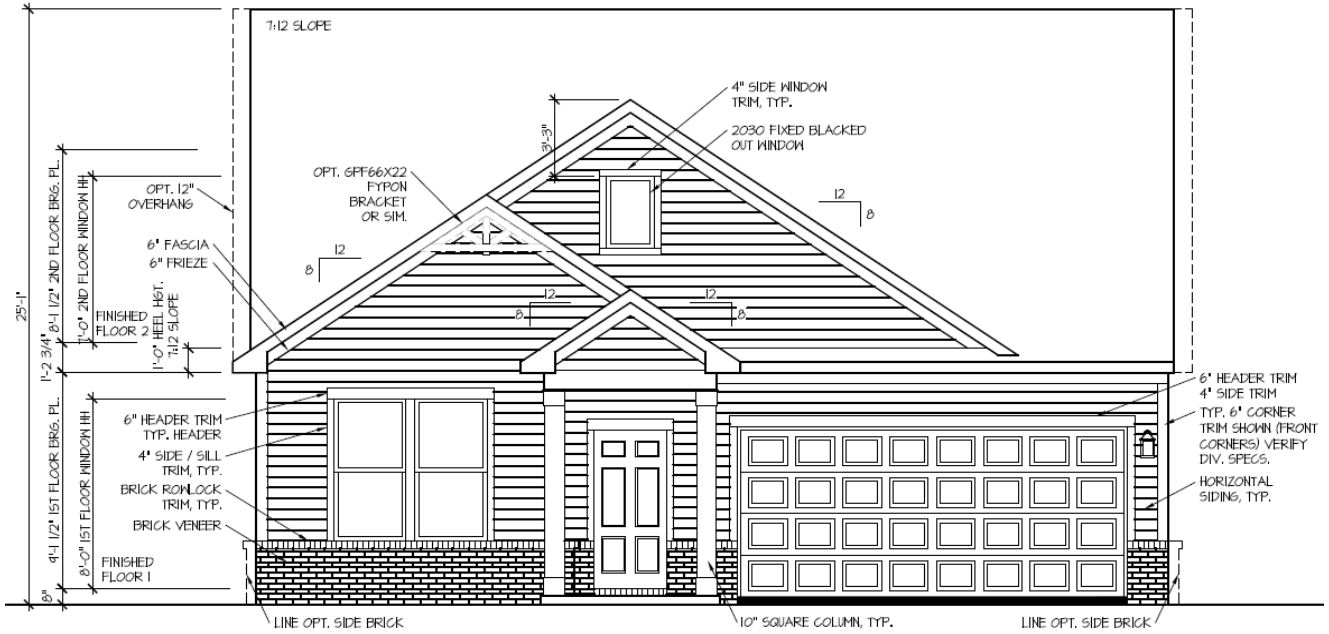


(Optional) Large Rear Porch

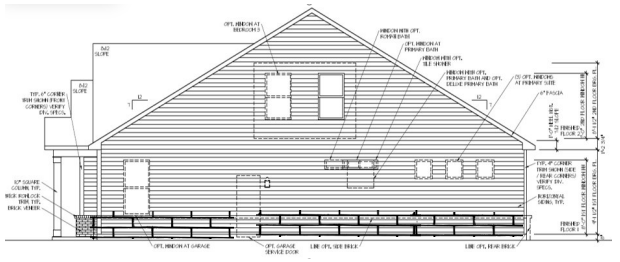


(Optional) 5 Bed / 4 Bath

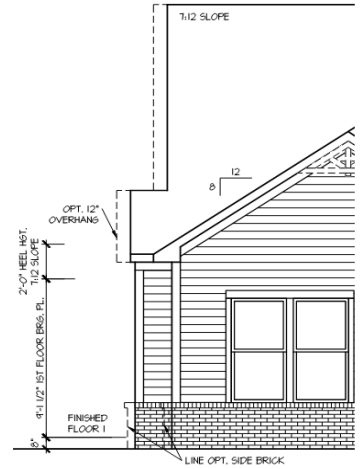
Greenwich (SF) - Elevation #1



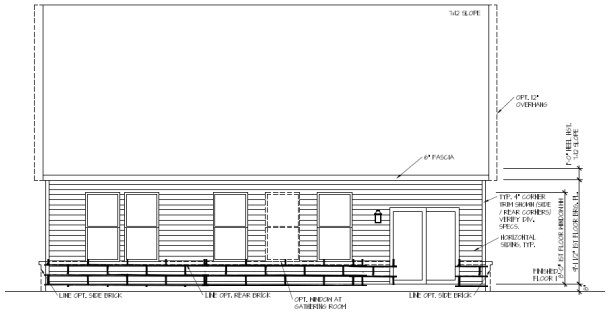
Front Elevation #1



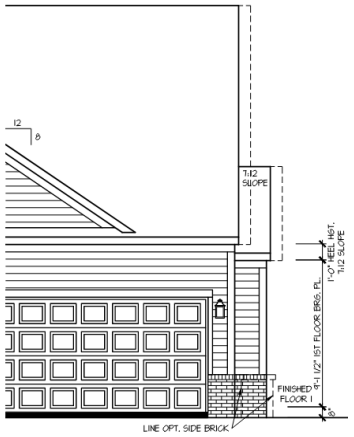
Side Elevation



(Optional) Side Bay



Rear Elevation



(Optional) Primary Suite Bay

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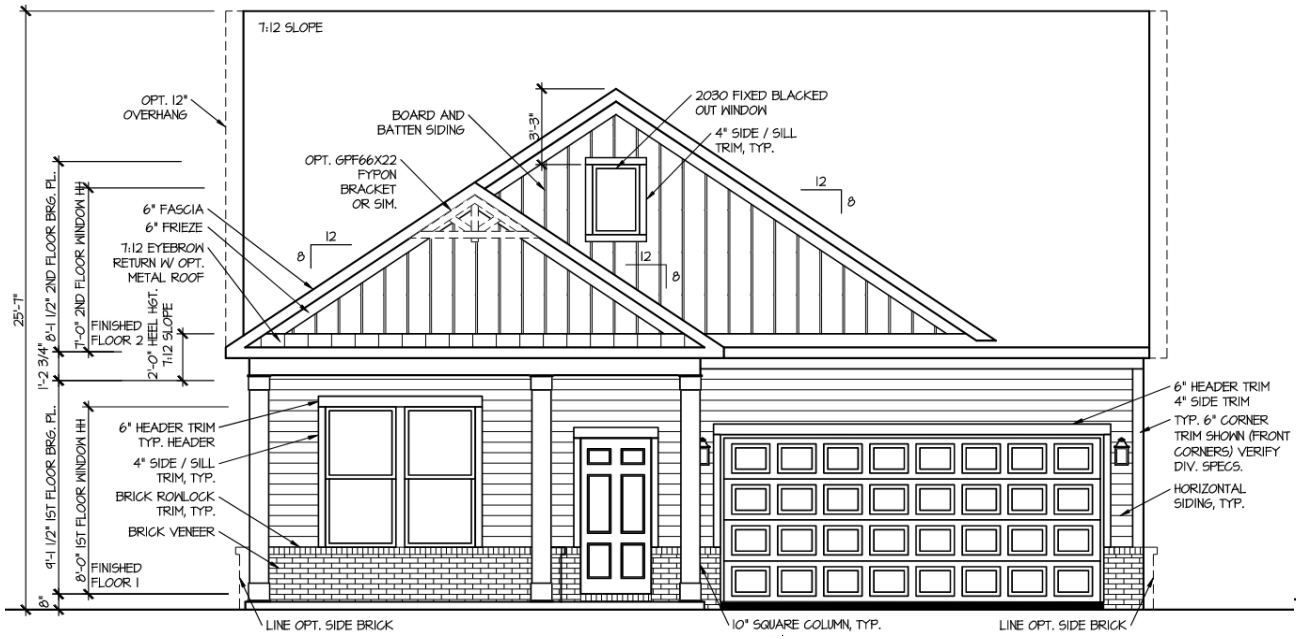
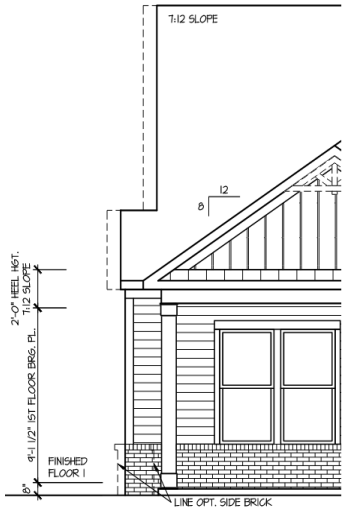
Greenwich (SF) - Elevation #2

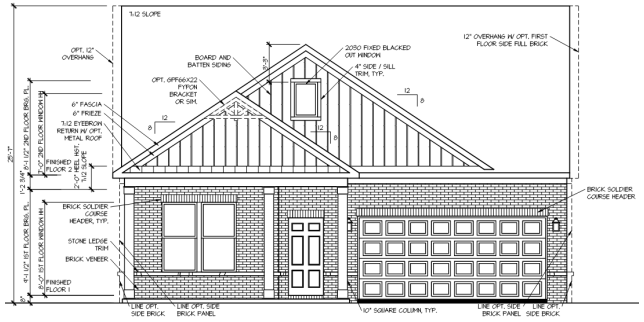


Front Elevation #2

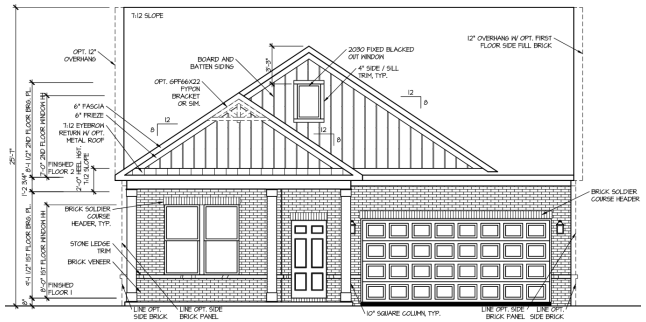
**Elevations and configurations shown reflect intended community standards; minor additions, revisions, and variations may occur. City of Columbia Planning Department will determine if the intent of the approved pattern book has been met.*



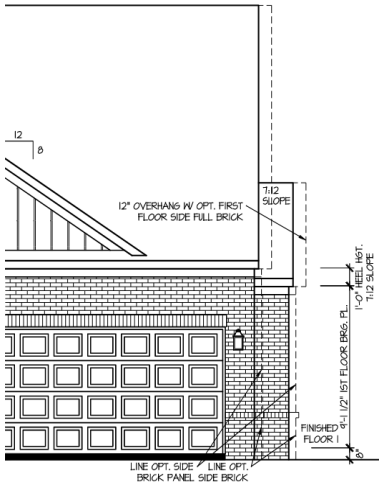
(Optional) Side Bay



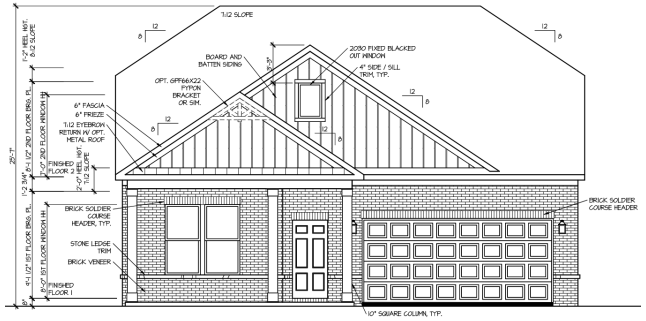
(Optional) Mixed Brick / Stone



(Optional) First Floor Brick

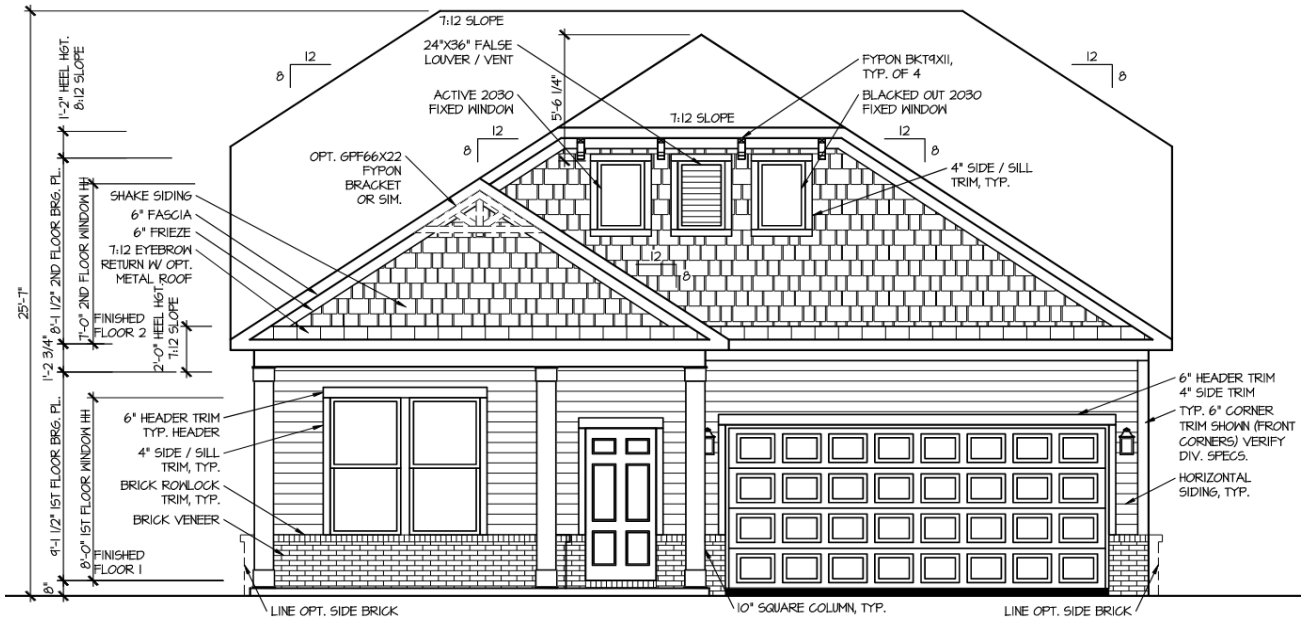


(Optional) Primary Suite Bay



(Optional) Second Floor

Greenwich (SF) - Elevation #3



Front Elevation #3

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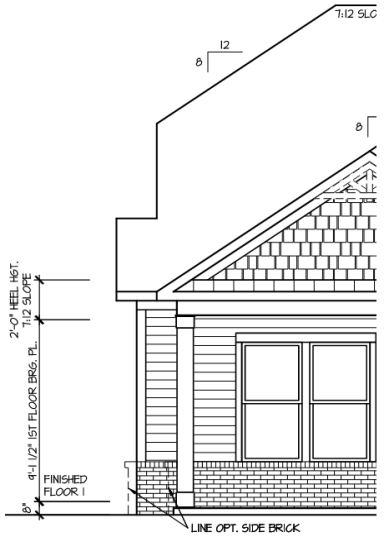
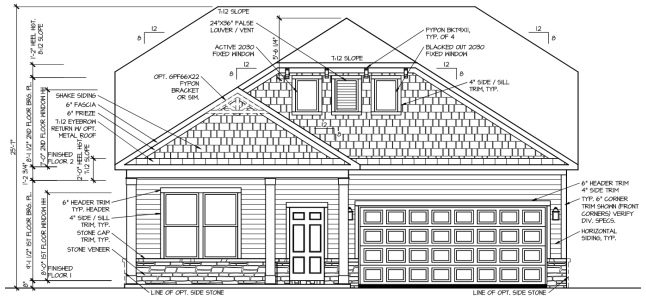
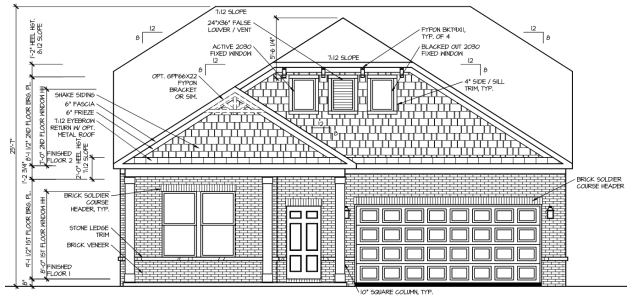


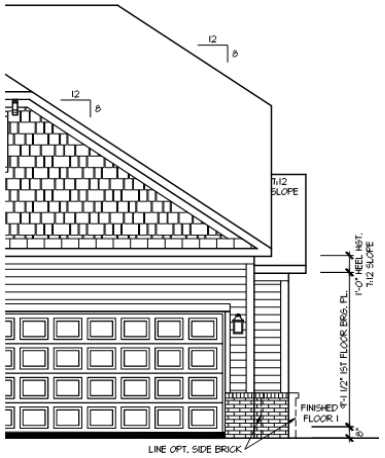
(Optional) Side Bay



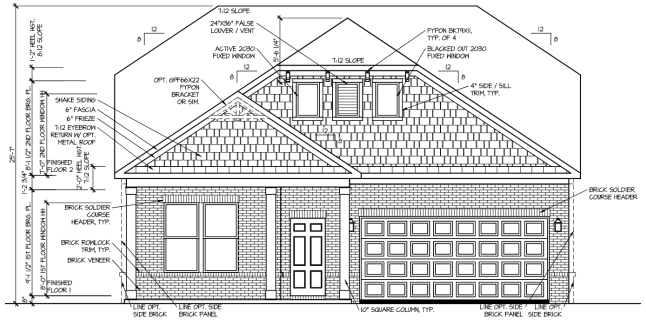
(Optional) Stone Water Table



(Optional) Mixed Brick / Stone

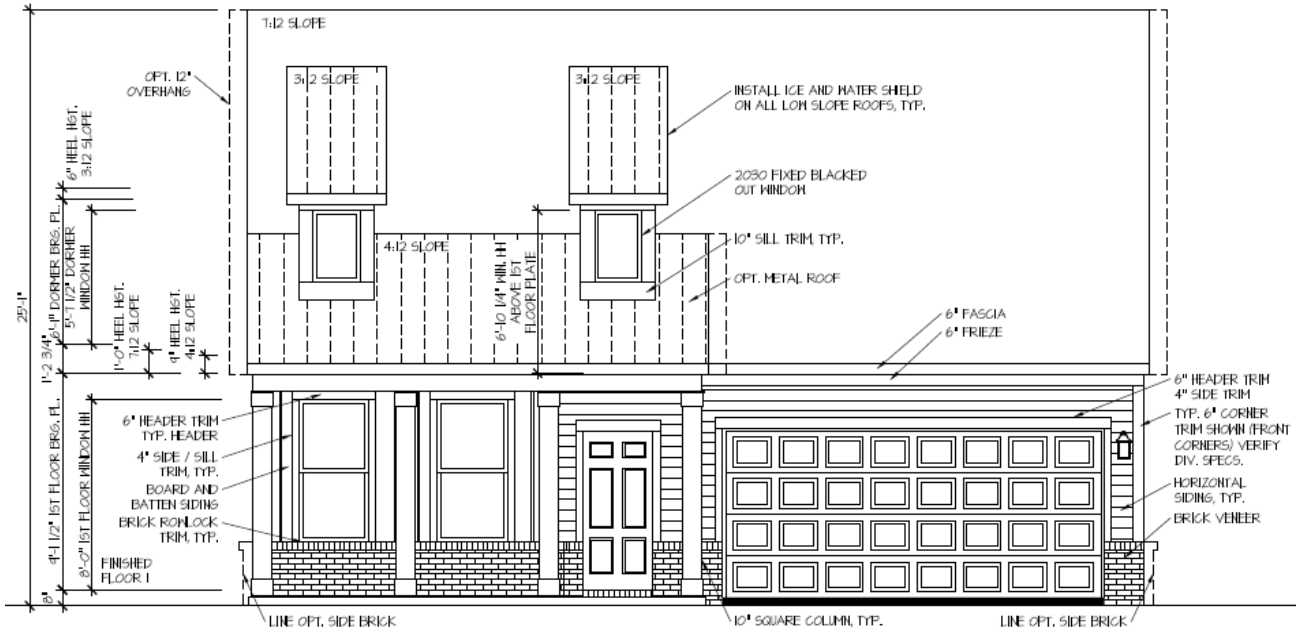


(Optional) Primary Suite Bay

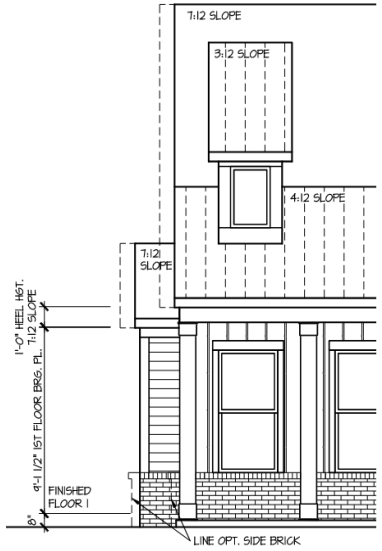


(Optional) First Floor Brick

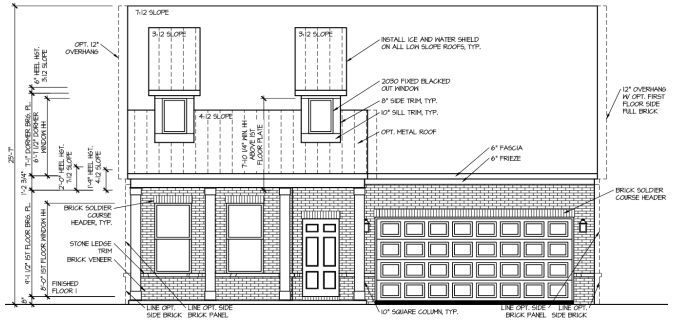
Greenwich (SF) - Elevation #4



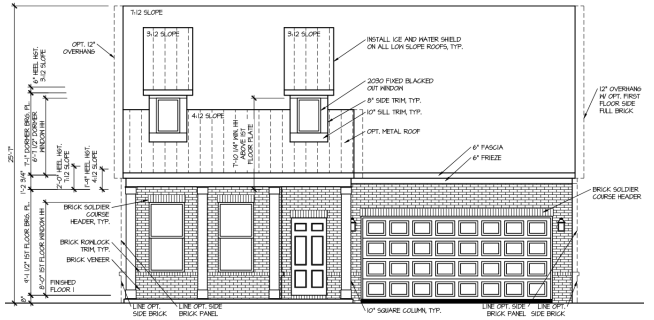
Front Elevation #4



(Optional) Side Bay



(Optional) Mixed Brick / Stone



(Optional) First Floor Brick

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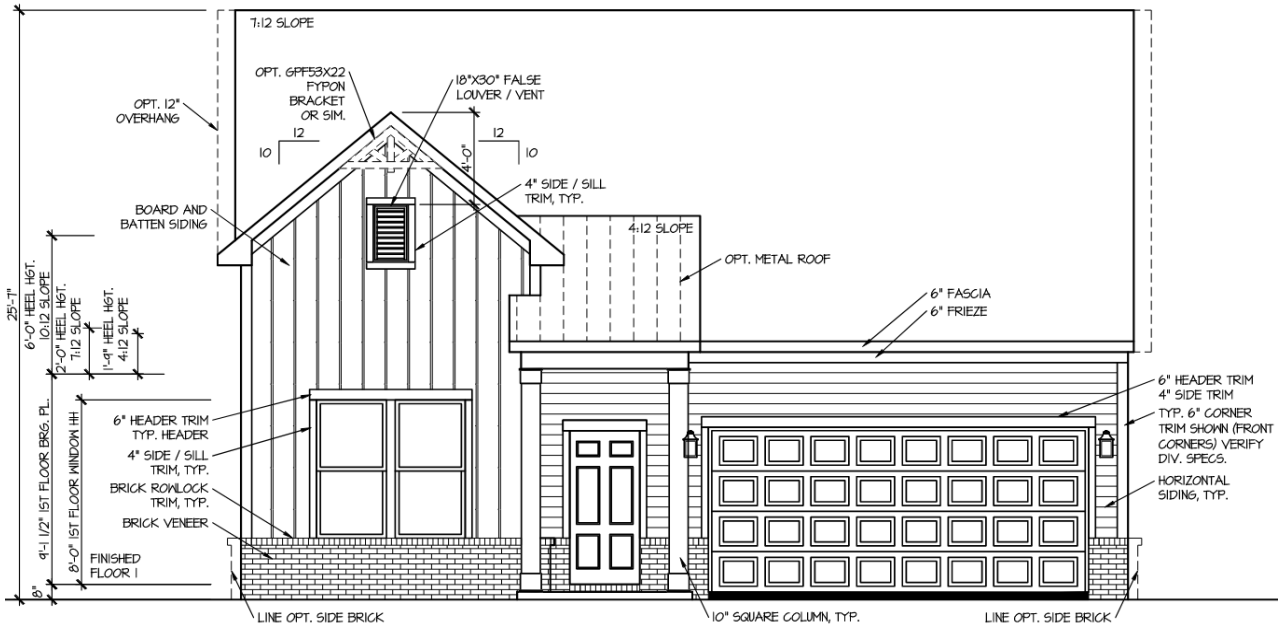
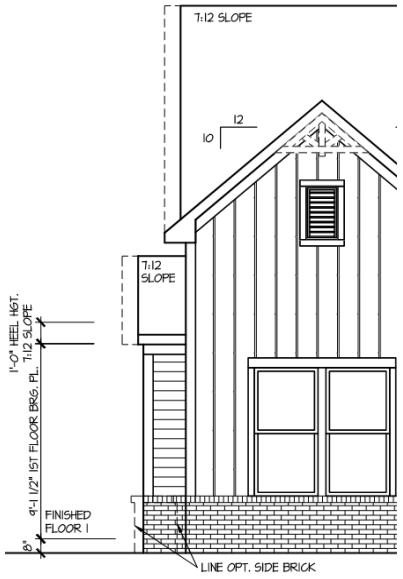
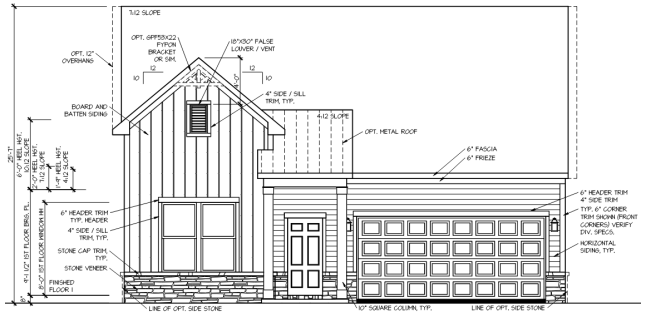
Greenwich (SF) - Elevation #5



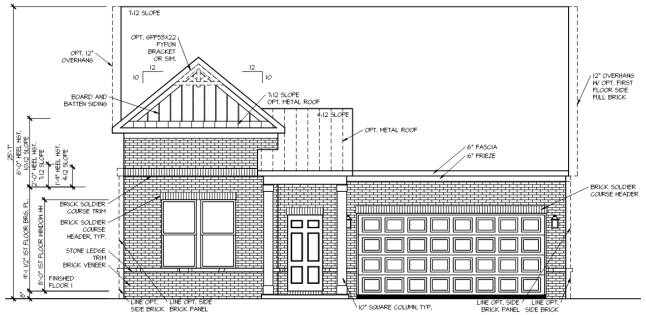
Front Elevation #5



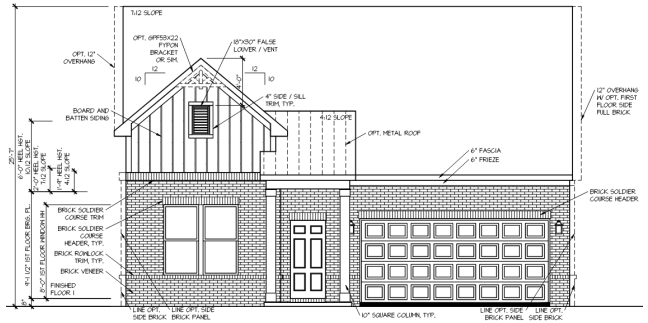
(Optional) Side Bay



(Optional) Stone Water Table



(Optional) Mixed Brick / Stone



(Optional) First Floor Brick

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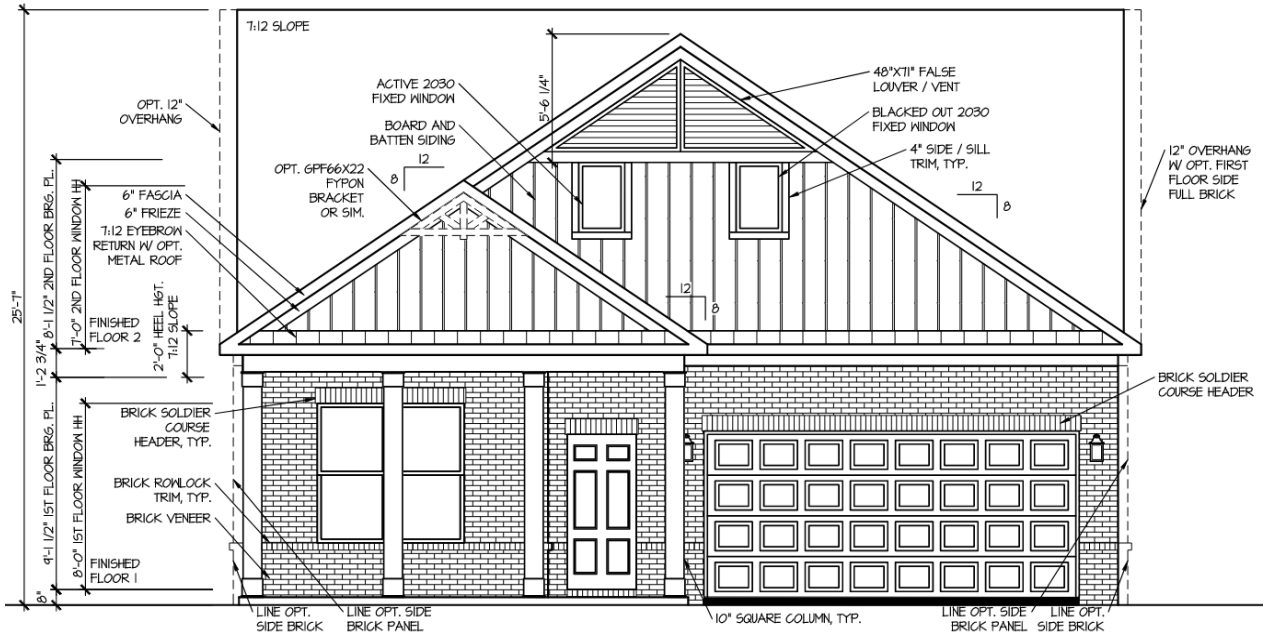
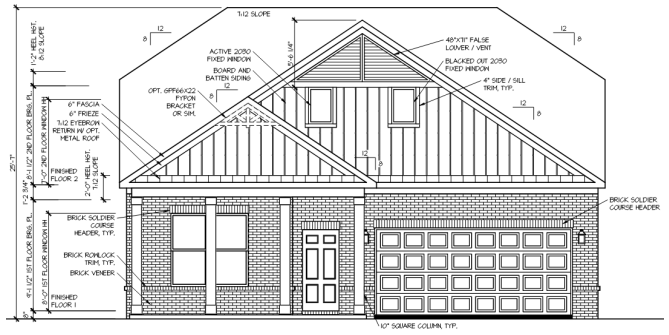
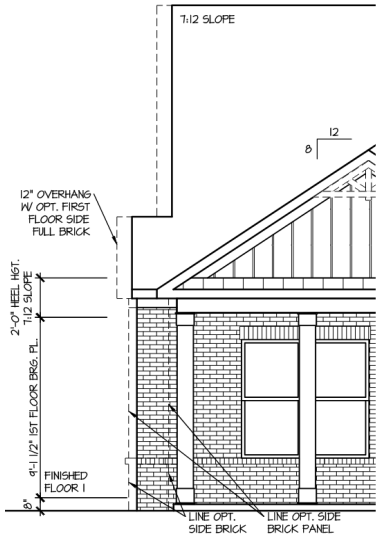
Greenwich (SF) - Elevation #6



Front Elevation #6



(Optional) Second Floor



(Optional) Side Bay

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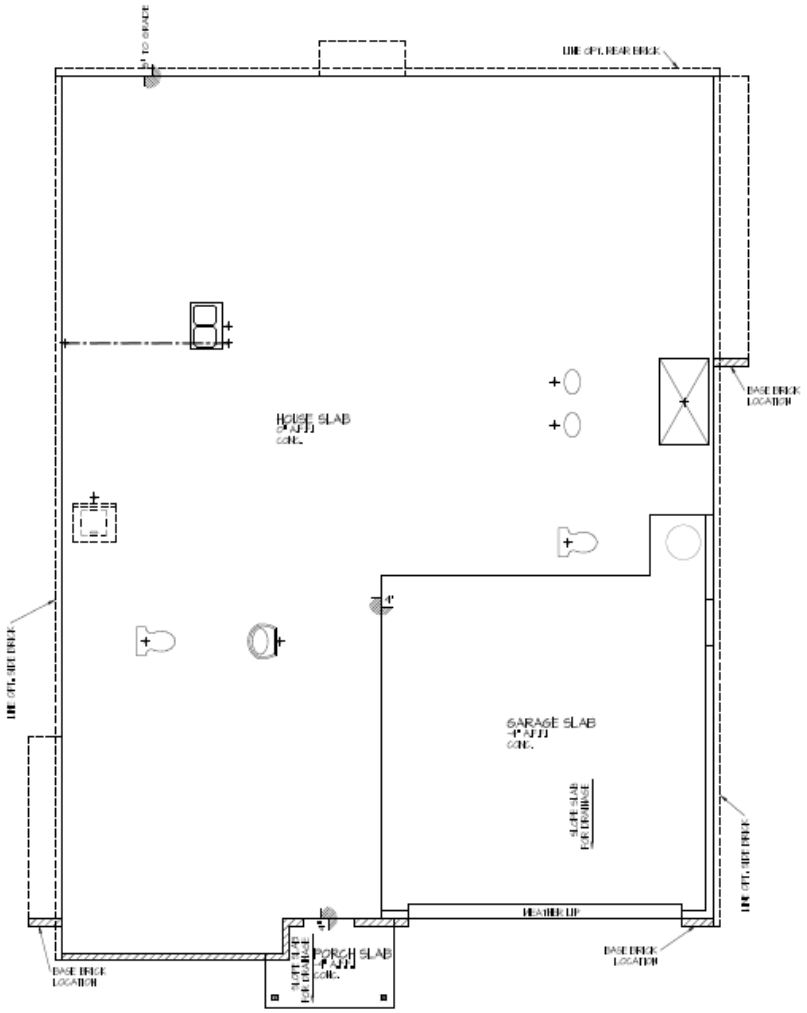
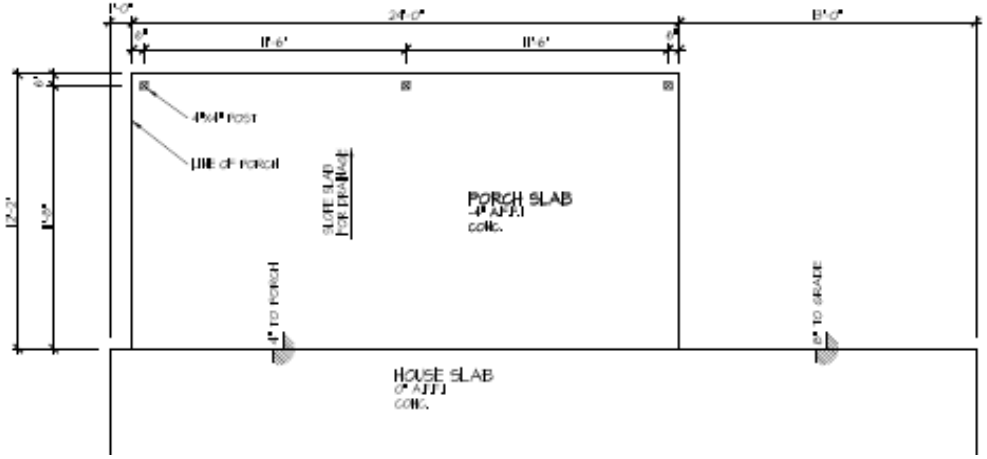
Greenwich (SF) - Options

Note: Foundation Plan changes based on elevation and structural options.

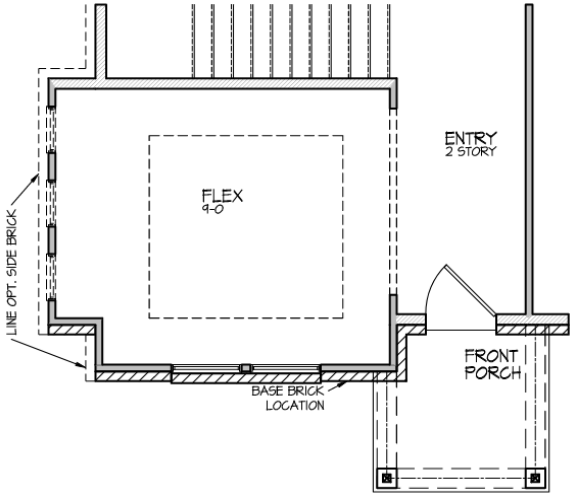
Illustrations shown reflect intended community standards; minor variations may occur. Compliance with the approved pattern book will be determined by the City of Columbia Planning Department.



Foundation

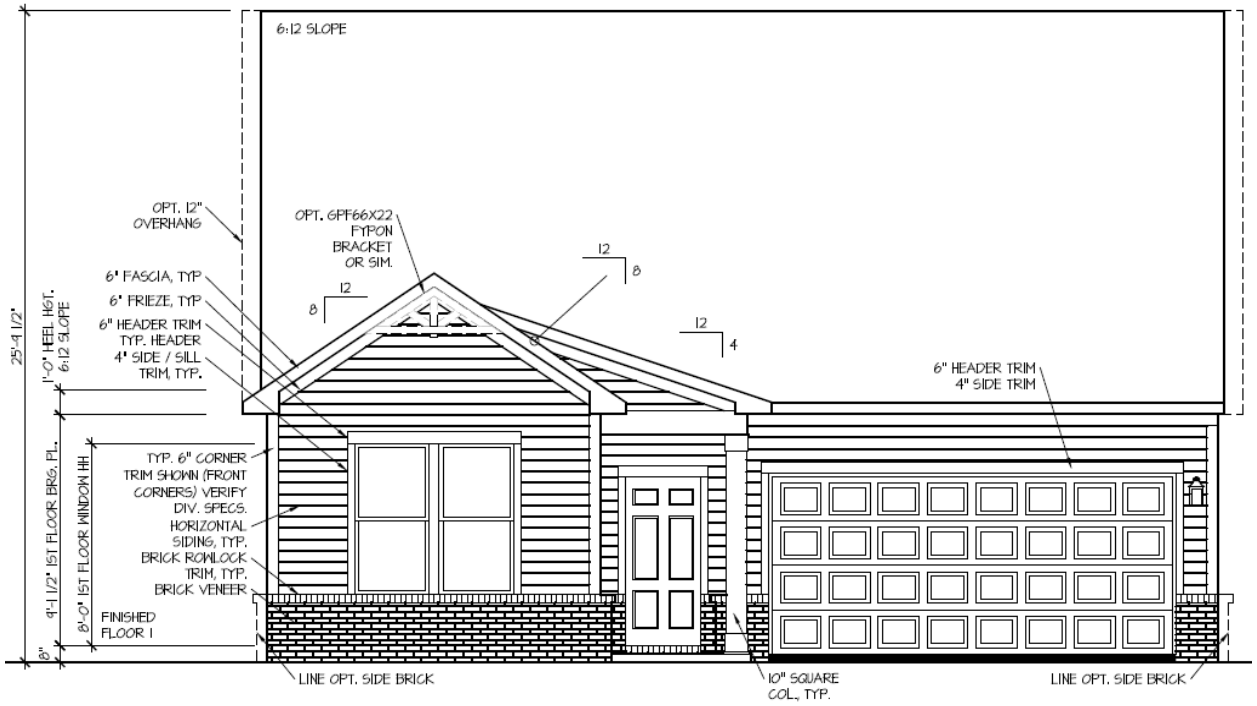


(Optional) Large Rear Porch

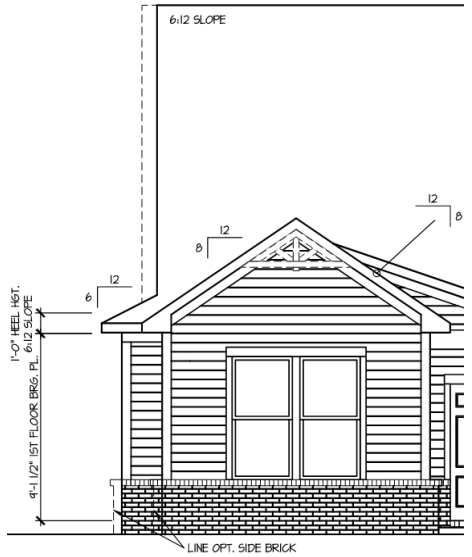


(Optional) Side Bay

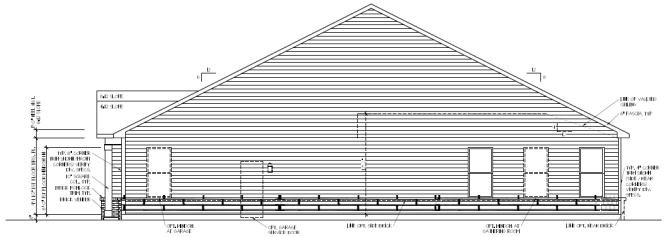
Chelsea (SF) - Elevation #1



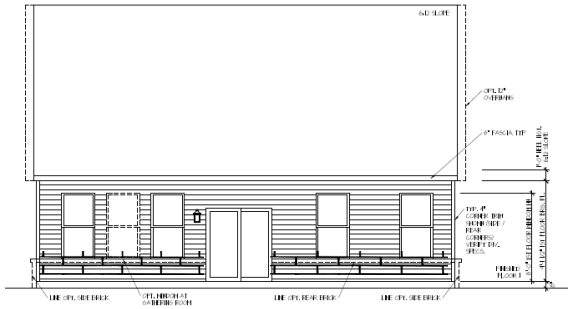
Front Elevation #1



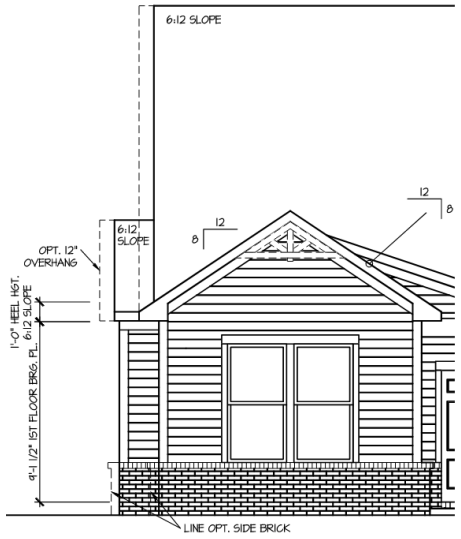
(Optional) Side Bay



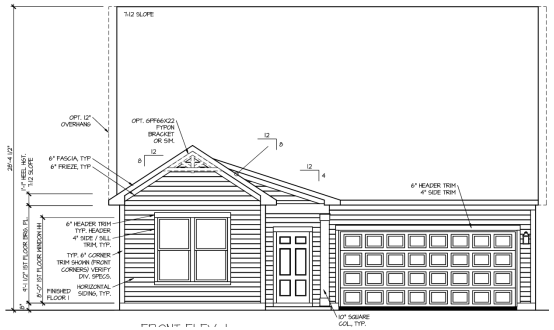
Side Elevation



Rear Elevation



(Optional) Primary Suite Bay



(Optional) Bonus Room

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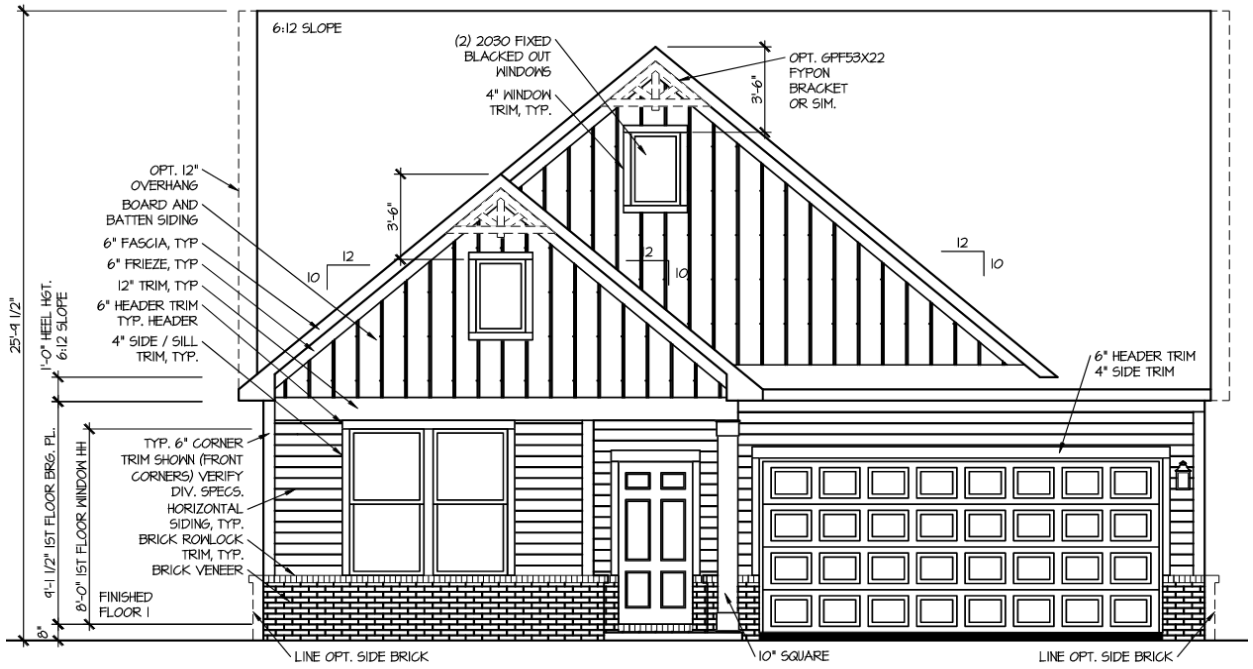
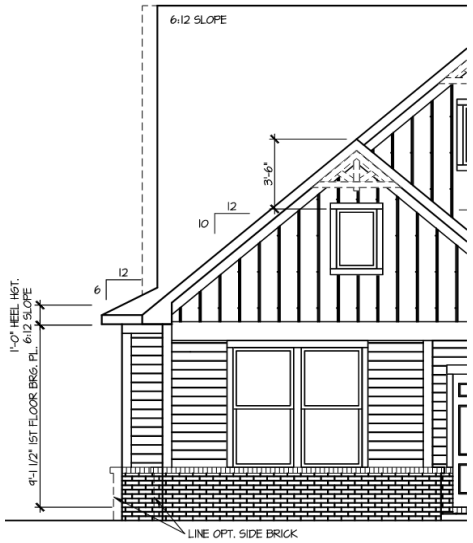
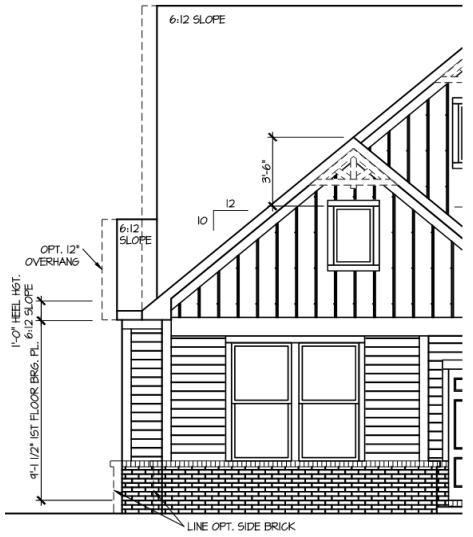
Chelsea (SF) - Elevation #2



