CITY OF COLUMBIA
TENNESSEE

AGENDA

The Columbia Municipal Planning Commission will meet on **Tuesday, October 15, 2024** 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. Consent

1. Request from WES Engineers & Surveyors for Final Plat approval with surety in the amount of $550,000 for Honey Farm PUD Phase 1B consisting of 100 townhome lots, easements and open space at Tax Map 51 Parcel 58.02 off Honey Farm Way and Wildflower Road.

Documents:

1. 24-0361_Final Plat_09-16-2024
2. 24-0361_Response to DRC Comments_09-16-2024
3. 24-0361_DRC Comments_09-10-2024
4. 24-0361_Final Plat_08-19-24
5. 24-0361_Development Agreement_08-19-2024
6. 24-0361_Submittal Letter_08-19-2024

7. 24-0361_Application_08-19-2024

2. Request from TKC Architecture & Engineering LLC for Final Plat approval for a revision to open space in Bear Creek Overlook Phase 1 off Bear Creek Pike.

Documents:

1. 24-0357_Final Plat_09-16-2024
2. 24-0357_ Amenity Site Plan_09-16-2024
3. 24-0357_Response to DRC Comments_09-16-2024
4. 24-0357_DRC Comments_09-10-2024
5. 24-0357_Final Plat_08-19-2024
6. 24-0357_Development Agreement_08-19-2024
7. 24-0357_LTMP Agreement Recorded_08-19-2024
8. 24-0357_Project Letter_08-19-2024
9. 24-0357_Application_08-19-2024

III. Discussion Items

1. Request from Louis Sloyan for Preliminary Plat and Site Development Plan for Oakwood Subdivision consisting 104 lots at 200 Oakwood Drive being Tax Map 89 Parcel 21.
THIS ITEM WAS DEFERRED FROM A PREVIOUS AGENDA

Documents:

1. 24-0239_200 Oakwood_SD_PP_Staff Report_
2. 24-0239_Oakwood Subdivision SDP_07-15-2024
3. 24-0239_Oakwood Subdivision PP_07-15-2024
4. 24-0239_Response to DRC Comments on SDP_07-15-2024
5. 24-0239_Response to DRC Comments on PP_07-15-2024
6. 24-0239_DRC Comments_06-11-2024
7. 24-0239_Preliminary Plat_05-20-2024
8. 24-0239_Site Development Plan_05-20-2024
9. 24-0239_Building Elevations_05-20-2024
10. 24-0239_WOTUS Delineation-HD Report_05-20-2024
11. 24-0239_Traffic Study_05-20-2024
12. 24-0239_ALTA_05-20-2024
13. 24-0239_Water Availability Letter_05-20-2024
14. 24-0239_Sewer Availability_05-20-2024
15. 24-0239_Submittal Letter_05-20-2024
16. 24-0239_Application_05-20-2024

2. Request from Allen O'Leary for revision to a previously approved Final Plat for Preserve at Drumwright PUD Phase 1 Open Space 7 off Greens Mill Road at Tax Map 51J Group A Parcel 74.

   Documents:

   1. 24-0362_Final Plat_9-26-24
   2. 24-0362__Final Plat_09-16-2024
   3. 24-0362_Response to DRC Comments_09-16-2024
   4. 24-0362_DRC Comments_09-10-2024
   5. 24-0362_Final_Plat_08-19-2024
   6. 24-0362_Development Agreement_08-19-2024
   7. 24-0362_Submittal Letter_08-19-2024
   8. 24-0362_Application_08-19-2024

3. Request from TKC Architecture & Engineering LLC for Final Plat approval with surety in the amount of $195,000 for Horizon Park Subdivision consisting of 15 lots on 7.97 acres off Mooresville Pike at Tax Map 114 Parcel 18. This development is subject to a vested right established under a previous zoning ordinance.

   Documents:

   1. 24-0359_Final Plat_09-13-2024
   2. 24-0359_Response to DRC Comments_09-13-2024
   3. 24-0359_DRC Comments_09-10-2024
   4. 24-0359_Final Plat_08-19-2024
   5. 24-0359_LTMP_08-19-2024
   6. 24-0359_Development Agreement_08-19-2024
   7. 24-0359__Owners Consent_08-19-2024
   8. 24-0359_Submittal Letter_08-19-2024
   9. 24-0359_Application_08-19-2024

4. Request from Steven Saenz for Alternative Compliance approval for property at 115 S. James M. Campbell Blvd., being Tax Map 113E Group B Parcel 4 regarding architectural design standards listed in Table 4.3.1.E of the Zoning Ordinance.

   Documents:

   1. 24-0373_Elevations_09-16-2024
   2. 24-0373_Floor Plan_09-16-2024
   3. 24-0373_Site Plan_09-16-2024

4. 24-0373_DRC Comments_09-10-2024
5. 24-0373_Color Elevations_08-19-2024
6. 24-0373_Floor Plans_08-19-2024
7. 24-0373_Site Plan_08-19-2024
8. 24-0373_Submittal Letter_08-19-2024
9. 24-0373_Application_08-19-2024

5. Request from Ashley Hughes for Preliminary and Final Plat approval for a two lot subdivision at Walters Street and Eighth Avenue, being Tax Map 90I Group C Parcel 4.03.

Documents:

1. 24-0369_Final Plat with Highlights_09-16-2024
2. 24-0369_WW Will Serve Letter_09-16-2024
3. 24-0369_Response to DRC Comments_09-16-2024
4. 24-0369_DRC Comments_09-10-2024
5. 24-0369_Final Plat w/ topography_08-19-2024
6. 24-0369_Preliminary Plat_08-19-2024
7. 24-0369_Sewer Availability Letter_08-19-2024
8. 24-0369_Water Availability Email_8-23-2024
9. 24-0369_Fire Flow_08-19-2024
10. 24-0369_Submittal Letter_08-19-2024
11. 24-0369_Application_08-19-2024

6. Request from WES Engineers & Surveyors for Preliminary and Final Plat approval for three lots at 408 and 410 Hatcher Lane, being Tax Map 100L Group M Parcels 26 and 27.

Documents:

1. 24-0363_Final Plat_09-16-2024
2. 24-0363_Preliminary Plat_09-16-2024
3. 24-0363_Deed_09-16-2024
4. 24-0363_Response to DRC Comments_09-16-2024
5. 24-0363_DRC Comments_9-11-2024
6. 24-0363_Final Plat_08-19-2024
7. 24-0363_Preliminary Plat_08-19-2024
8. 24-0363_Development Agreement_08-19-2024
9. 24-0363_Checklist_08-19-2024
10. 24-0363_Application_08-19-2024

7. Request from Crunk Engineering, LLC for a revision to the StorPlace Preliminary PUD Master Plan off Leafcutter Bee Road and Honey Farm Way at Tax Map 51 Parcel 58.03.

   Documents:

   1. 24-0313_PUD Master Plan_09-16-2024
   2. 24-0313_Elevations_09-16-2024
   3. 24-0313_Recorded Access-Parking Easement_09-16-2024
   4. 24-0313_Response to DRC Comments_09-16-2024
   5. 24-0313_Deferral Email_8-19-2024
   6. 24-0313_DRC Comments_2024-08-16
   7. 24-0313_Zone Map
   8. 24-0313_Master Plan_07-15-2024
   9. 24-0313_Building Elevations_07-15-2024
   10. 24-0313_Submittal Letter_07-15-2024
   11. 24-0313_Wastewater Availabilty_07-15-2024
   12. 24-0313_Water Availability Letter_07-15-2024
   13. 24-0313_Fire Flow_07-15-2024
   14. 24-0313_Application_07-15-2024

8. Request from Adam Crunk for Preliminary Plat and Site Development Plan of Carters Station West, formerly known as Carters Station North, consisting of 399 lots off Cleburne Road, as well as a 6.93 acre commercial property. The parent parcel of the subject property is Tax Map 41 Parcel 15.

   Documents:

   1. 24-0377_Preliminary Plat_09-16-2024
   2. 24-0377_Amenity Elevations_09.16.24
   3. 24-0377_Amenity Floor Plan_09.16.24
   4. 24-0377_Response to DRC Comments_09-16-2024
   5. 24-0377_DRC Comments_9-10-2024
   6. 24-0377_Water Availability Letter_09-12-2024
   7. 24-0377_WW Will Serve_09-10-2024
   8. 24-0377_Preliminary Plat_08-19-2024
   9. 24-0377_Checklist_08-19-2024
   10. 24-0377_Application_08-19-2024

9. Request from Gerald Vick for Preliminary Plat and Site Development Plan approval of Woodward Estates consisting of 12 lots on 12.55 acres off Rutherford Lane at Tax Map 101 Parcel 36.06.

Documents:

1. 24-0370_Preliminary Plat-Dev Plan_9-16-24
2. 24-0370_Response to DRC Comments_09-16-2024
3. 24-0370_DRC Comments_09-10-2024
4. 24-0370_Preliminary Plat_08-19-2024
5. 24-0370_Survey_08-19-2024
6. 24-0370_Water Availability Letter_08-19-2024
7. 24-0370_Fire Flow_08-19-2024
8. 24-0370_PP Checklist_08-19-2024
9. 24-0370_SD Checklist_08-19-2024
10. 24-0370_Cover Letter_08-19-2024
11. 24-0370_Application_08-19-2024

10. Request from Allen O'Leary for Preliminary and Final Plat approval for a commercial three lot subdivision at Tax Map 89 Parcel 41.14 off N. James M. Campbell Blvd.

Documents:

1. 24-0365_Final Plat_09-16-2024
2. 24-0365_Preliminary Plat_09-16-2024
3. 24-0365_Concept_09-16-24
4. 24-0365_Deed_09-16-2024
5. 24-0365_Checklist_09-16-2024
6. 24-0365_Response to DRC Comments_09-16-2024
7. 24-0365_DRC Comments_9-10-2024
8. 24-0365_Final Plat_08-19-2024
9. 24-0365_Development Agreement_08-19-2024
10. 24-0365_Application_08-19-2024

IV. Other Business

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.

Organization

Item I.1. - **Call to Order**

Chairman Charlie Goatz called the September Planning Commission Meeting for the City of Columbia to order at 4:00 P.M. The meeting was held in Council Chambers at City Hall.

Item I.2. - **Roll Call**

Planning Commission Chairman Charlie Goatz; Planning Commission Member Councilman Danny Coleman; Planning Commission Member Dr. Christa Martin; Planning Commission Member Mayor Chaz Molder; Planning Commission Member James Shannon; Planning Commission Member James Sloan.

Absent Was: Planning Commission Member Nancy Williams.

Other Attendees: Mr. Robert Archibald, Planner II; Mr. Austin Brass, Principal Planner; Mr. Paul Keltner, Director of Development Services; Tony Massey, City Manager; Mr. Kevin McCarthy, City Planner; Mrs. Sandra Richardson, Recording Secretary; Mrs. Melissa Sanders, Planner I; Mr. Douglas Toney, Assistant City Engineer.

Item I.3. - **Welcome of Visitors/Rules of Conduct**

Chairman Charlie Goatz asked for a moment of silence to reflect on 9-11, and then he welcomed guests and applicants to the meeting. The Chairman discussed the meeting order and the process for speakers to be heard.

Item I.4. - **Acknowledgement of Official Communications of the Columbia City Council on Annexation and Zoning.**

Mr. Paul Keltner gave the details of the Official Communications of the Columbia City Council on Annexation and Zoning. There were ten ordinances that passed on first consideration. He also discussed one amendment.

Item I.5. - **Approval of Minutes**

Chairman Charlie Goatz stated that the Commission has two sets of minutes. Mayor Molder moved to approve the August 2024 Planning Commission minutes, and Mr. Shannon seconded. The motion to approve the August 2024 minutes passed six to zero. Mayor Molder moved to approve the Planning Commission minutes for the September 4th called meeting, and Mr. Shannon seconded the motion. The motion to approve the September 4th minutes passed six to zero.

Item I.6. - **Review of Bonds and Letters of Credit**

Mr. Douglas Toney, Assistant City Engineer stated that all Bonds and Letters of Credit are in order, or in the process of being updated.

Consent

Mr. Goatz read all three consent items.

Item II.1. - **Request from Allison Corolla for Final Plat approval with surety in the amount of $175,000 for Quail Run Meadows Subdivision Phase 5 consisting of 27 lots at Tax Map 73 Parcel 17.03 off Quail Run Way.**

Chariman Goatz moved to approve Consent Items II.1, II.2, and II.3, subject to any technical comments. The motion to approve subject to any technical comments passed six to zero for all three items.

Item II.2. - **Request from WES Engineers & Surveyors for Final Plat approval with surety in the amount of $130,000 for Honey Farm Townhomes Phase 1A consisting of 18 lots, easements, and open space located off Honey Farm Way and Nectar Lane at Tax Map 51 Parcel 58.02.**

Item II.3. - **Request from Allen O'Leary for Final Plat approval with surety for $1,900,000 of The Preserve at Drumwright Phase 2 PUD subdivision consisting of 43 single-family lots with the dedication of right-of-way off Williams Ridge Road, being a portion of Tax Map 51 Parcel 34.00 and 34.01.**

Discussion Items

Item III.1. - **Request from Emily Zeller for a Mixed Use Preliminary PUD Master Plan with Architectural Design Review approval to revise 3.97 acres of the Villages at Carters Creek PUD located at 2425 Nashville Highway being Tax Map 51 Parcel 22.03.**

THIS ITEM WAS DEFERRED FROM A PREVIOUS AGENDA

Mr. Brass presented the details of the staff report. This request is for a proposed Wawa gas station and convenience store that will also have an associated drive-thru. He discussed several deviations that the applicant was asking for.
Emily Zeller, Civil Engineer, Megan Salvador, Real Estate Project Agent, and Kristen Ritz, Engineer for Wawa, Inc. were present to answer questions.
Mayor Molder asked Mr. Brass to repeat his statement on the changes from a PUD to a CD-4C. Mr. Brass discussed a previous request which was denied. The discussion included a car wash on Nashville Highway, PUD deviation, it has been shown that a request could meet the zoning plan in a concept plan, different applicant, placement of the building facing Napa Valley Way, major corridor, pedestrian walkability, safety concerns, discussions with other applicants, the canopy can be in the third layer, true

mixed-use type of development, gas station, opportunity for connectivity, and glazing requirement. Mr. Brass explained the PUD process, and looking at gas stations. Mayor Molder inquired about the deviations. Mr. Brass discussed deviations including glazing, PUD-MU, frontage buildout, height requirements, and the setback. Director Paul Keltner discussed facade glazing. Additional discussion included changes in the process. Mr. Sloan stated when looking at the zoning ordinance, and how it is phrased, the intent, we need to better define where the glazing percentage is taken, and the applicant needs to indicate that as well. Two things to keep in mind are the lens of what these things are viewed as, and how that percentage is taken. Mr. Keltner stated that a lot of it comes from the product type, or the building type allowed in different districts. Mayor Molder stated, regarding the setback, the deviation request, does it take into account the stormwater area or is it from that where it is counted from. Mr. Brass stated that the stormwater area is not taken into account, it is actually from Napa Valley Way. Because the stormwater area is its own lot, there is no association between this lot and Nashville Highway physically. Mayor Molder inquired about connectivity. Mr. Brass discussed the way the code is written, and the pedestrian connectivity, and the esthetics that the code is trying to achieve. Mr. Keltner stated that there are good examples out there where it is being done. Additional discussion included the canopy, the walkway, connecting requirements, and the frontage buildout correlation. Mr. Brass addressed the frontage buildout. Councilman Coleman inquired if it is truly a second story. Mr. Brass stated that it was a true second story, but it is not utilized for public use. He also stated that one thing the code is trying to achieve is to create buildings that can have adaptive use. Mr. Goatz inquired about a landscape buffer. Mr. Brass stated that it was not in the code requirement. Ms. Zeller introduced Megan Salvador, and she gave the details of the project. The discussions included adjustment, reaching some of the standards, visually looking at the loading dock, esthetics, no grass, no shrubs, pedestrian safety, delivery trucks, sidewalks, moving Wawa, better visibility, traffic flow, needing the drive isle, tight radius, and the driveway width. Mayor Molder inquired about the elevations. Mr. McCarthy gave the clarification. Mayor Molder asked Ms. Zeller if she could speak to the minimum requirements that they were looking for in a community in order to locate there. Ms. Zeller stated population growth, traffic, lighted intersections, and being able to park everybody. Mayor Molder inquired about the co-tenants. Ms. Zeller discussed the restrictions, and preferred not to name anyone specifically. Mayor Molder inquired if the PUD and the ability to control that and the user to an extent would remain in place if the request was to receive approval. Mr. Keltner stated that the remaining 1.7 acres would be under the PUD. Mr. Goatz inquired about the restrictions. Ms. Zeller stated that they are just buying their parcel, even when they purchase a site they try to impose restrictions on the remaining land. Mayor Molder inquired about the third layer gas canopy requirement. Ms. Zeller stated that it is another added layer of convenience for their customers, but they don't see that they will be able to meet the requirement. Mr. Keltner stated that they have quite a few canopies on the side of their convenience stores. Additional discussion included the Murfreesboro site, none of the stores had canopies in the back of the store, safety precautions they are trying to achieve with having the canopies in front of the stores, emergency buttons, dual front entrances,

glazing, and the height of the canopy. Mr. Andrew Bannister, 900 Oak Ridge Lane, supports the request. Ms. Kimmie Williams, 3029 Persimmon Street, supports the Wawa. She feels that the community will benefit. Mr. Goatz asked if the request wasnt a PUD-MU, if it was a CD-4 or CD-4C, would it be any closer to meeting the ordinance? Mr. Brass stated no. The last thing staff wants to do is bring something to the Commission that they are uncomfortable with. This would be the first significant PUD deviation. Mayor Molder stated that the Commission has approved deviations all the time. We can't say that approving deviations are contrary to the norm. Mr. Keltner stated that the very nature of a PUD is outside our ordinance, so that in itself would be a deviation. He said he thought that Mr. Brass alluded to was the degree of deviations. Yes, almost every PUD that you see will have a deviation in it. Mr. Brass further discussed PUDs. Mayor Molder discussed having a different situation, the accommodations being made, and recognizing the area that it is in. His major concern was not having any buffering on the back roadway. If you look at a case by case basis, sometimes deviations are more called for than others. The area is starving for some commercial development. Mayor Molder moved to approve subject to the deviations that they have requested with the requirement that a landscape buffer be added on the back entrance off of Napa Valley Way. This will go to Council for potential of improvements being made from this meeting with regards to the landscape buffer. Mayor Molder stated that he made the motion to approve. Councilman Coleman asked Mayor Molder to clarify his motion. Mayor Molder stated that he was going to make the motion to require additional buffers along the Napa Valley Way entrance on the back roadway to provide some upgrades to what the residents of the development would be looking at from the Citizens House and the townhouse behind that. But it sounds like since it has to go to Council for approval, the applicant can probably hear him loud and clear on that, and perhaps bring something that would be an improvement from what the Commission has. He understood the safety concerns would be in place for that, but he also thinks that there is an opportunity to make some improvements there. Councilman Coleman seconded the motion. The discussion included Councilman Coleman asking Mr. Brass what are the red line items. Mr. Brass stated the orientation of the building not located close to Napa Valley Way, and the gas canopy not located in the third layer. The challenge is that staff has seen a concept plan showing that it can be achieved, it's the choice of Wawa who does not want to achieve it. The challenge is the choice of the applicant to orientate the building that way. Councilman Coleman asked if the third layer with the gas tanks was a safety thing, or an esthetic thing, or a little bit of both. Mr. Brass stated that he would say that it was a little bit of both. Mr. Brass discussed the concept. Mr. Keltner stated that looking at Ordinance 4400, it is very building forward, it is architectural forward, you don't put accessory things in front of your main building. Further discussion included not having discussions, safety, cost, and fuel trucks crossing the parking lot area. Mr. McCarthy asked Mr. Brass to discuss what it would be to have a gas canopy in the third layer. Mr. Brass stated that the building would be pushed up to Napa Valley Way, and the gas canopy could align with the physical front building plan. It is pushing the building forward and getting it into the second layer. The gas canopy could align with the building. Councilman Coleman stated so staff sees that this issue

could be adjusted by simply moving the building closer to Napa Valley Way. Mr. Brass stated confidently, I do. Mayor Molder stated that you are saying right now that we are only talking about two portions of the canopy that are not already in compliance. Mr. Brass stated correct. If they push the building up to Napa Valley Way they will have plenty of room for the canopy to be aligned with the building. Mr. Goatz stated that this will eliminate the deviation being requested of the pumps being in the first layer, and it will also eliminate some other deviations. Mr. Brass stated that it will help eliminate the intensive setback that they are asking for. Further discussion included orientation of the building, staff perspective, deviations, parking, north elevation, usable site, and facing Nashville Highway. Mr. Keltner asked for clarification on Mayor Molder's motion. Mayor Molder stated that his motion is to approve as presented recognizing that he wants to make sure that there are some changes made to the landscape buffering, and perhaps landscaping overall when it gets to, City Council, including, but not limited to trying to figure out the landscape islands issue that was referred to. Dr. Martin asked for clarification on an email received on July 15th from Caroline Churchill. In the email (this is the point that I need clarification on) it speaks to the right of way plan and removing it. Is it in the final discussion that the Commission is doing today. Mr. Goatz stated that the right-of-way plan pertains to signage. Mr. Brass stated that is correct. Dr. Martin stated that it speaks to the delivery trucks and the access to Napa Valley, and it is saying for now. Has this been finalized. Mr. Brass stated no, and he addressed her questions. Dr. Martin reiterated her concern. Mr. McCarthy addressed the concerns. Dr. Martin asked if the 36 feet had been taken care of. Mr. Brass stated yes, it is a part of the deviation request. Mr. Brass explained that staff can support this particular deviation request. Mr. Sloan asked for clarification. There was an elevation submittal dated June 14, that had canopy elevations with column cladding on the actual canopies themselves. The revised one did not have those. Oh, they were on a separate document. The second one was on the glazing around the building, he believed that not all the glazing is glazing. He just wanted to clarify that. The applicant stated that she was not the architect for that. Mr. Keltner stated that it is up to the Commission what they will allow. Mr. Sloan stated that on the Napa Valley Way he doesn't think that any of that is clear glass. Keep in mind that there is a slight tone variation in the elevation. Additional discussion included desiring to see some revisions to the landscaping, being excited about Wawa to get here, shifting the building to the north, eliminating some of the variances, parking on the north side of the building, and attempting to get closer to the zoning ordinance. The motion passed five to one, with Chairman Goatz voting nay.

Item III.2. - **Request from WES Engineers and Surveyors for a Final PUD Master Plan revision of the single family architectural elevations for the McClure Farms PUD located at 2504 Nashville Highway being Tax Map 51 Parcel 6.**
THIS ITEM WAS DEFERRED FROM A PREVIOUS AGENDA

Mr. Archibald gave the details of the staff report. Mr. Gerald Vick, WES Engineers & Surveyors was present to answer questions. The discussion included the brick to grade being shown on all elevations, slide presentation, and the two lots on Nashville Highway

will be brick on all four sides. The elevations, lots one and two are the visible lots, commercial piece on the front, landscape buffers, 10 percent of Belmont, a diverse set of plans, detailed percentages, two story models, staff perspective on elevations missing, and clarification on the not matching. Mr. Archibald stated that staff would like to see additional information provided by the applicant. Director Paul Keltner discussed percentages, and the difficulty in tracking. Mr. Sloan stated that the goal would be whatever unit is approvable. The goal would be that they would all meet. He also stated that his concern would be visibility from Highway 31, which is a gray area. They indicated two units which would have brick on all four sides. Additional discussion included brick all the way up, enforcement, water table, lack of clarity, the appearance, facades, elevations, brick to grade. Mr. Goatz asked for brick to grade clarification. Mr. Archibald addressed this. The applicant stated that they looked at percentages, they would all match up, and they would have variations in the neighborhood. Further discussion included significant grade, not visible from Grove Park or the church, large tree buffer, the divider between the three lots, retaining wall, the plan on the pattern book does not match the current plat, landscape buffer, all brick on the ones visible from Nashville Highway, and the Commission's discretion. Mr. Sloan asked for clarity on the units because it seemed like there was a conflict in the verbal written, and what's shown on the elevations. He inquired if it was the intent for some of the units to have siding all the way down. The applicant stated that it would be brick to grade. Mr. Sloan asked what he meant by that. The applicant stated that it will be at least eight inches of brick. Additional discussion included more character to the columns, cladding, material, durability, renderings, what's the intent, tweaking the elevation, and looking at a more tasteful way. The applicant discussed their intent. Mr. Sloan discussed graphic representation. Further discussion included overlap, the rear and side elevations don't match, small return, the 3D elevation, the document contradicting itself, concerns, giving precise directions to staff, transition from the side, and prioritization. Mr. Archibald discussed constructability. Mr. Goatz moved to approve subject to the comments from the staff report, and Dr. Martin seconded it. The motion to approve passed five to zero, with Councilman Coleman leaving at 5:45 pm.

Item III.3. - **Request from Louis Sloyan for Preliminary Plat and Site Development Plan for Oakwood Subdivision consisting 104 lots at 200 Oakwood Drive being Tax Map 89 Parcel 21.**
THIS ITEM WAS DEFERRED FROM A PREVIOUS AGENDA

Mr. Austin Brass, Principal Planner, gave the details of the staff report. Mr. Louis Sloyan was present to answer questions. Mr. Douglas Toney, Assistant City Engineer, addressed the traffic improvement request. The staff is requesting an additional turn lane. The applicant, Mr. Sloyan requested to defer to further discuss the additional turn lane with staff and the developer, in order to make sure that everyone knows what is going on. Mayor Molder moved to defer, and Mr. Shannon seconded. The motion to defer passed five to zero.

Item III.4. - **Request from Crunk Engineering for Final Plat approval with surety in the amount of $1,040,000 for The Landing at Greens Mill Phase 1A consisting of 33 lots with 3 open space lots, dedication of right-of-way and easements at Tax Map 51 Parcel 55 off Greens Mill Road.**

Mr. Brass gave the details of the staff report. Staff moved this item to discussion as a point of clarification. Mr. Brass stated that staff would like to know if the Commission is willing to move forward on Phase 1A since the lots are less than 73 feet at the right-of-way line.
Mr. Adam Crunk, Crunk Engineering was present to answer questions. Mr. Goatz stated that the plat that was accepted at approval showed 73 feet as the right-of-way. Mr. Brass stated in the typical lot layout. Mr. Goatz stated and now what is being provided is showing less than that. Mr. Brass stated in this case two lots. Mr. Brass discussed the concerns. The rest of the phase one lots are compliant with the lot numbers. The discussion included the determining factor, the future lots, setting a precedence, and the building line. Mr. McCarthy asked to expand on the request. He discussed Ordinance 3638 and the intent of the motion. Mr. Crunk addressed the history of the PUD. He stated for clarity he would like for the definition of the lot width to be measured at the set back line as it was defined in the code. Code integrity was mentioned earlier, and that is what they would like to see here. The discussion included the number of lots, this requests affects a small percentage, the width of the lots, and this project is on the first plat. Mr. Goatz stated that the new ordinance for clarification is all at the right-of-way. Mayor Molder moved to approve subject to staff and technical comments, and Mr. Shannon seconded. Mr. Goatz stated for clarification that all of this doesn't affect the overall. We are looking at five hundred and fifty lots. Director Keltner stated that is correct. The motion passed with all present voting aye.

Item III.5. - **Request from Cathy Stephens for Final PUD Master Plan approval of a commercial tract in the Honey Farm PUD being a 1.34 acre portion of Tax Map 51 Parcel 58 at Nashville Highway and Honey Farm Way.**

Mr. Austin Brass gave the details of the staff report. He stated that engineering did condition that the roadway be complete at the time of final plat. It is subject to those conditions.
Mayor Molder asked if this was relayed to the developer. The developer stated yes we are. Mr. Tom DuBois, of 2201 Carpenter Bee Drive, inquired about the timeframe of the light, because it is dangerous to cross four lanes. Mr. Drew Smith stated that they have been working with staff on the intersection plan. They submitted the plan to TDOT, and they are working with them on final comments and scheduling. The final timing depends on working out the final logistics. Mayor Molder inquired about the relationship to the onlining of the traffic signal as it related to the Certificate of Occupancy being provided to the McDonald's site. Mr. Toney stated yes, there was a condition in the Preliminary PUD that the traffic signal be operational prior to the Certificate of Occupancy at McDonald's. In addition to the traffic signals, there are some significant road improvements being done by the developer at the intersection of Honey Farm Way and

Nashville Highway. In addition to the signal, it should improve safety and function as well. Mr. Goatz moved to approve subject to the Engineer's comments and staff and technical comments, and Mayor Molder seconded the motion. The motion to approve passed five to zero.

Item III.6. - **Request from Jansen Dakin for Preliminary Plat approval of Honey Farm Crossing Lot 1 at Nashville Highway and Honey Farm Way being a portion of Tax Map 51 Parcel 58.**

Mr. Austin Brass gave the details of the staff report. Discussion included being addressed in the previous comments.
Mr. Goatz moved to approve subject to staff technical comments, and seconded by Dr. Martin. The motion to approve passed five to zero.

Item III.7. - **Request from TKC Architecture & Engineering LLC to Rezone approximately three acres of property at Carmack Blvd., Cemetery Ave., and Pencil Alley, being Tax Map 99I Group D Parcels 3, 7, 7.01, 7.02, 7.04.**

Mr. McCarthy gave the details of the staff report. Mr. Cole Newton, was present to answer questions. Mr. Allen stated that Pencil Avenue is private property. Mr. McCarthy stated that the rezoning would establish rights for the subject property, but it wouldn't change the adjacent SD-HI (Heavy Industrial) property. Additional discussion included clarity, commercial property, Pencil Alley, there are two houses, and one commercial building on Pencil Avenue, Dr. Martin asked if those are residential houses that were built on commercial property years ago, or is it residential. Mr. McCarthy stated that it is zoned Industrial. Mayor Molder stated that he assumes that the structures that do have Pencil Avenue access have some sort of easement rights that provide them access to coming on Pencil Avenue for purpose of access. Mr. Allen stated yes. Mayor Molder moved to approve subject to staff and technical comments, and Dr. Martin seconded. The motion to approve passed five to zero.

Item III.8. - **Request from Tim Dwyer for revision to a previously approved Site Development Plan for the property located at Tax Map 90 Parcel 7.08 off River Road.**

Mr. Brass gave the details of the staff report. Mr. Tim Dwyer was present to answer questions. Discussion included landscaping, gables, recess area, widening the staircase, the brick is structurally challenging, seal, elevations, meeting the intent of the code, online zoning map, articulation, and changing the colors. Mr.Goatz moved to approve subject to technical comments and looking into widening the gable. The motion was seconded by Mr. Shannon. The motion to approve passed five to zero.

Item III.9. - **Request from Patrick Carroll for Final PUD Master Plan and Preliminary Plat approval of the multifamily portion of Bear Springs PUD consisting of 336 units and an amenity center at 1449 Rock Springs Road being Tax Map 92 Parcels 12 and 12.02.**

Mr. Brass gave the details of the staff report. He stated that this item is vested under the previous zoning ordinance. He discussed the Ordinance 3638 code section in reference to retaining walls. Mr. Patrick Carroll, and Mr. Adam Crunk were present to answer questions. The discussion included modification of the layout, amenities, community center, playground, elevations, additional parking, the island, the access drive, and landscaping. Mr. Brass stated that the concerns were the retaining walls. Mayor Molder moved to approve subject to staff and Technical Comments. Dr. Martin seconded the motion. The motion to approve passed five to zero.

Other Business

Mr. McCarthy, City Planner, stated that Mr. Brass did an exemplary job. This is one of the most impressive staff presentations in his time here. The same thing on McClure Farm. Mr. Robert Archibald was up late putting the elevations together for his presentation. Between the three planners, in the last three weeks, they have written 25 staff reports. Staff has 48 cases in review right now. Robert has 49 permits in review as of 3:00 p.m. Mayor Molder stated that he wanted to piggyback on his compliment to Mr. Austin Brass well deserved. Austin did a good job tonight, and thank you for your thorough presentation and obviously preparing for a number of questions. He also stated that Mr. McCarthy was bragging about his staff, and he is also putting in a lot of work as well, even on a Sunday at City Hall. A message has been sent to the City Manager from Council that we would like to see some assistance and additional resources provided to the Development Services offices to allow for some help to get on the way, and to alleviate some of the burden on a smaller group, and hopefully that group can be expanded so that the work can be spread across multiple people and the burden can be lifted. Thank you for your good work. Because of your good work and bringing it to our attention, I think help is on the way. It is something that I say with some great degree of confidence from City Council. Mr. Goatz stated that the late night that Mr. Archibald might have been from his request and he appreciated it. He stated that he appreciates all that staff does.

Adjourn

Mayor Molder moved to adjourn, and Mr. Goatz seconded the motion. The motion to adjourn passed five to zero. The meeting adjourned at 6:56 p.m.

_____ _____

Planning Commission Chairman, Charlie Goatz

Date

Active Letters of Credit and Sureties

9/27/2024

DEVELOPMENT/SUBDIVISION	DEVELOPER	AMOUNT	EXP. DATE
Arlington Heights Subdivision, Phase 1, Section 2	Arlington Heights General Partnership	$106,000.00	05/09/2021
Arlington Heights Subdivision, Phase 2, Section 2	Arlington Heights General Partnership	$105,000.00	04/25/2021
Armstrong Meadow, Phase 1, Section 3 (roadsd/drainage)	General Homes of Columbia, LLC	$203,500.00	05/05/2019
Armstrong Meadows Subdivision, Section 4	Smith Douglas, LLC	$475,000.00	02/01/2023
Armstrong Street Subdivision (roads & drainage)	Tennessee Regional Holdings, LLC	$75,500.00	05/14/2023
Baker Creek Place (roads & drainage)	SDH Nashville, LLC	$360,000.00	04/28/2024
Bear Creek Glen, Phase 1 (roads and drainage)	CHR Land, LLC	$90,000.00	07/18/2025
Bear Creek Overlook Place Phase 1 (roads and drainage)	CHR Land, LLC	$203,000.00	07/18/2025
Bear Creek Overlook, Ph. 2	CHR Land, LLC	$120,000.00	06/12/2025
Colter Place Subidivison, Section 1 (rds/drainage)	Sterling Martin	$5,000.00	06/13/2025
Cottages at Bear Creek , Phase 1 (roads & drainage)	Riverstone Homes, LLC	$165,000.00	07/19/2022
Cottages at Bear Creek , Phase II (roads & drainage)	Riverstone Homes, LLC	$156,000.00	03/18/2023
Drumwright Phase 3A	Lennar Homes of Tenn, LLC	$135,000.00	11/22/2024
Drumwright Phase 3B	Lennar Homes of Tenn, LLC	$120,000.00	11/22/2024
Drumwright Phase 3C	Lennar Homes of Tenn, LLC	$190,000.00	11/22/2024
Drumwright TH, Phase 2D	Lennar Homes of Tenn, LLC	$265,000.00	05/23/2024
Drumwright, Phase 1 Family Section (roads & drainage)	Lennar Homes of Tenn, LLC	$890,000.00	08/11/2023
Drumwright, Phase 1 Townhomes Section (roads & drainage)	Lennar Homes of Tenn, LLC	$275,000.00	08/11/2023
Drumwright, Phase 2A	Lennar Homes of Tenn, LLC	$200,000.00	05/23/2024
Drumwright, Phase 2B	Lennar Homes of Tenn, LLC	$125,000.00	05/23/2024
Drumwright, Phase 2C	Lennar Homes of Tenn, LLC	$125,000.00	05/23/2024
Elan Subdivision, Phase 2 (roads and drainage)	Shaw Enterprises	$142,000.00	01/04/2022
Fieldstone Farms - Section 4 (roads & drainage)	Estate of Cyril Evers	$21,000.00	03/13/2022
Greystone Subdivision	LPT, LLC	$16,650.00	03/07/2021
Hatton Hills Subdivision (roads & drainage)	J & B Estate	$32,000.00	03/22/2022
Hillcrest Village, Phase 1A	M/I Homes of Nashville, LLC	$645,000.00	01/19/2025
Hillcrest Village, Phase 2	M/I Homes of Nashville, LLC	$370,000.00	07/16/2025
Homestead at Carter's Station, 5.2 and 6.1	Pulte Homes Tennessee Partnership	$254,000.00	04/16/2022
Homestead at Carters Station, Section 5, Phase 2	Pulte Homes Tennessee Partnership	$149,000.00	07/29/2023
Homestead South @ Carter's Station	Pulte Homes Tennessee Partnership	$125,000.00	07/13/2024
Honey Farms Subdivision, Phase 2, Section 10	Charles Raines Construction, LLC	$10,300.00	05/23/2020
Honey Farms Townhomes , Phase 2, Section 3	Lennar Homes of Tenn, LLC	$50,000.00	04/05/2022
Honey Lakes, Phase 1	Honey Lakes LLC	$295,000.00	07/18/2025
Horizon Park, Ph. 1	Burchell Properties, LLC	$195,000.00	03/01/2025
Independence @ Carter's Station, Section 3, Phase 4	Pulte Homes Tennessee Partnership	$140,000.00	07/13/2024
Independence @ Carter's Station, Section 3, Phase 5	Pulte Homes Tennessee Partnership	$35,000.00	07/19/2024
Independence @ Carter's Station, Section 6, Phase 4	Pulte Homes Tennessee Partnership	$160,000.00	07/13/2024
Independence @Carter's Station, Section 3, Phase 1	Pulte Homes Tennessee Partnership	$390,000.00	09/15/2021
Independence at Carters Section 3, Phase 3	Pulte Homes Tennessee Partnership	$155,000.00	08/05/2024
Independence at Carters Station Section6, Phase 3	Pulte Homes Tennessee Partnership	$197,000.00	07/14/2023
Independence at Carter's Station, Section 3, Phase 2	Pulte Homes Tennessee Partnership	$372,000.00	12/06/2022
Independence at Carter's Station, Section 6, Phase 2	Pulte Homes Tennessee Partnership	$207,000.00	11/08/2022
Independence at Carter's Station, Section 6, Phase 5	Pulte Homes Tennessee Partnership	$220,000.00	05/01/2025
Morgan Meadow Phase 2 (roads & drainage)	KCS Property, LLC	$13,500.00	12/06/2024
Morgan Meadow Phase 3 (roads & drainage)	KCS Property, LLC	$220,000.00	02/28/2025
Morgan Meadows Subdivision (roads & drainage)	KCS Property, LLC	$24,200.00	07/14/2024
Polk Place , Phase 2B (roads & drainage)	Columbia Properties, LLC	$56,000.00	11/12/2022
Polk Place PUD Subdivision, Phase 1 (roads & drainage)	Columbia Properties, LLC	$28,000.00	05/23/2021
Polk Place PUD Subdivsion, Section 2A (roads & drainage)	Columbia Properties, LLC	$55,000.00	02/03/2022
Polk Place, Phase 3 , (roads and drainage)	Columbia Properties, LLC	$79,000.00	06/17/2023
Preserve at Drumwright, Phase 1 and Phase 2	Lennar Corporation	$1,190,000.00	11/14/2024
Quail Run Development Phase 1 (roads & drainage)	Quail Run Development Co., LLC	$15,700.00	01/04/2025
Quail Run Development, Phase 1B (roads and drainage)	Quail Run Development Co., LLC	$18,500.00	02/21/2025
Quail Run Development, Phase 2 (roads and drainage)	Quail Run Development Co., LLC	$18,200.00	05/02/2025
Quail Run Meadows, Phase 3	Quail Run Development Co., LLC	$185,000.00	05/21/2025
Quail Run Meadows, Phase 4	Quail Run Development Co., LLC	$210,000.00	05/03/2025
Ridge at Carter's Station, Phase 1B (roads & drainage)	Richmond American Homes of Tenn	$260,000.00	03/31/2023
Ridge at Carter's Station, Phase 2 (roads & drainage)	Richmond American Homes of Tenn	$645,000.00	10/31/2024
Ridgeview Oaks, Phase 1 (roads and drainage)	A1 Home Builders, Inc.	$45,000.00	08/22/2025

Active Letters of Credit and Sureties

9/27/2024

DEVELOPMENT/SUBDIVISION	DEVELOPER	AMOUNT	EXP. DATE
Ridgeview Oaks, Phase 2 (roads and drainage)	A-1 Home Builders, Inc.	$33,500.00	02/28/2025
Rutherford Subdivision, Phase 1	Regent Homes, LLC	$400,000.00	12/21/2024
Savannah Cove Subdivision - roads/drainage	Campbell and Lovell Rentals	$45,000.00	09/28/2021
Summerdale Subdivision, Phase 2 (roads & drainage)	P & L Development, LLC	$105,000.00	05/29/2025
Summerdale Subdivision, Phase 3 (roads & drainage)	P & L Development	$97,000.00	12/22/2023
Summerdale Subdivision, Phase 3B (roads & drainage)	P & L Development, LLC	$17,000.00	01/27/2024
Summerdale Subdivision, Phase 4 (roads & drainage)	P & L Development	$64,000.00	03/08/2025
Summerdale Subdivision, Phase 5 (roads & drainage)	P & L Development, LLC	$55,000.00	10/12/2024
Summerdale Subdivision, Phase 6 (roads & drainage)	P & L Development, LLC	$103,000.00	02/07/2024
Summerdale Subdivision, Phase 7 (roads & drainage)	P & L Development, LLC	$66,000.00	03/08/2025
Summerdale, Phase 1 (roads & drainage)	P & L Development	$135,000.00	11/13/2024
Summit at Carter's Station Phase 1 (roads & drainage)	Tamarack Land - Carter's Station LLC	$465,000.00	03/17/2024
Summit at Carter's Station Phase 2	Tamarack Land - Carter's Station LLC	$175,000.00	06/14/2024
Summit at Carter's Station West, Phase 1	Pulte Homes Tennessee Partnership	$120,000.00	10/06/2024
Summit at Carter's Station West, Phase 2	Pulte Homes Tennessee Partnership	$470,000.00	04/25/2025
Summit at Carter's Station,East_Phase 4	Tamarack Land Carters Station LLC	$260,000.00	06/12/2025
Summit West, Ph. 1B	Pulte Homes Tennessee Partnership	$435,000.00	04/25/2025
Taylor Bend Road - roads & drainage	Meritage Homes of Tenn., Inc.	$120,000.00	06/30/2025
Taylor Landing - Phase 2 (roads & drainage)	Meritage Homes of Tenn., Inc.	$18,800.00	04/30/2025
Taylor Landing Subdivision, Phase 4B, (roads & drainage)	Meritage Homes of Tenn., Inc.	$78,000.00	06/30/2025
Taylor Landing Subdivision, Phase 5A (roads & drainage)	Meritage Homes of Tenn., Inc.	$48,000.00	06/30/2025
Taylor Landing Subdivision, Phase 5B (roads & drainage)	Meritage Homes of Tenn., Inc.	$72,000.00	06/30/2025
Taylor Landing, Phase 4A (roads & drainage)	Meritage Homes of Tenn., Inc.	$12,100.00	11/30/2024
The Landings at Greens Mill_Phase 1A	First Bank	$1,040,000.00	03/11/2025
The Ridge at Carter's Station, Phase 1A	Richmond American Homes of Tenn	$121,000.00	12/03/2022
The Summit at Carter's Station, Phase 3	Tamarack Land-Carter's Station, LLC	$610,000.00	12/20/2024
Vesper Court (completion of the work)	P-R Vesper, LLC	$18,500.00	04/18/2023
Vesper Court (completion of the work) 2	P-R Vesper, LLC	$10,000.00	06/16/2024
Vulcan Quary Site Restoration	Vulcan Construction Materials, LLC	$62,000.00	03/01/2024
Williamsport Landing, Phase 1	KCS Property LLC	$310,000.00	08/17/2024
Williamsport Landing, Phase 2	KCS Property LLC	$290,000.00	05/17/2025
Honey Farms Townhomes, Phase 1A	K2 Development, LLC	$130,000.00	08/14/2025
Quail Run Meadows, Phase 5	Quail Run Development Co., LLC	$175,000.00	08/14/2025
Honey Farm Townhomes, Phase 1B	Lennar Homes of Tenn, LLC	$550,000.00	09/11/2025

Honey Farms PUD-Ph 1B

Project #:	24-0361	Location:	Map 051 Parcel 058.02
Applicant:	W-E-S Engineers & Surveyors	Case Type(s):	PUD Final Plat
Staff Planner:	Robert Archibald, Planner II	Proposed Use:	Townhomes

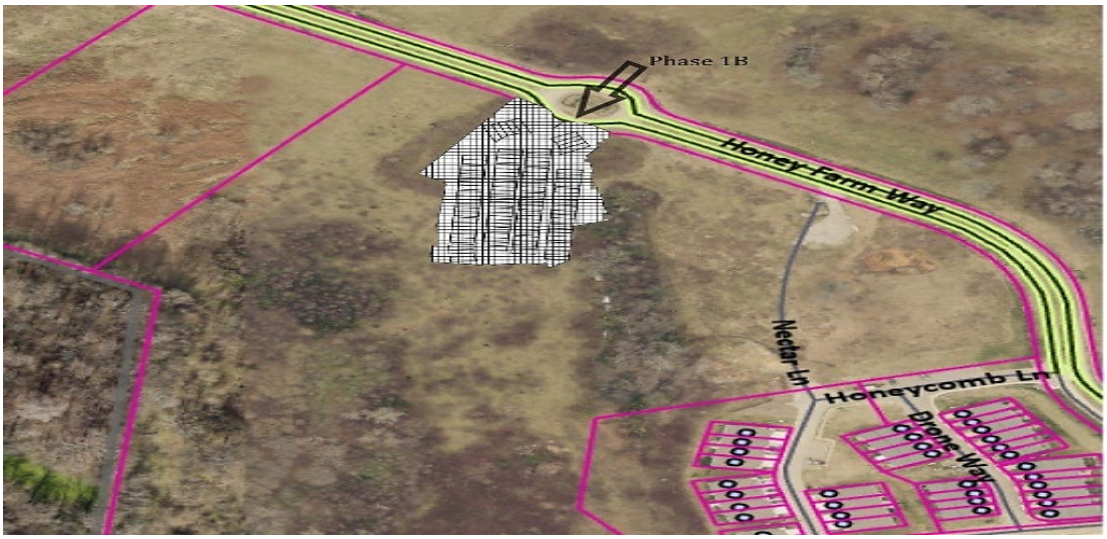
PROJECT SUMMARY

The applicant requests approval of Honey Farms PUD – Ph 1B Final Plat to create 100 townhome lots, easements and open space for continuation of this development on +/-11.33 acres. The PUD consists of a total of 250 Townhome units, some of which are constructed in prior phase.

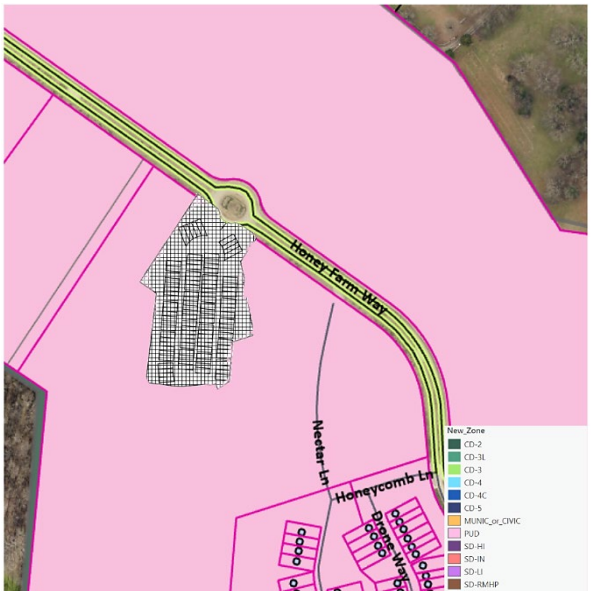
- The development is subject to Ordinance 3638, the pre-July 2022 zoning ordinance.
- The Final Plat conforms to the approved Preliminary Plat (22-0033).
- The property is subject to the Final PUD Master Plan based and RM-1 standards of the previous Zoning Ordinance.
- The applicant has provided financial surety in the amount of $550,000 to guarantee completion of infrastructure.
- The applicant has executed a development agreement in the format prescribed by Appendix B of the Subdivision Regulations.
- The applicant has provided a stormwater maintenance agreement.
- The development otherwise conforms to the PUD Master Development Plan, approved on February 15, 2021.
- The DRC reviewed this proposal at its September 2024 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 Final PUD Master Plan.
- Templates are provided at the end of the report to assist the Planning Commission in crafting properly formatted motions.

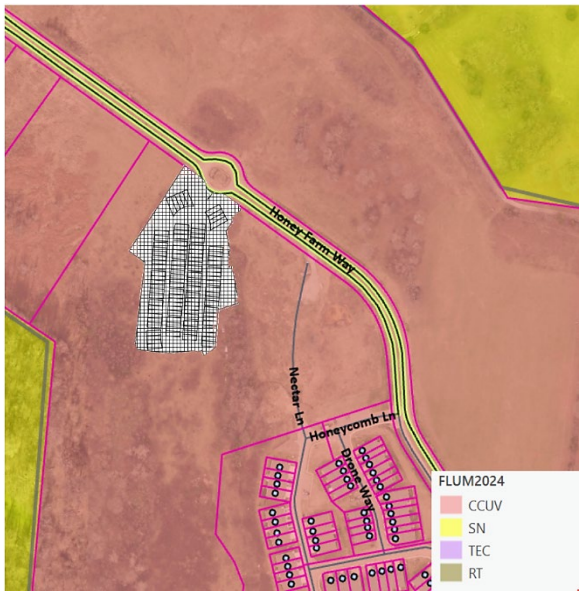
SITE INFORMATION

CURRENT ZONING	EXISTING USE	EXISTING IMP.	LAND AREA
PUD-R	Vacant	Infrastructure for Development	+/-11.33 Acres



FUTURE LAND USE MAP	ZONING MAP





SITE CONTEXT/ADJACENT PROPERTIES			
	Future Land Use	Zoning	Current Use
Subject Property	CCUV	PUD	Townhomes
North	CCUV	PUD	Vacant/Developing
South	CCUV	PUD	Townhomes
East	Suburban Neighborhood	PUD	Single-family
West	Suburban Neighborhood	Outside Jurisdiction	Single-family

The subject site is part of the larger multiphase development consisting of previously approved townhome construction and amenities associated with the development. The overall development includes commercial frontage abutting Nashville Hwy., Townhome construction, and the established single-family residential neighborhood directly to the east of subject site. Phase 1A consists of four-unit and six-unit Townhome construction and a community amenity area including, a clubhouse, pool, and playground. Townhome architectural front elevations are that of cementitious siding, shake siding, with brick. The sides and rears of these units are cladded in vinyl siding. The elevations meet the standards from the previous approval; Preliminary Master Plan Revision 21-0045.

CONFORMITY WITH ZONING ORDINANCE

The proposed revisions conform to the PUD Master Plan, the modified RM-1 standards of the applicable zoning ordinance (3638), as modified by previous PUD approvals.

- The proposed structures conform to the setbacks and other bulk standards of the Master Plan.
- The PUD include architectural standards. Conformity with these and other applicable zoning standards will be confirmed at the time of building permit.

REVIEW PROCESS

The Development Review Committee reviewed the proposed Final Plat at its September 2024 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 **§ 2.3.6** 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 the Final Plat as presented and find that it conforms to the applicable zoning ordinance, , the Subdivision Regulations, and the Preliminary Plat [subject to remaining technical comments from staff].

Approve with Conditions:

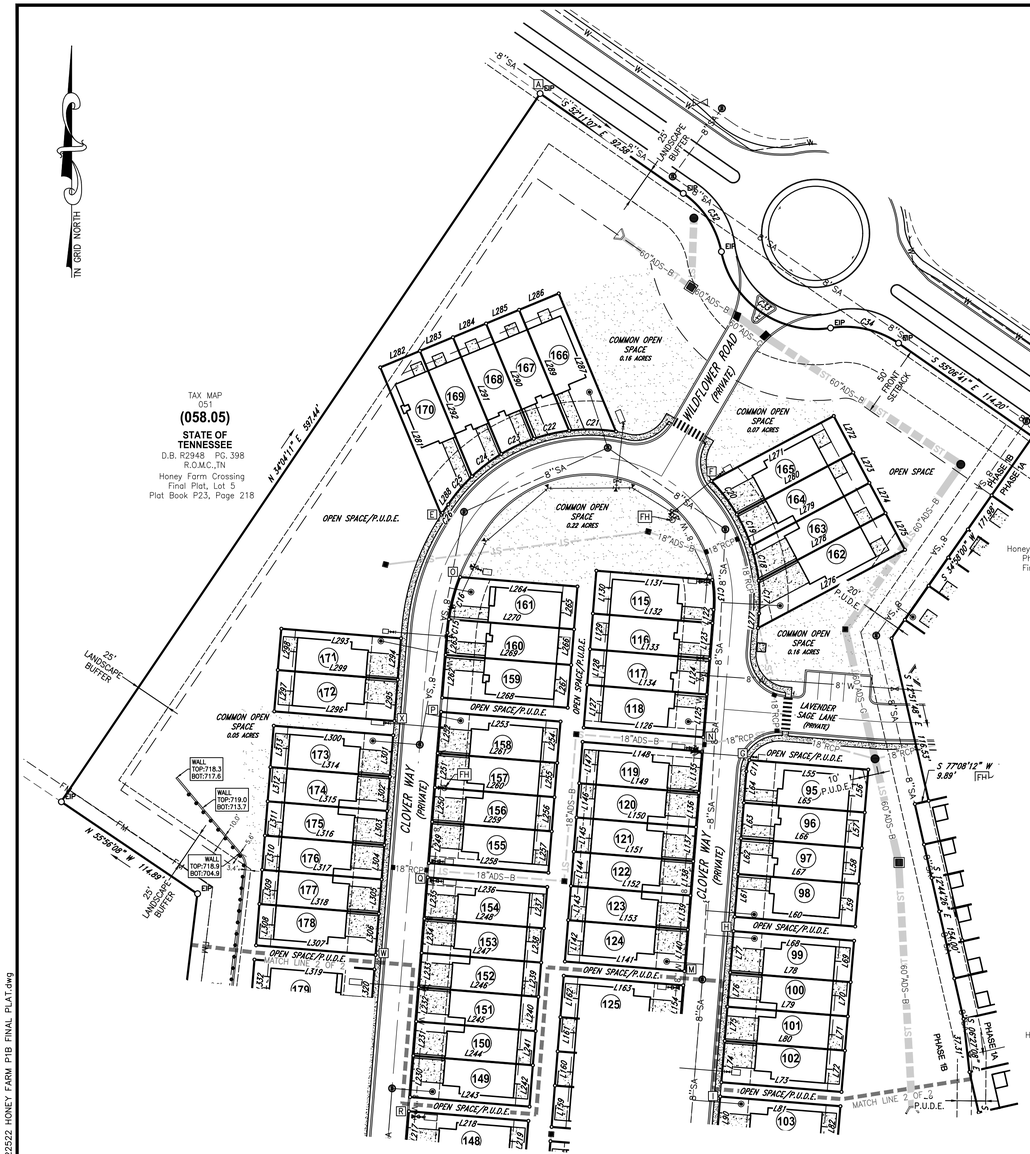
Move to approve the Final Plat as presented and find that the plat conforms to the applicable zoning ordinance, the Subdivision Regulations, and the Preliminary Plat, subject to the following conditions: [list conditions of approval crafted by Planning Commission].

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.

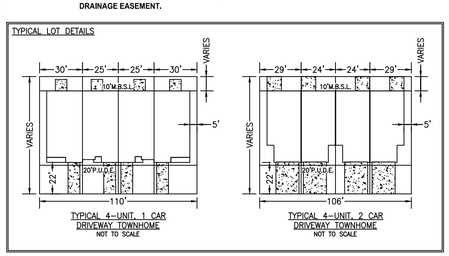
Deny:

Move to find that the 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].



OPEN SPACE NOTE:

ALL OPEN SPACE AREA IS TO BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION, CREATED FOR THE PURPOSE OF MAINTAINING ALL COMMON OPEN SPACE AND GROUNDS INCLUDING THE DETENTION AREAS SHOWN ON THIS PLAT. ALL OPEN SPACE AREA IS CONSIDERED A PUBLIC UTILITY, AND DRAINAGE EASEMENT.



Legend

EIP
- ○ IPS Iron Rod Found
- ● Iron Rod Set
- ◉ I.P.F. Iron Pipe Found
- ⊛ AXLE Axle Found
- ▣ ECM Fence Post
- ⊡ Concrete Monument Existing
- ○ P.K.F. PK Nail Found
- ◎ P.K.S. PK Nail Set
- ⊛ R.R.S.-F Railroad Spike Found
- ⊛ R.R.S.S Railroad Spike Set
- Bench Mark
- Stake Found
- Fire Hydrant
- Water Meter
- Water Valve
- Water Reducer
- Clean Out
- Sanitary Sewer Manhole
- Storm Sewer Manhole
- Catch Basin
- Curb Inlet
- Storm Pipe
- Cable Manhole
- Electric Manhole
- Telephone Manhole
- Water Manhole
- Electric Meter
- Cable Riser
- Electric Riser
- Telephone Riser
- Telephone Booth
- Gas Meter
- Gas Valve
- Light Pole
- Power Pole
- Telephone Pole
- Guy Pole
- Power Pole
- Flag Pole
- Guy Wire
- Mailbox
- Parking Block
- Satellite Dish
- Handicap Parking
- Water Spigot
- Bollard
- Water Meter Vault
- Evergreen Tree
- Deciduous Tree
- Bush
- Sign
- Adjoining Property Line
- Subject Property Line
- Easement Line
- Building Setback Line
- Centerline
- Edge of Pavement
- Edge of Gravel
- Fence Line
- Landscape
- Woods / Tree line
- Edge of Water
- Ditch / Creek Centerline
- Minor Contour Line
- Index Contour Line
- Gas Line
- Sanitary Sewer Line
- Water Line
- Storm Sewer Line
- Overhead Utility Line
- Overhead Cable Line
- Overhead Electric Line
- Overhead Telephone Line
- Underground Utility Line
- Underground Cable Line
- Underground Electric Line
- Underground Telephone Line
- Forced Main Line

FILE: J:\WES_Engineers_Surveyors 2022\22522 - Honey Farm - Lennar\Dwg\Survey\01 - Final Plat\22522 HONEY FARM P1B FINAL PLAT.dwg

LINE TABLE

LINE	BEARING	DISTANCE
L55	S 85°23'50" E	83.33'
L56	S 04°45'07" W	30.00'
L57	S 04°45'07" W	25.00'
L58	S 04°45'07" W	25.00'
L59	S 04°45'07" W	30.00'
L60	N 85°23'50" W	84.48'
L61	N 04°36'10" E	30.00'
L62	N 04°36'10" E	25.00'
L63	N 04°36'10" E	25.00'
L64	N 04°36'10" E	22.00'
L65	N 85°23'50" W	84.69'
L66	N 85°23'50" W	84.62'
L67	N 85°23'50" W	84.56'
L68	S 85°23'50" E	84.48'
L69	S 04°45'07" W	29.00'
L70	S 04°45'07" W	24.00'
L71	S 04°45'07" W	24.00'
L72	S 04°45'07" W	29.00'
L73	N 85°23'50" W	84.20'
L74	N 04°36'10" E	29.00'
L75	N 04°36'10" E	24.00'
L76	N 04°36'10" E	24.00'
L77	N 04°36'10" E	29.00'
L78	N 85°23'50" W	84.40'
L79	N 85°23'50" W	84.34'
L80	N 85°23'50" W	84.28'
L122	S 04°36'10" W	9.36'
L123	S 04°36'10" W	25.00'
L124	S 04°36'10" W	25.00'
L125	S 04°36'10" W	30.00'
L126	N 85°23'50" W	83.75'
L127	N 04°36'10" E	30.00'
L128	N 04°36'10" E	25.00'
L129	N 04°36'10" E	25.00'
L130	N 04°36'10" E	30.00'
L131	S 85°23'50" E	81.27'
L132	S 85°23'50" E	83.75'
L133	S 85°23'50" E	83.75'
L134	S 85°23'50" E	83.75'
L135	S 04°36'10" W	29.00'
L136	S 04°36'10" W	24.00'
L137	S 04°36'10" W	24.00'
L138	S 04°36'10" W	24.00'
L139	S 04°36'10" W	24.00'
L140	S 04°36'10" W	29.00'
L141	N 85°23'50" W	83.75'
L142	N 04°36'10" E	29.00'
L143	N 04°36'10" E	24.00'
L144	N 04°36'10" E	24.00'
L145	N 04°36'10" E	24.00'
L146	N 04°36'10" E	24.00'
L147	N 04°36'10" E	29.00'
L148	S 85°23'50" E	83.75'
L149	S 85°23'50" E	83.75'
L150	S 85°23'50" E	83.75'
L151	S 85°23'50" E	83.75'
L152	S 85°23'50" E	83.75'
L153	S 85°23'50" E	83.75'
L230	N 04°36'10" E	29.00'
L231	N 04°36'10" E	24.00'
L232	N 04°36'10" E	24.00'
L233	N 04°36'10" E	24.00'
L234	N 04°36'10" E	24.00'
L235	S 04°36'10" W	24.00'
L236	S 85°23'50" E	83.75'
L237	S 04°36'10" W	29.00'
L238	S 04°36'10" W	24.00'
L239	S 04°36'10" W	24.00'
L240	S 04°36'10" W	24.00'
L241	S 04°36'10" W	24.00'
L242	S 04°36'10" W	29.00'
L243	N 85°23'50" W	83.75'
L244	N 85°23'50" W	83.75'
L245	N 85°23'50" W	83.75'
L246	N 85°23'50" W	83.75'
L247	N 85°23'50" W	83.75'
L248	N 85°23'50" W	83.75'
L249	N 04°36'10" E	29.00'
L250	N 04°36'10" E	24.00'
L251	N 04°36'10" E	24.00'
L252	N 04°36'10" E	29.00'
L253	S 85°23'50" E	83.75'
L254	S 04°36'10" W	29.00'
L255	S 04°36'10" W	24.00'
L256	S 04°36'10" W	24.00'
L257	S 04°36'10" W	29.00'
L258	N 85°23'50" W	83.75'
L259	N 85°23'50" W	83.75'
L260	N 85°23'50" W	83.75'
L261	N 85°23'50" W	83.75'
L262	N 04°36'10" E	30.00'
L263	N 04°36'10" E	15.59'
L264	S 85°23'50" E	82.17'
L265	S 04°36'10" W	30.00'
L266	S 04°36'10" W	25.00'
L267	S 04°36'10" W	30.00'
L268	N 85°23'50" W	87.96'
L269	N 85°23'50" W	87.96'

LINE TABLE

LINE	BEARING	DISTANCE
L270	N 85°23'50" W	87.64'
L271	N 61°59'14" E	96.83'
L272	S 28°00'46" E	29.00'
L273	S 28°00'46" E	24.00'
L274	S 28°00'46" E	24.00'
L275	S 28°00'46" E	29.00'
L276	S 61°59'14" W	116.39'
L277	N 04°36'10" E	10.25'
L278	S 61°59'14" W	100.44'
L279	S 61°59'14" W	93.75'
L280	S 61°59'14" W	92.17'
L281	N 22°30'35" W	111.46'
L282	N 67°29'25" E	30.00'
L283	N 67°29'25" E	25.00'
L284	N 67°29'25" E	25.00'
L285	N 67°29'25" E	25.00'
L286	N 67°29'25" E	30.00'
L287	S 22°30'35" E	104.54'
L288	S 34°04'00" W	7.18'
L289	S 22°30'35" E	91.43'
L290	S 22°30'35" E	87.21'
L291	S 22°30'35" E	88.33'
L292	S 22°30'35" E	94.95'
L293	S 85°23'50" E	83.91'
L294	S 04°36'10" W	29.00'
L295	S 04°36'10" W	29.00'
L296	N 85°23'50" W	84.20'
L297	N 04°53'15" E	29.00'
L298	N 04°53'15" E	29.00'
L299	S 85°23'50" E	84.05'
L300	S 85°23'50" E	83.75'
L301	S 04°36'10" W	29.00'
L302	S 04°36'10" W	24.00'
L303	S 04°36'10" W	24.00'
L304	S 04°36'10" W	24.00'
L305	S 04°36'10" W	24.00'
L306	S 04°36'10" W	29.00'
L307	N 85°23'50" W	83.75'
L308	N 04°36'10" E	29.00'
L309	N 04°36'10" E	24.00'
L310	N 04°36'10" E	24.00'
L311	N 04°36'10" E	24.00'
L312	N 04°36'10" E	24.00'
L313	N 04°36'10" E	29.00'
L314	S 85°23'50" E	83.75'
L315	S 85°23'50" E	83.75'
L316	S 85°23'50" E	83.75'
L317	S 85°23'50" E	83.75'
L318	S 85°23'50" E	83.75'
L319	S 85°23'50" E	84.09'
L320	S 04°36'10" W	30.00'
L321	S 04°36'10" W	25.00'
L322	S 04°36'10" W	25.00'
L323	S 04°36'10" W	25.00'
L324	S 04°36'10" W	25.00'
L325	S 04°36'10" W	30.00'
L326	N 85°23'50" W	84.09'
L327	N 04°36'10" E	30.00'
L328	N 04°36'10" E	25.00'
L329	N 04°36'10" E	25.00'
L330	N 04°36'10" E	25.00'
L331	N 04°36'10" E	25.00'
L332	N 04°36'10" E	30.00'
L333	S 85°23'50" E	84.09'
L334	S 85°23'50" E	84.09'
L335	S 85°23'50" E	84.09'
L336	S 85°23'50" E	84.09'
L337	S 85°23'50" E	84.09'
L338	S 85°23'50" E	84.09'
L339	S 04°36'10" W	30.00'
L340	S 04°36'10" W	25.00'
L341	S 04°36'10" W	25.00'
L342	S 04°36'10" W	25.00'
L343	S 04°36'10" W	25.00'
L344	S 04°36'10" W	30.00'
L345	N 85°23'50" W	84.09'
L346	S 04°36'10" W	30.00'
L347	N 04°36'10" E	25.00'
L348	N 04°36'10" E	25.00'
L349	N 04°36'10" E	25.00'
L350	N 04°36'10" E	25.00'
L351	N 04°36'10" E	30.00'
L352	S 85°23'50" E	84.09'
L353	S 85°23'50" E	84.09'
L354	S 85°23'50" E	84.09'
L355	S 85°23'50" E	84.09'
L356	S 85°23'50" E	84.09'
L357	N 86°16'46" E	87.90'
L358	S 04°36'10" W	4.77'
L359	S 86°16'46" W	88.11'
L360	N 03°31'17" W	29.00'
L361	N 03°31'17" W	24.00'
L362	N 03°31'17" W	24.00'
L363	N 03°31'17" W	29.00'
L364	N 86°16'46" E	84.70'
L365	N 86°16'46" E	84.04'
L366	N 86°16'46" E	85.19'

LOT AREA TABLE

LOT	SQ. FT.	ACRES
95	2,538.0	0.06
96	2,116.4	0.05
97	2,114.7	0.05
98	2,535.5	0.06
99	2,448.8	0.06
100	2,024.9	0.05
101	2,023.4	0.05
102	2,443.0	0.06
115	2,495.6	0.06
116	2,093.8	0.05
117	2,093.8	0.05
118	2,512.6	0.06
119	2,428.8	0.06
120	2,010.1	0.05
121	2,010.1	0.05
122	2,010.1	0.05
123	2,010.1	0.05
124	2,428.8	0.06
149	2,428.8	0.06
150	2,010.1	0.05
151	2,010.1	0.05
152	2,010.1	0.05
153	2,010.1	0.05
154	2,428.8	0.06
155	2,428.8	0.06
156	2,010.1	0.05
157	2,010.1	0.05
158	2,428.8	0.06
159	2,638.8	0.06
160	2,198.0	0.05
161	2,564.4	0.06
162	3,113.3	0.07
163	2,319.5	0.05
164	2,221.3	0.05
165	2,722.7	0.06
166	2,914.7	0.07
167	2,221.4	0.05
168	2,183.1	0.05
169	2,278.8	0.05
170	3,072.3	0.07
171	2,435.4	0.06
172	2,436.7	0.06
173	2,428.8	0.06
174	2,010.1	0.05
175	2,010.1	0.05
176	2,010.1	0.05
177	2,010.1	0.05
178	2,428.8	0.06
179	2,522.7	0.06
180	2,102.2	0.05
181	2,102.2	0.05
182	2,102.2	0.05
183	2,102.2	0.05
184	2,622.7	0.06
185	2,522.7	0.06
186	2,102.2	0.05
187	2,102.2	0.05
188	2,102.2	0.05
189	2,102.2	0.05
190	2,522.7	0.06
191	2,496.7	0.06
192	2,021.3	0.05
193	2,027.1	0.05
194	2,514.5	0.06

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C11	23.00'	8.17'	8.13'	N 14°46'48" E	20°21'16"
C12	131.00'	17.24'	17.23'	N 00°49'55" E	7°32'29"
C13	87.00'	20.84'	20.79'	S 02°15'34" E	13°43'27"
C14	287.00'	26.76'	26.76'	N 01°55'52" E	5°20'36"
C15	137.00'	9.42'	9.42'	N 06°34'22" E	3°56'25"
C16	137.00'	30.56'	30.49'	N 14°53'58" E	12°46'47"
C17	119.00'	22.91'	22.88'	N 00°54'48" W	11°01'55"
C18	119.00'	24.96'	24.91'	N 12°26'18" W	12°01'05"
C19	119.00'	24.09'	24.05'	N 24°14'51" W	11°36'01"
C20	119.00'	29.45'	29.37'	N 37°08'11" W	14°10'40"
C21	119.00'	32.84'	32.74'	N 88°54'10" W	15°48'49"
C22	119.00'	25.40'	25.35'	S 77°04'30" W	12°13'50"
C23	119.00'	25.07'	25.03'	S 64°55'27" W	12°04'17"
C24	119.00'	25.91'	25.86'	S 52°39'00" W	12°28'37"
C25	119.00'	25.64'	25.59'	S 40°14'21" W	12°20'42"
C26	169.00'	1.51'	1.51'	S 33°48'40" W	0°30'41"
C27	319.00'	24.43'	24.42'	S 02°24'31" W	4°23'17"
C28	319.00'	24.02'	24.01'	S 01°56'32" E	4°18'50"
C29	319.00'	24.03'	24.02'	S 06°15'25" E	4°18'57"
C30	319.00'	12.83'	12.83'	S 09°34'01" E	2°18'14"
C31	281.00'	16.31'	16.31'	S 09°03'20" E	3°19'35"
C32	65.01'	49.85'	48.64'	S 33°08'23" E	43°55'50"
C33	67.18'	102.85'	93.09'	S 55°01'56" E	87°42'55"
C34	66.44'	49.89'	48.72'	S 77°22'44" E	43°01'19"
C35	131.00'	33.07'	32.99'	N 21°49'04" W	14°27'55"
C36	23.00'	21.74'	20.94'	N 67°54'32" W	54°09'17"

TN STATE PLANE TABLE

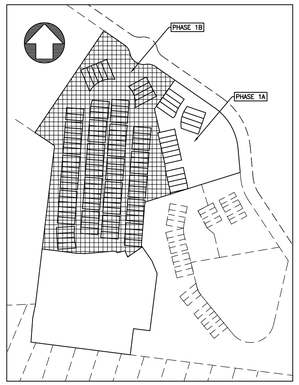
TN STATE PLANE	NORTHING	EASTING
A	495,712.5	1,675,512.0
B	495,472.8	1,675,856.1
C	494,661.9	1,675,698.4
D	494,651.7	1,675,212.3
E	495,418.2	1,675,443.0
F	495,441.7	1,675,631.7
G	495,246.7	1,675,658.2
H	495,127.2	1,675,647.1
I	495,011.6	1,675,637.8
J	494,700.5	1,675,580.7
K	494,820.1	1,675,590.3
L	494,983.6	1,675,603.5
M	495,099.2	1,675,612.8
N	495,262.7	1,675,625.9
O	495,374.6	1,675,456.2
P	495,280.4	1,675,442.8
Q	495,164.8	1,675,433.5
R	495,001.3	1,675,420.3
S	494,837.8	1,675,407.1
T	494,656.3	1,675,375.7
U	494,771.6	1,675,369.7
V	494,941.1	1,675,383.3
W	495,110.5	1,675,397.0
X	495,274.0	1,675,410.2

GRAPHIC SCALE

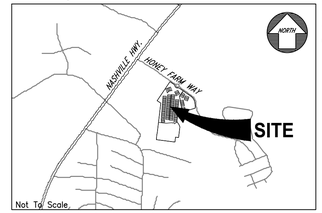
50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

Drumwright Development Map



Location Map



PURPOSE NOTE:
The purpose of this plat is to create 100 townhome lots, easements, and common open space.

DRIVEWAY NOTE:
All driveways shall be constructed to contain gutter flow within the street and right-of-way, particularly lots that do not have a sidewalk.

STORMWATER MANAGEMENT AGREEMENT:
RECORDED:
DEED BOOK: _____ PAGE: _____

PARCEL NUMBER:
TAX MAP 051, PARCEL 058.02

DEED BOOK:
R2971, PAGE 216

PARCEL ADDRESS:
HONEY FARM WAY
COLUMBIA, TENNESSEE 38401

EXISTING ZONING:
Other PUD

BUILDING SETBACKS:
*SEE LOT DETAIL

ACREAGE OF PARCEL:
PHASE 1B – ±11.33 ACRES – ±493,667.8 S.F.
COMMON/OPEN SPACE – ±6.13 ACRES – ±267,287.7 S.F.
TOTAL – ±17.26 ACRES – ±751,787.8 S.F.

PROPERTY OWNER:
AG EHC II (LEN) MULTI STATE 4, LLC
381 MALLORY STATION ROAD, SUITE 200
FRANKLIN, TN 37067

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 Number R2971, Page 216, Maury County Registers Office, and that I (we) hereby adopt this plan of subdivision with my (our) free consent, establish the minimum building restriction lines, and that offers of irrevocable dedication for all public ways, utilities, and other facilities have been filed.

Date

AG EHC II (LEN) Multi State 4, LLC,
a Delaware limited liability company

By: Essential Housing Asset Management, LLC, an Arizona limited liability company, its Authorized Agent

By: _____
Steven S. Benson, its Manager

Date

CERTIFICATE OF APPROVAL OF STREETS, DRAINAGE, STREET SIGNS, AND UTILITIES

I hereby certify that the streets, drainage, and utilities designated in HONEY FARMS PUD - PHASE 1B 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.

Date

City Engineer
Columbia, Tennessee

CERTIFICATE OF APPROVAL FOR SUBDIVISION NAME AND STREET NAMES

Subdivision name and street names approved by the City Engineering Department and by E-911 Maury County.

Date

Maury County E-911
Columbia, Tennessee

CERTIFICATE OF APPROVAL OF SEWER SYSTEM

I hereby certify that the 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 has been filed to guarantee said installation.

Date

Director of Wastewater Department
Columbia, Tennessee

CERTIFICATE OF APPROVAL OF WATER SYSTEM

I, (we) hereby certify that the water system(s) outlined or indicated on the final subdivision plat entitled HONEY FARMS PUD - PHASE 1B 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.

Date

Columbia Power & Water Systems
Columbia, Tennessee

CERTIFICATE OF COMPLIANCE

I hereby certify that the subdivision plat shown hereon has been found to comply with the City of Columbia Subdivision Regulations and other adopted ordinances and policies.

Date

City Engineer
Columbia, Tennessee

CERTIFICATE OF APPROVAL FOR RECORDING

I hereby certify that the 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 are noted in the minutes of the Planning Commission, and that it has been approved for recording in the Office of the County Register:

Date

Secretary, Planning Commission
Columbia, Tennessee

SURVEYOR'S CERTIFICATION (TENNESSEE)

I hereby certify that to the best of my 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.

9/16/24
Date

Allen B. O'Leary
Allen B. O'Leary

TN RLS #1987
Number

Register of Deed Recording Stamp

ALLEN B. O'LEARY — REGISTERED LAND SURVEYOR — 1987 — AGRICULTURE — TENNESSEE NO. 1987

allen@wesengineers.com

WES ENGINEERS & SURVEYORS
CIVIL ENGINEERS & LAND SURVEYORS
2486 NASHVILLE HIGHWAY
COLUMBIA, TN 38401
PHONE: (931) 388-2329
www.wesengineers.com

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ENGINEERS & SURVEYORS

Client
Lennar Homes of Tennessee, LLC.
381 Mallory Station Road, Suite 200
Franklin, TN 37067
615-716-7188

REVISIONS	DATE
TECH. REVIEW COMMENTS ADDRESSED	09-16-2024

FINAL PLAT
HONEY FARMS PUD - PHASE 1B
HONEY FARM WAY, COLUMBIA, TN

Drawn: EB
Checked: AO
Approved: AO
Date: 08-19-2024

Job. no. 22522
Scale: Vertical: 1"=50'
Horizontal: 1"=50'

1 of 2



LINE TABLE		
LINE	BEARING	DISTANCE
L81	S 85°23'50" E	84.25'
L82	S 04°45'07" W	29.00'
L83	S 04°45'07" W	24.00'
L84	S 04°45'07" W	24.00'
L85	S 04°45'07" W	29.00'
L86	N 85°23'50" W	83.98'
L87	N 04°36'10" E	29.00'
L88	N 04°36'10" E	24.00'
L89	N 04°36'10" E	24.00'
L90	N 04°36'10" E	29.00'
L91	N 85°23'50" W	84.17'
L92	N 85°23'50" W	84.11'
L93	N 85°23'50" W	84.05'
L94	S 85°23'50" E	83.85'
L95	S 04°45'07" W	9.82'
L96	S 04°45'07" W	19.18'
L97	S 04°45'07" W	24.00'
L98	S 04°45'07" W	24.00'
L99	S 04°45'07" W	29.00'
L100	N 85°23'50" W	83.57'
L101	N 04°36'10" E	29.00'
L102	N 04°36'10" E	24.00'
L103	N 04°36'10" E	24.00'
L104	N 04°36'10" E	29.00'
L105	N 85°23'50" W	83.77'
L106	N 85°23'50" W	83.71'
L107	N 85°23'50" W	83.65'
L108	S 85°23'50" E	83.54'
L109	S 04°45'07" W	30.00'
L110	S 04°45'07" W	25.00'
L111	S 04°45'07" W	25.00'
L112	S 04°45'07" W	24.59'
L113	S 34°45'19" E	7.00'
L114	N 85°23'50" W	86.57'
L115	N 04°36'10" E	12.81'
L116	N 04°36'10" E	25.00'
L117	N 04°36'10" E	25.00'
L118	N 04°36'10" E	30.00'
L119	N 85°23'50" W	83.47'
L120	N 85°23'50" W	83.40'
L121	N 85°23'50" W	83.34'
L154	S 04°36'10" W	29.00'
L155	S 04°36'10" W	24.00'
L156	S 04°36'10" W	24.00'
L157	S 04°36'10" W	29.00'
L158	N 85°23'50" W	83.75'
L159	N 04°36'10" E	29.00'
L160	N 04°36'10" E	24.00'
L161	N 04°36'10" E	24.00'
L162	N 04°36'10" E	29.00'
L163	S 85°23'50" E	83.75'
L164	S 85°23'50" E	83.75'
L165	S 85°23'50" E	83.75'
L166	S 85°23'50" E	83.75'
L167	S 04°36'10" W	29.00'
L168	S 04°36'10" W	24.00'
L169	S 04°36'10" W	24.00'
L170	S 04°36'10" W	24.00'
L171	S 04°36'10" W	24.00'

LINE TABLE		
LINE	BEARING	DISTANCE
L172	S 04°36'10" W	29.00'
L173	N 85°23'50" W	83.75'
L174	N 04°36'10" E	29.00'
L175	N 04°36'10" E	24.00'
L176	N 04°36'10" E	24.00'
L177	N 04°36'10" E	24.00'
L178	N 04°36'10" E	24.00'
L179	N 04°36'10" E	29.00'
L180	S 85°23'50" E	83.75'
L181	S 85°23'50" E	83.75'
L182	S 85°23'50" E	83.75'
L183	S 85°23'50" E	83.75'
L184	S 85°23'50" E	83.75'
L185	S 85°23'50" E	83.75'
L186	S 04°36'10" W	30.00'
L187	S 04°36'10" W	25.00'
L188	S 04°36'10" W	25.00'
L189	S 04°36'10" W	30.00'
L190	N 85°23'50" W	83.75'
L191	N 04°36'10" E	30.00'
L192	N 04°36'10" E	25.00'
L193	N 04°36'10" E	25.00'
L194	N 04°36'10" E	30.00'
L195	S 85°23'50" E	83.75'
L196	S 85°23'50" E	83.75'
L197	S 85°23'50" E	83.75'
L198	S 85°23'50" E	83.75'
L199	N 04°36'10" E	1.27'
L200	N 04°36'10" E	25.00'
L201	N 04°36'10" E	25.00'
L202	N 04°36'10" E	30.00'
L203	S 85°23'50" E	83.84'
L204	S 04°36'10" W	30.00'
L205	S 04°36'10" W	25.00'
L206	S 04°36'10" W	25.00'
L207	S 04°36'10" W	30.00'
L208	N 85°23'50" W	82.59'
L209	N 85°23'50" W	83.84'
L210	N 85°23'50" W	83.84'
L211	N 85°23'50" W	83.84'
L212	N 04°36'10" E	29.00'
L213	N 04°36'10" E	24.00'
L214	N 04°36'10" E	24.00'
L215	N 04°36'10" E	24.00'
L216	N 04°36'10" E	24.00'
L217	N 04°36'10" E	29.00'
L218	S 85°23'50" E	83.75'
L219	S 04°36'10" W	29.00'
L220	S 04°36'10" W	24.00'
L221	S 04°36'10" W	24.00'
L222	S 04°36'10" W	24.00'
L223	S 04°36'10" W	24.00'
L224	S 04°36'10" W	29.00'
L225	N 85°23'50" W	83.75'
L226	N 85°23'50" W	83.75'
L227	N 85°23'50" W	83.75'
L228	N 85°23'50" W	83.75'
L229	N 85°23'50" W	83.75'

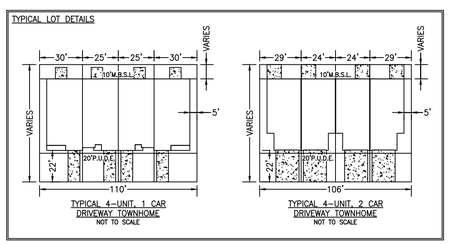
CURVE TABLE					
CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C11	23.00'	8.17'	8.13'	N 14°49'48" E	20°21'16"
C12	131.00'	17.24'	17.23'	N 00°49'55" E	7°32'29"
C13	87.00'	20.84	20.79'	S 02°15'34" E	13°43'27"
C14	287.00'	26.76'	26.76'	N 01°50'52" E	5°20'36"
C15	137.00'	9.42'	9.42'	N 06°34'22" E	3°56'25"
C16	137.00'	30.56'	30.49'	N 14°55'58" E	12°46'47"
C17	119.00'	22.91'	22.88'	N 09°54'48" W	11°01'55"
C18	119.00'	24.96'	24.91'	N 12°26'18" W	12°01'05"
C19	119.00'	24.09'	24.05'	N 24°14'51" W	11°36'01"
C20	119.00'	29.45'	29.37'	N 37°08'11" W	14°10'40"
C21	119.00'	32.84'	32.74'	N 88°54'10" E	15°48'49"
C22	119.00'	25.40'	25.35'	S 77°04'30" W	12°13'50"
C23	119.00'	25.07'	25.03'	S 64°55'27" W	12°04'17"
C24	119.00'	25.91'	25.86'	S 52°39'00" W	12°28'37"
C25	119.00'	25.64'	25.59'	S 40°14'21" W	12°20'42"
C26	169.00'	1.51'	1.51'	S 33°48'40" W	0°30'41"
C27	319.00'	24.43'	24.42'	S 02°24'31" W	4°23'17"
C28	319.00'	24.02'	24.01'	S 01°56'32" E	4°18'50"
C29	319.00'	24.03'	24.02'	S 06°15'25" E	4°18'57"
C30	319.00'	12.83'	12.83'	S 09°34'01" E	2°18'14"
C31	281.00'	16.31'	16.31'	S 09°03'20" E	3°19'35"
C32	65.01'	49.85'	48.64'	S 33°08'23" E	43°55'50"
C33	67.18'	102.85'	93.09'	S 55°01'56" E	87°42'55"
C34	66.44'	49.89'	48.72'	S 77°22'44" E	43°01'19"
C35	131.00'	33.07'	32.99'	N 21°49'04" W	14°27'55"
C36	23.00'	21.74'	20.94'	N 67°54'32" W	54°09'17"

TN STATE PLANE TABLE		
TN STATE PLANE	NORTHING	EASTING
A	495,712.5	1,675,512.0
B	495,472.8	1,675,856.1
C	494,661.9	1,675,698.4
D	494,651.7	1,675,212.3
E	495,418.2	1,675,443.0
F	495,441.7	1,675,631.7
G	495,246.7	1,675,658.2
H	495,127.2	1,675,647.1
I	495,011.6	1,675,637.8
J	494,700.5	1,675,580.7
K	494,820.1	1,675,590.3
L	494,983.6	1,675,603.5
M	495,099.2	1,675,612.8
N	495,262.7	1,675,625.9
O	495,374.6	1,675,456.2
P	495,280.4	1,675,442.8
Q	495,164.8	1,675,433.5
R	495,001.3	1,675,420.3
S	494,837.8	1,675,407.1
T	494,656.3	1,675,375.7
U	494,771.6	1,675,369.7
V	494,941.1	1,675,383.3
W	495,110.5	1,675,397.0
X	495,274.0	1,675,410.2

OPEN SPACE NOTE:

ALL OPEN SPACE AREA IS TO BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION, CREATED FOR THE PURPOSE OF MAINTAINING ALL COMMON OPEN SPACE AND GROUNDS INCLUDING THE DETENTION AREAS SHOWN ON THIS PLAT. ALL OPEN SPACE AREA IS CONSIDERED A PUBLIC UTILITY, AND DRAINAGE EASEMENT.

TYPICAL LOT DETAILS



Legend

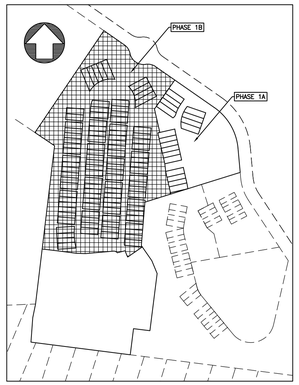
- EIP
- IPS — Iron Rod Set
- I.P.F. — Iron Pipe Found
- AXLE — Axle Found
- FCM — Fence Post
- CMF — Concrete Monument Existing
- P.K.F. — PK Nail Found
- P.K.S. — PK Nail Set
- R.R.S.F. — Railroad Spike Found
- R.R.S.S. — Railroad Spike Set
- Bench Mark
- Stake Found
- Fire Hydrant
- Water Meter
- Water Valve
- Water Reducer
- Clean Out
- Sanitary Sewer Manhole
- Storm Sewer Manhole
- Catch Basin
- Curb Inlet
- Storm Pipe
- Cable Manhole
- Electric Manhole
- Telephone Manhole
- Water Manhole
- Electric Meter
- Cable Riser
- Electric Riser
- Telephone Riser
- Telephone Booth
- Gas Meter
- Gas Valve
- Light Pole
- Power Pole
- Telephone Pole
- Guy Pole
- Power Pole
- Flag Pole
- Guy Wire
- Mailbox
- Parking Block
- Satellite Dish
- Handicap Parking
- Water Spigot
- Bollard
- Water Meter Vault
- Evergreen Tree
- Deciduous Tree
- Bush
- Sign
- Adjoining Property Line
- Subject Property Line
- Easement Line
- Building Setback Line
- Centerline
- Edge of Pavement
- Edge of Gravel
- Fence Line
- Landscape
- Woods / Tree line
- Edge of Water
- Ditch / Creek Centerline
- Minor Contour Line
- Index Contour Line
- Gas Line
- Sanitary Sewer Line
- Water Line
- Storm Sewer Line
- Overhead Utility Line
- Overhead Cable Line
- Overhead Electric Line
- Overhead Telephone Line
- Underground Utility Line
- Underground Cable Line
- Underground Electric Line
- Underground Telephone Line
- Forced Main Line

GRAPHIC SCALE

50 0 25 50 100 200

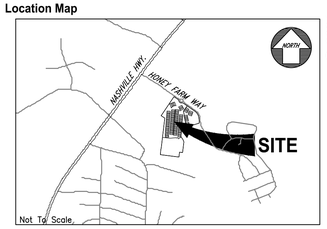
(IN FEET)
1 inch = 50 ft.

Drumwright Development Map



LOT AREA TABLE		
LOT	SQ. FT.	ACRES
103	2,442.2	0.06
104	2,019.5	0.05
105	2,018.0	0.05
106	2,436.4	0.06
107	2,430.5	0.06
108	2,009.8	0.05
109	2,008.3	0.05
110	2,424.6	0.06
111	2,505.1	0.06
112	2,085.8	0.05
113	2,084.2	0.05
114	2,504.4	0.06
125	2,428.8	0.06
126	2,010.1	0.05
127	2,010.1	0.05
128	2,428.8	0.06
129	2,428.8	0.06
130	2,010.1	0.05
131	2,010.1	0.05
132	2,010.1	0.05
133	2,010.1	0.05
134	2,428.8	0.06
135	2,512.6	0.06
136	2,093.8	0.05
137	2,093.8	0.05
138	2,512.6	0.06
139	2,504.0	0.06
140	2,095.9	0.05
141	2,095.9	0.05
142	2,515.1	0.06
143	2,428.8	0.06
144	2,010.1	0.05
145	2,010.1	0.05
146	2,010.1	0.05
147	2,010.1	0.05
148	2,428.8	0.06

Location Map



PURPOSE NOTE:
The purpose of this plat is to create 100 townhome lots, easements, and common open space.

DRIVEWAY NOTE:
All driveways shall be constructed to contain gutter flow within the street and right-of-way, particularly lots that do not have a sidewalk.

STORMWATER MANAGEMENT AGREEMENT:
RECORDED: _____
DEED BOOK: _____ PAGE: _____

PARCEL NUMBER:
TAX MAP 051, PARCEL 058.02

DEED BOOK:
R2971, PAGE 216

PARCEL ADDRESS:
HONEY FARM WAY
COLUMBIA, TENNESSEE 38401

EXISTING ZONING:
Other PUD

BUILDING SETBACKS:
*SEE LOT DETAIL

ACREAGE OF PARCEL:
PHASE 1B - ±11.33 ACRES - ±493,667.8 S.F.
COMMON/OPEN SPACE - ±6.13 ACRES - ±267,287.7 S.F.
TOTAL - ±17.26 ACRES - ±751,787.8 S.F.

PROPERTY OWNER:
AG EHC II (LEN) MULTI STATE 4, LLC
381 MALLORY STATION ROAD, SUITE 200
FRANKLIN, TN 37067

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 Number R2971, Page 216, Maury County Registers Office, and that I (we) hereby adopt this plan of subdivision with my (our) free consent, establish the minimum building restriction lines, and that offers of irrevocable dedication for all public ways, utilities, and other facilities have been filed.

Date — AG EHC II (LEN) Multi State 4, LLC, a Delaware limited liability company

By: Essential Housing Asset Management, LLC, an Arizona limited liability company, its Authorized Agent

Date — By: _____ Steven S. Benson, its Manager

CERTIFICATE OF APPROVAL OF STREETS, DRAINAGE, STREET SIGNS, AND UTILITIES

I hereby certify that the streets, drainage, and utilities designated in HONEY FARMS PUD - PHASE 1B 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.

Date — City Engineer, Columbia, Tennessee

CERTIFICATE OF APPROVAL FOR SUBDIVISION NAME AND STREET NAMES

Subdivision name and street names approved by the City Engineering Department and by E-911 Maury County.

Date — Maury County E-911, Columbia, Tennessee

CERTIFICATE OF APPROVAL OF SEWER SYSTEM

I hereby certify that the 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 has been filed to guarantee said installation.

Date — Director of Wastewater Department, Columbia, Tennessee

CERTIFICATE OF APPROVAL OF WATER SYSTEM

I, (we) hereby certify that the water system(s) outlined or indicated on the final subdivision plat entitled HONEY FARMS PUD - PHASE 1B 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.

Date — Columbia Power & Water Systems, Columbia, Tennessee

CERTIFICATE OF COMPLIANCE

I hereby certify that the subdivision plat shown hereon has been found to comply with the City of Columbia Subdivision Regulations and other adopted ordinances and policies.

Date — City Engineer, Columbia, Tennessee

CERTIFICATE OF APPROVAL FOR RECORDING

I hereby certify that the 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 are noted in the minutes of the Planning Commission, and that it has been approved for recording in the Office of the County Register:

Date — Secretary, Planning Commission, Columbia, Tennessee

SURVEYOR'S CERTIFICATION (TENNESSEE)

I hereby certify that to the best of my 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.

9/16/24 — Allen B. O'Leary — TN RLS #1987

Date — Allen B. O'Leary — Number

Register of Deed Recording Stamp



WES ENGINEERS & SURVEYORS
CIVIL ENGINEERS & LAND SURVEYORS
2486 NASHVILLE HIGHWAY
COLUMBIA, TN 38401
PHONE: (931) 388-2329
www.wesengineers.com

© 2024

ENGINEERS & SURVEYORS

Client: Lennar Homes of Tennessee, LLC.
381 Mallory Station Road, Suite 200
Franklin, TN 37067
615-716-7188

REVISIONS	DATE
TECH. REVIEW COMMENTS ADDRESSED	09-16-2024

FINAL PLAT
HONEY FARMS PUD - PHASE 1B
HONEY FARM WAY, COLUMBIA, TN

Drawn: EB | Checked: AO | Approved: AO | Date: 08-19-2024

Job. no. 22522 | Scale: Vertical: — Horizontal: 1"=50'

2 of 2

FILE: J:\WES_Engineers_Surveyors 2022\22522 - Honey Farm - Lennar\Dwg\Survey\01 - Final Plat\22522 HONEY FARM P1B FINAL PLAT.dwg

September 16, 2024

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

RE: Project Name: Honey Farm PUD Phase 1B, Final Plat
Item No. 24-0361
City of Columbia Staff Review Submittal

On behalf of AG EHC II (LEN) Multi State 4, LLC, a Delaware limited liability company, the owner of these 100 proposed townhome lots, **WES Engineers & Surveyors** would like to re-submit this Final Plat to the City of Columbia for Planning Commission approval. Comments have been addressed in RED.

Planning

1. The lead staff person for this case is Planner II Robert Archibald; he will prepare the staff report for this item. Please contact rarchibald@columbiatn.gov with questions about the development review process or technical comments. The lead planner should be copied on all communication with other city staff. Noted.
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. Noted.
3. Retaining walls built to support grade eight feet or more higher that the grade at the interior edge of a required buffer shall also be set back 10 feet from the interior edge of the buffer. Please provide incremental elevations of the retaining wall along with measurements from the interior edge of the required landscape buffer.
   Elevations and dimensions of the wall have been shown on the final plat.

Engineering

4. Surety in the amount of $550,000 required at resubmittal date. This will be taken care of by the developer.
5. Asphalt binder, curbing, and grading in conformity with the construction plans shall be complete by resubmittal date. The developer has been notified of the requirement.
6. Please provide some clarity of "Common Open Space" vs. "Open Space"
   It is our understanding that all the area is considered Open Space/P.U.DE. Also, that a particular amount of that area was required to be usable Open Space, and that area is labeled as the Common Open Space.
7. Please provide state plane coordinates for each floating block of units.
   A state plane coordinate chart and labeling has been provided.
8. Record and reference stormwater maintenance agreement.
   This will be recorded and noted on the final plat prior to recording.

Wastewater

9. Columbia Wastewater has not received as-builts for 1B and testing has not been performed. As-builts will be completed and submitted for review prior to obtaining final signatures.

Fire

10. No comments. Noted.

Maury County Schools

11. Battle Creek Elementary, Battle Creek Middle, Battle Creek High 9/10 (24/25 SY). 9-11 (25/26 SY) 9-12 (26/27). Spring Hill High 11-12 (24/25 SY) 12 (25/26 SY). See Attached Capacity Numbers. The development combined with current neighborhoods and additional approved developments in these zones may require either new construction or realignment of school zones to accommodate new students. Noted.

Duck River Electric Membership Corp

12. No comment provided. Noted.

Building

13. No comments. Noted.

Police

14. No comments provided. Noted.

Public Works

15. The formula that we use computes to needing "2.33" 8-yard dumpsters with three times a week collection for 100 townhomes. Erring on the side of caution and knowing that dumpsters become a community dumping site, we strongly recommend three 8-yard dumpsters with three times a week collection if utilizing City of Columbia sanitation services. Private sanitation services, including dumpsters, compactors, individual receptacles or valet service, may be utilized for townhome 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. Noted.

Columbia Water

16. Label water meter vaults and show in legend.
    Meter vaults have been added to the legend.
17. Complete the 8" C-900 main line & Meter vaults by the resubmittal date.
    This has been installed.
18. Ensure water infrastructure on plat incorporates field changes.
    Will work on making sure to incorporate field changes on the final plat prior to obtaining signatures.
19. Coordinate walk-through, Bacteria pressure testing with CPWS.
    The walk-through and testing will happen before the planning commission meeting.

20. Be prepared to deed infrastructure to CPWS at time of plat signing, water system must be active at time of plat signing.
    Noted.

Maury County Highway Dept.

21. No comments provided. Noted.

Columbia Power

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

Atmos Energy

24. No comments. Noted.

Maury County E911

25. No comments provided. Noted.

ATT

26. No comments provided. Noted.

If you have any questions or comments with this submittal, please do not hesitate to contact me directly.

Sincerely,
WES Engineers & Surveyors



Allen B. O'Leary, RLS
Principal

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, September 10, 2024

ITEM NO.
24-0361

DESCRIPTION: Honey Farms 1B Parcel: 051 058.02

COMMENTS:

Planning

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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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20. Be prepared to deed infrastructure to CPWS at time of plat signing, water system must be active at time of plat signing.

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22. 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.
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Atmos Energy

24. No comments.

Maury County E911

25. No comments provided.

ATT

26. No comments provided.

CITY OF
COLUMBIA
TENNESSEE

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

Resubmittal Guidelines

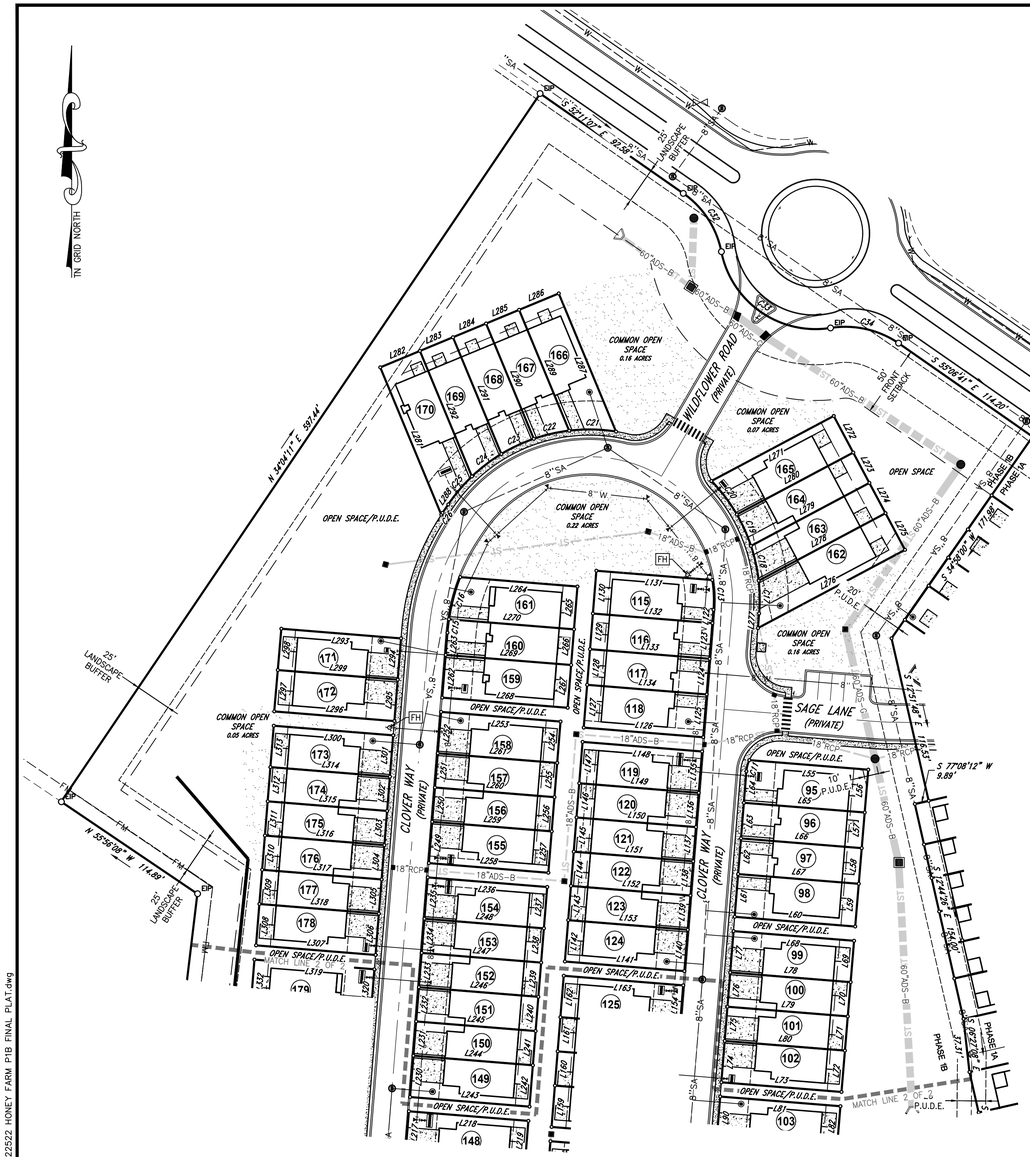
Please provide a comment response letter as well as digital copies of revised plans and supporting documentation. Submit all required documents electronically through the online portal: columbia.onlama.com. If the files are oversized, please provide a file sharing link.

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

Please contact kmccarthy@columbiatn.com or msanders@columbiatn.com if you encounter difficulties with the online portal.

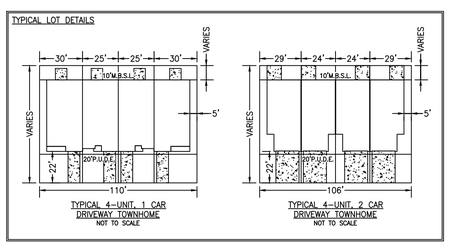
You will receive an invoice for required advertising and mailing fees. All fees must be paid by the Friday following resubmittal in order advance to the Planning Commission agenda.

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.



OPEN SPACE NOTE:

ALL OPEN SPACE AREA IS TO BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION, CREATED FOR THE PURPOSE OF MAINTAINING ALL COMMON OPEN SPACE AND GROUNDS INCLUDING THE DETENTION AREAS SHOWN ON THIS PLAT. ALL OPEN SPACE AREA IS CONSIDERED A PUBLIC UTILITY, AND DRAINAGE EASEMENT.



Legend

- EIP — Iron Rod Found
- IPS — Iron Rod Set
- I.P.F. — Iron Pipe Found
- AXLE — Axle Found
- ECM — Fence Post
- Concrete Monument Existing
- P.K.F. — PK Nail Found
- P.K.S. — PK Nail Set
- R.R.S.-F — Railroad Spike Found
- R.R.S.-S — Railroad Spike Set
- Bench Mark
- Stake Found
- Fire Hydrant
- Water Meter
- Water Valve
- Water Reducer
- Clean Out
- Sanitary Sewer Manhole
- Storm Sewer Manhole
- Catch Basin
- Curb Inlet
- Storm Pipe
- Cable Manhole
- Electric Manhole
- Telephone Manhole
- Water Manhole
- Electric Meter
- Cable Riser
- Electric Riser
- Telephone Riser
- Telephone Booth
- Gas Meter
- Gas Valve
- Light Pole
- Power Pole
- Telephone Pole
- Guy Pole
- Power Pole
- Flag Pole
- Guy Wire
- Mailbox
- Parking Block
- Satellite Dish
- Handicap Parking
- Water Spigot
- Bollard
- Evergreen Tree
- Deciduous Tree
- Bush
- Sign
- Adjoining Property Line
- Subject Property Line
- Easement Line
- Building Setback Line
- Centerline
- Edge of Pavement
- Edge of Gravel
- Fence Line
- Landscape
- Woods / Tree line
- Edge of Water
- Ditch / Creek Centerline
- Minor Contour Line
- Index Contour Line
- Gas Line
- Sanitary Sewer Line
- Water Line
- Storm Sewer Line
- Overhead Utility Line
- Overhead Cable Line
- Overhead Electric Line
- Overhead Telephone Line
- Underground Utility Line
- Underground Cable Line
- Underground Electric Line
- Underground Telephone Line
- Forced Main Line

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

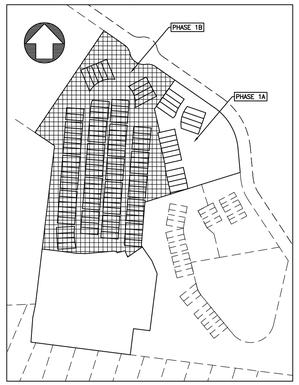
LINE TABLE		
LINE	BEARING	DISTANCE
L55	S 85°23'50" E	83.33'
L56	S 04°45'07" W	30.00'
L57	S 04°45'07" W	25.00'
L58	S 04°45'07" W	25.00'
L59	S 04°45'07" W	30.00'
L60	N 85°23'50" W	84.48'
L61	N 04°36'10" E	30.00'
L62	N 04°36'10" E	25.00'
L63	N 04°36'10" E	25.00'
L64	N 04°36'10" E	22.00'
L65	N 85°23'50" W	84.69'
L66	N 85°23'50" W	84.62'
L67	N 85°23'50" W	84.56'
L68	S 85°23'50" E	84.48'
L69	S 04°45'07" W	29.00'
L70	S 04°45'07" W	24.00'
L71	S 04°45'07" W	24.00'
L72	S 04°45'07" W	29.00'
L73	N 85°23'50" W	84.20'
L74	N 04°36'10" E	29.00'
L75	N 04°36'10" E	24.00'
L76	N 04°36'10" E	24.00'
L77	N 04°36'10" E	29.00'
L78	N 85°23'50" W	84.40'
L79	N 85°23'50" W	84.34'
L80	N 85°23'50" W	84.28'
L122	S 04°36'10" W	9.36'
L123	S 04°36'10" W	25.00'
L124	S 04°36'10" W	25.00'
L125	S 04°36'10" W	30.00'
L126	N 85°23'50" W	83.75'
L127	N 04°36'10" E	30.00'
L128	N 04°36'10" E	25.00'
L129	N 04°36'10" E	25.00'
L130	N 04°36'10" E	30.00'
L131	S 85°23'50" E	81.27'
L132	S 85°23'50" E	83.75'
L133	S 85°23'50" E	83.75'
L134	S 85°23'50" E	83.75'
L135	S 04°36'10" W	29.00'
L136	S 04°36'10" W	24.00'
L137	S 04°36'10" W	24.00'
L138	S 04°36'10" W	24.00'
L139	S 04°36'10" W	24.00'
L140	S 04°36'10" W	29.00'
L141	N 85°23'50" W	83.75'
L142	N 04°36'10" E	29.00'
L143	N 04°36'10" E	24.00'
L144	N 04°36'10" E	24.00'
L145	N 04°36'10" E	24.00'
L146	N 04°36'10" E	24.00'
L147	N 04°36'10" E	29.00'
L148	N 85°23'50" E	83.75'
L149	N 85°23'50" E	83.75'
L150	N 85°23'50" E	83.75'
L151	N 85°23'50" E	83.75'
L152	N 85°23'50" E	83.75'
L153	N 85°23'50" E	83.75'
L230	N 04°36'10" E	29.00'
L231	N 04°36'10" E	24.00'
L232	N 04°36'10" E	24.00'
L233	N 04°36'10" E	24.00'
L234	N 04°36'10" E	24.00'
L235	N 04°36'10" E	29.00'
L236	N 85°23'50" E	83.75'
L237	S 04°36'10" W	29.00'
L238	S 04°36'10" W	24.00'
L239	S 04°36'10" W	24.00'
L240	S 04°36'10" W	24.00'
L241	S 04°36'10" W	24.00'
L242	S 04°36'10" W	29.00'
L243	N 85°23'50" W	83.75'
L244	N 85°23'50" W	83.75'
L245	N 85°23'50" W	83.75'
L246	N 85°23'50" W	83.75'
L247	N 85°23'50" W	83.75'
L248	N 85°23'50" W	83.75'
L249	N 04°36'10" E	29.00'
L250	N 04°36'10" E	24.00'
L251	N 04°36'10" E	24.00'
L252	N 04°36'10" E	29.00'
L253	S 85°23'50" E	83.75'
L254	S 04°36'10" W	29.00'
L255	S 04°36'10" W	24.00'
L256	S 04°36'10" W	24.00'
L257	S 04°36'10" W	29.00'
L258	N 85°23'50" W	83.75'
L259	N 85°23'50" W	83.75'
L260	N 85°23'50" W	83.75'
L261	N 85°23'50" W	83.75'
L262	N 04°36'10" E	30.00'
L263	N 04°36'10" E	15.59'
L264	S 85°23'50" E	82.17'
L265	S 04°36'10" W	30.00'
L266	S 04°36'10" W	25.00'
L267	S 04°36'10" W	30.00'
L268	N 85°23'50" W	87.96'
L269	N 85°23'50" W	87.96'

LINE TABLE		
LINE	BEARING	DISTANCE
L270	N 85°23'50" W	87.64'
L271	N 61°59'14" E	96.83'
L272	S 28°00'46" E	29.00'
L273	S 28°00'46" E	24.00'
L274	S 28°00'46" E	24.00'
L275	S 28°00'46" E	29.00'
L276	S 61°59'14" W	116.39'
L277	N 04°36'10" E	10.25'
L278	S 61°59'14" W	100.44'
L279	S 61°59'14" W	93.75'
L280	S 61°59'14" W	92.17'
L281	N 22°30'35" W	111.46'
L282	N 67°29'25" E	30.00'
L283	N 67°29'25" E	25.00'
L284	N 67°29'25" E	25.00'
L285	N 67°29'25" E	25.00'
L286	N 67°29'25" E	30.00'
L287	S 22°30'35" E	104.54'
L288	S 34°04'00" W	7.18'
L289	S 22°30'35" E	91.43'
L290	S 22°30'35" E	87.21'
L291	S 22°30'35" E	88.33'
L292	S 22°30'35" E	94.95'
L293	S 85°23'50" E	83.91'
L294	S 04°36'10" W	29.00'
L295	S 04°36'10" W	29.00'
L296	N 85°23'50" W	84.20'
L297	N 04°36'10" E	29.00'
L298	N 04°53'15" E	29.00'
L299	S 85°23'50" E	84.05'
L300	S 85°23'50" E	83.75'
L301	S 04°36'10" W	29.00'
L302	S 04°36'10" W	24.00'
L303	S 04°36'10" W	24.00'
L304	S 04°36'10" W	24.00'
L305	S 04°36'10" W	24.00'
L306	S 04°36'10" W	29.00'
L307	N 85°23'50" W	83.75'
L308	N 04°36'10" E	29.00'
L309	N 04°36'10" E	24.00'
L310	N 04°36'10" E	24.00'
L311	N 04°36'10" E	24.00'
L312	N 04°36'10" E	24.00'
L313	N 04°36'10" E	29.00'
L314	S 85°23'50" E	83.75'
L315	S 85°23'50" E	83.75'
L316	S 85°23'50" E	83.75'
L317	S 85°23'50" E	83.75'
L318	S 85°23'50" E	83.75'
L319	S 85°23'50" E	84.09'
L320	S 04°36'10" W	30.00'
L321	S 04°36'10" W	25.00'
L322	S 04°36'10" W	25.00'
L323	S 04°36'10" W	25.00'
L324	S 04°36'10" W	25.00'
L325	S 04°36'10" W	30.00'
L326	N 85°23'50" W	84.09'
L327	S 04°36'10" W	30.00'
L328	S 04°36'10" E	25.00'
L329	S 04°36'10" E	25.00'
L330	S 04°36'10" E	25.00'
L331	S 04°36'10" E	25.00'
L332	N 04°36'10" E	30.00'
L333	S 85°23'50" E	84.09'
L334	S 85°23'50" E	84.09'
L335	S 85°23'50" E	84.09'
L336	S 85°23'50" E	84.09'
L337	S 85°23'50" E	84.09'
L338	S 85°23'50" E	84.09'
L339	S 04°36'10" W	30.00'
L340	S 04°36'10" W	25.00'
L341	S 04°36'10" W	25.00'
L342	S 04°36'10" W	25.00'
L343	S 04°36'10" W	25.00'
L344	S 04°36'10" W	30.00'
L345	N 85°23'50" W	84.09'
L346	N 04°36'10" E	30.00'
L347	N 04°36'10" E	25.00'
L348	N 04°36'10" E	25.00'
L349	N 04°36'10" E	25.00'
L350	N 04°36'10" E	25.00'
L351	N 04°36'10" E	30.00'
L352	S 85°23'50" E	84.09'
L353	S 85°23'50" E	84.09'
L354	S 85°23'50" E	84.09'
L355	S 85°23'50" E	84.09'
L356	S 85°23'50" E	84.09'
L357	N 86°16'46" E	87.90'
L358	S 04°36'10" W	4.77'
L359	S 86°16'46" W	88.11'
L360	N 03°31'17" W	29.00'
L361	N 03°31'17" W	24.00'
L362	N 03°31'17" W	24.00'
L363	N 03°31'17" W	29.00'
L364	N 86°16'46" E	84.70'
L365	N 86°16'46" E	84.04'
L366	N 86°16'46" E	85.19'

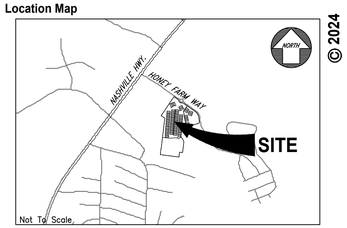
CURVE TABLE					
CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C11	23.00'	8.17'	8.13'	N 14°46'48" E	20°21'16"
C12	131.00'	17.24'	17.23'	N 00°49'55" E	7°32'29"
C13	87.00'	20.84'	20.79'	S 02°15'34" E	13°43'27"
C14	287.00'	26.76'	26.76'	N 01°55'52" E	5°20'36"
C15	137.00'	9.42'	9.42'	N 06°34'22" E	3°56'25"
C16	137.00'	30.56'	30.49'	N 14°55'58" E	12°46'47"
C17	119.00'	22.91'	22.88'	N 00°54'48" W	11°01'55"
C18	119.00'	24.96'	24.91'	N 12°28'18" W	12°01'05"
C19	119.00'	24.09'	24.05'	N 24°14'51" W	11°36'01"
C20	119.00'	29.45'	29.37'	N 37°08'11" W	14°10'40"
C21	119.00'	32.84'	32.74'	N 88°54'10" W	15°48'49"
C22	119.00'	25.40'	25.35'	S 77°04'30" W	12°13'50"
C23	119.00'	25.07'	25.03'	S 64°55'27" W	12°04'17"
C24	119.00'	25.91'	25.86'	S 52°39'00" W	12°28'37"
C25	119.00'	25.64'	25.59'	S 40°14'21" W	12°20'42"
C26	169.00'	1.51'	1.51'	S 33°48'40" W	0°30'41"
C27	319.00'	24.43'	24.42'	S 02°24'31" W	4°23'17"
C28	319.00'	24.02'	24.01'	S 01°56'32" E	4°18'50"
C29	319.00'	24.03'	24.02'	S 06°15'25" E	4°18'57"
C30	319.00'	12.83'	12.83'	S 09°34'01" E	2°18'14"
C31	281.00'	16.31'	16.31'	S 09°03'20" E	3°19'35"
C32	65.01'	49.85'	48.64'	S 33°08'23" E	43°55'50"
C33	67.18'	102.85'	93.09'	S 55°01'56" E	87°42'55"
C34	66.44'	49.89'	48.72'	S 77°22'44" E	43°01'19"
C35	131.01'	33.07'	32.99'	N 21°49'04" W	14°27'54"
C36	23.00'	21.74'	20.94'	N 67°54'32" W	54°09'17"

LOT AREA TABLE		
LOT	SQ. FT.	ACRES
95	2,538.0	0.06
96	2,116.4	0.05
97	2,114.7	0.05
98	2,535.5	0.06
99	2,448.8	0.06
100	2,024.9	0.05
101	2,023.4	0.05
102	2,443.0	0.06
115	2,495.6	0.06
116	2,093.8	0.05
117	2,093.8	0.05
118	2,512.6	0.06
119	2,428.8	0.06
120	2,010.1	0.05
121	2,010.1	0.05
122	2,010.1	0.05
123	2,010.1	0.05
124	2,428.8	0.06
149	2,428.8	0.06
150	2,010.1	0.05
151	2,010.1	0.05
152	2,010.1	0.05
153	2,010.1	0.05
154	2,428.8	0.06
155	2,428.8	0.06
156	2,010.1	0.05
157	2,010.1	0.05
158	2,428.8	0.06
159	2,638.8	0.06
160	2,198.0	0.05
161	2,564.4	0.06
162	3,110.3	0.07
163	2,319.5	0.05
164	2,221.3	0.05
165	2,722.7	0.06
166	2,914.7	0.07
167	2,221.4	0.05
168	2,183.1	0.05
169	2,278.8	0.05
170	3,072.3	0.07
171	2,435.4	0.06
172	2,439.6	0.06
173	2,428.8	0.06
174	2,010.1	0.05
175	2,010.1	0.05
176	2,010.1	0.05
177	2,010.1	0.05
178	2,428.8	0.06
179	2,522.7	0.06
180	2,102.2	0.05
181	2,102.2	0.05
182	2,102.2	0.05
183	2,102.2	0.05
184	2,522.7	0.06
185	2,522.7	0.06
186	2,102.2	0.05
187	2,102.2	0.05
188	2,102.2	0.05
189	2,102.2	0.05
190	2,522.7	0.06
191	2,496.7	0.06
192	2,021.3	0.05
193	2,027.1	0.05
194	2,514.5	0.06

Drumwright Development Map



Location Map



PURPOSE NOTE:
The purpose of this plat is to create 100 townhome lots, easements, and common open space.

DRIVEWAY NOTE:
All driveways shall be constructed to contain gutter flow within the street and right-of-way, particularly lots that do not have a sidewalk.

STORMWATER MANAGEMENT AGREEMENT:
RECORDED:
DEED BOOK: _____ PAGE: _____

PARCEL NUMBER:
TAX MAP 051, PARCEL 058.02

DEED BOOK:
R2971, PAGE 216

PARCEL ADDRESS:
HONEY FARM WAY
COLUMBIA, TENNESSEE 38401

EXISTING ZONING:
Other PUD

BUILDING SETBACKS:
*SEE LOT DETAIL

ACREAGE OF PARCEL: ±3.45 ACRES – 150,266.5 S.F.
COMMON OPEN SPACE – ±2.46 ACRES – 107,179.2 S.F.
TOTAL – ±20.71 ACRES – 902,054.3 S.F.

PROPERTY OWNER:
AG EHC II (LEN) MULTI STATE 4, LLC
381 MALLORY STATION ROAD, SUITE 200
FRANKLIN, TN 37067

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 Number R2971, Page 216, Maury County Registers Office, and that I (we) hereby adopt this plan of subdivision with my (our) free consent, establish the minimum building restriction lines, and that offers of irrevocable dedication for all public ways, utilities, and other facilities have been filed.

Date

AG EHC II (LEN) Multi State 4, LLC,
a Delaware limited liability company

By: Essential Housing Asset Management, LLC,
an Arizona limited liability company,
its Authorized Agent

By: _____
Date Steven S. Benson, its Manager

CERTIFICATE OF APPROVAL OF STREETS, DRAINAGE, STREET SIGNS, AND UTILITIES

I hereby certify that the streets, drainage, and utilities designated in HONEY FARMS PUD - PHASE 1B 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.

Date City Engineer
Columbia, Tennessee

CERTIFICATE OF APPROVAL FOR SUBDIVISION NAME AND STREET NAMES

Subdivision name and street names approved by the City Engineering Department and by E-911 Maury County.

Date Maury County E-911
Columbia, Tennessee

CERTIFICATE OF APPROVAL OF SEWER SYSTEM

I hereby certify that the 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 has been filed to guarantee said installation.

Date Director of Wastewater Department
Columbia, Tennessee

CERTIFICATE OF APPROVAL OF WATER SYSTEM

I, (we) hereby certify that the water system(s) outlined or indicated on the final subdivision plat entitled HONEY FARMS PUD - PHASE 1B 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.

Date Columbia Power & Water Systems
Columbia, Tennessee

CERTIFICATE OF COMPLIANCE

I hereby certify that the subdivision plat shown hereon has been found to comply with the City of Columbia Subdivision Regulations and other adopted ordinances and policies.

Date City Engineer
Columbia, Tennessee

CERTIFICATE OF APPROVAL FOR RECORDING

I hereby certify that the 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 are noted in the minutes of the Planning Commission, and that it has been approved for recording in the Office of the County Register:

Date Secretary, Planning Commission
Columbia, Tennessee

SURVEYOR'S CERTIFICATION (TENNESSEE)

I hereby certify that to the best of my 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.

8/19/24 Allen B. O'Leary TN RLS #1987
Date Allen B. O'Leary Number

Register of Deed Recording Stamp

ALLEN B. O'LEARY — REGISTERED LAND SURVEYOR — STATE OF TENNESSEE — No. 1987 — allenwesengineers.com

© 2024

WES ENGINEERS & SURVEYORS
CIVIL ENGINEERS & LAND SURVEYORS
2486 NASHVILLE HIGHWAY
COLUMBIA, TN 38401
PHONE: (931) 388-2329
www.wesengineers.com

ENGINEERS & SURVEYORS

Client
Lennar Homes of Tennessee, LLC.
381 Mallory Station Road, Suite 200
Franklin, TN 37067
615-716-7188

REVISIONS	DATE

FINAL PLAT
HONEY FARMS PUD - PHASE 1B
HONEY FARM WAY, COLUMBIA, TN

Drawn: EB
Checked: AO
Approved: AO
Date: 08-19-2024

Job. no. 22522
Scale: Vertical: 1"=50' Horizontal:

1 of 2

FILE: J:\WES_Engineers_Surveyors 2022\22522 – Honey Farm – Lennar\Dwg\Survey\01 – Final Plat\22522 HONEY FARM P1B FINAL PLAT.dwg

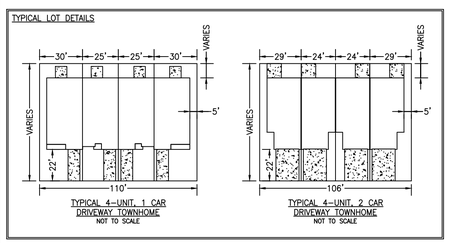
TN GRID NORTH



OPEN SPACE NOTE:

ALL OPEN SPACE AREA IS TO BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION, CREATED FOR THE PURPOSE OF MAINTAINING ALL COMMON OPEN SPACE AND GROUNDS INCLUDING THE DETENTION AREAS SHOWN ON THIS PLAT. ALL OPEN SPACE AREA IS CONSIDERED A PUBLIC UTILITY, AND DRAINAGE EASEMENT.

TYPICAL LOT DETAILS



Legend

- EIP
- IPS — Iron Rod Set
- I.P.F. — Iron Pipe Found
- AXLE — Axle Found
- ECM — Concrete Monument Existing
- P.K.F. — PK Nail Found
- P.K.S. — PK Nail Set
- R.R.S.-F — Railroad Spike Found
- R.R.S.S. — Railroad Spike Set
- Bench Mark
- Stake Found
- Fire Hydrant
- Water Meter
- Water Valve
- Water Reducer
- Clean Out
- Sanitary Sewer Manhole
- Storm Sewer Manhole
- Catch Basin
- Curb Inlet
- Storm Pipe
- Cable Manhole
- Electric Manhole
- Telephone Manhole
- Water Manhole
- Electric Meter
- Cable Riser
- Electric Riser
- Telephone Riser
- Telephone Booth
- Gas Meter
- Gas Valve
- Light Pole
- Power Pole
- Telephone Pole
- Guy Pole
- Power Pole
- Flag Pole
- Guy Wire
- Mailbox
- Parking Block
- Satellite Dish
- Handicap Parking
- Water Spigot
- Bollard
- Evergreen Tree
- Deciduous Tree
- Bush
- Sign
- Adjoining Property Line
- Subject Property Line
- Easement Line
- Building Setback Line
- Centerline
- Edge of Pavement
- Edge of Gravel
- Fence Line
- Landscape
- Woods / Tree line
- Edge of Water
- Ditch / Creek Centerline
- Minor Contour Line
- Index Contour Line
- Gas Line
- Sanitary Sewer Line
- Water Line
- Storm Sewer Line
- Overhead Utility Line
- Overhead Cable Line
- Overhead Electric Line
- Overhead Telephone Line
- Underground Utility Line
- Underground Cable Line
- Underground Electric Line
- Underground Telephone Line
- Forced Main Line

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

LINE TABLE

LINE	BEARING	DISTANCE
L81	S 85°23'50" E	84.25'
L82	S 04°45'07" W	29.00'
L83	S 04°45'07" W	24.00'
L84	S 04°45'07" W	24.00'
L85	S 04°45'07" W	29.00'
L86	N 85°23'50" W	83.98'
L87	N 04°36'10" E	29.00'
L88	N 04°36'10" E	24.00'
L89	N 04°36'10" E	24.00'
L90	N 04°36'10" E	29.00'
L91	N 85°23'50" W	84.17'
L92	N 85°23'50" W	84.11'
L93	N 85°23'50" W	84.05'
L94	S 85°23'50" E	83.85'
L95	S 04°45'07" W	9.82'
L96	S 04°45'07" W	19.18'
L97	S 04°45'07" W	24.00'
L98	S 04°45'07" W	24.00'
L99	S 04°45'07" W	29.00'
L100	N 85°23'50" W	83.57'
L101	N 04°36'10" E	29.00'
L102	N 04°36'10" E	24.00'
L103	N 04°36'10" E	24.00'
L104	N 04°36'10" E	29.00'
L105	N 85°23'50" W	83.77'
L106	N 85°23'50" W	83.71'
L107	N 85°23'50" W	83.65'
L108	S 85°23'50" E	83.54'
L109	S 04°45'07" W	30.00'
L110	S 04°45'07" W	25.00'
L111	S 04°45'07" W	25.00'
L112	S 04°45'07" W	24.59'
L113	S 34°45'19" E	7.00'
L114	N 85°23'50" W	86.57'
L115	N 04°36'10" E	12.81'
L116	N 04°36'10" E	25.00'
L117	N 04°36'10" E	25.00'
L118	N 04°36'10" E	30.00'
L119	N 85°23'50" W	83.47'
L120	N 85°23'50" W	83.40'
L121	N 85°23'50" W	83.34'
L154	S 04°36'10" W	29.00'
L155	S 04°36'10" W	24.00'
L156	S 04°36'10" W	24.00'
L157	S 04°36'10" W	29.00'
L158	N 85°23'50" W	83.75'
L159	N 04°36'10" E	29.00'
L160	N 04°36'10" E	24.00'
L161	N 04°36'10" E	24.00'
L162	N 04°36'10" E	29.00'
L163	S 85°23'50" E	83.75'
L164	S 85°23'50" E	83.75'
L165	S 85°23'50" E	83.75'
L166	S 85°23'50" E	83.75'
L167	S 04°36'10" W	29.00'
L168	S 04°36'10" W	24.00'
L169	S 04°36'10" W	24.00'
L170	S 04°36'10" W	24.00'
L171	S 04°36'10" W	24.00'

LINE TABLE

LINE	BEARING	DISTANCE
L172	S 04°36'10" W	29.00'
L173	N 85°23'50" W	83.75'
L174	N 04°36'10" E	29.00'
L175	N 04°36'10" E	24.00'
L176	N 04°36'10" E	24.00'
L177	N 04°36'10" E	24.00'
L178	N 04°36'10" E	24.00'
L179	N 04°36'10" E	29.00'
L180	S 85°23'50" E	83.75'
L181	S 85°23'50" E	83.75'
L182	S 85°23'50" E	83.75'
L183	S 85°23'50" E	83.75'
L184	S 85°23'50" E	83.75'
L185	S 85°23'50" E	83.75'
L186	S 04°36'10" W	30.00'
L187	S 04°36'10" W	25.00'
L188	S 04°36'10" W	25.00'
L189	S 04°36'10" W	30.00'
L190	N 85°23'50" W	83.75'
L191	N 04°36'10" E	30.00'
L192	N 04°36'10" E	25.00'
L193	N 04°36'10" E	25.00'
L194	N 04°36'10" E	30.00'
L195	S 85°23'50" E	83.75'
L196	S 85°23'50" E	83.75'
L197	S 85°23'50" E	83.75'
L198	S 85°23'50" E	83.75'
L199	N 04°36'10" E	1.27'
L200	N 04°36'10" E	25.00'
L201	N 04°36'10" E	25.00'
L202	N 04°36'10" E	30.00'
L203	N 85°23'50" W	83.84'
L204	S 04°36'10" W	30.00'
L205	S 04°36'10" W	25.00'
L206	S 04°36'10" W	25.00'
L207	S 04°36'10" W	30.00'
L208	N 85°23'50" W	82.59'
L209	N 85°23'50" W	83.84'
L210	N 85°23'50" W	83.84'
L211	N 85°23'50" W	83.84'
L212	N 04°36'10" E	29.00'
L213	N 04°36'10" E	24.00'
L214	N 04°36'10" E	24.00'
L215	N 04°36'10" E	24.00'
L216	N 04°36'10" E	24.00'
L217	N 04°36'10" E	29.00'
L218	S 85°23'50" E	83.75'
L219	S 04°36'10" W	29.00'
L220	S 04°36'10" W	24.00'
L221	S 04°36'10" W	24.00'
L222	S 04°36'10" W	24.00'
L223	S 04°36'10" W	24.00'
L224	S 04°36'10" W	29.00'
L225	N 85°23'50" W	83.75'
L226	N 85°23'50" W	83.75'
L227	N 85°23'50" W	83.75'
L228	N 85°23'50" W	83.75'
L229	N 85°23'50" W	83.75'

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C11	23.00'	8.17'	8.13'	N 14°49'48" E	20°21'16"
C12	131.00'	17.24'	17.23'	N 00°49'55" E	7°32'29"
C13	87.00'	20.84	20.79'	S 02°15'34" E	13°43'22"
C14	287.00'	26.76'	26.76'	N 01°50'52" E	5°20'36"
C15	137.00'	9.42'	9.42'	N 06°34'22" E	3°56'25"
C16	137.00'	30.56'	30.49'	N 14°55'58" E	12°46'47"
C17	119.00'	22.91'	22.88'	N 09°54'48" W	11°01'55"
C18	119.00'	24.96'	24.91'	N 12°26'18" W	12°01'05"
C19	119.00'	24.09'	24.05'	N 24°14'51" W	11°36'01"
C20	119.00'	29.45'	29.37'	N 37°08'11" W	14°10'40"
C21	119.00'	32.84'	32.74'	N 88°54'10" W	15°48'49"
C22	119.00'	25.40'	25.35'	S 77°04'30" W	12°13'50"
C23	119.00'	25.07'	25.03'	S 64°55'27" W	12°04'17"
C24	119.00'	25.91'	25.86'	S 52°39'00" W	12°28'37"
C25	119.00'	25.64'	25.59'	S 40°14'21" W	12°20'42"
C26	169.00'	1.51'	1.51'	S 33°48'40" W	0°30'41"
C27	319.00'	24.43'	24.42'	S 02°24'31" W	4°23'17"
C28	319.00'	24.02'	24.01'	S 01°56'32" E	4°18'50"
C29	319.00'	24.03'	24.02'	S 06°15'25" E	4°18'57"
C30	319.00'	12.83'	12.83'	S 09°34'01" E	2°18'14"
C31	281.00'	16.31'	16.31'	S 09°03'20" E	3°19'35"
C32	65.01'	49.85'	48.64'	S 33°08'23" E	43°55'50"
C33	67.18'	102.85'	93.09'	S 55°01'56" E	87°42'55"
C34	66.44'	49.89'	48.72'	S 77°22'44" E	43°01'19"
C35	131.01'	33.07'	32.99'	N 21°49'04" W	14°27'54"
C36	23.00'	21.74'	20.94'	N 67°54'32" W	54°09'17"

LOT AREA TABLE

LOT	SQ. FT.	ACRES
103	2,442.2	0.06
104	2,019.5	0.05
105	2,018.0	0.05
106	2,436.4	0.06
107	2,430.5	0.06
108	2,009.8	0.05
109	2,008.3	0.05
110	2,424.6	0.06
111	2,505.1	0.06
112	2,085.8	0.05
113	2,084.2	0.05
114	2,504.4	0.06
125	2,428.8	0.06
126	2,010.1	0.05
127	2,010.1	0.05
128	2,428.8	0.06
129	2,428.8	0.06
130	2,010.1	0.05
131	2,010.1	0.05
132	2,010.1	0.05
133	2,010.1	0.05
134	2,428.8	0.06
135	2,512.6	0.06
136	2,093.8	0.05
137	2,093.8	0.05
138	2,512.6	0.06
139	2,504.0	0.06
140	2,095.9	0.05
141	2,095.9	0.05
142	2,515.1	0.06
143	2,428.8	0.06
144	2,010.1	0.05
145	2,010.1	0.05
146	2,010.1	0.05
147	2,010.1	0.05
148	2,428.8	0.06

PURPOSE NOTE:
The purpose of this plat is to create 100 townhome lots, easements, and common open space.

DRIVEWAY NOTE:
All driveways shall be constructed to contain gutter flow within the street and right-of-way, particularly lots that do not have a sidewalk.

STORMWATER MANAGEMENT AGREEMENT:
RECORDED: _____
DEED BOOK: _____ PAGE: _____

PARCEL NUMBER:
TAX MAP 051, PARCEL 058.02

DEED BOOK:
R2971, PAGE 216

PARCEL ADDRESS:
HONEY FARM WAY
COLUMBIA, TENNESSEE 38401

EXISTING ZONING:
Other PUD

BUILDING SETBACKS:
*SEE LOT DETAIL

ACREAGE OF PARCEL:
PHASE 1A – ±3.45 ACRES – 150,266.5 S.F.
COMMON OPEN SPACE – ±2.46 ACRES – 107,179.2 S.F.
TOTAL – ±20.71 ACRES – 902,054.3 S.F.

PROPERTY OWNER:
AG EHC II (LEN) MULTI STATE 4, LLC
381 MALLORY STATION ROAD, SUITE 200
FRANKLIN, TN 37067

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 Number R2971, Page 216, Maury County Registers Office, and that I (we) hereby adopt this plan of subdivision with my (our) free consent, establish the minimum building restriction lines, and that offers of irrevocable dedication for all public ways, utilities, and other facilities have been filed.

Date — AG EHC II (LEN) Multi State 4, LLC, a Delaware limited liability company

By: Essential Housing Asset Management, LLC, an Arizona limited liability company, its Authorized Agent

Date — By: _____ Steven S. Benson, its Manager

CERTIFICATE OF APPROVAL OF STREETS, DRAINAGE, STREET SIGNS, AND UTILITIES

I hereby certify that the streets, drainage, and utilities designated in HONEY FARMS PUD - PHASE 1B 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.

Date — City Engineer, Columbia, Tennessee

CERTIFICATE OF APPROVAL FOR SUBDIVISION NAME AND STREET NAMES

Subdivision name and street names approved by the City Engineering Department and by E-911 Maury County.

Date — Maury County E-911, Columbia, Tennessee

CERTIFICATE OF APPROVAL OF SEWER SYSTEM

I hereby certify that the 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 has been filed to guarantee said installation.

Date — Director of Wastewater Department, Columbia, Tennessee

CERTIFICATE OF APPROVAL OF WATER SYSTEM

I, (we) hereby certify that the water system(s) outlined or indicated on the final subdivision plat entitled HONEY FARMS PUD - PHASE 1B 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.

Date — Columbia Power & Water Systems, Columbia, Tennessee

CERTIFICATE OF COMPLIANCE

I hereby certify that the subdivision plat shown hereon has been found to comply with the City of Columbia Subdivision Regulations and other adopted ordinances and policies.

Date — City Engineer, Columbia, Tennessee

CERTIFICATE OF APPROVAL FOR RECORDING

I hereby certify that the 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 are noted in the minutes of the Planning Commission, and that it has been approved for recording in the Office of the County Register:

Date — Secretary, Planning Commission, Columbia, Tennessee

SURVEYOR'S CERTIFICATION (TENNESSEE)

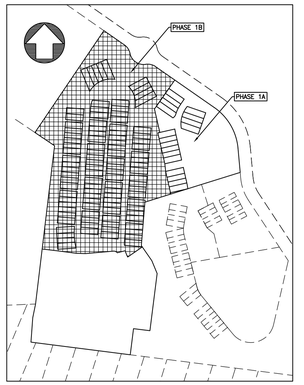
I hereby certify that to the best of my knowledge and belief this is a true and accurate survey of the property shown hereon; that this is a category "I" Land Survey as defined in Title 62, Chapter 18, Tennessee Code Annotated, and that the ratio of precision is greater than or equal to 1:10,000.

8/19/24 — Allen B. O'Leary — TN RLS #1987
Date — Allen B. O'Leary — Number

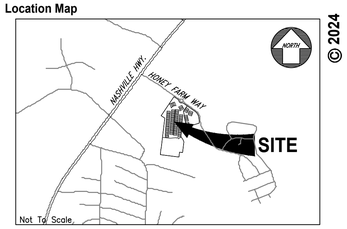
Register of Deed Recording Stamp



Drumwright Development Map



Location Map



Not To Scale

Surveyor's Notes

1. All distances were measured with E.D.M. equipment and have been adjusted for temperature and pressure.
2. The property (Boundary) Line Survey exceeds the minimum requirements of an Urban Land Survey Category 1 as per Standards of Practice adopted by the State Board of Examiners for Land Surveyors for the State of Tennessee, and the precision of the unadjusted survey is greater than 1 foot in 10,000 feet.
3. Information concerning site utility services and appurtenances shown hereon is based on visible evidence noted during the survey, information provided by utility representatives or information shown on original construction plans by other. Information and location of service lines on site should be considered approximate and there may be underground utility lines that are not shown on the survey. Owner(s) and contractor(s) should assume responsibility of locating all underground utility service lines prior to any construction, excavation or any disturbance of the existing ground elevation to avoid hazard of unnecessary expense.
4. Information concerning major utilities or appurtenances shown hereon are based on visible evidence noted during the survey or information provided by utility representatives. Verification of existence, size, location, depth and availability of service should be confirmed by local utility agencies.
5. The property shown hereon is located within the City of Columbia, Maury County, TN. 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.
6. The area of the parcels as shown hereon.
7. This property currently identified as Tax Map No. 051 Parcel No. 058.02, Maury County. For designation shown thus ( ) indicates Parcel Numbers for said map.
8. Plat reference: N/A
9. Deed reference: Book R2971, Page 216
10. Bearings based on: Tennessee State Plane, NAD 83.
11. This drawing was prepared in accordance with our field survey notes. It shows improvements as they exist to the best of our knowledge, but is not guaranteed to be correct in each and every detail.
12. This survey was prepared from current deeds of record and does not represent a title search or a guarantee of title, and is subject to any state of facts a current and accurate search may reveal.
13. 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.
14. The certification as provided on this survey, is purely a statement of professional opinion based on knowledge, information and belief, based on existing field evidence and documentary evidence provided by others.
15. The certification is not an expressed or implied warranty or guarantee.
16. This property is not located in a Special Flood Hazard Area as shown on F.E.M.A. Flood Insurance Rate Map, Community Panel No. 47119C0180E, dated April 16, 2007, and shown hereon graphically.
17. All public utility and drainage easements located on proposed lots are to be maintained by the individual property owner for said lot.
18. All property corners are ½" rebar with cap reading "WES 1987" unless otherwise noted.

WES ENGINEERS & SURVEYORS
CIVIL ENGINEERS & LAND SURVEYORS
2486 NASHVILLE HIGHWAY
COLUMBIA, TN 38401
PHONE: (931) 388-2329
www.wesengineers.com

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ENGINEERS & SURVEYORS

Client
Lennar Homes of Tennessee, LLC.
381 Mallory Station Road, Suite 200
Franklin, TN 37067
615-716-7188

DATE	REVISIONS

FINAL PLAT
HONEY FARMS PUD - PHASE 1B
HONEY FARM WAY, COLUMBIA, TN

Drawn: EB | Checked: AO | Approved: AO | Date: 08-19-2024

Job. no. 22522 | Scale: Vertical: 1"=50' Horizontal:

2 of 2

FILE: J:\WES_Engineers_Surveyors 2022\22522 - Honey Farm - Lennar\Dwg\Survey\01 - Final Plat\22522 HONEY FARM P1B FINAL PLAT.dwg

Appendix B: Subdivision Development Agreement

This DEVELOPMENT AGREEMENT is made and entered into on this

13th day of August, 20 24,
between THE CITY OF COLUMBIA, TENNESSEE, (hereinafter the "CITY"), and

Lennar Homes of Tennessee, LLC, the DEVELOPER (hereinafter the "DEVELOPER") named on the Addendum to this Agreement attached hereto and by this reference made a part hereof (hereinafter the "ADDENDUM").

WITNESSETH:

WHEREAS, the DEVELOPER desires to develop the property described on the ADDENDUM (hereinafter the "PROJECT"); and,

WHEREAS, the Development Plan of the PROJECT has been approved by the Columbia Municipal Planning Commission (hereinafter the "CMPC") on the

_____ day of _____, 20_____,
pursuant to Tennessee Code Annotated Title 13, Chapter 4, and the Subdivision Regulations of Columbia, Tennessee (hereinafter the "SUBDIVISION REGULATIONS"); and,

WHEREAS, the DEVELOPER is the owner of the PROJECT and has authority to engage in such development; and,

WHEREAS, the DEVELOPER desires to develop and improve said PROJECT; and,

WHEREAS, in order to provide for the health, safety, and welfare of future residents of the PROJECT, it will be necessary for certain improvements to the CITY'S utility systems, public infrastructure, and common areas to be constructed within and to serve the PROJECT including but not be limited to roads, bridges, sidewalks, pedestrian facilities, stormwater facilities, street signs, markings, signals, street lighting, recreation and park facilities, landscaping, and the like (hereinafter the "IMPROVEMENTS"); and,

WHEREAS, in order for the IMPROVEMENTS to be fully integrated with the utility systems and public infrastructure of the CITY and to function in a satisfactory manner, the DEVELOPER has agreed to construct, in accordance with the Subdivision Regulations and other rules, regulations, and ordinances of the CITY, the IMPROVEMENTS in said PROJECT and extend utilities to the PROJECT at their own cost; and,

WHEREAS, the CITY is willing to accept the dedication of the streets, utilities, and other improvements as determined in the Development Plan of the PROJECT, subject to the City of Columbia City Council approval by resolution, and subject to the applicant's compliance with all requirements in this agreement and applicable existing laws of the CITY of Columbia and the State of Tennessee,

NOW, THEREFORE, it is agreed and understood as follows:

B1 General Conditions

B1.1 Construction Costs

The DEVELOPER shall pay for all material and labor necessary to install and complete the roads, sidewalks, sewers, utilities, and other facilities in accordance with this agreement.

B1.2 City Ordinances, Rules and Regulations

All currently existing CITY ordinances, rules and regulations, and the Subdivision Regulations adopted by the CMPC are made a part of this agreement. In the event of a conflict between the terms of this agreement and a CITY ordinance, the ordinance shall prevail. In the event of a conflict between the terms of this agreement and the Subdivision Regulations, the Subdivision Regulations shall prevail. All work done under this agreement is to be performed in accordance with plans and specifications approved by the City and made a part, hereof.

B1.3 Fees

Review fees, inspection fees, and other amounts established by the CITY shall be paid prior to any review of the plans. If the DEVELOPER fails to install the facilities in accordance with the terms of this Agreement, no portion of the review fees, inspection fees, or other amounts paid to the CITY shall be refundable to the DEVELOPER.

B1.4 Inspection

The CITY shall have a continuous right to inspect the work and facilities to assure that the work and facilities are in accordance with the Subdivision Regulations, approved Construction Plans, and other rules, regulations, and ordinances of the CITY.

B1.5 Right of Entry

The CITY shall have the right, in case of breach of the Performance Agreement, to enter upon any property of the DEVELOPER and take all necessary actions to complete the work and obligations not completed.

B1.6 Easements

The DEVELOPER shall obtain and dedicate to the CITY or cause to be dedicated to the CITY, either by dedication on the plat or by easement deed, in either case in a form acceptable to the CITY, permanent easements of such widths as required by the CITY and noted on the Plans. The DEVELOPER further agrees to grant the necessary easements and rights-of-way across the DEVELOPER's properties without expense to the CITY and waive any claim for damages.

B1.7 Stormwater Maintenance Agreement

If the PROJECT includes any detention or retention ponds, common drainage ditches, water quality facilities, or stormwater facilities outside of the CITY rights-of-way, the DEVELOPER will submit a Stormwater Maintenance Agreement, to be filed with and recorded with the Final Plat.