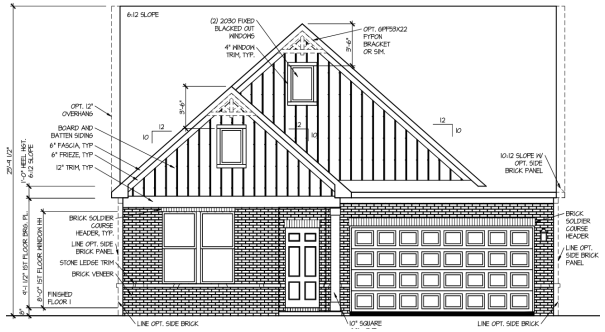
Front Elevation #2



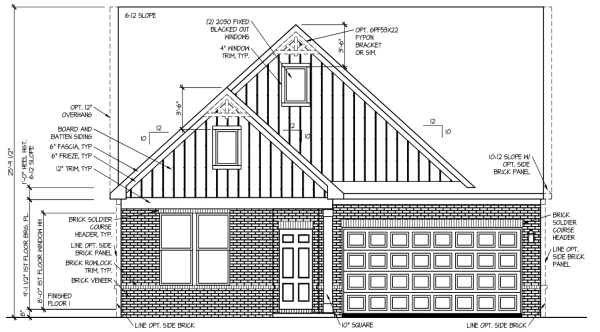
(Optional) Side Bay



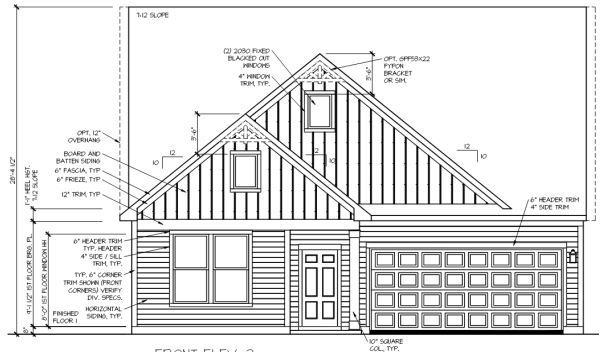
(Optional) Primary Suite Bay



(Optional) Mixed Brick / Stone



(Optional) First Floor Brick



(Optional) Bonus Room

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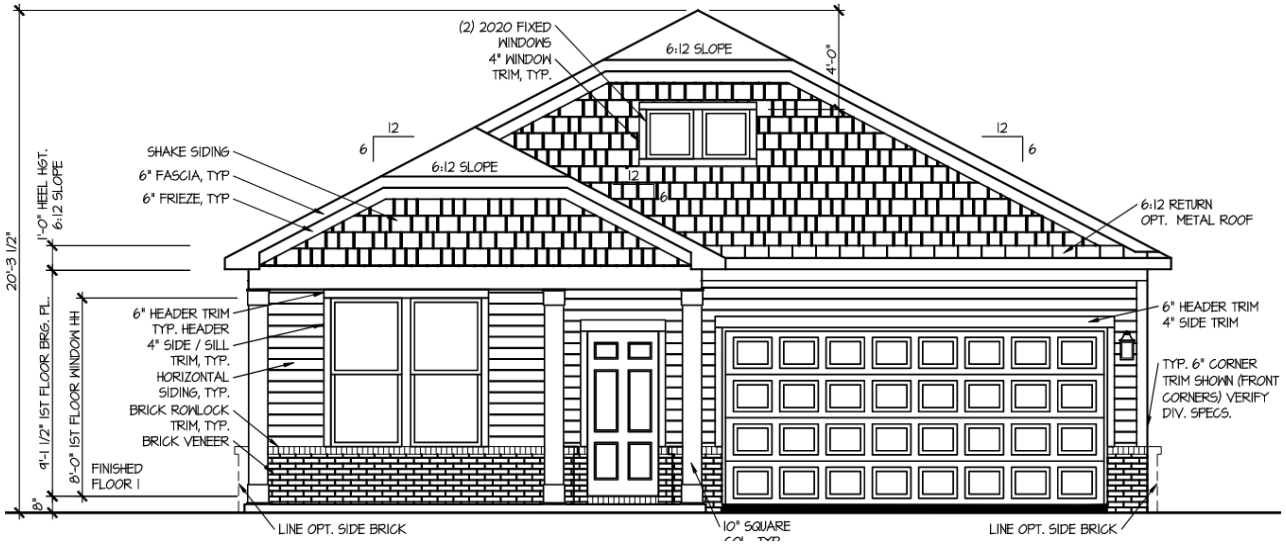
Chelsea (SF) - Elevation #3



Front Elevation #3

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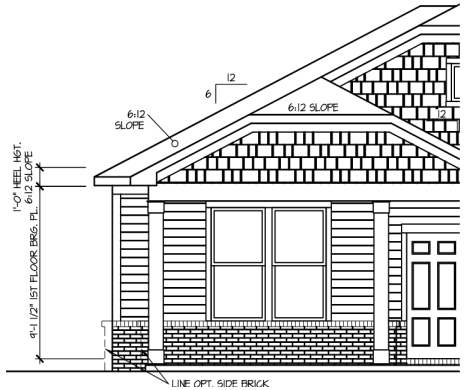
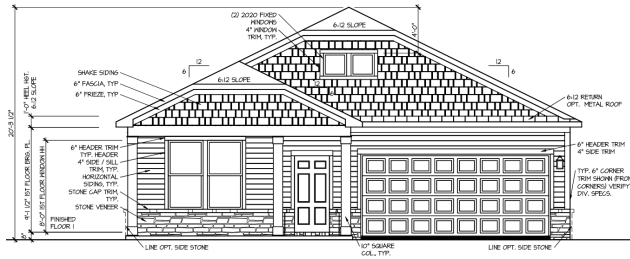
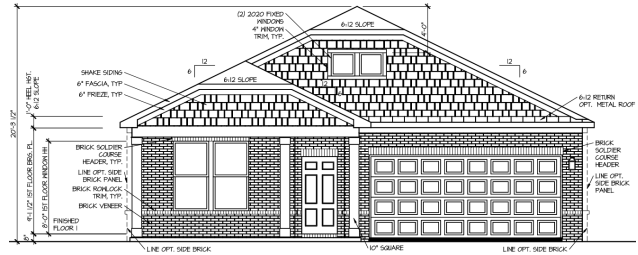


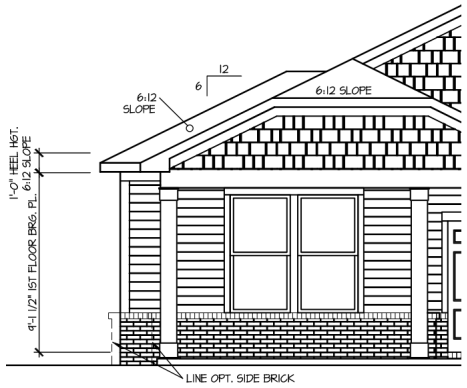
(Optional) Side Bay



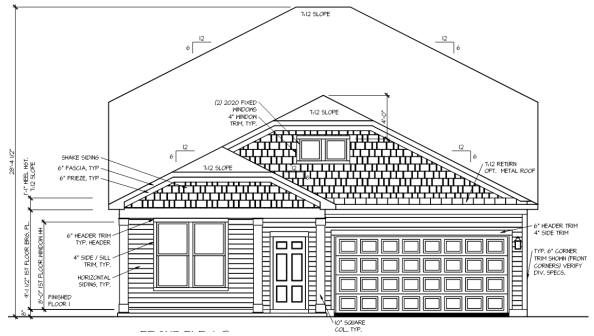
(Optional) Stone Water Table



(Optional) First Floor Brick + Mixed Brick / Stone

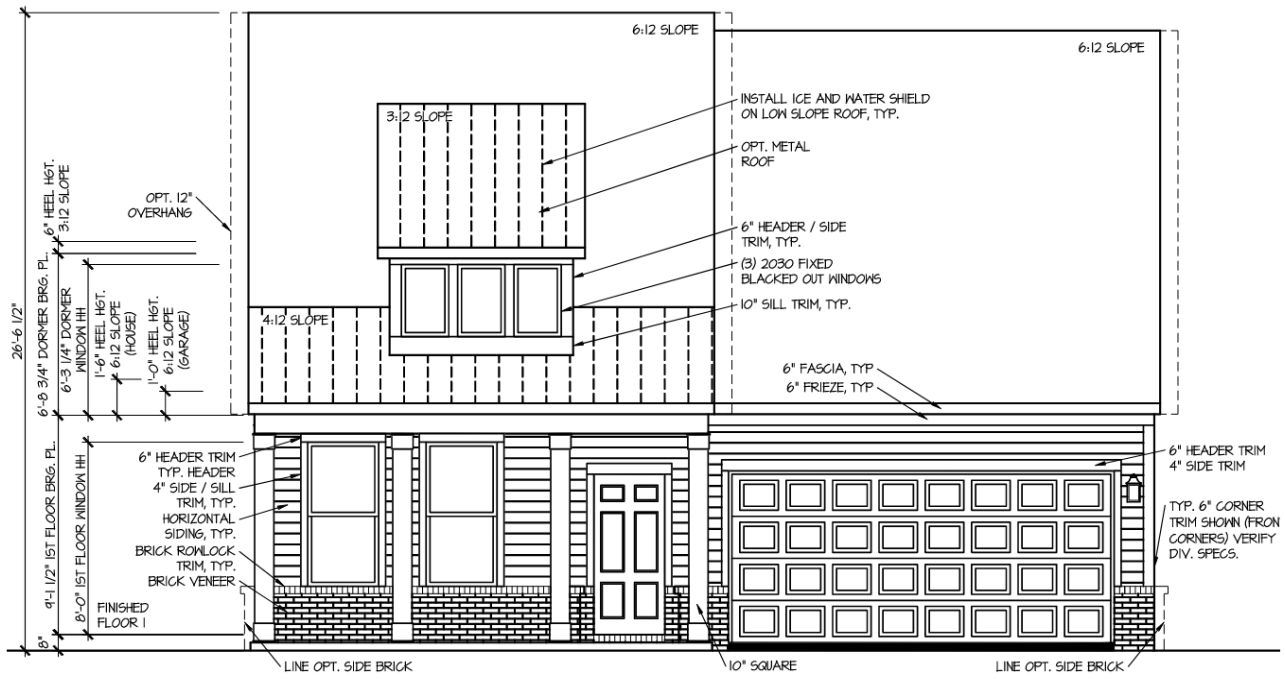


(Optional) Primary Suite Bay



(Optional) Bonus Room

Chelsea (SF) - Elevation #4



Front Elevation #4

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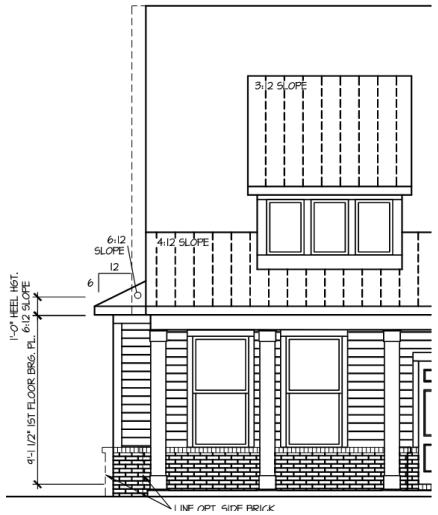
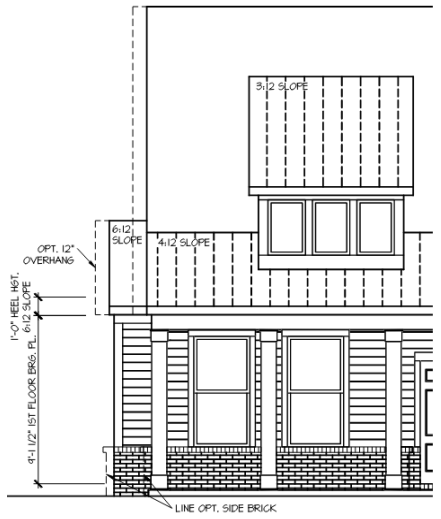
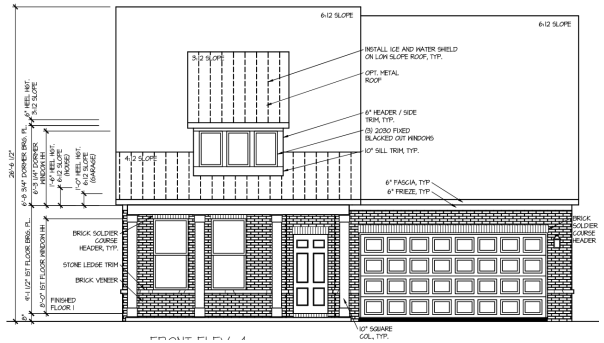


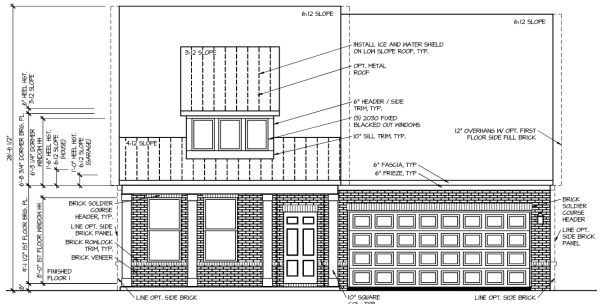
(Optional) Side Bay



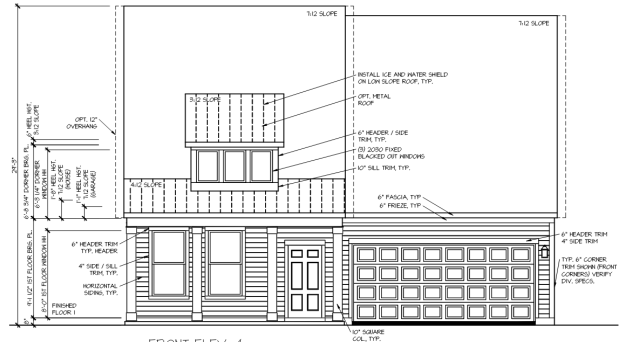
(Optional) Primary Suite Bay



(Optional) Mixed Brick / Stone

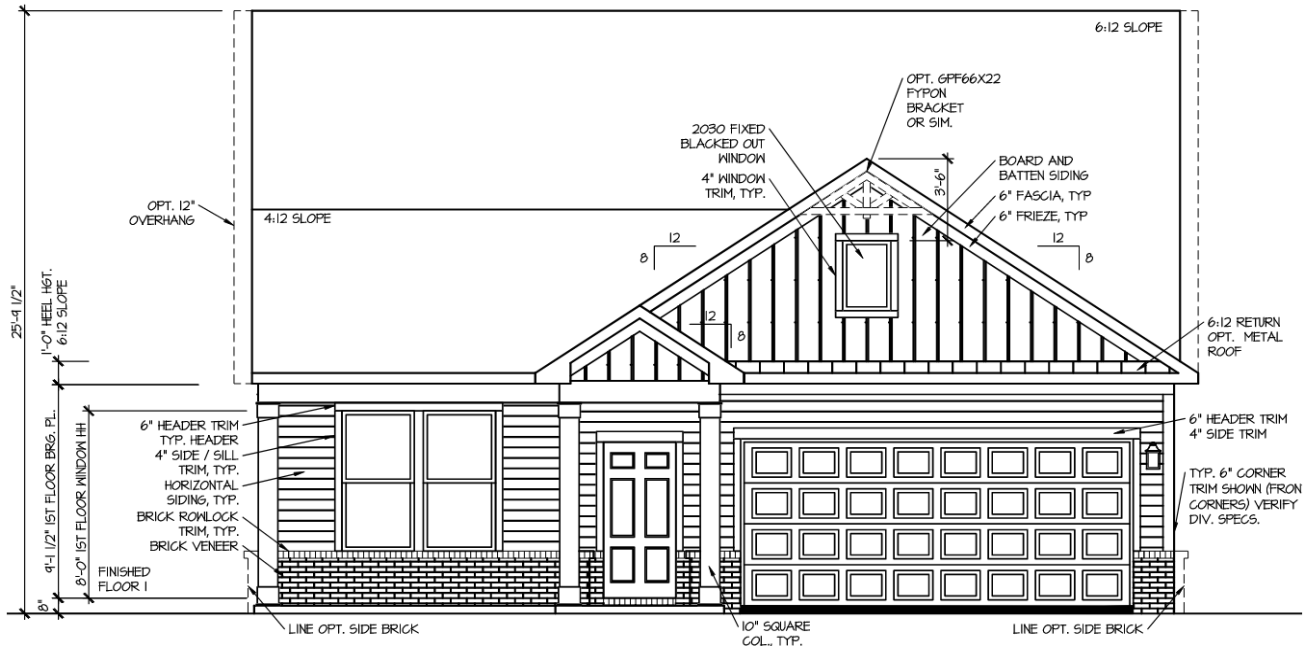


(Optional) First Floor Brick



(Optional) Bonus Room

Chelsea (SF) - Elevation #5



Front Elevation #5

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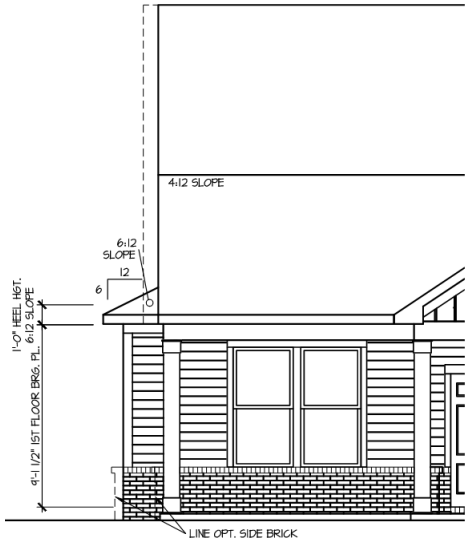
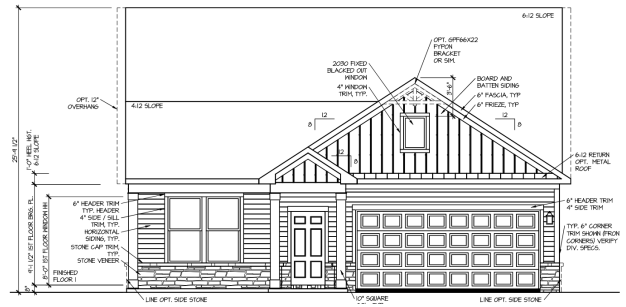
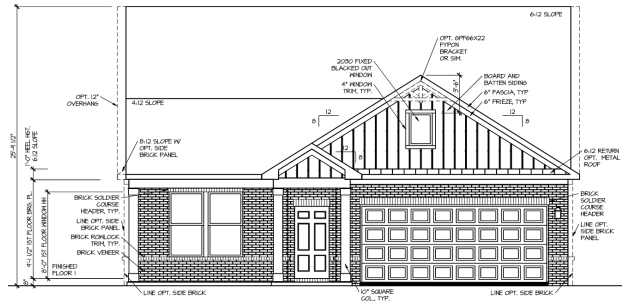


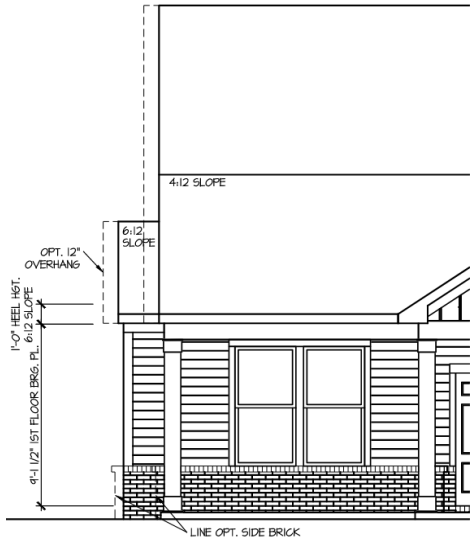
(Optional) Side Bay



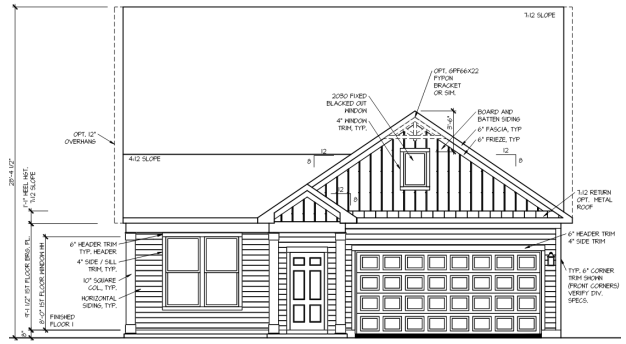
(Optional) Stone Water Table



(Optional) First Floor Brick + Mixed Brick / Stone

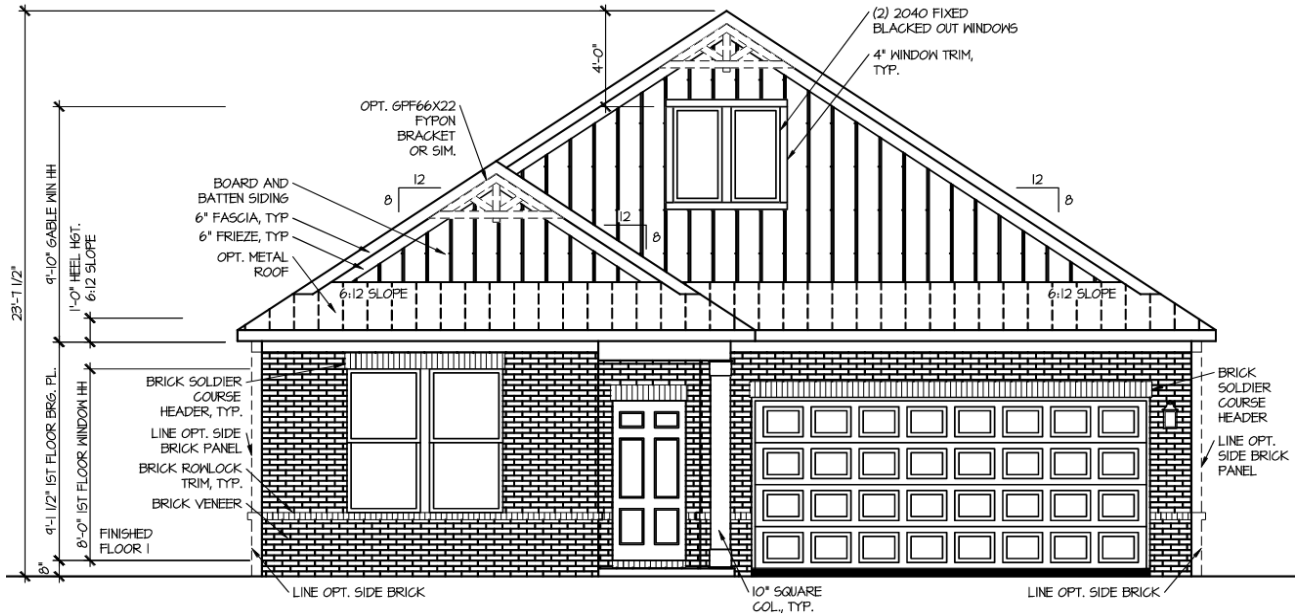


(Optional) Primary Suite Bay

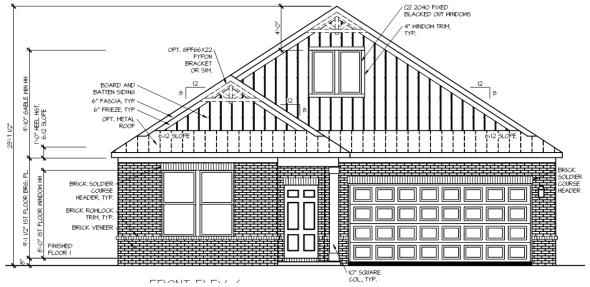


(Optional) Bonus Room

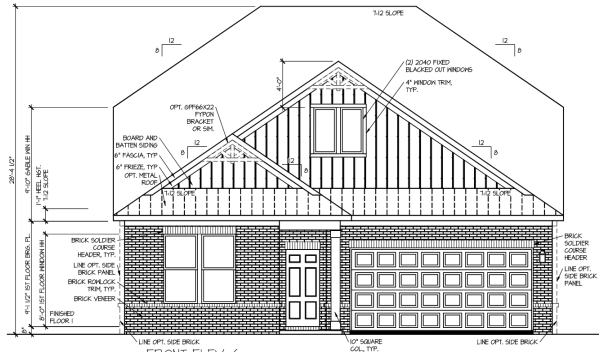
Chelsea (SF) - Elevation #6



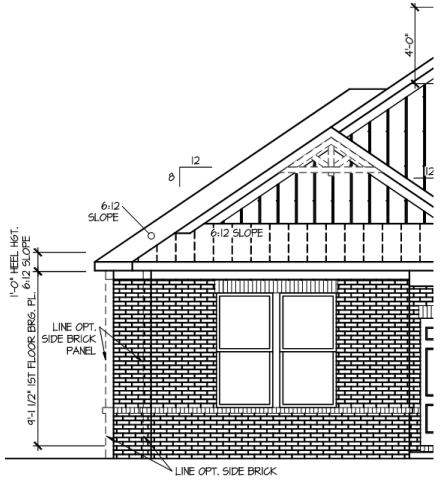
Front Elevation #6



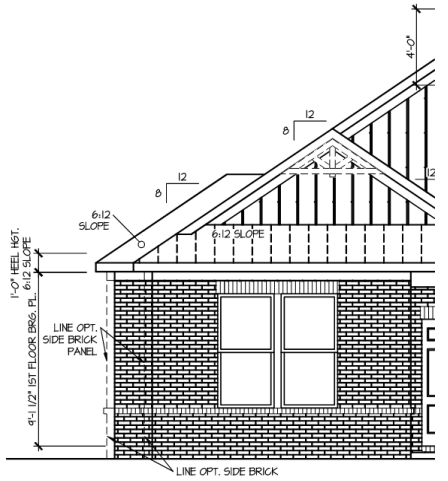
(Optional) Mixed Brick / Stone



(Optional) Bonus Room



(Optional) Side Bay



(Optional) Primary Suite Bay

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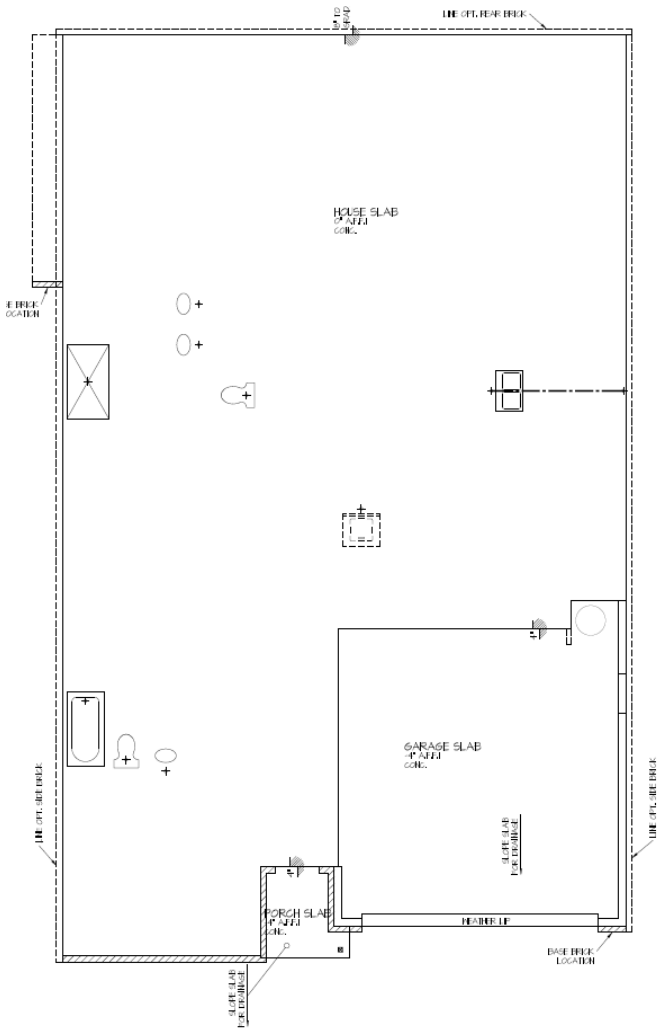
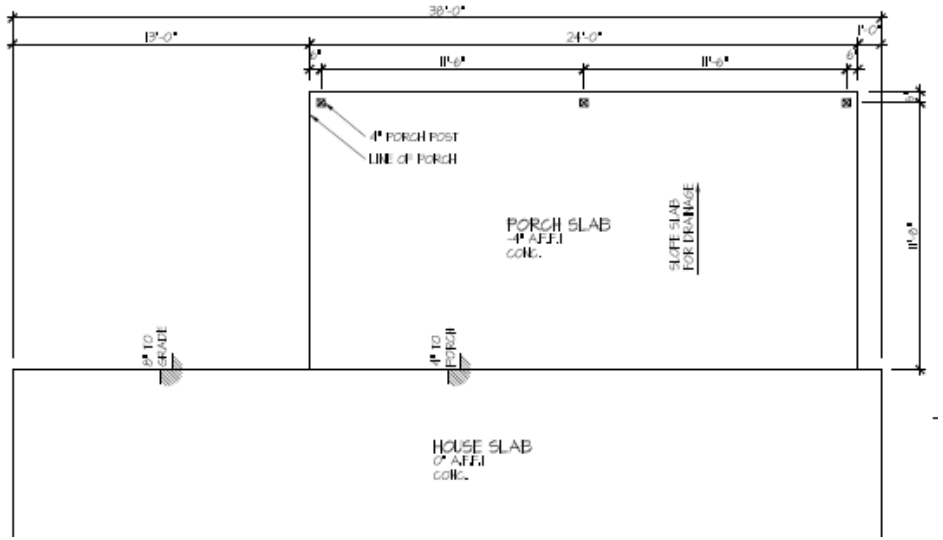
Chelsea (SF) - Options



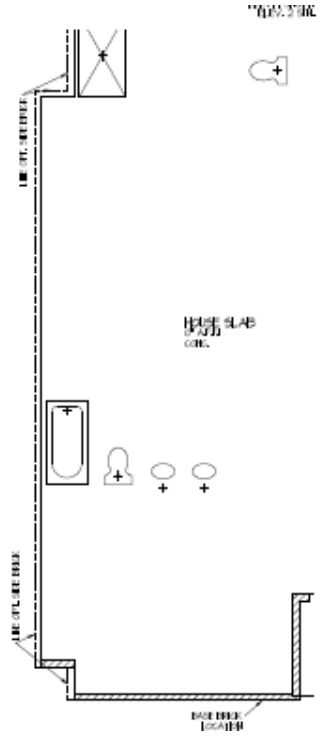
Foundation

Note: Foundation Plan changes based on elevation and structural options.

Illustrations shown reflect intended community standards; minor variations may occur. Compliance with the approved pattern book will be determined by the City of Columbia Planning Department.

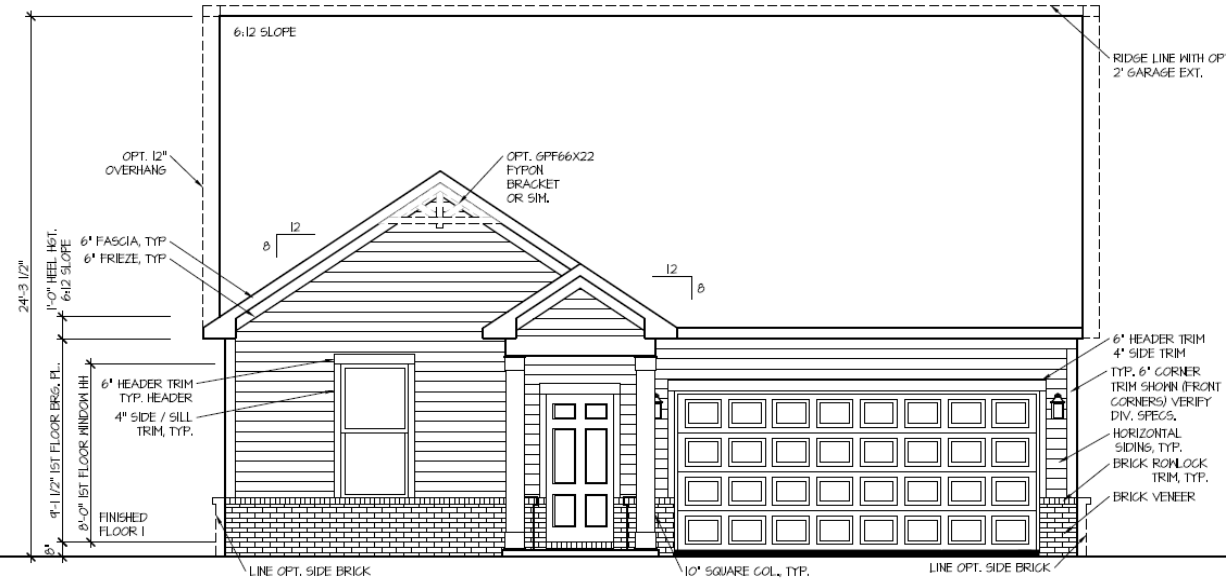


(Optional) Large Rear Porch

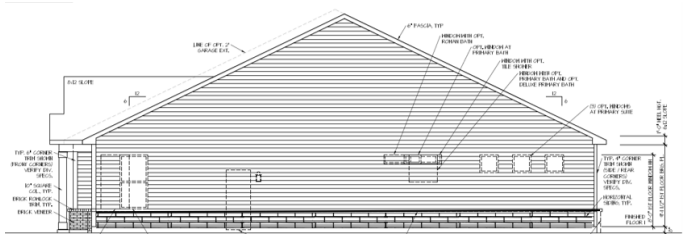


(Optional) Side Bay

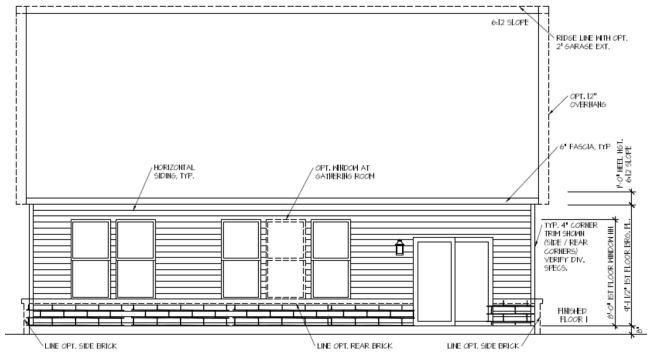
Avondale (SF) - Elevation #1



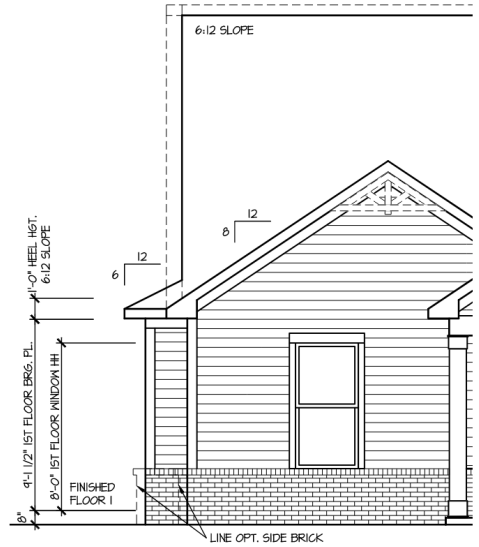
Front Elevation #1



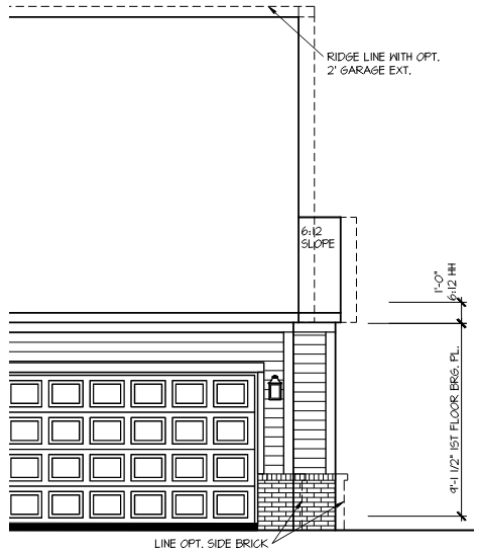
Side Elevation



Rear Elevation



(Optional) Side Bay



(Optional) Primary Suite Bay

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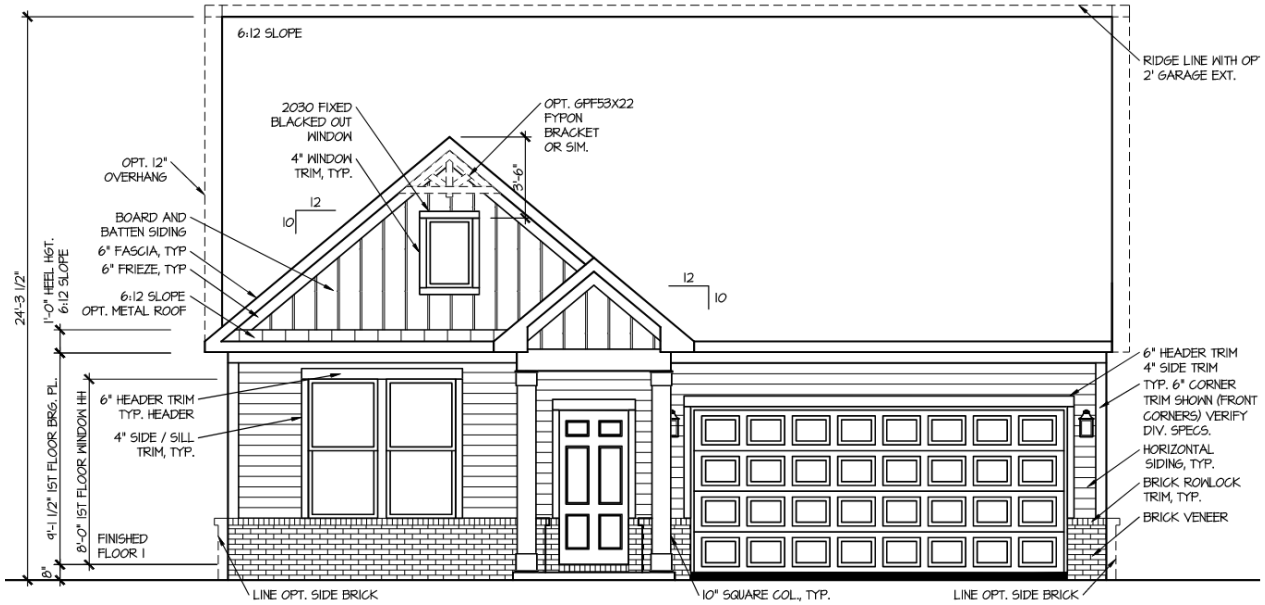
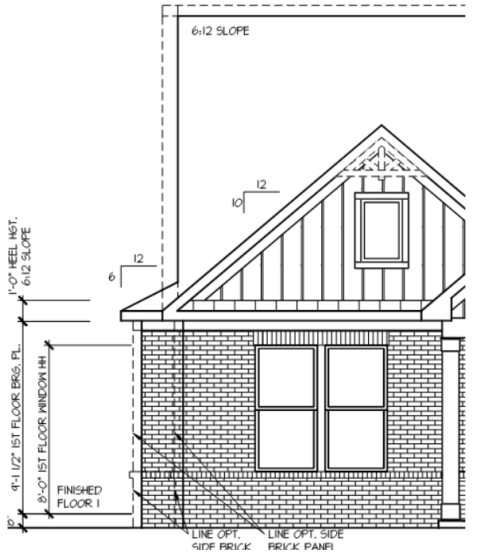
Avondale (SF) - Elevation #2

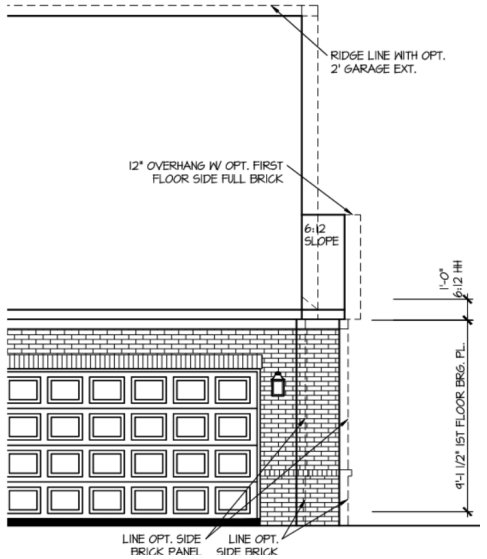


Front Elevation #2

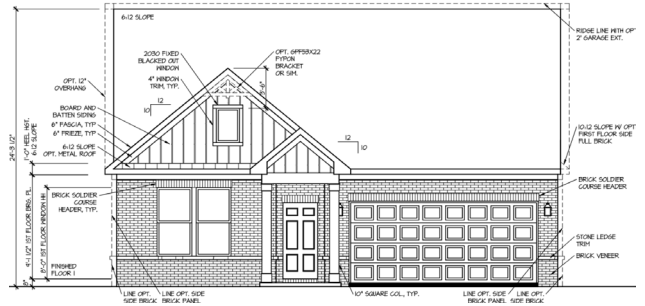
**Elevations and configurations shown reflect intended community standards; minor additions, revisions, and variations may occur. City of Columbia Planning Department will determine if the intent of the approved pattern book has been met.*



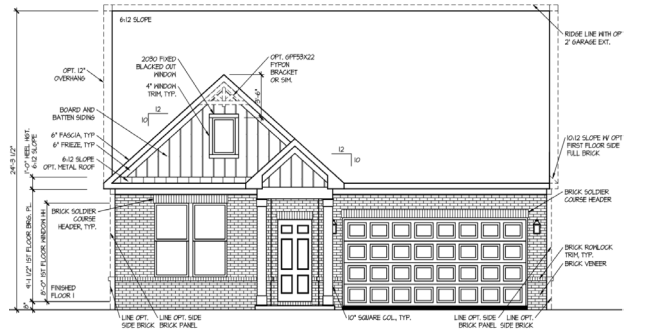
(Optional) Side Bay



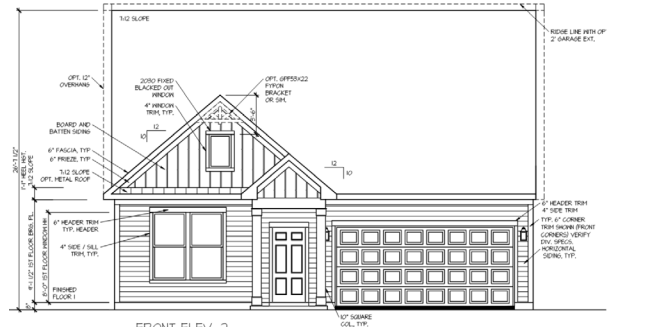
(Optional) Primary Suite Bay



(Optional) Mixed Brick / Stone

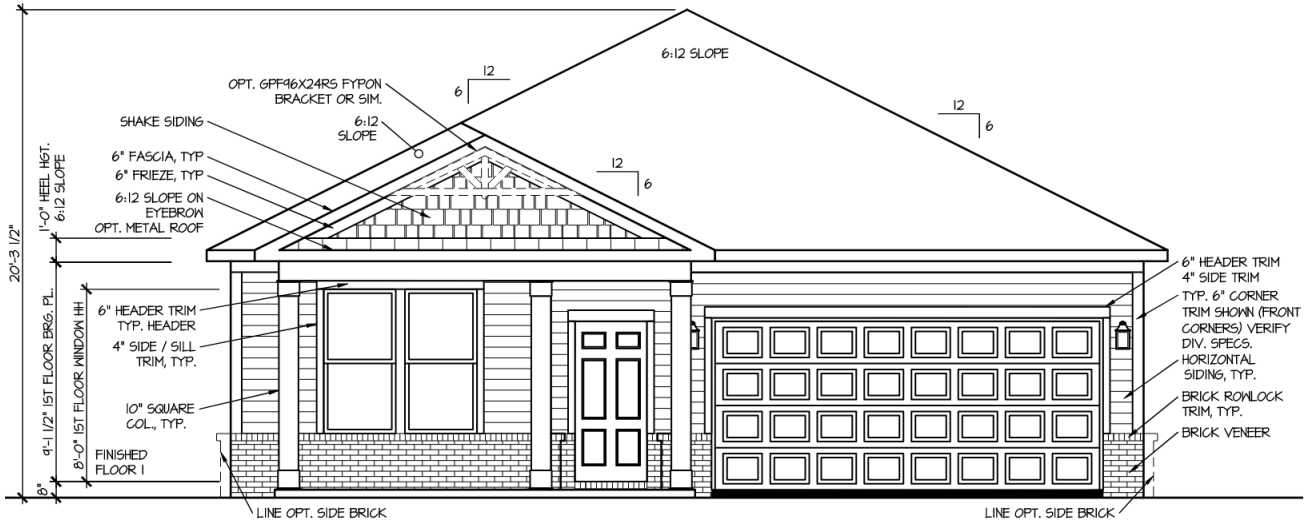


(Optional) First Floor Brick

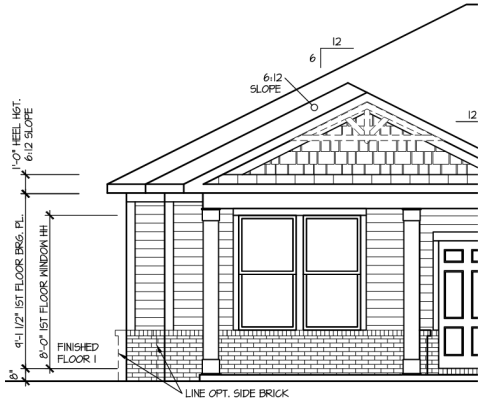


(Optional) Bonus Room

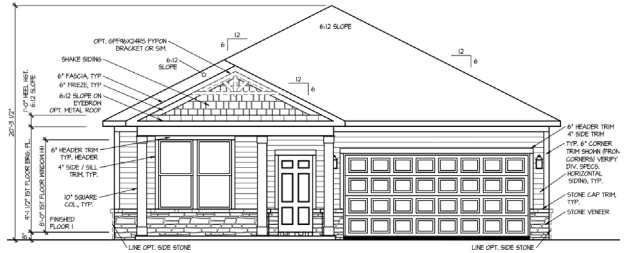
Avondale (SF) - Elevation #3



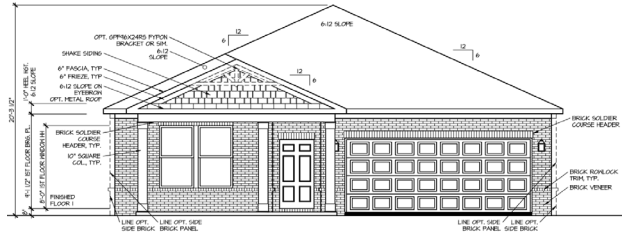
Front Elevation #3



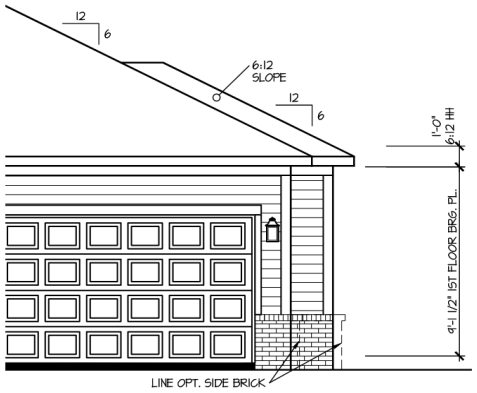
(Optional) Side Bay



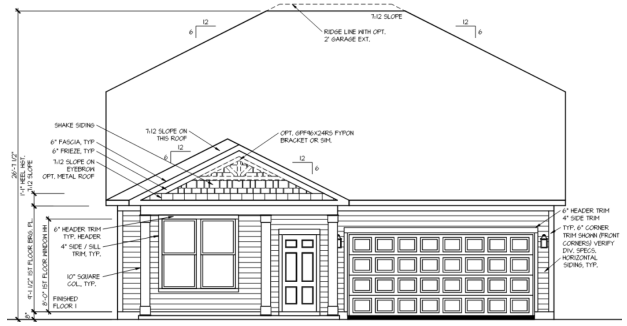
(Optional) Stone Water Table



(Optional) First Floor Brick + Mixed Brick / Stone



(Optional) Primary Suite Bay



(Optional) Bonus Room

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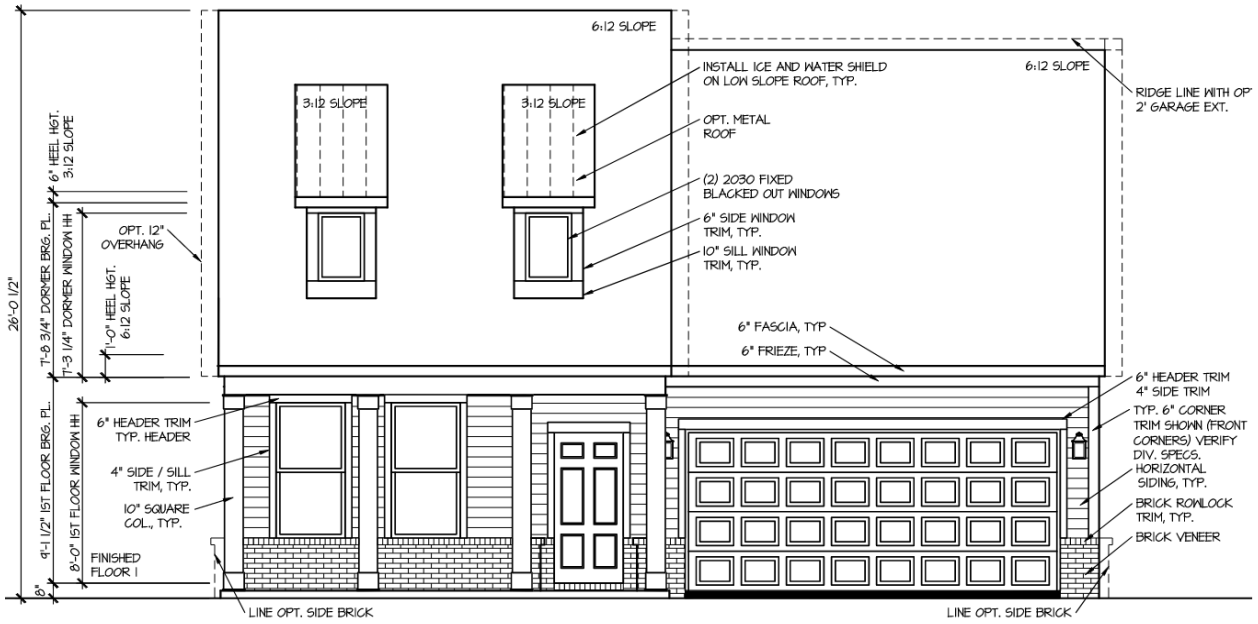
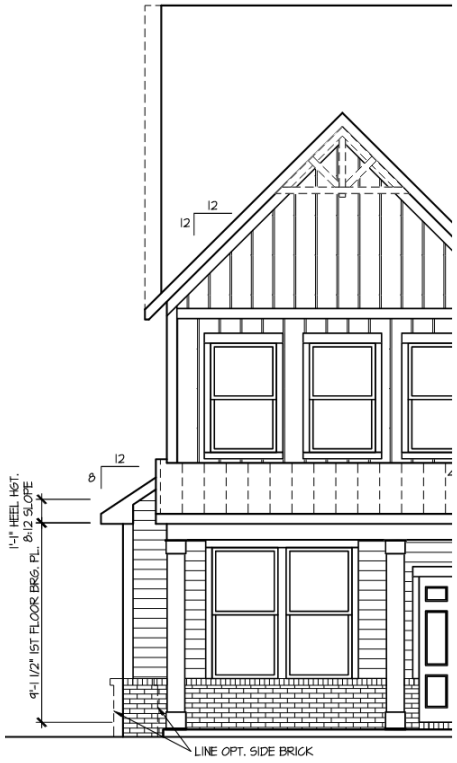
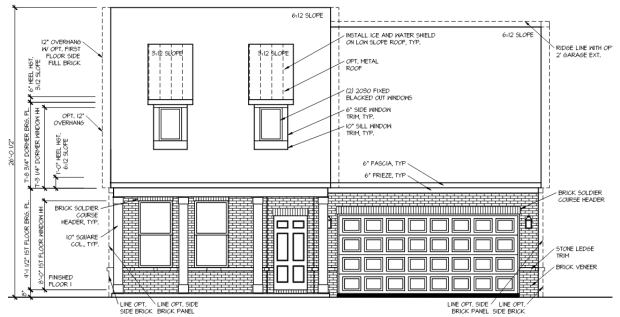
Avondale (SF) - Elevation #4



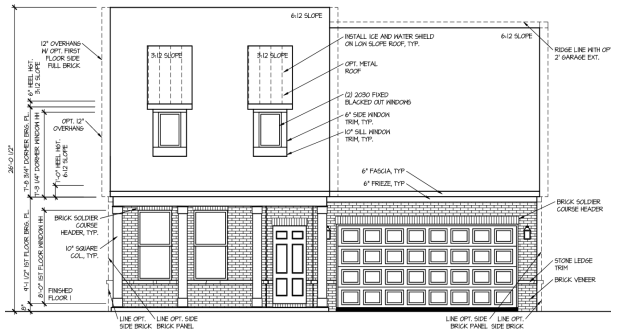
Front Elevation #4



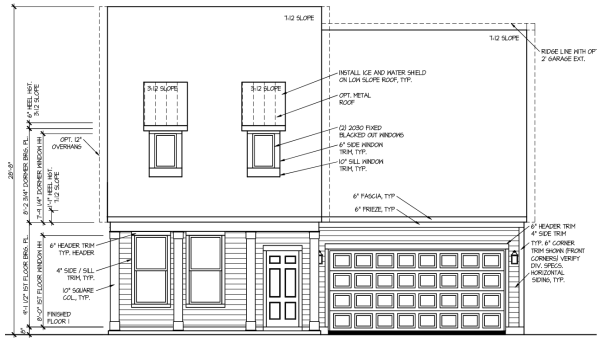
(Optional) Side Bay



(Optional) Mixed Brick / Stone



(Optional) First Floor Brick



(Optional) Bonus Room

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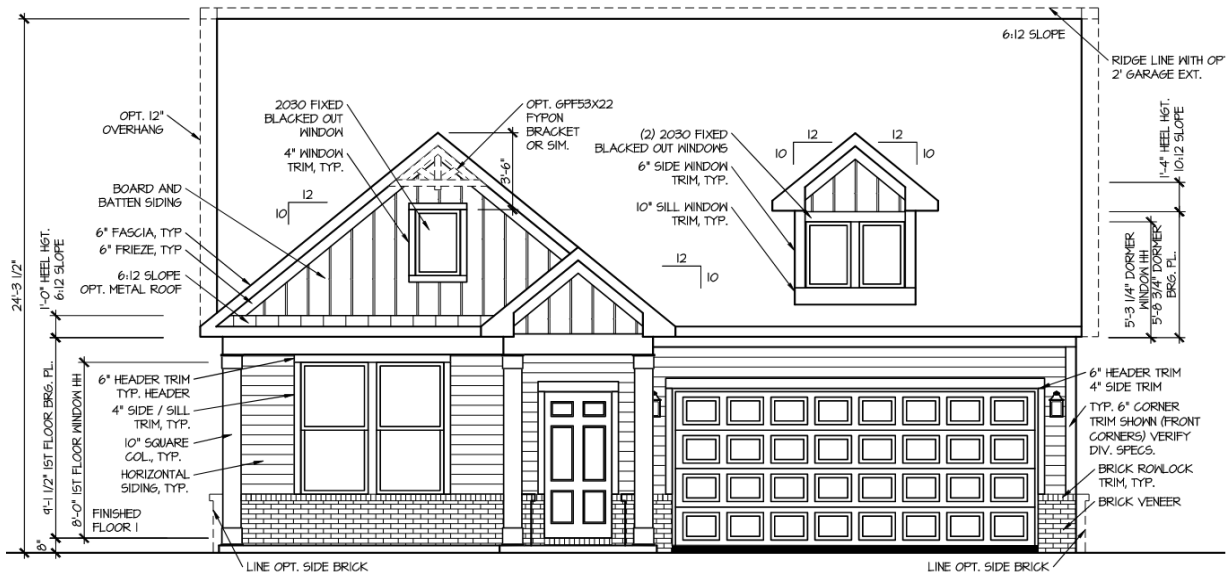
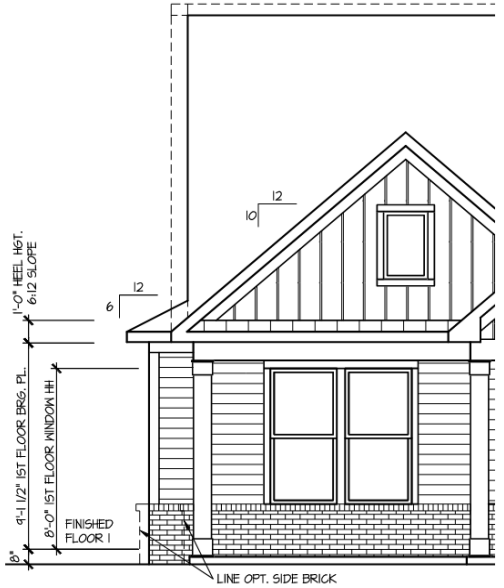
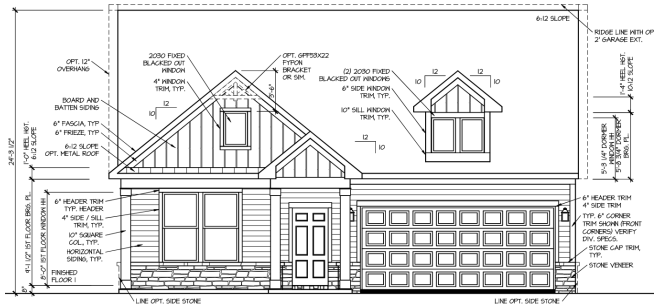
Avondale (SF) - Elevation #5



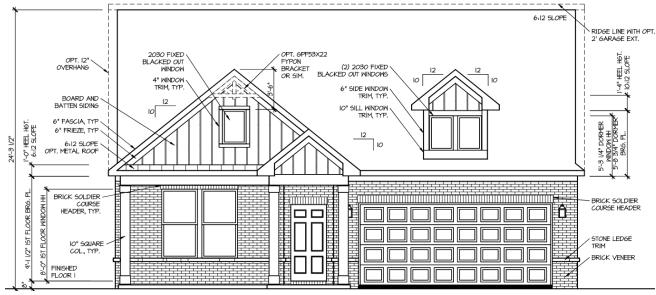
Front Elevation #5



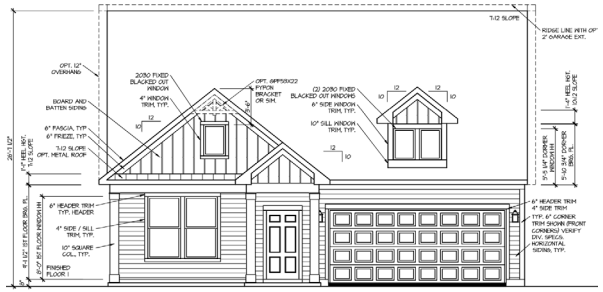
(Optional) Side Bay



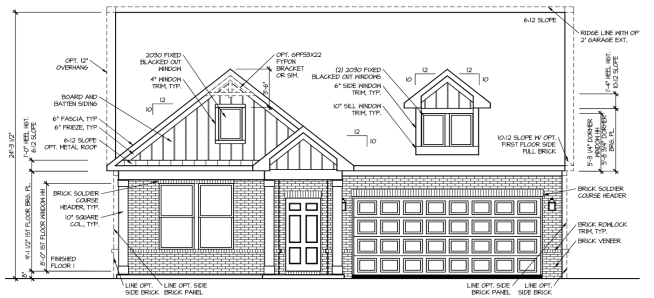
(Optional) Stone Water Table



(Optional) Mixed Brick / Stone



(Optional) Bonus Room



(Optional) First Floor Brick

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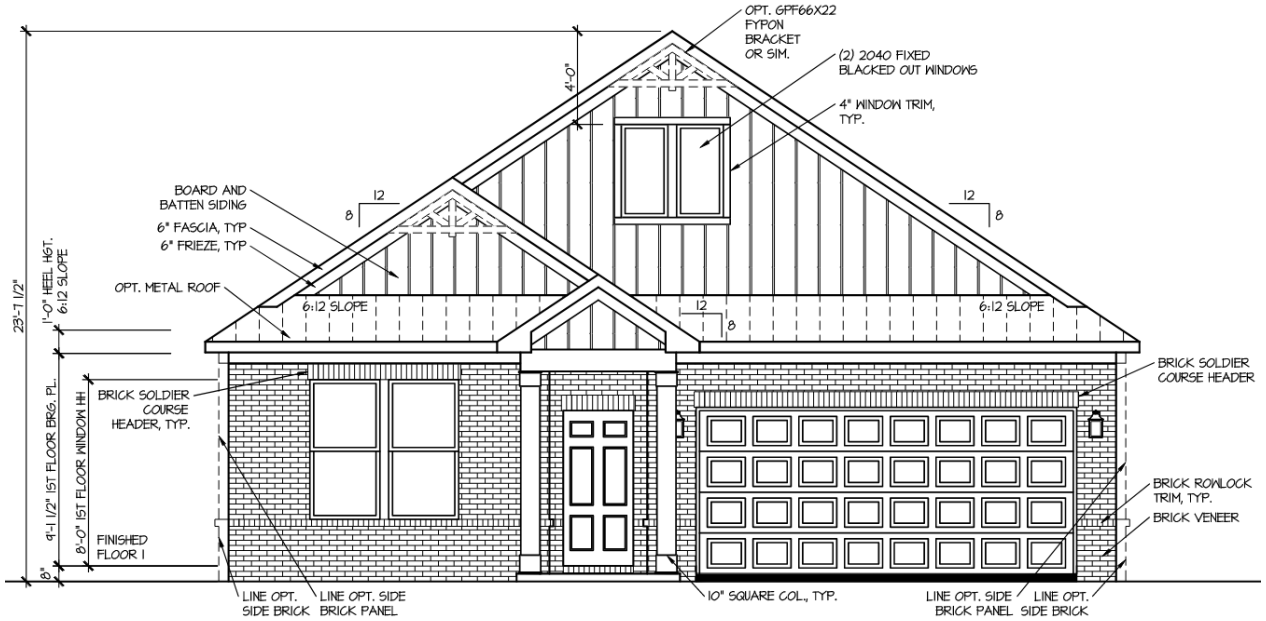
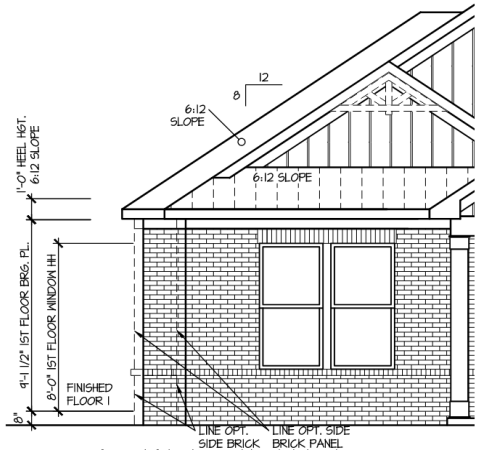
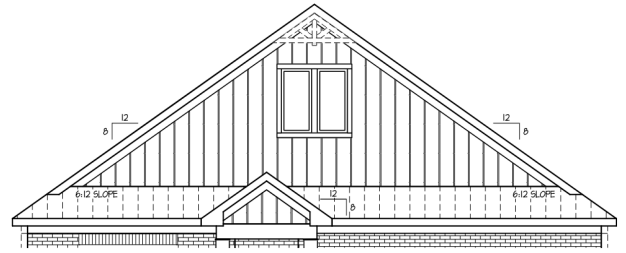
Avondale (SF) - Elevation #6



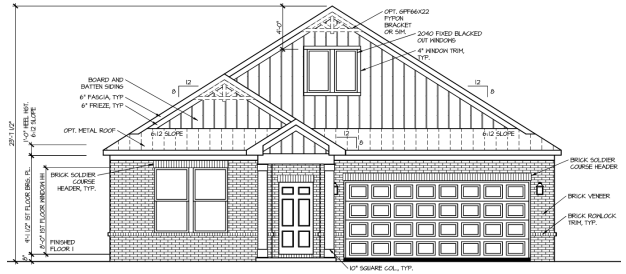
Front Elevation #6



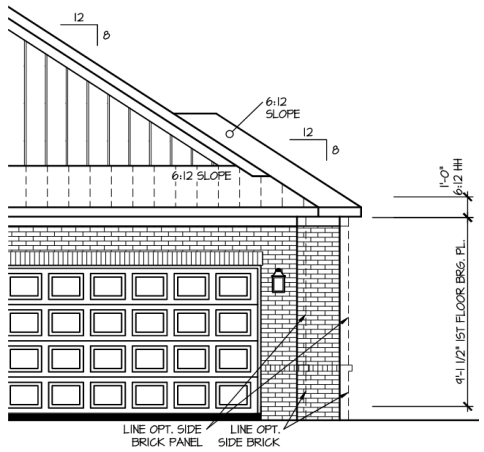
(Optional) Side Bay



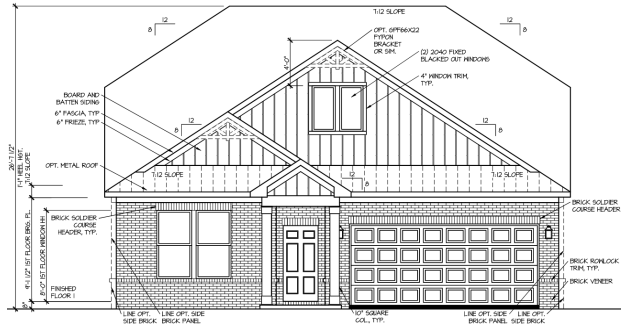
(Optional) Garage Extension



(Optional) Mixed Brick / Stone



(Optional) Primary Suite Bay



(Optional) Bonus Room

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Avondale (SF) - Options

Note: Foundation Plan changes based on elevation and structural options.

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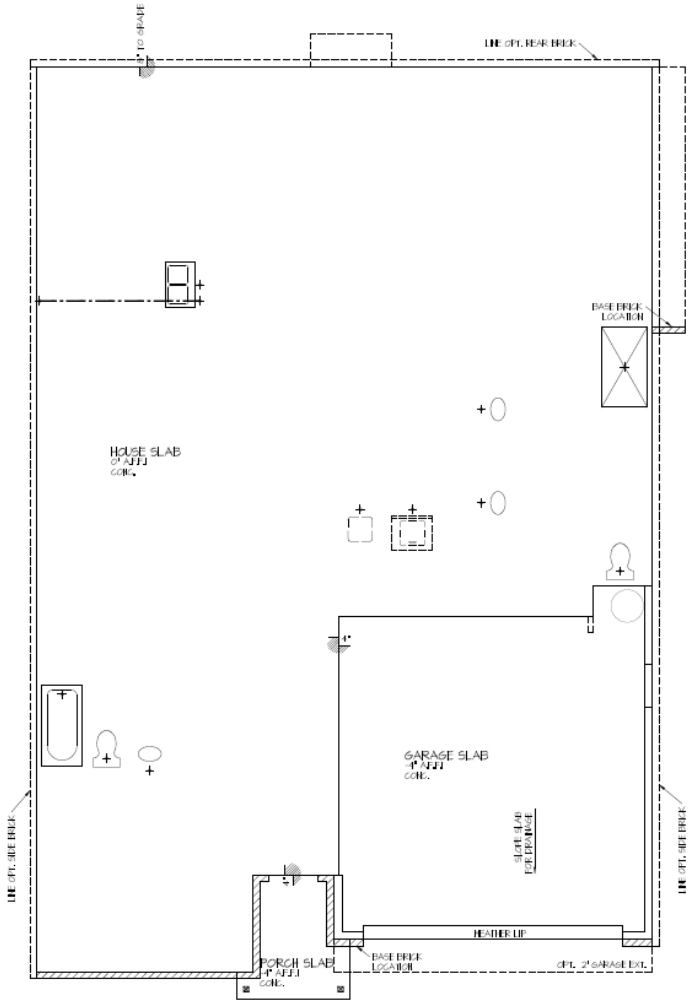
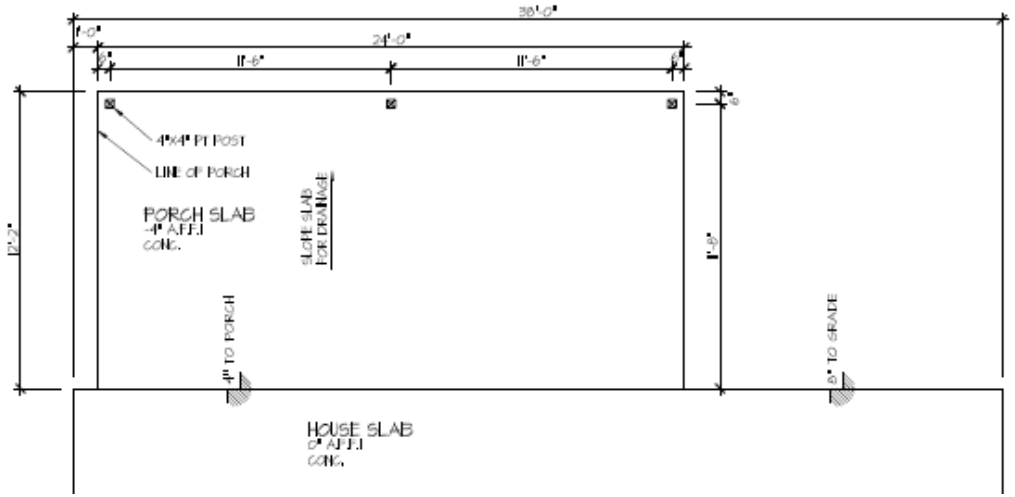
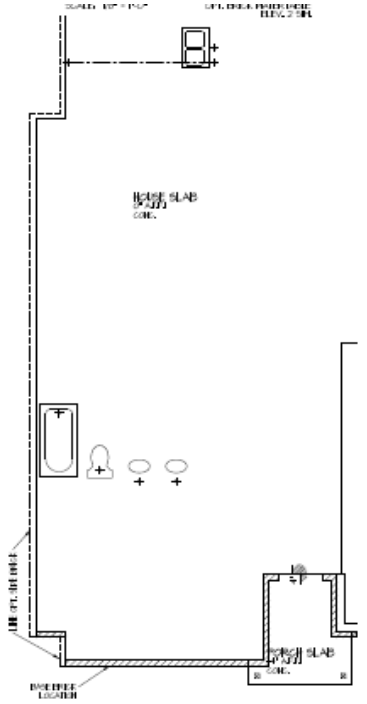


Foundation

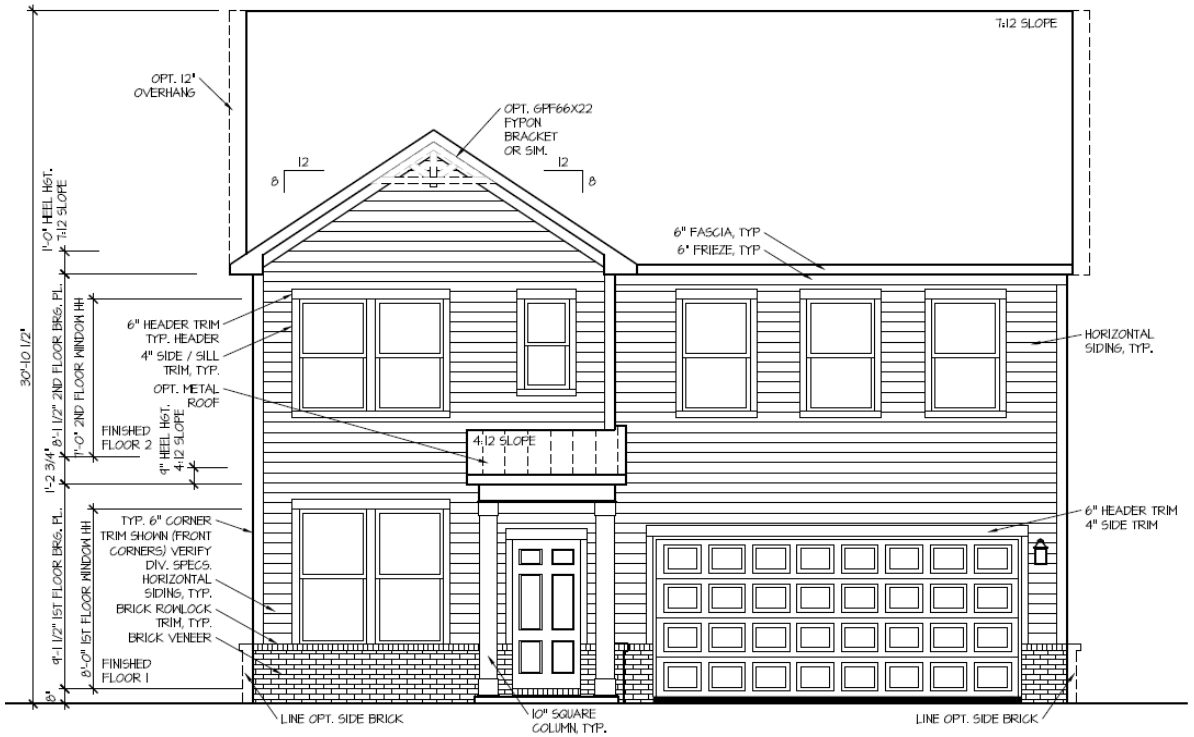


(Optional) Large Rear Porch

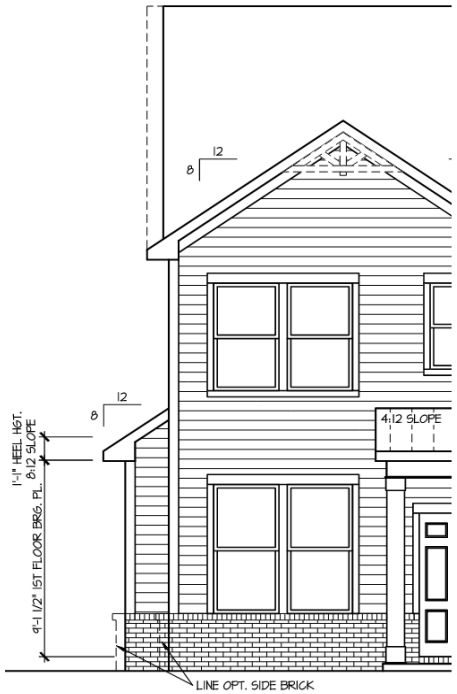


(Optional) Side Bay

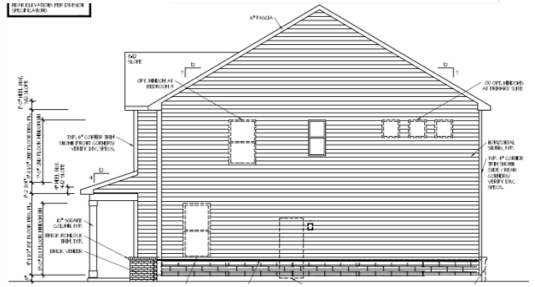
Pelham (SF) - Elevation #1



Front Elevation #1



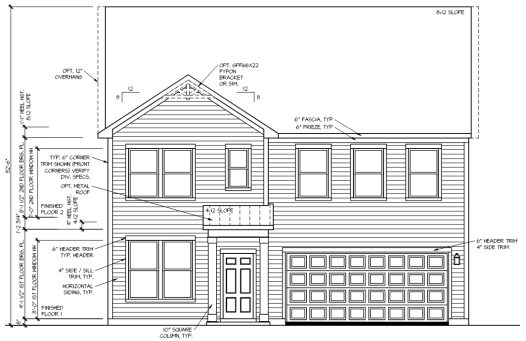
(Optional) Side Bay



Side Elevation



Rear Elevation



(Optional) Bonus Room

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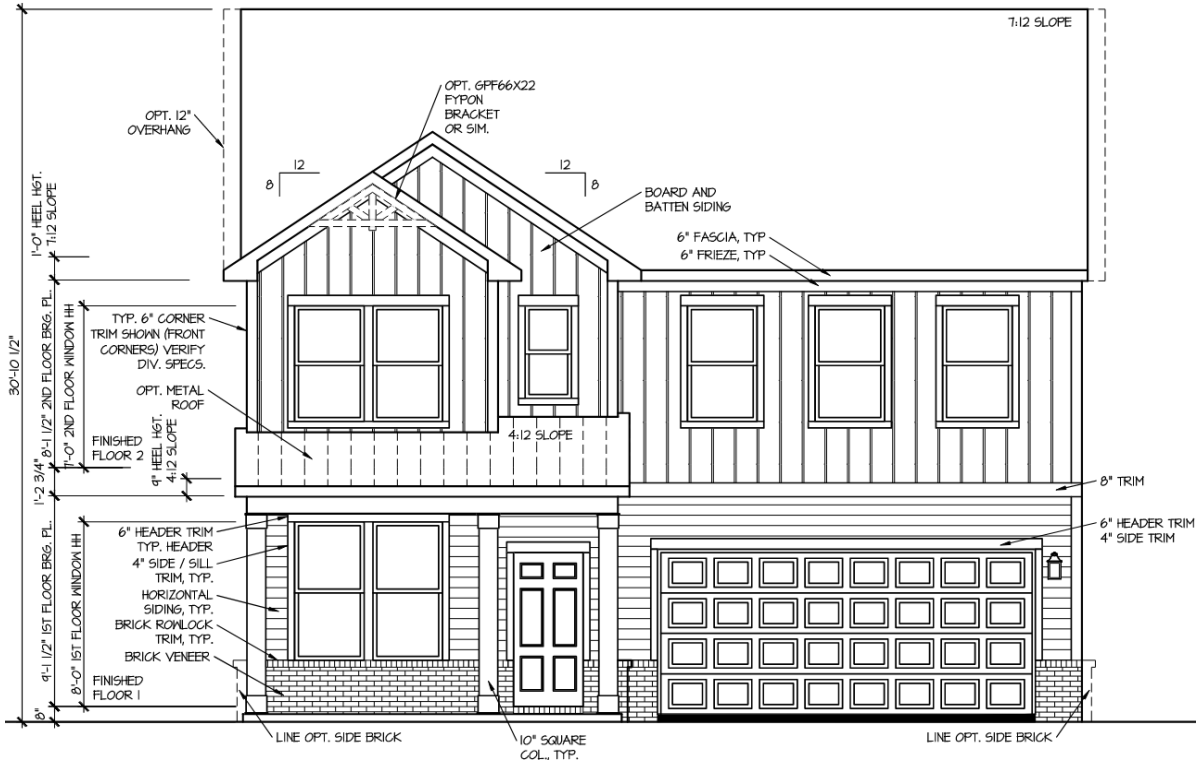
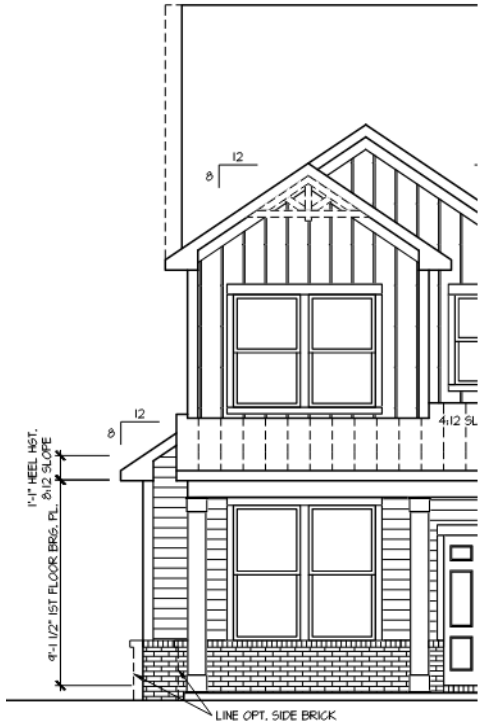
Pelham (SF) - Elevation #2



Front Elevation #2

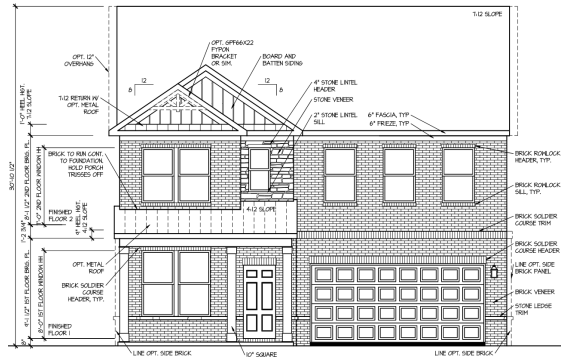
**Elevations and configurations shown reflect intended community standards; minor additions, revisions, and variations may occur. City of Columbia Planning Department will determine if the intent of the approved pattern book has been met.*



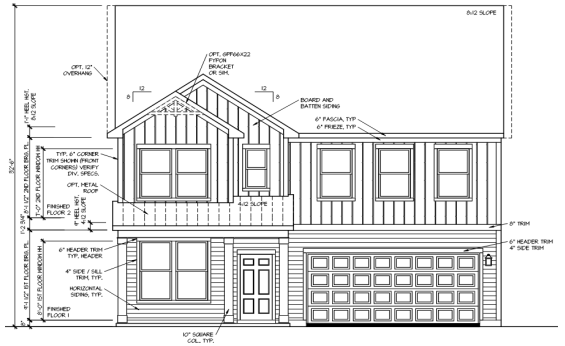
(Optional) Side Bay



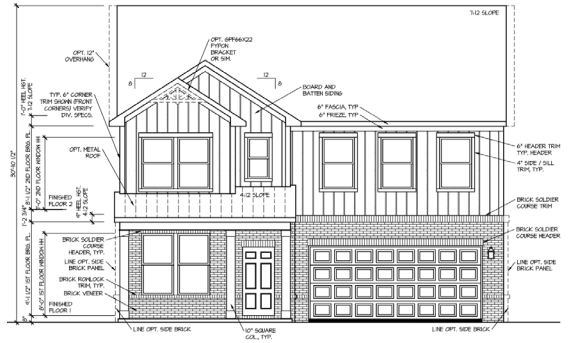
(Optional) Mixed Brick / Stone



(Optional) Full Brick



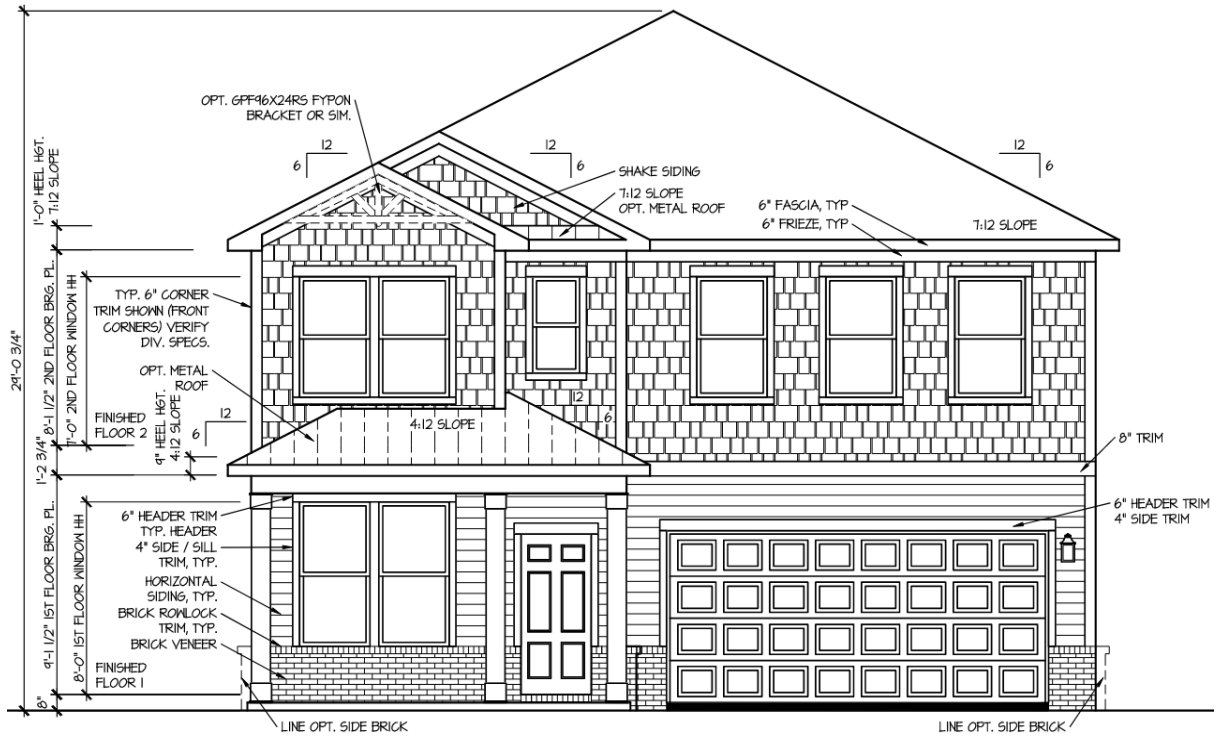
(Optional) Bonus Room



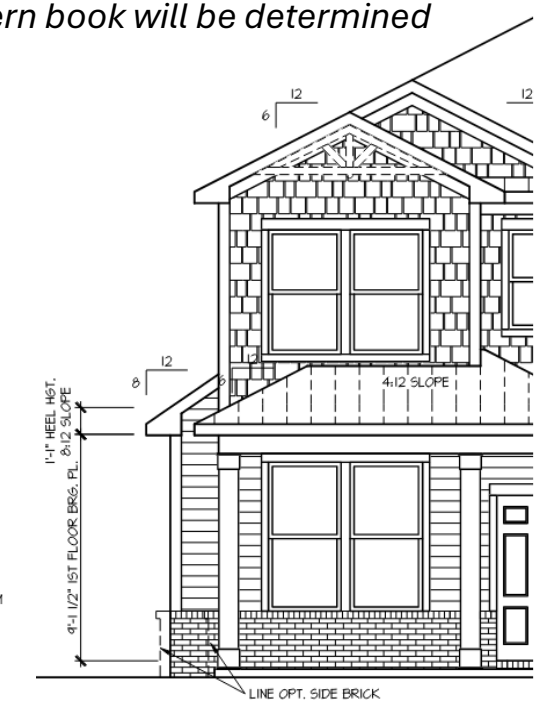
(Optional) First Floor Brick

Pelham (SF) - Elevation #3

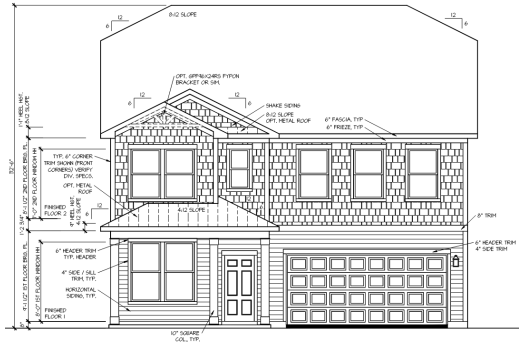
Elevations shown reflect intended community standards; minor variations may occur. Compliance with the approved pattern book will be determined by the City of Columbia Planning Department.