B1.8 Attorney Fees and Other Expenses

The DEVELOPER shall pay all reasonable costs and expenses incurred by the CITY in enforcing or completing this agreement. The DEVELOPER shall pay all costs and expenses, including the CITY'S attorney fees, of any legal proceedings brought by the CITY against the DEVELOPER seeking remedies for the DEVELOPER'S failure to perform any of its obligations hereunder, whether or not any proceedings are prosecuted to judgment.

B1.9 Agreement Not Assignable

No third party shall obtain any benefits or rights under this agreement nor shall the rights or duties be assigned by either party.

B1.10 Revocation and Interpretation

This agreement shall bind the DEVELOPER when executed by the DEVELOPER and may not be revoked by the DEVELOPER without permission of the CITY, even if the agreement has not been executed by the CITY, or does not bind CITY, for other reasons. This agreement shall be interpreted in accordance with Tennessee law and may only be enforced in the Chancery Court or Circuit Court or Court of competent jurisdiction of Maury County, Tennessee, and Tennessee Appellate Courts.

B1.11 No Oral Agreement

This agreement may not be orally amended and supersedes all prior negotiations, commitments, or understandings.

B1.12 Separability

If any portion of this agreement is held to be unenforceable, the CITY shall have the right to determine whether the remainder of the agreement shall remain in effect, or whether the agreement shall be void and all rights of the DEVELOPER pursuant to this agreement terminated.

B 1.13 Transferability

The DEVELOPER agrees to not transfer the property on which this PROJECT is to be located without first providing the CITY with written notice. The transferee shall provide the CITY an Assumption Agreement of this Agreement, whereby the transferee agrees to perform the IMPROVEMENTS required under this agreement and to provide a performance surety. The DEVELOPER understands that if the DEVELOPER transfers said property without providing the notice of transfer and Assumption Agreement as required herein, they will be in breach of this agreement and in violation of the Subdivision Regulations.

B1.14 Indemnity

The DEVELOPER shall indemnify and hold the CITY harmless from all loss, costs, expenses, liability, money damages, penalties, or claims arising out of any work covered by this agreement, including any attorney fees incurred by the CITY in connection therewith. Inspection of the IMPROVEMENTS by an authorized representative of the CITY shall not constitute a waiver by the CITY of any defect or of any of the DEVELOPER'S obligations hereunder.

B1.15 Binding Effect

This agreement shall be binding upon the DEVELOPER and the DEVELEPOR's heirs, administrators, executors, assigns, and any other successors in interest.

B1.16 Entire Agreement

This document contains the entire agreement between the parties, and there are no collateral understandings or agreements between them. No variations or alterations of the terms of this agreement shall be binding upon either of the parties, unless the same be reduced to writing and made an amendment to this agreement.

B1.17 Headings

Paragraph titles and headings contained herein are inserted for convenience only and shall not be deemed a part of the agreement and in no way shall define, limit, extend, or describe the scope or intent of any provision, hereof.

B2 Performance Surety

At the time of execution of this agreement, the DEVELOPER shall provide the CITY a performance surety, in an amount determined by the City Engineer for the IMPROVEMENTS and other items specified by the Construction Plans, plats, and plans approved by the CMPC. This performance surety shall secure performance of all obligations of the DEVELOPER under this agreement. The performance surety shall meet all requirements established in Chapter 4: Performance Agreement of the Subdivision Regulations and secure full compliance with all terms and conditions of this agreement. The performance surety may be called for failure to comply with the provisions of this agreement in whole or in part according to the terms of the performance surety. The performance surety will not be released, except and until there has been full compliance with this agreement.

B3 Construction

B3.1 Construction Plans

The DEVELOPER shall submit to the CITY, Construction Plans describing in reasonable detail all utility systems, all storm water management systems, all street systems, pedestrian facilities, and all IMPROVEMENTS. The Construction Plans shall be designed according to the Engineering Standards and Specifications, all other codes and ordinances enforced by the City, and sound engineering judgment. The design of all utility systems shall follow the State of Tennessee and utility provider design criteria and specifications. In the event of a disagreement as to compliance with or interpretation of the Construction Plans and the CITY'S specifications, the decision of the CITY shall be final and binding on the DEVELOPER. The Construction Plans shall be prepared by a design professional licensed by the State of Tennessee to design all systems and shall bear the seal, signature, date, and license number of the professional preparing the Construction Plans.

B3.2 Commencement of Construction

Construction of IMPROVEMENTS may not begin until the following events have occurred:

A. The Preliminary Plat has been approved by the CMPC;
B. The Construction Plans are approved by the CITY;
C. The Tennessee Department of Environment and Conservation has approved the applicable portions of the Plans and has confirmed its approval to the CITY and/or DEVELOPER in writing;
D. The CITY shall have received an appropriately executed Development Agreement; and
E. The DEVELOPER shall give the CITY notice of commencement of construction, in writing at least one (1) working day prior to commencement.

B3.3 Site Grading

The DEVELOPER, hereby, agrees to construct all site grading to comply with the approved Construction Plans, including the approved Erosion Control Plan for the PROJECT and to comply with the Engineering Standards and Specifications, Stormwater Ordinance, and all other codes and ordinances enforced by the CITY.

B3.4 Storm Water Management Systems

The DEVELOPER shall be responsible for all storm water management work made necessary by the development of this PROJECT. It is understood and agreed that the CITY in its proprietary function is not and could not be expected to oversee, supervise, or direct the construction of all drainage improvements, and the excavation incident thereto. Neither is the CITY vested with the original design responsibility nor the means to formally survey elevations or the locations of improvements at every stage of the construction process. The CITY is vested with the right of periodic inspections, stop work order, and final approval as a measure of secondary or subsequent enforcement. The DEVELOPER has and shall retain the responsibility to properly anticipate, survey, design and construct the subdivision storm water improvements and give full assurance that same shall not adversely affect the flow or quality of surface water from or upon any property. In providing technical assistance, plan and design review, the CITY does not and shall not relieve or accept any liability from the DEVELOPER.

B3.5 Street Construction

The DEVELOPER, hereby, agrees to construct and improve the streets shown on the Construction Plans to comply with the CITY's specifications and to the satisfaction and approval of the City Engineer by grading, draining, subgrade preparation, base preparation, curbing, signage, striping, signalization, sidewalk installation, and paving with the required preparation, amounts, and types of material. The DEVELOPER further agrees to pay the cost of all engineering, inspection and laboratory cost incidental to the construction of subdivision streets including but not limited to material and density testing. The DEVELOPER further agrees to make all necessary adjustments to manholes and valve boxes to meet finished surface grade and to repair subsurface or base material, as required, in areas directed by the CITY Engineer, prior to application of final surface.

B3.6 Time Period for Construction

The DEVELOPER agrees to be bound to complete, within three (3) years of commencement of construction, all IMPROVEMENTS shown on the plat and plans and all things required by this agreement.

The DEVELOPER further agrees that if due to unforeseen circumstances, he is unable to complete all work included in this agreement within the time specified above, but desires to complete said agreement to the satisfaction of the CITY, the DEVELOPER shall submit a written request for extension of the agreement period to the CITY at least sixty (60) days prior to the expiration of the existing agreement period, specifying the reason for the DEVELOPER's failure to complete the work as agreed and a prospective date for such completion. The DEVELOPER further agrees that if the performance surety executed to secure the value of the work to be performed under this agreement, due to inflation or rising costs, is determined to be inadequate by the City Engineer to secure the cost of said IMPROVEMENTS at the time an extension is sought, the DEVELOPER will provide the additional security to bring the performance surety amount in line with current cost projections as made by the CITY. The DEVELOPER understands that the DEVELOPER's failure to follow the extension procedure constitutes a breach of this agreement and places the DEVELOPER in violation of the Subdivision Regulations. The DEVELOPER further understands, that should the DEVELOPER fail to complete any part of the work outlined in this agreement in a good and workmanlike manner as approved, the CITY shall reserve the right to withhold and withdraw all building permits within the PROJECT until all items of this Agreement have been fulfilled by the DEVELOPER.

B3.7 Off-Site Improvements

The DEVELOPER shall construct any and all off-site facilities that may be required to serve the PROJECT. Unless specifically noted in the Construction Plans and made a part of separate agreement with the CITY, the CITY shall not be required to reimburse the DEVELOPER for construction of off-site improvements.

B3.9 Inspection and Compliance

After construction begins, the CITY shall provide on-site construction inspection as the CITY deems necessary to ensure that all work is performed and completed in accordance with the Construction Plans, CITY specifications, and the contents of this agreement. In the event of a disagreement as to compliance with or interpretation of the Construction Plans and the CITY'S specifications, the decision of the CITY shall be final and binding on the DEVELOPER. If the DEVELOPER fails to construct in accordance with the approved Construction Plans or to comply with the CITY'S specifications, the CITY may issue a stop-work order and DEVELOPER, hereby, agrees to be bound by such order.

B3.10 Testing

The DEVELOPER agrees to pay the cost of all engineering, inspection, and laboratory cost incidental to construction of the streets, sidewalks, utilities, sewers, compacted fill material, and other facilities included within this agreement. Such testing includes, but is not limited to, material and density testing.

B3.11 Scrap Removal

The DEVELOPER agrees to comply with all local, state, and federal rules and regulations regarding waste material and debris disposal.

B3.12 Traffic Control

The DEVELOPER, hereby, agrees to prepare a traffic control/detour plan where required and shall submit said plan to the CITY for review and approval. All traffic control and safety devices, including

signs, lane markings, and barriers necessitated by construction activity undertaken pursuant to this agreement shall be installed and maintained by the DEVELOPER. All traffic control devices shall meet the standards and be installed in accordance with the latest edition of the Manual on Uniform Traffic Control Devices for Streets and Highways, published by the United States Department of Transportation.

B3.13 Temporary Facilities

The DEVELOPER shall provide all temporary facilities including but not limited to utilities and roadways, that are determined by the CITY to be required in connection with or as a result of interruption of service or access that occurs as a consequence of construction activity associated with the work covered by this agreement. Such temporary services shall in all regards and at all points in time be adequate to assure emergency access and adequate fire flows.

B4 Acceptance of Improvements

B4.1 Completion of Improvements

At such time as the improvements have been constructed and installed, in accordance with the Constructions Plans and specifications, required testing and inspections completed and found satisfactory, and all clean-up and cover-up has been done to the satisfaction the City Engineer, a letter requesting preliminary acceptance of the PROJECT will be provided by the DEVELOPER. Formal acceptance shall follow the procedure established in the Subdivision Regulations.

The DEVELOPER agrees the DEVELOPER shall have no claim, direct or implied, in the title or ownership of the IMPROVEMENTS specified in this agreement when the IMPROVEMENTS are complete and thereafter accepted by the CITY. The DEVELOPER will be responsible for construction failures and defects in PROJECT prior to final acceptance. During this period, it shall remain the responsibility of the DEVELOPER to correct and cure these defects and failures.

B4.2 As-Built Drawings and Post-Completion Items

The DEVELOPER agrees to furnish to the CITY as-built plans, on a reproducible, stable media, of the sanitary sewer, storm water management, water mains and service system, and streets within the subdivision before the CITY shall accept the subdivision.

B4.3 Acceptance of Facilities

Upon final acceptance of all or part of the IMPROVEMENTS in the PROJECT, then those IMPROVEMENTS shall become the property of the CITY free from all claims from any person or entity without the necessity of any further writing, agreement, or deed. The DEVELOPER further agrees that any facilities placed within a public or platted right-of-way or dedicated public easement are irrevocably dedicated to the public use without any right of reimbursement or compensation of any kind.

B4.4 Failure to Install

In the event the DEVELOPER fails to install the facilities in accordance with the terms of this agreement, the CITY may, in its sole discretion, elect to accept all or a portion of the IMPROVEMENTS in the PROJECT. Should the CITY choose to accept all or a portion of these IMPROVEMENTS, the CITY shall become the sole owner of these facilities. The CITY may give notice of acceptance by writing delivered to the DEVELOPER or recorded in the Register's Office of Maury County, Tennessee. No further writing or deed shall be required.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed in multiple originals by persons properly authorized so, to do on or as of the day and year first given.

SIGN HERE

HONEY FARMS 1B

PROJECT

Completed by the Developer	*Completed by the City*
Lennar Homes of Tennessee, LLC	
DEVELOPER NAME	
Dylan Ray - VP of Land Development	
AUTHORIZED AGENT NAME	CITY ENGINEER
SIGNATURE	SIGNATURE
8/13/24	
DATE	DATE
381 Mallory Station RD #200	
STREET	
Franklin, TN 37067	
CITY, STATE, ZIP	
615-483-8067	
PHONE	
Dylan.Ray@Lennar.com	
EMAIL	
Attest	*Attest*
Angela Lashley - Land Coordinator	
ATTEST NAME	ATTEST NAME
ATTEST SIGNATURE	ATTEST SIGNATURE
8/13/24	
DATE	DATE

August 19, 2024

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

RE: **Project Name: Honey Farm PUD Phase 1B, Final Plat**
City of Columbia Staff Review Submittal

On behalf of AG EHC II (LEN) Multi State 4, LLC, a Delaware limited liability company, the owner of these 100 proposed townhome lots, **WES Engineers & Surveyors** would like to submit this Final Plat to the City of Columbia for Planning Commission approval.

If you have any questions or comments with this submittal, please do not hesitate to contact me directly.

Sincerely,
WES Engineers & Surveyors



Allen B. O'Leary, RLS
Principal

CITY OF COLUMBIA TENNESSEE

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

PLANNING COMMISSION
PROJECT DEVELOPMENT APPLICATION

SUBMITTAL REQUIREMENTS

** 1 hard copy of all materials for submittal + PDF copy of submittal on USB thumb drive or CD*
Fold hard copy submittals larger than 8½"x11"

ADDRESS/LOCATION	HONEY FARMS 1B		
	TAX MAP: 051	GROUP:	PARCEL: 058.02
SUMMARY OF NATURE OF REQUEST AND WORK	To create 100 townhome lots, easements and open space.		

REQUEST DATE FOR PRE-APPLICATION CONFERENCE		*Pre-application meetings are scheduled for Wednesdays.*

SELECT REQUEST	SUBMITTALS SHALL INCLUDE BUT NOT LIMITED TO:
❑ Annexation ❑ Rezoning ❑ Sketch Plat – *Must be submitted at least two weeks prior to Preliminary Plat submittal* ❑ Preliminary Plat ☒ Final Plat ❑ PUD Preliminary Master Plan + Checklist ❑ PUD Final Site Plan + Checklist ❑ Multi-Family Site Plan ❑ Other: _____ **File naming nomenclature examples:* *Freedom Point Site Plan* *Freedom Point Master Plan* *Freedom Point Final Plat* *Freedom Point Elevations*	Annexations/Rezoning: ❑ Written Legal Description copy ❑ Requested Zone Listed ❑ Compliance with Comprehensive Plan ❑ Annexation Permission Form ❑ Plans and/or Plats conforming to City standards Plats/PUDs: • Project Name (include Sections & Phases) Honey Farms PUD - Phase 1B • Total Number of Lots 100 • Total acreage 11.33

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.

APPLICANT

All communications go to the Applicant's email that is provided.

NAME	W.E.S. Engineers and Surveyors	PHONE	931-388-2329
ADDRESS	2486 Nashville Highway Columbia, TN 38401	EMAIL	allen@wesengineers.com

PROPERTY OWNER NAME	AG EHC II (LEN) Multi State 4, LLC	PHONE	
ADDRESS	8585 E. Hartford Drive, Suite 188 Scottsdale AZ 85255	EMAIL	

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.

Allen O'Leary		8/12/24
APPLICANT NAME	APPLICANT SIGNATURE	DATE
Steven S. Benson, Manager of Essential Housing Asset Management, LLC, an Arizona limited liability company, the Authorized Agent of AG EHC II (LEN) Multi State 4, LLC		8/12/24
PROPERTY OWNER NAME	PROPERTY OWNER SIGNATURE	DATE

STAFF USE ONLY

DOCKET NO.		FEE PAID	
RECEIPT NO.		REQUESTED AGENDA	

DATE NOTICES SENT TO ADJACENT PROPERTY OWNERS	
DATE OF PUBLIC NOTICES IN DAILY HERALD	

BOARD ACTION	

Bear Creek Overlook Phase I

Project #:	24-0357	Location:	Map 072 Parcel 53.00
Applicant:	TKC Architecture & Engineering	Case Type(s):	Final Plat
Staff Planner:	Robert Archibald, Planner II	Proposed Use:	Amenity Site

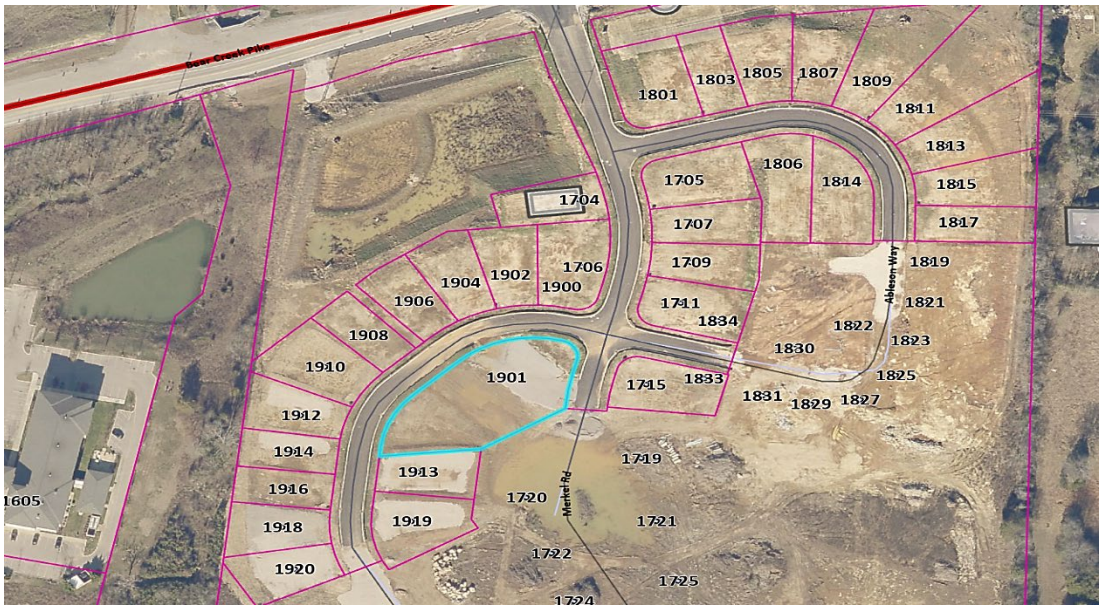
PROJECT SUMMARY

The applicant requests a Final Plat Revision approval for Phase 1 of the Bear Creek Overlook development. The purpose of this plat is to revise the previously approved Final Plat for Phase 1 of the Bear Creek Overlook development by adding common use notations of Open Space C as a community Amenity Site.

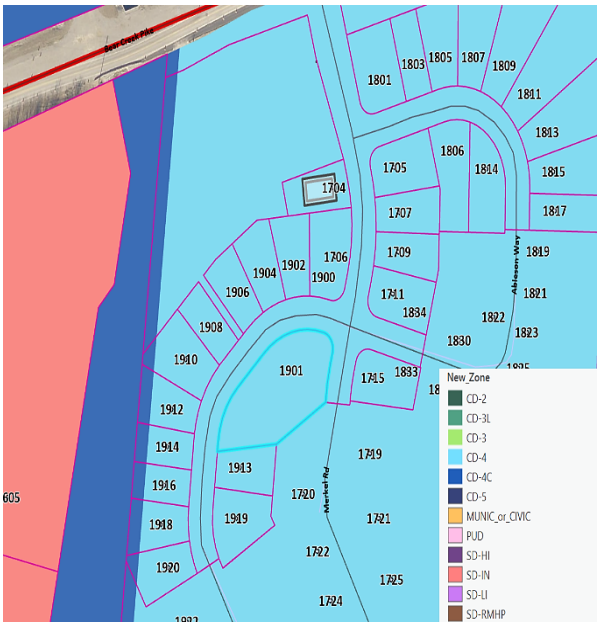
- The development is subject to Ordinance 3638, the pre-July 2022 zoning ordinance.
- The property is subject to the Preliminary Plat based on the MRC standards of the previous Zoning Ordinance.
- No surety is required.
- The applicant has executed a development agreement in the format prescribed by Appendix B of the Subdivision Regulations.
- The applicant has provided a stormwater maintenance agreement.
- The development conforms to the Preliminary Plat that was previously approved in December 2020 (referred to at the time as “I-65 East Site”).
- The Planning Commission previously approved an identical request in March 2024. The applicant did not record the approved plat in the tie prescribed by the Subdivision Regulations, giving rise to this application. The proposed plat revision has the same effect as the previously approved request.
- The DRC reviewed this proposal at its September 2024 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 Final Plat.
- Templates are provided at the end of the report to assist the Planning Commission in crafting properly formatted motions.

SITE INFORMATION

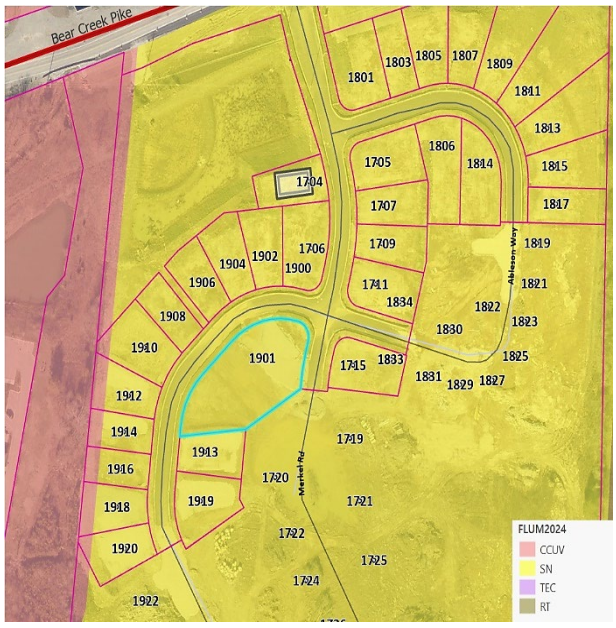
CURRENT ZONING	EXISTING USE	EXISTING IMP.	LAND AREA
MRC	Open Space	Amenity Site	+/-0.62 Acres



ZONING MAP



FUTURE LAND USE MAP



SITE CONTEXT/ADJACENT PROPERTIES			
	Future Land Use	Zoning	Current Use
Subject Property	SN	CD-4	Active Construction
North	SN	CD-4C	Vacant/Developing
South	RT	County	Large tract Single-Family
East	RT	CD-3	Vacant/Developing
West	CCUV	CD-4C	Multifamily

The subject site is part of the larger multiphase development. The property is bounded on the north by developing parcels. Immediately to the south are large tract parcels with Single-Family Residential located outside jurisdictional limits. Developing Multi-Family property exists to the east of the property. The Planning Commission approved a Preliminary Plat (20-0250) for development of 112 single family residential lots on the site in December of 2020.

CONFORMITY WITH ZONING ORDINANCE

The Final Plat conforms to the Subdivision Regulations, and the approved Preliminary Plat.

- The proposed structures conform to the setbacks and other bulk standards of the Master Plan.
- Staff supports the requested revision for open space reuse as the proposed Amenity Site.

REVIEW PROCESS

The Development Review Committee evaluated the proposed Final Plat Revision at its September 2024 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 **2.3.6** 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.*
>
> *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 the Final Plat as presented and find that the plat conforms to the applicable zoning ordinance, the Subdivision Regulations, and the Preliminary Plat [subject to remaining technical comments from staff].

Approve with Conditions:

Move to approve the Final Plat as presented and find that the plat conforms to the applicable zoning ordinance, the Subdivision Regulations, and the Preliminary 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 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].

PURPOSE NOTE

THE PURPOSE OF THIS PLAT IS TO REVISE THE OPEN SPACE LOT FOR THE AMENITY SITE AREA WITH KIOSK (OS–C), UPDATE THE ROAD NAME FOR ABLESON WAY, AND DESIGNATE THE OPEN SPACE AREAS PER THE FINAL PLAT ENTITLED "BEAR CREEK OVERLOOK – PHASE 1", AS OF RECORD IN PLAT BOOK P23, PAGE 96, (R.O.M.C., TN).

THIS REVISION DOES NOT INCLUDE LOTS 1–14, 17–19, 27, 78–87, 100, & 101.

VOID & VACATE NOTE

THE RECORDING OF THIS PLAT VOIDS, VACATES, AND SUPERSEDES THE RECORDING OF "BEAR CREEK OVERLOOK – PHASE 1" AS OF RECORD IN PLAT BOOK P23, PAGE 96, (R.O.M.C., TN) AS IT PERTAINS TO THE AMENITY SITE WITH KIOSK (OS–C), THE ROAD NAME FOR ABLESON WAY, AND THE OPEN SPACE DESIGNATIONS ONLY.

Surveyor's Notes

1. The property shown hereon is located within the City of Columbia, Maury County, TN. 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 Regulations as interpreted and regulated by the Department of Development Services.
2. This property currently identified as a portion of Parcel Number 053.00 per Tax Map No. 72.
3. Deed reference: Record Book R2704, Page 868, Register's Office of Maury County, Tennessee.
4. Bearings based on: Tennessee State Plane, as determined by GPS observation.
5. This drawing was prepared in accordance with our field survey notes. It shows improvements as they exist to the best of our knowledge, but is not guaranteed to be correct in each and every detail.
6. This survey was prepared from current deeds of record and does not represent a title search or a guarantee of title, and is subject to any state of facts a current and accurate search may reveal.
7. Total area of property surveyed is 12.49 Acres ±.
8. New Right–Of–Way dedication: 2.10 Acres ±.
9. There is a 10 foot easement on property lines parallel to the public road for public utility and drainage easements. Additional requirements may apply based on actual field conditions.
10. Subject property does not lie in a FEMA/FIRM "Special Flood Hazard Area" as shown on Map 47119C0195E dated April 16, 2007.
11. Unless otherwise noted, all lot corners are marked with iron rods.

Utility Notes

Stormwater appurtenances as depicted on this Final Plat shall be maintained as directed in the "Inspection and Maintenance Agreement of Private Stormwater Management Facilities" as recorded in Record Book R2989, pages 670–682, in the Register's Office of Maury County, Tennessee.

Void & Vacate Note

The recording of this plat voids, vacates, and supersedes the recording of "BEAR CREEK OVERLOOK – PHASE 1" as of record in Plat Book P23, page 96, (R.O.M.C.,TN).

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 Number R2704, Page 868, Maury County Register's Office, and that I (we) hereby adopt this plan of subdivision with my (our) free consent, establish the minimum building restriction lines, and that offers of irrevocable dedication for all public ways, utilities, and other facilities have been filed.

_____, 2024 _____
Date

_____
Title (CHR Land, LLC.)

Certificate of Survey Accuracy

I (we) hereby certify that to the best of my (our) knowledge and belief that 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.

09/16, 2024 David Lee Cyphers 2779
Date Registered Land Surveyor Number
DAVID LEE CYPHERS
TENNESSEE RLS NO. 2779

Certificate of Approval of Water System

I hereby certify that the water system(s) outlined or indicated on the final subdivision plat entitled "FIRST REVISION to Final Plat – Bear Creek Overlook – Phase 1" 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.

_____, 2024 _____
Date Superintendent, Columbia Water System

Certificate of Approval of Streets, Drainage, and Utilities

I hereby certify that the streets, drainage, and utilities designated in "FIRST REVISION to Bear Creek Overlook – Phase 1" have been installed in accordance with City specifications, or a performance bond in the amount of $_____ for streets and drainage has been posted with the City of Columbia, Tennessee, to assure completion of such improvements.

_____, 2024 _____
Date City Engineer, Columbia, Tennessee

Certificate of Approval for Recording

I hereby certify that the subdivision plat shown hereon has been found to comply with the Columbia Subdivision Regulations, with the exceptions of such variances, if any, as noted in the minutes of the Planning Commission, and that it has been approved for recording in the Office of the County Register.

_____ _____
Secretary, Planning Commission Columbia, Tennessee Date

Certificate of Approval of Subdivision Name and Street Names

Subdivision name and street names approved by Maury County E–911,

_____, 2024 _____
Date Maury County E–911

Certificate of Approval for Sewer System

I hereby certify that the sewer system outlined or indicated on this final subdivision plat has 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.

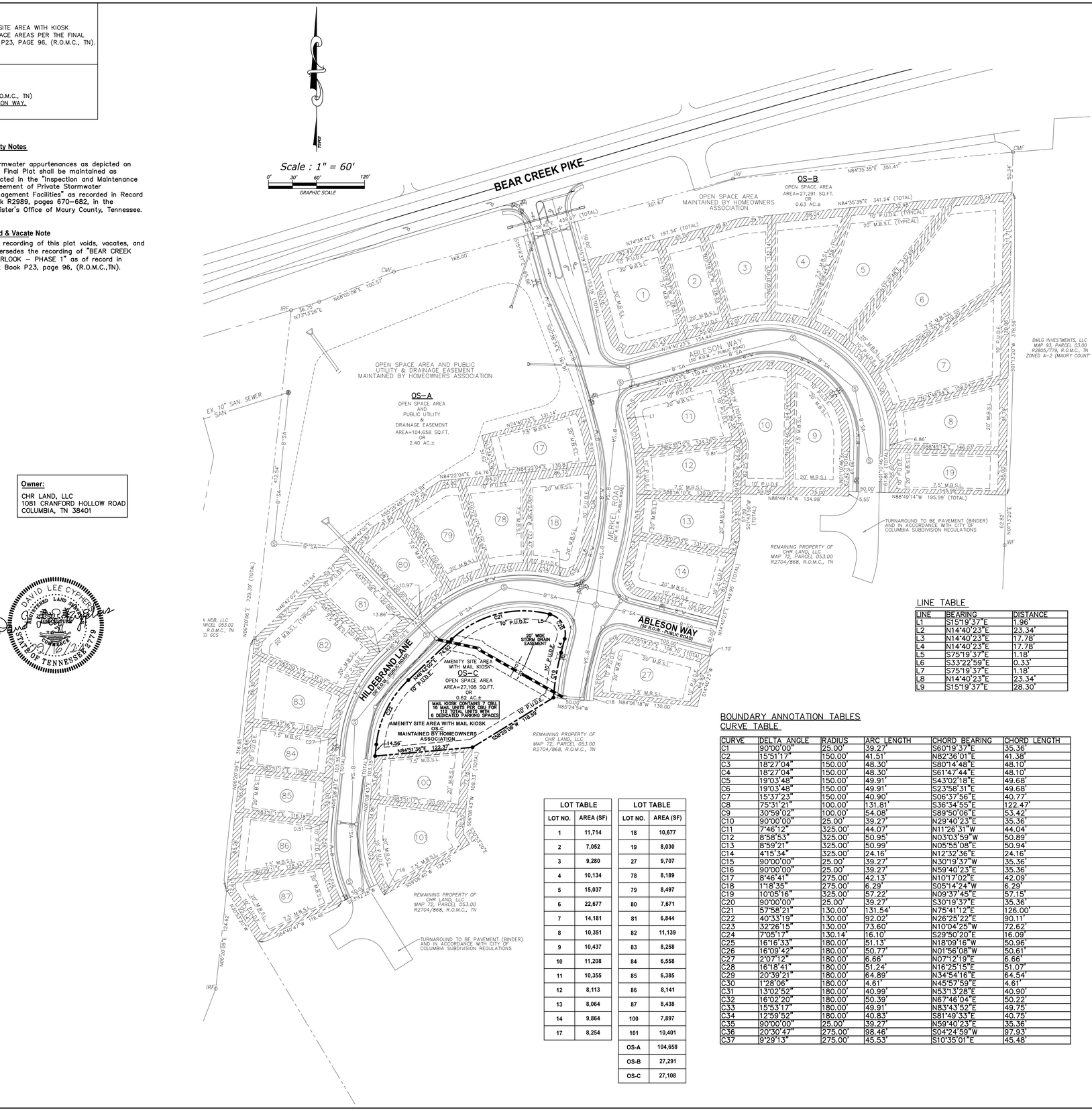
_____, 2024 _____
Date Superintendent, Columbia Wastewater System

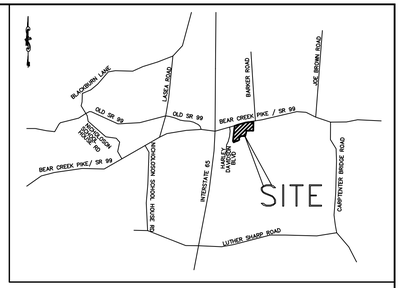
Certificate of Compliance

I hereby certify that the subdivision plat shown hereon has been found to comply with the Columbia Subdivision Regulations and other adopted ordinances and policies.

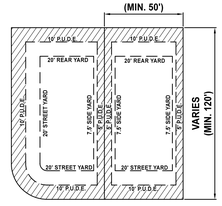
_____ _____
City Engineer Columbia, Tennessee Date

Owner:
CHR LAND, LLC
1081 CRANFORD HOLLOW ROAD
COLUMBIA, TN 38401





VICINITY MAP
NOT TO SCALE



TYPICAL LOT CONFIGURATION
FOR LOTS 1–14, 17–19, 27, 78–87, & 100–101
P.U.D.E.=PUBLIC UTILITY AND
DRAINAGE EASEMENT
=P.U.D.E.

LINE TABLE

LINE	BEARING	DISTANCE
L1	S15°19'37"E	1.96'
L2	N14°40'23"E	23.34'
L3	N14°40'23"E	17.78'
L4	N14°40'23"E	17.78'
L5	S75°19'37"E	1.18'
L6	S33°22'59"E	0.33'
L7	S75°19'37"E	1.18'
L8	N14°40'23"E	23.34'
L9	S15°19'37"E	28.30'

BOUNDARY ANNOTATION TABLES
CURVE TABLE

CURVE	DELTA ANGLE	RADIUS	ARC LENGTH	CHORD BEARING	CHORD LENGTH
C1	90°00'00"	25.00'	39.27'	S60°19'37"E	35.36'
C2	15°51'17"	150.00'	41.51'	N82°36'01"E	41.38'
C3	18°27'04"	150.00'	48.30'	S80°14'48"E	48.10'
C4	18°27'04"	150.00'	48.30'	S61°47'44"E	48.10'
C5	19°03'48"	150.00'	49.91'	S43°02'18"E	49.68'
C6	19°03'48"	150.00'	49.91'	S23°58'31"E	49.68'
C7	15°37'23"	150.00'	40.90'	S06°37'56"E	40.77'
C8	75°31'21"	100.00'	131.81'	S36°34'55"E	122.47'
C9	30°59'02"	100.00'	54.08'	S89°50'06"E	53.42'
C10	90°00'00"	25.00'	39.27'	N29°40'23"E	35.36'
C11	7°46'12"	325.00'	44.07'	N11°26'31"W	44.04'
C12	8°58'53"	325.00'	50.95'	N03°03'59"W	50.89'
C13	8°59'21"	325.00'	50.99'	N05°55'08"E	50.94'
C14	4°15'34"	325.00'	24.16'	N12°32'36"E	24.16'
C15	90°00'00"	25.00'	39.27'	N30°19'37"W	35.36'
C16	90°00'00"	25.00'	39.27'	N59°40'23"E	35.36'
C17	8°46'41"	275.00'	42.13'	N10°17'02"E	42.09'
C18	1°18'35"	275.00'	6.29'	S05°14'24"W	6.29'
C19	10°05'16"	325.00'	57.22'	N09°37'45"E	57.15'
C20	90°00'00"	25.00'	39.27'	S30°19'37"E	35.36'
C21	57°58'21"	130.00'	131.54'	N75°41'12"E	126.00'
C22	40°33'19"	130.00'	92.02'	N26°25'22"E	90.11'
C23	32°26'15"	130.00'	73.60'	N10°04'25"W	72.62'
C24	7°05'17"	130.14'	16.10'	S29°50'20"E	16.09'
C25	16°16'33"	180.00'	51.13'	N18°09'16"W	50.96'
C26	16°09'42"	180.00'	50.77'	N01°56'08"W	50.61'
C27	2°07'12"	180.00'	6.66'	N07°12'19"E	6.66'
C28	16°18'41"	180.00'	51.24'	N16°25'15"E	51.07'
C29	20°39'21"	180.00'	64.89'	N34°54'16"E	64.54'
C30	1°28'06"	180.00'	4.61'	N45°57'59"E	4.61'
C31	13°02'52"	180.00'	40.99'	N53°13'28"E	40.90'
C32	16°02'20"	180.00'	50.39'	N67°46'04"E	50.22'
C33	15°53'17"	180.00'	49.91'	N83°43'52"E	49.75'
C34	12°59'52"	180.00'	40.83'	S81°49'33"E	40.75'
C35	90°00'00"	25.00'	39.27'	N59°40'23"E	35.36'
C36	20°30'47"	275.00'	98.46'	S04°24'59"W	97.93'
C37	9°29'13"	275.00'	45.53'	S10°35'01"E	45.48'

LOT TABLE

LOT NO.	AREA (SF)
1	11,714
2	7,052
3	9,280
4	10,134
5	15,037
6	22,677
7	14,181
8	10,351
9	10,437
10	11,208
11	10,355
12	8,113
13	8,064
14	9,864
17	8,254

LOT TABLE

LOT NO.	AREA (SF)
18	10,677
19	8,030
27	9,707
78	8,189
79	8,497
80	7,671
81	6,844
82	11,139
83	8,258
84	6,558
85	6,385
86	8,141
87	8,438
100	7,897
101	10,401
OS-A	104,658
OS-B	27,291
OS-C	27,108

LEGEND

These standard symbols will be found in the drawing.

- STORM LINE
- SANITARY SEWER LINE
- WATER LINE
- FIRE HYDRANT COMPLETE ASSEMBLY
- WATER VALVE
- BUILDING SETBACK
- EASEMENT
- PROPERTY LINE
- IRON ROD (SET) (UNLESS OTHERWISE NOTED)
- *IRF* IRON ROD (FOUND)
- *CMF* CONCRETE MONUMENT (FOUND)

FIRST REVISION
to
Final Plat
Bear Creek Overlook - Phase 1
Plat Book P23, Page 96

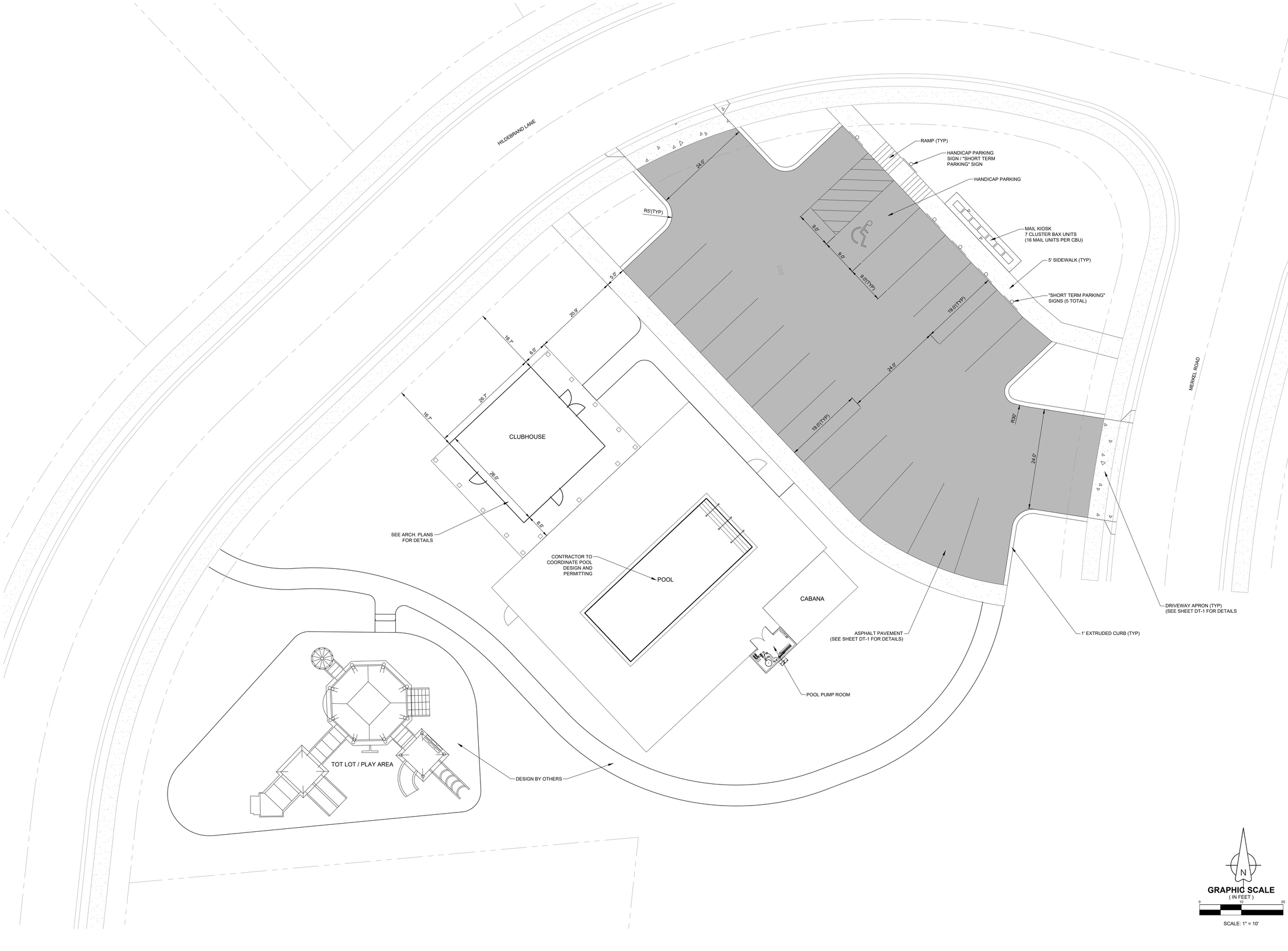
3rd CIVIL DISTRICT OF MAURY COUNTY, TN
CITY OF COLUMBIA, MAURY COUNTY, TENNESSEE

SHEET 1 OF 1

MASTER PARCEL (TAX MAP 72, P/O 53.00/REVISION REQUEST TO TAX MAP 72P, GROUP A, PARCEL 32.00)
PROJECT WAS APPROVED AT THE DECEMBER 9TH 2020 PLANNING COMMISSION AND IS VESTED UNDER ZONING ORDINANCE 3638.

~~DATE: MARCH 5, 2024~~
~~REVISED: JULY 18, 2024~~
~~REVISED: SEPTEMBER 12, 2024~~
REVISED: SEPTEMBER 16, 2024

SCALE: 1"= 60'
AREA: 12.49 ACRES±



GRAPHIC SCALE
(IN FEET)
0 10 20
SCALE: 1" = 10'

TKC
ARCHITECTURE
INTERIORS
CIVIL SITE
2004 CARMACK BLVD, SUITE C, COLUMBIA, TN 38401 | 615.617.7477 | WWW.TKC-AE.COM

CONSULTANTS:

PROJECT TITLE:
BEAR CREEK OVERLOOK AMENITY CENTER
PARCEL 32.00 MAP 072P
COLUMBIA, TENNESSEE

PRELIMINARY DRAWINGS

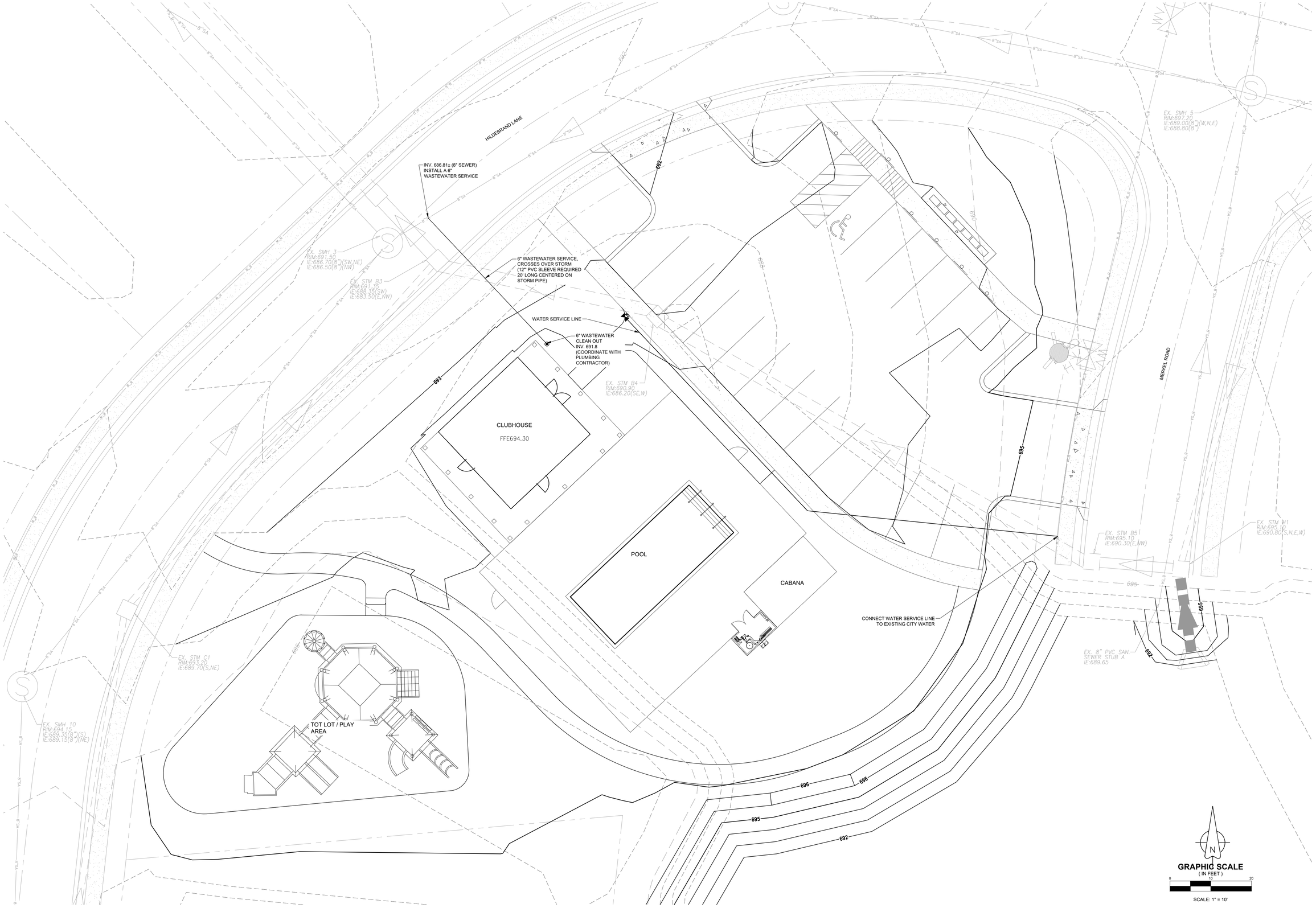
Revision		
No.	Date	Description

THIS DRAWING IS THE PROPERTY OF TKC ARCHITECTURE & ENGINEERING (TKC A&E). ANY UNAUTHORIZED REPRODUCTION OR USAGE WITHOUT THE PRIOR WRITTEN CONSENT OF TKC A&E IS PROHIBITED.

SHEET TITLE:
SITE PLAN

-
DATE: 08/03/2023
DRAWN BY: TS
PROJECT NO.: 2314

SHEET NO.:
C - 2.0



TKC
ARCHITECTURE
INTERIORS
CIVIL SITE
2004 CARMACK BLVD, SUITE C, COLUMBIA, TN 38401 | 615.617.7477 | WWW.TKC-AE.COM

CONSULTANTS:

PROJECT TITLE:
BEAR CREEK OVERLOOK AMENITY CENTER

PARCEL 32.00 MAP 072P
COLUMBIA, TENNESSEE

PRELIMINARY DRAWINGS

Revision		
No.	Date	Description

THIS DRAWING IS THE PROPERTY OF TKC ARCHITECTURE & ENGINEERING (TKC A&E). ANY UNAUTHORIZED REPRODUCTION OR USAGE WITHOUT THE PRIOR WRITTEN CONSENT OF TKC A&E IS PROHIBITED.

SHEET TITLE:
UTILITY PLAN

-
DATE: 08/03/2023
DRAWN BY: TS
PROJECT NO.: 2314

SHEET NO.:
C - 5.0

TKC ARCHITECTURE INTERIORS CIVIL SITE

818 South Main Street
COLUMBIA, TN 38401
TKC-AE.COM
615.617.7477

Sept. 13th, 2024

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

Project: 24-0357 – Bear Creek Overlook Phase 1 Resubmittal

Subject: Final Plat Resubmittal

Mr. Archibald,

The below is a response to comments received at the City's Technical Meeting on Tuesday 9/10/24. We believe we have addressed all the questions and have the final plat resubmittal in good order and the site construction in compliance.

COMMENTS:

Planning

1) The lead staff person for this case is Planner II Robert Archibald; he will prepare the staff report for this item. Please contact rarchibald@columbiatn.gov with questions about the development review process or technical comments. The lead planner should be copied on all communication with other city staff.
   a) Comment is noted.
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.
   a) Comment is noted and this letter is the comment response for each item.
3) The address location block on application does not match the Final Plat location. Please show correct information on both documents.
   a) The application has been updated to match the plat.
4) Update Purpose Note to include original purpose of "create 30 residential lots, and to dedicate open space areas" as the previous revision was never recorded.
   a) Purpose note has been updated and discussed with staff.

Wastewater

5) Columbia Wastewater will require a 6" tap for amenities area with sanitary sewer access.
   a) Comment is noted and this will be updated on the amenity site plan.

Engineering

818 South Main Street
COLUMBIA, TN 38401
TKC-AE.COM
615.617.7477

6) Reference recorded stormwater maintenance agreement
   a) Comment addressed, information added.
7) Purpose note should be to only revise the lot in question and to correct the road name. Otherwise all other property owners would be required to sign the plat. All other lots should be "greyed" out and noted as to be not included in this revision. Retain the lot in question and ROW in standard line-weight/color.
   a) Purpose note has been updated and discussed with staff and the project line weights have been changed to try to better reflect the revisions in this plat submittal.
8) Change PUDE on open space to be the standard perimeter PUDE's with a 20 ft easement along the centerline of the storm sewer bisecting the lot.
   a) The lot in question has been updated to address this comment.
9) Provide a label/designation for the lot and include i.e. OS-A, OS-B, etc.
   a) All open space has been assigned a label.

Fire

10) No comments

Duck River Electric Membership Corp

11) No Comment.

Columbia Water

12) “No Comments.”

Building

13) No comments.

Maury County Highway Dept.

14) No comments provided.

Public Works

15) No comments.

Maury County Schools

16) No comments.

Columbia Power

818 South Main Street
COLUMBIA, TN 38401
TKC-AE.COM
615.617.7477

17) Columbia Power System does not have existing power facilities near your proposed development within our service territory. DREMC will be the service provider for this area.

Atmos Energy

18) No comment.

ATT

19) no comment provided.

Police

20) No comments provided.

Maury County E911

21) No comments provided.

If you have any comments or questions please contact Cole Newton at TKC Architecture and Engineering at cole@tkc-ae.com or 615.617.7477.

Thank you,

Cole Newton, PE, LEED AP
TKC Architecture and Engineering LLC
615.617.7477 (o)
931.797.3323 (c)
cole@tkc-ae.com

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, September 10, 2024

ITEM NO.
24-0357

DESCRIPTION: Bear Creek Overlook Phase 1 Parcel: 072 053.00

COMMENTS:

Planning

1. The lead staff person for this case is Planner II Robert Archibald; he will prepare the staff report for this item. Please contact rarchibald@columbiatn.gov with questions about the development review process or technical comments. The lead 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.
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4. Update Purpose Note to include original purpose of "create 30 residential lots, and to dedicate open space areas" as the previous revision was never recorded.

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8. Change PUDE on open space to be the standard perimeter PUDE's with a 20 ft easement along the centerline of the storm sewer bisecting the lot.
9. Provide a label/designation for the lot and include i.e. OS-A, OS-B, etc.

CITY OF COLUMBIA TENNESSEE

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

Fire

10. No comments

Duck River Electric Membership Corp

11. No Comment.

Columbia Water

12. "No Comments."

Building

13. No comments.

Maury County Highway Dept.

14. No comments provided.

Public Works

15. No comments.

Maury County Schools

16. No comments.

Columbia Power

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18. No comment.

ATT

19. no comment provided.

CITY OF
COLUMBIA
TENNESSEE

DEVELOPMENT SERVICES
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PHONE: (931) 560-1560
FAX: (931) 560-1541

Police

20. No comments provided.

Maury County E911

21. 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 kmccarthy@columbiatn.com or msanders@columbiatn.com 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.

PURPOSE NOTE

THE PURPOSE OF THIS PLAT IS TO REVISE THE FINAL PLAT ENTITLED "BEAR CREEK OVERLOOK – PHASE 1" AS OF RECORD IN PLAT BOOK P23, PAGE 96, (R.O.M.C., TN). THE REVISIONS ARE AS FOLLOWS:

1. TO RENAME THE 0.62 ACRE PUBLIC UTILITY & DRAINAGE EASEMENT SOUTH OF AND ADJACENT TO HILDEBRAND LANE TO INCLUDE "AMENITY SITE AREA AND MAIL KIOSK"
2. TO RENAME "HILDEBRAND LANE" JUST EAST OF MERKEL ROAD TO IT'S CORRECT NAME OF "ABLESON WAY".

VOID & VACATE NOTE

THE RECORDING OF THIS PLAT VOIDS, VACATES, AND SUPERSEDES THE RECORDING OF "BEAR CREEK OVERLOOK – PHASE 1" AS OF RECORD IN PLAT BOOK P23, PAGE 96, (R.O.M.C., TN).

PRELIMINARY PLAT PASSED PLANNING COMMISSION DEC. 9TH, 2020

Surveyor's Notes

1. The property shown hereon is located within the City of Columbia, Maury County, TN. 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 Regulations as interpreted and regulated by the Department of Development Services.
2. This property currently identified as a portion of Parcel Number 053.00 per Tax Map No. 72.
3. Deed reference: Record Book R2704, Page 868, Register's Office of Maury County, Tennessee.
4. Bearings based on: Tennessee State Plane, as determined by GPS observation.
5. This drawing was prepared in accordance with our field survey notes. It shows improvements as they exist to the best of our knowledge, but is not guaranteed to be correct in each and every detail.
6. This survey was prepared from current deeds of record and does not represent a title search or a guarantee of title, and is subject to any state of facts a current and accurate search may reveal.
7. Total area of property surveyed is 12.49 Acres ±.
8. New Right-Of-Way dedication: 2.10 Acres ±.
9. There is a 10 foot easement on property lines parallel to the public road for public utility and drainage easements. Additional requirements may apply based on actual field conditions.
10. Subject property does not lie in a FEMA/FIRM "Special Flood Hazard Area" as shown on Map 47119C0195E dated April 16, 2007.
11. Unless otherwise noted, all lot corners are marked with iron rods.

Utility Notes

Stormwater appurtenances as depicted on this Final Plat shall be maintained as directed in the "Inspection and Maintenance Agreement of Private Stormwater Management Facilities" as recorded in Record Book _____, pages _____, in the Register's Office of Maury County, Tennessee.

Owner:
CHR LAND, LLC
1081 CRANFORD HOLLOW ROAD
COLUMBIA, TN 38401

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 Number R2704, Page 868, Maury County Register's Office, and that I (we) hereby adopt this plan of subdivision with my (our) free consent, establish the minimum building restriction lines, and that offers of irrevocable dedication for all public ways, utilities, and other facilities have been filed.

_____, 2024 _____
Date

_____
Title (CHR Land, LLC.)

Certificate of Survey Accuracy

I (we) hereby certify that to the best of my (our) knowledge and belief that 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.

7/18, 2024 Bobby G Moore 1039
Date Registered Land Surveyor BOBBY G. MOORE, RLS TENNESSEE RLS NO. 1039 Number

Certificate of Approval of Water System

I hereby certify that the water system(s) outlined or indicated on the final subdivision plat entitled "FIRST REVISION to Final Plat – Bear Creek Overlook – Phase 1" 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.

_____, 2024 _____
Date Superintendent, Columbia Water System

Certificate of Approval of Streets, Drainage, and Utilities

I hereby certify that the streets, drainage, and utilities designated in "FIRST REVISION to Bear Creek Overlook – Phase 1" have been installed in accordance with City specifications, or a performance bond in the amount of $_____ for streets and drainage has been posted with the City of Columbia, Tennessee, to assure completion of such improvements.

_____, 2024 _____
Date City Engineer, Columbia, Tennessee

Certificate of Approval for Recording

I hereby certify that the subdivision plat shown hereon has been found to comply with the Columbia Subdivision Regulations, with the exceptions of such variances, if any, as noted in the minutes of the Planning Commission, and that it has been approved for recording in the Office of the County Register.

_____ _____
Secretary, Planning Commission Columbia, Tennessee Date

Certificate of Approval of Subdivision Name and Street Names

Subdivision name and street names approved by Maury County E-911,

_____, 2024 _____
Date Maury County E-911

Certificate of Approval for Sewer System

I hereby certify that the sewer system outlined or indicated on this final subdivision plat has 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.

_____, 2024 _____
Date Superintendent, Columbia Wastewater System

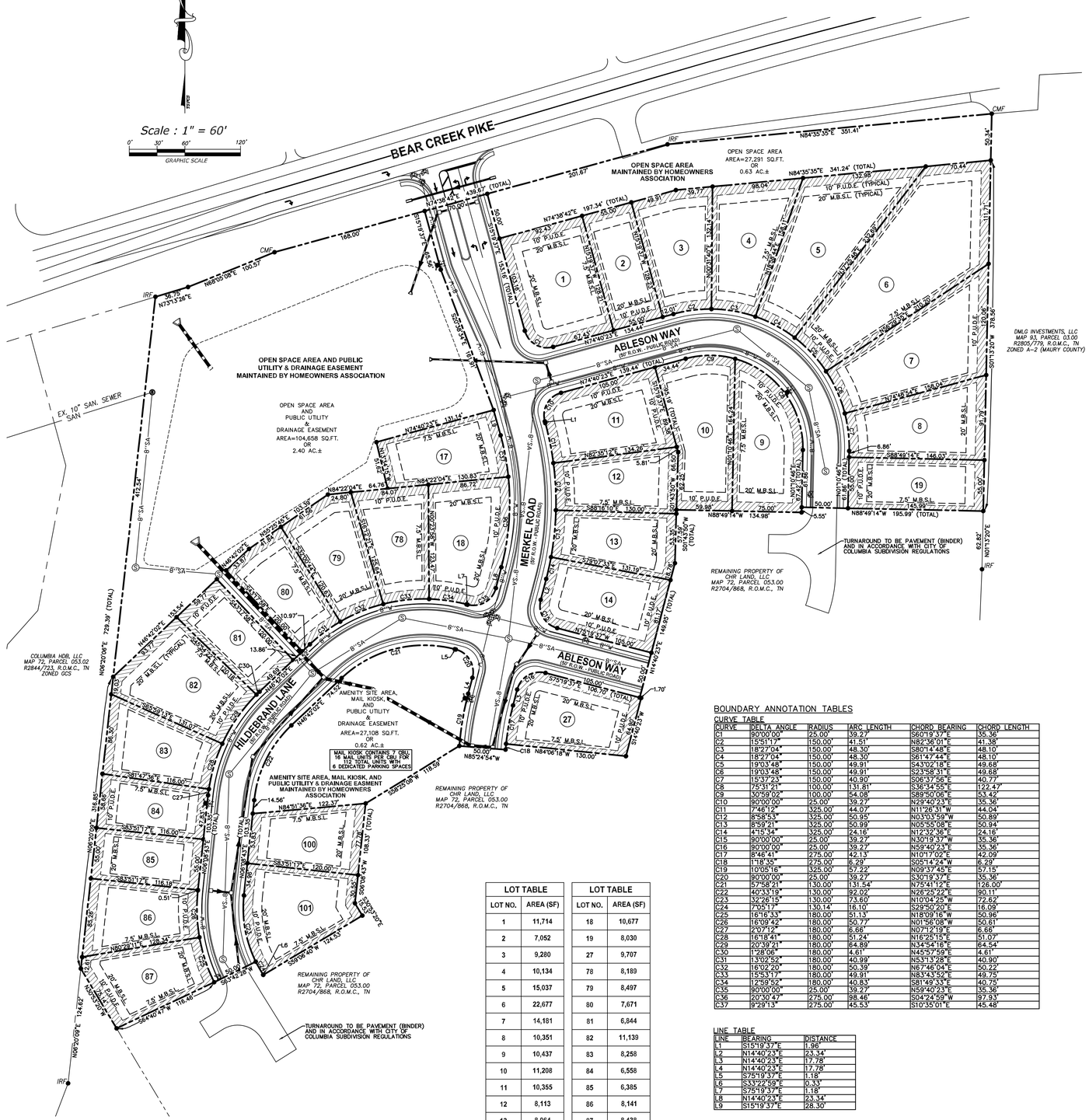
Certificate of Compliance

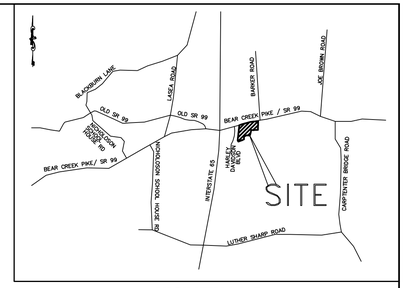
I hereby certify that the subdivision plat shown hereon has been found to comply with the Columbia Subdivision Regulations and other adopted ordinances and policies.

_____ _____
City Engineer Columbia, Tennessee Date

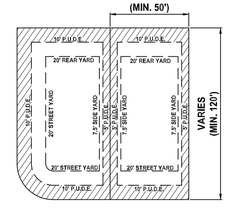
BOBBY G. MOORE 1039 LICENSED LAND SURVEYOR AGRICULTURE 7/18/24 TENNESSEE STATE OF TENNESSEE

Scale : 1" = 60'
0' 30' 60' 120'
GRAPHIC SCALE





VICINITY MAP
NOT TO SCALE



TYPICAL LOT CONFIGURATION FOR LOTS 1–14, 17–19, 27, 78–87, & 100–101
P.U.D.E.=PUBLIC UTILITY AND DRAINAGE EASEMENT
=P.U.D.E.

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C24	7°05'17"	130.14'	16.10'	S29°50'20"E	16.09'
C25	16°16'53"	180.00'	51.13'	N18°09'16"W	50.96'
C26	16°09'42"	180.00'	50.77'	N01°56'08"W	50.61'
C27	2°07'12"	180.00'	6.66'	N07°12'19"E	6.66'
C28	16°18'41"	180.00'	51.24'	N16°25'15"E	51.07'
C29	20°39'21"	180.00'	64.89'	N34°54'16"E	64.54'
C30	1°28'06"	180.00'	4.61'	N45°57'59"E	4.61'
C31	13°02'52"	180.00'	40.99'	N53°13'28"E	40.90'
C32	16°02'20"	180.00'	50.39'	N67°46'04"E	50.22'
C33	15°53'17"	180.00'	49.91'	N83°43'52"E	49.75'
C34	12°59'52"	180.00'	40.83'	S81°49'33"E	40.75'
C35	90°00'00"	25.00'	39.27'	N59°40'23"E	35.36'
C36	20°30'47"	275.00'	98.46'	S04°24'59"W	97.93'
C37	9°29'13"	275.00'	45.53'	S10°35'01"E	45.48'

LINE TABLE

LINE	BEARING	DISTANCE
L1	S15°19'37"E	1.96'
L2	N14°40'23"E	23.34'
L3	N14°40'23"E	17.78'
L4	N14°40'23"E	17.78'
L5	S75°19'37"E	1.18'
L6	S33°22'59"E	0.33'
L7	S75°19'37"E	1.18'
L8	N14°40'23"E	23.34'
L9	S15°19'37"E	28.30'

LEGEND

These standard symbols will be found in the drawing.

- STORM LINE
- SANITARY SEWER LINE (—SA—)
- WATER LINE (—W—)
- FIRE HYDRANT COMPLETE ASSEMBLY
- WATER VALVE
- BUILDING SETBACK
- EASEMENT
- PROPERTY LINE
- IRON ROD (SET) (UNLESS OTHERWISE NOTED)
- IRF IRON ROD (FOUND)
- CMF CONCRETE MONUMENT (FOUND)

FIRST REVISION
to
Final Plat
Bear Creek Overlook - Phase 1

3rd CIVIL DISTRICT OF MAURY COUNTY, TN
CITY OF COLUMBIA, MAURY COUNTY, TENNESSEE

SHEET 1 OF 1

TAX MAP 72, P/O PARCEL 53.00
ZONED: MRC

SCALE: 1"= 60'
AREA: 12.49 ACRES±

~~DATE: MARCH 5, 2021~~
REVISED: JULY 18, 2024

H & H LAND SURVEYING, INC.
612A FITZHUGH BOULEVARD
SMYRNA, TENNESSEE 37167
(615) 831-0756 (FAX) 355-6928
H & H Project No. 2022-0379

Appendix B: Subdivision Development Agreement

This DEVELOPMENT AGREEMENT is made and entered into on this

15 day of August, 2022,
between THE CITY OF COLUMBIA, TENNESSEE, (hereinafter the "CITY"), and

CHR Land LLC, the DEVELOPER (hereinafter the "DEVELOPER") named on the Addendum to this Agreement attached hereto and by this reference made a part hereof (hereinafter the "ADDENDUM").

WITNESSETH:

WHEREAS, the DEVELOPER desires to develop the property described on the ADDENDUM (hereinafter the "PROJECT"); and,

WHEREAS, the Development Plan of the PROJECT has been approved by the Columbia Municipal Planning Commission (hereinafter the “CMPC”) on the

_____ day of _____, 20_____ ,
pursuant to Tennessee Code Annotated Title 13, Chapter 4, and the Subdivision Regulations of Columbia, Tennessee (hereinafter the "SUBDIVISION REGULATIONS”); and,

WHEREAS, the DEVELOPER is the owner of the PROJECT and has authority to engage in such development; and,

WHEREAS, the DEVELOPER desires to develop and improve said PROJECT; and,

WHEREAS, in order to provide for the health, safety, and welfare of future residents of the PROJECT, it will be necessary for certain improvements to the CITY'S utility systems, public infrastructure, and common areas to be constructed within and to serve the PROJECT including but not be limited to roads, bridges, sidewalks, pedestrian facilities, stormwater facilities, street signs, markings, signals, street lighting, recreation and park facilities, landscaping, and the like (hereinafter the “IMPROVEMENTS”); and,

WHEREAS, in order for the IMPROVEMENTS to be fully integrated with the utility systems and public infrastructure of the CITY and to function in a satisfactory manner, the DEVELOPER has agreed to construct, in accordance with the Subdivision Regulations and other rules, regulations, and ordinances of the CITY, the IMPROVEMENTS in said PROJECT and extend utilities to the PROJECT at their own cost; and,

WHEREAS, the CITY is willing to accept the dedication of the streets, utilities, and other improvements as determined in the Development Plan of the PROJECT, subject to the City of Columbia City Council approval by resolution, and subject to the applicant's compliance with all requirements in this agreement and applicable existing laws of the CITY of Columbia and the State of Tennessee,

NOW, THEREFORE, it is agreed and understood as follows:

B1 General Conditions

B1.1 Construction Costs

The DEVELOPER shall pay for all material and labor necessary to install and complete the roads, sidewalks, sewers, utilities, and other facilities in accordance with this agreement.

B1.2 City Ordinances, Rules and Regulations

All currently existing CITY ordinances, rules and regulations, and the Subdivision Regulations adopted by the CMPC are made a part of this agreement. In the event of a conflict between the terms of this agreement and a CITY ordinance, the ordinance shall prevail. In the event of a conflict between the terms of this agreement and the Subdivision Regulations, the Subdivision Regulations shall prevail. All work done under this agreement is to be performed in accordance with plans and specifications approved by the City and made a part, hereof.

B1.3 Fees

Review fees, inspection fees, and other amounts established by the CITY shall be paid prior to any review of the plans. If the DEVELOPER fails to install the facilities in accordance with the terms of this Agreement, no portion of the review fees, inspection fees, or other amounts paid to the CITY shall be refundable to the DEVELOPER.

B1.4 Inspection

The CITY shall have a continuous right to inspect the work and facilities to assure that the work and facilities are in accordance with the Subdivision Regulations, approved Construction Plans, and other rules, regulations, and ordinances of the CITY.

B1.5 Right of Entry

The CITY shall have the right, in case of breach of the Performance Agreement, to enter upon any property of the DEVELOPER and take all necessary actions to complete the work and obligations not completed.

B1.6 Easements

The DEVELOPER shall obtain and dedicate to the CITY or cause to be dedicated to the CITY, either by dedication on the plat or by easement deed, in either case in a form acceptable to the CITY, permanent easements of such widths as required by the CITY and noted on the Plans. The DEVELOPER further agrees to grant the necessary easements and rights-of-way across the DEVELOPER’s properties without expense to the CITY and waive any claim for damages.

B1.7 Stormwater Maintenance Agreement

If the PROJECT includes any detention or retention ponds, common drainage ditches, water quality facilities, or stormwater facilities outside of the CITY rights-of-way, the DEVELOPER will submit a Stormwater Maintenance Agreement, to be filed with and recorded with the Final Plat.

B1.8 Attorney Fees and Other Expenses

The DEVELOPER shall pay all reasonable costs and expenses incurred by the CITY in enforcing or completing this agreement. The DEVELOPER shall pay all costs and expenses, including the CITY'S attorney fees, of any legal proceedings brought by the CITY against the DEVELOPER seeking remedies for the DEVELOPER'S failure to perform any of its obligations hereunder, whether or not any proceedings are prosecuted to judgment.

B1.9 Agreement Not Assignable

No third party shall obtain any benefits or rights under this agreement nor shall the rights or duties be assigned by either party.

B1.10 Revocation and Interpretation

This agreement shall bind the DEVELOPER when executed by the DEVELOPER and may not be revoked by the DEVELOPER without permission of the CITY, even if the agreement has not been executed by the CITY, or does not bind CITY, for other reasons. This agreement shall be interpreted in accordance with Tennessee law and may only be enforced in the Chancery Court or Circuit Court or Court of competent jurisdiction of Maury County, Tennessee, and Tennessee Appellate Courts.

B1.11 No Oral Agreement

This agreement may not be orally amended and supersedes all prior negotiations, commitments, or understandings.

B1.12 Separability

If any portion of this agreement is held to be unenforceable, the CITY shall have the right to determine whether the remainder of the agreement shall remain in effect, or whether the agreement shall be void and all rights of the DEVELOPER pursuant to this agreement terminated.

B 1.13 Transferability

The DEVELOPER agrees to not transfer the property on which this PROJECT is to be located without first providing the CITY with written notice. The transferee shall provide the CITY an Assumption Agreement of this Agreement, whereby the transferee agrees to perform the IMPROVEMENTS required under this agreement and to provide a performance surety. The DEVELOPER understands that if the DEVELOPER transfers said property without providing the notice of transfer and Assumption Agreement as required herein, they will be in breach of this agreement and in violation of the Subdivision Regulations.

B1.14 Indemnity

The DEVELOPER shall indemnify and hold the CITY harmless from all loss, costs, expenses, liability, money damages, penalties, or claims arising out of any work covered by this agreement, including any attorney fees incurred by the CITY in connection therewith. Inspection of the IMPROVEMENTS by an authorized representative of the CITY shall not constitute a waiver by the CITY of any defect or of any of the DEVELOPER'S obligations hereunder.

B1.15 Binding Effect

This agreement shall be binding upon the DEVELOPER and the DEVELEPOR's heirs, administrators, executors, assigns, and any other successors in interest.

B1.16 Entire Agreement

This document contains the entire agreement between the parties, and there are no collateral understandings or agreements between them. No variations or alterations of the terms of this agreement shall be binding upon either of the parties, unless the same be reduced to writing and made an amendment to this agreement.

B1.17 Headings

Paragraph titles and headings contained herein are inserted for convenience only and shall not be deemed a part of the agreement and in no way shall define, limit, extend, or describe the scope or intent of any provision, hereof.

B2 Performance Surety

At the time of execution of this agreement, the DEVELOPER shall provide the CITY a performance surety, in an amount determined by the City Engineer for the IMPROVEMENTS and other items specified by the Construction Plans, plats, and plans approved by the CMPC. This performance surety shall secure performance of all obligations of the DEVELOPER under this agreement. The performance surety shall meet all requirements established in Chapter 4: Performance Agreement of the Subdivision Regulations and secure full compliance with all terms and conditions of this agreement. The performance surety may be called for failure to comply with the provisions of this agreement in whole or in part according to the terms of the performance surety. The performance surety will not be released, except and until there has been full compliance with this agreement.

B3 Construction

B3.1 Construction Plans

The DEVELOPER shall submit to the CITY, Construction Plans describing in reasonable detail all utility systems, all storm water management systems, all street systems, pedestrian facilities, and all IMPROVEMENTS. The Construction Plans shall be designed according to the Engineering Standards and Specifications, all other codes and ordinances enforced by the City, and sound engineering judgment. The design of all utility systems shall follow the State of Tennessee and utility provider design criteria and specifications. In the event of a disagreement as to compliance with or interpretation of the Construction Plans and the CITY'S specifications, the decision of the CITY shall be final and binding on the DEVELOPER. The Construction Plans shall be prepared by a design professional licensed by the State of Tennessee to design all systems and shall bear the seal, signature, date, and license number of the professional preparing the Construction Plans.

B3.2 Commencement of Construction

Construction of IMPROVEMENTS may not begin until the following events have occurred:

A. The Preliminary Plat has been approved by the CMPC;
B. The Construction Plans are approved by the CITY;
C. The Tennessee Department of Environment and Conservation has approved the applicable portions of the Plans and has confirmed its approval to the CITY and/or DEVELOPER in writing;
D. The CITY shall have received an appropriately executed Development Agreement; and
E. The DEVELOPER shall give the CITY notice of commencement of construction, in writing at least one (1) working day prior to commencement.

B3.3 Site Grading

The DEVELOPER, hereby, agrees to construct all site grading to comply with the approved Construction Plans, including the approved Erosion Control Plan for the PROJECT and to comply with the Engineering Standards and Specifications, Stormwater Ordinance, and all other codes and ordinances enforced by the CITY.

B3.4 Storm Water Management Systems

The DEVELOPER shall be responsible for all storm water management work made necessary by the development of this PROJECT. It is understood and agreed that the CITY in its proprietary function is not and could not be expected to oversee, supervise, or direct the construction of all drainage improvements, and the excavation incident thereto. Neither is the CITY vested with the original design responsibility nor the means to formally survey elevations or the locations of improvements at every stage of the construction process. The CITY is vested with the right of periodic inspections, stop work order, and final approval as a measure of secondary or subsequent enforcement. The DEVELOPER has and shall retain the responsibility to properly anticipate, survey, design and construct the subdivision storm water improvements and give full assurance that same shall not adversely affect the flow or quality of surface water from or upon any property. In providing technical assistance, plan and design review, the CITY does not and shall not relieve or accept any liability from the DEVELOPER.

B3.5 Street Construction

The DEVELOPER, hereby, agrees to construct and improve the streets shown on the Construction Plans to comply with the CITY's specifications and to the satisfaction and approval of the City Engineer by grading, draining, subgrade preparation, base preparation, curbing, signage, striping, signalization, sidewalk installation, and paving with the required preparation, amounts, and types of material. The DEVELOPER further agrees to pay the cost of all engineering, inspection and laboratory cost incidental to the construction of subdivision streets including but not limited to material and density testing. The DEVELOPER further agrees to make all necessary adjustments to manholes and valve boxes to meet finished surface grade and to repair subsurface or base material, as required, in areas directed by the CITY Engineer, prior to application of final surface.

B3.6 Time Period for Construction

The DEVELOPER agrees to be bound to complete, within three (3) years of commencement of construction, all IMPROVEMENTS shown on the plat and plans and all things required by this agreement.

The DEVELOPER further agrees that if due to unforeseen circumstances, he is unable to complete all work included in this agreement within the time specified above, but desires to complete said agreement to the satisfaction of the CITY, the DEVELOPER shall submit a written request for extension of the agreement period to the CITY at least sixty (60) days prior to the expiration of the existing agreement period, specifying the reason for the DEVELOPER's failure to complete the work as agreed and a prospective date for such completion. The DEVELOPER further agrees that if the performance surety executed to secure the value of the work to be performed under this agreement, due to inflation or rising costs, is determined to be inadequate by the City Engineer to secure the cost of said IMPROVEMENTS at the time an extension is sought, the DEVELOPER will provide the additional security to bring the performance surety amount in line with current cost projections as made by the CITY. The DEVELOPER understands that the DEVELOPER's failure to follow the extension procedure constitutes a breach of this agreement and places the DEVELOPER in violation of the Subdivision Regulations. The DEVELOPER further understands, that should the DEVELOPER fail to complete any part of the work outlined in this agreement in a good and workmanlike manner as approved, the CITY shall reserve the right to withhold and withdraw all building permits within the PROJECT until all items of this Agreement have been fulfilled by the DEVELOPER.

B3.7 Off-Site Improvements

The DEVELOPER shall construct any and all off-site facilities that may be required to serve the PROJECT. Unless specifically noted in the Construction Plans and made a part of separate agreement with the CITY, the CITY shall not be required to reimburse the DEVELOPER for construction of off-site improvements.

B3.9 Inspection and Compliance

After construction begins, the CITY shall provide on-site construction inspection as the CITY deems necessary to ensure that all work is performed and completed in accordance with the Construction Plans, CITY specifications, and the contents of this agreement. In the event of a disagreement as to compliance with or interpretation of the Construction Plans and the CITY'S specifications, the decision of the CITY shall be final and binding on the DEVELOPER. If the DEVELOPER fails to construct in accordance with the approved Construction Plans or to comply with the CITY'S specifications, the CITY may issue a stop-work order and DEVELOPER, hereby, agrees to be bound by such order.

B3.10 Testing

The DEVELOPER agrees to pay the cost of all engineering, inspection, and laboratory cost incidental to construction of the streets, sidewalks, utilities, sewers, compacted fill material, and other facilities included within this agreement. Such testing includes, but is not limited to, material and density testing.

B3.11 Scrap Removal

The DEVELOPER agrees to comply with all local, state, and federal rules and regulations regarding waste material and debris disposal.

B3.12 Traffic Control

The DEVELOPER, hereby, agrees to prepare a traffic control/detour plan where required and shall submit said plan to the CITY for review and approval. All traffic control and safety devices, including

signs, lane markings, and barriers necessitated by construction activity undertaken pursuant to this agreement shall be installed and maintained by the DEVELOPER. All traffic control devices shall meet the standards and be installed in accordance with the latest edition of the Manual on Uniform Traffic Control Devices for Streets and Highways, published by the United States Department of Transportation.

B3.13 Temporary Facilities

The DEVELOPER shall provide all temporary facilities including but not limited to utilities and roadways, that are determined by the CITY to be required in connection with or as a result of interruption of service or access that occurs as a consequence of construction activity associated with the work covered by this agreement. Such temporary services shall in all regards and at all points in time be adequate to assure emergency access and adequate fire flows.

B4 Acceptance of Improvements

B4.1 Completion of Improvements

At such time as the improvements have been constructed and installed, in accordance with the Constructions Plans and specifications, required testing and inspections completed and found satisfactory, and all clean-up and cover-up has been done to the satisfaction the City Engineer, a letter requesting preliminary acceptance of the PROJECT will be provided by the DEVELOPER. Formal acceptance shall follow the procedure established in the Subdivision Regulations.

The DEVELOPER agrees the DEVELOPER shall have no claim, direct or implied, in the title or ownership of the IMPROVEMENTS specified in this agreement when the IMPROVEMENTS are complete and thereafter accepted by the CITY. The DEVELOPER will be responsible for construction failures and defects in PROJECT prior to final acceptance. During this period, it shall remain the responsibility of the DEVELOPER to correct and cure these defects and failures.

B4.2 As-Built Drawings and Post-Completion Items

The DEVELOPER agrees to furnish to the CITY as-built plans, on a reproducible, stable media, of the sanitary sewer, storm water management, water mains and service system, and streets within the subdivision before the CITY shall accept the subdivision.

B4.3 Acceptance of Facilities

Upon final acceptance of all or part of the IMPROVEMENTS in the PROJECT, then those IMPROVEMENTS shall become the property of the CITY free from all claims from any person or entity without the necessity of any further writing, agreement, or deed. The DEVELOPER further agrees that any facilities placed within a public or platted right-of-way or dedicated public easement are irrevocably dedicated to the public use without any right of reimbursement or compensation of any kind.

B4.4 Failure to Install

In the event the DEVELOPER fails to install the facilities in accordance with the terms of this agreement, the CITY may, in its sole discretion, elect to accept all or a portion of the IMPROVEMENTS in the PROJECT. Should the CITY choose to accept all or a portion of these IMPROVEMENTS, the CITY shall become the sole owner of these facilities. The CITY may give notice of acceptance by writing delivered to the DEVELOPER or recorded in the Register’s Office of Maury County, Tennessee. No further writing or deed shall be required.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed in multiple originals by persons properly authorized so, to do on or as of the day and year first given.

Bear Creek Overlook Phase I

PROJECT

Completed by the Developer	*Completed by the City*
CHR Land LLC DEVELOPER NAME	
Gary W. Martin AUTHORIZED AGENT NAME	CITY ENGINEER
 SIGNATURE	SIGNATURE
August 15, 2022 DATE	DATE
818 S. Main Street STREET	
Columbia, TN 38401 CITY, STATE, ZIP	
615-812-2147 PHONE	
gary@martinengrg.com EMAIL	
Attest	*Attest*
Cole Newton ATTEST NAME	ATTEST NAME
Cole Newton ATTEST SIGNATURE	ATTEST SIGNATURE
8/15/22 DATE	DATE

PICKUP: LINDSAY CHELETTE

DOCUMENT PREPARED BY:
Name: Gary Martin
Company: Martin Engineering & Surveying, LLC
Address: 808 S. Main Street
Columbia, TN 38401

After recording return copy to City of Columbia, Development Services

BK/PG: R2989/670-682
24005838

13 PGS:AL-AGREEMENT	
NANCY BATCH: 326663	05/10/2024 - 02:19 PM
VALUE	0.00
MORTGAGE TAX	0.00
TRANSFER TAX	0.00
RECORDING FEE	65.00
ARCHIVE FEE	0.00
DP FEE	2.00
REGISTER'S FEE	0.00
TOTAL AMOUNT	67.00

STATE OF TENNESSEE, MAURY COUNTY
JOHN FLEMING
REGISTER OF DEEDS

INSPECTION AND MAINTENANCE AGREEMENT OF PRIVATE STORMWATER MANAGEMENT FACILITIES

Map & Parcel Number: Map 72 Parcel 53.00
Project Name: Bear Creek Overlook Phase 1

Recorded by deed in the Register of Deeds Office of Maury County in Deed Book R2704, Page(s) 868.

THIS AGREEMENT, made this 9th day of May, 2024, by and between CHR Land, LLC hereinafter referred to as the "OWNER(S)" of the following property and City of Columbia, Tennessee, hereinafter referred to as the "CITY",

WE, the OWNER(S), with full authority to execute deeds, mortgages, other covenants, all rights, titles, and interests in the property described above, do hereby covenant with the CITY and agree as follows:

1. The OWNER(S) covenant and agree with the CITY that the OWNER(S) shall provide for adequate long term maintenance and continuation of stormwater control measures described in the Long Term Maintenance Plan and shown on the location map, deed of easement drawing or plat attached hereto to ensure that the facilities, are and remain in proper working condition in accordance with approved design standards, rules and regulations, and applicable laws. The OWNER(S) shall perform preventative maintenance activities at intervals described in the schedule attached hereto along with necessary landscaping (grass cutting, etc.) and trash removal as part of regular maintenance.

2. The OWNER(S) shall perform routine inspections to ensure that all long term stormwater management facilities are properly functioning. These inspections shall be conducted on an annual basis, at a minimum. These inspections shall be conducted by a person familiar with control measures implemented at the site. The OWNER(S) or operators shall maintain documents of these inspections.

3. The OWNER(S) shall perform comprehensive inspections of all stormwater management facilities and practices. These inspections shall be conducted once every five years, at a minimum. Such inspections must be conducted by either a professional engineer or landscape architect.

4. The OWNER(S) shall grant to the CITY or its agent or contractor the right of entry at reasonable times and in a reasonable manner for the purpose of inspecting, operating, installing, constructing, reconstructing, maintaining or repairing the facility within the CITY.

5. The OWNER(S) shall record and grant to the CITY the necessary easements and rights-of-way and maintain perpetual access from public rights-of-way to the facility for the CITY or its agent and contractor.

6. If, upon inspection, the CITY finds that the OWNER(S) has failed to properly maintain the facilities, the CITY may order the work performed within ten (10) days. In the event the work is not performed within the specified time, the ONWER(S) agrees to allow the CITY to enter the property and take whatever steps it deems necessary to maintain the stormwater control facilities. This provision shall not be construed to allow the CITY to erect any structure of a permanent nature on the PROPERTY without first obtaining written approval of the OWNER(S)

7. The CITY is under no obligation to maintain or repair said facilities, and in no event shall this Agreement be construed to impose any obligation on the CITY. The OWNER(S) shall reimburse the CITY upon demand the costs incurred in the maintenance of the facilities.

8. If the OWNER(S) fails to pay the CITY for the above expensive after forty-five (45) days written notice, the OWNER(S) authorizes the CITY to collect said expenses from the OWNER(S) through appropriate legal action and the OWNER(S) shall be liable for the reasonable expenses of collection, court costs, and attorney fees.

9. The OWNER(S) and the OWNER(S) heirs, administrators, executors, assigns, and any other successor in interest shall indemnify and hold harmless the CITY and its officers, agents and employees for any and all damages, accidents, casualties, occurrences, claims or attorney's fees which might arise or be asserted, in whole or in part,

against the CITY from the construction, presence, existence, or maintenance of the stormwater control facilities subject to this AGREEMENT. In the event a claim is asserted against the CITY, its officers, agents or employees, the CITY shall notify OWNER(S) and the OWNER(S) shall defend at OWNER(S) expense any suit based on such claim. If any judgment or claims against the CITY, its officers, agents or employees, shall be allowed, the OWNER(S) shall pay all costs and expenses in connection therewith. The CITY will not indemnify, defend or hold harmless in any fashion the OWNER(S) from any claims arising from any failure, regardless of any language in any attachment or other document that the OWNER(S) may provide

10. The OWNER(S) shall not be able to transfer, assign or modify its responsibilities with respect to this agreement without the CITY's written prior consent. Nothing herein shall be construed to prohibit a transfer by OWNER(S) to subsequent owners and assigns.

11. No waiver of any provision of this AGREEMENT shall affect the right of any party thereafter to enforce such provision or to exercise any right or remedy available to it in the event of any default.

12. The OWNER(S) shall record a plat showing and accurately defining the easements for stormwater control facilities. The plat must reference the Instrument Number where this AGREEMENT and its attachments are recorded and contain a note that the OWNER(S) is responsible for maintaining the stormwater management facilities.

13. The OWNER(S) shall record this AGREEMENT in the office of the Register of Deeds for the county of Maury, Tennessee, and the AGREEMENT shall constitute a covenant running with the land, and shall be binding upon the OWNER(S) and the OWNER(S) heirs, administrators, executors, assigns, and any other successors in interest

ATTEST BY OWNER(S):

Print Name Gary Martin

Title Owner

Signature _____

Owner CHR Land, LLC

Address 808 S. Main Street

City, State ZIP Columbia, TN 38401

STATE OF TN
COUNTY OF MAURY

Before me, Regina Connelly of the state and county mentioned, personally appeared _____, with whom I am personally acquainted and who acknowledged that he/she executed the foregoing instrument of the purposes therein contained.

REGINA CONNELLY STATE OF TENNESSEE NOTARY PUBLIC MAURY COUNTY

Witness my hand this the 13th day of March, 2024.

Regina Connelly
Notary Public

My Commission Expires: 8-29-2027

CITY OF COLUMBIA, TENNESSEE
ENGINEERING DEPARTMENT

APPROVED BY: _____

STATE OF TENNESSEE
COUNTY OF MAURY

Before me, Kim Dale of the state and county mentioned, personally appeared Douglas Toney, with whom I am personally acquainted, and who acknowledged themselves to be the City Engineer of the City of Columbia or his designee and as such, being authorized so to do, executed the foregoing instrument of the purposes therein contained.

KIM DALE STATE OF TENNESSEE NOTARY PUBLIC MAURY COUNTY

Witness my hand this the 9th day of May, 2024.

Kim Dale
Notary Public
My Commission Expires: 5/8/2026

Rev. 1/17/2017

POST CONSTRUCTION LONG TERM MAINTENANCE PLAN

BEAR CREEK OVERLOOK PHASE 1

SOUTH OF BEAR CREEK PIKE & EAST OF HARLEY DAVIDSON BOULEVARD
COLUMBIA, TENNESSEE

PREPARED FOR:
CHR LAND, LLC
818 S. MAIN STREET
COLUMBIA, TENNESSEE 38401

FEBRUARY 2021

Martin Engineering and Surveying, LLC.
808 S. Main Street, Columbia, TN 38401, 615-812-2147
gary@martinengrg.com

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SECTION 1: INTRODUCTION

The project is to construct 32 single-family residential lots for Phase 1 of the proposed Bear Creek Overlook development in Columbia, Maury County, Tennessee. This post construction long term maintenance plans addresses Phase 1 of the development which consist of 13.71 acres in which utility infrastructures (water, sewer, and storm) will be installed. Proposed construction for Phase 1 consists primarily of site grading related to the installation of roadway pavements, curbs sidewalks, residential lots, utility infrastructure, and storm water conveyance system located within the permitted project area.

SECTION 2: SYSTEM DESCRIPTION

The site consists of a stormwater detention basin, stormwater conveyance inlets and pipes.

1. There is a stormwater detention basin sized to detain the 2-yr through 100-yr peak event, with the detention outfall structure designed to contain the first flush, 1 inch, for 48 hours.
2. 839 lf 18" pipe, 26 lf 30" pipe, 261 lf of 36" pipe, 180 lf of 42" pipe, and 14 storm inlets.

Upon completion of the site construction, 'Record Drawings' in a version not less than AutoCAD 2006 LT (NAD83, NAVD88) of the stormwater controls will be provided to the City of Columbia for verification.

SECTION 3: MAINTENANCE PROCEDURES

3.1 Stormwater Detention Basin:

1. The outlet structure shall be checked regularly for clogging and shall be cleaned and repaired as necessary. The outlet structure shall be checked on a monthly basis until the detention basin side slopes and grass lined ditches have stabilized and no heavy sediment laden runoff enters the detention basin. Then it shall be checked on a quarterly basis and after a large rain event.

2. Check detention basin side slopes and bottom for erosion and correct necessary at least on a quarterly basis.

3. At least quarterly and after each large rain event, the facility should be cleaned of accumulated debris. Remove nuisance wetland species and take appropriate measures to control mosquitos.

4. At least quarterly and after each large rain event, the retention basin outfall structure shall be cleaned of sediment, floatables, and debris.

5. Remove sediment within retention basin outfall structure and headwalls when sediment accumulation reaches 6" or if resuspension is observed or probable. This sediment may contain contaminants and should be disposed of using the Tennessee Department of Environment and Conservation (TDEC) special disposal procedure. If there is any uncertainty about what the sediment contains or it is known to contain contaminants, then TDEC should be consulted and their disposal recommendations

followed. The TDEC Division of Water Pollution Control should be contacted at (931)-380-3371.

6. Some sediment collected may be innocuous (free from pollutants) and can be used as fill material, cover or land spreading. It is important that the material not be placed in a way that may promote or allow re-suspension in storm runoff.

3.2 Storm drains and storm inlets:

These structures to be inspected annually and cleaned monthly of accumulated debris and sediment. All sediment to be disposed of per TDEC disposal procedures. All debris (paper products, floatables) to be disposed of per Maury County Waste Management requirements.

Stormwater Pond Inspections and Maintenance Checklist

Site Name: _____ Owner Change since last inspection? Y N

Location: _____

Owner Name: _____

Address_____ Phone Number _____

Site Status: _____

Date:_____ Time: _____Site conditions:

Stormwater Pond Type: Wet Pond fl Wet ED Pond fl Micropool Pond fl Multiple Pond System fl
Dry Pond fl

Inspection Frequency Key: A=annual(required); M=monthly(recommended); S=after major storms(recommende

Inspection Items	Inspection Frequency	Inspected? (Yes/No)	Maintenance Needed? (Yes/No)	Comments/Description
Embankment and Emergency Spillway				
Vegetation healthy?	*A/S*			
Erosion on embankment?	*A/S*			
Animal burrows in embankment?	*A/S*			
Cracking, sliding, bulging of dam?	*A/S*			
Drains blocked or not functioning?	*A/S*			
Leaks or seeps on embankment?	*A/S*			
Slope protection failure functional?	*A/S*			
Emergency spillway obstructed?	*A/S*			
Erosion in/around emergency spillway?	*A/S*			
Other (describe)	*A/S*			
Riser and Principal Spillway				(describe type: concrete pipe, slotted weir, channel, etc.)
Low-flow orifice functional?	*A/S*			
Trash rack (Debris removal needed? Corrosion noted?)	*A/S*			
Sediment buildup in riser?	*A*			
Concrete/masonry condition (Cracks or displacement? Spalling?)	*A*			
Metal pipe in good condition?	*A*			
Control valve operation?	*A*			
Pond drain valve operation?	*A*			
Outfall channels function, not eroding?	*A*			
Other (describe)	*A*			
Sediment Forebays				
Sedimentation description				
Sediment cleanout needed (over 50	*A/S*			

Inspection Items	Inspection Frequency	Inspected? (Yes/No)	Maintenance Needed? (Yes/No)	Comments/Description
percent full)?				
Permanent Pool Areas (if applicable)				
Undesirable vegetation growth?	*A/M*			
Visible pollution?	*A/M*			
Shoreline erosion?	*A/M*			
Erosion at outfalls into pond?	*A/M*			
Headwalls and endwalls in good condition?	*A/M*			
Encroachment into pond or easement area by other activities?	*A/M*			
Evidence of sediment accumulation?	*A*			
Dry Pond Areas (if applicable)				
Vegetation adequate?	*A/M*			
Undesirable vegetation or woody plant growth?	*A/M*			
Excessive sedimentation?	*A*			
Hazards				
Have there been complaints from residents?	*A/M*			
Public hazards noted?	*A/M*			

Inspector Comments: _____

_____

_____

_____

Overall Condition of Facility: ☐ Acceptable ☐ Unacceptable

If any of the above Inspection Items are checked "Yes" for "Maintenance Needed," list Maintenance actions and their completion dates below:

Maintenance Action Needed	**Due Date**

The next routine inspection is scheduled for approximately: _____
(date)

Inspected by: (signature) _____

Inspected by: (printed) _____

Grass Channel Inspections and Maintenance Checklist

Site Name: _____ Owner Change since last inspection? Y N

Location: _____

Owner Name: _____

Address: _____ Phone Number: _____

Site Status: _____

Date: _____ Time: _____ Site conditions:

Inspection Frequency Key: A=annual (required); M=monthly (recommended); S=after major storms (recommended)

Inspection Items	Inspection	Inspected?	Maintenance Needed? (Yes/No)	Comments/Description
Debris Removal				
Facility and adjacent area free of debris?	*A/M*			
Inlets and outlets free of debris?	*A/M*			
Any dumping of yard wastes into facility?	*A/M*			
Litter (branches) removed?	*A/M*			
Vegetation				
Surrounding area fully stabilized? (no evidence of eroding material into swale, channel or filter strip)	*A/M*			
Grass mowed?	*A/M*			
Grass height not less than 3 to 4 inches?	*A/M*			
Fertilized per specifications?	*A/M*			
Grasses planted according to approved plan?	*A/M*			
Unauthorized or inappropriate plantings?	*A*			
Grasses healthy? (no diseased or dying vegetation)	*A/M*			
Evidence of grasses stressed from inadequate watering?	*A/M*			
Filtration Capacity				
Clogging from oil or grease?	*A/M*			
Facility dewaters between storms?	*A/M*			
Check dams and energy dissipaters/sumps				
Any evidence of sedimentation buildup?	*A/S*			
Are sumps greater than 50% full of sediment?	*A/S*			
Any evidence of erosion and downstream	*A/S*			

Inspection Items	Inspection	Inspected?	Maintenance Needed? (Yes/No)	Comments/Description
toe of drop structures?				
Any trash or blockages at weep holes?	*A/S*			
Sediment Deposition				
Swale clean of sediments?	*A*			
Sediment not > 25% of swale design depth?	*A*			
Outlet/Overflow Spillway				
In good condition?	*A*			
Any evidence of erosion?	*A*			
Any evidence of blockages?	*A*			
Has facility been filled or blocked inappropriately?	*A*			
Hazards				
Have there been complaints from residents?	*A/M*			
Public hazards noted?	*A/M*			
Maintenance accesses free of hazards and fully operational?	*A/M*			

Inspector Comments: _____

_____

_____

Overall Condition of Facility: ☐ Acceptable ☐ Unacceptable

If any of the above Inspection Items are checked "Yes" for "Maintenance Needed," list Maintenance actions and their completion dates below:

Maintenance Action Needed	**Due Date**

The next routine inspection is scheduled for approximately: _____
(date)

Inspected by: (signature) _____
Inspected by: (printed) _____

Storm Sewer Inspections and Maintenance Checklist

Site Name: _____ Owner Change since last inspection? Y N

Location: _____

Owner Name: _____

Address: Phone Number: _____

Site Status: _____

Date:_____ Time: _____ Site conditions: _____

Indicate Features Present: Catch Basins fl Storm Pipe fl Headwalls fl Outfalls fl Catch Basin Inlets fl

Inspection Frequency Key: A=annual; M=monthly; S=after major storms

Inspection Items	Inspection Frequency	Inspected? (Yes/No)	Maintenance Needed? (Yes/No)	Comments/Description
Catch Basins				
Ensure all are structurally sound and in good condition. Note any deficiencies and repair to proper working condition ensure all are set properly in place over inlets	*A/S*			
Check for sediment, leaf, or debris clogging grates and remove	*A/S*			
Catch Basin Inlets				
Ensure all are structurally sound and in good condition. Note any deficiencies and repair to proper working condition	*A/S*			
Inspect for blockage or sediment accumulation and remove when capacity is diminished by 20% or greater	*A/S*			
Pipes				
Ensure all are structurally sound and in good condition. Note any deficiencies and repair to proper working condition	*A/S*			
Inspect for blockage or sediment accumulation and remove when capacity is diminished by 20% or greater.	*A/S*			
Concrete/masonry condition of pipes and joints? (Cracks or displacement? Spalling?)	*A/S*			

Inspection Items	Inspection Frequency	Inspected? (Yes/No)	Maintenance Needed? (Yes/No)	Comments/Description
Headwalls and Endwalls				
Ensure all are structurally sound and in good condition. Note any deficiencies and repair to proper working condition	*A/S*			
Inspect for blockage or sediment	*A/S*			
Check for erosion or scouring around headwall inlets and repair	*A/S*			
Evidence of staining?	*A/S*			
If flowing water is present does it appear to contain anything other than stormwater? I.e. Discoloration, odors, sheens, etc? Note location and describe.	*A/S*			
Hazards				
Have there been complaints from residents?	*A/S*			

Inspector Comments: _____

_____

_____

_____

Overall Condition of Facility: fl Acceptable fl Unacceptable

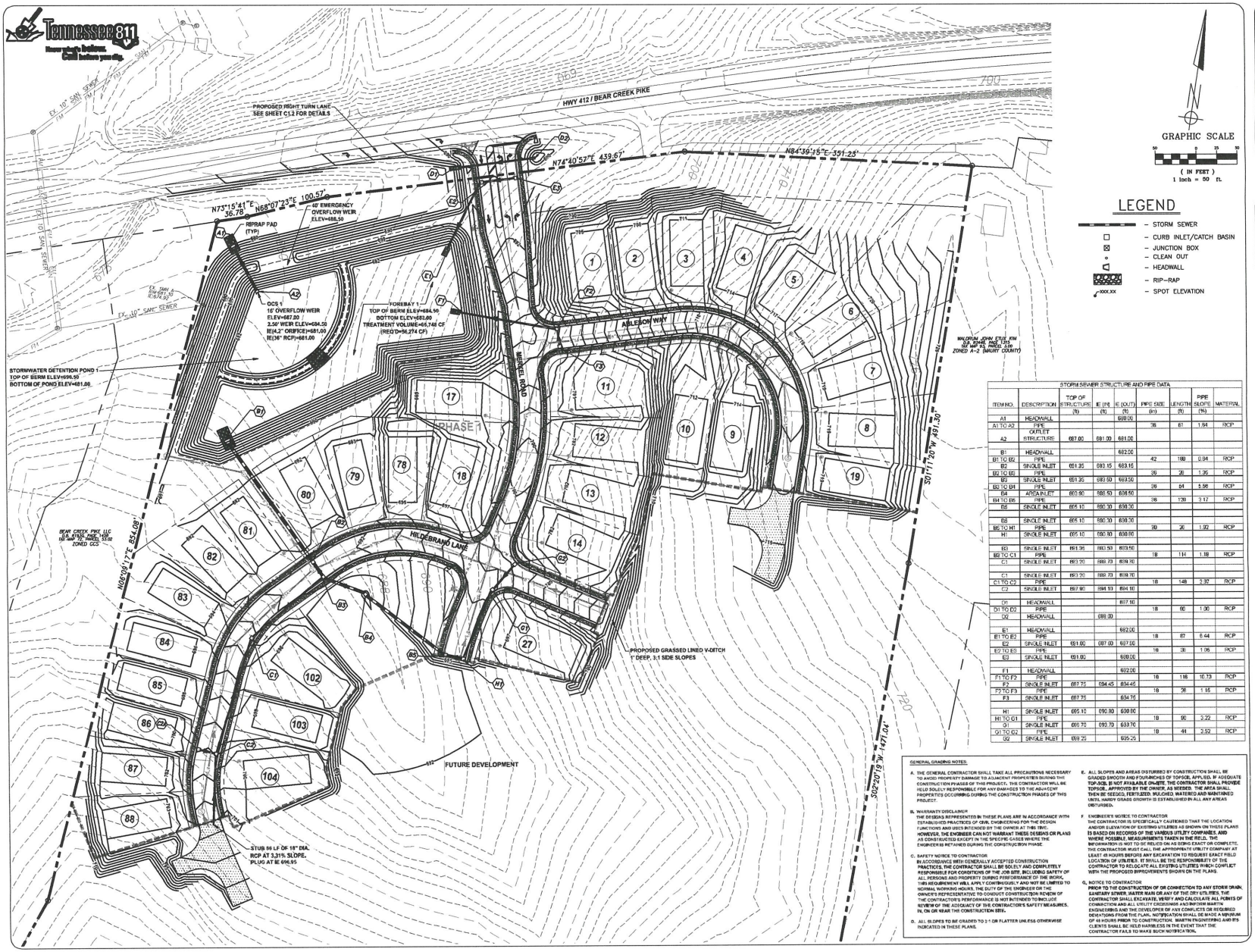
If any of the above Inspection Items are checked "Yes" for "Maintenance Needed," list Maintenance actions and their completion dates below:

Maintenance Action Needed	**Due Date**

The next routine inspection is scheduled for approximately: _____
(date)

Inspected by: (signature) _____

Inspected by: (printed) _____



STORM SEWER STRUCTURE AND PIPE DATA

ITEM NO.	DESCRIPTION	TOP OF STRUCTURE (ft)	IE (IN) (ft)	IE (OUT) (ft)	PIPE SIZE (in)	LENGTH (ft)	PIPE SLOPE (%)	MATERIAL
A1	HEADWALL			689.00				
A1 TO A2	PIPE				36	61	1.64	RCP
A2	OUTLET STRUCTURE	687.00	681.00	681.00				
B1	HEADWALL			692.05				
B1 TO B2	PIPE				42	180	0.94	RCP
B2	SINGLE INLET	701.35	693.15	693.15				
B2 TO B3	PIPE				36	20	1.35	RCP
B3	SINGLE INLET	701.35	693.50	693.50				
B3 TO B4	PIPE				36	54	5.56	RCP
B4	AREA INLET	693.90	686.50	686.50				
B4 TO B5	PIPE				36	139	3.17	RCP
B5	SINGLE INLET	695.10	690.30	690.30				
B5	SINGLE INLET	695.10	690.30	690.30				
B5 TO H1	PIPE				30	26	1.92	RCP
H1	SINGLE INLET	695.10	690.80	690.80				
B3	SINGLE INLET	701.35	693.50	693.50				
B3 TO C1	PIPE				18	114	1.18	RCP
C1	SINGLE INLET	697.20	689.73	689.73				
C1	SINGLE INLET	697.20	689.73	689.73				
C1 TO C2	PIPE				18	148	2.37	RCP
C2	SINGLE INLET	697.90	694.10	694.10				
D1	HEADWALL			697.10				
D1 TO D2	PIPE				18	60	1.00	RCP
D2	HEADWALL		689.00					
E1	HEADWALL			692.00				
E1 TO E2	PIPE				18	67	6.44	RCP
E2	SINGLE INLET	691.00	687.00	687.50				
E2 TO E3	PIPE				18	38	1.06	RCP
E3	SINGLE INLET	691.00		689.00				
F1	HEADWALL			692.00				
F1 TO F2	PIPE				18	118	10.73	RCP
F2	SINGLE INLET	697.75	694.45	694.45				
F2 TO F3	PIPE				18	36	1.15	RCP
F3	SINGLE INLET	697.75		694.75				
H1	SINGLE INLET	695.10	690.80	690.80				
H1 TO G1	PIPE				18	90	3.22	RCP
G1	SINGLE INLET	699.70	693.70	693.70				
G1 TO G2	PIPE				18	44	3.52	RCP
G2	SINGLE INLET	699.25		695.25				

GENERAL GRADING NOTES:

A. THE GENERAL CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT. THE CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASES OF THIS PROJECT.

B. WARRANTY/DISCLAIMER
IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL 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 NOT BE LIMITED TO NORMAL WORKING HOURS. THE DUTY OF THE ENGINEER OR THE OWNER'S REPRESENTATIVE TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN, ON OR NEAR THE CONSTRUCTION SITE.

C. SAFETY NOTICE TO CONTRACTOR
IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL 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 NOT BE LIMITED TO NORMAL WORKING HOURS. THE DUTY OF THE ENGINEER OR THE OWNER'S REPRESENTATIVE TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN, ON OR NEAR THE CONSTRUCTION SITE.

D. ALL SLOPES TO BE GRADED TO 3:1 OR FLATTER UNLESS OTHERWISE INDICATED IN THESE PLANS.

E. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED SMOOTH AND FOUR INCHES OF TOPSOIL APPLIED. IF ADEQUATE TOP-SOIL IS NOT AVAILABLE ON-SITE, THE CONTRACTOR SHALL PROVIDE TOPSOIL, APPROVED BY THE OWNER, AS NEEDED. THE AREA SHALL THEN BE SEEDED, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL ANY AREAS DISTURBED.

F. ENGINEER'S NOTICE TO CONTRACTOR
THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

G. NOTICE TO CONTRACTOR
PRIOR TO THE CONSTRUCTION OF OR CONNECTION TO ANY STORM DRAIN, SANITARY SEWER, WATER MAIN OR ANY OF THE DRY UTILITIES, THE CONTRACTOR SHALL EXCAVATE, VERIFY AND CALCULATE ALL POINTS OF CONNECTION AND ALL UTILITY CROSSINGS AND INFORM MARTIN ENGINEERING AND THE DEVELOPER OF ANY CONFLICTS OR REQUIRED DEVIATIONS FROM THE PLANS. NOTIFICATION SHALL BE MADE A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION. MARTIN ENGINEERING AND ITS CLIENTS SHALL BE HELD HARMLESS IN THE EVENT THAT THE CONTRACTOR FAILS TO MAKE SUCH NOTIFICATION.

MARTIN ENGINEERING & SURVEYING, LLC
818 S. Main Street
Columbia, TN 38401
615.812.2147
gary@martinengrg.com

GRADING AND DRAINAGE PLAN
BEAR CREEK OVERLOOK PHASE 1
COLUMBIA, TENNESSEE
MAURY COUNTY

General Notes

No.	Revision/Issue	Date

Date 2/15/21
Scale 1"= 50'

C3.0

TKC ARCHITECTURE INTERIORS CIVIL SITE

818 SOUTH MAIN ST.
COLUMBIA, TN 38401
TKC-AE.COM
615.617.7477

August 15th, 2024

Development Service
City of Columbia

Project: Overlook Subdivision Phase 1 Section 1

Subject: Revision to Recorded Final Plat for Phase 1

Mr. Archibald,

We are proposing a change to the approved and recorded final plat for Phase I of the Overlook Subdivision to allow for a neighborhood amenity site. The proposed change is between lot 100 and the intersection of Hilderbrand Lane and Merkel Road. The area of change was originally called an open space lot (Open Space Area and Public Utility and Drainage Easement) on the approved and recorded plat and we are now proposing to change the lot to an amenity area (Amenity Site Area, Mail Kiosk and Public Utility and Drainage Easement). The size of the area is remaining the same at 0.62 acres.

I believe this plat has been updated per our discussions. We will address any additional comments from the Tech meeting for resubmittal.

If you have any comments or questions please contact Cole Newton at TKC Architecture and Engineering at cole@tkc-ae.com or 615.617.7477

Thank you,

Cole Newton, PE
TKC Architecture and Engineering LLC
615.617.7477 (o)
931.797.3323 (c)
cole@tkc-ae.com

CITY OF COLUMBIA TENNESSEE

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

PLANNING COMMISSION
PROJECT DEVELOPMENT APPLICATION

SUBMITTAL REQUIREMENTS

** 1 hard copy of all materials for submittal + PDF copy on a USB thumb drive or CD (no multiple applications on one storage device)*
Fold hard copy submittals larger than 8½"x11"

ADDRESS/LOCATION			
	TAX MAP: 88	GROUP:	PARCEL: 51.03
SUMMARY OF NATURE OF REQUEST AND WORK	Revision to the approved Final Plat to include notes on the Amenity area and mailkiosk and parking area.		

DATE OF PRE-APPLICATION CONFERENCE	several conversations	*Pre-application meetings are scheduled for Wednesdays.*

SELECT REQUEST	SUBMITTALS SHALL INCLUDE BUT NOT LIMITED TO:
❑ Annexation ❑ Rezoning ❑ Preliminary Plat ❑ Final Plat ❑ PUD Preliminary Master Plan ❑ PUD Final Site Plan ❑ Multi-Family Site Plan ☒ Other: Final Plat revision **File naming nomenclature examples:* *Freedom Point Site Plan* *Freedom Point Master Plan* *Freedom Point Final Plat*	**Annexations/Rezoning/PUD's:** ❑ Written Legal Description copy ❑ Requested Zone Listed ❑ Compliance with Comprehensive Plan ❑ Annexation Permission Form ❑ Plans and/or Plats conforming to City standards with check list completed ❑ Columbia Water System Availability Letter **Plats/PUDs:** ❑ Project Name (include Sections & Phases) Bear Creek Overlook Phase 1 ❑ Total Number of Lots 30 single-family lots ❑ Total acreage 12.49 acres

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 meetings dates must be requested by the resubmittal date listed on the Planning Commission schedule.

APPLICANT

All communications go to the Applicant's email that is provided.

NAME	TKC Architecture & Engineering LLC	PHONE	615-617-7477
ADDRESS	818 S. Main Street Columbia, TN 38401	EMAIL	cole@tkc-ae.com

PROPERTY OWNER NAME	CHR Land LLC	PHONE	615-812-2147
ADDRESS	818 S. Main Street, Columbia, TN 38401	EMAIL	gary@martinengrg.com

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.

Cole Newton, TKC A&E	Cole Newton	8/15/24
APPLICANT NAME	APPLICANT SIGNATURE	DATE
CHR Land LLC		8/15/24
PROPERTY OWNER NAME	PROPERTY OWNER SIGNATURE	DATE

STAFF USE ONLY

DOCKET NO.		FEE PAID	
RECEIPT NO.		REQUESTED AGENDA	

DATE NOTICES SENT TO ADJACENT PROPERTY OWNERS	
DATE OF PUBLIC NOTICES IN DAILY HERALD	

BOARD ACTION	

200 Oakwood Preliminary Plat/ Site Development Plan

Project #:	24-0239	Location:	Map 89 Parcel 21.00
Applicant:	Louis Sloyan, PE	Case Type(s):	Preliminary Plat/SDP
Staff Planner:	Austin Brass, AICP	Proposed Use:	Single-Family Homes

PROJECT SUMMARY

The applicant requests approval of a Preliminary Plat and Site Development Plan for 103 residential lots as well as associated infrastructure and open spaces including 2 defined civic spaces. This 56.73-acre Development Parcel yields 1.81 density units per acre (du/ac). The subject site is located on the west side of E. James M. Campbell Blvd within a CD-3 Character District.

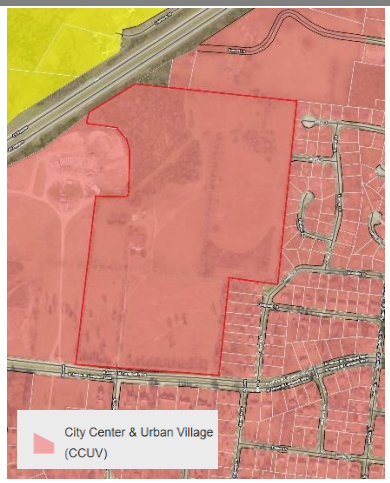
- This site was rezoned from CD-3L to CD-3 as recommend by Planning Commission on December 13th, 2023 and approved by City Council on March 14th, 2023.
- An Administrative Adjustment has been requested for the Civic Spaces Sport Field to enfront 43% of the required 50% of a thoroughfare in meeting the frontage requirements of the ordinance.
- This staff report evaluates the site development plan in adherence to all required bulk and area standards including civic space and tree canopy retention requirements.
- The Planning Commission is the **decision-making authority** for the Site Development Plan and Preliminary Plat.
- Any approval should be conditioned on timely submittal of "as-approved" plans which, in the determination of the Zoning Administrator and the City Engineer, reflect the substance of the plans approved by the Planning Commission.
- 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-3	Vacant	Vacant	+ /- 56.73 acres



FUTURE LAND USE MAP	ZONING MAP





SITE CONTEXT/ADJACENT PROPERTIES			
	Future Land Use	Zoning	Current Use
Subject Property	City Center & Urban Village	CD-3	Vacant
North	City Center & Urban Village	CD-3L	Single-Family Homes
South	City Center & Urban Village	CD-3/ CD 3-L	Single-Family Homes
East	City Center & Urban Village	CD-4/ CD-3	Single-Family Homes
West	City Center & Urban Village	CD-3L	Trailer Laydown Yard

CONSISTENCY WITH CONNECT COLUMBIA

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.

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.

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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





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).



Activate (City Policies Foster Proactive Change)
Protect (City Policies Minimize Change to Established Land Use)
Facilitate (City Facilitates Orderly Market-Driven Change)

CONFORMITY WITH ZONING ORDINANCE

- **The proposed Site Development Plan and Preliminary Plat conform to the bulk standards of the Ordinance within a CD-3 Character District.**

Lots, Building Sites & Bulk Standards:

- The Zoning Ordinance permits single-family house types and conforms to section § 4.3.1 C of the Zoning Ordinance. This proposed preliminary plat includes front-loaded lots for single-family homes.
- Lot variations include:
  - 103 (65') front-loaded single-family home lots;
  - 2 civic space lots;
  - 3 open space lots including 50 X 50 Pump Station. Material cladding for pump station structure shall apply per CD-3 standards.
- Tables 1 describes applicable bulk standards per section 4.3.1-C (building, lot & building site standards) of the Zoning Ordinance for a CD-3-character district in which the subject property is zoned.

Table 1 (CD-3) Neighborhood Character District Standards		
Bulk Standards:	**Required**	**Proposed**
Density:	4 Density Units Per Acre Maximum	1.89 Density Units Per Acre
Minimum Lot width:	40 ft if alley loaded/ 65ft front-loaded	65ft. min (*all lots are proposed to be front-loaded*)
Lot/Building Enfrontment:	Vehicle Throughfare/ 20% or less may enfront pedestrian path	All lots enfront a throughfare street section
Parking:	2 spaces/ Dwelling Unit	2 spaces/ Dwelling Unit
Max. Impervious:	50 Percent	Less than 50 Percent
Setbacks:	**Front** – 25 ft **Front Secondary:** 20 ft min **Side** – 8 ft. **Rear:** 25' or 15 min from center line of rear alley	Front – 25' Front Secondary- 20' Side- 8' Rear- 25' (*no lots are proposed to be alley loaded*)

Architecture:

- **Staff will determine conformity with the prescriptive design standards of the Ordinance at the time of building permit.**
    - The applicant has acknowledged **that all structures must conform to the prescriptive design standards in Table 4.3.1-C of the Ordinance.**
    - The Ordinance requires garages to maintain minimum interior dimensions of 10 feet by 20 feet. The Ordinance also establishes a maximum garage door width of 33% of total of garage plus façade width if garage door is in 1st of 2nd layer *(not setback 20' behind principal frontage).*

Retaining Walls:

- This site development plan indicates several block retaining walls located behind lots 81 & 80,86-89, & 57-59. Section 4.3.10 (*Encroachments*) of the Zoning Ordinance indicates that retaining walls are permitted in a required setback/yard of up to a 3' maximum height at the front/street yard, 4' maximum height in a side yard, and 6' maximum in a rear yard area. As all retaining walls are placed in the rear yards; a maximum height of 6' would be permitted. Any retaining wall would be required to be clad in brick, natural stone, and/or stucco over masonry.

Civic Spaces:

- **Section 5.3.1 of Zoning Ordinance requires any development parcel to utilize at least 5% but no more than 20% of its gross acreage as Civic Space conforming to the standards of Table 5.3.3-A.[1] The proposed Site Development Plan provides the required Civic Space in the form of a Sport Field, and (2) Playgrounds.**

    - The applicant proposes to dedicate 9.67 acres (17%) of the 56-acre site to Civic Space.
    - Each Civic Space type has its own standards for intent, size, frontage, character, and typical facilities including the civic space sport field to consist of a disc golf course.

[1] Development Parcel: a parcel of land: (1) which, either alone or together with one or more other parcels under a common Development scheme, program or plan, is ten (10) or more gross acres; (2) with respect to the Development of which any new Thoroughfare, Internal Drive, or extension or change of the design of any existing Thoroughfare or Internal Drive is required or will be made or proposed; or (3) with respect to which any District assignment or any Thoroughfare or Internal Drive or alignment thereof is proposed to be made or changed by a Zoning Map or Zoning Map amendment. (§ 9.3, p. 490).

- An Administrative Adjustment is necessary for the Sport Field Civic Space to enfront 43% of the required 50% of a thoroughfare in meeting the frontage requirements of the ordinance.

Civic Space Types for Development Plan	Number/ Size	Area/ Enfrontment
Sport Field (*Disc Golf Course*)	1/ No Min or Max	8.93 acres/ **43%**
Playground	2 (*0.5 acres minimum/ 5 acres maximum*)	1 (0.27 acres)/ N/A Enfrontment 2 (0.28 acres/ N/A Enfrontment

Tree Canopy Cover Retention/ Specimen Tree Preservation:

Section 4.3.16 of the Zoning Ordinance requires a percentage of existing tree cover to be preserved based upon the existing canopy on the development site.

- A CD-3-character district has a tree canopy retention based off the existing tree canopy on site. The applicant's tree canopy retention plan indicates that 18.96 acres (32%) of the 56-acre site is existing tree canopy. Table 4.3.16 L of the Zoning Ordinance indicates that a site with 20-39% existing tree canopy cover is required to retain 48% of the site as a tree save area. This site development plan indicates 9.16 acres (45%) of the 20.14 acres of existing tree canopy to be fully preserved at the southern boundary of the development site.
- Section **4.3.16** of the Zoning Ordinance requires the general protection of Specimen and Heritage Trees (*canopy diameter of 24 inches or greater*) with the Zoning Ordinance recommending that they not be removed. Furthermore, the Zoning Ordinance states that if a Specimen tree is removed, that a replacement tree shall be provided for two and half caliper inches per tree removed. That applicant has indicated that 311 inches of Specimen Trees are proposed to be removed, requiring 622 caliper inches of replacement plantings. The applicant's landscape plan indicates 627 caliper inches among 209 trees to be replaced throughout the site development plan as indicated in the applicants proposed tree replacement plan. The Zoning Ordinance does not permit replacement trees to be used to meet any other landscape requirements, and are required to be planted on the lot or building site where the Specimen Tree was removed per section 1.26. An as approved plan would be required to be submitted indicating the

replacement trees on proposed building sites.

REVIEW PROCESS

The Development Review Committee reviewed the proposed Preliminary Plat/Site Development Plan at its June 2024 meeting, as directed by section **8.3.7** of the Zoning Ordinance. Technical comments are provided in the agenda package and summarized above.

The Planning Commission is the Decision-Making Authority for all Site Development Plans that include one or more Development Parcels under **§ 8.5.6.D.3**.[2]

Sections **8.5.6.N** and **O** establish the criteria for review of a Site Development Plan.

N. Review Criteria.

1. The criteria to be applied by the Zoning Administrator in reviewing a Development Plan and application shall be whether such Plan and application comply with the applicable conditions, standards, and requirements of this Ordinance, all applicable previously approved Plans, such as earlier Development Plans, the Comprehensive Plan and all other applicable Land Use Plans.

2. With respect to a Development Plan the Planning Commission shall rely on all conditions, standards, and requirements of Articles 1-5 and Article 7 of this Ordinance and the Planning Commission shall review the Plan and application for compliance with all other conditions, standards, and requirements of this Ordinance, including without limitation those of Article 6 (Supplemental Standards) , and compliance with all applicable previously approved Plans, such as earlier Development Plans, the Comprehensive Plan and all other applicable Land Use Plans. Additionally, in the case of Development in a Special District, the Planning Commission shall determine:

a. Whether the Development design and Development intensity are appropriate for and tailored to the unique characteristics of the site, such as significant wooded areas, specimen trees, wetlands, steep slopes, floodplains, and zoning of or existing Development on Adjacent property;

[2] [2] Development Parcel: a parcel of land: (1) which, either alone or together with one or more other parcels under a common Development scheme, program or plan, is ten (10) or more gross acres; (2) with respect to the Development of which any new Thoroughfare, Internal Drive, or extension or change of the design of any existing Thoroughfare or Internal Drive is required or will be made or proposed; or (3) with respect to which any District assignment or any Thoroughfare or Internal Drive or alignment thereof is proposed to be made or changed by a Zoning Map or Zoning Map amendment. (§ 9.3, p. 490).

b. Whether the proposed access and circulation are adequate with respect to traffic patterns, traffic control measures, and street pavement areas, with provisions for maintaining traffic flows and reducing any negative effects of traffic on nearby properties;

c. Compliance with site construction requirements;

d. Adequacy of stormwater facilities, water supply, sanitary sewer service, fire protection, street signs, and street lighting as evidenced by conformance with City standards, specifications and guidelines; and

e. Compliance with requirements for Easements or dedications.

O. Development Plan Procedures Decision-Making Authority's Action.

1. Within 62 days for a Development Plan and application for which the Zoning Administrator is the Decision-Making Authority, or within 62 days after the hearing on a Development Plan and application for which the Planning Commission is the Decision-Making Authority, the Development Plan and application shall be approved or disapproved by the Decision-Making Authority in accordance with the review criteria of Section 8.5.6.N and Sections 8.5.6.O.2-.5 below:

2. A Development Plan and application shall be approved by the Decision-Making Authority, upon a finding that the Development Plan and application are in compliance with the review criteria set forth in Section 8.5.6.N.

3. If a Development Plan and Application are approved, the Development Plan as approved shall become part of the record of approval, and subsequent actions relating to the authorized Development must be consistent with approved items.

4. A Development Plan and application shall be disapproved if the Decision-Making Authority determines that the Plan and application do not comply with any one or more of the review criteria set forth in Section 8.5.6.N.

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 these 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.

SUMMARY OF DEVELOPMENT REVIEW COMMITTEE COMMENTS

The DRC reviewed this proposal at its June 2024 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 that civic space types shall be defined with specific details. The applicant responded by providing a Green Civic Space type with a disc golf course amenity.
- **Engineering** noted that most lots in the development are critical lots. There are significant concerns with grading and drainage with the proposed grading and foundation type. Incorporation of homes with basements would significantly reduce the severity of most of the slopes. The applicant acknowledged that grading has been updated to reflect "Oklahoma" style slabs. Planning staff will continue to work with engineering during the construction plan phase on this issue.
- **Wastewater** noted that the designed incoming invert elevation of the wet well to the pump station so that the Department can assure future connectivity to the sewer on Dayla Ln. Without this, the sanitary sewer would not be approved according to the availability letter. The applicant has acknowledged this.
- **Columbia Water** indicated that the water availability letter was issued on May 20, 2024 and remains valid for 120 days. 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.

COMMENTS FROM PLANNING STAFF

This preliminary plat and site development plan adheres to all standards of Zoning Ordinance 4400. As noted on the preliminary plat/site development plan, all structures are required to conform to the prescriptive design standards in Table 4.3.1-C of the Ordinance.

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 **8.5.6.N** and **O** of the City of Columbia Zoning Ordinance, and Section **2.2.6** of the Subdivision Regulations, have been satisfied and approve the Site Development Plan and Preliminary Plat 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 **8.5.6.N** and **O** of the City of Columbia Zoning Ordinance, and Section **2.2.6** of the Subdivision Regulations, have been satisfied and approve the Site Development Plan and Preliminary Plat subject to the following conditions: [*list conditions of approval crafted by Planning Commission*].

Deny:

Move to deny the Site Development Plan and Preliminary Plat having found, based on the information presented by the applicant and the analysis provided by city staff, that the criteria listed in sections **8.5.6.N** and **O** of the City of Columbia Zoning Ordinance and Section **2.2.6** of the Subdivision Regulations 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 that future meeting.

OAKWOOD SUBDIVISION

SITE DEVELOPMENT PLAN

City of Columbia, Maury County, Tennessee

Map 89, Parcel 021.00

ENGINEER:
T-SQUARE ENGINEERING
LOUIS SLOYAN, PE
111 SE PARKWAY COURT
FRANKLIN, TN 37064
(615)678-8212

SURVEYOR:
T-SQUARE SURVEYING
111 SE PARKWAY COURT
FRANKLIN, TN 37064
(615)678-8212

DEVELOPER:
SMITH DOUGLAS HOMES
DREW TAYLOR
DTAYLOR@SMITHDOUGLAS.COM

WATER:
COLUMBIA POWER & WATER SYSTEMS
201 PICKENS LANE
COLUMBIA, TN 38401
(931)388-4833

POWER:
COLUMBIA POWER & WATER SYSTEMS
201 PICKENS LANE
COLUMBIA, TN 38401
(931)388-4833

SEWER:
COLUMBIA WASTEWATER
1244 TREATMENT PLANT ROAD
COLUMBIA, TN 38401
(931)560-1001



SITE VICINITY MAP
N.T.S.

SITE DEVELOPMENT PLAN WILL CONFORM TO CD-3 DESIGN STANDARDS PER ZO 4400

Sheet Schedule

C-0.0	COVER SHEET
C-1.0	EXISTING CONDITIONS
C-2.0	SITE DEVELOPMENT PLAN
C-2.1	PARCEL TABLES
C-2.2	PARCEL TABLES
C-2.3	RESOURCE PROTECTION PLAN
C-2.4	CIVIC SPACE PLAN
C-2.5	SITE DETAILS
C-2.6	SITE DETAILS
C-3.0	INITIAL EROSION CONTROL PLAN
C-3.1	TEMPORARY EROSION CONTROL PLAN
C-3.2	FINAL EROSION CONTROL PLAN
C-3.3	EROSION CONTROL DETAILS
C-5.0	GRADING PLAN
C-5.1	DRAINAGE PLAN
C-5.2	GRADING & DRAINAGE DETAILS
C-6.0	LIVE OAK DRIVE PLAN AND PROFILE
C-6.1	LIVE OAK DRIVE PLAN AND PROFILE
C-6.2	SPANISH OAK LANE AND PROFILE
C-6.3	SPANISH OAK LANE PLAN AND PROFILE
C-6.4	SCARLET OAK DRIVE PLAN AND PROFILE
C-6.5	LAUREL OAK LANE DRIVE PLAN AND PROFILE
C-6.6	ENGLISH OAK COURT & RED OAK DRIVE PLAN & PROFILE
C-7.0	UTILITY PLAN
C-7.1	FIRE HYDRANT COVERAGE PLAN

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # *47119C0170E* OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD

MICHAEL DAVID MUSGROVE
104 CASCADE LAN
BELL BUCKLE, TN 37020
MAP 89, PARCEL 021.00
DEED BOOK R2814, PAGE 943, R.O.M.C.

APPLICANT

T-SQUARE ENGINEERING
111 SE PARKWAY COURT
FRANKLIN, TN 37064
615.678.8212

NO.	DATE	REVISIONS
1	07/15/24	REVISIONS PER DEVELOPMENT REVIEW COMMITTEE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

COVER SHEET
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

LOUIS T. SLOYAN
REGISTERED ENGINEER
AGRICULTURE
No. 116488
STATE OF TENNESSEE
07/15/2024

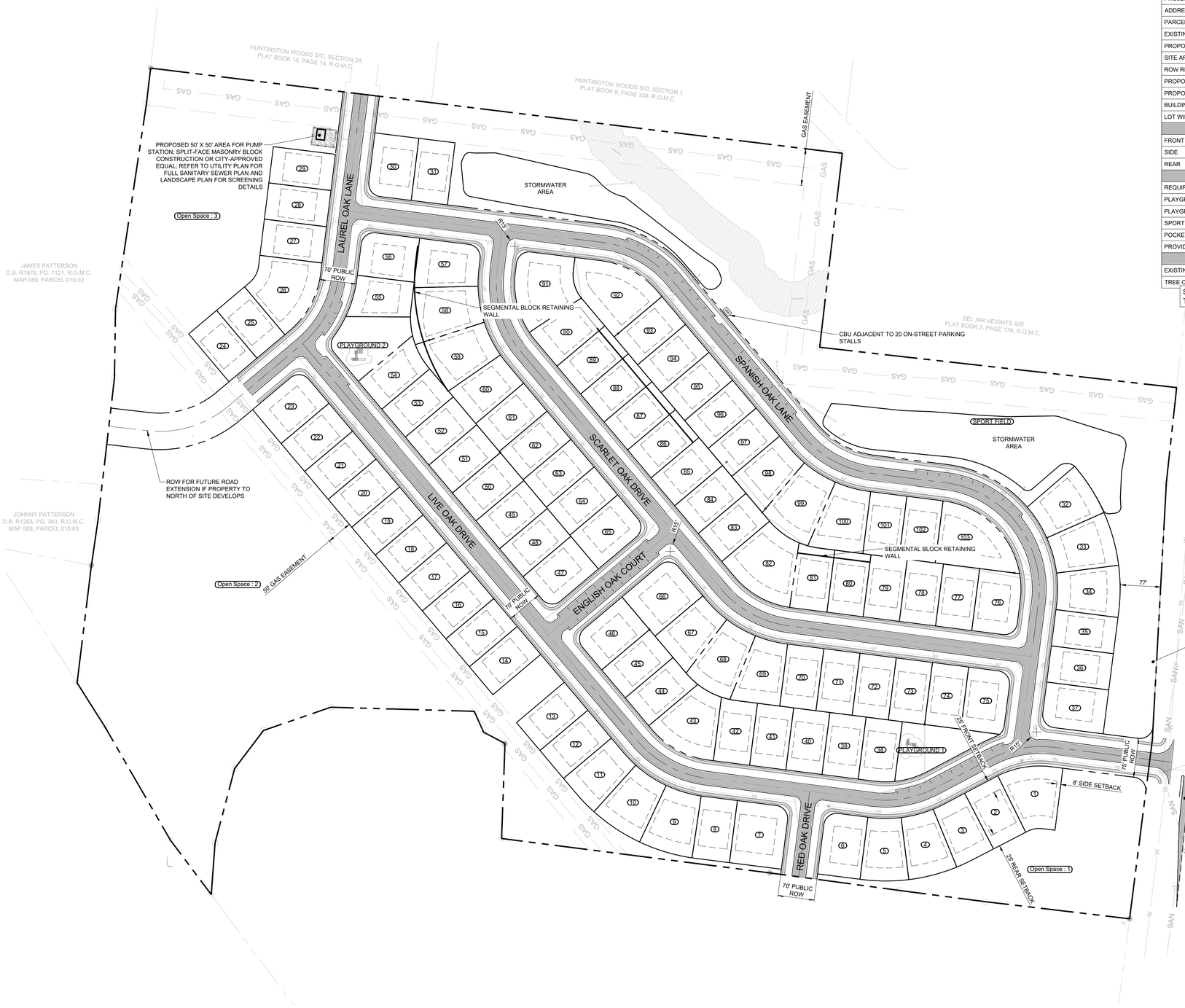
PROJECT
23-0533

SHEET
C-0.0

T-SQUARE ENGINEERING

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DALTA LANE - R.O.W. VARIES
HUNTINGTON WOODS S/D, SECTION 2A
PLAT BOOK 10, PAGE 14, R.O.M.C.
HUNTINGTON WOODS S/D, SECTION 1
PLAT BOOK 8, PAGE 338, R.O.M.C.
GAS EASEMENT
GRANADA DRIVE - R.O.W. VARIES
S7° 01' 26"W
1336.42'
S84° 18' 55"E
69.86'
S84° 25' 30"E
370.19'
S88° 07' 06"E
132.78'
S87° 34' 58"E
275.54'
JAMES PATTERSON
D.B. R1878, PG. 1121, R.O.M.C.
MAP 089, PARCEL 010.02
JOHNNY PATTERSON
D.B. R1265, PG. 383, R.O.M.C.
MAP 089, PARCEL 010.03
S21° 40' 43"E
66.66'
S85° 07' 39"E
227.01'
50' GAS EASEMENT
30' WATERWAY NATURAL AREA BUFFER
EXISTING CULVERT TO REMAIN
S74° 43' 53"E
183.19'
BEL AIR HEIGHTS S/D
PLAT BOOK 2, PAGE 176, R.O.M.C.
S6° 26' 37"W
688.90'
EXISTING BUILDING TO BE REMOVED
JAMES M CAMPBELL BOULEVARD - 150' R.O.W.
OAKWOOD DRIVE
N62° 43' 29"W
65.45'
N62° 43' 29"W
700.43'
N62° 43' 29"W
N62° 43' 29"W
N62° 43' 29"W



SITE DATA	
PROJECT NAME	OAKWOOD SUBDIVISION
PROJECT NUMBER	23-0533
ADDRESS	200 OAKWOOD DRIVE
PARCEL ID	MAP 089 PARCEL 021.00
EXISTING ZONING	CD - 3
PROPOSED ZONING	CD - 3
SITE AREA	56.73 AC
ROW RESERVATION	N/A
PROPOSED LOTS	106
PROPOSED DENSITY	1.89 UNITS/ACRE
BUILDING HEIGHT	35' MAXIMUM
LOT WIDTH	65' MINIMUM
SETBACKS	
FRONT	25' (PRIMARY); 20' (SECONDARY)
SIDE	8'
REAR	25'
CIVIC SPACE	
REQUIRED CIVIC SPACE	2.84 AC (5%)
PLAYGROUND 1	0.27 AC
PLAYGROUND 2	0.28 AC
SPORT FIELD	8.93 AC
POCKET PARK	0.19 AC
PROVIDED CIVIC SPACE	9.67 AC (17.0%)
TREE CANOPY RETENTION	
EXISTING TREE CANOPY	18.96 AC
TREE CANOPY RETAINED	12.89 AC (9.10 AC REQUIRED)

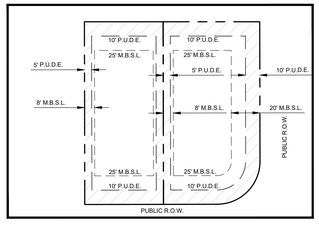
SITE DEVELOPMENT PLAN WILL CONFORM TO CD-3 DESIGN STANDARDS PER ZO 4400

N

GRAPHIC SCALE
(IN FEET)
100 0 50 100 200
SCALE: 1" = 100'

LEGEND

- PROPOSED LOT LINES
- (100) PROPOSED LOT NUMBER
- PROPOSED BUILDING SETBACK
- PROPOSED ACCESS EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED UTILITY EASEMENT
- W PROPOSED WATER LINE
- PROPOSED WATER SERVICE
- PROPOSED FIRE HYDRANT ASSEMBLY
- S PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY SERVICE
- PROPOSED STORM INLET
- PROPOSED HEADWALL



TYPICAL LOT (NOT TO SCALE)

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

NO.	DATE	REVISIONS
1	07/15/24	REVISIONS PER DEVELOPMENT REVIEW COMMITTEE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

SITE DEVELOPMENT PLAN
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

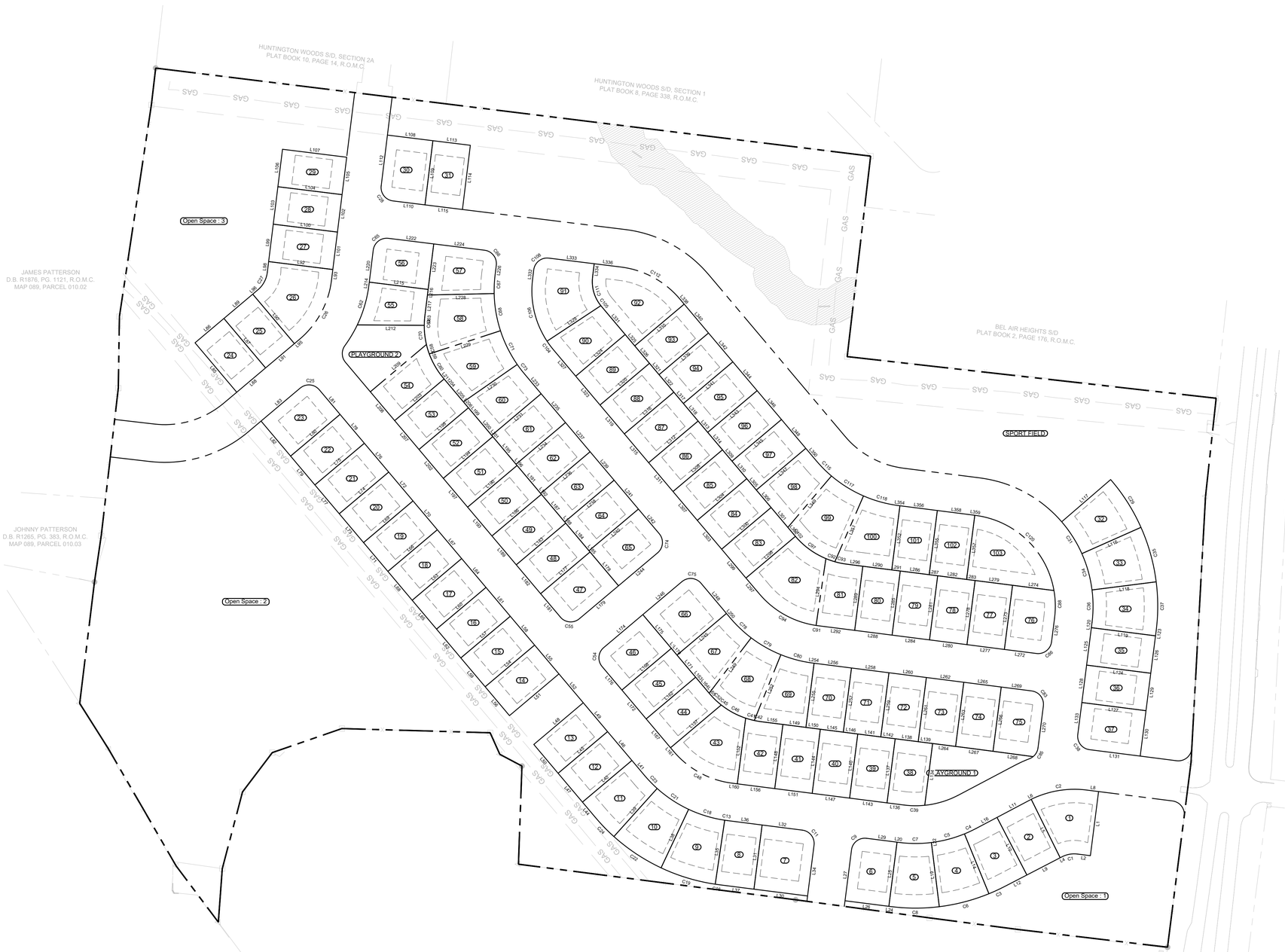
LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
No. 115485
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

SHEET
C-2.0

T-SQUARE ENGINEERING

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GRAPHIC SCALE

(IN FEET)

100 0 50 100 200

SCALE: 1" = 100'

Parcel Line Table		
Line #	Length	Direction
L1	120.00	N82° 44' 50.67"W
L2	23.91	N7° 15' 09.33"E
L4	3.46	N27° 23' 56.67"W
L5	120.89	N63° 40' 38.29"E
L6	3.05	S27° 49' 10.04"E
L8	21.86	S7° 15' 09.33"W
L9	69.53	N27° 23' 56.67"W
L10	120.34	N62° 36' 03.33"E
L11	71.80	S27° 49' 10.04"E
L12	46.05	N27° 23' 56.67"W
L14	120.00	N67° 47' 05.30"E
L16	44.30	S27° 49' 10.04"E
L19	120.00	N82° 57' 50.01"E
L20	4.10	S7° 15' 09.33"W
L22	0.00	S82° 57' 49.99"W
L24	4.12	N7° 15' 09.33"E
L25	120.00	S82° 44' 50.67"E
L26	82.00	N7° 15' 09.33"E
L27	95.00	S82° 44' 50.67"E
L29	57.00	S7° 15' 09.33"W
L30	100.28	N7° 15' 09.33"E
L31	120.00	S82° 44' 50.67"E
L32	75.28	S7° 15' 09.33"W
L34	95.00	N82° 44' 50.67"W
L35	120.00	S81° 35' 08.26"E
L36	65.13	S7° 15' 09.33"W

Parcel Line Table		
Line #	Length	Direction
L37	65.13	N7° 15' 09.33"E
L38	120.00	S64° 48' 52.39"E
L39	120.00	S48° 02' 36.51"E
L40	120.00	S40° 08' 09.18"E
L41	36.94	S49° 51' 50.82"W
L44	36.94	N49° 51' 50.82"E
L45	120.00	S40° 08' 09.18"E
L46	70.00	S49° 51' 50.82"W
L47	70.00	N49° 51' 50.82"E
L48	120.00	S40° 08' 09.18"E
L49	70.00	S49° 51' 50.82"W
L50	70.00	N49° 51' 50.82"E
L51	120.00	N40° 08' 09.18"W
L52	70.00	N49° 51' 50.82"E
L54	120.00	S40° 08' 09.18"E
L55	70.00	S49° 51' 50.82"W
L56	70.00	N49° 51' 50.82"E
L57	120.00	S40° 08' 09.18"E
L58	70.00	S49° 51' 50.82"W
L59	70.00	N49° 51' 50.82"E
L60	120.00	S40° 08' 09.18"E
L61	70.00	S49° 51' 50.82"W
L62	70.00	N49° 51' 50.82"E
L63	120.00	S40° 08' 09.18"E
L64	70.00	S49° 51' 50.82"W
L65	70.00	N49° 51' 50.82"E

Parcel Line Table		
Line #	Length	Direction
L66	120.00	S40° 08' 09.18"E
L67	70.00	S49° 51' 50.82"W
L68	70.00	N49° 51' 50.82"E
L69	120.00	S40° 08' 09.18"E
L70	70.00	S49° 51' 50.82"W
L71	70.00	N49° 51' 50.82"E
L72	70.00	S49° 51' 50.82"W
L73	70.00	N49° 51' 50.82"E
L74	120.00	S40° 08' 09.18"E
L75	120.00	S40° 08' 09.18"E
L76	70.00	S49° 51' 50.82"W
L77	70.00	N49° 51' 50.82"E
L78	70.00	S49° 51' 50.82"W
L79	70.00	N49° 51' 50.82"E
L80	120.00	S40° 08' 09.18"E
L81	60.00	S49° 51' 50.82"W
L82	85.00	N49° 51' 50.82"E
L83	95.00	S40° 08' 09.18"E
L85	120.00	N49° 51' 50.82"E
L86	70.00	S40° 08' 09.18"E
L87	120.00	S49° 51' 50.82"W
L88	70.00	N40° 08' 09.18"W
L89	70.00	S40° 08' 09.18"E
L90	120.00	S49° 51' 50.82"W
L91	70.00	N40° 08' 09.18"W
L92	120.00	S7° 02' 11.90"W

Parcel Line Table		
Line #	Length	Direction
L93	20.39	N82° 57' 48.10"W
L95	12.58	N40° 08' 09.18"E
L96	12.58	S40° 08' 09.18"E
L98	20.39	S82° 57' 48.10"E
L99	70.00	S82° 57' 48.10"E
L100	120.00	S7° 02' 11.90"W
L101	70.00	N82° 57' 48.10"W
L102	70.00	N82° 57' 48.10"W
L103	70.00	S82° 57' 48.10"E
L104	120.00	S7° 02' 11.90"W
L105	70.00	N82° 57' 48.10"W
L106	70.00	S82° 57' 48.10"E
L107	120.00	S7° 02' 11.90"W
L108	84.98	S7° 01' 39.87"W
L109	120.00	N82° 58' 20.13"W
L110	60.00	N7° 01' 39.87"E
L112	95.00	S82° 57' 48.10"E
L113	70.00	S7° 01' 39.87"W
L114	120.00	N82° 58' 20.13"W
L115	70.00	N7° 01' 39.87"E
L116	120.00	N23° 59' 38.92"W
L117	120.00	S40° 45' 54.80"E
L118	120.00	N7° 13' 23.04"W
L119	120.00	N7° 15' 09.33"E
L120	9.59	S82° 44' 50.67"E
L123	9.59	N82° 44' 50.67"W

Parcel Line Table		
Line #	Length	Direction
L124	120.00	N7° 15' 09.33"E
L125	70.00	S82° 44' 50.67"E
L126	70.00	N82° 44' 50.67"W
L127	120.00	N7° 15' 09.33"E
L128	70.00	S82° 44' 50.67"E
L129	70.00	N82° 44' 50.67"W
L130	85.00	N82° 44' 50.67"W
L131	95.00	N7° 15' 09.33"E
L133	60.00	S82° 44' 50.67"E
L134	115.63	N82° 44' 50.67"W
L136	31.70	N7° 15' 09.33"E
L137	120.00	S82° 44' 50.67"E
L138	43.01	S7° 15' 09.33"W
L139	26.99	S7° 15' 09.33"W
L140	120.00	S82° 44' 50.67"E
L141	43.01	S7° 15' 09.33"W
L142	26.99	S7° 15' 09.33"W
L143	70.00	N7° 15' 09.33"E
L144	120.00	S82° 44' 50.67"E
L145	43.01	S7° 15' 09.33"W
L146	26.99	S7° 15' 09.33"W
L147	70.00	N7° 15' 09.33"E
L148	120.00	S82° 44' 50.67"E
L149	43.01	S7° 15' 09.33"W
L150	26.99	S7° 15' 09.33"W
L151	70.00	N7° 15' 09.33"E

Parcel Line Table		
Line #	Length	Direction
L152	122.86	S82° 44' 50.67"E
L155	40.83	S7° 15' 09.33"W
L156	70.00	N7° 15' 09.33"E
L157	123.08	S40° 08' 09.18"E
L160	9.83	N7° 15' 09.33"E
L161	8.78	N49° 51' 50.82"E
L162	120.00	S40° 08' 09.18"E
L163	2.35	S49° 51' 50.82"W
L164	36.49	S49° 51' 50.82"W
L165	0.94	S49° 51' 50.82"W
L167	70.00	N49° 51' 50.82"E
L168	120.00	S40° 08' 09.18"E
L169	2.35	S49° 51' 50.82"W
L170	13.97	S49° 51' 50.82"W
L171	53.68	S49° 51' 50.82"W
L172	70.00	N49° 51' 50.82"E
L174	95.00	S40° 08' 09.18"E
L175	82.00	S49° 51' 50.82"W
L176	57.00	N49° 51' 50.82"E
L177	120.00	S40° 08' 09.18"E
L178	82.00	S49° 51' 50.82"W
L179	95.00	N40° 08' 09.18"W
L181	57.00	N49° 51' 50.82"E
L182	70.00	N49° 51' 50.82"E
L183	120.00	S40° 08' 09.18"E
L184	67.00	S49° 51' 50.82"W

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.

APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

T-SQUARE ENGINEERING

NO.	DATE	REVISIONS
1	07/15/24	REVISIONS PER DEVELOPMENT REVIEW COMMITTEE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

OAKWOOD DRIVE SUBDIVISION

PARCEL TABLES

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
No. 115485
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

SHEET
C-2.1

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Curve Table					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C75	39.27	25.00	90.00	S4° 51' 51"W	35.36
C78	53.09	240.00	12.67	S43° 31' 36"W	52.98
C79	63.58	240.00	15.18	S29° 36' 00"W	63.40
C80	61.82	240.00	14.76	S14° 37' 53"W	61.65
C83	39.27	25.00	90.00	S52° 15' 09"W	35.36
C85	19.13	25.00	43.84	N60° 49' 30"W	18.67
C86	39.27	25.00	90.00	N37° 44' 51"W	35.36
C88	50.75	170.00	17.10	S88° 42' 01"W	50.56
C91	3.22	170.00	1.08	N7° 47' 42"E	3.22
C92	17.63	150.00	6.73	S19° 17' 23"W	17.62
C93	22.70	150.00	8.67	S11° 35' 15"W	22.68
C94	123.21	170.00	41.53	N29° 06' 03"E	120.53
C97	70.65	150.00	26.99	S36° 09' 02"W	70.00
C102	0.58	150.00	0.22	S49° 45' 14"W	0.58
C104	19.88	170.00	6.70	N53° 12' 53"E	19.87
C105	0.97	70.00	0.79	S50° 15' 41"W	0.97
C106	120.08	170.00	40.47	N76° 48' 04"E	117.60
C108	39.27	25.00	89.99	S37° 58' 02"E	35.35
C111	56.66	70.00	46.38	S73° 50' 52"W	55.13
C112	127.10	170.00	42.84	S28° 26' 45"W	124.16
C115	40.12	240.00	9.58	S45° 04' 29"W	40.08
C117	70.25	240.00	16.77	S31° 54' 00"W	70.00
C118	68.12	240.00	16.26	S15° 23' 01"W	67.89
C120	216.28	170.00	72.90	S43° 42' 01"W	201.99

N

GRAPHIC SCALE
(IN FEET)
100 0 50 100 200
SCALE: 1" = 100'

Parcel Line Table		
Line #	Length	Direction
L185	3.00	S49° 51' 50.82"W
L186	120.00	S40° 08' 09.18"E
L187	67.00	S49° 51' 50.82"W
L188	3.00	S49° 51' 50.82"W
L189	70.00	N49° 51' 50.82"E
L190	120.00	S40° 08' 09.18"E
L191	67.90	S49° 51' 50.82"W
L192	2.10	S49° 51' 50.82"W
L193	70.00	N49° 51' 50.82"E
L194	120.00	S40° 08' 09.18"E
L195	67.00	S49° 51' 50.82"W
L196	3.00	S49° 51' 50.82"W
L197	70.00	N49° 51' 50.82"E
L198	120.00	S40° 08' 09.18"E
L199	26.35	S49° 51' 50.82"W
L200	40.65	S49° 51' 50.82"W
L201	3.00	S49° 51' 50.82"W
L202	70.00	N49° 51' 50.82"E
L203	120.00	S40° 08' 09.18"E
L204	26.35	S49° 51' 50.82"W
L205	29.35	S49° 51' 50.82"W
L206	14.30	S49° 51' 50.82"W
L207	70.00	N49° 51' 50.82"E
L208	70.00	N49° 51' 50.82"E
L209	136.12	S40° 08' 09.18"E
L211	2.36	S49° 51' 50.82"W

Parcel Line Table		
Line #	Length	Direction
L212	124.22	N0° 22' 48.55"E
L214	5.40	S82° 57' 48.10"E
L215	110.01	S7° 01' 39.87"W
L216	10.49	N82° 58' 10.59"W
L217	39.21	N82° 56' 53.33"W
L220	60.00	S82° 57' 48.10"E
L222	85.00	S7° 01' 39.87"W
L223	85.00	N82° 58' 10.59"W
L224	95.00	S7° 01' 39.87"W
L226	18.04	N82° 57' 48.10"W
L228	123.79	N1° 15' 23.61"W
L229	138.95	N18° 01' 39.49"W
L230	121.57	N34° 47' 55.36"W
L231	120.00	N40° 08' 09.18"W
L233	47.67	S49° 51' 50.82"W
L234	120.00	N40° 08' 09.18"W
L235	70.00	S49° 51' 50.82"W
L236	120.00	N40° 08' 09.18"W
L237	70.90	S49° 51' 50.82"W
L238	120.00	N40° 08' 09.18"W
L239	69.10	S49° 51' 50.82"W
L240	120.00	N40° 08' 09.18"W
L241	70.00	S49° 51' 50.82"W
L242	60.00	S49° 51' 50.82"W
L244	95.00	N40° 08' 09.18"W
L245	120.00	N40° 08' 09.18"W

Parcel Line Table		
Line #	Length	Direction
L246	95.00	S40° 08' 09.18"E
L248	73.32	S49° 51' 50.82"W
L249	128.99	N52° 48' 37.92"W
L250	11.56	S49° 51' 50.82"W
L252	131.72	N67° 59' 22.62"W
L254	1.95	S7° 15' 09.32"W
L255	120.00	N82° 44' 50.67"W
L256	70.00	S7° 15' 09.33"W
L257	120.00	N82° 44' 50.67"W
L258	70.00	S7° 15' 09.33"W
L259	120.00	N82° 44' 50.67"W
L260	70.00	S7° 15' 09.33"W
L261	120.00	N82° 44' 50.67"W
L262	70.00	S7° 15' 09.33"W
L263	120.00	N82° 44' 50.67"W
L264	43.01	N7° 15' 09.33"E
L265	70.00	S7° 15' 09.33"W
L266	120.21	N82° 44' 50.67"W
L267	70.00	N7° 25' 27.71"E
L268	75.03	N7° 34' 08.45"E
L269	57.00	S7° 15' 09.33"W
L270	78.31	N82° 44' 50.67"W
L272	60.00	N7° 15' 09.33"E
L273	120.00	S82° 44' 50.67"E
L274	77.48	S7° 15' 09.33"W
L276	45.00	N82° 44' 50.67"W

Parcel Line Table		
Line #	Length	Direction
L277	70.00	N7° 15' 09.33"E
L278	120.00	S82° 44' 50.67"E
L279	70.00	S7° 15' 09.33"W
L280	70.00	N7° 15' 09.33"E
L281	120.00	S82° 44' 50.67"E
L282	54.08	S7° 15' 09.33"W
L283	15.92	S7° 15' 09.33"W
L284	70.00	N7° 15' 09.33"E
L285	120.00	S82° 44' 50.67"E
L286	54.08	S7° 15' 09.33"W
L287	15.92	S7° 15' 09.33"W
L288	70.00	N7° 15' 09.33"E
L289	120.00	S82° 44' 50.67"E
L290	54.08	S7° 15' 09.33"W
L291	15.92	S7° 15' 09.33"W
L292	68.95	N7° 15' 09.33"E
L294	125.38	S81° 39' 45.78"E
L296	29.95	S7° 15' 09.33"W
L297	38.42	N49° 51' 50.82"E
L298	120.00	S40° 08' 09.18"E
L299	70.00	N49° 51' 50.82"E
L300	120.00	S40° 08' 09.18"E
L301	48.27	S49° 51' 50.82"W
L302	21.15	S49° 51' 50.82"W
L303	70.00	N49° 51' 50.82"E
L304	120.00	S40° 08' 09.18"E

Parcel Line Table		
Line #	Length	Direction
L305	27.54	S49° 51' 50.82"W
L306	42.46	S49° 51' 50.82"W
L307	70.00	N49° 51' 50.82"E
L308	120.00	S40° 08' 09.18"E
L309	27.54	S49° 51' 50.82"W
L310	42.46	S49° 51' 50.82"W
L311	70.00	N49° 51' 50.82"E
L312	120.00	S40° 08' 09.18"E
L313	27.54	S49° 51' 50.82"W
L314	42.46	S49° 51' 50.82"W
L315	70.00	N49° 51' 50.82"E
L316	120.00	S40° 08' 09.18"E
L317	27.54	S49° 51' 50.82"W
L318	42.46	S49° 51' 50.82"W
L319	70.00	N49° 51' 50.82"E
L320	120.00	S40° 08' 09.18"E
L321	27.54	S49° 51' 50.82"W
L322	42.46	S49° 51' 50.82"W
L323	70.00	N49° 51' 50.82"E
L324	120.00	S40° 08' 09.18"E
L325	27.54	S49° 51' 50.82"W
L326	42.46	S49° 51' 50.82"W
L327	64.13	N49° 51' 50.82"E
L329	119.66	S33° 26' 04.79"E
L331	69.03	S49° 51' 50.82"W
L332	18.06	S82° 57' 48.10"E

Parcel Line Table		
Line #	Length	Direction
L333	85.00	S7° 01' 43.24"W
L334	25.07	N82° 57' 48.10"W
L335	120.00	N40° 08' 09.18"W
L336	49.80	S7° 01' 33.44"W
L338	12.84	S49° 51' 50.82"W
L339	120.00	N40° 08' 09.18"W
L340	70.00	S49° 51' 50.82"W
L341	120.00	N40° 08' 09.18"W
L342	70.00	S49° 51' 50.82"W
L343	120.00	N40° 08' 09.18"W
L344	70.00	S49° 51' 50.82"W
L345	120.00	N40° 08' 09.18"W
L346	70.00	S49° 51' 50.82"W
L347	120.00	N40° 08' 09.18"W
L348	70.00	S49° 51' 50.82"W
L349	125.09	N49° 42' 52.37"W
L350	29.98	S49° 51' 50.82"W
L351	133.22	N66° 29' 08.24"W
L352	120.00	N82° 44' 50.67"W
L354	2.13	S7° 15' 09.33"W
L355	120.00	N82° 44' 50.67"W
L356	70.00	S7° 15' 09.33"W
L357	120.00	N82° 44' 50.67"W
L358	70.00	S7° 15' 09.33"W
L359	0.92	S7° 15' 09.33"W

Curve Table					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C1	30.24	50.00	34.65	N10° 04' 24"W	29.78
C2	103.09	182.37	32.39	S8° 56' 26"E	101.72
C3	32.57	360.00	5.18	N24° 48' 26"W	32.56
C4	23.47	240.00	5.60	S25° 01' 06"E	23.46
C5	63.58	240.13	15.17	S14° 37' 48"E	63.40
C6	95.37	360.00	15.18	N14° 37' 32"W	95.09
C7	59.86	240.00	14.29	S0° 06' 26"W	59.71
C8	89.78	360.00	14.29	N0° 06' 29"E	89.54
C9	39.27	25.00	90.00	S37° 44' 51"E	35.36
C11	39.27	25.00	90.00	S52° 15' 09"W	35.36
C13	4.87	240.00	1.16	S7° 50' 01"W	4.87
C16	7.30	360.00	1.16	N7° 50' 01"E	7.30
C18	70.25	240.00	16.77	S16° 48' 00"W	70.00
C19	105.38	360.00	16.77	N16° 48' 00"E	105.00
C21	70.25	240.00	16.77	S33° 34' 16"W	70.00
C22	105.38	360.00	16.77	N33° 34' 16"E	105.00
C23	33.12	240.00	7.91	S45° 54' 37"W	33.10
C24	49.68	360.00	7.91	N45° 54' 37"E	49.65
C25	39.27	25.00	90.00	S4° 51' 51"W	35.36
C26	127.07	170.00	42.83	N61° 32' 59"W	124.13
C27	37.37	50.00	42.83	S61° 32' 59"E	36.51
C28	39.27	25.00	90.01	N52° 01' 56"E	35.36
C29	105.38	360.00	16.77	S57° 37' 13"W	105.00
C31	70.25	240.00	16.77	N57° 37' 13"E	70.00
C34	70.25	240.00	16.77	N74° 23' 29"E	70.00
C35	105.38	360.00	16.77	S74° 23' 29"W	105.00

Curve Table					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C36	60.64	240.00	14.48	S89° 59' 07"E	60.47
C37	90.95	360.00	14.48	N89° 59' 07"W	90.71
C38	39.27	25.00	90.00	N52° 15' 09"E	35.36
C39	38.64	170.00	13.02	N0° 44' 31"E	38.55
C41	16.55	150.00	6.32	S15° 18' 15"W	16.54
C42	12.80	150.00	4.89	S9° 41' 53"W	12.80
C45	2.31	150.00	0.88	S37° 48' 01"W	2.31
C46	49.46	150.00	18.89	S27° 54' 42"W	49.24
C48	126.43	170.00	42.61	N28° 33' 30"E	123.54
C52	30.43	150.00	11.62	S44° 03' 11"W	30.38
C54	39.27	25.00	90.00	S85° 08' 09"E	35.36
C55	39.27	25.00	90.00	N4° 51' 51"E	35.36
C58	18.21	150.00	6.96	S73° 11' 31"W	18.20
C59	10.13	150.00	3.87	S67° 46' 44"W	10.13
C60	41.83	150.00	15.98	S57° 51' 14"W	41.70
C62	77.41	240.00	18.48	S73° 43' 23"E	77.08
C63	11.01	150.00	4.21	N85° 04' 00"W	11.01
C64	6.41	150.00	2.45	N88° 23' 41"W	6.41
C65	39.27	25.00	89.99	S37° 58' 04"E	35.35
C66	39.27	25.00	90.01	S52° 01' 56"W	35.36
C67	34.74	240.00	8.29	N87° 06' 36"W	34.71
C68	70.25	240.00	16.77	S80° 21' 28"W	70.00
C70	35.89	150.00	13.71	N83° 31' 30"E	35.81
C71	70.25	240.00	16.77	S63° 35' 13"W	70.00
C73	22.36	240.00	5.34	S52° 31' 58"W	22.35
C74	39.27	25.00	90.00	N85° 08' 09"W	35.36

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.

APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

T-SQUARE ENGINEERING

REVISIONS		
NO.	DATE	
1	07/15/24	REVISIONS PER DEVELOPMENT REVIEW COMMITTEE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

OAKWOOD DRIVE SUBDIVISION

PARCEL TABLES

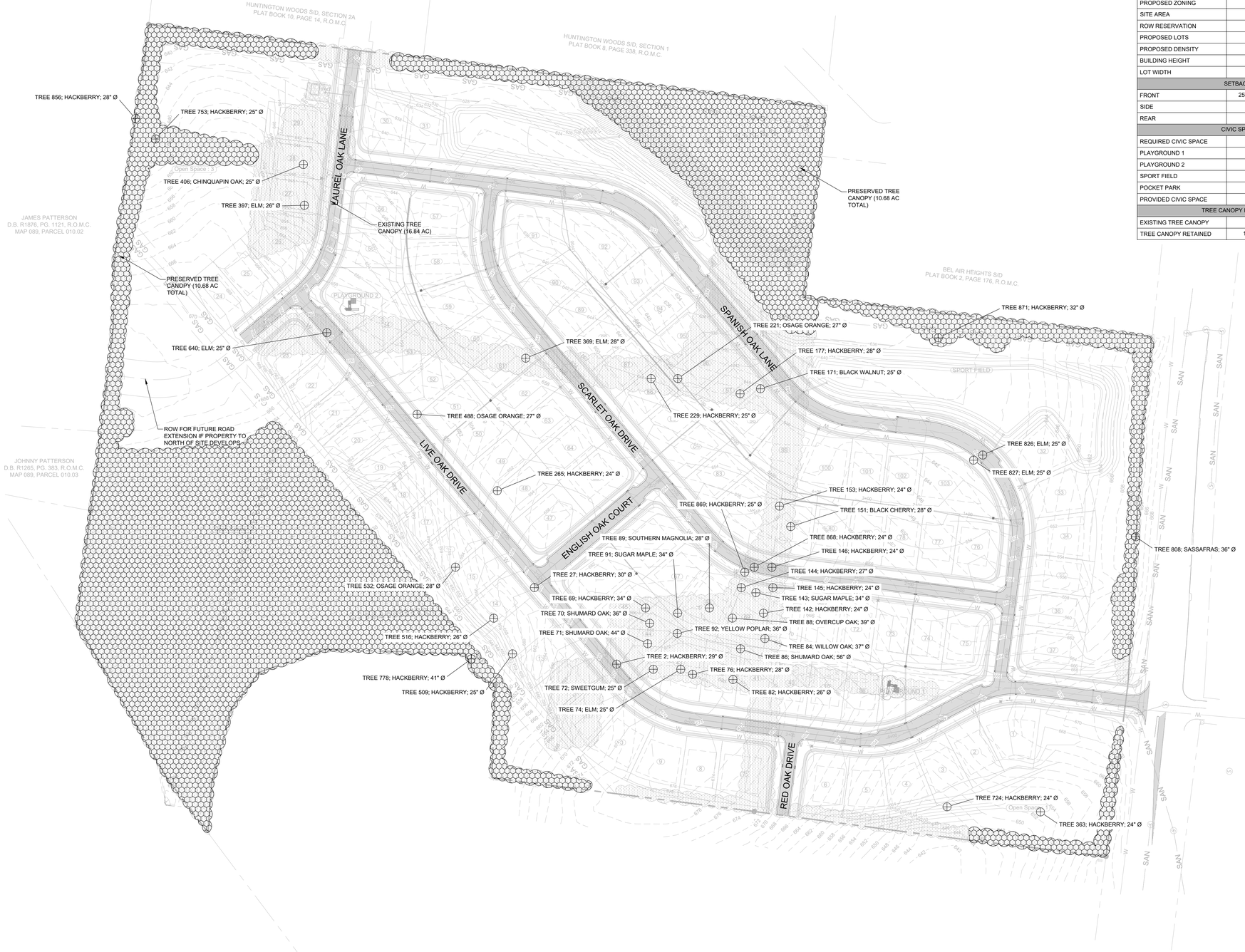
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
No. 115485
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

SHEET
C-2.2

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SITE DATA	
PROJECT NAME	OAKWOOD SUBDIVISION
PROJECT NUMBER	23-0533
ADDRESS	200 OAKWOOD DRIVE
PARCEL ID	MAP 089 PARCEL 021.00
EXISTING ZONING	CD - 3
PROPOSED ZONING	CD - 3
SITE AREA	56.73 AC
ROW RESERVATION	N/A
PROPOSED LOTS	106
PROPOSED DENSITY	1.89 UNITS/ACRE
BUILDING HEIGHT	35' MAXIMUM
LOT WIDTH	65' MINIMUM
SETBACKS	
FRONT	25' (PRIMARY); 20' (SECONDARY)
SIDE	8'
REAR	25'
CIVIC SPACE	
REQUIRED CIVIC SPACE	2.84 AC (5%)
PLAYGROUND 1	0.27 AC
PLAYGROUND 2	0.28 AC
SPORT FIELD	8.93 AC
POCKET PARK	0.19 AC
PROVIDED CIVIC SPACE	9.67 AC (17.0%)
TREE CANOPY RETENTION	
EXISTING TREE CANOPY	18.96 AC
TREE CANOPY RETAINED	12.89 AC (9.10 AC REQUIRED)

N

GRAPHIC SCALE
(IN FEET)
100 0 50 100 200
SCALE: 1" = 100'

LEGEND

- PROPOSED LOT LINES
- PROPOSED LOT NUMBER
- PROPOSED BUILDING SETBACK
- PROPOSED ACCESS EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED UTILITY EASEMENT
- W — PROPOSED WATER LINE
- PROPOSED WATER SERVICE
- PROPOSED FIRE HYDRANT ASSEMBLY
- PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY SERVICE
- PROPOSED STORM INLET
- PROPOSED HEADWALL

SPECIMEN TREE REPLACEMENT NOTE:
- NUMBER OF SPECIMEN TREES TO BE REMOVED: 40
- TOTAL ACI BEING REMOVED: 1,154 CALIPER INCHES
- TOTAL REPLACEMENT TREES AT 2.5 CALIPER INCHES
  - -- 103 TREES IN FRONT YARD AREAS
  - -- 247 STREET TREES
  - -- 573 TO BE PLANTED IN OPEN SPACE
- ALL TREES TO BE PLANTED IN FRONT YARD AREAS WILL BE FIELD LOCATED TO ENSURE BEST PLANTING PRACTICE.
- ALL TREES TO BE PLANTED IN OPEN SPACE WILL BE FIELD LOCATED TO ENSURE BEST PLANTING PRACTICE.

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # *47119C0170E* OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

NO.	DATE	REVISIONS
1	07/15/24	REVISIONS PER DEVELOPMENT REVIEW COMMITTEE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

OAKWOOD DRIVE SUBDIVISION

RESOURCE PROTECTION PLAN

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

LOUIS T. SLOYAN
REGISTERED ENGINEER
AGRICULTURE
No. 116488
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

SHEET
C-2.3

T-SQUARE ENGINEERING

P:\Projects\2023\23-0533 (Oakwood Dr. - Drew Taylor)\Production\23-0533.2 - Resource Protection.dwg, 7/15/2024 4:20:09 PM

SITE DATA	
PROJECT NAME	OAKWOOD SUBDIVISION
PROJECT NUMBER	23-0533
ADDRESS	200 OAKWOOD DRIVE
PARCEL ID	MAP 089 PARCEL 021.00
EXISTING ZONING	CD - 3
PROPOSED ZONING	CD - 3
SITE AREA	56.73 AC
ROW RESERVATION	N/A
PROPOSED LOTS	106
PROPOSED DENSITY	1.89 UNITS/ACRE
BUILDING HEIGHT	35' MAXIMUM
LOT WIDTH	65' MINIMUM
SETBACKS	
FRONT	25' (PRIMARY); 20' (SECONDARY)
SIDE	8'
REAR	25'
CIVIC SPACE	
REQUIRED CIVIC SPACE	2.84 AC (5%)
PLAYGROUND 1	0.27 AC
PLAYGROUND 2	0.28 AC
SPORT FIELD	8.93 AC
POCKET PARK	0.19 AC
PROVIDED CIVIC SPACE	9.67 AC (17.0%)
TREE CANOPY RETENTION	
EXISTING TREE CANOPY	18.96 AC
TREE CANOPY RETAINED	12.89 AC (9.10 AC REQUIRED)

N

GRAPHIC SCALE
(IN FEET)
100 0 50 100 200
SCALE: 1" = 100'

CIVIC PLAN

LEGEND
- PROPOSED LOT LINES
- PROPOSED LOT NUMBER
- WATER NATURAL AREA BUFFER
- DESIGNATED CIVIC SPACE

CIVIC SPACE EN FRONTS A THOROUGHFARE STREET TYPE OF AT LEAST 50 PERCENT.

HUNTINGTON WOODS S/D, SECTION 2A
PLAT BOOK 10, PAGE 14, R.O.M.C.

HUNTINGTON WOODS S/D, SECTION 1
PLAT BOOK 8, PAGE 338, R.O.M.C.

BEL AIR HEIGHTS S/D
PLAT BOOK 2, PAGE 176, R.O.M.C.

JAMES PATTERSON
D.B. R1878, PG. 1121, R.O.M.C.
MAP 089, PARCEL 010.02

JOHNNY PATTERSON
D.B. R1265, PG. 383, R.O.M.C.
MAP 089, PARCEL 010.03

JOHN BAKER
D.B. R2251, PG. 1011, R.O.M.C.
MAP 089, PARCEL 022.01

LAUREL OAK LANE
SPANISH OAK LANE
SCARLET OAK DRIVE
LIVE OAK DRIVE
ENGLISH OAK COURT
RED OAK DRIVE

Open Space : 1
Open Space : 2
Open Space : 3

PLAYGROUND 1
PLAYGROUND 2
PLAYGROUND
POCKET PARK

SPORT FIELD (DISC GOLF)
THOROUGHFARE
FRONTAGE: 2,153 FT (43%)

DISC GOLF TARGET (TYP.)
EXISTING TREE LINE AT ROADWAY TO REMAIN
77'
DISC GOLF TEE OFF AREA (TYP.)

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

T-SQUARE ENGINEERING

NO.	DATE	REVISIONS
1	07/15/24	REVISIONS PER DEVELOPMENT REVIEW COMMITTEE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

OAKWOOD DRIVE SUBDIVISION

CIVIC SPACE PLAN

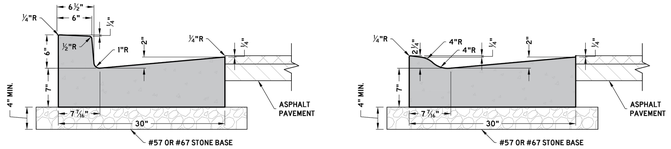
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

LOUIS T. SLOYD
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 116486
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

SHEET
C-2.4

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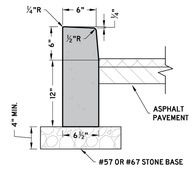


6-30 CONCRETE CURB AND GUTTER

LOWERED CONCRETE CURB AND GUTTER

NOTES:

1. BASED ON TDOT STANDARD DRAWING RP-VC-11
2. ONLY PERMITTED IN APPLICABLE ROADWAY SECTIONS
3. 4" MIN. THICK #57 OR # 67 STONE BASE
4. CLASS A 3000 PSI CONCRETE
5. 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)
   - 5.7. POLYPROPYLENE FOAM JOINT FILLER (ASTM D8139)
6. CONTRACTION JOINTS SHALL BE AS FOLLOWS:
   - 6.1. A MAXIMUM SPACING OF 10 FEET
   - 6.2. A MINIMUM SPACING OF 6 FEET
   - 6.3. 1/4 INCH DEPTH, EITHER SAWCUT OR HAND GROOVED.
7. ELEMENTS OF THIS DETAIL MAY BE ALTERED AND APPROVED BY THE CITY ENGINEER



VERTICAL POST CURB

CITY OF COLUMBIA DEVELOPMENT SERVICES DEPARTMENT ENGINEERING DIVISION

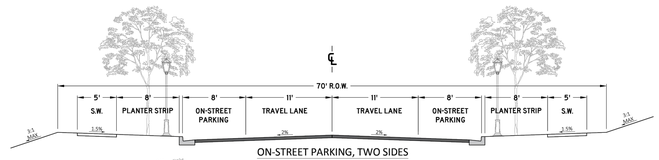
STANDARD DETAILS

CURB AND GUTTER AND POST CURB

(NTS)

DATE 6/9/2022

SD-01



NOTES:

1. ONLY PERMITTED WITHIN THE APPLICABLE ZONING DISTRICTS.
2. ONLY PERMITTED ON MINOR LOCAL AND MAJOR LOCAL ROADWAY CLASSIFICATIONS.
3. PAVEMENT SECTION SHALL FOLLOW APPLICABLE ROADWAY CLASSIFICATION.
4. CURB AND GUTTER, SEE SD-01
5. TREES SHALL BE CENTERED WITHIN THE PLANTING STRIP, OFFSET A MINIMUM OF 20 FEET ALONG THE CENTERLINE OF THE ROAD FROM ANY STREET LIGHTING.
6. DECORATIVE LIGHT BASES SHALL BE BETWEEN 18" AND 24" BEHIND THE BACK OF CURB.
7. ADDITIONAL RIGHT OF WAY MAY BE REQUIRED.
8. DIMENSIONS REFLECT A MINIMUM STANDARD.
9. ELEMENTS OF THIS DETAIL MAY BE ALTERED AND APPROVED BY THE CITY ENGINEER.

CITY OF COLUMBIA DEVELOPMENT SERVICES DEPARTMENT ENGINEERING DIVISION

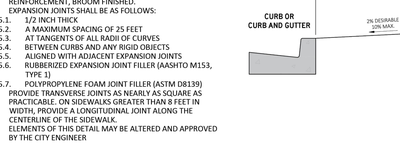
STANDARD DETAILS

CHARACTER DISTRICT STREET URBAN NEIGHBORHOOD

(NTS)

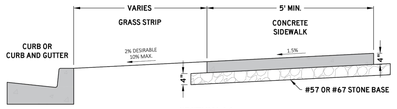
DATE 6/9/2022

DS-03



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. 4" MIN. THICKNESS CLASS A 3000 PSI CONCRETE WITH FIBER REINFORCEMENT, BROOM FINISHED.
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 PRACTICABLE. ON SIDEWALKS GREATER THAN 8 FEET IN 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



SECTION AA

CITY OF COLUMBIA DEVELOPMENT SERVICES DEPARTMENT ENGINEERING DIVISION

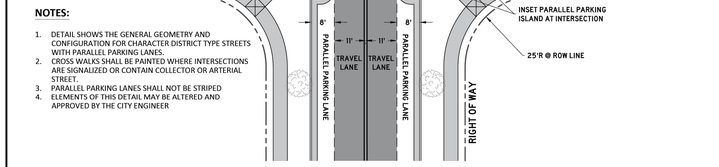
STANDARD DETAILS

CONCRETE SIDEWALK

(NTS)

DATE 6/9/2022

SD-10



NOTES:

1. DETAIL SHOWS THE GENERAL GEOMETRY AND CONFIGURATION FOR CHARACTER DISTRICT TYPE STREETS WITH PARALLEL PARKING LANES.
2. CROSS WALKS SHALL BE PAINTED WHERE INTERSECTIONS ARE SIGNALIZED OR CONTAIN COLLECTOR OR ARTERIAL STREET.
3. PARALLEL PARKING LANES SHALL NOT BE STRIPED
4. ELEMENTS OF THIS DETAIL MAY BE ALTERED AND APPROVED BY THE CITY ENGINEER

CITY OF COLUMBIA DEVELOPMENT SERVICES DEPARTMENT ENGINEERING DIVISION

STANDARD DETAILS

INTERSECTION CONFIGURATION AND GEOMETRY

(NTS)

DATE 6/9/2022

SD-07

FLOOD NOTE

THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD

MICHAEL DAVID MUSGROVE
104 CASCADE LAN
BELL BUCKLE, TN 37020
MAP 89, PARCEL 021.00
DEED BOOK R2814, PAGE 943, R.O.M.C.

APPLICANT

T-SQUARE ENGINEERING
111 SE PARKWAY COURT
FRANKLIN, TN 37064
615.678.8212

T-SQUARE ENGINEERING

REVISIONS

NO.	DATE	
1	07/15/24	REVISIONS PER DEVELOPMENT REVIEW COMMITTEE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

SITE DETAILS
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

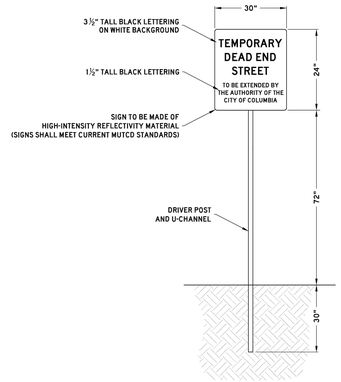
OAKWOOD DRIVE SUBDIVISION

LOUIS T. SLOYAN
REGISTERED ENGINEER
AGRICULTURE
No. 116455
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

SHEET
C-2.5

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CITY OF COLUMBIA
DEVELOPMENT SERVICES DEPARTMENT
ENGINEERING DIVISION

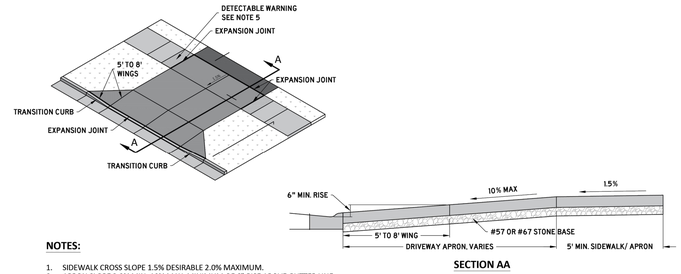
STANDARD DETAILS

STREET CONTINUATION SIGNAGE

(NTS)

DATE 6/9/2022

SD-19



SECTION AA

NOTES:

1. SIDEWALK CROSS SLOPE 1.5% DESIRABLE 2.0% MAXIMUM.
2. APRON SLOPE 2.0% MIN. 10% MAX. MINIMUM OF 6" RISE ABOVE GUTTER LINE.
3. 4" MIN. THICK #57 OR # 67 STONE BASE
4. CLASS A 3000 PSI CONCRETE WITH FIBER REINFORCEMENT
   - 4.1. 6" MIN. THICKNESS RESIDENTIAL.
   - 4.2. 8" MIN. THICKNESS COMMERCIAL, MULTI-FAMILY, AND MIXED-USE.
5. EXPANSION JOINTS SHALL BE AS FOLLOWS:
   - 5.1. 1/2 INCH THICK.
   - 5.2. RUBBERIZED EXPANSION JOINT FILLER (AASHTO M153, TYPE 1).
   - 5.3. POLYPROPYLENE FOAM JOINT FILLER (ASTM D8139).
6. DETECTABLE WARNINGS WHERE DRIVEWAY IS STOP CONTROLLED.
7. ELEMENTS OF THIS DETAIL MAY BE ALTERED AND APPROVED BY THE CITY ENGINEER

CITY OF COLUMBIA
DEVELOPMENT SERVICES DEPARTMENT
ENGINEERING DIVISION

STANDARD DETAILS

DRIVEWAY APRON

(NTS)

DATE 6/9/2022

SD-12

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS *"ZONE X"* AS EVIDENCED ON FEMA PANEL # *47119C0170E* OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

T-SQUARE ENGINEERING

REVISIONS

NO.	DATE	REVISIONS PER DEVELOPMENT REVIEW COMMITTEE
1	07/15/24	

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

SITE DETAILS

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

LOUIS T. LOYD
REGISTERED ENGINEER
AGRICULTURE
No. 116455
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

SHEET
C-2.6

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N

GRAPHIC SCALE
(IN FEET)
100 0 50 100 200
SCALE: 1" = 100'

LEGEND

- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED SILT FENCE
- TREE PROTECTION FENCING
- PROPOSED CONSTRUCTION EXIT
- PROPOSED CONCRETE WASHOUT

NO.	DATE	REVISIONS
1	07/15/24	REVISIONS PER DEVELOPMENT REVIEW COMMITTEE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

OAKWOOD DRIVE SUBDIVISION

INITIAL EROSION CONTROL PLAN

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

LOUIS T. SLOYD
REGISTERED ENGINEER
AGRICULTURE
TENNESSEE
No. 116455
STATE OF TENNESSEE
07/15/2024

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN, DATED 04/15/2007.

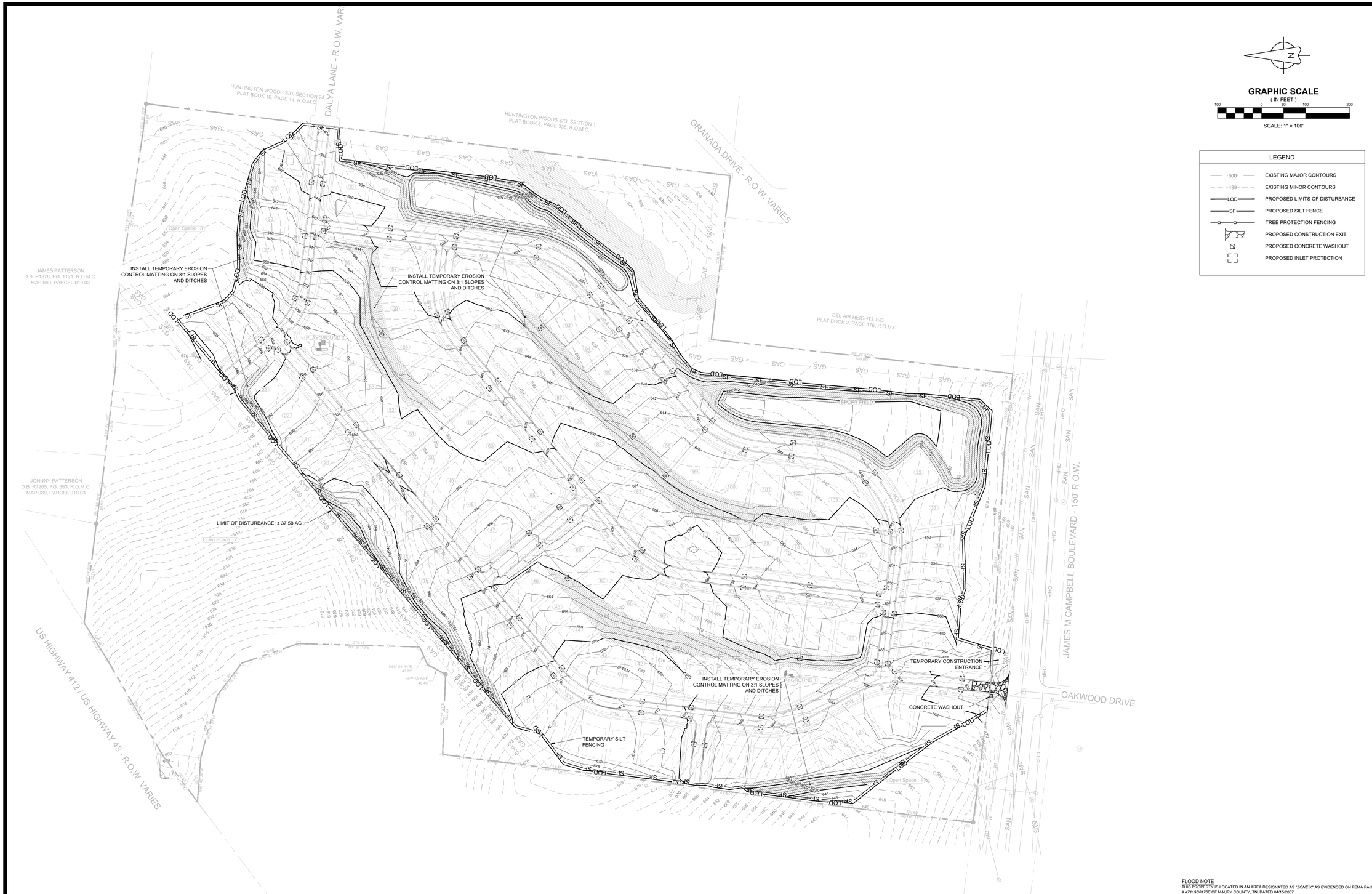
OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

PROJECT
23-0533

SHEET
C-3.0

T-SQUARE ENGINEERING

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GRAPHIC SCALE
(IN FEET)
100 0 50 100 200
SCALE: 1" = 100'

LEGEND

500	EXISTING MAJOR CONTOURS
499	EXISTING MINOR CONTOURS
LOD	PROPOSED LIMITS OF DISTURBANCE
SF	PROPOSED SILT FENCE
	TREE PROTECTION FENCING
	PROPOSED CONSTRUCTION EXIT
	PROPOSED CONCRETE WASHOUT
	PROPOSED INLET PROTECTION

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD

MICHAEL DAVID MUSGROVE
104 CASCADE LAN
BELL BUCKLE, TN 37020
MAP 89, PARCEL 021.00
DEED BOOK R2814, PAGE 943, R.O.M.C.

APPLICANT

T-SQUARE ENGINEERING
111 SE PARKWAY COURT
FRANKLIN, TN 37064
615.678.8212

T-SQUARE ENGINEERING

REVISIONS

NO.	DATE	
1	07/15/24	REVISIONS PER DEVELOPMENT REVIEW COMMITTEE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

TEMPORARY EROSION CONTROL PLAN
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

LOUIS T. SLOYD
REGISTERED ENGINEER
AGRICULTURE
POWER
No. 116486
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

SHEET
C-3.1

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N

GRAPHIC SCALE
(IN FEET)

100 0 50 100 200

SCALE: 1" = 100'

LEGEND	
500	EXISTING MAJOR CONTOURS
499	EXISTING MINOR CONTOURS
500	PROPOSED MAJOR CONTOURS
499	PROPOSED MINOR CONTOURS
	PROPOSED PERMANENT SEEDING
	PROPOSED EROSION CONTROL MAT

NO.	DATE	REVISIONS
1	07/15/24	REVISIONS PER DEVELOPMENT REVIEW COMMITTEE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

PERMANENT EROSION CONTROL PLAN

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

FLOOD NOTE
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OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

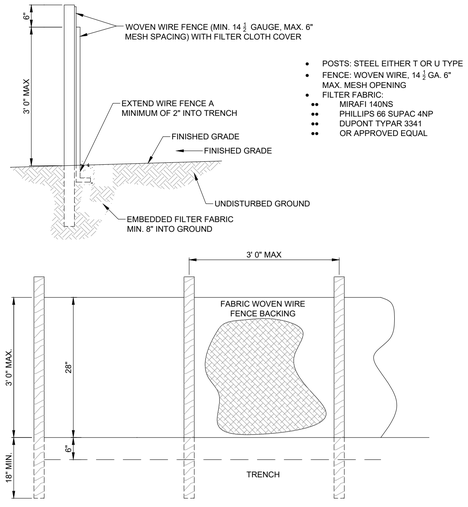
LOUIS T. SLOVAK
REGISTERED ENGINEER
AGRICULTURE
NO. 115486
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

SHEET
C-3.2

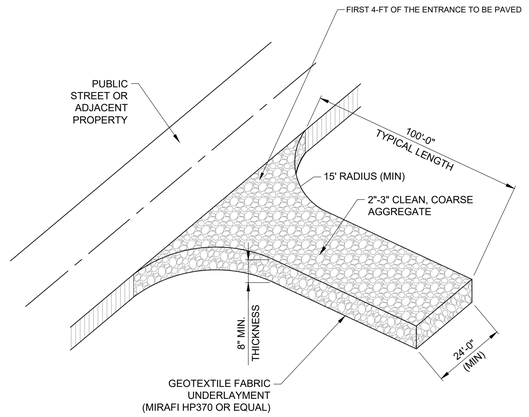
T-SQUARE ENGINEERING

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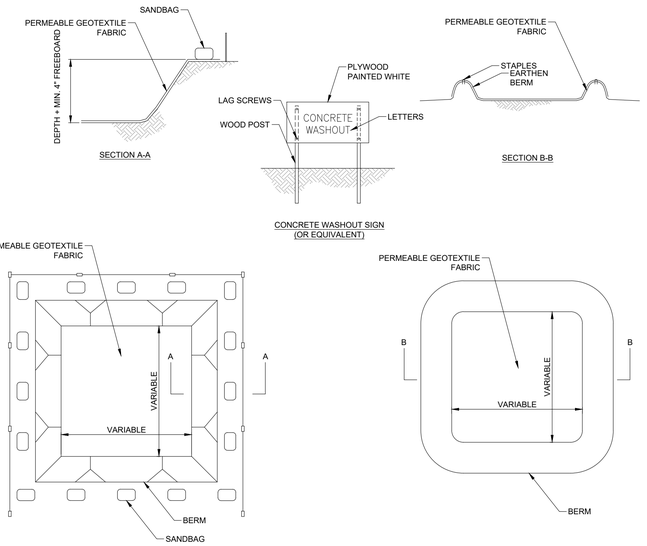
1. WOVEN WIRE CE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NOTED IN THE EROSION CONTROL PLAN. COLLECTED MATERIAL SHALL BE REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE OR WHEN TOP LINE IS NOT VISIBLE.
5. J-HOOK METHOD IS REQUIRED WHEN CROSSING CONTOURS PERPENDICULARLY.

TYPE "C" SEDIMENT/SILT FENCE
N.T.S



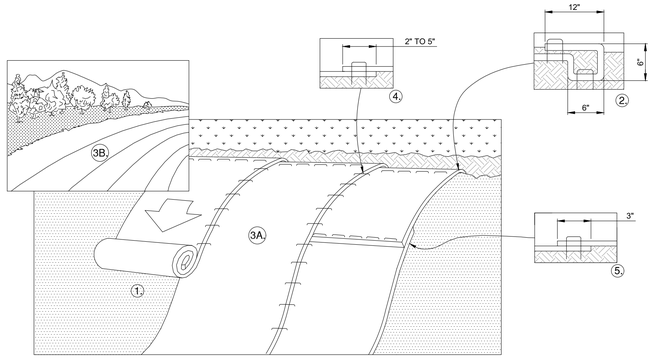
ISOMETRIC VIEW

CONSTRUCTION ENTRANCE
N.T.S.



NOTES:
1. ACTUAL LAYOUT DETERMINED IN THE FIELD.
2. SIGNAGE IDENTIFYING THE CONCRETE WASHOUT AREA SHALL BE INSTALLED WITHIN 5FT.OF THE WASHOUT FACILITY.

CONCRETE WASHOUT
N.T.S



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
1.1. 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" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30 CM) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) 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" (30 CM) APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. 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 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" (5 CM-12.5 CM) 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" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE BLANKET WIDTH.

NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BEE NECESSARY TO PROPERLY SECURE THE BLANKETS.

EROSION CONTROL MATTING DETAIL
N.T.S

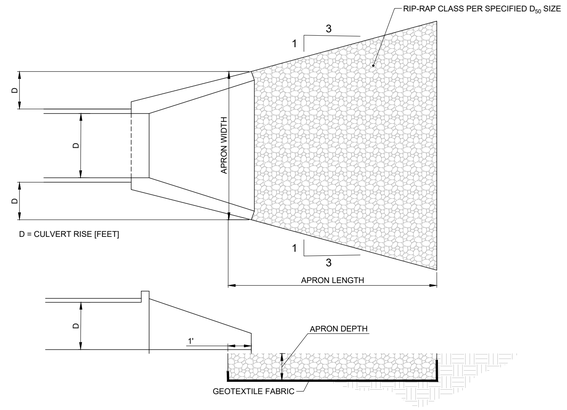


Table 10.1. Example Riprap Classes and Apron Dimensions

Class	D_{50} (mm)	D_{50} (in)	Apron Length[1]	Apron Depth
1	125	5	4D	$3.5D_{50}$
2	150	6	4D	$3.3D_{50}$
3	250	10	5D	$2.4D_{50}$
4	350	14	6D	$2.2D_{50}$
5	500	20	7D	$2.0D_{50}$
6	550	22	8D	$2.0D_{50}$

[1]D is the culvert rise.

OUTLET PROTECTION
DESIGNED TO THE 100-YR STORM PER HEC-11 STANDARDS
N.T.S

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

NO.	DATE	REVISIONS
1	07/15/24	REVISIONS PER DEVELOPMENT REVIEW COMMITTEE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

EROSION CONTROL DETAILS
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

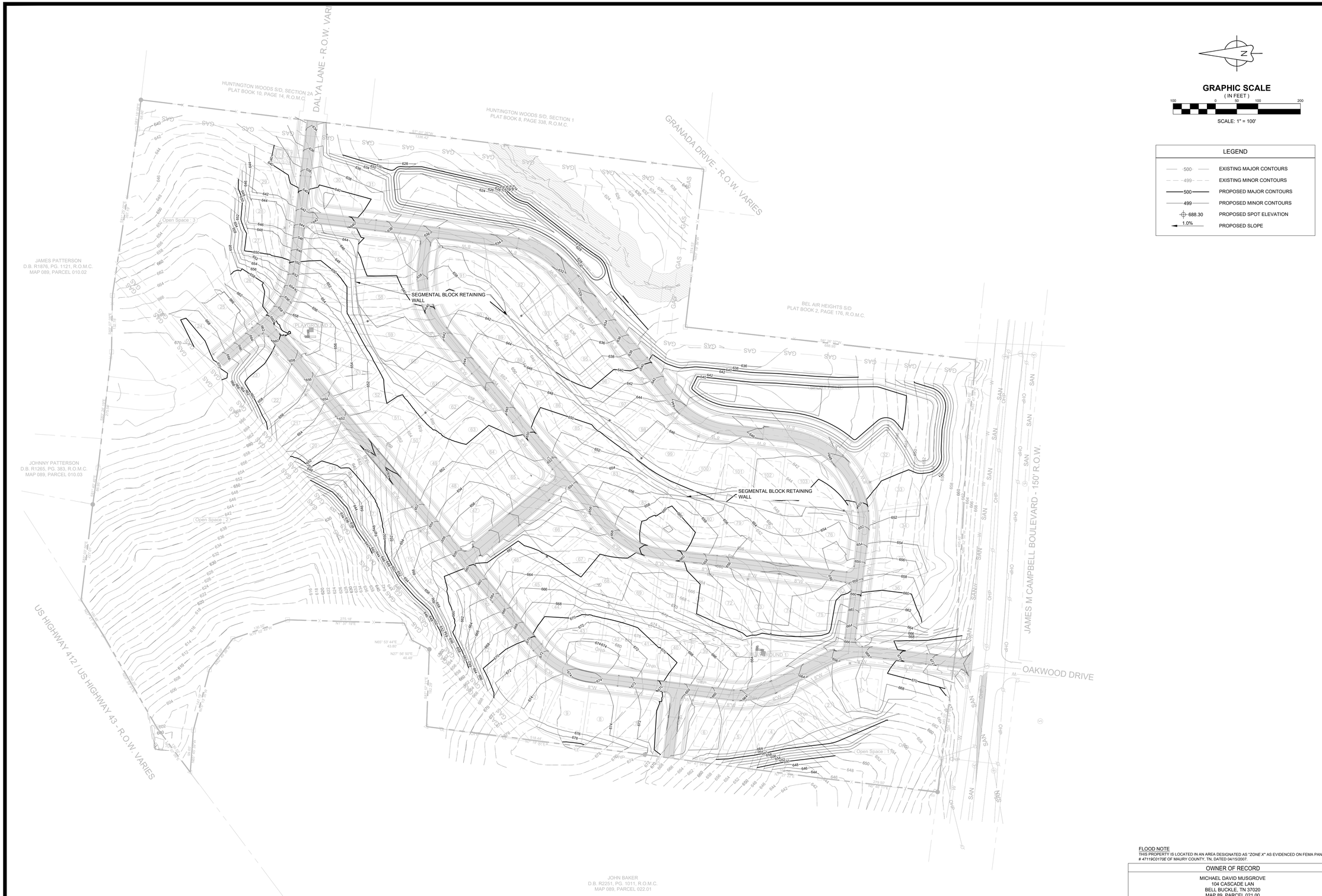
LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
No. 115485
STATE OF TENNESSEE
07/15/2024

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23-0533

SHEET
C-3.3

T-SQUARE ENGINEERING

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N

GRAPHIC SCALE
(IN FEET)

100 0 50 100 200

SCALE: 1" = 100'

LEGEND	
500	EXISTING MAJOR CONTOURS
499	EXISTING MINOR CONTOURS
500	PROPOSED MAJOR CONTOURS
499	PROPOSED MINOR CONTOURS
688.30	PROPOSED SPOT ELEVATION
1.0%	PROPOSED SLOPE

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # *47119C0170E* OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

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REVIEWER: LTS

GRADING PLAN

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

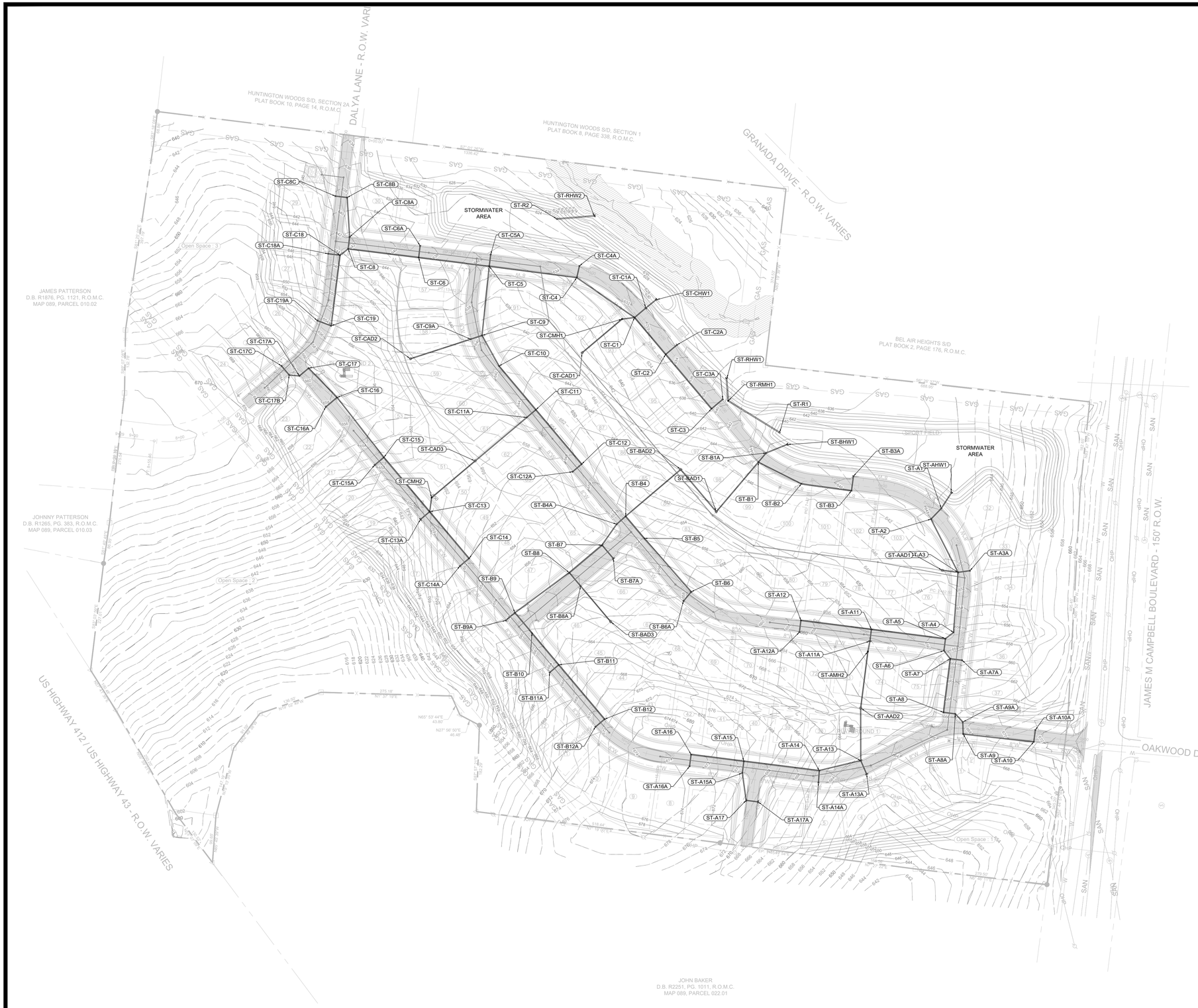
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REGISTERED ENGINEER
AGRICULTURE
POWERS
No. 116488
STATE OF TENNESSEE
07/15/2024

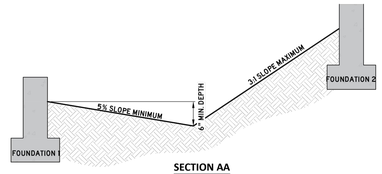
PROJECT
23-0533

SHEET
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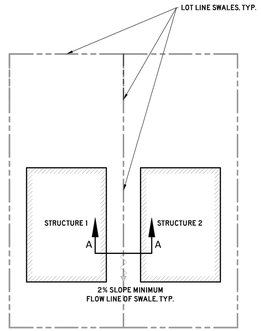
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DALYA LANE - R.O.W. VARIES
HUNTINGTON WOODS S/D, SECTION 2A
PLAT BOOK 10, PAGE 14, R.O.M.C.
HUNTINGTON WOODS S/D, SECTION 1
PLAT BOOK 8, PAGE 338, R.O.M.C.
GRANADA DRIVE - R.O.W. VARIES
BEL AIR HEIGHTS S/D
PLAT BOOK 2, PAGE 176, R.O.M.C.
JAMES PATTERSON
D.B. R1878, PG. 1121, R.O.M.C.
MAP 089, PARCEL 010.02
JOHNNY PATTERSON
D.B. R1265, PG. 383, R.O.M.C.
MAP 089, PARCEL 010.03
JOHN BAKER
D.B. R2251, PG. 1011, R.O.M.C.
MAP 089, PARCEL 022.01
JAMES M CAMPBELL BOULEVARD - 150' R.O.W.
US HIGHWAY 412 / US HIGHWAY 43 - R.O.W. VARIES
OAKWOOD DRIVE
STORMWATER AREA
STORMWATER AREA
Open Space - 3
Open Space - 2
Open Space - 1
SPORT FIELD
ST-C8C
ST-C8B
ST-C8A
ST-C6A
ST-C18
ST-C18A
ST-C8
ST-C6
ST-C19A
ST-C19
ST-C9A
ST-CAD2
ST-C17A
ST-C17C
ST-C17
ST-C16
ST-C17B
ST-C16A
ST-C15
ST-CAD3
ST-C15A
ST-CMH2
ST-C13
ST-C13A
ST-C14
ST-C14A
ST-B9
ST-B9A
ST-B10
ST-B11A
ST-B11
ST-B12
ST-B12A
ST-A16
ST-A16A
ST-A17
ST-A17A
ST-A15
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ST-C10
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ST-A12
ST-A12A
ST-A11
ST-A11A
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ST-A8
ST-AAD2
ST-A8A
ST-A9
ST-A9A
ST-A10
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ST-BHW1
ST-B3A
ST-B1A
ST-B1
ST-B2
ST-B3
ST-R2
ST-RHW2
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ST-C3A
ST-C3
ST-RHW1
ST-RMH1
ST-R1
ST-CMH1
ST-C9
ST-C10
HUNTINGTON
HUNTINGTON
HUNTINGTON



SECTION AA



PLAN

NOTES:

1. SURFACE DRAINAGE SHALL BE DIVERTED TO A STORM SEWER CONVEYANCE. ALL AREAS WITHIN A LOT SHALL BE GRADED TO DRAIN TO AN APPROVED STORMWATER CONVEYANCE.
2. LOTS SHALL BE GRADED TO DRAIN SURFACE WATER AWAY FROM FOUNDATIONS.
   - 2.1. LOTS SHALL BE GRADED TO PROVIDE A MINIMUM OF 6 INCHES OF FALL WITHIN THE FIRST 10 FEET OF THE STRUCTURE ALONG THE DIRECTION OF FLOW.
   - 2.2. LOTS SHALL BE GRADED TO PROVIDE A MINIMUM OF 1V:20H OF FALL PERPENDICULAR TO THE FACE OF THE FOUNDATION WALL WITHIN THE FIRST 5 FEET.
   - 2.3. IMPERVIOUS SURFACES SHALL BE SLOPED AT A MINIMUM OF 2% AWAY FROM THE STRUCTURE.
3. SWALES SHALL BE LOCATED ALONG LOT LINES TO REDUCE LOT TO LOT DRAINAGE, AND DIRECT STORMWATER RUNOFF TOWARDS APPROVED STORMWATER CONVEYANCES.
4. SWALES SHALL HAVE A MINIMUM SLOPE OF 2%.
5. FOUNDATIONS SHALL BE AT MINIMUM 12 INCHES ABOVE ANY THE RIM ELEVATION OR HIGHEST FLOW LINE OF ANY PUBLIC STORMWATER INFRASTRUCTURE THAT SURFACE DRAINAGE FROM THE LOT IS DIRECTED TO.
6. NON-PUBLIC STORMWATER INFRASTRUCTURE SHALL NOT SUCH AS YARD DRAINS SHALL NOT ALLEVIATE THE REQUIREMENTS OF NOTES 2 AND 3.
7. ELEMENTS OF THIS DETAIL MAY BE ALTERED AND APPROVED BY THE CITY ENGINEER

CITY OF COLUMBIA TENNESSEE

CITY OF COLUMBIA
DEVELOPMENT SERVICES DEPARTMENT
ENGINEERING DIVISION

STANDARD DETAILS

RESIDENTIAL LOT GRADING AND DRAINAGE

(NTS)

DATE
6/9/2022

DD-04

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS *"ZONE X"* AS EVIDENCED ON FEMA PANEL # *47119C0170E* OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

T-SQUARE ENGINEERING

REVISIONS

NO.	DATE	REVISIONS PER DEVELOPMENT REVIEW COMMITTEE
1	07/15/24	

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

GRADING & DRAINAGE DETAILS

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

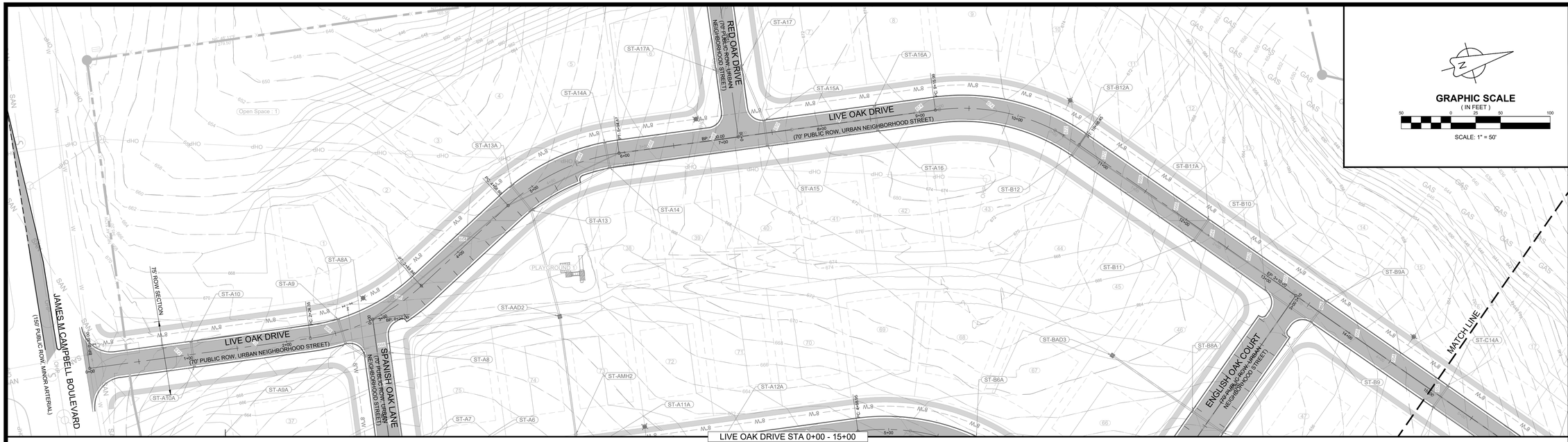
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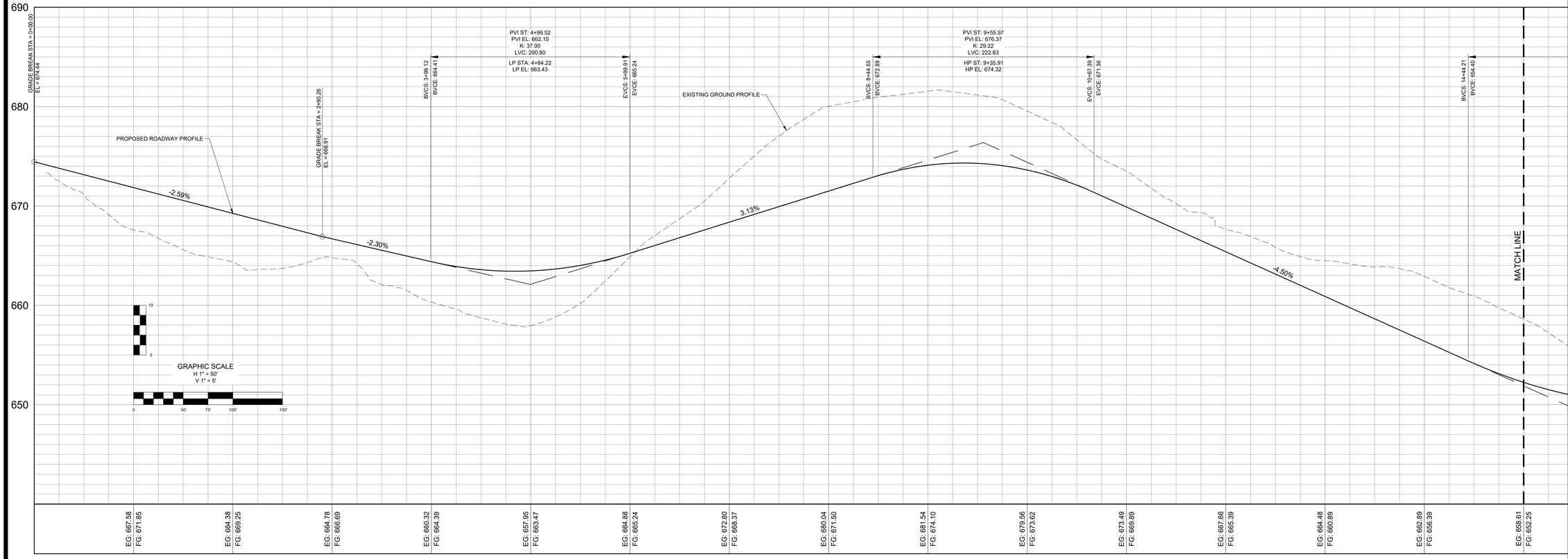
LOUIS T. LOYD
REGISTERED ENGINEER
AGRICULTURE
No. 116455
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

SHEET
C-5.2

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REVIEWER: LTS

LIVE OAK DRIVE
PLAN AND PROFILE
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

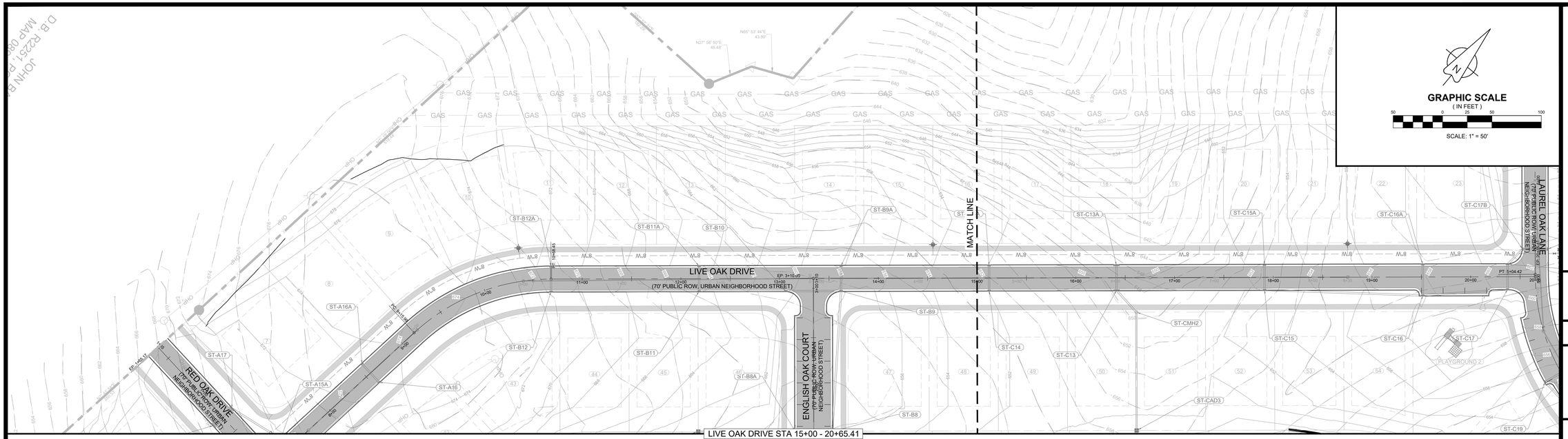
LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
NO. 115485
STATE OF TENNESSEE
07/15/2024

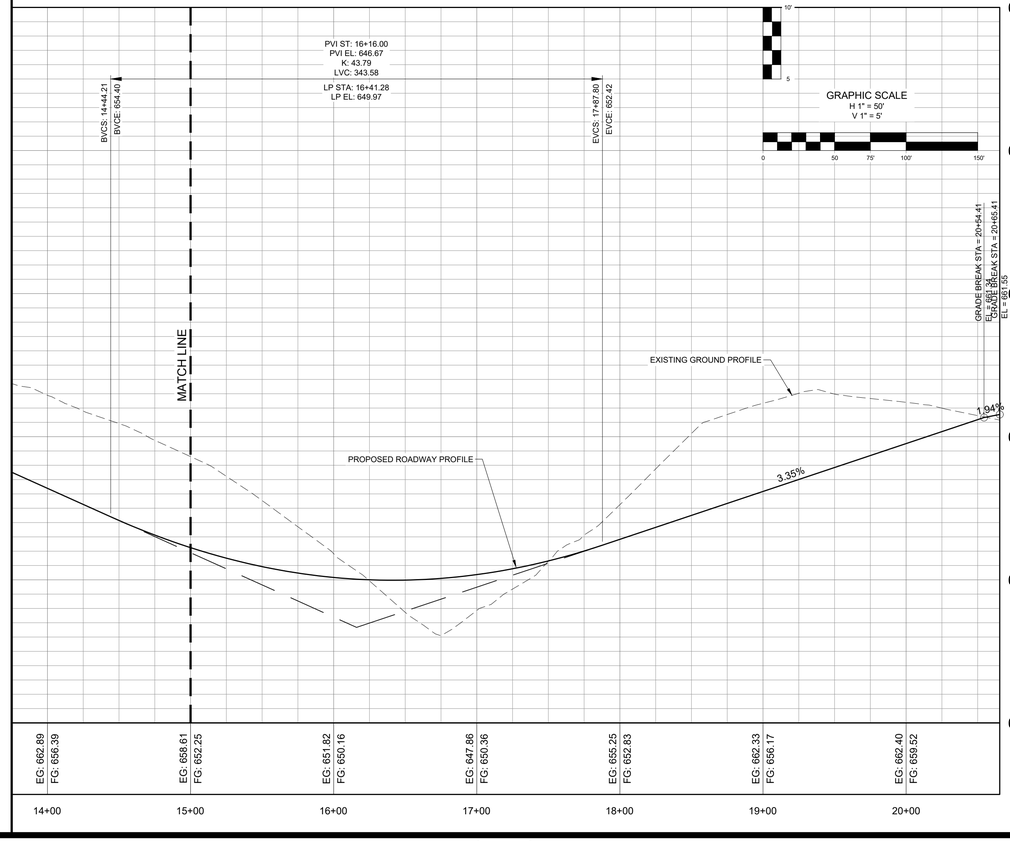
PROJECT
23-0533

SHEET
C-6.0

T-SQUARE ENGINEERING

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DATE: 05/20/24
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REVIEWER: LTS

OAKWOOD DRIVE SUBDIVISION

LIVE OAK DRIVE
PLAN AND PROFILE
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

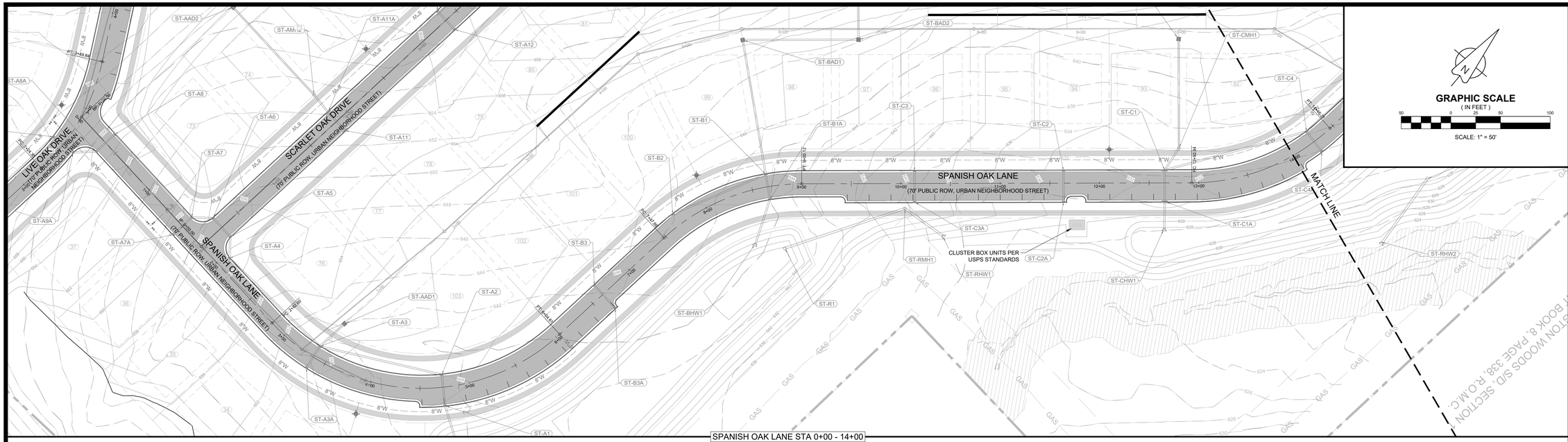
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AGRICULTURE
No. 115485
STATE OF TENNESSEE
07/15/2024

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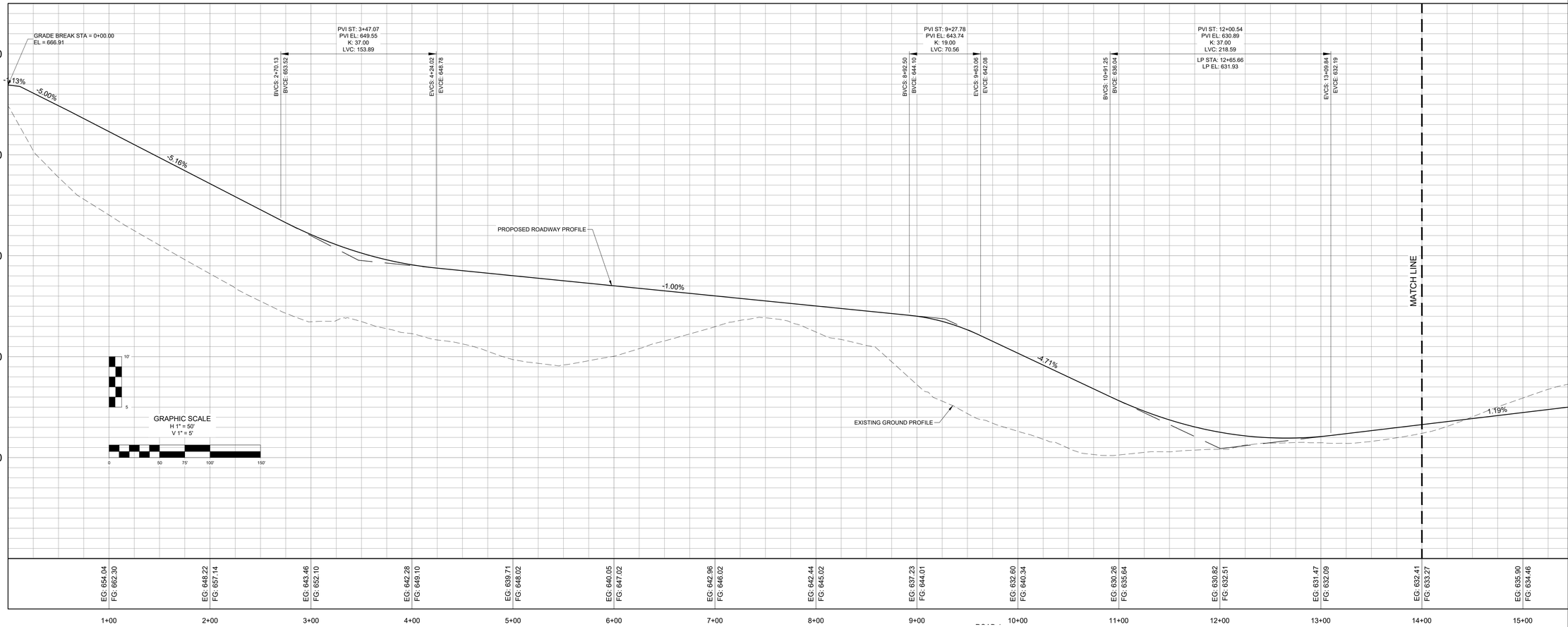
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SPANISH OAK LANE STA 0+00 - 14+00



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SPANISH OAK LANE
PLAN AND PROFILE
MAP 89, PARCEL 02.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

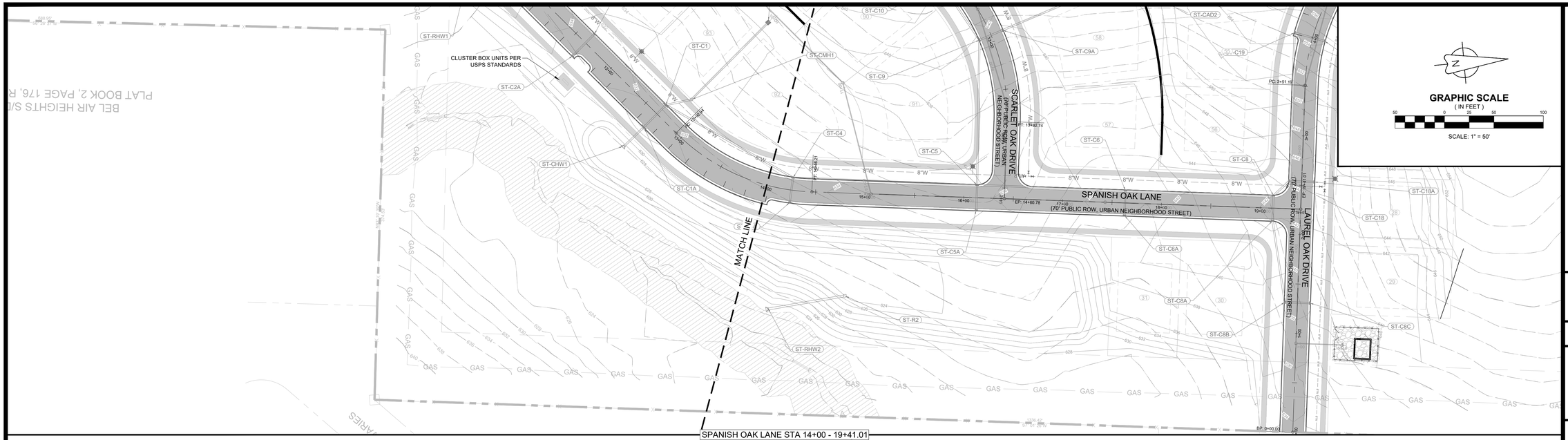
LOUIS T. SLOAN
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AGRICULTURE
POWELL
No. 115485
STATE OF TENNESSEE
07/15/2024

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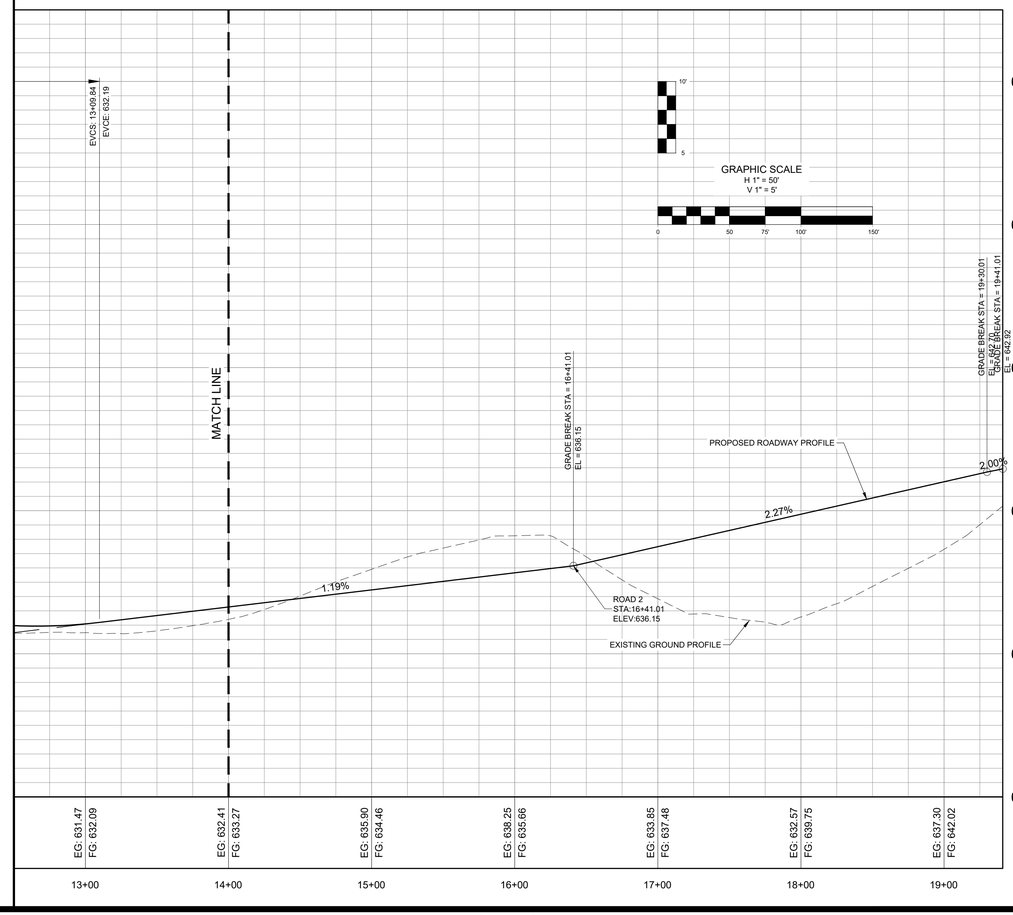
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SPANISH OAK LANE STA 14+00 - 19+41.01



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SPANISH OAK LANE
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MAP 89, PARCEL 021.00
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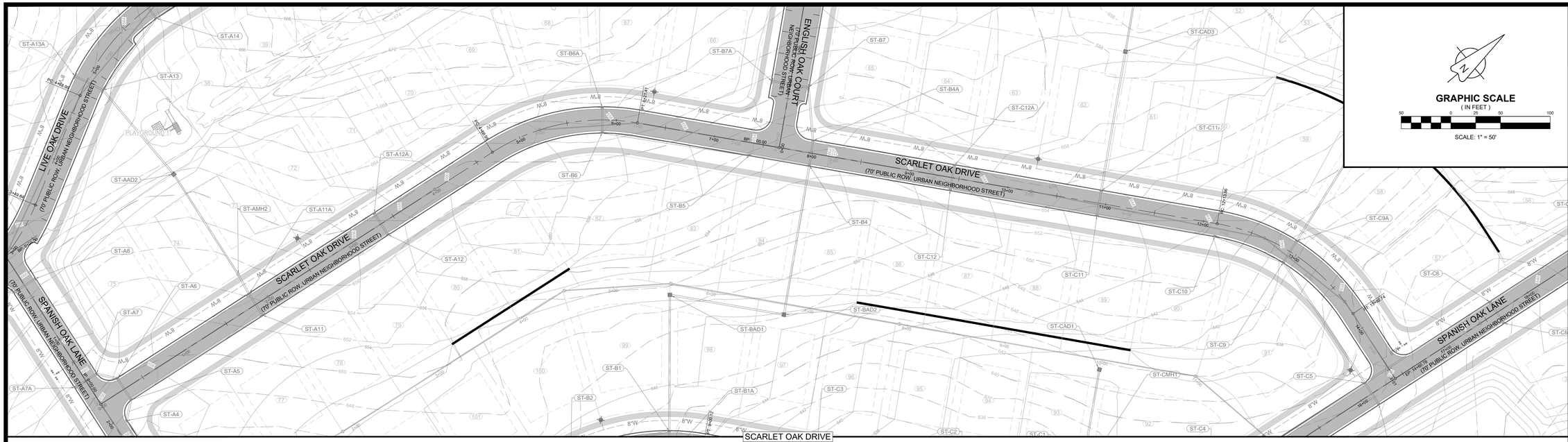
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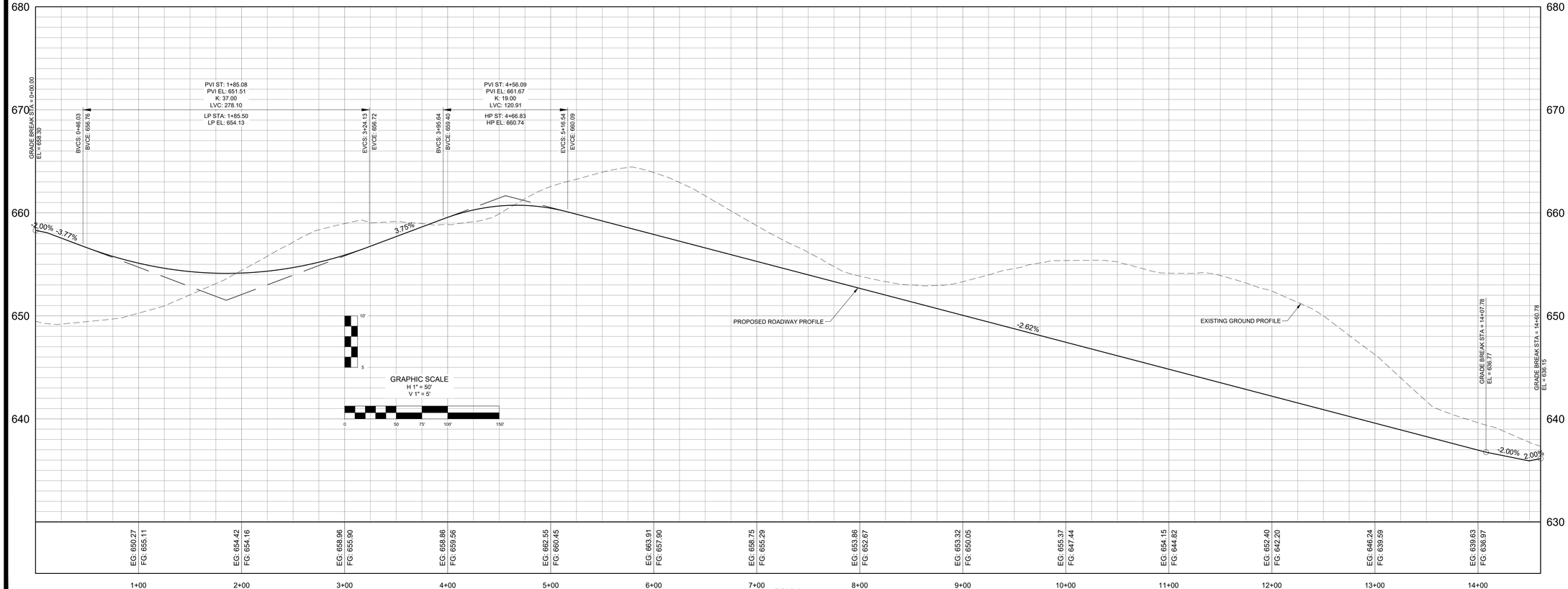
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SCARLET OAK DRIVE
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MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

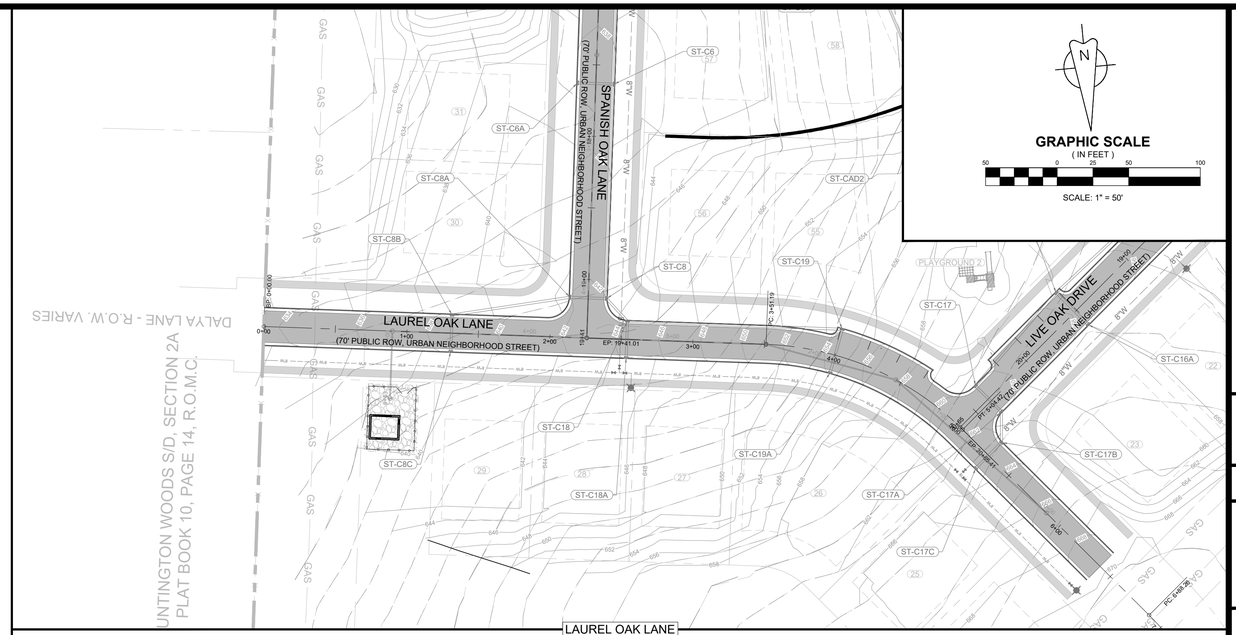
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REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 116485
STATE OF TENNESSEE
07/15/2024

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23-0533

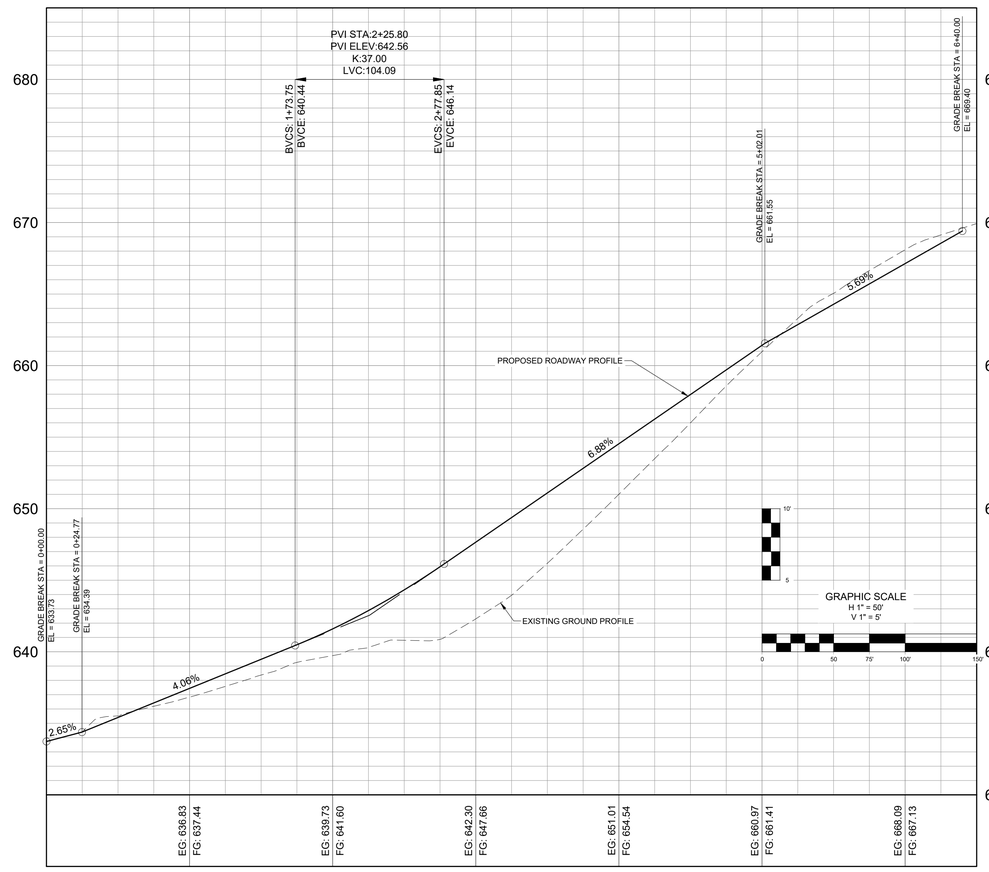
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LAUREL OAK LANE



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REVIEWER: LTS

OAKWOOD DRIVE SUBDIVISION

LAUREL OAK LANE
PLAN AND PROFILE
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

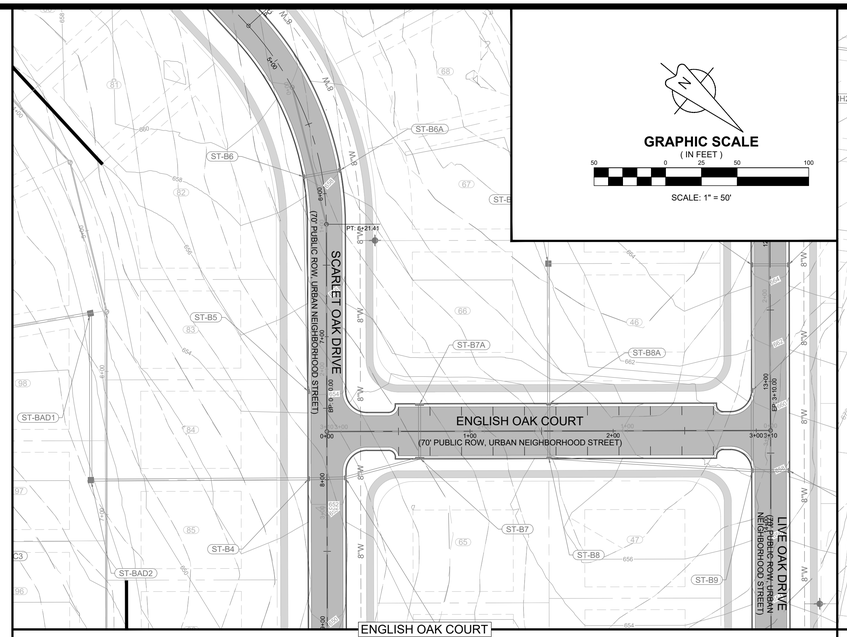
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POWELL
No. 116485
STATE OF TENNESSEE
07/15/2024

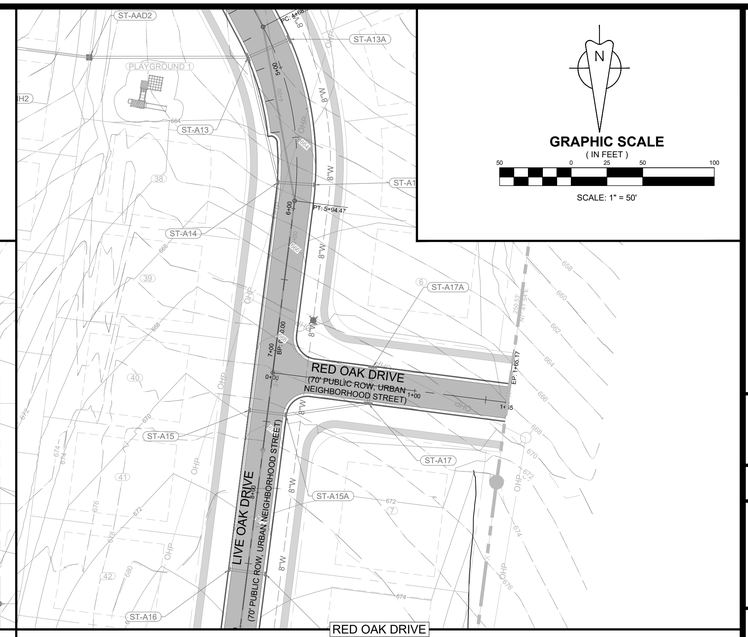
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23-0533

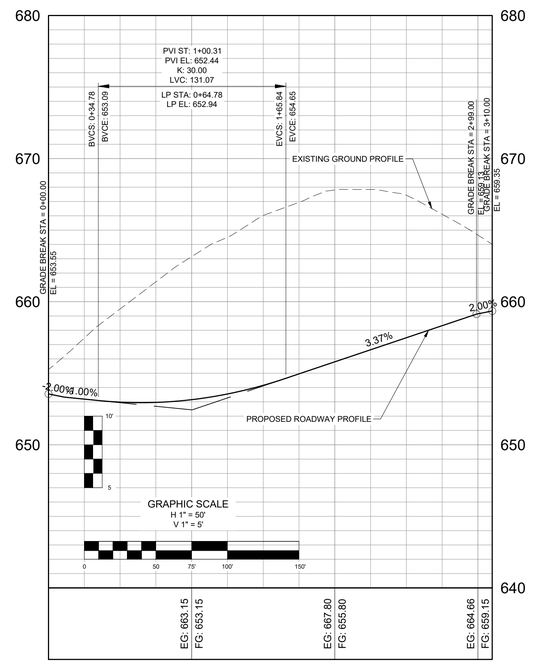
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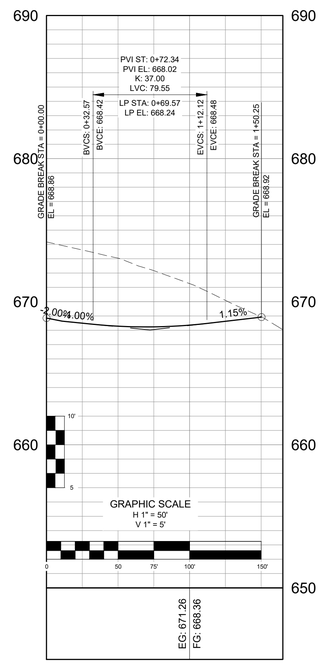
T-SQUARE ENGINEERING

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REVISIONS		
NO.	DATE	
1	07/15/24	REVISIONS PER DEVELOPMENT REVIEW COMMITTEE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

ENGLISH OAK CT & RED OAK DR
PLAN AND PROFILE
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

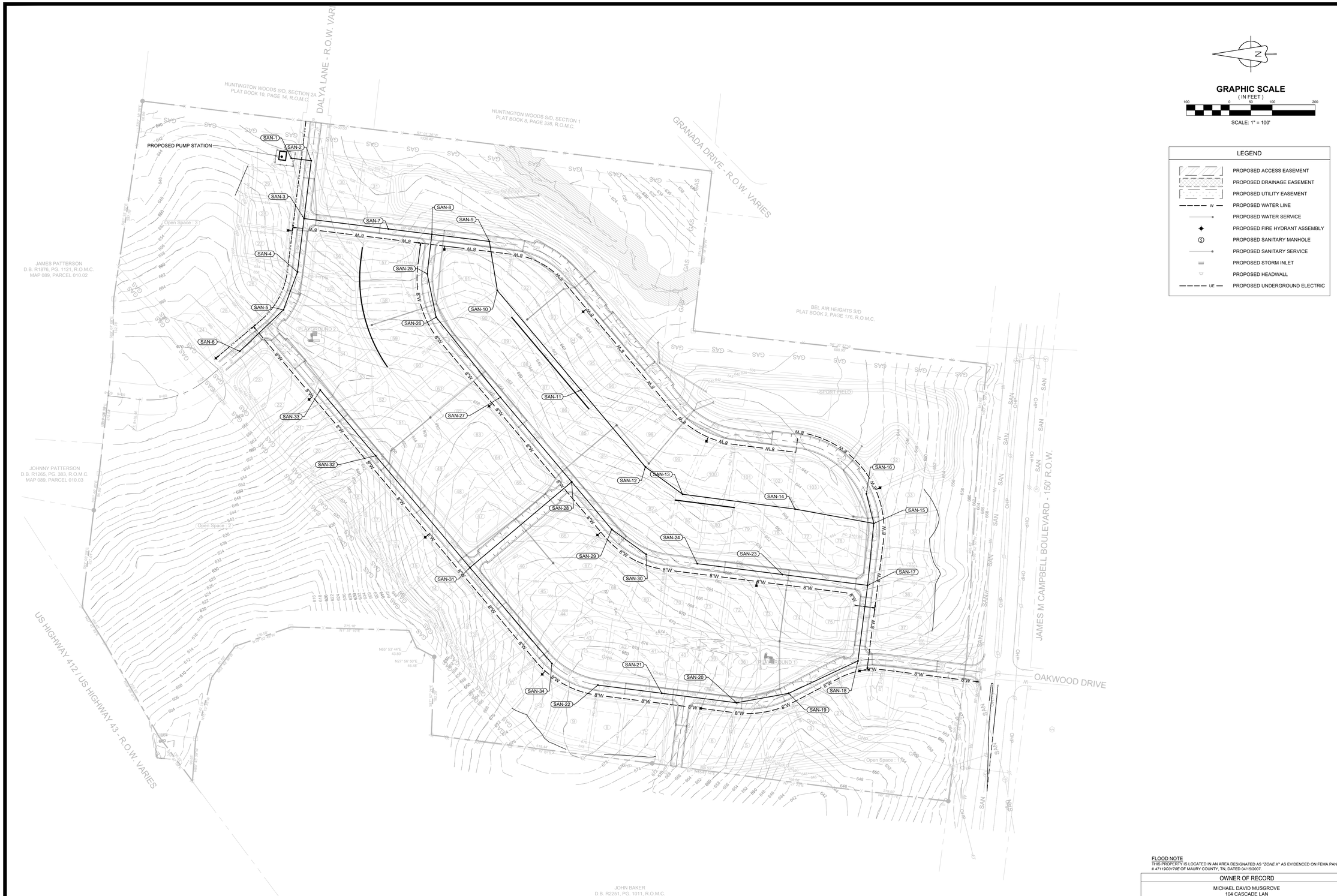
LOUIS T. SLOYAN
REGISTERED ENGINEER
AGRICULTURE
No. 116455
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

SHEET
C-6.6

T-SQUARE ENGINEERING

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GRAPHIC SCALE
(IN FEET)
100 0 50 100 200
SCALE: 1" = 100'

LEGEND

- PROPOSED ACCESS EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED UTILITY EASEMENT
- W — PROPOSED WATER LINE
- PROPOSED WATER SERVICE
- PROPOSED FIRE HYDRANT ASSEMBLY
- PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY SERVICE
- PROPOSED STORM INLET
- PROPOSED HEADWALL
- UE — PROPOSED UNDERGROUND ELECTRIC

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # *47119C0170E* OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD

MICHAEL DAVID MUSGROVE
104 CASCADE LAN
BELL BUCKLE, TN 37020
MAP 89, PARCEL 021.00
DEED BOOK R2814, PAGE 943, R.O.M.C.

APPLICANT

T-SQUARE ENGINEERING
111 SE PARKWAY COURT
FRANKLIN, TN 37064
615.678.8212

NO.	DATE	REVISIONS
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REVIEWER: LTS

UTILITY PLAN

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

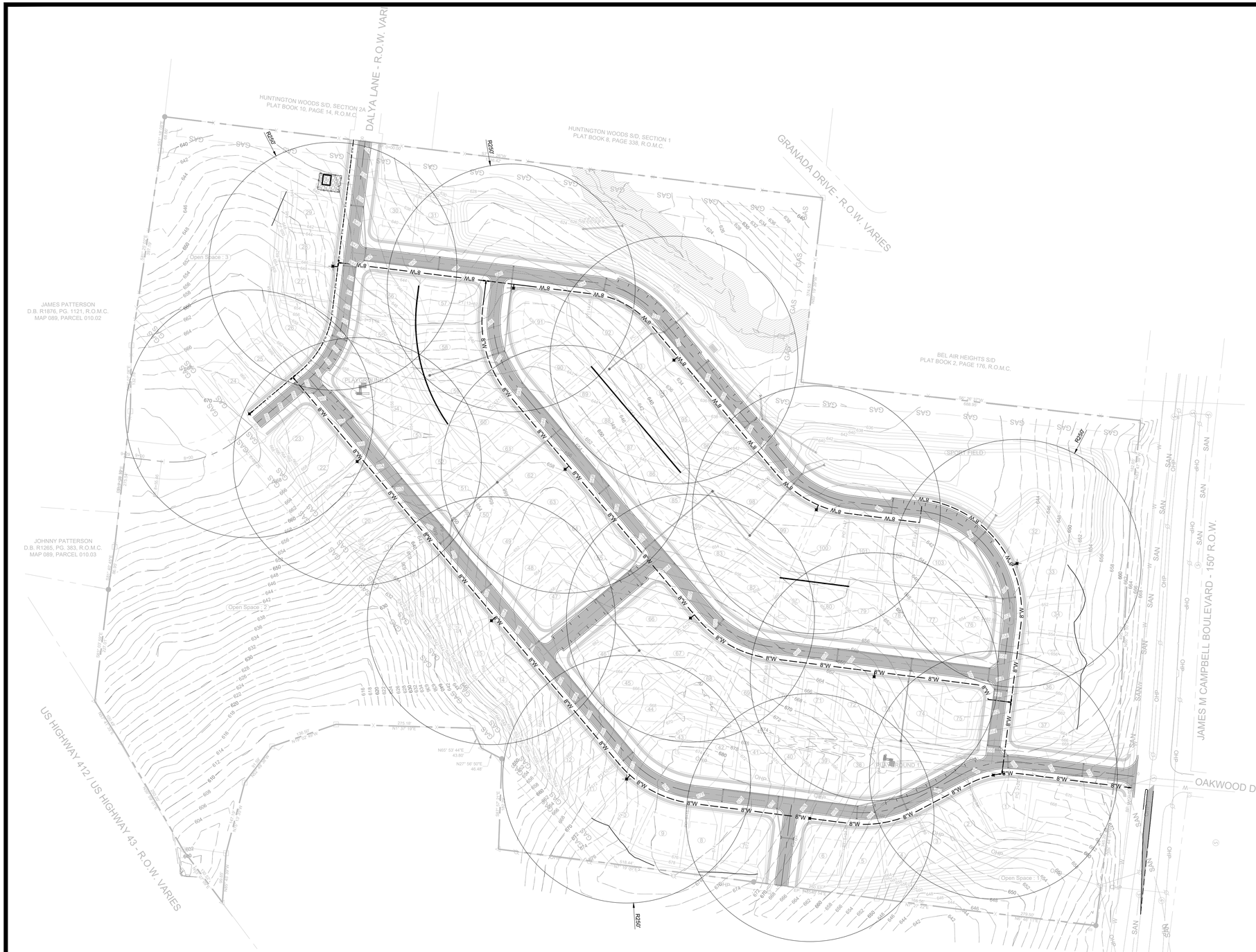
LOUIS T. SLOYAN
REGISTERED ENGINEER
AGRICULTURE
No. 116455
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

SHEET
C-7.0

T-SQUARE ENGINEERING

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N

GRAPHIC SCALE
(IN FEET)
100 0 50 100 200
SCALE: 1" = 100'

LEGEND

- PROPOSED ACCESS EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED UTILITY EASEMENT
- W — PROPOSED WATER LINE
- PROPOSED WATER SERVICE
- PROPOSED FIRE HYDRANT ASSEMBLY
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OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

T-SQUARE ENGINEERING

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REVIEWER: LTS

FIRE HYDRANT COVERAGE PLAN

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
No. 115485
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

SHEET
C-7.1

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SEE PLANTING DETAIL 1
ON SHEET L 1.1

26 QT

70 QC

54 QI

66 QP

12 QT

10 QT

8 QT

PLANT LIST

	QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING	MATURE HEIGHT	NOTES
TREES							
QI	54	Quercus imbricaria	SHINGLE OAK	2.5" CAL	AS SHOWN	10-20'	B&B
QP	66	Quercus phellos	WILLOW OAK	2.5" CAL	AS SHOWN	10'-20'	B&B
QC	70	Quercus coccinea	SCARLET OAK	2.5" CAL	AS SHOWN	10'-20'	B&B
QT	57	Quercus texana	NUTTALI OAK	2.5" CAL	AS SHOWN	10'-20'	B&B
SHRUBS							
RA	4	Rhus aromatica 'Gro-Low '	'GRO-LOW' SUMAC	3 GAL	AS SHOWN	2'-4'	
HQ	5	Hydrangea quercifolia	OAK LEAF HYDRANGEA	3 GAL	AS SHOWN	6'	

THE LANDSCAPE CONTRACTOR SHALL NOT MAKE SUBSTITUTIONS WITHOUT PRIOR APPROVAL FROM LANDSCAPE ARCHITECT

2 / L-1.0 PLANT LIST

N

GRAPHIC SCALE
(IN FEET)
80 0 40 80 160
SCALE: 1" = 80'

1 / L-1.0 OVERALL PLANTING PLAN

REVISIONS

NO.	DATE

DATE: 05/20/2024
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DRAWN BY: T-SQUARE
REVIEWER: CES

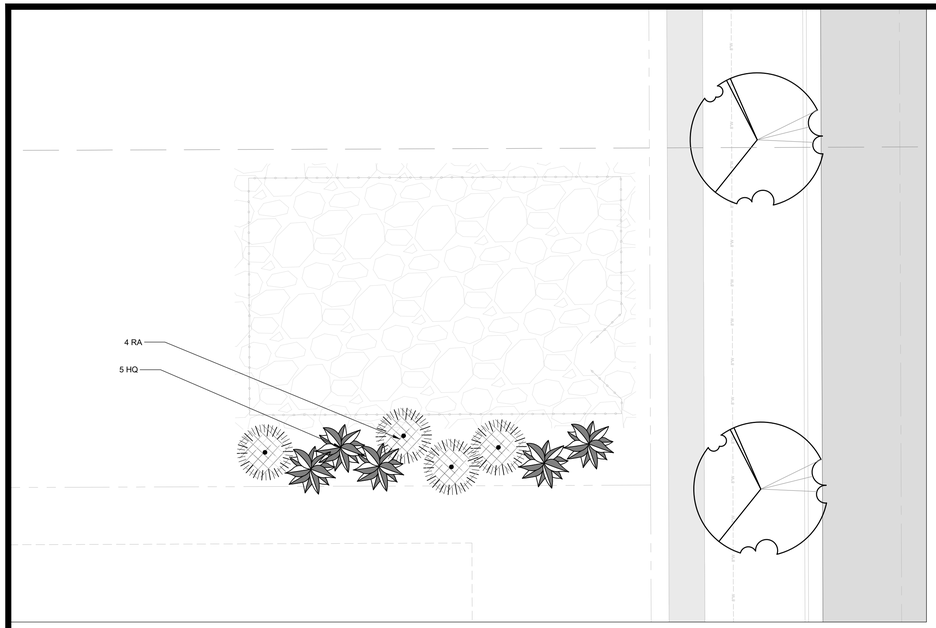
LANDSCAPE PLAN
MAP 89, PARCEL 021.00
CITY OF COLUMBIA, MAURY COUNTY, TENNESSEE

OAKWOOD AVENUE

PROJECT
23-0533

SHEET
L-1.0

T-SQUARE ENGINEERING





SEEDING NOTES:

1. SEEDBED PREPARATION: LOOSEN SUBGRADE OF TURF AREAS TO A MINIMUM DEPTH OF 2 INCHES. REMOVE STONES MEASURING OVER 1-1/2 INCHES IN ANY DIMENSION. REMOVE STICKS, ROOTS, RUBBISH, AND OTHER EXTRANEOUS MATTER. ADD TOPSOIL AND MIX THOROUGHLY INTO UPPER 3 INCHES OF TOPSOIL. IF SUBGRADE HAS BECOME COMPACTED DURING CONSTRUCTION, SCARIFY OR OTHERWISE BREAKUP THE COMPACTED SURFACE BEFORE SEEDBED PREPARATION.
2. MIN 1/2" OF TOPSOIL (IMPORTED OR SITE GENERATED) SHALL BE PROVIDED ON ALL AREAS TO BE SEEDED, INSTALLED AND STABILIZED PRIOR TO SEEDING. TOPSOIL SHALL BE CLEAN, FRIABLE SOIL WITH LANDSCAPE INDUSTRY ACCEPTABLE LEVELS OF ORGANIC MATERIAL. UNDER NO CIRCUMSTANCES SHALL SUBGRADE OR "B"-HORIZON SOIL BE USED AS TOPSOIL. CONTRACTOR IS ADVISED TO VERIFY WITH THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE ACCEPTABILITY OF TOPSOIL PRIOR TO PLACEMENT. UNACCEPTABLE SOILS USED AS TOPSOIL SHALL BE REMOVED AND REPLACED AT CONTRACTOR'S EXPENSE.
3. FERTILIZER: APPLY AGRICULTURAL LIME AT THE RATE OF 50 POUNDS PER 1000 SF. APPLY 10 POUNDS 10-10-10 ANALYSIS FERTILIZER (OR EQUIVALENT) PER 1000 SF. SPREAD LIME AND FERTILIZER UNIFORMLY OVER ALL AREAS AND MIX THOROUGHLY WITH THE SOIL.
4. FINE GRADE ALL DISTURBED LAWN AREAS TO SMOOTH, EVEN SURFACE WITH LOOSE, UNIFORMLY FINE TEXTURE, ROLL, RAKE, AND DRAG LAWN AREAS, REMOVE RIDGES AND FILL DEPRESSIONS, AS REQUIRED TO MEET FINISH GRADES.
5. GRASS SEED: PROVIDE FRESH, CLEAN, NEW-CROP SEED COMPLYING WITH TOLERANCE FOR PURITY AND GERMINATION ESTABLISHED BY OFFICIAL SEED ANALYSIS OF NORTH AMERICA.
6. SEED ALL DISTURBED AREAS. PRIOR TO INSTALLATION, CONTRACTOR SHOULD CONSULT WITH OWNER TO DETERMINE EXTENT OF SEEDING OPERATIONS.
7. REPAIR AND RESEED ALL ERODED OR DISTURBED SEEDED AREAS WHERE VEGETATIVE COVER HAS NOT BEEN ESTABLISHED.
8. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF SEEDED AREAS UNTIL 95% GRASS COVER IS ESTABLISHED.

GENERAL NOTES:

1. UTILITY SERVICES MAY EXIST ON SITE. THE LOCATION OF ALL SURFACE AND UNDERGROUND UTILITIES, RIGHT-OF-WAYS, EASEMENTS, ETC., SHALL BE VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES FROM DAMAGE DURING CONSTRUCTION AND TO REPAIR ANY DAMAGE WHICH SHOULD OCCUR TO THE SATISFACTION OF THE OWNER AND UTILITY COMPANIES. COMMENCEMENT OF PROJECT INSTALLATION INDICATES ACKNOWLEDGMENT OF AND ACCEPTANCE BY THE CONTRACTOR OF EXISTING CONDITIONS.
2. ACTUAL AS-BUILT AND/OR EXISTING SITE CONDITIONS MAY VARY AS SHOWN ON THIS PLAN.
3. DAMAGE BY CONTRACTOR TO UNDISTURBED AREAS OUTSIDE THE LIMITS OF CONSTRUCTION SHALL BE REPAIRED BY CONTRACTOR TO THE SATISFACTION OF THE OWNER.
4. CONTRACTOR IS RESPONSIBLE FOR CONDUCTING SITE INSPECTION PRIOR TO BIDDING WORK, TO DETERMINE SITE CONDITIONS AND AREAS TO BE IMPROVED. SUBMISSION OF BID INDICATES CONTRACTOR HAS VERIFIED SITE CONDITIONS AND PLANT MATERIAL QUANTITIES.
5. FINAL ACCEPTANCE: THE LANDSCAPE ARCHITECT OR THE OWNER'S REPRESENTATIVE WILL PROVIDE THE FINAL INSPECTION. SHOULD THE INSPECTION FIND WORK INCOMPLETE, THE CONTRACTOR SHALL REMEDY THE DEFICIENCIES.
6. IF THE SUBSTANTIAL COMPLETION OR FINAL INSPECTION REQUIRE REINSPECTION BY LANDSCAPE ARCHITECT DUE TO FAILURE OF WORK TO COMPLY WITH CONTRACTOR'S CLAIMS ON INITIAL INSPECTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPENSATING THE LANDSCAPE ARCHITECT FOR REINSPECTION SERVICES AT THE RATE OF TWO HUNDRED TWENTY FIVE DOLLARS ($225) PER HOUR PER PERSON PLUS ALL RELATED TRAVEL EXPENSES FOR EACH REQUESTED REINSPECTION TRIP.
7. AFTER FINAL ACCEPTANCE AND PRIOR TO END OF WARRANTY PERIOD, CONTRACTOR SHALL REPLACE ALL PLANT MATERIAL THAT HAS DIED OR HAS DEFECTS, INCLUDING UNSATISFACTORY GROWTH, IN THE OPINION OF THE OWNER.
8. DURING LANDSCAPE INSTALLATION KEEP PAVEMENTS CLEAN AND WORK AREA IN ORDERLY CONDITION. THE PROJECT SITE SHALL BE LEFT IN A CLEAN CONDITION AT THE END OF EVERY WORK DAY.
9. CONTRACTOR TO REPAIR ANY PAVEMENTS, CURBS, AND OTHER IMPROVEMENTS DAMAGED AS A RESULT OF LANDSCAPE INSTALLATION ACTIVITY
10. THE LOCATION OF ALL PLANT MATERIALS SHOWN ON THE PLAN SHALL BE FIELD LOCATED AND STAKED/FLAGGED BY THE CONTRACTOR AND APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE BEFORE THE DIGGING OF PLANTING HOLES. PLANTING SHALL BE LOCATED WHERE SHOWN ON THE DRAWINGS OR WHERE FIELD LOCATED BY THE LANDSCAPE ARCHITECT.
11. PROVIDE ONLY PLANTS THAT ARE FREE FROM DISEASES AND PESTS, AND THAT COMPLY WITH THE LATEST EDITION OF PUBLICATION ANSI Z60.1, AMERICAN STANDARDS FOR NURSERY STOCK", BY THE AMERICAN ASSOCIATION OF NURSERYMEN. DIMENSIONS FOR HEIGHTS, SPREAD, AND TRUNK SPECIFIED ON THE MATERIAL SCHEDULE IS A GENERAL GUIDE FOR THE MINIMUM DESIRED SIZE OF EACH PLANT.
12. DO NOT MAKE SUBSTITUTIONS REGARDING PLANT SIZES OR SPECIES WITHOUT WRITTEN PERMISSION FROM THE OWNER OR LANDSCAPE ARCHITECT.
13. REMOVE ALL METAL BASKETS, STRINGS AND OTHER TIES FROM TREES.
14. FERTILIZE ALL PLANTS WITH 16-16-16 SLOW RELEASE FERTILIZER AT THE RATE OF: 3 POUNDS PER CUBIC YARD OF SOIL MIX. 3 POUNDS PER 100 SF OF BED FOR SHRUBS
15. PLANTS DESIGNATED "B&B" IN THE PLANT LIST SHALL BE BALLED AND BURLAPPED. THEY SHALL BE DUG WITH FIRM, NATURAL BALLS OF EARTH OF SUFFICIENT DIAMETER AND DEPTH TO ENCOMPASS THE FIBROUS AND FEEDING ROOT SYSTEM NECESSARY FOR FULL RECOVERY OF THE PLANT. BALLS SHALL BE FIRMLY WRAPPED WITH BURLAP OR SIMILAR MATERIAL AND BOUND WITH TWINE OR CORD.
16. ONLY "HEMP" BURLAP AND TWINE SHALL BE USED. NO TREATED OR PRESERVED BURLAP OR TWINE IS ALLOWED. ALL HEMP TWINE ATTACHED TO THE TREE TRUNK IS TO BE REMOVED AFTER PLANTING. AT A MINIMUM THE TOP ONE-THIRD OF THE ROOT BALL IS TO HAVE ALL BURLAP AND TWINE REMOVED. IF ROOTS ARE GIRDLING OR CIRCLING THEY MUST BE LOOSENED OR CUT.
17. THE BALLS OF "B&B" PLANTS WHICH CANNOT BE PLANTED IMMEDIATELY ON DELIVERY SHALL BE COVERED WITH MOIST SOIL OR MULCH, OR OTHER PROTECTION FROM DRYING WINDS AND SUN. ALL PLANTS INSTALLED OR STORED SHALL BE WATERED BY CONTRACTOR AS NECESSARY UNTIL FINAL ACCEPTANCE.
18. FOLD DOWN OR CUT THE BURLAP FROM THE TOP 1/3 OF THE BALL OR TO THE WIDEST TOP EDGE OF THE BALL IN ORDER TO EXPOSE THE TOP PLANE OF THE BALL. REMOVE ALL NAILS, STAPLES, ETC USED TO HOLD THE BALL TOGETHER.
19. TREE BALLS SHALL HAVE A MINIMUM DIAMETER IN FEET EQUAL TO 10" FOR EACH CALIPER INCH OF THE TREE.
20. ALL PLANTS SHALL BE HANDLED SO THAT ROOTS ARE ADEQUATELY PROTECTED AT ALL TIMES. DURING SHIPMENT, THE ENTIRE PLANT SHALL BE PROTECTED BY TARPAULINS OR OTHER SUITABLE COVERING. PLANT MATERIAL SUFFERING FROM WIND BURN OR OTHER WIND DAMAGE IS NOT ACCEPTABLE.
21. NO PLANT SHALL BE BOUND WITH ROPE OR WIRE IN A MANNER THAT DAMAGES THE BARK, BREAKS BRANCHES, OR DESTROYS ITS NATURAL SHAPE. NO PLANT MATERIAL REQUIRED TO BE BALLED AND BURLAPPED SHALL BE ACCEPTED IF THE BALL IS CRACKED OR BROKEN EITHER BEFORE OR DURING THE PROCESS OF PLANTING, OR WHEN REQUIRED BURLAP, STAVES, ROPES OR PLATFORM HAVE BEEN REMOVED.
22. ANY SERIES OF TREES OR SHRUBS TO BE PLACED IN A PARTICULAR ARRANGEMENT WILL BE FIELD CHECKED FOR ACCURACY BY THE OWNER. ANY PLANTS INCORRECTLY ARRANGED SHALL BE RELOCATED WITH THE OWNER'S APPROVAL.
23. PRE-EMERGENT HERBICIDE (TREFLAN OR EQUIVALENT) SHALL BE APPLIED (ACCORDING TO MANUFACTURER'S INSTRUCTIONS) TO ALL PLANT BEDS, PRIOR TO PLANTING, FOR NOXIOUS WEED CONTROL.
24. ALL PLANTING BEDS AND TREE AND SHRUB PLANTINGS SHALL RECEIVE A MINIMUM 3" DEEP SHREDDED HARDWOOD MULCH LAYER.
25. CONTRACTOR IS RESPONSIBLE FOR THE WATERING AND MAINTENANCE OF ALL INSTALLED PLANT MATERIAL, INCLUDING GRASS AREAS, UNTIL FINAL ACCEPTANCE BY OWNER. WATER ALL PLANT MATERIAL AT TIME OF PLANTING.
26. ALL PLANT MATERIAL IS TO BE GUARANTEED FOR ONE (1) YEAR. GUARANTEE PERIOD STARTS FROM DATE OF FINAL ACCEPTANCE.
27. OWNER RETAINS THE RIGHT TO INSPECT TREES AND SHRUBS FOR SIZE AND CONDITION OR ROOT BALL, INSECTS, INJURIES, AND LATENT DEFECTS AND TO REJECT UNSATISFACTORY OR DEFECTIVE MATERIAL AT ANY TIME DURING PROGRESS OF WORK. REMOVE REJECTED MATERIAL IMMEDIATELY FROM THE PROJECT SITE.
28. REPLACEMENTS SHALL CLOSELY MATCH ADJACENT SPECIMENS OF THE SAME SPECIES AND SHALL CONFORM TO THE STANDARDS FOR PLANT MATERIALS SPECIFIED. ALL REPLACED MATERIAL SHALL IMMEDIATELY BE REMOVED FROM THE SITE AND ALL NECESSARY REPAIRS TO PLANTS, GRADES, LAWN AREAS, PAVING, AND OTHER AREAS DAMAGED DURING REPLACEMENT SHALL BE MADE AT NO COST TO THE OWNER.
29. ONLY ONE REPLACEMENT PER TREE, SHRUB, OR PLANT WILL BE REQUIRED AT THE END OF THE WARRANTY PERIOD, EXCEPT FOR LOSSES OR REPLACEMENTS DUE TO FAILURE TO COMPLY WITH THE SPECIFIED REQUIREMENTS.

3 L-1.1 PLANTING DETAIL 1

ALL PLANT MATERIAL TO MEET AMERICAN STANDARDS FOR NURSERY STOCK AND ANSI Z60.1; LATEST EDITION STANDARDS.

SHRUB PLANTING IN GROUP DETAIL

NOT TO SCALE

TREE PLANTING DETAIL

NOT TO SCALE

NO.	DATE	REVISIONS

DATE: 05/20/2024
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: CES

LANDSCAPE PLAN DETAILS

MAP 89, PARCEL 021.00
CITY OF COLUMBIA, MAURY COUNTY, TENNESSEE

OAKWOOD AVENUE

PROJECT
23-0533

SHEET
L-1.1

T-SQUARE ENGINEERING

OAKWOOD SUBDIVISION

PRELIMINARY PLAT

City of Columbia, Maury County, Tennessee

Map 89, Parcel 021.00

ENGINEER:
T-SQUARE ENGINEERING
LOUIS SLOYAN, PE
111 SE PARKWAY COURT
FRANKLIN, TN 37064
(615)678-8212

SURVEYOR:
T-SQUARE SURVEYING
111 SE PARKWAY COURT
FRANKLIN, TN 37064
(615)678-8212

DEVELOPER:
SMITH DOUGLAS HOMES
DREW TAYLOR
DTAYLOR@SMITHDOUGLAS.COM

WATER:
COLUMBIA POWER & WATER SYSTEMS
201 PICKENS LANE
COLUMBIA, TN 38401
(931)388-4833

POWER:
COLUMBIA POWER & WATER SYSTEMS
201 PICKENS LANE
COLUMBIA, TN 38401
(931)388-4833

SEWER:
COLUMBIA WASTEWATER
1244 TREATMENT PLANT ROAD
COLUMBIA, TN 38401
(931)560-1001



SITE VICINITY MAP
N.T.S.

Sheet Schedule

C-0.0	COVER SHEET
C-1.0	EXISTING CONDITIONS
C-2.0	PRELIMINARY PLAT
C-2.1	PARCEL TABLES
C-2.2	PARCEL TABLES
C-2.3	RESOURCE PROTECTION PLAN
C-2.4	CIVIC SPACE PLAN
C-2.5	SITE DETAILS
C-2.6	SITE DETAILS
C-3.0	INITIAL EROSION CONTROL PLAN
C-3.1	TEMPORARY EROSION CONTROL PLAN
C-3.2	FINAL EROSION CONTROL PLAN
C-3.3	EROSION CONTROL DETAILS
C-5.0	GRADING PLAN
C-5.1	DRAINAGE PLAN
C-5.2	GRADING & DRAINAGE DETAILS
C-6.0	LIVE OAK DRIVE PLAN AND PROFILE
C-6.1	LIVE OAK DRIVE PLAN AND PROFILE
C-6.2	SPANISH OAK LANE AND PROFILE
C-6.3	SPANISH OAK LANE PLAN AND PROFILE
C-6.4	SCARLET OAK DRIVE PLAN AND PROFILE
C-6.5	LAUREL OAK LANE DRIVE PLAN AND PROFILE
C-6.6	ENGLISH OAK COURT & RED OAK DRIVE PLAN & PROFILE
C-7.0	UTILITY PLAN
C-7.1	FIRE HYDRANT COVERAGE PLAN

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FRANKLIN, TN 37064
615.678.8212

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REVIEWER: LTS

COVER SHEET
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

LOUIS T. SLOYAN
REGISTERED ENGINEER
AGRICULTURE
No. 116488
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

SHEET
C-0.0

T-SQUARE ENGINEERING

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GRAPHIC SCALE
(IN FEET)
100 0 50 100 200
SCALE: 1" = 100'

LEGEND

500	EXISTING MAJOR CONTOURS
499	EXISTING MINOR CONTOURS
	EXISTING PROPERTY BOUNDARY
	ADJACENT PROPERTY LINES
	WATER NATURAL AREA BUFFER
	EXISTING POWER POLE
OHP	EXISTING OVERHEAD POWER
W	EXISTING WATER LINE
S	EXISTING SANITARY MANHOLE
	EXISTING TREE LINE
X X	EXISTING FENCE

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EXISTING CONDITIONS

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COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

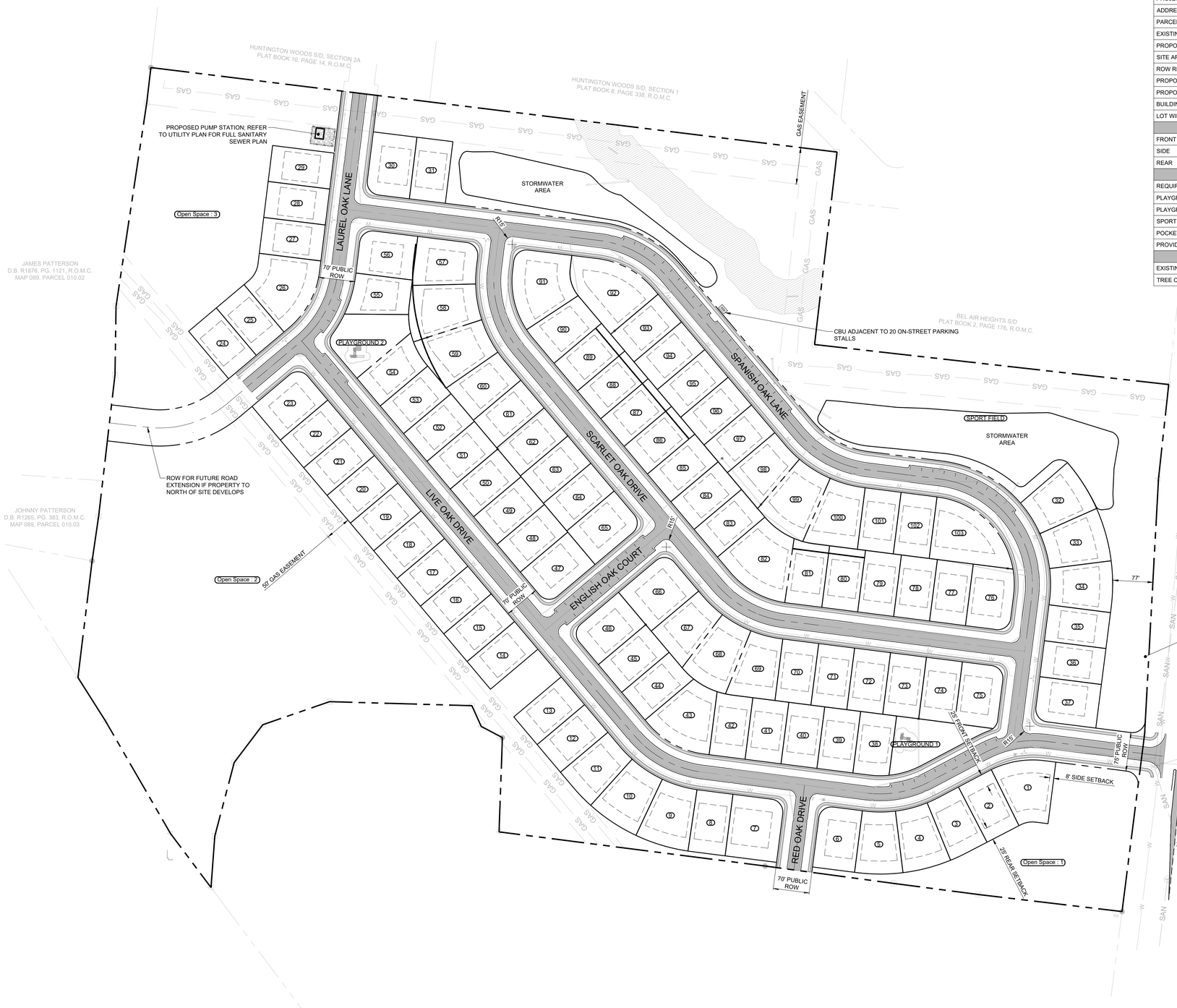
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STATE OF TENNESSEE
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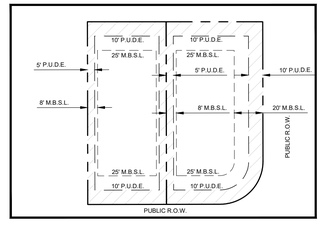
SITE DATA	
PROJECT NAME	OAKWOOD SUBDIVISION
PROJECT NUMBER	23-0533
ADDRESS	200 OAKWOOD DRIVE
PARCEL ID	MAP 089 PARCEL 021.00
EXISTING ZONING	CD - 3
PROPOSED ZONING	CD - 3
SITE AREA	56.73 AC
ROW RESERVATION	N/A
PROPOSED LOTS	106
PROPOSED DENSITY	1.89 UNITS/ACRE
BUILDING HEIGHT	35' MAXIMUM
LOT WIDTH	65' MINIMUM
SETBACKS	
FRONT	25' (PRIMARY); 20' (SECONDARY)
SIDE	8'
REAR	25'
CIVIC SPACE	
REQUIRED CIVIC SPACE	2.84 AC (5%)
PLAYGROUND 1	0.27 AC
PLAYGROUND 2	0.28 AC
SPORT FIELD	8.93 AC
POCKET PARK	0.19 AC
PROVIDED CIVIC SPACE	9.67 AC (17.0%)
TREE CANOPY RETENTION	
EXISTING TREE CANOPY	18.96 AC
TREE CANOPY RETAINED	12.89 AC (9.10 AC REQUIRED)

N

GRAPHIC SCALE
(IN FEET)
100 0 50 100 200
SCALE: 1" = 100'

LEGEND

- PROPOSED LOT LINES
- (00) PROPOSED LOT NUMBER
- PROPOSED BUILDING SETBACK
- PROPOSED ACCESS EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED UTILITY EASEMENT
- W PROPOSED WATER LINE
- PROPOSED WATER SERVICE
- PROPOSED FIRE HYDRANT ASSEMBLY
- S PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY SERVICE
- PROPOSED STORM INLET
- PROPOSED HEADWALL



TYPICAL LOT (NOT TO SCALE)

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

NO.	DATE	REVISIONS
1	07/15/24	REVISIONS PER DEVELOPMENT REVIEW COMMITTEE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

OAKWOOD DRIVE SUBDIVISION

PRELIMINARY PLAT

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

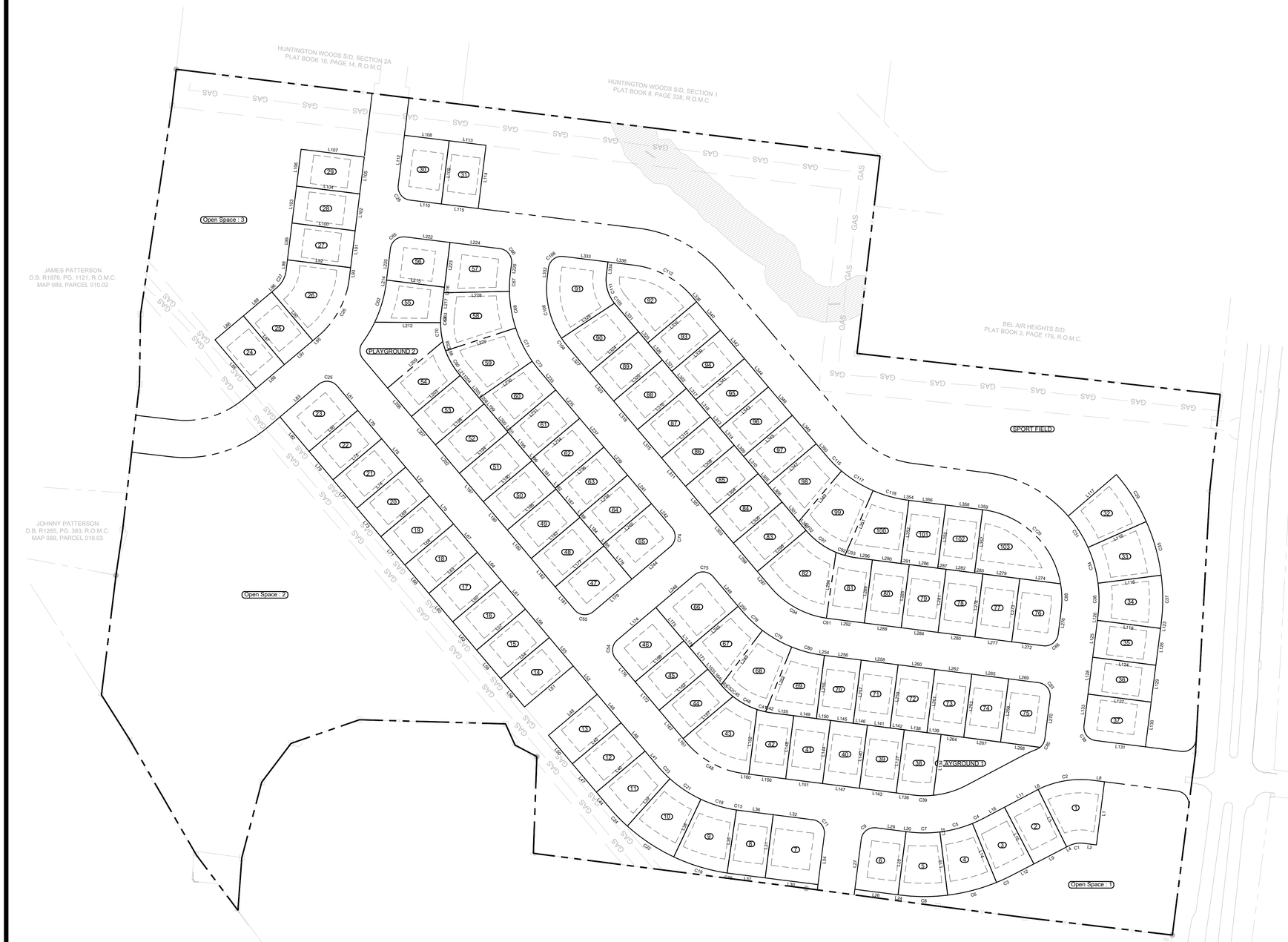
LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
No. 115485
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

SHEET
C-2.0

T-SQUARE ENGINEERING

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GRAPHIC SCALE
(IN FEET)

100 0 50 100 200

SCALE: 1" = 100'

Parcel Line Table		
Line #	Length	Direction
L1	120.00	N82° 44' 50.67"W
L2	23.91	N7° 15' 09.33"E
L4	3.46	N27° 23' 56.67"W
L5	120.89	N63° 40' 38.29"E
L6	3.05	S27° 49' 10.04"E
L8	21.86	S7° 15' 09.33"W
L9	69.53	N27° 23' 56.67"W
L10	120.34	N62° 36' 03.33"E
L11	71.80	S27° 49' 10.04"E
L12	46.05	N27° 23' 56.67"W
L14	120.00	N67° 47' 05.30"E
L16	44.30	S27° 49' 10.04"E
L19	120.00	N82° 57' 50.01"E
L20	4.10	S7° 15' 09.33"W
L22	0.00	S82° 57' 49.99"W
L24	4.12	N7° 15' 09.33"E
L25	120.00	S82° 44' 50.67"E
L26	82.00	N7° 15' 09.33"E
L27	95.00	S82° 44' 50.67"E
L29	57.00	S7° 15' 09.33"W
L30	100.28	N7° 15' 09.33"E
L31	120.00	S82° 44' 50.67"E
L32	75.28	S7° 15' 09.33"W
L34	95.00	N82° 44' 50.67"W
L35	120.00	S81° 35' 08.26"E
L36	65.13	S7° 15' 09.33"W

Parcel Line Table		
Line #	Length	Direction
L37	65.13	N7° 15' 09.33"E
L38	120.00	S64° 48' 52.39"E
L39	120.00	S48° 02' 36.51"E
L40	120.00	S40° 08' 09.18"E
L41	36.94	S49° 51' 50.82"W
L44	36.94	N49° 51' 50.82"E
L45	120.00	S40° 08' 09.18"E
L46	70.00	S49° 51' 50.82"W
L47	70.00	N49° 51' 50.82"E
L48	120.00	S40° 08' 09.18"E
L49	70.00	S49° 51' 50.82"W
L50	70.00	N49° 51' 50.82"E
L51	120.00	N40° 08' 09.18"W
L52	70.00	N49° 51' 50.82"E
L54	120.00	S40° 08' 09.18"E
L55	70.00	S49° 51' 50.82"W
L56	70.00	N49° 51' 50.82"E
L57	120.00	S40° 08' 09.18"E
L58	70.00	S49° 51' 50.82"W
L59	70.00	N49° 51' 50.82"E
L60	120.00	S40° 08' 09.18"E
L61	70.00	S49° 51' 50.82"W
L62	70.00	N49° 51' 50.82"E
L63	120.00	S40° 08' 09.18"E
L64	70.00	S49° 51' 50.82"W
L65	70.00	N49° 51' 50.82"E

Parcel Line Table		
Line #	Length	Direction
L66	120.00	S40° 08' 09.18"E
L67	70.00	S49° 51' 50.82"W
L68	70.00	N49° 51' 50.82"E
L69	120.00	S40° 08' 09.18"E
L70	70.00	S49° 51' 50.82"W
L71	70.00	N49° 51' 50.82"E
L72	70.00	S49° 51' 50.82"W
L73	70.00	N49° 51' 50.82"E
L74	120.00	S40° 08' 09.18"E
L75	120.00	S40° 08' 09.18"E
L76	70.00	S49° 51' 50.82"W
L77	70.00	N49° 51' 50.82"E
L78	70.00	S49° 51' 50.82"W
L79	70.00	N49° 51' 50.82"E
L80	120.00	S40° 08' 09.18"E
L81	60.00	S49° 51' 50.82"W
L82	85.00	N49° 51' 50.82"E
L83	95.00	S40° 08' 09.18"E
L85	120.00	N49° 51' 50.82"E
L86	70.00	S40° 08' 09.18"E
L87	120.00	S49° 51' 50.82"W
L88	70.00	N40° 08' 09.18"W
L89	70.00	S40° 08' 09.18"E
L90	120.00	S49° 51' 50.82"W
L91	70.00	N40° 08' 09.18"W
L92	120.00	S7° 02' 11.90"W

Parcel Line Table		
Line #	Length	Direction
L93	20.39	N82° 57' 48.10"W
L95	12.58	N40° 08' 09.18"E
L96	12.58	S40° 08' 09.18"E
L98	20.39	S82° 57' 48.10"E
L99	70.00	S82° 57' 48.10"E
L100	120.00	S7° 02' 11.90"W
L101	70.00	N82° 57' 48.10"W
L102	70.00	N82° 57' 48.10"W
L103	70.00	S82° 57' 48.10"E
L104	120.00	S7° 02' 11.90"W
L105	70.00	N82° 57' 48.10"W
L106	70.00	S82° 57' 48.10"E
L107	120.00	S7° 02' 11.90"W
L108	84.98	S7° 01' 39.87"W
L109	120.00	N82° 58' 20.13"W
L110	60.00	N7° 01' 39.87"E
L112	95.00	S82° 57' 48.10"E
L113	70.00	S7° 01' 39.87"W
L114	120.00	N82° 58' 20.13"W
L115	70.00	N7° 01' 39.87"E
L116	120.00	N23° 59' 38.92"W
L117	120.00	S40° 45' 54.80"E
L118	120.00	N7° 13' 23.04"W
L119	120.00	N7° 15' 09.33"E
L120	9.59	S82° 44' 50.67"E
L123	9.59	N82° 44' 50.67"W

Parcel Line Table		
Line #	Length	Direction
L124	120.00	N7° 15' 09.33"E
L125	70.00	S82° 44' 50.67"E
L126	70.00	N82° 44' 50.67"W
L127	120.00	N7° 15' 09.33"E
L128	70.00	S82° 44' 50.67"E
L129	70.00	N82° 44' 50.67"W
L130	85.00	N82° 44' 50.67"W
L131	95.00	N7° 15' 09.33"E
L133	60.00	S82° 44' 50.67"E
L134	115.63	N82° 44' 50.67"W
L136	31.70	N7° 15' 09.33"E
L137	120.00	S82° 44' 50.67"E
L138	43.01	S7° 15' 09.33"W
L139	26.99	S7° 15' 09.33"W
L140	120.00	S82° 44' 50.67"E
L141	43.01	S7° 15' 09.33"W
L142	26.99	S7° 15' 09.33"W
L143	70.00	N7° 15' 09.33"E
L144	120.00	S82° 44' 50.67"E
L145	43.01	S7° 15' 09.33"W
L146	26.99	S7° 15' 09.33"W
L147	70.00	N7° 15' 09.33"E
L148	120.00	S82° 44' 50.67"E
L149	43.01	S7° 15' 09.33"W
L150	26.99	S7° 15' 09.33"W
L151	70.00	N7° 15' 09.33"E

Parcel Line Table		
Line #	Length	Direction
L152	122.86	S82° 44' 50.67"E
L155	40.83	S7° 15' 09.33"W
L156	70.00	N7° 15' 09.33"E
L157	123.08	S40° 08' 09.18"E
L160	9.83	N7° 15' 09.33"E
L161	8.78	N49° 51' 50.82"E
L162	120.00	S40° 08' 09.18"E
L163	2.35	S49° 51' 50.82"W
L164	36.49	S49° 51' 50.82"W
L165	0.94	S49° 51' 50.82"W
L167	70.00	N49° 51' 50.82"E
L168	120.00	S40° 08' 09.18"E
L169	2.35	S49° 51' 50.82"W
L170	13.97	S49° 51' 50.82"W
L171	53.68	S49° 51' 50.82"W
L172	70.00	N49° 51' 50.82"E
L174	95.00	S40° 08' 09.18"E
L175	82.00	S49° 51' 50.82"W
L176	57.00	N49° 51' 50.82"E
L177	120.00	S40° 08' 09.18"E
L178	82.00	S49° 51' 50.82"W
L179	95.00	N40° 08' 09.18"W
L181	57.00	N49° 51' 50.82"E
L182	70.00	N49° 51' 50.82"E
L183	120.00	S40° 08' 09.18"E
L184	67.00	S49° 51' 50.82"W

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

REVISIONS

NO.	DATE	
1	07/15/24	REVISIONS PER DEVELOPMENT REVIEW COMMITTEE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

OAKWOOD DRIVE SUBDIVISION

PARCEL TABLES

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
No. 115485
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

SHEET
C-2.1

T-SQUARE ENGINEERING

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Curve Table					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C75	39.27	25.00	90.00	S4° 51' 51"W	35.36
C78	53.09	240.00	12.67	S43° 31' 36"W	52.98
C79	63.58	240.00	15.18	S29° 36' 00"W	63.40
C80	61.82	240.00	14.76	S14° 37' 53"W	61.65
C83	39.27	25.00	90.00	S52° 15' 09"W	35.36
C85	19.13	25.00	43.84	N60° 49' 30"W	18.67
C86	39.27	25.00	90.00	N37° 44' 51"W	35.36
C88	50.75	170.00	17.10	S88° 42' 01"W	50.56
C91	3.22	170.00	1.08	N7° 47' 42"E	3.22
C92	17.63	150.00	6.73	S19° 17' 23"W	17.62
C93	22.70	150.00	8.67	S11° 35' 15"W	22.68
C94	123.21	170.00	41.53	N29° 06' 03"E	120.53
C97	70.65	150.00	26.99	S36° 09' 02"W	70.00
C102	0.58	150.00	0.22	S49° 45' 14"W	0.58
C104	19.88	170.00	6.70	N53° 12' 53"E	19.87
C105	0.97	70.00	0.79	S50° 15' 41"W	0.97
C106	120.08	170.00	40.47	N76° 48' 04"E	117.60
C108	39.27	25.00	89.99	S37° 58' 02"E	35.35
C111	56.66	70.00	46.38	S73° 50' 52"W	55.13
C112	127.10	170.00	42.84	S28° 26' 45"W	124.16
C115	40.12	240.00	9.58	S45° 04' 29"W	40.08
C117	70.25	240.00	16.77	S31° 54' 00"W	70.00
C118	68.12	240.00	16.26	S15° 23' 01"W	67.89
C120	216.28	170.00	72.90	S43° 42' 01"W	201.99

Curve Table					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C1	30.24	50.00	34.65	N10° 04' 24"W	29.78
C2	103.09	182.37	32.39	S8° 56' 26"E	101.72
C3	32.57	360.00	5.18	N24° 48' 26"W	32.56
C4	23.47	240.00	5.60	S25° 01' 06"E	23.46
C5	63.58	240.13	15.17	S14° 37' 48"E	63.40
C6	95.37	360.00	15.18	N14° 37' 32"W	95.09
C7	59.86	240.00	14.29	S0° 06' 26"W	59.71
C8	89.78	360.00	14.29	N0° 06' 29"E	89.54
C9	39.27	25.00	90.00	S37° 44' 51"E	35.36
C11	39.27	25.00	90.00	S52° 15' 09"W	35.36
C13	4.87	240.00	1.16	S7° 50' 01"W	4.87
C16	7.30	360.00	1.16	N7° 50' 01"E	7.30
C18	70.25	240.00	16.77	S16° 48' 00"W	70.00
C19	105.38	360.00	16.77	N16° 48' 00"E	105.00
C21	70.25	240.00	16.77	S33° 34' 16"W	70.00
C22	105.38	360.00	16.77	N33° 34' 16"E	105.00
C23	33.12	240.00	7.91	S45° 54' 37"W	33.10
C24	49.68	360.00	7.91	N45° 54' 37"E	49.65
C25	39.27	25.00	90.00	S4° 51' 51"W	35.36
C26	127.07	170.00	42.83	N61° 32' 59"W	124.13
C27	37.37	50.00	42.83	S61° 32' 59"E	36.51
C28	39.27	25.00	90.01	N52° 01' 56"E	35.36
C29	105.38	360.00	16.77	S57° 37' 13"W	105.00
C31	70.25	240.00	16.77	N57° 37' 13"E	70.00
C34	70.25	240.00	16.77	N74° 23' 29"E	70.00
C35	105.38	360.00	16.77	S74° 23' 29"W	105.00

Curve Table					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C36	60.64	240.00	14.48	S89° 59' 07"E	60.47
C37	90.95	360.00	14.48	N89° 59' 07"W	90.71
C38	39.27	25.00	90.00	N52° 15' 09"E	35.36
C39	38.64	170.00	13.02	N0° 44' 31"E	38.55
C41	16.55	150.00	6.32	S15° 18' 15"W	16.54
C42	12.80	150.00	4.89	S9° 41' 53"W	12.80
C45	2.31	150.00	0.88	S37° 48' 01"W	2.31
C46	49.46	150.00	18.89	S27° 54' 42"W	49.24
C48	126.43	170.00	42.61	N28° 33' 30"E	123.54
C52	30.43	150.00	11.62	S44° 03' 11"W	30.38
C54	39.27	25.00	90.00	S85° 08' 09"E	35.36
C55	39.27	25.00	90.00	N4° 51' 51"E	35.36
C58	18.21	150.00	6.96	S73° 11' 31"W	18.20
C59	10.13	150.00	3.87	S67° 46' 44"W	10.13
C60	41.83	150.00	15.98	S57° 51' 14"W	41.70
C62	77.41	240.00	18.48	S73° 43' 23"E	77.08
C63	11.01	150.00	4.21	N85° 04' 00"W	11.01
C64	6.41	150.00	2.45	N88° 23' 41"W	6.41
C65	39.27	25.00	89.99	S37° 58' 04"E	35.35
C66	39.27	25.00	90.01	S52° 01' 56"W	35.36
C67	34.74	240.00	8.29	N87° 06' 36"W	34.71
C68	70.25	240.00	16.77	S80° 21' 28"W	70.00
C70	35.89	150.00	13.71	N83° 31' 30"E	35.81
C71	70.25	240.00	16.77	S63° 35' 13"W	70.00
C73	22.36	240.00	5.34	S52° 31' 58"W	22.35
C74	39.27	25.00	90.00	N85° 08' 09"W	35.36

GRAPHIC SCALE
(IN FEET)
100 0 50 100 200
SCALE: 1" = 100'

Parcel Line Table		
Line #	Length	Direction
L185	3.00	S49° 51' 50.82"W
L186	120.00	S40° 08' 09.18"E
L187	67.00	S49° 51' 50.82"W
L188	3.00	S49° 51' 50.82"W
L189	70.00	N49° 51' 50.82"E
L190	120.00	S40° 08' 09.18"E
L191	67.90	S49° 51' 50.82"W
L192	2.10	S49° 51' 50.82"W
L193	70.00	N49° 51' 50.82"E
L194	120.00	S40° 08' 09.18"E
L195	67.00	S49° 51' 50.82"W
L196	3.00	S49° 51' 50.82"W
L197	70.00	N49° 51' 50.82"E
L198	120.00	S40° 08' 09.18"E
L199	26.35	S49° 51' 50.82"W
L200	40.65	S49° 51' 50.82"W
L201	3.00	S49° 51' 50.82"W
L202	70.00	N49° 51' 50.82"E
L203	120.00	S40° 08' 09.18"E
L204	26.35	S49° 51' 50.82"W
L205	29.35	S49° 51' 50.82"W
L206	14.30	S49° 51' 50.82"W
L207	70.00	N49° 51' 50.82"E
L208	70.00	N49° 51' 50.82"E
L209	136.12	S40° 08' 09.18"E
L211	2.36	S49° 51' 50.82"W

Parcel Line Table		
Line #	Length	Direction
L212	124.22	N0° 22' 48.55"E
L214	5.40	S82° 57' 48.10"E
L215	110.01	S7° 01' 39.87"W
L216	10.49	N82° 58' 10.59"W
L217	39.21	N82° 56' 53.33"W
L220	60.00	S82° 57' 48.10"E
L222	85.00	S7° 01' 39.87"W
L223	85.00	N82° 58' 10.59"W
L224	95.00	S7° 01' 39.87"W
L226	18.04	N82° 57' 48.10"W
L228	123.79	N1° 15' 23.61"W
L229	138.95	N18° 01' 39.49"W
L230	121.57	N34° 47' 55.36"W
L231	120.00	N40° 08' 09.18"W
L233	47.67	S49° 51' 50.82"W
L234	120.00	N40° 08' 09.18"W
L235	70.00	S49° 51' 50.82"W
L236	120.00	N40° 08' 09.18"W
L237	70.90	S49° 51' 50.82"W
L238	120.00	N40° 08' 09.18"W
L239	69.10	S49° 51' 50.82"W
L240	120.00	N40° 08' 09.18"W
L241	70.00	S49° 51' 50.82"W
L242	60.00	S49° 51' 50.82"W
L244	95.00	N40° 08' 09.18"W
L245	120.00	N40° 08' 09.18"W

Parcel Line Table		
Line #	Length	Direction
L246	95.00	S40° 08' 09.18"E
L248	73.32	S49° 51' 50.82"W
L249	128.99	N52° 48' 37.92"W
L250	11.56	S49° 51' 50.82"W
L252	131.72	N67° 59' 22.62"W
L254	1.95	S7° 15' 09.32"W
L255	120.00	N82° 44' 50.67"W
L256	70.00	S7° 15' 09.33"W
L257	120.00	N82° 44' 50.67"W
L258	70.00	S7° 15' 09.33"W
L259	120.00	N82° 44' 50.67"W
L260	70.00	S7° 15' 09.33"W
L261	120.00	N82° 44' 50.67"W
L262	70.00	S7° 15' 09.33"W
L263	120.00	N82° 44' 50.67"W
L264	43.01	N7° 15' 09.33"E
L265	70.00	S7° 15' 09.33"W
L266	120.21	N82° 44' 50.67"W
L267	70.00	N7° 25' 27.71"E
L268	75.03	N7° 34' 08.45"E
L269	57.00	S7° 15' 09.33"W
L270	78.31	N82° 44' 50.67"W
L272	60.00	N7° 15' 09.33"E
L273	120.00	S82° 44' 50.67"E
L274	77.48	S7° 15' 09.33"W
L276	45.00	N82° 44' 50.67"W

Parcel Line Table		
Line #	Length	Direction
L277	70.00	N7° 15' 09.33"E
L278	120.00	S82° 44' 50.67"E
L279	70.00	S7° 15' 09.33"W
L280	70.00	N7° 15' 09.33"E
L281	120.00	S82° 44' 50.67"E
L282	54.08	S7° 15' 09.33"W
L283	15.92	S7° 15' 09.33"W
L284	70.00	N7° 15' 09.33"E
L285	120.00	S82° 44' 50.67"E
L286	54.08	S7° 15' 09.33"W
L287	15.92	S7° 15' 09.33"W
L288	70.00	N7° 15' 09.33"E
L289	120.00	S82° 44' 50.67"E
L290	54.08	S7° 15' 09.33"W
L291	15.92	S7° 15' 09.33"W
L292	68.95	N7° 15' 09.33"E
L294	125.38	S81° 39' 45.78"E
L296	29.95	S7° 15' 09.33"W
L297	38.42	N49° 51' 50.82"E
L298	120.00	S40° 08' 09.18"E
L299	70.00	N49° 51' 50.82"E
L300	120.00	S40° 08' 09.18"E
L301	48.27	S49° 51' 50.82"W
L302	21.15	S49° 51' 50.82"W
L303	70.00	N49° 51' 50.82"E
L304	120.00	S40° 08' 09.18"E

Parcel Line Table		
Line #	Length	Direction
L305	27.54	S49° 51' 50.82"W
L306	42.46	S49° 51' 50.82"W
L307	70.00	N49° 51' 50.82"E
L308	120.00	S40° 08' 09.18"E
L309	27.54	S49° 51' 50.82"W
L310	42.46	S49° 51' 50.82"W
L311	70.00	N49° 51' 50.82"E
L312	120.00	S40° 08' 09.18"E
L313	27.54	S49° 51' 50.82"W
L314	42.46	S49° 51' 50.82"W
L315	70.00	N49° 51' 50.82"E
L316	120.00	S40° 08' 09.18"E
L317	27.54	S49° 51' 50.82"W
L318	42.46	S49° 51' 50.82"W
L319	70.00	N49° 51' 50.82"E
L320	120.00	S40° 08' 09.18"E
L321	27.54	S49° 51' 50.82"W
L322	42.46	S49° 51' 50.82"W
L323	70.00	N49° 51' 50.82"E
L324	120.00	S40° 08' 09.18"E
L325	27.54	S49° 51' 50.82"W
L326	42.46	S49° 51' 50.82"W
L327	64.13	N49° 51' 50.82"E
L329	119.66	S33° 26' 04.79"E
L331	69.03	S49° 51' 50.82"W
L332	18.06	S82° 57' 48.10"E

Parcel Line Table		
Line #	Length	Direction
L333	85.00	S7° 01' 43.24"W
L334	25.07	N82° 57' 48.10"W
L335	120.00	N40° 08' 09.18"W
L336	49.80	S7° 01' 33.44"W
L338	12.84	S49° 51' 50.82"W
L339	120.00	N40° 08' 09.18"W
L340	70.00	S49° 51' 50.82"W
L341	120.00	N40° 08' 09.18"W
L342	70.00	S49° 51' 50.82"W
L343	120.00	N40° 08' 09.18"W
L344	70.00	S49° 51' 50.82"W
L345	120.00	N40° 08' 09.18"W
L346	70.00	S49° 51' 50.82"W
L347	120.00	N40° 08' 09.18"W
L348	70.00	S49° 51' 50.82"W
L349	125.09	N49° 42' 52.37"W
L350	29.98	S49° 51' 50.82"W
L351	133.22	N66° 29' 08.24"W
L352	120.00	N82° 44' 50.67"W
L354	2.13	S7° 15' 09.33"W
L355	120.00	N82° 44' 50.67"W
L356	70.00	S7° 15' 09.33"W
L357	120.00	N82° 44' 50.67"W
L358	70.00	S7° 15' 09.33"W
L359	0.92	S7° 15' 09.33"W

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE
104 CASCADE LAN
BELL BUCKLE, TN 37020
MAP 89, PARCEL 021.00
DEED BOOK R2814, PAGE 943, R.O.M.C.