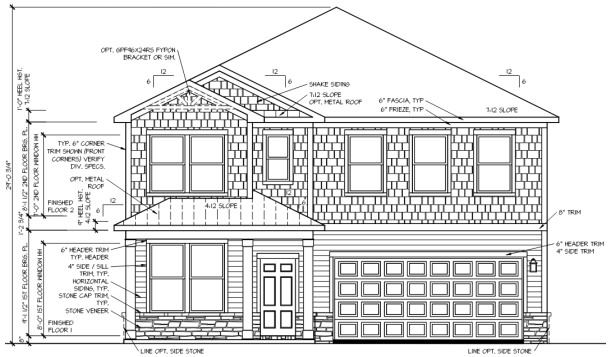
Front Elevation #3



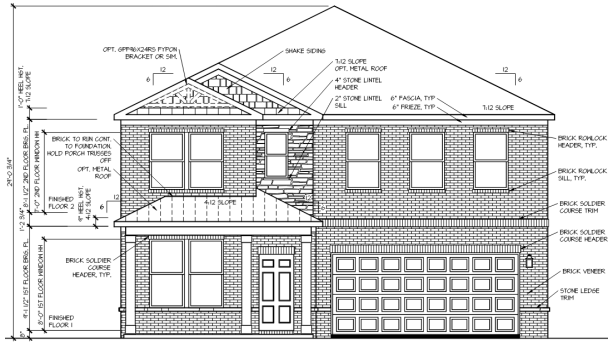
(Optional) Side Bay



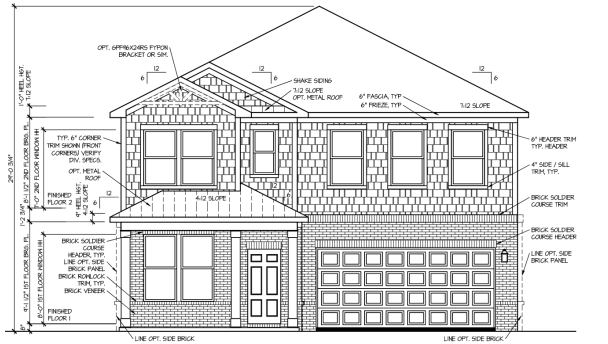
(Optional) Bonus Room



(Optional) Stone Water Table



(Optional) Full Brick + Mixed Brick / Stone



(Optional) First Floor Brick

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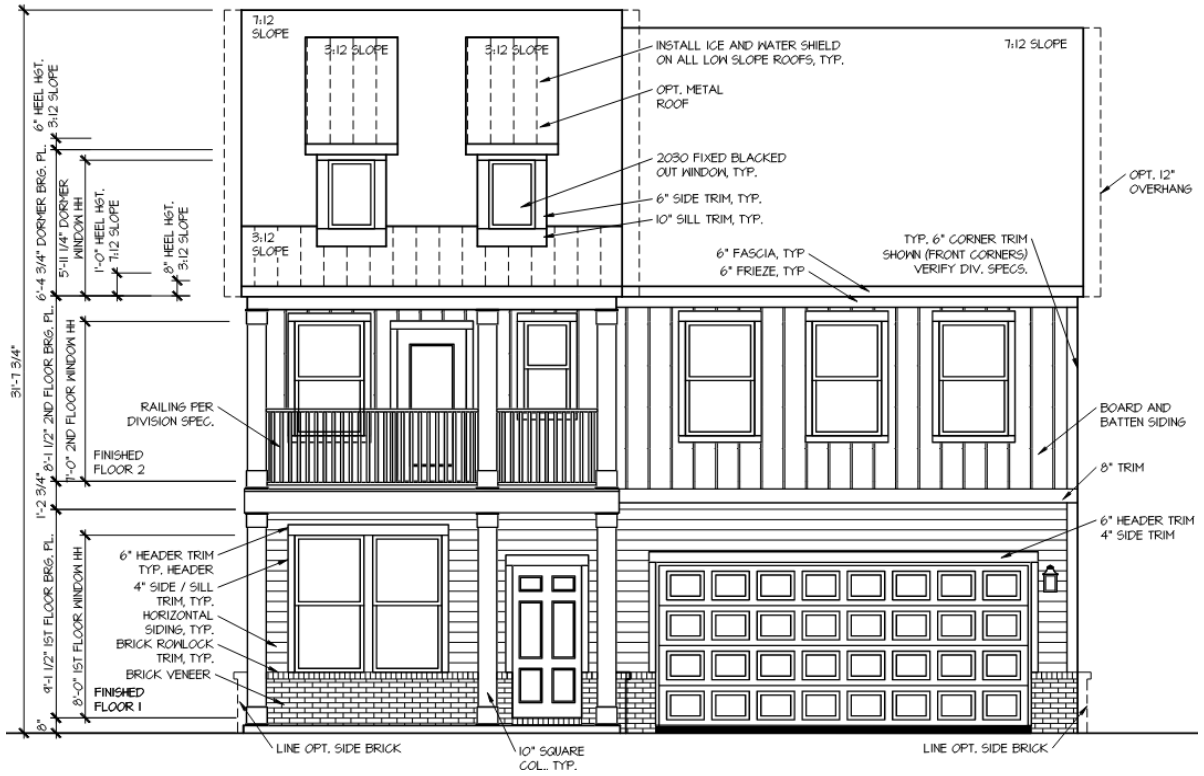
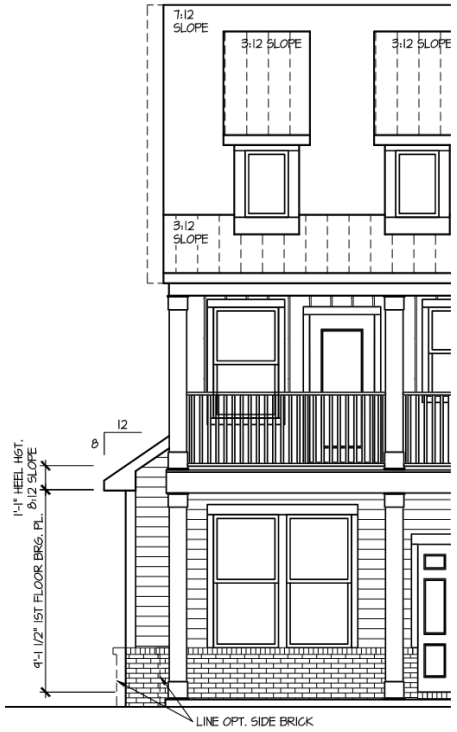
Pelham (SF) - Elevation #4

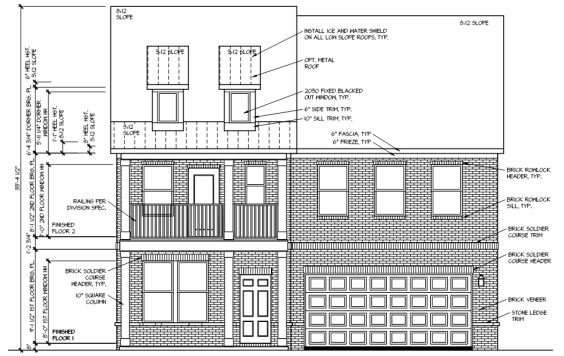


Front Elevation #4

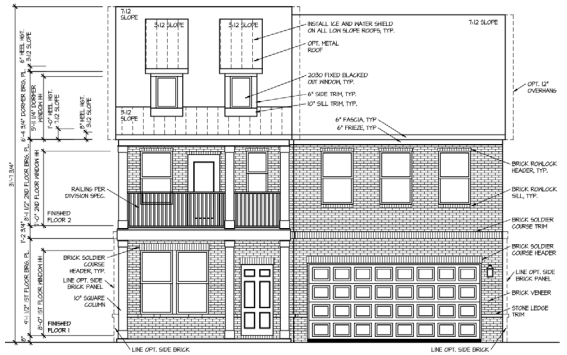
**Elevations and configurations shown reflect intended community standards; minor additions, revisions, and variations may occur. City of Columbia Planning Department will determine if the intent of the approved pattern book has been met.*



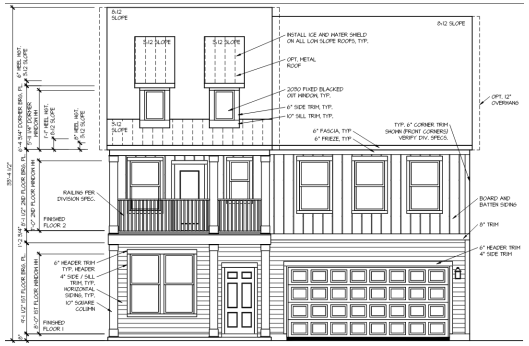
(Optional) Side Bay



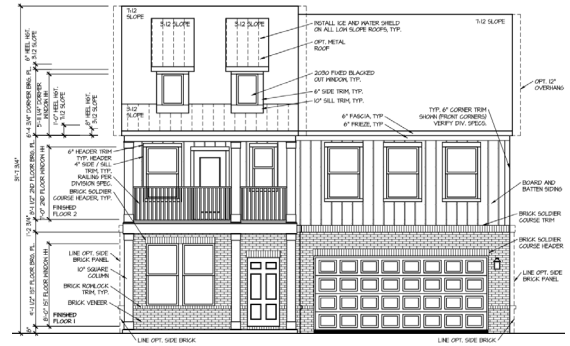
(Optional) Mixed Brick / Stone



(Optional) Full Brick

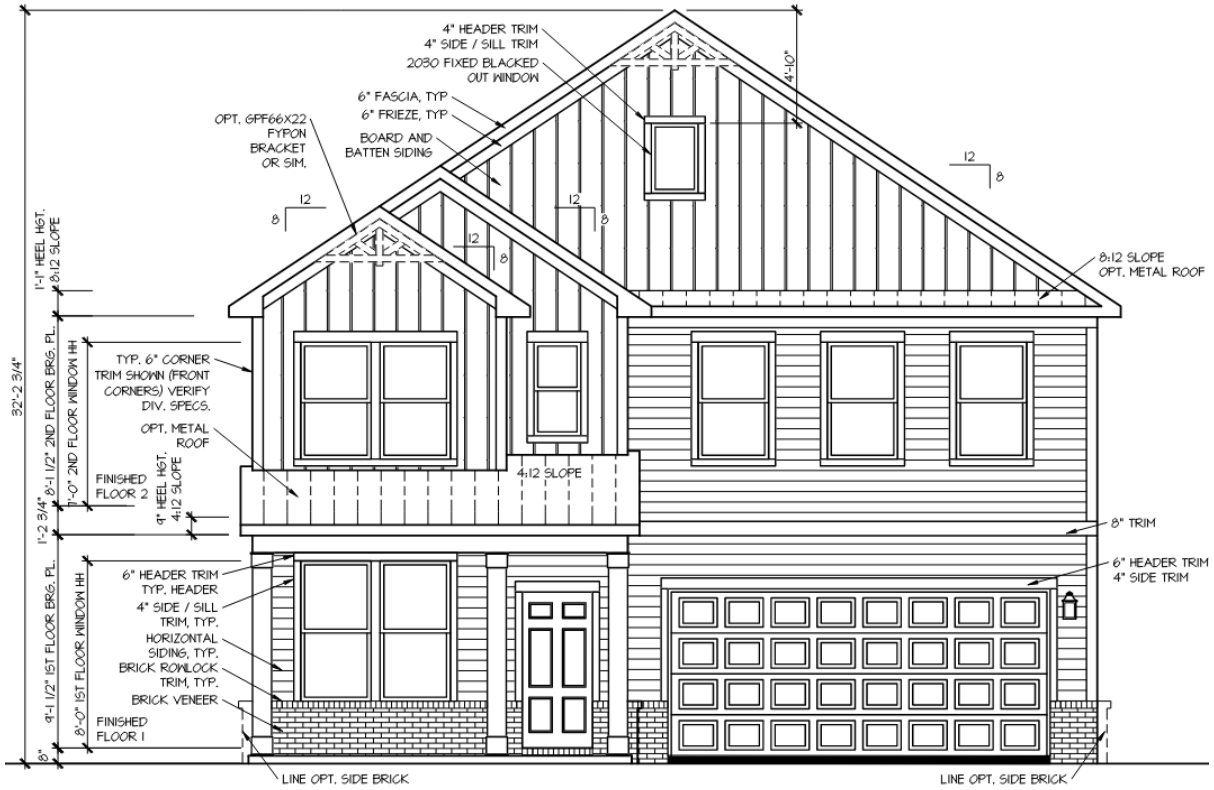


(Optional) Bonus Room



(Optional) First Floor Brick

Pelham (SF) - Elevation #5



Front Elevation #5

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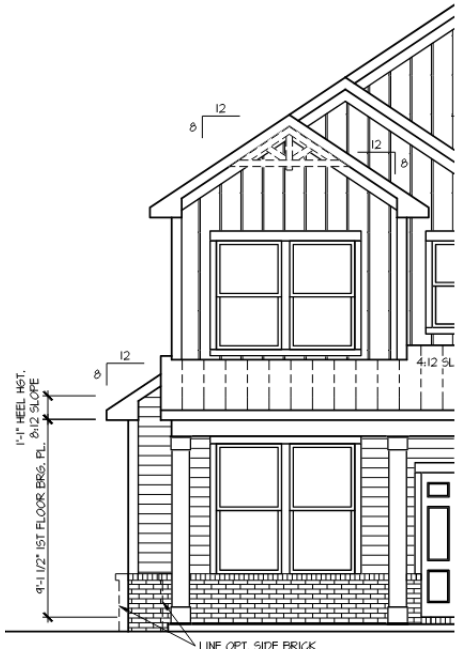
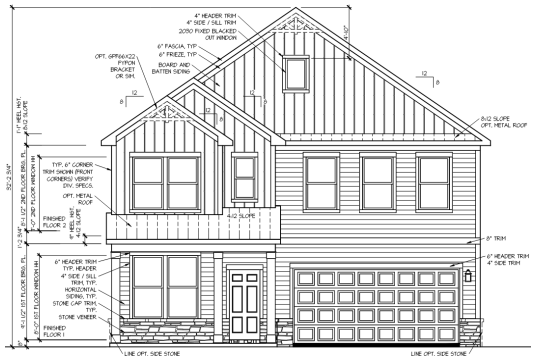
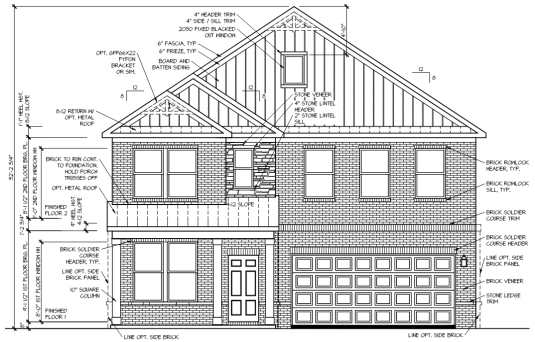


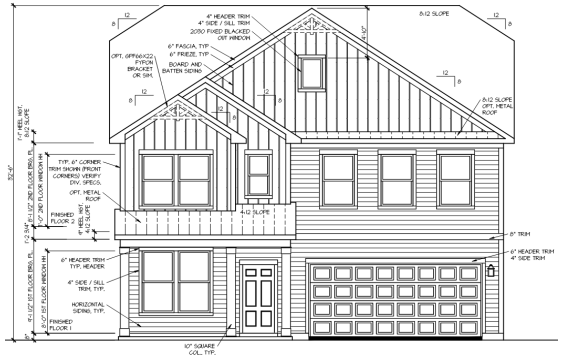
(Optional) Side Bay



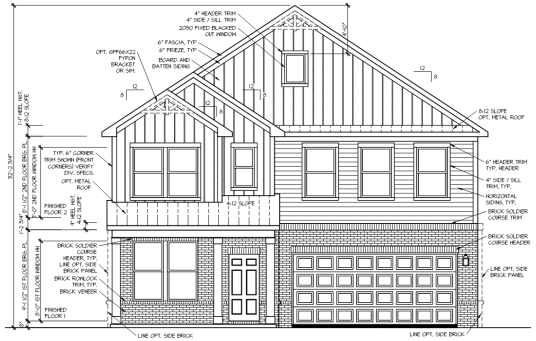
(Optional) Stone Water Table



(Optional) Full Brick + Mixed Brick / Stone

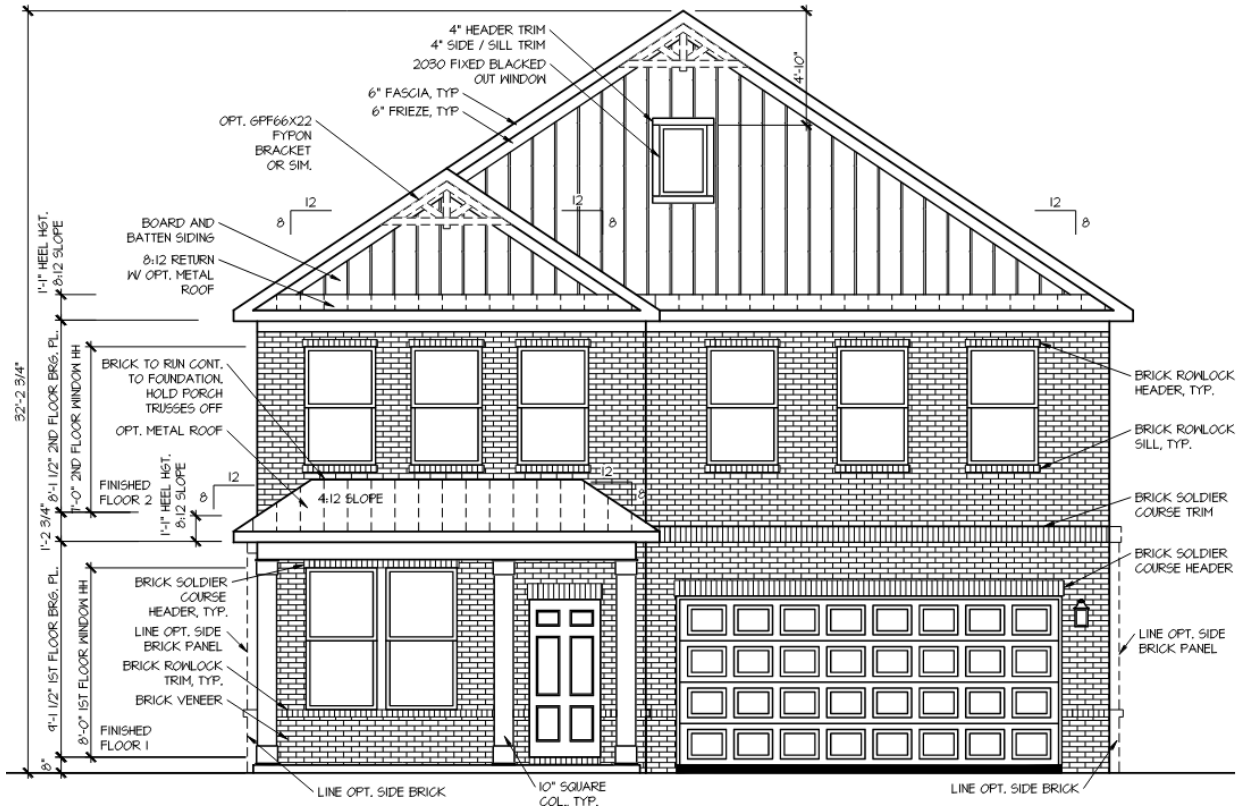


(Optional) Bonus Room

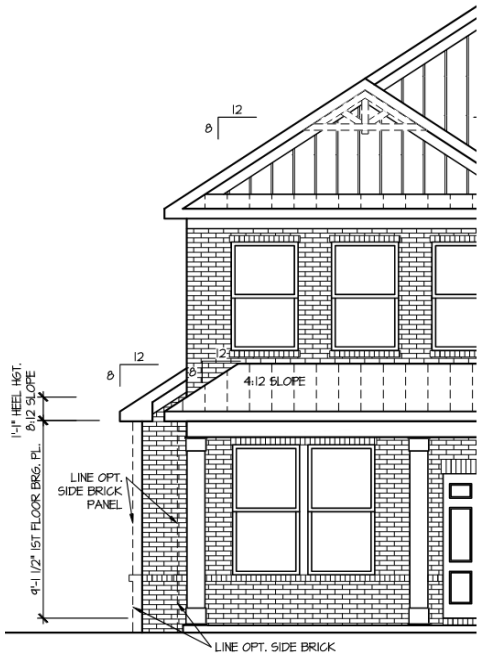


(Optional) First Floor Brick

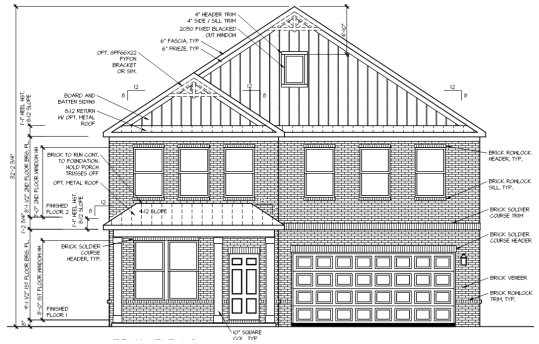
Pelham (SF) - Elevation #6



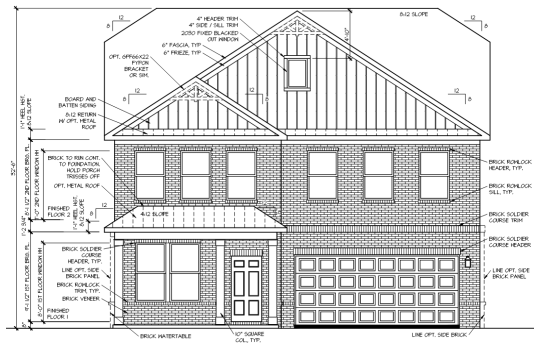
Front Elevation #6



(Optional) Side Bay



(Optional) Mixed Brick / Stone



(Optional) Bonus Room

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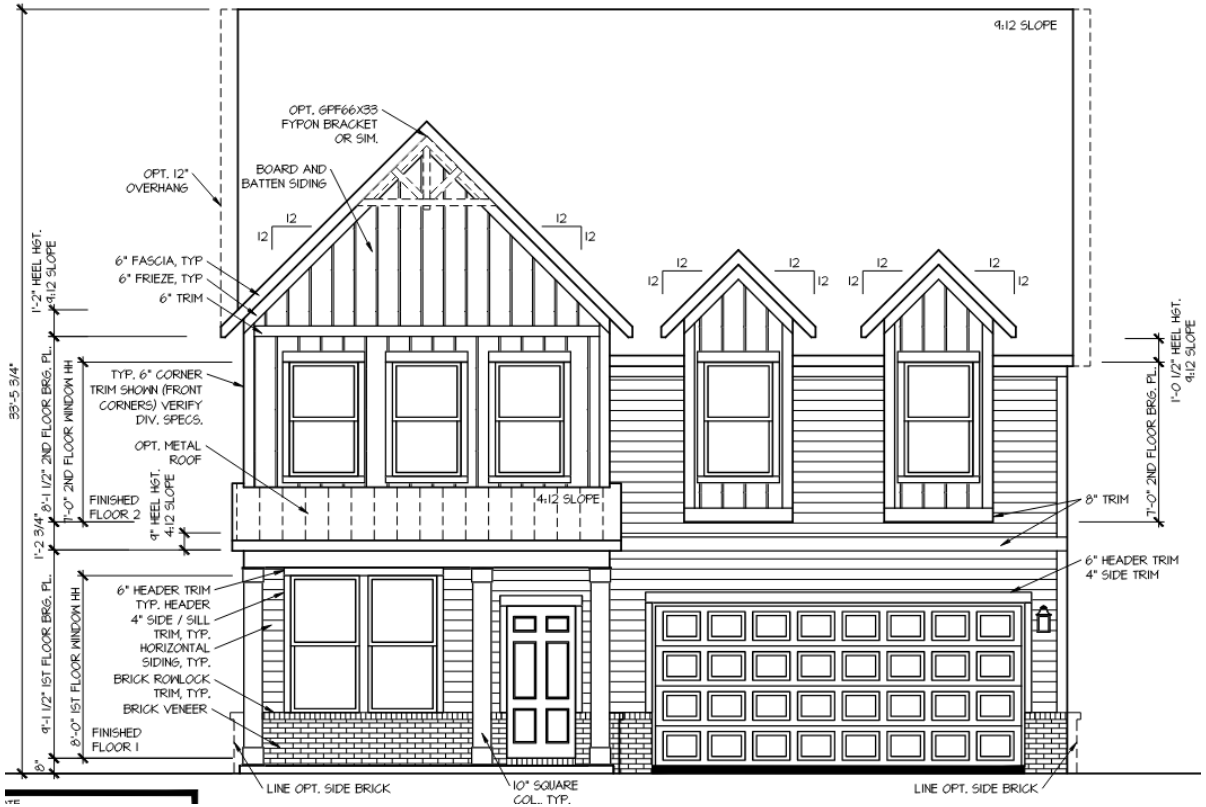
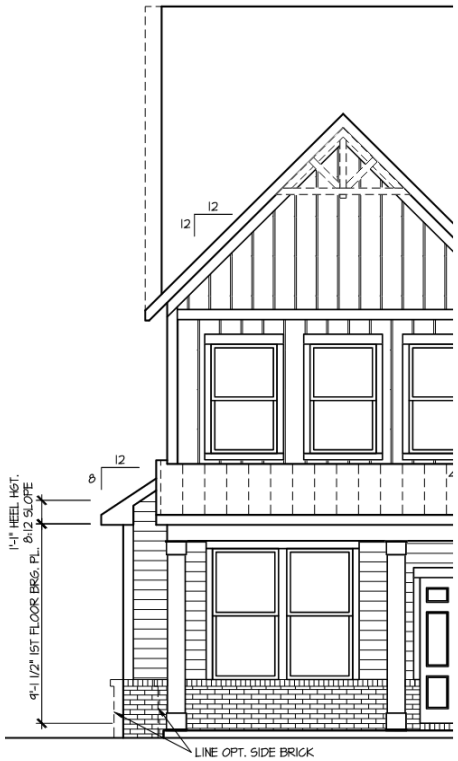
Pelham (SF) - Elevation #9



Front Elevation #9



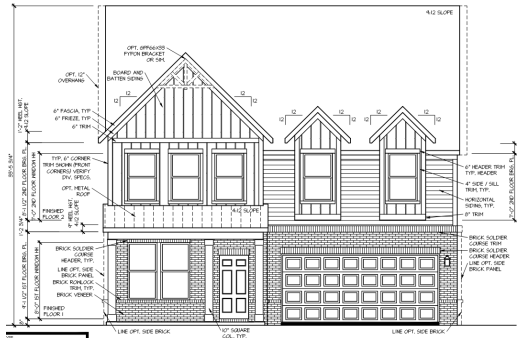
(Optional) Side Bay



(Optional) Mixed Brick / Stone



(Optional) Full Brick



(Optional) First Floor Brick

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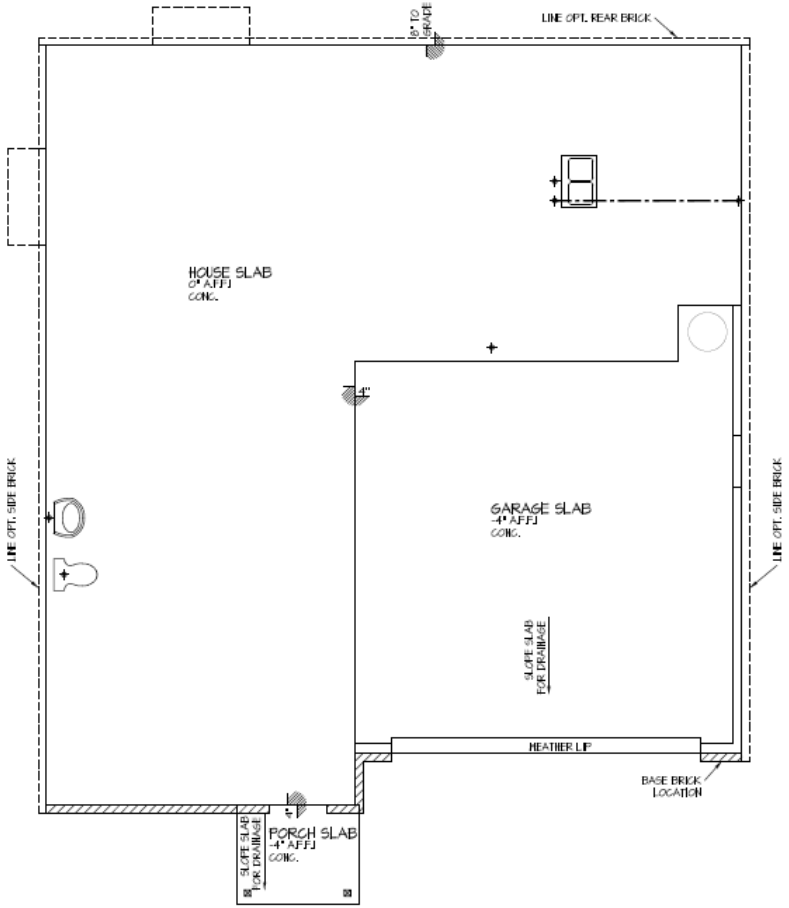
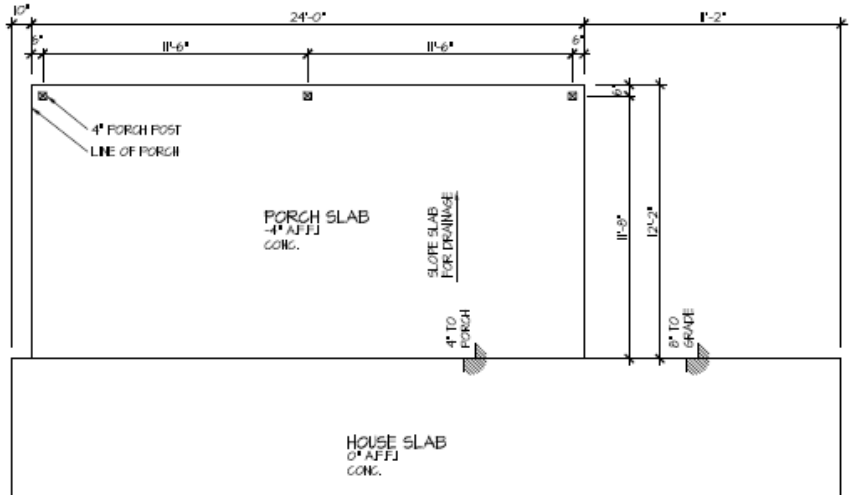
Pelham (SF) - Options

Note: Foundation Plan changes based on elevation and structural options.

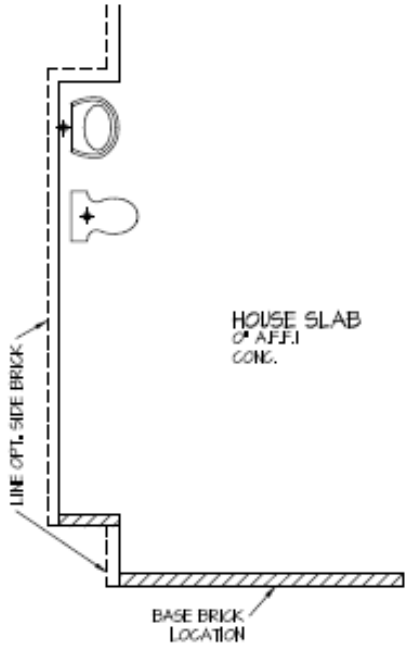
Illustrations shown reflect intended community standards; minor variations may occur. Compliance with the approved pattern book will be determined by the City of Columbia Planning Department.



Foundation

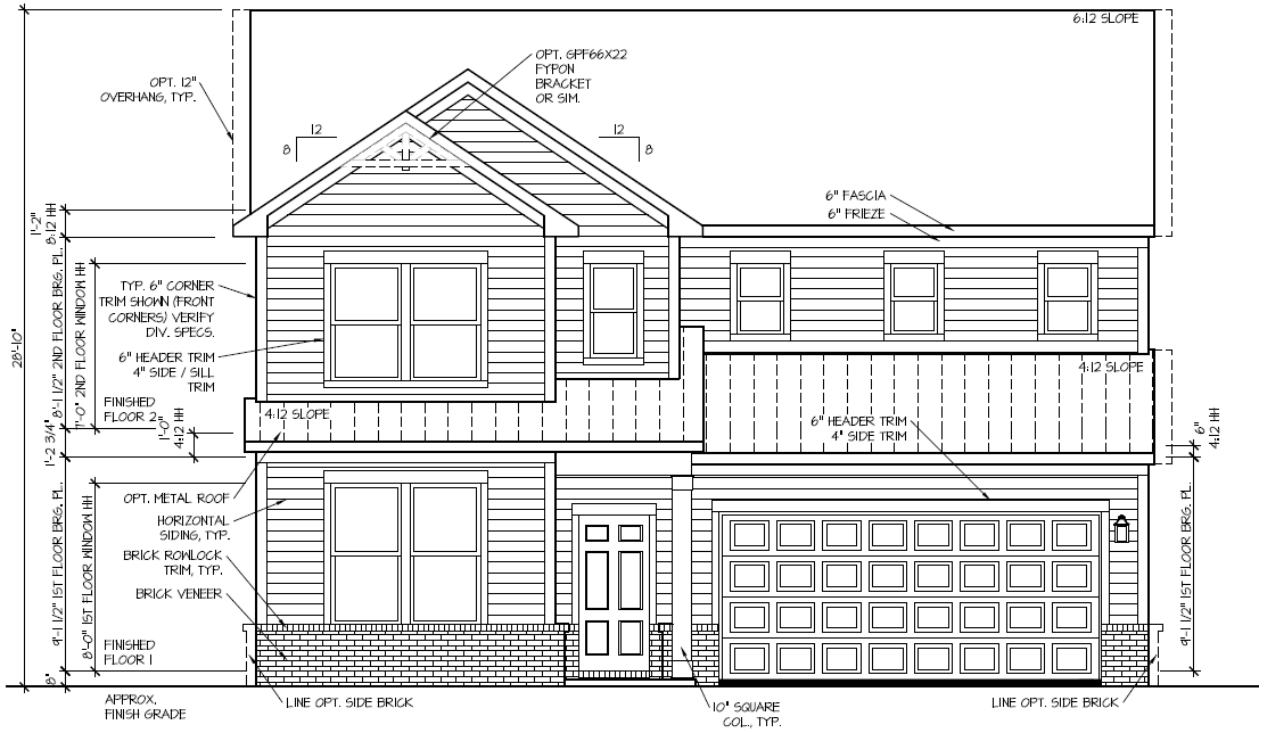


(Optional) Large Rear Porch

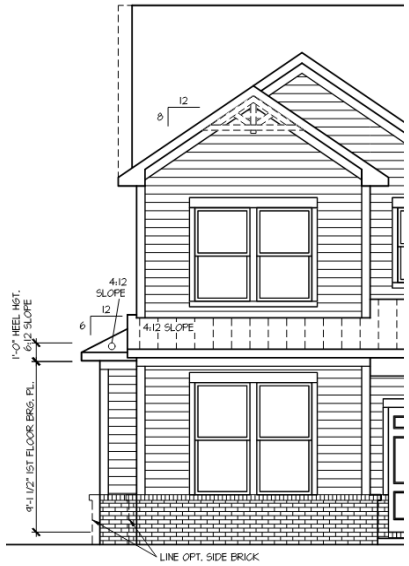


(Optional) Side Bay

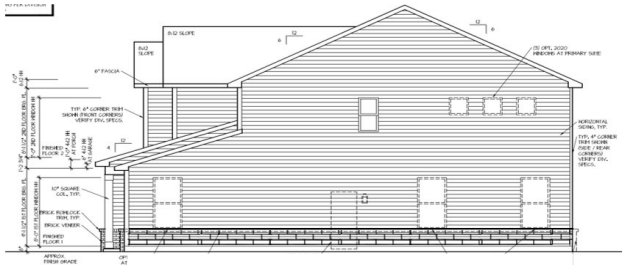
Wynwood (SF) - Elevation #1



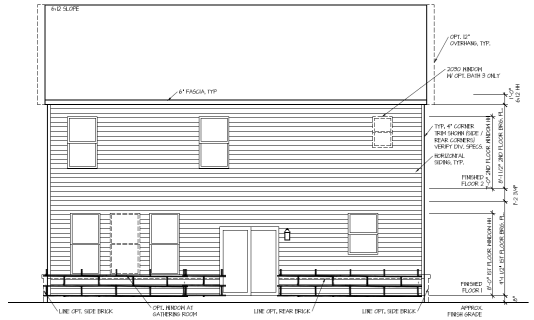
Front Elevation #1



(Optional) Side Bay



Side Elevation



Rear Elevation



(Optional) Bonus Room

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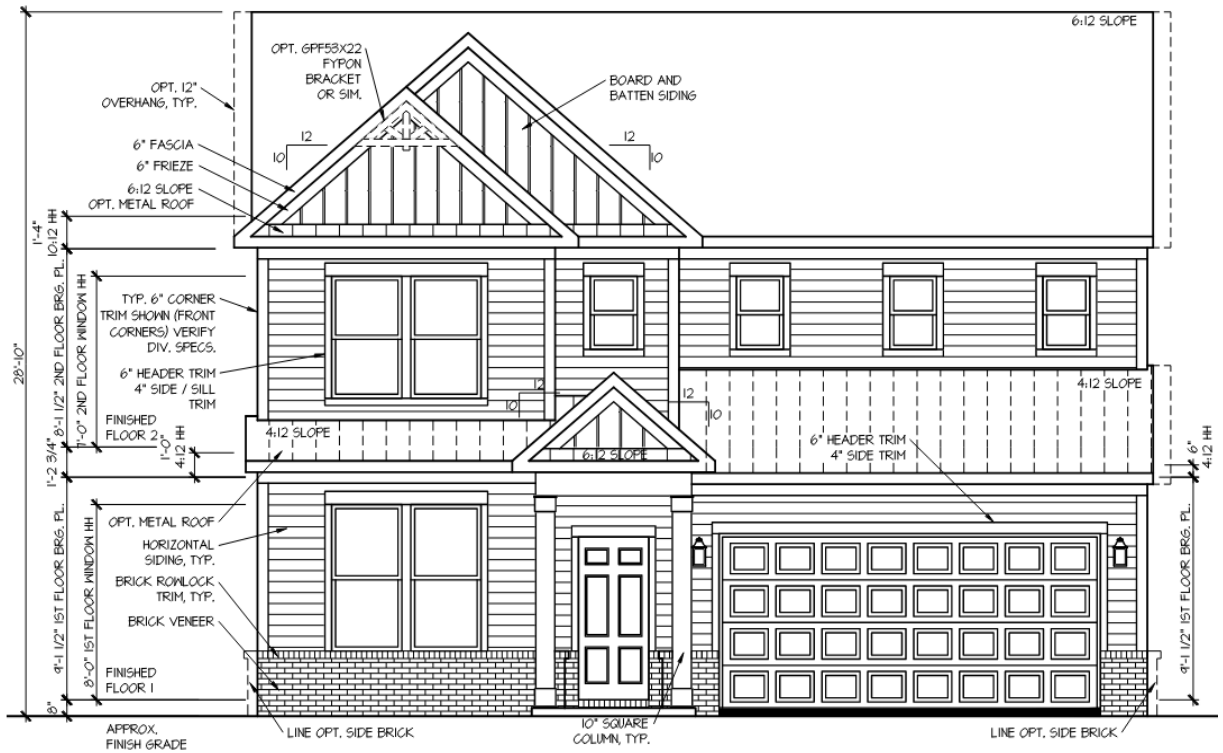
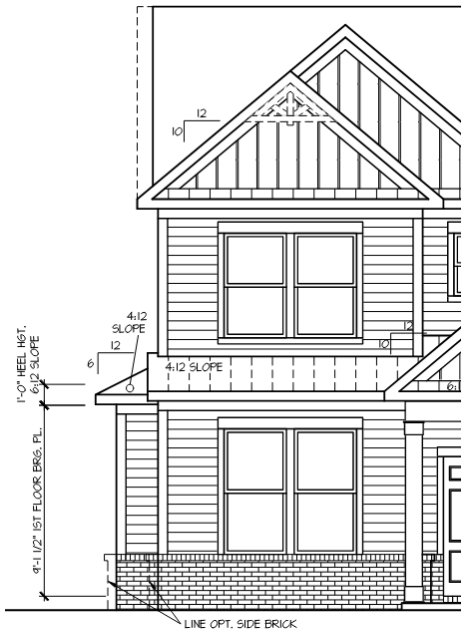
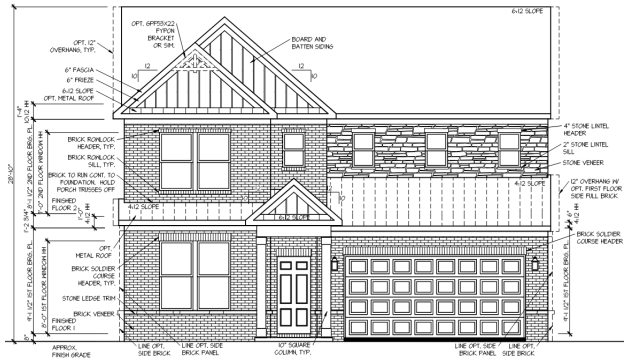
Wynwood (SF) - Elevation #2



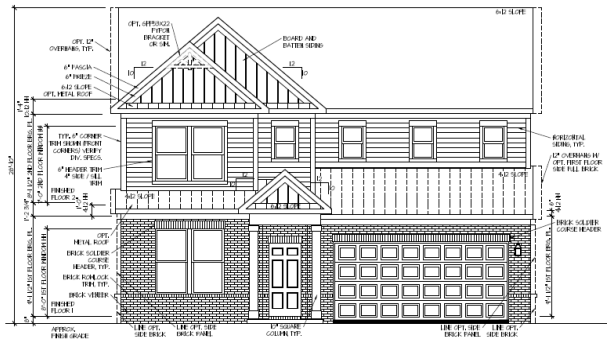
Front Elevation #2



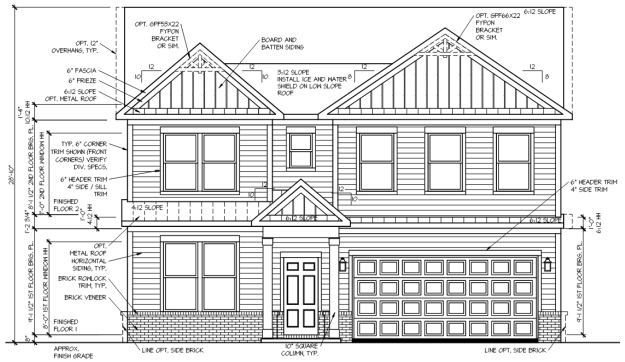
(Optional) Side Bay



(Optional) Mixed Brick / Stone



(Optional) First Floor Brick



(Optional) Bonus Room

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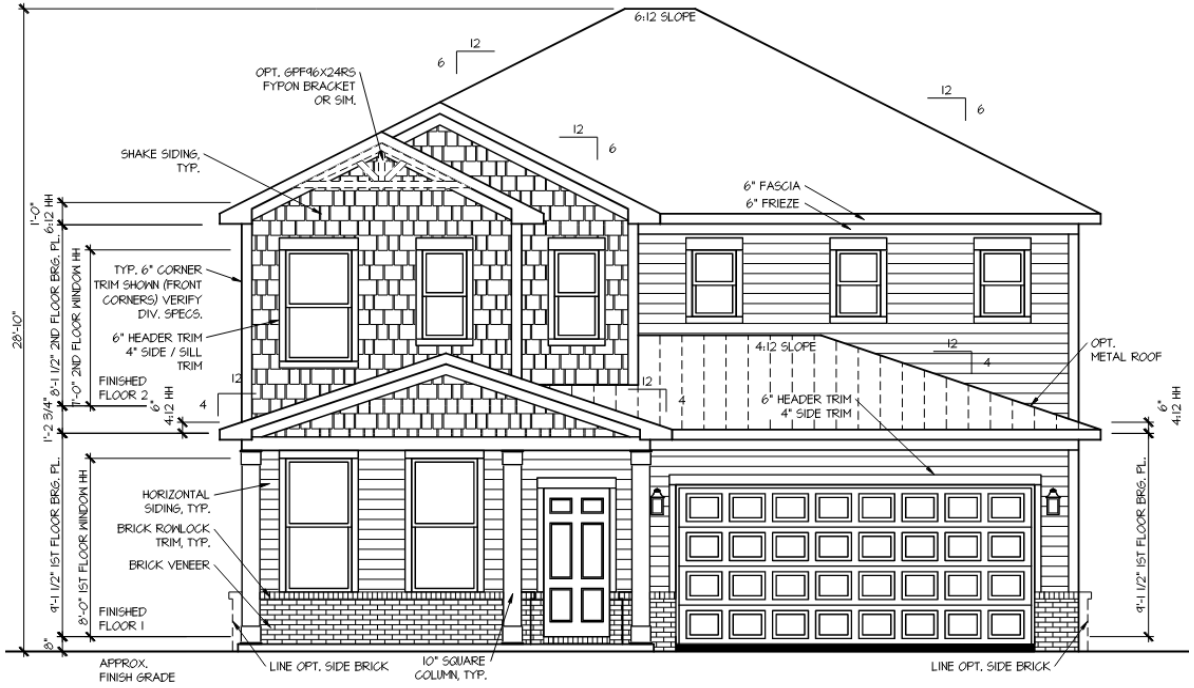
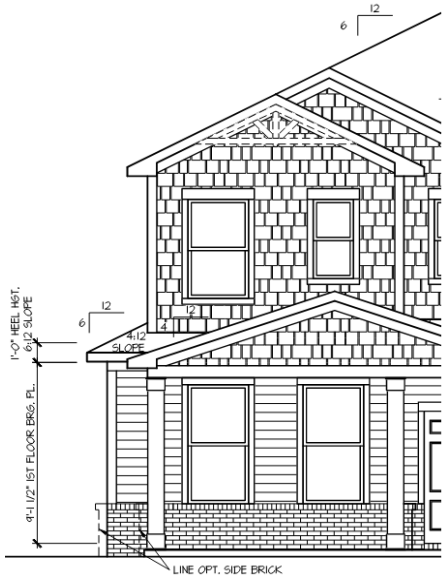
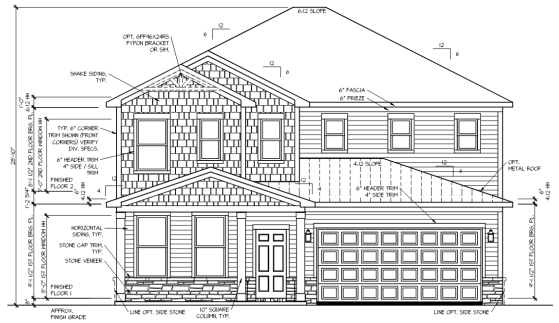
Wynwood (SF) - Elevation #3



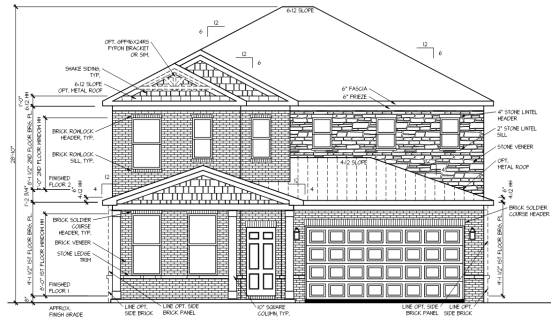
Front Elevation #3



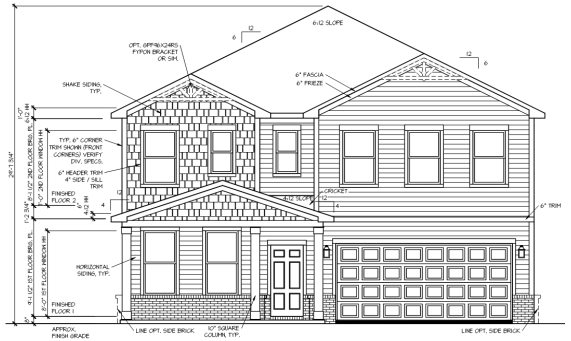
(Optional) Side Bay



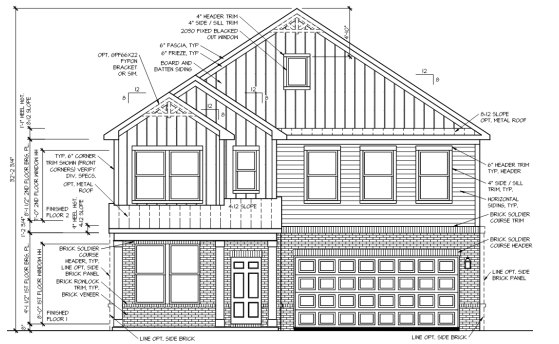
(Optional) Stone Water Table



(Optional) Mixed Brick / Stone



(Optional) Bonus Room



(Optional) First Floor Brick

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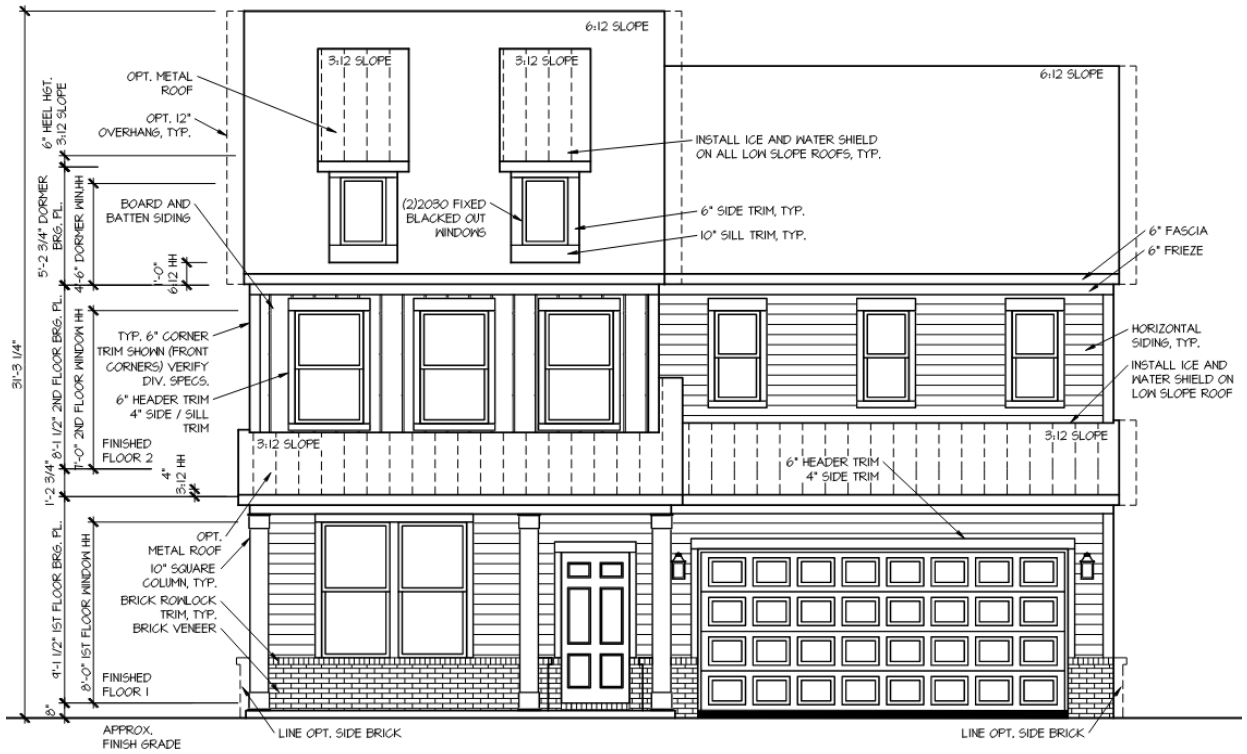
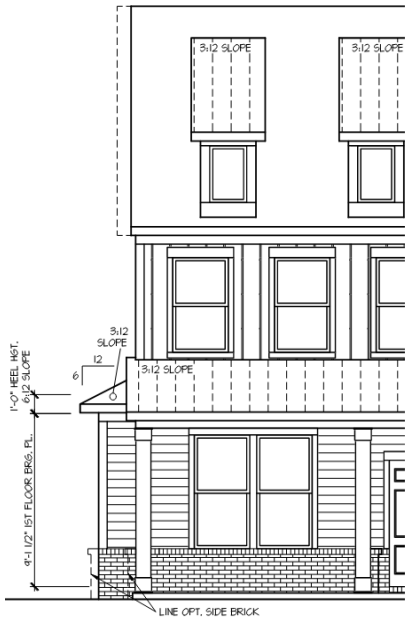
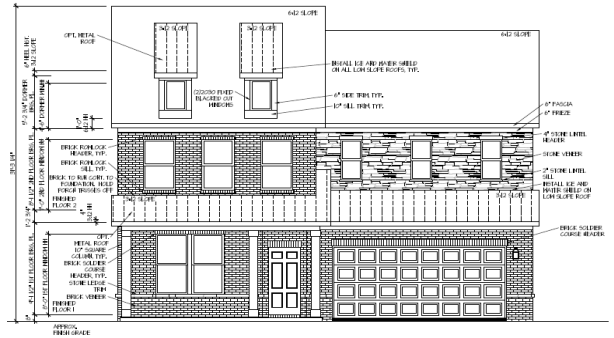
Wynwood (SF) - Elevation #4



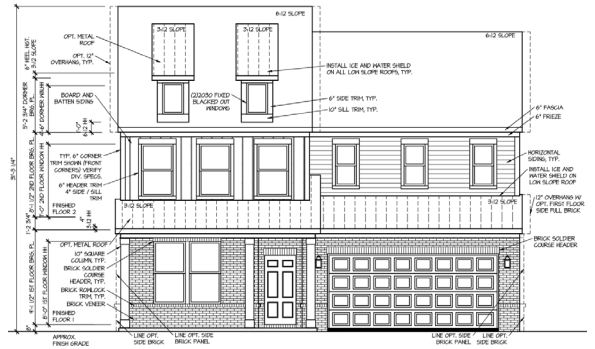
Front Elevation #4



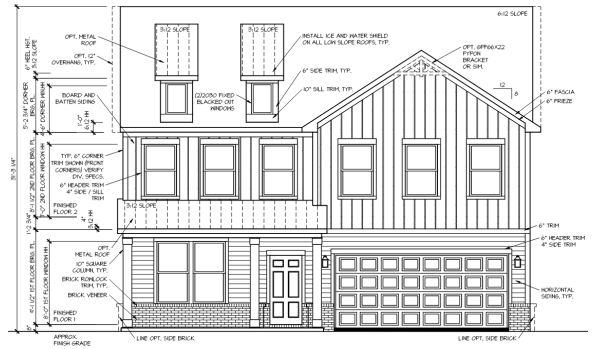
(Optional) Side Bay



(Optional) Mixed Brick / Stone



(Optional) First Floor Brick



(Optional) Bonus Room

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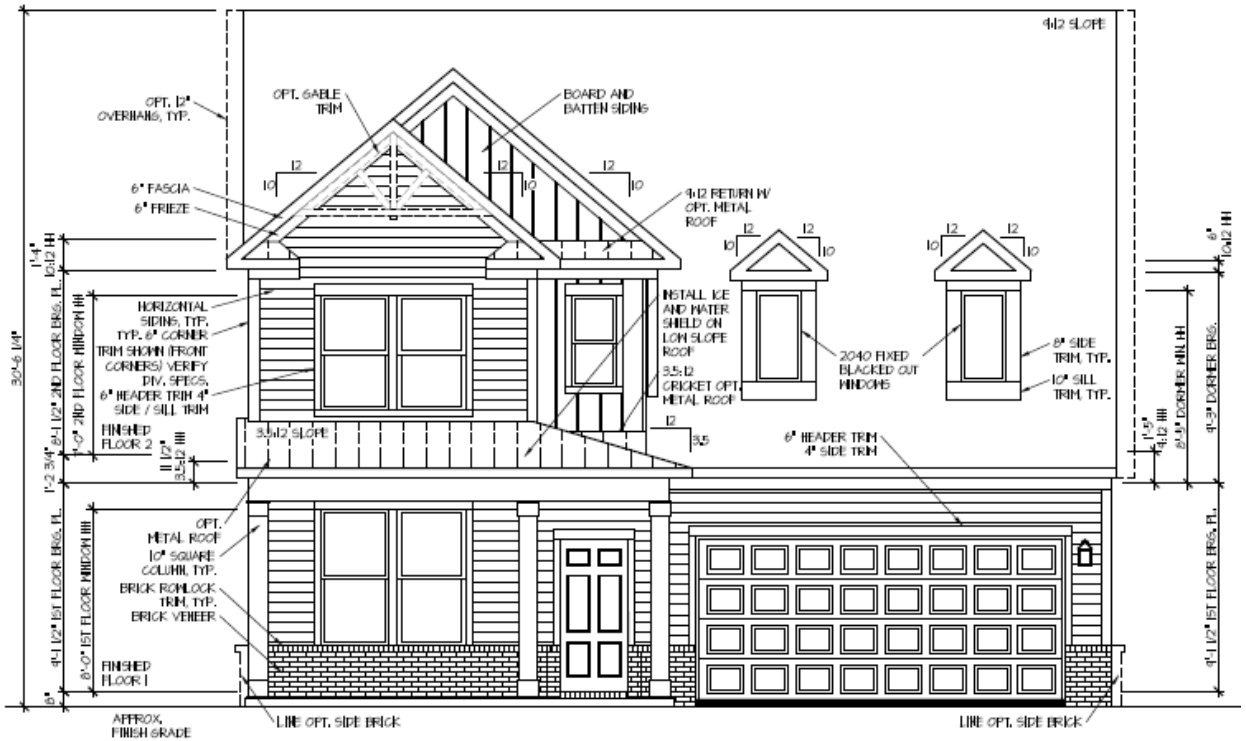
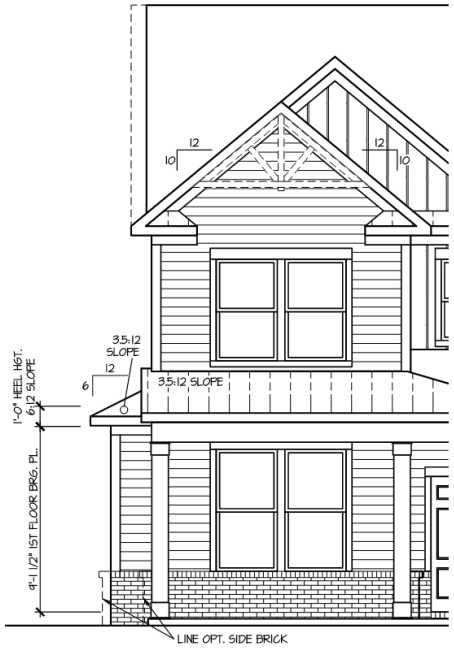
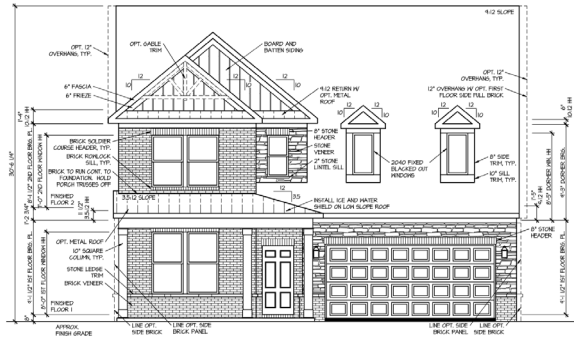
Wynwood (SF) - Elevation #7



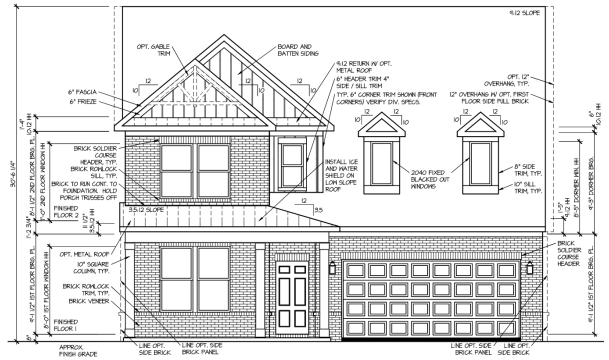
Front Elevation #7



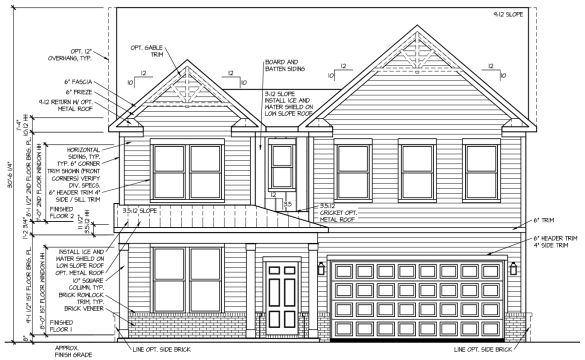
(Optional) Side Bay



(Optional) Mixed Brick / Stone



(Optional) First Floor Brick



(Optional) Bonus Room

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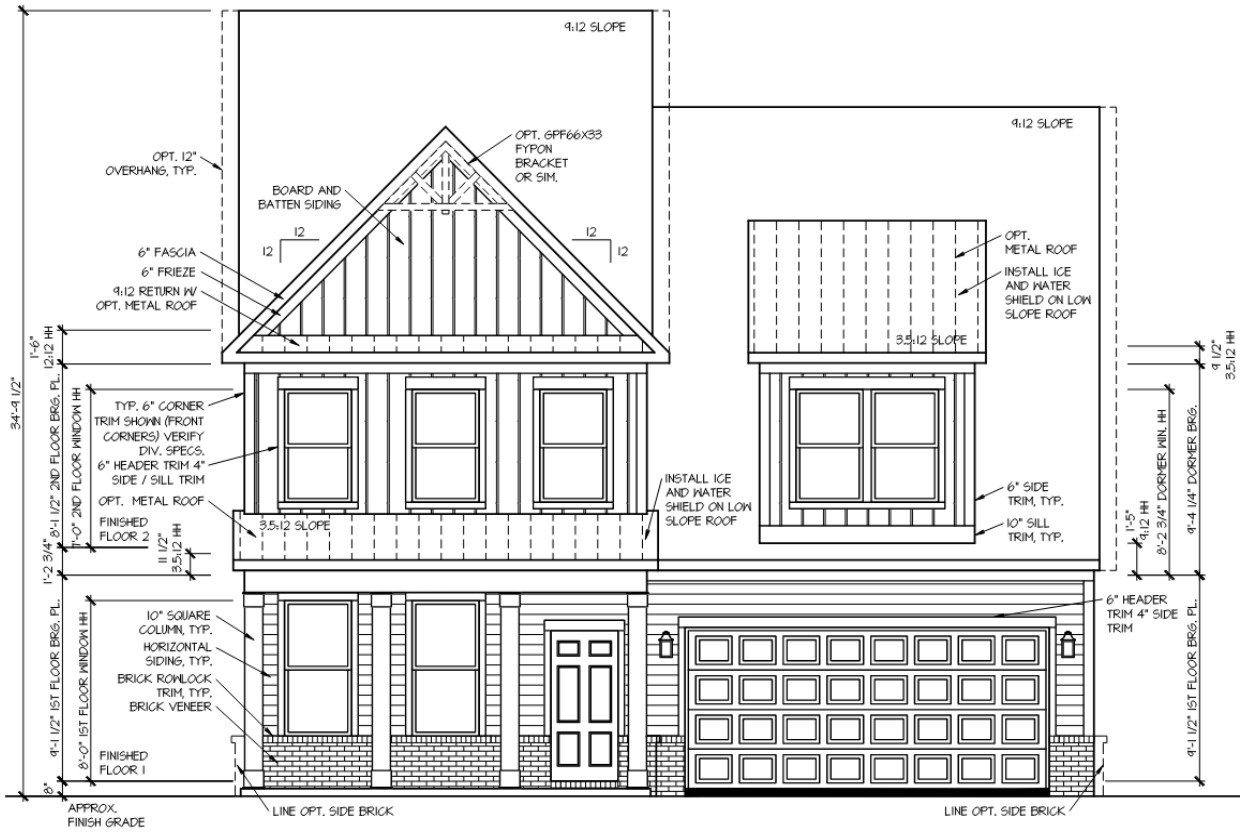
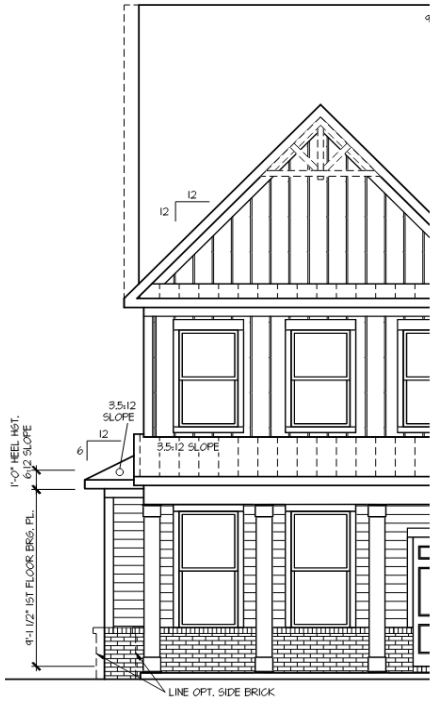
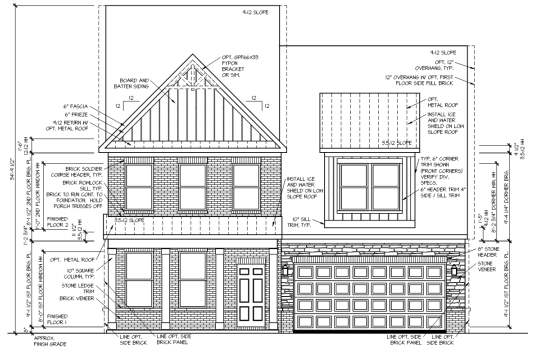
Wynwood (SF) - Elevation #9



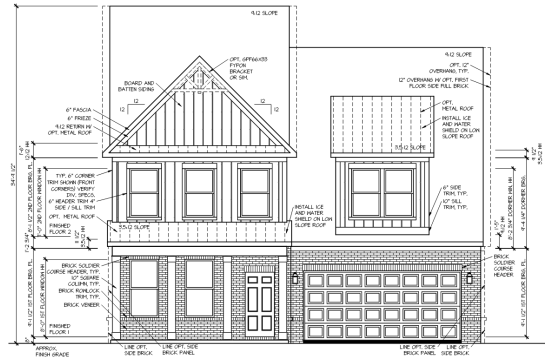
Front Elevation #9



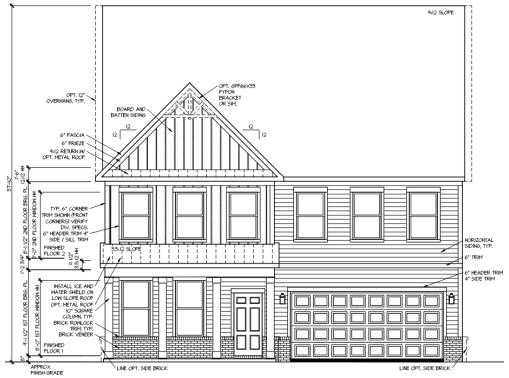
(Optional) Side Bay



(Optional) Mixed Brick / Stone



(Optional) First Floor Brick



(Optional) Bonus Room

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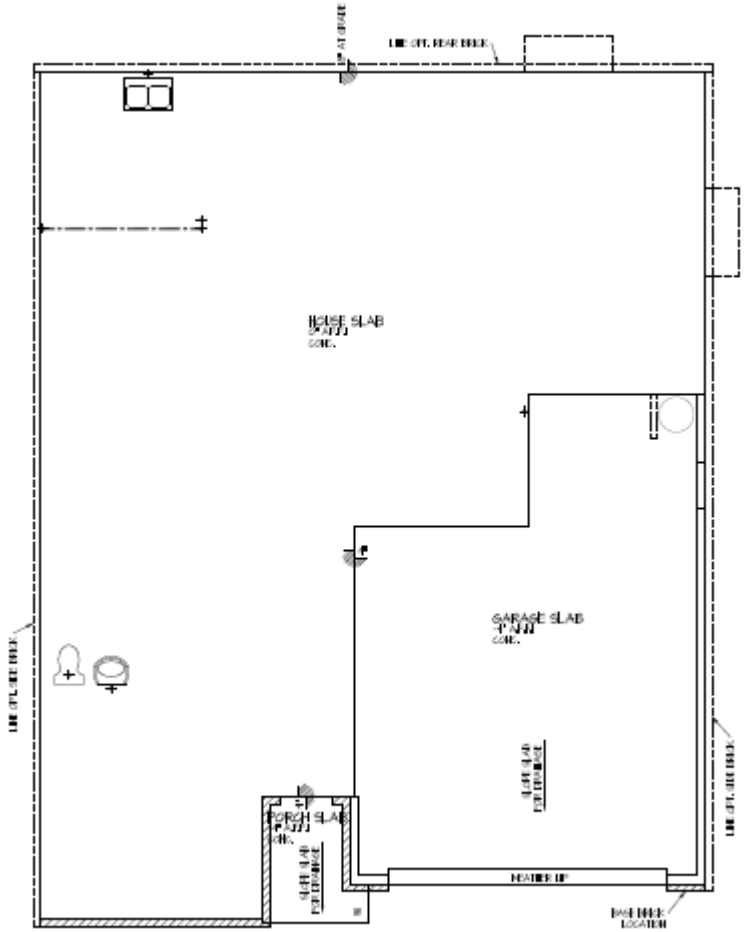
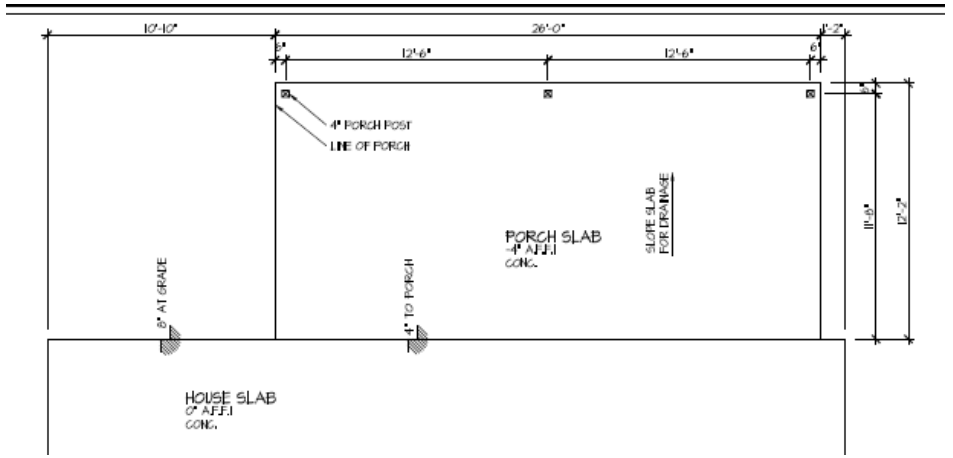
Wynwood (SF) - Options

Note: Foundation Plan changes based on elevation and structural options.

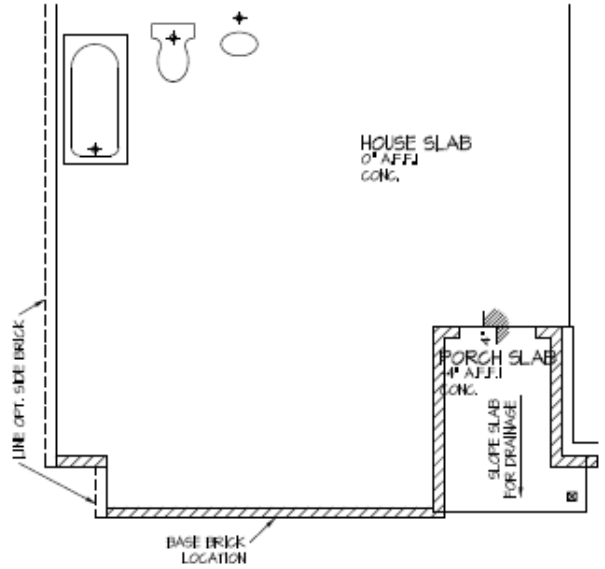
Illustrations shown reflect intended community standards; minor variations may occur. Compliance with the approved pattern book will be determined by the City of Columbia Planning Department.



Foundation

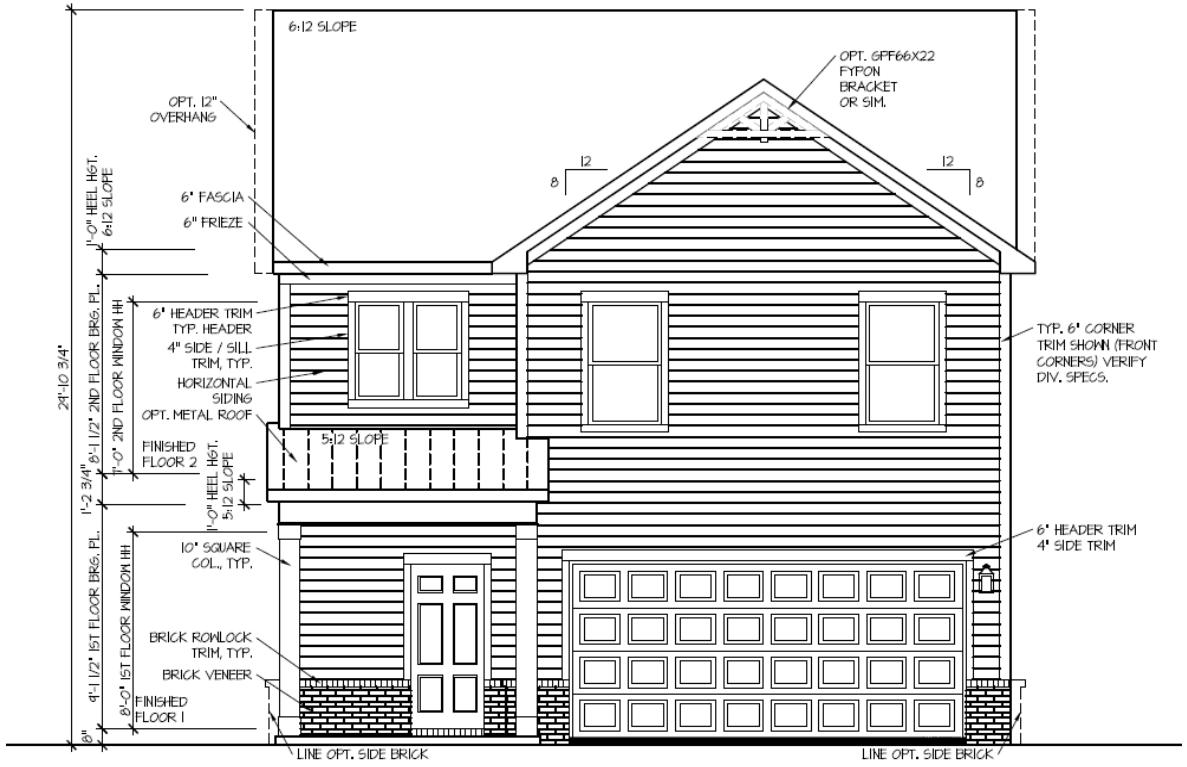


(Optional) Large Rear Porch

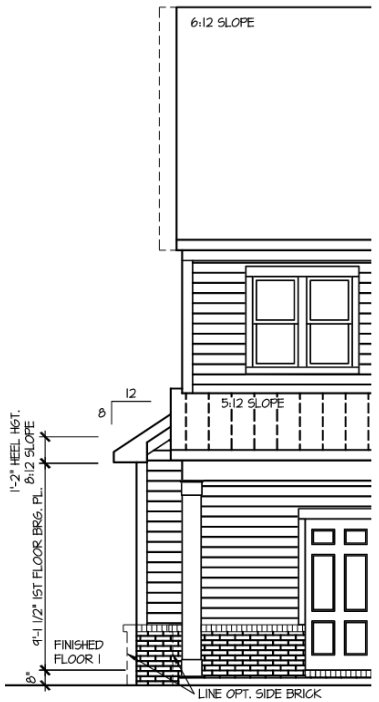


(Optional) Side Bay w/ Bedroom 5

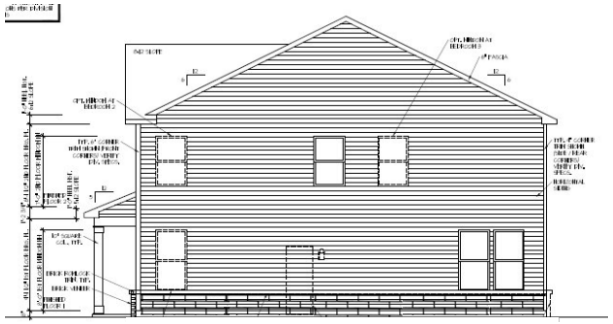
Lavender (SF) - Elevation #1



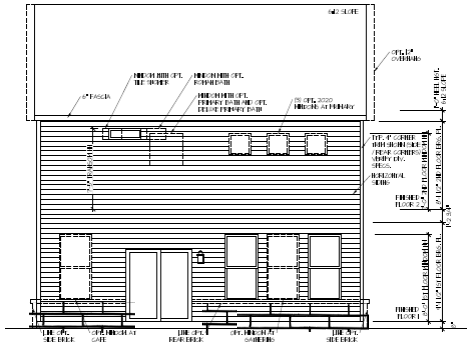
Front Elevation #1



(Optional) Side Bay



Side Elevation



Rear Elevation

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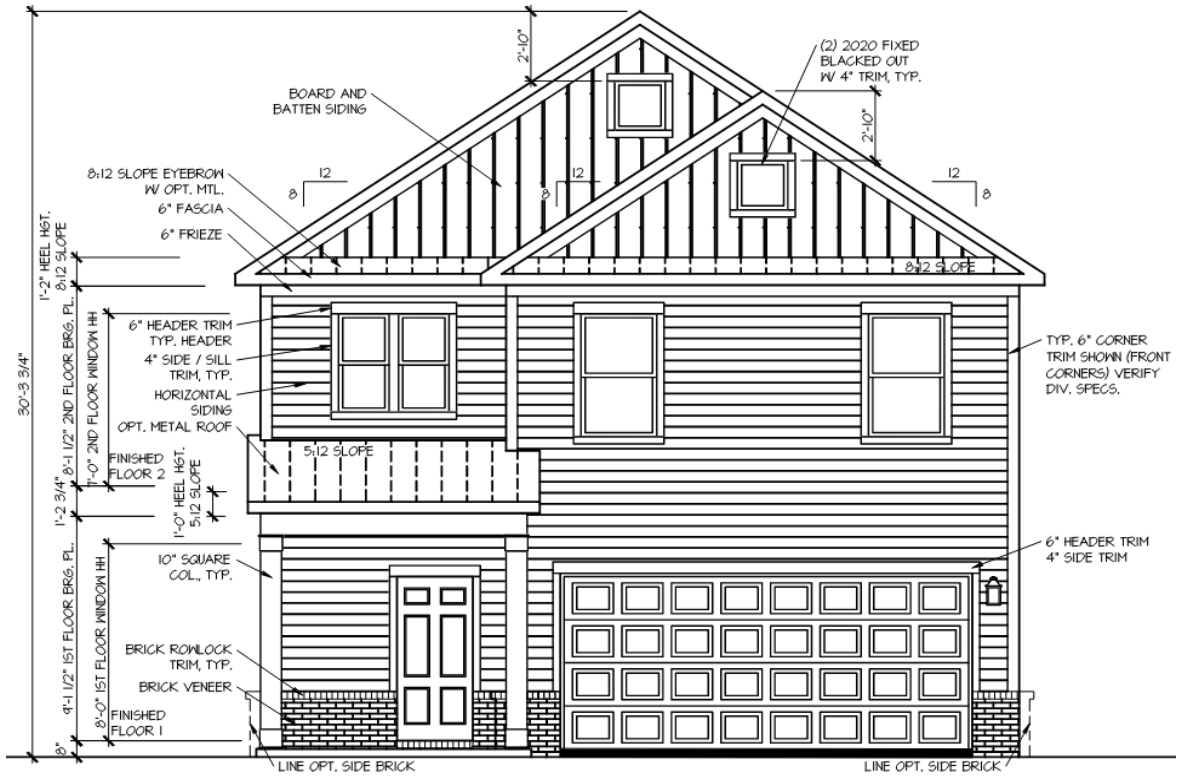
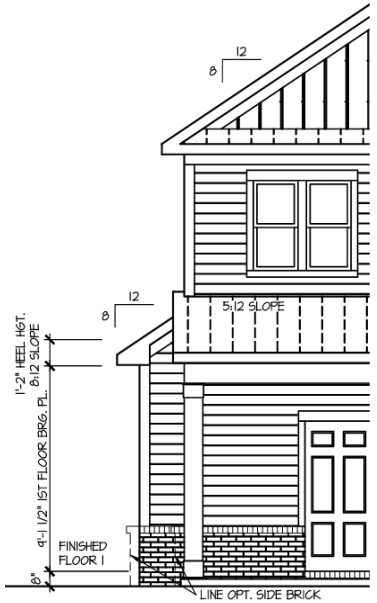
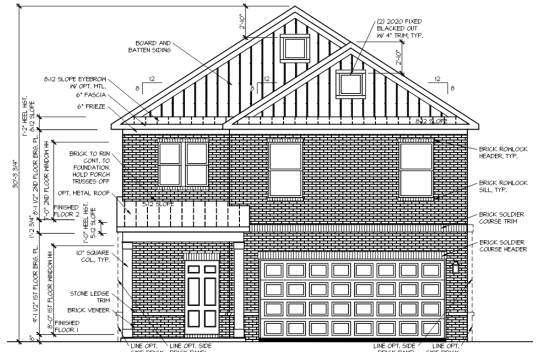
Lavender (SF) - Elevation #2



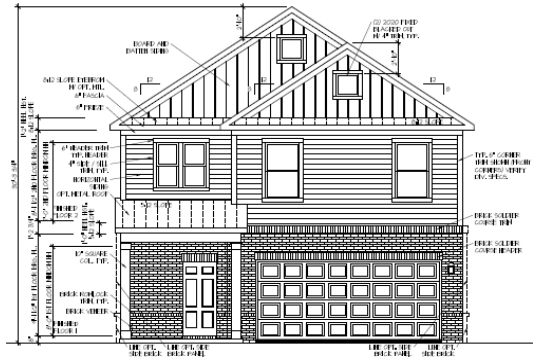
Front Elevation #2



(Optional) Side Bay



(Optional) Full Brick + Mixed Brick / Stone



(Optional) First Floor Brick

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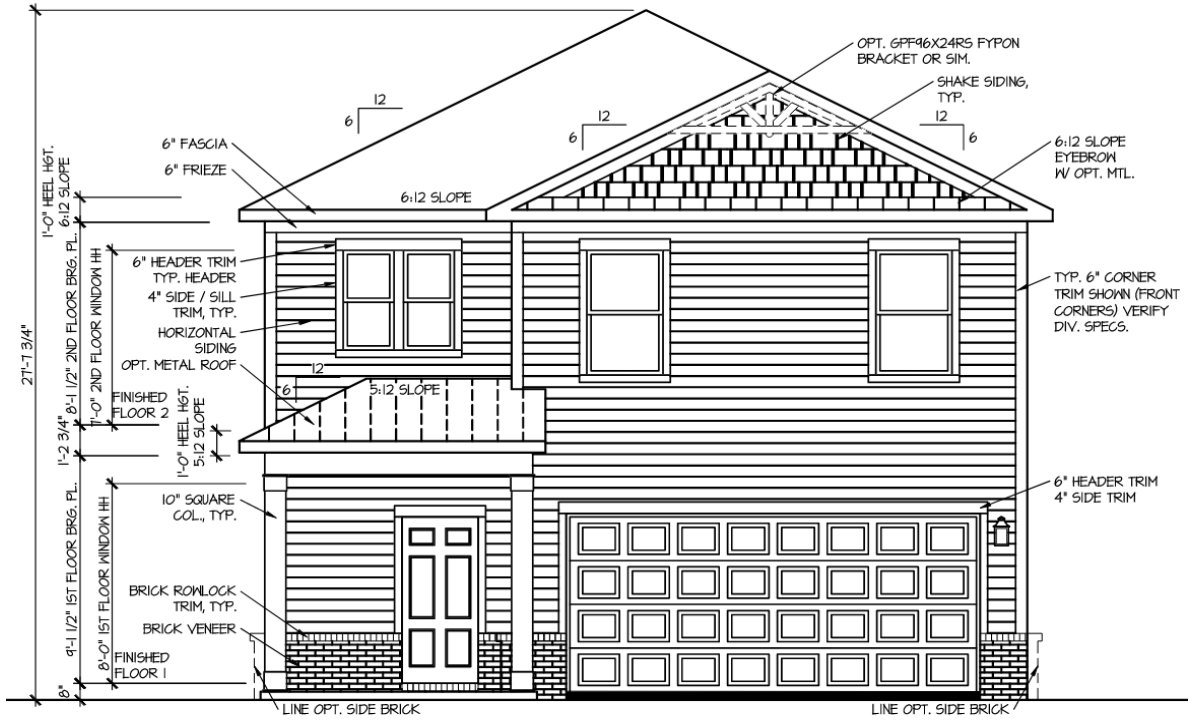
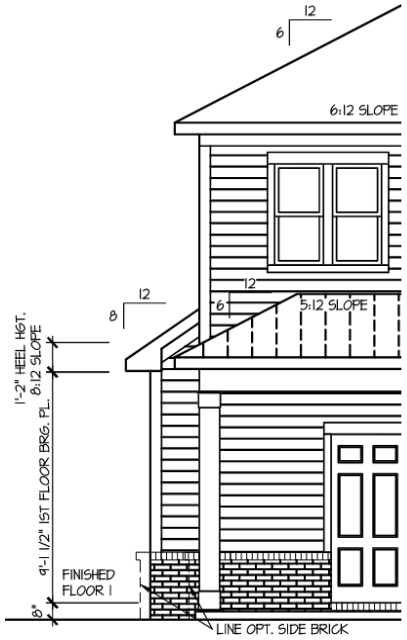
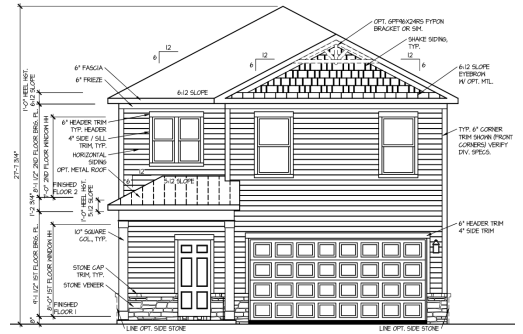
Lavender (SF) - Elevation #3



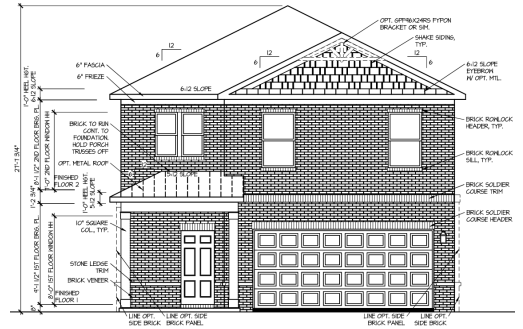
Front Elevation #3



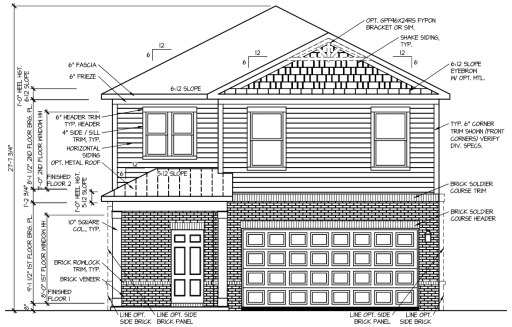
(Optional) Side Bay



(Optional) Stone Water Table



(Optional) Full Brick + Mixed Brick / Stone



(Optional) First Floor Brick

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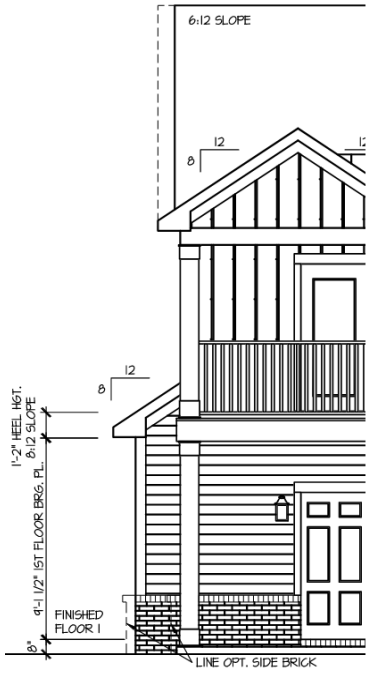
Lavender (SF) - Elevation #4



Front Elevation #4



(Optional) Side Bay



(Optional) Full Brick + Mixed Brick / Stone



(Optional) First Floor Brick

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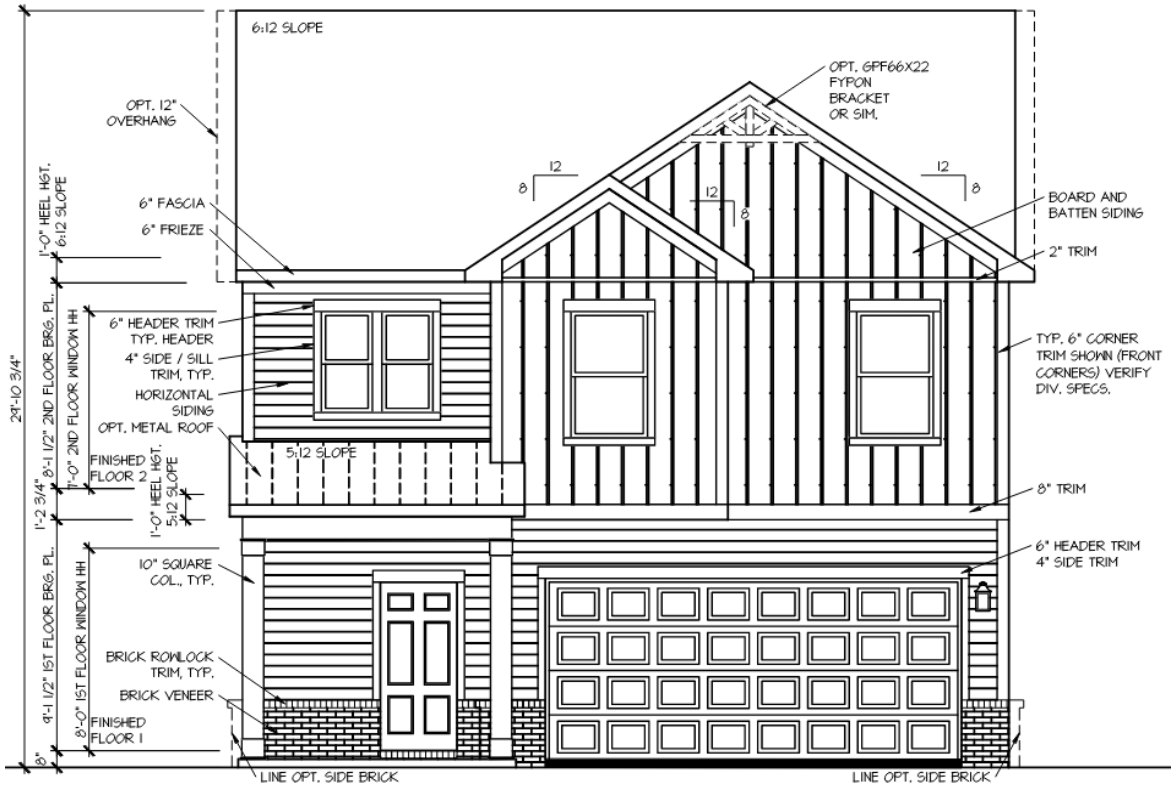
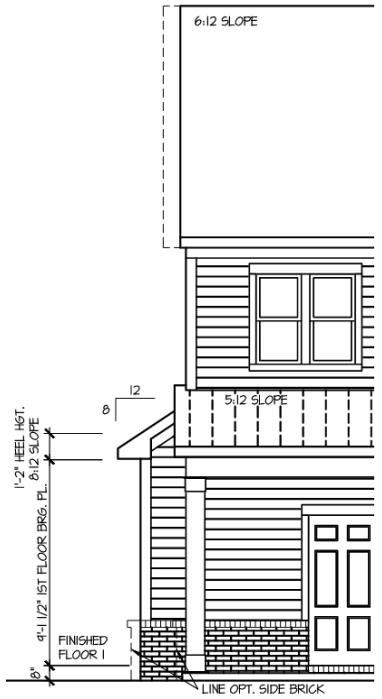
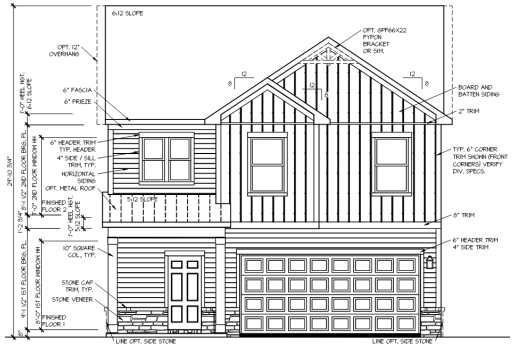
Lavender (SF) - Elevation #5