APPLICANT
T-SQUARE ENGINEERING
111 SE PARKWAY COURT
FRANKLIN, TN 37064
615.678.8212

T-SQUARE ENGINEERING

NO.	DATE	REVISIONS
1	07/15/24	REVISIONS PER DEVELOPMENT REVIEW COMMITTEE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

OAKWOOD DRIVE SUBDIVISION

PARCEL TABLES

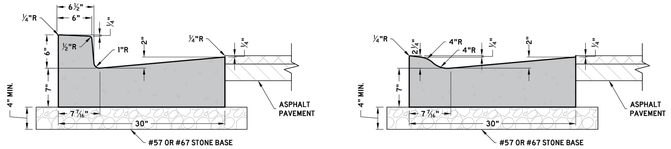
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
No. 115485
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

SHEET
C-2.2

P:\Projects\2023\23-0533 (Oakwood Dr. - Drew Taylor)\Production\23-0533 1 - Site Plan Prelim Plat.dwg, 7/15/2024 2:30:33 PM

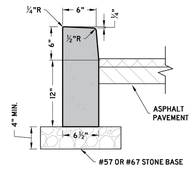


6-30 CONCRETE CURB AND GUTTER

LOWERED CONCRETE CURB AND GUTTER

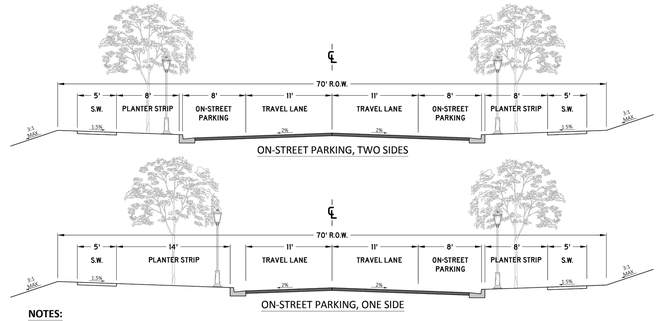
NOTES:

1. BASED ON TDOT STANDARD DRAWING RP-VC-11
2. ONLY PERMITTED IN APPLICABLE ROADWAY SECTIONS
3. 4" MIN. THICK #57 OR # 67 STONE BASE
4. CLASS A 3000 PSI CONCRETE
5. 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)
   - 5.7. POLYPROPYLENE FOAM JOINT FILLER (ASTM D8139)
6. CONTRACTION JOINTS SHALL BE AS FOLLOWS:
   - 6.1. A MAXIMUM SPACING OF 10 FEET
   - 6.2. A MINIMUM SPACING OF 6 FEET
   - 6.3. 1/4 INCH DEPTH, EITHER SAWCUT OR HAND GROOVED.
7. ELEMENTS OF THIS DETAIL MAY BE ALTERED AND APPROVED BY THE CITY ENGINEER



VERTICAL POST CURB

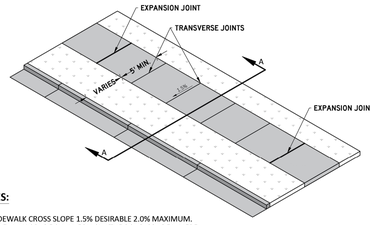
CITY OF COLUMBIA DEVELOPMENT SERVICES DEPARTMENT ENGINEERING DIVISION	STANDARD DETAILS	CURB AND GUTTER AND POST CURB (NTS)	DATE 6/9/2022	SD-01



NOTES:

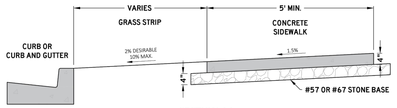
1. ONLY PERMITTED WITHIN THE APPLICABLE ZONING DISTRICTS.
2. ONLY PERMITTED ON MINOR LOCAL AND MAJOR LOCAL ROADWAY CLASSIFICATIONS.
3. PAVEMENT SECTION SHALL FOLLOW APPLICABLE ROADWAY CLASSIFICATION.
4. CURB AND GUTTER, SEE SD-01
5. TREES SHALL BE CENTERED WITHIN THE PLANTING STRIP, OFFSET A MINIMUM OF 20 FEET ALONG THE CENTERLINE OF THE ROAD FROM ANY STREET LIGHTING.
6. DECORATIVE LIGHT BASES SHALL BE BETWEEN 18" AND 24" BEHIND THE BACK OF CURB.
7. ADDITIONAL RIGHT OF WAY MAY BE REQUIRED.
8. DIMENSIONS REFLECT A MINIMUM STANDARD.
9. ELEMENTS OF THIS DETAIL MAY BE ALTERED AND APPROVED BY THE CITY ENGINEER.

CITY OF COLUMBIA DEVELOPMENT SERVICES DEPARTMENT ENGINEERING DIVISION	STANDARD DETAILS	CHARACTER DISTRICT STREET URBAN NEIGHBORHOOD (NTS)	DATE 6/9/2022	DS-03



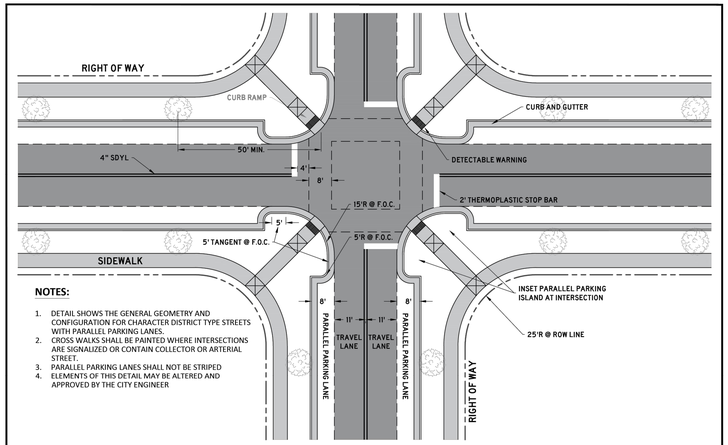
NOTES:

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. 4" MIN. THICKNESS CLASS A 3000 PSI CONCRETE WITH FIBER REINFORCEMENT, BROOM FINISHED.
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 PRACTICABLE. ON SIDEWALKS GREATER THAN 8 FEET IN 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



SECTION AA

CITY OF COLUMBIA DEVELOPMENT SERVICES DEPARTMENT ENGINEERING DIVISION	STANDARD DETAILS	CONCRETE SIDEWALK (NTS)	DATE 6/9/2022	SD-10



NOTES:

1. DETAIL SHOWS THE GENERAL GEOMETRY AND CONFIGURATION FOR CHARACTER DISTRICT TYPE STREETS WITH PARALLEL PARKING LANES.
2. CROSS WALKS SHALL BE PAINTED WHERE INTERSECTIONS ARE SIGNALIZED OR CONTAIN COLLECTOR OR ARTERIAL STREET.
3. PARALLEL PARKING LANES SHALL NOT BE STRIPED
4. ELEMENTS OF THIS DETAIL MAY BE ALTERED AND APPROVED BY THE CITY ENGINEER

CITY OF COLUMBIA DEVELOPMENT SERVICES DEPARTMENT ENGINEERING DIVISION	STANDARD DETAILS	INTERSECTION CONFIGURATION AND GEOMETRY (NTS)	DATE 6/9/2022	SD-07

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD

MICHAEL DAVID MUSGROVE
104 CASCADE LAN
BELL BUCKLE, TN 37020
MAP 89, PARCEL 021.00
DEED BOOK R2814, PAGE 943, R.O.M.C.

APPLICANT

T-SQUARE ENGINEERING
111 SE PARKWAY COURT
FRANKLIN, TN 37064
615.678.8212

T-SQUARE ENGINEERING

REVISIONS

NO.	DATE	
1	07/15/24	REVISIONS PER DEVELOPMENT REVIEW COMMITTEE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

SITE DETAILS
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

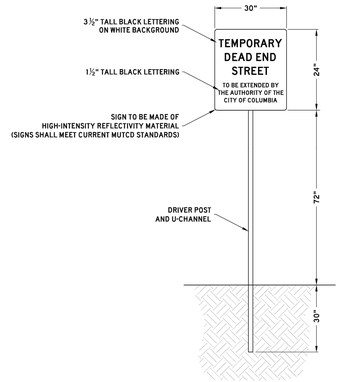
OAKWOOD DRIVE SUBDIVISION

LOUIS T. SLOYAN
REGISTERED ENGINEER
AGRICULTURE
No. 116455
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

SHEET
C-2.5

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CITY OF COLUMBIA
DEVELOPMENT SERVICES DEPARTMENT
ENGINEERING DIVISION

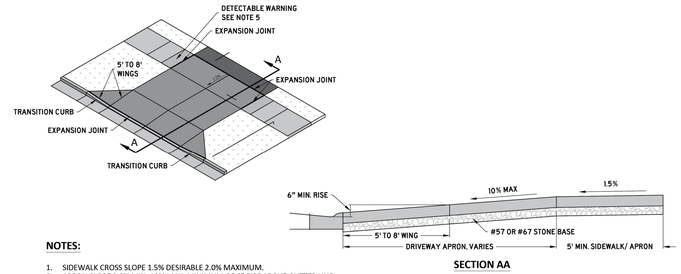
STANDARD DETAILS

STREET CONTINUATION SIGNAGE

(NTS)

DATE 6/9/2022

SD-19



SECTION AA

NOTES:

1. SIDEWALK CROSS SLOPE 1.5% DESIRABLE 2.0% MAXIMUM.
2. APRON SLOPE 2.0% MIN. 10% MAX. MINIMUM OF 6" RISE ABOVE GUTTER LINE.
3. 4" MIN. THICK #57 OR # 67 STONE BASE
4. CLASS A 3000 PSI CONCRETE WITH FIBER REINFORCEMENT
   - 4.1. 6" MIN. THICKNESS RESIDENTIAL.
   - 4.2. 8" MIN. THICKNESS COMMERCIAL, MULTI-FAMILY, AND MIXED-USE.
5. EXPANSION JOINTS SHALL BE AS FOLLOWS:
   - 5.1. 1/2 INCH THICK.
   - 5.2. RUBBERIZED EXPANSION JOINT FILLER (AASHTO M153, TYPE 1).
   - 5.3. POLYPROPYLENE FOAM JOINT FILLER (ASTM D8139).
6. DETECTABLE WARNINGS WHERE DRIVEWAY IS STOP CONTROLLED.
7. ELEMENTS OF THIS DETAIL MAY BE ALTERED AND APPROVED BY THE CITY ENGINEER

CITY OF COLUMBIA
DEVELOPMENT SERVICES DEPARTMENT
ENGINEERING DIVISION

STANDARD DETAILS

DRIVEWAY APRON

(NTS)

DATE 6/9/2022

SD-12

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

T-SQUARE ENGINEERING

REVISIONS

NO.	DATE	REVISIONS PER DEVELOPMENT REVIEW COMMITTEE
1	07/15/24	

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

SITE DETAILS

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

LOUIS T. LOYD
REGISTERED ENGINEER
AGRICULTURE
No. 116455
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

SHEET
C-2.6

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GRAPHIC SCALE
(IN FEET)

100 0 50 100 200

SCALE: 1" = 100'

LEGEND

- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED SILT FENCE
- TREE PROTECTION FENCING
- PROPOSED CONSTRUCTION EXIT
- PROPOSED CONCRETE WASHOUT

NO.	DATE	REVISIONS
1	07/15/24	REVISIONS PER DEVELOPMENT REVIEW COMMITTEE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

OAKWOOD DRIVE SUBDIVISION

INITIAL EROSION CONTROL PLAN

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN. DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

LOUIS T. SLOYD III
REGISTERED ENGINEER
AGRICULTURE
TENNESSEE
No. 116455
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

SHEET
C-3.0

T-SQUARE ENGINEERING

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GRAPHIC SCALE
(IN FEET)
100 0 50 100 200
SCALE: 1" = 100'

LEGEND	
500	EXISTING MAJOR CONTOURS
499	EXISTING MINOR CONTOURS
500	PROPOSED MAJOR CONTOURS
499	PROPOSED MINOR CONTOURS
	PROPOSED PERMANENT SEEDING
	PROPOSED EROSION CONTROL MAT

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

NO.	DATE	REVISIONS
1	07/15/24	REVISIONS PER DEVELOPMENT REVIEW COMMITTEE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

PERMANENT EROSION CONTROL PLAN
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

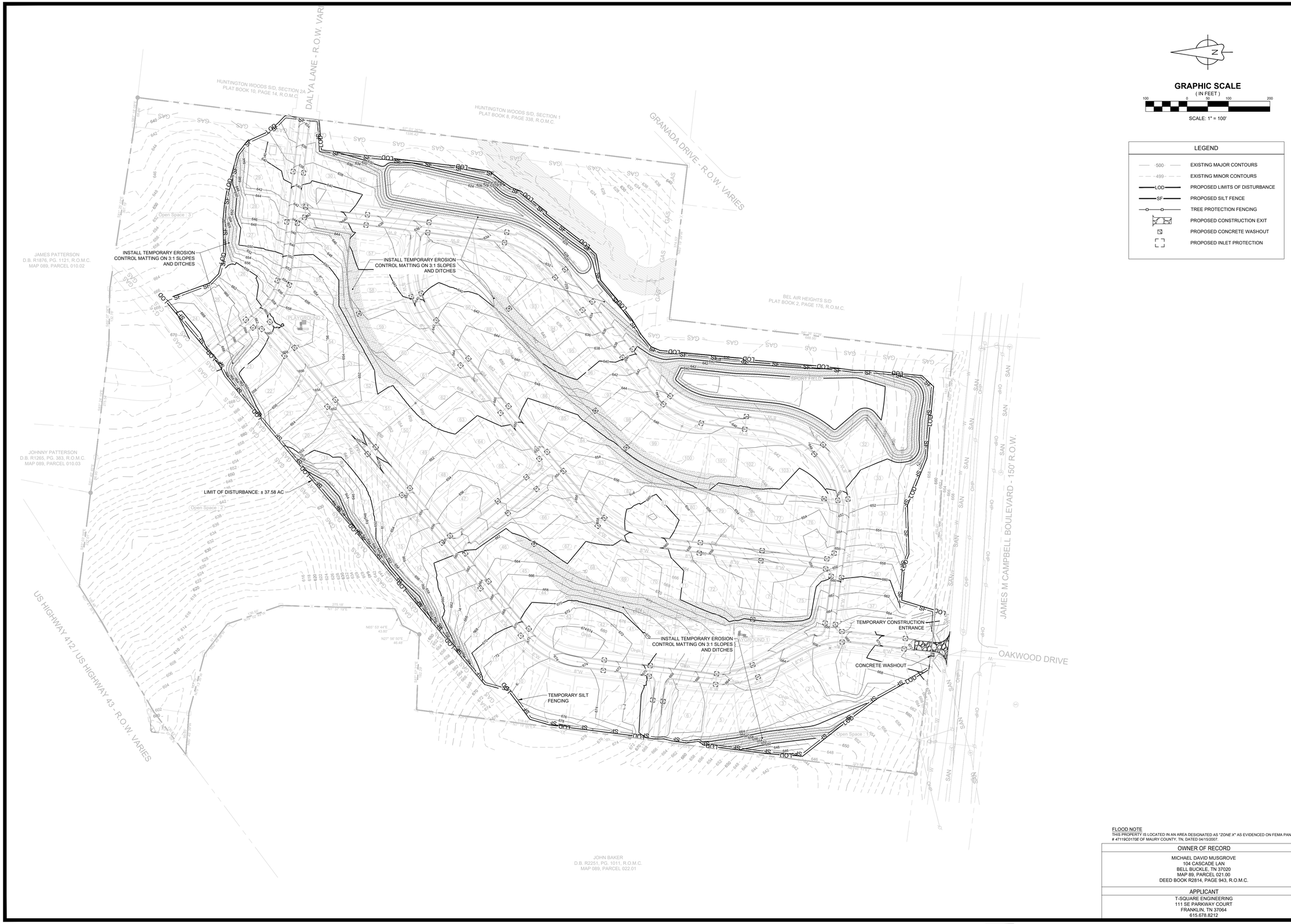
LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
NO. 115486
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

SHEET
C-3.2

T-SQUARE ENGINEERING

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GRAPHIC SCALE

(IN FEET)

100 0 50 100 200

SCALE: 1" = 100'

LEGEND

- 500 — EXISTING MAJOR CONTOURS
- 499 — EXISTING MINOR CONTOURS
- LOD — PROPOSED LIMITS OF DISTURBANCE
- SF — PROPOSED SILT FENCE
- TREE PROTECTION FENCING
- PROPOSED CONSTRUCTION EXIT
- PROPOSED CONCRETE WASHOUT
- PROPOSED INLET PROTECTION

NO.	DATE	REVISIONS
1	07/15/24	REVISIONS PER DEVELOPMENT REVIEW COMMITTEE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

TEMPORARY EROSION CONTROL PLAN

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

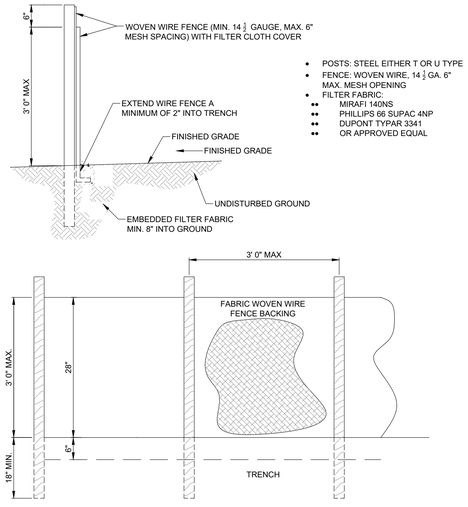
LOUIS T. SLOYD
REGISTERED ENGINEER
AGRICULTURE
No. 115486
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

SHEET
C-3.1

T-SQUARE ENGINEERING

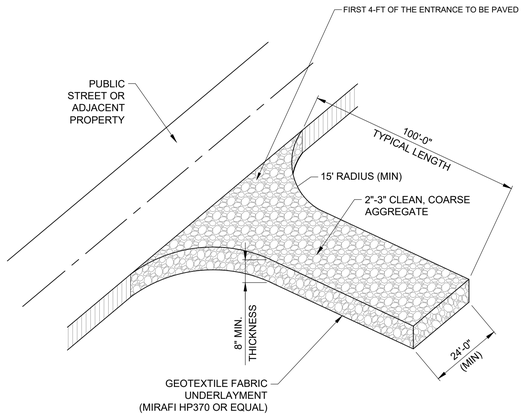
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- POSTS: STEEL EITHER T OR U TYPE
- FENCE: WOVEN WIRE, 14 ½ GA. 6" MAX. MESH OPENING
- FILTER FABRIC:
  - MIRAFI 140NS
  - PHILLIPS 66 SUPAC 4NP
  - DUPONT TYPAR 3341
  - OR APPROVED EQUAL

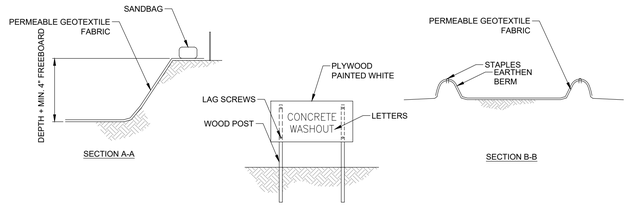
1. WOVEN WIRE CE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NOTED IN THE EROSION CONTROL PLAN. COLLECTED MATERIAL SHALL BE REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE OR WHEN TOP LINE IS NOT VISIBLE.
5. J-HOOK METHOD IS REQUIRED WHEN CROSSING CONTOURS PERPENDICULARLY.

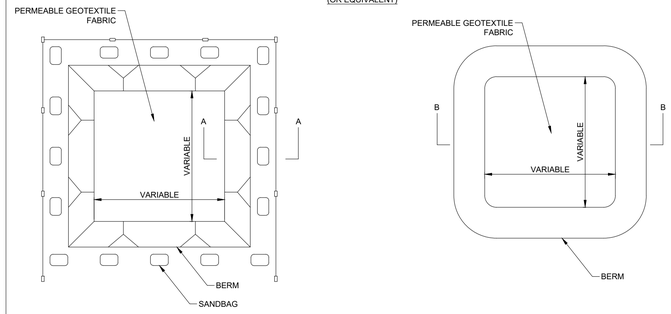
TYPE "C" SEDIMENT/SILT FENCE
N.T.S



ISOMETRIC VIEW

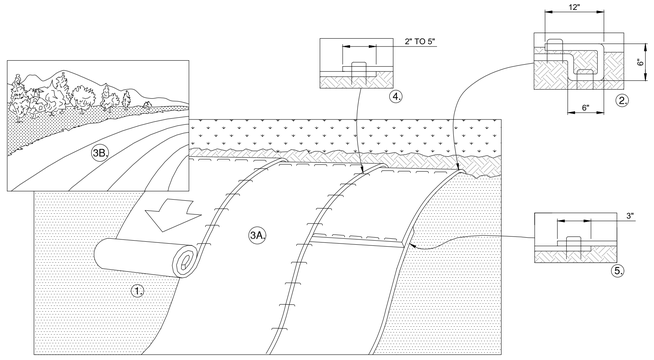
CONSTRUCTION ENTRANCE
N.T.S.





NOTES:
1. ACTUAL LAYOUT DETERMINED IN THE FIELD.
2. SIGNAGE IDENTIFYING THE CONCRETE WASHOUT AREA SHALL BE INSTALLED WITHIN 5FT.OF THE WASHOUT FACILITY.

CONCRETE WASHOUT
N.T.S



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
1.1. 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" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30 CM) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) 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" (30 CM) APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. 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 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" (5 CM-12.5 CM) 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" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE BLANKET WIDTH.

NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BEE NECESSARY TO PROPERLY SECURE THE BLANKETS.

EROSION CONTROL MATTING DETAIL
N.T.S

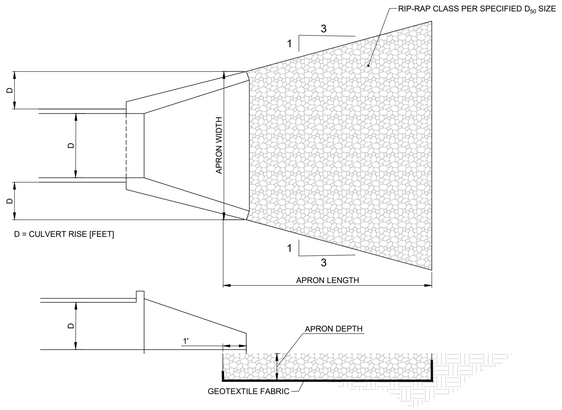


Table 10.1. Example Riprap Classes and Apron Dimensions

Class	D_{50} (mm)	D_{50} (in)	Apron Length[1]	Apron Depth
1	125	5	4D	$3.5D_{50}$
2	150	6	4D	$3.3D_{50}$
3	250	10	5D	$2.4D_{50}$
4	350	14	6D	$2.2D_{50}$
5	500	20	7D	$2.0D_{50}$
6	550	22	8D	$2.0D_{50}$

[1]D is the culvert rise.

OUTLET PROTECTION
DESIGNED TO THE 100-YR STORM PER HEC-11 STANDARDS
N.T.S

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

NO.	DATE	REVISIONS
1	07/15/24	REVISIONS PER DEVELOPMENT REVIEW COMMITTEE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

EROSION CONTROL DETAILS
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

LOUIS T. SQUARE
REGISTERED ENGINEER
AGRICULTURE
No. 115485
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

SHEET
C-3.3

T-SQUARE ENGINEERING

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(IN FEET)

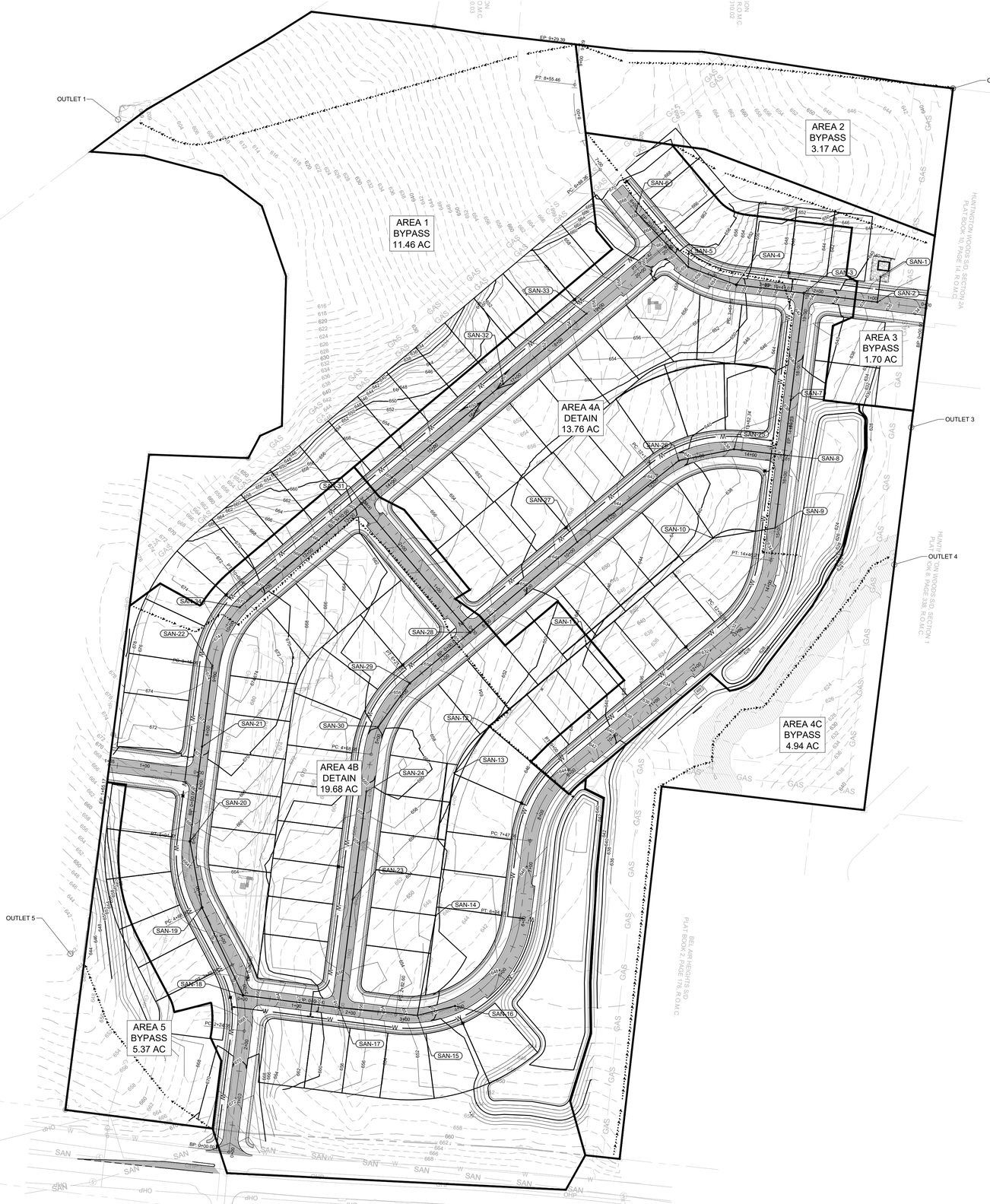
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PRE-DEVELOPMENT STORMWATER PLAN

C-4.0

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GRAPHIC SCALE
(IN FEET)

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SCALE: 1" = 100'

POST-DEVELOPMENT STORMWATER PLAN

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GRAPHIC SCALE
(IN FEET)
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SCALE: 1" = 100'

LEGEND	
500	EXISTING MAJOR CONTOURS
499	EXISTING MINOR CONTOURS
500	PROPOSED MAJOR CONTOURS
499	PROPOSED MINOR CONTOURS
	PROPOSED STORM INLET
	PROPOSED HEADWALL
	PROPOSED AREA DRAIN
	PROPOSED STORM PIPE

NO.	DATE	REVISIONS
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REVIEWER: LTS

DRAINAGE PLAN

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
NO. 115486
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

SHEET
C-5.1

T-SQUARE ENGINEERING

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GRAPHIC SCALE
(IN FEET)
100 0 50 100 200
SCALE: 1" = 100'

LEGEND	
500	EXISTING MAJOR CONTOURS
499	EXISTING MINOR CONTOURS
500	PROPOSED MAJOR CONTOURS
499	PROPOSED MINOR CONTOURS
688.30	PROPOSED SPOT ELEVATION
1.0%	PROPOSED SLOPE

NO.	DATE	REVISIONS
1	07/15/24	REVISIONS PER DEVELOPMENT REVIEW COMMITTEE

DATE: 05/20/24
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DRAWN BY: T-SQUARE
REVIEWER: LTS

GRADING PLAN
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

LOUIS T. SLOYAN
REGISTERED ENGINEER
AGRICULTURE
No. 116488
STATE OF TENNESSEE
07/15/2024

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # *47119C0170E* OF MAURY COUNTY, TN, DATED 04/15/2007.

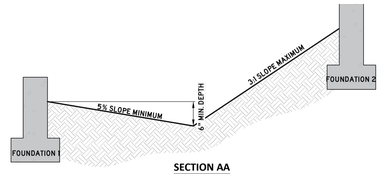
OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

PROJECT
23-0533

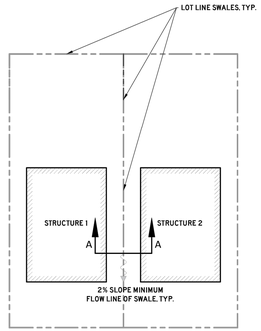
SHEET
C-5.0

T-SQUARE ENGINEERING

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SECTION AA



PLAN

NOTES:

1. SURFACE DRAINAGE SHALL BE DIVERTED TO A STORM SEWER CONVEYANCE. ALL AREAS WITHIN A LOT SHALL BE GRADED TO DRAIN TO AN APPROVED STORMWATER CONVEYANCE.
2. LOTS SHALL BE GRADED TO DRAIN SURFACE WATER AWAY FROM FOUNDATIONS.
   - 2.1. LOTS SHALL BE GRADED TO PROVIDE A MINIMUM OF 6 INCHES OF FALL WITHIN THE FIRST 10 FEET OF THE STRUCTURE ALONG THE DIRECTION OF FLOW.
   - 2.2. LOTS SHALL BE GRADED TO PROVIDE A MINIMUM OF 1V:20H OF FALL PERPENDICULAR TO THE FACE OF THE FOUNDATION WALL WITHIN THE FIRST 5 FEET.
   - 2.3. IMPERVIOUS SURFACES SHALL BE SLOPED AT A MINIMUM OF 2% AWAY FROM THE STRUCTURE.
3. SWALES SHALL BE LOCATED ALONG LOT LINES TO REDUCE LOT TO LOT DRAINAGE, AND DIRECT STORMWATER RUNOFF TOWARDS APPROVED STORMWATER CONVEYANCES.
4. SWALES SHALL HAVE A MINIMUM SLOPE OF 2%.
5. FOUNDATIONS SHALL BE AT MINIMUM 12 INCHES ABOVE ANY THE RIM ELEVATION OR HIGHEST FLOW LINE OF ANY PUBLIC STORMWATER INFRASTRUCTURE THAT SURFACE DRAINAGE FROM THE LOT IS DIRECTED TO.
6. NON-PUBLIC STORMWATER INFRASTRUCTURE SHALL NOT SUCH AS YARD DRAINS SHALL NOT ALLEVIATE THE REQUIREMENTS OF NOTES 2 AND 3.
7. ELEMENTS OF THIS DETAIL MAY BE ALTERED AND APPROVED BY THE CITY ENGINEER

CITY OF COLUMBIA TENNESSEE

CITY OF COLUMBIA
DEVELOPMENT SERVICES DEPARTMENT
ENGINEERING DIVISION

STANDARD DETAILS

RESIDENTIAL LOT GRADING AND DRAINAGE

(NTS)

DATE
6/9/2022

DD-04

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS *"ZONE X"* AS EVIDENCED ON FEMA PANEL # *47119C0170E* OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

T-SQUARE ENGINEERING

NO.	DATE	REVISIONS
1	07/15/24	REVISIONS PER DEVELOPMENT REVIEW COMMITTEE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

GRADING & DRAINAGE DETAILS

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

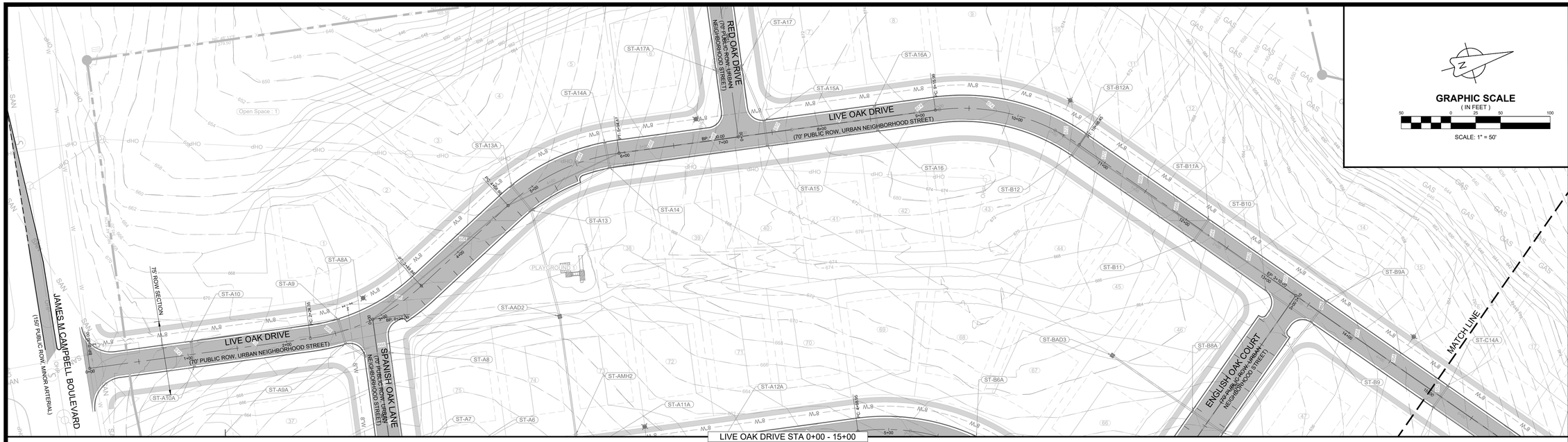
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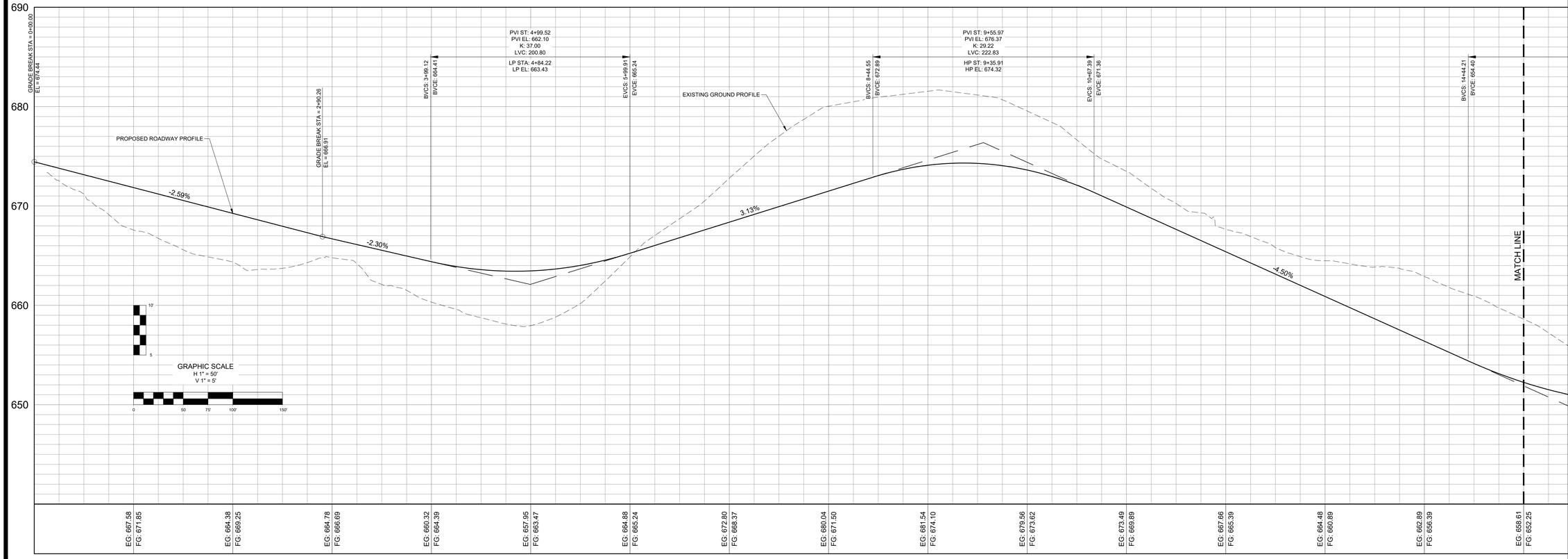
LOUIS T. LOYD
REGISTERED ENGINEER
AGRICULTURE
No. 116455
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

SHEET
C-5.2

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OAKWOOD DRIVE SUBDIVISION

LIVE OAK DRIVE
PLAN AND PROFILE
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

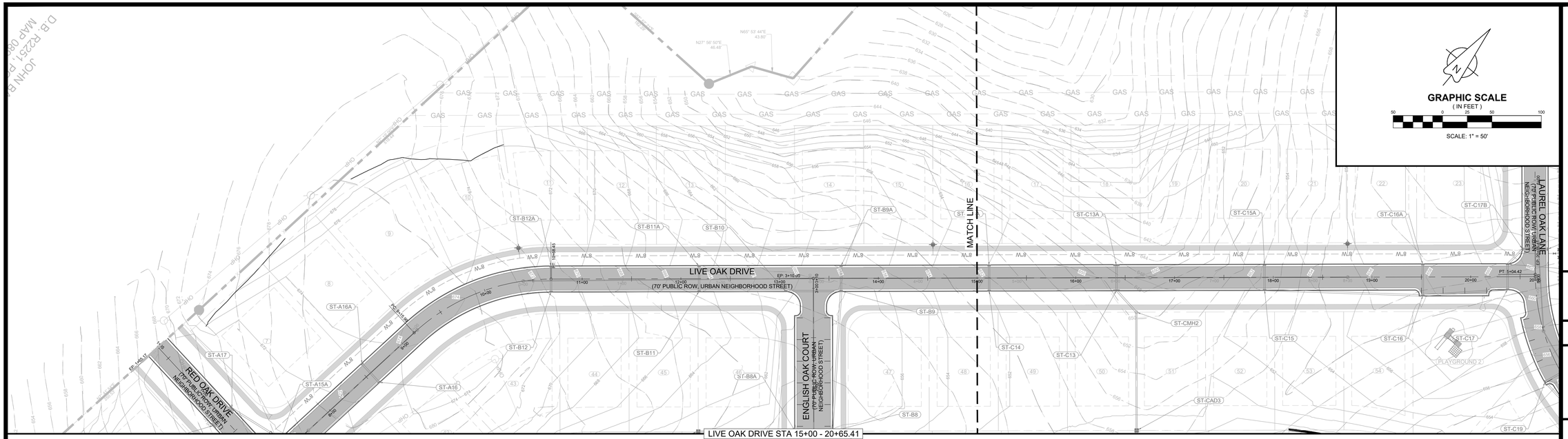
LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
No. 115485
STATE OF TENNESSEE
07/15/2024

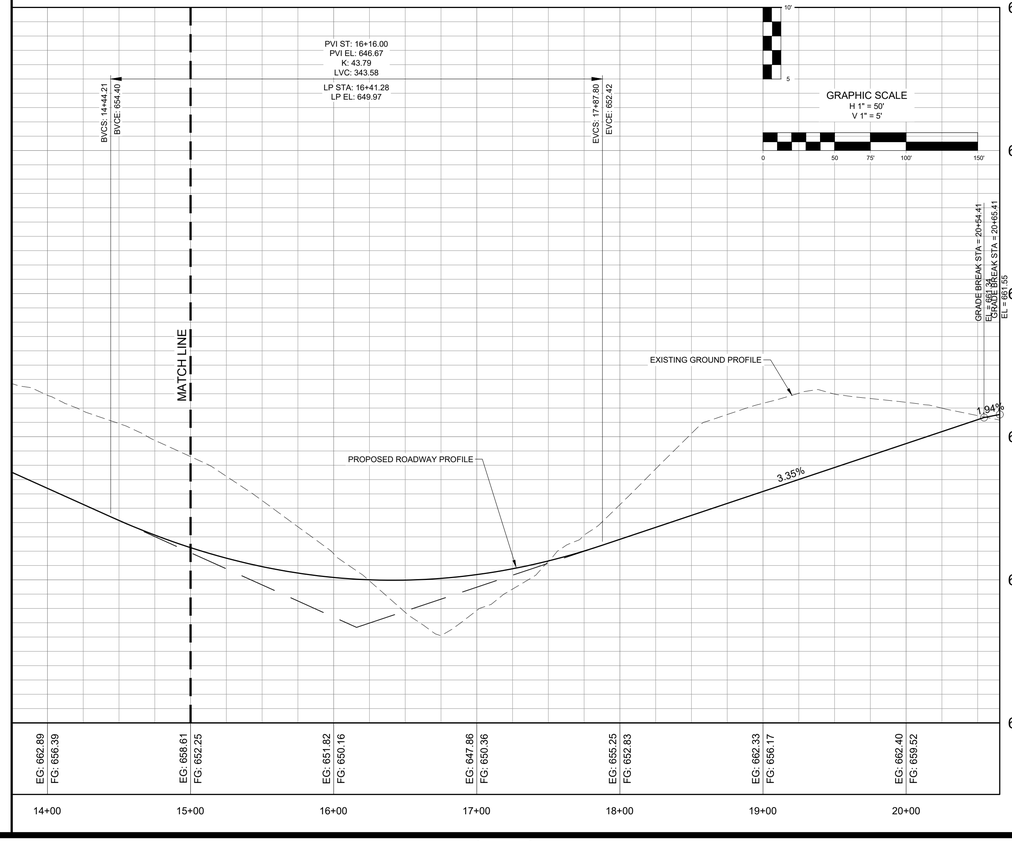
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SHEET
C-6.0

T-SQUARE ENGINEERING

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REVIEWER: LTS

OAKWOOD DRIVE SUBDIVISION

LIVE OAK DRIVE
PLAN AND PROFILE
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

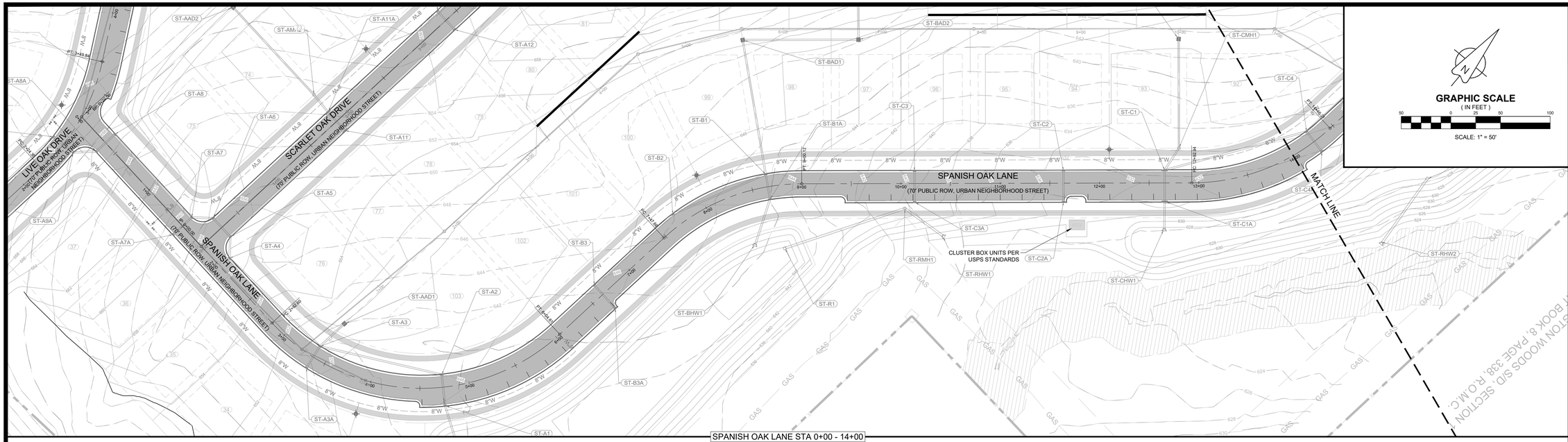
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AGRICULTURE
No. 115485
STATE OF TENNESSEE
07/15/2024

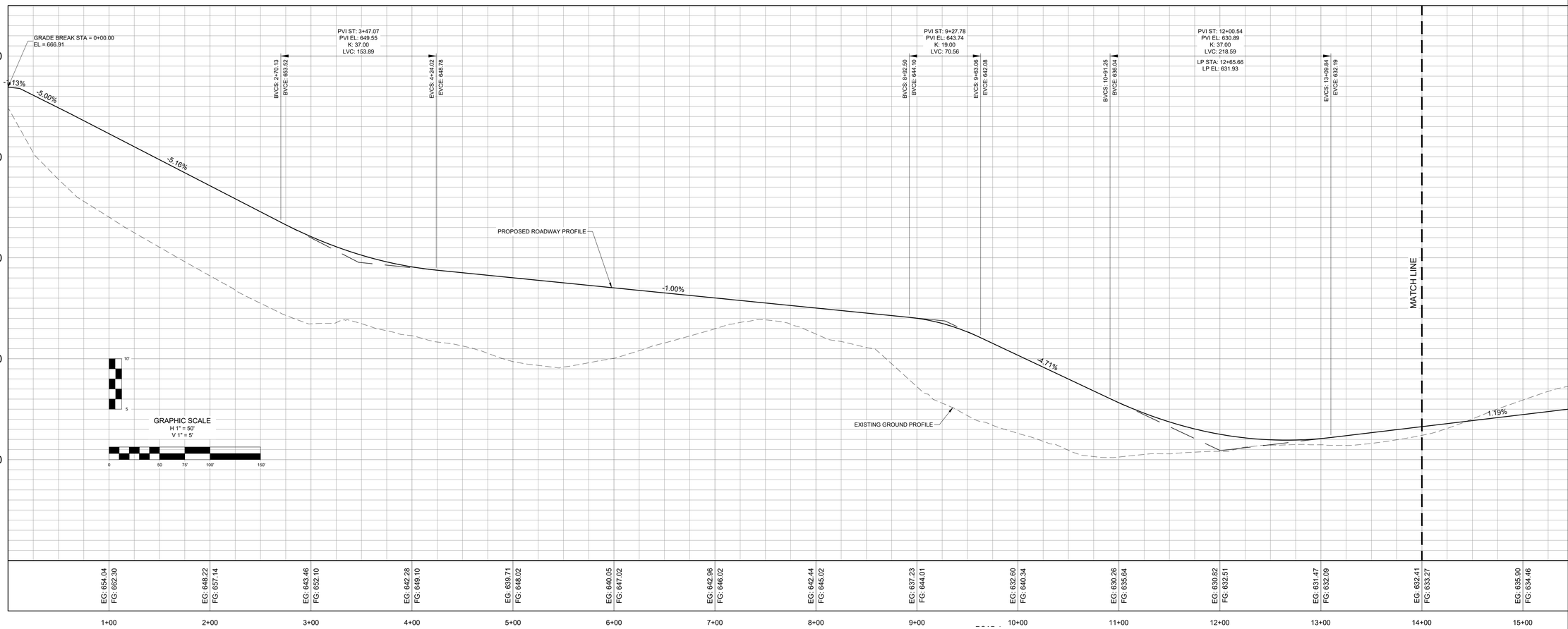
PROJECT
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SHEET
C-6.1

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SPANISH OAK LANE
PLAN AND PROFILE
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

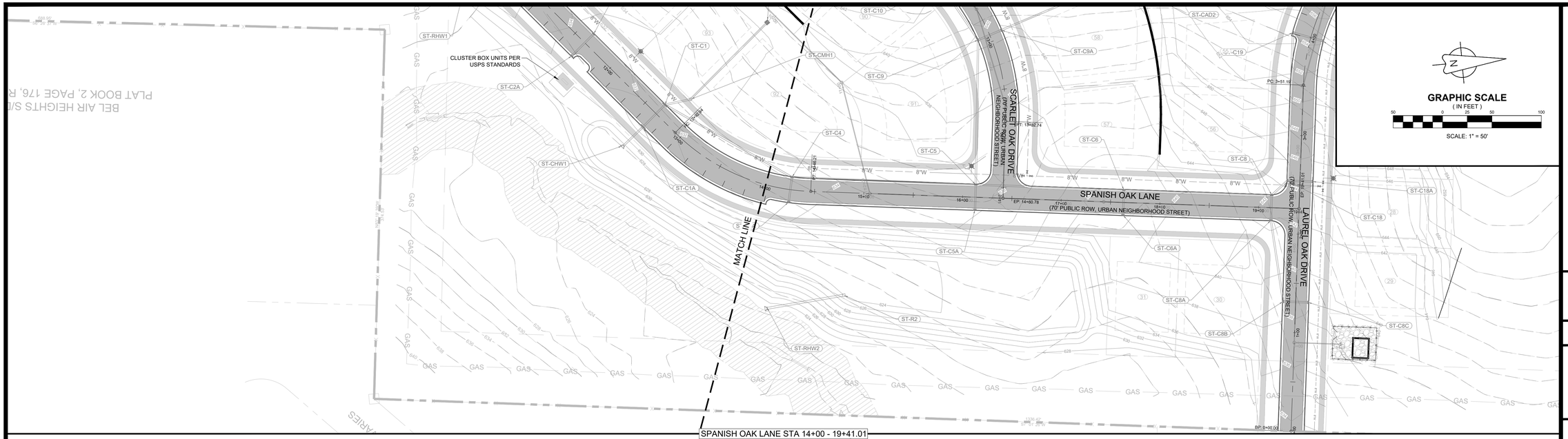
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REGISTERED ENGINEER
AGRICULTURE
No. 116485
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

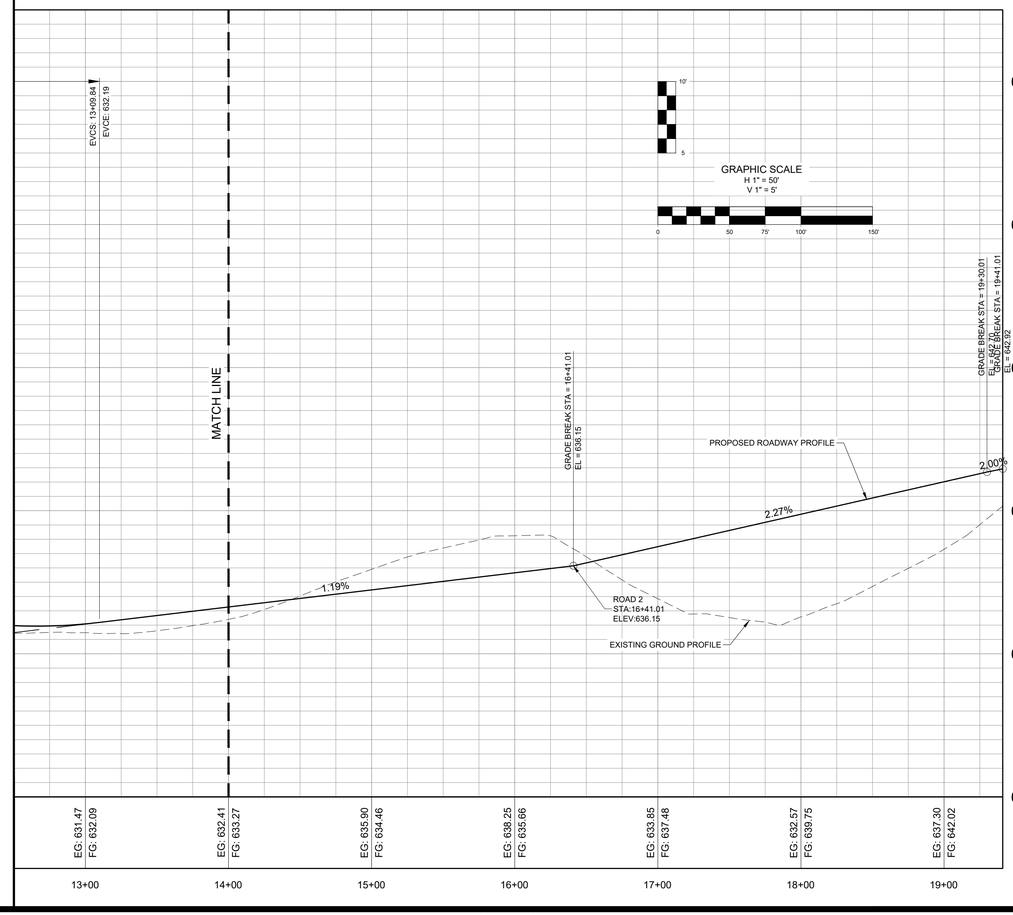
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T-SQUARE ENGINEERING

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SPANISH OAK LANE STA 14+00 - 19+41.01



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REVIEWER: LTS

SPANISH OAK LANE
PLAN AND PROFILE
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

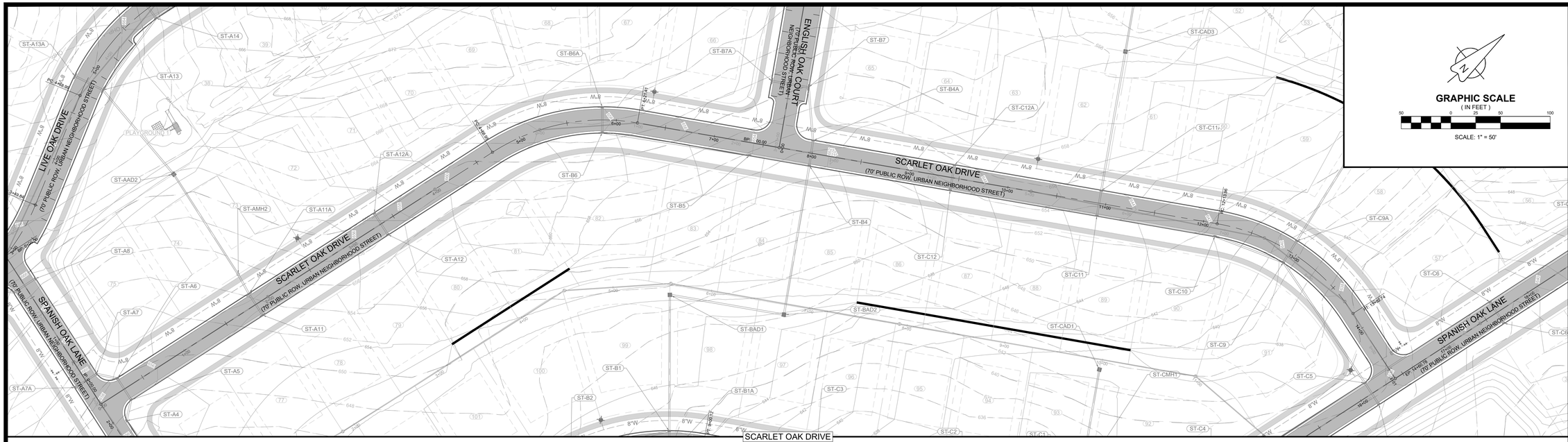
LOUIS T. SLOYD
REGISTERED ENGINEER
AGRICULTURE
No. 116455
STATE OF TENNESSEE
07/15/2024

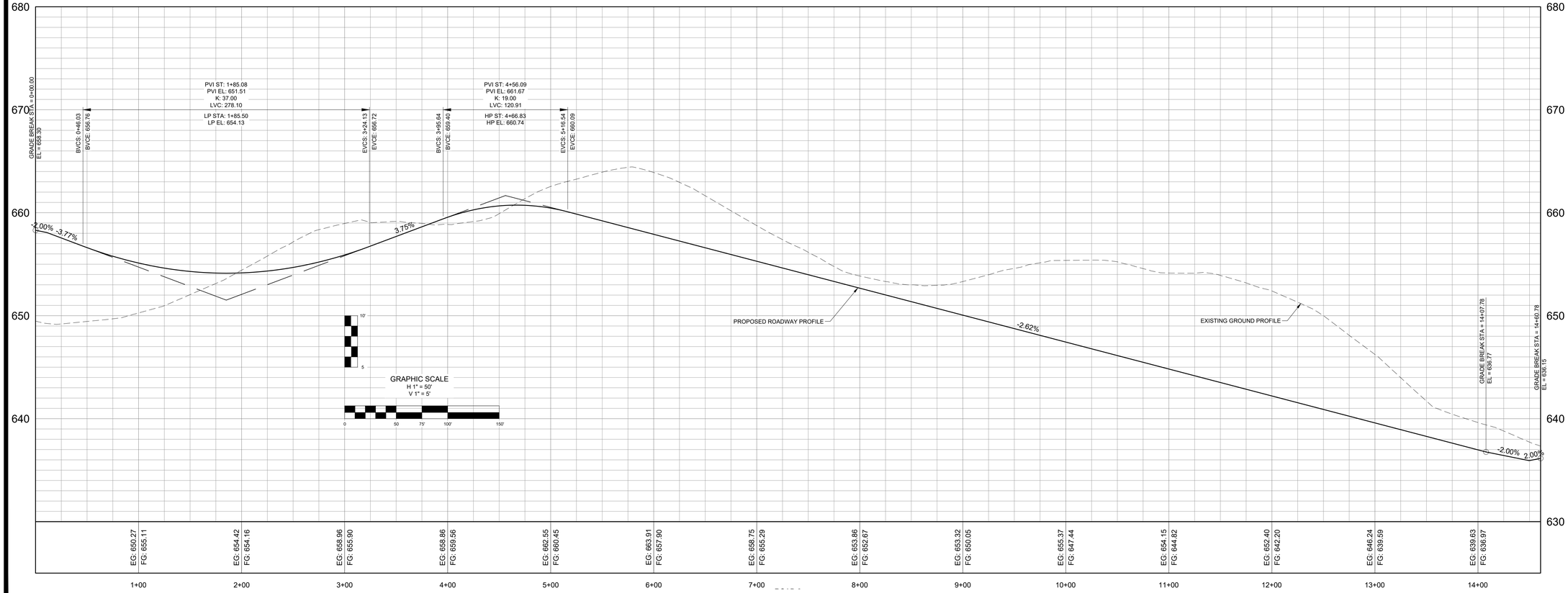
PROJECT
23-0533

SHEET
C-6.3

T-SQUARE ENGINEERING

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REVIEWER: LTS

SCARLET OAK DRIVE PLAN AND PROFILE

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

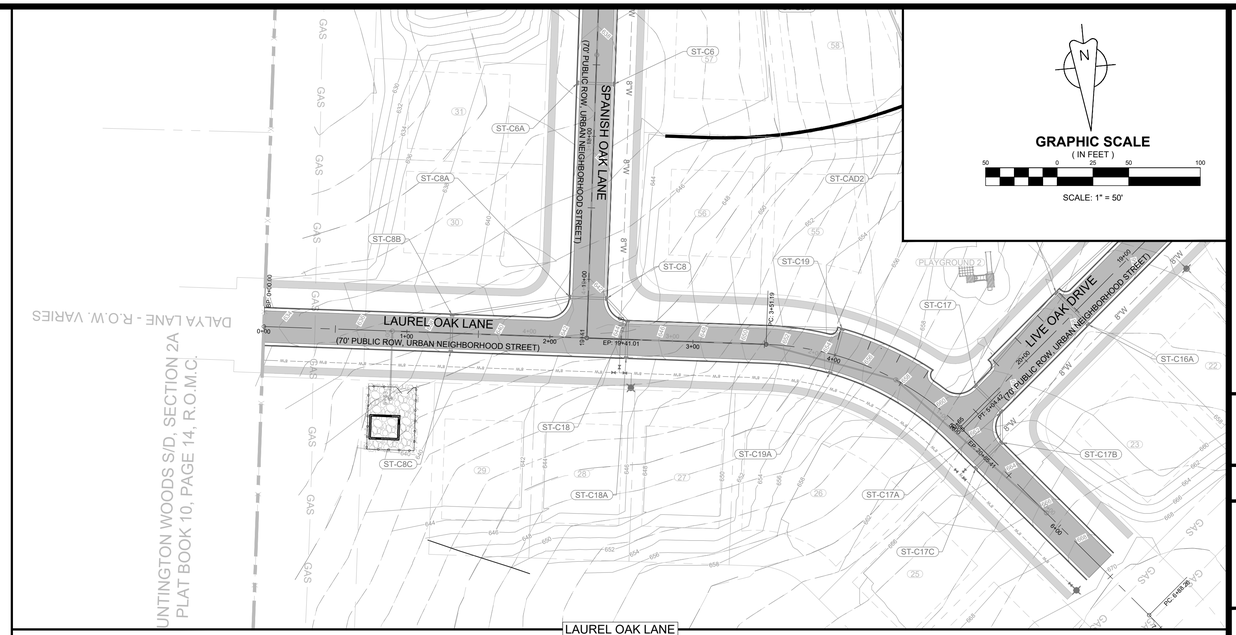
LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
No. 115485
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

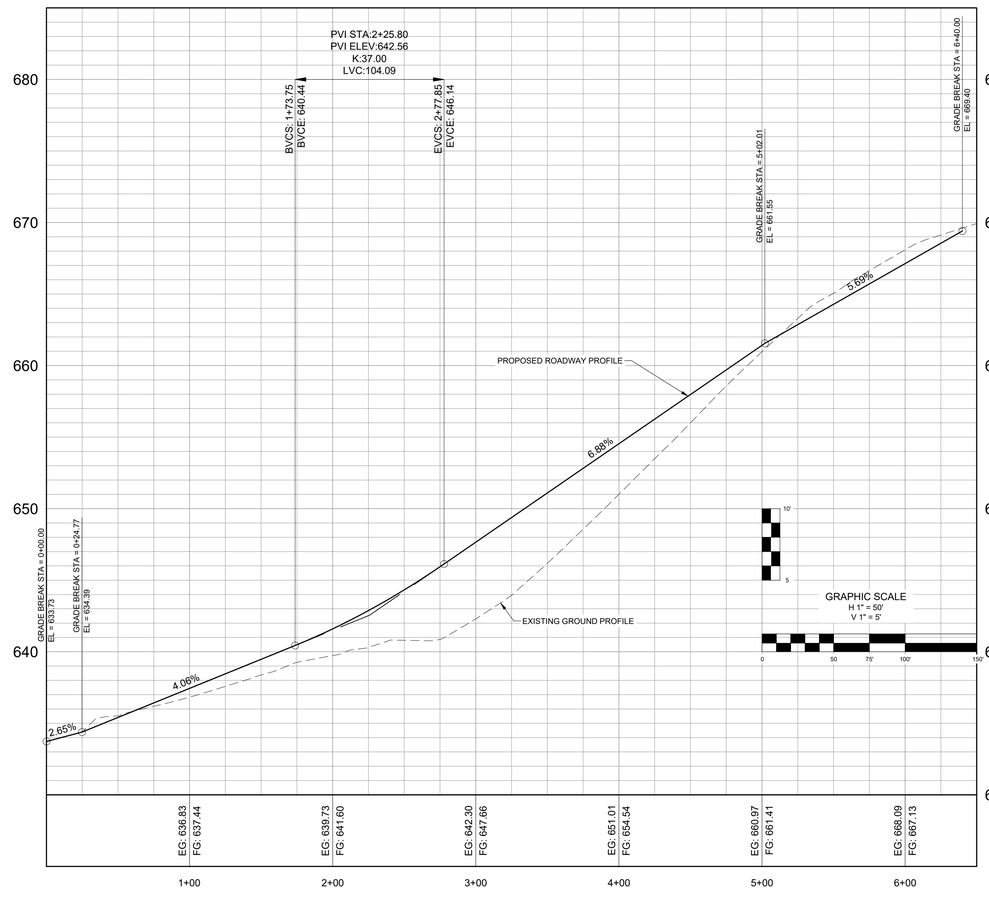
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T-SQUARE ENGINEERING

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LAUREL OAK LANE



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DATE: 05/20/24
SCALE: AS SHOWN
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REVIEWER: LTS

OAKWOOD DRIVE SUBDIVISION

LAUREL OAK LANE
PLAN AND PROFILE
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

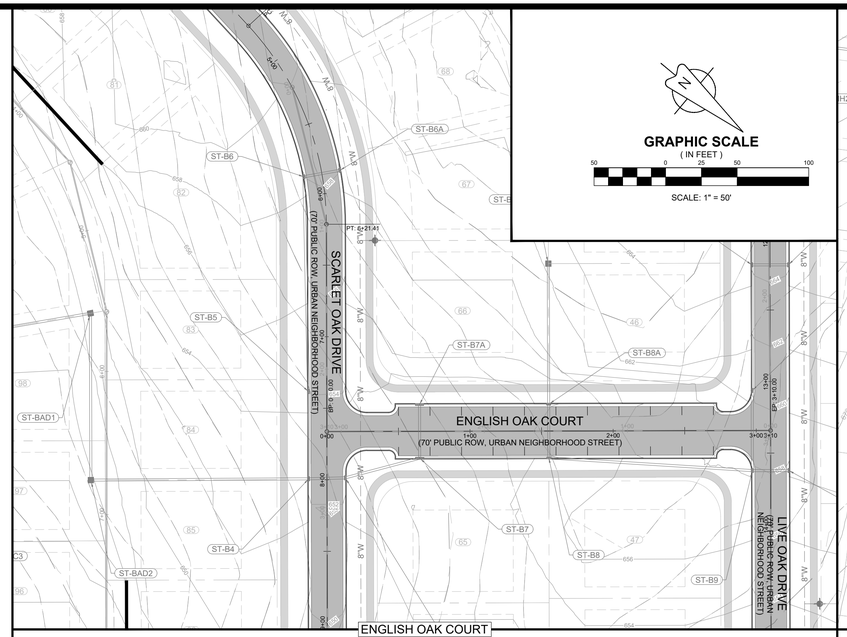
LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
POWELL
No. 115485
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

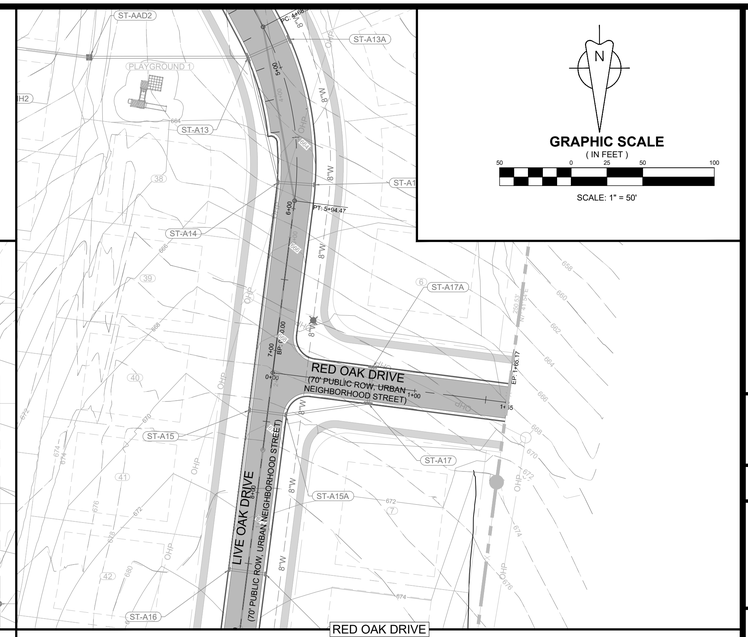
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T-SQUARE ENGINEERING

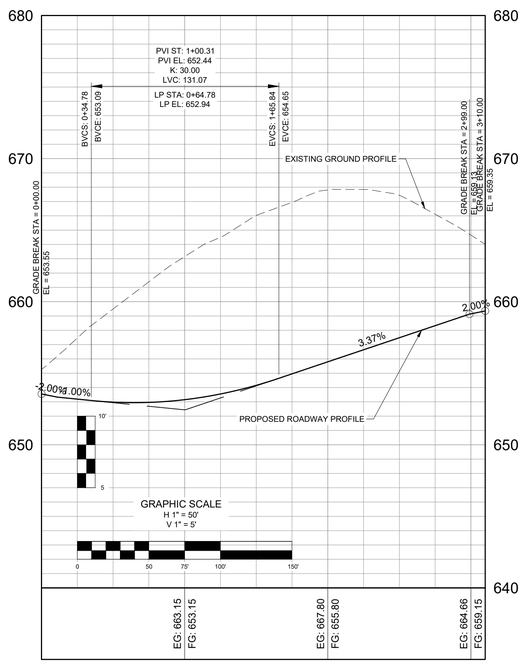
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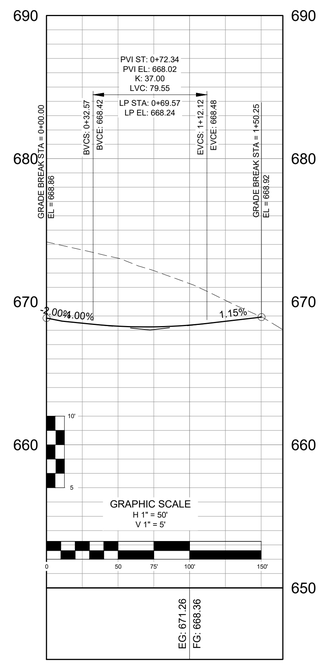


ENGLISH OAK COURT



RED OAK DRIVE





REVISIONS		
NO.	DATE	
1	07/15/24	REVISIONS PER DEVELOPMENT REVIEW COMMITTEE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

ENGLISH OAK CT & RED OAK DR
PLAN AND PROFILE
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

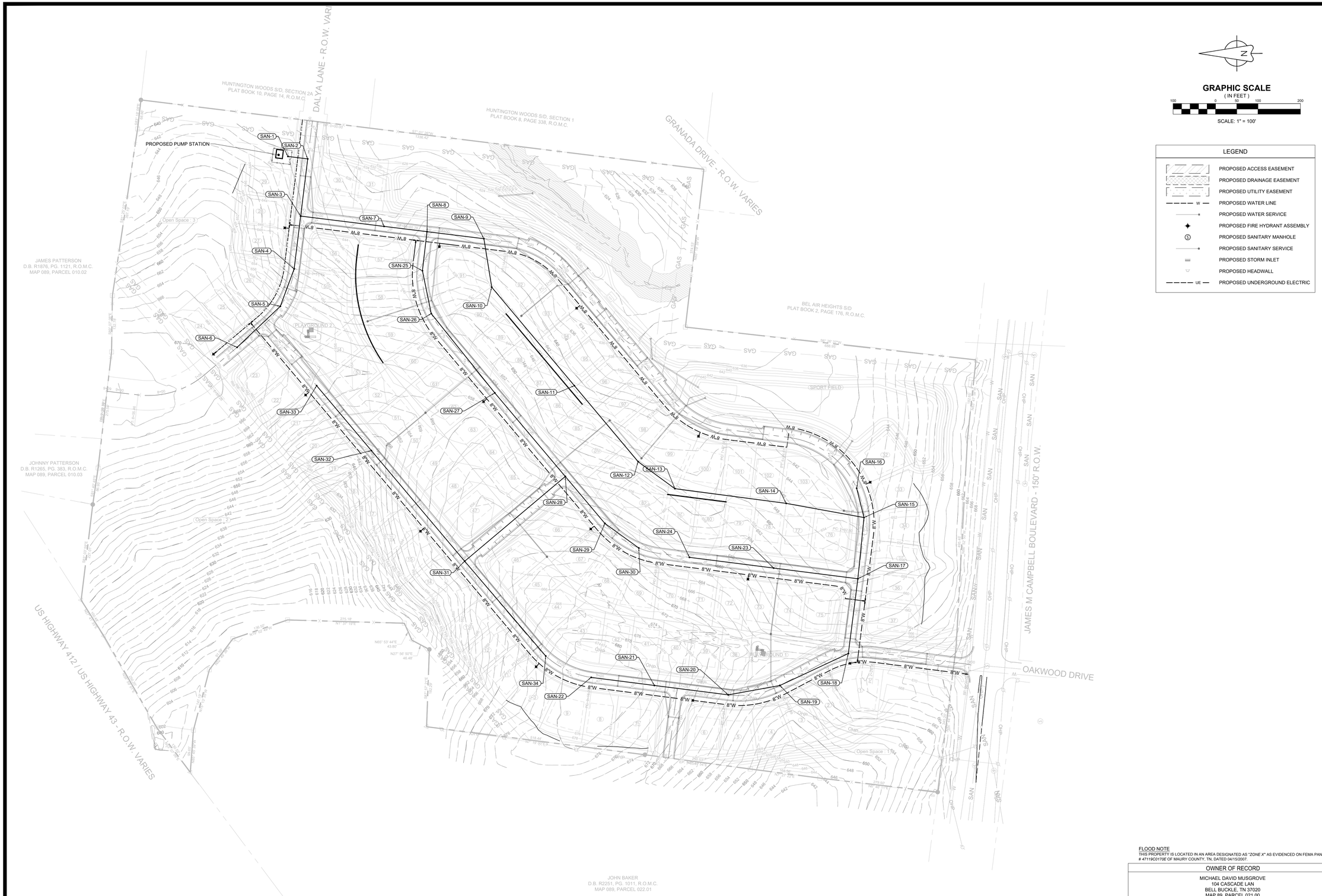
LOUIS T. SLOYAN
REGISTERED ENGINEER
AGRICULTURE
No. 116455
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

SHEET
C-6.6

T-SQUARE ENGINEERING

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GRAPHIC SCALE
(IN FEET)
100 0 50 100 200
SCALE: 1" = 100'

LEGEND

- PROPOSED ACCESS EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED UTILITY EASEMENT
- W — PROPOSED WATER LINE
- PROPOSED WATER SERVICE
- PROPOSED FIRE HYDRANT ASSEMBLY
- PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY SERVICE
- PROPOSED STORM INLET
- PROPOSED HEADWALL
- UE — PROPOSED UNDERGROUND ELECTRIC

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # *47119C0170E* OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD

MICHAEL DAVID MUSGROVE
104 CASCADE LAN
BELL BUCKLE, TN 37020
MAP 89, PARCEL 021.00
DEED BOOK R2814, PAGE 943, R.O.M.C.

APPLICANT

T-SQUARE ENGINEERING
111 SE PARKWAY COURT
FRANKLIN, TN 37064
615.678.8212

NO.	DATE	REVISIONS
1	07/15/24	REVISIONS PER DEVELOPMENT REVIEW COMMITTEE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

UTILITY PLAN

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

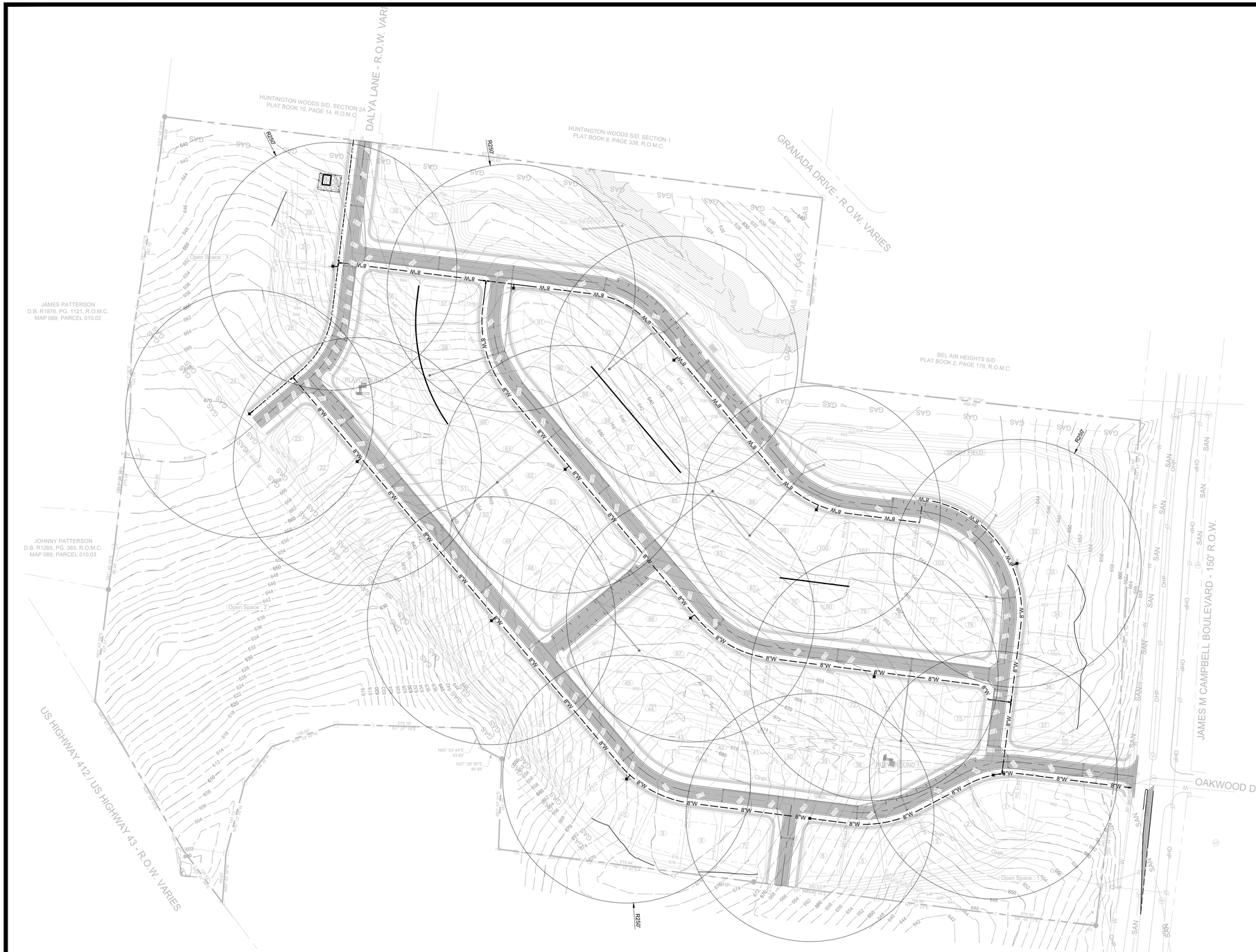
LOUIS T. SLOYAN
REGISTERED ENGINEER
AGRICULTURE
No. 116455
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

SHEET
C-7.0

T-SQUARE ENGINEERING

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N

GRAPHIC SCALE
(IN FEET)
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SCALE: 1" = 100'

LEGEND

- PROPOSED ACCESS EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED UTILITY EASEMENT
- W — PROPOSED WATER LINE
- PROPOSED WATER SERVICE
- PROPOSED FIRE HYDRANT ASSEMBLY
- PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY SERVICE
- PROPOSED STORM INLET
- PROPOSED HEADWALL
- UE — PROPOSED UNDERGROUND ELECTRIC

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

T-SQUARE ENGINEERING

NO.	DATE	REVISIONS
1	07/15/24	REVISIONS PER DEVELOPMENT REVIEW COMMITTEE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

FIRE HYDRANT COVERAGE PLAN

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
No. 115485
STATE OF TENNESSEE
07/15/2024

PROJECT
23-0533

SHEET
C-7.1

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SEE PLANTING DETAIL 1
ON SHEET L 1.1

26 QT

70 QC

54 QI

66 QP

12 QT

10 QT

8 QT

PLANT LIST

	QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING	MATURE HEIGHT	NOTES
TREES							
QI	54	Quercus imbricaria	SHINGLE OAK	2.5" CAL	AS SHOWN	10-20'	B&B
QP	66	Quercus phellos	WILLOW OAK	2.5" CAL	AS SHOWN	10'-20'	B&B
QC	70	Quercus coccinea	SCARLET OAK	2.5" CAL	AS SHOWN	10'-20'	B&B
QT	57	Quercus texana	NUTTALI OAK	2.5" CAL	AS SHOWN	10'-20'	B&B
SHRUBS							
RA	4	Rhus aromatica 'Gro-Low '	'GRO-LOW' SUMAC	3 GAL	AS SHOWN	2'-4'	
HQ	5	Hydrangea quercifolia	OAK LEAF HYDRANGEA	3 GAL	AS SHOWN	6'	

THE LANDSCAPE CONTRACTOR SHALL NOT MAKE SUBSTITUTIONS WITHOUT PRIOR APPROVAL FROM LANDSCAPE ARCHITECT

2 / L-1.0 PLANT LIST

N

GRAPHIC SCALE
(IN FEET)
80 0 40 80 160
SCALE: 1" = 80'

1 / L-1.0 OVERALL PLANTING PLAN

NO.	DATE	REVISIONS

DATE: 05/20/2024
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: CES

LANDSCAPE PLAN

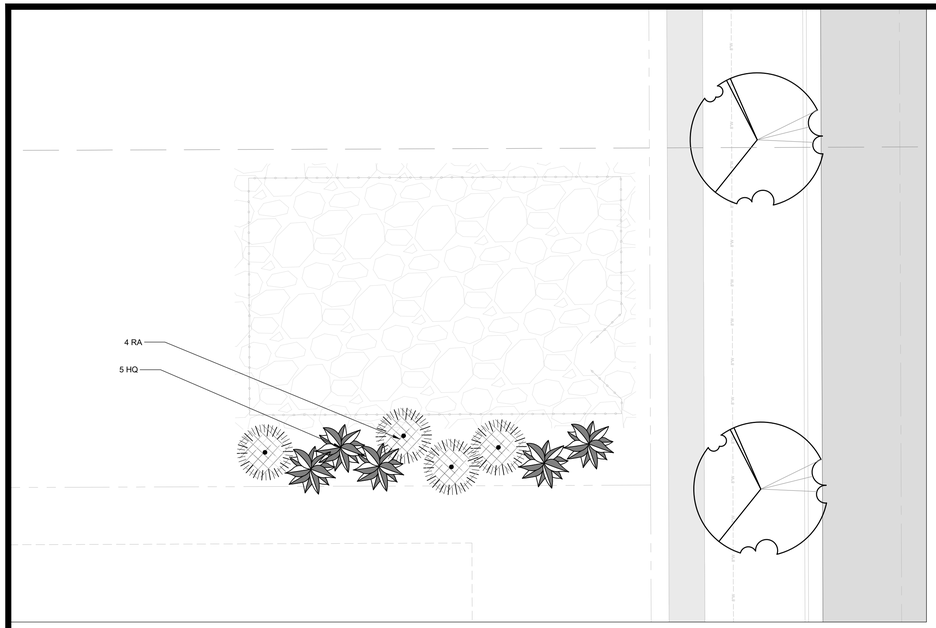
MAP 89, PARCEL 021.00
CITY OF COLUMBIA, MAURY COUNTY, TENNESSEE

OAKWOOD AVENUE

PROJECT
23-0533

SHEET
L-1.0

T-SQUARE ENGINEERING





SEEDING NOTES:

1. SEEDBED PREPARATION: LOOSEN SUBGRADE OF TURF AREAS TO A MINIMUM DEPTH OF 2 INCHES. REMOVE STONES MEASURING OVER 1-1/2 INCHES IN ANY DIMENSION. REMOVE STICKS, ROOTS, RUBBISH, AND OTHER EXTRANEOUS MATTER. ADD TOPSOIL AND MIX THOROUGHLY INTO UPPER 3 INCHES OF TOPSOIL. IF SUBGRADE HAS BECOME COMPACTED DURING CONSTRUCTION, SCARIFY OR OTHERWISE BREAKUP THE COMPACTED SURFACE BEFORE SEEDBED PREPARATION.
2. MIN 1/2" OF TOPSOIL (IMPORTED OR SITE GENERATED) SHALL BE PROVIDED ON ALL AREAS TO BE SEEDED, INSTALLED AND STABILIZED PRIOR TO SEEDING. TOPSOIL SHALL BE CLEAN, FRIABLE SOIL WITH LANDSCAPE INDUSTRY ACCEPTABLE LEVELS OF ORGANIC MATERIAL. UNDER NO CIRCUMSTANCES SHALL SUBGRADE OR "B"-HORIZON SOIL BE USED AS TOPSOIL. CONTRACTOR IS ADVISED TO VERIFY WITH THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE ACCEPTABILITY OF TOPSOIL PRIOR TO PLACEMENT. UNACCEPTABLE SOILS USED AS TOPSOIL SHALL BE REMOVED AND REPLACED AT CONTRACTOR'S EXPENSE.
3. FERTILIZER: APPLY AGRICULTURAL LIME AT THE RATE OF 50 POUNDS PER 1000 SF. APPLY 10 POUNDS 10-10-10 ANALYSIS FERTILIZER (OR EQUIVALENT) PER 1000 SF. SPREAD LIME AND FERTILIZER UNIFORMLY OVER ALL AREAS AND MIX THOROUGHLY WITH THE SOIL.
4. FINE GRADE ALL DISTURBED LAWN AREAS TO SMOOTH, EVEN SURFACE WITH LOOSE, UNIFORMLY FINE TEXTURE, ROLL, RAKE, AND DRAG LAWN AREAS, REMOVE RIDGES AND FILL DEPRESSIONS, AS REQUIRED TO MEET FINISH GRADES.
5. GRASS SEED: PROVIDE FRESH, CLEAN, NEW-CROP SEED COMPLYING WITH TOLERANCE FOR PURITY AND GERMINATION ESTABLISHED BY OFFICIAL SEED ANALYSIS OF NORTH AMERICA.
6. SEED ALL DISTURBED AREAS. PRIOR TO INSTALLATION, CONTRACTOR SHOULD CONSULT WITH OWNER TO DETERMINE EXTENT OF SEEDING OPERATIONS.
7. REPAIR AND RESEED ALL ERODED OR DISTURBED SEEDED AREAS WHERE VEGETATIVE COVER HAS NOT BEEN ESTABLISHED.
8. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF SEEDED AREAS UNTIL 95% GRASS COVER IS ESTABLISHED.

GENERAL NOTES:

1. UTILITY SERVICES MAY EXIST ON SITE. THE LOCATION OF ALL SURFACE AND UNDERGROUND UTILITIES, RIGHT-OF-WAYS, EASEMENTS, ETC., SHALL BE VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES FROM DAMAGE DURING CONSTRUCTION AND TO REPAIR ANY DAMAGE WHICH SHOULD OCCUR TO THE SATISFACTION OF THE OWNER AND UTILITY COMPANIES. COMMENCEMENT OF PROJECT INSTALLATION INDICATES ACKNOWLEDGMENT OF AND ACCEPTANCE BY THE CONTRACTOR OF EXISTING CONDITIONS.
2. ACTUAL AS-BUILT AND/OR EXISTING SITE CONDITIONS MAY VARY AS SHOWN ON THIS PLAN.
3. DAMAGE BY CONTRACTOR TO UNDISTURBED AREAS OUTSIDE THE LIMITS OF CONSTRUCTION SHALL BE REPAIRED BY CONTRACTOR TO THE SATISFACTION OF THE OWNER.
4. CONTRACTOR IS RESPONSIBLE FOR CONDUCTING SITE INSPECTION PRIOR TO BIDDING WORK, TO DETERMINE SITE CONDITIONS AND AREAS TO BE IMPROVED. SUBMISSION OF BID INDICATES CONTRACTOR HAS VERIFIED SITE CONDITIONS AND PLANT MATERIAL QUANTITIES.
5. FINAL ACCEPTANCE: THE LANDSCAPE ARCHITECT OR THE OWNER'S REPRESENTATIVE WILL PROVIDE THE FINAL INSPECTION. SHOULD THE INSPECTION FIND WORK INCOMPLETE, THE CONTRACTOR SHALL REMEDY THE DEFICIENCIES.
6. IF THE SUBSTANTIAL COMPLETION OR FINAL INSPECTION REQUIRE REINSPECTION BY LANDSCAPE ARCHITECT DUE TO FAILURE OF WORK TO COMPLY WITH CONTRACTOR'S CLAIMS ON INITIAL INSPECTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPENSATING THE LANDSCAPE ARCHITECT FOR REINSPECTION SERVICES AT THE RATE OF TWO HUNDRED TWENTY FIVE DOLLARS ($225) PER HOUR PER PERSON PLUS ALL RELATED TRAVEL EXPENSES FOR EACH REQUESTED REINSPECTION TRIP.
7. AFTER FINAL ACCEPTANCE AND PRIOR TO END OF WARRANTY PERIOD, CONTRACTOR SHALL REPLACE ALL PLANT MATERIAL THAT HAS DIED OR HAS DEFECTS, INCLUDING UNSATISFACTORY GROWTH, IN THE OPINION OF THE OWNER.
8. DURING LANDSCAPE INSTALLATION KEEP PAVEMENTS CLEAN AND WORK AREA IN ORDERLY CONDITION. THE PROJECT SITE SHALL BE LEFT IN A CLEAN CONDITION AT THE END OF EVERY WORK DAY.
9. CONTRACTOR TO REPAIR ANY PAVEMENTS, CURBS, AND OTHER IMPROVEMENTS DAMAGED AS A RESULT OF LANDSCAPE INSTALLATION ACTIVITY
10. THE LOCATION OF ALL PLANT MATERIALS SHOWN ON THE PLAN SHALL BE FIELD LOCATED AND STAKED/FLAGGED BY THE CONTRACTOR AND APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE BEFORE THE DIGGING OF PLANTING HOLES. PLANTING SHALL BE LOCATED WHERE SHOWN ON THE DRAWINGS OR WHERE FIELD LOCATED BY THE LANDSCAPE ARCHITECT.
11. PROVIDE ONLY PLANTS THAT ARE FREE FROM DISEASES AND PESTS, AND THAT COMPLY WITH THE LATEST EDITION OF PUBLICATION ANSI Z60.1, AMERICAN STANDARDS FOR NURSERY STOCK", BY THE AMERICAN ASSOCIATION OF NURSERYMEN. DIMENSIONS FOR HEIGHTS, SPREAD, AND TRUNK SPECIFIED ON THE MATERIAL SCHEDULE IS A GENERAL GUIDE FOR THE MINIMUM DESIRED SIZE OF EACH PLANT.
12. DO NOT MAKE SUBSTITUTIONS REGARDING PLANT SIZES OR SPECIES WITHOUT WRITTEN PERMISSION FROM THE OWNER OR LANDSCAPE ARCHITECT.
13. REMOVE ALL METAL BASKETS, STRINGS AND OTHER TIES FROM TREES.
14. FERTILIZE ALL PLANTS WITH 16-16-16 SLOW RELEASE FERTILIZER AT THE RATE OF: 3 POUNDS PER CUBIC YARD OF SOIL MIX. 3 POUNDS PER 100 SF OF BED FOR SHRUBS
15. PLANTS DESIGNATED "B&B" IN THE PLANT LIST SHALL BE BALLED AND BURLAPPED. THEY SHALL BE DUG WITH FIRM, NATURAL BALLS OF EARTH OF SUFFICIENT DIAMETER AND DEPTH TO ENCOMPASS THE FIBROUS AND FEEDING ROOT SYSTEM NECESSARY FOR FULL RECOVERY OF THE PLANT. BALLS SHALL BE FIRMLY WRAPPED WITH BURLAP OR SIMILAR MATERIAL AND BOUND WITH TWINE OR CORD.
16. ONLY "HEMP" BURLAP AND TWINE SHALL BE USED. NO TREATED OR PRESERVED BURLAP OR TWINE IS ALLOWED. ALL HEMP TWINE ATTACHED TO THE TREE TRUNK IS TO BE REMOVED AFTER PLANTING. AT A MINIMUM THE TOP ONE-THIRD OF THE ROOT BALL IS TO HAVE ALL BURLAP AND TWINE REMOVED. IF ROOTS ARE GIRDLING OR CIRCLING THEY MUST BE LOOSENED OR CUT.
17. THE BALLS OF "B&B" PLANTS WHICH CANNOT BE PLANTED IMMEDIATELY ON DELIVERY SHALL BE COVERED WITH MOIST SOIL OR MULCH, OR OTHER PROTECTION FROM DRYING WINDS AND SUN. ALL PLANTS INSTALLED OR STORED SHALL BE WATERED BY CONTRACTOR AS NECESSARY UNTIL FINAL ACCEPTANCE.
18. FOLD DOWN OR CUT THE BURLAP FROM THE TOP 1/3 OF THE BALL OR TO THE WIDEST TOP EDGE OF THE BALL IN ORDER TO EXPOSE THE TOP PLANE OF THE BALL. REMOVE ALL NAILS, STAPLES, ETC USED TO HOLD THE BALL TOGETHER.
19. TREE BALLS SHALL HAVE A MINIMUM DIAMETER IN FEET EQUAL TO 10" FOR EACH CALIPER INCH OF THE TREE.
20. ALL PLANTS SHALL BE HANDLED SO THAT ROOTS ARE ADEQUATELY PROTECTED AT ALL TIMES. DURING SHIPMENT, THE ENTIRE PLANT SHALL BE PROTECTED BY TARPAULINS OR OTHER SUITABLE COVERING. PLANT MATERIAL SUFFERING FROM WIND BURN OR OTHER WIND DAMAGE IS NOT ACCEPTABLE.
21. NO PLANT SHALL BE BOUND WITH ROPE OR WIRE IN A MANNER THAT DAMAGES THE BARK, BREAKS BRANCHES, OR DESTROYS ITS NATURAL SHAPE. NO PLANT MATERIAL REQUIRED TO BE BALLED AND BURLAPPED SHALL BE ACCEPTED IF THE BALL IS CRACKED OR BROKEN EITHER BEFORE OR DURING THE PROCESS OF PLANTING, OR WHEN REQUIRED BURLAP, STAVES, ROPES OR PLATFORM HAVE BEEN REMOVED.
22. ANY SERIES OF TREES OR SHRUBS TO BE PLACED IN A PARTICULAR ARRANGEMENT WILL BE FIELD CHECKED FOR ACCURACY BY THE OWNER. ANY PLANTS INCORRECTLY ARRANGED SHALL BE RELOCATED WITH THE OWNER'S APPROVAL.
23. PRE-EMERGENT HERBICIDE (TREFLAN OR EQUIVALENT) SHALL BE APPLIED (ACCORDING TO MANUFACTURER'S INSTRUCTIONS) TO ALL PLANT BEDS, PRIOR TO PLANTING, FOR NOXIOUS WEED CONTROL.
24. ALL PLANTING BEDS AND TREE AND SHRUB PLANTINGS SHALL RECEIVE A MINIMUM 3" DEEP SHREDDED HARDWOOD MULCH LAYER.
25. CONTRACTOR IS RESPONSIBLE FOR THE WATERING AND MAINTENANCE OF ALL INSTALLED PLANT MATERIAL, INCLUDING GRASS AREAS, UNTIL FINAL ACCEPTANCE BY OWNER. WATER ALL PLANT MATERIAL AT TIME OF PLANTING.
26. ALL PLANT MATERIAL IS TO BE GUARANTEED FOR ONE (1) YEAR. GUARANTEE PERIOD STARTS FROM DATE OF FINAL ACCEPTANCE.
27. OWNER RETAINS THE RIGHT TO INSPECT TREES AND SHRUBS FOR SIZE AND CONDITION OR ROOT BALL, INSECTS, INJURIES, AND LATENT DEFECTS AND TO REJECT UNSATISFACTORY OR DEFECTIVE MATERIAL AT ANY TIME DURING PROGRESS OF WORK. REMOVE REJECTED MATERIAL IMMEDIATELY FROM THE PROJECT SITE.
28. REPLACEMENTS SHALL CLOSELY MATCH ADJACENT SPECIMENS OF THE SAME SPECIES AND SHALL CONFORM TO THE STANDARDS FOR PLANT MATERIALS SPECIFIED. ALL REPLACED MATERIAL SHALL IMMEDIATELY BE REMOVED FROM THE SITE AND ALL NECESSARY REPAIRS TO PLANTS, GRADES, LAWN AREAS, PAVING, AND OTHER AREAS DAMAGED DURING REPLACEMENT SHALL BE MADE AT NO COST TO THE OWNER.
29. ONLY ONE REPLACEMENT PER TREE, SHRUB, OR PLANT WILL BE REQUIRED AT THE END OF THE WARRANTY PERIOD, EXCEPT FOR LOSSES OR REPLACEMENTS DUE TO FAILURE TO COMPLY WITH THE SPECIFIED REQUIREMENTS.

3 L-1.1 PLANTING DETAIL 1

SHRUB PLANTING IN GROUP DETAIL
NOT TO SCALE

TREE PLANTING DETAIL
NOT TO SCALE

NO.	DATE	REVISIONS

DATE: 05/20/2024
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: CES

LANDSCAPE PLAN DETAILS

MAP 89, PARCEL 021.00
CITY OF COLUMBIA, MAURY COUNTY, TENNESSEE

OAKWOOD AVENUE

PROJECT
23-0533

SHEET
L-1.1

T-SQUARE ENGINEERING

T-SQUARE ENGINEERING
CIVIL-SITE | TRAFFIC | WASTEWATER

111 Southeast Parkway Court
Franklin, TN 37064
615.678.8212

www.T2-eng.com

July 15th, 2024
City of Columbia
Comment Response Letter – SDP/PP – Oakwood Drive Subdivision 24-0239

Planning

1. The lead staff person for this case is Planner Austin Brass, AICP; he will prepare the staff report for this item. Please contact abrass@columbiatn.com with questions about the development review process or technical comments. The lead planner should be copied on all communication with other city staff.
   Acknowledged.
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.
   Acknowledged.
3. Some elements of the Site Development Plan are included in the Preliminary Plat (e.g. Civic Space). Confirm with City Engineer whether these sheets are necessary in the Preliminary Plat.
   Acknowledged, certain sheets have been omitted from the Preliminary Plat.
4. Please provide greater detail on the composition of the 77' wide Civic Space between JCB and lots 33 – 38. Through lots are prohibited at 4.3.3. Civic Space should be usable and serve a clear function.
   Civic space in this area to be part of a larger sports field – a 9-target disc golf course. Please see revised sheet C-2.4 for approximate layout of area.
5. Please see attached mark up for additional comments. Please list short narrative responses to notes in the mark-up below this comment.
   (Markup Comments)

   NOTE 1 - Will this subdivision be phased? if so, please provide phasing plan that will coincide with Final Plat.
   Subdivision will be completed in a single phase.
   NOTE 2 - The intent of the natural area for unstructured recreation that shall consist of Paths and trails, woodlands etc. Please provide trail and element that "activates" this area as a true civic space per the intent of a natural area on page 331 of the Zoning Ordinance.
   Civic space has been altered to be a sport field, please see sheet C-2.4 for approximate layout of areas that "activate" the civic space.
   NOTE 3 - Provide note that Civic Space en fronts a thoroughfare street type of at least 50 percent.
   Note has been added to sheet.
   NOTE 4 - Provide "Lot Typical" that indicates a PUDE for each lot
   Typical lot detail has been added to sheet C-2.0
   NOTE 5 - Provide detail of Pump Station "Exterior Cladding" and landscape area
   Exterior cladding to be split-face masonry block construction or city-approved equal. Please refer to L-1.1 for landscape screening details.
   NOTE 6 - Note Preserved Tree Area along frontage.
   Tree preservation along frontage has been updated on sheet C-2.3.

NOTE 7 - Note preservation of existing tree canopy.
Tree canopy preservation has been updated on sheet C-2.3.
NOTE 8 - Provide note that Site Development Plan will conform to CD-3 design standards per ZO 4400.
Note has been added to SDP sheets.

6. The lead staff person for this case is Planner Austin Brass, AICP; Please contact abrass@columbiatn.com with questions about the development review process or technical comments. This email address should be copied on all communication with other city staff.
   Acknowledged.
7. Will this subdivision be phased? if so, please provide phasing plan that will coincide with Final Plat.
   Subdivision will completed in a single phase.
8. Provide note that Site Development Plan will conform to CD-3 design standards per ZO 4400.
   Note has been added to SDP sheets
9. Provide detail of Pump Station "Exterior Cladding" and landscape area.
   Exterior cladding to be split-face masonry block construction or city-approved equal. Please refer to L-1.1 for landscape screening details.
10. Provide "Lot Typical" that indicates a PUDE for each lot.
    Typical lot detail has been added to sheet C-2.0
11. Note Preserved Tree Area along frontage. See comment 6 in PDF.
    Tree preservation along frontage has been updated on sheet C-2.3.
12. The intent of the natural area for unstructured recreation that shall consist of Paths and trails, woodlands etc. Please
    provide trail and element that "activates" this area as a true civic space per the intent of a natural area on page 331 of the Zoning Ordinance. See comment 2 in PDF.
    Civic space has been altered to be a sport field, please see sheet C-2.4 for approximate layout of areas that “activate” the civic space.
13. Note preservation of existing tree canopy.
    Tree canopy preservation has been updated on sheet C-2.3
14. Provide inventory of tree preservation plan indicating caliber width of tree and removal of any Specimen trees. Refer to Table 4.3.16.L pg. 294 (Tree Canopy Cover Retention). See Pg. 295 (Protection of Specimen Trees).
    Please see sheet C-2.3 for tree preservation plan.
15. Provide Civic Space on Lot 15 to ensure a break up within the block face.
    A pocket park has been added where Lot 14 previously was.

Engineering

1. Subject to construction plans and TIS
   Acknowledged.
2. Show all offsite improvements and provide commitment letter for all traffic improvements and phasing of improvements.

Offsite improvements are shown. Acknowledged.

3. Provide grading for future ROW stub. Roadbed construction will be required.
   Grading is now shown for future ROW stub.
4. Most of the lots in the development are critical lots. There are significant concerns with grading and drainage with the proposed grading and foundation type. Incorporation of basement product would significantly reduce the severity of most of the slopes.
   Acknowledged. Grading has been updated to reflect "Oklahoma" style slabs. We will continue to work with engineering during the construction plan phase on this issue.
5. Some lots are not configured for slab-on grade foundations.
   Grading has been updated and now shows "Oklahoma" style turn downs. We will continue to work with engineering during the construction plan phase on this issue.

Columbia Power

1. 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.

Columbia Water

1. "A water availability letter was issued on May 20, 2024, it remains valid for 120 days. 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.

Wastewater

1. Columbia needs to confirm the designed incoming invert elevation of the wet well to the pump station so that we can assure future connectivity to the sewer on Dalya Ln. Without this, the sanitary sewer would not be approved as according to the availability letter.
   Acknowledged.
2. Pump Station area should be 50'x50'.
   Area allocated for pump station is now 50'x50'.
3. All sewer improvements including but not limited to off-site improvements, on-site improvements, and pump station and equipment installation shall be completed and functioning to the satisfaction of the Director of the Wastewater Department prior to the filing of any Final

Plat with the City of Columbia Municipal Planning Commission, unless specific approval is granted by the Director and a surety of sufficient amount is provided.
Acknowledged.

4. Note: Pump stations will require a building permit and all other required permits from additional entities. All inspections must be completed and certificates of completion granted before acceptance. Please contact the Wastewater Department for standard design details and equipment.
   Acknowledged.
5. Grinder pump systems are not allowed by City Ordinance.
   Acknowledged.

Maury County E911

1. Plat shows Stone Creek pass labeled as street name. Maury County 911 denied Stone Creek Pass. The denial of Stone Creek Pass has been conveyed multiple times to T-Square. Pippin Street is correct. Fellowship Rd is correct. Haplander Ct is correct.
   These comments appear to address another property – this site does not contain any roads with these names.

ATT

1. ATT TO SERVE
   Acknowledged.

Building

2. No comments
   Acknowledged.

Police

1. No comments provided
   Acknowledged.

Fire

2. No comments
   Acknowledged.

Public Works

1. No comments
   Acknowledged.

Atmos Energy

1. No comments provided
   Acknowledged.

Maury County Schools

1. Riverside Elementary, Whitthorne Middle School, Central High School. The development combined with current neighborhoods and additional approved developments in these zones may require either new construction or realignment of school zones to accommodate new students.
   Acknowledged.

Duck River Electric Membership Corp

1. No comments provided
   Acknowledged.

Maury County Highway Dept.

1. No comments provided
   Acknowledged.

CPWS BB

1. Plan to serve
   Acknowledged.

T-SQUARE ENGINEERING
CIVIL-SITE | TRAFFIC | WASTEWATER

111 Southeast Parkway Court
Franklin, TN 37064
615.678.8212

www.T2-eng.com

July 15th, 2024
City of Columbia
Comment Response Letter – SDP/PP – Oakwood Drive Subdivision 24-0239

Planning

1. The lead staff person for this case is Planner Austin Brass, AICP; he will prepare the staff report for this item. Please contact abrass@columbiatn.com with questions about the development review process or technical comments. The lead planner should be copied on all communication with other city staff.
   Acknowledged.
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.
   Acknowledged.
3. Some elements of the Site Development Plan are included in the Preliminary Plat (e.g. Civic Space). Confirm with City Engineer whether these sheets are necessary in the Preliminary Plat.
   Acknowledged, certain sheets have been omitted from the Preliminary Plat.
4. Please provide greater detail on the composition of the 77' wide Civic Space between JCB and lots 33 – 38. Through lots are prohibited at 4.3.3. Civic Space should be usable and serve a clear function.
   Civic space in this area to be part of a larger sports field – a 9-target disc golf course. Please see revised sheet C-2.4 for approximate layout of area.
5. Please see attached mark up for additional comments. Please list short narrative responses to notes in the mark-up below this comment.
   (Markup Comments)

   NOTE 1 - Will this subdivision be phased? if so, please provide phasing plan that will coincide with Final Plat.
   Subdivision will be completed in a single phase.
   NOTE 2 - The intent of the natural area for unstructured recreation that shall consist of Paths and trails, woodlands etc. Please provide trail and element that "activates" this area as a true civic space per the intent of a natural area on page 331 of the Zoning Ordinance.
   Civic space has been altered to be a sport field, please see sheet C-2.4 for approximate layout of areas that "activate" the civic space.
   NOTE 3 - Provide note that Civic Space en fronts a thoroughfare street type of at least 50 percent.
   Note has been added to sheet.
   NOTE 4 - Provide "Lot Typical" that indicates a PUDE for each lot
   Typical lot detail has been added to sheet C-2.0
   NOTE 5 - Provide detail of Pump Station "Exterior Cladding" and landscape area
   Exterior cladding to be split-face masonry block construction or city-approved equal. Please refer to L-1.1 for landscape screening details.
   NOTE 6 - Note Preserved Tree Area along frontage.
   Tree preservation along frontage has been updated on sheet C-2.3.

NOTE 7 - Note preservation of existing tree canopy.
Tree canopy preservation has been updated on sheet C-2.3.
NOTE 8 - Provide note that Site Development Plan will conform to CD-3 design standards per ZO 4400.
Note has been added to SDP sheets.

Engineering

1. Subject to construction plans and TIS
   Acknowledged.
2. Show all offsite improvements and provide commitment letter for all traffic improvements and phasing of improvements.
   Offsite improvements are shown. Acknowledged.
3. Provide grading for future ROW stub. Roadbed construction will be required.
   Grading is now shown for future ROW stub.
4. Most of the lots in the development are critical lots. There are significant concerns with grading and drainage with the proposed grading and foundation type. Incorporation of basement product would significantly reduce the severity of most of the slopes.
   Acknowledged. Grading has been updated to reflect "Oklahoma" style slabs. We will continue to work with engineering during the construction plan phase on this issue.
5. Some lots are not configured for slab-on grade foundations.
   Grading has been updated and now shows "Oklahoma" style turn downs. We will continue to work with engineering during the construction plan phase on this issue.

Columbia Power

1. 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.

Columbia Water

1. "A water availability letter was issued on May 20, 2024, it remains valid for 120 days. 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.

Wastewater

1. Columbia needs to confirm the designed incoming invert elevation of the wet well to the pump station so that we can assure future connectivity to the sewer on Dalya Ln. Without this, the sanitary sewer would not be approved as according to the availability letter.
   Acknowledged.
2. Pump Station area should be 50'x50'.
   Area allocated for pump station is now 50’x50’.
3. All sewer improvements including but not limited to off-site improvements, on-site improvements, and pump station and equipment installation shall be completed and functioning to the satisfaction of the Director of the Wastewater Department prior to the filing of any Final Plat with the City of Columbia Municipal Planning Commission, unless specific approval is granted by the Director and a surety of sufficient amount is provided.
   Acknowledged.
4. Note: Pump stations will require a building permit and all other required permits from additional entities. All inspections must be completed and certificates of completion granted before acceptance. Please contact the Wastewater Department for standard design details and equipment.
   Acknowledged.
5. Grinder pump systems are not allowed by City Ordinance.
   Acknowledged.

Maury County E911

1. Plat shows Stone Creek pass labeled as street name. Maury County 911 denied Stone Creek Pass. The denial of Stone Creek Pass has been conveyed multiple times to T-Square. Pippin Street is correct. Fellowship Rd is correct. Haplander Ct is correct.
   These comments appear to address another property – this site does not contain any roads with these names.

ATT

1. ATT TO SERVE
   Acknowledged.

Building

2. No comments
   Acknowledged.

Police

1. No comments provided
   Acknowledged.

Fire

2. No comments
   Acknowledged.

Public Works

1. No comments
   Acknowledged.

Atmos Energy

1. No comments provided
   Acknowledged.

Maury County Schools

1. Riverside Elementary, Whitthorne Middle School, Central High School. The development combined with current neighborhoods and additional approved developments in these zones may require either new construction or realignment of school zones to accommodate new students.
   Acknowledged.

Duck River Electric Membership Corp

1. No comments provided
   Acknowledged.

Maury County Highway Dept.

1. No comments provided
   Acknowledged.

CPWS BB

1. Plan to serve
   Acknowledged.

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 11, 2024

ITEM NO.
24-0239

DESCRIPTION: 200 Oakwood Dr

COMMENTS:

Planning

1. The lead staff person for this case is Planner Austin Brass, AICP; he will prepare the staff report for this item. Please contact abrass@columbiatn.com with questions about the development review process or technical comments. The lead 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. Some elements of the Site Development Plan are included in the Preliminary Plat (e.g. Civic Space). Confirm with City Engineer whether these sheets are necessary in the Preliminary Plat.
4. Please provide greater detail on the composition of the 77' wide Civic Space between JCB and lots 33 – 38. Through lots are prohibited at 4.3.3. Civic Space should be usable and serve a clear function.
5. Please see attached mark up for additional comments. Please list short narrative responses to notes in the mark-up below this comment.
6. The lead staff person for this case is Planner Austin Brass, AICP; Please contact abrass@columbiatn.com with questions about the development review process or technical comments. This email address should be copied on all communication with other city staff.
7. Will this subdivision be phased? if so, please provide phasing plan that will coincide with Final Plat.
8. Provide note that Site Development Plan will conform to CD-3 design standards per ZO 4400.
9. Provide detail of Pump Station "Exterior Cladding" and landscape area.
10. Provide "Lot Typical" that indicates a PUDE for each lot.
11. Note Preserved Tree Area along frontage. See comment 6 in PDF.
12. The intent of the natural area for unstructured recreation that shall consist of Paths and trails, woodlands etc. Please provide trail and element that "activates" this area as a true civic space per the intent of a natural area on page 331 of the Zoning Ordinance. See comment 2 in PDF.

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13. Note preservation of existing tree canopy.
14. Provide inventory of tree preservation plan indicating caliber width of tree and removal of any Specimen trees. Refer to Table 4.3.16.L pg. 294 (Tree Canopy Cover Retention). See Pg. 295 (Protection of Specimen Trees).
15. Provide Civic Space on Lot 15 to ensure a break up within the block face.

Engineering

16. Subject to construction plans and TIS
17. Show all offsite improvements and provide commitment letter for all traffic improvements and phasing of improvements.
18. Provide grading for future ROW stub. Roadbed construction will be required.
19. Most of the lots in the development are critical lots. There are significant concerns with grading and drainage with the proposed grading and foundation type. Incorporation of basement product would significantly reduce the severity of most of the slopes.
20. Some lots are not configured for slab-on grade foundations.

Fire

21. No comments

Columbia Water

22. "A water availability letter was issued on May 20, 2024, it remains valid for 120 days. 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."

Wastewater

23. Columbia needs to confirm the designed incoming invert elevation of the wet well to the pump station so that we can assure future connectivity to the sewer on Dalya Ln. Without this, the sanitary sewer would not be approved as according to the availability letter.
24. Pump Station area should be 50'x50'.
25. All sewer improvements including but not limited to off-site improvements, on-site improvements, and pump station and equipment installation shall be completed and

functioning to the satisfaction of the Director of the Wastewater Department prior to the filing of any Final Plat with the City of Columbia Municipal Planning Commission, unless specific approval is granted by the Director and a surety of sufficient amount is provided.

26. Note: Pump stations will require a building permit and all other required permits from additional entities. All inspections must be completed and certificates of completion granted before acceptance. Please contact the Wastewater Department for standard design details and equipment.
27. Grinder pump systems are not allowed by City Ordinance.

Columbia Power

28. 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.

Building

29. No comments.

Police

30. No comments provided.

Public Works

31. No comments.

City Attorney

32. No comments provided.

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

Atmos Energy

33. No comments provided.

Maury County Schools

34. Riverside Elementary, Whitthorne Middle School, Central High School. The development combined with current neighborhoods and additional approved developments in these zones may require either new construction or realignment of school zones to accommodate new students.

Duck River Electric Membership Corp

35. No comments provided.

Maury County Highway Dept.

36. No comments provided.

Maury County E911

37. Plat shows Stone Creek pass labeled as street name. Maury County 911 denied Stone Creek Pass. The denial of Stone Creek Pass has been conveyed multiple times to T-Square. Pippin Street is correct. Fellowship Rd is correct. Haplander Ct is correct.

ATT

38. ATT TO SERVE.

Resubmittal Guidelines

CITY OF
COLUMBIA
TENNESSEE

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

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 kmccarthy@columbiatn.com or msanders@columbiatn.com 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.

OAKWOOD SUBDIVISION

PRELIMINARY PLAT

City of Columbia, Maury County, Tennessee

Map 89, Parcel 021.00

ENGINEER:
T-SQUARE ENGINEERING
LOUIS SLOYAN, PE
111 SE PARKWAY COURT
FRANKLIN, TN 37064
(615)678-8212

SURVEYOR:
T-SQUARE SURVEYING
111 SE PARKWAY COURT
FRANKLIN, TN 37064
(615)678-8212

DEVELOPER:
SMITH DOUGLAS HOMES
DREW TAYLOR
DTAYLOR@SMITHDOUGLAS.COM

WATER:
COLUMBIA POWER & WATER SYSTEMS
201 PICKENS LANE
COLUMBIA, TN 38401
(931)388-4833

POWER:
COLUMBIA POWER & WATER SYSTEMS
201 PICKENS LANE
COLUMBIA, TN 38401
(931)388-4833

SEWER:
COLUMBIA WASTEWATER
1244 TREATMENT PLANT ROAD
COLUMBIA, TN 38401
(931)560-1001



SITE VICINITY MAP
N.T.S.

Sheet Schedule

C-0.0	COVER SHEET
C-1.0	EXISTING CONDITIONS
C-2.0	PRELIMINARY PLAT
C-2.1	PARCEL TABLES
C-2.2	PARCEL TABLES
C-2.3	RESOURCE PROTECTION PLAN
C-2.4	CIVIC SPACE PLAN
C-2.5	SITE DETAILS
C-2.6	SITE DETAILS
C-3.0	INITIAL EROSION CONTROL PLAN
C-3.1	TEMPORARY EROSION CONTROL PLAN
C-3.2	FINAL EROSION CONTROL PLAN
C-3.3	EROSION CONTROL DETAILS
C-5.0	GRADING PLAN
C-5.1	DRAINAGE PLAN
C-5.2	GRADING & DRAINAGE DETAILS
C-6.0	LIVE OAK DRIVE PLAN AND PROFILE
C-6.1	LIVE OAK DRIVE PLAN AND PROFILE
C-6.2	SPANISH OAK LANE AND PROFILE
C-6.3	SPANISH OAK LANE PLAN AND PROFILE
C-6.4	SCARLET OAK DRIVE PLAN AND PROFILE
C-6.5	LAUREL OAK LANE DRIVE PLAN AND PROFILE
C-6.6	ENGLISH OAK COURT & RED OAK DRIVE PLAN & PROFILE
C-7.0	UTILITY PLAN
C-7.1	FIRE HYDRANT COVERAGE PLAN

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # *47119C0170E* OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD

MICHAEL DAVID MUSGROVE
104 CASCADE LAN
BELL BUCKLE, TN 37020
MAP 89, PARCEL 021.00
DEED BOOK R2814, PAGE 943, R.O.M.C.

APPLICANT

T-SQUARE ENGINEERING
111 SE PARKWAY COURT
FRANKLIN, TN 37064
615.678.8212

REVISIONS

NO.	DATE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

COVER SHEET
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

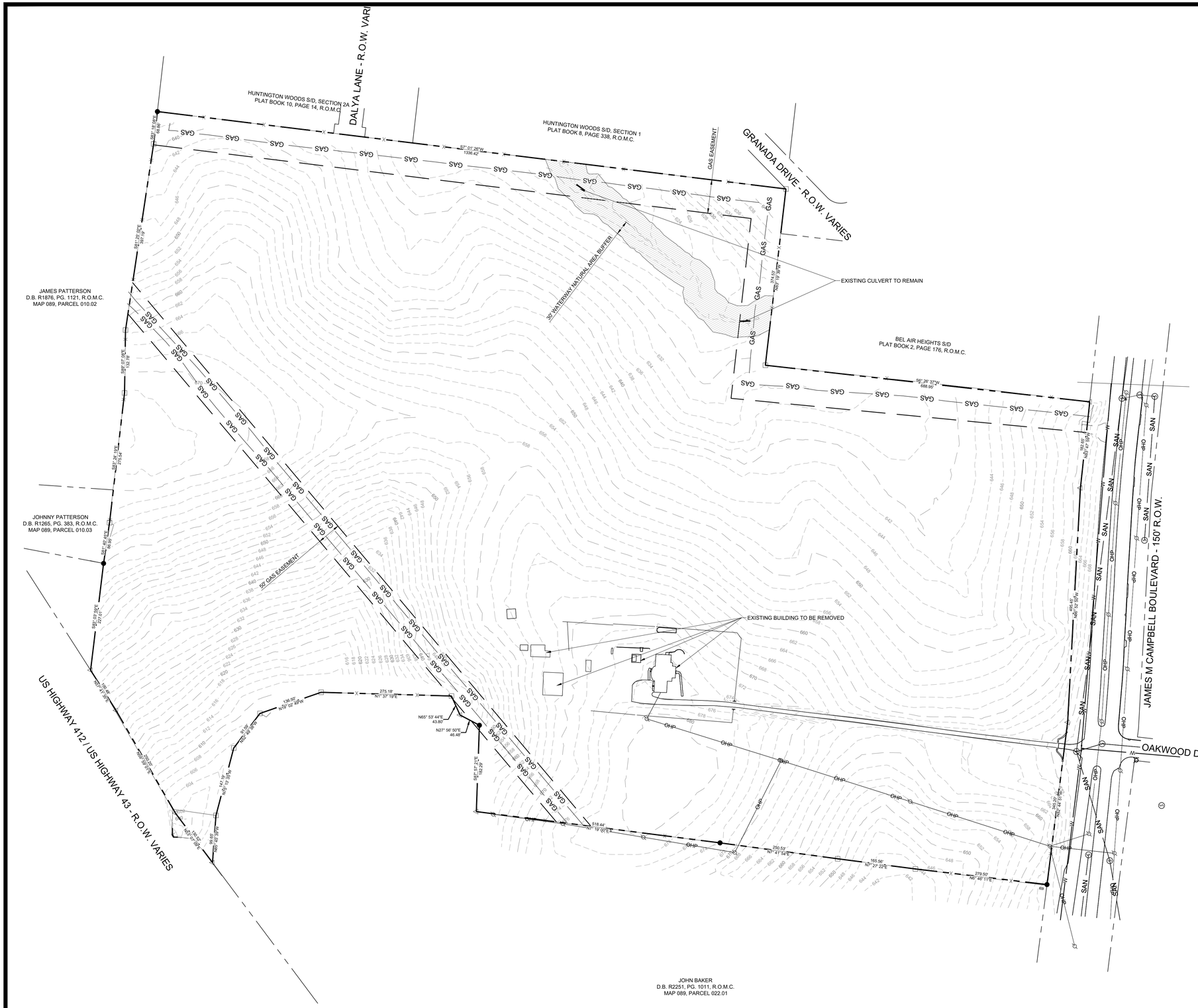
LOUIS T. SLOYAN
REGISTERED ENGINEER
AGRICULTURE
No. 116488
STATE OF TENNESSEE
05/20/2024

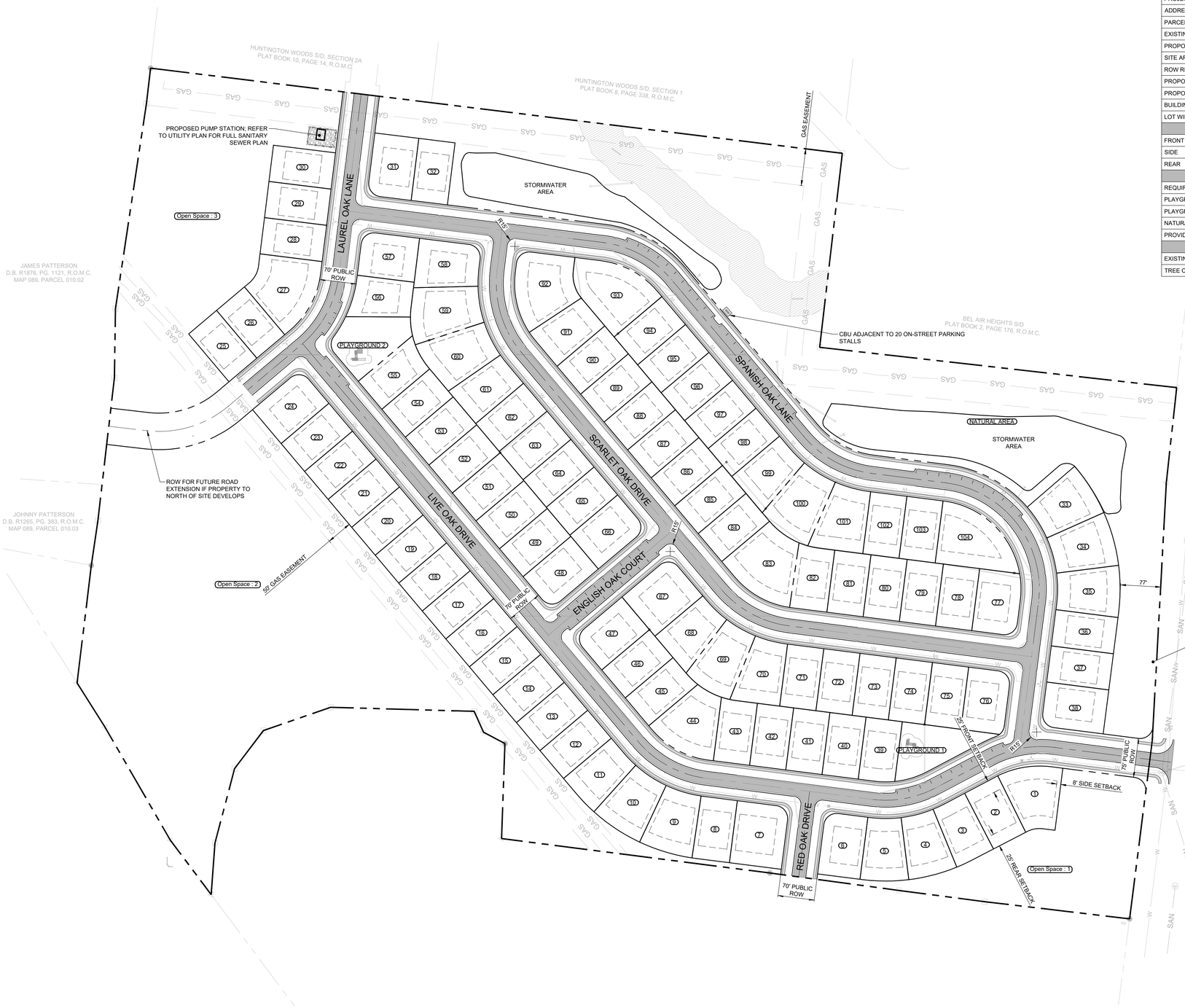
PROJECT
23-0533

SHEET
C-0.0

T-SQUARE ENGINEERING

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DALYA LANE - R.O.W. VARIES
HUNTINGTON WOODS S/D, SECTION 2A
PLAT BOOK 10, PAGE 14, R.O.M.C.
HUNTINGTON WOODS S/D, SECTION 1
PLAT BOOK 8, PAGE 338, R.O.M.C.
GAS EASEMENT
GRANADA DRIVE - R.O.W. VARIES
30' WATERWAY NATURAL AREA BUFFER
EXISTING CULVERT TO REMAIN
BEL AIR HEIGHTS S/D
PLAT BOOK 2, PAGE 176, R.O.M.C.
JAMES PATTERSON
D.B. R1878, PG. 1121, R.O.M.C.
MAP 089, PARCEL 010.02
JOHNNY PATTERSON
D.B. R1265, PG. 383, R.O.M.C.
MAP 089, PARCEL 010.03
50' GAS EASEMENT
US HIGHWAY 412 / US HIGHWAY 43 - R.O.W. VARIES
EXISTING BUILDING TO BE REMOVED
JAMES M CAMPBELL BOULEVARD - 150' R.O.W.
OAKWOOD DRIVE
JOHN BAKER
D.B. R2251, PG. 1011, R.O.M.C.
MAP 089, PARCEL 022.01
GAS
OHP
SAN
W
S
N87° 01' 26"W 1336.42'
S87° 18' 16"E 69.86'
S84° 28' 30"E 370.19'
S88° 07' 06"E 132.78'
S87° 24' 58"E 275.54'
S87° 40' 45"E 86.66'
S85° 07' 39"E 227.01'
S5° 19' 06"W 45.39'
N20° 58' 49"W 136.56'
N41° 37' 19"E 275.18'
N65° 53' 44"E 43.80'
N21° 56' 50"E 46.48'
S5° 19' 06"W 45.39'
S5° 19' 06"W 171.18'
S5° 19' 06"W 70.68'
S5° 19' 06"W 45.39'
S5° 19' 06"W 45.39'
S5° 19' 06"W 70.68'
S5° 19' 06"W 171.18



SITE DATA	
PROJECT NAME	OAKWOOD SUBDIVISION
PROJECT NUMBER	23-0533
ADDRESS	200 OAKWOOD DRIVE
PARCEL ID	MAP 089 PARCEL 021.00
EXISTING ZONING	CD - 3
PROPOSED ZONING	CD - 3
SITE AREA	56.73 AC
ROW RESERVATION	N/A
PROPOSED LOTS	106
PROPOSED DENSITY	1.89 UNITS/ACRE
BUILDING HEIGHT	35' MAXIMUM
LOT WIDTH	65' MINIMUM
SETBACKS	
FRONT	25' (PRIMARY); 20' (SECONDARY)
SIDE	8'
REAR	25'
CIVIC SPACE	
REQUIRED CIVIC SPACE	2.84 AC (5%)
PLAYGROUND 1	0.27 AC
PLAYGROUND 2	0.28 AC
NATURAL AREA	8.93 AC
PROVIDED CIVIC SPACE	9.48 AC (16.7%)
TREE CANOPY RETENTION	
EXISTING TREE CANOPY	16.48 AC
TREE CANOPY RETAINED	10.69 AC (7.91 AC REQUIRED)

N

GRAPHIC SCALE
(IN FEET)
100 0 50 100 200
SCALE: 1" = 100'

LEGEND

- PROPOSED LOT LINES
- (00) PROPOSED LOT NUMBER
- PROPOSED BUILDING SETBACK
- PROPOSED ACCESS EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED UTILITY EASEMENT
- W PROPOSED WATER LINE
- PROPOSED WATER SERVICE
- PROPOSED FIRE HYDRANT ASSEMBLY
- PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY SERVICE
- PROPOSED STORM INLET
- PROPOSED HEADWALL

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

REVISIONS

NO.	DATE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

PRELIMINARY PLAT

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

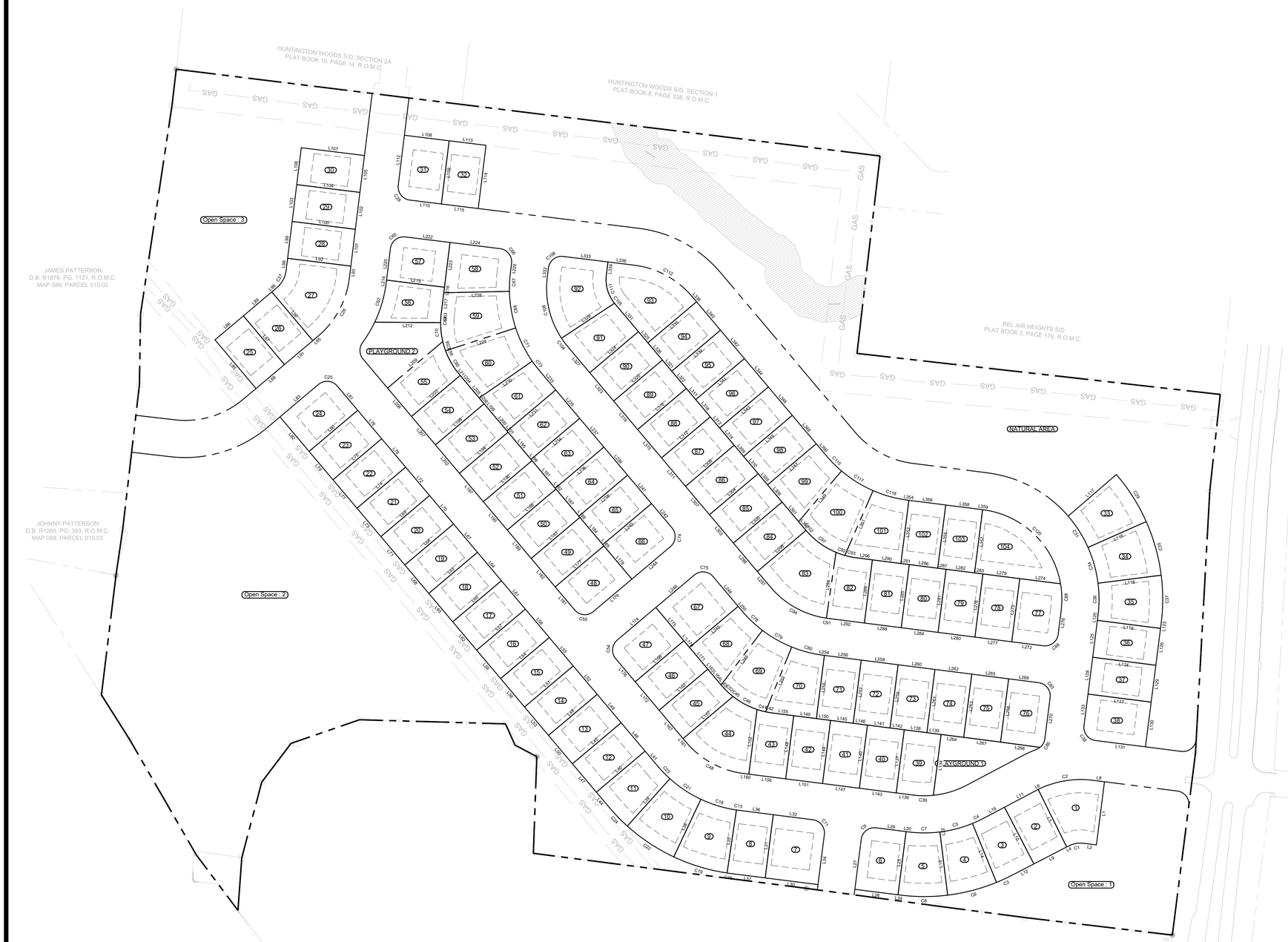
LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 115487
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

SHEET
C-2.0

T-SQUARE ENGINEERING

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GRAPHIC SCALE

(IN FEET)

100 0 50 100 200

SCALE: 1" = 100'

Parcel Line Table		
Line #	Length	Direction
L1	120.00	N82° 44' 50.67"W
L2	23.91	N7° 15' 09.33"E
L4	3.46	N27° 23' 56.67"W
L5	120.89	N63° 40' 38.29"E
L6	3.05	S27° 49' 10.04"E
L8	21.86	S7° 15' 09.33"W
L9	69.53	N27° 23' 56.67"W
L10	120.34	N62° 36' 03.33"E
L11	71.80	S27° 49' 10.04"E
L12	46.05	N27° 23' 56.67"W
L14	120.00	N67° 47' 05.30"E
L16	44.30	S27° 49' 10.04"E
L19	120.00	N82° 57' 50.01"E
L20	4.10	S7° 15' 09.33"W
L22	0.00	S82° 57' 49.99"W
L24	4.12	N7° 15' 09.33"E
L25	120.00	S82° 44' 50.67"E
L26	82.00	N7° 15' 09.33"E
L27	95.00	S82° 44' 50.67"E
L29	57.00	S7° 15' 09.33"W
L30	100.28	N7° 15' 09.33"E
L31	120.00	S82° 44' 50.67"E
L32	75.28	S7° 15' 09.33"W
L34	95.00	N82° 44' 50.67"W
L35	120.00	S81° 35' 08.26"E
L36	65.13	S7° 15' 09.33"W

Parcel Line Table		
Line #	Length	Direction
L37	65.13	N7° 15' 09.33"E
L38	120.00	S64° 48' 52.39"E
L39	120.00	S48° 02' 36.51"E
L40	120.00	S40° 08' 09.18"E
L41	36.94	S49° 51' 50.82"W
L44	36.94	N49° 51' 50.82"E
L45	120.00	S40° 08' 09.18"E
L46	70.00	S49° 51' 50.82"W
L47	70.00	N49° 51' 50.82"E
L48	120.00	S40° 08' 09.18"E
L49	70.00	S49° 51' 50.82"W
L50	70.00	N49° 51' 50.82"E
L51	120.00	S40° 08' 09.18"E
L52	70.00	S49° 51' 50.82"W
L53	70.00	N49° 51' 50.82"E
L54	120.00	S40° 08' 09.18"E
L55	70.00	S49° 51' 50.82"W
L56	70.00	N49° 51' 50.82"E
L57	120.00	S40° 08' 09.18"E
L58	70.00	S49° 51' 50.82"W
L59	70.00	N49° 51' 50.82"E
L60	120.00	S40° 08' 09.18"E
L61	70.00	S49° 51' 50.82"W
L62	70.00	N49° 51' 50.82"E
L63	120.00	S40° 08' 09.18"E
L64	70.00	S49° 51' 50.82"W

Parcel Line Table		
Line #	Length	Direction
L65	70.00	N49° 51' 50.82"E
L66	120.00	S40° 08' 09.18"E
L67	70.00	S49° 51' 50.82"W
L68	70.00	N49° 51' 50.82"E
L69	120.00	S40° 08' 09.18"E
L70	70.00	S49° 51' 50.82"W
L71	70.00	N49° 51' 50.82"E
L72	70.00	S49° 51' 50.82"W
L73	70.00	N49° 51' 50.82"E
L74	120.00	S40° 08' 09.18"E
L75	120.00	S40° 08' 09.18"E
L76	70.00	S49° 51' 50.82"W
L77	70.00	N49° 51' 50.82"E
L78	70.00	S49° 51' 50.82"W
L79	70.00	N49° 51' 50.82"E
L80	120.00	S40° 08' 09.18"E
L81	60.00	S49° 51' 50.82"W
L82	85.00	N49° 51' 50.82"E
L83	95.00	S40° 08' 09.18"E
L85	120.00	N49° 51' 50.82"E
L86	70.00	S40° 08' 09.18"E
L87	120.00	S49° 51' 50.82"W
L88	70.00	N40° 08' 09.18"W
L89	70.00	S40° 08' 09.18"E
L90	120.00	S49° 51' 50.82"W
L91	70.00	N40° 08' 09.18"W

Parcel Line Table		
Line #	Length	Direction
L92	120.00	S7° 02' 11.90"W
L93	23.27	N82° 57' 48.10"W
L95	12.58	N40° 08' 09.18"W
L96	12.58	S40° 08' 09.18"E
L98	23.27	S82° 57' 48.10"E
L99	70.00	S82° 57' 48.10"E
L100	120.00	S7° 02' 11.90"W
L101	70.00	N82° 57' 48.10"W
L102	70.00	N82° 57' 48.10"W
L103	70.00	S82° 57' 48.10"E
L104	120.00	S7° 02' 11.90"W
L105	70.00	N82° 57' 48.10"W
L106	70.00	S82° 57' 48.10"E
L107	120.00	S7° 02' 11.90"W
L108	84.98	S7° 01' 39.87"W
L109	120.00	N82° 58' 20.13"W
L110	60.00	N7° 01' 39.87"E
L112	95.00	S82° 57' 48.10"E
L113	70.00	S7° 01' 39.87"W
L114	120.00	N82° 58' 20.13"W
L115	70.00	N7° 01' 39.87"E
L116	120.00	N23° 59' 38.92"W
L117	120.00	S40° 45' 54.80"E
L118	120.00	N7° 13' 23.04"W
L119	120.00	N7° 15' 09.33"E
L120	9.59	S82° 44' 50.67"E

Parcel Line Table		
Line #	Length	Direction
L123	9.59	N82° 44' 50.67"W
L124	120.00	N7° 15' 09.33"E
L125	70.00	S82° 44' 50.67"E
L126	70.00	N82° 44' 50.67"W
L127	120.00	N7° 15' 09.33"E
L128	70.00	S82° 44' 50.67"E
L129	70.00	N82° 44' 50.67"W
L130	85.00	N82° 44' 50.67"W
L131	95.00	N7° 15' 09.33"E
L133	60.00	S82° 44' 50.67"E
L134	115.63	N82° 44' 50.67"W
L136	31.70	N7° 15' 09.33"E
L137	120.00	S82° 44' 50.67"E
L138	43.01	S7° 15' 09.33"W
L139	26.99	S7° 15' 09.33"W
L140	120.00	S82° 44' 50.67"E
L141	43.01	S7° 15' 09.33"W
L142	26.99	S7° 15' 09.33"W
L143	70.00	N7° 15' 09.33"E
L144	120.00	S82° 44' 50.67"E
L145	43.01	S7° 15' 09.33"W
L146	26.99	S7° 15' 09.33"W
L147	70.00	N7° 15' 09.33"E
L148	120.00	S82° 44' 50.67"E
L149	43.01	S7° 15' 09.33"W
L150	26.99	S7° 15' 09.33"W

Parcel Line Table		
Line #	Length	Direction
L151	70.00	N7° 15' 09.33"E
L152	122.86	S82° 44' 50.67"E
L155	40.83	S7° 15' 09.33"W
L156	70.00	N7° 15' 09.33"E
L157	123.08	S40° 08' 09.18"E
L160	9.83	N7° 15' 09.33"E
L161	8.78	N49° 51' 50.82"E
L162	120.00	S40° 08' 09.18"E
L163	2.35	S49° 51' 50.82"W
L164	36.49	S49° 51' 50.82"W
L165	0.94	S49° 51' 50.82"W
L167	70.00	N49° 51' 50.82"E
L168	120.00	S40° 08' 09.18"E
L169	2.35	S49° 51' 50.82"W
L170	13.97	S49° 51' 50.82"W
L171	53.68	S49° 51' 50.82"W
L172	70.00	N49° 51' 50.82"E
L174	95.00	S40° 08' 09.18"E
L175	82.00	S49° 51' 50.82"W
L176	57.00	N49° 51' 50.82"E
L177	120.00	S40° 08' 09.18"E
L178	82.00	S49° 51' 50.82"W
L179	95.00	N40° 08' 09.18"W
L181	57.00	N49° 51' 50.82"E
L182	70.00	N49° 51' 50.82"E
L183	120.00	S40° 08' 09.18"E

FLOOD NOTE

THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.

APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

T-SQUARE ENGINEERING

REVISIONS

NO.	DATE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

OAKWOOD DRIVE SUBDIVISION

PARCEL TABLES

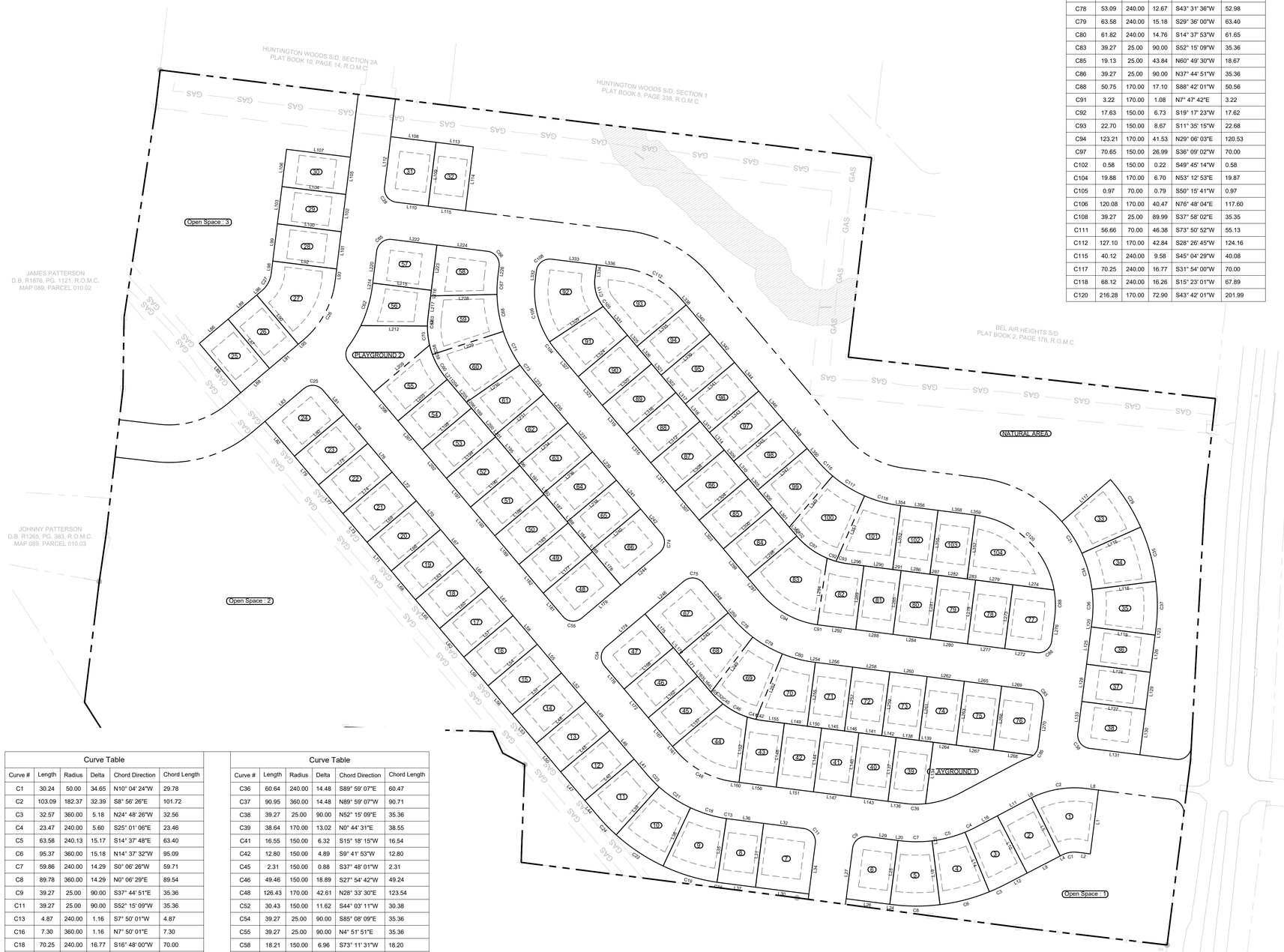
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
No. 115485
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

SHEET
C-2.1

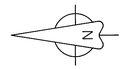
P:\Projects\2023\23-0533 (Oakwood Dr. - Drew Taylor)\Production\23-0533 1 - Site Plan Prelim Plat.dwg, 5/20/2024 1:32:08 PM



Curve Table					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C75	39.27	25.00	90.00	S4° 51' 51"W	35.36
C78	53.09	240.00	12.67	S43° 31' 36"W	52.98
C79	63.58	240.00	15.18	S29° 36' 00"W	63.40
C80	61.82	240.00	14.76	S14° 37' 53"W	61.65
C83	39.27	25.00	90.00	S52° 15' 09"W	35.36
C85	19.13	25.00	43.84	N60° 49' 30"W	18.67
C86	39.27	25.00	90.00	N37° 44' 51"W	35.36
C88	50.75	170.00	17.10	S88° 42' 01"W	50.56
C91	3.22	170.00	1.08	N7° 47' 42"E	3.22
C92	17.63	150.00	6.73	S19° 17' 23"W	17.62
C93	22.70	150.00	8.67	S11° 35' 15"W	22.68
C94	123.21	170.00	41.53	N29° 06' 03"E	120.53
C97	70.65	150.00	26.99	S36° 09' 02"W	70.00
C102	0.58	150.00	0.22	S49° 45' 14"W	0.58
C104	19.88	170.00	6.70	N53° 12' 53"E	19.87
C105	0.97	70.00	0.79	S50° 15' 41"W	0.97
C106	120.08	170.00	40.47	N76° 48' 04"E	117.60
C108	39.27	25.00	89.99	S37° 58' 02"E	35.35
C111	56.66	70.00	46.38	S73° 50' 52"W	55.13
C112	127.10	170.00	42.84	S28° 26' 45"W	124.16
C115	40.12	240.00	9.58	S45° 04' 29"W	40.08
C117	70.25	240.00	16.77	S31° 54' 00"W	70.00
C118	68.12	240.00	16.26	S15° 23' 01"W	67.89
C120	216.28	170.00	72.90	S43° 42' 01"W	201.99

Curve Table					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C1	30.24	50.00	34.65	N10° 04' 24"W	29.78
C2	103.09	182.37	32.39	S8° 56' 26"E	101.72
C3	32.57	360.00	5.18	N24° 48' 26"W	32.56
C4	23.47	240.00	5.60	S25° 01' 06"E	23.46
C5	63.58	240.13	15.17	S14° 37' 48"E	63.40
C6	95.37	360.00	15.18	N14° 37' 32"W	95.09
C7	59.86	240.00	14.29	S0° 06' 26"W	59.71
C8	89.78	360.00	14.29	N0° 06' 29"E	89.54
C9	39.27	25.00	90.00	S37° 44' 51"E	35.36
C11	39.27	25.00	90.00	S52° 15' 09"W	35.36
C13	4.87	240.00	1.16	S7° 50' 01"W	4.87
C16	7.30	360.00	1.16	N7° 50' 01"E	7.30
C18	70.25	240.00	16.77	S16° 48' 00"W	70.00
C19	105.38	360.00	16.77	N16° 48' 00"E	105.00
C21	70.25	240.00	16.77	S33° 34' 16"W	70.00
C22	105.38	360.00	16.77	N33° 34' 16"E	105.00
C23	33.12	240.00	7.91	S45° 54' 37"W	33.10
C24	49.68	360.00	7.91	N45° 54' 37"E	49.65
C25	39.27	25.00	90.00	S4° 51' 51"W	35.36
C26	127.07	170.00	42.83	N61° 32' 59"W	124.13
C27	37.37	50.00	42.83	S61° 32' 59"E	36.51
C28	39.27	25.00	90.01	N52° 01' 56"E	35.36
C29	105.38	360.00	16.77	S57° 37' 13"W	105.00
C31	70.25	240.00	16.77	N57° 37' 13"E	70.00
C34	70.25	240.00	16.77	N74° 23' 29"E	70.00
C35	105.38	360.00	16.77	S74° 23' 29"W	105.00

Curve Table					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C36	60.64	240.00	14.48	S89° 59' 07"E	60.47
C37	90.95	360.00	14.48	N89° 59' 07"W	90.71
C38	39.27	25.00	90.00	N52° 15' 09"E	35.36
C39	38.64	170.00	13.02	N0° 44' 31"E	38.55
C41	16.55	150.00	6.32	S15° 18' 15"W	16.54
C42	12.80	150.00	4.89	S9° 41' 53"W	12.80
C45	2.31	150.00	0.88	S37° 48' 01"W	2.31
C46	49.46	150.00	18.89	S27° 54' 42"W	49.24
C48	126.43	170.00	42.61	N28° 33' 30"E	123.54
C52	30.43	150.00	11.62	S44° 03' 11"W	30.38
C54	39.27	25.00	90.00	S85° 08' 09"E	35.36
C55	39.27	25.00	90.00	N4° 51' 51"E	35.36
C58	18.21	150.00	6.96	S73° 11' 31"W	18.20
C59	10.13	150.00	3.87	S67° 46' 44"W	10.13
C60	41.83	150.00	15.98	S57° 51' 14"W	41.70
C62	77.41	240.00	18.48	S73° 43' 23"E	77.08
C63	11.01	150.00	4.21	N85° 04' 00"W	11.01
C64	6.41	150.00	2.45	N88° 23' 41"W	6.41
C65	39.27	25.00	89.99	S37° 58' 04"E	35.35
C66	39.27	25.00	90.01	S52° 01' 56"W	35.36
C67	34.74	240.00	8.29	N87° 06' 36"W	34.71
C68	70.25	240.00	16.77	S80° 21' 28"W	70.00
C70	35.89	150.00	13.71	N83° 31' 30"E	35.81
C71	70.25	240.00	16.77	S63° 35' 13"W	70.00
C73	22.36	240.00	5.34	S52° 31' 58"W	22.35
C74	39.27	25.00	90.00	N85° 08' 09"W	35.36



GRAPHIC SCALE
(IN FEET)
100 0 50 100 200
SCALE: 1" = 100'

Parcel Line Table		
Line #	Length	Direction
L184	67.00	S49° 51' 50.82"W
L185	3.00	S49° 51' 50.82"W
L186	120.00	S40° 08' 09.18"E
L187	67.00	S49° 51' 50.82"W
L188	3.00	S49° 51' 50.82"W
L189	70.00	N49° 51' 50.82"E
L190	120.00	S40° 08' 09.18"E
L191	67.90	S49° 51' 50.82"W
L192	2.10	S49° 51' 50.82"W
L193	70.00	N49° 51' 50.82"E
L194	120.00	S40° 08' 09.18"E
L195	67.00	S49° 51' 50.82"W
L196	3.00	S49° 51' 50.82"W
L197	70.00	N49° 51' 50.82"E
L198	120.00	S40° 08' 09.18"E
L199	26.35	S49° 51' 50.82"W
L200	40.65	S49° 51' 50.82"W
L201	3.00	S49° 51' 50.82"W
L202	70.00	N49° 51' 50.82"E
L203	120.00	S40° 08' 09.18"E
L204	26.35	S49° 51' 50.82"W
L205	29.35	S49° 51' 50.82"W
L206	14.30	S49° 51' 50.82"W
L207	70.00	N49° 51' 50.82"E
L208	70.00	N49° 51' 50.82"E
L209	136.12	S40° 08' 09.18"E

Parcel Line Table		
Line #	Length	Direction
L211	2.36	S49° 51' 50.82"W
L212	124.22	N0° 22' 48.55"E
L214	5.40	S82° 57' 48.10"E
L215	110.01	S7° 01' 39.87"W
L216	10.49	N82° 58' 10.59"W
L217	39.21	N82° 56' 53.33"W
L220	60.00	S82° 57' 48.10"E
L222	85.00	S7° 01' 39.87"W
L223	85.00	N82° 58' 10.59"W
L224	95.00	S7° 01' 39.87"W
L226	18.04	N82° 57' 48.10"W
L228	123.79	N1° 15' 23.61"W
L229	138.95	N18° 01' 39.49"W
L230	121.57	N34° 47' 55.36"W
L231	120.00	N40° 08' 09.18"W
L233	47.67	S49° 51' 50.82"W
L234	120.00	N40° 08' 09.18"W
L235	70.00	S49° 51' 50.82"W
L236	120.00	N40° 08' 09.18"W
L237	70.90	S49° 51' 50.82"W
L238	120.00	N40° 08' 09.18"W
L239	69.10	S49° 51' 50.82"W
L240	120.00	N40° 08' 09.18"W
L241	70.00	S49° 51' 50.82"W
L242	60.00	S49° 51' 50.82"W
L244	95.00	N40° 08' 09.18"W

Parcel Line Table		
Line #	Length	Direction
L245	120.00	N40° 08' 09.18"W
L246	95.00	S40° 08' 09.18"E
L248	73.32	S49° 51' 50.82"W
L249	128.99	N52° 48' 37.92"W
L250	11.56	S49° 51' 50.82"W
L252	131.72	N67° 59' 22.62"W
L254	1.95	S7° 15' 09.32"W
L255	120.00	N82° 44' 50.67"W
L256	70.00	S7° 15' 09.33"W
L257	120.00	N82° 44' 50.67"W
L258	70.00	S7° 15' 09.33"W
L259	120.00	N82° 44' 50.67"W
L260	70.00	S7° 15' 09.33"W
L261	120.00	N82° 44' 50.67"W
L262	70.00	S7° 15' 09.33"W
L263	120.00	N82° 44' 50.67"W
L264	43.01	N7° 15' 09.33"E
L265	70.00	S7° 15' 09.33"W
L266	120.21	N82° 44' 50.67"W
L267	70.00	N7° 25' 27.71"E
L268	75.03	N7° 34' 08.45"E
L269	57.00	S7° 15' 09.33"W
L270	78.31	N82° 44' 50.67"W
L272	60.00	N7° 15' 09.33"E
L273	120.00	S82° 44' 50.67"E
L274	77.48	S7° 15' 09.33"W

Parcel Line Table		
Line #	Length	Direction
L276	45.00	N82° 44' 50.67"W
L277	70.00	N7° 15' 09.33"E
L278	120.00	S82° 44' 50.67"E
L279	70.00	S7° 15' 09.33"W
L280	70.00	N7° 15' 09.33"E
L281	120.00	S82° 44' 50.67"E
L282	54.08	S7° 15' 09.33"W
L283	15.92	S7° 15' 09.33"W
L284	70.00	N7° 15' 09.33"E
L285	120.00	S82° 44' 50.67"E
L286	54.08	S7° 15' 09.33"W
L287	15.92	S7° 15' 09.33"W
L288	70.00	N7° 15' 09.33"E
L289	120.00	S82° 44' 50.67"E
L290	54.08	S7° 15' 09.33"W
L291	15.92	S7° 15' 09.33"W
L292	68.95	N7° 15' 09.33"E
L294	125.38	S81° 39' 45.78"E
L296	29.95	S7° 15' 09.33"W
L297	38.42	N49° 51' 50.82"E
L298	120.00	S40° 08' 09.18"E
L299	70.00	N49° 51' 50.82"E
L300	120.00	S40° 08' 09.18"E
L301	48.27	S49° 51' 50.82"W
L302	21.15	S49° 51' 50.82"W
L303	70.00	N49° 51' 50.82"E

Parcel Line Table		
Line #	Length	Direction
L304	120.00	S40° 08' 09.18"E
L305	27.54	S49° 51' 50.82"W
L306	42.46	S49° 51' 50.82"W
L307	70.00	N49° 51' 50.82"E
L308	120.00	S40° 08' 09.18"E
L309	27.54	S49° 51' 50.82"W
L310	42.46	S49° 51' 50.82"W
L311	70.00	N49° 51' 50.82"E
L312	120.00	S40° 08' 09.18"E
L313	27.54	S49° 51' 50.82"W
L314	42.46	S49° 51' 50.82"W
L315	70.00	N49° 51' 50.82"E
L316	120.00	S40° 08' 09.18"E
L317	27.54	S49° 51' 50.82"W
L318	42.46	S49° 51' 50.82"W
L319	70.00	N49° 51' 50.82"E
L320	120.00	S40° 08' 09.18"E
L321	27.54	S49° 51' 50.82"W
L322	42.46	S49° 51' 50.82"W
L323	70.00	N49° 51' 50.82"E
L324	120.00	S40° 08' 09.18"E
L325	27.54	S49° 51' 50.82"W
L326	42.46	S49° 51' 50.82"W
L327	64.13	N49° 51' 50.82"E
L329	119.66	S33° 26' 04.79"E
L331	69.03	S49° 51' 50.82"W

Parcel Line Table		
Line #	Length	Direction
L332	18.06	S82° 57' 48.10"E
L333	85.00	S7° 01' 43.24"W
L334	25.07	N82° 57' 48.10"W
L335	120.00	N40° 08' 09.18"W
L336	49.80	S7° 01' 33.44"W
L338	12.84	S49° 51' 50.82"W
L339	120.00	N40° 08' 09.18"W
L340	70.00	S49° 51' 50.82"W
L341	120.00	N40° 08' 09.18"W
L342	70.00	S49° 51' 50.82"W
L343	120.00	N40° 08' 09.18"W
L344	70.00	S49° 51' 50.82"W
L345	120.00	N40° 08' 09.18"W
L346	70.00	S49° 51' 50.82"W
L347	120.00	N40° 08' 09.18"W
L348	70.00	S49° 51' 50.82"W
L349	125.09	N49° 42' 52.37"W
L350	29.98	S49° 51' 50.82"W
L351	133.22	N66° 29' 08.24"W
L352	120.00	N82° 44' 50.67"W
L354	2.13	S7° 15' 09.33"W
L355	120.00	N82° 44' 50.67"W
L356	70.00	S7° 15' 09.33"W
L357	120.00	N82° 44' 50.67"W
L358	70.00	S7° 15' 09.33"W
L359	0.92	S7° 15' 09.33"W

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE
104 CASCADE LAN
BELL BUCKLE, TN 37020
MAP 89, PARCEL 021.00
DEED BOOK R2814, PAGE 943, R.O.M.C.

APPLICANT
T-SQUARE ENGINEERING
111 SE PARKWAY COURT
FRANKLIN, TN 37064
615.678.8212

T-SQUARE ENGINEERING

REVISIONS

NO.	DATE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

OAKWOOD DRIVE SUBDIVISION

PARCEL TABLES

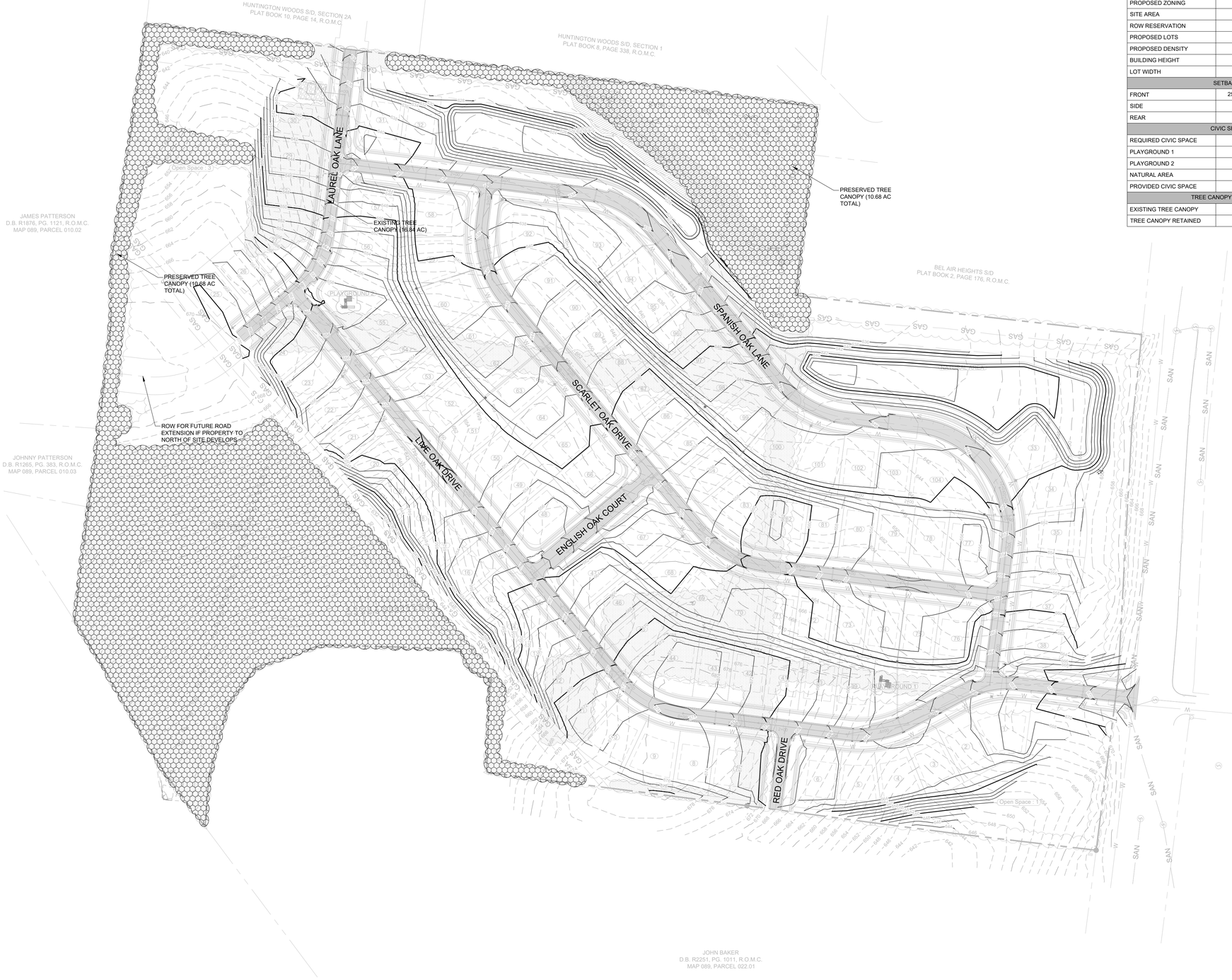
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
No. 115485
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

SHEET
C-2.2

P:\Projects\2023\23-0533 (Oakwood Dr. - Drew Taylor)\Production\23-0533 1 - Site Plan Prelim Plat.dwg, 5/20/2024 1:32:20 PM



SITE DATA	
PROJECT NAME	OAKWOOD SUBDIVISION
PROJECT NUMBER	23-0533
ADDRESS	200 OAKWOOD DRIVE
PARCEL ID	MAP 089 PARCEL 021.00
EXISTING ZONING	CD - 3
PROPOSED ZONING	CD - 3
SITE AREA	56.73 AC
ROW RESERVATION	N/A
PROPOSED LOTS	106
PROPOSED DENSITY	1.89 UNITS/ACRE
BUILDING HEIGHT	35' MAXIMUM
LOT WIDTH	65' MINIMUM
SETBACKS	
FRONT	25' (PRIMARY); 20' (SECONDARY)
SIDE	8'
REAR	25'
CIVIC SPACE	
REQUIRED CIVIC SPACE	2.84 AC (5%)
PLAYGROUND 1	0.27 AC
PLAYGROUND 2	0.28 AC
NATURAL AREA	8.93 AC
PROVIDED CIVIC SPACE	9.48 AC (16.7%)
TREE CANOPY RETENTION	
EXISTING TREE CANOPY	16.48 AC
TREE CANOPY RETAINED	10.69 AC (7.91 AC REQUIRED)

N

GRAPHIC SCALE
(IN FEET)
100 0 50 100 200
SCALE: 1" = 100'

LEGEND

- PROPOSED LOT LINES
- PROPOSED LOT NUMBER
- PROPOSED BUILDING SETBACK
- PROPOSED ACCESS EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED UTILITY EASEMENT
- PROPOSED WATER LINE
- PROPOSED WATER SERVICE
- PROPOSED FIRE HYDRANT ASSEMBLY
- PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY SERVICE
- PROPOSED STORM INLET
- PROPOSED HEADWALL

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

T-SQUARE ENGINEERING

REVISIONS

NO.	DATE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

RESOURCE PROTECTION PLAN

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
115481
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

SHEET
C-2.3

P:\Projects\2023\23-0533 (Oakwood Dr. - Drew Taylor)\Production\23-0533 2 - Resource Protection.dwg, 5/20/2024 1:32:45 PM



SITE DATA	
PROJECT NAME	OAKWOOD SUBDIVISION
PROJECT NUMBER	23-0533
ADDRESS	200 OAKWOOD DRIVE
PARCEL ID	MAP 089 PARCEL 021.00
EXISTING ZONING	CD - 3
PROPOSED ZONING	CD - 3
SITE AREA	56.73 AC
ROW RESERVATION	N/A
PROPOSED LOTS	106
PROPOSED DENSITY	1.89 UNITS/ACRE
BUILDING HEIGHT	35' MAXIMUM
LOT WIDTH	65' MINIMUM
SETBACKS	
FRONT	25' (PRIMARY); 20' (SECONDARY)
SIDE	8'
REAR	25'
CIVIC SPACE	
REQUIRED CIVIC SPACE	2.84 AC (5%)
PLAYGROUND 1	0.27 AC
PLAYGROUND 2	0.28 AC
NATURAL AREA	8.93 AC
PROVIDED CIVIC SPACE	9.48 AC (16.7%)
TREE CANOPY RETENTION	
EXISTING TREE CANOPY	16.48 AC
TREE CANOPY RETAINED	10.69 AC (7.91 AC REQUIRED)

N

GRAPHIC SCALE
(IN FEET)
100 0 50 100 200
SCALE: 1" = 100'

CIVIC PLAN

LEGEND
- PROPOSED LOT LINES
- PROPOSED LOT NUMBER
- WATER NATURAL AREA BUFFER
- DESIGNATED CIVIC SPACE

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # *47119C0170E* OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

T-SQUARE ENGINEERING

REVISIONS

NO.	DATE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

OAKWOOD DRIVE SUBDIVISION

CIVIC SPACE PLAN

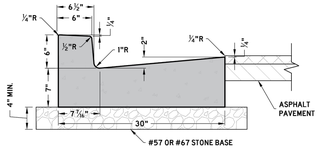
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

LOUIS T. SLOYAN
REGISTERED ENGINEER
AGRICULTURE
No. 116488
STATE OF TENNESSEE
05/20/2024

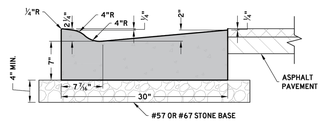
PROJECT
23-0533

SHEET
C-2.4

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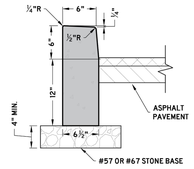
6-30 CONCRETE CURB AND GUTTER



LOWERED CONCRETE CURB AND GUTTER

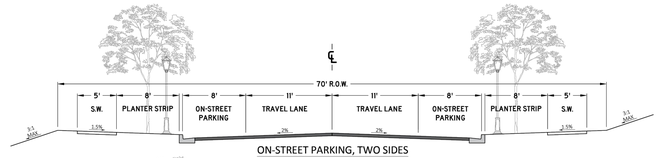
NOTES:

1. BASED ON TDOT STANDARD DRAWING RP-VC-11
2. ONLY PERMITTED IN APPLICABLE ROADWAY SECTIONS
3. 4" MIN. THICK #57 OR # 67 STONE BASE
4. CLASS A 3000 PSI CONCRETE
5. 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)
   - 5.7. POLYPROPYLENE FOAM JOINT FILLER (ASTM D8139)
6. CONTRACTION JOINTS SHALL BE AS FOLLOWS:
   - 6.1. A MAXIMUM SPACING OF 10 FEET
   - 6.2. A MINIMUM SPACING OF 6 FEET
   - 6.3. 1/4 INCH DEPTH, EITHER SAWCUT OR HAND GROOVED.
7. ELEMENTS OF THIS DETAIL MAY BE ALTERED AND APPROVED BY THE CITY ENGINEER

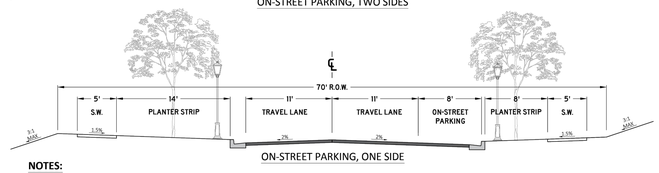


VERTICAL POST CURB

CITY OF COLUMBIA DEVELOPMENT SERVICES DEPARTMENT ENGINEERING DIVISION	STANDARD DETAILS	CURB AND GUTTER AND POST CURB (NTS)	DATE 6/9/2022	SD-01



ON-STREET PARKING, TWO SIDES

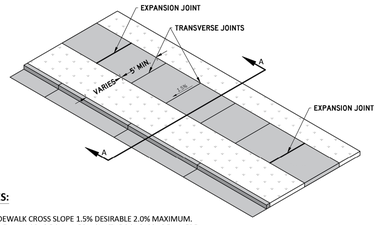


ON-STREET PARKING, ONE SIDE

NOTES:

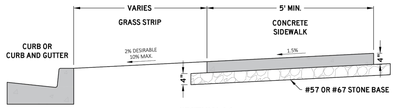
1. ONLY PERMITTED WITHIN THE APPLICABLE ZONING DISTRICTS.
2. ONLY PERMITTED ON MINOR LOCAL AND MAJOR LOCAL ROADWAY CLASSIFICATIONS.
3. PAVEMENT SECTION SHALL FOLLOW APPLICABLE ROADWAY CLASSIFICATION.
4. CURB AND GUTTER, SEE SD-01
5. TREES SHALL BE CENTERED WITHIN THE PLANTING STRIP, OFFSET A MINIMUM OF 20 FEET ALONG THE CENTERLINE OF THE ROAD FROM ANY STREET LIGHTING.
6. DECORATIVE LIGHT BASES SHALL BE BETWEEN 18" AND 24" BEHIND THE BACK OF CURB.
7. ADDITIONAL RIGHT OF WAY MAY BE REQUIRED.
8. DIMENSIONS REFLECT A MINIMUM STANDARD.
9. ELEMENTS OF THIS DETAIL MAY BE ALTERED AND APPROVED BY THE CITY ENGINEER.

CITY OF COLUMBIA DEVELOPMENT SERVICES DEPARTMENT ENGINEERING DIVISION	STANDARD DETAILS	CHARACTER DISTRICT STREET URBAN NEIGHBORHOOD (NTS)	DATE 6/9/2022	DS-03



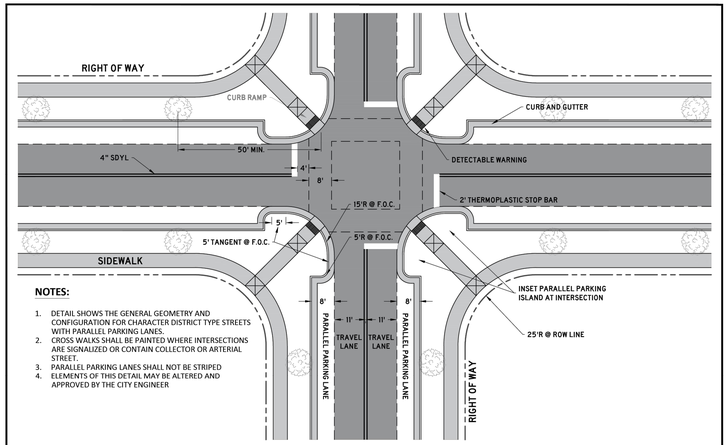
NOTES:

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. 4" MIN. THICKNESS CLASS A 3000 PSI CONCRETE WITH FIBER REINFORCEMENT, BROOM FINISHED.
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 PRACTICABLE. ON SIDEWALKS GREATER THAN 8 FEET IN 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



SECTION AA

CITY OF COLUMBIA DEVELOPMENT SERVICES DEPARTMENT ENGINEERING DIVISION	STANDARD DETAILS	CONCRETE SIDEWALK (NTS)	DATE 6/9/2022	SD-10



NOTES:

1. DETAIL SHOWS THE GENERAL GEOMETRY AND CONFIGURATION FOR CHARACTER DISTRICT TYPE STREETS WITH PARALLEL PARKING LANES.
2. CROSS WALKS SHALL BE PAINTED WHERE INTERSECTIONS ARE SIGNALIZED OR CONTAIN COLLECTOR OR ARTERIAL STREET.
3. PARALLEL PARKING LANES SHALL NOT BE STRIPED
4. ELEMENTS OF THIS DETAIL MAY BE ALTERED AND APPROVED BY THE CITY ENGINEER

CITY OF COLUMBIA DEVELOPMENT SERVICES DEPARTMENT ENGINEERING DIVISION	STANDARD DETAILS	INTERSECTION CONFIGURATION AND GEOMETRY (NTS)	DATE 6/9/2022	SD-07

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

REVISIONS

NO.	DATE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

SITE DETAILS
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

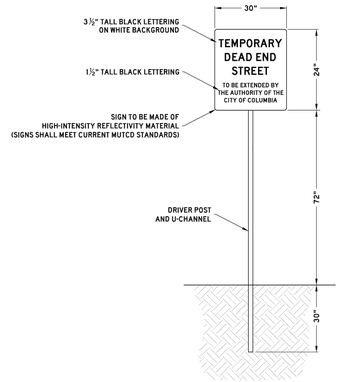
LOUIS T. SLOYAN
REGISTERED ENGINEER
AGRICULTURE
No. 115455
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

SHEET
C-2.5

T-SQUARE ENGINEERING

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CITY OF COLUMBIA
DEVELOPMENT SERVICES DEPARTMENT
ENGINEERING DIVISION

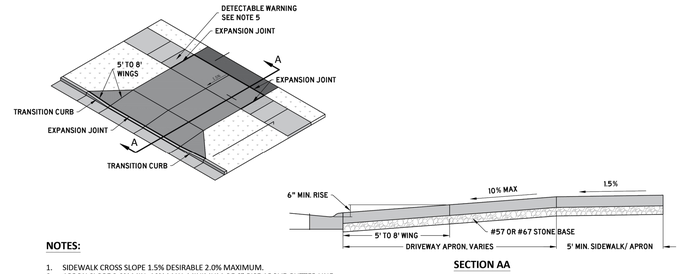
STANDARD DETAILS

STREET CONTINUATION SIGNAGE

(NTS)

DATE 6/9/2022

SD-19



SECTION AA

NOTES:

1. SIDEWALK CROSS SLOPE 1.5% DESIRABLE 2.0% MAXIMUM.
2. APRON SLOPE 2.0% MIN. 10% MAX. MINIMUM OF 6" RISE ABOVE GUTTER LINE.
3. 4" MIN. THICK #57 OR # 67 STONE BASE
4. CLASS A 3000 PSI CONCRETE WITH FIBER REINFORCEMENT
   - 4.1. 6" MIN. THICKNESS RESIDENTIAL.
   - 4.2. 8" MIN. THICKNESS COMMERCIAL, MULTI-FAMILY, AND MIXED-USE.
5. EXPANSION JOINTS SHALL BE AS FOLLOWS:
   - 5.1. 1/2 INCH THICK.
   - 5.2. RUBBERIZED EXPANSION JOINT FILLER (AASHTO M153, TYPE 1).
   - 5.3. POLYPROPYLENE FOAM JOINT FILLER (ASTM D8139).
6. DETECTABLE WARNINGS WHERE DRIVEWAY IS STOP CONTROLLED.
7. ELEMENTS OF THIS DETAIL MAY BE ALTERED AND APPROVED BY THE CITY ENGINEER

CITY OF COLUMBIA
DEVELOPMENT SERVICES DEPARTMENT
ENGINEERING DIVISION

STANDARD DETAILS

DRIVEWAY APRON

(NTS)

DATE 6/9/2022

SD-12

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

T-SQUARE ENGINEERING

REVISIONS

NO.	DATE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

SITE DETAILS

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

LOUIS T. SLOYD
REGISTERED ENGINEER
AGRICULTURE
No. 116455
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

SHEET
C-2.6

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N

GRAPHIC SCALE
(IN FEET)
100 0 50 100 200
SCALE: 1" = 100'

LEGEND	
500	EXISTING MAJOR CONTOURS
499	EXISTING MINOR CONTOURS
LOD	PROPOSED LIMITS OF DISTURBANCE
SF	PROPOSED SILT FENCE
	TREE PROTECTION FENCING
	PROPOSED CONSTRUCTION EXIT
	PROPOSED CONCRETE WASHOUT

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN. DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

T-SQUARE ENGINEERING

REVISIONS

NO.	DATE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

OAKWOOD DRIVE SUBDIVISION

INITIAL EROSION CONTROL PLAN

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

LOUIS T. SLOYAN
REGISTERED ENGINEER
AGRICULTURE
TENNESSEE
No. 116455
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

SHEET
C-3.0

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N

GRAPHIC SCALE
(IN FEET)
100 0 50 100 200
SCALE: 1" = 100'

LEGEND	
500	EXISTING MAJOR CONTOURS
499	EXISTING MINOR CONTOURS
500	PROPOSED MAJOR CONTOURS
499	PROPOSED MINOR CONTOURS
	PROPOSED PERMANENT SEEDING
	PROPOSED EROSION CONTROL MAT

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

NO.	DATE	REVISIONS

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

PERMANENT EROSION CONTROL PLAN
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
115485
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

SHEET
C-3.2

T-SQUARE ENGINEERING

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FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.

APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

T-SQUARE ENGINEERING

NO.	DATE	REVISIONS

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

TEMPORARY EROSION CONTROL PLAN
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

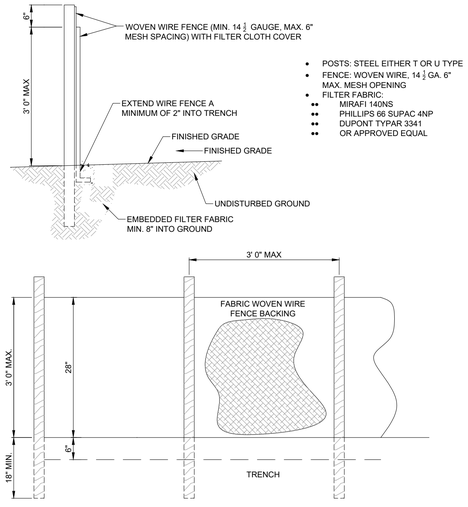
OAKWOOD DRIVE SUBDIVISION

LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
NO. 115485
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

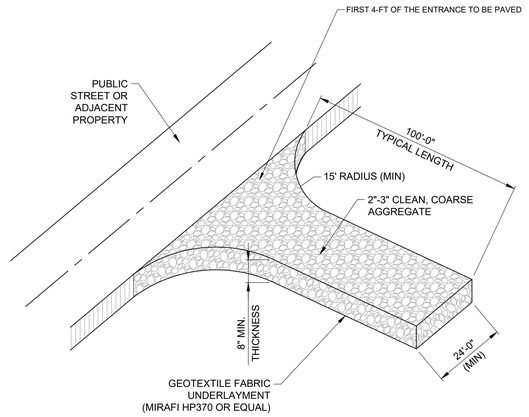
SHEET
C-3.1

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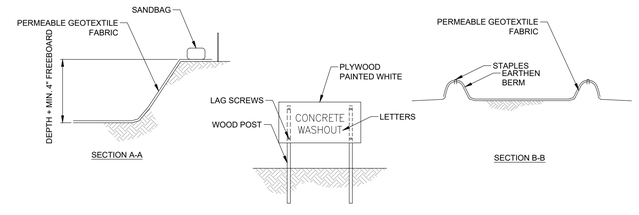
1. WOVEN WIRE CE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NOTED IN THE EROSION CONTROL PLAN. COLLECTED MATERIAL SHALL BE REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE OR WHEN TOP LINE IS NOT VISIBLE.
5. J-HOOK METHOD IS REQUIRED WHEN CROSSING CONTOURS PERPENDICULARLY.

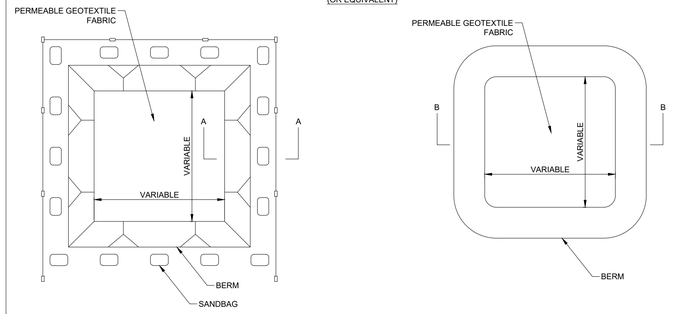
TYPE "C" SEDIMENT/SILT FENCE
N.T.S



ISOMETRIC VIEW

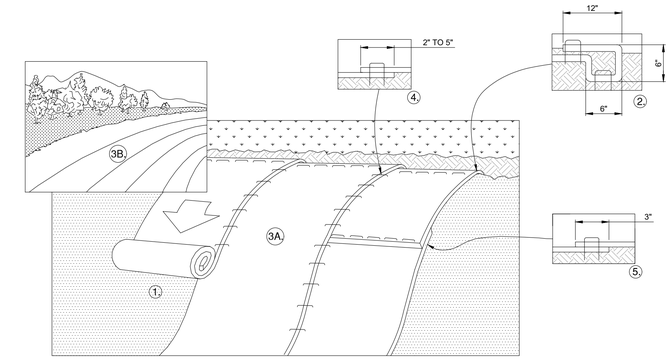
CONSTRUCTION ENTRANCE
N.T.S.





NOTES:
1. ACTUAL LAYOUT DETERMINED IN THE FIELD.
2. SIGNAGE IDENTIFYING THE CONCRETE WASHOUT AREA SHALL BE INSTALLED WITHIN 5FT.OF THE WASHOUT FACILITY.

CONCRETE WASHOUT
N.T.S



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
1.1. 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" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30 CM) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) 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" (30 CM) APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. 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 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" (5 CM-12.5 CM) 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" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE BLANKET WIDTH.

NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BEE NECESSARY TO PROPERLY SECURE THE BLANKETS.

EROSION CONTROL MATTING DETAIL
N.T.S

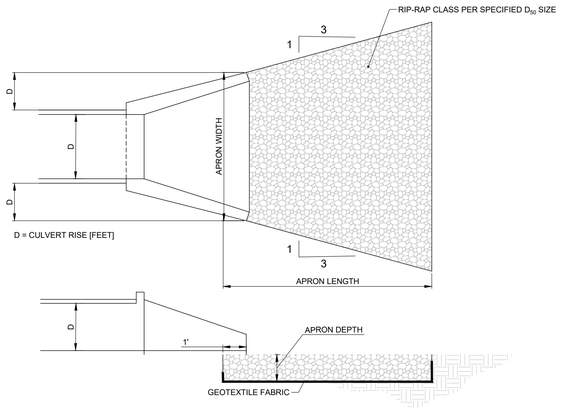


Table 10.1. Example Riprap Classes and Apron Dimensions

Class	D_{50} (mm)	D_{50} (in)	Apron Length[1]	Apron Depth
1	125	5	4D	$3.5D_{50}$
2	150	6	4D	$3.3D_{50}$
3	250	10	5D	$2.4D_{50}$
4	350	14	6D	$2.2D_{50}$
5	500	20	7D	$2.0D_{50}$
6	550	22	8D	$2.0D_{50}$

[1]D is the culvert rise.

OUTLET PROTECTION
DESIGNED TO THE 100-YR STORM PER HEC-11 STANDARDS
N.T.S

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

REVISIONS

NO.	DATE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

EROSION CONTROL DETAILS

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

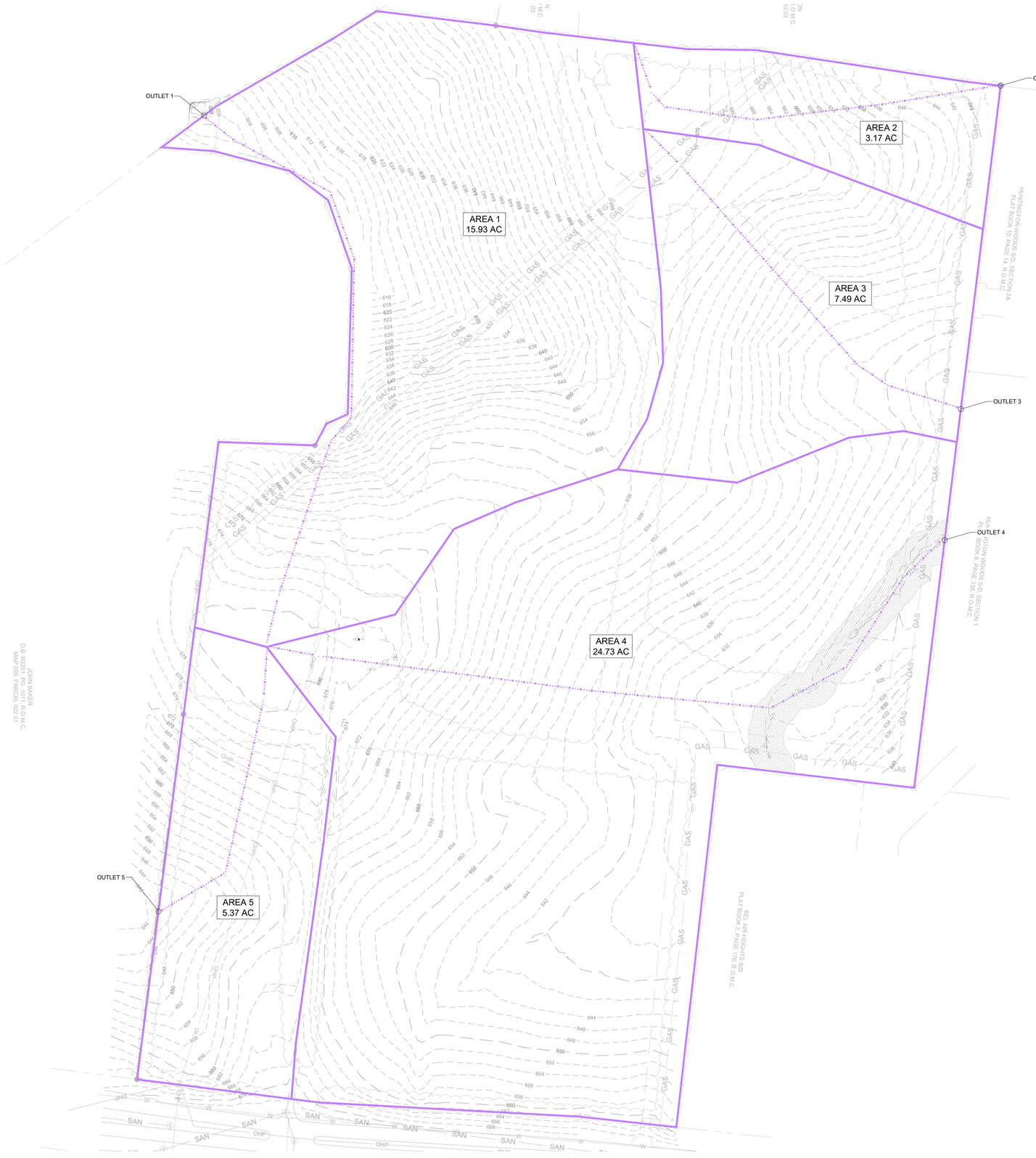
LOUIS T. SOLTIS
REGISTERED ENGINEER
AGRICULTURE
No. 115485
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

SHEET
C-3.3

T-SQUARE ENGINEERING

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GRAPHIC SCALE
(IN FEET)

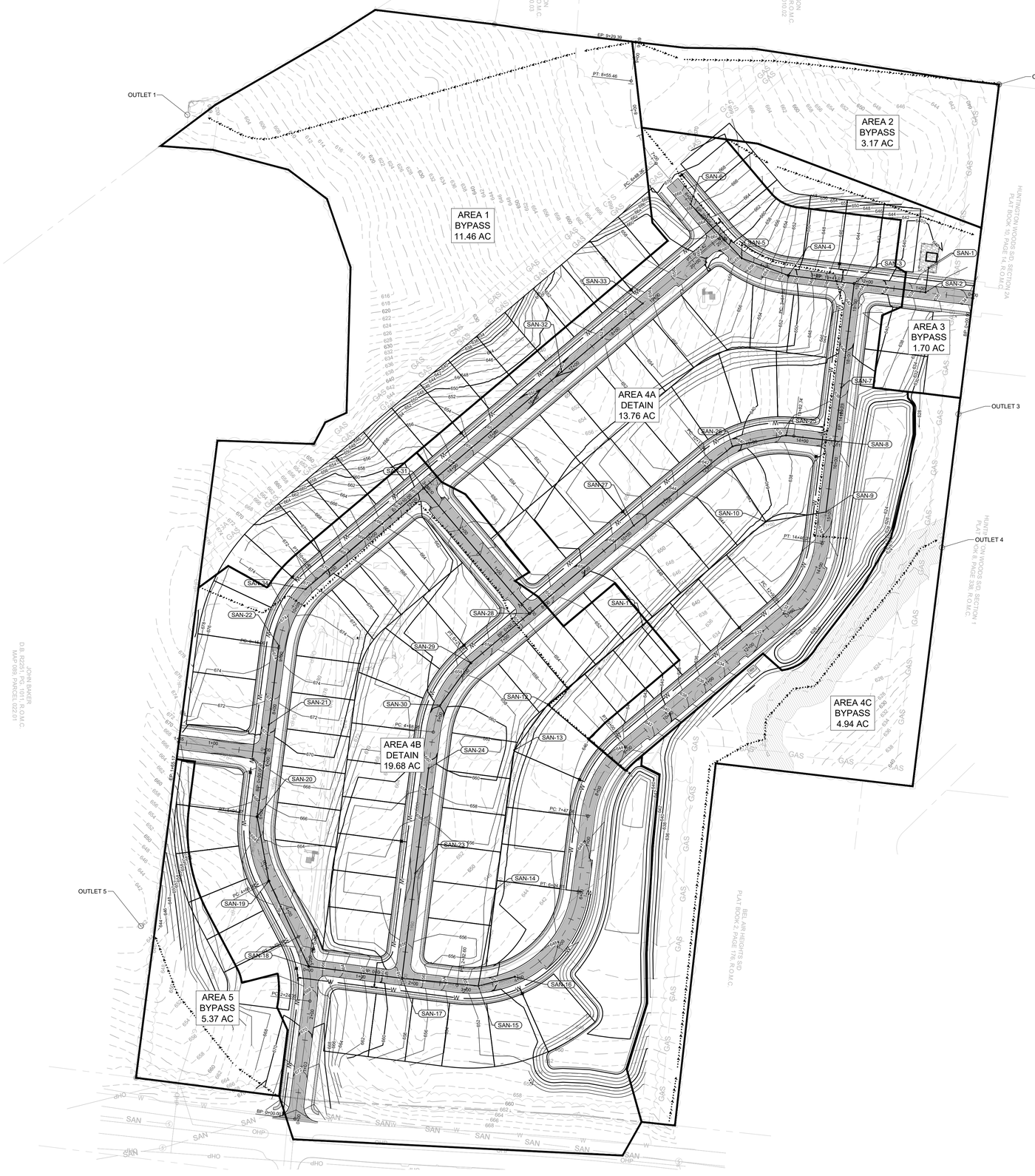
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SCALE: 1" = 100'

PRE-DEVELOPMENT STORMWATER PLAN

C-4.0

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GRAPHIC SCALE
(IN FEET)

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SCALE: 1" = 100'

POST-DEVELOPMENT STORMWATER PLAN

C-4.1

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GRAPHIC SCALE
(IN FEET)

100 0 50 100 200

SCALE: 1" = 100'

LEGEND	
500	EXISTING MAJOR CONTOURS
499	EXISTING MINOR CONTOURS
500	PROPOSED MAJOR CONTOURS
499	PROPOSED MINOR CONTOURS
	PROPOSED STORM INLET
	PROPOSED HEADWALL
	PROPOSED AREA DRAIN
	PROPOSED STORM PIPE

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0175E OF MAURY COUNTY, TN. DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

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REVIEWER: LTS

OAKWOOD DRIVE SUBDIVISION

DRAINAGE PLAN

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

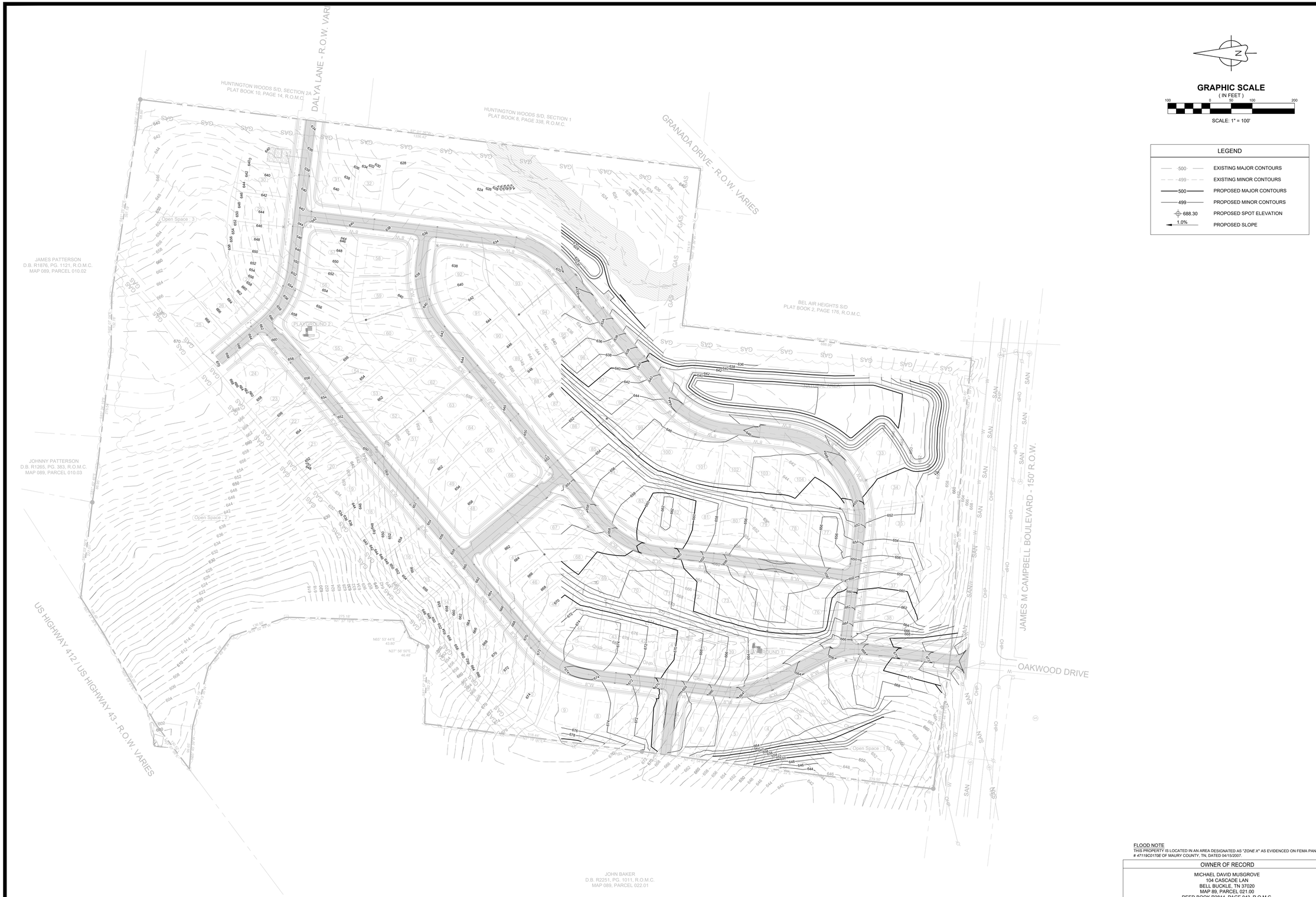
LOUIS T. SLOYD
REGISTERED ENGINEER
AGRICULTURE
POWELL
No. 115485
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

SHEET
C-5.1

T-SQUARE ENGINEERING

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GRAPHIC SCALE
(IN FEET)
100 0 50 100 200
SCALE: 1" = 100'

LEGEND	
500	EXISTING MAJOR CONTOURS
499	EXISTING MINOR CONTOURS
500	PROPOSED MAJOR CONTOURS
499	PROPOSED MINOR CONTOURS
688.30	PROPOSED SPOT ELEVATION
1.0%	PROPOSED SLOPE

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # 47119C0170E OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

T-SQUARE ENGINEERING

REVISIONS		
NO.	DATE	

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

OAKWOOD DRIVE SUBDIVISION

GRADING PLAN

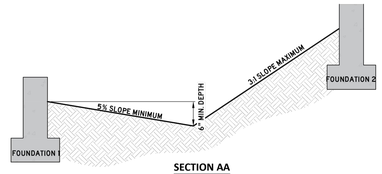
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
NO. 115486
STATE OF TENNESSEE
05/20/2024

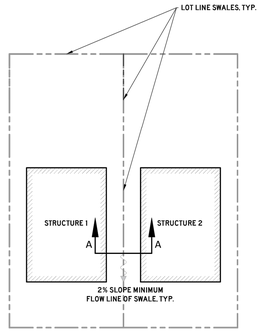
PROJECT
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SHEET
C-5.0

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SECTION AA



PLAN

NOTES:

1. SURFACE DRAINAGE SHALL BE DIVERTED TO A STORM SEWER CONVEYANCE. ALL AREAS WITHIN A LOT SHALL BE GRADED TO DRAIN TO AN APPROVED STORMWATER CONVEYANCE.
2. LOTS SHALL BE GRADED TO DRAIN SURFACE WATER AWAY FROM FOUNDATIONS.
   - 2.1. LOTS SHALL BE GRADED TO PROVIDE A MINIMUM OF 6 INCHES OF FALL WITHIN THE FIRST 10 FEET OF THE STRUCTURE ALONG THE DIRECTION OF FLOW.
   - 2.2. LOTS SHALL BE GRADED TO PROVIDE A MINIMUM OF 1V:20H OF FALL PERPENDICULAR TO THE FACE OF THE FOUNDATION WALL WITHIN THE FIRST 5 FEET.
   - 2.3. IMPERVIOUS SURFACES SHALL BE SLOPED AT A MINIMUM OF 2% AWAY FROM THE STRUCTURE.
3. SWALES SHALL BE LOCATED ALONG LOT LINES TO REDUCE LOT TO LOT DRAINAGE, AND DIRECT STORMWATER RUNOFF TOWARDS APPROVED STORMWATER CONVEYANCES.
4. SWALES SHALL HAVE A MINIMUM SLOPE OF 2%.
5. FOUNDATIONS SHALL BE AT MINIMUM 12 INCHES ABOVE ANY THE RIM ELEVATION OR HIGHEST FLOW LINE OF ANY PUBLIC STORMWATER INFRASTRUCTURE THAT SURFACE DRAINAGE FROM THE LOT IS DIRECTED TO.
6. NON-PUBLIC STORMWATER INFRASTRUCTURE SHALL NOT SUCH AS YARD DRAINS SHALL NOT ALLEVIATE THE REQUIREMENTS OF NOTES 2 AND 3.
7. ELEMENTS OF THIS DETAIL MAY BE ALTERED AND APPROVED BY THE CITY ENGINEER

CITY OF COLUMBIA TENNESSEE	CITY OF COLUMBIA DEVELOPMENT SERVICES DEPARTMENT ENGINEERING DIVISION **STANDARD DETAILS**	**RESIDENTIAL LOT GRADING AND DRAINAGE** (NTS)	DATE 6/9/2022 **DD-04**

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS *"ZONE X"* AS EVIDENCED ON FEMA PANEL # *47119C0170E* OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

T-SQUARE ENGINEERING

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REVIEWER: LTS

GRADING & DRAINAGE DETAILS
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

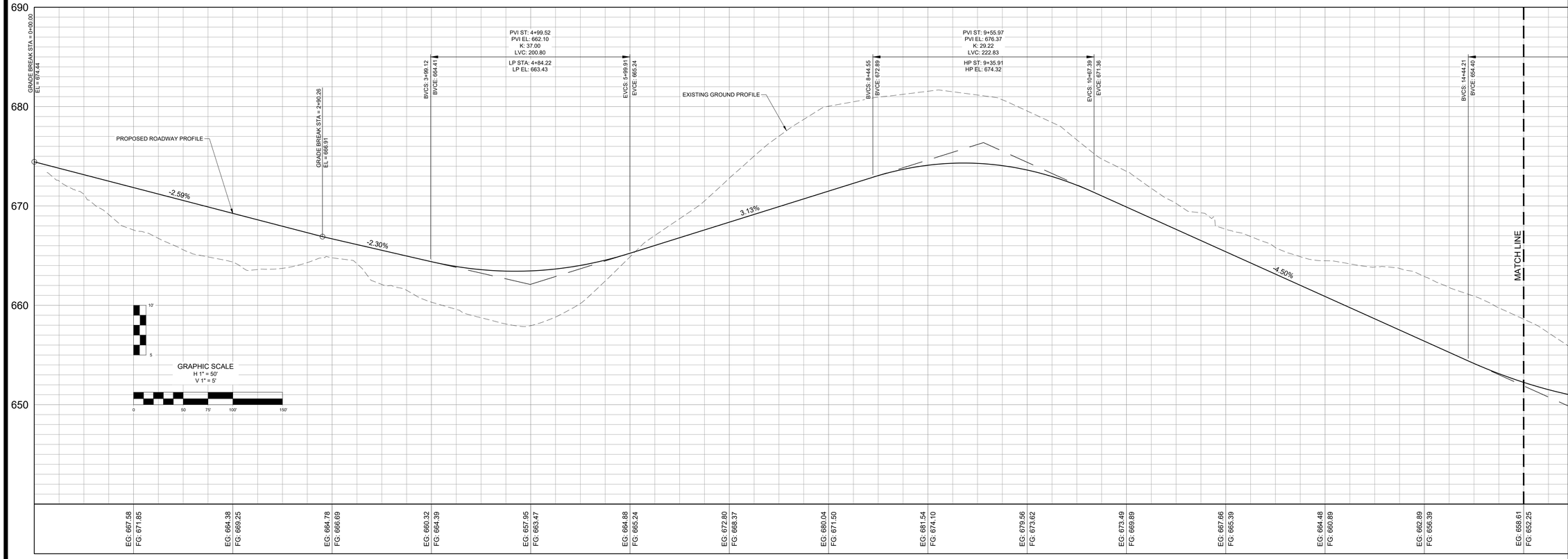
LOUIS T. LOYD
REGISTERED ENGINEER
AGRICULTURE
No. 116455
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

SHEET
C-5.2

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OAKWOOD DRIVE SUBDIVISION

LIVE OAK DRIVE
PLAN AND PROFILE
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

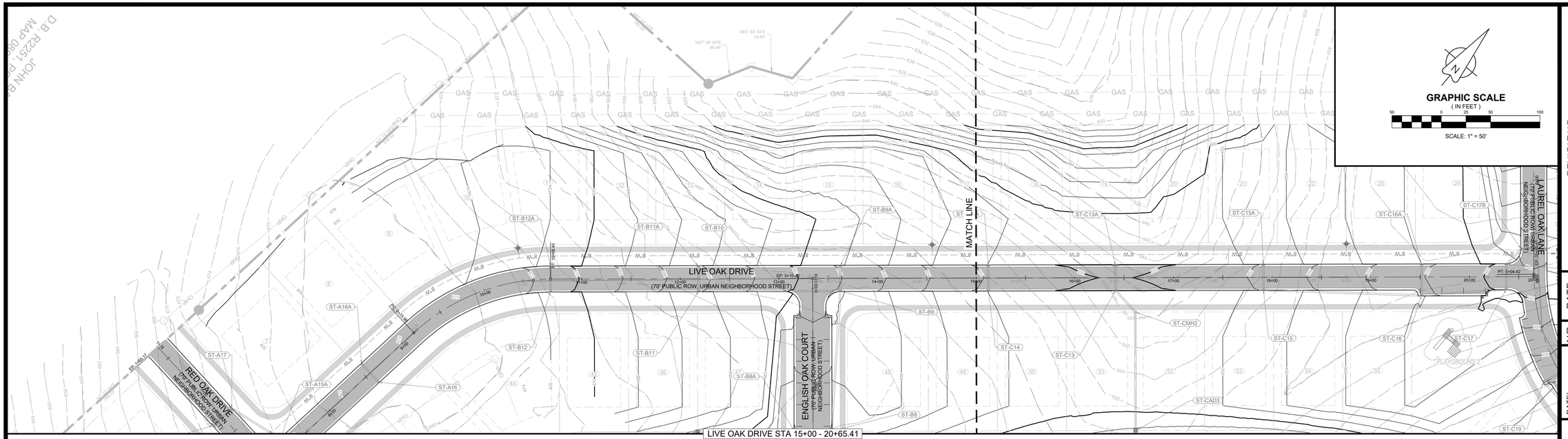
LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
No. 115485
STATE OF TENNESSEE
05/20/2024

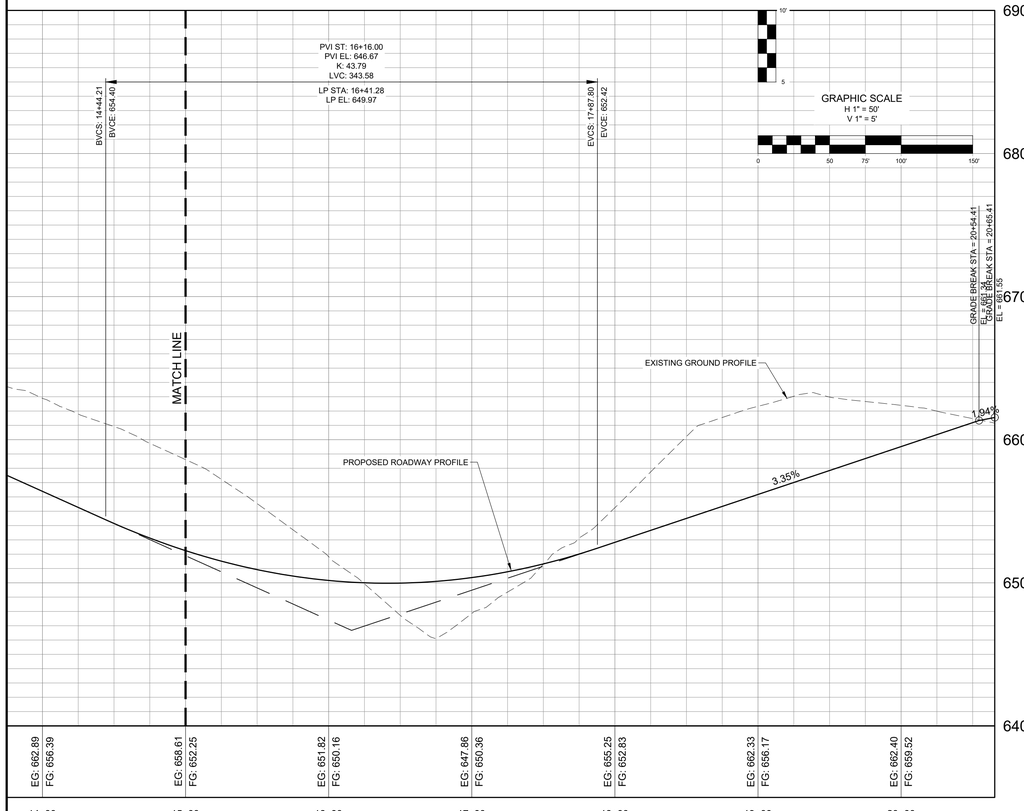
PROJECT
23-0533

SHEET
C-6.0

T-SQUARE ENGINEERING

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REVIEWER: LTS

OAKWOOD DRIVE SUBDIVISION

LIVE OAK DRIVE
PLAN AND PROFILE
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

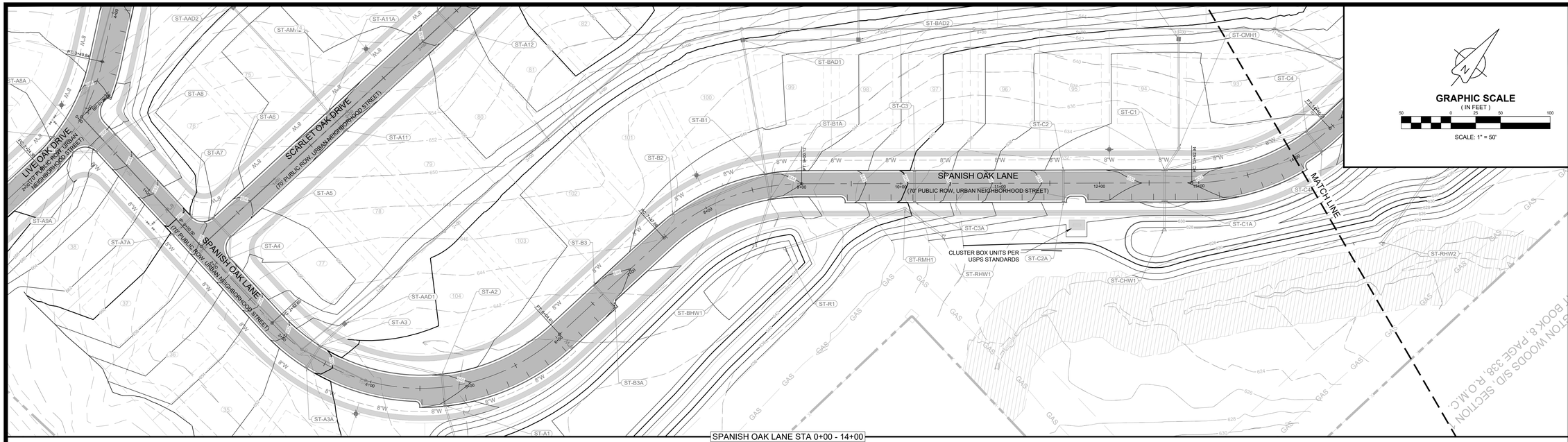
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AGRICULTURE
No. 115485
STATE OF TENNESSEE
05/20/2024

PROJECT
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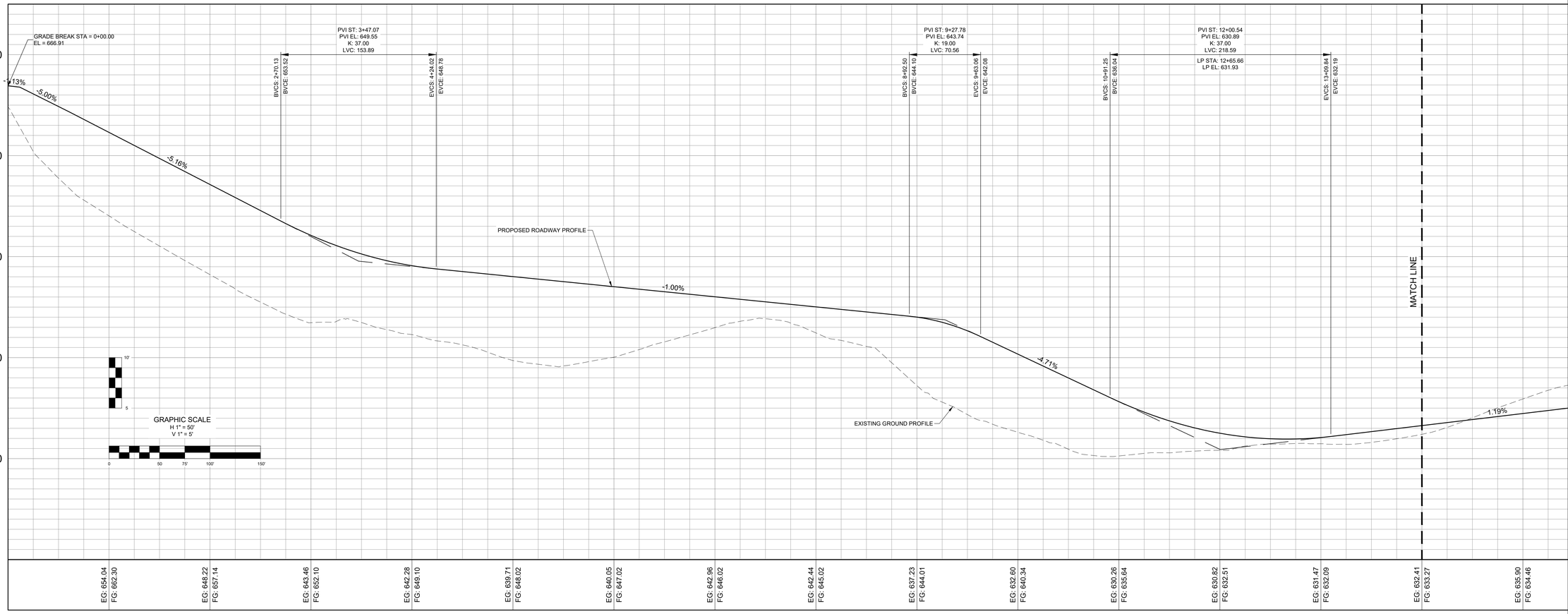
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SPANISH OAK LANE STA 0+00 - 14+00



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SPANISH OAK LANE
PLAN AND PROFILE
MAP 89, PARCEL 02.01
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

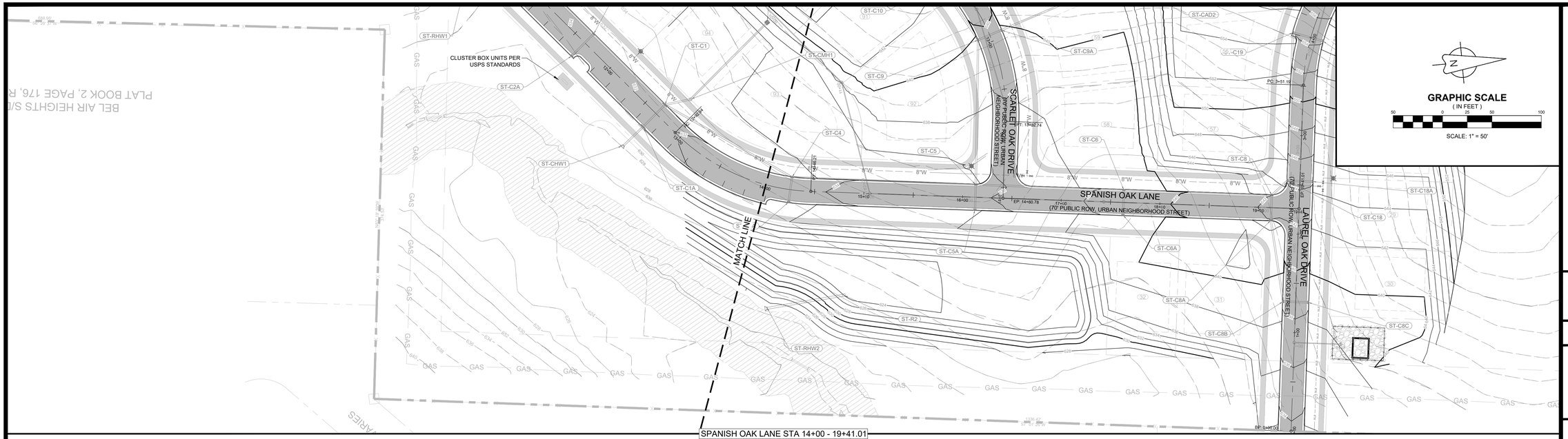
LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
NO. 115485
STATE OF TENNESSEE
05/20/2024

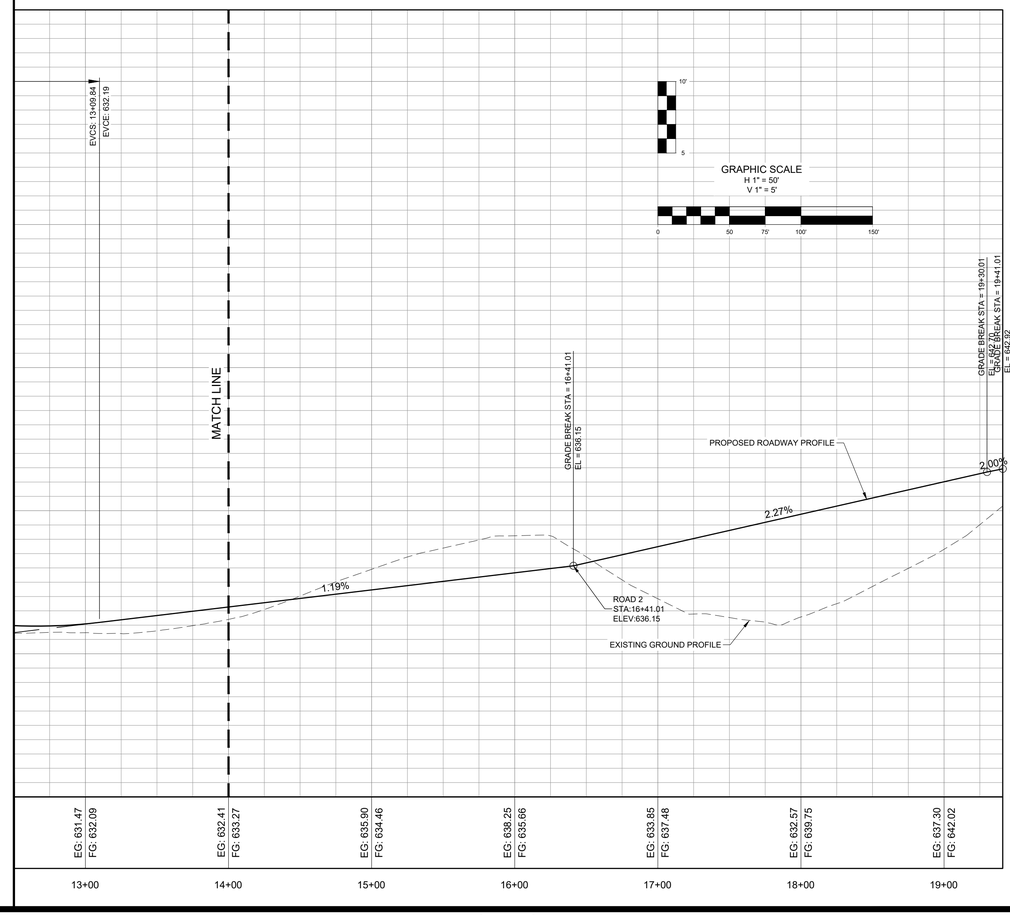
PROJECT
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SHEET
C-6.2

T-SQUARE ENGINEERING

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SPANISH OAK LANE
PLAN AND PROFILE
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

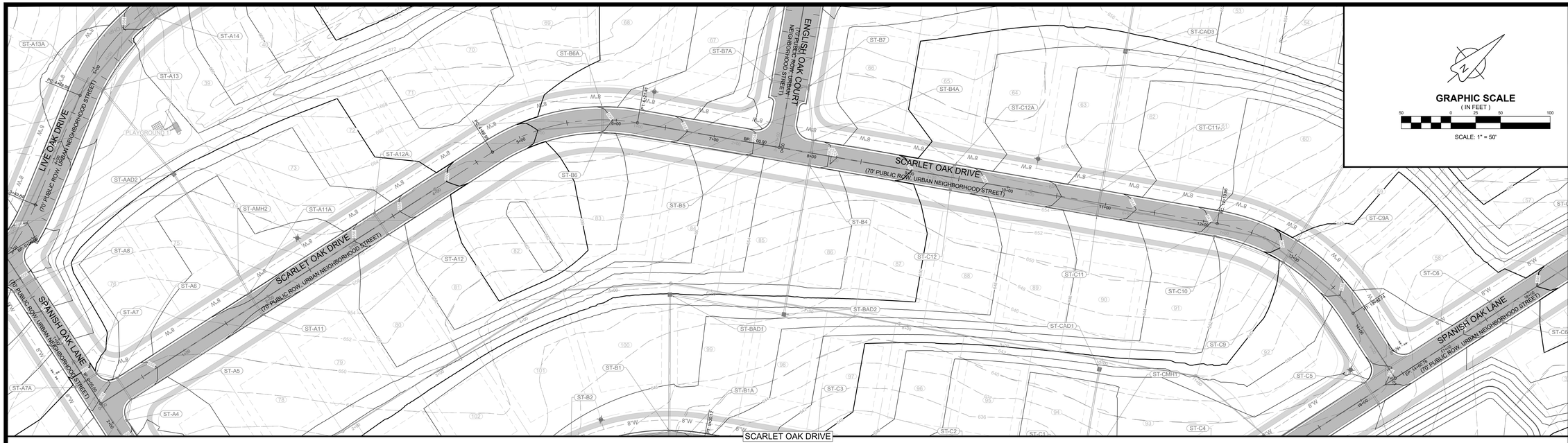
LOUIS T. SLOYD
REGISTERED ENGINEER
AGRICULTURE
No. 116455
STATE OF TENNESSEE
05/20/2024

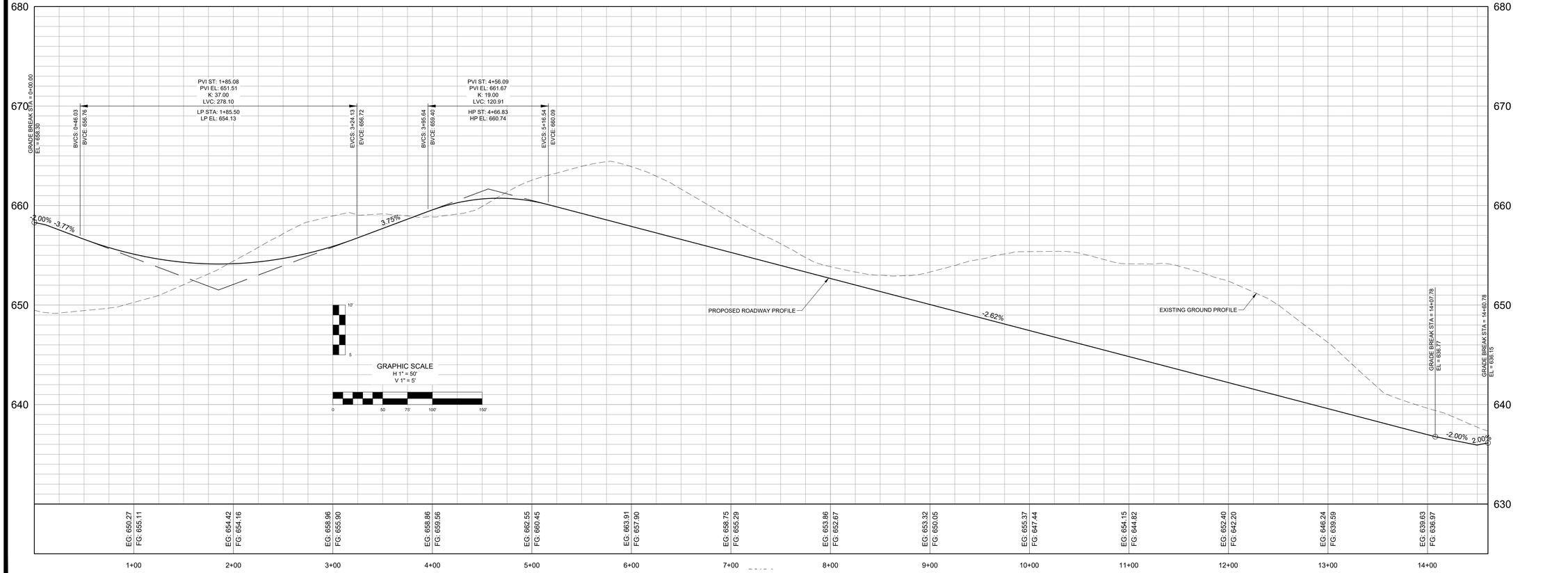
PROJECT
23-0533

SHEET
C-6.3

T-SQUARE ENGINEERING

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OAKWOOD DRIVE SUBDIVISION

SCARLET OAK DRIVE
PLAN AND PROFILE
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
No. 115485
STATE OF TENNESSEE
05/20/2024

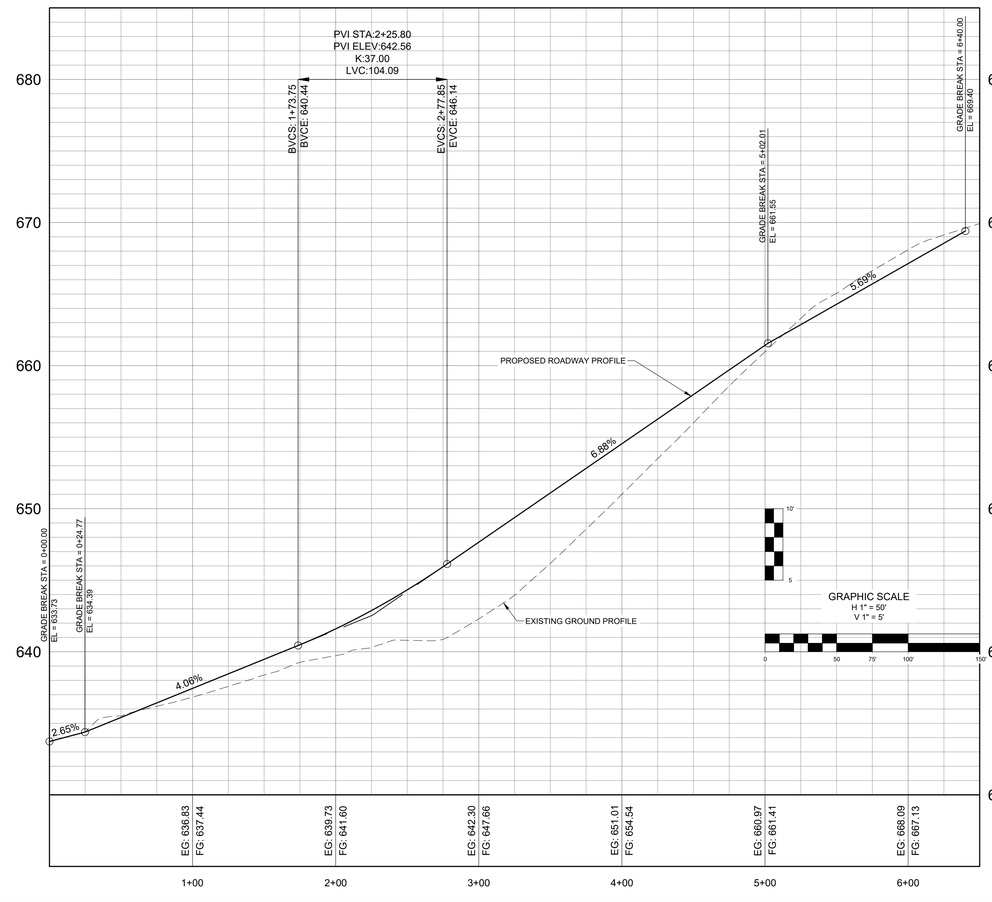
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LAUREL OAK LANE
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MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

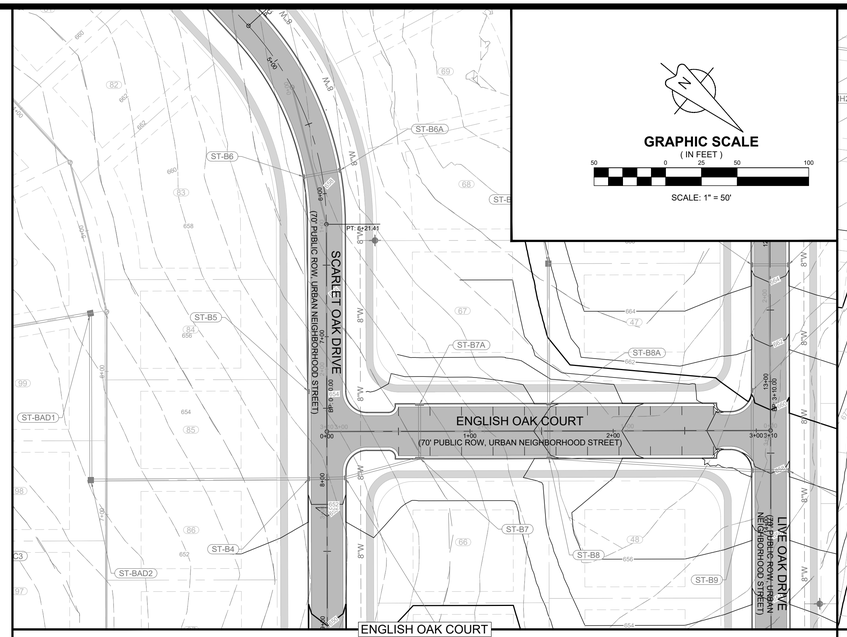
LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
No. 116485
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

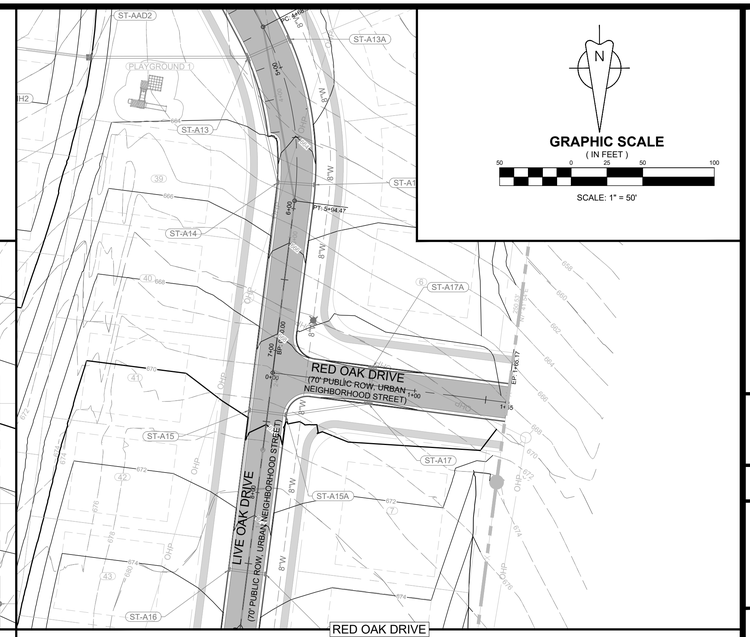
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T-SQUARE ENGINEERING

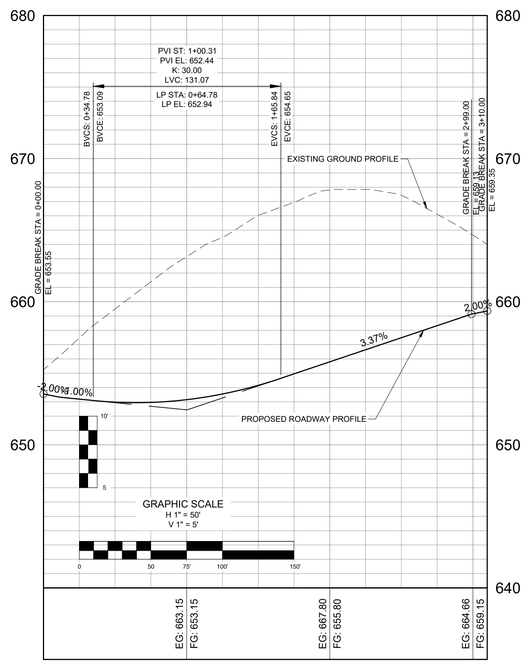
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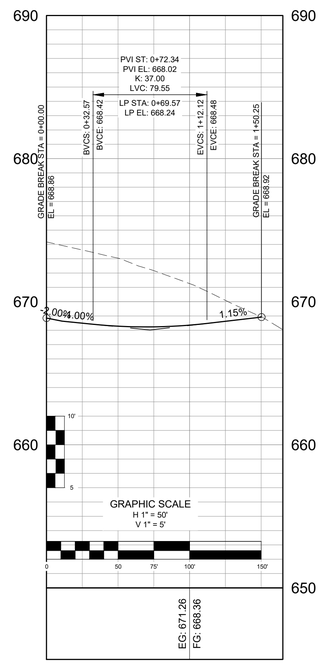


ENGLISH OAK COURT



RED OAK DRIVE





REVISIONS		
NO.	DATE	

DATE:	05/20/24
SCALE:	AS SHOWN
DRAWN BY:	T-SQUARE
REVIEWER:	LTS

ENGLISH OAK CT & RED OAK DR
PLAN AND PROFILE
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

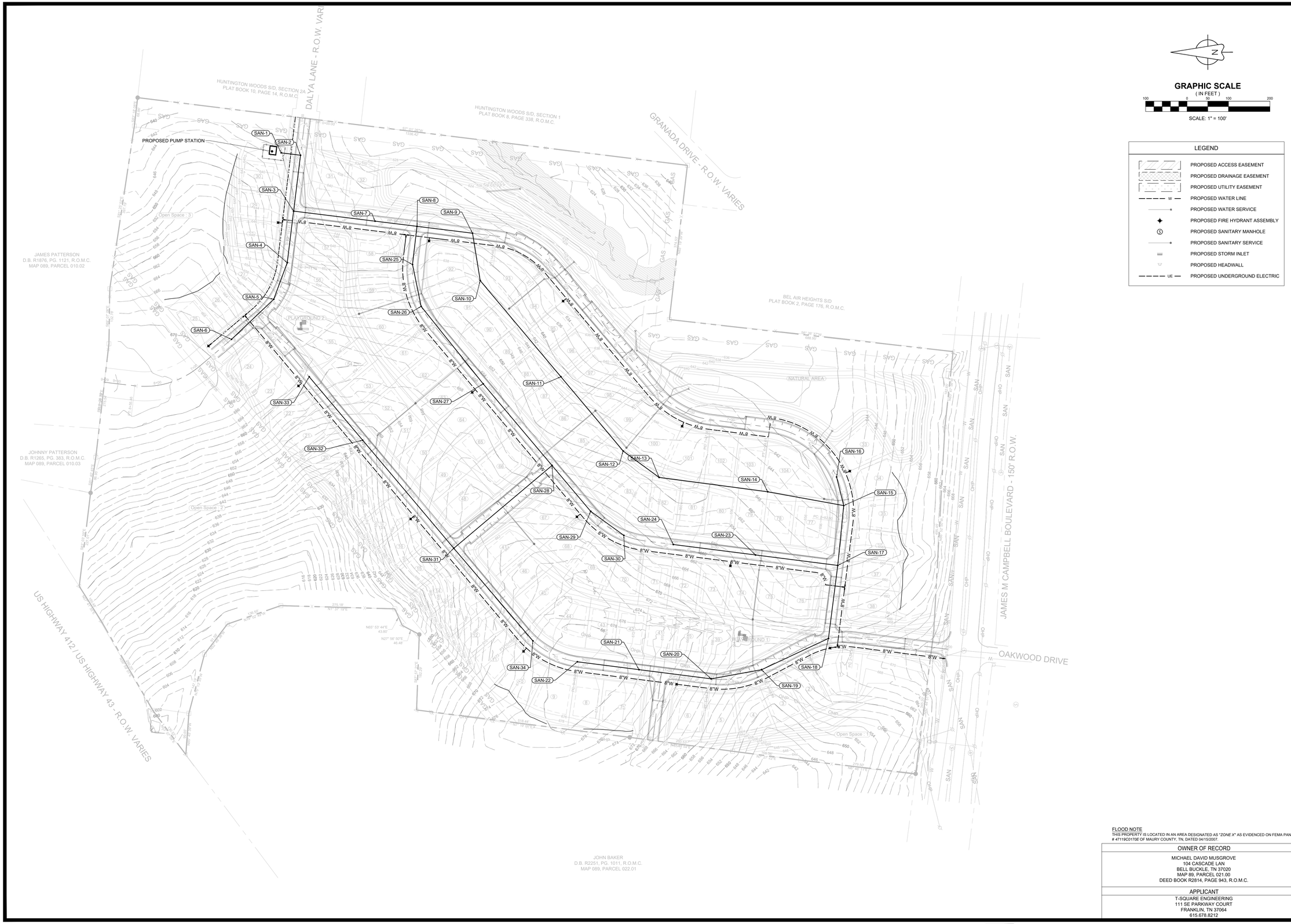
LOUIS T. SLOYAN
REGISTERED ENGINEER
AGRICULTURE
No. 116455
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

SHEET
C-6.6

T-SQUARE ENGINEERING

P:\Projects\2023\23-0533 (Oakwood Dr. - Drew Taylor)\Production\23-0533 6- Plan and Profile.dwg, 5/20/2024 1:37:21 PM



GRAPHIC SCALE

(IN FEET)

100 0 50 100 200

SCALE: 1" = 100'

LEGEND

- PROPOSED ACCESS EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED UTILITY EASEMENT
- W — PROPOSED WATER LINE
- PROPOSED WATER SERVICE
- PROPOSED FIRE HYDRANT ASSEMBLY
- S — PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY SERVICE
- PROPOSED STORM INLET
- PROPOSED HEADWALL
- UE — PROPOSED UNDERGROUND ELECTRIC

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON FEMA PANEL # *47119C0170E* OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

T-SQUARE ENGINEERING

REVISIONS

NO.	DATE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

OAKWOOD DRIVE SUBDIVISION

UTILITY PLAN

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

LOUIS T. SLOYD
REGISTERED ENGINEER
AGRICULTURE
No. 116488
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

SHEET
C-7.0

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N

GRAPHIC SCALE
(IN FEET)

100 0 50 100 200

SCALE: 1" = 100'

LEGEND

- PROPOSED ACCESS EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED UTILITY EASEMENT
- PROPOSED WATER LINE (W)
- PROPOSED WATER SERVICE
- PROPOSED FIRE HYDRANT ASSEMBLY
- PROPOSED SANITARY MANHOLE (S)
- PROPOSED SANITARY SERVICE
- PROPOSED STORM INLET
- PROPOSED HEADWALL
- PROPOSED UNDERGROUND ELECTRIC (UE)

FLOOD NOTE
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MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

T-SQUARE ENGINEERING

NO.	DATE	REVISIONS

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DRAWN BY: T-SQUARE
REVIEWER: LTS

FIRE HYDRANT COVERAGE PLAN

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
No. 115485
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

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C-7.1

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SEE PLANTING DETAIL 1
ON SHEET L 1.1

26 QT

70 QC

54 QI

66 QP

12 QT

10 QT

8 QT

PLANT LIST

	QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING	MATURE HEIGHT	NOTES
TREES							
QI	54	Quercus imbricaria	SHINGLE OAK	2.5" CAL	AS SHOWN	10-20'	B&B
QP	66	Quercus phellos	WILLOW OAK	2.5" CAL	AS SHOWN	10'-20'	B&B
QC	70	Quercus coccinea	SCARLET OAK	2.5" CAL	AS SHOWN	10'-20'	B&B
QT	57	Quercus texana	NUTTALI OAK	2.5" CAL	AS SHOWN	10'-20'	B&B
SHRUBS							
RA	4	Rhus aromatica 'Gro-Low '	'GRO-LOW' SUMAC	3 GAL	AS SHOWN	2'-4'	
HQ	5	Hydrangea quercifolia	OAK LEAF HYDRANGEA	3 GAL	AS SHOWN	6'	

THE LANDSCAPE CONTRACTOR SHALL NOT MAKE SUBSTITUTIONS WITHOUT PRIOR APPROVAL FROM LANDSCAPE ARCHITECT

2 / L-1.0 PLANT LIST

N

GRAPHIC SCALE
(IN FEET)
80 0 40 80 160
SCALE: 1" = 80'

1 / L-1.0 OVERALL PLANTING PLAN

REVISIONS

NO.	DATE

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SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: CES

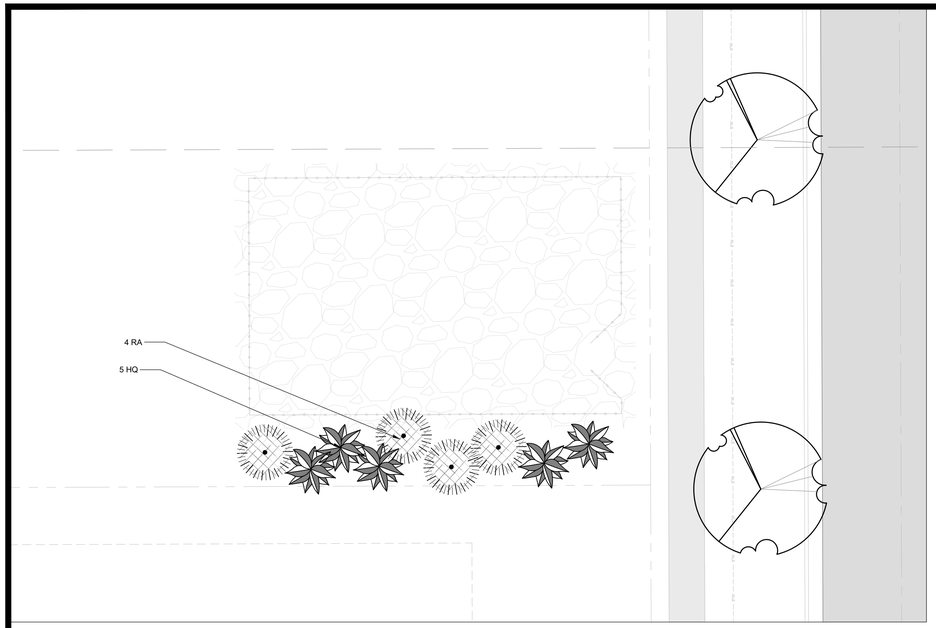
LANDSCAPE PLAN
MAP 89, PARCEL 021.00
CITY OF COLUMBIA, MAURY COUNTY, TENNESSEE

OAKWOOD AVENUE

PROJECT
23-0533

SHEET
L-1.0

T-SQUARE ENGINEERING





SEEDING NOTES:

1. SEEDBED PREPARATION: LOOSEN SUBGRADE OF TURF AREAS TO A MINIMUM DEPTH OF 2 INCHES. REMOVE STONES MEASURING OVER 1-1/2 INCHES IN ANY DIMENSION. REMOVE STICKS, ROOTS, RUBBISH, AND OTHER EXTRANEOUS MATTER. ADD TOPSOIL AND MIX THOROUGHLY INTO UPPER 3 INCHES OF TOPSOIL. IF SUBGRADE HAS BECOME COMPACTED DURING CONSTRUCTION, SCARIFY OR OTHERWISE BREAKUP THE COMPACTED SURFACE BEFORE SEEDBED PREPARATION.
2. MIN 1/2" OF TOPSOIL (IMPORTED OR SITE GENERATED) SHALL BE PROVIDED ON ALL AREAS TO BE SEEDED, INSTALLED AND STABILIZED PRIOR TO SEEDING. TOPSOIL SHALL BE CLEAN, FRIABLE SOIL WITH LANDSCAPE INDUSTRY ACCEPTABLE LEVELS OF ORGANIC MATERIAL. UNDER NO CIRCUMSTANCES SHALL SUBGRADE OR "B"-HORIZON SOIL BE USED AS TOPSOIL. CONTRACTOR IS ADVISED TO VERIFY WITH THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE ACCEPTABILITY OF TOPSOIL PRIOR TO PLACEMENT. UNACCEPTABLE SOILS USED AS TOPSOIL SHALL BE REMOVED AND REPLACED AT CONTRACTOR'S EXPENSE.
3. FERTILIZER: APPLY AGRICULTURAL LIME AT THE RATE OF 50 POUNDS PER 1000 SF. APPLY 10 POUNDS 10-10-10 ANALYSIS FERTILIZER (OR EQUIVALENT) PER 1000 SF. SPREAD LIME AND FERTILIZER UNIFORMLY OVER ALL AREAS AND MIX THOROUGHLY WITH THE SOIL.
4. FINE GRADE ALL DISTURBED LAWN AREAS TO SMOOTH, EVEN SURFACE WITH LOOSE, UNIFORMLY FINE TEXTURE, ROLL, RAKE, AND DRAG LAWN AREAS, REMOVE RIDGES AND FILL DEPRESSIONS, AS REQUIRED TO MEET FINISH GRADES.
5. GRASS SEED: PROVIDE FRESH, CLEAN, NEW-CROP SEED COMPLYING WITH TOLERANCE FOR PURITY AND GERMINATION ESTABLISHED BY OFFICIAL SEED ANALYSIS OF NORTH AMERICA.
6. SEED ALL DISTURBED AREAS. PRIOR TO INSTALLATION, CONTRACTOR SHOULD CONSULT WITH OWNER TO DETERMINE EXTENT OF SEEDING OPERATIONS.
7. REPAIR AND RESEED ALL ERODED OR DISTURBED SEEDED AREAS WHERE VEGETATIVE COVER HAS NOT BEEN ESTABLISHED.
8. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF SEEDED AREAS UNTIL 95% GRASS COVER IS ESTABLISHED.

GENERAL NOTES:

1. UTILITY SERVICES MAY EXIST ON SITE. THE LOCATION OF ALL SURFACE AND UNDERGROUND UTILITIES, RIGHT-OF-WAYS, EASEMENTS, ETC., SHALL BE VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES FROM DAMAGE DURING CONSTRUCTION AND TO REPAIR ANY DAMAGE WHICH SHOULD OCCUR TO THE SATISFACTION OF THE OWNER AND UTILITY COMPANIES. COMMENCEMENT OF PROJECT INSTALLATION INDICATES ACKNOWLEDGMENT OF AND ACCEPTANCE BY THE CONTRACTOR OF EXISTING CONDITIONS.
2. ACTUAL AS-BUILT AND/OR EXISTING SITE CONDITIONS MAY VARY AS SHOWN ON THIS PLAN.
3. DAMAGE BY CONTRACTOR TO UNDISTURBED AREAS OUTSIDE THE LIMITS OF CONSTRUCTION SHALL BE REPAIRED BY CONTRACTOR TO THE SATISFACTION OF THE OWNER.
4. CONTRACTOR IS RESPONSIBLE FOR CONDUCTING SITE INSPECTION PRIOR TO BIDDING WORK, TO DETERMINE SITE CONDITIONS AND AREAS TO BE IMPROVED. SUBMISSION OF BID INDICATES CONTRACTOR HAS VERIFIED SITE CONDITIONS AND PLANT MATERIAL QUANTITIES.
5. FINAL ACCEPTANCE: THE LANDSCAPE ARCHITECT OR THE OWNER'S REPRESENTATIVE WILL PROVIDE THE FINAL INSPECTION. SHOULD THE INSPECTION FIND WORK INCOMPLETE, THE CONTRACTOR SHALL REMEDY THE DEFICIENCIES.
6. IF THE SUBSTANTIAL COMPLETION OR FINAL INSPECTION REQUIRE REINSPECTION BY LANDSCAPE ARCHITECT DUE TO FAILURE OF WORK TO COMPLY WITH CONTRACTOR'S CLAIMS ON INITIAL INSPECTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPENSATING THE LANDSCAPE ARCHITECT FOR REINSPECTION SERVICES AT THE RATE OF TWO HUNDRED TWENTY FIVE DOLLARS ($225) PER HOUR PER PERSON PLUS ALL RELATED TRAVEL EXPENSES FOR EACH REQUESTED REINSPECTION TRIP.
7. AFTER FINAL ACCEPTANCE AND PRIOR TO END OF WARRANTY PERIOD, CONTRACTOR SHALL REPLACE ALL PLANT MATERIAL THAT HAS DIED OR HAS DEFECTS, INCLUDING UNSATISFACTORY GROWTH, IN THE OPINION OF THE OWNER.
8. DURING LANDSCAPE INSTALLATION KEEP PAVEMENTS CLEAN AND WORK AREA IN ORDERLY CONDITION. THE PROJECT SITE SHALL BE LEFT IN A CLEAN CONDITION AT THE END OF EVERY WORK DAY.
9. CONTRACTOR TO REPAIR ANY PAVEMENTS, CURBS, AND OTHER IMPROVEMENTS DAMAGED AS A RESULT OF LANDSCAPE INSTALLATION ACTIVITY
10. THE LOCATION OF ALL PLANT MATERIALS SHOWN ON THE PLAN SHALL BE FIELD LOCATED AND STAKED/FLAGGED BY THE CONTRACTOR AND APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE BEFORE THE DIGGING OF PLANTING HOLES. PLANTING SHALL BE LOCATED WHERE SHOWN ON THE DRAWINGS OR WHERE FIELD LOCATED BY THE LANDSCAPE ARCHITECT.
11. PROVIDE ONLY PLANTS THAT ARE FREE FROM DISEASES AND PESTS, AND THAT COMPLY WITH THE LATEST EDITION OF PUBLICATION ANSI Z60.1, AMERICAN STANDARDS FOR NURSERY STOCK", BY THE AMERICAN ASSOCIATION OF NURSERYMEN. DIMENSIONS FOR HEIGHTS, SPREAD, AND TRUNK SPECIFIED ON THE MATERIAL SCHEDULE IS A GENERAL GUIDE FOR THE MINIMUM DESIRED SIZE OF EACH PLANT.
12. DO NOT MAKE SUBSTITUTIONS REGARDING PLANT SIZES OR SPECIES WITHOUT WRITTEN PERMISSION FROM THE OWNER OR LANDSCAPE ARCHITECT.
13. REMOVE ALL METAL BASKETS, STRINGS AND OTHER TIES FROM TREES.
14. FERTILIZE ALL PLANTS WITH 16-16-16 SLOW RELEASE FERTILIZER AT THE RATE OF: 3 POUNDS PER CUBIC YARD OF SOIL MIX. 3 POUNDS PER 100 SF OF BED FOR SHRUBS
15. PLANTS DESIGNATED "B&B" IN THE PLANT LIST SHALL BE BALLED AND BURLAPPED. THEY SHALL BE DUG WITH FIRM, NATURAL BALLS OF EARTH OF SUFFICIENT DIAMETER AND DEPTH TO ENCOMPASS THE FIBROUS AND FEEDING ROOT SYSTEM NECESSARY FOR FULL RECOVERY OF THE PLANT. BALLS SHALL BE FIRMLY WRAPPED WITH BURLAP OR SIMILAR MATERIAL AND BOUND WITH TWINE OR CORD.
16. ONLY "HEMP" BURLAP AND TWINE SHALL BE USED. NO TREATED OR PRESERVED BURLAP OR TWINE IS ALLOWED. ALL HEMP TWINE ATTACHED TO THE TREE TRUNK IS TO BE REMOVED AFTER PLANTING. AT A MINIMUM THE TOP ONE-THIRD OF THE ROOT BALL IS TO HAVE ALL BURLAP AND TWINE REMOVED. IF ROOTS ARE GIRDLING OR CIRCLING THEY MUST BE LOOSENED OR CUT.
17. THE BALLS OF "B&B" PLANTS WHICH CANNOT BE PLANTED IMMEDIATELY ON DELIVERY SHALL BE COVERED WITH MOIST SOIL OR MULCH, OR OTHER PROTECTION FROM DRYING WINDS AND SUN. ALL PLANTS INSTALLED OR STORED SHALL BE WATERED BY CONTRACTOR AS NECESSARY UNTIL FINAL ACCEPTANCE.
18. FOLD DOWN OR CUT THE BURLAP FROM THE TOP 1/3 OF THE BALL OR TO THE WIDEST TOP EDGE OF THE BALL IN ORDER TO EXPOSE THE TOP PLANE OF THE BALL. REMOVE ALL NAILS, STAPLES, ETC USED TO HOLD THE BALL TOGETHER.
19. TREE BALLS SHALL HAVE A MINIMUM DIAMETER IN FEET EQUAL TO 10" FOR EACH CALIPER INCH OF THE TREE.
20. ALL PLANTS SHALL BE HANDLED SO THAT ROOTS ARE ADEQUATELY PROTECTED AT ALL TIMES. DURING SHIPMENT, THE ENTIRE PLANT SHALL BE PROTECTED BY TARPAULINS OR OTHER SUITABLE COVERING. PLANT MATERIAL SUFFERING FROM WIND BURN OR OTHER WIND DAMAGE IS NOT ACCEPTABLE.
21. NO PLANT SHALL BE BOUND WITH ROPE OR WIRE IN A MANNER THAT DAMAGES THE BARK, BREAKS BRANCHES, OR DESTROYS ITS NATURAL SHAPE. NO PLANT MATERIAL REQUIRED TO BE BALLED AND BURLAPPED SHALL BE ACCEPTED IF THE BALL IS CRACKED OR BROKEN EITHER BEFORE OR DURING THE PROCESS OF PLANTING, OR WHEN REQUIRED BURLAP, STAVES, ROPES OR PLATFORM HAVE BEEN REMOVED.
22. ANY SERIES OF TREES OR SHRUBS TO BE PLACED IN A PARTICULAR ARRANGEMENT WILL BE FIELD CHECKED FOR ACCURACY BY THE OWNER. ANY PLANTS INCORRECTLY ARRANGED SHALL BE RELOCATED WITH THE OWNER'S APPROVAL.
23. PRE-EMERGENT HERBICIDE (TREFLAN OR EQUIVALENT) SHALL BE APPLIED (ACCORDING TO MANUFACTURER'S INSTRUCTIONS) TO ALL PLANT BEDS, PRIOR TO PLANTING, FOR NOXIOUS WEED CONTROL.
24. ALL PLANTING BEDS AND TREE AND SHRUB PLANTINGS SHALL RECEIVE A MINIMUM 3" DEEP SHREDDED HARDWOOD MULCH LAYER.
25. CONTRACTOR IS RESPONSIBLE FOR THE WATERING AND MAINTENANCE OF ALL INSTALLED PLANT MATERIAL, INCLUDING GRASS AREAS, UNTIL FINAL ACCEPTANCE BY OWNER. WATER ALL PLANT MATERIAL AT TIME OF PLANTING.
26. ALL PLANT MATERIAL IS TO BE GUARANTEED FOR ONE (1) YEAR. GUARANTEE PERIOD STARTS FROM DATE OF FINAL ACCEPTANCE.
27. OWNER RETAINS THE RIGHT TO INSPECT TREES AND SHRUBS FOR SIZE AND CONDITION OR ROOT BALL, INSECTS, INJURIES, AND LATENT DEFECTS AND TO REJECT UNSATISFACTORY OR DEFECTIVE MATERIAL AT ANY TIME DURING PROGRESS OF WORK. REMOVE REJECTED MATERIAL IMMEDIATELY FROM THE PROJECT SITE.
28. REPLACEMENTS SHALL CLOSELY MATCH ADJACENT SPECIMENS OF THE SAME SPECIES AND SHALL CONFORM TO THE STANDARDS FOR PLANT MATERIALS SPECIFIED. ALL REPLACED MATERIAL SHALL IMMEDIATELY BE REMOVED FROM THE SITE AND ALL NECESSARY REPAIRS TO PLANTS, GRADES, LAWN AREAS, PAVING, AND OTHER AREAS DAMAGED DURING REPLACEMENT SHALL BE MADE AT NO COST TO THE OWNER.
29. ONLY ONE REPLACEMENT PER TREE, SHRUB, OR PLANT WILL BE REQUIRED AT THE END OF THE WARRANTY PERIOD, EXCEPT FOR LOSSES OR REPLACEMENTS DUE TO FAILURE TO COMPLY WITH THE SPECIFIED REQUIREMENTS.

3 L-1.1 PLANTING DETAIL 1

SHRUB PLANTING IN GROUP DETAIL
NOT TO SCALE

TREE PLANTING DETAIL
NOT TO SCALE

NO.	DATE	REVISIONS

DATE: 05/20/2024
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: CES

LANDSCAPE PLAN DETAILS

MAP 89, PARCEL 021.00
CITY OF COLUMBIA, MAURY COUNTY, TENNESSEE

OAKWOOD AVENUE

PROJECT
23-0533

SHEET
L-1.1

T-SQUARE ENGINEERING

OAKWOOD SUBDIVISION

SITE DEVELOPMENT PLAN

City of Columbia, Maury County, Tennessee

Map 89, Parcel 021.00

ENGINEER:
T-SQUARE ENGINEERING
LOUIS SLOYAN, PE
111 SE PARKWAY COURT
FRANKLIN, TN 37064
(615)678-8212

SURVEYOR:
T-SQUARE SURVEYING
111 SE PARKWAY COURT
FRANKLIN, TN 37064
(615)678-8212

DEVELOPER:
SMITH DOUGLAS HOMES
DREW TAYLOR
DTAYLOR@SMITHDOUGLAS.COM

WATER:
COLUMBIA POWER & WATER SYSTEMS
201 PICKENS LANE
COLUMBIA, TN 38401
(931)388-4833

POWER:
COLUMBIA POWER & WATER SYSTEMS
201 PICKENS LANE
COLUMBIA, TN 38401
(931)388-4833

SEWER:
COLUMBIA WASTEWATER
1244 TREATMENT PLANT ROAD
COLUMBIA, TN 38401
(931)560-1001



SITE VICINITY MAP
N.T.S.

Sheet Schedule

C-0.0	COVER SHEET
C-1.0	EXISTING CONDITIONS
C-2.0	SITE DEVELOPMENT PLAN
C-2.1	PARCEL TABLES
C-2.2	PARCEL TABLES
C-2.3	RESOURCE PROTECTION PLAN
C-2.4	CIVIC SPACE PLAN
C-2.5	SITE DETAILS
C-2.6	SITE DETAILS
C-3.0	INITIAL EROSION CONTROL PLAN
C-3.1	TEMPORARY EROSION CONTROL PLAN
C-3.2	FINAL EROSION CONTROL PLAN
C-3.3	EROSION CONTROL DETAILS
C-5.0	GRADING PLAN
C-5.1	DRAINAGE PLAN
C-5.2	GRADING & DRAINAGE DETAILS
C-6.0	LIVE OAK DRIVE PLAN AND PROFILE
C-6.1	LIVE OAK DRIVE PLAN AND PROFILE
C-6.2	SPANISH OAK LANE AND PROFILE
C-6.3	SPANISH OAK LANE PLAN AND PROFILE
C-6.4	SCARLET OAK DRIVE PLAN AND PROFILE
C-6.5	LAUREL OAK LANE DRIVE PLAN AND PROFILE
C-6.6	ENGLISH OAK COURT & RED OAK DRIVE PLAN & PROFILE
C-7.0	UTILITY PLAN
C-7.1	FIRE HYDRANT COVERAGE PLAN

FLOOD NOTE
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OWNER OF RECORD

MICHAEL DAVID MUSGROVE
104 CASCADE LAN
BELL BUCKLE, TN 37020
MAP 89, PARCEL 021.00
DEED BOOK R2814, PAGE 943, R.O.M.C.

APPLICANT

T-SQUARE ENGINEERING
111 SE PARKWAY COURT
FRANKLIN, TN 37064
615.678.8212

REVISIONS

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COVER SHEET
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

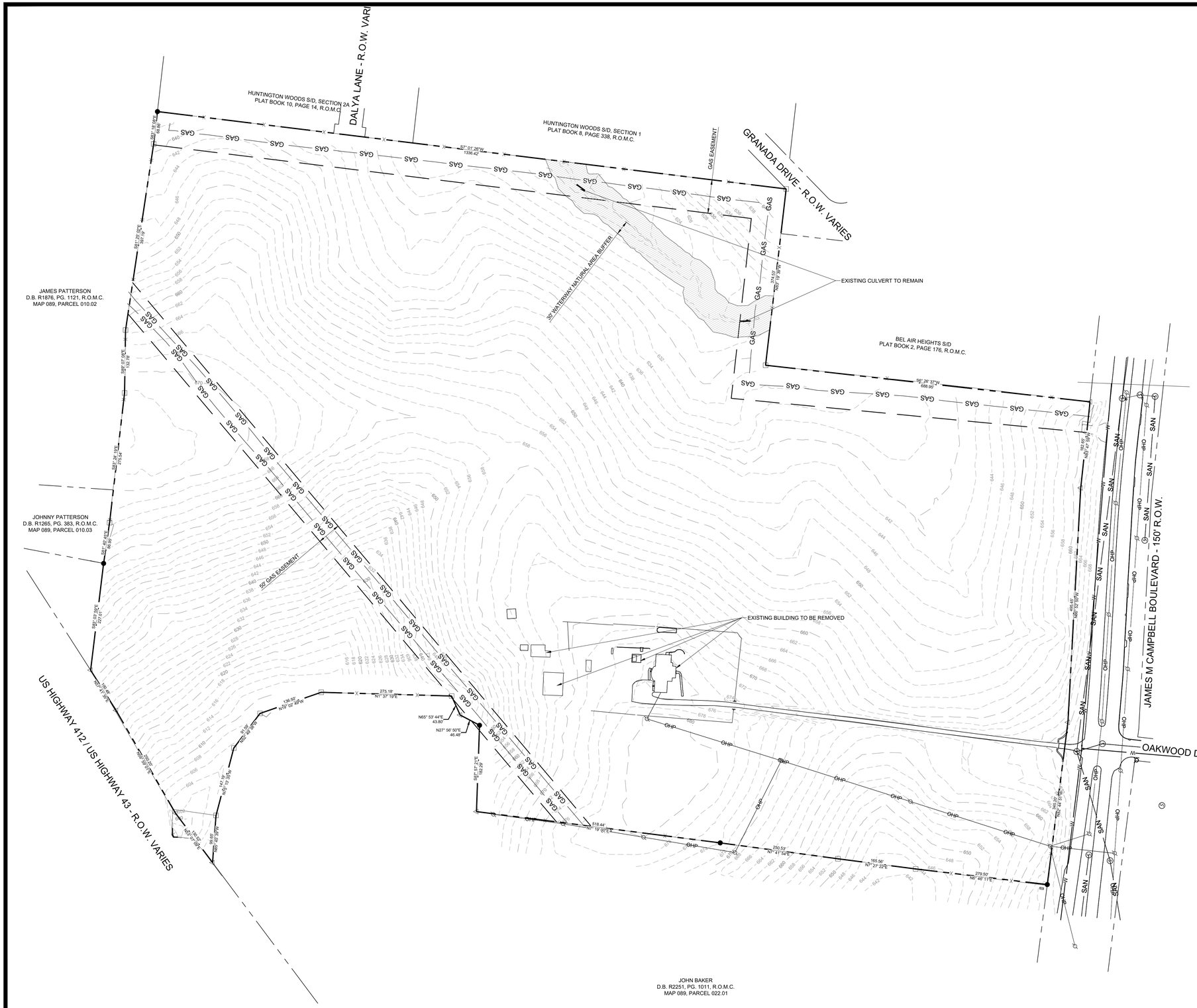
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T-SQUARE ENGINEERING

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GRAPHIC SCALE
(IN FEET)
100 0 50 100 200
SCALE: 1" = 100'

LEGEND

- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- EXISTING PROPERTY BOUNDARY
- ADJACENT PROPERTY LINES
- WATER NATURAL AREA BUFFER
- EXISTING POWER POLE
- OHP — EXISTING OVERHEAD POWER
- W — EXISTING WATER LINE
- EXISTING SANITARY MANHOLE
- EXISTING TREE LINE
- X — X — EXISTING FENCE

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EXISTING CONDITIONS

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

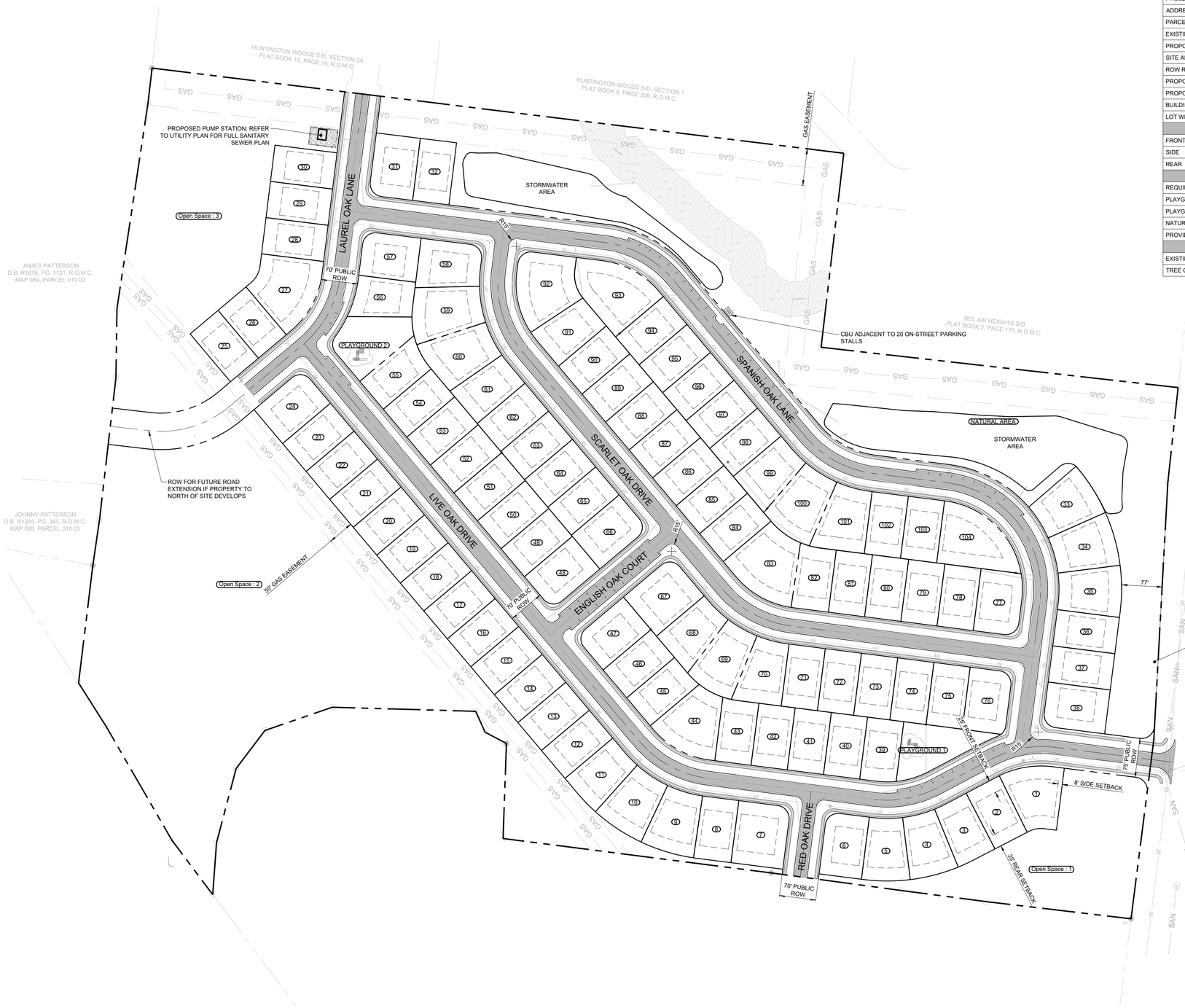
OAKWOOD DRIVE SUBDIVISION

LOUIS T. SLOYAN
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SITE DATA	
PROJECT NAME	OAKWOOD SUBDIVISION
PROJECT NUMBER	23-0533
ADDRESS	200 OAKWOOD DRIVE
PARCEL ID	MAP 089 PARCEL 021.00
EXISTING ZONING	CD - 3
PROPOSED ZONING	CD - 3
SITE AREA	56.73 AC
ROW RESERVATION	N/A
PROPOSED LOTS	106
PROPOSED DENSITY	1.89 UNITS/ACRE
BUILDING HEIGHT	35' MAXIMUM
LOT WIDTH	65' MINIMUM
SETBACKS	
FRONT	25' (PRIMARY); 20' (SECONDARY)
SIDE	8'
REAR	25'
CIVIC SPACE	
REQUIRED CIVIC SPACE	2.84 AC (5%)
PLAYGROUND 1	0.27 AC
PLAYGROUND 2	0.28 AC
NATURAL AREA	8.93 AC
PROVIDED CIVIC SPACE	9.48 AC (16.7%)
TREE CANOPY RETENTION	
EXISTING TREE CANOPY	16.48 AC
TREE CANOPY RETAINED	10.69 AC (7.91 AC REQUIRED)

N

GRAPHIC SCALE
(IN FEET)
100 0 50 100 200
SCALE: 1" = 100'

LEGEND

- PROPOSED LOT LINES
- (100) PROPOSED LOT NUMBER
- PROPOSED BUILDING SETBACK
- PROPOSED ACCESS EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED UTILITY EASEMENT
- W PROPOSED WATER LINE
- PROPOSED WATER SERVICE
- PROPOSED FIRE HYDRANT ASSEMBLY
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SITE DEVELOPMENT PLAN
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

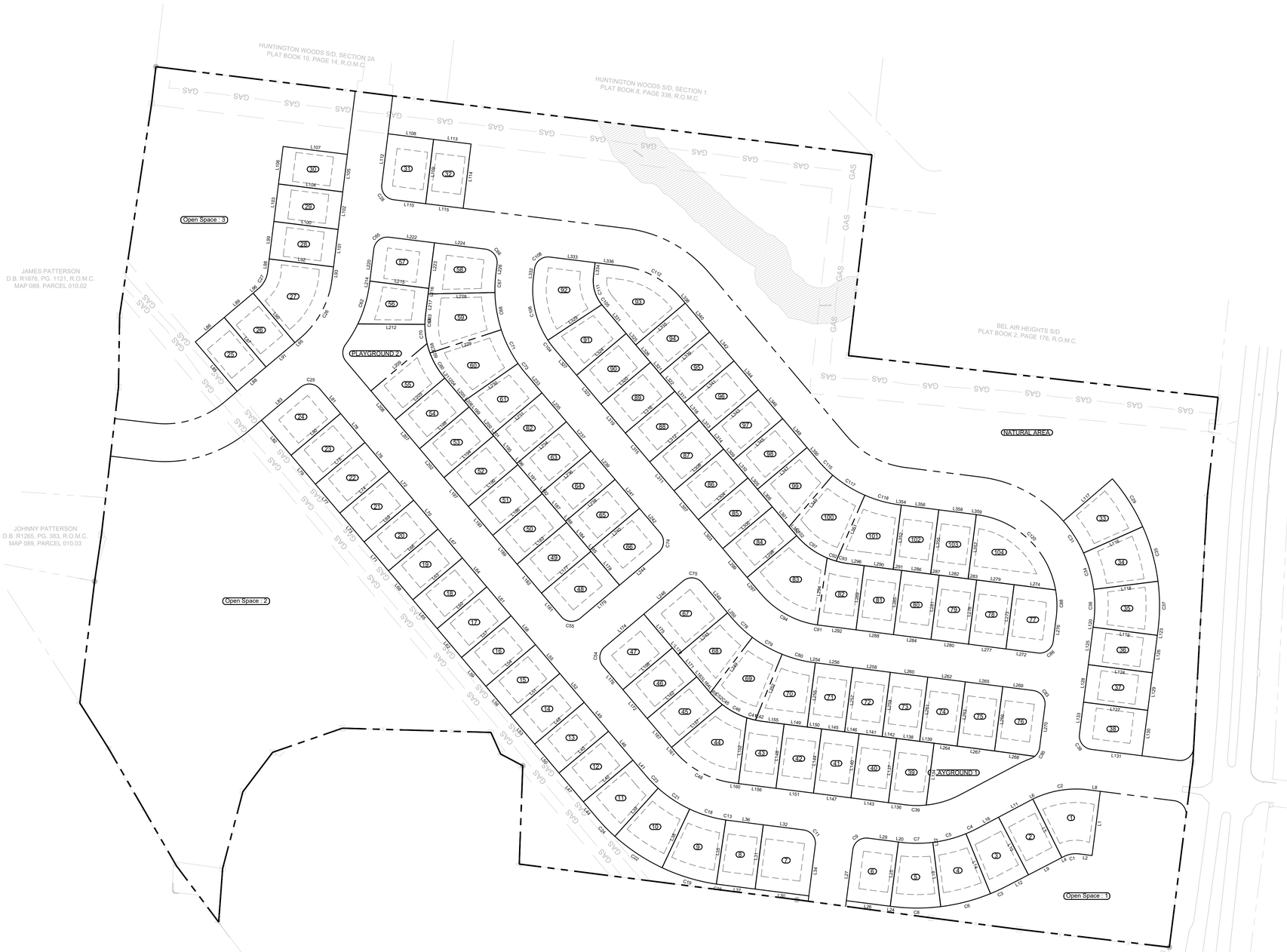
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STATE OF TENNESSEE
05/20/2024

PROJECT
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C-2.0

T-SQUARE ENGINEERING

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GRAPHIC SCALE

(IN FEET)

100 0 50 100 200

SCALE: 1" = 100'

Parcel Line Table		
Line #	Length	Direction
L1	120.00	N82° 44' 50.67"W
L2	23.91	N7° 15' 09.33"E
L4	3.46	N27° 23' 56.67"W
L5	120.89	N63° 40' 38.29"E
L6	3.05	S27° 49' 10.04"E
L8	21.86	S7° 15' 09.33"W
L9	69.53	N27° 23' 56.67"W
L10	120.34	N62° 36' 03.33"E
L11	71.80	S27° 49' 10.04"E
L12	46.05	N27° 23' 56.67"W
L14	120.00	N67° 47' 05.30"E
L16	44.30	S27° 49' 10.04"E
L19	120.00	N82° 57' 50.01"E
L20	4.10	S7° 15' 09.33"W
L22	0.00	S82° 57' 49.99"W
L24	4.12	N7° 15' 09.33"E
L25	120.00	S82° 44' 50.67"E
L26	82.00	N7° 15' 09.33"E
L27	95.00	S82° 44' 50.67"E
L29	57.00	S7° 15' 09.33"W
L30	100.28	N7° 15' 09.33"E
L31	120.00	S82° 44' 50.67"E
L32	75.28	S7° 15' 09.33"W
L34	95.00	N82° 44' 50.67"W
L35	120.00	S81° 35' 08.26"E
L36	65.13	S7° 15' 09.33"W

Parcel Line Table		
Line #	Length	Direction
L37	65.13	N7° 15' 09.33"E
L38	120.00	S64° 48' 52.39"E
L39	120.00	S48° 02' 36.51"E
L40	120.00	S40° 08' 09.18"E
L41	36.94	S49° 51' 50.82"W
L44	36.94	N49° 51' 50.82"E
L45	120.00	S40° 08' 09.18"E
L46	70.00	S49° 51' 50.82"W
L47	70.00	N49° 51' 50.82"E
L48	120.00	S40° 08' 09.18"E
L49	70.00	S49° 51' 50.82"W
L50	70.00	N49° 51' 50.82"E
L51	120.00	S40° 08' 09.18"E
L52	70.00	S49° 51' 50.82"W
L53	70.00	N49° 51' 50.82"E
L54	120.00	S40° 08' 09.18"E
L55	70.00	S49° 51' 50.82"W
L56	70.00	N49° 51' 50.82"E
L57	120.00	S40° 08' 09.18"E
L58	70.00	S49° 51' 50.82"W
L59	70.00	N49° 51' 50.82"E
L60	120.00	S40° 08' 09.18"E
L61	70.00	S49° 51' 50.82"W
L62	70.00	N49° 51' 50.82"E
L63	120.00	S40° 08' 09.18"E
L64	70.00	S49° 51' 50.82"W

Parcel Line Table		
Line #	Length	Direction
L65	70.00	N49° 51' 50.82"E
L66	120.00	S40° 08' 09.18"E
L67	70.00	S49° 51' 50.82"W
L68	70.00	N49° 51' 50.82"E
L69	120.00	S40° 08' 09.18"E
L70	70.00	S49° 51' 50.82"W
L71	70.00	N49° 51' 50.82"E
L72	70.00	S49° 51' 50.82"W
L73	70.00	N49° 51' 50.82"E
L74	120.00	S40° 08' 09.18"E
L75	120.00	S40° 08' 09.18"E
L76	70.00	S49° 51' 50.82"W
L77	70.00	N49° 51' 50.82"E
L78	70.00	S49° 51' 50.82"W
L79	70.00	N49° 51' 50.82"E
L80	120.00	S40° 08' 09.18"E
L81	60.00	S49° 51' 50.82"W
L82	85.00	N49° 51' 50.82"E
L83	95.00	S40° 08' 09.18"E
L85	120.00	N49° 51' 50.82"E
L86	70.00	S40° 08' 09.18"E
L87	120.00	S49° 51' 50.82"W
L88	70.00	N40° 08' 09.18"W
L89	70.00	S40° 08' 09.18"E
L90	120.00	S49° 51' 50.82"W
L91	70.00	N40° 08' 09.18"W

Parcel Line Table		
Line #	Length	Direction
L92	120.00	S7° 02' 11.90"W
L93	23.27	N82° 57' 48.10"W
L95	12.58	N40° 08' 09.18"W
L96	12.58	S40° 08' 09.18"E
L98	23.27	S82° 57' 48.10"E
L99	70.00	S82° 57' 48.10"E
L100	120.00	S7° 02' 11.90"W
L101	70.00	N82° 57' 48.10"W
L102	70.00	N82° 57' 48.10"W
L103	70.00	S82° 57' 48.10"E
L104	120.00	S7° 02' 11.90"W
L105	70.00	N82° 57' 48.10"W
L106	70.00	S82° 57' 48.10"E
L107	120.00	S7° 02' 11.90"W
L108	84.98	S7° 01' 39.87"W
L109	120.00	N82° 58' 20.13"W
L110	60.00	N7° 01' 39.87"E
L112	95.00	S82° 57' 48.10"E
L113	70.00	S7° 01' 39.87"W
L114	120.00	N82° 58' 20.13"W
L115	70.00	N7° 01' 39.87"E
L116	120.00	N23° 59' 38.92"W
L117	120.00	S40° 45' 54.80"E
L118	120.00	N7° 13' 23.04"W
L119	120.00	N7° 15' 09.33"E
L120	9.59	S82° 44' 50.67"E

Parcel Line Table		
Line #	Length	Direction
L123	9.59	N82° 44' 50.67"W
L124	120.00	N7° 15' 09.33"E
L125	70.00	S82° 44' 50.67"E
L126	70.00	N82° 44' 50.67"W
L127	120.00	N7° 15' 09.33"E
L128	70.00	S82° 44' 50.67"E
L129	70.00	N82° 44' 50.67"W
L130	85.00	N82° 44' 50.67"W
L131	95.00	N7° 15' 09.33"E
L133	60.00	S82° 44' 50.67"E
L134	115.63	N82° 44' 50.67"W
L136	31.70	N7° 15' 09.33"E
L137	120.00	S82° 44' 50.67"E
L138	43.01	S7° 15' 09.33"W
L139	26.99	S7° 15' 09.33"W
L140	120.00	S82° 44' 50.67"E
L141	43.01	S7° 15' 09.33"W
L142	26.99	S7° 15' 09.33"W
L143	70.00	N7° 15' 09.33"E
L144	120.00	S82° 44' 50.67"E
L145	43.01	S7° 15' 09.33"W
L146	26.99	S7° 15' 09.33"W
L147	70.00	N7° 15' 09.33"E
L148	120.00	S82° 44' 50.67"E
L149	43.01	S7° 15' 09.33"W
L150	26.99	S7° 15' 09.33"W

Parcel Line Table		
Line #	Length	Direction
L151	70.00	N7° 15' 09.33"E
L152	122.86	S82° 44' 50.67"E
L155	40.83	S7° 15' 09.33"W
L156	70.00	N7° 15' 09.33"E
L157	123.08	S40° 08' 09.18"E
L160	9.83	N7° 15' 09.33"E
L161	8.78	N49° 51' 50.82"E
L162	120.00	S40° 08' 09.18"E
L163	2.35	S49° 51' 50.82"W
L164	36.49	S49° 51' 50.82"W
L165	0.94	S49° 51' 50.82"W
L167	70.00	N49° 51' 50.82"E
L168	120.00	S40° 08' 09.18"E
L169	2.35	S49° 51' 50.82"W
L170	13.97	S49° 51' 50.82"W
L171	53.68	S49° 51' 50.82"W
L172	70.00	N49° 51' 50.82"E
L174	95.00	S40° 08' 09.18"E
L175	82.00	S49° 51' 50.82"W
L176	57.00	N49° 51' 50.82"E
L177	120.00	S40° 08' 09.18"E
L178	82.00	S49° 51' 50.82"W
L179	95.00	N40° 08' 09.18"W
L181	57.00	N49° 51' 50.82"E
L182	70.00	N49° 51' 50.82"E
L183	120.00	S40° 08' 09.18"E

FLOOD NOTE

THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS *"ZONE X"* AS EVIDENCED ON FEMA PANEL # *47119C0170E* OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.

APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

T-SQUARE ENGINEERING

REVISIONS

NO.	DATE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

OAKWOOD DRIVE SUBDIVISION

PARCEL TABLES

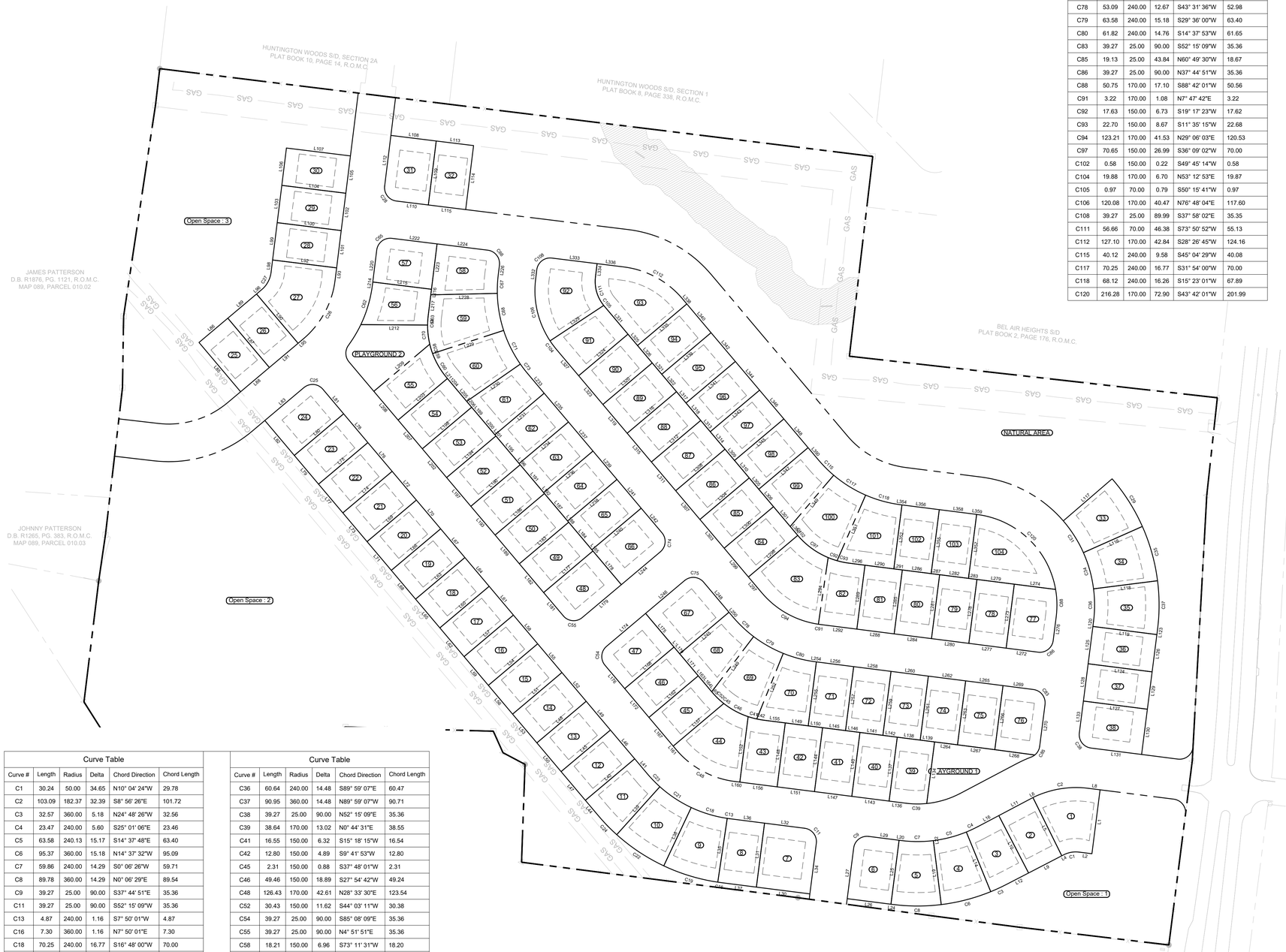
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
No. 115485
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

SHEET
C-2.1

P:\Projects\2023\23-0533 (Oakwood Dr. - Drew Taylor)\Production\23-0533 1 - Site Plan.dwg, 5/20/2024 10:54:29 AM



Curve Table					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C75	39.27	25.00	90.00	S4° 51' 51"W	35.36
C78	53.09	240.00	12.67	S43° 31' 36"W	52.98
C79	63.58	240.00	15.18	S29° 36' 00"W	63.40
C80	61.82	240.00	14.76	S14° 37' 53"W	61.65
C83	39.27	25.00	90.00	S52° 15' 09"W	35.36
C85	19.13	25.00	43.84	N60° 49' 30"W	18.67
C86	39.27	25.00	90.00	N37° 44' 51"W	35.36
C88	50.75	170.00	17.10	S88° 42' 01"W	50.56
C91	3.22	170.00	1.08	N7° 47' 42"E	3.22
C92	17.63	150.00	6.73	S19° 17' 23"W	17.62
C93	22.70	150.00	8.67	S11° 35' 15"W	22.68
C94	123.21	170.00	41.53	N29° 06' 03"E	120.53
C97	70.65	150.00	26.99	S36° 09' 02"W	70.00
C102	0.58	150.00	0.22	S49° 45' 14"W	0.58
C104	19.88	170.00	6.70	N53° 12' 53"E	19.87
C105	0.97	70.00	0.79	S50° 15' 41"W	0.97
C106	120.08	170.00	40.47	N76° 48' 04"E	117.60
C108	39.27	25.00	89.99	S37° 58' 02"E	35.35
C111	56.66	70.00	46.38	S73° 50' 52"W	55.13
C112	127.10	170.00	42.84	S28° 26' 45"W	124.16
C115	40.12	240.00	9.58	S45° 04' 29"W	40.08
C117	70.25	240.00	16.77	S31° 54' 00"W	70.00
C118	68.12	240.00	16.26	S15° 23' 01"W	67.89
C120	216.28	170.00	72.90	S43° 42' 01"W	201.99

GRAPHIC SCALE
(IN FEET)
100 0 50 100 200
SCALE: 1" = 100'

Parcel Line Table		
Line #	Length	Direction
L184	67.00	S49° 51' 50.82"W
L185	3.00	S49° 51' 50.82"W
L186	120.00	S40° 08' 09.18"E
L187	67.00	S49° 51' 50.82"W
L188	3.00	S49° 51' 50.82"W
L189	70.00	N49° 51' 50.82"E
L190	120.00	S40° 08' 09.18"E
L191	67.90	S49° 51' 50.82"W
L192	2.10	S49° 51' 50.82"W
L193	70.00	N49° 51' 50.82"E
L194	120.00	S40° 08' 09.18"E
L195	67.00	S49° 51' 50.82"W
L196	3.00	S49° 51' 50.82"W
L197	70.00	N49° 51' 50.82"E
L198	120.00	S40° 08' 09.18"E
L199	26.35	S49° 51' 50.82"W
L200	40.65	S49° 51' 50.82"W
L201	3.00	S49° 51' 50.82"W
L202	70.00	N49° 51' 50.82"E
L203	120.00	S40° 08' 09.18"E
L204	26.35	S49° 51' 50.82"W
L205	29.35	S49° 51' 50.82"W
L206	14.30	S49° 51' 50.82"W
L207	70.00	N49° 51' 50.82"E
L208	70.00	N49° 51' 50.82"E
L209	136.12	S40° 08' 09.18"E

Parcel Line Table		
Line #	Length	Direction
L211	2.36	S49° 51' 50.82"W
L212	124.22	N0° 22' 48.55"E
L214	5.40	S82° 57' 48.10"E
L215	110.01	S7° 01' 39.87"W
L216	10.49	N82° 58' 10.59"W
L217	39.21	N82° 56' 53.33"W
L220	60.00	S82° 57' 48.10"E
L222	85.00	S7° 01' 39.87"W
L223	85.00	N82° 58' 10.59"W
L224	95.00	S7° 01' 39.87"W
L226	18.04	N82° 57' 48.10"W
L228	123.79	N1° 15' 23.61"W
L229	138.95	N18° 01' 39.49"W
L230	121.57	N34° 47' 55.36"W
L231	120.00	N40° 08' 09.18"W
L233	47.67	S49° 51' 50.82"W
L234	120.00	N40° 08' 09.18"W
L235	70.00	S49° 51' 50.82"W
L236	120.00	N40° 08' 09.18"W
L237	70.90	S49° 51' 50.82"W
L238	120.00	N40° 08' 09.18"W
L239	69.10	S49° 51' 50.82"W
L240	120.00	N40° 08' 09.18"W
L241	70.00	S49° 51' 50.82"W
L242	60.00	S49° 51' 50.82"W
L244	95.00	N40° 08' 09.18"W

Parcel Line Table		
Line #	Length	Direction
L245	120.00	N40° 08' 09.18"W
L246	95.00	S40° 08' 09.18"E
L248	73.32	S49° 51' 50.82"W
L249	128.99	N52° 48' 37.92"W
L250	11.56	S49° 51' 50.82"W
L252	131.72	N67° 59' 22.62"W
L254	1.95	S7° 15' 09.32"W
L255	120.00	N82° 44' 50.67"W
L256	70.00	S7° 15' 09.33"W
L257	120.00	N82° 44' 50.67"W
L258	70.00	S7° 15' 09.33"W
L259	120.00	N82° 44' 50.67"W
L260	70.00	S7° 15' 09.33"W
L261	120.00	N82° 44' 50.67"W
L262	70.00	S7° 15' 09.33"W
L263	120.00	N82° 44' 50.67"W
L264	43.01	N7° 15' 09.33"E
L265	70.00	S7° 15' 09.33"W
L266	120.21	N82° 44' 50.67"W
L267	70.00	N7° 25' 27.71"E
L268	75.03	N7° 34' 08.45"E
L269	57.00	S7° 15' 09.33"W
L270	78.31	N82° 44' 50.67"W
L272	60.00	N7° 15' 09.33"E
L273	120.00	S82° 44' 50.67"E
L274	77.48	S7° 15' 09.33"W

Parcel Line Table		
Line #	Length	Direction
L276	45.00	N82° 44' 50.67"W
L277	70.00	N7° 15' 09.33"E
L278	120.00	S82° 44' 50.67"E
L279	70.00	S7° 15' 09.33"W
L280	70.00	N7° 15' 09.33"E
L281	120.00	S82° 44' 50.67"E
L282	54.08	S7° 15' 09.33"W
L283	15.92	S7° 15' 09.33"W
L284	70.00	N7° 15' 09.33"E
L285	120.00	S82° 44' 50.67"E
L286	54.08	S7° 15' 09.33"W
L287	15.92	S7° 15' 09.33"W
L288	70.00	N7° 15' 09.33"E
L289	120.00	S82° 44' 50.67"E
L290	54.08	S7° 15' 09.33"W
L291	15.92	S7° 15' 09.33"W
L292	68.95	N7° 15' 09.33"E
L294	125.38	S81° 39' 45.78"E
L296	29.95	S7° 15' 09.33"W
L297	38.42	N49° 51' 50.82"E
L298	120.00	S40° 08' 09.18"E
L299	70.00	N49° 51' 50.82"E
L300	120.00	S40° 08' 09.18"E
L301	48.27	S49° 51' 50.82"W
L302	21.15	S49° 51' 50.82"W
L303	70.00	N49° 51' 50.82"E

Parcel Line Table		
Line #	Length	Direction
L304	120.00	S40° 08' 09.18"E
L305	27.54	S49° 51' 50.82"W
L306	42.46	S49° 51' 50.82"W
L307	70.00	N49° 51' 50.82"E
L308	120.00	S40° 08' 09.18"E
L309	27.54	S49° 51' 50.82"W
L310	42.46	S49° 51' 50.82"W
L311	70.00	N49° 51' 50.82"E
L312	120.00	S40° 08' 09.18"E
L313	27.54	S49° 51' 50.82"W
L314	42.46	S49° 51' 50.82"W
L315	70.00	N49° 51' 50.82"E
L316	120.00	S40° 08' 09.18"E
L317	27.54	S49° 51' 50.82"W
L318	42.46	S49° 51' 50.82"W
L319	70.00	N49° 51' 50.82"E
L320	120.00	S40° 08' 09.18"E
L321	27.54	S49° 51' 50.82"W
L322	42.46	S49° 51' 50.82"W
L323	70.00	N49° 51' 50.82"E
L324	120.00	S40° 08' 09.18"E
L325	27.54	S49° 51' 50.82"W
L326	42.46	S49° 51' 50.82"W
L327	64.13	N49° 51' 50.82"E
L329	119.66	S33° 26' 04.79"E
L331	69.03	S49° 51' 50.82"W

Parcel Line Table		
Line #	Length	Direction
L332	18.06	S82° 57' 48.10"E
L333	85.00	S7° 01' 43.24"W
L334	25.07	N82° 57' 48.10"W
L335	120.00	N40° 08' 09.18"W
L336	49.80	S7° 01' 33.44"W
L338	12.84	S49° 51' 50.82"W
L339	120.00	N40° 08' 09.18"W
L340	70.00	S49° 51' 50.82"W
L341	120.00	N40° 08' 09.18"W
L342	70.00	S49° 51' 50.82"W
L343	120.00	N40° 08' 09.18"W
L344	70.00	S49° 51' 50.82"W
L345	120.00	N40° 08' 09.18"W
L346	70.00	S49° 51' 50.82"W
L347	120.00	N40° 08' 09.18"W
L348	70.00	S49° 51' 50.82"W
L349	125.09	N49° 42' 52.37"W
L350	29.98	S49° 51' 50.82"W
L351	133.22	N66° 29' 08.24"W
L352	120.00	N82° 44' 50.67"W
L354	2.13	S7° 15' 09.33"W
L355	120.00	N82° 44' 50.67"W
L356	70.00	S7° 15' 09.33"W
L357	120.00	N82° 44' 50.67"W
L358	70.00	S7° 15' 09.33"W
L359	0.92	S7° 15' 09.33"W

Curve Table					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C1	30.24	50.00	34.65	N10° 04' 24"W	29.78
C2	103.09	182.37	32.39	S8° 56' 26"E	101.72
C3	32.57	360.00	5.18	N24° 48' 26"W	32.56
C4	23.47	240.00	5.60	S25° 01' 06"E	23.46
C5	63.58	240.13	15.17	S14° 37' 48"E	63.40
C6	95.37	360.00	15.18	N14° 37' 32"W	95.09
C7	59.86	240.00	14.29	S0° 06' 26"W	59.71
C8	89.78	360.00	14.29	N0° 06' 29"E	89.54
C9	39.27	25.00	90.00	S37° 44' 51"E	35.36
C11	39.27	25.00	90.00	S52° 15' 09"W	35.36
C13	4.87	240.00	1.16	S7° 50' 01"W	4.87
C16	7.30	360.00	1.16	N7° 50' 01"E	7.30
C18	70.25	240.00	16.77	S16° 48' 00"W	70.00
C19	105.38	360.00	16.77	N16° 48' 00"E	105.00
C21	70.25	240.00	16.77	S33° 34' 16"W	70.00
C22	105.38	360.00	16.77	N33° 34' 16"E	105.00
C23	33.12	240.00	7.91	S45° 54' 37"W	33.10
C24	49.68	360.00	7.91	N45° 54' 37"E	49.65
C25	39.27	25.00	90.00	S4° 51' 51"W	35.36
C26	127.07	170.00	42.83	N61° 32' 59"W	124.13
C27	37.37	50.00	42.83	S61° 32' 59"E	36.51
C28	39.27	25.00	90.01	N52° 01' 56"E	35.36
C29	105.38	360.00	16.77	S57° 37' 13"W	105.00
C31	70.25	240.00	16.77	N57° 37' 13"E	70.00
C34	70.25	240.00	16.77	N74° 23' 29"E	70.00
C35	105.38	360.00	16.77	S74° 23' 29"W	105.00

Curve Table					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C36	60.64	240.00	14.48	S89° 59' 07"E	60.47
C37	90.95	360.00	14.48	N89° 59' 07"W	90.71
C38	39.27	25.00	90.00	N52° 15' 09"E	35.36
C39	38.64	170.00	13.02	N0° 44' 31"E	38.55
C41	16.55	150.00	6.32	S15° 18' 15"W	16.54
C42	12.80	150.00	4.89	S9° 41' 53"W	12.80
C45	2.31	150.00	0.88	S37° 48' 01"W	2.31
C46	49.46	150.00	18.89	S27° 54' 42"W	49.24
C48	126.43	170.00	42.61	N28° 33' 30"E	123.54
C52	30.43	150.00	11.62	S44° 03' 11"W	30.38
C54	39.27	25.00	90.00	S85° 08' 09"E	35.36
C55	39.27	25.00	90.00	N4° 51' 51"E	35.36
C58	18.21	150.00	6.96	S73° 11' 31"W	18.20
C59	10.13	150.00	3.87	S67° 46' 44"W	10.13
C60	41.83	150.00	15.98	S57° 51' 14"W	41.70
C62	77.41	240.00	18.48	S73° 43' 23"E	77.08
C63	11.01	150.00	4.21	N85° 04' 00"W	11.01
C64	6.41	150.00	2.45	N88° 23' 41"W	6.41
C65	39.27	25.00	89.99	S37° 58' 04"E	35.35
C66	39.27	25.00	90.01	S52° 01' 56"W	35.36
C67	34.74	240.00	8.29	N87° 06' 36"W	34.71
C68	70.25	240.00	16.77	S80° 21' 28"W	70.00
C70	35.89	150.00	13.71	N83° 31' 30"E	35.81
C71	70.25	240.00	16.77	S63° 35' 13"W	70.00
C73	22.36	240.00	5.34	S52° 31' 58"W	22.35
C74	39.27	25.00	90.00	N85° 08' 09"W	35.36

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS *"ZONE X"* AS EVIDENCED ON FEMA PANEL # *47119C0170E* OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE
104 CASCADE LAN
BELL BUCKLE, TN 37020
MAP 89, PARCEL 021.00
DEED BOOK R2814, PAGE 943, R.O.M.C.

APPLICANT
T-SQUARE ENGINEERING
111 SE PARKWAY COURT
FRANKLIN, TN 37064
615.678.8212

T-SQUARE ENGINEERING

REVISIONS

NO.	DATE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

OAKWOOD DRIVE SUBDIVISION

PARCEL TABLES

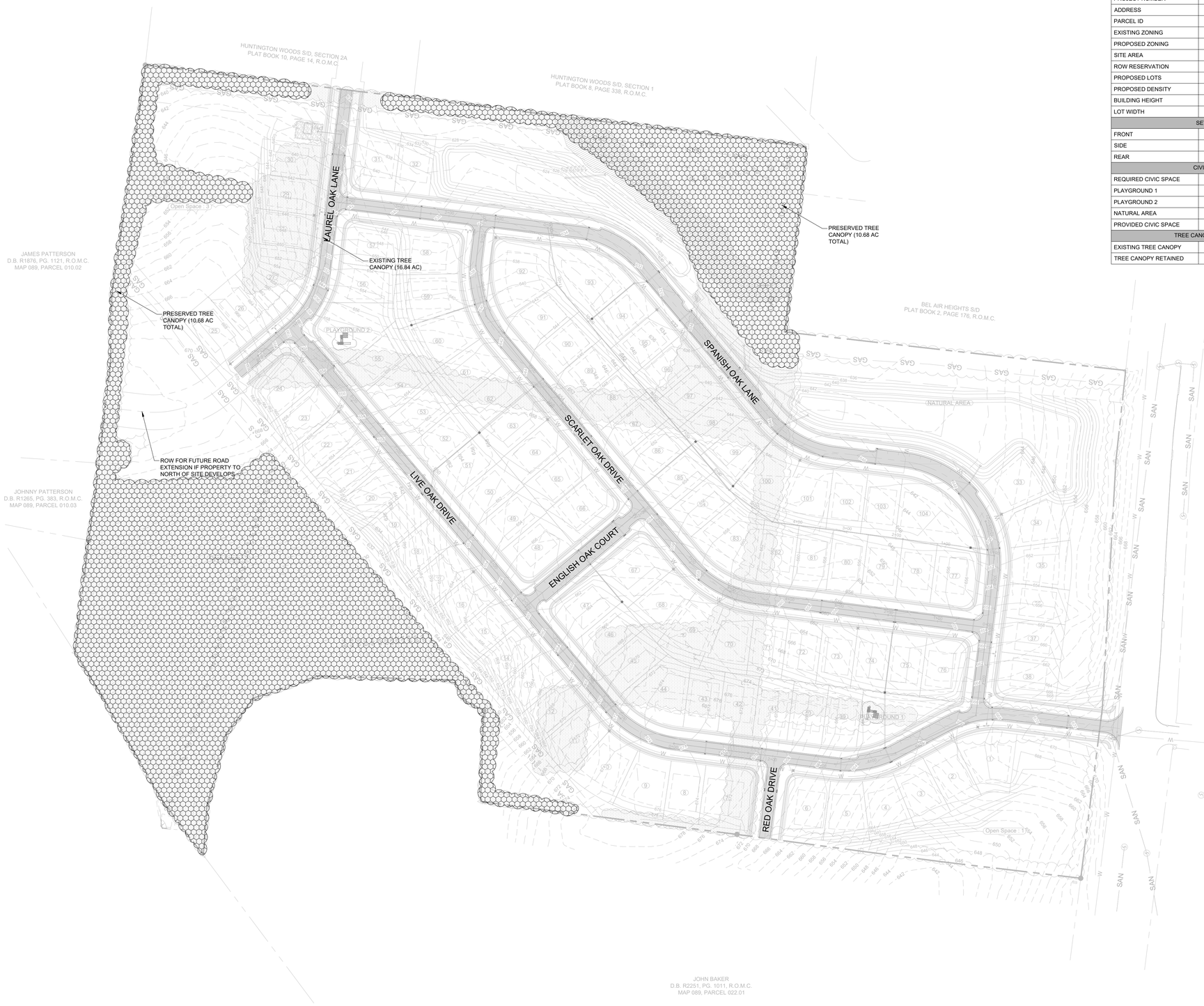
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
No. 115485
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

SHEET
C-2.2

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SITE DATA	
PROJECT NAME	OAKWOOD SUBDIVISION
PROJECT NUMBER	23-0533
ADDRESS	200 OAKWOOD DRIVE
PARCEL ID	MAP 089 PARCEL 021.00
EXISTING ZONING	CD - 3
PROPOSED ZONING	CD - 3
SITE AREA	56.73 AC
ROW RESERVATION	N/A
PROPOSED LOTS	106
PROPOSED DENSITY	1.89 UNITS/ACRE
BUILDING HEIGHT	35' MAXIMUM
LOT WIDTH	65' MINIMUM
SETBACKS	
FRONT	25' (PRIMARY); 20' (SECONDARY)
SIDE	8'
REAR	25'
CIVIC SPACE	
REQUIRED CIVIC SPACE	2.84 AC (5%)
PLAYGROUND 1	0.27 AC
PLAYGROUND 2	0.28 AC
NATURAL AREA	8.93 AC
PROVIDED CIVIC SPACE	9.48 AC (16.7%)
TREE CANOPY RETENTION	
EXISTING TREE CANOPY	16.48 AC
TREE CANOPY RETAINED	10.69 AC (7.91 AC REQUIRED)

N

GRAPHIC SCALE
(IN FEET)
100 0 50 100 200
SCALE: 1" = 100'

LEGEND

- PROPOSED LOT LINES
- PROPOSED LOT NUMBER
- PROPOSED BUILDING SETBACK
- PROPOSED ACCESS EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED UTILITY EASEMENT
- PROPOSED WATER LINE
- PROPOSED WATER SERVICE
- PROPOSED FIRE HYDRANT ASSEMBLY
- PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY SERVICE
- PROPOSED STORM INLET
- PROPOSED HEADWALL

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "*ZONE X*" AS EVIDENCED ON FEMA PANEL # *47119C0170E* OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

T-SQUARE ENGINEERING

REVISIONS

NO.	DATE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

RESOURCE PROTECTION PLAN
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
No. 115485
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

SHEET
C-2.3

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SITE DATA	
PROJECT NAME	OAKWOOD SUBDIVISION
PROJECT NUMBER	23-0533
ADDRESS	200 OAKWOOD DRIVE
PARCEL ID	MAP 089 PARCEL 021.00
EXISTING ZONING	CD - 3
PROPOSED ZONING	CD - 3
SITE AREA	56.73 AC
ROW RESERVATION	N/A
PROPOSED LOTS	106
PROPOSED DENSITY	1.89 UNITS/ACRE
BUILDING HEIGHT	35' MAXIMUM
LOT WIDTH	65' MINIMUM
SETBACKS	
FRONT	25' (PRIMARY); 20' (SECONDARY)
SIDE	8'
REAR	25'
CIVIC SPACE	
REQUIRED CIVIC SPACE	2.84 AC (5%)
PLAYGROUND 1	0.27 AC
PLAYGROUND 2	0.28 AC
NATURAL AREA	8.93 AC
PROVIDED CIVIC SPACE	9.48 AC (16.7%)
TREE CANOPY RETENTION	
EXISTING TREE CANOPY	16.48 AC
TREE CANOPY RETAINED	10.69 AC (7.91 AC REQUIRED)

N

GRAPHIC SCALE
(IN FEET)
100 0 50 100 200
SCALE: 1" = 100'

CIVIC PLAN

LEGEND
- PROPOSED LOT LINES
- PROPOSED LOT NUMBER
- WATER NATURAL AREA BUFFER
- DESIGNATED CIVIC SPACE

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS *"ZONE X"* AS EVIDENCED ON FEMA PANEL # *47119C0170E* OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

REVISIONS

NO.	DATE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

CIVIC SPACE PLAN

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

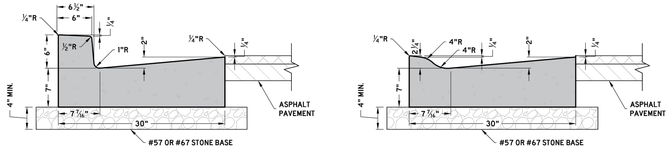
LOUIS T. SLOYER
REGISTERED ENGINEER
AGRICULTURE
No. 116486
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

SHEET
C-2.4

T-SQUARE ENGINEERING

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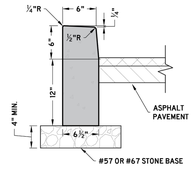


6-30 CONCRETE CURB AND GUTTER

LOWERED CONCRETE CURB AND GUTTER

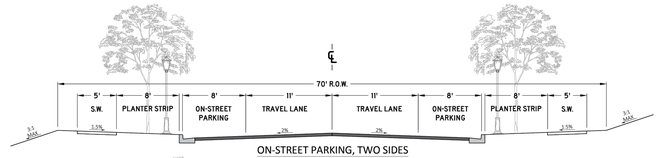
NOTES:

1. BASED ON TDOT STANDARD DRAWING RP-VC-11
2. ONLY PERMITTED IN APPLICABLE ROADWAY SECTIONS
3. 4" MIN. THICK #57 OR # 67 STONE BASE
4. CLASS A 3000 PSI CONCRETE
5. 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)
   - 5.7. POLYPROPYLENE FOAM JOINT FILLER (ASTM D8139)
6. CONTRACTION JOINTS SHALL BE AS FOLLOWS:
   - 6.1. A MAXIMUM SPACING OF 10 FEET
   - 6.2. A MINIMUM SPACING OF 6 FEET
   - 6.3. 1/4 INCH DEPTH, EITHER SAWCUT OR HAND GROOVED.
7. ELEMENTS OF THIS DETAIL MAY BE ALTERED AND APPROVED BY THE CITY ENGINEER

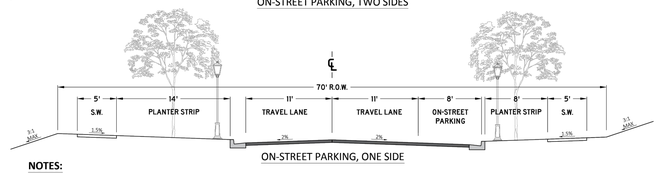


VERTICAL POST CURB

CITY OF COLUMBIA DEVELOPMENT SERVICES DEPARTMENT ENGINEERING DIVISION	CURB AND GUTTER AND POST CURB (NTS)	DATE 6/9/2022
STANDARD DETAILS		SD-01



ON-STREET PARKING, TWO SIDES

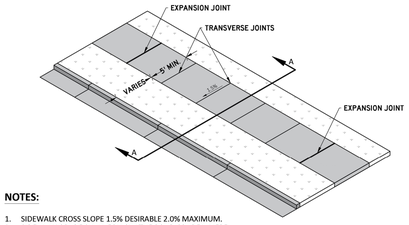


ON-STREET PARKING, ONE SIDE

NOTES:

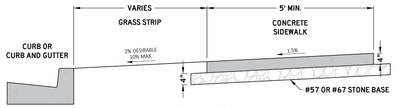
1. ONLY PERMITTED WITHIN THE APPLICABLE ZONING DISTRICTS.
2. ONLY PERMITTED ON MINOR LOCAL AND MAJOR LOCAL ROADWAY CLASSIFICATIONS.
3. PAVEMENT SECTION SHALL FOLLOW APPLICABLE ROADWAY CLASSIFICATION.
4. CURB AND GUTTER, SEE SD-01
5. TREES SHALL BE CENTERED WITHIN THE PLANTING STRIP, OFFSET A MINIMUM OF 20 FEET ALONG THE CENTERLINE OF THE ROAD FROM ANY STREET LIGHTING.
6. DECORATIVE LIGHT BASES SHALL BE BETWEEN 18" AND 24" BEHIND THE BACK OF CURB.
7. ADDITIONAL RIGHT OF WAY MAY BE REQUIRED.
8. DIMENSIONS REFLECT A MINIMUM STANDARD.
9. ELEMENTS OF THIS DETAIL MAY BE ALTERED AND APPROVED BY THE CITY ENGINEER.

CITY OF COLUMBIA DEVELOPMENT SERVICES DEPARTMENT ENGINEERING DIVISION	CHARACTER DISTRICT STREET URBAN NEIGHBORHOOD (NTS)	DATE 6/9/2022
STANDARD DETAILS		DS-03



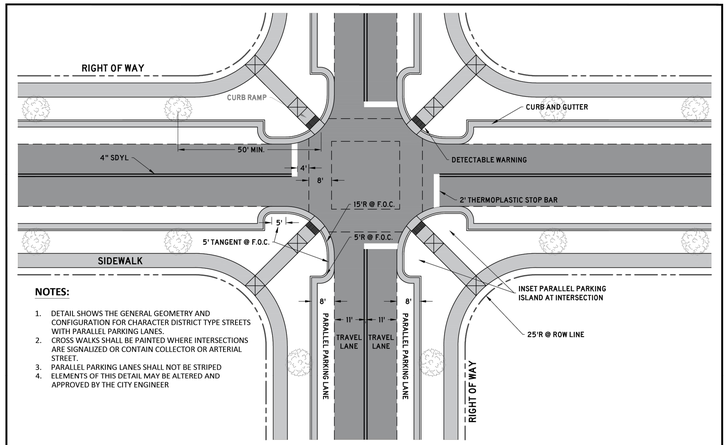
NOTES:

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. 4" MIN. THICKNESS CLASS A 3000 PSI CONCRETE WITH FIBER REINFORCEMENT, BROOM FINISHED.
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 PRACTICABLE. ON SIDEWALKS GREATER THAN 8 FEET IN 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



SECTION AA

CITY OF COLUMBIA DEVELOPMENT SERVICES DEPARTMENT ENGINEERING DIVISION	CONCRETE SIDEWALK (NTS)	DATE 6/9/2022
STANDARD DETAILS		SD-10



NOTES:

1. DETAIL SHOWS THE GENERAL GEOMETRY AND CONFIGURATION FOR CHARACTER DISTRICT TYPE STREETS WITH PARALLEL PARKING LANES.
2. CROSS WALKS SHALL BE PAINTED WHERE INTERSECTIONS ARE SIGNALIZED OR CONTAIN COLLECTOR OR ARTERIAL STREET.
3. PARALLEL PARKING LANES SHALL NOT BE STRIPED
4. ELEMENTS OF THIS DETAIL MAY BE ALTERED AND APPROVED BY THE CITY ENGINEER

CITY OF COLUMBIA DEVELOPMENT SERVICES DEPARTMENT ENGINEERING DIVISION	INTERSECTION CONFIGURATION AND GEOMETRY (NTS)	DATE 6/9/2022
STANDARD DETAILS		SD-07

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS *"ZONE X"* AS EVIDENCED ON FEMA PANEL # *47119C0172E* OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

T-SQUARE ENGINEERING

REVISIONS

NO.	DATE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

SITE DETAILS
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

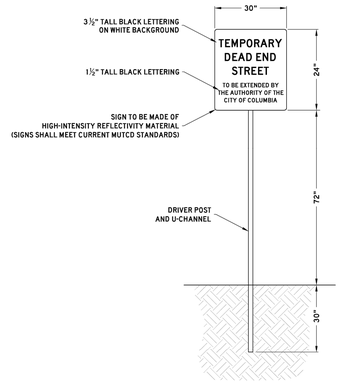
OAKWOOD DRIVE SUBDIVISION

LOUIS T. SLOYAN
REGISTERED ENGINEER
AGRICULTURE
No. 116455
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

SHEET
C-2.5

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CITY OF COLUMBIA
DEVELOPMENT SERVICES DEPARTMENT
ENGINEERING DIVISION

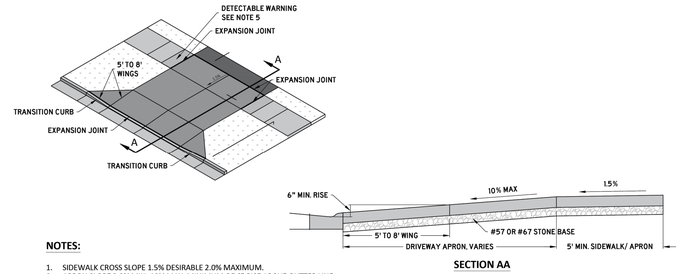
STANDARD DETAILS

STREET CONTINUATION SIGNAGE

(NTS)

DATE 6/9/2022

SD-19



SECTION AA

NOTES:

1. SIDEWALK CROSS SLOPE 1.5% DESIRABLE 2.0% MAXIMUM.
2. APRON SLOPE 2.0% MIN. 10% MAX. MINIMUM OF 6" RISE ABOVE GUTTER LINE.
3. 4" MIN. THICK #57 OR # 67 STONE BASE
4. CLASS A 3000 PSI CONCRETE WITH FIBER REINFORCEMENT
   - 4.1. 6" MIN. THICKNESS RESIDENTIAL.
   - 4.2. 8" MIN. THICKNESS COMMERCIAL, MULTI-FAMILY, AND MIXED-USE.
5. EXPANSION JOINTS SHALL BE AS FOLLOWS:
   - 5.1. 1/2 INCH THICK.
   - 5.2. RUBBERIZED EXPANSION JOINT FILLER (AASHTO M153, TYPE 1).
   - 5.3. POLYPROPYLENE FOAM JOINT FILLER (ASTM D8139).
6. DETECTABLE WARNINGS WHERE DRIVEWAY IS STOP CONTROLLED.
7. ELEMENTS OF THIS DETAIL MAY BE ALTERED AND APPROVED BY THE CITY ENGINEER

CITY OF COLUMBIA
DEVELOPMENT SERVICES DEPARTMENT
ENGINEERING DIVISION

STANDARD DETAILS

DRIVEWAY APRON

(NTS)

DATE 6/9/2022

SD-12

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS *"ZONE X"* AS EVIDENCED ON FEMA PANEL # *47119C0172E* OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

T-SQUARE ENGINEERING

REVISIONS

NO.	DATE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

SITE DETAILS

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

LOUIS T. SLOYD
REGISTERED ENGINEER
AGRICULTURE
No. 116455
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

SHEET
C-2.6

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N

GRAPHIC SCALE
(IN FEET)
100 0 50 100 200
SCALE: 1" = 100'

LEGEND	
500	EXISTING MAJOR CONTOURS
499	EXISTING MINOR CONTOURS
LOD	PROPOSED LIMITS OF DISTURBANCE
SF	PROPOSED SILT FENCE
	TREE PROTECTION FENCING
	PROPOSED CONSTRUCTION EXIT
	PROPOSED CONCRETE WASHOUT

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS *"ZONE X"* AS EVIDENCED ON FEMA PANEL # *47119C0170E* OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

T-SQUARE ENGINEERING

NO.	DATE	REVISIONS

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

OAKWOOD DRIVE SUBDIVISION

INITIAL EROSION CONTROL PLAN

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

LOUIS T. SLOYAN
REGISTERED ENGINEER
AGRICULTURE
No. 116455
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

SHEET
C-3.0

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LEGEND

500	EXISTING MAJOR CONTOURS
499	EXISTING MINOR CONTOURS
LOD	PROPOSED LIMITS OF DISTURBANCE
SF	PROPOSED SILT FENCE
	TREE PROTECTION FENCING
	PROPOSED CONSTRUCTION EXIT
	PROPOSED CONCRETE WASHOUT
	PROPOSED INLET PROTECTION

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "*ZONE X*" AS EVIDENCED ON FEMA PANEL # *47119C0170E* OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

NO.	DATE	REVISIONS

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

TEMPORARY EROSION CONTROL PLAN
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

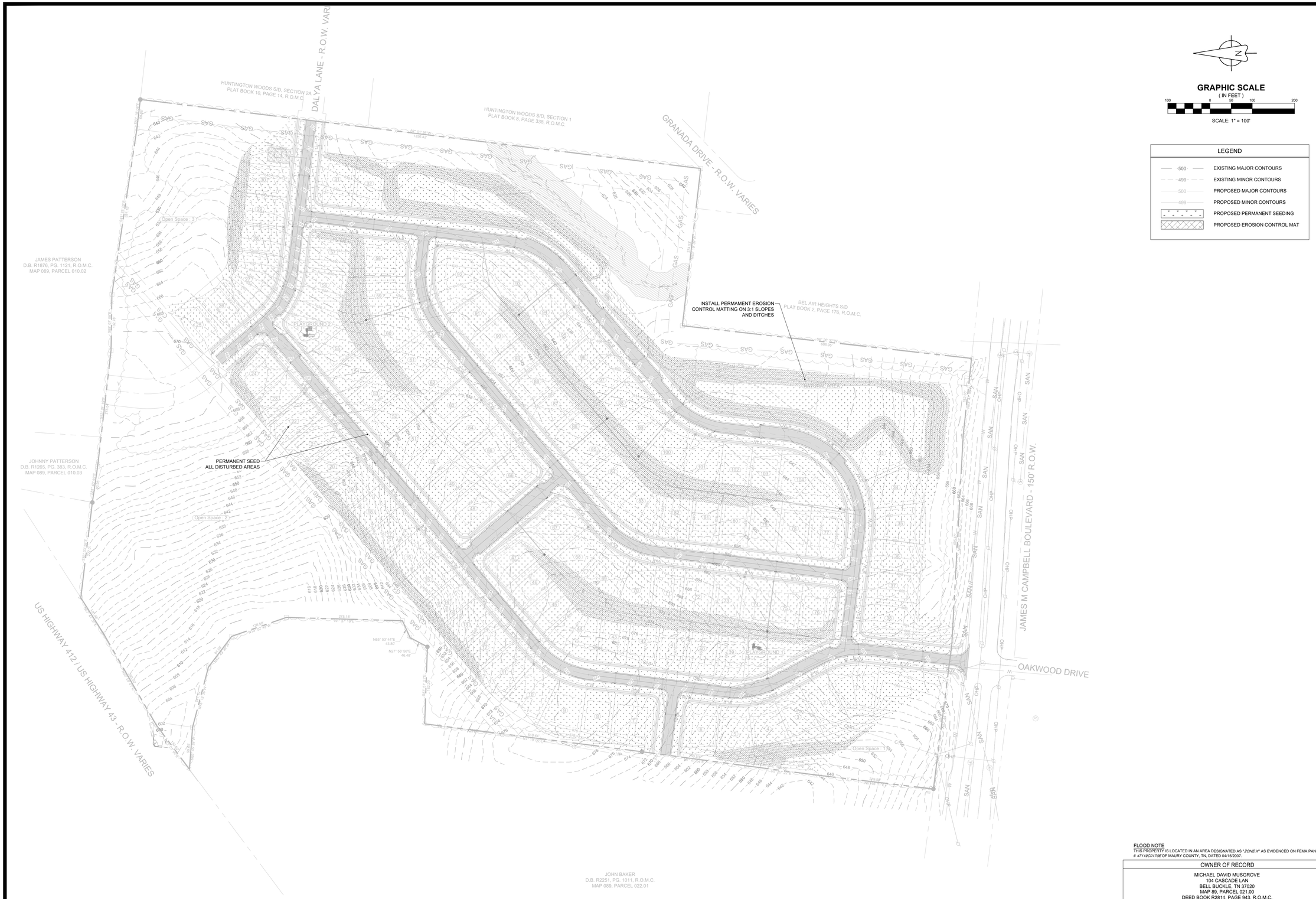
LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
No. 115485
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

SHEET
C-3.1

T-SQUARE ENGINEERING

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N

GRAPHIC SCALE
(IN FEET)

100 0 50 100 200

SCALE: 1" = 100'

LEGEND

500	EXISTING MAJOR CONTOURS
499	EXISTING MINOR CONTOURS
500	PROPOSED MAJOR CONTOURS
499	PROPOSED MINOR CONTOURS
	PROPOSED PERMANENT SEEDING
	PROPOSED EROSION CONTROL MAT

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS *"ZONE X"* AS EVIDENCED ON FEMA PANEL # *47119C0170E* OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

T-SQUARE ENGINEERING

REVISIONS

NO.	DATE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

PERMANENT EROSION CONTROL PLAN

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

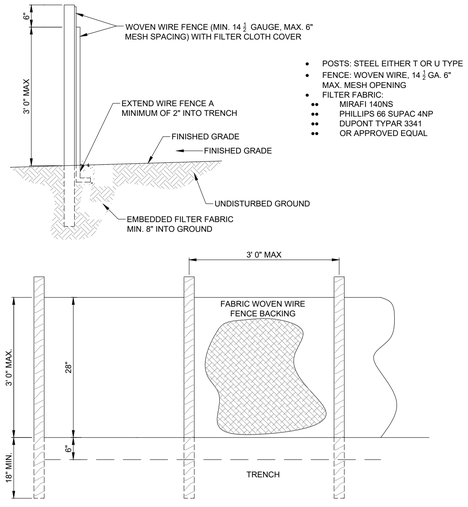
OAKWOOD DRIVE SUBDIVISION

LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 115486
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

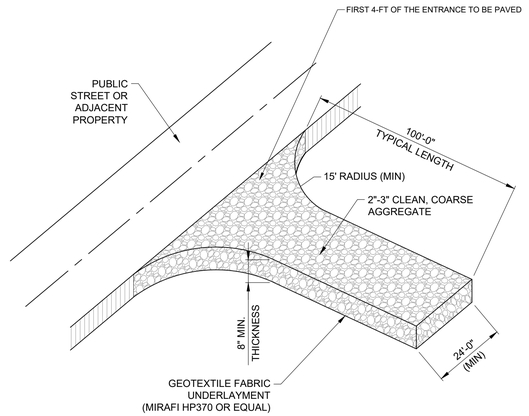
SHEET
C-3.2

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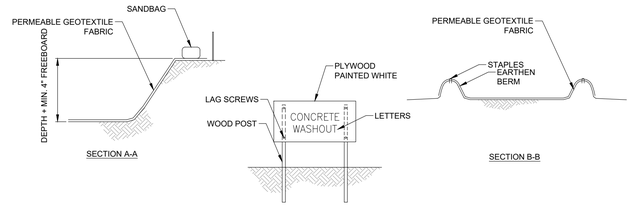
1. WOVEN WIRE CE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NOTED IN THE EROSION CONTROL PLAN. COLLECTED MATERIAL SHALL BE REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE OR WHEN TOP LINE IS NOT VISIBLE.
5. J-HOOK METHOD IS REQUIRED WHEN CROSSING CONTOURS PERPENDICULARLY.

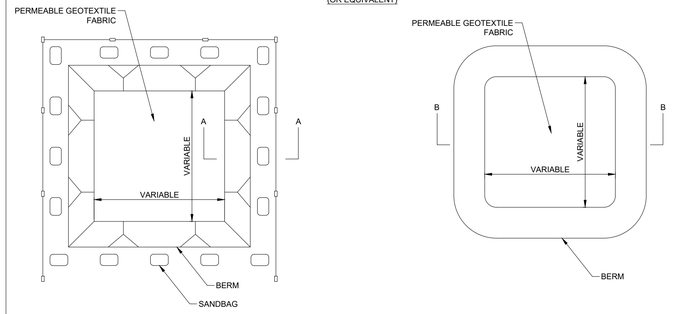
TYPE "C" SEDIMENT/SILT FENCE
N.T.S



ISOMETRIC VIEW

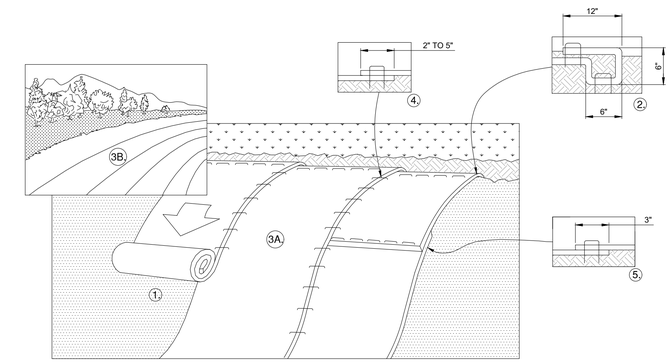
CONSTRUCTION ENTRANCE
N.T.S.





NOTES:
1. ACTUAL LAYOUT DETERMINED IN THE FIELD.
2. SIGNAGE IDENTIFYING THE CONCRETE WASHOUT AREA SHALL BE INSTALLED WITHIN 5FT.OF THE WASHOUT FACILITY.

CONCRETE WASHOUT
N.T.S



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
1.1. 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" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30 CM) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) 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" (30 CM) APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. 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 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" (5 CM-12.5 CM) 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" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE BLANKET WIDTH.

NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BEE NECESSARY TO PROPERLY SECURE THE BLANKETS.

EROSION CONTROL MATTING DETAIL
N.T.S

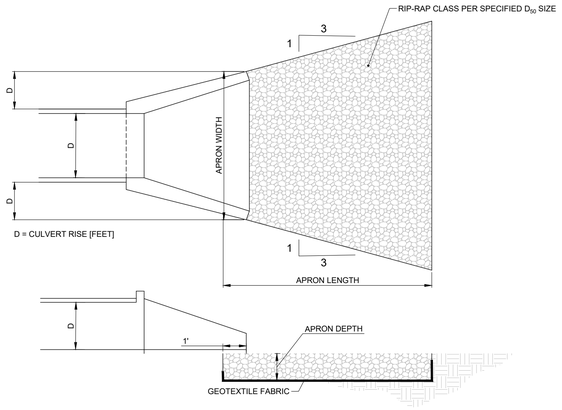


Table 10.1. Example Riprap Classes and Apron Dimensions

Class	D_{50} (mm)	D_{50} (in)	Apron Length[1]	Apron Depth
1	125	5	4D	$3.5D_{50}$
2	150	6	4D	$3.3D_{50}$
3	250	10	5D	$2.4D_{50}$
4	350	14	6D	$2.2D_{50}$
5	500	20	7D	$2.0D_{50}$
6	550	22	8D	$2.0D_{50}$

[1]D is the culvert rise.

OUTLET PROTECTION
DESIGNED TO THE 100-YR STORM PER HEC-11 STANDARDS
N.T.S

FLOOD NOTE
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OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

REVISIONS

NO.	DATE

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

EROSION CONTROL DETAILS
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

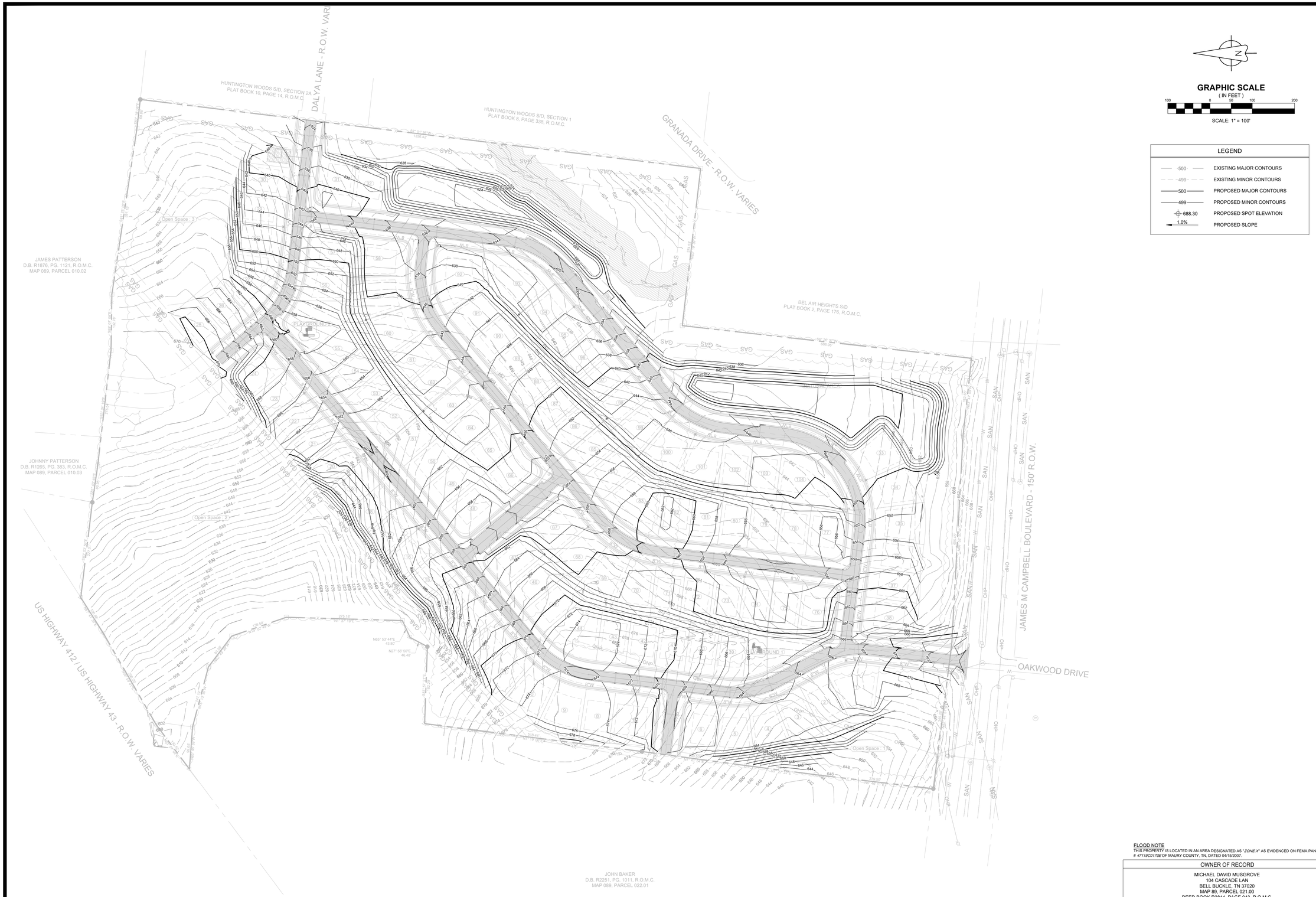
LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
No. 115485
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

SHEET
C-3.3

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N

GRAPHIC SCALE
(IN FEET)

100 0 50 100 200

SCALE: 1" = 100'

LEGEND	
500	EXISTING MAJOR CONTOURS
499	EXISTING MINOR CONTOURS
500	PROPOSED MAJOR CONTOURS
499	PROPOSED MINOR CONTOURS
688.30	PROPOSED SPOT ELEVATION
1.0%	PROPOSED SLOPE

FLOOD NOTE
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APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

NO.	DATE	REVISIONS

DATE: 05/20/24
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DRAWN BY: T-SQUARE
REVIEWER: LTS

GRADING PLAN

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

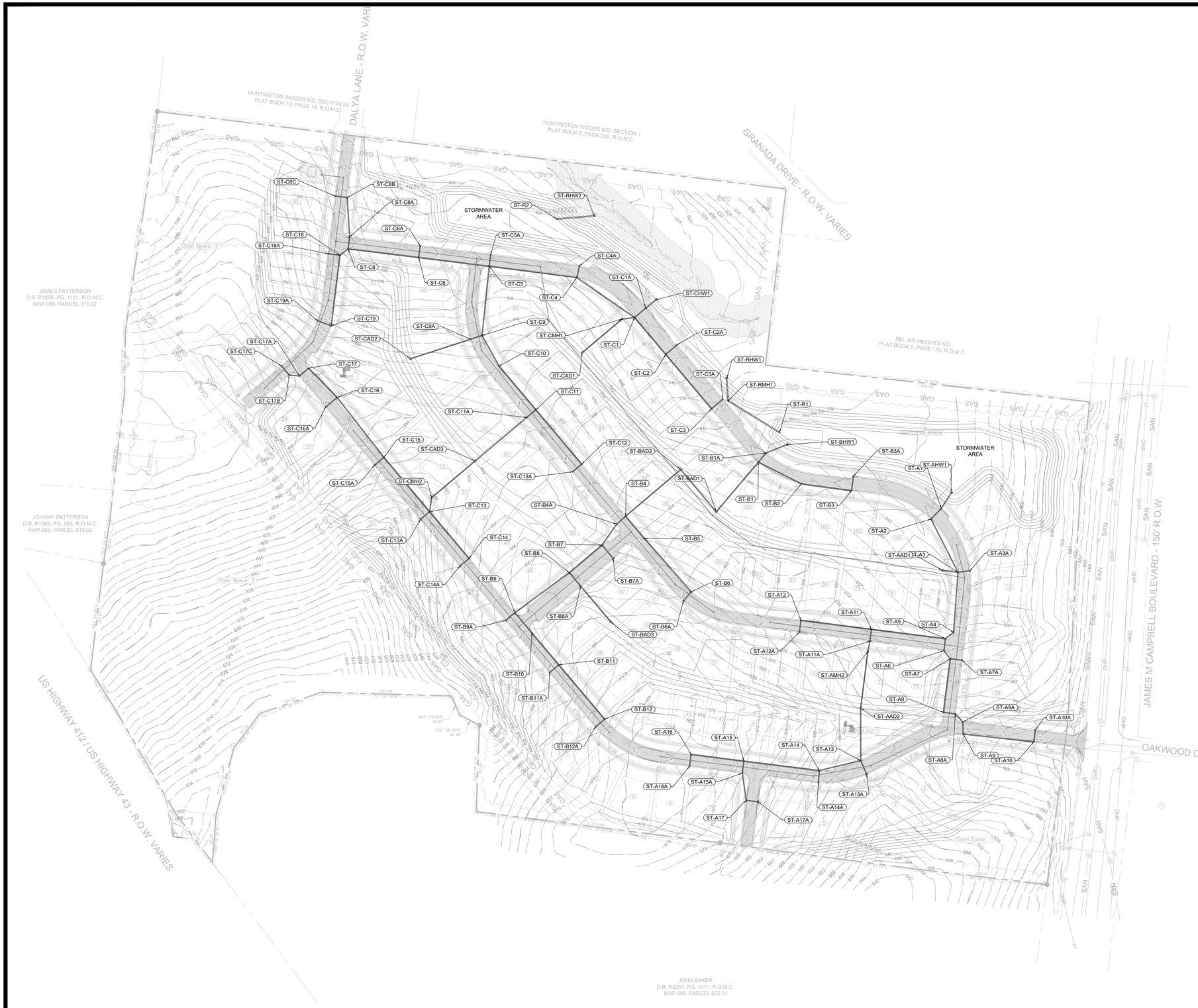
LOUIS T. SLOYD
REGISTERED ENGINEER
AGRICULTURE
POWELL
No. 116485
STATE OF TENNESSEE
05/20/2024

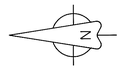
PROJECT
23-0533

SHEET
C-5.0

T-SQUARE ENGINEERING

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GRAPHIC SCALE
(IN FEET)
100 0 50 100 200
SCALE: 1" = 100'

LEGEND	
500	EXISTING MAJOR CONTOURS
499	EXISTING MINOR CONTOURS
500	PROPOSED MAJOR CONTOURS
499	PROPOSED MINOR CONTOURS
	PROPOSED STORM INLET
	PROPOSED HEADWALL
	PROPOSED AREA DRAIN
	PROPOSED STORM PIPE

FLOOD NOTE
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OWNER OF RECORD
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APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

T-SQUARE ENGINEERING

NO.	DATE	REVISIONS

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SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

DRAINAGE PLAN

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

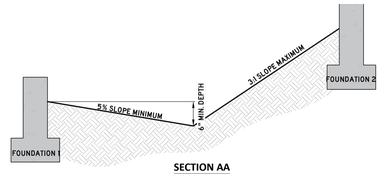
OAKWOOD DRIVE SUBDIVISION

LOUIS T. SLOVAK
REGISTERED ENGINEER
AGRICULTURE
NO. 115486
STATE OF TENNESSEE
05/20/2024

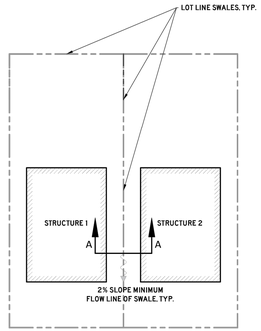
PROJECT
23-0533

SHEET
C-5.1

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SECTION AA



PLAN

NOTES:

1. SURFACE DRAINAGE SHALL BE DIVERTED TO A STORM SEWER CONVEYANCE. ALL AREAS WITHIN A LOT SHALL BE GRADED TO DRAIN TO AN APPROVED STORMWATER CONVEYANCE.
2. LOTS SHALL BE GRADED TO DRAIN SURFACE WATER AWAY FROM FOUNDATIONS.
   - 2.1. LOTS SHALL BE GRADED TO PROVIDE A MINIMUM OF 6 INCHES OF FALL WITHIN THE FIRST 10 FEET OF THE STRUCTURE ALONG THE DIRECTION OF FLOW.
   - 2.2. LOTS SHALL BE GRADED TO PROVIDE A MINIMUM OF 1V:20H OF FALL PERPENDICULAR TO THE FACE OF THE FOUNDATION WALL WITHIN THE FIRST 5 FEET.
   - 2.3. IMPERVIOUS SURFACES SHALL BE SLOPED AT A MINIMUM OF 2% AWAY FROM THE STRUCTURE.
3. SWALES SHALL BE LOCATED ALONG LOT LINES TO REDUCE LOT TO LOT DRAINAGE, AND DIRECT STORMWATER RUNOFF TOWARDS APPROVED STORMWATER CONVEYANCES.
4. SWALES SHALL HAVE A MINIMUM SLOPE OF 2%.
5. FOUNDATIONS SHALL BE AT MINIMUM 12 INCHES ABOVE ANY THE RIM ELEVATION OR HIGHEST FLOW LINE OF ANY PUBLIC STORMWATER INFRASTRUCTURE THAT SURFACE DRAINAGE FROM THE LOT IS DIRECTED TO.
6. NON-PUBLIC STORMWATER INFRASTRUCTURE SHALL NOT SUCH AS YARD DRAINS SHALL NOT ALLEVIATE THE REQUIREMENTS OF NOTES 2 AND 3.
7. ELEMENTS OF THIS DETAIL MAY BE ALTERED AND APPROVED BY THE CITY ENGINEER

CITY OF COLUMBIA TENNESSEE	CITY OF COLUMBIA DEVELOPMENT SERVICES DEPARTMENT ENGINEERING DIVISION **STANDARD DETAILS**	**RESIDENTIAL LOT GRADING AND DRAINAGE** (NTS)	DATE 6/9/2022 **DD-04**

FLOOD NOTE
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MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

T-SQUARE ENGINEERING

REVISIONS

NO.	DATE

DATE: 05/20/24
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REVIEWER: LTS

GRADING & DRAINAGE DETAILS
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

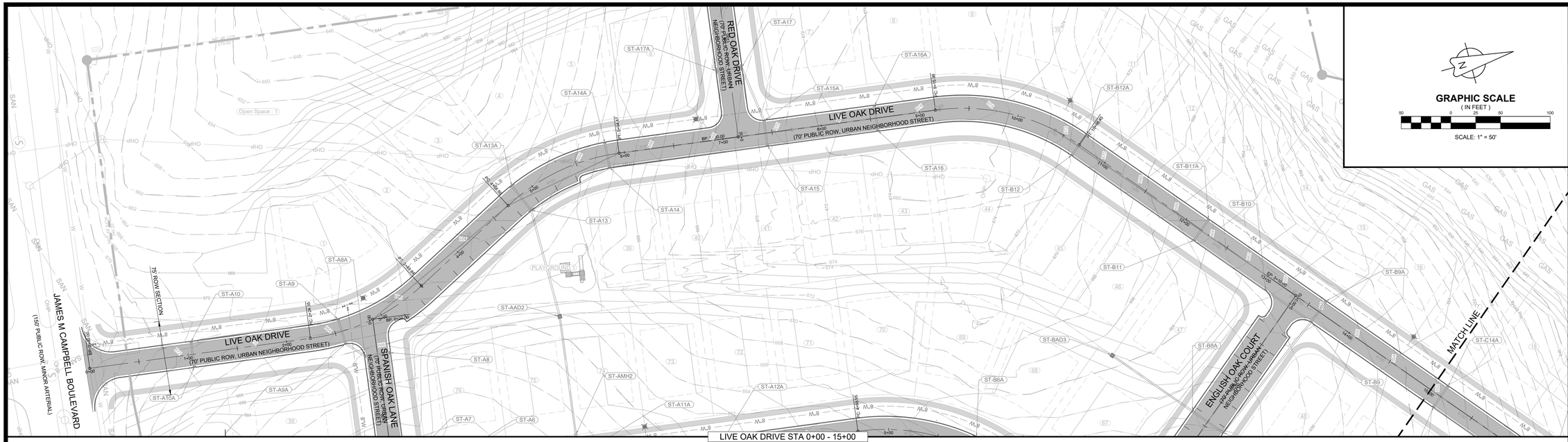
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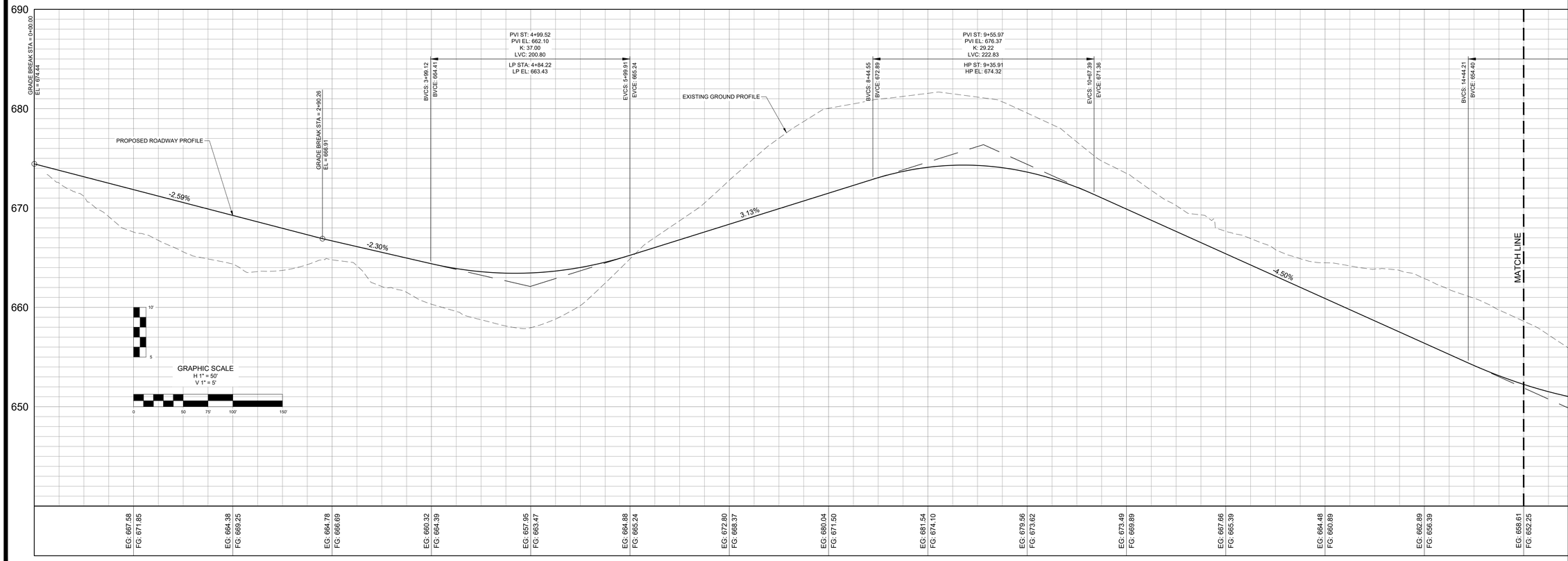
LOUIS T. LOYD
REGISTERED ENGINEER
AGRICULTURE
No. 116455
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

SHEET
C-5.2

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OAKWOOD DRIVE SUBDIVISION

LIVE OAK DRIVE
PLAN AND PROFILE
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

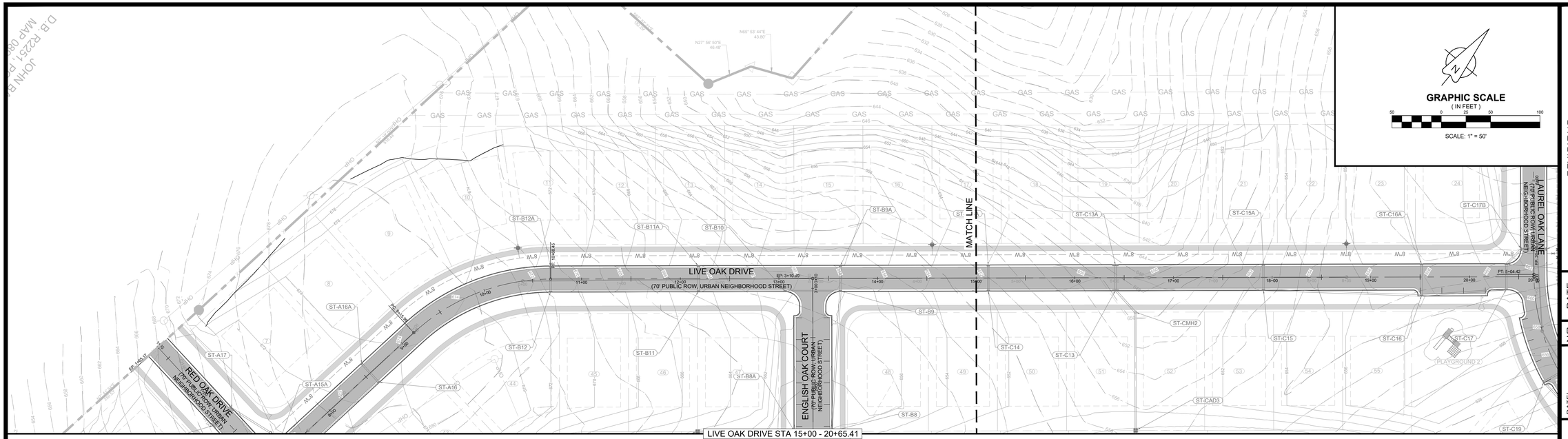
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AGRICULTURE
No. 115485
STATE OF TENNESSEE
05/20/2024

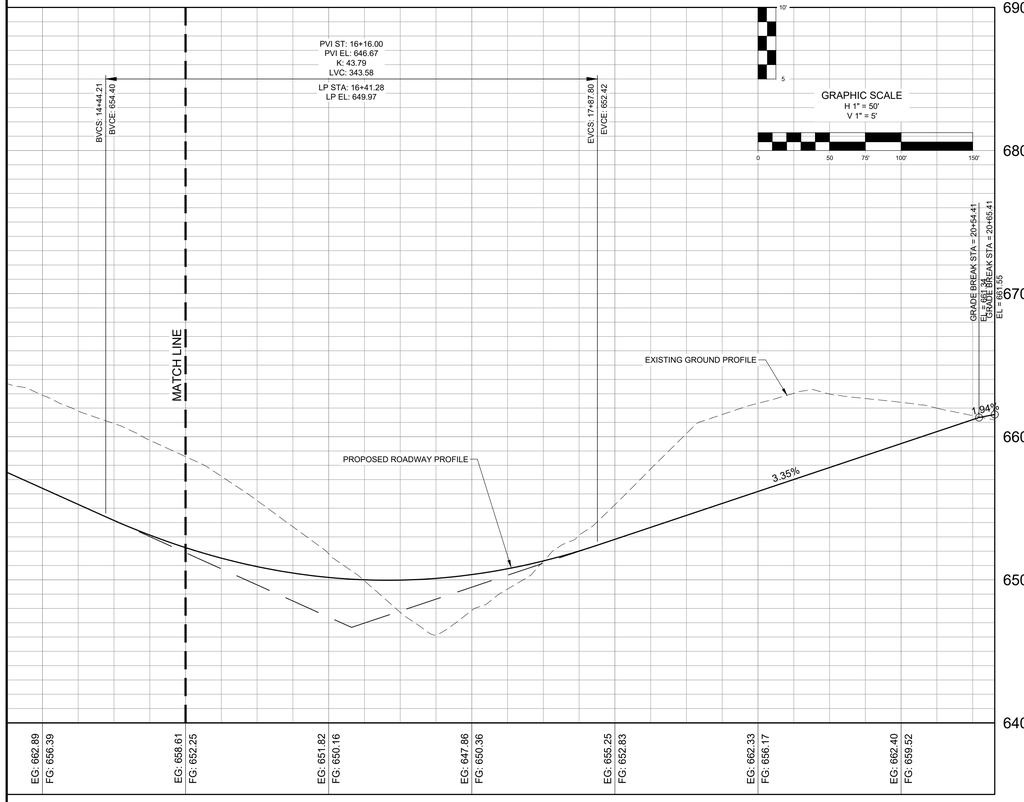
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GRAPHIC SCALE
(IN FEET)
50 0 25 50 100
SCALE: 1" = 50'

REVISIONS

NO.	DATE

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REVIEWER: LTS

OAKWOOD DRIVE SUBDIVISION

LIVE OAK DRIVE
PLAN AND PROFILE
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

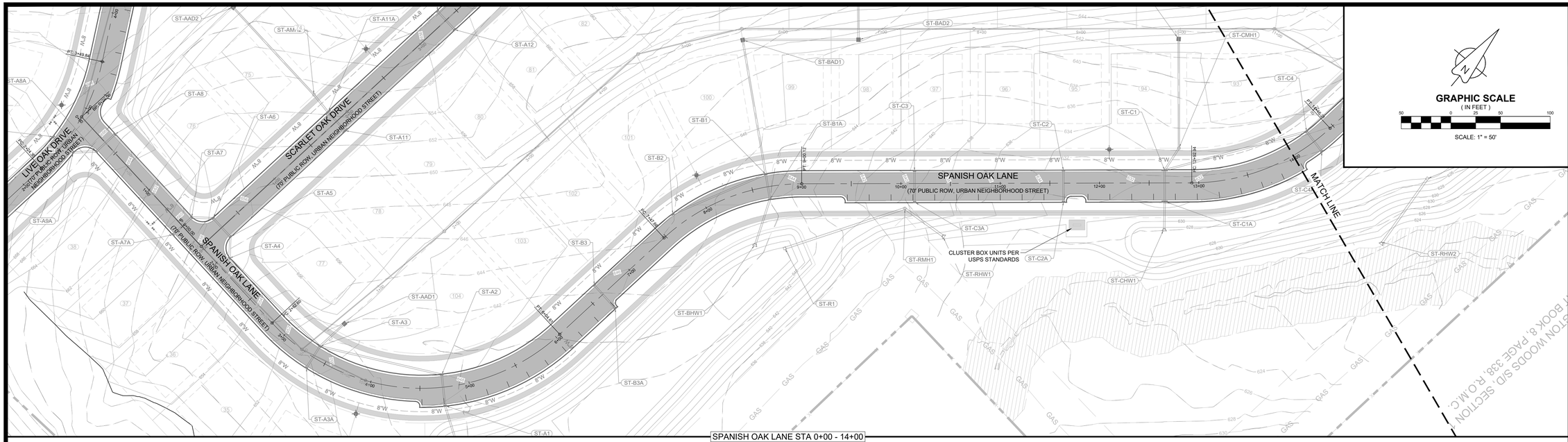
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No. 115485
STATE OF TENNESSEE
05/20/2024

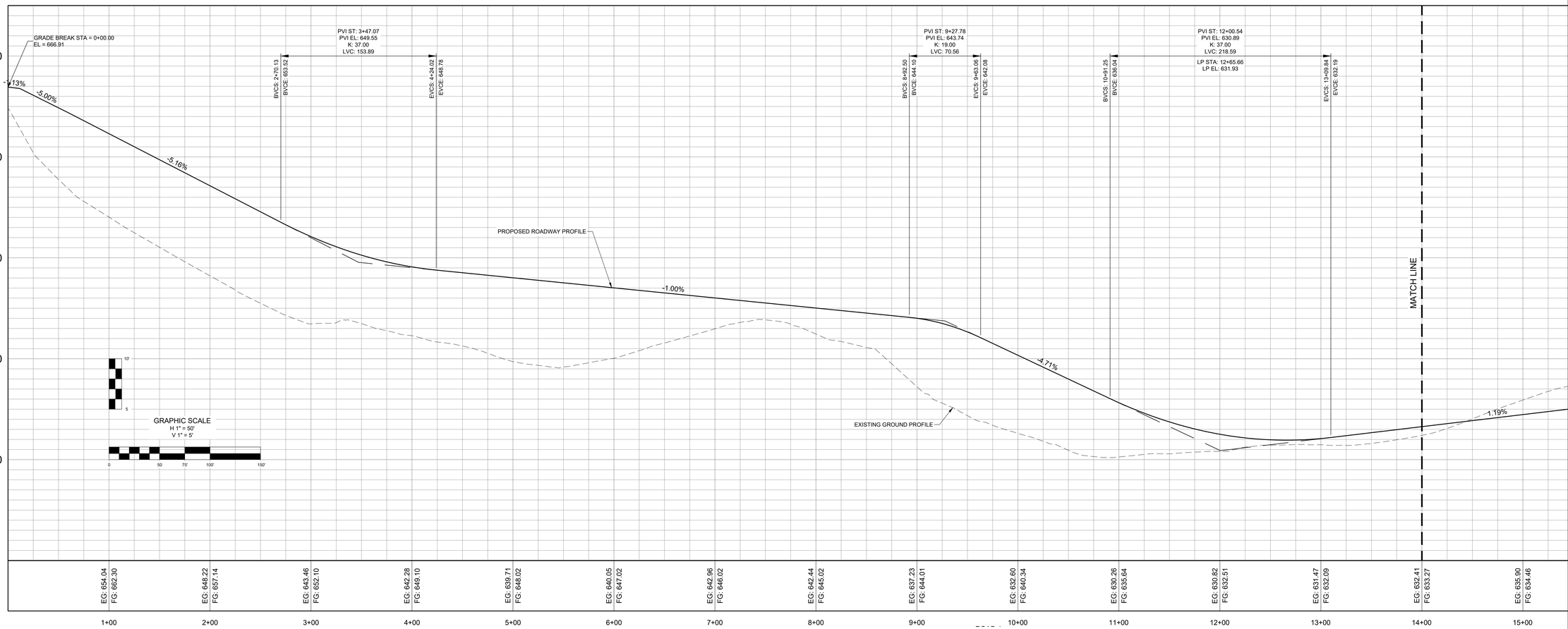
PROJECT
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SHEET
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REVIEWER: LTS

SPANISH OAK LANE
PLAN AND PROFILE
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

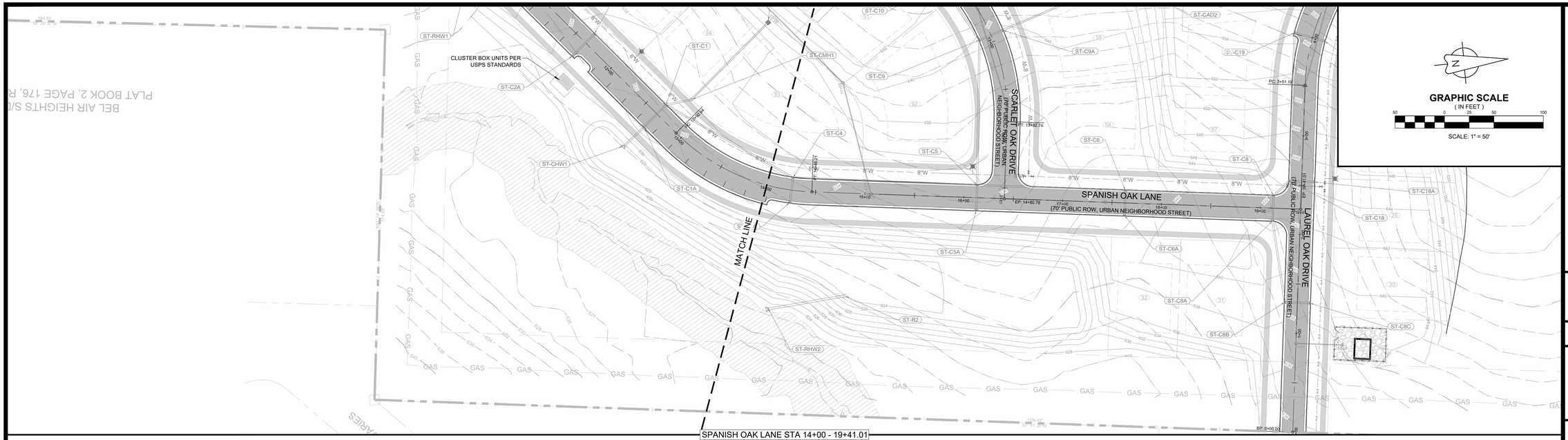
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PROJECT
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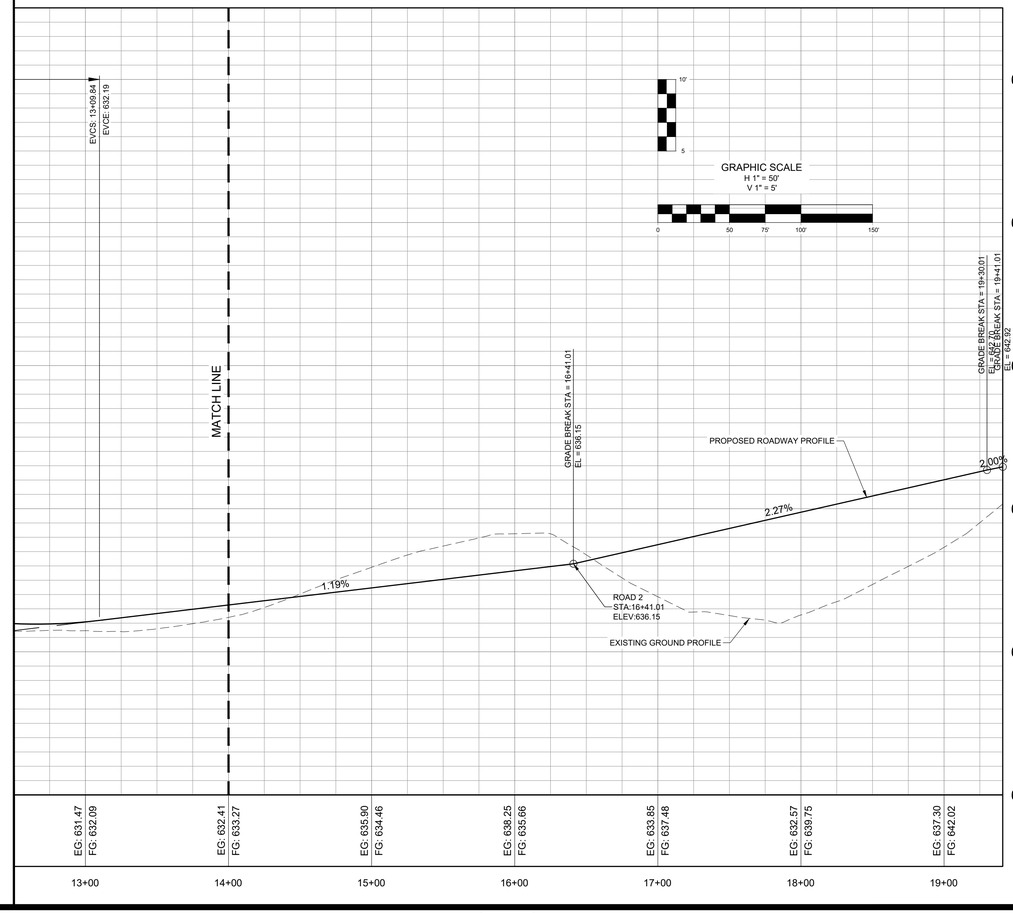
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SPANISH OAK LANE STA 14+00 - 19+41.01



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REVIEWER: LTS

SPANISH OAK LANE
PLAN AND PROFILE
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

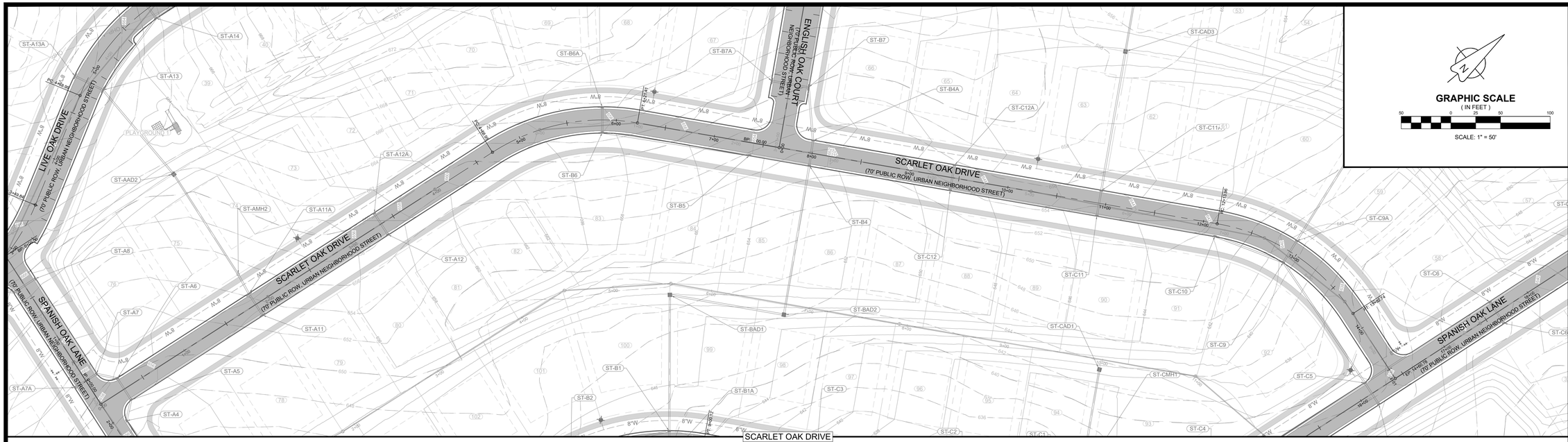
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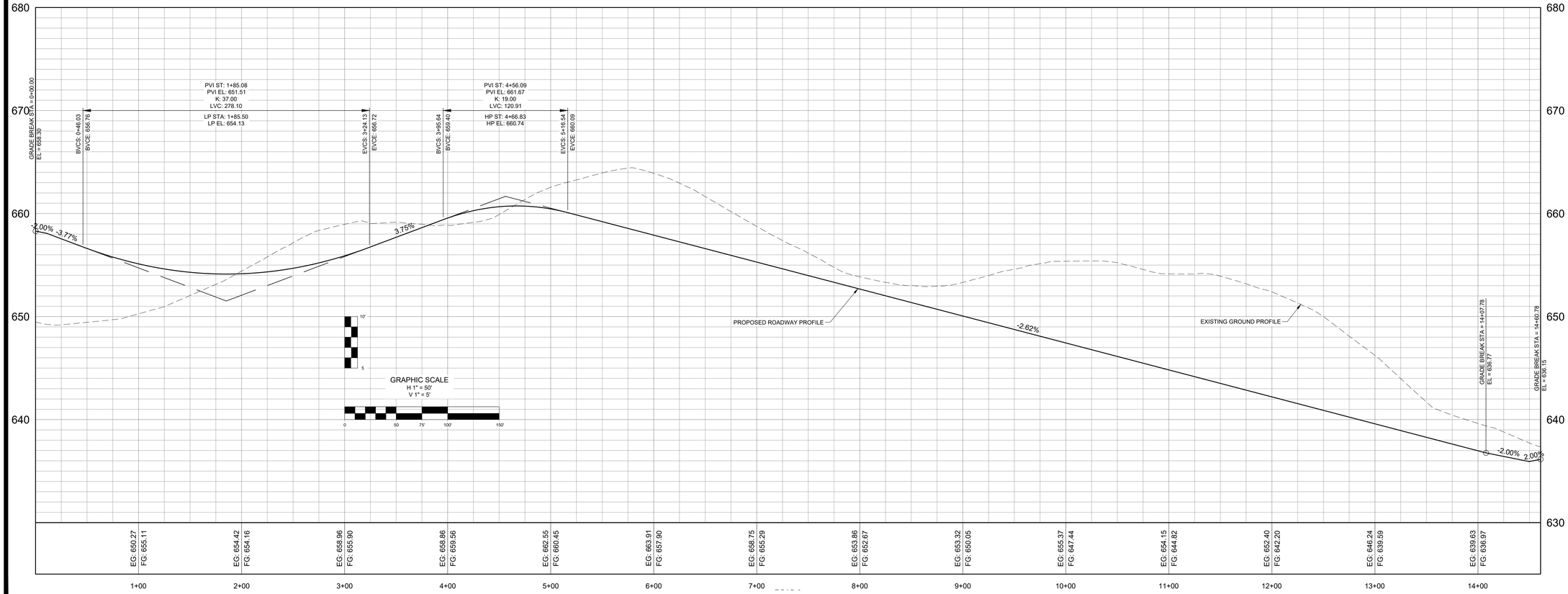
LOUIS T. SLOYD
REGISTERED ENGINEER
AGRICULTURE
No. 116455
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

SHEET
C-6.3

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REVIEWER: LTS

SCARLET OAK DRIVE PLAN AND PROFILE

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

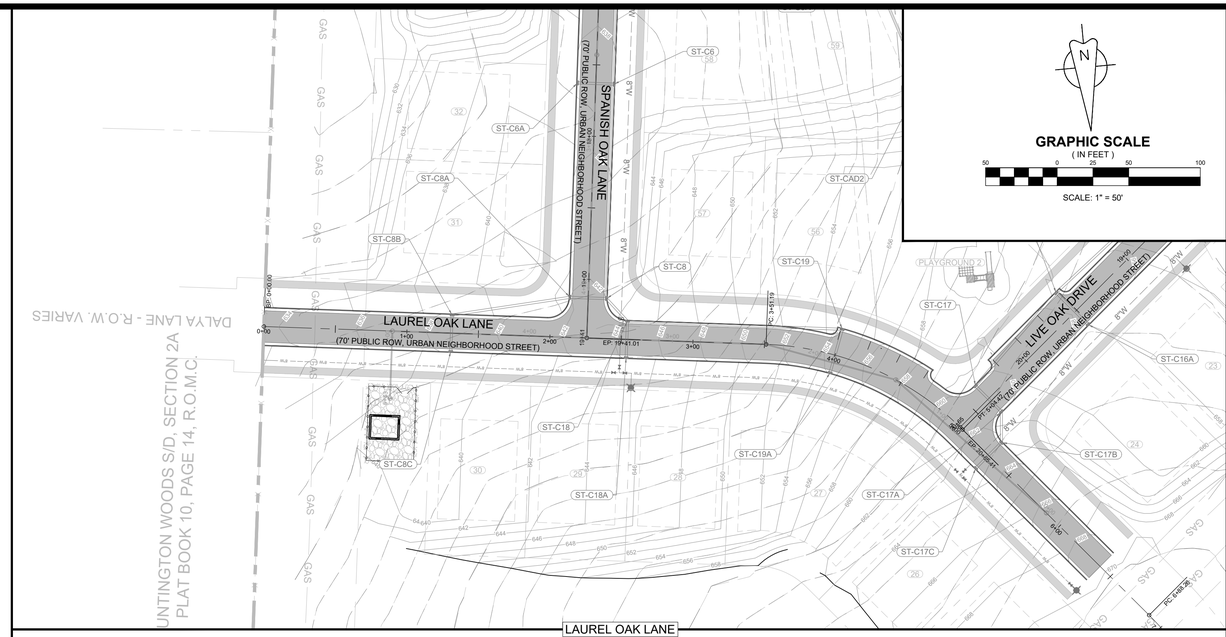
LOUIS T. SLOAN
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AGRICULTURE
No. 115485
STATE OF TENNESSEE
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PROJECT
23-0533

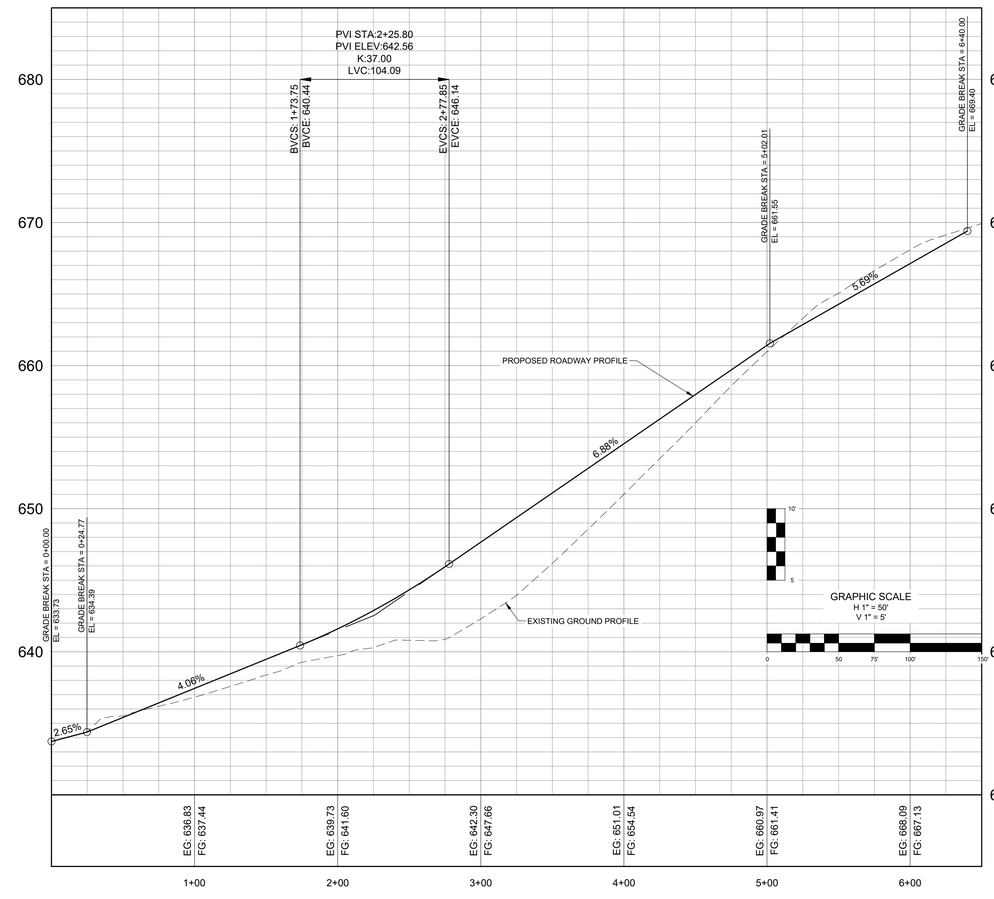
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LAUREL OAK LANE



NO.	DATE	REVISIONS

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

LAUREL OAK LANE
PLAN AND PROFILE
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

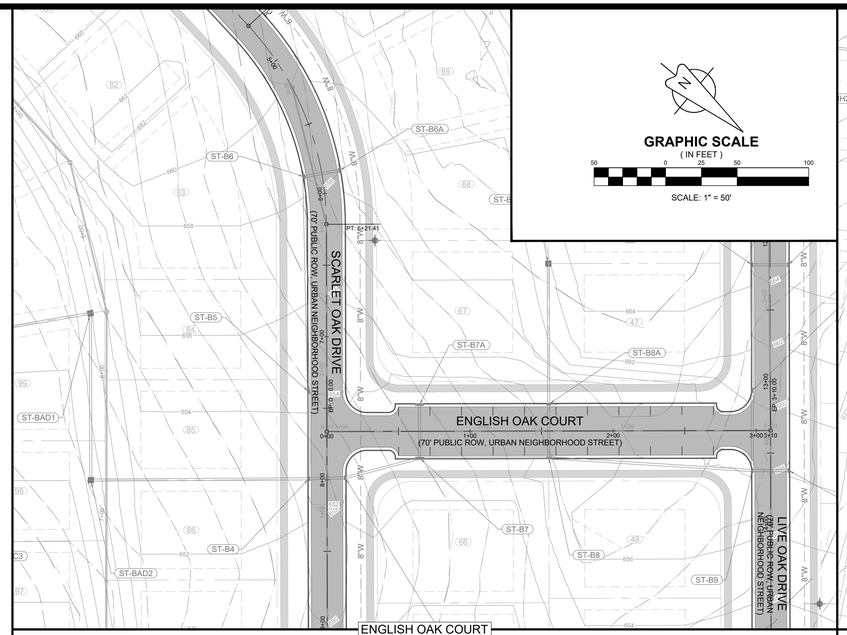
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REGISTERED ENGINEER
AGRICULTURE
No. 116485
STATE OF TENNESSEE
05/20/2024

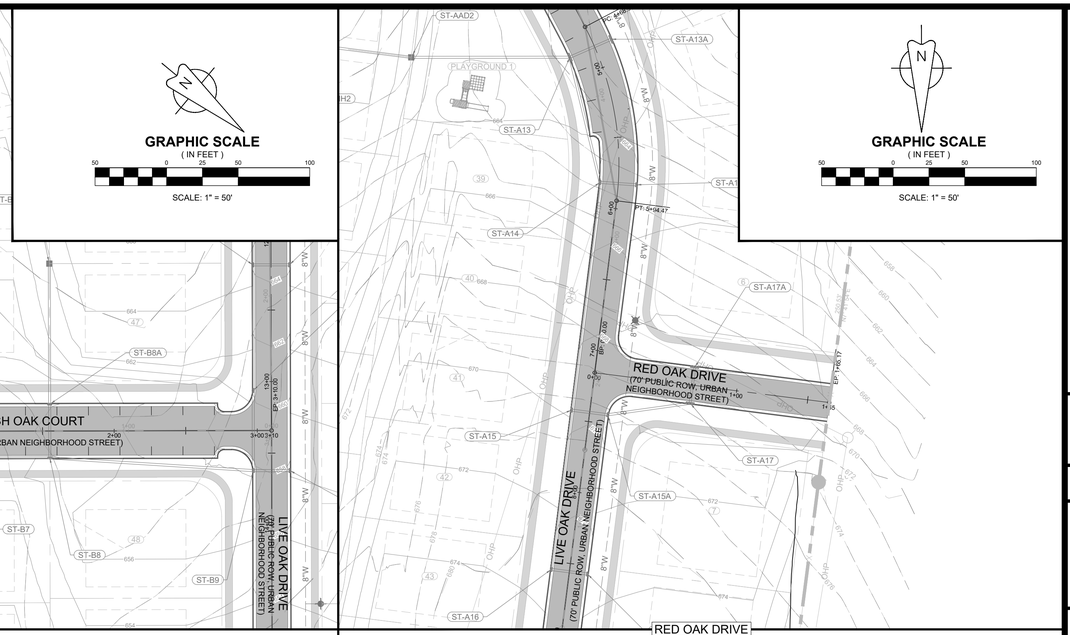
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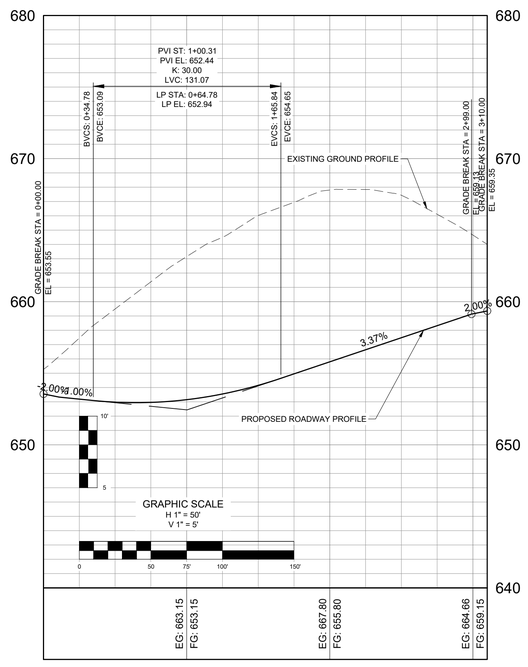
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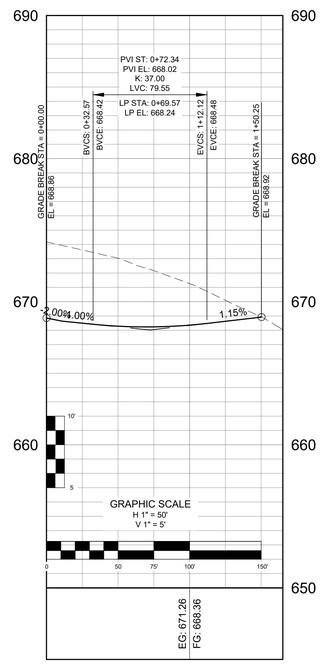
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REVIEWER: LTS

ENGLISH OAK CT & RED OAK DR
PLAN AND PROFILE
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

OAKWOOD DRIVE SUBDIVISION

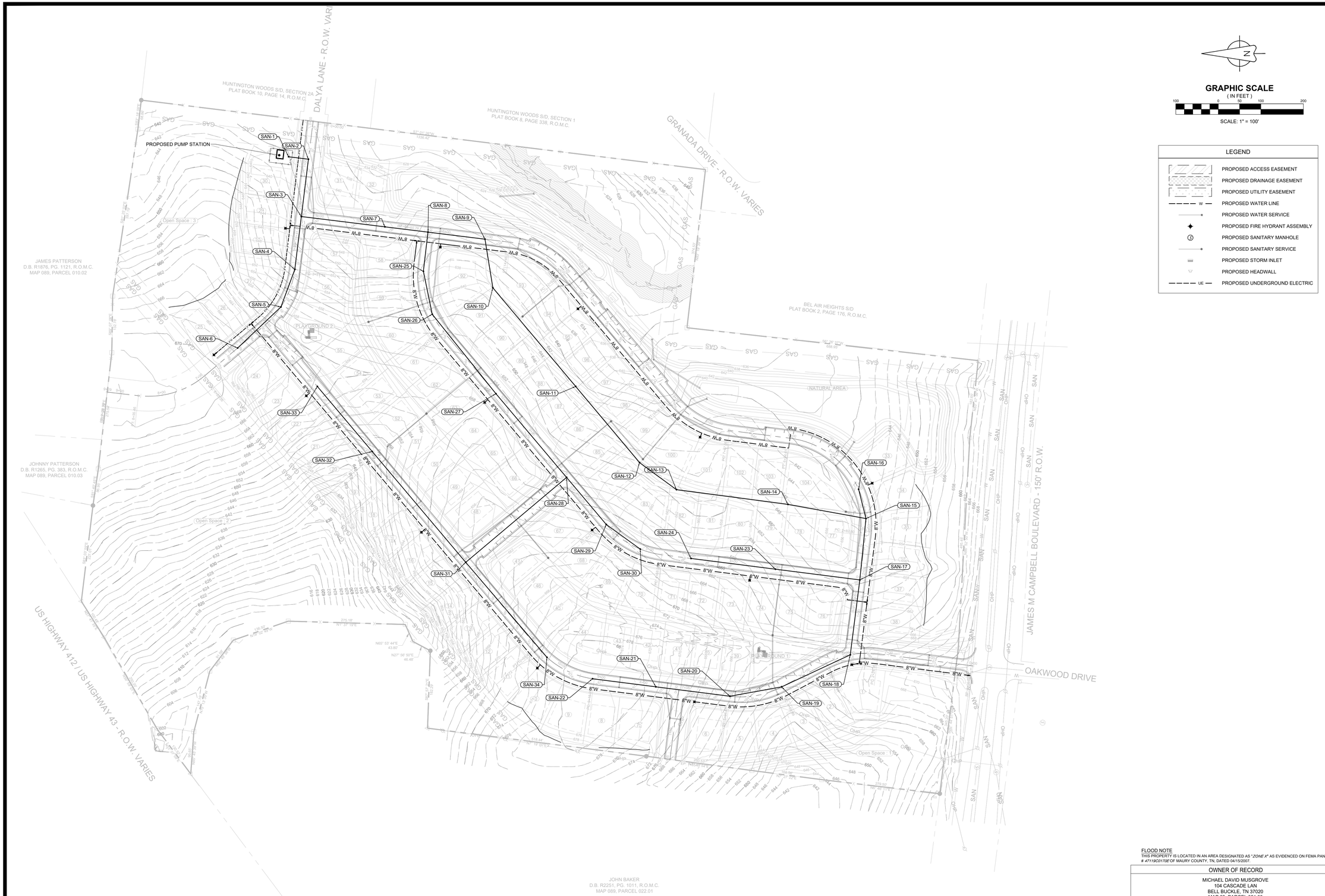
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REGISTERED ENGINEER
AGRICULTURE
No. 116455
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

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C-6.6

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N

GRAPHIC SCALE
(IN FEET)
100 0 50 100 200
SCALE: 1" = 100'

LEGEND

- PROPOSED ACCESS EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED UTILITY EASEMENT
- W — PROPOSED WATER LINE
- PROPOSED WATER SERVICE
- PROPOSED FIRE HYDRANT ASSEMBLY
- S — PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY SERVICE
- PROPOSED STORM INLET
- PROPOSED HEADWALL
- UE — PROPOSED UNDERGROUND ELECTRIC

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS *"ZONE X"* AS EVIDENCED ON FEMA PANEL *# 47119C0172E* OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

T-SQUARE ENGINEERING

REVISIONS

NO.	DATE

DATE: 05/20/24
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REVIEWER: LTS

OAKWOOD DRIVE SUBDIVISION

UTILITY PLAN

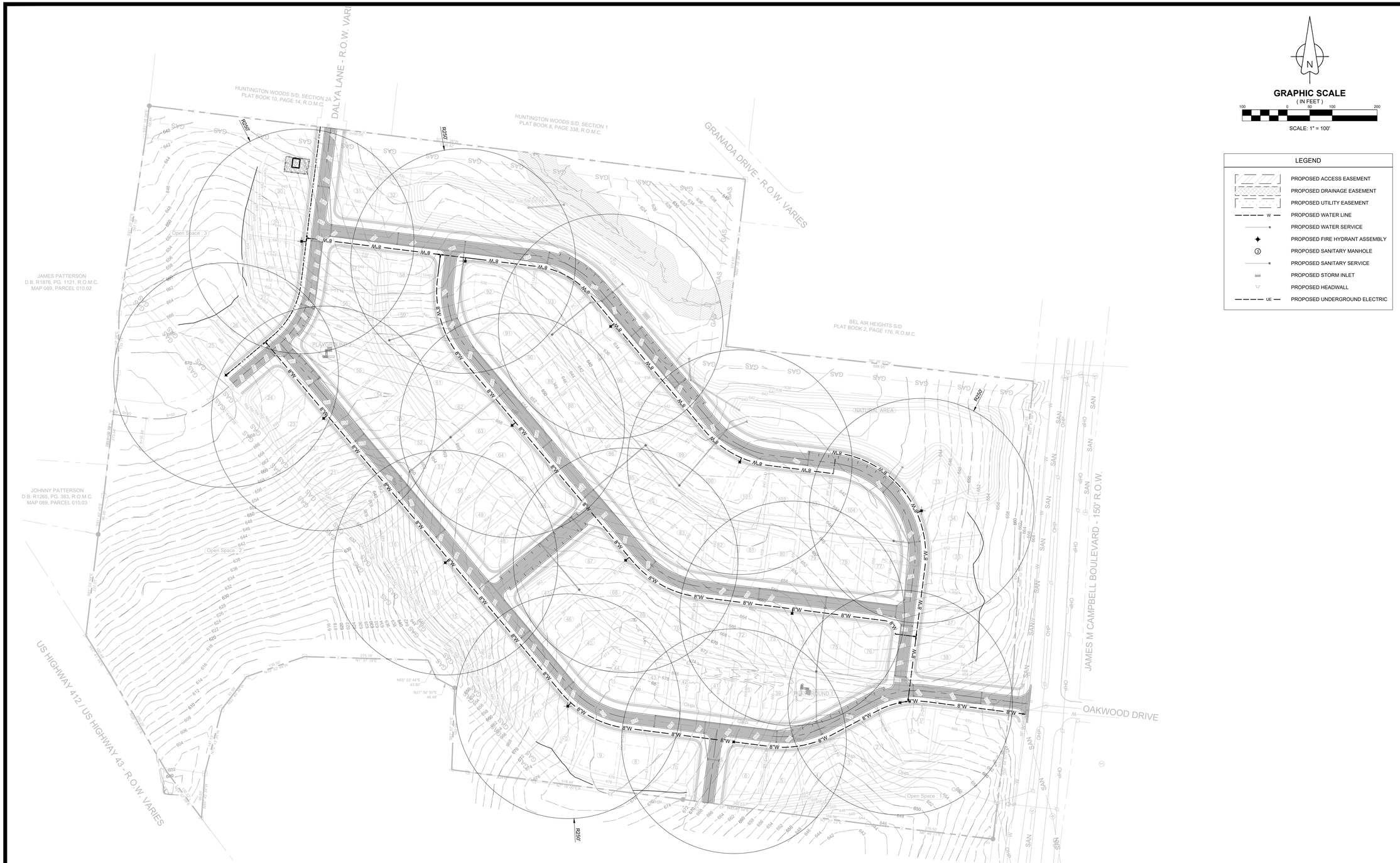
MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

LOUIS T. SLOYAN
REGISTERED ENGINEER
AGRICULTURE
No. 116488
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

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C-7.0

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N

GRAPHIC SCALE
(IN FEET)

100 0 50 100 200

SCALE: 1" = 100'

LEGEND	
	PROPOSED ACCESS EASEMENT
	PROPOSED DRAINAGE EASEMENT
	PROPOSED UTILITY EASEMENT
W	PROPOSED WATER LINE
	PROPOSED WATER SERVICE
	PROPOSED FIRE HYDRANT ASSEMBLY
S	PROPOSED SANITARY MANHOLE
	PROPOSED SANITARY SERVICE
	PROPOSED STORM INLET
	PROPOSED HEADWALL
UE	PROPOSED UNDERGROUND ELECTRIC

FLOOD NOTE
THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS *"ZONE X"* AS EVIDENCED ON FEMA PANEL # *47119C0170E* OF MAURY COUNTY, TN, DATED 04/15/2007.

OWNER OF RECORD
MICHAEL DAVID MUSGROVE 104 CASCADE LAN BELL BUCKLE, TN 37020 MAP 89, PARCEL 021.00 DEED BOOK R2814, PAGE 943, R.O.M.C.
APPLICANT
T-SQUARE ENGINEERING 111 SE PARKWAY COURT FRANKLIN, TN 37064 615.678.8212

T-SQUARE ENGINEERING

NO.	DATE	REVISIONS

DATE: 05/20/24
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: LTS

FIRE HYDRANT COVERAGE PLAN

MAP 89, PARCEL 021.00
COLUMBIA, TENNESSEE

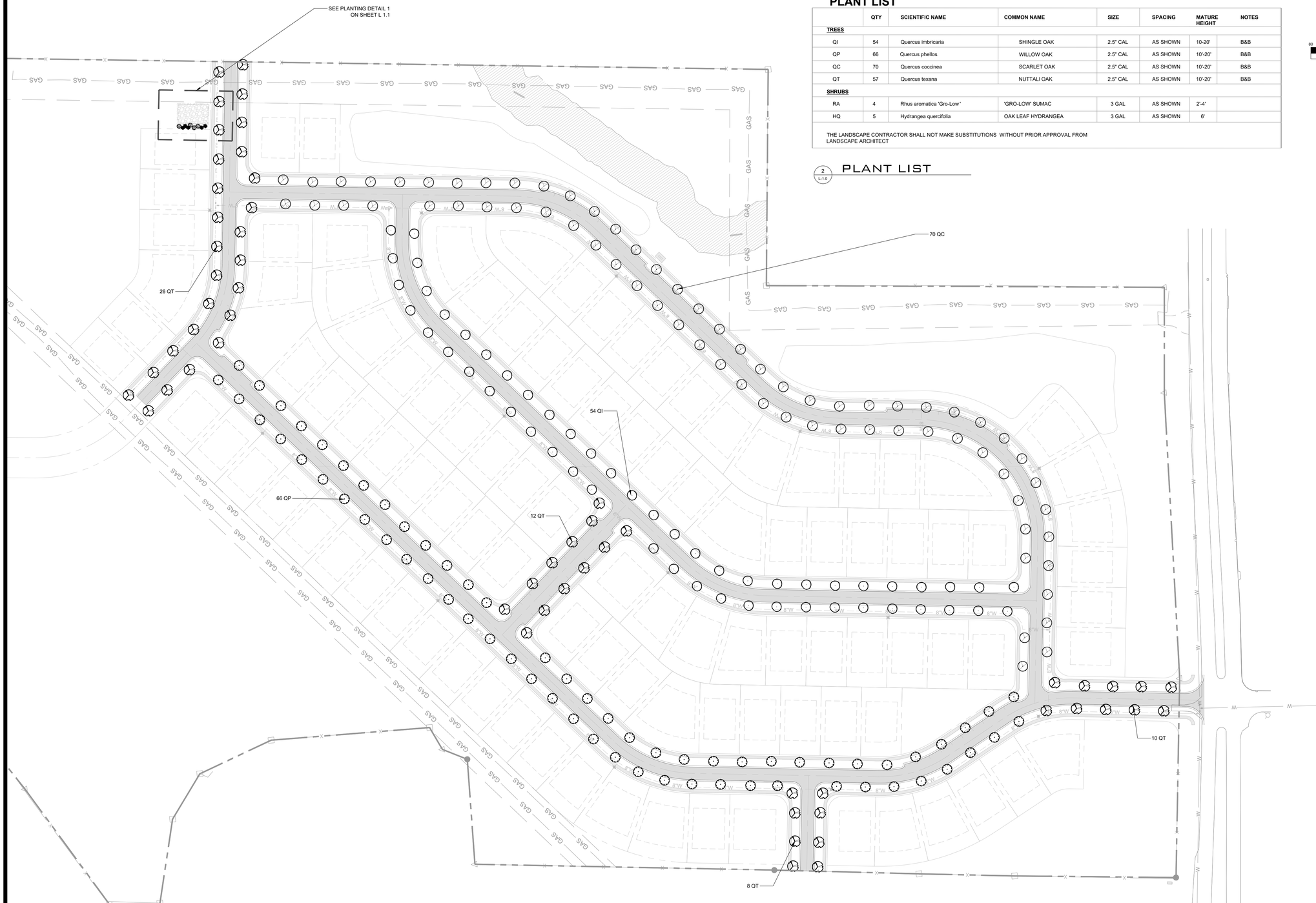
OAKWOOD DRIVE SUBDIVISION

LOUIS T. SLOAN
REGISTERED ENGINEER
AGRICULTURE
No. 115485
STATE OF TENNESSEE
05/20/2024

PROJECT
23-0533

SHEET
C-7.1

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PLANT LIST

	QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING	MATURE HEIGHT	NOTES
TREES							
QI	54	Quercus imbricaria	SHINGLE OAK	2.5" CAL	AS SHOWN	10-20'	B&B
QP	66	Quercus phellos	WILLOW OAK	2.5" CAL	AS SHOWN	10'-20'	B&B
QC	70	Quercus coccinea	SCARLET OAK	2.5" CAL	AS SHOWN	10'-20'	B&B
QT	57	Quercus texana	NUTTALI OAK	2.5" CAL	AS SHOWN	10'-20'	B&B
SHRUBS							
RA	4	Rhus aromatica 'Gro-Low '	'GRO-LOW' SUMAC	3 GAL	AS SHOWN	2'-4'	
HQ	5	Hydrangea quercifolia	OAK LEAF HYDRANGEA	3 GAL	AS SHOWN	6'	

THE LANDSCAPE CONTRACTOR SHALL NOT MAKE SUBSTITUTIONS WITHOUT PRIOR APPROVAL FROM LANDSCAPE ARCHITECT

2 / L-1.0 PLANT LIST

N

GRAPHIC SCALE
(IN FEET)
80 0 40 80 160
SCALE: 1" = 80'

1 / L-1.0 OVERALL PLANTING PLAN

REVISIONS

NO.	DATE

DATE: 05/20/2024
SCALE: AS SHOWN
DRAWN BY: T-SQUARE
REVIEWER: CES

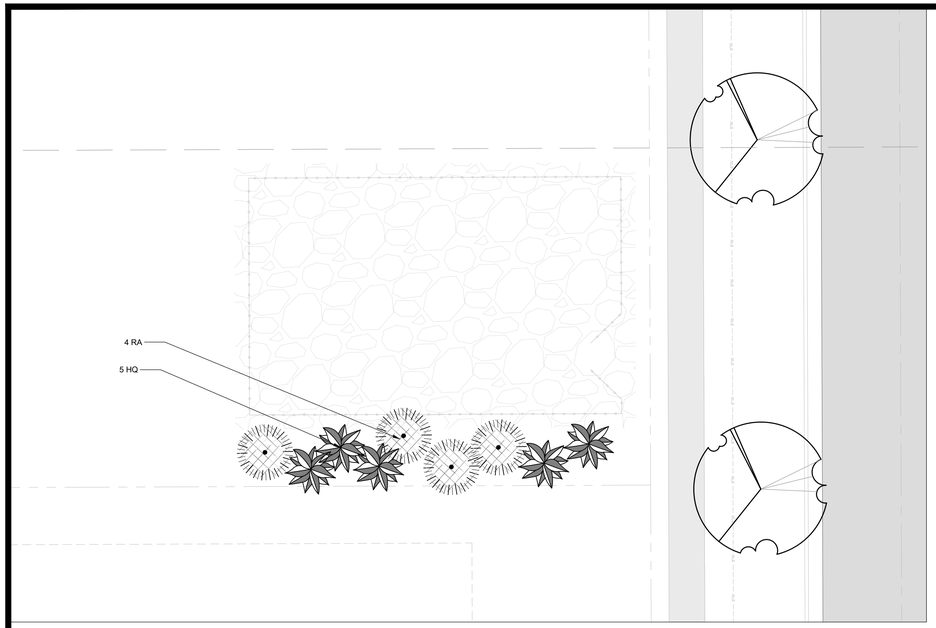
LANDSCAPE PLAN
MAP 89, PARCEL 021.00
CITY OF COLUMBIA, MAURY COUNTY, TENNESSEE

OAKWOOD AVENUE

PROJECT
23-0533

SHEET
L-1.0

T-SQUARE ENGINEERING





SEEDING NOTES:

1. SEEDBED PREPARATION: LOOSEN SUBGRADE OF TURF AREAS TO A MINIMUM DEPTH OF 2 INCHES. REMOVE STONES MEASURING OVER 1-1/2 INCHES IN ANY DIMENSION. REMOVE STICKS, ROOTS, RUBBISH, AND OTHER EXTRANEOUS MATTER. ADD TOPSOIL AND MIX THOROUGHLY INTO UPPER 3 INCHES OF TOPSOIL. IF SUBGRADE HAS BECOME COMPACTED DURING CONSTRUCTION, SCARIFY OR OTHERWISE BREAKUP THE COMPACTED SURFACE BEFORE SEEDBED PREPARATION.
2. MIN 1/2" OF TOPSOIL (IMPORTED OR SITE GENERATED) SHALL BE PROVIDED ON ALL AREAS TO BE SEEDED, INSTALLED AND STABILIZED PRIOR TO SEEDING. TOPSOIL SHALL BE CLEAN, FRIABLE SOIL WITH LANDSCAPE INDUSTRY ACCEPTABLE LEVELS OF ORGANIC MATERIAL. UNDER NO CIRCUMSTANCES SHALL SUBGRADE OR "B"-HORIZON SOIL BE USED AS TOPSOIL. CONTRACTOR IS ADVISED TO VERIFY WITH THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE ACCEPTABILITY OF TOPSOIL PRIOR TO PLACEMENT. UNACCEPTABLE SOILS USED AS TOPSOIL SHALL BE REMOVED AND REPLACED AT CONTRACTOR'S EXPENSE.
3. FERTILIZER: APPLY AGRICULTURAL LIME AT THE RATE OF 50 POUNDS PER 1000 SF. APPLY 10 POUNDS 10-10-10 ANALYSIS FERTILIZER (OR EQUIVALENT) PER 1000 SF. SPREAD LIME AND FERTILIZER UNIFORMLY OVER ALL AREAS AND MIX THOROUGHLY WITH THE SOIL.
4. FINE GRADE ALL DISTURBED LAWN AREAS TO SMOOTH, EVEN SURFACE WITH LOOSE, UNIFORMLY FINE TEXTURE, ROLL, RAKE, AND DRAG LAWN AREAS, REMOVE RIDGES AND FILL DEPRESSIONS, AS REQUIRED TO MEET FINISH GRADES.
5. GRASS SEED: PROVIDE FRESH, CLEAN, NEW-CROP SEED COMPLYING WITH TOLERANCE FOR PURITY AND GERMINATION ESTABLISHED BY OFFICIAL SEED ANALYSIS OF NORTH AMERICA.
6. SEED ALL DISTURBED AREAS. PRIOR TO INSTALLATION, CONTRACTOR SHOULD CONSULT WITH OWNER TO DETERMINE EXTENT OF SEEDING OPERATIONS.
7. REPAIR AND RESEED ALL ERODED OR DISTURBED SEEDED AREAS WHERE VEGETATIVE COVER HAS NOT BEEN ESTABLISHED.
8. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF SEEDED AREAS UNTIL 95% GRASS COVER IS ESTABLISHED.

GENERAL NOTES:

1. UTILITY SERVICES MAY EXIST ON SITE. THE LOCATION OF ALL SURFACE AND UNDERGROUND UTILITIES, RIGHT-OF-WAYS, EASEMENTS, ETC., SHALL BE VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES FROM DAMAGE DURING CONSTRUCTION AND TO REPAIR ANY DAMAGE WHICH SHOULD OCCUR TO THE SATISFACTION OF THE OWNER AND UTILITY COMPANIES. COMMENCEMENT OF PROJECT INSTALLATION INDICATES ACKNOWLEDGMENT OF AND ACCEPTANCE BY THE CONTRACTOR OF EXISTING CONDITIONS.
2. ACTUAL AS-BUILT AND/OR EXISTING SITE CONDITIONS MAY VARY AS SHOWN ON THIS PLAN.
3. DAMAGE BY CONTRACTOR TO UNDISTURBED AREAS OUTSIDE THE LIMITS OF CONSTRUCTION SHALL BE REPAIRED BY CONTRACTOR TO THE SATISFACTION OF THE OWNER.
4. CONTRACTOR IS RESPONSIBLE FOR CONDUCTING SITE INSPECTION PRIOR TO BIDDING WORK, TO DETERMINE SITE CONDITIONS AND AREAS TO BE IMPROVED. SUBMISSION OF BID INDICATES CONTRACTOR HAS VERIFIED SITE CONDITIONS AND PLANT MATERIAL QUANTITIES.
5. FINAL ACCEPTANCE: THE LANDSCAPE ARCHITECT OR THE OWNER'S REPRESENTATIVE WILL PROVIDE THE FINAL INSPECTION. SHOULD THE INSPECTION FIND WORK INCOMPLETE, THE CONTRACTOR SHALL REMEDY THE DEFICIENCIES.
6. IF THE SUBSTANTIAL COMPLETION OR FINAL INSPECTION REQUIRE REINSPECTION BY LANDSCAPE ARCHITECT DUE TO FAILURE OF WORK TO COMPLY WITH CONTRACTOR'S CLAIMS ON INITIAL INSPECTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPENSATING THE LANDSCAPE ARCHITECT FOR REINSPECTION SERVICES AT THE RATE OF TWO HUNDRED TWENTY FIVE DOLLARS ($225) PER HOUR PER PERSON PLUS ALL RELATED TRAVEL EXPENSES FOR EACH REQUESTED REINSPECTION TRIP.
7. AFTER FINAL ACCEPTANCE AND PRIOR TO END OF WARRANTY PERIOD, CONTRACTOR SHALL REPLACE ALL PLANT MATERIAL THAT HAS DIED OR HAS DEFECTS, INCLUDING UNSATISFACTORY GROWTH, IN THE OPINION OF THE OWNER.
8. DURING LANDSCAPE INSTALLATION KEEP PAVEMENTS CLEAN AND WORK AREA IN ORDERLY CONDITION. THE PROJECT SITE SHALL BE LEFT IN A CLEAN CONDITION AT THE END OF EVERY WORK DAY.
9. CONTRACTOR TO REPAIR ANY PAVEMENTS, CURBS, AND OTHER IMPROVEMENTS DAMAGED AS A RESULT OF LANDSCAPE INSTALLATION ACTIVITY
10. THE LOCATION OF ALL PLANT MATERIALS SHOWN ON THE PLAN SHALL BE FIELD LOCATED AND STAKED/FLAGGED BY THE CONTRACTOR AND APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE BEFORE THE DIGGING OF PLANTING HOLES. PLANTING SHALL BE LOCATED WHERE SHOWN ON THE DRAWINGS OR WHERE FIELD LOCATED BY THE LANDSCAPE ARCHITECT.
11. PROVIDE ONLY PLANTS THAT ARE FREE FROM DISEASES AND PESTS, AND THAT COMPLY WITH THE LATEST EDITION OF PUBLICATION ANSI Z60.1, AMERICAN STANDARDS FOR NURSERY STOCK", BY THE AMERICAN ASSOCIATION OF NURSERYMEN. DIMENSIONS FOR HEIGHTS, SPREAD, AND TRUNK SPECIFIED ON THE MATERIAL SCHEDULE IS A GENERAL GUIDE FOR THE MINIMUM DESIRED SIZE OF EACH PLANT.
12. DO NOT MAKE SUBSTITUTIONS REGARDING PLANT SIZES OR SPECIES WITHOUT WRITTEN PERMISSION FROM THE OWNER OR LANDSCAPE ARCHITECT.
13. REMOVE ALL METAL BASKETS, STRINGS AND OTHER TIES FROM TREES.
14. FERTILIZE ALL PLANTS WITH 16-16-16 SLOW RELEASE FERTILIZER AT THE RATE OF: 3 POUNDS PER CUBIC YARD OF SOIL MIX. 3 POUNDS PER 100 SF OF BED FOR SHRUBS
15. PLANTS DESIGNATED "B&B" IN THE PLANT LIST SHALL BE BALLED AND BURLAPPED. THEY SHALL BE DUG WITH FIRM, NATURAL BALLS OF EARTH OF SUFFICIENT DIAMETER AND DEPTH TO ENCOMPASS THE FIBROUS AND FEEDING ROOT SYSTEM NECESSARY FOR FULL RECOVERY OF THE PLANT. BALLS SHALL BE FIRMLY WRAPPED WITH BURLAP OR SIMILAR MATERIAL AND BOUND WITH TWINE OR CORD.
16. ONLY "HEMP" BURLAP AND TWINE SHALL BE USED. NO TREATED OR PRESERVED BURLAP OR TWINE IS ALLOWED. ALL HEMP TWINE ATTACHED TO THE TREE TRUNK IS TO BE REMOVED AFTER PLANTING. AT A MINIMUM THE TOP ONE-THIRD OF THE ROOT BALL IS TO HAVE ALL BURLAP AND TWINE REMOVED. IF ROOTS ARE GIRDLING OR CIRCLING THEY MUST BE LOOSENED OR CUT.
17. THE BALLS OF "B&B" PLANTS WHICH CANNOT BE PLANTED IMMEDIATELY ON DELIVERY SHALL BE COVERED WITH MOIST SOIL OR MULCH, OR OTHER PROTECTION FROM DRYING WINDS AND SUN. ALL PLANTS INSTALLED OR STORED SHALL BE WATERED BY CONTRACTOR AS NECESSARY UNTIL FINAL ACCEPTANCE.
18. FOLD DOWN OR CUT THE BURLAP FROM THE TOP 1/3 OF THE BALL OR TO THE WIDEST TOP EDGE OF THE BALL IN ORDER TO EXPOSE THE TOP PLANE OF THE BALL. REMOVE ALL NAILS, STAPLES, ETC USED TO HOLD THE BALL TOGETHER.
19. TREE BALLS SHALL HAVE A MINIMUM DIAMETER IN FEET EQUAL TO 10" FOR EACH CALIPER INCH OF THE TREE.
20. ALL PLANTS SHALL BE HANDLED SO THAT ROOTS ARE ADEQUATELY PROTECTED AT ALL TIMES. DURING SHIPMENT, THE ENTIRE PLANT SHALL BE PROTECTED BY TARPAULINS OR OTHER SUITABLE COVERING. PLANT MATERIAL SUFFERING FROM WIND BURN OR OTHER WIND DAMAGE IS NOT ACCEPTABLE.
21. NO PLANT SHALL BE BOUND WITH ROPE OR WIRE IN A MANNER THAT DAMAGES THE BARK, BREAKS BRANCHES, OR DESTROYS ITS NATURAL SHAPE. NO PLANT MATERIAL REQUIRED TO BE BALLED AND BURLAPPED SHALL BE ACCEPTED IF THE BALL IS CRACKED OR BROKEN EITHER BEFORE OR DURING THE PROCESS OF PLANTING, OR WHEN REQUIRED BURLAP, STAVES, ROPES OR PLATFORM HAVE BEEN REMOVED.
22. ANY SERIES OF TREES OR SHRUBS TO BE PLACED IN A PARTICULAR ARRANGEMENT WILL BE FIELD CHECKED FOR ACCURACY BY THE OWNER. ANY PLANTS INCORRECTLY ARRANGED SHALL BE RELOCATED WITH THE OWNER'S APPROVAL.
23. PRE-EMERGENT HERBICIDE (TREFLAN OR EQUIVALENT) SHALL BE APPLIED (ACCORDING TO MANUFACTURER'S INSTRUCTIONS) TO ALL PLANT BEDS, PRIOR TO PLANTING, FOR NOXIOUS WEED CONTROL.
24. ALL PLANTING BEDS AND TREE AND SHRUB PLANTINGS SHALL RECEIVE A MINIMUM 3" DEEP SHREDDED HARDWOOD MULCH LAYER.
25. CONTRACTOR IS RESPONSIBLE FOR THE WATERING AND MAINTENANCE OF ALL INSTALLED PLANT MATERIAL, INCLUDING GRASS AREAS, UNTIL FINAL ACCEPTANCE BY OWNER. WATER ALL PLANT MATERIAL AT TIME OF PLANTING.
26. ALL PLANT MATERIAL IS TO BE GUARANTEED FOR ONE (1) YEAR. GUARANTEE PERIOD STARTS FROM DATE OF FINAL ACCEPTANCE.
27. OWNER RETAINS THE RIGHT TO INSPECT TREES AND SHRUBS FOR SIZE AND CONDITION OR ROOT BALL, INSECTS, INJURIES, AND LATENT DEFECTS AND TO REJECT UNSATISFACTORY OR DEFECTIVE MATERIAL AT ANY TIME DURING PROGRESS OF WORK. REMOVE REJECTED MATERIAL IMMEDIATELY FROM THE PROJECT SITE.
28. REPLACEMENTS SHALL CLOSELY MATCH ADJACENT SPECIMENS OF THE SAME SPECIES AND SHALL CONFORM TO THE STANDARDS FOR PLANT MATERIALS SPECIFIED. ALL REPLACED MATERIAL SHALL IMMEDIATELY BE REMOVED FROM THE SITE AND ALL NECESSARY REPAIRS TO PLANTS, GRADES, LAWN AREAS, PAVING, AND OTHER AREAS DAMAGED DURING REPLACEMENT SHALL BE MADE AT NO COST TO THE OWNER.
29. ONLY ONE REPLACEMENT PER TREE, SHRUB, OR PLANT WILL BE REQUIRED AT THE END OF THE WARRANTY PERIOD, EXCEPT FOR LOSSES OR REPLACEMENTS DUE TO FAILURE TO COMPLY WITH THE SPECIFIED REQUIREMENTS.