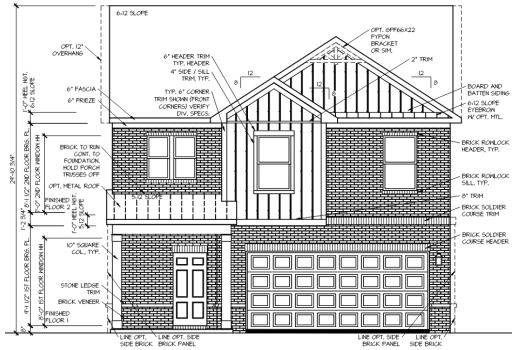
Front Elevation #5



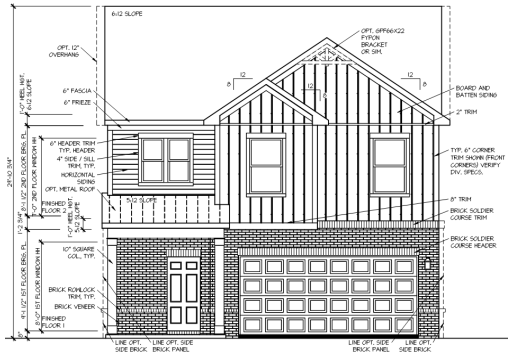
(Optional) Side Bay



(Optional) Stone Water Table



(Optional) Full Brick + Mixed Brick / Stone



(Optional) First Floor Brick

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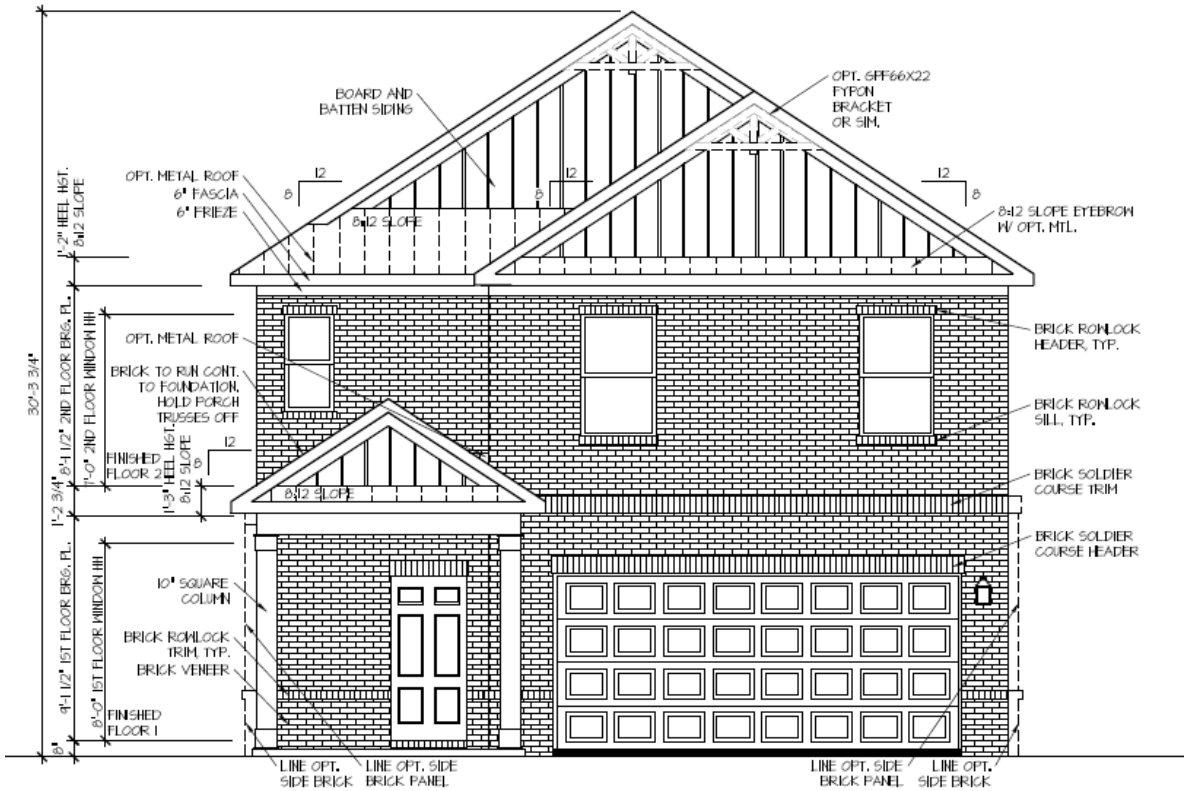
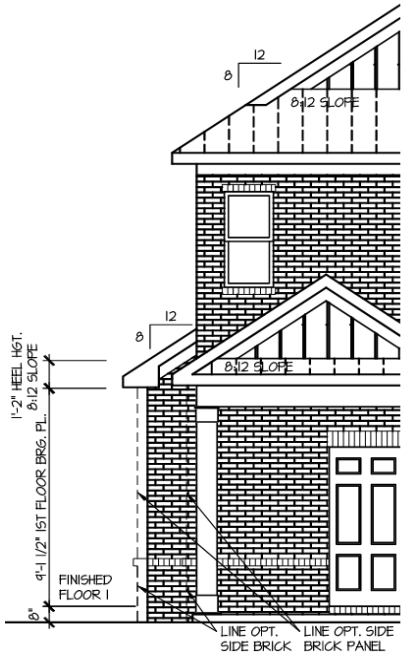
Lavender (SF) - Elevation #6



Front Elevation #6



(Optional) Side Bay

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Lavender (SF) - Options

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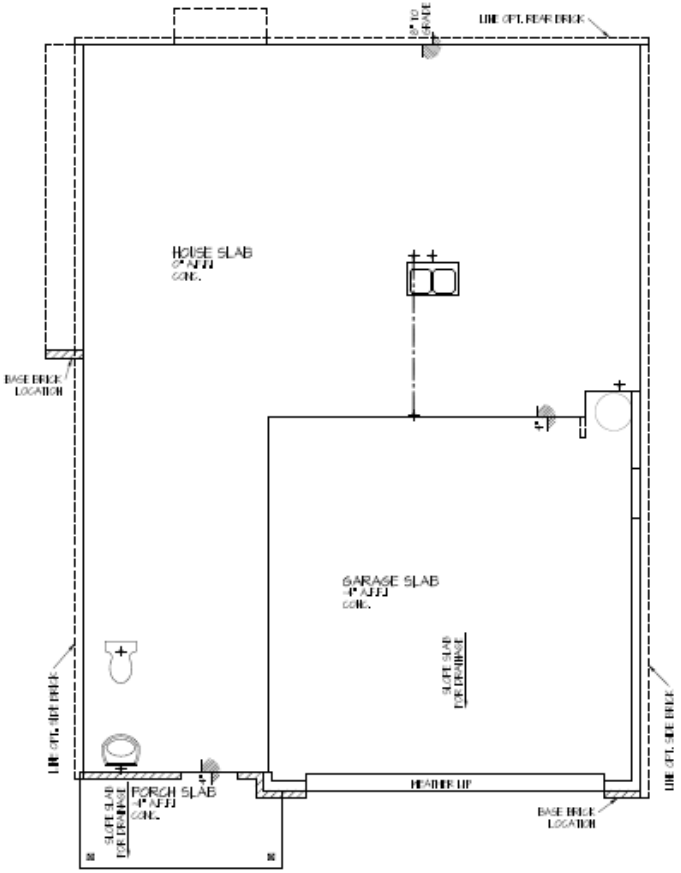
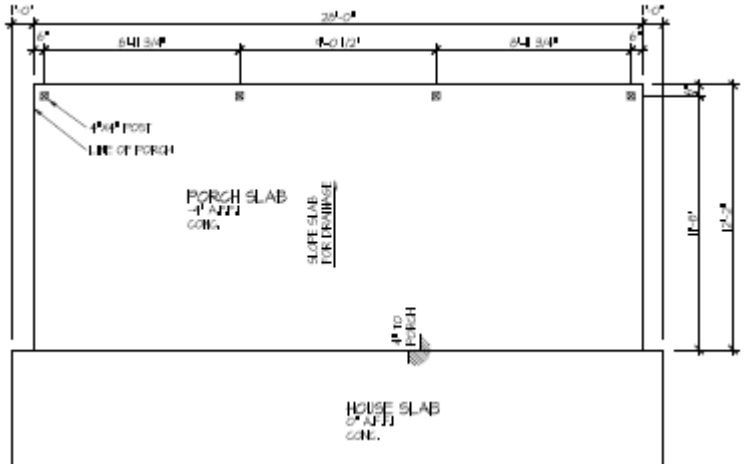
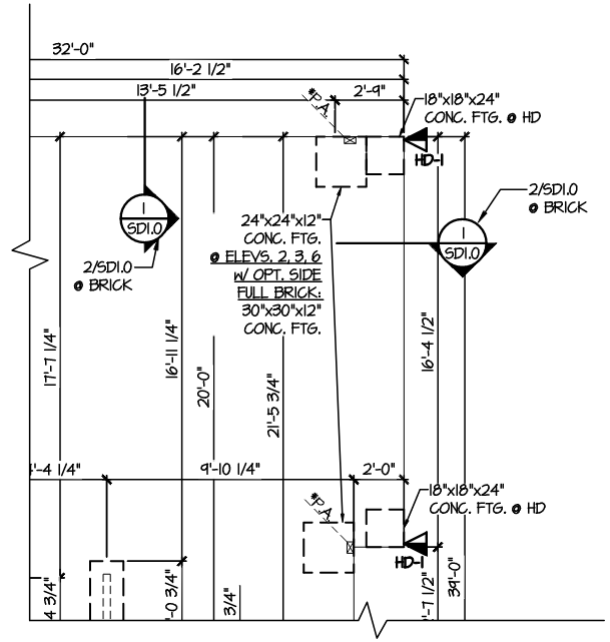


Foundation



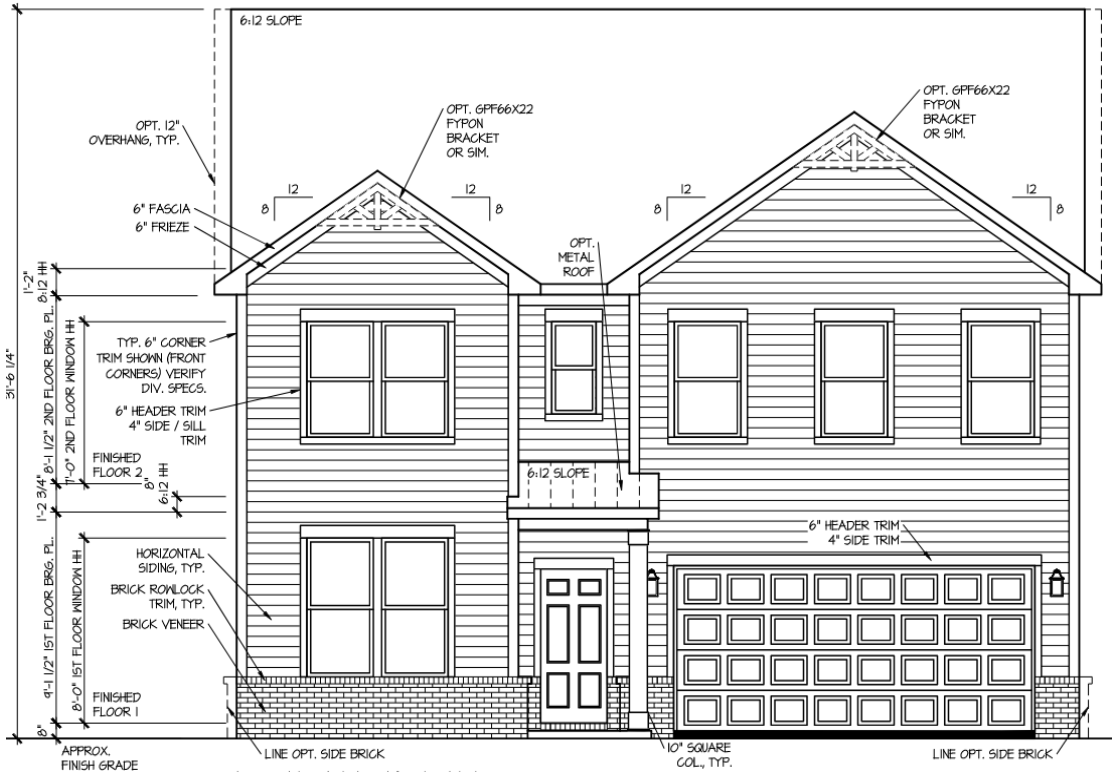
(Optional) Large Rear Porch



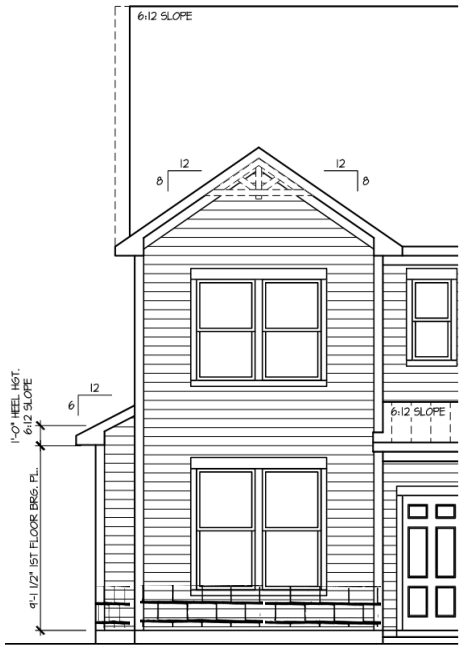
(Optional) Side Bay

Elevations shown reflect intended community standards; minor variations may occur. Compliance with the approved pattern book will be determined by the City of Columbia Planning Department.

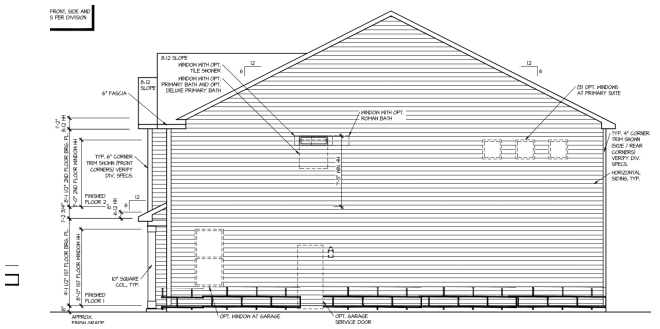
Wagener (SF) - Elevation #1



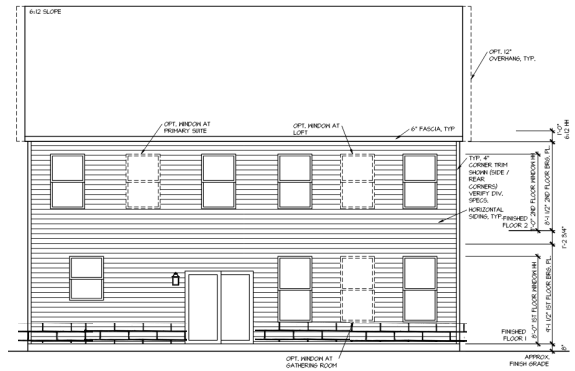
Front Elevation #1



(Optional) Side Bay



Side Elevation



Rear Elevation

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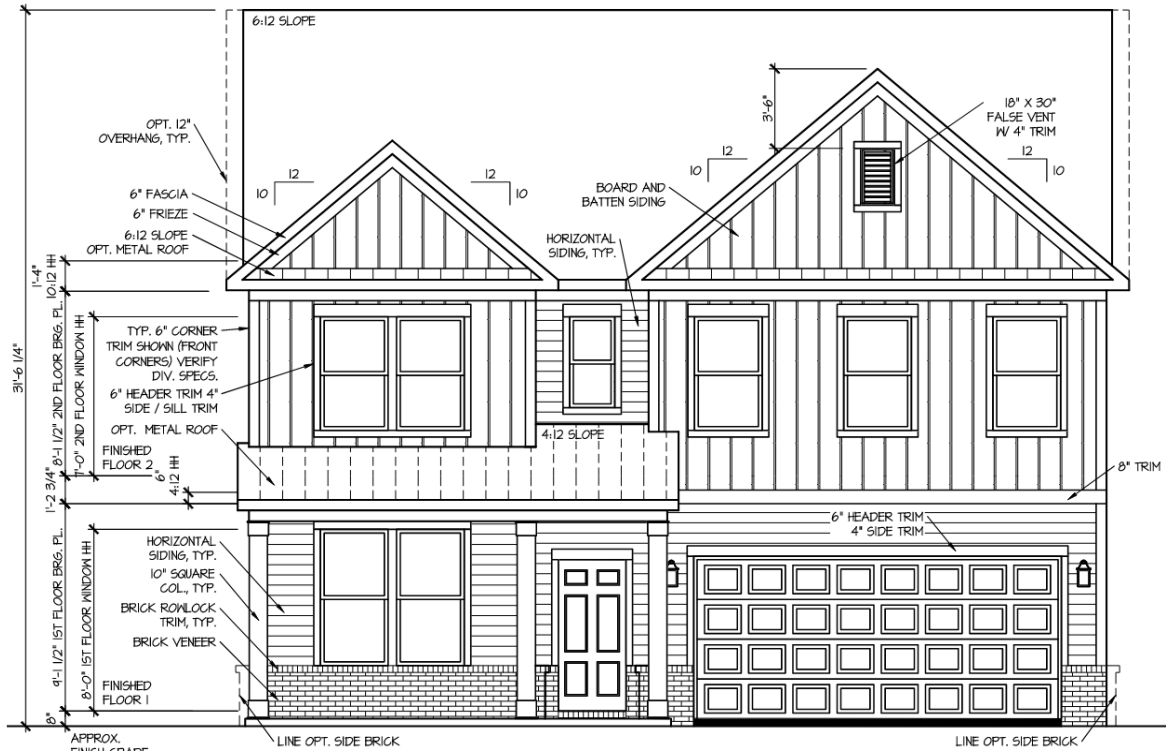
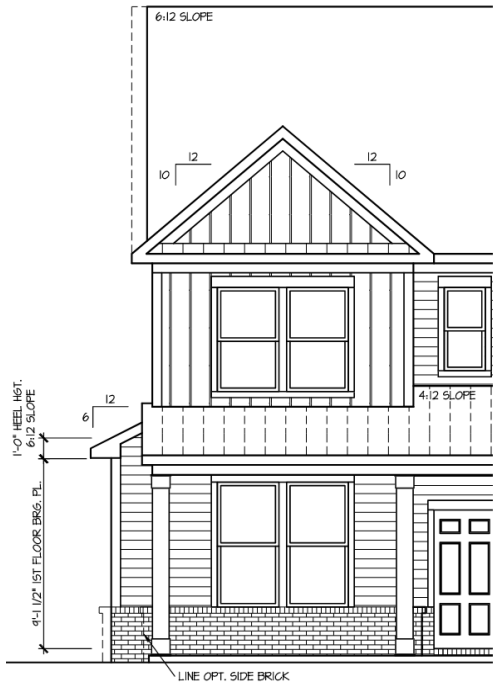
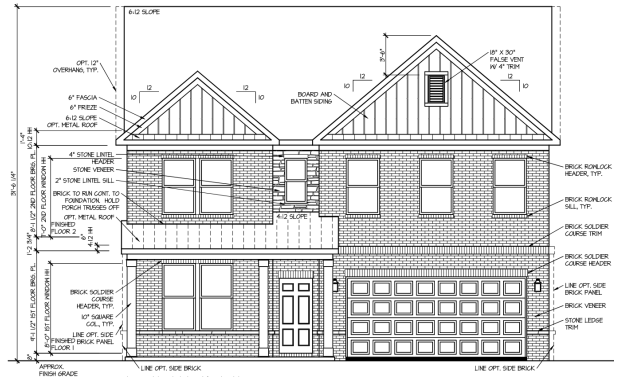
Wagener (SF) - Elevation #2



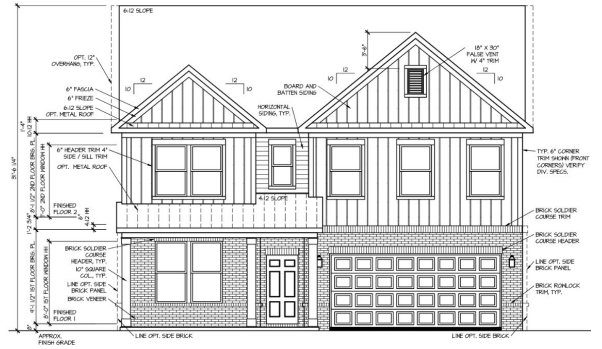
Front Elevation #2



(Optional) Side Bay



(Optional) Mixed Brick / Stone



(Optional) First Floor Brick

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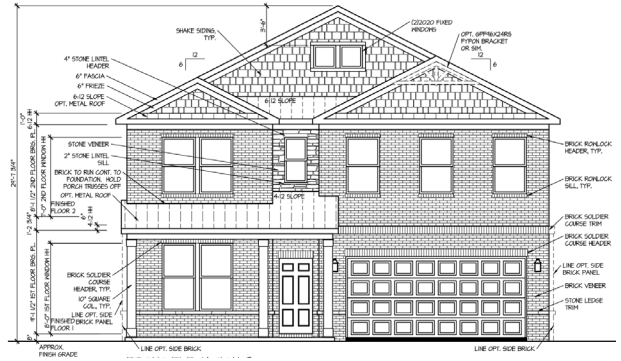
Wagener (SF) - Elevation #3



Front Elevation #3



(Optional) Side Bay



(Optional) Mixed Brick / Stone



(Optional) First Floor Brick

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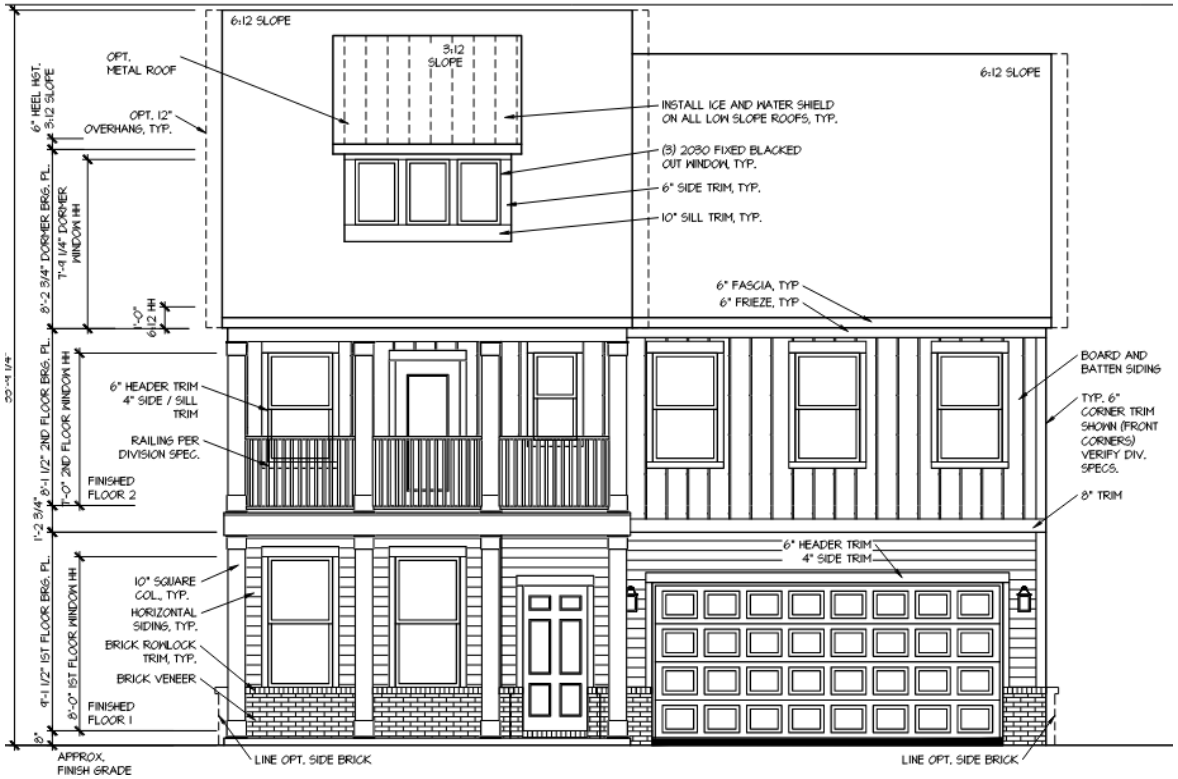
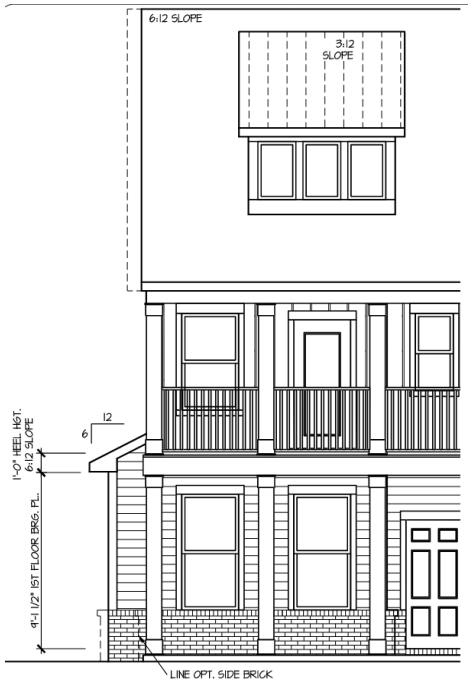
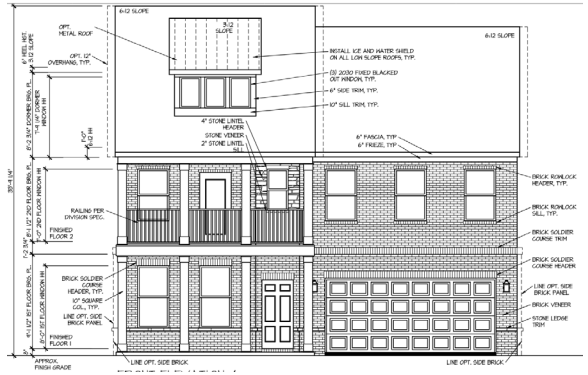
Wagener (SF) - Elevation #4



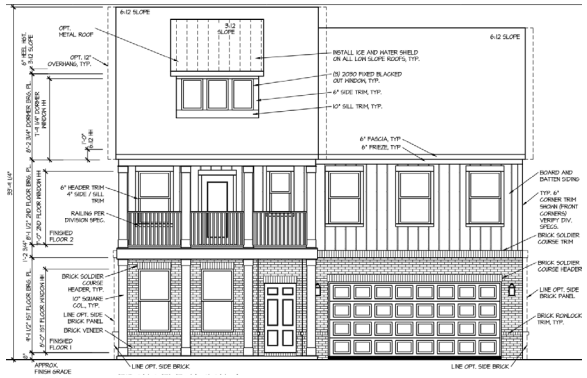
Front Elevation #4



(Optional) Side Bay



(Optional) Mixed Brick / Stone



(Optional) First Floor Brick

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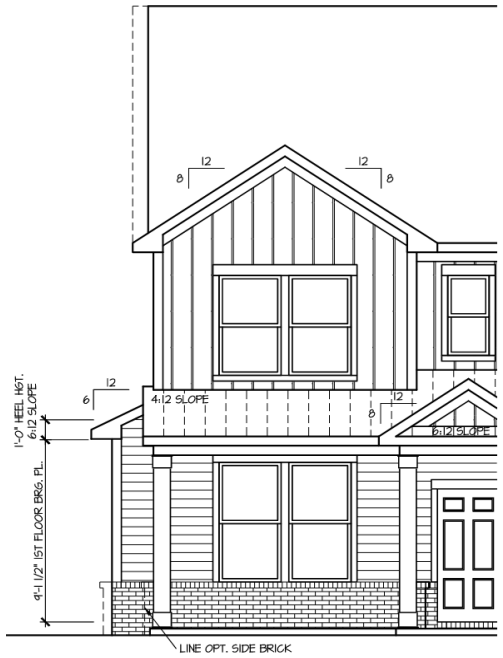
Wagener (SF) - Elevation #5



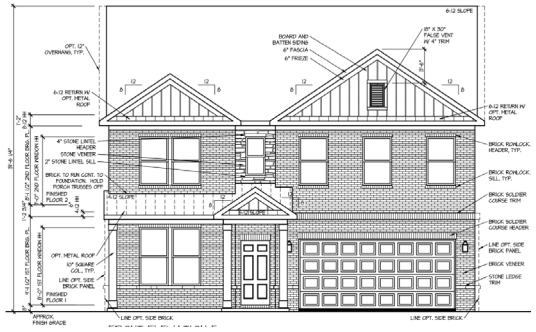
Front Elevation #5



(Optional) Side Bay



(Optional) Stone Water Table



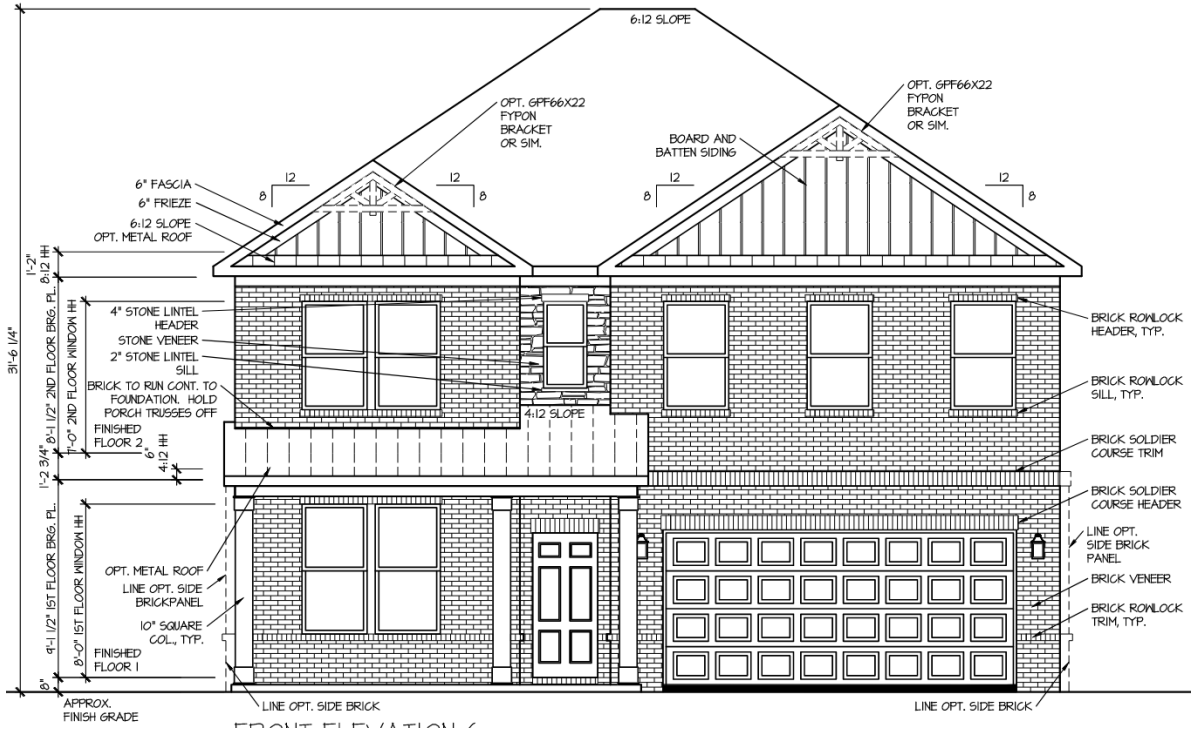
(Optional) Mixed Brick / Stone



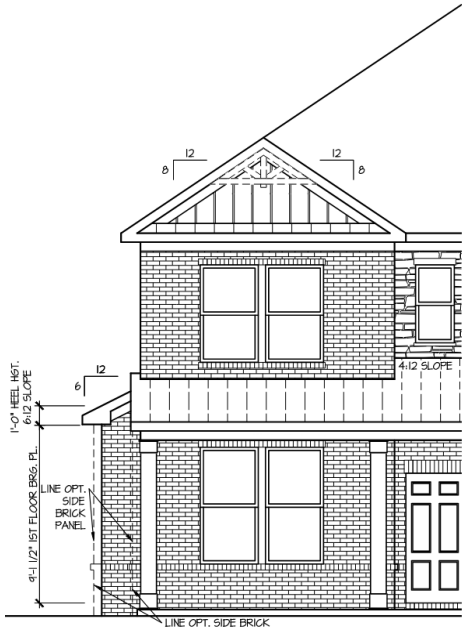
(Optional) First Floor Brick

Elevations and configurations shown reflect intended community standards; minor additions, revisions, and variations may occur. City of Columbia Planning Department will determine if the intent of the approved pattern book has been met.

Wagener (SF) - Elevation #6



Front Elevation #6



(Optional) Side Bay

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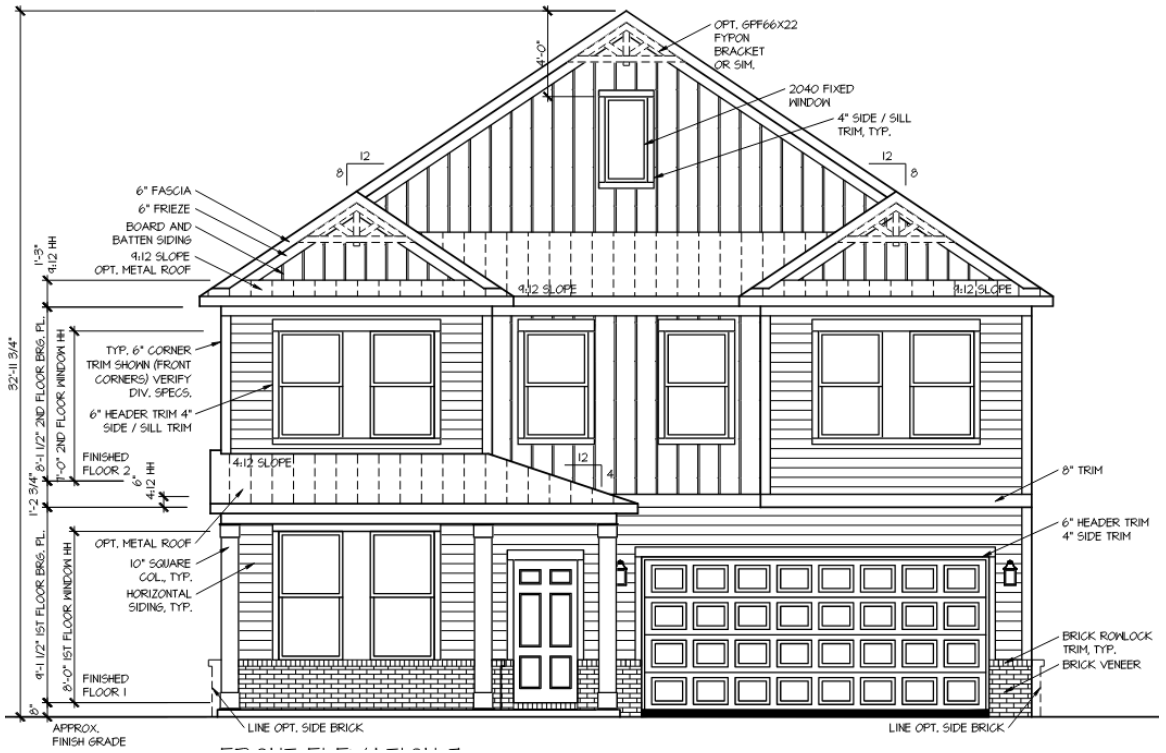
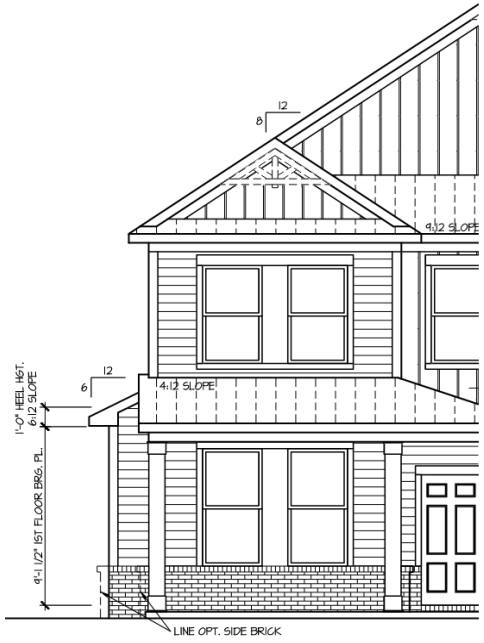
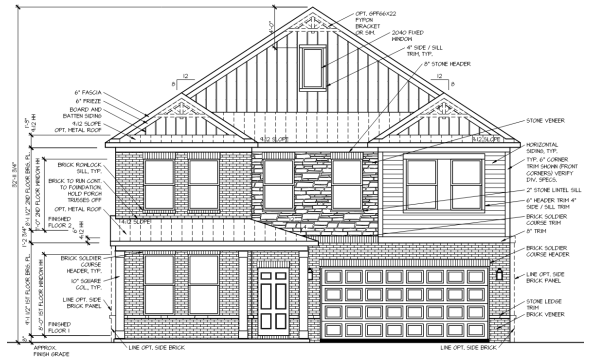
Wagener (SF) - Elevation #7



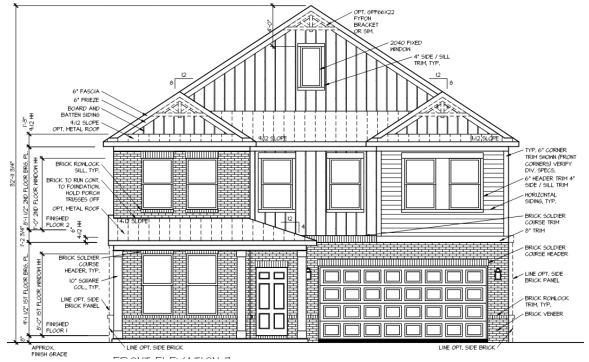
Front Elevation #7



(Optional) Side Bay



(Optional) Mixed Brick / Stone



(Optional) First Floor Brick

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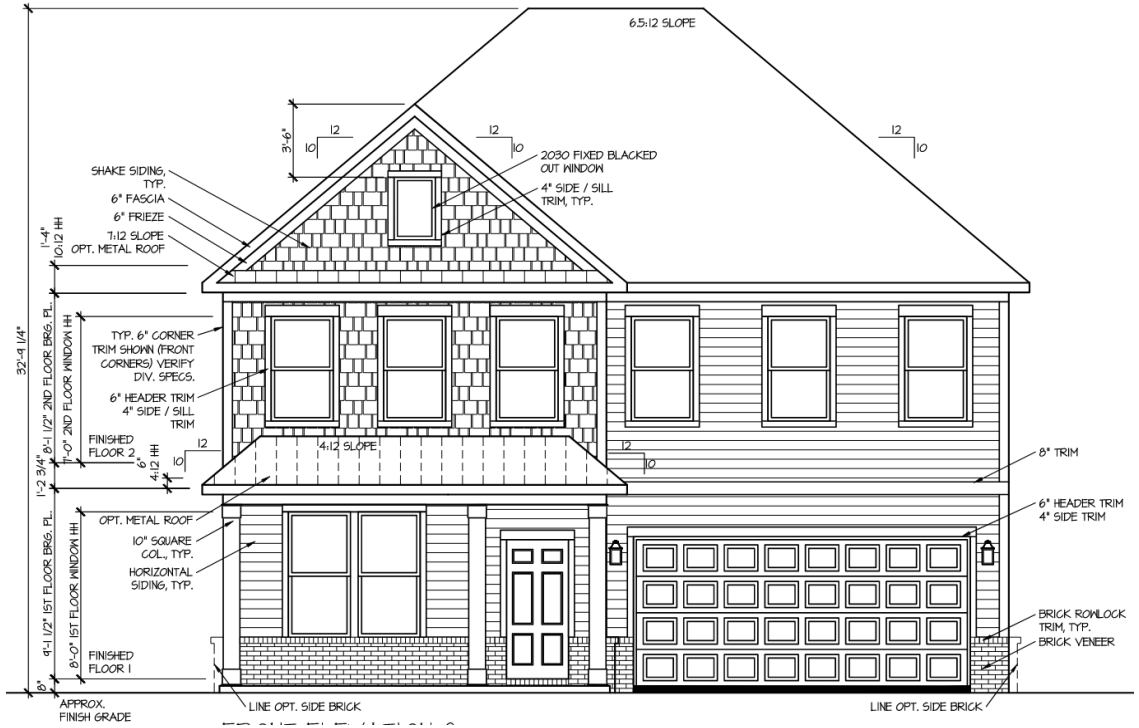
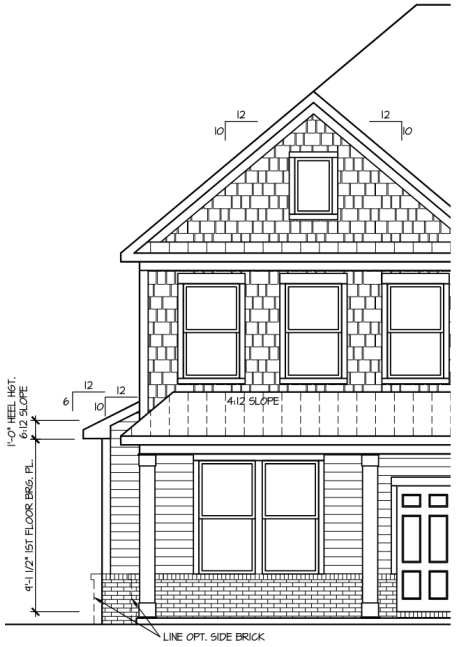
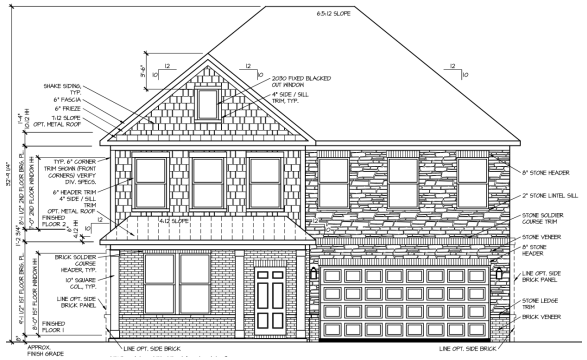
Wagener (SF) - Elevation #8



Front Elevation #8



(Optional) Side Bay



(Optional) Mixed Brick / Stone



(Optional) First Floor Brick

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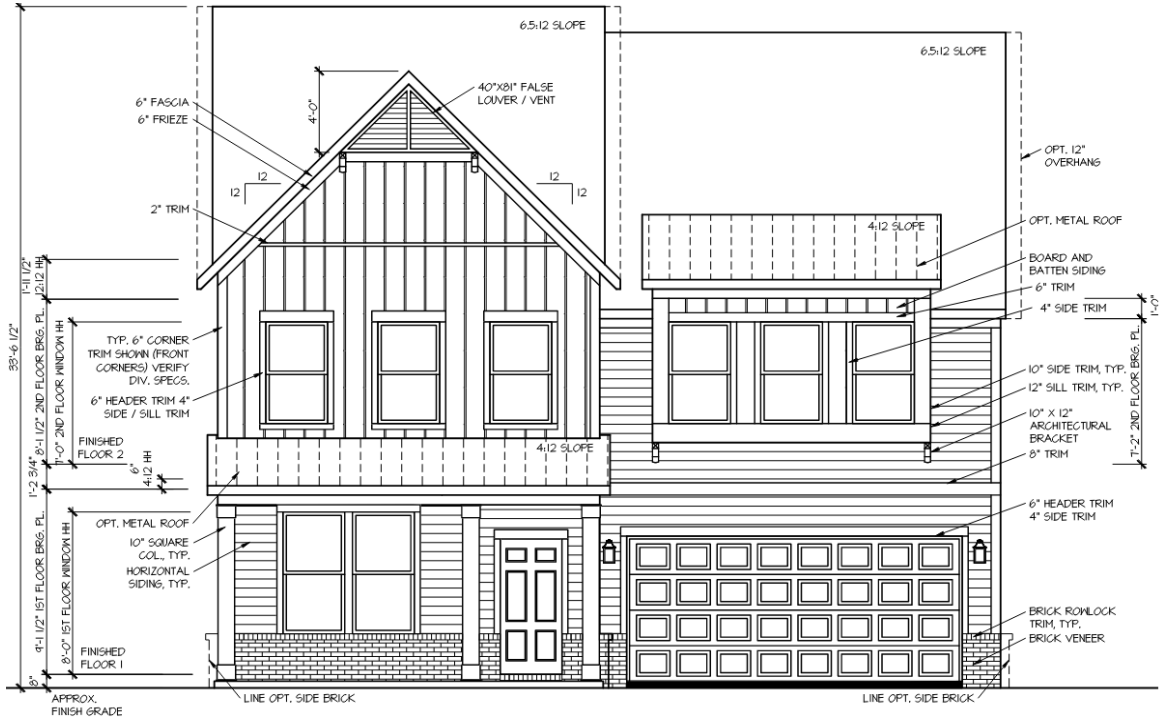
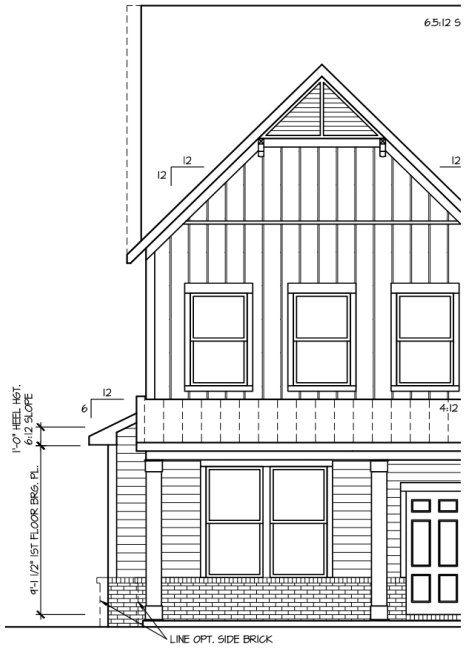
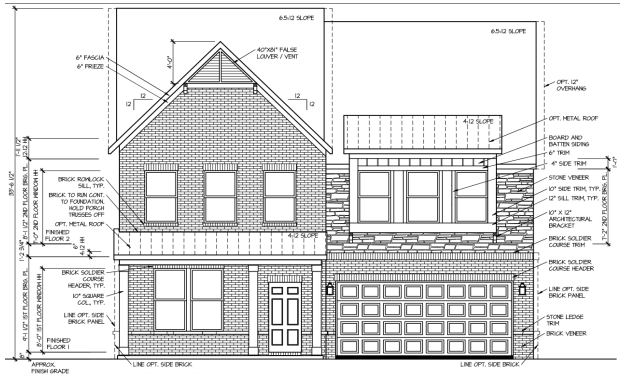
Wagener (SF) - Elevation #9



Front Elevation #9



(Optional) Side Bay



(Optional) Mixed Brick / Stone



(Optional) First Floor Brick

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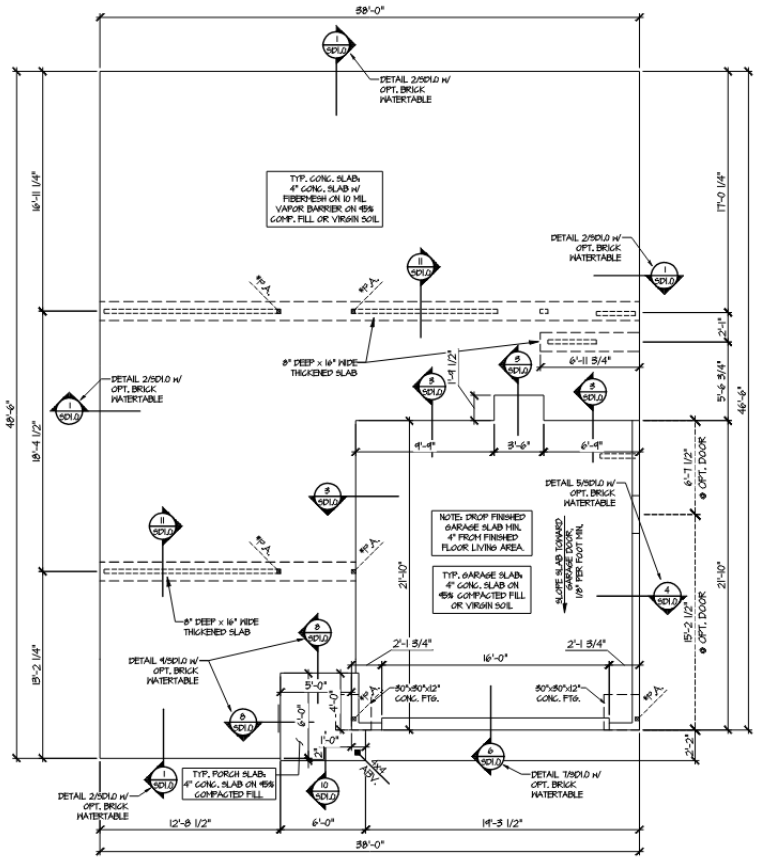
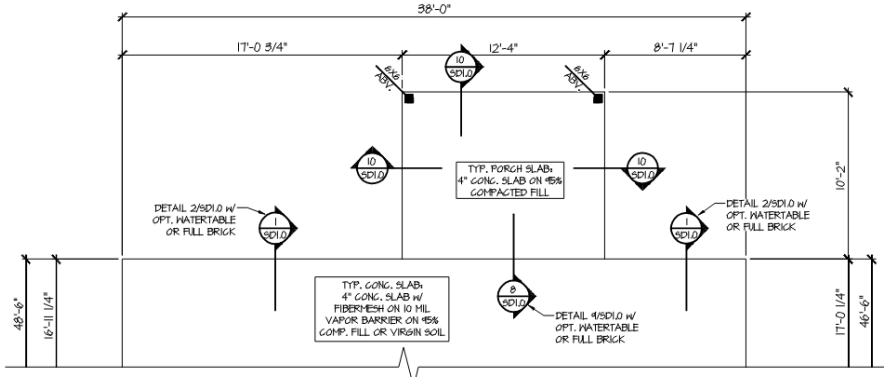
Wagener (SF) - Options

Note: Foundation Plan changes based on elevation and structural options.

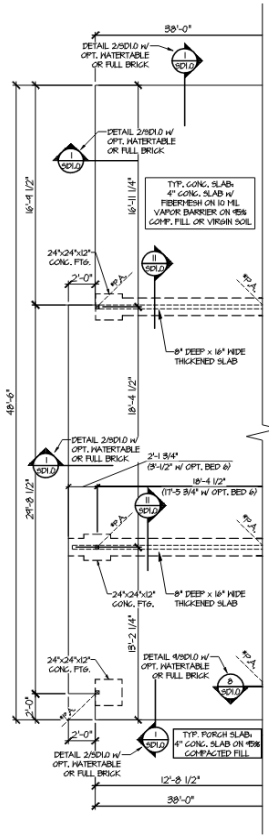
Illustrations shown reflect intended community standards; minor variations may occur. Compliance with the approved pattern book will be determined by the City of Columbia Planning Department.



Foundation

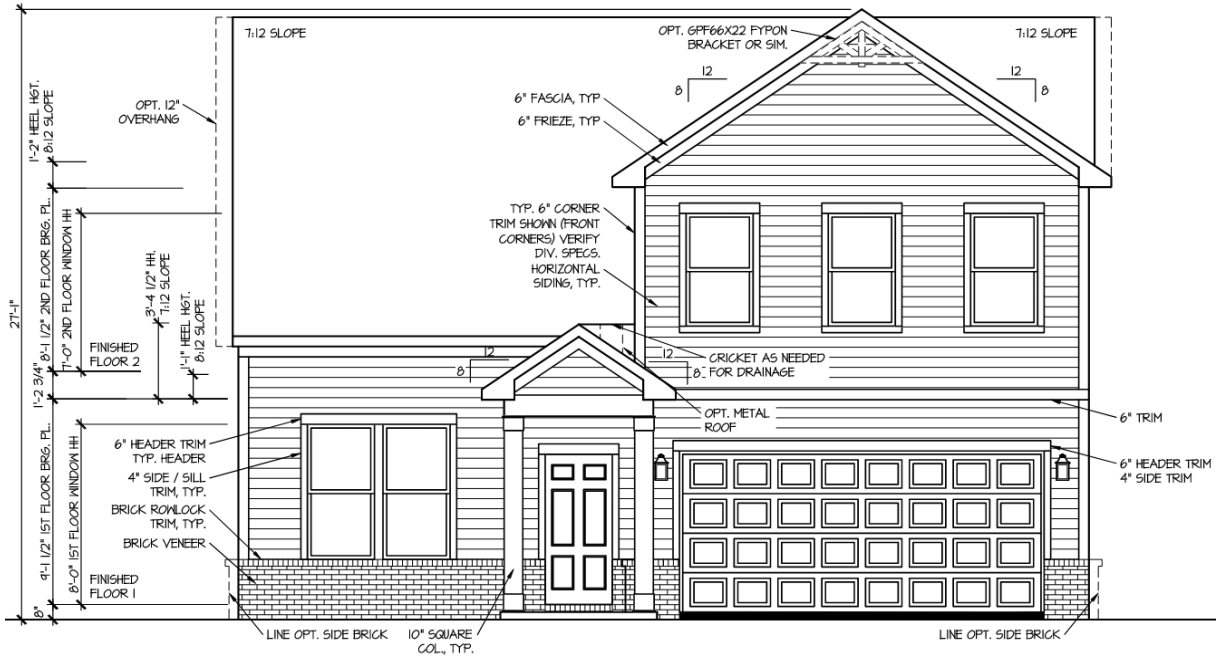


(Optional) Large Rear Porch

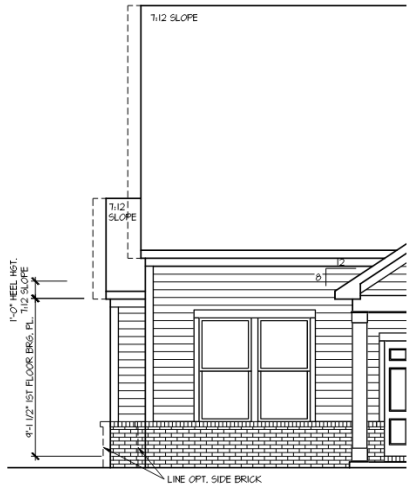


(Optional) Side Bay

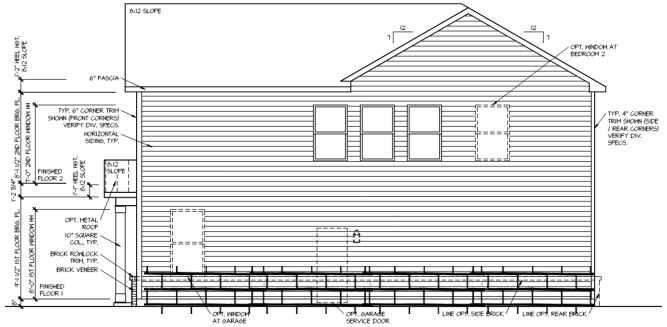
Bedford (SF) - Elevation #1



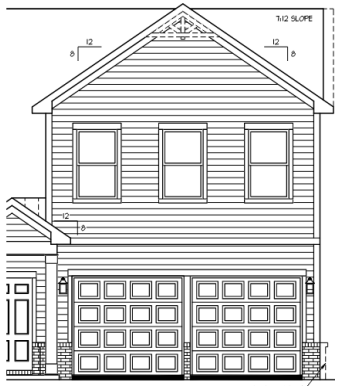
Front Elevation #1



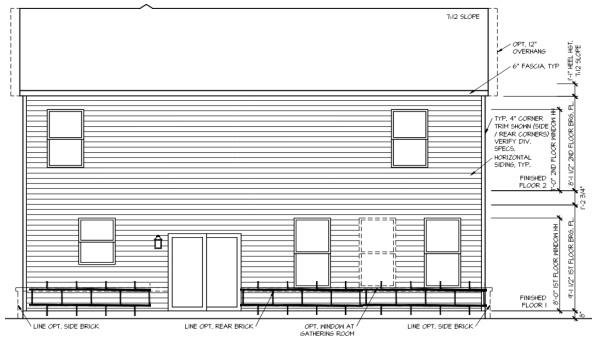
(Optional) Side Bay



Side Elevation



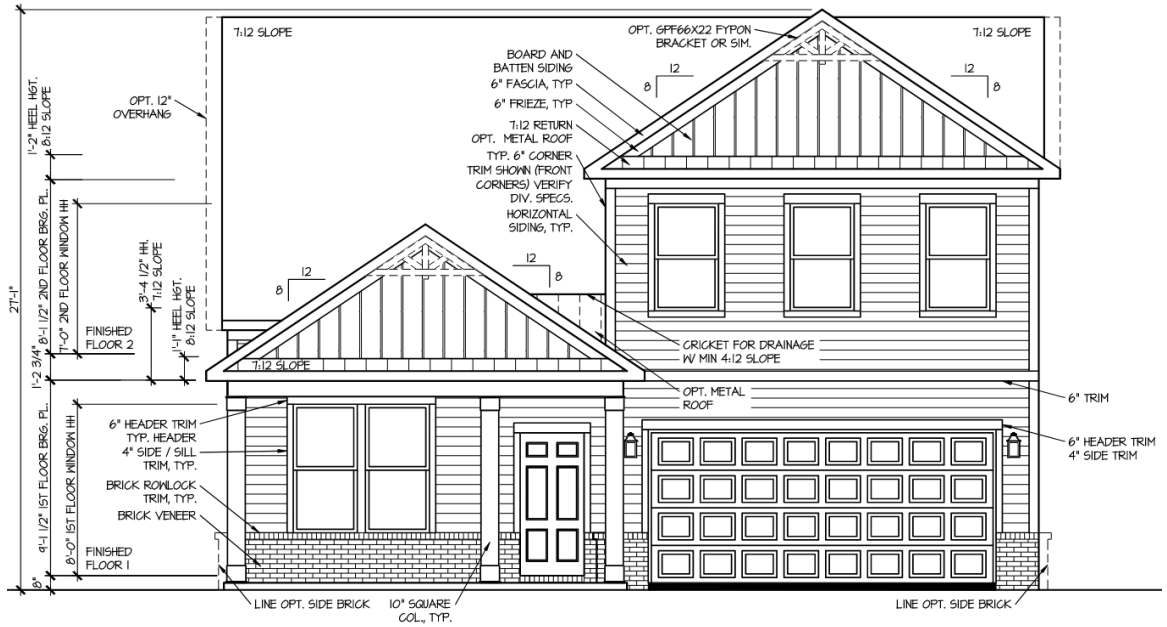
(Optional) Split Garage Doors



Rear Elevation

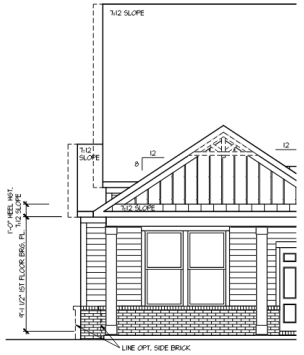
**Elevations and configurations shown reflect intended community standards; minor additions, revisions, and variations may occur. City of Columbia Planning Department will determine if the intent of the approved pattern book has been met.*

Bedford (SF) - Elevation #2

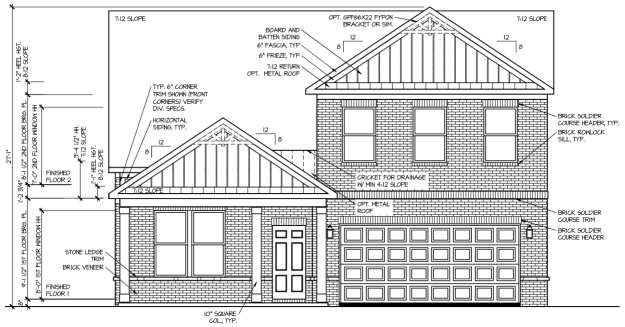


Front Elevation #2

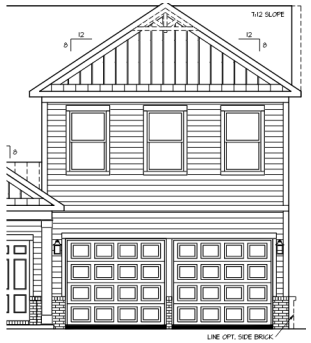
**Elevations and configurations shown reflect intended community standards; minor additions, revisions, and variations may occur. City of Columbia Planning Department will determine if the intent of the approved pattern book has been met.*



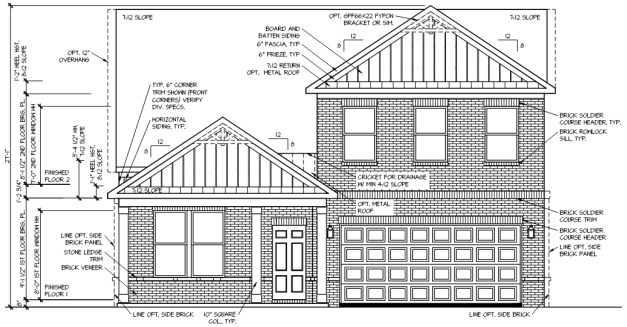
(Optional) Side Bay



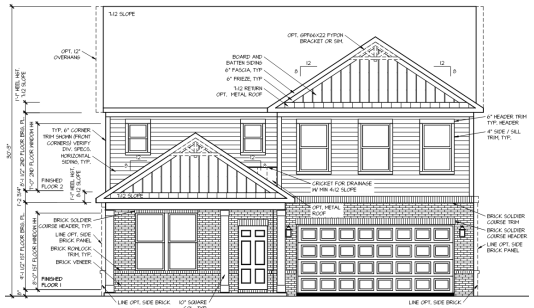
(Optional) Mixed Brick / Stone



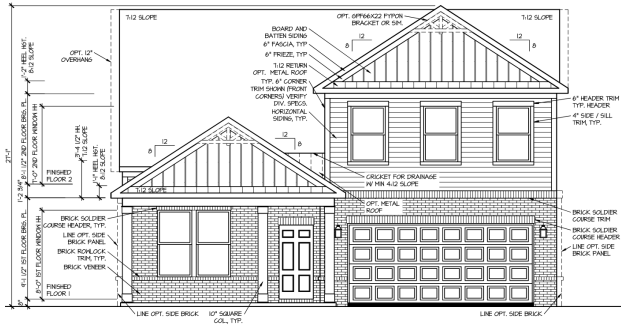
(Optional) Split Garage Doors



(Optional) Full Brick

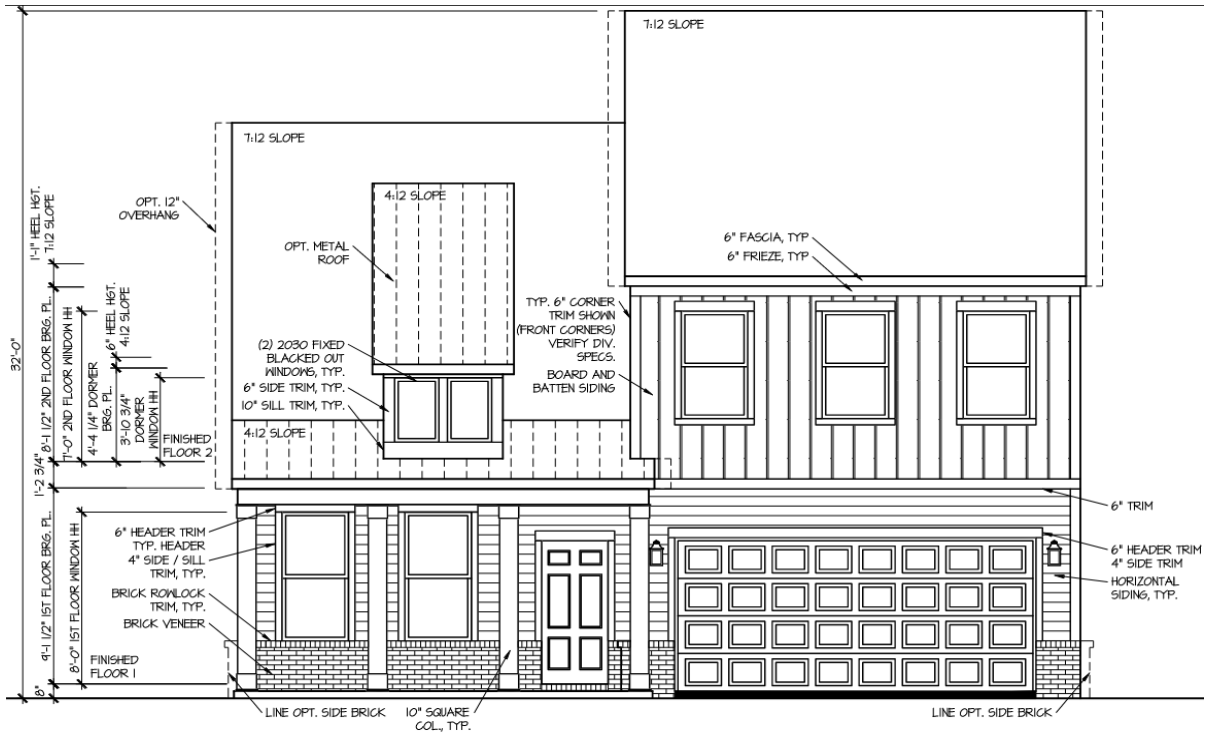


(Optional) Bonus Room



(Optional) First Floor Brick

Bedford (SF) - Elevation #4



Front Elevation #4

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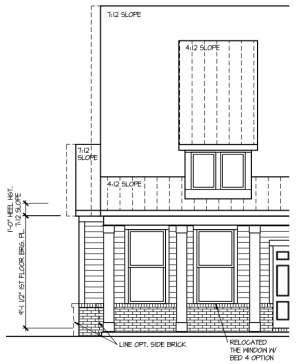
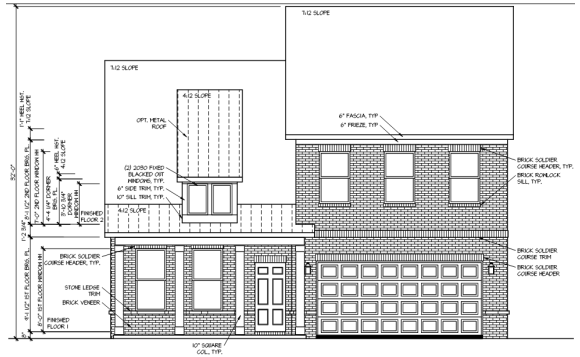
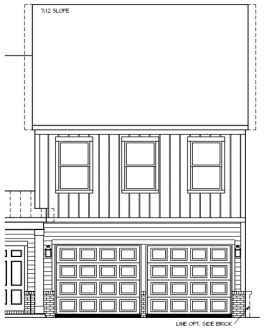


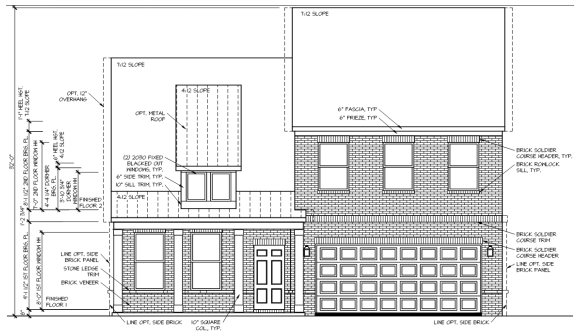
(Optional) Side Bay



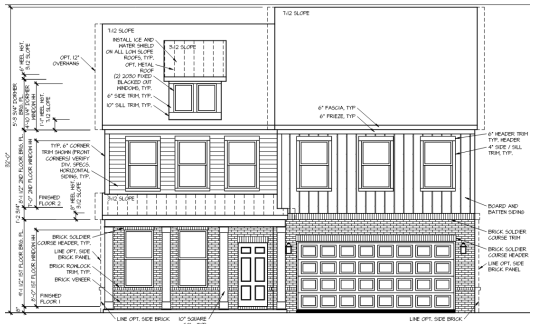
(Optional) Mixed Brick / Stone



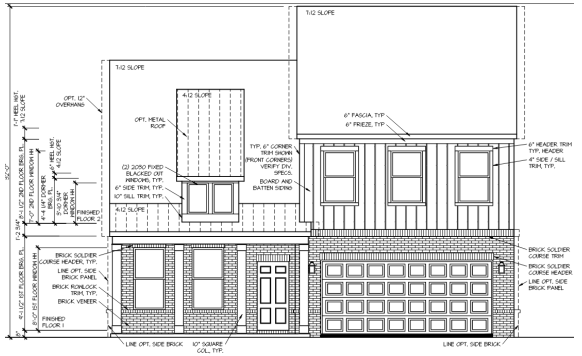
(Optional) Split Garage Doors



(Optional) Full Brick

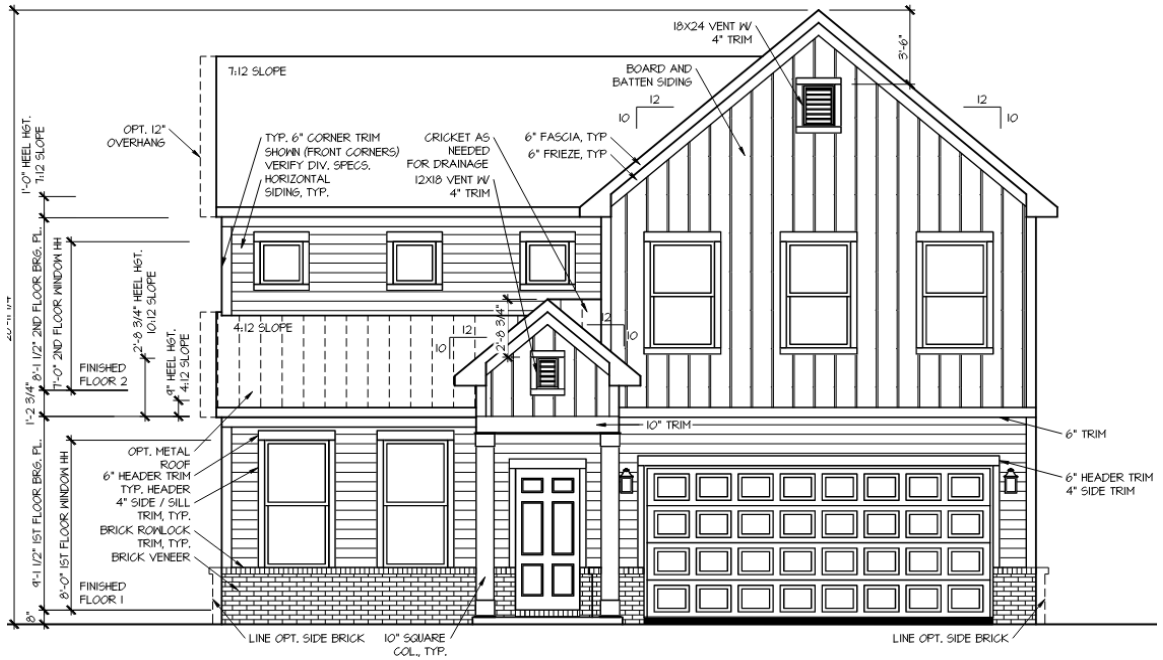


(Optional) Bonus Room



(Optional) First Floor Brick

Bedford (SF) - Elevation #5



Front Elevation #5

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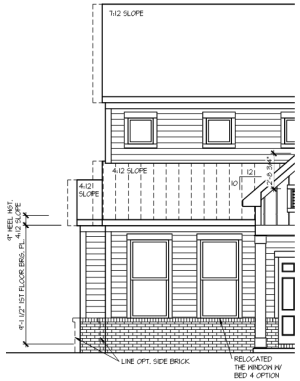
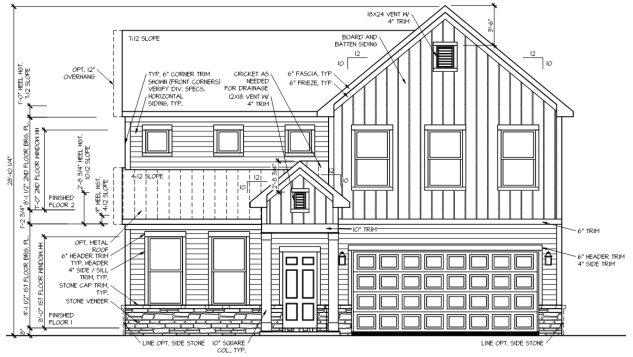
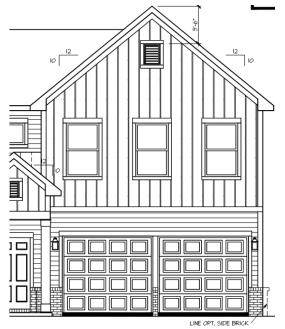


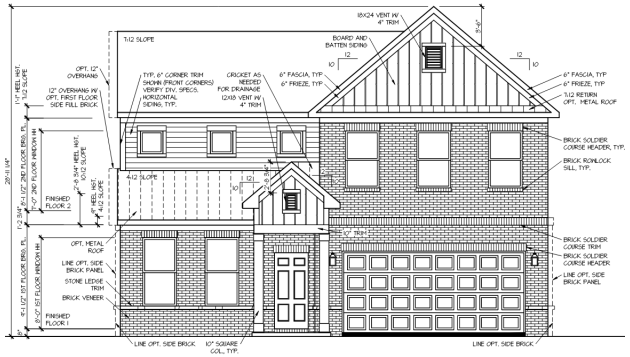
(Optional) Side Bay



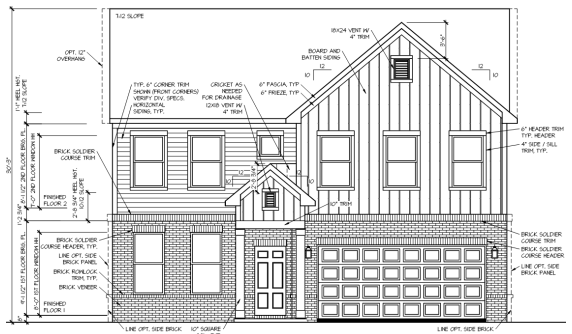
(Optional) Mixed Brick / Stone



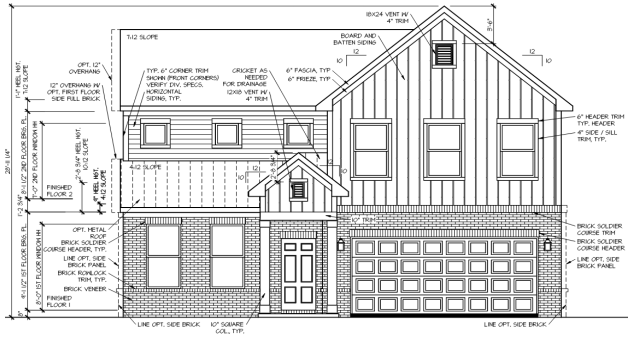
(Optional) Split Garage Doors



(Optional) Full Brick

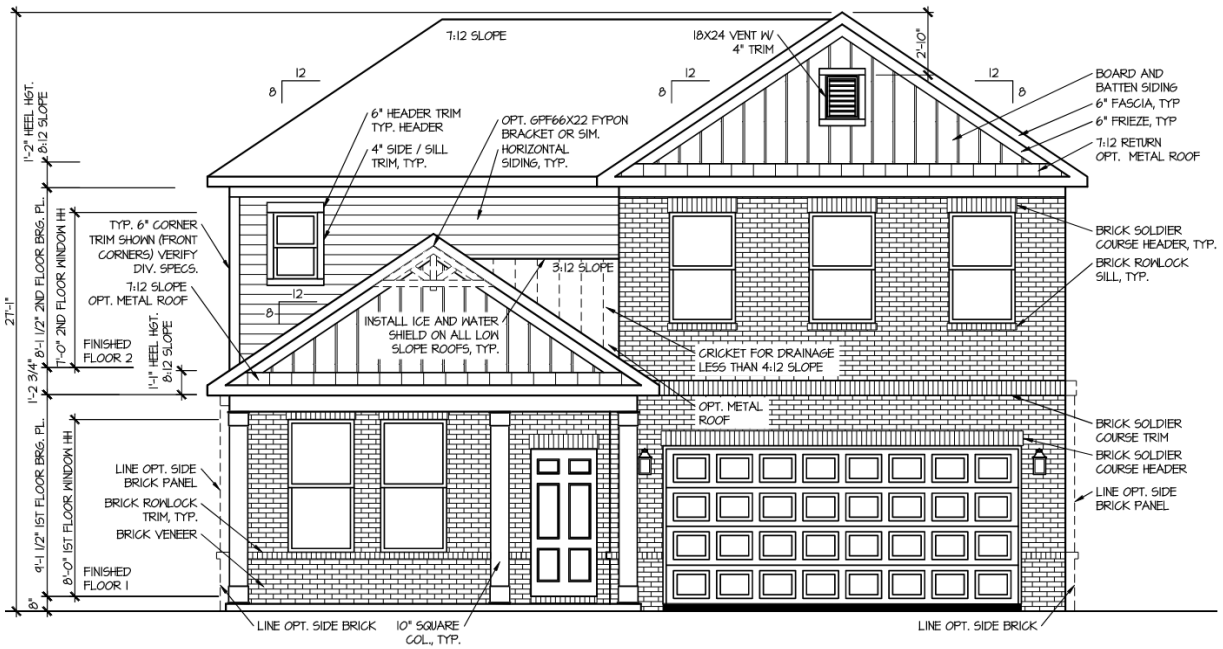


(Optional) Bonus Room

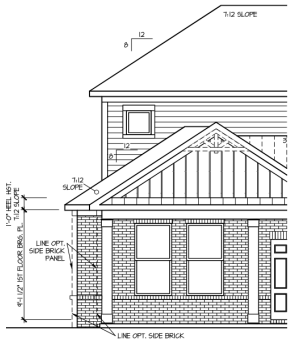


(Optional) First Floor Brick

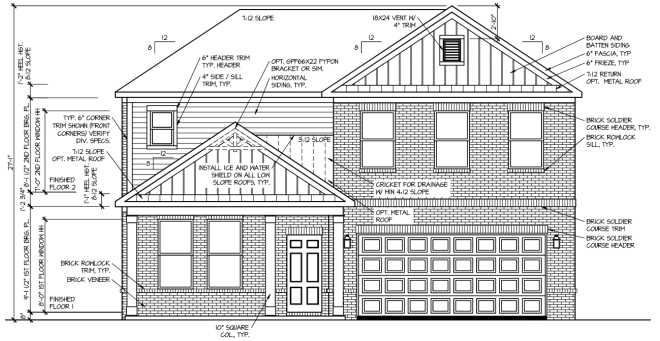
Bedford (SF) - Elevation #6



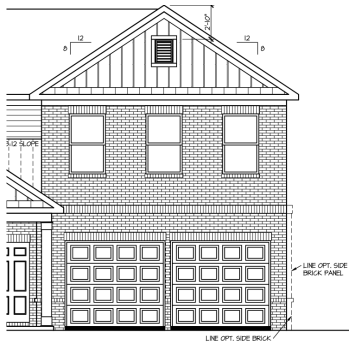
Front Elevation #6



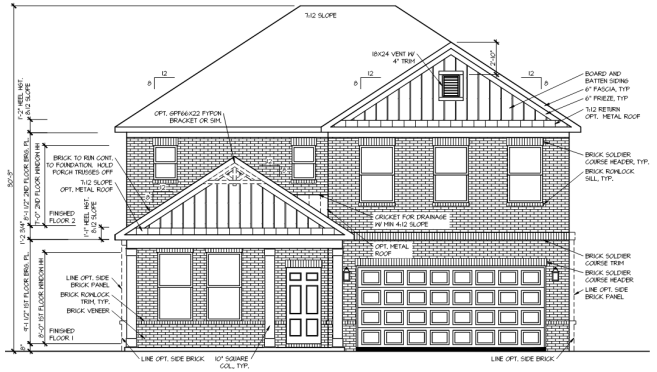
(Optional) Side Bay



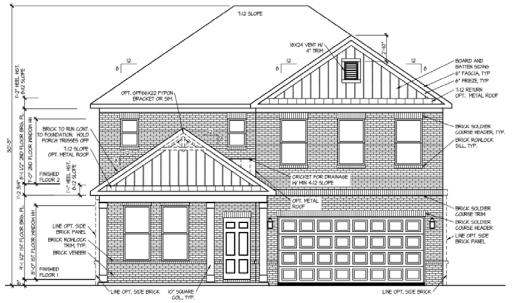
(Optional) Mixed Brick / Stone



(Optional) Split Garage Doors



(Optional) Full Brick



(Optional) Bonus Room

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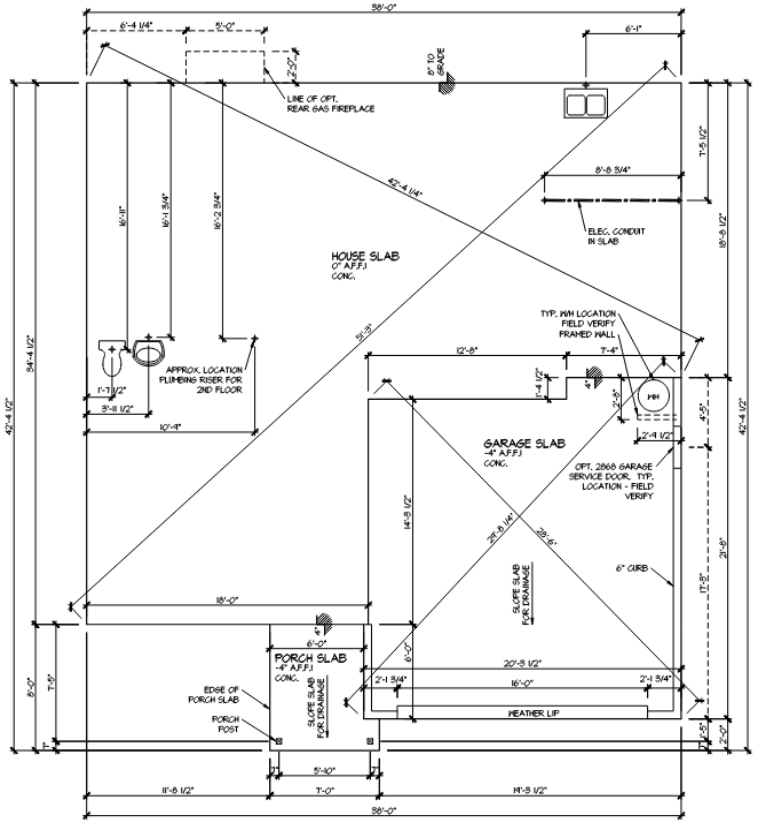
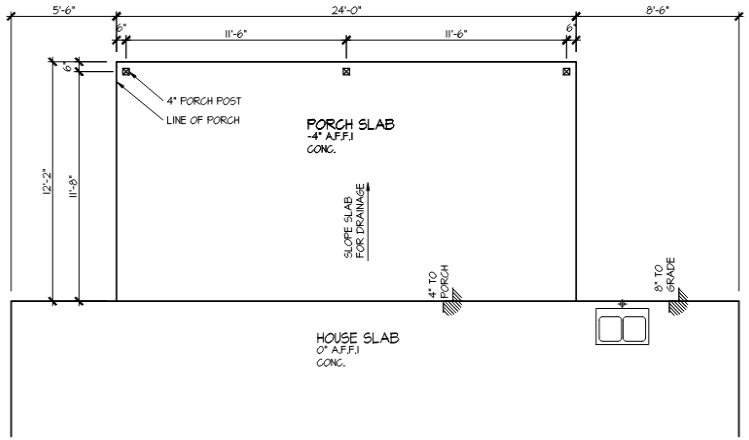
Bedford (SF) - Options

Note: Foundation Plan changes based on elevation and structural options.

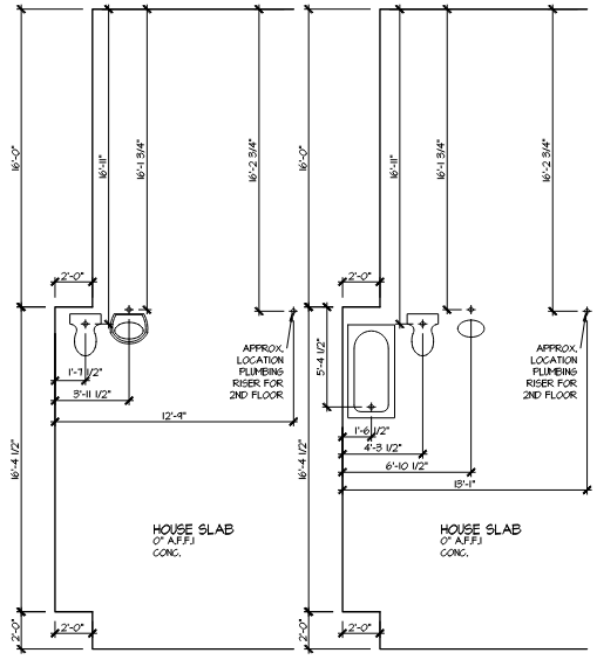
Illustrations shown reflect intended community standards; minor variations may occur. Compliance with the approved pattern book will be determined by the City of Columbia Planning Department.