3 L-1.1 PLANTING DETAIL 1

SHRUB PLANTING IN GROUP DETAIL
NOT TO SCALE

TREE PLANTING DETAIL
NOT TO SCALE

NO.	DATE	REVISIONS

DATE: 05/20/2024
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DRAWN BY: T-SQUARE
REVIEWER: CES

LANDSCAPE PLAN DETAILS

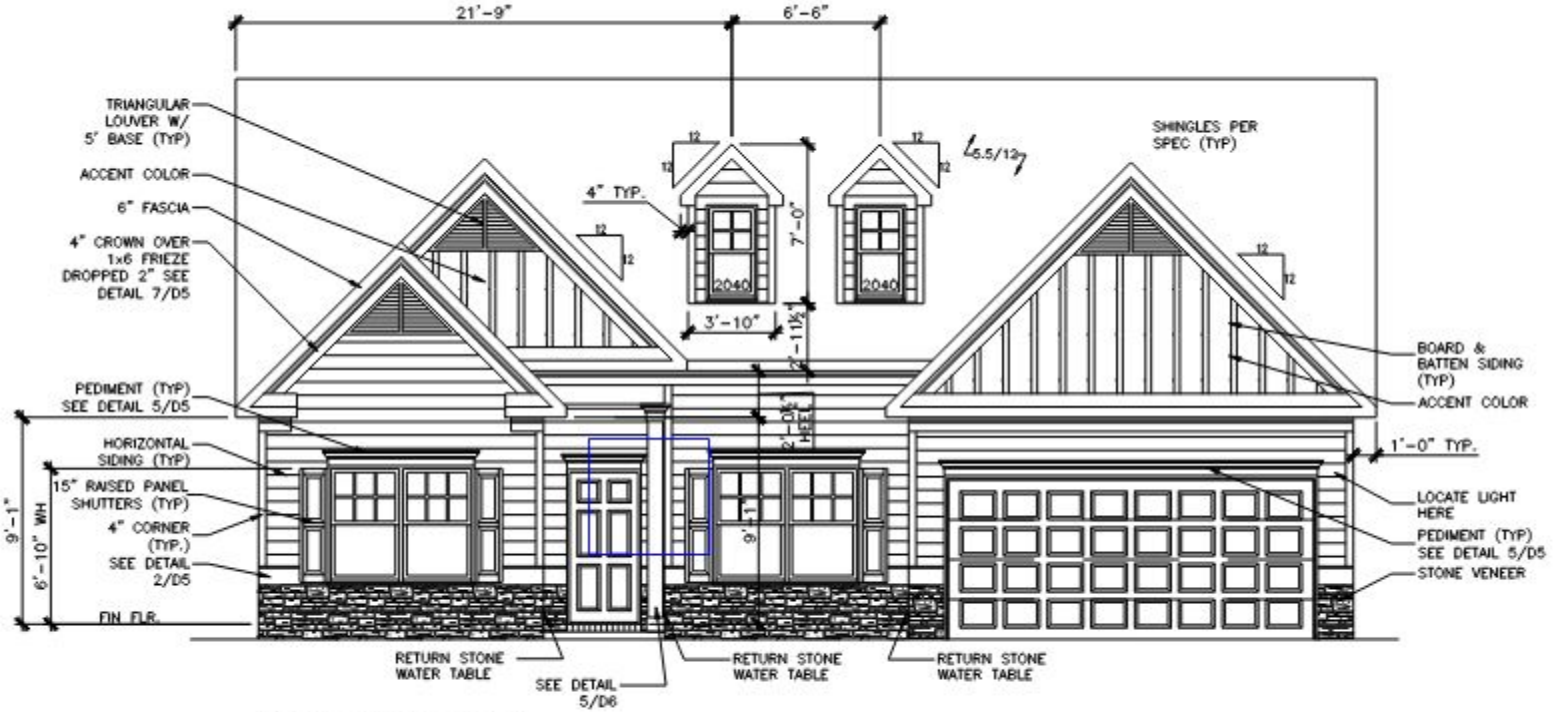
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CITY OF COLUMBIA, MAURY COUNTY, TENNESSEE

OAKWOOD AVENUE

PROJECT
23-0533

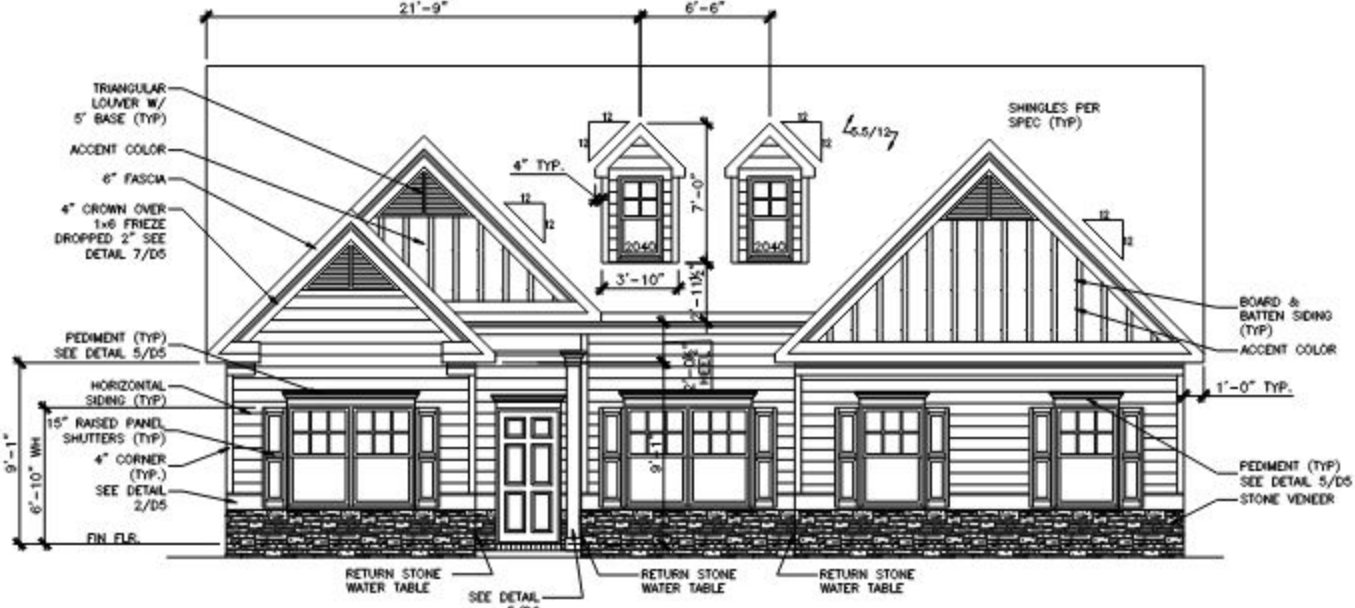
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T-SQUARE ENGINEERING

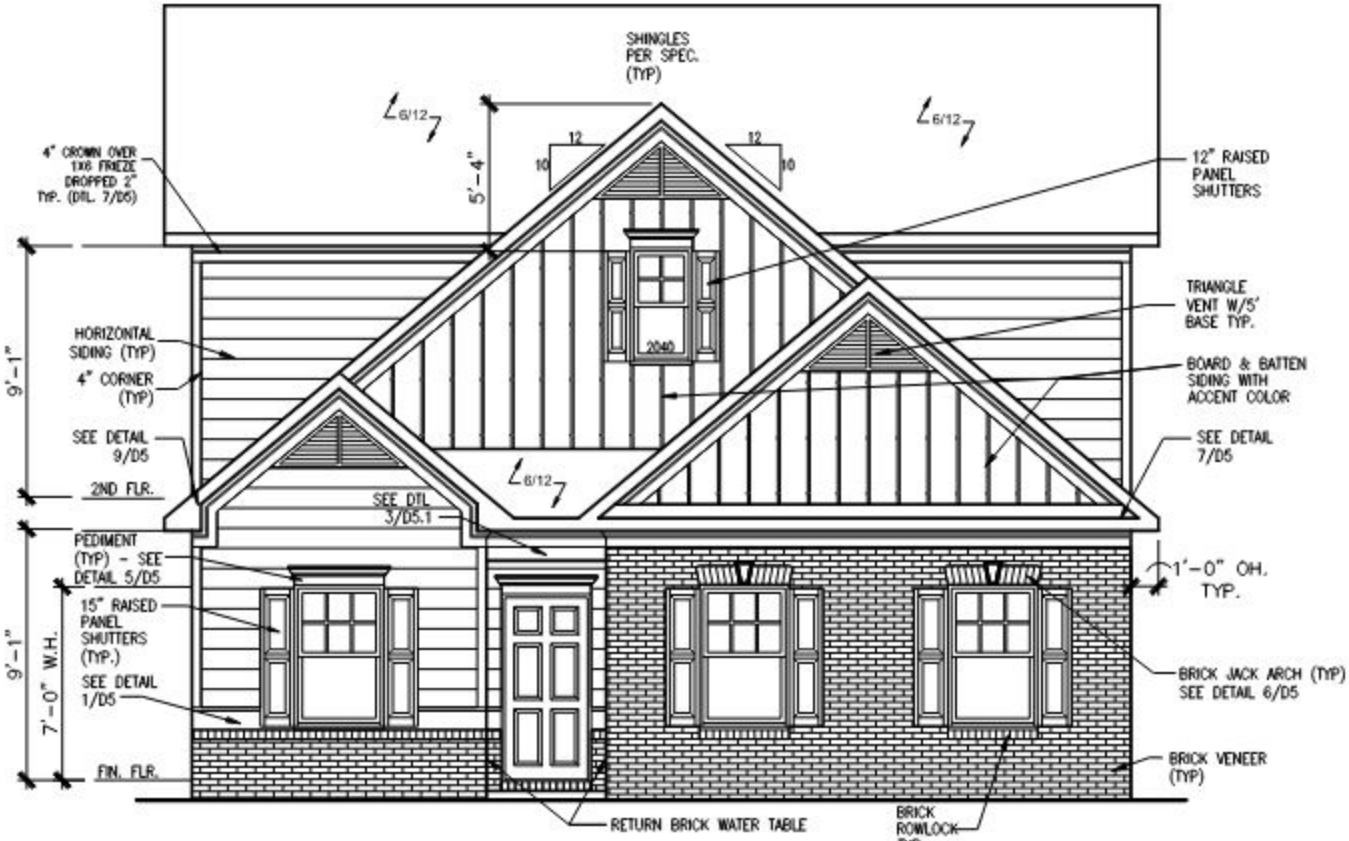


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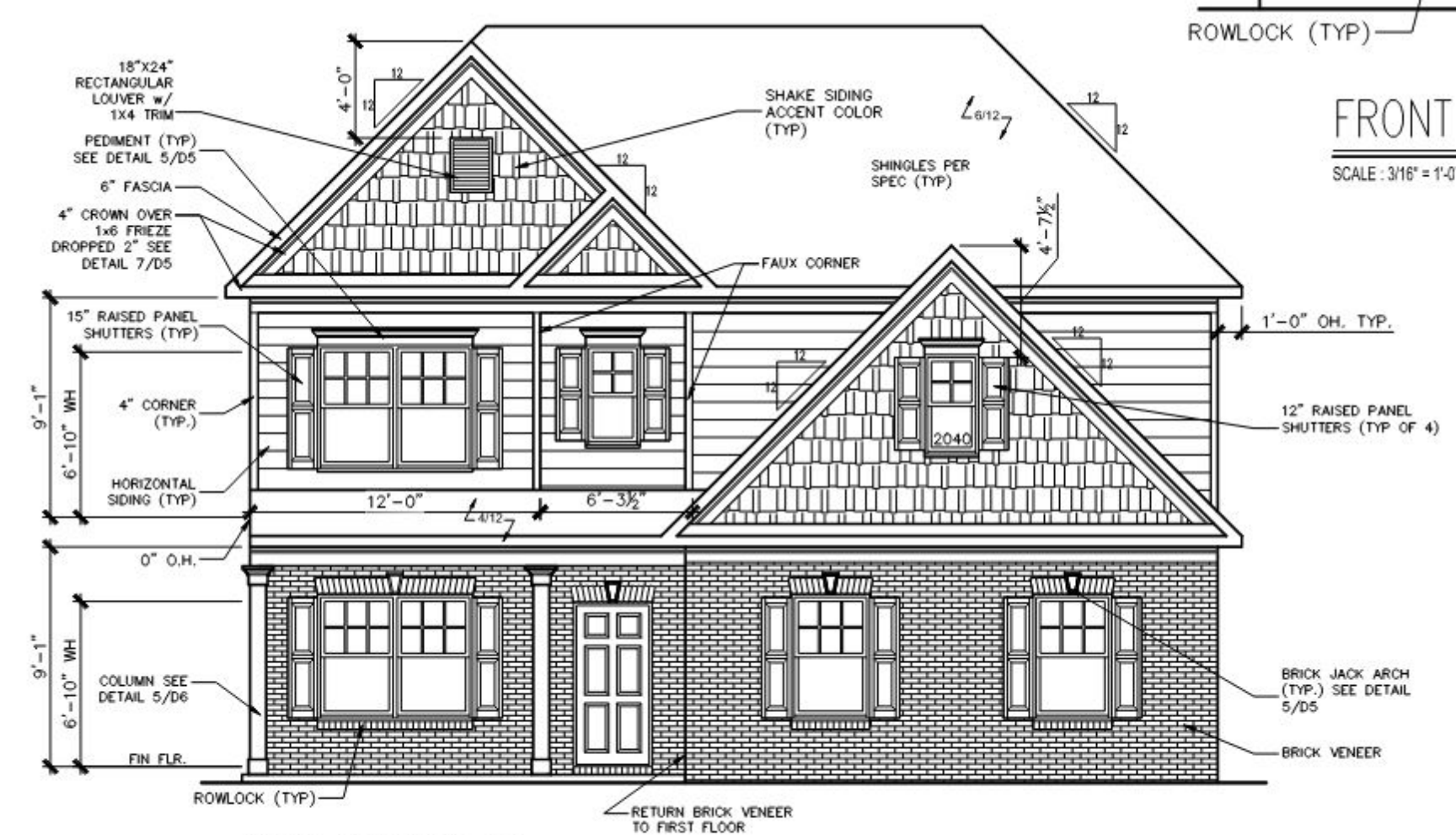
FRONT ELEVATION "D" OPTIONAL SIDE ENTRY GARAGE



FRONT ELEVATION "D" OPTIONAL SIDE ENTRY GARAGE

SCALE: 1/8"=1'-0"

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FRONT ELEVATION "F" OPTIONAL SIDE ENTRY GARAGE

SCALE : 1/8" = 1'-0"

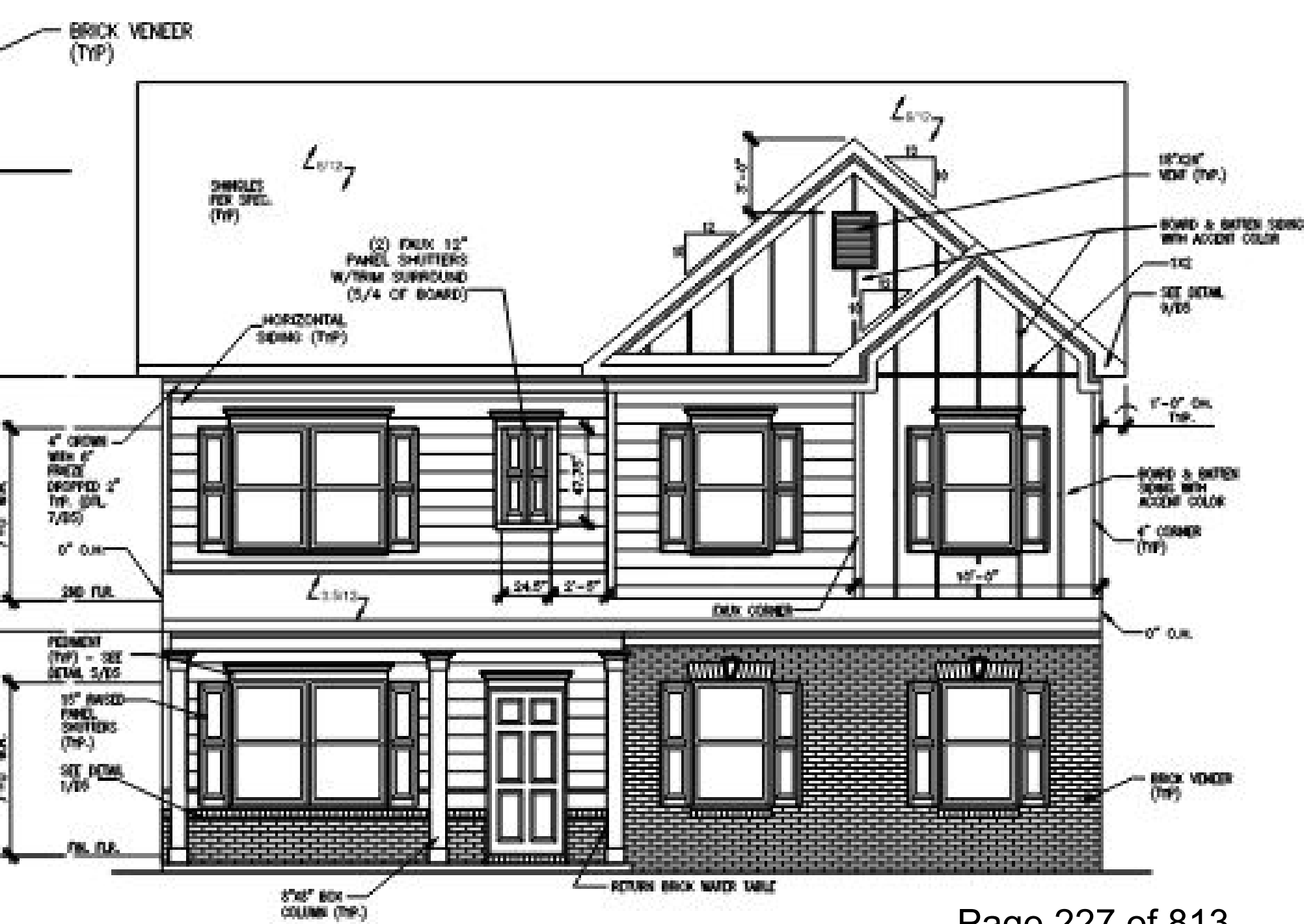
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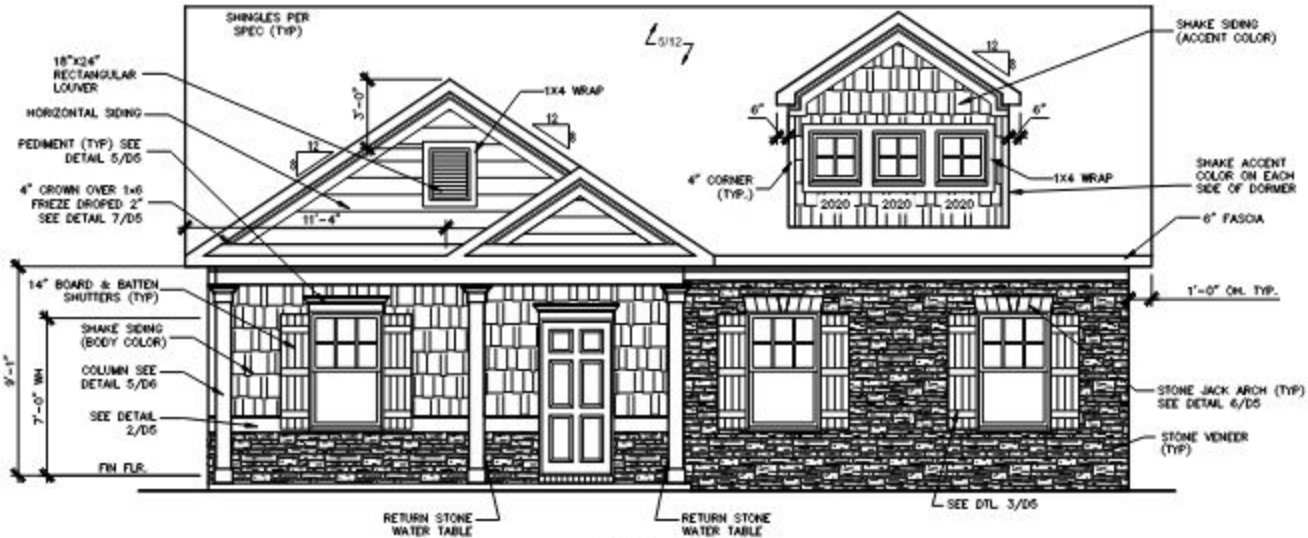


FRONT ELEVATION "E" OPTIONAL SIDE ENTRY GARAGE

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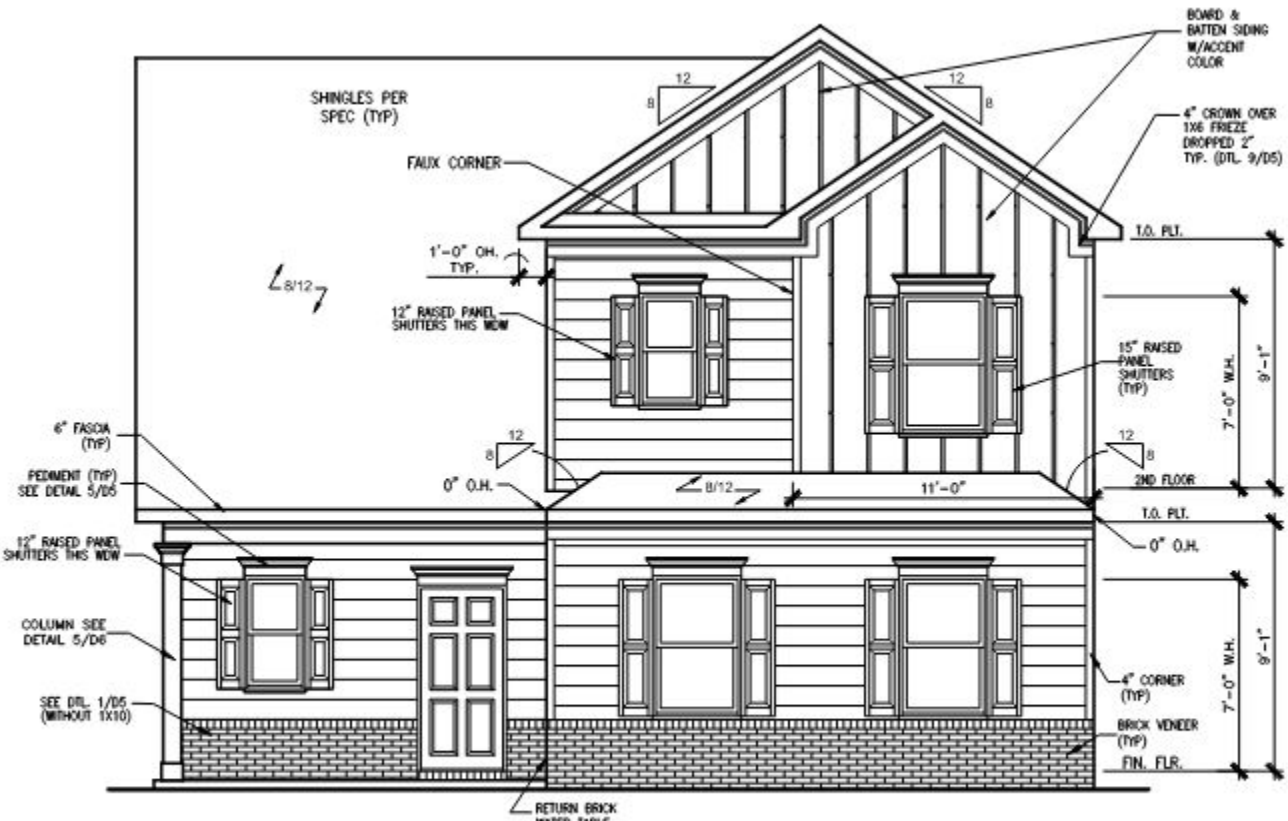


FRONT ELEVATION "D" OPTIONAL SIDE ENTRY GARAGE



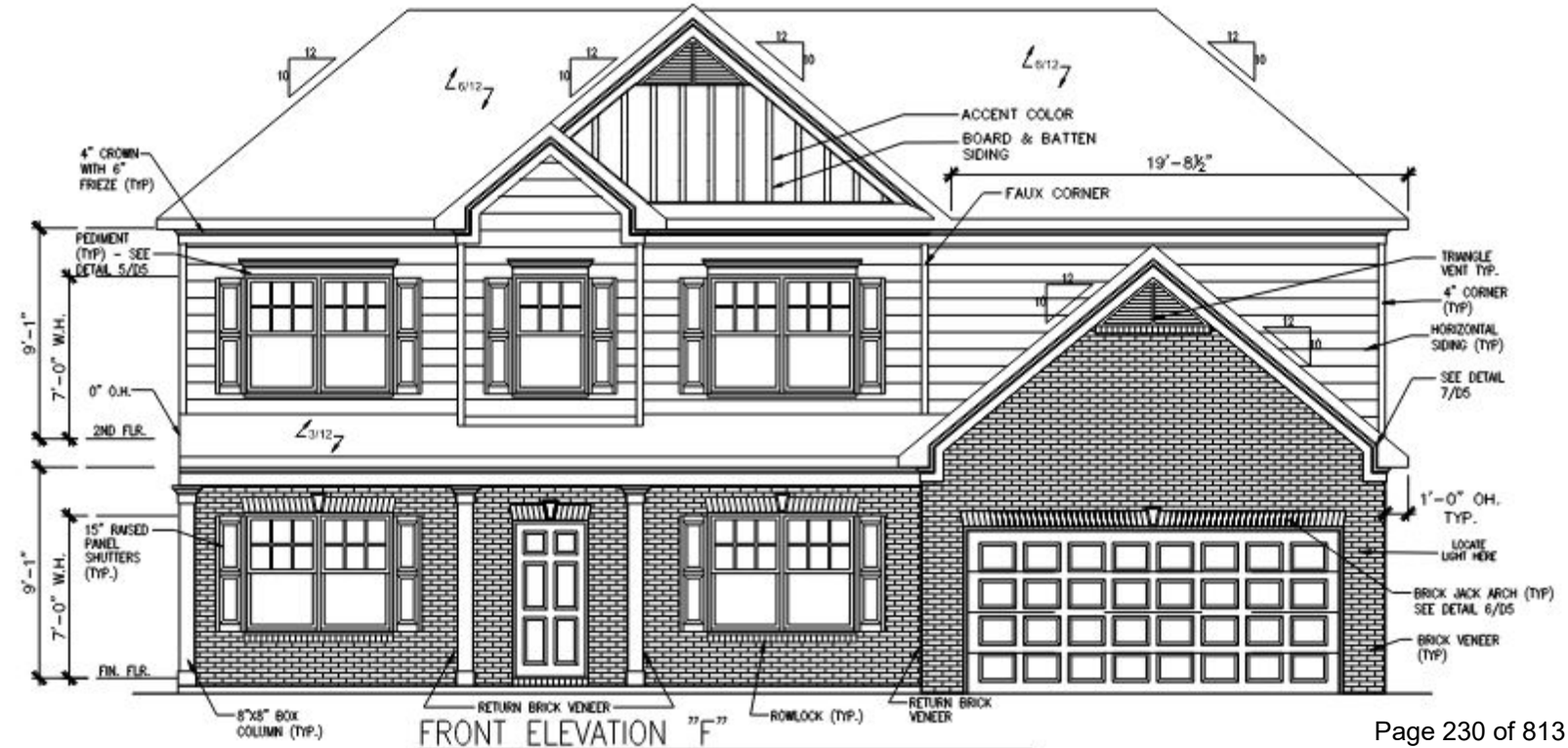
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SCALE: 1/8"=1'-0"



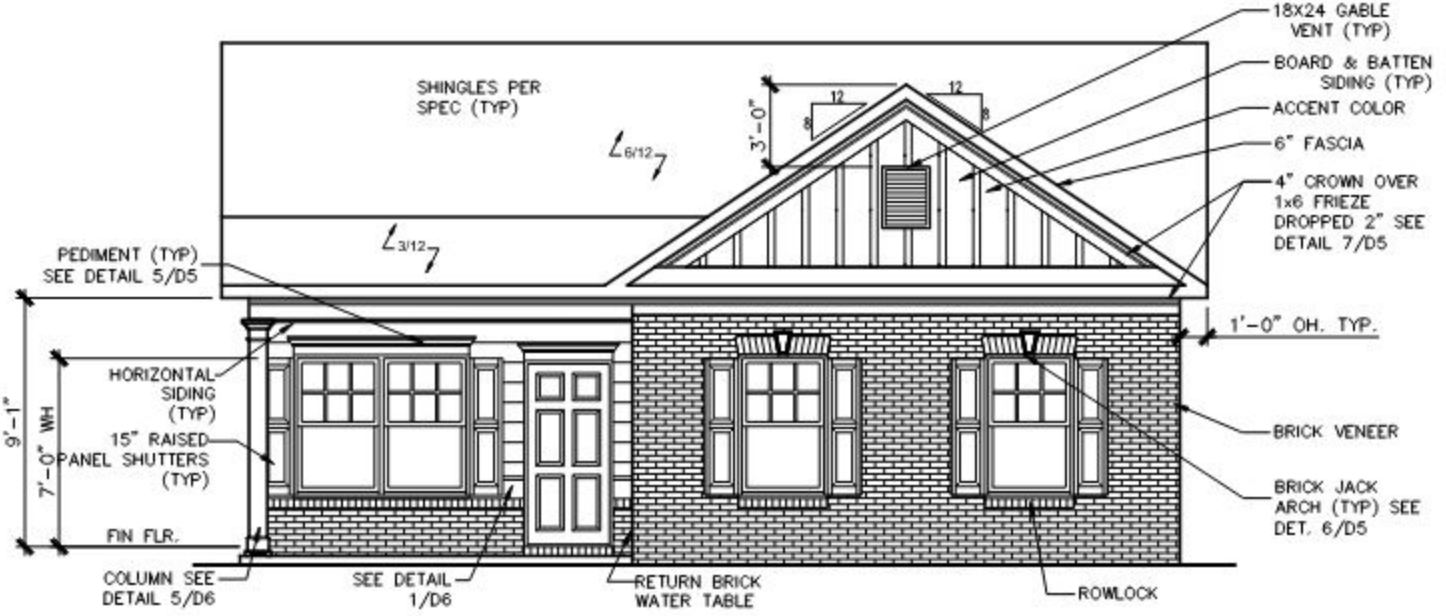
FRONT ELEVATION "B" OPTIONAL SIDE ENTRY GARAGE

SCALE: 1/8"=1'-0"



FRONT ELEVATION "F"

SCALE: 3/16"=1'-0"



FRONT ELEVATION "D" OPTIONAL SIDE ENTRY GARAGE

SCALE : 1/8" = 1'-0"

December 29, 2023

Smith Douglas Homes
361 Mallory station Road
Suite 103
Franklin, TN 37067

ATTENTION: **Drew Taylor**

SUBJECT: **WOTUS Delineation & Hydrologic Determination Report**
Oakwood Drive Property
Columbia, Maury County, Tennessee
Latitude 35.630342° North and Longitude -87.051890° West
Project No. 3482-020-30

Via email to: DTaylor@SmithDouglas.com

Dear Drew,

Spectrum Environmental, Inc. (Spectrum) has completed a delineation of Waters of the United States (WOTUS) and Hydrologic Determination (HD) for the above referenced property (Survey Area). Spectrum's work has been conducted in general accordance with the Scope of Work described in Proposal PQ000167 which was authorized on December 13, 2023.

Jurisdictional Evaluation

The Survey Area is approximately 58-acres located in Columbia, Maury County, Tennessee. The Survey Area can be accessed from the property driveway along the North side of James Campbell Blvd and is centered at Latitude 35.630342° North and Longitude -87.051890° West (Figure 1). The Survey Area boundary is identified as 089 021.00 on the Tennessee Property Viewer Online Internet Mapping Application[1];

The site observation was made on December 20, 2023. The site conditions of the Survey Area consist of agricultural grazing pasters/grasslands through most of the Survey Area, with forested areas in the northwest and east-central portions of the property. Several structures are located in the central portion of the Survey Area.

The U.S. Army Corps of Engineers (USACE) Antecedent Precipitation Tool (APT) noted drier than normal conditions with mild drought during the time of inspection on December 20, 2023 (Appendix A). Additionally, according to data obtained from Weather Underground, the closest weather station (KTNCOLUM62) indicated the site received 0.00 inches precipitation 48 hours prior to site reconnaissance on December 20, 2023 (Table 1). This HD was conducted in accordance with the Rule that a one-inch

[1]https://arcgis.maps.arcgis.com/apps/View/

precipitation event in 24 hours did not occur in the area of investigation within the previous 48 hours [0400-40-03-.05(9)].

Table 1 – Rainfall Data

Date	12/13	12/14	12/15	12/16	12/17	12/18	12/19	12/20
KTNCOLUM62	0.00	0.00	0.00	0.02	0.02	0.00	0.00	0.00

Desktop Assessment and Map Review

Prior to site reconnaissance, Spectrum conducted a desktop assessment of the Survey Area. This review allowed for preliminary identification of potential WOTUS and provided an understanding of the ecology, land use, and general physiography of the site.

The Godwin, Tennessee 7.5-minute United States Geological Survey (USGS) Topographic map depicts a high point near the northern portion of the property with slopes to the northwest. A blue lined stream begins in the northwest corner of the property and exits at the northwest property boundary (Figure 2).

An aerial depiction dated March 2022 consists of agricultural grazing pastures/grasslands through much of the property with forested areas in the northwestern and central eastern portions of the Survey Area (Figure 3). Additionally, the southwestern portion of the property has a driveway that leads to approximately five (5) structures near the center of the property.

Light Detection and Ranging (LiDAR) imagery depicts four (4) potential channels: one in the northwest corner of the property, one to the east of the aforementioned stream along the northern boundary of the property, another along the eastern boundary of the property, and a final near the southern boundary near the roadway (Figure 4).

A review of the United States Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) dataset depicts one riverine habitat (R5UBH) in the northwestern corner of the property and one freshwater pond (PUBHx) near the southeastern corner of the property (Figure 5).

A review of a soil map and associated soil data prepared using the Natural Resource Conservation Service (NRCS) Web Soil Survey (WSS) website indicates there are no hydric soil components within the Survey Area (Figure 6).

General Geologic and Physiographic Discussion

The surface geology of the Survey Area is underlain by the Nashville Group; Biby-Cannon Limestone and Hermigate formation throughout the majority of the Survey area with the northwestern portion underlain by the Stones River Group; Carters Limestone (Figure 7). The Bigby-Cannon group is characterized by brownish-gray, cryptograined to medium-grained even-bedded limestone with thicknesses from 50 to 125 feet. The Hermitage formation is characterized as thin-bedded to laminate, sandy limestone with shale, nodular shaly limestone, coquina, and phosphatic calcarenite. Thicknesses range from 50 to 100 feet. The Stones River Group is characterized by fine-grained, yellowish-brown limestone; thin-bedded in upper part; thicker bedded and very slightly cherty with scattered mottlings of magnesian limestone in lower part. The thickness of this feature ranges from 50 to 100 feet (Greene, 2000).

The Survey Area is located within the Outer Nashville Basin (71h) Level IV Ecoregion of the Level III Interior Plateau Ecoregion (71) The Outer Nashville Basin is a more heterogeneous region than the Inner Nashville Basin (71i), with more rolling and hilly topography and slightly higher elevations. The region encompasses most all of the outer area of the generally non-cherty Mississippian-age formations, and some Devonian-age Chattanooga shale, remnants of the Highland Rim. The region's limestone rocks and soils are high in phosphorus, and commercial phosphate is mined. Deciduous forests with pasture and cropland are the dominant land covers. Streams are low to moderate gradient, with productive, nutrient-rich waters, resulting in algae, rooted vegetation, and occasionally high densities of fish. The Nashville Basin as a whole has a distinctive fish fauna, notable for fish that avoid the region, as well as those that are present (Griffith, Glenn E. et. al).

The Survey Area is located within the Bear Creek-Duck Creek watershed belonging to the hydrologic unit 12-digit code 060400030506.

Field Methodology Guidelines

Spectrum personnel (Abby Harris, QHP and Matthew Moseley, QHP-IT) performed a WOTUS and HD evaluation on December 20, 2023. The following briefly describes the field procedures conducted during site activities. The field delineation was performed in accordance with the guidelines established in the Field Guide for Wetland Delineation, 1987 Corps of Engineers Manual (Manual) as well as the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region: (Version 2.0) –April 2012 (Corps 2012). Under the delineation procedures in this manual, an area must exhibit characteristic wetland hydrology, hydric soils, and hydrophytic vegetation to be considered a wetland. Vegetation was assigned an indicator status and was determined by using the National List of Plant Species That Occur in Wetlands: Eastern Mountains and Piedmont Region (Lichvar et al, 2014). Stream identification was performed using the TDEC Division of Water Pollution Controls Guidance for Making Hydrologic Determinations, Version 1.5 (April 2020).

Findings

General

Data points were collected in the field using an EOS Arrow 100 GPS unit. This unit operates on sub-meter accuracy, however atmospheric conditions, canopy conditions, and satellite feeds can affect the field records. Spectrum utilized a combination of blue and pink "wetland delineation" flagging to denote stream segments. Site reconnaissance photographs can be found in Appendix B.

Corps of Engineers – Summary of Delineated Resources

In total, Spectrum personnel identified one (1) perennial stream, two (2) intermittent streams, and three (3) ephemeral streams within the Survey Area (Figures 8a – 8d).

Corps of Engineers – Potentially Jurisdictional Resources

It is Spectrum's opinion, under the current Corps regulations and definitions, the features listed in Table 2 below meet the jurisdictional requirements established by Section 404 of the Clean Water Act (CWA) and the U.S. Army Corps of Engineers (Corps) – Nashville District under the 1986 Regulations and *Sackett* Guidance. A detailed discussion is provided at the end of this section.

Table 2 – Corps of Engineers – Potentially Jurisdictional Resources

Site ID	Start/Mid Lat, Long	End Lat, Long	Total Mapped		Average Width at OHWM	Type of Aquatic Resource		Jurisdictional Authority
			Linear Feet	Acres		Type	Cowardin	
INT-1	35.631586	-87.05317	609	0.060	4	Intermittent	R4	Section 404
INT-2	35.631768	-87.053211	52	0.004	3	Intermittent	R4	Section 404
PER-1	35.631458	-87.052702	644	0.030	2	Perennial	R5	Section 404

Corps of Engineers – Potentially Non-Jurisdictional Resources

It is Spectrum's opinion, under the current Corps regulations and definitions, the features listed in Table 3 below do not meet the jurisdictional requirements established by Section 404 of the Clean Water Act (CWA) and the U.S. Army Corps of Engineers (Corps) – Nashville District under the 1986 Regulations and *Sackett* Guidance. A detailed discussion is provided at the end of this section.

Table 3 – Corps of Engineers – Potentially Non-Jurisdictional Resources

Site ID	Start/Mid Lat, Long	End Lat, Long	Total Mapped		Average Width at OHWM	Type of Aquatic Resource		Jurisdictional Authority
			Linear Feet	Acres		Type	Cowardin	
EPH-1 R1	35.631309	-87.052283	148	0.012	1.5	Ephemeral	R6	Section 404
EPH-1 R2	35.631324	-87.052439	106	0.012	1.5	Ephemeral	R6	Section 404
EPH-2	35.631087	-87.051944	99	0.002	1	Ephemeral	R6	Section 404
EPH-3	35.629311	-87.051181	251	0.012	2	Ephemeral	R6	Section 404

TDEC – Summary of Delineated Resources

In total, Spectrum personnel identified three (3) streams, and three (3) wet weather conveyances within the Survey Area (Figures 9a – 9d). A detailed discussion is provided at the end of this section.

TDEC – Potentially Jurisdictional Resources

It is Spectrum's opinion that the feature listed in Table 4 below meet the jurisdictional requirements of Waters of the State established by Tennessee Code Annotated (TCA) §69-3-103 (38) & (4) (A-D).

Table 4 – TDEC – Potentially Jurisdictional Resources

Site ID	Start/Mid Lat, Long	End Lat, Long	Total Mapped		Average Width at OHWM	Type of Aquatic Resource		Jurisdictional Authority
			Linear Feet	Acres		Type	Cowardin	
S1	35.631586	-87.05317	609	0.060	4	Intermittent	R4	TDEC
S2	35.631768	-87.053211	52	0.004	3	Intermittent	R4	TDEC
S3	35.631458	-87.052702	644	0.030	2	Perennial	R5	TDEC

TDEC – Potentially Non-Jurisdictional Resources

It is Spectrum's opinion that the features listed in Table 5 below do not meet the jurisdictional requirements of Waters of the State established by TCA §69-3-103 (38) & (4) (A-D).

Table 5 – TDEC – Potentially Non-Jurisdictional Resources

Site ID	Start/Mid Lat, Long	End Lat, Long	Total Mapped		Average Width at OHWM	Classification		Jurisdictional Authority
			Linear Feet	Acres		Type	Cowardin	
WWC-1	35.631309	-87.052439	254	0.012	1.5	Ephemeral	R6	Exempt
WWC-2	35.631087	-87.051944	99	0.002	1	Ephemeral	R6	Exempt
WWC-3	35.629311	-87,051181	251	0.012	2	Ephemeral	R6	Exempt

Table 6 – Feature Descriptions

Corps Feature	TDEC Feature	Feature Description	Jurisdictional?	
			Corps	TDEC
INT-1	S1	INT-1/S1 is an intermittent stream that is located in the northwestern corner of the property and extends northwest for approximately 609 linear feet (LF) before continuing off of property and under SR-412. During site reconnaissance, Spectrum personnel observed an Ordinary High-Water Mark (OHWM) of approximately 4 feet. The channel had periodic dry portions with less-developed channel characteristics. It is Spectrum's opinion that this is due to drought conditions and the adjacent property eroding into the stream channel. The stream had many groundwater seeps throughout, especially near the downstream end, and had several areas of iron oxidizing bacteria. A soil pit was dug adjacent to the stream channel and wetland characteristics were not found. Utilizing TDEC's Guidance for Making Hydrologic Determinations, this feature was determined to be a stream by the primary indicators of *presence of naturally occurring ground water table connection* and *flowing water in channel and 7 days since last precip >0.1' in local watershed*. Additionally, the stream received a secondary indicator score of 25.75.	Yes	Yes
INT-2	S2	INT-2/S2 is an intermittent stream that is located in the northwestern portion of the property and extends northwest for approximately 52 LF before the confluence with INT-1/S1. During site reconnaissance, Spectrum personnel observed an OHWM of approximately 3 feet and additional groundwater seeps were observed along and within the channel. Utilizing TDEC's Guidance for Making Hydrologic Determinations, this feature was determined to be a stream by the primary indicators of *presence of naturally occurring ground water table connection* and *flowing water in channel and 7 days since last precip >0.1' in local watershed*. Additionally, the stream received a secondary indicator score of 23.5.	Yes	Yes
PER-1	S3	PER-1/S3 is an perennial stream that is located in the east-central portion of the property. This feature begins near the south-central property boundary and extends northeast for approximately 644 LF before exiting the property along the eastern boundary. This stream includes two (2) pipes with Pipe 1 being 22 LF near the southern end of the stream and Pipe 2 being 17 LF near the northern end of the stream. It appears that these pipes have been placed as crossings to access utilities on the property. During site reconnaissance, Spectrum personnel observed an OHWM of approximately 1.5 feet and observed flowing water through much of the channel. Utilizing TDEC's Guidance for Making Hydrologic Determinations, this feature was determined to be a stream by the primary indicators of *presence of naturally occurring ground water table*	Yes	Yes

Corps Feature	TDEC Feature	Feature Description	Jurisdictional?	
			Corps	TDEC
		connection and *flowing water in channel and 7 days since last precip >0.1' in local watershed*. Additionally, the stream received a secondary indicator score of 27.		
EPH-1	WWC-1	EPH-1/WWC-1 is an ephemeral stream located in the northwest corner of the property, east of INT-1. The first reach of EPH-1/WWC-1 extends approximately 148 LF before dissipating at a utility access road. The second reach picks up down gradient of the access road, west of the first reach and extends approximately 106 feet before its confluence with INT-1. During the site reconnaissance, Spectrum personnel observed an average OHWM of approximately 1.5 feet. The feature had some characteristics of defined bed and bank with disruptions throughout and included upland vegetation in and around the channel. Utilizing TDEC's Guidance for Making Hydrologic Determinations, this feature scored less than 19, categorizing it as a WWC.	No	No
EPH-2	WWC-2	EPH-2/WWC-2 is an ephemeral stream located in the northwest corner of the property, adjacent to the upper reach of EPH-1/WWC-1. The feature extends northwest for approximately 99 LF before its confluence with EPH-1/WWC-1. During site reconnaissance, Spectrum personnel observed a dry channel bottom with minimal geomorphic characteristics. OHWM for this feature was measured to be approximately 1 foot. Utilizing TDEC's Guidance for Making Hydrologic Determinations, this feature scored less than 19, categorizing it as a WWC.	No	No
EPH-3	WWC-3	EPH-3/WWC-3 is an ephemeral in the east-central portion of the property. This feature begins near the south-central property boundary and extends 251 feet before its confluence with PER-3. During site reconnaissance, Spectrum personnel observed a dry channel bottom with minimal geomorphic characteristics. OHWM for this feature was measured to be approximately 2 feet. Utilizing TDEC's Guidance for Making Hydrologic Determinations, this feature scored less than 19, categorizing it as a WWC.	No	No

*References to features that have different nomenclature for the Corps and TDEC are annotated as the following (Corps Nomenclature/TDEC Nomenclature)

Conclusions

Corps of Engineers

The Survey Area contains approximately 644 linear feet (0.030 acres) of perennial stream and 661 linear feet (0.064 acres) of intermittent stream. These features, in Spectrum's opinion, would be considered jurisdictional based on the current definition of jurisdictional WOTUS under the authority of the Corps – Nashville District. We recommend that a Preliminary Jurisdictional Determination (PJD) be submitted to the Corps for the confirmation of the jurisdictional status of the features under the current guidance. Additionally, the Survey Area contains approximately 604 linear feet (0.022 acres) of ephemeral stream. These features, in Spectrum's opinion, would be considered non-jurisdictional based on the current definition of jurisdictional WOTUS under the authority of the Corps – Nashville District. We recommend that an Approved Jurisdictional Determination (AJD) be submitted to the Corps for the confirmation of the jurisdictional status of the features under the current guidance.

TDEC

The Survey Area contains approximately 1,266 linear feet (0.074 acres) of stream. These features, in Spectrum's opinion, would be considered jurisdictional Waters of the State under the authority of TDEC. Additionally, the Survey Area contains approximately 604 linear feet (0.022 acres) of wet weather

conveyances, which, in Spectrum's opinion, would not be considered jurisdictional. We recommend an HD be submitted to TDEC for the confirmation of the jurisdictional status of these features and seek concurrence that TDEC agrees with Spectrum's interpretation of the features we have described as non-jurisdictional.

Recommendations

While this report represents Spectrum's best professional judgment, it is important to note the Corps and TDEC have final discretionary authority over all jurisdictional determinations of Waters of the United States, including wetlands, under Section 404 of the CWA and TCA §69-3-103(38) & (4) (A – D). Therefore, prior to any land use change or implementation of proposed development plans, we recommend and encourage Spectrum's involvement with the design team to determine appropriate permitting strategies, if any. Spectrum recommends an HD be submitted to TDEC and a PJD/AJD be submitted to the U.S. Army Corps of Engineers.

Spectrum appreciates the opportunity to work with you on this project and encourages you to contact Abby Harris at (615) 806-3340 (abbyharris@specenviro.com) or Matthew Moseley at (629) 277-1620 (mmoseley@specenviro.com) should you have any questions or need additional assistance.

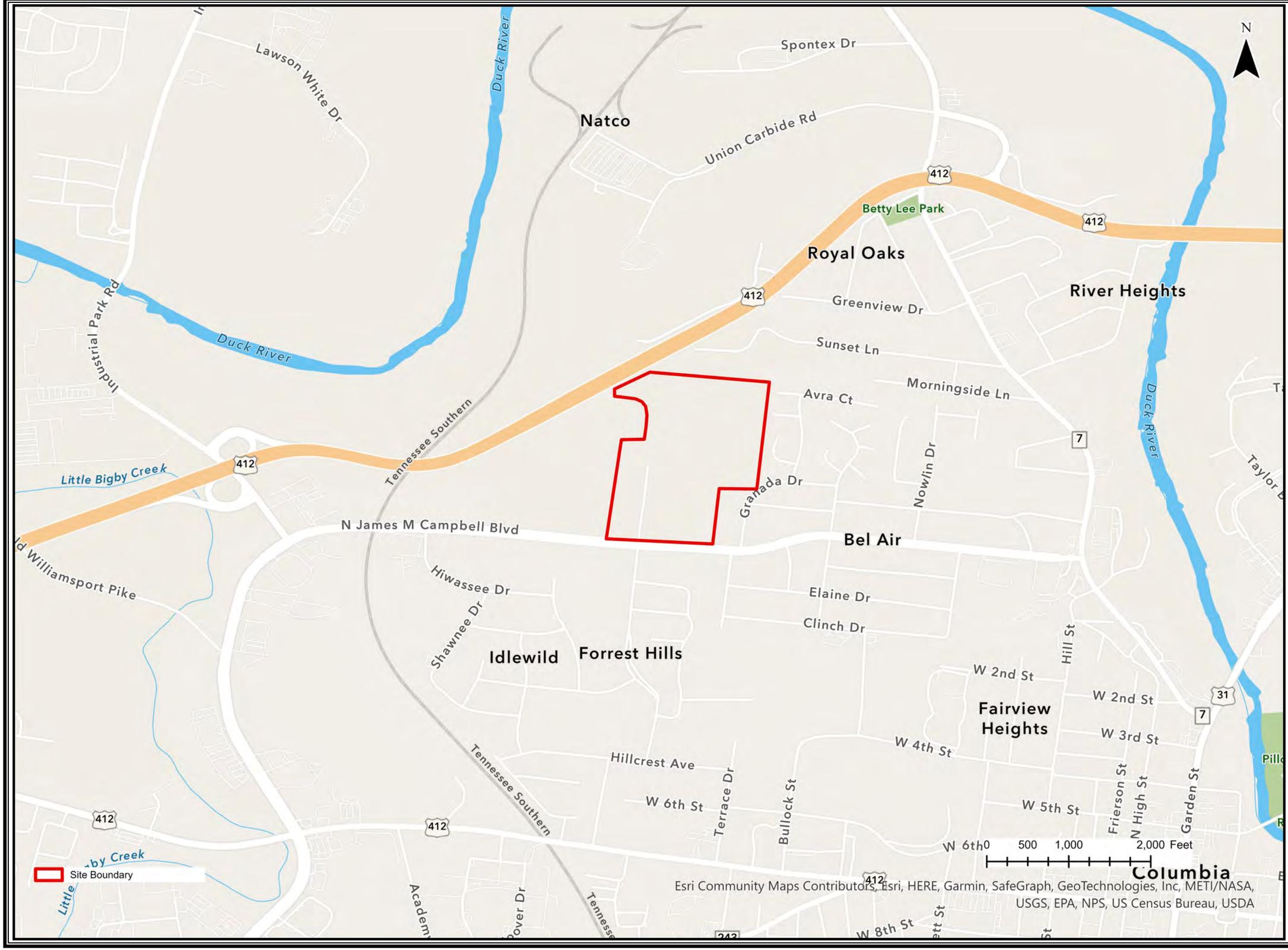
Sincerely,
SPECTRUM ENVIRONMENTAL, INC.

Matthew Moseley
Natural Resource Scientist

Abby Harris, QHP
Project Manager, Senior Wetland Ecologist

Attachments: Figures & Appendices

FIGURES



TITLE

Figure 1 — Site Location Map
WOTUS Delineation
Smith Douglas Homes—Nashville
Oakwood Dr
Columbia, Maury County, TN

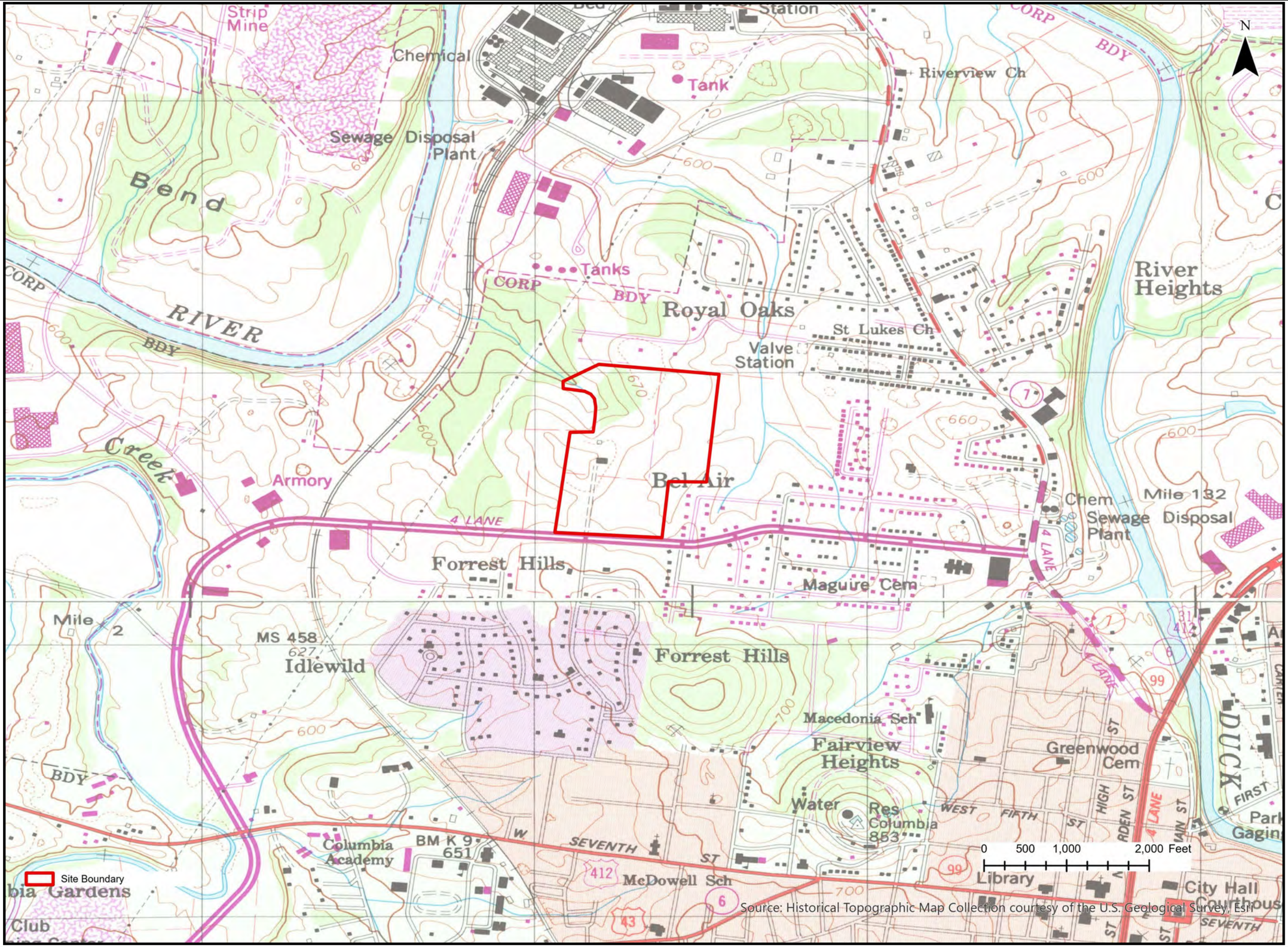
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Project Mgr.:	**Project #:**
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Image courtesy of ESRI.

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TITLE

Figure 2 — Site Topographic Map
WOTUS Delineation
Smith Douglas Homes—Nashville
Oakwood Dr
Columbia, Maury County, TN

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Image courtesy of ESRI and USGS Godwin, Tennessee 7.5 minute quadrangle.

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Figure 3 — Site Aerial Map WOTUS Delineation Smith Douglas Homes—Nashville Oakwood Dr Columbia, Maury County, TN

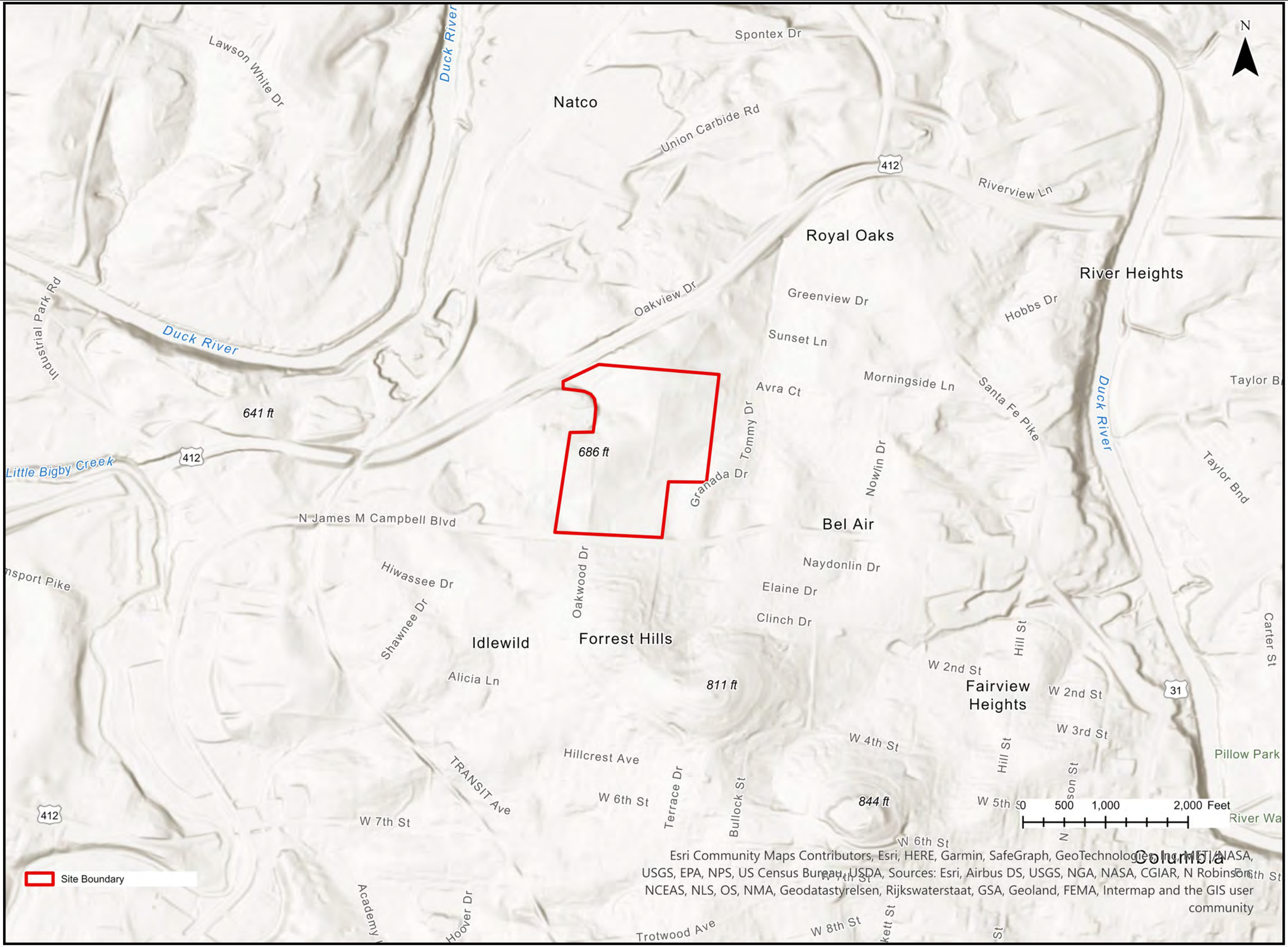
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Figure 4 — Site LiDAR Map
WOTUS Delineation
Smith Douglas Homes—Nashville
Oakwood Dr
Columbia, Maury County, TN

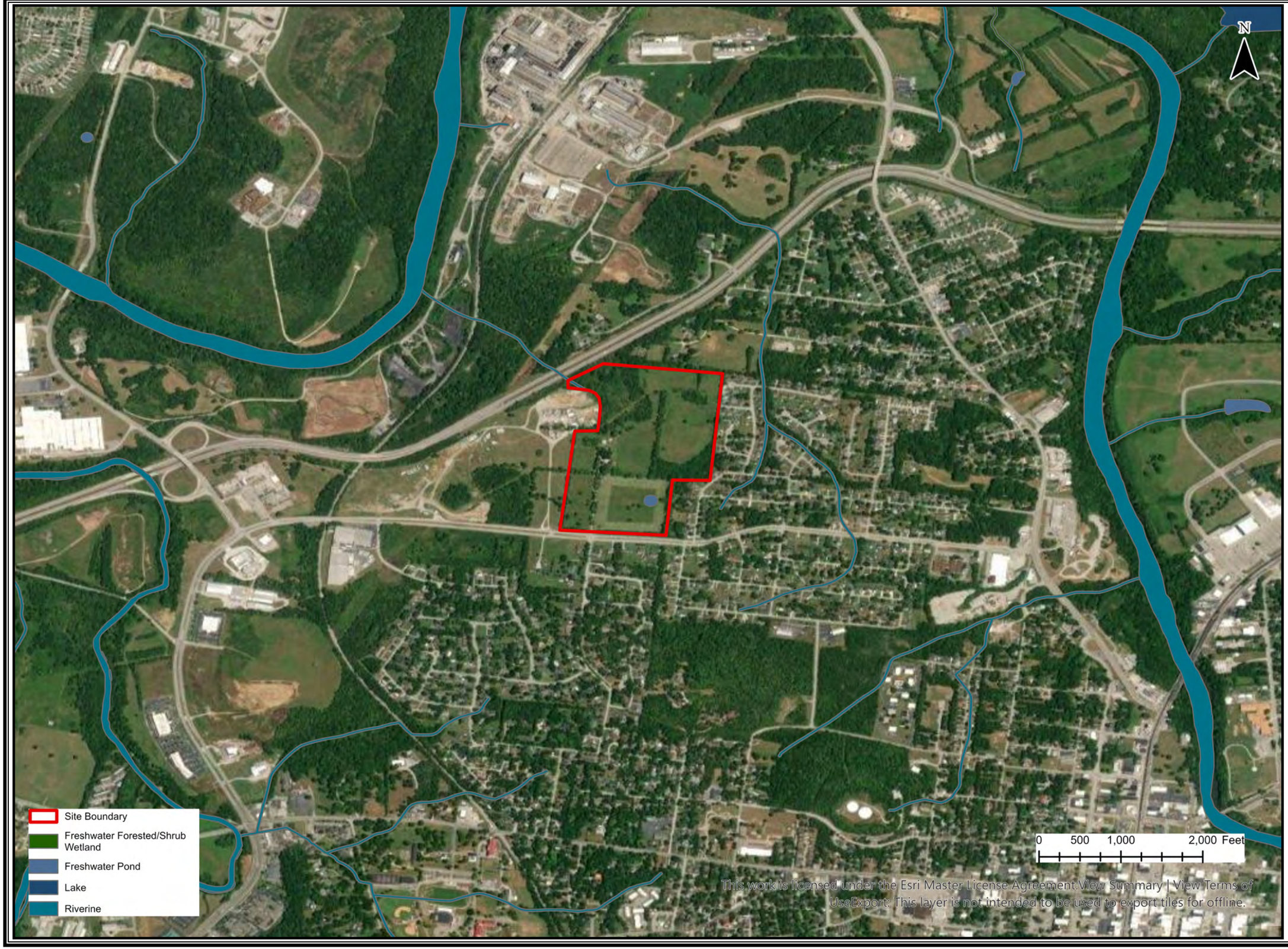
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Figure 5 — NWI Map
WOTUS Delineation
Smith Douglas Homes—Nashville
Oakwood Dr
Columbia, Maury County, TN

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Image courtesy of ESRI and National Wetland Survey.

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Figure 6 — Site Soils Map
WOTUS Delineation
Smith Douglas Homes—Nashville
Oakwood Dr
Columbia, Maury County, TN

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Image courtesy of ESRI and NRCS Web Soil Survey.

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Figure 7 — Site Geologic Map
WOTUS Delineation
Smith Douglas Homes—Nashville
Oakwood Dr
Columbia, Maury County, TN

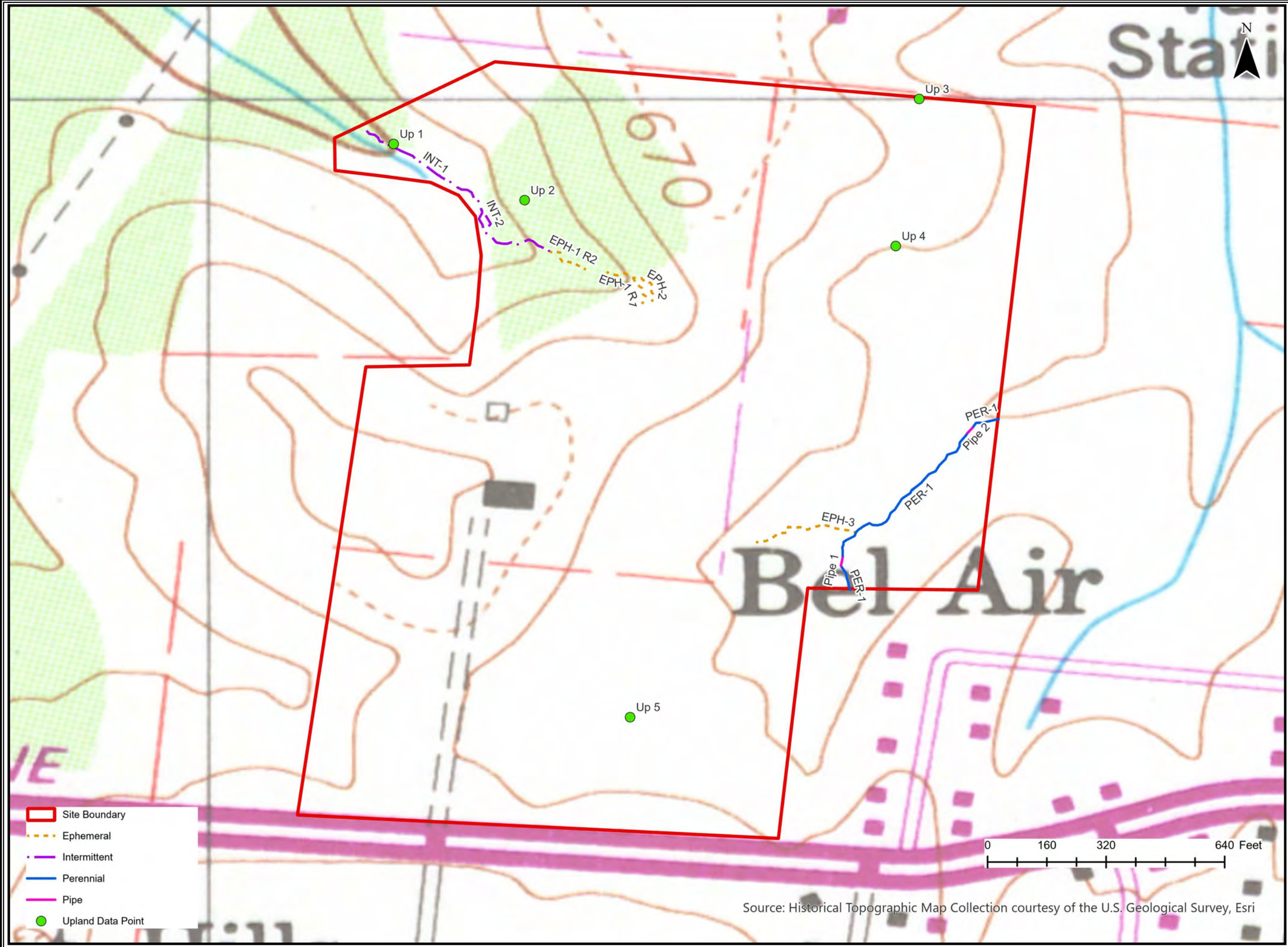
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Figure 8a — Site Delineation Overview
WOTUS Delineation
Smith Douglas Homes—Nashville
Oakwood Dr
Columbia, Maury County, TN

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Image courtesy of ESRI and USGS Godwin, Tennessee 7.5 minute quadrangle.

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Figure 8b — Site Delineation Overview
WOTUS Delineation
Smith Douglas Homes—Nashville
Oakwood Dr
Columbia, Maury County, TN

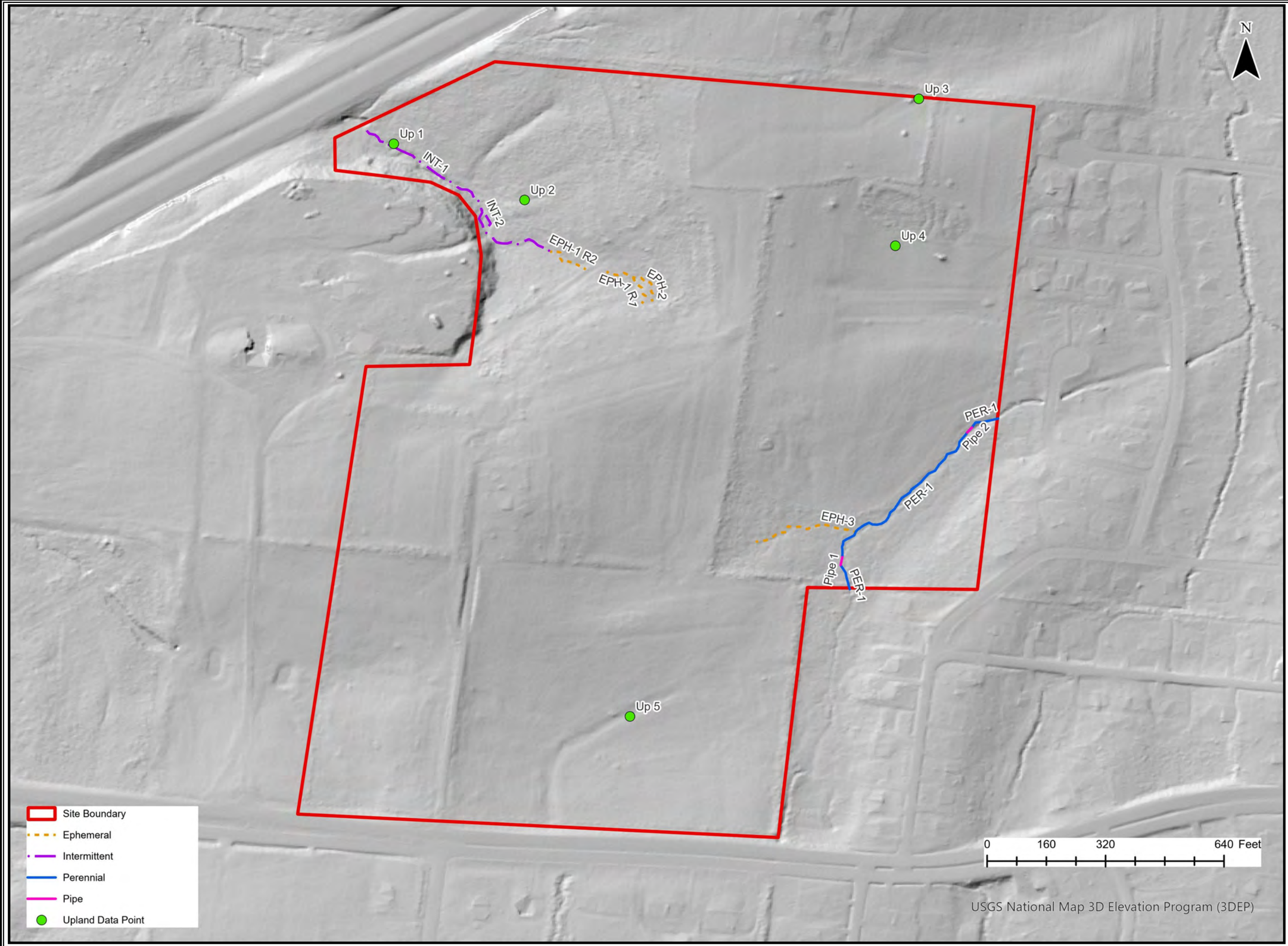
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Figure 8c — Site Delineation Overview
WOTUS Delineation
Smith Douglas Homes—Nashville
Oakwood Dr
Columbia, Maury County, TN

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Site ID	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Total Mapped			Classification	
			LF	Acre	OHWM	Type	Cowardin
PER-1	35.631586	-87.05317	644	0.03	2	Perennial Stream	R5
INT-1	35.631458	-87.052702	609	0.06	4	Intermittent Stream	R4
INT-2	35.631768	-87.053211	52	0.004	3	Intermittent Stream	R4
EPH1R1	35.631309	-87.052283	148	0.003	1	Ephemeral Stream	R6
EPH1R2	35.631324	-87.052439	106	0.005	2	Ephemeral Stream	R6
EPH-2	35.631087	-87.051944	99	0.002	1	Ephemeral Stream	R6
EPH-3	35.629311	-87.051181	251	0.012	2	Ephemeral Stream	R6

Pipe 1 — 22 LF (Within PER-1)

Pipe 2 — 17 LF (Within PER-1)

TITLE

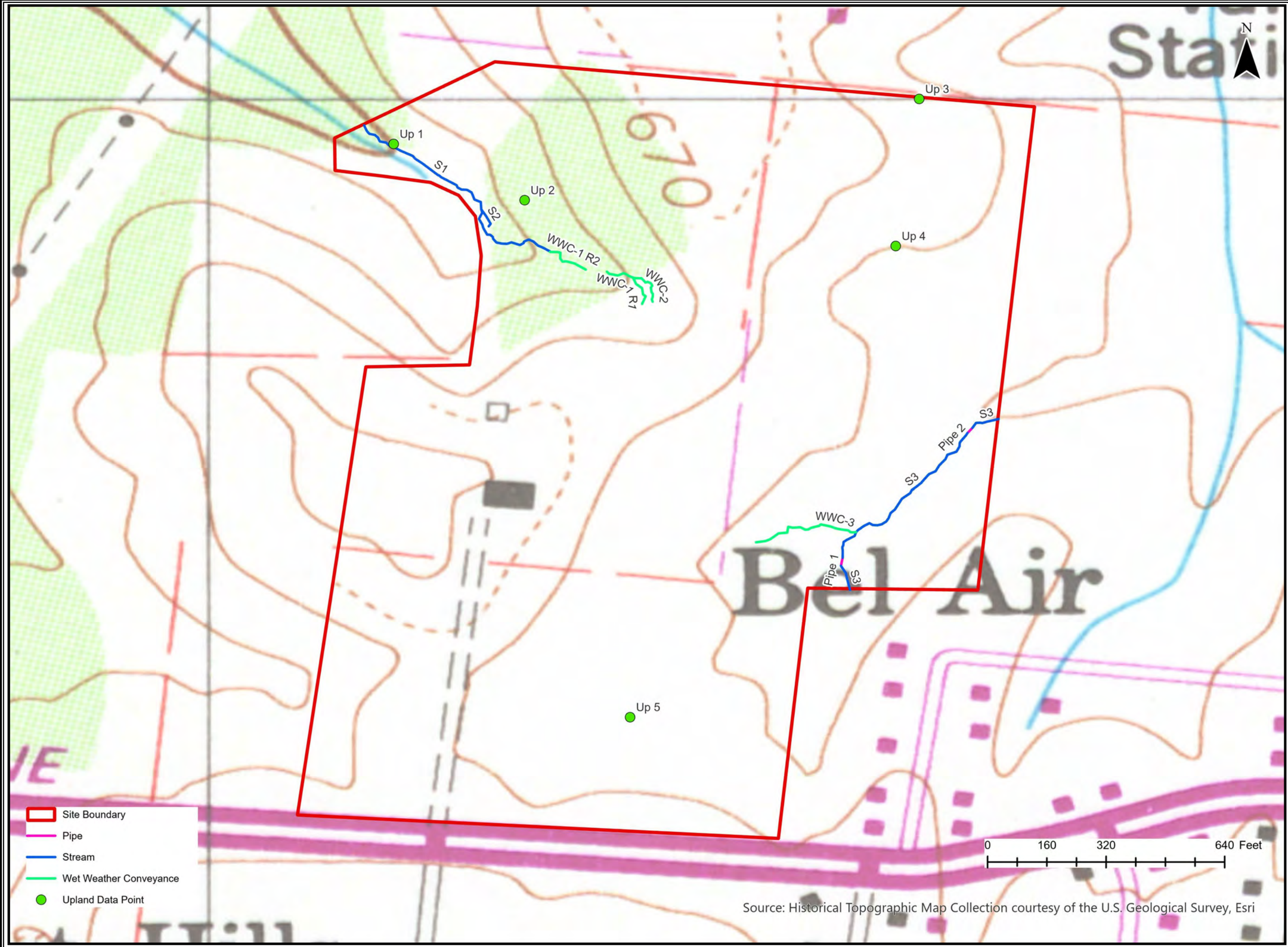
Figure 8d — Site Delineation Overview
WOTUS Delineation
Smith Douglas Homes—Nashville
Oakwood Dr
Columbia, Maury County, TN

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Figure 9a — Site Delineation Overview
WOTUS Delineation
Smith Douglas Homes—Nashville
Oakwood Dr
Columbia, Mary County, TN

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Image courtesy of ESRI and USGS Godwin, Tennessee 7.5 minute quadrangle.

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Figure 9b — Site Delineation Overview
WOTUS Delineation
Smith Douglas Homes—Nashville
Oakwood Dr
Columbia, Maury County, TN

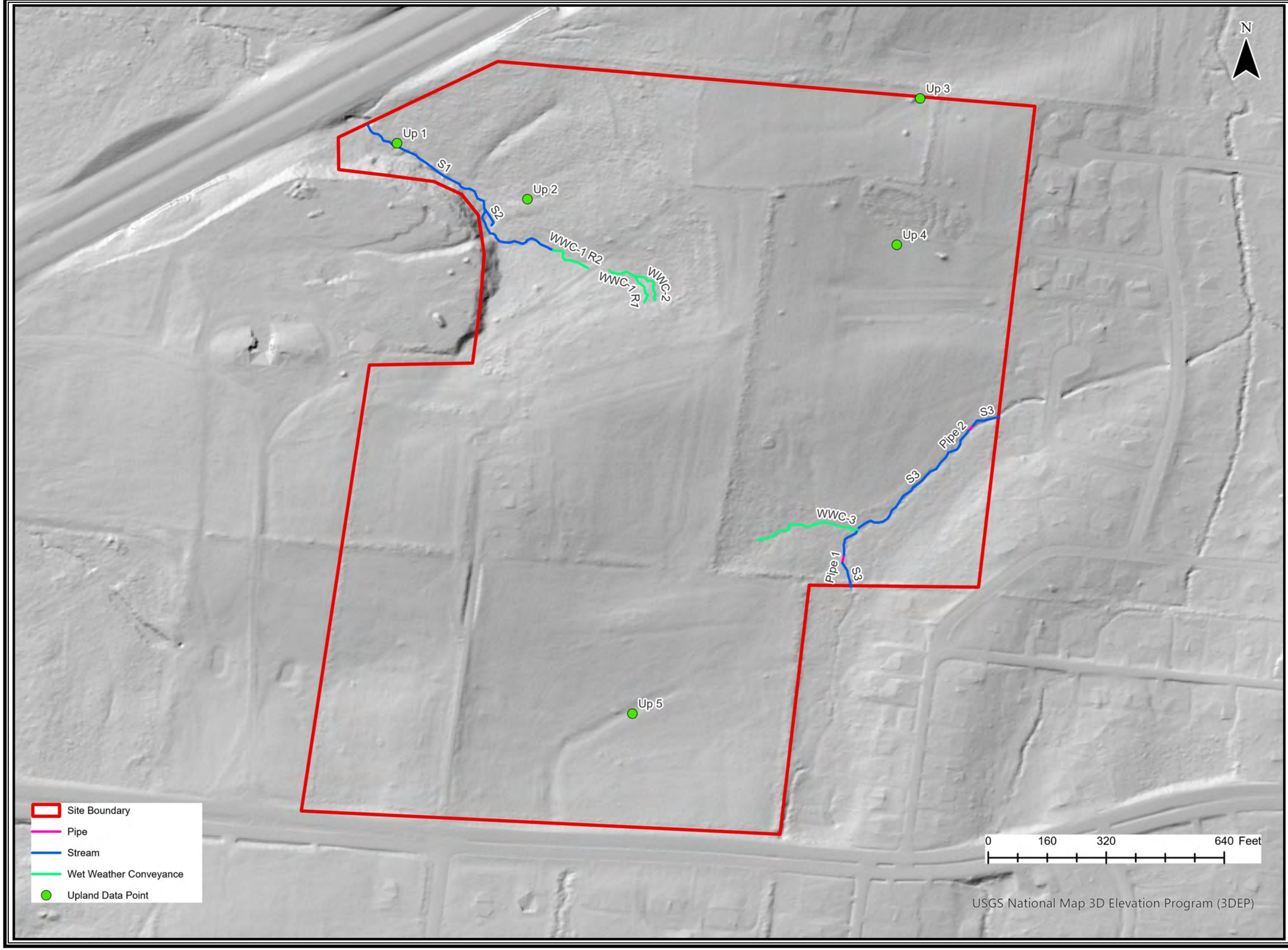
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Image courtesy of ESRI.

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Figure 9c — Site Delineation Overview
WOTUS Delineation
Smith Douglas Homes—Nashville
Oakwood Dr
Columbia, Mary County, TN

Celebrating 30 Years Est. 1993
SPECTRUM
Solutions to Your Environmental Challenges

Drawn By:	Client #:
LP	3582
Checked By:	**Date:**
AH	12/27/2023
Project Mgr.:	**Project #:**
AH	3482-020-30

Source:

Image courtesy of ESRI.

DATE	REVISION NOTE	BY

Site ID	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Total Mapped			Classification	
			LF	Acre	OHWM	Type	Cowardin
S1	35.631586	-87.05317	609	0.06	4	Stream	R5
S2	35.631768	-87.053211	52	0.004	3	Stream	R5
S3	35.631458	-87.052702	644	0.03	2	Stream	R4
WWC1R1	35.631309	-87.052283	148	0.003	1	Wet Weather Conveyance	R6
WWC1R2	35.631324	-87.052439	106	0.005	2	Wet Weather Conveyance	R6
WWC2	35.631087	-87.051944	99	0.002	1	Wet Weather Conveyance	R6
WWC3	35.629311	-87.051181	251	0.012	2	Wet Weather Conveyance	R6

Pipe 1 — 22 LF (Within S3)

Pipe 2 — 17 LF (Within S3)

TITLE

Figure 9d — Site Delineation Overview
WOTUS Delineation
Smith Douglas Homes—Nashville
Oakwood Dr
Columbia, Mary County, TN

Drawn By: LP	Client #: 3582
Checked By: AH	Date: 12/27/2023
Project Mgr.: AH	Project #: 3482-020-30

Source:

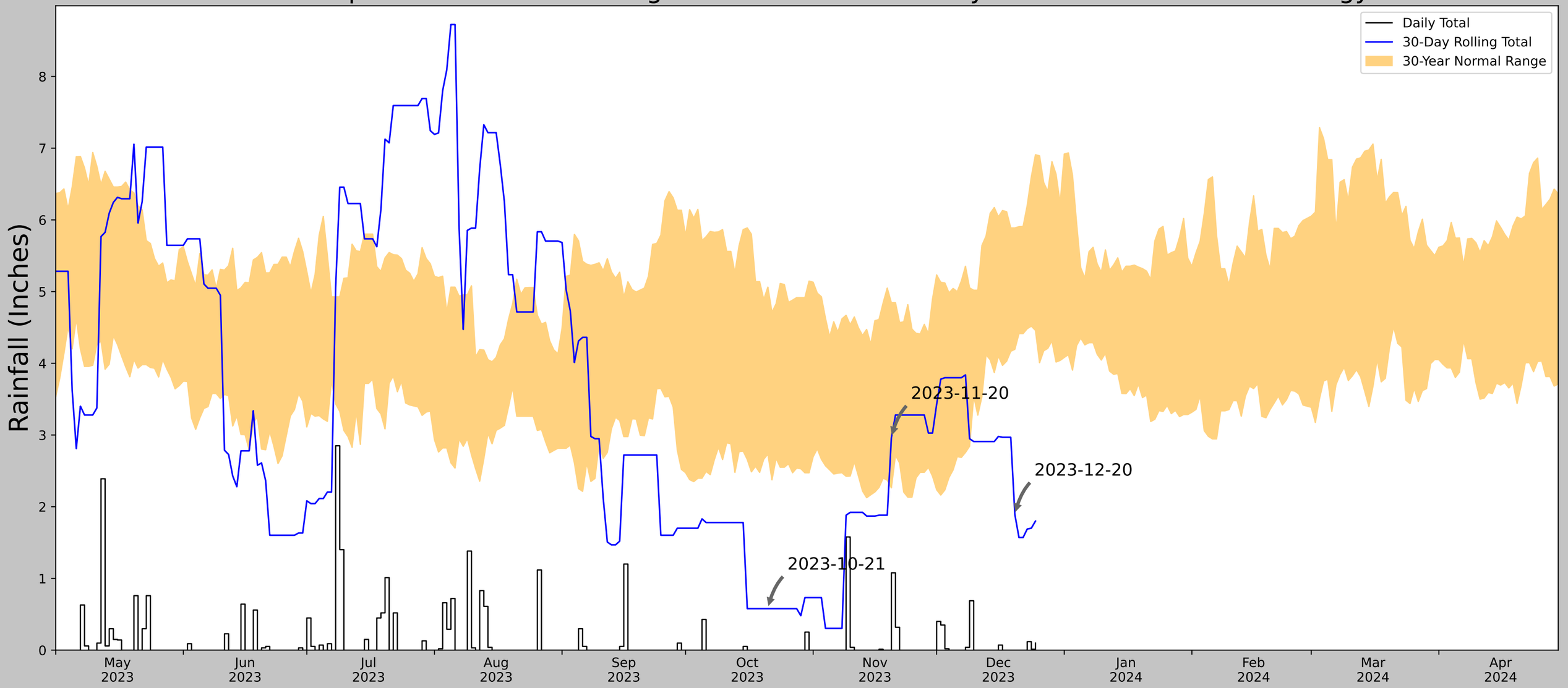
Image courtesy of ESRI and USGS.

DATE	REVISION NOTE	BY

APPENDIX A

Antecedent Precipitation Tool
December 20, 2023

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	35.630342, -87.051890
Observation Date	2023-12-20
Elevation (ft)	661.088
Drought Index (PDSI)	Mild drought (2023-11)
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2023-12-20	4.195276	5.888189	1.889764	Dry	1	3	3
2023-11-20	2.262992	4.844488	2.96063	Normal	2	2	4
2023-10-21	2.734252	5.062992	0.57874	Dry	1	1	1
Result							Drier than Normal - 8

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

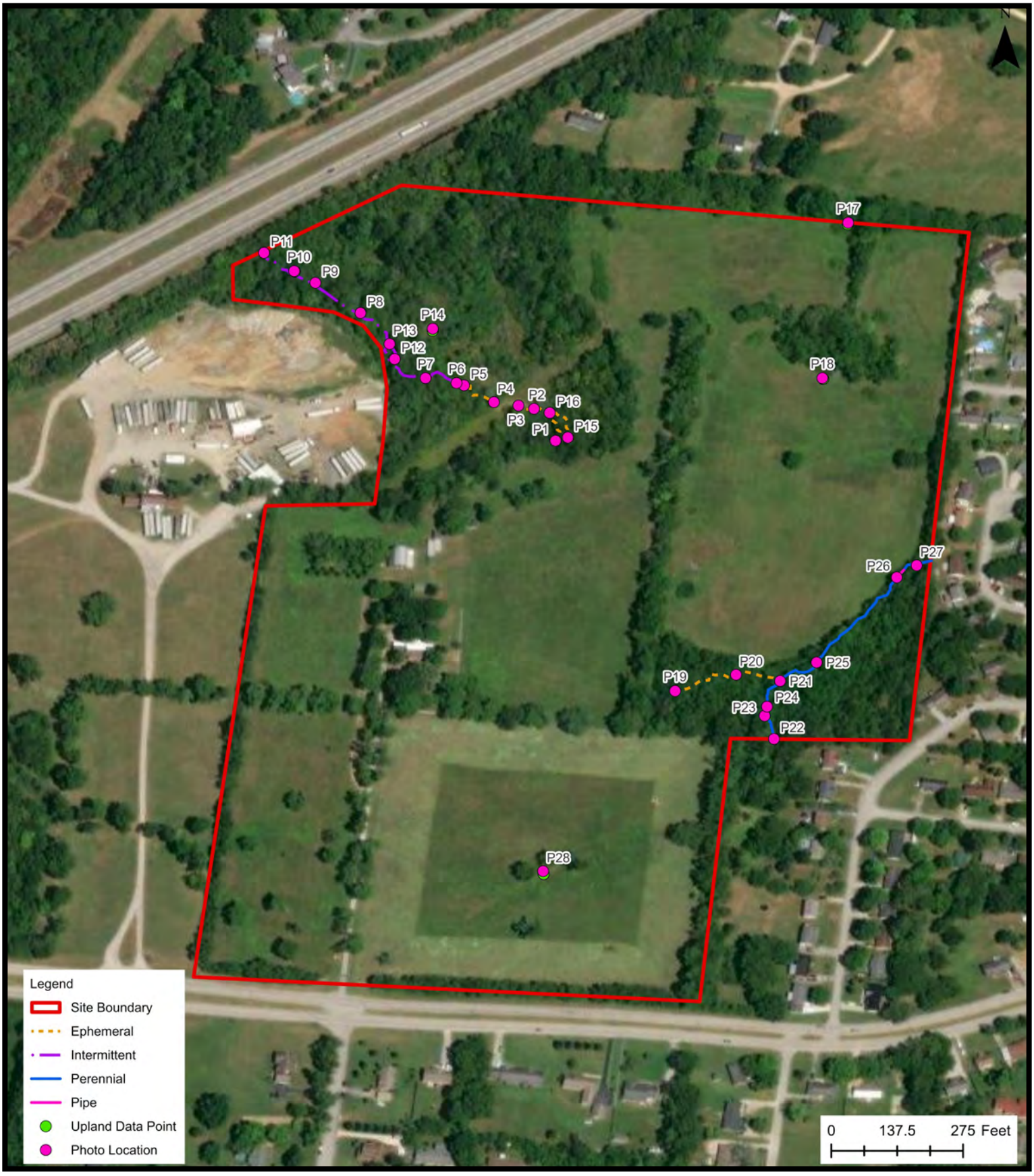
Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
COLUMBIA 3 WNW	35.6381, -87.0864	649.934	2.011	11.154	0.927	11207	89
COLUMBIA 0.3 WSW	35.6208, -87.0543	612.861	2.163	37.073	1.054	11	0
COLUMBIA 1.2 SSW	35.6072, -87.0592	722.113	2.625	72.179	1.371	90	1
NEAPOLIS RSCH & ED STN	35.7197, -86.9653	700.131	8.831	50.197	4.417	43	0
CENTERVILLE WATER PL	35.7553, -87.4261	660.105	20.71	10.171	9.53	1	0

APPENDIX B

Reconnaissance Photographs

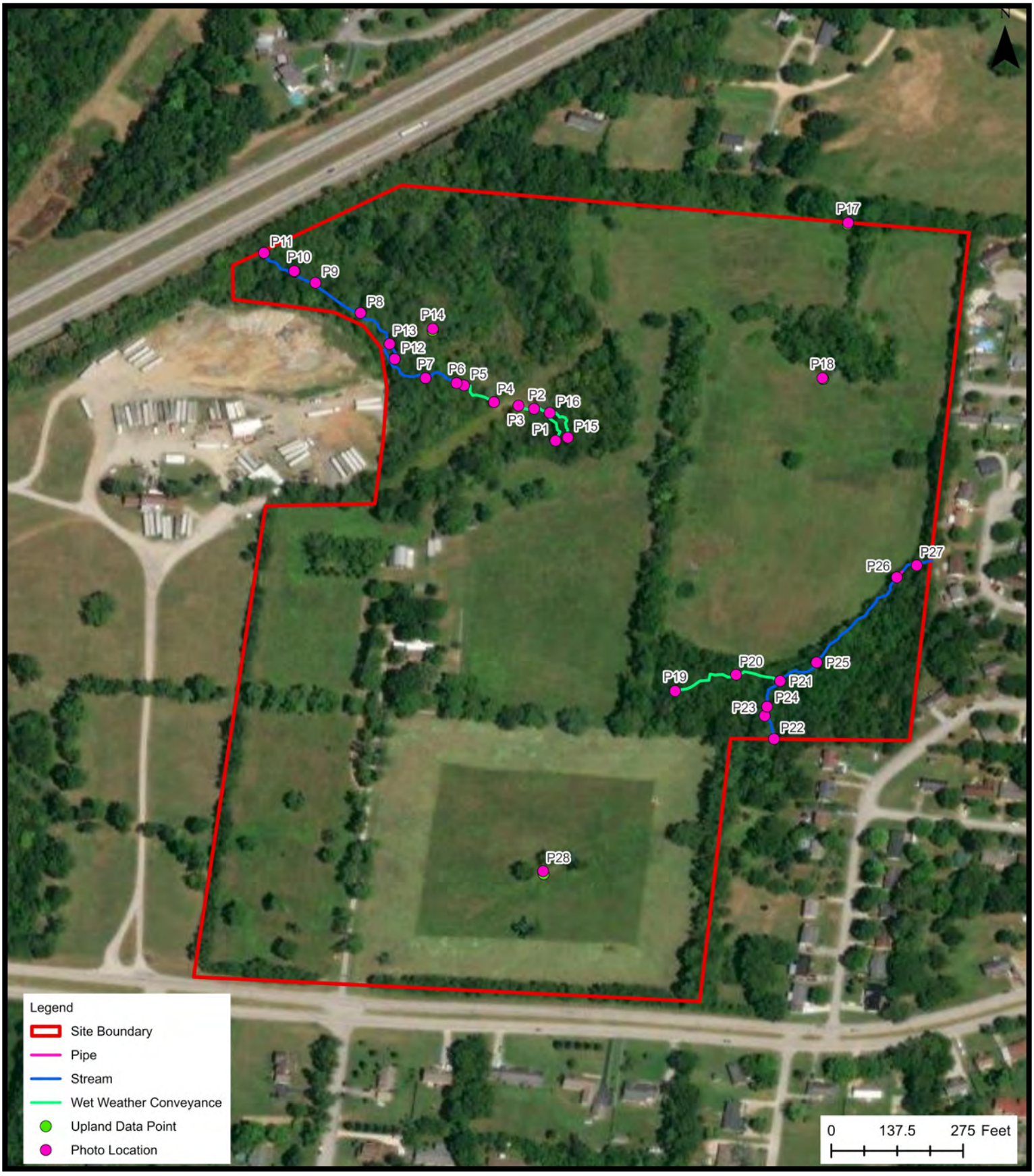
Site Reconnaissance Photographs — December 20, 2023

Corps Photo Index Map



Site Reconnaissance Photographs — December 20, 2023

TDEC Photo Index Map



Site Reconnaissance Photographs — December 20, 2023



Corps: Start of Ephemeral 1 Reach 1 Facing Upreach in North-Central Portion of Property
TDEC: Start of WWC-1 Reach 1 Facing Upreach in North-Central Portion of Property



Corps: Start of Ephemeral 1 Reach 1 Facing Downreach in North-Central Portion of Property
TDEC: Start of WWC-1 Reach 1 Facing Downreach in North-Central Portion of Property

Site Reconnaissance Photographs — December 20, 2023



Corps: View of Ephemeral 1 Reach 1 Facing Upreach
TDEC: View of WWC-1 Reach 1 Facing Upreach



Corps: View of Ephemeral 1 Reach 1 Facing Downreach
TDEC: View of WWC-1 Reach 1 Facing Downreach

Site Reconnaissance Photographs — December 20, 2023



Corps: End of Ephemeral 1 Reach 1 Facing Upreach
TDEC: End of WWC-1 Reach 1 Facing Upreach



Corps: End of Ephemeral 1 Reach 1 Facing Downreach Toward Mowed Field
TDEC: End of WWC-1 Reach 1 Facing Downreach Toward Mowed Field

Site Reconnaissance Photographs — December 20, 2023



Corps: Start of Ephemeral 1 Reach 2 Facing Upreach Toward Mowed Field
TDEC: Start of WWC-1 Reach 2 Facing Upreach Toward Mowed Field



Corps: Start of Ephemeral 1 Reach 2 Facing Downreach
TDEC: Start of WWC-1 Reach 2 Facing Downreach

Site Reconnaissance Photographs — December 20, 2023



Corps: End of Ephemeral 1 Reach 2 Facing Near Transition to INT-1
TDEC: End of WWC-1 Reach 2 Facing Upreach Near Transition to S1



Corps: End of Ephemeral 1 Reach 2 Facing Downreach Near Transition to INT-1
TDEC: End of WWC-1 Reach 2 Facing Downreach Near Transition to S1

Site Reconnaissance Photographs — December 20, 2023



Corps: Start of INT-1 Facing Upreach Toward EPH-1 Reach 2
TDEC: Start of S1 Facing Upreach Toward WWC-1 Reach 2



Corps: Start of INT-1 Facing Downreach
TDEC: Start of S1 Facing Downreach

Site Reconnaissance Photographs — December 20, 2023



Corps: View of INT-1 Facing Upreach
TDEC: View of S1 Facing Upreach



Corps: View of INT-1 Facing Downreach
TDEC: View of S1 Facing Downreach

Site Reconnaissance Photographs — December 20, 2023



Corps: View of INT-1 Facing Upreach at Approximate Midpoint
TDEC: View of S1 Facing Upreach at Approximate Midpoint



Corps: View of INT-1 Facing Downreach at Approximate Midpoint
TDEC: View of S1 Facing Downreach at Approximate Midpoint

Site Reconnaissance Photographs — December 20, 2023



Corps: View of INT-1 Facing Upreach
TDEC: View of S1 Facing Upreach



Corps: View of INT-1 Facing Downreach
TDEC: View of S1 Facing Downreach

Site Reconnaissance Photographs — December 20, 2023



Corps: View of Upland 1 Soil Pit Profile Northeast of INT-1 Channel
TDEC: View of Upland 1 Soil Pit Profile Northeast of S1 Channel



Corps: View of Upland 1 Soil Sample
TDEC: View of Upland 1 Soil Sample

Site Reconnaissance Photographs — December 20, 2023



Corps: View of Upland 1 Facing East
TDEC: View of Upland 1 Facing East



Corps: View of Upland 1 Facing South
TDEC: View of Upland 1 Facing South

Site Reconnaissance Photographs — December 20, 2023



Corps: End of INT-1 Facing Upreach at Northwestern Property Boundary
TDEC: End of S1 Facing Upreach at Northwestern Property Boundary



Corps: End of INT-1 Facing Downreach at Northwestern Property Boundary
TDEC: End of S1 Facing Downreach at Northwestern Property Boundary

Site Reconnaissance Photographs — December 20, 2023



Corps: Start of INT-2 Facing Upreach Northeast of INT-1
TDEC: Start of S2 Facing Upreach Northeast of S1



Corps: Start of INT-2 Facing Downreach
TDEC: Start of S2 Facing Downreach

Site Reconnaissance Photographs — December 20, 2023



Corps: End of INT-2 Facing Upreach at Confluence With INT-1
TDEC: End of S2 Facing Upreach at Confluence With S1



Corps: End of INT-2 Facing Downreach at Confluence With INT-1
TDEC: End of S2 Facing Downreach at Confluence With S1

Site Reconnaissance Photographs — December 20, 2023



Corps: View of Upland 2 Soil Pit Profile in Northwestern Portion of Property East of INT-1 and INT-2
TDEC: View of Upland 2 Soil Pit Profile in Northwestern Portion of Property East of S1 and S2



Corps: View of Upland 2 Soil Sample
TDEC: View of Upland 2 Soil Sample

Site Reconnaissance Photographs — December 20, 2023



Corps: View of Upland 2 Facing North
TDEC: View of Upland 2 Facing North



Corps: View of Upland 2 Facing South
TDEC: View of Upland 2 Facing South

Site Reconnaissance Photographs — December 20, 2023



Corps: Start of EPH-2 Facing Upreach East of EPH-1 Start
TDEC: Start of WWC-2 Facing Upreach East of WWC-1 Start



Corps: Start of EPH-2 Facing Downreach
TDEC: Start of WWC-2 Facing Downreach

Site Reconnaissance Photographs — December 20, 2023



Corps: End of EPH-2 Facing Upreach Near Confluence With EPH-1
TDEC: End of WWC-2 Facing Upreach Near Confluence With WWC-1



Corps: End of EPH-2 Facing Downreach Toward Confluence With EPH-1
TDEC: end of WWC-2 Facing Downreach Toward Confluence With WWC-1

Site Reconnaissance Photographs — December 20, 2023



Corps: View of Upland 3 Soil Pit Profile at Northeastern Property Boundary
TDEC: View of Upland 3 Soil Pit Profile at Northeastern Property Boundary

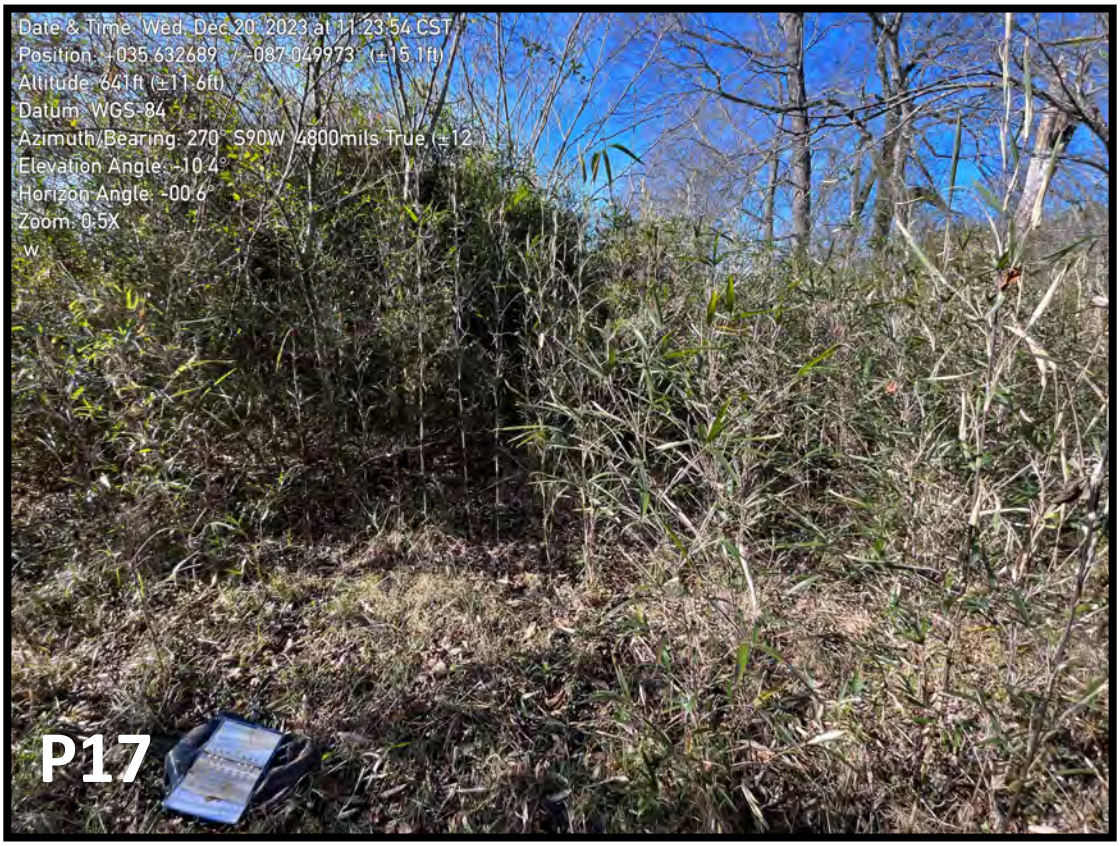


Corps: View of Upland 3 Soil Sample
TDEC: View of Upland 3 Soil Sample

Site Reconnaissance Photographs — December 20, 2023



Corps: View of Upland 3 Facing North
TDEC: View of Upland 3 Facing North



Corps: View of Upland 3 Facing West
TDEC: View of Upland 3 Facing West

Site Reconnaissance Photographs — December 20, 2023



Corps: View of Upland 4 Soil Pit Profile in Northeastern Portion of Property
TDEC: View of Upland 4 Soil Pit Profile in Northeastern Portion of Property



Corps: View of Upland 4 Soil Sample
TDEC: View of Upland 4 Soil Sample

Site Reconnaissance Photographs — December 20, 2023



Corps: View of Upland 4 Facing East
TDEC: View of Upland 4 Facing East



Corps: View of Upland 4 Facing South
TDEC: View of Upland 4 Facing South

Site Reconnaissance Photographs — December 20, 2023



Corps: Start of EPH-3 Facing Upreach in East-Central Portion of Property
TDEC: Start of WWC-3 Facing Upreach in East-Central Portion of Property



Corps: Start of EPH-3 Facing Downreach
TDEC: Start of WWC-3 Facing Downreach

Site Reconnaissance Photographs — December 20, 2023



Corps: View of EPH-3 Facing Upreach at Approximate Midpoint
TDEC: View of WWC-3 Facing Upreach at Approximate Midpoint



Corps: View of EPH-3 Facing Downreach at Approximate Midpoint
TDEC: View of WWC-3 Facing Downreach at Approximate Midpoint

Site Reconnaissance Photographs — December 20, 2023



Corps: End of EPH-3 Facing Upreach at Confluence With PER-1
TDEC: End of WWC-3 Facing Upreach at Confluence With S3



Corps: End of EPH-3 Facing Downreach at Confluence With PER-1
TDEC: End of WWC-3 Facing Downreach at Confluence With S3

Site Reconnaissance Photographs — December 20, 2023



Corps: Start of PER-1 Facing Upreach at East-Central Property Boundary
TDEC: Start of S3 Facing Upreach at East-Central Property Boundary



Corps: Start of PER-1 Facing Downreach at East-Central Property Boundary
TDEC: Start of S3 Facing Downreach at East-Central Property Boundary

Site Reconnaissance Photographs — December 20, 2023



Corps: View of PER-1 Facing Upreach at 1st Pipe Inlet
TDEC: View of S3 Facing Upreach at 1st Pipe Inlet



Corps: View of PER-1 Facing Downreach at 1st Pipe Inlet
TDEC: View of S3 Facing Downreach at 1st Pipe Inlet

Site Reconnaissance Photographs — December 20, 2023



Corps: View of PER-1 Facing Upreach at 1st Pipe Outlet
TDEC: View of S3 Facing Upreach at 1st Pipe Outlet



Corps: View of PER-1 Facing Downreach at 1st Pipe Outlet
TDEC: View of S3 Facing Downreach at 1st Pipe Outlet

Site Reconnaissance Photographs — December 20, 2023



Corps: View of PER-1 Facing Upreach at Approximate Midpoint
TDEC: View of S3 Facing Upreach at Approximate Midpoint



Corps: View of PER-1 Facing Downreach at Approximate Midpoint
TDEC: View of S3 Facing Downreach at Approximate Midpoint

Site Reconnaissance Photographs — December 20, 2023



Corps: View of PER-1 Facing Upreach at 2nd Pipe Inlet
TDEC: View of S3 Facing Upreach at 2nd Pipe Inlet



Corps: View of PER-1 Facing Downreach at 2nd Pipe Inlet
TDEC: View of S3 Facing Downreach at 2nd Pipe Inlet

Site Reconnaissance Photographs — December 20, 2023



Corps: View of PER-1 Facing Upreach Toward 2nd Pipe Outlet
TDEC: View of S3 Facing Upreach Toward 2nd Pipe Outlet



Corps: View of PER-1 Facing Downreach Toward East-Central Property Boundary
TDEC: View of S3 Facing Downreach Toward East-Central Property Boundary

Site Reconnaissance Photographs — December 20, 2023

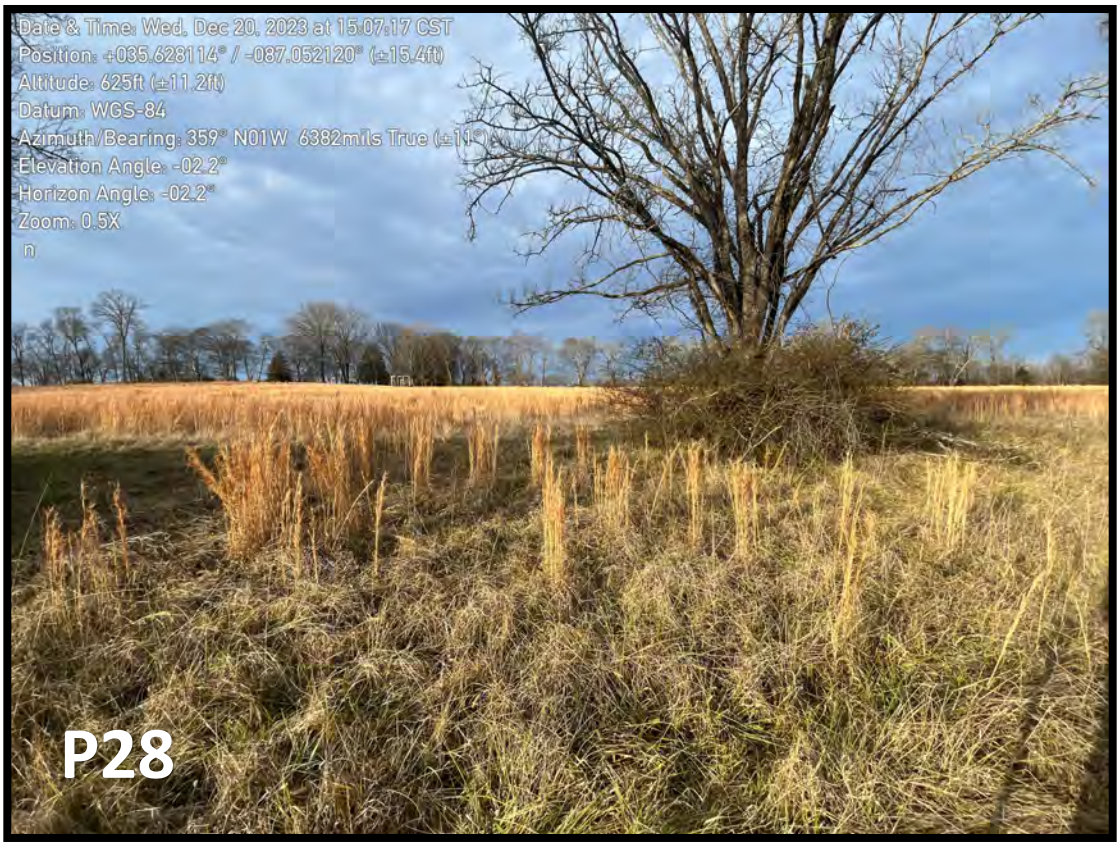


Corps: View of Upland 5 Soil Pit Profile at Southeastern Portion of Property
TDEC: View of Upland 5 Soil Pit Profile at Southeastern Portion of Property



Corps: View of Upland 5 Soil Sample
TDEC: View of Upland 5 Soil Sample

Site Reconnaissance Photographs — December 20, 2023



Corps: View of Upland 5 Facing North
TDEC: View of Upland 5 Facing North



Corps: View of Upland 5 Facing East
TDEC: View of Upland 5 Facing East

TRAFFIC IMPACT STUDY

Oakwood Subdivision

Map 89, Parcel 21.00

Columbia, TN

T2-Eng.com

T-SQUARE ENGINEERING

TRAFFIC IMPACT STUDY

Oakwood Subdivision
Map 89, Parcel 21.00
Columbia, TN 38401

Prepared for:

Drew Taylor
Smith Douglas Homes
361 Mallory Station Road, Suite 103
Franklin, TN 37067

Prepared by:



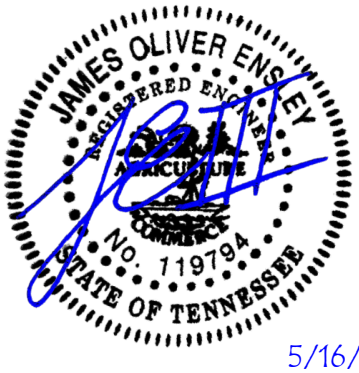
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Certification

I certify that this Traffic Impact Study has been prepared by me and under my immediate supervision and that I have the experience and training in the field of traffic and transportation engineering.



5/16/24

James O. Ensley, III, P.E., PTOE
T-Square Engineering, Inc.
Project Manager – Traffic Division

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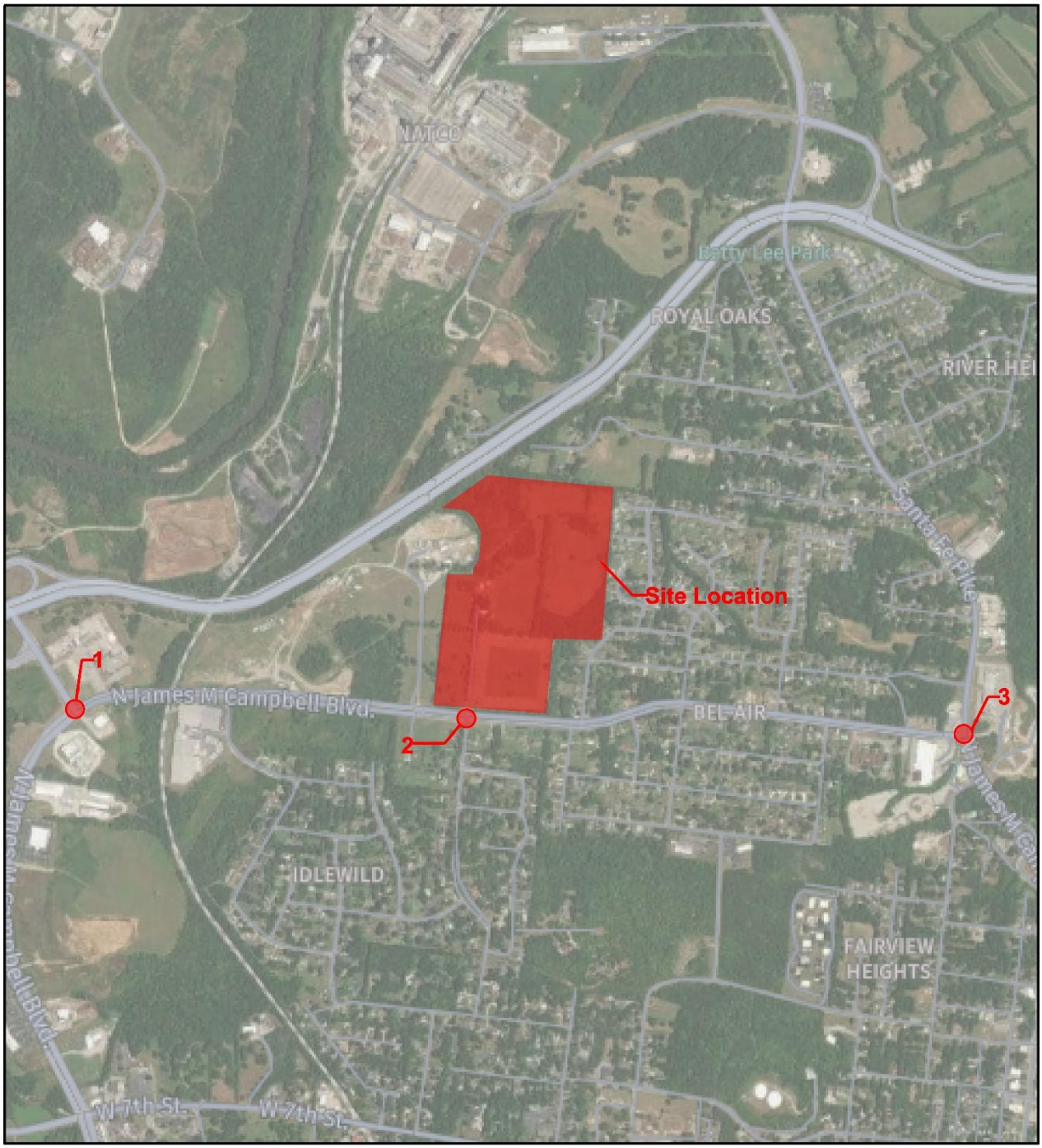
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Introduction

The purpose of this study is to analyze the traffic impacts on the surrounding roadway network associated with the proposed Oakwood Subdivision along James Campbell Boulevard in Columbia, TN. The proposed development will consist of 108 Single-Family Homes.

As shown on the Location Map and Preliminary Site Plan on Figures 1 and 2, respectively, the proposed development is located along the north side of N James Campbell Boulevard in Columbia, TN. The development is proposing one (1) access point on N James Campbell Boulevard: one (1) full access aligned with Oakwood Drive. The surrounding area is predominantly residential.

This study analyzes the existing and projected traffic operations of the roadway networks and intersections surrounding the proposed development. To evaluate the projected traffic operations, existing traffic volumes were grown (background traffic volumes) to a 2027 design year based on average traffic growth rates and combined with the generated traffic volumes from nearby background developments and estimated trips generated from the proposed development. Lastly, improvement recommendations were presented to alleviate the anticipated traffic volumes' effect on the existing roadway network near the site.

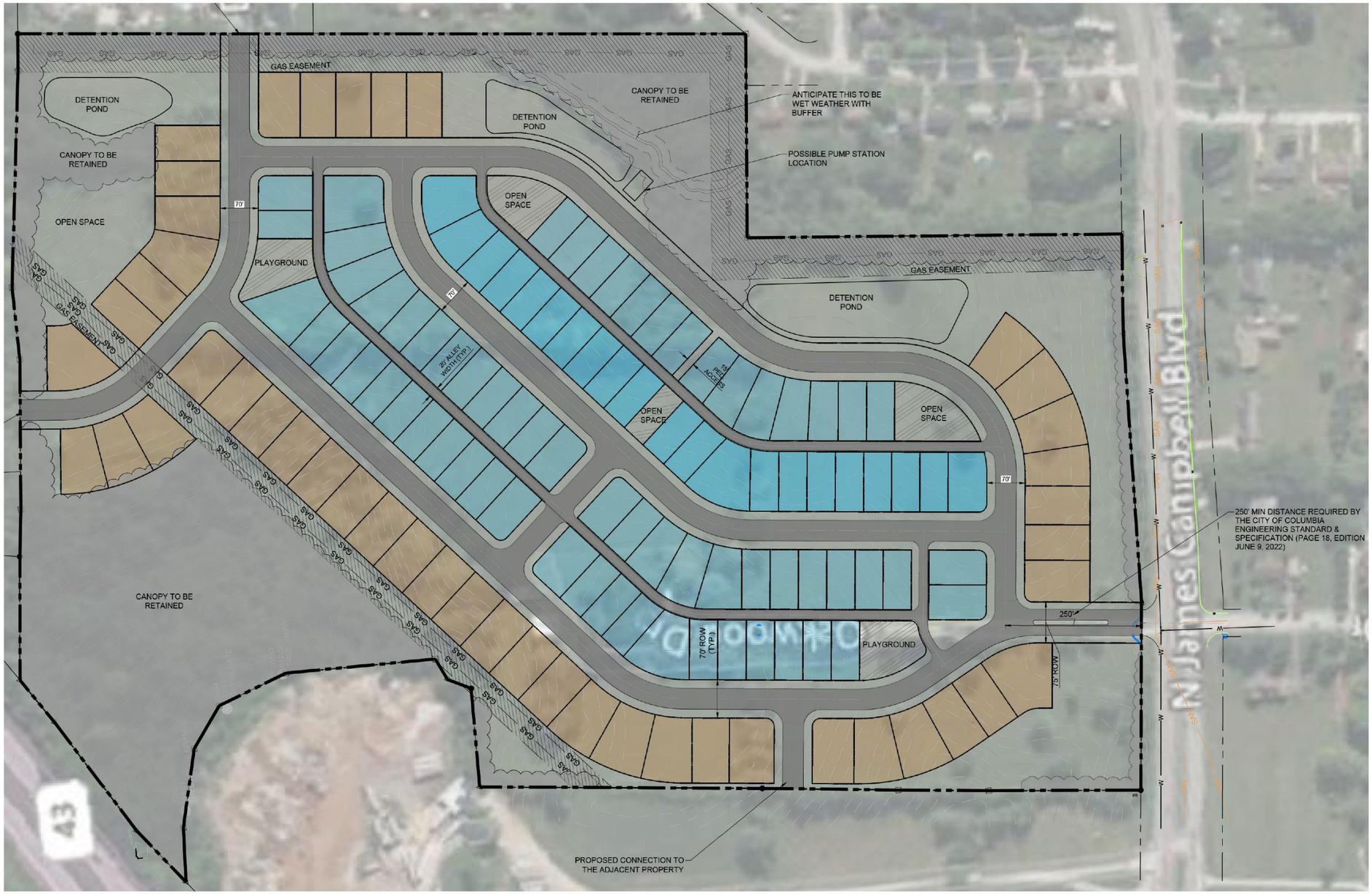


LEGEND

Existing Study Intersection

N.T.S.

Figure 1
Location Map



N.T.S.

Figure 2
Preliminary Site Plan

Existing Study Area

Existing Roadway Network

The existing roadway network surrounding the proposed Oakwood Subdivision includes Oakwood Drive, Industrial Pike Road, James Campbell Boulevard, and Santa Fe Pike (TN-7). Below is a description of each roadway serving the proposed development:

Oakwood Drive

Oakwood Drive is functionally classified by the City of Columbia as a Local Roadway. Near the project site, Oakwood Drive is oriented in a north-west direction and provides a connection between N James Campbell Boulevard to the north and Hillcrest Avenue to the south. Near the project site, Oakwood Drive is a two (2) lane roadway with one (1) sixteen (16) foot travel lane in each direction (northbound and southbound) with curb and gutters. The posted speed limit along Oakwood Drive is 25 MPH.



Looking south along Oakwood Drive

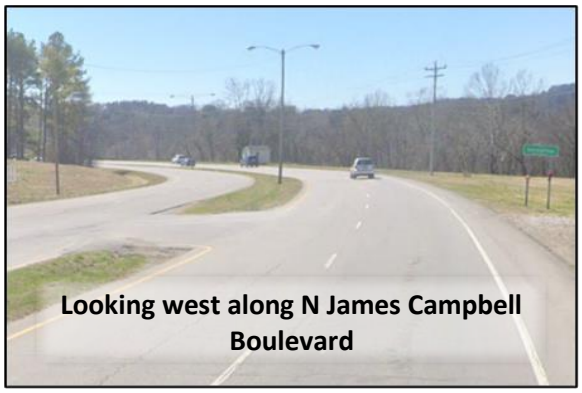
Industrial Park Road

Industrial Park Road is functionally classified by the City of Columbia as a Collector and a Principal Arterial. Industrial Park Road is oriented in a north-south direction and provides a connection between Santa Fe Pike to the north and N James Campbell Boulevard to the south. Near the project site, Industrial Park Road is a three (3) lane roadway with one (1) eleven (11) foot travel lane in each direction (northbound and southbound), a twelve (12) foot two-way left-turn lane, and eight (8) foot shoulders. The posted speed limit along Industrial Park Road is 45 MPH.


Looking north along Industrial Park Road

N James Campbell Boulevard

N James Campbell Boulevard is functionally classified by the City of Columbia as a Minor Arterial and Principal Arterial. Near the project site, N James Campbell Boulevard is oriented in an east-west direction and provides a connection from Santa Fe Pike (TN-7) to the east and Hampshire Pike (TN-99) to the west. Near the project site, N James Campbell Boulevard is a four (4) lane divided roadway with two (2) twelve (12) foot travel lanes in each direction (northbound and southbound). The posted speed limit along N James Campbell Boulevard is 45 MPH.



Looking west along N James Campbell Boulevard

Santa Fe Pike (TN-7)

Santa Fe Pike (TN-7) is functionally classified by the City of Columbia as a Principal Arterial. Near the project site, Santa Fe Pike (TN-7) is oriented in a north-south direction and provides a connection to the City of Santa Fe to the north and the City of Columbia to the south. Near the project site, Santa Fe Pike (TN-7) is a five (5) lane divided roadway with two (2) twelve (12) foot travel lanes in each direction (eastbound and westbound), a twelve (12) foot two-way left-turn lane, and six (6) foot shoulders. The posted speed limit along Santa Fe Pike is 55 MPH.



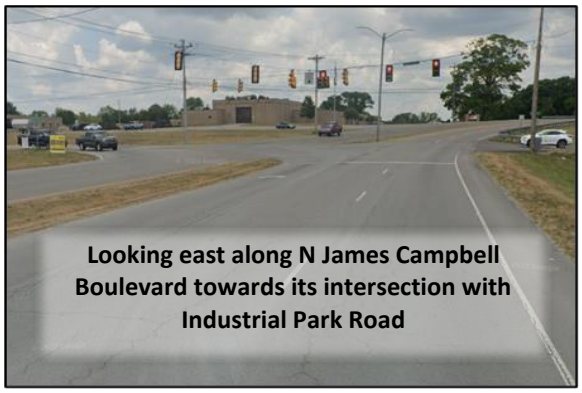
Looking north along Santa Fe Pike (TN-7)

Existing Intersections

This study analyzed three (3) existing intersections within the vicinity of the project site. The intersections analyzed are listed below with a brief description of each, and Figure 3 shows the existing lane geometry at the intersections.

Industrial Park Road and N James Campbell Boulevard

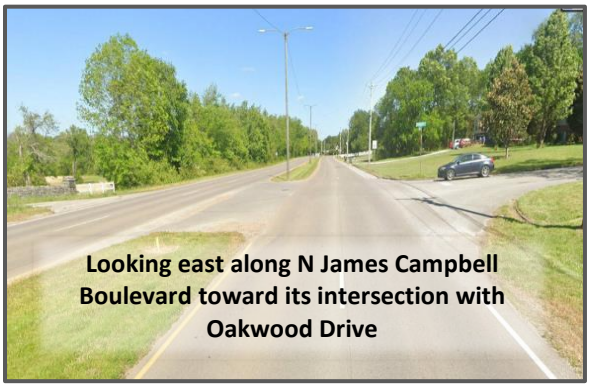
The existing intersection of Industrial Park Road and N James Campbell Boulevard is a signalized intersection with four (4) approaches. The southbound approach of Industrial Park Road has one (1) shared lane for left-turn and through movements with approximately 130 feet of storage and one (1) exclusive lane for right-turn movements. The northbound approach has one (1) shared lane for left-turn, through, and right-turn movements. The eastbound approach of N James Campbell Boulevard has one (1) exclusive lane for left-turn movements with approximately 140 feet of storage, one (1) exclusive lane for through movements, and one (1) shared lane for through and right-turn movements. The westbound approach of N James Campbell Boulevard has one (1) shared lane for left-turn and through movements and one (1) shared lane for through and right-turn movements.



Looking east along N James Campbell Boulevard towards its intersection with Industrial Park Road

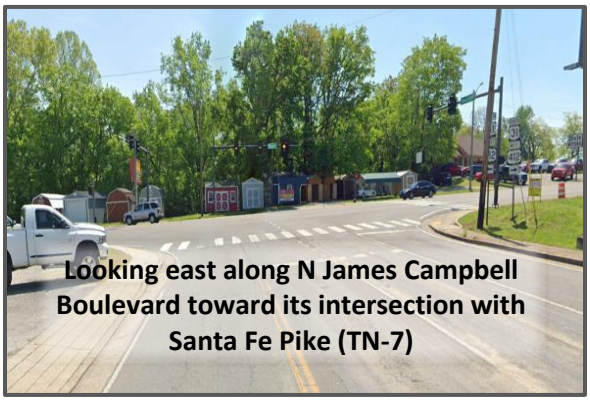
N James Campbell Boulevard and Oakwood Drive

The existing intersection of Industrial Park Road and Oakwood Drive is an unsignalized intersection with three (3) approaches. The northbound approach of Oakwood Drive has one shared lane for left and right-turn movements operating under a stop condition. The eastbound approach of N James Campbell Boulevard has one (1) exclusive lane for through movements and one (1) shared lane for through and right turn movements operating under a free-flow condition. The westbound approach of N James Campbell Boulevard has one (1) shared lane for left-turn and through movements and one (1) exclusive lane for through movements operating under a free-flow condition.



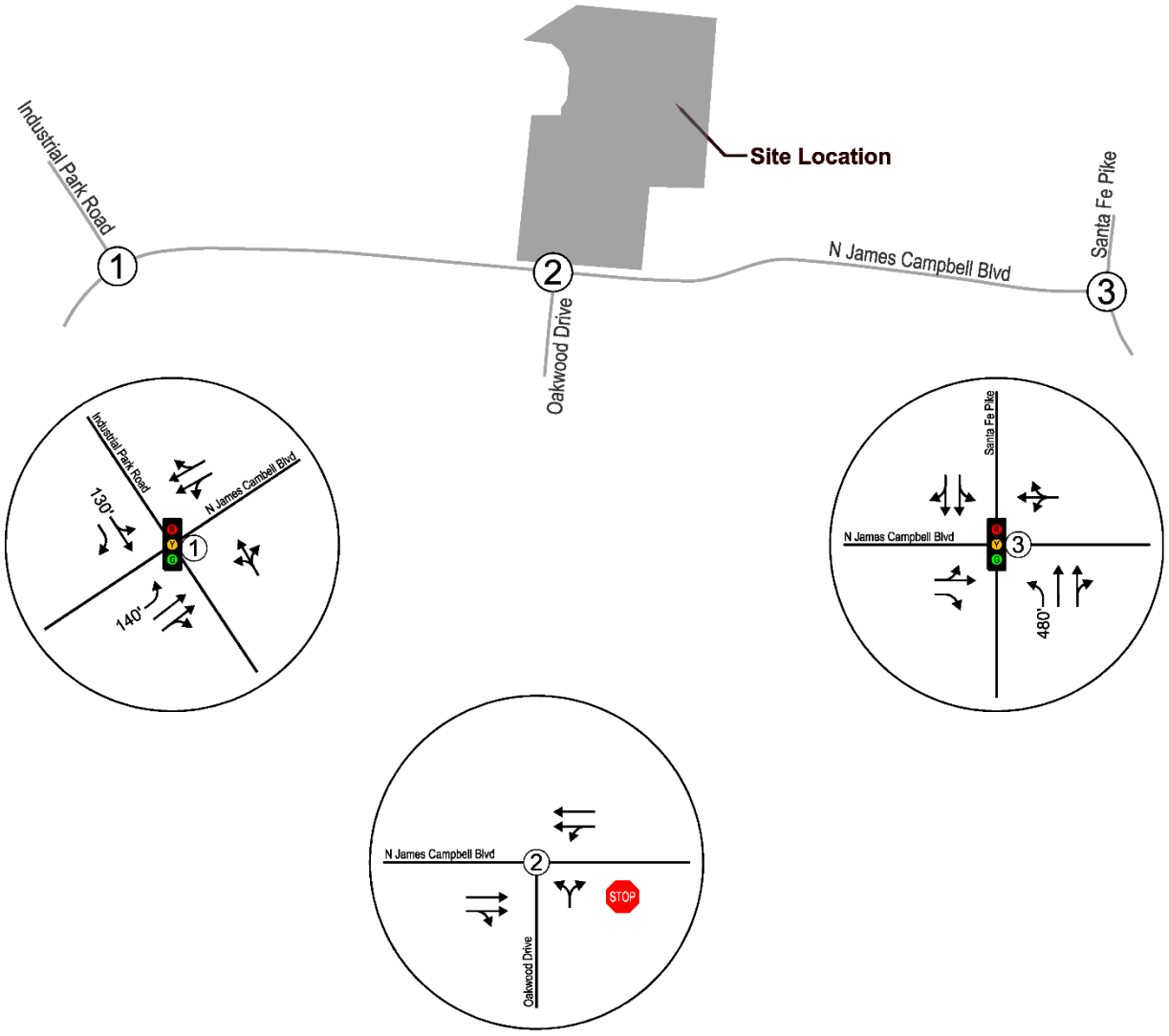
Looking east along N James Campbell Boulevard toward its intersection with Oakwood Drive

N James Campbell Boulevard and Santa Fe Pike (TN-7)



Looking east along N James Campbell Boulevard toward its intersection with Santa Fe Pike (TN-7)

The existing intersection of N James Campbell Boulevard and Santa Fe Pike (TN-7) is a signalized intersection with four (4) approaches. The northbound approach of Santa Fe Pike (TN-7) has one (1) exclusive lane for left-turn movements with approximately 480 feet of storage, one (1) exclusive lane for through movements, and one (1) shared lane for through and right-turn movements. The southbound approach of Santa Fe Pike (TN-7) has one (1) shared lane for left-turn and through movements and one (1) shared lane for through and right-turn movements. The westbound approach has one (1) shared lane for left-turn, through, and right-turn movements. The eastbound approach has one (1) shared lane for left-turn and through movements and one (1) exclusive lane for right-turn movements.



LEGEND

XX' - Storage Length

N.T.S.

Figure 3
Existing Lane Geometry

Existing Traffic Volumes

To establish existing traffic volumes within the study area, T-Square Engineering conducted turning movement counts at the study intersections on a typical weekday in October 2023 while Maury County Schools were in session. The turning movement counts were conducted over a total of twelve (12) hours from 6:00 AM – 6:00 PM. From the turning movement counts, the AM and PM peak hour traffic volumes for all intersections were established and determined to occur between 7:15 AM – 8:15 AM and 4:15 PM – 5:15 PM, respectively. Existing hourly turning movement counts are shown in the tables below. Figure 4 shows the existing peak hour totals at the study intersections for the AM and PM peak hour periods. Appendix A contains the detailed turning movement counts at each intersection.

Table 1. Turning Movement Counts, Industrial Park Road and N James Campbell Boulevard

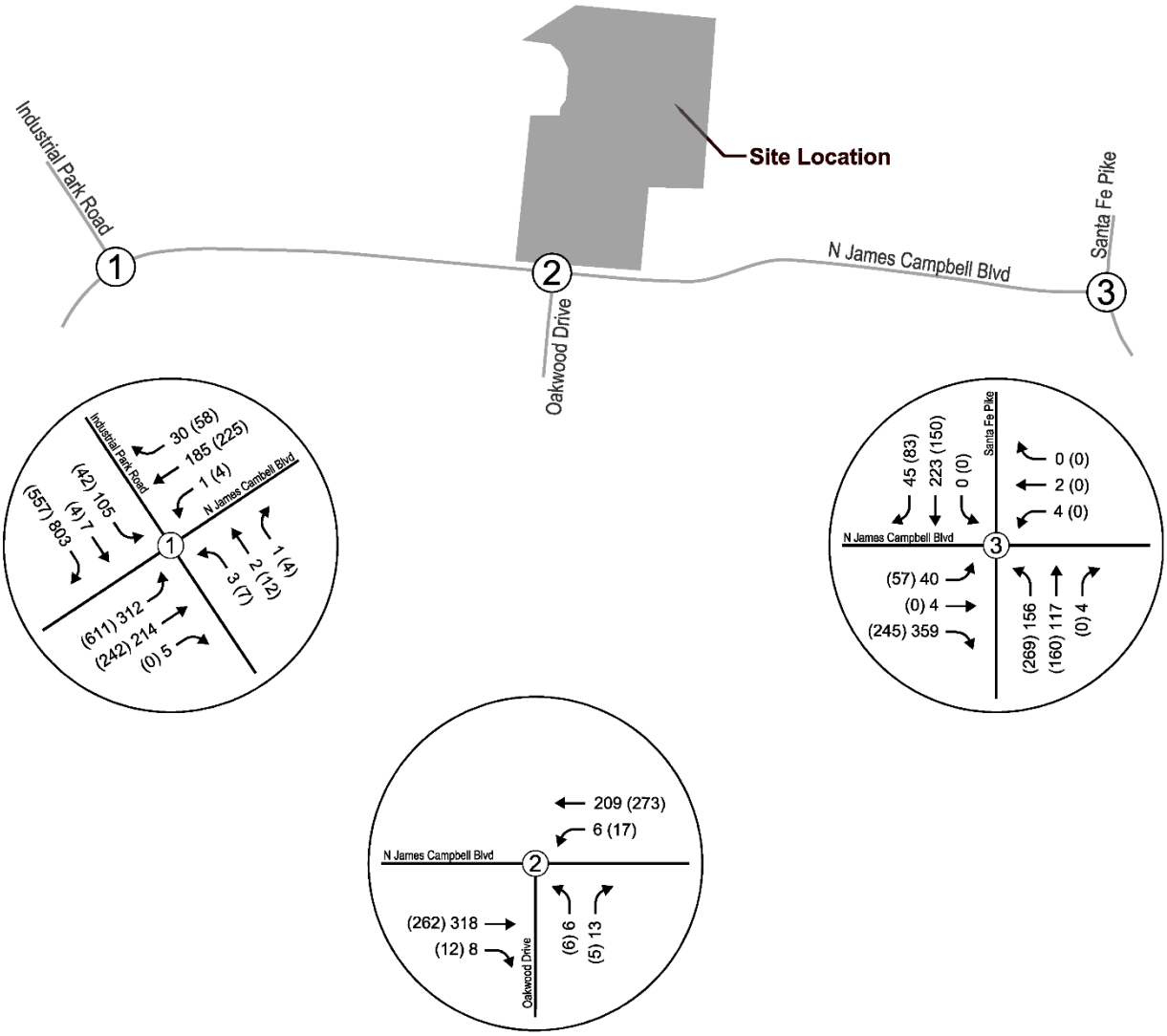
Time	SOUTHBOUND			NORTHBOUND			WESTBOUND			EASTBOUND		
	Industrial Park Road			Driveway			N James Campbell Boulevard			N James Campbell Boulevard		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
6:00 – 7:00 AM	35	5	374	0	0	0	1	103	32	265	115	1
7:00 – 8:00 AM	100	6	789	0	5	1	1	182	32	316	205	6
8:00 – 9:00 AM	56	8	529	6	3	2	0	148	29	246	138	6
9:00 – 10:00 AM	34	4	375	4	3	4	3	144	19	273	147	3
10:00 – 11:00 AM	20	8	358	7	8	4	5	148	24	278	158	3
11:00 AM – 12:00 PM	31	5	347	7	2	2	2	172	16	336	184	5
12:00 – 1:00 PM	45	4	384	6	6	4	2	166	29	378	189	7
1:00 – 2:00 PM	28	2	367	6	1	0	3	179	37	425	189	4
2:00 – 3:00 PM	54	3	470	5	0	2	2	206	51	419	230	4
3:00 – 4:00 PM	74	4	560	2	3	4	1	214	56	532	281	3
4:00 – 5:00 PM	52	8	573	9	14	3	4	212	53	595	233	1
5:00 – 6:00 PM	48	0	465	2	1	1	0	216	51	537	199	0
TOTAL	**577**	**57**	**5,591**	**54**	**46**	**27**	**24**	**2,090**	**429**	**4,600**	**2,268**	**43**

Table 2. Turning Movement Counts, N James Campbell Boulevard and Oakwood Drive

Time	NORTHBOUND			WESTBOUND			EASTBOUND		
	Oakwood Drive			N James Campbell Boulevard			N James Campbell Boulevard		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
6:00 – 7:00 AM	0	0	11	1	128	0	0	150	1
7:00 – 8:00 AM	6	0	15	3	200	0	0	304	7
8:00 – 9:00 AM	3	0	11	10	162	0	0	196	6
9:00 – 10:00 AM	6	0	5	5	151	0	0	174	3
10:00 – 11:00 AM	5	0	11	9	166	0	0	170	5
11:00 AM – 12:00 PM	3	0	11	10	173	0	0	193	6
12:00 – 1:00 PM	3	0	8	12	192	0	0	224	7
1:00 – 2:00 PM	3	0	8	9	202	0	0	216	3
2:00 – 3:00 PM	6	0	11	10	239	0	0	266	4
3:00 – 4:00 PM	5	0	15	14	255	0	0	329	10
4:00 – 5:00 PM	6	0	5	16	263	0	0	263	10
5:00 – 6:00 PM	5	0	11	19	253	0	0	234	8
TOTAL	**51**	**0**	**122**	**118**	**2,384**	**0**	**0**	**2,719**	**70**

Table 3. Turning Movement Counts, N James Campbell Boulevard and Santa Fe Pike (TN-7)

Time	SOUTHBOUND			NORTHBOUND			WESTBOUND			EASTBOUND		
	Santa Fe Pike (TN-7)			Santa Fe Pike (TN-7)			N James Campbell Boulevard			Driveway		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
6:00 – 7:00 AM	0	94	32	85	49	13	1	1	0	37	10	175
7:00 – 8:00 AM	0	222	47	140	110	4	4	7	0	36	7	361
8:00 – 9:00 AM	0	118	53	119	101	2	5	1	0	38	1	206
9:00 – 10:00 AM	0	94	51	130	87	2	1	1	1	38	3	173
10:00 – 11:00 AM	0	109	56	139	101	9	7	3	0	47	5	160
11:00 AM – 12:00 PM	0	119	58	162	90	8	7	4	1	57	1	172
12:00 – 1:00 PM	1	126	52	162	134	6	5	4	0	51	6	208
1:00 – 2:00 PM	0	126	51	172	118	9	2	0	0	48	1	203
2:00 – 3:00 PM	1	146	65	198	129	3	0	1	0	60	7	249
3:00 – 4:00 PM	0	183	103	239	161	0	0	0	1	79	0	297
4:00 – 5:00 PM	0	163	87	270	164	0	0	0	0	58	0	252
5:00 – 6:00 PM	0	133	60	273	157	1	0	1	0	58	0	212
TOTAL	**2**	**1,633**	**715**	**2,089**	**1,401**	**57**	**32**	**23**	**3**	**607**	**41**	**2,668**



LEGEND

XXX - AM Peak Hour Traffic Volumes
(XXX) - PM Peak Hour Traffic Volumes

N.T.S.

Figure 4
Existing Traffic Volumes
(2023)

Existing Capacity Analysis

To evaluate the existing traffic operations at the study intersections within the vicinity of the project site, AM and PM peak hour capacity analyses were performed per the calculations outlined in the *Highway Capacity Manual*[1](HCM). Levels of service (LOS), corresponding average delays, and 95th percentile queues were calculated for each turning movement. An LOS is a qualitative measure or grade used to distinguish how traffic is serviced at an intersection or along a roadway. The range of LOS is A to F, with A being the highest and F the lowest. The 95th percentile queue is the queue length (in vehicles) that has only a five (5) percent probability of being exceeded during the analysis period. The 95th percentile queue is not typical of what an average driver would experience, and driver experiences would be better characterized by the mean queue length. The table below details each LOS for signalized and unsignalized intersections, as specified within the HCM.

Table 4. Level of Service (LOS) Details

Level of Service*	Average Control Delay (seconds per vehicle)	
	Signalized Intersections	Unsignalized Intersections
A	≤ 10	≤ 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50
Source: HCM 2010, Exhibits 18-4 and 19-1		

To determine the effectiveness of traffic operations within the study area a minimum LOS or baseline needs to be established. Any LOS below the established baseline will be considered unsatisfactory. LOS C is generally acceptable for typical roadway function while LOS D is typically considered to be the minimum acceptable LOS. According to the City of Columbia's *Connect Columbia Transportation Plan (2018)*, "In urban areas, LOS D is typically considered to be the minimum acceptable level of service." The following conditions shall be considered unsatisfactory for the purposes of this study:

1. Overall intersections with an LOS E or F.
2. Individual traffic movements with an LOS E or F.

The existing intersections within the study area were analyzed with existing traffic volumes under existing roadway conditions/geometries. It should be noted that existing traffic signal timings were utilized at the intersections of Industrial Park Road and N James Campbell Boulevard and N James Campbell Boulevard and Santa Fe Pike. The existing capacity analyses were conducted using *Synchro* software by Trafficware for both signalized and unsignalized intersections. Appendix B contains the detailed capacity analyses results.

[1] Transportation Research Board (TRB). Highway Capacity Manual, 5th Edition (2010). Washington, DC: 2010

Table 5. Existing Capacity Analyses

	Study Intersection	Control	Approach	2023 Existing Conditions					
				AM Peak Hour			PM Peak Hour		
				LOS	Delay (s)	Queue (feet)	LOS	Delay (s)	Queue (feet)
1.	**N James Campbell Boulevard and Industrial Park Road**	Signal	NB L/T/R	E	76.1	20	D	36.2	42
			SB Left/Thru	D	48.9	166	D	36.9	76
			SB Right	F	497.4	369#	D	43.4	123
			EB Left	A	9.3	185	B	15.5	171
			EB Thru	A	7.1	61	A	6.1	26
			EB Thru/Right	A	7.1	61	A	6.1	26
			WB Left/Thru	B	14.1	93	C	20.8	95
			WB Thru/Right	B	14.2	93	C	21.1	95
			Overall	**F**	**247.6**	--	**C**	**24.7**	--
2.	**N James Campbell Boulevard and Oakwood Drive**	TWSC	NB Left/Right	B	10.3	25	B	10.9	25
			WB Left	A	8.0	0	A	7.9	0
3.	**N James Campbell Boulevard and Santa Fe Pike**	Signal	EB Left/Thru	C	28.8	54	C	30.5	65
			EB Right	E	70.3	60	C	25.1	47
			WB L/T/R	C	28.0	14	A	0.0	0
			NB Left	C	33.4	33	D	41.1	62
			NB Thru	A	4.1	6	A	3.8	19
			NB Thru/Right	A	4.1	6	A	3.8	19
			SB Left/Thru	A	0.0	24	A	0.0	41
			SB Thru/Right	A	0.0	24	A	0.0	41
			Overall	**C**	**34.0**	--	**C**	**20.3**	--

– 95th percentile volume exceeds capacity; queue may be longer. Queue shown is maximum after two cycles.

The following assessment are based on the results of the 2023 Existing Capacity Analyses as shown in the table above:

N James Campbell Boulevard and Industrial Park Road

- The shared northbound movement currently operates at LOS E during the AM peak hour period with existing traffic volumes.
- The southbound right-turn movement currently operates at LOS F during the AM peak hour period with existing traffic volumes.
- The overall intersection currently operates at LOS F during the AM peak hour with existing traffic volumes.
- All other critical movements for this intersection currently operate at an acceptable minimum LOS D during the AM and PM peak with existing traffic volumes.

N James Campbell Boulevard and Oakwood Drive

- All critical movements for this intersection currently operate at an acceptable minimum LOS B during the AM and PM peak with existing traffic volumes.

N James Campbell Boulevard and Santa Fe Pike

- The eastbound right-turn movement currently operates at LOS E during the AM peak hour period with existing traffic volumes.
- All other critical movements for this intersection currently operate at an acceptable minimum LOS D during the AM and PM peak with existing traffic volumes.

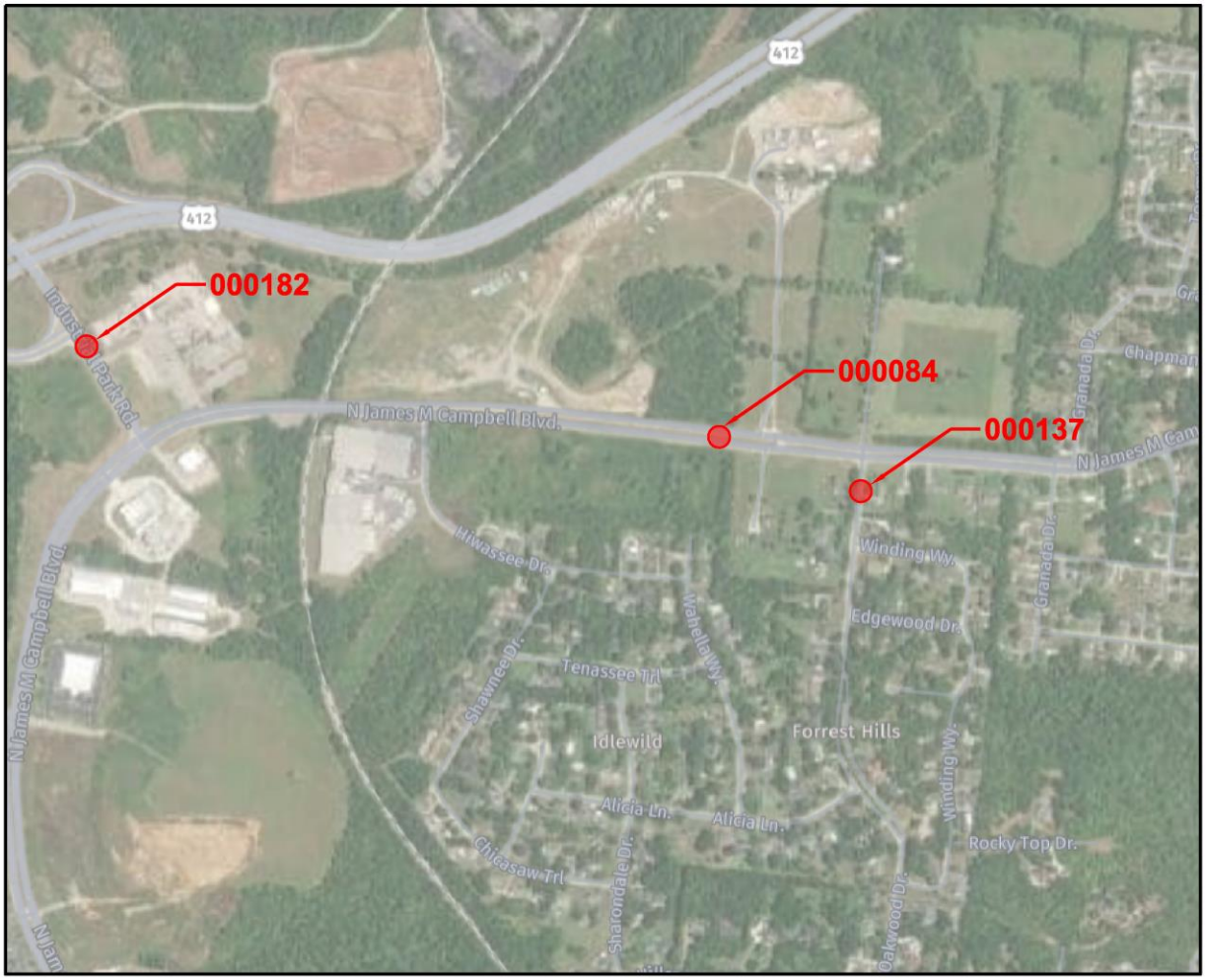
Background Traffic Volumes

To account for traffic growth within the vicinity of the project site prior to the completion of the proposed Oakwood Subdivision, background traffic volumes were established. Average annual daily traffic (AADT) volumes were obtained from Tennessee Department of Transportation (TDOT) count stations, and an average growth trend per year was established. This growth trend was used as a multiplication factor to grow the existing traffic volumes to the 2027 design year (development completion). Figure 5 displays the locations of the TDOT Count Stations within the surrounding area.

As shown in Figure 5, the average yearly percent change in traffic over a six (6) year period from 2018 - 2023 was 2.05%. As a conservative estimate, the existing traffic volumes were grown by +3.00% per year for four (4) years. Figure D1 in Appendix D shows the background peak hour totals at the study intersections for the AM and PM peak hour periods.

To account for the additional traffic growth within the vicinity of the project site, the generated traffic volumes from previously conducted Traffic Studies near the project site were added to the grown background traffic volumes. The Steadfast Hampshire Pike Development generated traffic volumes were included as outlined within the Steadfast Hampshire Pike Traffic Impact Study conducted by Kimley Horn in October 2021 and revised July 2022 as shown on Figure D2 in Appendix D. The Columbia Fuel Center Development generated traffic volumes were included as outlined within the Columbia Fuel Center Traffic Impact Study conducted by Clearcourse revised August 2022 as shown on Figure D3 in Appendix D.

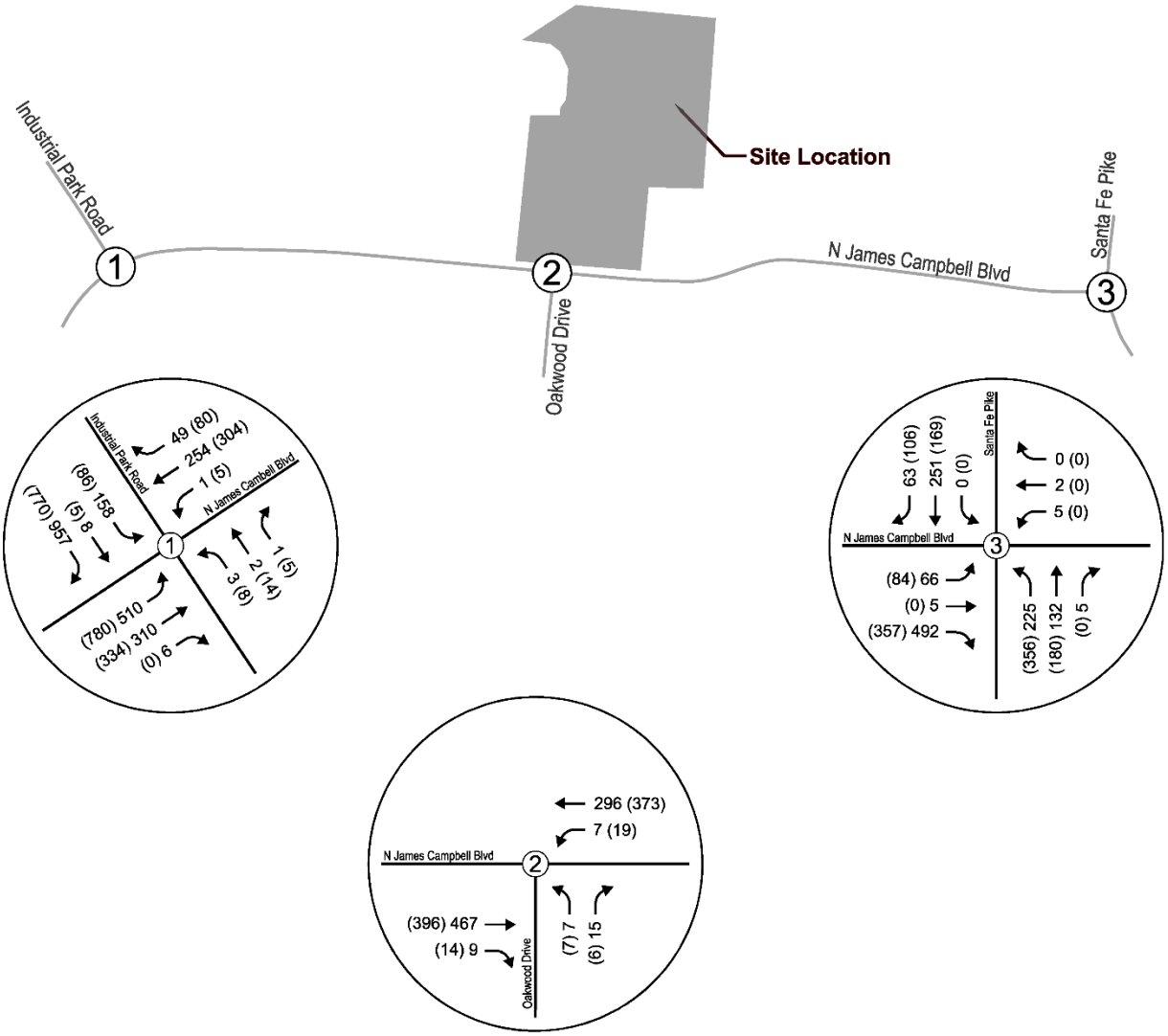
The generated background development volumes from the Steadfast Hampshire Pike Development and Columbia Fuel Center Development as shown on Figures D2 and D3 in Appendix D we added to the background traffic volumes as shown in Figure D1 resulting in the total combined background peak hour traffic volumes for the study intersections, as shown on Figure 6.



TDOT Count Station:	Maury 000084		Maury 000137		Maury 000182		Average % Growth
Year	AADT	% Change	AADT	% Change	AADT	% Change	
2023	6,378	--	499	--	13,360	--	--
2022	6,078	4.94%	495	0.81%	12,647	5.64%	3.79%
2021	5,803	4.95%	443	6.32%	13,601	-0.89%	3.46%
2020	5,750	3.64%	493	0.41%	12,723	1.67%	1.91%
2019	5,700	2.97%	737	-8.07%	13,814	-0.82%	-1.97%
2018	5,527	3.08%	394	5.33%	12,865	0.77%	3.06%
Average % Change	**3.92%**		**0.96%**		**1.27%**		**2.05%**
						Applied Growth %	**3.00%**

N.T.S.

Figure 5
TDOT Count Locations & Background Traffic Growth Trends



LEGEND

XXX - AM Peak Hour Traffic Volumes
(XXX) - PM Peak Hour Traffic Volumes

N.T.S.

Figure 6
Combined Background Traffic Volumes (2027)

Background Capacity Analyses

To evaluate the background traffic operations at the study intersections within the vicinity of the project site, the AM and PM peak hour capacity analyses were performed based on calculations outlined in the Highway Capacity Manual (HCM). Levels of service (LOS), corresponding average delays, and 95th percentile queues were calculated for each turning movement.

The previously conducted Traffic Studies for the background developments resulted in recommended roadway improvements to a study intersection. These recommended improvements will be utilized as part of the background roadway conditions and have been included in the background capacity analyses. The improvement is listed below.

Industrial Park Road at N James Campbell Boulevard

- Restripe the southbound shared through/left-turn lane along Industrial Park Road to provide a shared left/through/right-turn lane.
- Adjust signal timings as necessary after lane modifications.