Foundation

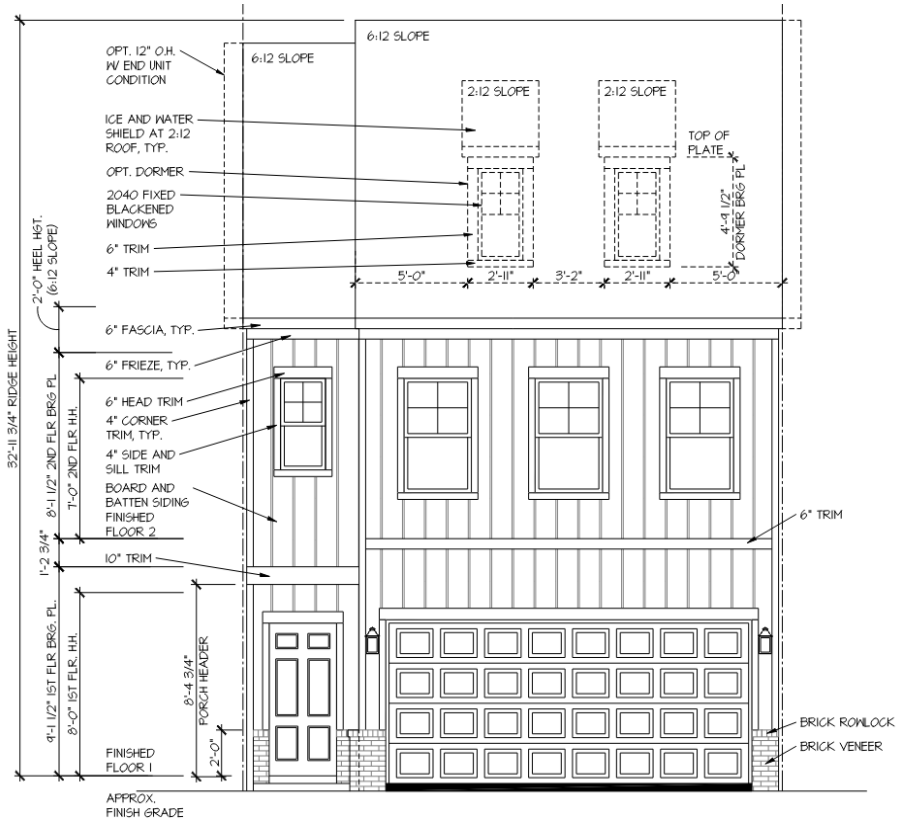


(Optional) Large Rear Porch

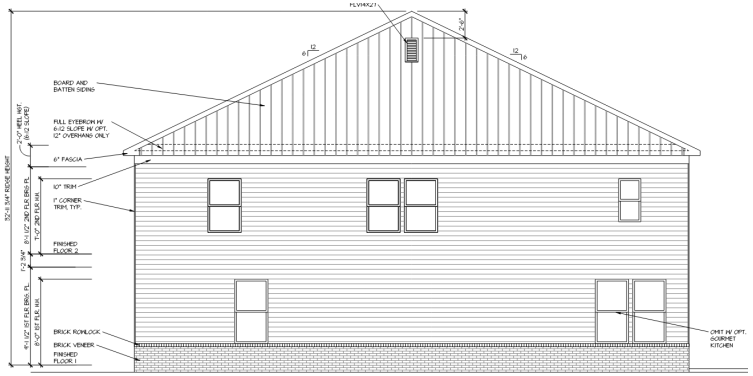


(Optional) Side Bay

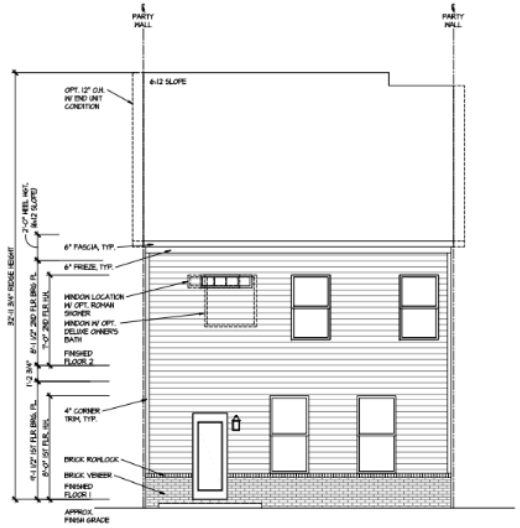
Luca (TH) - Elevation #2



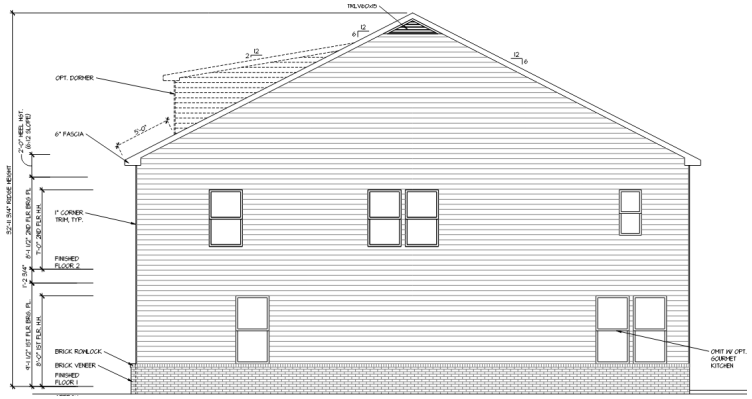
Front Elevation #2



(Optional) High Visibility



Rear Elevation



Side Elevation

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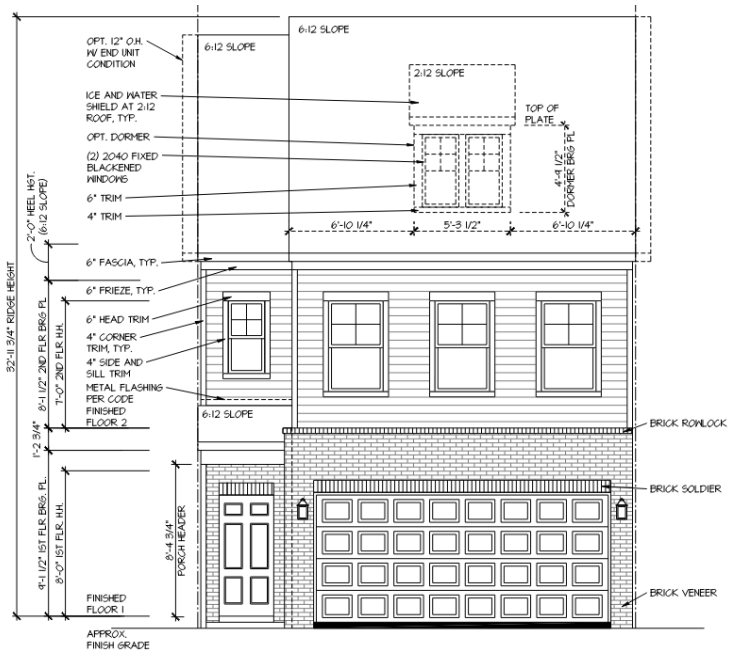
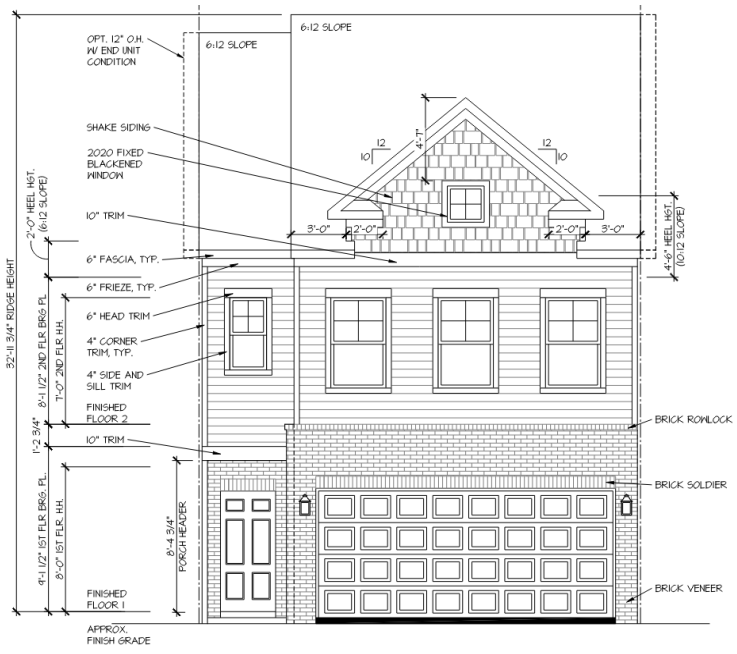
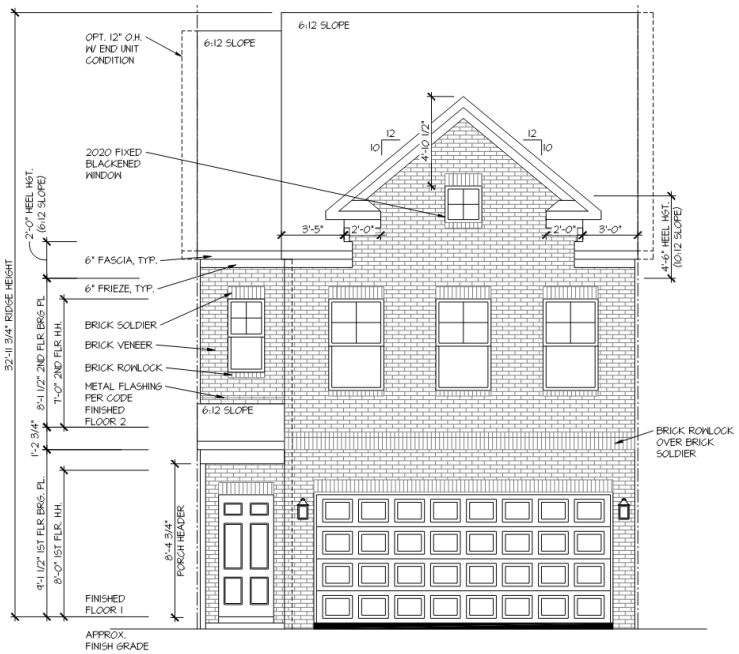
Luca (TH) - Elevation #3-5



Front Elevation #3



Front Elevation #4



Front Elevation #5

**Elevations and configurations shown reflect intended community standards; minor additions, revisions, and variations may occur. City of Columbia Planning Department will determine if the intent of the approved pattern book has been met.*

Luca (TH) - Options

Note: Foundation Plan changes based on elevation and structural options.

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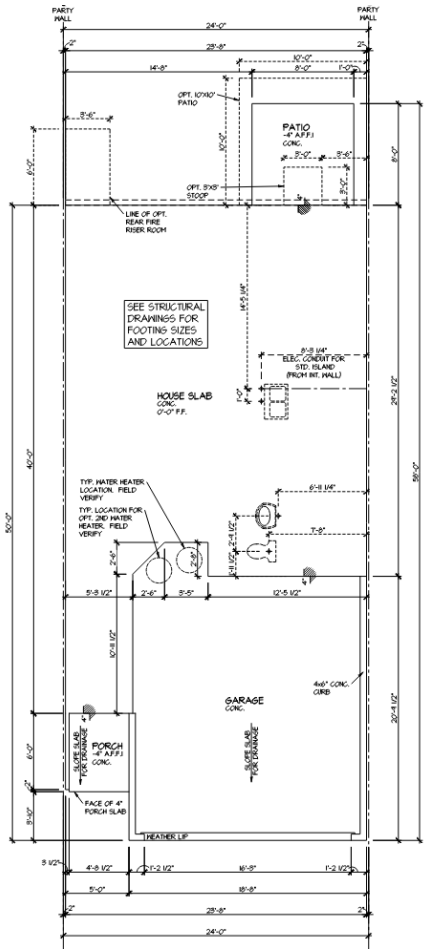
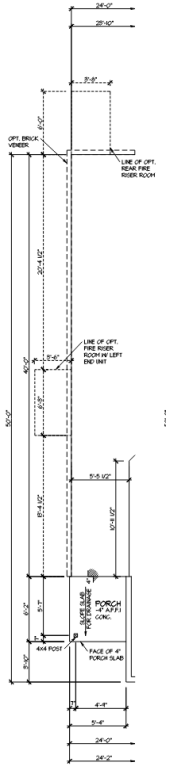
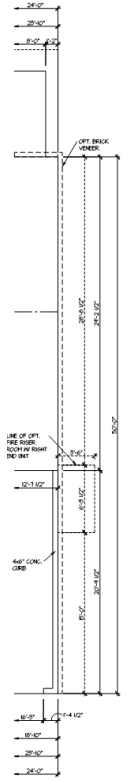


Foundation

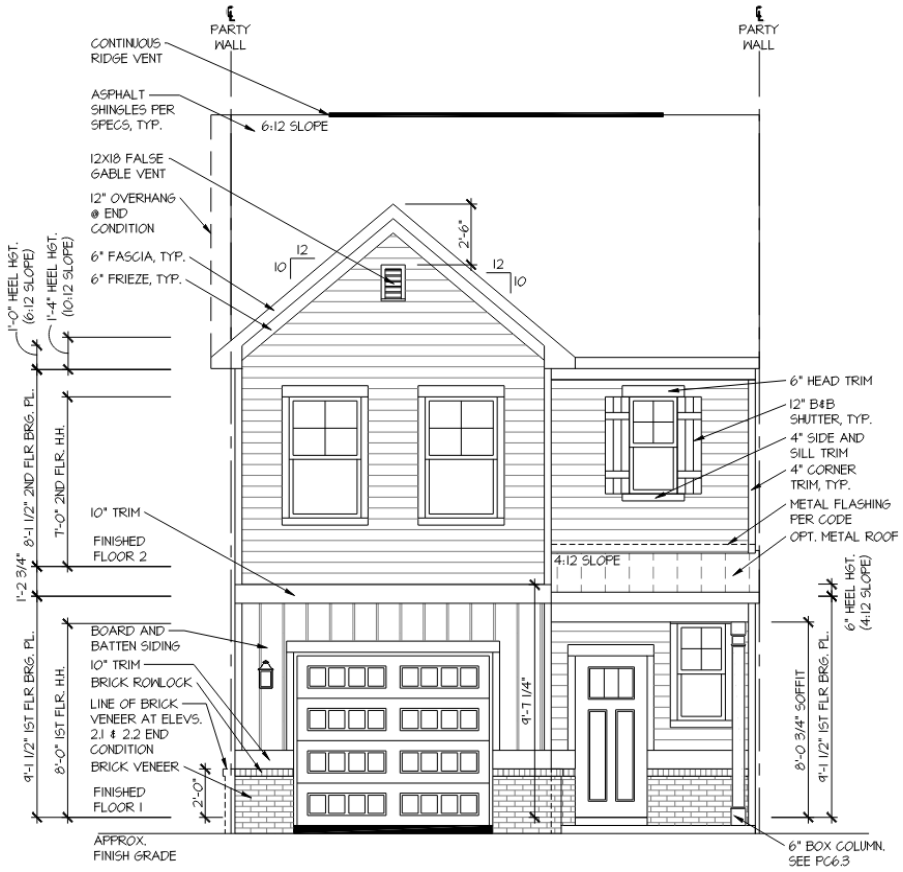


(Optional) Left End Unit

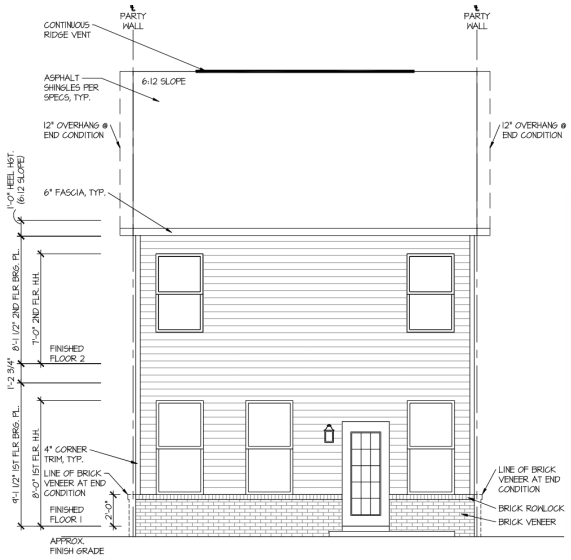


(Optional) Right End Unit

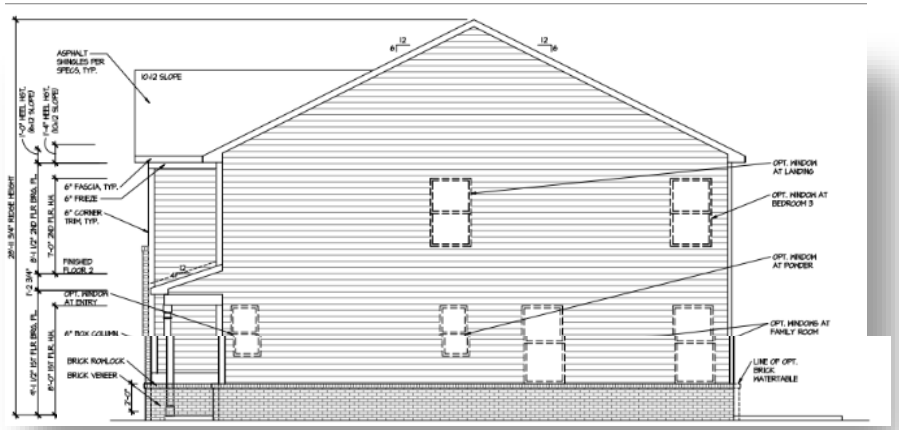
Braden (TH) - Elevation #2



Front Elevation #2



Rear Elevation



Side Elevation

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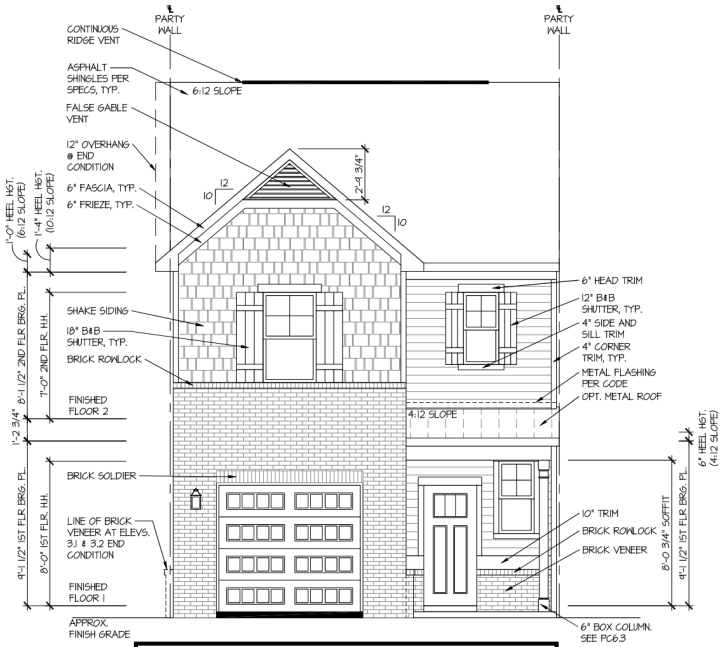
Braden (TH) - Elevation #2.1-4.1



Front Elevation #2.1



Front Elevation #3



Front Elevation #4



Front Elevation #4.1

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Braden (TH) - Options

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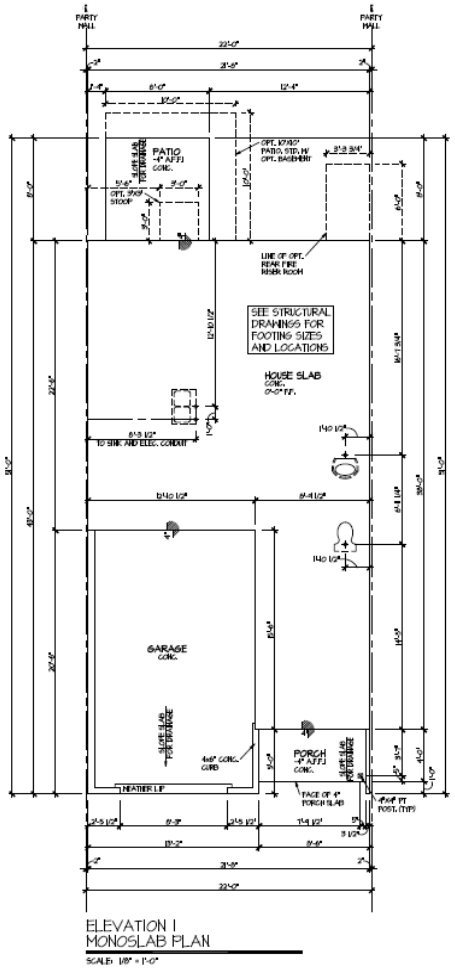
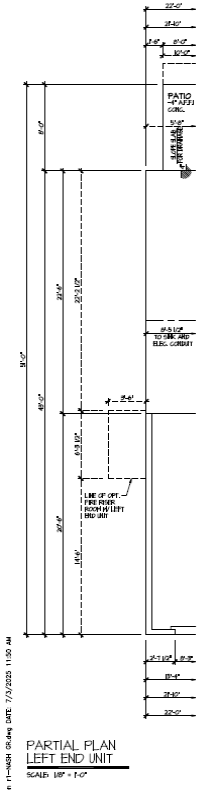
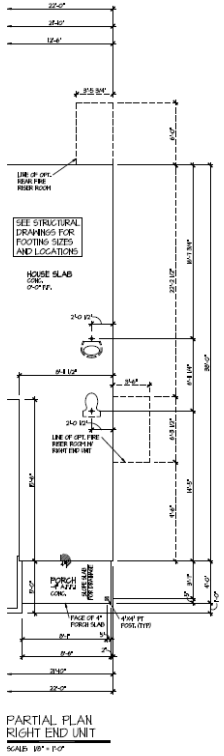


Foundation

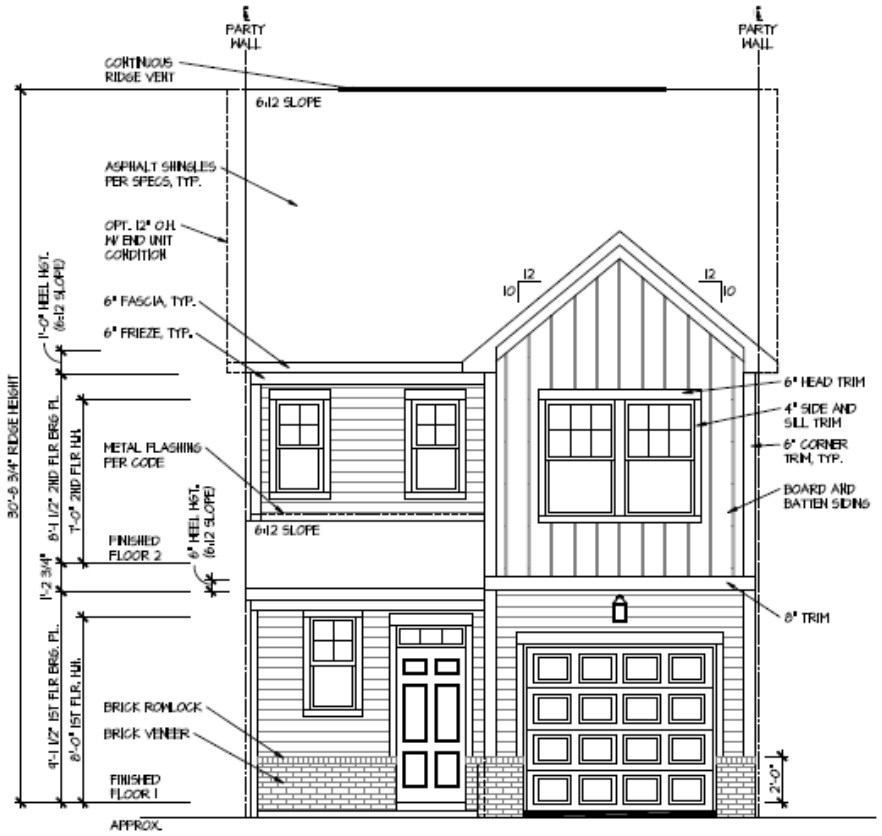


(Optional) Left End Unit

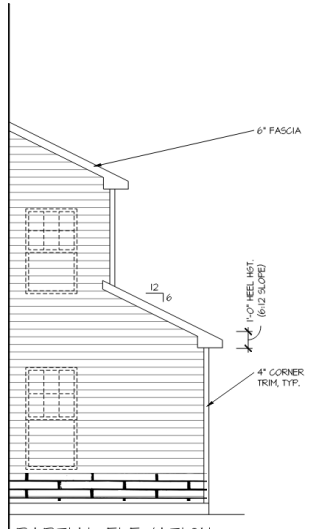


(Optional) Right End Unit

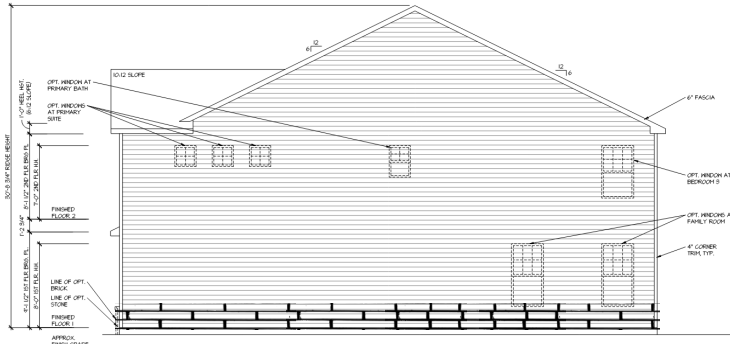
Allister (TH) - Elevation #1



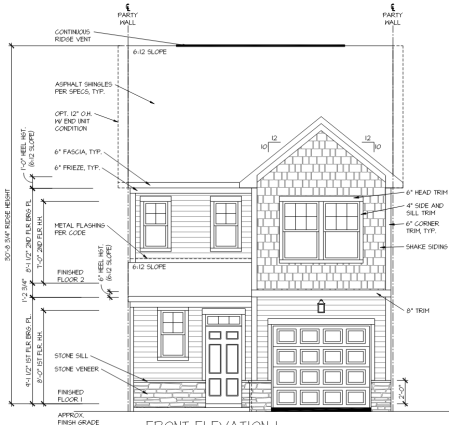
Front Elevation #1



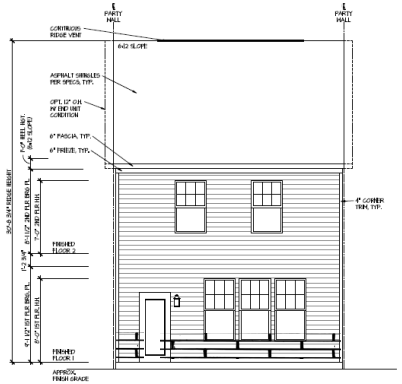
(Optional) Storage Shed



Side Elevation



(Optional) Stone Water Table



Rear Elevation

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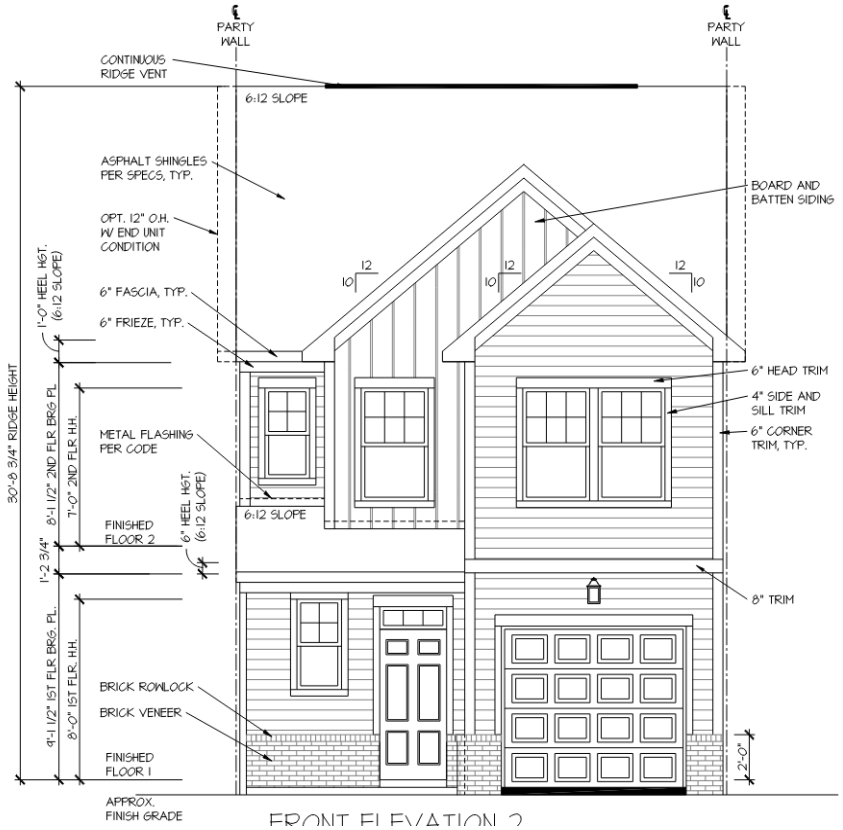
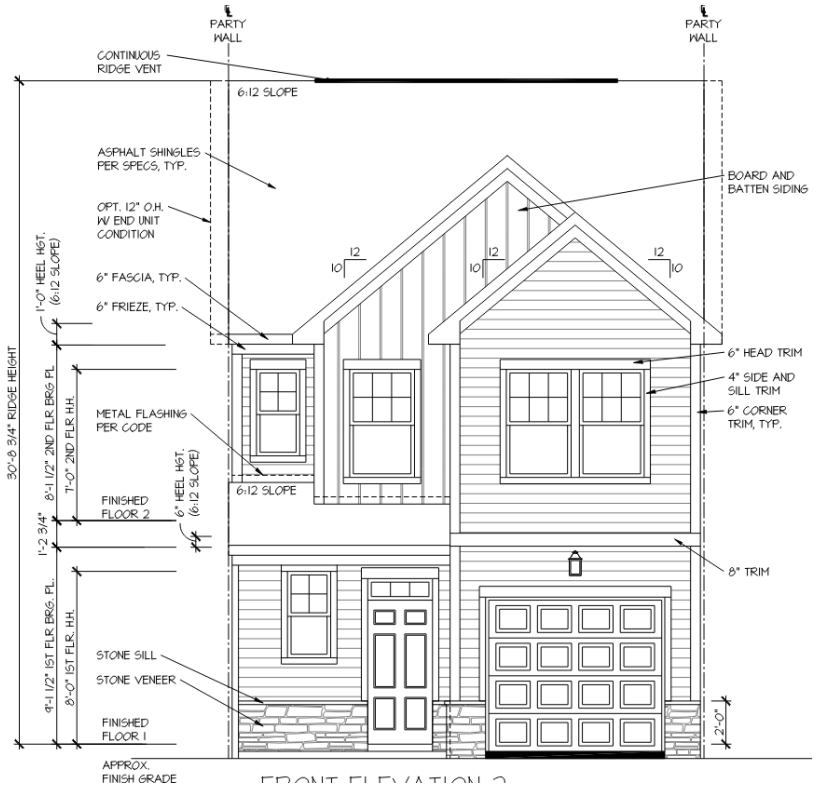
Allister (TH) - Elevation #2



Front Elevation #2



(Optional) Stone Water Table

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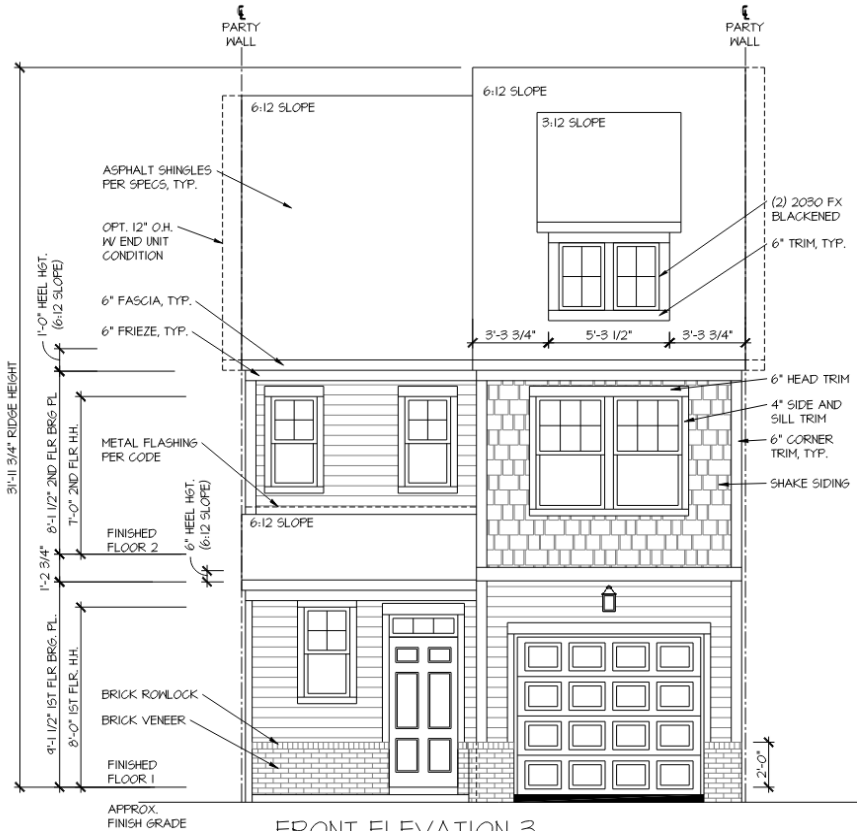
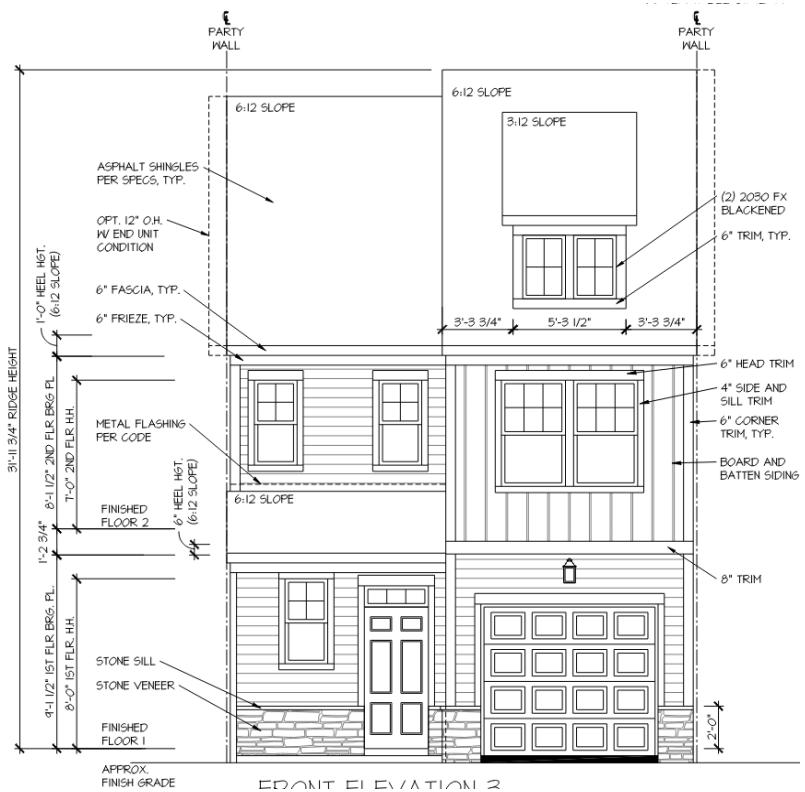
Allister (TH) - Elevation #3



Front Elevation #3



(Optional) Stone Water Table

**Elevations and configurations shown reflect intended community standards; minor additions, revisions, and variations may occur. City of Columbia Planning Department will determine if the intent of the approved pattern book has been met.*

Allister (TH) - Options

Note: Foundation Plan changes based on elevation and structural options.

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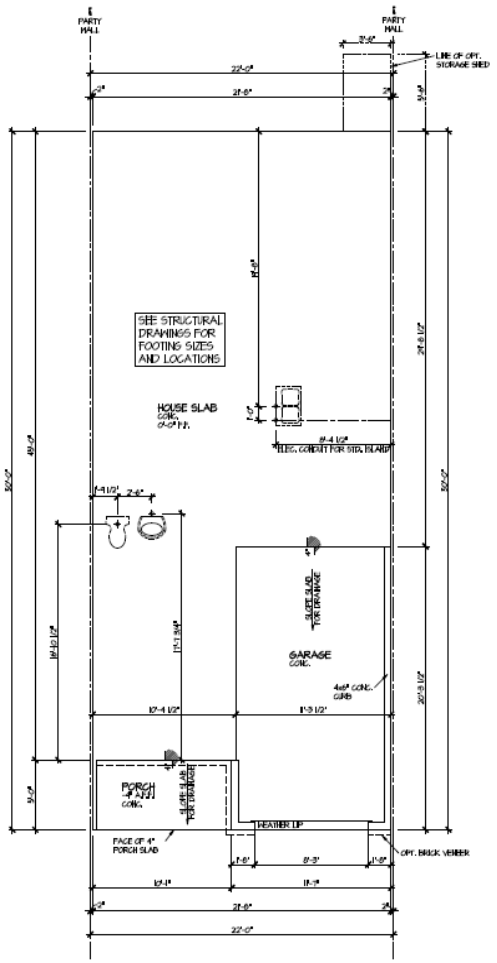
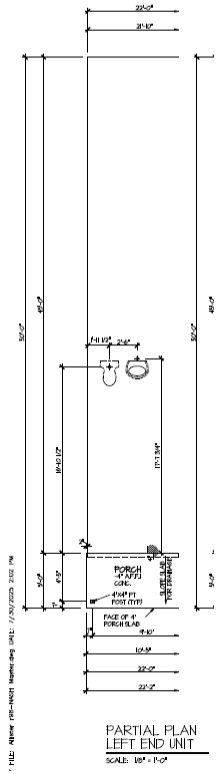
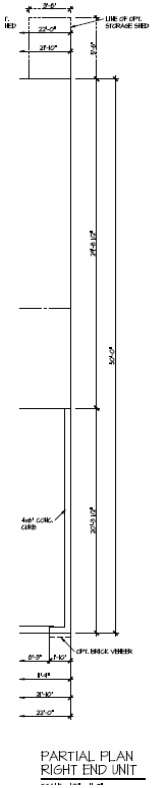


Foundation



(Optional) Left End Unit



(Optional) Right End Unit


DRB
HOMES

DRB Homes – McClure Farms

Pattern Book Resubmittal – 7/20/2026

Revisions Summarized:

- Corrected typo image from the previous pattern book submittal.
- Clarified and provided illustrations for window locations and exterior options.
- Clarified and provided understanding to the pattern book disclaimer.
- Included updated elevations to the approved ‘Luca’ townhome plan.
- Included elevations for the ‘Bedford’ single-family plan, viewed internally as an elevated version of the approved ‘Pelham’ plan.

CITY OF
COLUMBIA
TENNESSEE

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
PHONE: (931) 560-1560
FAX: (931) 560-1541

DEVELOPMENT REVEW COMMITTEE MEETING
Tuesday, July 14, 2026

ITEM NO.
26-0209

DESCRIPTION: 800 S James M. Campbell Boulevard

COMMENTS:

Engineering

1. Final Plat approval shall be subject to filing and recording the plat with the County Register within sixty (60) calendar days after final action. Failure to file and record the plat within sixty (60) calendar days, shall void any final action on the plat.
2. Remove proposed structures from the final plat

Fire

3. No comments

Planning

4. The lead staff person will be Austin Brass, City Planner abrass@columbiatn.gov
5. Upload all responses to comments by resubmittal date.
6. Provide a preliminary plat and a final plat. Preliminary and Final plat needs to reflect the preliminary plat requirements found in the City of Columbia subdivision

7. Please provide as wastewater will serve letter.

Maury County Schools

8. No Comment. Attached are enrollment/capacity numbers.

Public Works

9. Please see the attached City of Columbia Dumpster Guidelines & Accessibility Requirements.
10. Private sanitation services may be utilized.

11. Please see the attached City of Columbia Dumpster Guidelines & Accessibility Requirements. Private sanitation services may be utilized.
12. DUMPSTER GUIDELINES AND ACCESSIBILITY REQUIREMENTS
    DUMPSTER AND COMPACTOR STANDARDS
    GENERAL
    All requirements for collection and accessibility to containers apply, regardless of whether collection is public or private.
    GUIDELINES FOR DUMPSTERS
    The number and capacity of dumpsters must be adequate to serve the disposal needs of the business, development or complex. Collection must occur at least one time per week, with special approval needed for every other week (EOW) collection. Each dumpster must be easily accessible, as determined by the Public Works Department, and of a size compatible with equipment of the department. If the dumpster is in an enclosed area, there must be at least 2 feet and 6 inches of clearance on each side of the dumpster.
    DUMPSTER PAD REQUIREMENTS
    1. The concrete dumpster pad shall be at least 12 feet by 12 feet.
    2. The pad(s) shall be 8-inch-thick concrete, reinforced with rebar to support a 30-ton loadbearing capacity.
    3. A 14-foot-wide by 40-foot-long straight and clear access approach to each dumpster for the truck is required.
    4. Clearance at each side of the dumpster must be at least 2 feet and 6 inches.
    5. If a gated enclosure is utilized, the gates must be lockable in the open position to prevent the gates from swinging into the path of the truck during servicing.
13. 6. Two 6-inch diameter concrete filled steel bollards must be placed in the concrete pad to the rear of each dumpster, 2 feet from the back edge of the dumpster pad, spaced 4 feet apart and centered side to side. The bollards will rise 6 feet above the pad and extend 32 inches below the pad into the concrete footers.
    7. If the box is enclosed, it is recommended that there be pedestrian access in addition to service gates.
    8. Access area, approach and pad must be level.
    9. Standard pads with no drain should be elevated approximately 1-1/2 inches above the surrounding pavement.
    ACCESSIBILITY REQUIREMENTS FOR DUMPSTERS AND COMPACTORS
    1. Access must accommodate a 40-foot-long truck, with a 45-foot turning radius. Circular movement through the complex for the vehicles is highly recommended.
    2. The collection truck shall not be required to back-up for no more than 200 feet.
    3. No backing into or across a public right-of-way.
    4. No overhead obstructions at waste handling or access area. Refuse collection trucks need a minimum of a 25-foot vertical clearance to service containers.
    5. Heavy duty pavement is required for the collection truck's path through the complex. City of Columbia Public Works will not be responsible for the repair of asphalt or concrete which has been damaged due to normal usage.
    6. Gates must be unlocked and open for collection.

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700 NORTH GARDEN STREET
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ATT

14. No comment.

Columbia Water

15. July DRC Comment: A water availability letter was issued on June 18, 2026, it remains valid until December 18, 2026. The availability
of capacity to serve is based on a determination by the Fire Marshal of fire flow requirements and the
information submitted on the Water Service Availability Request application. Any off-site improvements detailed in
the availability letter are the responsibility of the developer/owner. All public water system improvements are subject to
the preparation and approval of detailed construction plans prepared in accordance with CPWS and Tennessee
Department of Environment and Conservation requirements.
(Access and Circulation)

City Attorney

16. No comments provided.

Police

17. No comments provided.

Building

18. No comments.

Columbia Power

19. Columbia Power System has an existing power line near your proposed development. We are willing to serve this new development subject to all Columbia Power System policies and procedures in effect at actual time service is rendered provided an approved final plat and complete electrical load information is furnished as soon as possible prior to start of actual construction. Unfortunately, due to current supply chain challenges, no timeframe can be guaranteed regarding the availability of meters or transformers appropriate for your development.

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Duck River Electric Membership Corp

20. No comment.

Maury County Highway Dept.

21. No comment.

Atmos Energy

22. No comments provided.

Maury County E911

23. No comments provided.

Resubmittal Guidelines

Please provide a comment response letter as well as digital copies of revised plans and supporting documentation. Submit all required documents electronically through the online portal: columbia.onlama.com. If the files are oversized, please provide a file sharing link.

Please contact the case planner identified in the Planning Comments with any questions about the review process.

Please contact pkeltner@columbiatn.gov or srichardson@columbiatn.gov if you encounter difficulties with the online portal.

You will receive an invoice for required advertising and mailing fees. All fees must be paid by the Friday following resubmittal in order advance to the Planning Commission agenda.

NOTE: All resubmittals must demonstrate compliance with city standards prior to Planning Commission review. Requests which do not adhere to regulations and/or remain unresponsive to technical comments will not be forwarded to the next agenda until such items are amended. Final Plat applications which are not ready to proceed to Planning Commission following the first resubmittal deadline will be added to the following DRC agenda to confirm the status of required infrastructure and utilities. Applications which remain incomplete following two resubmittal deadlines will be closed.

BY-LAWS OF THE CITY OF COLUMBIA, TENNESSEE
MUNICIPAL PLANNING COMMISSION

ARTICLE I. THE COMMISSION

Section 1. Name of Commission. The name of the commission shall be "City of Columbia Municipal Planning Commission" as provided for in T.C.A. §13-4-101, et. seq. and Columbia Municipal Code Sections 14-101 and 14-102.

Section 2. Office of Commission. The office of the commission shall be at the city hall, or such other duly authorized place where the official records of the planning commission shall be maintained and where the commission shall meet.

Section 3. Membership. The membership of this commission shall be composed of five citizen members, the mayor of municipality or a person designated by the mayor, and one member of the legislative body of the municipality selected by such legislative body.

All citizen members shall be appointed by the mayor for three year terms with the term of one member and not more than two members expiring each year.

Section 4. Vacancies. Any vacancy in an appointive membership shall be filled for the unexpired term by the mayor, who shall also have the authority to remove any citizen member at his pleasure.

ARTICLE II. OFFICERS

Section 1. Officers. The officers of the commission shall be a Chairman, Vice-Chairman, and a Secretary.

Section 2. Elections. The Chairman, Vice-Chairman, and Secretary shall be elected at the annual meeting of the planning commission. The Chairman of the planning commission shall be elected as provided by T.C.A. §13-4-102. All elected officials of the commission shall serve for a term of one year and shall be eligible for re-election. The commission may elect a member of city staff to serve as the Secretary.

Section 3. Duties of Officers. The duties and powers of the officers of the commission shall be as follows:

a. Chairman:

1. To preside at all meetings of the commission.
2. To call special meetings of the commission in accordance with these By-Laws.
3. To sign documents of the commission.
4. To see that all actions of the commission are properly taken.

5. The Chairman shall exercise his voice and vote as a member of the commission.

b. Vice-Chairman:

During the absence, disability or disqualification of the Chairman, the Vice-Chairman shall exercise or perform all the duties and be subject to all the responsibilities of the Chairman.

c. Secretary:

1. To keep the minutes of all meetings of the commission in an appropriate Minute Book.
2. To give or serve all notices required by law or by these By-Laws.
3. To prepare the agenda for all meetings of the commission.
4. To be the Custodian of commission records.
5. To inform the commission of correspondence relating to business of the commission and to attend to such correspondence.
6. To handle funds allocated to the commission in accordance with its directives, the law, and city regulations.
7. To sign official documents of the commission.
8. In the absence of both the Chairman and Vice-Chairman the Secretary shall call the meeting to order and the commission shall elect a Chairman Pro-Tempore to serve as chair for that meeting.

Section 5. Vacancies. Should the office of Chairman, Vice-Chairman, or Secretary become vacant, the commission shall elect successors to these positions. The newly elected Chairman, Vice-Chairman, or Secretary shall serve for the unexpired term of said office.

ARTICLE III. MEETINGS

Section 1. Regular Meetings. Regular meetings of the commission shall be held monthly at a place and time designated by the Chairman.

Section 2. Annual Meetings. The annual meeting of the City of Columbia Municipal Planning Commission shall be held at a place and time designated by the Chairman. The purpose of this annual meeting shall be as follows:

A. Election of Officers. The election of officers to the planning commission shall be held at the annual meeting in the manner provided under Article II, Section 2.

B. Report of Progress. It shall be the responsibility of the Chairman to present or have presented at the annual meeting a report on planning commission activities during the preceding year.

Section 3. Special Meetings. The Chairman of the commission may, (and shall, upon request of two (2) members) call a special meeting of the commission for the purpose of transacting any business. Five (5) days notice of the meeting shall be given to members of the commission.

Section 4. Quorum. Four members as defined in Article I, Section 3 shall constitute a quorum for the purpose of conducting the business of the commission. In the absence of a quorum, a lesser number can adjourn meetings from time to time. Matters before the commission shall be decided by a majority of the members present if a quorum is constituted, except for an amendment to the by-laws, requests for annexations, and amendments to the comprehensive land use plan. Amendments to the by-laws shall be handled according to Article V. herein. Requests for annexations and amendments to the comprehensive land use plan shall require four (4) concurring votes for a positive recommendation.

Section 5. Manner of Voting. At all meetings of the commission, each member attending shall be entitled to cast one vote. The voting on all questions coming before the commission shall be by roll call, and the ayes and noes shall be entered upon the minutes of such meeting; except that when the vote of all commissioners present is unanimous, the record of such unanimous vote shall be sufficient.

Section 6. Conflict of Interest. Should the question of a conflict of interest be raised on the part of any member concerning another member, it shall be the privilege of a majority vote of the commission or a quorum thereof, after obtaining a full disclosure relating to said interest, to determine whether or not the said facts should prelude participation in said matter as a member.

Section 7. Proceedings. At any regular meeting of the planning commission, the following shall be the regular order of business:

1. Call to Order
2. Roll Call
3. Welcome and Rules of Conduct
4. Communications
5. Minutes
6. Review of Sureties
7. Requested Action Items
8. Other Business
9. Public Comments
10. Adjournment

Each formal actions of the planning commission required by law, city charter, rule or regulation shall be embodied in a formal resolution duly entered in full upon the Minute Book after an affirmative vote as provided in Article II thereof.

ARTICLE IV. RULES OF ORDER

Section 1. Rules of Order. When a parliamentary matter arises that is not covered by state law, municipal code, or the by-laws of the planning commission, the commission shall be guided by Roberts Rules of Order. Roberts Rules of Order is intended to be used by the commission to ensure the orderly flow of meetings and shall not be used in a manner that would conflict with or supersede any provision of state law, the municipal code, zoning ordinances, or other rules, regulations, or standards of the City of Columbia.

ARTICLE V. AMENDMENTS

Section 1. Amendments. The By-Laws of this commission may be amended at regular or special meetings, but no amendment shall be adopted unless at least five (5) days notice thereof has been previously given to all members of the planning commission. A favorable vote of five (5) members shall be required to effect a change in these By-Laws.