The study intersections were analyzed with background traffic volumes and roadway conditions based on lane geometries as outlined in the Background Traffic Volumes section above. It should be noted that existing traffic signal timings were utilized at the intersection of N James Campbell Boulevard and Santa Fe Pike for this analysis. Additionally, optimized traffic signal timings were utilized at the intersection of Industrial Park Road and N James Campbell Boulevard for this analysis. The background capacity analyses were conducted using *Synchro* software by Trafficware for both signalized and unsignalized intersections. Appendix B contains the detailed capacity analyses results.

Table 6. Background Capacity Analyses

	Study Intersection	Control	Approach	2027 Background Conditions					
				AM Peak Hour			PM Peak Hour		
				LOS	Delay (s)	Queue (feet)	LOS	Delay (s)	Queue (feet)
1.	**Industrial Park Road and N James Campbell Boulevard**	Signal	NB L/T/R	F	83.3	21	C	28.6	34
			SB L/T/R	C	26.0	743#	B	11.3	396#
			SB Right	C	26.0	189	B	11.3	130
			EB Left	C	28.5	741#	D	36.7	644#
			EB Thru	B	16.2	147	A	5.7	56
			EB Thru/Right	B	16.1	147	A	5.7	56
			WB Left/Thru	D	40.6	218#	C	32.0	156
			WB Thru/Right	D	41.1	218#	C	33.7	156
			Overall	**C**	**27.3**	**--**	**C**	**22.5**	**--**
2.	**N James Campbell Boulevard and Oakwood Drive**	TWSC	NB L/T/R	B	11.6	25	B	12.5	25
			WB Left	A	8.5	0	A	8.3	25
3.	**N James Campbell Boulevard and Santa Fe Pike**	Signal	EB Left/Thru	C	29.4	76	C	30.2	86
			EB Right	F	117.6	95	C	24.4	46
			WB L/T/R	C	28.0	14	A	0.0	0
			NB Left	D	36.5	57	D	49.3	98
			NB Thru	A	4.2	18	A	4.2	24
			NB Right	A	4.2	18	A	0.0	0
			SB Left/Thru	A	0.0	68	A	0.0	55
			SB Thru/Right	A	0.0	68	A	0.0	55
			Overall	**E**	**55.4**	**--**	**C**	**23.6**	**--**

– 95th percentile volume exceeds capacity; queue may be longer. Queue shown is maximum after two cycles.

The following assessment are based on the results of the 2027 Background Capacity Analyses as shown in the table above:

N James Campbell Boulevard and Industrial Park Road

- The shared northbound movement will operate at LOS F during the AM peak hour period with background traffic volumes.
- All other critical movements for this intersection currently operate at an acceptable minimum LOS D during the AM and PM peak with background traffic volumes.

N James Campbell Boulevard and Oakwood Drive

- All critical movements for this intersection will operate at an acceptable minimum LOS B during the AM and PM peak with background traffic volumes.

N James Campbell Boulevard and Santa Fe Pike

- The eastbound right-turn movement will operate at LOS F during the AM peak hour period with background traffic volumes.
- The overall intersection will operate at LOS E during the AM peak hour periods with background traffic volumes.

- All other critical movements for this intersection will operate at an acceptable minimum LOS D during the AM and PM peak with background traffic volumes.

Impacts

Trips were generated to establish projected traffic volumes for the proposed Oakwood Subdivision. Daily and peak hour trips were generated by formulas presented in the *Trip Generation Manual*[2] based on the land uses proposed by the development. As previously stated, the proposed development will consist of 108 single family homes. The Single-Family Home (210) ITE Land Uses were used to estimate the generated traffic volumes. The table below provides the new trips generated for the proposed development. Appendix C contains detailed trip generation calculations.

Table 7. Oakwood Subdivision Trip Generation

ITE Land Use (Code)	Size	Generated Traffic Volumes				
		Daily	AM Peak		PM Peak	
			Enter	Exit	Enter	Exit
Single-Family Homes (210)	108 Units	1,083	20	60	67	40

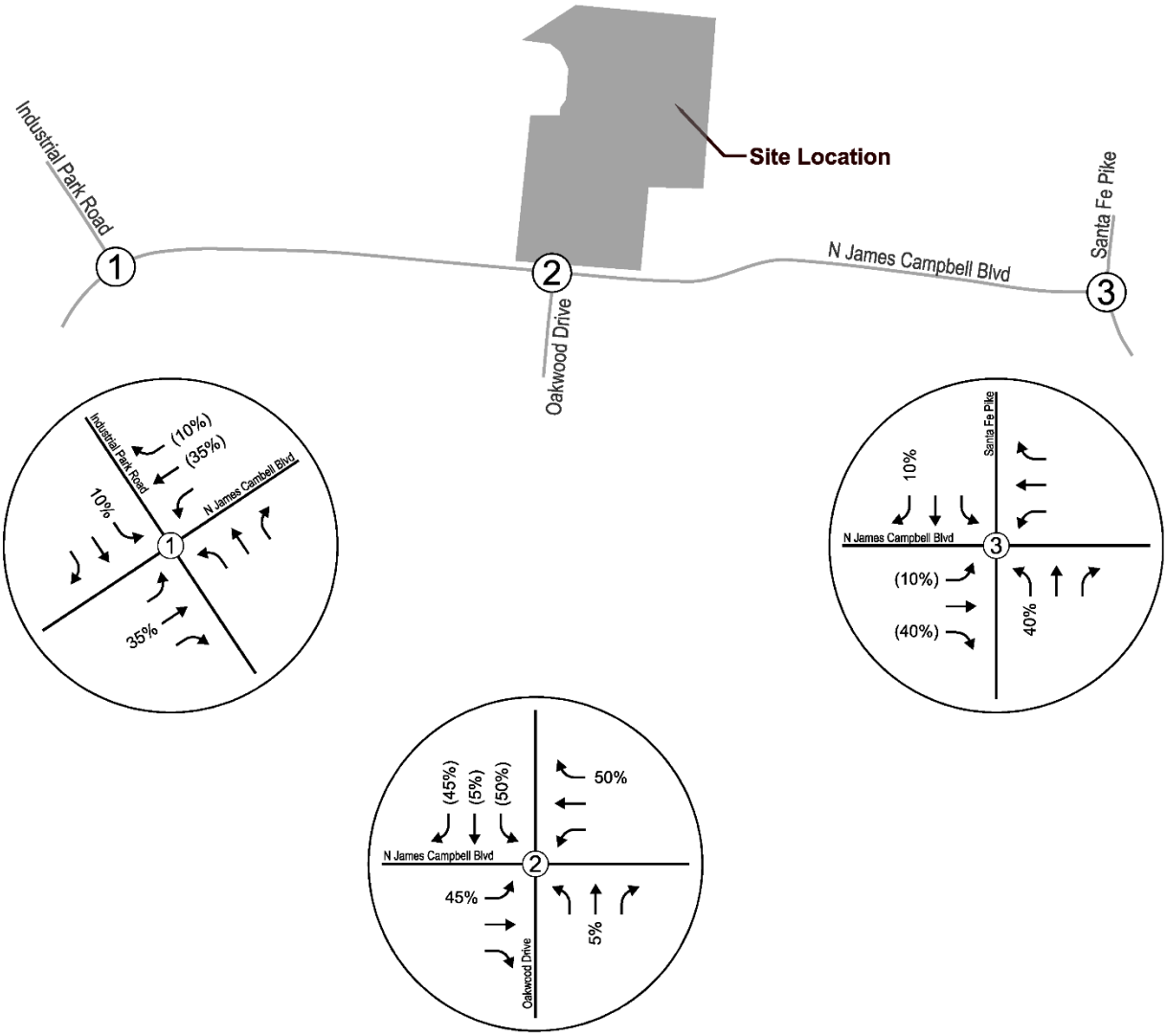
Projected Traffic Distribution and Assignments

For the purposes of this study, estimated directional distributions shown on Figure 7 were made for the proposed development's generated traffic volumes. The development of these directional distributions was established based on the following:

- Conducted hourly turning movement counts.
- Proposed land use characteristics.
- Existing roadway network.
- Existing lane geometry of surrounding intersections.
- The access locations of the proposed development.
- Locations of populations centers within the surrounding area.

The primary trips generated were assigned to the existing roadway network per the distributions shown on Figure 7, resulting in the generated peak hour traffic volumes shown on Figure 8. The generated peak hour traffic volumes were added to the total combined background volumes as shown in Figure 6, resulting in the total projected peak hour traffic volumes in Figure 9.

[2] Institute of Transportation Engineers (ITE). Trip Generation Manual, 11th Edition. Washington, DC: ITE, 2022

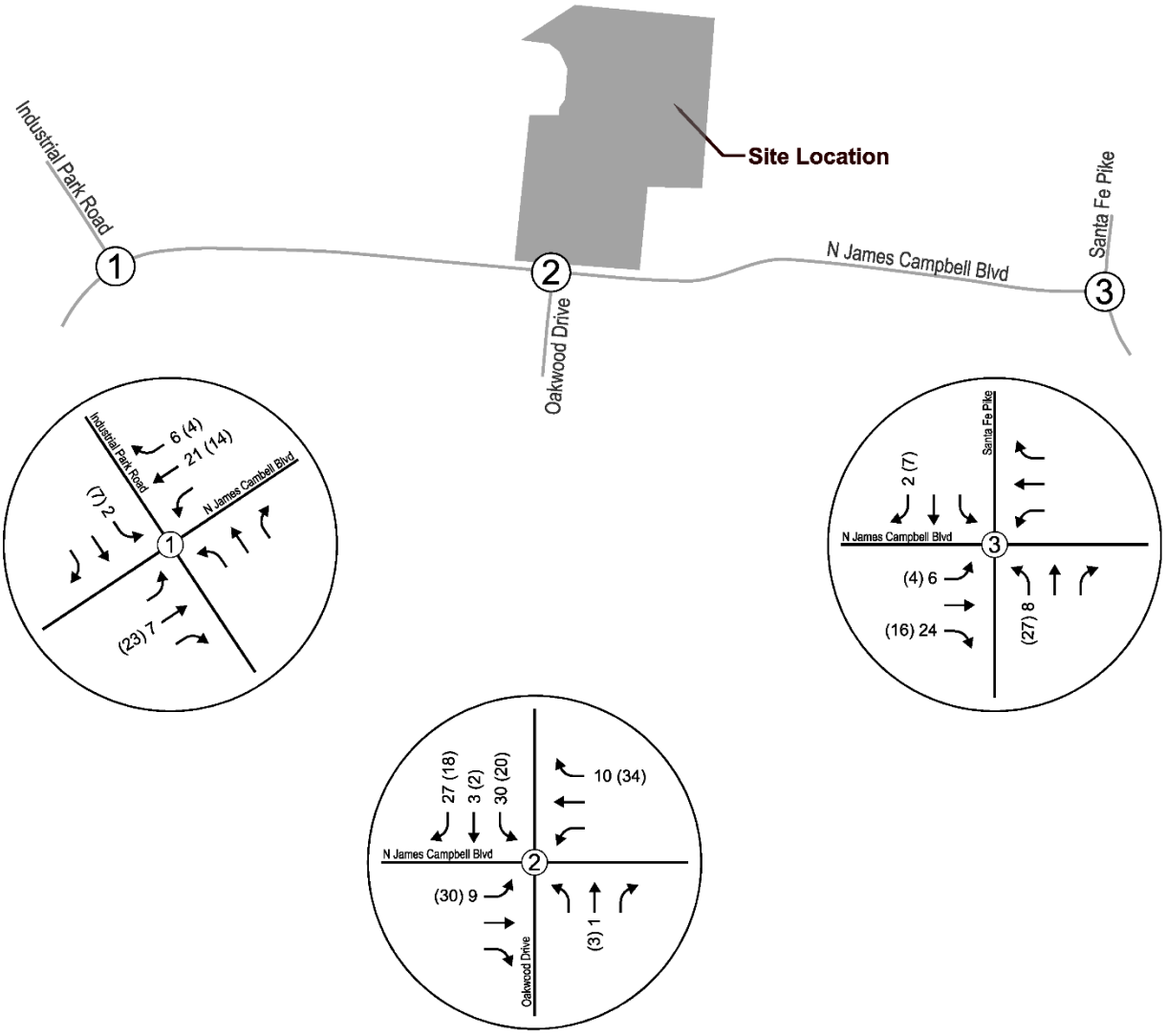


LEGEND

XX% - Entering Traffic Volumes
(XX%) - Exiting Traffic Volumes

N.T.S.

Figure 7
Distribution of Generated
Peak Hour Traffic Volumes

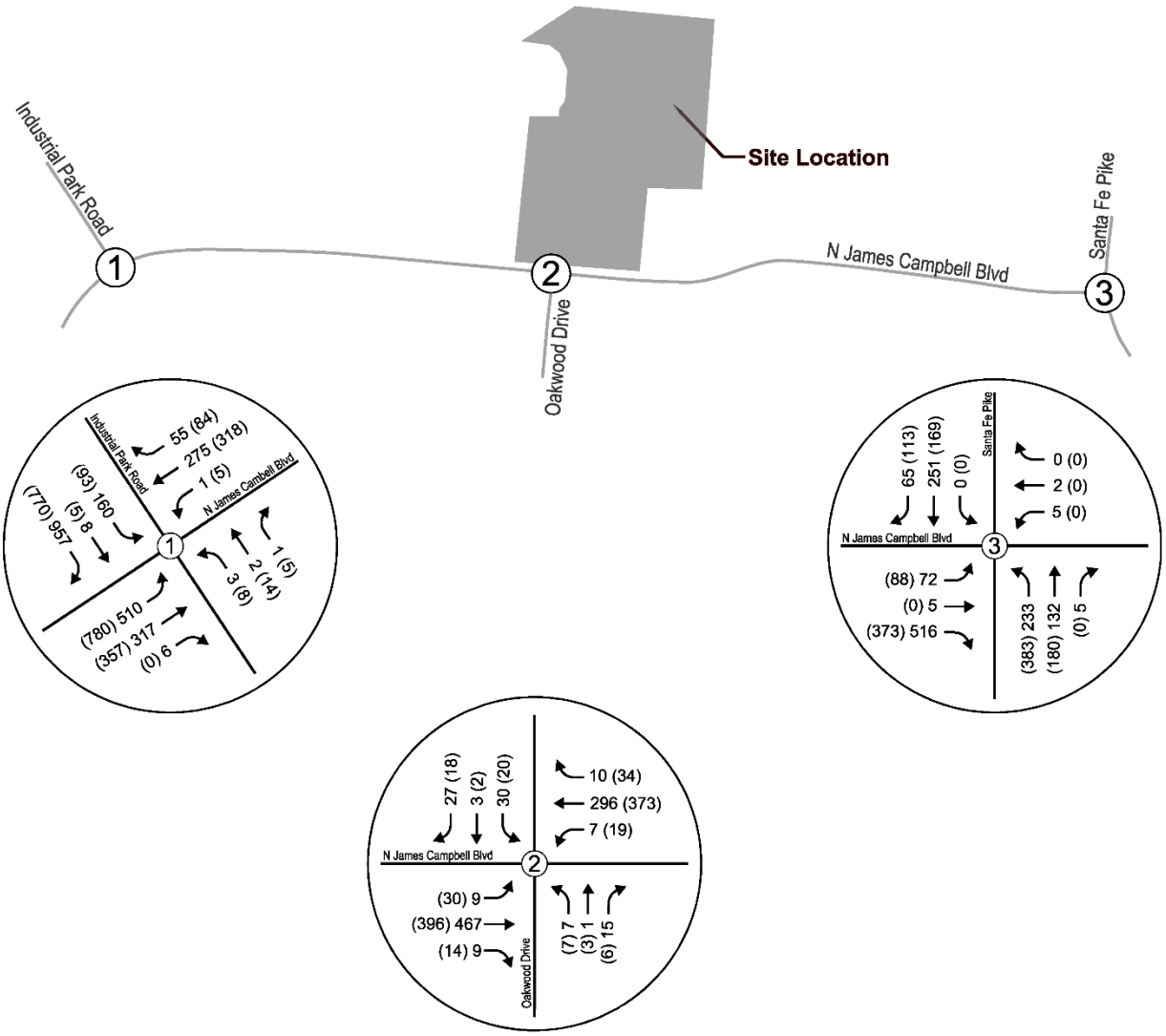


LEGEND

XXX - AM Peak Hour Traffic Volumes
(XXX) - PM Peak Hour Traffic Volumes

N.T.S.

Figure 8
Assignment of Generated Peak Hour Traffic Volumes



LEGEND

XXX - AM Peak Hour Traffic Volumes
(XXX) - PM Peak Hour Traffic Volumes

N.T.S.

Figure 9
Projected Traffic Volumes (2027)

Projected Capacity Analysis

To evaluate the projected traffic operations at the study intersections within the vicinity of the project site, AM and PM peak hour capacity analyses were performed. The capacity analyses include the total projected traffic volumes generated from the proposed development in addition to background traffic volumes. Levels-of-service (LOS), corresponding average delays, and 95th percentile queues were calculated for each turning movement. The intersections were analyzed based on background roadway conditions and lane geometries as outlined previously with projected traffic volumes.

The intersections were analyzed with projected traffic volumes and roadway conditions based on lane geometries as outlined in the Background Traffic Volumes section above. It should be noted that existing traffic signal timings were utilized at the intersection of N James Campbell Boulevard and Santa Fe Pike for this analysis. Additionally, optimized traffic signal timings were utilized at the intersection of Industrial Park Road and N James Campbell Boulevard for this analysis. The projected capacity analyses were conducted using *Synchro* software by Trafficware for both signalized and unsignalized intersections. Appendix B contains the detailed capacity analyses results.

Table 8. Projected Capacity Analyses

Study Intersection	Control	Approach	2027 Projected Conditions					
			AM Peak Hour			PM Peak Hour		
			LOS	Delay (s)	Queue (feet)	LOS	Delay (s)	Queue (feet)
1. **Industrial Park Road and N James Campbell Boulevard**	Signal	NB L/T/R	E	78.1	20	C	28.7	34
		SB L/T/R	C	23.9	716#	B	11.0	416#
		SB Right	C	23.9	187	B	11.0	141
		EB Left	C	29.7	703#	D	38.3	655#
		EB Thru	B	15.7	141	A	5.7	60
		EB Thru/Right	B	15.7	141	A	5.7	60
		WB Left/Thru	D	40.2	237#	C	33.3	164
		WB Thru/Right	D	40.8	237#	D	35.4	164
		Overall	**C**	**26.5**	--	**C**	**23.0**	--
2. **N James Campbell Boulevard and Oakwood Drive**	TWSC	NB L/T/R	B	12.8	25	C	15.9	25
		EB Left	A	8.0	0	A	8.3	25
		WB Left	A	8.5	0	A	8.3	25
		SB L/T/R	B	13.8	25	C	15.4	25
3. **N James Campbell Boulevard and Santa Fe Pike**	Signal	EB Left/Thru	C	29.5	80	C	30.3	89
		EB Right	F	131.5	111	C	23.7	45
		WB L/T/R	C	28.1	14	A	0.0	0
		NB Left/Thru	D	37.3	61	D	51.9	110
		NB Thru	A	4.2	18	A	4.2	25
		NB Thru/Right	A	4.2	18	A	4.2	25
		SB Left/Thru	A	0.0	70	A	0.0	57
		SB Thru/Right	A	0.0	70	A	0.0	57
		Overall	**E**	**62.0**	--	**C**	**24.6**	--

– 95th percentile volume exceeds capacity; queue may be longer. Queue shown is maximum after two cycles.

The following assessment are based on the results of the 2027 Projected Capacity Analyses as shown in the table above:

N James Campbell Boulevard and Industrial Park Road

- The shared northbound right movement will operate at LOS E during the AM peak hour period with projected traffic volumes.
- All other critical movements for this intersection currently operate at an acceptable minimum LOS D during the AM and PM peak with projected traffic volumes.

N James Campbell Boulevard and Oakwood Drive

- All critical movements for this intersection currently operate at an acceptable minimum LOS C during the AM and PM peak with projected traffic volumes.

N James Campbell Boulevard and Santa Fe Pike

- The eastbound right movement will operate at LOS F during the AM peak hour period with projected traffic volumes.
- The overall intersection will operate at LOS E during the AM peak hour periods with projected traffic volumes.
- All other critical movements for this intersection currently operate at an acceptable minimum LOS D during the AM and PM peak with projected traffic volumes.

Intersection Assessments (Projected Conditions)

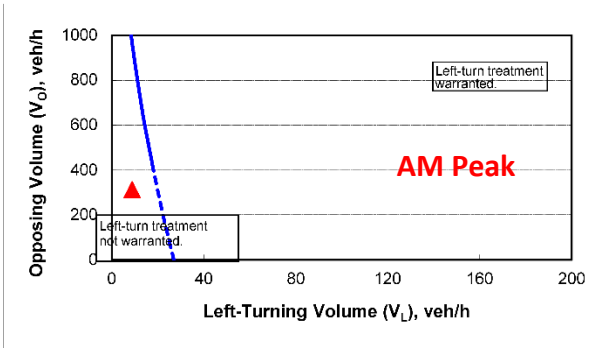
Engineering assessments were performed on the intersections within the study area to identify underlying inefficiencies and solutions to alleviate any concerns associated with intersection geometries and existing traffic volumes along the roadway network. Minor-road approach right-turn lane, Major-road approach left-turn lane, and Major-road approach right-turn warrants were performed based on Figures 2-4, Figures 2-5, and 2-6, respectively in the *NCHRP Report 457 – Evaluating Intersection Improvements: An Engineering Study Guide* [3] and projected traffic volumes. The results of the warrants are shown below.

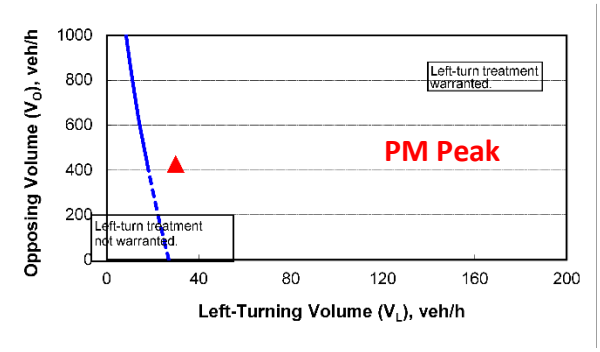
N James Campbell Boulevard and Oakwood Drive/Site Access

Table 9. Major-Road Approach Geometry, EBL N James Campbell Blvd and Oakwood Drive/Site Access

Variable	AM Peak	PM Peak
Left-turning volume (VL), veh/h:	9	30
Advancing volume (VA), veh/h:	485	440
Opposing volume (VO), veh/h:	313	426
Left-turn bay warranted:	**NO**	**YES**
Source: *NCHRP Report 457: Evaluating Intersection Improvements: An Engineering Study Guide*		

[3] Transportation Research Board (TRB). Evaluating Intersection Improvements: An Engineering Study Guide. Washington, DC: 2001

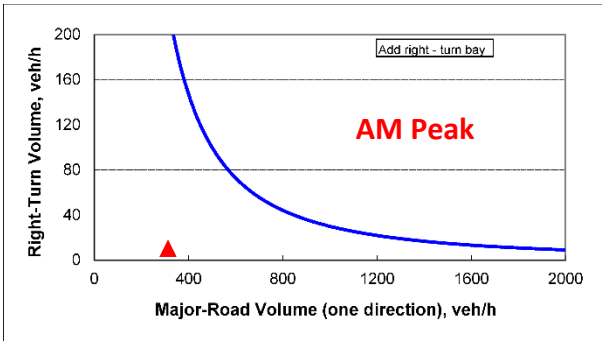


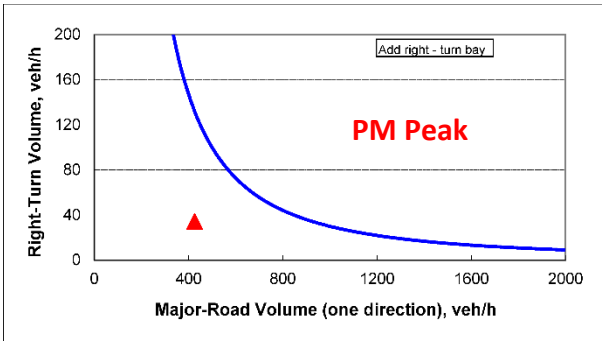


As shown in the table above and the corresponding graphs, it was determined that an eastbound left-turn lane is warranted along N James Campbell Boulevard at its intersection with the proposed Site Access during the PM peak hour period with projected traffic volumes.

Table 10. Major-Road Approach Geometry, WBR N James Campbell Blvd at Oakwood Dr/Site Access

Variable	AM Peak	PM Peak
Major-road speed, mph:	45	45
Major-road volume (one direction), veh/h:	313	426
Major-road right-turn volume, veh/h:	10	34
Limiting right-turn volume, veh/h:	226	132
Right-turn bay warranted:	**NO**	**NO**
Source: *NCHRP Report 457: Evaluating Intersection Improvements: An Engineering Study Guide*		

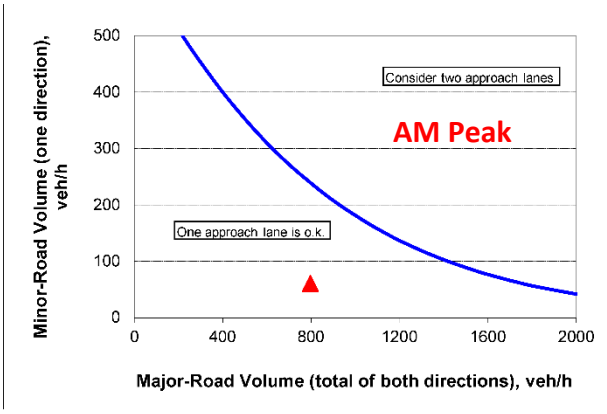


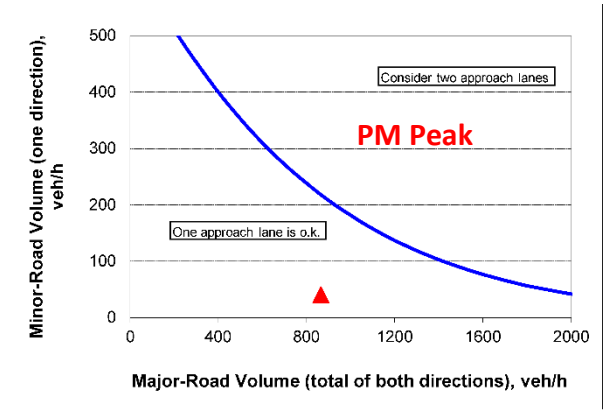


As shown in the table above and the corresponding graphs, it was determined that a westbound right-turn lane is not warranted along N James Campbell Boulevard at its intersection with the proposed Site Access during either peak hour period with projected traffic volumes.

Table 11. Minor-Road Approach Geometry, SBR Site Access at N James Campbell Boulevard

Variable	AM Peak	PM Peak
Major-road volume (total both directions), veh/h:	798	866
Percentage of right-turns on minor road, %:	45%	45%
Minor-road volume (one direction), veh/h:	60	40
Limiting minor-road volume (one direction), veh/h:	239	218
Right-turn bay warranted:	**One (1) approach lane is sufficient**	**One (1) approach lane is sufficient**
Source: *NCHRP Report 457: Evaluating Intersection Improvements: An Engineering Study Guide*		



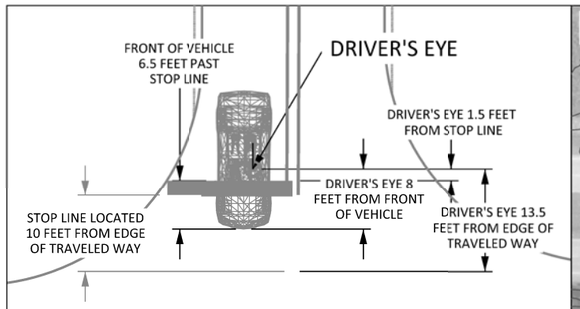


As shown in the table above and the corresponding graphs, it was determined that one (1) shared lane for left-turning and right-turning movements on the southbound approach of the proposed Site Access at N James Campbell Boulevard is sufficient with projected traffic volumes.

Sight Distance Analysis

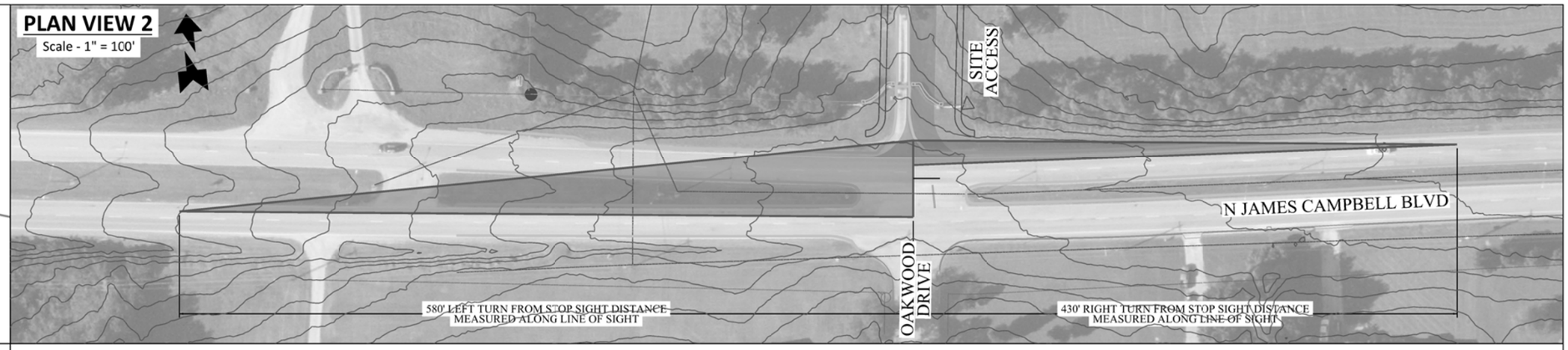
A sight distance analysis was conducted at the proposed site access location to determine if the sight distance criteria set forth by TDOT and the guidelines within AASHTO's *A Policy on Geometric Design of Highways and Streets* (Green Book) would be satisfied. Per the AASHTO Green Book, the procedures used to determine the sight distance criteria at the proposed site access drive were *Case B1 - Left turn from stop at minor street* and *Case B2 - Right turn from stop at minor street*.

The required sight distance for a vehicle making a left-turn and right-turn from stop at the proposed Site Access along N James Campbell Boulevard was calculated to be 580 feet and 430 feet, respectively, based on the 45 MPH speed limit along N James Campbell Boulevard and the multiple lanes to cross while making a left-turn. As shown on Figure 10, the required vertical and horizontal sight distances for left-turns and right-turns from the proposed Site Access (580 feet and 430 feet, respectively) satisfy Cases B1 and B2 as outlined within the AASHTO Green Book. However, it should be noted that all vegetation along Industrial Park Road within the turning vehicle's line-of-sight will need to be cleared to ensure adequate sight distance is maintained.



PLAN VIEW 1

Scale - 1" = 20'



SIGHT DISTANCE NOTES

LEFT TURN FROM STOP

THE REQUIRED SIGHT DISTANCE FOR A VEHICLE MAKING A LEFT TURN FROM STOP AT THE SITE ACCESS ALONG N JAMES CAMPBELL BLVD IS IN EXCESS OF**580 FEET**. THUS, MEETING THE REQUIRED 579 FEET CALCULATED FROM*AASHTO'S A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS - 7TH EDITION, 2018 (GREEN BOOK).* ACCORDING TO *TABLE 9-6 - TIME GAP FOR CASE B1, LEFT TURN FROM STOP*, THE ALLOWABLE TIME GAP FOR A PASSENGER CAR WITH A MAJOR STREET DESIGN SPEED OF **45 MPH** IS OF **8.75 SECONDS** (INCLUDING THE ADJUSTMENT FOR ADDITIONAL LANES AND MEDIAN TO CROSS. THE INTERSECTION SIGHT DISTANCE WAS CALCULATED USING *EQUATION 9-1* AS SHOWN BELOW.

ISD = $1.47V_{major}\ t_g$ = 1.47 (45 mph)(8.75 s) = **579 FEET**

ISD = INTERSECTION SIGHT DISTANCE (FEET)

V_{major} = **45 MPH** = DESIGN SPEED OF MAJOR ROAD (MPH)

t_g = 7.5s + 1.25s (0.5s FOR EACH ADDITIONAL LANE CROSSED INCLUDING MEDIAN) = **8.75 s** = TIME GAP FOR MINOR ROAD VEHICLE TO ENTER THE MAJOR ROAD (s)

RIGHT TURN FROM STOP

THE REQUIRED SIGHT DISTANCE FOR A VEHICLE MAKING A RIGHT TURN FROM STOP AT THE SITE ACCESS ALONG N JAMES CAMPBELL BLVD IS IN EXCESS OF**430 FEET**. THUS, MEETING THE REQUIRED 430 FEET CALCULATED FROM*AASHTO'S A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS - 7TH EDITION, 2018 (GREEN BOOK).* ACCORDING TO *TABLE 9-8 - TIME GAP FOR CASE B2, RIGHT TURN FROM STOP*, THE ALLOWABLE TIMEGAP FOR A PASSENGER CAR WITH A MAJOR STREET DESIGN SPEED OF **45 MPH** IS OF **6.5 SECONDS**. THE INTERSECTION SIGHT DISTANCE WAS CALCULATED USING *EQUATION 9-1* AS SHOWN BELOW.

ISD = $1.47V_{major}\ t_g$ = 1.47 (45 mph)(6.5 s) = **430 FEET**

ISD = INTERSECTION SIGHT DISTANCE

V_{major} = **45 MPH** = DESIGN SPEED OF MAJOR ROAD (MPH)

t_g = **6.5 s** = TIME GAP FOR MINOR ROAD VEHICLE TO ENTER THE MAJOR ROAD (s)

THE PROPOSED SITE ACCESS SATISFIES BOTH CASE B1 FOR LEFT-TURNING VEHICLES AND CASE B2 FOR RIGHT-TURNING VEHICLES AS OUTLINED WITHIN THE AASHTO GREEN BOOK (7TH EDITION - 2018).

DECISION POINT

AS DESCRIBED IN AASHTO'S A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS:
FIELD OBSERVATIONS OF VEHICLE STOPPING POSITIONS FOUND THAT, WHERE NEEDED, DRIVERS WILL STOP WITH THE FRONT OF THEIR VEHICLE**6.5 FEET OR LESS** IN FRONT OF THE DESIRED STOPPING POSITION AT A STOP LINE. MEASUREMENTS OF PASSENGER CARS INDICATE THAT THE DISTANCE FROM THE FRONT OF THE VEHICLE TO THE DRIVER'S EYE FOR THE CURRENT U.S. PASSENGER CAR POPULATION IS NEARLY ALWAYS EIGHT (8) FEET OR LESS.

THEREFORE, IN ORDER TO ACCOUNT FOR VEHICLES STOPPING PAST THE STOP LINE, THE DECISION POINT (DRIVER'S EYE) WAS PLACED 1.5 FEET BEFORE THE STOP LINE AS OPPOSED TO **EIGHT (8) FEE**T AS SHOWN IN PLAN VIEW 1. THIS CALCULATION IS DETAILED BELOW:

DP = AVG. VEHICLE LENGTH - STOPPING POSITION = 8 FT- 6.5 FT = **1.5 FT**

DP = DECISION POINT (DRIVER'S EYE)
AVG. VEHICLE LENGTH = 8 FEET
STOPPING POSITION = 6.5 FEET

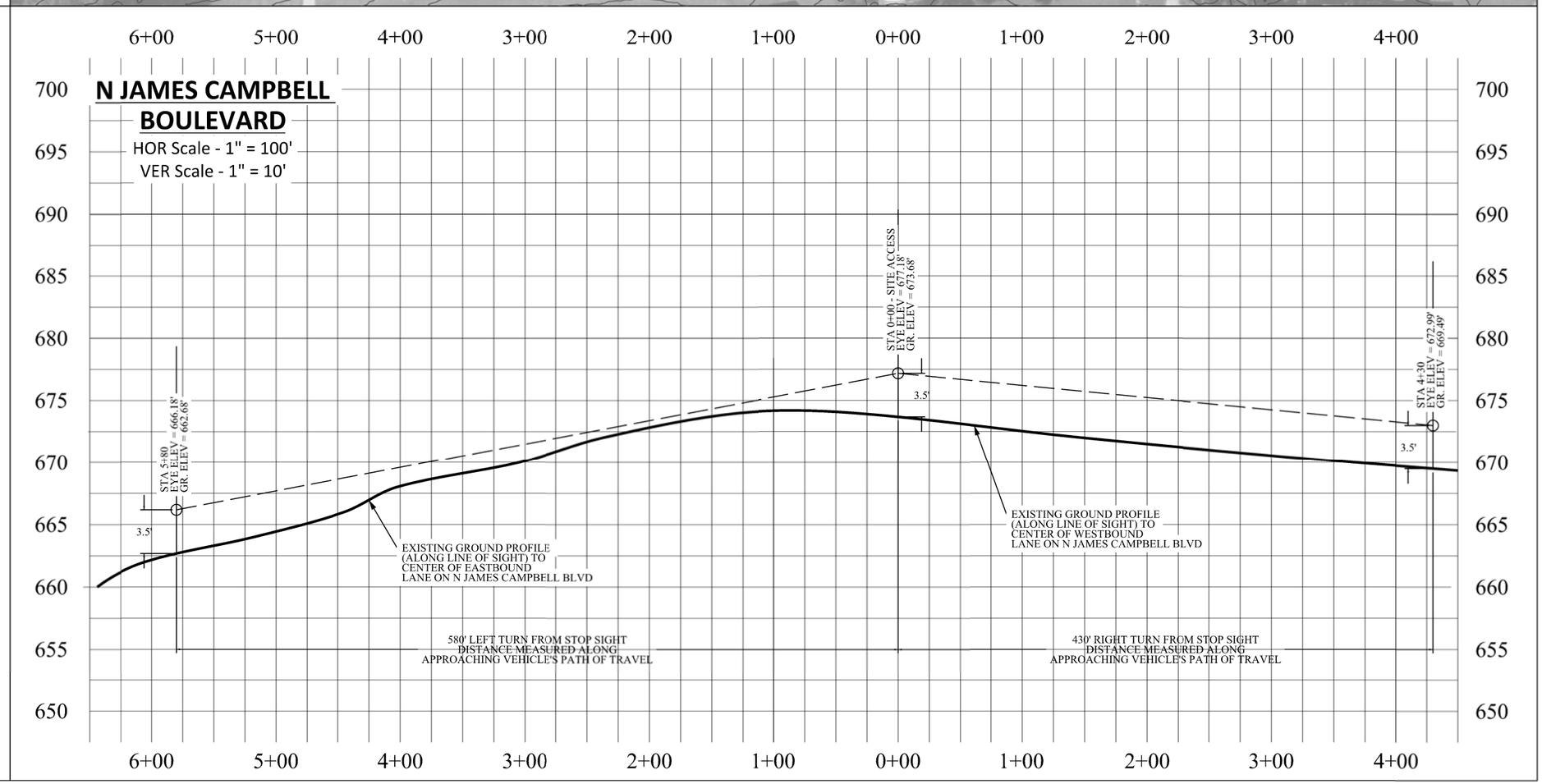


Figure 10 - Sight Distance Analysis (N James Campbell Blvd and Site Access)

Oakwood Subdivision ● Columbia, TN ● Scale: Varies

Prepared by T-Square Engineering, Inc.
111 Southeast Parkway Ct ● Franklin, TN 37064 ● www.T2-Eng.com

Conclusions

Existing Conditions

Intersection Capacity Analyses

N James Campbell Boulevard and Industrial Park Road

- The shared northbound movement currently operates at LOS E during the AM peak hour period with existing traffic volumes.
- The southbound right-turn movement currently operates at LOS F during the AM peak hour period with existing traffic volumes.
- The overall intersection currently operates at LOS F during the AM peak hour with existing traffic volumes.
- All other critical movements for this intersection currently operate at an acceptable minimum LOS D during the AM and PM peak with existing traffic volumes.

N James Campbell Boulevard and Oakwood Drive

- All critical movements for this intersection currently operate at an acceptable minimum LOS B during the AM and PM peak with existing traffic volumes.

N James Campbell Boulevard and Santa Fe Pike

- The eastbound right-turn movement currently operates at LOS E during the AM peak hour period with existing traffic volumes.
- All other critical movements for this intersection currently operate at an acceptable minimum LOS D during the AM and PM peak with existing traffic volumes.

Background Conditions

Intersection Capacity Analyses

N James Campbell Boulevard and Industrial Park Road

- The shared northbound movement will operate at LOS F during the AM peak hour period with background traffic volumes.
- All other critical movements for this intersection currently operate at an acceptable minimum LOS D during the AM and PM peak with background traffic volumes.

N James Campbell Boulevard and Oakwood Drive

- All critical movements for this intersection will operate at an acceptable minimum LOS B during the AM and PM peak with background traffic volumes.

N James Campbell Boulevard and Santa Fe Pike

- The eastbound right-turn movement will operate at LOS F during the AM peak hour period with background traffic volumes.
- The overall intersection will operate at LOS E during the AM peak hour periods with background traffic volumes.

Projected Conditions

Intersection Capacity Analyses

N James Campbell Boulevard and Industrial Park Road

- The shared northbound right movement will operate at LOS E during the AM peak hour period with projected traffic volumes.
- All other critical movements for this intersection currently operate at an acceptable minimum LOS D during the AM and PM peak with projected traffic volumes.

N James Campbell Boulevard and Oakwood Drive

- All critical movements for this intersection currently operate at an acceptable minimum LOS C during the AM and PM peak with projected traffic volumes.

N James Campbell Boulevard and Santa Fe Pike

- The eastbound right movement will operate at LOS F during the AM peak hour period with projected traffic volumes.
- The overall intersection will operate at LOS E during the AM peak hour periods with projected traffic volumes.
- All other critical movements for this intersection currently operate at an acceptable minimum LOS D during the AM and PM peak with projected traffic volumes.

Turn Lane Analyses

N James Campbell Boulevard and Oakwood Drive

- It was determined that the eastbound approach of N James Campbell Boulevard at its intersection with the proposed Site Access does warrant an exclusive lane for left-turning movements with projected traffic volumes.
- It was determined that the westbound approach of N James Campbell Boulevard at its intersection with the proposed Site Access does not warrant an exclusive lane for right-turning movements with projected traffic volumes.
- It was determined that the southbound approach of the proposed Site Access at its intersection with N James Campbell Boulevard is sufficient with one (1) shared lane for left-turning and right-turning movements with projected traffic volumes.

N James Campbell Boulevard Santa Fe Pike

- Although an exclusive eastbound right-turn is present along N James Campbell Boulevard at its intersection with Santa Fe Pike, it is believed that due to the increase in traffic from the proposed development, that the eastbound approach lanes need to be restriped to include one (1) shared lane for left-turn, through, and right-turn movements and one (1) exclusive lane for right-turn movements. Thus, creating dual right-turn lanes along the eastbound approach. Additionally, the traffic signal timings would need to be modified to account for the change in lane utilization.

Recommendations

Based on the analyses within this study, and a review of the proposed development's access plan, the recommendations below have been presented to be implemented as part of the proposed Oakwood Subdivision in Columbia, TN. These recommendations will be constructed in addition to the additional improvements at the study intersections outlined in previously conducted traffic studies within the area.

Improvement Recommendations for the Oakwood Subdivision

N James Campbell Boulevard and Industrial Park Road

- Optimize the existing signal timings at this intersection to accommodate the generated traffic volumes from the proposed Oakwood Subdivision.

N James Campbell Boulevard and Oakwood Drive/Site Access

- Construct the proposed Site Access along N James Campbell Boulevard with one (1) inbound lane and one (1) outbound lane operating under a stop condition according to MUTCD, AASHTO, TDOT, and City of Columbia standards.
- Construct one (1) exclusive left-turn lane on the eastbound approach of N James Campbell Boulevard at its intersection with the proposed Site Access. The left-turn lane shall provide a minimum of 100 feet of storage and taper lengths according to MUTCD, AASHTO, TDOT, and City of Columbia standards.
- All radii for the proposed access shall be designed to accommodate the largest turning requirements of either an SU-30 truck (garbage) or an emergency vehicle (fire apparatus) that will service the development according to MUTCD, AASHTO, TDOT, and City of Columbia standards.
- Ensure the departure sight distance triangles for all driveways, internal intersections, and site access intersections are designed to be clear of all sight obstructions (including grade) as specified by AASHTO. The design of proposed internal roadway system should be completed according to the MUTCD, AASHTO, TDOT, and City of Columbia standards.

N James Campbell Boulevard and Santa Fe Pike

- Restripe the eastbound approach lanes to include one (1) shared lane for left-turn, through, and right-turn movements and one (1) exclusive lane for right-turn movement.
- Optimize the existing signal timings at this intersection to accommodate the generated traffic volumes from the proposed Oakwood Subdivision and the proposed changes to the eastbound approach lane utilization.

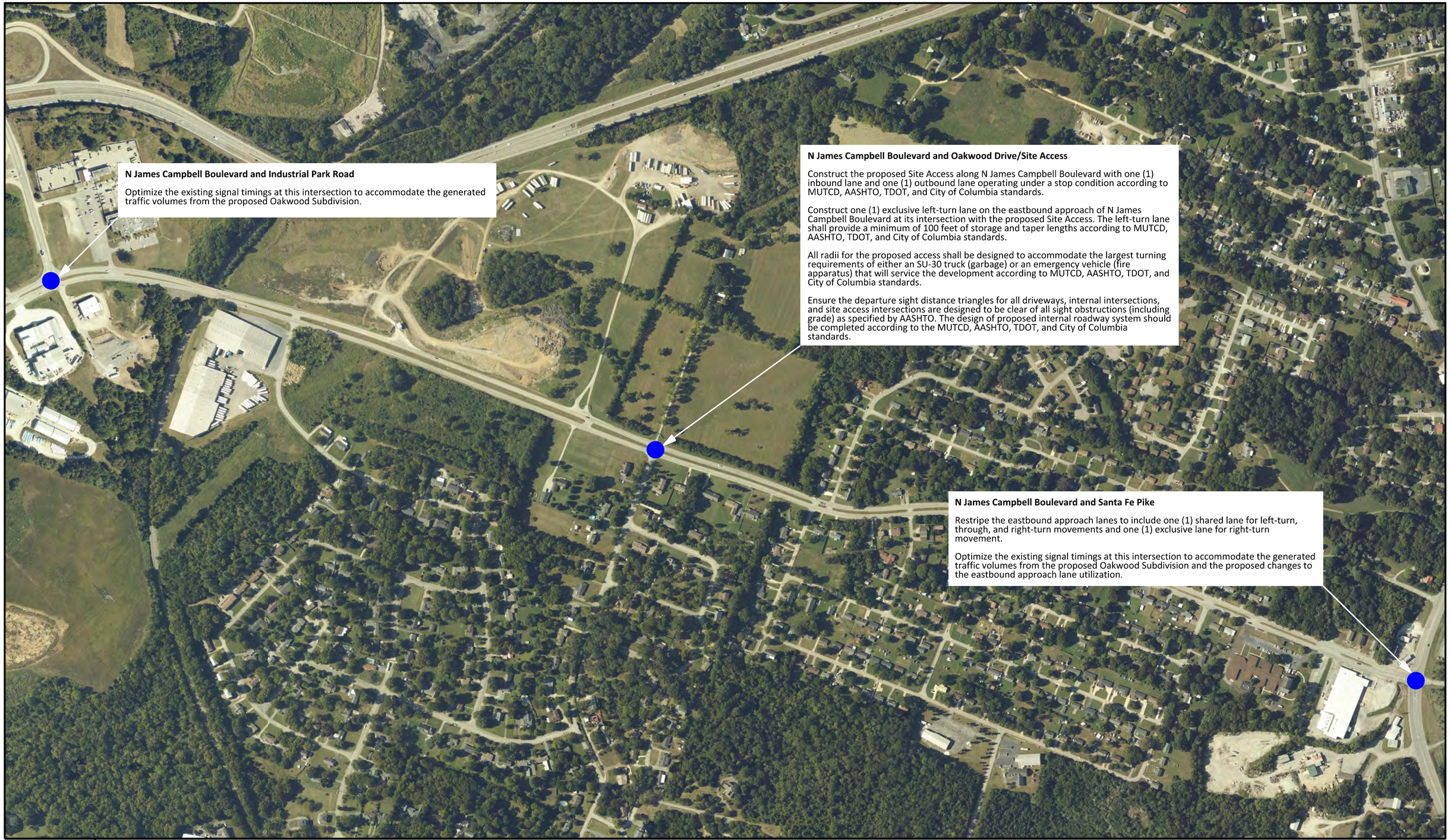


Figure 11 - Recommended Improvements

Oakwood Subdivision ● Columbia, TN ● Scale: 1" = 500'

Prepared by T-Square Engineering, Inc.

111 Southeast Parkway Ct ● Franklin, TN 37064 ● www.T2-Eng.com

500' 250' 0' 500'

1 inch = 500 feet

Projected Capacity Analysis with Improvements

To evaluate the impact of the proposed improvements on the projected traffic operations at the study intersections within the vicinity of the project site, AM and PM peak hour capacity analyses were performed with projected traffic volumes. Levels-of-service (LOS), corresponding average delays, and 95th percentile queues were calculated for each turning movement. The study intersections were analyzed under projected conditions with the proposed recommendations outlined in the Conclusions and Recommendations portion of this study.

It should be noted that optimized traffic signal timings were utilized at the intersections of N James Campbell Boulevard and Santa Fe Pike and Industrial Park Road and N James Campbell Boulevard for this analysis. The projected capacity analyses with improvements were conducted using *Synchro* software by Trafficware for both signalized and unsignalized intersections. Appendix B contains the detailed capacity analyses results.

Table 12. Projected Capacity Analyses with Improvements

	Study Intersection	Control	Approach	2027 Projected Conditions with Improvements					
				AM Peak Hour			PM Peak Hour		
				LOS	Delay (s)	Queue (feet)	LOS	Delay (s)	Queue (feet)
1.	**Industrial Park Road and N James Campbell Boulevard**	Signal	NB L/T/R	E	78.1	20	C	28.7	34
			SB L/T/R	C	23.9	716#	B	11.0	416#
			SB Right	C	23.9	187	B	11.0	141
			EB Left	C	29.7	703#	D	38.3	655#
			EB Thru	B	15.7	141	A	5.7	60
			EB Thru/Right	B	15.7	141	A	5.7	60
			WB Left/Thru	D	40.2	237#	C	33.3	164
			WB Thru/Right	D	40.8	237#	D	35.4	164
			Overall	**C**	**26.5**	**--**	**C**	**23.0**	**--**
2.	**N James Campbell Boulevard and Oakwood Drive**	TWSC	NB L/T/R	B	12.8	25	C	15.8	25
			EB Left	A	8.0	0	A	8.3	25
			WB Left	A	8.5	0	A	8.3	25
			SB L/T/R	B	13.8	25	C	15.4	25
3.	**N James Campbell Boulevard and Santa Fe Pike**	Signal	EB L/T/R	B	15.1	105#	C	31.4	92m
			EB Right	B	15.1	33	B	13.0	33m
			WB L/T/R	B	14.1	9	A	0.0	0
			NB Left/Thru	B	18.3	53	D	51.9	80
			NB Thru	A	4.8	16	A	4.0	18
			NB Thru/Right	A	4.8	16	A	4.0	18
			SB Left/Thru	A	0.0	49	A	0.0	38
			SB Thru/Right	A	0.0	49	A	0.0	38
			Overall	**B**	**10.9**	**--**	**C**	**24.0**	

m – Volume for 95th percentile queue is metered by upstream signal.

APPENDIX

APPENDIX A – DETAILED TURNING MOVEMENT COUNTS AND SIGNAL TIMINGS

Location: Columbia, TN
Count Type: TMCs

Count Sites: 3
Intersection #: 1
Intersection: James Campbell Boulevard and Industrial Park Road

Southbound: Industrial Park Road
Westbound: James Campbell Road
Northbound: Driveway
Eastbound: James Campbell Road

Lat/Long: N/A

Count Date: 10/19/2023

Time Period: 0600 - 0900 (Weekday AM Peak)

Figure 1 - Turning Movement Designation

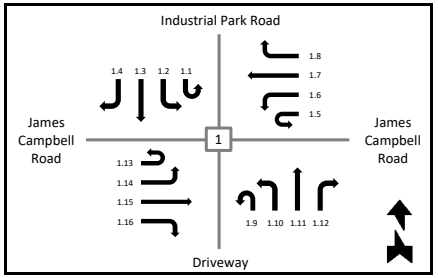
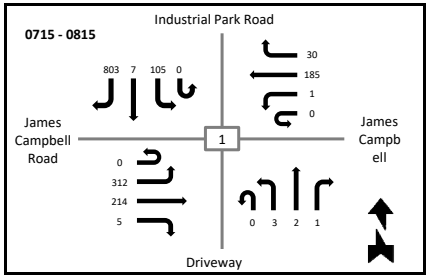


Figure 2 - AM Peak Hour TMC



	Southbound						Westbound						Northbound						Eastbound					
	Industrial Park Road						James Campbell Road						Driveway						James Campbell Road					
Time	U-Turn 1.1	Left 1.2	Thru 1.3	Right 1.4	Peds X-Walk	App Total	U-Turn 1.5	Left 1.6	Thru 1.7	Right 1.8	Peds X-Walk	App Total	U-Turn 1.9	Left 1.10	Thru 1.11	Right 1.12	Peds X-Walk	App Total	U-Turn 1.13	Left 1.14	Thru 1.15	Right 1.16	Peds X-Walk	App Total
0600 - 0615	0	7	2	52	0	61	0	0	17	5	0	22	0	0	0	0	0	0	0	65	29	0	0	94
0615 - 0630	0	7	0	94	0	101	0	1	20	10	0	31	0	0	0	0	0	0	0	62	28	0	0	90
0630 - 0645	0	10	1	112	0	123	0	0	25	5	0	30	0	0	0	0	0	0	0	68	31	0	0	99
0645 - 0700	0	11	2	116	0	129	0	0	41	12	0	53	0	0	0	0	0	0	0	70	27	1	0	98
0700 - 0715	0	12	1	133	0	146	0	0	36	9	0	45	0	0	3	0	0	3	0	71	32	3	0	106
0715 - 0730	0	15	0	210	0	225	0	1	48	7	0	56	0	0	0	0	0	0	0	77	43	1	0	121
0730 - 0745	0	32	1	228	0	261	0	0	49	7	0	56	0	0	2	0	0	2	0	83	66	1	0	150
0745 - 0800	0	41	4	218	0	263	0	0	49	9	0	58	0	0	0	1	0	1	0	85	64	1	0	150
0800 - 0815	0	17	2	147	0	166	0	0	39	7	0	46	0	3	0	0	0	3	0	67	41	2	0	110
0815 - 0830	0	15	1	146	0	162	0	0	36	6	0	42	0	2	1	1	0	4	0	63	27	2	0	92
0830 - 0845	0	12	3	118	0	133	0	0	37	8	0	45	0	0	1	1	0	2	0	51	41	0	0	92
0845 - 0900	0	12	2	118	0	132	0	0	36	8	0	44	0	1	1	0	0	2	0	65	29	2	0	96
Grand Total	**0**	**191**	**19**	**1692**	**0**	**1902**	**0**	**2**	**433**	**93**	**0**	**528**	**0**	**6**	**8**	**3**	**0**	**17**	**0**	**827**	**458**	**13**	**0**	**1298**
Peak Hour Total																								
0715 - 0815	**0**	**105**	**7**	**803**	**0**	**915**	**0**	**1**	**185**	**30**	**0**	**216**	**0**	**3**	**2**	**1**	**0**	**6**	**0**	**312**	**214**	**5**	**0**	**531**
App %	0.00%	10.04%	1.00%	88.96%			0.00%	0.38%	82.01%	17.61%			0.00%	35.29%	47.06%	17.65%			0.00%	63.71%	35.29%	1.00%		
Int %	0.00%	5.10%	0.51%	45.18%		50.79%	0.00%	0.05%	11.56%	2.48%		14.10%	0.00%	0.16%	0.21%	0.08%		0.45%	0.00%	22.08%	12.23%	0.35%		34.66%
Cars Total	0	183	19	1638			0	2	405	88			0	5	5	3			0	793	430	12		
Heavy Total	0	8	0	54			0	0	28	5			0	1	3	0			0	34	28	1		
% Cars	**0.00%**	**95.81%**	**100.00%**	**96.81%**			**0.00%**	**100.00%**	**93.53%**	**94.62%**			**0.00%**	**83.33%**	**62.50%**	**100.00%**			**0.00%**	**95.89%**	**93.89%**	**92.31%**		
% Heavy	**0.00%**	**4.19%**	**0.00%**	**3.19%**			**0.00%**	**0.00%**	**6.47%**	**5.38%**			**0.00%**	**16.67%**	**37.50%**	**0.00%**			**0.00%**	**4.11%**	**6.11%**	**7.69%**		

Location: Columbia, TN
Count Type: TMCs

Count Sites: 3
Intersection #: 1
Intersection: James Campbell Boulevard and Industrial Park Road

Southbound: Industrial Park Road
Westbound: James Campbell Road
Northbound: Driveway
Eastbound: James Campbell Road

Lat/Long: N/A

Count Date: 10/19/2023

Time Period: 1500 - 1800 (Weekday PM Peak)

Figure 1 - Turning Movement Designation

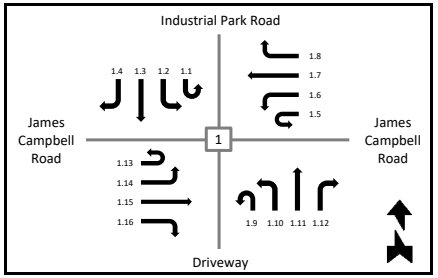
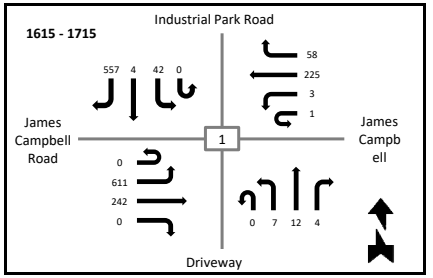


Figure 2 - PM Peak Hour TMC



	Southbound						Westbound						Northbound						Eastbound					
	Industrial Park Road						James Campbell Road						Driveway						James Campbell Road					
Time	U-Turn 1.1	Left 1.2	Thru 1.3	Right 1.4	Peds X-Walk	App Total	U-Turn 1.5	Left 1.6	Thru 1.7	Right 1.8	Peds X-Walk	App Total	U-Turn 1.9	Left 1.10	Thru 1.11	Right 1.12	Peds X-Walk	App Total	U-Turn 1.13	Left 1.14	Thru 1.15	Right 1.16	Peds X-Walk	App Total
1500 - 1515	0	20	1	140	0	161	0	0	53	12	0	65	0	0	1	2	0	3	0	121	94	1	0	216
1515 - 1530	0	17	1	149	0	167	0	0	47	20	0	67	0	0	1	1	0	2	0	126	72	0	0	198
1530 - 1545	0	21	1	156	0	178	0	1	53	10	0	64	0	0	0	0	0	0	0	150	69	2	0	221
1545 - 1600	0	16	1	115	0	132	0	0	61	14	0	75	0	2	1	1	0	4	0	135	46	0	0	181
1600 - 1615	0	19	4	142	0	165	0	1	53	17	0	71	0	4	2	0	0	6	0	146	57	1	0	204
1615 - 1630	0	9	2	159	0	170	0	0	46	15	0	61	0	2	6	2	0	10	0	120	50	0	0	170
1630 - 1645	0	11	2	139	0	152	0	2	60	10	0	72	0	2	4	0	0	6	0	160	60	0	0	220
1645 - 1700	0	13	0	133	0	146	0	1	53	11	0	65	0	1	2	1	0	4	0	169	66	0	0	235
1700 - 1715	0	9	0	126	0	135	1	0	66	22	0	89	0	2	0	1	0	3	0	162	66	0	0	228
1715 - 1730	0	14	0	121	0	135	0	0	62	8	0	70	0	0	0	0	0	0	0	147	43	0	0	190
1730 - 1745	0	14	0	116	0	130	0	0	50	12	0	62	0	0	0	0	0	0	0	120	44	0	0	164
1745 - 1800	0	11	0	102	0	113	0	0	38	9	0	47	0	0	1	0	0	1	0	108	46	0	0	154
Grand Total	**0**	**174**	**12**	**1598**	**0**	**1784**	**1**	**5**	**642**	**160**	**0**	**808**	**0**	**13**	**18**	**8**	**0**	**39**	**0**	**1664**	**713**	**4**	**0**	**2381**
Peak Hour Total																								
1615 - 1715	**0**	**42**	**4**	**557**	**0**	**603**	**1**	**3**	**225**	**58**	**0**	**287**	**0**	**7**	**12**	**4**	**0**	**23**	**0**	**611**	**242**	**0**	**0**	**853**
App %	0.00%	9.75%	0.67%	89.57%			0.12%	0.62%	79.46%	19.80%			0.00%	33.33%	46.15%	20.51%			0.00%	69.89%	29.95%	0.17%		
Int %	0.00%	3.47%	0.24%	31.88%		35.59%	0.02%	0.10%	12.81%	3.19%		16.12%	0.00%	0.26%	0.36%	0.16%		0.78%	0.00%	33.20%	14.23%	0.08%		47.51%
Cars Total	0	170	9	1568			1	3	634	154			0	13	18	6			0	1625	699	4		
Heavy Total	0	4	3	30			0	2	8	6			0	0	0	2			0	39	14	0		
% Cars	**0.00%**	**97.70%**	**75.00%**	**98.12%**			**100.00%**	**60.00%**	**98.75%**	**96.25%**			**0.00%**	**100.00%**	**100.00%**	**75.00%**			**0.00%**	**97.66%**	**98.04%**	**100.00%**		
% Heavy	**0.00%**	**2.30%**	**25.00%**	**1.88%**			**0.00%**	**40.00%**	**1.25%**	**3.75%**			**0.00%**	**0.00%**	**0.00%**	**25.00%**			**0.00%**	**2.34%**	**1.96%**	**0.00%**		

Location: Columbia, TN
Count Type: TMCs

Count Sites: 3
Intersection #: 2
Intersection: James Campbell Boulevard and Oakwood Drive

Southbound: N/A
Westbound: James Campbell Road
Northbound: Oakwood Drive
Eastbound: James Campbell Road

Lat/Long: N/A

Count Date: 10/19/2023

Time Period: 0600 - 0900 (Weekday AM Peak)

Figure 1 - Turning Movement Designation

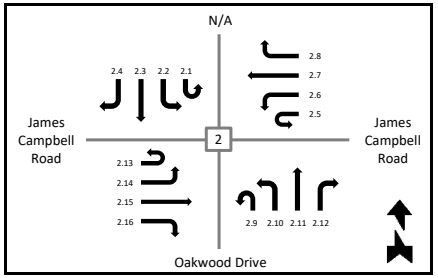
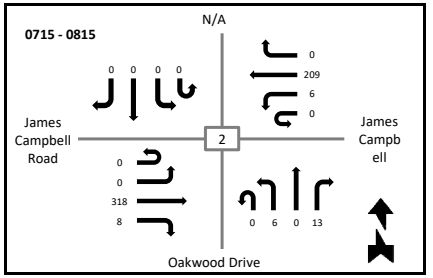


Figure 2 - AM Peak Hour TMC



	Southbound						Westbound						Northbound						Eastbound					
	N/A						James Campbell Road						Oakwood Drive						James Campbell Road					
Time	U-Turn 2.1	Left 2.2	Thru 2.3	Right 2.4	Peds X-Walk	App Total	U-Turn 2.5	Left 2.6	Thru 2.7	Right 2.8	Peds X-Walk	App Total	U-Turn 2.9	Left 2.10	Thru 2.11	Right 2.12	Peds X-Walk	App Total	U-Turn 2.13	Left 2.14	Thru 2.15	Right 2.16	Peds X-Walk	App Total
0600 - 0615	0	0	0	0	0	0	0	0	16	0	0	16	0	0	0	1	0	1	0	0	35	0	0	35
0615 - 0630	0	0	0	0	0	0	1	0	30	0	0	31	0	0	0	2	0	2	0	0	38	0	0	38
0630 - 0645	0	0	0	0	0	0	0	0	26	0	0	26	0	0	0	4	0	4	0	0	37	0	0	37
0645 - 0700	0	0	0	0	0	0	0	1	56	0	0	57	0	0	0	4	0	4	0	0	40	1	0	41
0700 - 0715	0	0	0	0	0	0	0	0	39	0	0	39	0	2	0	3	0	5	0	0	46	0	0	46
0715 - 0730	0	0	0	0	0	0	0	0	53	0	0	53	0	2	0	6	0	8	0	0	59	3	0	62
0730 - 0745	0	0	0	0	0	0	0	0	54	0	0	54	0	1	0	3	0	4	0	0	97	1	0	98
0745 - 0800	0	0	0	0	0	0	0	3	54	0	0	57	0	1	0	3	0	4	0	0	102	3	0	105
0800 - 0815	0	0	0	0	0	0	0	3	48	0	0	51	0	2	0	1	0	3	0	0	60	1	0	61
0815 - 0830	0	0	0	0	0	0	0	2	33	0	0	35	0	0	0	6	0	6	0	0	40	2	0	42
0830 - 0845	0	0	0	0	0	0	0	2	40	0	0	42	0	1	0	2	0	3	0	0	56	2	0	58
0845 - 0900	0	0	0	0	0	0	0	3	41	0	0	44	0	0	0	2	0	2	0	0	40	1	0	41
Grand Total	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**14**	**490**	**0**	**0**	**505**	**0**	**9**	**0**	**37**	**0**	**46**	**0**	**0**	**650**	**14**	**0**	**664**
Peak Hour Total																								
0715 - 0815	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**209**	**0**	**0**	**215**	**0**	**6**	**0**	**13**	**0**	**19**	**0**	**0**	**318**	**8**	**0**	**326**
App %	0.00%	0.00%	0.00%	0.00%			0.20%	2.77%	97.03%	0.00%			0.00%	19.57%	0.00%	80.43%			0.00%	0.00%	97.89%	2.11%		
Int %	0.00%	0.00%	0.00%	0.00%		0.00%	0.08%	1.15%	40.33%	0.00%		41.56%	0.00%	0.74%	0.00%	3.05%		3.79%	0.00%	0.00%	53.50%	1.15%		54.65%
Cars Total	0	0	0	0			0	13	455	0			0	9	0	36			0	0	617	14		
Heavy Total	0	0	0	0			1	1	35	0			0	0	0	1			0	0	33	0		
% Cars	**0.00%**	**0.00%**	**0.00%**	**0.00%**			**0.00%**	**92.86%**	**92.86%**	**0.00%**			**0.00%**	**100.00%**	**0.00%**	**97.30%**			**0.00%**	**0.00%**	**94.92%**	**100.00%**		
% Heavy	**0.00%**	**0.00%**	**0.00%**	**0.00%**			**100.00%**	**7.14%**	**7.14%**	**0.00%**			**0.00%**	**0.00%**	**0.00%**	**2.70%**			**0.00%**	**0.00%**	**5.08%**	**0.00%**		

Location: Columbia, TN
Count Type: TMCs

Count Sites: 3
Intersection #: 2
Intersection: James Campbell Boulevard and Oakwood Drive

Southbound: N/A
Westbound: James Campbell Road
Northbound: Oakwood Drive
Eastbound: James Campbell Road

Lat/Long: N/A

Count Date: 10/19/2023

Time Period: 1500 - 1800 (Weekday PM Peak)

Figure 1 - Turning Movement Designation

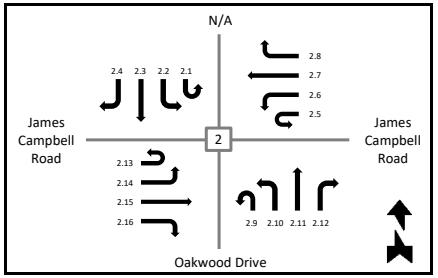
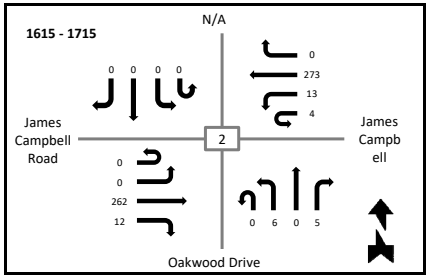


Figure 2 - PM Peak Hour TMC



T-SQUARE ENGINEERING

	Southbound						Westbound						Northbound						Eastbound					
	N/A						James Campbell Road						Oakwood Drive						James Campbell Road					
Time	U-Turn 2.1	Left 2.2	Thru 2.3	Right 2.4	Peds X-Walk	App Total	U-Turn 2.5	Left 2.6	Thru 2.7	Right 2.8	Peds X-Walk	App Total	U-Turn 2.9	Left 2.10	Thru 2.11	Right 2.12	Peds X-Walk	App Total	U-Turn 2.13	Left 2.14	Thru 2.15	Right 2.16	Peds X-Walk	App Total
1500 - 1515	0	0	0	0	0	0	1	2	65	0	0	68	0	0	0	1	0	1	0	0	105	5	0	110
1515 - 1530	0	0	0	0	0	0	0	2	60	0	0	62	0	3	0	6	0	9	0	0	81	2	0	83
1530 - 1545	0	0	0	0	0	0	0	7	62	0	0	69	0	1	0	3	0	4	0	0	80	3	0	83
1545 - 1600	0	0	0	0	0	0	0	3	68	0	0	71	0	1	0	5	0	6	0	0	63	0	0	63
1600 - 1615	0	0	0	0	0	0	0	7	76	0	0	83	0	1	0	1	0	2	0	0	70	0	0	70
1615 - 1630	0	0	0	0	0	0	1	3	58	0	0	62	0	1	0	0	0	1	0	0	64	3	0	67
1630 - 1645	0	0	0	0	0	0	1	1	71	0	0	73	0	1	0	2	0	3	0	0	55	3	0	58
1645 - 1700	0	0	0	0	0	0	2	5	58	0	0	65	0	3	0	2	0	5	0	0	74	4	0	78
1700 - 1715	0	0	0	0	0	0	0	4	86	0	0	90	0	1	0	1	0	2	0	0	69	2	0	71
1715 - 1730	0	0	0	0	0	0	0	2	64	0	0	66	0	0	0	2	0	2	0	0	56	4	0	60
1730 - 1745	0	0	0	0	0	0	0	2	58	0	0	60	0	2	0	5	0	7	0	0	53	1	0	54
1745 - 1800	0	0	0	0	0	0	0	11	45	0	0	56	0	2	0	3	0	5	0	0	56	1	0	57
Grand Total	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**49**	**771**	**0**	**0**	**825**	**0**	**16**	**0**	**31**	**0**	**47**	**0**	**0**	**826**	**28**	**0**	**854**
Peak Hour Total																								
1615 - 1715	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**13**	**273**	**0**	**0**	**290**	**0**	**6**	**0**	**5**	**0**	**11**	**0**	**0**	**262**	**12**	**0**	**274**
App %	0.00%	0.00%	0.00%	0.00%			0.61%	5.94%	93.45%	0.00%			0.00%	34.04%	0.00%	65.96%			0.00%	0.00%	96.72%	3.28%		
Int %	0.00%	0.00%	0.00%	0.00%		0.00%	0.29%	2.84%	44.67%	0.00%		47.80%	0.00%	0.93%	0.00%	1.80%		2.72%	0.00%	0.00%	47.86%	1.62%		49.48%
Cars Total	0	0	0	0			5	47	757	0			0	16	0	31			0	0	810	28		
Heavy Total	0	0	0	0			0	2	14	0			0	0	0	0			0	0	16	0		
% Cars	**0.00%**	**0.00%**	**0.00%**	**0.00%**			**100.00%**	**95.92%**	**98.18%**	**0.00%**			**0.00%**	**100.00%**	**0.00%**	**100.00%**			**0.00%**	**0.00%**	**98.06%**	**100.00%**		
% Heavy	**0.00%**	**0.00%**	**0.00%**	**0.00%**			**0.00%**	**4.08%**	**1.82%**	**0.00%**			**0.00%**	**0.00%**	**0.00%**	**0.00%**			**0.00%**	**0.00%**	**1.94%**	**0.00%**		

Location: Columbia, TN
Count Type: TMCs

Count Sites: 3
Intersection #: 3
Intersection: James Campbell Boulevard and Santa Fe Pike

Southbound: Santa Fe Pike
Westbound: Driveway
Northbound: Santa Fe Pike
Eastbound: James Campbell Road

Lat/Long: N/A

Count Date: 10/19/2023

Time Period: 0600 - 0900 (Weekday AM Peak)

Figure 1 - Turning Movement Designation

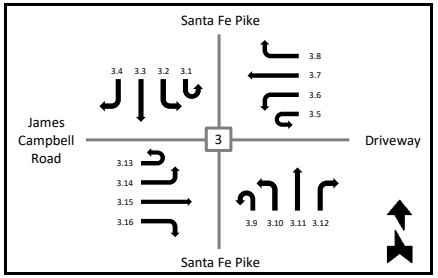
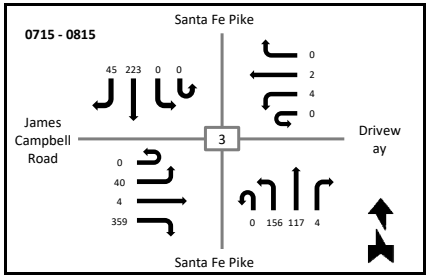


Figure 2 - AM Peak Hour TMC



T-SQUARE ENGINEERING

	Southbound						Westbound						Northbound						Eastbound					
	Santa Fe Pike						Driveway						Santa Fe Pike						James Campbell Road					
Time	U-Turn 3.1	Left 3.2	Thru 3.3	Right 3.4	Peds X-Walk	App Total	U-Turn 3.5	Left 3.6	Thru 3.7	Right 3.8	Peds X-Walk	App Total	U-Turn 3.9	Left 3.10	Thru 3.11	Right 3.12	Peds X-Walk	App Total	U-Turn 3.13	Left 3.14	Thru 3.15	Right 3.16	Peds X-Walk	App Total
0600 - 0615	0	0	16	7	0	23	0	0	0	0	0	0	0	15	11	0	0	26	0	9	1	38	0	48
0615 - 0630	0	0	18	5	0	23	0	0	0	0	0	0	0	25	7	6	0	38	0	9	3	39	0	51
0630 - 0645	0	0	37	10	0	47	0	1	0	0	0	1	0	18	11	3	0	32	0	12	2	42	0	56
0645 - 0700	0	0	23	10	0	33	0	0	1	0	0	1	0	27	20	4	0	51	0	7	4	56	0	67
0700 - 0715	0	0	40	11	0	51	0	1	5	0	0	6	0	21	22	1	0	44	0	5	3	62	0	70
0715 - 0730	0	0	42	13	0	55	0	1	0	0	0	1	0	32	23	1	0	56	0	10	0	83	0	93
0730 - 0745	0	0	72	10	0	82	0	1	1	0	0	2	0	40	24	1	0	65	0	13	1	88	0	102
0745 - 0800	0	0	68	13	0	81	0	1	1	0	0	2	0	47	41	1	0	89	0	8	3	128	0	139
0800 - 0815	0	0	41	9	0	50	0	1	0	0	0	1	0	37	29	1	0	67	0	9	0	60	0	69
0815 - 0830	0	0	20	13	0	33	0	1	0	0	0	1	0	28	27	0	0	55	0	6	0	50	0	56
0830 - 0845	0	0	26	15	0	41	0	0	1	0	0	1	0	27	20	1	0	48	0	12	1	54	0	67
0845 - 0900	0	0	31	16	0	47	0	3	0	0	0	3	0	27	25	0	0	52	0	11	0	42	0	53
Grand Total	**0**	**0**	**434**	**132**	**0**	**566**	**0**	**10**	**9**	**0**	**0**	**19**	**0**	**344**	**260**	**19**	**0**	**623**	**0**	**111**	**18**	**742**	**0**	**871**
Peak Hour Total																								
0715 - 0815	**0**	**0**	**223**	**45**	**0**	**268**	**0**	**4**	**2**	**0**	**0**	**6**	**0**	**156**	**117**	**4**	**0**	**277**	**0**	**40**	**4**	**359**	**0**	**403**
App %	0.00%	0.00%	76.68%	23.32%			0.00%	52.63%	47.37%	0.00%			0.00%	55.22%	41.73%	3.05%			0.00%	12.74%	2.07%	85.19%		
Int %	0.00%	0.00%	20.88%	6.35%		27.22%	0.00%	0.48%	0.43%	0.00%		0.91%	0.00%	16.55%	12.51%	0.91%		29.97%	0.00%	5.34%	0.87%	35.69%		41.90%
Cars Total	0	0	412	112			0	8	5	0			0	331	242	18			0	96	15	724		
Heavy Total	0	0	22	20			0	2	4	0			0	13	18	1			0	15	3	18		
% Cars	**0.00%**	**0.00%**	**94.93%**	**84.85%**			**0.00%**	**80.00%**	**55.56%**	**0.00%**			**0.00%**	**96.22%**	**93.08%**	**94.74%**			**0.00%**	**86.49%**	**83.33%**	**97.57%**		
% Heavy	**0.00%**	**0.00%**	**5.07%**	**15.15%**			**0.00%**	**20.00%**	**44.44%**	**0.00%**			**0.00%**	**3.78%**	**6.92%**	**5.26%**			**0.00%**	**13.51%**	**16.67%**	**2.43%**		

Location: Columbia, TN
Count Type: TMCs

Count Sites: 3
Intersection #: 3
Intersection: James Campbell Boulevard and Santa Fe Pike

Southbound: Santa Fe Pike
Westbound: Driveway
Northbound: Santa Fe Pike
Eastbound: James Campbell Road

Lat/Long: N/A

Count Date: 10/19/2023

Time Period: 1500 - 1800 (Weekday PM Peak)

Figure 1 - Turning Movement Designation

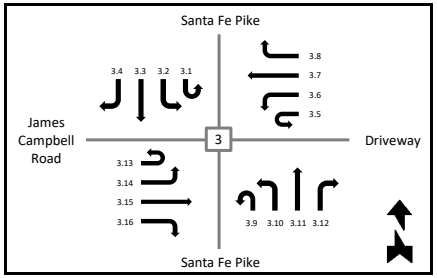
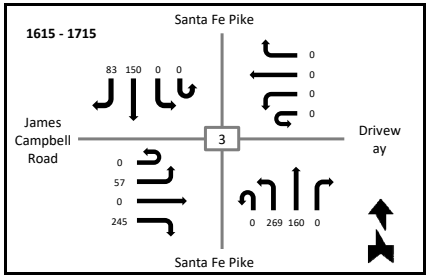


Figure 2 - PM Peak Hour TMC



	Southbound						Westbound						Northbound						Eastbound					
	Santa Fe Pike						Driveway						Santa Fe Pike						James Campbell Road					
Time	U-Turn 3.1	Left 3.2	Thru 3.3	Right 3.4	Peds X-Walk	App Total	U-Turn 3.5	Left 3.6	Thru 3.7	Right 3.8	Peds X-Walk	App Total	U-Turn 3.9	Left 3.10	Thru 3.11	Right 3.12	Peds X-Walk	App Total	U-Turn 3.13	Left 3.14	Thru 3.15	Right 3.16	Peds X-Walk	App Total
1500 - 1515	0	0	54	23	0	77	0	0	0	1	0	1	0	48	35	0	0	83	0	27	0	79	0	106
1515 - 1530	0	0	43	25	0	68	0	0	0	0	0	0	0	54	39	0	0	93	0	21	0	84	0	105
1530 - 1545	0	0	42	33	0	75	0	0	0	0	0	0	0	63	49	0	0	112	0	14	0	60	0	74
1545 - 1600	0	0	44	22	0	66	0	0	0	0	0	0	0	74	38	0	0	112	0	17	0	74	0	91
1600 - 1615	0	0	47	21	0	68	0	0	0	0	0	0	0	82	53	0	0	135	0	17	0	62	0	79
1615 - 1630	0	0	34	22	0	56	0	0	0	0	0	0	0	60	38	0	0	98	0	15	0	65	0	80
1630 - 1645	0	0	44	24	0	68	0	0	0	0	0	0	0	72	45	0	0	117	0	11	0	59	0	70
1645 - 1700	0	0	38	20	0	58	0	0	0	0	0	0	0	56	28	0	1	84	0	15	0	66	0	81
1700 - 1715	0	0	34	17	0	51	0	0	0	0	0	0	0	81	49	0	0	130	0	16	0	55	0	71
1715 - 1730	0	0	32	12	0	44	0	0	1	0	0	1	0	72	44	1	0	117	0	15	0	56	0	71
1730 - 1745	0	0	27	19	0	46	0	0	0	0	1	0	0	61	30	0	0	91	0	8	0	52	0	60
1745 - 1800	0	0	40	12	0	52	0	0	0	0	2	0	0	59	34	0	0	93	0	19	0	49	0	68
Grand Total	**0**	**0**	**479**	**250**	**0**	**729**	**0**	**0**	**1**	**1**	**3**	**2**	**0**	**782**	**482**	**1**	**1**	**1265**	**0**	**195**	**0**	**761**	**0**	**956**
Peak Hour Total																								
1615 - 1715	**0**	**0**	**150**	**83**	**0**	**233**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**269**	**160**	**0**	**1**	**429**	**0**	**57**	**0**	**245**	**0**	**302**
App %	0.00%	0.00%	65.71%	34.29%			0.00%	0.00%	50.00%	50.00%			0.00%	61.82%	38.10%	0.08%			0.00%	20.40%	0.00%	79.60%		
Int %	0.00%	0.00%	16.23%	8.47%		24.70%	0.00%	0.00%	0.03%	0.03%		0.07%	0.00%	26.49%	16.33%	0.03%		42.85%	0.00%	6.61%	0.00%	25.78%		32.38%
Cars Total	0	0	467	237			0	0	1	1			0	774	468	1			0	186	0	750		
Heavy Total	0	0	12	13			0	0	0	0			0	8	14	0			0	9	0	11		
% Cars	**0.00%**	**0.00%**	**97.49%**	**94.80%**			**0.00%**	**0.00%**	**100.00%**	**100.00%**			**0.00%**	**98.98%**	**97.10%**	**100.00%**			**0.00%**	**95.38%**	**0.00%**	**98.55%**		
% Heavy	**0.00%**	**0.00%**	**2.51%**	**5.20%**			**0.00%**	**0.00%**	**0.00%**	**0.00%**			**0.00%**	**1.02%**	**2.90%**	**0.00%**			**0.00%**	**4.62%**	**0.00%**	**1.45%**		

Location:	James Campbell
and	Industrial

TS #	21
Date:	8-31-2020

key 3-1			Vehicle times					
Phase	1	2	3	4	5	6	7	8
min green	5	15	5	5	5	15	0	0
pass/10	15	60	20	15	15	50	0	0
max # 1	25	50	15	25	0	50	0	0
max # 2	0	0	0	0	0	0	0	0
yellow/10	35	40	40	40	35	40	35	40
red/10	10	20	10	10	10	20	10	10

key 3-2		Density Times						
Phase	1	2	3	4	5	6	7	8
aini/10								
max int								
Tb4								
carsb4								
Time to								
Min gap								

key 3-3		Pedestrian Times						
Phase	1	2	3	4	5	6	7	8
Walk		7	0	7	0	7	0	7
Ped clear		0	0	0	0	0	0	0
fl wk		0	0	0	0	0	0	0
ext pcl		0	0	0	0	0	0	0
act riw		0	0	0	0	0	0	0
		1 = yes 0 = no						

key 3-7		Sequence control						
phase	1	2	3	4	5	6	7	8
ph. Omit	2	0	0	0	0	0	0	0
ph. Yell	0	0	0	0	0	0	0	0
Codes	0		01-08 # - phase					
	none		phase is omitted by # on					
	none phase yellow is omitted by # yellow							

key 3-5	V.& P. recalls							
Phases	1	2	3	4	5	6	7	8
veh.recall	0	2	0	0	0	2	0	0
ped recall	0	0	0	0	0	0	0	0
delay	0	0	0	0	0	0	0	0
Codes	0		1		2		3	4
	none		Inactive		red		yellow	gree
	none		to na 1		to na II		to both	
	none		1 call		minimum		maximum	soft
	none		1 call		ped		na	na+

key 3-6		N. lock & misc						
Phase	1	2	3	4	5	6	7	8
non lock	1	0	1	1	0	0	0	0
2 entry	0	0	0	0	0	0	0	0
lc pass	0	0	0	0	0	0	0	0
con. Ser.	0	0	0	0	0	0	0	0
no sgap								
		1 = yes 0 = no						

key 3-4	Init. Na response							
phas	1	2	3	4	5	6	7	8
initial	1	4	1	1	0	4	0	0
na resp	0	0	0	0	0	0	0	0

Codes	0	1	2	3	4
Init	none	inact	red	yel	grn
na resp	none	to 1	to 2	both	

key 4-4			
OVL TRAILING GREENS, YELLOWS AND REDS			
	GREEN	YELLOW	RED
OLA	0	40	20
OLB	0	40	20
OLC	0	40	20
OLD	0	40	20
OLE	0	40	20
OLF	0	40	20

key 3-8-1	Det. Controls											key 3-8-2							
detector	1	2	3	4	5	6	7	8				9	10	11	12	13	14	15	16
assign phase	1	6	0	0	5	2	7	8				0	0	3	4	0	0	0	0
oper mode	0	0	0	0	0	0	0	0				0	0	0	0	0	0	0	0
switch	0	0	0	0	0	0	0	0				0	0	0	0	0	0	0	0
key 3-8-1	Det. Timings "Change From Controls to Timings"											key 3-8-2							
extend time	0	0	0	0	0	0	0	0				0	0	0	0	0	0	0	0
delay time	0	0	0	0	0	0	0	0				0	0	10	10	0	0	0	0
key 3-8-3	Det. Controls											key 3-8-4							
detector	17	18	19	20	21	22	23	24				25	26	27	28	29	30	31	32
assign phase	0	0	0	0	0	0	0	0				0	0	0	0	0	0	0	0
oper mode	0	0	0	0	0	0	0	0				0	0	0	0	0	0	0	0
switch	0	0	0	0	0	0	0	0											
key 3-8- 3	Det. Timings "Change From Controls to Timings"											key 3-8-4							
extend time	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0
delay time	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0

codes	0		1		2		3		4	
	norm veh		norm ped		one call		st bar a		st bar b	
	none									
	none									

key3-8-9	Ped. Dets.							
Ped Det Control	1	2	3	4	5	6	7	8
Assigned phase	1	2	3	4	5	6	7	8
Operation Mode	1	1	1	1	1	1	1	1
Switch Phase	0	0	0	0	0	0	0	0

Mode	0-veh	1-ped	2-0ne	3-sba
	4-sbb	5-ppl	6-ppt	7-and

Startup & misc.	key 4-1	
Startup time	5	time in sec.
Startup state	0	0-fl 1-red
red rev/10	40	time in tenths
auto ped clear	0	o-no 1- yes
Stop t reset	0	0-no 1-yes
Alt. sequence	0	0-18
I'NAT'L SEQ	0	0-no 1-yes

Coordination data and set up	key 5-1						
Coord. Setup		0	1	2	3	4	5
Oper	0	fre	aut	man			
mode	0	prm	yld	pyl	pom	som	fac
max	0	inh	mx1	mx2			
corr	0	dwl	ndw	swy	sw+	sw2	
ofst	0	beg	end of green				
frce	0	pln cycle time					
mx dwell	0						
yield period							

	Overlap Standard use up/down to swtich between overlaps		
key 4-3			0-no 1-yes

Overlap A

OVL Phase	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHS/CHN	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9
OVL CHN	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0

Overlap B

OVL Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHS/CHN	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9
OVL CHN	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0

Overlap C

OVL Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHS/CHN	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9
OVL CHN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0

Overlap D

OVL Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHS/CHN	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9
OVL CHN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0

key 5-3 **Input Dial1 split1 Phase Param. Level 2**

Phase	1	2	3	4	5	6	7	8
Time								
Mode								

mode: 0-actuated 1-coord ph 2-min rec
3-max rec 4-ped rec 5-mx+p
6-ph omit 7-dual coord phase

key 5-3 **Input Dial 2 split 1 phase Param. Level 2**

Phase	1	2	3	4	5	6	7	8
Time								
Mode								

Mode: 0-actuatec 1-coord ph 2-min rec
3-max rec 4-ped rec 5-mx+p rec
6-ph omit 7-dual coord phase

key 5-3

Input Dial1 Split 1 Param. Level 1

offset	time	alt	patn	r2	r3	r4
#	sec	seq	mode	lag	lag	lag
1						
2						
3						

mode 0-6 nrm/prm/yld/pyl/pom/som/fac

key 5-3 **Input Dial 2 split 1 Param. Level 1**

Offset	time	alt	patn	r2	r3	r4
#	sec	seq	mode	lag	lag	lag
1						
2						
3						

	Traffic Events					
key 6-3-E	DD	HH	MM	DL	SP	OF

Sepac 3.34g Preempt Data

Location:	James Cambell
and	Industrial

TS #	21
Date:	3.10.22

key 7-4-1		Preempt 3 Misc						
Test		N-Lock		Link PE				
Delay		Extend		Duration				
		MxCall	90	Lock Out				
Phase	1	2	3	4	5	6	7	8
Exit		1				1		
Calls	1	1	1	1	1	1	1	1
1 = yes 0 = no								

key 7-4-2	Preempt 3 Int Times		
SEL PED CLR	8	TRK YEL/10	0
SEL YEL/10	40	TRK RED/10	0
SEL RED/10	20	DWELL GRN	10
TRK GRN	0	RET PED CLR	8
TRK PED CLR	0	RET YEL/10	40
		RET RED/10	20

key 7-4-3	Preempt 3 Veh Status							
Phase	1	2	3	4	5	6	7	8
TRK GRN	0	0	0	0	0	0	0	0
DWELL	1					1		
0-RED 1-GRN 2-FLR 3-FLY 4-DARK 5-FLG								
CYCLE								
0-NO 1-ACT 2-MN REC 3-MX REC								

key 7-5-1		Preempt 4 Misc						
Test		N-Lock		Link PE				
Delay		Extend		Duration				
		MxCall	90	Lock Out				
Phase	1	2	3	4	5	6	7	8
Exit		1				1		
Calls	1	1	1	1	1	1	1	1
1 = yes 0 = no								

key 7-5-2	Preempt 4 Int Times		
SEL PED CLR	8	TRK YEL/10	0
SEL YEL/10	40	TRK RED/10	0
SEL RED/10	20	DWELL GRN	10
TRK GRN	0	RET PED CLR	8
TRK PED CLR	0	RET YEL/10	40
		RET RED/10	20

key 7-5-3	Preempt 4 Veh Status							
Phase	1	2	3	4	5	6	7	8
TRK GRN	0	0	0	0	0	0	0	0
DWELL		1						
0-RED 1-GRN 2-FLR 3-FLY 4-DARK 5-FLG								
CYCLE								
0-NO 1-ACT 2-MN REC 3-MX REC								

key 7-6-1		Preempt 5 Misc						
Test		N-Lock		Link PE				
Delay		Extend		Duration				
		MxCall	90	Lock Out				
Phase	1	2	3	4	5	6	7	8
Exit		1				1		
Calls	1	1	1	1	1	1	1	1
1 = yes 0 = no								

key 7-6-2	Preempt 5 Int Times		
SEL PED CLR	8	TRK YEL/10	0
SEL YEL/10	40	TRK RED/10	0
SEL RED/10	20	DWELL GRN	10
TRK GRN	0	RET PED CLR	8
TRK PED CLR	0	RET YEL/10	40
		RET RED/10	20

key 7-6-3	Preempt 5 Veh Status							
Phase	1	2	3	4	5	6	7	8
TRK GRN	0	0	0	0	0	0	0	0
DWELL				1				
0-RED 1-GRN 2-FLR 3-FLY 4-DARK 5-FLG								
CYCLE								
0-NO 1-ACT 2-MN REC 3-MX REC								

key 7-7-1		Preempt 6 Misc						
Test		N-Lock		Link PE				
Delay		Extend		Duration				
		MxCall	90	Lock Out				
Phase	1	2	3	4	5	6	7	8
Exit		1				1		
Calls	1	1	1	1	1	1	1	1
1 = yes 0 = no								

key 7-7-2	Preempt 6 Int Times		
SEL PED CLR	6	TRK YEL/10	0
SEL YEL/10	40	TRK RED/10	0
SEL RED/10	20	DWELL GRN	10
TRK GRN	0	RET PED CLR	6
TRK PED CLR	0	RET YEL/10	40
		RET RED/10	20

key 7-7-3	Preempt 6 Veh Status							
Phase	1	2	3	4	5	6	7	8
TRK GRN	0	0	0	0	0	0	0	0
DWELL			1					
0-RED 1-GRN 2-FLR 3-FLY 4-DARK 5-FLG								
CYCLE								
0-NO 1-ACT 2-MN REC 3-MX REC								

key 4-8	I/O MISC			
RING I/O	1	2	3	4
INPUT RESPONSE	1	2	0	0
OUTPUT SELECT	1	2	0	0
I/O MODES	INPUT	OUTPUT	BIT	
ABC CONN	0	0	0	
D CONN	1	0	-	

key 2-8-4	IP Addressing		
DHCP	0	NET	1
IP ADDRESS	10.112. 2.169		
SUBNET MSK	255.255.255.224		
BROADCAST	10.112. 2.191		

key 2-8-5	Network Config
TYPE	3
DESTINATION	
GATEWAY	10.112. 2.161
NETMASK	
HOP COUNT	

key 8-1-1		COMM ADDRESS
ADDRESS	1	-- KEYPAD
ADDRESS	0	-- T&F INPUTS

TS 22

Location:	JAMES CAMPBELL
and	JAMES CAMPBELL (SANTA FE PIKE)

TS #	22
Date:	8-31-20

key 3-1			Vehicle times					
Phase	1	2	3	4	5	6	7	8
min green	4	15	5	5	0	15	0	0
pass/10	20	50	20	20	0	50	0	0
max # 1	10	35	15	15	50	35	0	0
max # 2	0	0	0	0	0	0	0	0
yellow/10	35	40	35	35	40	40	40	40
red/10	10	20	10	10	20	20	20	20

key 3-2		Density Times						
Phase	1	2	3	4	5	6	7	8
aini/10								
max int								
Tb4								
carsb4								
Time to								
Min gap								

key 3-3		Pedestrian Times						
Phase	1	2	3	4	5	6	7	8
Walk	0	7	0	7	0	7	0	7
Ped clear	8	8	0	8	0	8	0	8
fl wk								
ext pcl								
act riw								
		1 = yes 0 = no						

key 3-7		Sequence control						
phase	1	2	3	4	5	6	7	8
ph. Omit	2	0	0	0	0	0	0	0
ph. Yell	0	0	0	0	0	0	0	0
Codes	0		01-08 # - phase					
	none		phase is omitted by # on					
	none phase yellow is omitted by # yellow							

key 3-5	V.& P. recalls							
Phases	1	2	3	4	5	6	7	8
veh.recall	0	2	0	0	0	2	0	0
ped recall								
delay								

Codes	0	1	2	3	4
	none	Inactive	red	yellow	gree
	none	to na 1	to na II	to both	
	none	1 call	minimum	maximum	soft
	none	1 call	ped	na	na+

key 3-6		N. lock & misc						
Phase	1	2	3	4	5	6	7	8
non lock	1	1	1	1	1	1	1	1
2 entry								
lc pass								
con. Ser.								
no sgap								
		1 = yes 0 = no						

key 3-4	Init. Na response							
	phas	1	2	3	4	5	6	7	8
	initial	1	4	1	1	0	4	0	0
	na resp								

Codes	0	1	2	3	4
Init	none	inact	red	yel	grn
na resp	none	to 1	to 2	both	

key 4-4

OVL TRAILING GREENS, YELLOWS AND REDS			
	GREEN	YELLOW	RED
OLA	0	40	20
OLB	0	40	20
OLC	0	40	20
OLD	0	40	20
OLE	0	40	20
OLF	0	40	20
OLG	0	40	20
OLH	0	40	20

key 3-8-1	Det. Controls										
detector	1	2	3	4	5	6	7	8			
assign phase	0	0	2	6	0	0	0	0			
oper mode	0	6	6	0	0	0	0	0			
switch	0	0	0	0	0	0	0	0			

key 3-8-2								
9	10	11	12	13	14	15	16	
3	0	1	0	0	0	4	6	
0	0	0	0	0	0	6	0	
0	0	0	0	0	0	0	0	

key 3-8-1	Det. Timings "Change From Controls to Timings"										
extend time											
delay time					0						

key 3-8-2								
			0					

key 3-8-3	Det. Controls										
detector	17	18	19	20	21	22	23	24			
assign phase											
oper mode					0						
switch											

key 3-8-4								
25	26	27	28	29	30	31	32	
			0					

key 3-8- 3	Det. Timings "Change From Controls to Timings"										
extend time											
delay time					0						

key 3-8-4								
			0					

codes	0		1		2		3		4	
	norm veh		norm ped		one call		st bar a		st bar b	
	none									
	none									

key3-8-9	Ped. Dets.							
Ped Det Control	1	2	3	4	5	6	7	8
Assigned phase	3	2	3	4	5	6	7	8
Operation Mode	1	1	1	1	1	1	1	1
Switch Phase	0	0	0	0	0	0	0	0

Mode	0-veh	1-ped	2-0ne	3-sba
	4-sbb	5-ppl	6-ppt	7-and

Startup & misc.		key 4-1
Startup time	5	time in sec.
Startup state	0	0-fl 1-red
red rev/10	40	time in tenths
auto ped clear	0	o-no 1- yes
Stop t reset	0	0-no 1-yes
Alt. sequence	0	0-18
I'NAT'L SEQ	0	0-no 1-yes

Coordination data and set up		key 5-1						
Coord. Setup		0	1	2	3	4	5	
Oper	1	fre	aut	man				
mode	0	prm	yld	pyl	pom	som	fac	
max	0	inh	mx1	mx2				
corr	0	dwl	ndw	swy	sw+	sw2		
ofst	0	beg	end of green					
frce	0	pln cycle time						
mx dwell	0							
yield period	0							

Overlap Standard use up/down to swtich between overlaps

key 4-3			0-no 1-yes

Overlap A

OVL Phase																			
PHS/CHN	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9
OVL CHN																			

Overlap B

OVL Phase																			
PHS/CHN	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9
OVL CHN																			

Overlap C

OVL Phase																			
PHS/CHN	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9
OVL CHN																			

Overlap D

OVL Phase																			
PHS/CHN	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9
OVL CHN																			

key 5-3 **Input Dial1 split1 Phase Param. Level 2**

Phase	1	2	3	4	5	6	7	8
Time								
Mode								

mode: 0-actuated 1-coord ph 2-min rec
3-max rec 4-ped rec 5-mx+p
6-ph omit 7-dual coord phase

key 5-3 **Input Dial 2 split 1 phase Param. Level 2**

Phase	1	2	3	4	5	6	7	8
Time								
Mode								

Mode: 0-actuatec 1-coord ph 2-min rec
3-max rec 4-ped rec 5-mx+p rec
6-ph omit 7-dual coord phase

key 5-3

Input Dial1 Split 1 Param. Level 1

offset	time	alt	patn	r2	r3	r4
#	sec	seq	mode	lag	lag	lag
1						
2						
3						

mode 0-6 nrm/prm/yld/pyl/pom/som/fac

key 5-3 **Input Dial 2 split 1 Param. Level 1**

Offset	time	alt	patn	r2	r3	r4
#	sec	seq	mode	lag	lag	lag
1						
2						
3						

key 6-3-E	Traffic Events					
	DD	HH	MM	DL	SP	OF

Sepac 3.34g Preempt Data

Location:	James Campbell
and	Santa Fe PK

TS #	22
Date:	3·1·22

key 7-4-1		Preempt 3 Misc							
Test		N-Lock		Link PE					
Delay		Extend		Duration					
		MxCall	90	Lock Out					
Phase	1	2	3	4	5	6	7	8	
Exit		1				1			
Calls	1	1	1	1	1	1	1	1	
1 = yes 0 = no									

key 7-4-2	Preempt 3 Int Times		
SEL PED CLR	8	TRK YEL/10	0
SEL YEL/10	40	TRK RED/10	0
SEL RED/10	20	DWELL GRN	10
TRK GRN	0	RET PED CLR	8
TRK PED CLR	0	RET YEL/10	40
		RET RED/10	20

key 7-4-3		Preempt 3 Veh Status							
Phase	1	2	3	4	5	6	7	8	
TRK GRN	0	0	0	0	0	0	0	0	
DWELL	1					1			
0-RED 1-GRN 2-FLR 3-FLY 4-DARK 5-FLG									
CYCLE									
0-NO 1-ACT 2-MN REC 3-MX REC									

key 7-5-1		Preempt 4 Misc							
Test		N-Lock		Link PE					
Delay		Extend		Duration					
		MxCall	90	Lock Out					
Phase	1	2	3	4	5	6	7	8	
Exit		1				1			
Calls	1	1	1	1	1	1	1	1	
1 = yes 0 = no									

key 7-5-2	Preempt 4 Int Times		
SEL PED CLR	8	TRK YEL/10	0
SEL YEL/10	40	TRK RED/10	0
SEL RED/10	20	DWELL GRN	10
TRK GRN	0	RET PED CLR	8
TRK PED CLR	0	RET YEL/10	40
		RET RED/10	20

key 7-5-3		Preempt 4 Veh Status							
Phase	1	2	3	4	5	6	7	8	
TRK GRN	0	0	0	0	0	0	0	0	
DWELL		1							
0-RED 1-GRN 2-FLR 3-FLY 4-DARK 5-FLG									
CYCLE									
0-NO 1-ACT 2-MN REC 3-MX REC									

key 7-6-1		Preempt 5 Misc							
Test		N-Lock		Link PE					
Delay		Extend		Duration					
		MxCall	90	Lock Out					
Phase	1	2	3	4	5	6	7	8	
Exit		1				1			
Calls	1	1	1	1	1	1	1	1	
1 = yes 0 = no									

key 7-6-2	Preempt 5 Int Times		
SEL PED CLR	8	TRK YEL/10	0
SEL YEL/10	40	TRK RED/10	0
SEL RED/10	20	DWELL GRN	10
TRK GRN	0	RET PED CLR	8
TRK PED CLR	0	RET YEL/10	40
		RET RED/10	20

key 7-6-3		Preempt 5 Veh Status						
Phase	1	2	3	4	5	6	7	8
TRK GRN	0	0	0	0	0	0	0	0
DWELL				1				
0-RED 1-GRN 2-FLR 3-FLY 4-DARK 5-FLG								
CYCLE								
0-NO 1-ACT 2-MN REC 3-MX REC								

key 7-7-1		Preempt 6 Misc						
Test		N-Lock		Link PE				
Delay		Extend		Duration				
		MxCall	90	Lock Out				
Phase	1	2	3	4	5	6	7	8
Exit		1				1		
Calls	1	1	1	1	1	1	1	1
1 = yes 0 = no								

key 7-7-2	Preempt 6 Int Times		
SEL PED CLR	8	TRK YEL/10	0
SEL YEL/10	40	TRK RED/10	0
SEL RED/10	20	DWELL GRN	10
TRK GRN	0	RET PED CLR	8
TRK PED CLR	0	RET YEL/10	40
		RET RED/10	20

key 7-7-3		Preempt 6 Veh Status						
Phase	1	2	3	4	5	6	7	8
TRK GRN	0	0	0	0	0	0	0	0
DWELL			1					
0-RED 1-GRN 2-FLR 3-FLY 4-DARK 5-FLG								
CYCLE								
0-NO 1-ACT 2-MN REC 3-MX REC								

key 4-8	I/O MISC			
RING I/O	1	2	3	4
INPUT RESPONSE	1	2	Ø	Ø
OUTPUT SELECT	1	2	Ø	Ø
I/O MODES	INPUT	OUTPUT	BIT	
ABC CONN	0	0	0	
D CONN	1	0	-	

key 2-8-4		IP Addressing	
DHCP	0	NET	1
IP ADDRESS	10.112. 2.137		
SUBNET MSK	255.255.255.224		
BROADCAST	10.112. 2.159		

key 2-8-5	Network Config
TYPE	3
DESTINATION	
GATEWAY	10.112. 2.129
NETMASK	
HOP COUNT	

key 8-1-1		COMM ADDRESS
ADDRESS	1	-- KEYPAD
ADDRESS	0	-- T&F INPUTS

APPENDIX B – CAPACITY ANALYSES

EXISTING CAPACITY ANALYSES

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	3	2	1	105	7	803	312	214	5	1	185	30
Future Volume (veh/h)	3	2	1	105	7	803	312	214	5	1	185	30
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	3	2	1	114	8	873	339	233	5	1	201	33
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	7	4	2	306	21	441	827	2449	52	28	1683	270
Arrive On Green	0.01	0.01	0.01	0.18	0.18	0.18	0.09	0.69	0.69	0.56	0.56	0.56
Sat Flow, veh/h	883	589	294	1663	117	1583	1774	3543	76	2	2989	480
Grp Volume(v), veh/h	6	0	0	122	0	873	339	116	122	124	0	111
Grp Sat Flow(s),veh/h/ln	1767	0	0	1780	0	1583	1774	1770	1849	1861	0	1610
Q Serve(g_s), s	0.5	0.0	0.0	8.2	0.0	25.0	10.5	3.0	3.0	0.0	0.0	4.4
Cycle Q Clear(g_c), s	0.5	0.0	0.0	8.2	0.0	25.0	10.5	3.0	3.0	4.2	0.0	4.4
Prop In Lane	0.50		0.17	0.93		1.00	1.00		0.04	0.01		0.30
Lane Grp Cap(c), veh/h	13	0	0	327	0	441	827	1223	1278	1075	0	907
V/C Ratio(X)	0.46	0.00	0.00	0.37	0.00	1.98	0.41	0.09	0.10	0.12	0.00	0.12
Avail Cap(c_a), veh/h	195	0	0	327	0	441	985	1223	1278	1075	0	907
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	67.2	0.0	0.0	48.6	0.0	49.0	9.2	6.9	6.9	13.9	0.0	13.9
Incr Delay (d2), s/veh	8.9	0.0	0.0	0.3	0.0	448.3	0.1	0.2	0.1	0.2	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	4.1	0.0	71.5	5.1	1.5	1.5	2.2	0.0	2.0
LnGrp Delay(d),s/veh	76.1	0.0	0.0	48.9	0.0	497.4	9.3	7.1	7.1	14.1	0.0	14.2
LnGrp LOS	E			D		F	A	A	A	B		B
Approach Vol, veh/h		6			995			577			235	
Approach Delay, s/veh		76.1			442.4			8.4			14.2	
Approach LOS		E			F			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	17.4	82.6		30.0		100.0		6.0
Change Period (Y+Rc), s	4.5	6.0		5.0		6.0		5.0
Max Green Setting (Gmax), s	25.0	50.0		25.0		79.5		15.0
Max Q Clear Time (g_c+I1), s	12.5	6.4		27.0		5.0		2.5
Green Ext Time (p_c), s	0.4	2.6		0.0		2.8		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		247.6
HCM 2010 LOS		F

Lane Group	NBT	SBT	SBR	NEL	NET	SWT
Lane Group Flow (vph)	6	122	873	339	238	235
v/c Ratio	0.09	0.79	0.96	0.38	0.09	0.12
Control Delay	60.5	86.5	31.7	7.7	5.9	13.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.5	86.5	31.7	7.7	5.9	13.4
Queue Length 50th (ft)	4	105	249	72	24	37
Queue Length 95th (ft)	20	166	#369	185	61	93
Internal Link Dist (ft)	135	475			976	3424
Turn Bay Length (ft)			130	140		
Base Capacity (vph)	197	192	981	939	2641	2029
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.64	0.89	0.36	0.09	0.12

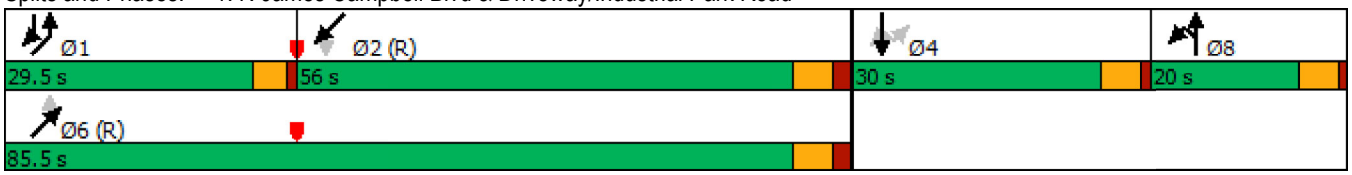
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	NBT	SBL	SBT	SBR	NEL	NET	SWL	SWT
Lane Configurations								
Traffic Volume (vph)	2	105	7	803	312	214	1	185
Future Volume (vph)	2	105	7	803	312	214	1	185
Turn Type	NA	Perm	NA	pm+ov	pm+pt	NA	Perm	NA
Protected Phases	8		4	1	1	6		2
Permitted Phases		4		4	6		2	
Detector Phase	8	4	4	1	1	6	2	2
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	15.0	15.0	15.0
Minimum Split (s)	12.0	23.0	23.0	9.5	9.5	24.0	24.0	24.0
Total Split (s)	20.0	30.0	30.0	29.5	29.5	85.5	56.0	56.0
Total Split (%)	14.8%	22.1%	22.1%	21.8%	21.8%	63.1%	41.3%	41.3%
Yellow Time (s)	4.0	4.0	4.0	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.0		5.0	4.5	4.5	6.0		6.0
Lead/Lag				Lead	Lead		Lag	Lag
Lead-Lag Optimize?				Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)	5.3		20.9	39.0	102.9	101.4		82.9
Actuated g/C Ratio	0.04		0.15	0.29	0.76	0.75		0.61
v/c Ratio	0.09		0.79	0.96	0.38	0.09		0.12
Control Delay	60.5		86.5	31.7	7.7	5.9		13.4
Queue Delay	0.0		0.0	0.0	0.0	0.0		0.0
Total Delay	60.5		86.5	31.7	7.7	5.9		13.4
LOS	E		F	C	A	A		B
Approach Delay	60.5		38.4			6.9		13.4
Approach LOS	E		D			A		B

Intersection Summary	
Cycle Length: 135.5	
Actuated Cycle Length: 135.5	
Offset: 29.5 (22%), Referenced to phase 2:SWTL and 6:NETL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 25.2	Intersection LOS: C
Intersection Capacity Utilization 79.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: N James Campbell Blvd & Driveway/Industrial Park Road



Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	318	8	6	209	6	13
Future Vol, veh/h	318	8	6	209	6	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	346	9	7	227	7	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	355	0	479	178
Stage 1	-	-	-	-	351	-
Stage 2	-	-	-	-	128	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1200	-	516	834
Stage 1	-	-	-	-	684	-
Stage 2	-	-	-	-	884	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1200	-	512	834
Mov Cap-2 Maneuver	-	-	-	-	512	-
Stage 1	-	-	-	-	684	-
Stage 2	-	-	-	-	878	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	10.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	696	-	-	1200	-
HCM Lane V/C Ratio	0.03	-	-	0.005	-
HCM Control Delay (s)	10.3	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	4	359	4	2	0	156	117	4	0	223	45
Future Volume (veh/h)	40	4	359	4	2	0	156	117	4	0	223	45
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	43	4	390	4	2	0	170	127	4	0	242	49
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	324	27	398	196	84	0	212	2427	76	43	1277	250
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.00	0.07	0.69	0.69	0.00	0.57	0.57
Sat Flow, veh/h	1335	147	1583	684	466	0	1774	3503	110	0	3036	586
Grp Volume(v), veh/h	47	0	390	6	0	0	170	64	67	0	144	147
Grp Sat Flow(s),veh/h/ln	1482	0	1583	1151	0	0	1774	1770	1843	0	1770	1759
Q Serve(g_s), s	0.0	0.0	15.0	0.0	0.0	0.0	3.7	1.0	1.0	0.0	4.2	4.3
Cycle Q Clear(g_c), s	1.8	0.0	15.0	1.8	0.0	0.0	3.7	1.0	1.0	0.0	4.2	4.3
Prop In Lane	0.91		1.00	0.67		0.00	1.00		0.06	0.00		0.33
Lane Grp Cap(c), veh/h	351	0	398	280	0	0	212	1226	1277	0	0	0
V/C Ratio(X)	0.13	0.00	0.98	0.02	0.00	0.00	0.80	0.05	0.05	0.00	0.00	0.00
Avail Cap(c_a), veh/h	351	0	398	280	0	0	471	1226	1277	0	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	28.6	0.0	30.8	28.0	0.0	0.0	26.6	4.1	4.1	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	39.4	0.0	0.0	0.0	6.8	0.1	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	13.2	0.1	0.0	0.0	4.2	0.5	0.5	0.0	0.0	0.0
LnGrp Delay(d),s/veh	28.8	0.0	70.3	28.0	0.0	0.0	33.4	4.1	4.1	0.0	0.0	0.0
LnGrp LOS	C		E	C			C	A	A			
Approach Vol, veh/h		437			6			301			291	
Approach Delay, s/veh		65.8			28.0			20.7			0.0	
Approach LOS		E			C			C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	10.4	53.1		19.5		63.5		19.5
Change Period (Y+Rc), s	4.5	6.0		4.5		6.0		4.5
Max Green Setting (Gmax), s	18.0	35.0		15.0		57.5		15.0
Max Q Clear Time (g_c+I1), s	5.7	6.3		17.0		3.0		3.8
Green Ext Time (p_c), s	0.3	1.4		0.0		0.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	34.0
HCM 2010 LOS	C

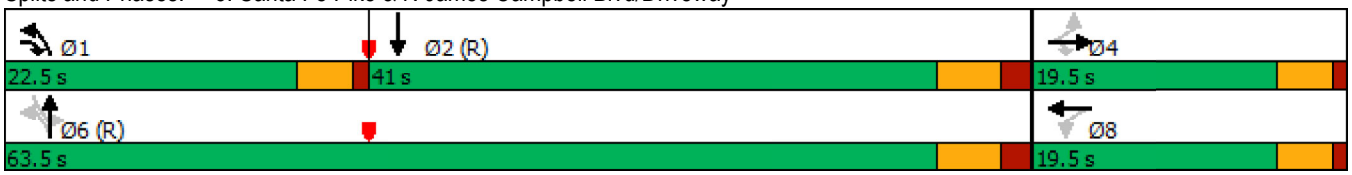
Lane Group	EBT	EBR	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	47	390	6	170	131	291
v/c Ratio	0.35	0.63	0.04	0.19	0.04	0.12
Control Delay	41.1	7.6	32.8	2.4	2.1	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.1	7.6	32.8	2.4	2.1	5.5
Queue Length 50th (ft)	23	0	3	15	6	24
Queue Length 95th (ft)	54	60	14	33	13	49
Internal Link Dist (ft)	4426		175		410	487
Turn Bay Length (ft)				480		
Base Capacity (vph)	249	770	263	1002	3010	2366
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.51	0.02	0.17	0.04	0.12

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBT
Lane Configurations								
Traffic Volume (vph)	40	4	359	4	2	156	117	223
Future Volume (vph)	40	4	359	4	2	156	117	223
Turn Type	Perm	NA	pm+ov	Perm	NA	pm+pt	NA	NA
Protected Phases		4	1		8	1	6	2
Permitted Phases	4		4	8		6		
Detector Phase	4	4	1	8	8	1	6	2
Switch Phase								
Minimum Initial (s)	5.0	5.0	4.0	5.0	5.0	4.0	15.0	15.0
Minimum Split (s)	9.5	9.5	8.5	9.5	9.5	8.5	21.0	21.0
Total Split (s)	19.5	19.5	22.5	19.5	19.5	22.5	63.5	41.0
Total Split (%)	23.5%	23.5%	27.1%	23.5%	23.5%	27.1%	76.5%	49.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5		4.5	4.5	6.0	6.0
Lead/Lag			Lead			Lead		Lag
Lead-Lag Optimize?			Yes			Yes		Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min
Act Effct Green (s)		8.2	15.9		8.0	70.0	70.9	56.6
Actuated g/C Ratio		0.10	0.19		0.10	0.84	0.85	0.68
v/c Ratio		0.35	0.63		0.04	0.19	0.04	0.12
Control Delay		41.1	7.6		32.8	2.4	2.1	5.5
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0
Total Delay		41.1	7.6		32.8	2.4	2.1	5.5
LOS		D	A		C	A	A	A
Approach Delay		11.2			32.8		2.3	5.5
Approach LOS		B			C		A	A

Intersection Summary	
Cycle Length: 83	
Actuated Cycle Length: 83	
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBSB, Start of Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 7.2	Intersection LOS: A
Intersection Capacity Utilization 51.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Santa Fe Pike & N James Campbell Blvd/Driveway



Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	7	12	4	42	4	557	611	242	0	4	225	58
Future Volume (veh/h)	7	12	4	42	4	557	611	242	0	4	225	58
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	8	13	4	46	4	605	664	263	0	4	245	63
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	115	175	47	342	27	682	848	2441	0	37	1192	297
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.69	0.00	0.44	0.44	0.44
Sat Flow, veh/h	343	814	220	1311	127	1583	1774	3632	0	12	2737	681
Grp Volume(v), veh/h	25	0	0	50	0	605	664	263	0	166	0	146
Grp Sat Flow(s),veh/h/ln	1377	0	0	1438	0	1583	1774	1770	0	1855	0	1575
Q Serve(g_s), s	0.0	0.0	0.0	1.7	0.0	25.0	23.0	2.9	0.0	0.0	0.0	6.7
Cycle Q Clear(g_c), s	1.3	0.0	0.0	3.0	0.0	25.0	23.0	2.9	0.0	6.4	0.0	6.7
Prop In Lane	0.32		0.16	0.92		1.00	1.00		0.00	0.02		0.43
Lane Grp Cap(c), veh/h	338	0	0	370	0	682	848	2441	0	839	0	686
V/C Ratio(X)	0.07	0.00	0.00	0.14	0.00	0.89	0.78	0.11	0.00	0.20	0.00	0.21
Avail Cap(c_a), veh/h	338	0	0	370	0	682	848	2441	0	839	0	686
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.2	0.0	0.0	36.8	0.0	30.4	11.1	6.0	0.0	20.3	0.0	20.4
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	13.0	4.4	0.1	0.0	0.5	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	1.3	0.0	20.3	12.1	1.4	0.0	3.4	0.0	3.0
LnGrp Delay(d),s/veh	36.2	0.0	0.0	36.9	0.0	43.4	15.5	6.1	0.0	20.8	0.0	21.1
LnGrp LOS	D			D		D	B	A		C		C
Approach Vol, veh/h		25			655			927			312	
Approach Delay, s/veh		36.2			42.9			12.8			21.0	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	29.5	56.5		30.0		86.0		30.0
Change Period (Y+Rc), s	4.5	6.0		5.0		6.0		5.0
Max Green Setting (Gmax), s	25.0	50.0		25.0		79.5		25.0
Max Q Clear Time (g_c+I1), s	25.0	8.7		27.0		4.9		3.3
Green Ext Time (p_c), s	0.0	3.6		0.0		3.4		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	24.7
HCM 2010 LOS	C

Lane Group	NBT	SBT	SBR	NEL	NET	SWT
Lane Group Flow (vph)	25	50	605	664	263	312
v/c Ratio	0.20	0.51	0.69	0.64	0.09	0.17
Control Delay	46.3	68.0	8.1	5.6	2.0	13.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.3	68.0	8.1	5.6	2.0	13.5
Queue Length 50th (ft)	15	36	37	90	14	53
Queue Length 95th (ft)	42	76	123	171	26	95
Internal Link Dist (ft)	135	475			976	3424
Turn Bay Length (ft)			130	140		
Base Capacity (vph)	350	282	893	1049	3031	1868
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.18	0.68	0.63	0.09	0.17

Intersection Summary

Lane Group	NBL	NBT	SBL	SBT	SBR	NEL	NET	SWL	SWT
Lane Configurations									
Traffic Volume (vph)	7	12	42	4	557	611	242	4	225
Future Volume (vph)	7	12	42	4	557	611	242	4	225
Turn Type	Perm	NA	Perm	NA	pm+ov	pm+pt	NA	Perm	NA
Protected Phases		8		4	1	1	6		2
Permitted Phases	8		4		4	6		2	
Detector Phase	8	8	4	4	1	1	6	2	2
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	15.0	15.0	15.0
Minimum Split (s)	12.0	12.0	23.0	23.0	9.5	9.5	24.0	24.0	24.0
Total Split (s)	30.0	30.0	30.0	30.0	29.5	29.5	85.5	56.0	56.0
Total Split (%)	26.0%	26.0%	26.0%	26.0%	25.5%	25.5%	74.0%	48.5%	48.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		5.0		5.0	4.5	4.5	6.0		6.0
Lead/Lag					Lead	Lead		Lag	Lag
Lead-Lag Optimize?					Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)		8.8		8.8	39.5	99.2	98.9		65.5
Actuated g/C Ratio		0.08		0.08	0.34	0.86	0.86		0.57
v/c Ratio		0.20		0.51	0.69	0.64	0.09		0.17
Control Delay		46.3		68.0	8.1	5.6	2.0		13.5
Queue Delay		0.0		0.0	0.0	0.0	0.0		0.0
Total Delay		46.3		68.0	8.1	5.6	2.0		13.5
LOS		D		E	A	A	A		B
Approach Delay		46.3		12.7			4.6		13.5
Approach LOS		D		B			A		B

Intersection Summary	
Cycle Length: 115.5	
Actuated Cycle Length: 115.5	
Offset: 22.5 (19%), Referenced to phase 2:SWTL and 6:NETL, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 9.3	Intersection LOS: A
Intersection Capacity Utilization 67.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: N James Campbell Blvd & Driveway/Industrial Park Road



Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	262	12	17	273	6	5
Future Vol, veh/h	262	12	17	273	6	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	285	13	18	297	7	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	298	0	477	149
Stage 1	-	-	-	-	292	-
Stage 2	-	-	-	-	185	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1260	-	517	871
Stage 1	-	-	-	-	732	-
Stage 2	-	-	-	-	828	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1260	-	508	871
Mov Cap-2 Maneuver	-	-	-	-	508	-
Stage 1	-	-	-	-	732	-
Stage 2	-	-	-	-	814	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	10.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	627	-	-	1260	-
HCM Lane V/C Ratio	0.019	-	-	0.015	-
HCM Control Delay (s)	10.9	-	-	7.9	0.1
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	0	245	0	0	0	269	160	0	0	150	83
Future Volume (veh/h)	57	0	245	0	0	0	269	160	0	0	150	83
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	62	0	266	0	0	0	292	174	0	0	163	90
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	320	0	485	0	310	0	336	2503	0	43	987	497
Arrive On Green	0.17	0.00	0.17	0.00	0.00	0.00	0.14	0.71	0.00	0.00	0.51	0.51
Sat Flow, veh/h	1406	0	1583	0	1863	0	1774	3632	0	0	2338	1180
Grp Volume(v), veh/h	62	0	266	0	0	0	292	174	0	0	127	126
Grp Sat Flow(s),veh/h/ln	1406	0	1583	0	1863	0	1774	1770	0	0	1770	1655
Q Serve(g_s), s	3.2	0.0	11.6	0.0	0.0	0.0	9.2	1.3	0.0	0.0	3.6	4.0
Cycle Q Clear(g_c), s	3.2	0.0	11.6	0.0	0.0	0.0	9.2	1.3	0.0	0.0	3.6	4.0
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.00	0.00		0.71
Lane Grp Cap(c), veh/h	320	0	485	0	310	0	336	2503	0	0	0	0
V/C Ratio(X)	0.19	0.00	0.55	0.00	0.00	0.00	0.87	0.07	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	341	0	508	0	337	0	471	2503	0	0	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	30.2	0.0	24.0	0.0	0.0	0.0	29.1	3.7	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	1.1	0.0	0.0	0.0	12.0	0.1	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	5.2	0.0	0.0	0.0	7.6	0.6	0.0	0.0	0.0	0.0
LnGrp Delay(d),s/veh	30.5	0.0	25.1	0.0	0.0	0.0	41.1	3.8	0.0	0.0	0.0	0.0
LnGrp LOS	C		C				D	A				
Approach Vol, veh/h		328			0			466			253	
Approach Delay, s/veh		26.1			0.0			27.2			0.0	
Approach LOS		C						C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	16.1	48.6		18.3		64.7		18.3
Change Period (Y+Rc), s	4.5	6.0		4.5		6.0		4.5
Max Green Setting (Gmax), s	18.0	35.0		15.0		57.5		15.0
Max Q Clear Time (g_c+I1), s	11.2	6.0		13.6		3.3		0.0
Green Ext Time (p_c), s	0.5	1.2		0.2		1.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	20.3
HCM 2010 LOS	C



Lane Group	EBT	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	62	266	292	174	253
v/c Ratio	0.41	0.45	0.32	0.06	0.12
Control Delay	41.5	5.2	3.5	2.7	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	41.5	5.2	3.5	2.7	5.6
Queue Length 50th (ft)	31	0	29	8	16
Queue Length 95th (ft)	65	47	62	19	41
Internal Link Dist (ft)	4426			410	487
Turn Bay Length (ft)			480		
Base Capacity (vph)	254	734	985	2843	2120
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.24	0.36	0.30	0.06	0.12

Intersection Summary

Lane Group	EBL	EBT	EBR	NBL	NBT	SBT	Ø8
Lane Configurations							
Traffic Volume (vph)	57	0	245	269	160	150	
Future Volume (vph)	57	0	245	269	160	150	
Turn Type	Perm	NA	pm+ov	pm+pt	NA	NA	
Protected Phases		4	1	1	6	2	8
Permitted Phases	4		4	6			
Detector Phase	4	4	1	1	6	2	
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	15.0	15.0	5.0
Minimum Split (s)	9.5	9.5	9.5	9.5	21.0	21.0	9.5
Total Split (s)	19.5	19.5	22.5	22.5	63.5	41.0	19.5
Total Split (%)	23.5%	23.5%	27.1%	27.1%	76.5%	49.4%	23%
Yellow Time (s)	3.5	3.5	3.5	3.5	4.0	4.0	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	2.0	2.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.5	4.5	4.5	6.0	6.0	
Lead/Lag			Lead	Lead		Lag	
Lead-Lag Optimize?			Yes	Yes		Yes	
Recall Mode	None	None	None	None	C-Min	C-Min	None
Act Effct Green (s)		9.0	20.8	67.0	66.7	51.7	
Actuated g/C Ratio		0.11	0.25	0.81	0.80	0.62	
v/c Ratio		0.41	0.45	0.32	0.06	0.12	
Control Delay		41.5	5.2	3.5	2.7	5.6	
Queue Delay		0.0	0.0	0.0	0.0	0.0	
Total Delay		41.5	5.2	3.5	2.7	5.6	
LOS		D	A	A	A	A	
Approach Delay		12.1			3.2	5.6	
Approach LOS		B			A	A	

Intersection Summary	
Cycle Length: 83	
Actuated Cycle Length: 83	
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBSB, Start of Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.45	
Intersection Signal Delay: 6.6	Intersection LOS: A
Intersection Capacity Utilization 45.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Santa Fe Pike & N James Campbell Blvd/Driveway



BACKGROUND CAPACITY ANALYSES

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	3	2	1	158	8	957	510	310	6	1	254	49
Future Volume (veh/h)	3	2	1	158	8	957	510	310	6	1	254	49
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	3	2	1	0	0	1230	554	337	7	1	276	53
Adj No. of Lanes	0	1	0	0	1	2	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	7	4	2	0	601	1727	691	1998	41	25	904	170
Arrive On Green	0.01	0.01	0.01	0.00	0.00	0.32	0.22	0.56	0.56	0.31	0.31	0.31
Sat Flow, veh/h	883	589	294	0	1863	3167	1774	3546	74	1	2910	548
Grp Volume(v), veh/h	6	0	0	0	0	1230	554	168	176	176	0	154
Grp Sat Flow(s),veh/h/ln	1767	0	0	0	1863	1583	1774	1770	1850	1862	0	1598
Q Serve(g_s), s	0.5	0.0	0.0	0.0	0.0	43.3	30.9	6.9	6.9	0.0	0.0	11.1
Cycle Q Clear(g_c), s	0.5	0.0	0.0	0.0	0.0	43.3	30.9	6.9	6.9	10.8	0.0	11.1
Prop In Lane	0.50		0.17	0.00		1.00	1.00		0.04	0.01		0.34
Lane Grp Cap(c), veh/h	13	0	0	0	601	1727	691	997	1042	602	0	496
V/C Ratio(X)	0.46	0.00	0.00	0.00	0.00	0.71	0.80	0.17	0.17	0.29	0.00	0.31
Avail Cap(c_a), veh/h	82	0	0	0	795	2057	763	997	1042	602	0	496
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	74.2	0.0	0.0	0.0	0.0	25.3	23.6	15.8	15.8	39.4	0.0	39.5
Incr Delay (d2), s/veh	9.1	0.0	0.0	0.0	0.0	0.7	4.9	0.4	0.4	1.2	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.0	0.0	19.0	15.9	3.5	3.6	5.8	0.0	5.1
LnGrp Delay(d),s/veh	83.3	0.0	0.0	0.0	0.0	26.0	28.5	16.2	16.1	40.6	0.0	41.1
LnGrp LOS	F					C	C	B	B	D		D
Approach Vol, veh/h		6			1230			898			330	
Approach Delay, s/veh		83.3			26.0			23.8			40.8	
Approach LOS		F			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	37.9	52.6		53.4		90.5		6.1
Change Period (Y+Rc), s	4.5	6.0		5.0		6.0		5.0
Max Green Setting (Gmax), s	39.5	19.0		64.0		63.0		7.0
Max Q Clear Time (g_c+I1), s	32.9	13.1		45.3		8.9		2.5
Green Ext Time (p_c), s	0.6	1.4		3.1		4.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	27.3
HCM 2010 LOS	C

Notes

Lane Group	NBT	SBT	SBR	NEL	NET	SWT
Lane Group Flow (vph)	6	493	728	554	344	330
v/c Ratio	0.10	1.03	0.61	0.88	0.20	0.72
Control Delay	67.5	85.5	5.6	50.6	23.1	69.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.5	85.5	5.6	50.6	23.1	69.6
Queue Length 50th (ft)	5	~501	125	418	95	158
Queue Length 95th (ft)	21	#743	189	#741	147	#218
Internal Link Dist (ft)	135	475			976	3424
Turn Bay Length (ft)			130	140		
Base Capacity (vph)	83	477	1195	629	1700	459
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.07	1.03	0.61	0.88	0.20	0.72

Intersection Summary

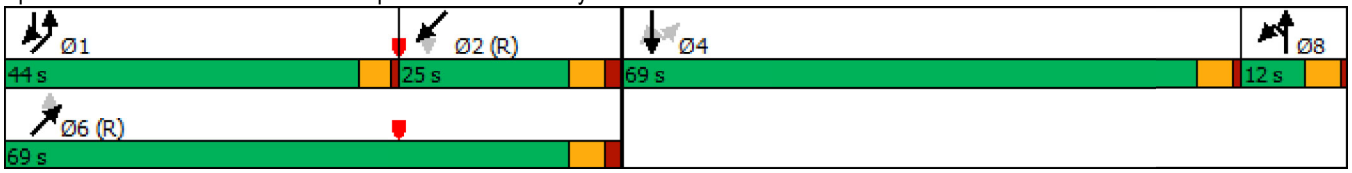
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	NBT	SBL	SBT	SBR	NEL	NET	SWL	SWT
Lane Configurations								
Traffic Volume (vph)	2	158	8	957	510	310	1	254
Future Volume (vph)	2	158	8	957	510	310	1	254
Turn Type	NA	Perm	NA	pm+ov	pm+pt	NA	Perm	NA
Protected Phases	8		4	1	1	6		2
Permitted Phases		4		4	6		2	
Detector Phase	8	4	4	1	1	6	2	2
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	15.0	15.0	15.0
Minimum Split (s)	12.0	23.0	23.0	9.5	9.5	24.0	24.0	24.0
Total Split (s)	12.0	69.0	69.0	44.0	44.0	69.0	25.0	25.0
Total Split (%)	8.0%	46.0%	46.0%	29.3%	29.3%	46.0%	16.7%	16.7%
Yellow Time (s)	4.0	4.0	4.0	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.0		5.0	4.5	4.5	6.0		6.0
Lead/Lag				Lead	Lead		Lag	Lag
Lead-Lag Optimize?				Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)	5.3		64.5	115.9	73.7	72.2		20.4
Actuated g/C Ratio	0.04		0.43	0.77	0.49	0.48		0.14
v/c Ratio	0.10		1.03	0.61	0.88	0.20		0.72
Control Delay	67.5		85.5	5.6	50.6	23.1		69.6
Queue Delay	0.0		0.0	0.0	0.0	0.0		0.0
Total Delay	67.5		85.5	5.6	50.6	23.1		69.6
LOS	E		F	A	D	C		E
Approach Delay	67.5		37.8			40.0		69.6
Approach LOS	E		D			D		E

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 0 (0%), Referenced to phase 2:SWTL and 6:NETL, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 43.0	Intersection LOS: D
Intersection Capacity Utilization 86.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: N James Campbell Blvd & Driveway/Industrial Park Road



Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	467	9	7	296	7	15
Future Vol, veh/h	467	9	7	296	7	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	508	10	8	322	8	16

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	518	0	690	259
Stage 1	-	-	-	-	513	-
Stage 2	-	-	-	-	177	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1044	-	379	740
Stage 1	-	-	-	-	566	-
Stage 2	-	-	-	-	836	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1044	-	376	740
Mov Cap-2 Maneuver	-	-	-	-	376	-
Stage 1	-	-	-	-	566	-
Stage 2	-	-	-	-	828	-

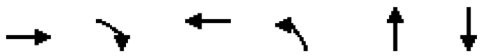
Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	11.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	566	-	-	1044	-
HCM Lane V/C Ratio	0.042	-	-	0.007	-
HCM Control Delay (s)	11.6	-	-	8.5	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	5	492	5	2	0	225	132	5	0	251	63
Future Volume (veh/h)	66	5	492	5	2	0	225	132	5	0	251	63
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	72	5	535	5	2	0	245	143	5	0	273	68
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	335	21	467	179	60	0	289	2417	84	43	1227	293
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.00	0.11	0.69	0.69	0.00	0.52	0.52
Sat Flow, veh/h	1390	114	1583	579	331	0	1774	3489	121	0	2913	690
Grp Volume(v), veh/h	77	0	535	7	0	0	245	72	76	0	170	171
Grp Sat Flow(s),veh/h/ln	1504	0	1583	909	0	0	1774	1770	1841	0	1770	1741
Q Serve(g_s), s	0.0	0.0	15.0	0.0	0.0	0.0	7.1	1.1	1.1	0.0	5.0	5.2
Cycle Q Clear(g_c), s	3.1	0.0	15.0	3.1	0.0	0.0	7.1	1.1	1.1	0.0	5.0	5.2
Prop In Lane	0.94		1.00	0.71		0.00	1.00		0.07	0.00		0.40
Lane Grp Cap(c), veh/h	356	0	467	239	0	0	289	1226	1276	0	0	0
V/C Ratio(X)	0.22	0.00	1.15	0.03	0.00	0.00	0.85	0.06	0.06	0.00	0.00	0.00
Avail Cap(c_a), veh/h	356	0	467	239	0	0	471	1226	1276	0	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	29.1	0.0	29.3	28.0	0.0	0.0	28.8	4.1	4.1	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	88.3	0.0	0.0	0.0	7.7	0.1	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	22.2	0.1	0.0	0.0	6.1	0.6	0.6	0.0	0.0	0.0
LnGrp Delay(d),s/veh	29.4	0.0	117.6	28.0	0.0	0.0	36.5	4.2	4.2	0.0	0.0	0.0
LnGrp LOS	C		F	C			D	A	A			
Approach Vol, veh/h		612			7			393			341	
Approach Delay, s/veh		106.5			28.0			24.3			0.0	
Approach LOS		F			C			C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	14.0	49.5		19.5		63.5		19.5
Change Period (Y+Rc), s	4.5	6.0		4.5		6.0		4.5
Max Green Setting (Gmax), s	18.0	35.0		15.0		57.5		15.0
Max Q Clear Time (g_c+I1), s	9.1	7.2		17.0		3.1		5.1
Green Ext Time (p_c), s	0.4	1.7		0.0		0.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	55.4
HCM 2010 LOS	E



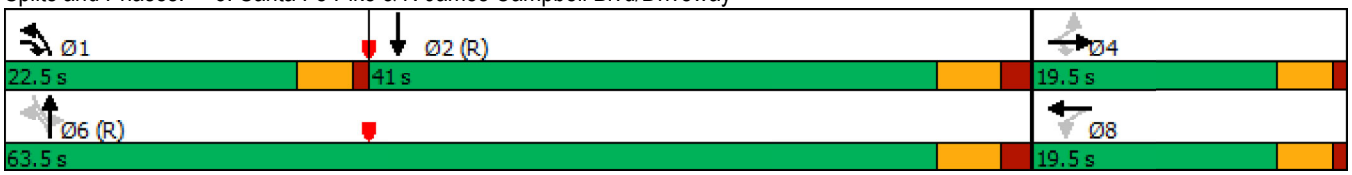
Lane Group	EBT	EBR	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	77	535	7	245	148	341
v/c Ratio	0.47	0.70	0.04	0.29	0.05	0.16
Control Delay	42.5	8.8	30.5	3.7	2.9	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.5	8.8	30.5	3.7	2.9	7.9
Queue Length 50th (ft)	38	23	3	26	7	33
Queue Length 95th (ft)	76	95	14	57	18	68
Internal Link Dist (ft)	4426		175		410	487
Turn Bay Length (ft)				480		
Base Capacity (vph)	247	880	274	923	2791	2110
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.61	0.03	0.27	0.05	0.16

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBT
Lane Configurations								
Traffic Volume (vph)	66	5	492	5	2	225	132	251
Future Volume (vph)	66	5	492	5	2	225	132	251
Turn Type	Perm	NA	pm+ov	Perm	NA	pm+pt	NA	NA
Protected Phases		4	1		8	1	6	2
Permitted Phases	4		4	8		6		
Detector Phase	4	4	1	8	8	1	6	2
Switch Phase								
Minimum Initial (s)	5.0	5.0	4.0	5.0	5.0	4.0	15.0	15.0
Minimum Split (s)	9.5	9.5	8.5	9.5	9.5	8.5	21.0	21.0
Total Split (s)	19.5	19.5	22.5	19.5	19.5	22.5	63.5	41.0
Total Split (%)	23.5%	23.5%	27.1%	23.5%	23.5%	27.1%	76.5%	49.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5		4.5	4.5	6.0	6.0
Lead/Lag			Lead			Lead		Lag
Lead-Lag Optimize?			Yes			Yes		Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min
Act Effct Green (s)		10.0	21.9		9.9	66.1	65.8	50.6
Actuated g/C Ratio		0.12	0.26		0.12	0.80	0.79	0.61
v/c Ratio		0.47	0.70		0.04	0.29	0.05	0.16
Control Delay		42.5	8.8		30.5	3.7	2.9	7.9
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0
Total Delay		42.5	8.8		30.5	3.7	2.9	7.9
LOS		D	A		C	A	A	A
Approach Delay		13.0			30.5		3.4	7.9
Approach LOS		B			C		A	A

Intersection Summary	
Cycle Length: 83	
Actuated Cycle Length: 83	
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBSB, Start of Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 9.0	Intersection LOS: A
Intersection Capacity Utilization 59.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Santa Fe Pike & N James Campbell Blvd/Driveway



Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	8	14	5	86	5	770	780	334	0	5	304	80
Future Volume (veh/h)	8	14	5	86	5	770	780	334	0	5	304	80
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	9	15	5	0	0	940	848	363	0	5	330	87
Adj No. of Lanes	0	1	0	0	1	2	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	108	164	46	0	390	1838	874	2365	0	44	672	173
Arrive On Green	0.21	0.21	0.21	0.00	0.00	0.21	0.37	0.67	0.00	0.25	0.25	0.25
Sat Flow, veh/h	263	781	218	0	1863	3167	1774	3632	0	11	2716	699
Grp Volume(v), veh/h	29	0	0	0	0	940	848	363	0	226	0	196
Grp Sat Flow(s),veh/h/ln	1262	0	0	0	1863	1583	1774	1770	0	1854	0	1572
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	15.9	30.9	3.4	0.0	0.0	0.0	9.6
Cycle Q Clear(g_c), s	1.2	0.0	0.0	0.0	0.0	15.9	30.9	3.4	0.0	9.4	0.0	9.6
Prop In Lane	0.31		0.17	0.00		1.00	1.00		0.00	0.02		0.44
Lane Grp Cap(c), veh/h	317	0	0	0	390	1838	874	2365	0	499	0	389
V/C Ratio(X)	0.09	0.00	0.00	0.00	0.00	0.51	0.97	0.15	0.00	0.45	0.00	0.50
Avail Cap(c_a), veh/h	343	0	0	0	435	1914	907	2365	0	499	0	389
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.6	0.0	0.0	0.0	0.0	11.3	14.4	5.5	0.0	29.0	0.0	29.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.1	22.3	0.1	0.0	3.0	0.0	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.0	0.0	6.9	25.7	1.7	0.0	5.2	0.0	4.7
LnGrp Delay(d),s/veh	28.6	0.0	0.0	0.0	0.0	11.3	36.7	5.7	0.0	32.0	0.0	33.7
LnGrp LOS	C					B	D	A		C		C
Approach Vol, veh/h		29			940			1211			422	
Approach Delay, s/veh		28.6			11.3			27.4			32.8	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	37.9	28.3		23.8		66.2		23.8
Change Period (Y+Rc), s	4.5	6.0		5.0		6.0		5.0
Max Green Setting (Gmax), s	35.1	18.4		21.0		58.0		21.0
Max Q Clear Time (g_c+I1), s	32.9	11.6		17.9		5.4		3.2
Green Ext Time (p_c), s	0.5	2.1		0.9		4.8		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	22.5
HCM 2010 LOS	C

Notes



Lane Group	NBT	SBT	SBR	NEL	NET	SWT
Lane Group Flow (vph)	29	475	460	848	363	422
v/c Ratio	0.12	0.96	0.44	1.01	0.16	0.65
Control Delay	25.5	54.2	5.9	52.7	6.8	36.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.5	54.2	5.9	52.7	6.8	36.0
Queue Length 50th (ft)	11	177	72	~376	38	106
Queue Length 95th (ft)	34	#396	130	#644	56	156
Internal Link Dist (ft)	135	475			976	3424
Turn Bay Length (ft)			130	140		
Base Capacity (vph)	232	493	1045	838	2280	690
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.96	0.44	1.01	0.16	0.61

Intersection Summary

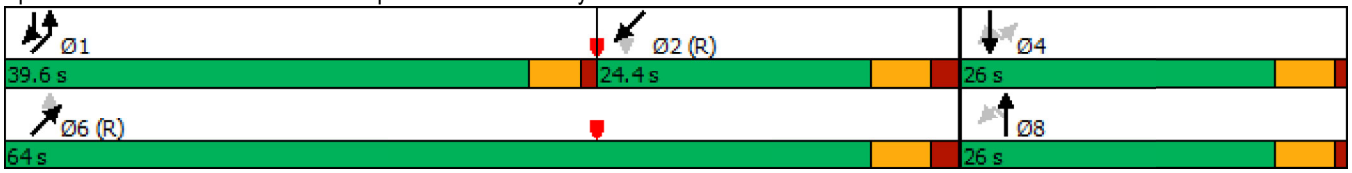
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	NBL	NBT	SBL	SBT	SBR	NEL	NET	SWL	SWT
Lane Configurations									
Traffic Volume (vph)	8	14	86	5	770	780	334	5	304
Future Volume (vph)	8	14	86	5	770	780	334	5	304
Turn Type	Perm	NA	Perm	NA	pm+ov	pm+pt	NA	Perm	NA
Protected Phases		8		4	1	1	6		2
Permitted Phases	8		4		4	6		2	
Detector Phase	8	8	4	4	1	1	6	2	2
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	15.0	15.0	15.0
Minimum Split (s)	12.0	12.0	23.0	23.0	9.5	9.5	24.0	24.0	24.0
Total Split (s)	26.0	26.0	26.0	26.0	39.6	39.6	64.0	24.4	24.4
Total Split (%)	28.9%	28.9%	28.9%	28.9%	44.0%	44.0%	71.1%	27.1%	27.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		5.0		5.0	4.5	4.5	6.0		6.0
Lead/Lag					Lead	Lead		Lag	Lag
Lead-Lag Optimize?					Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)		22.0		22.0	62.3	58.5	57.0		17.2
Actuated g/C Ratio		0.24		0.24	0.69	0.65	0.63		0.19
v/c Ratio		0.12		0.96	0.44	1.01	0.16		0.65
Control Delay		25.5		54.2	5.9	52.7	6.8		36.0
Queue Delay		0.0		0.0	0.0	0.0	0.0		0.0
Total Delay		25.5		54.2	5.9	52.7	6.8		36.0
LOS		C		D	A	D	A		D
Approach Delay		25.5		30.4			39.0		36.0
Approach LOS		C		C			D		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:SWTL and 6:NETL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 35.3	Intersection LOS: D
Intersection Capacity Utilization 95.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 1: N James Campbell Blvd & Driveway/Industrial Park Road



Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	396	14	19	373	7	6
Future Vol, veh/h	396	14	19	373	7	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	430	15	21	405	8	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	445	0	683	223
Stage 1	-	-	-	-	438	-
Stage 2	-	-	-	-	245	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1112	-	383	780
Stage 1	-	-	-	-	618	-
Stage 2	-	-	-	-	773	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1112	-	374	780
Mov Cap-2 Maneuver	-	-	-	-	374	-
Stage 1	-	-	-	-	618	-
Stage 2	-	-	-	-	754	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	12.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	492	-	-	1112	-
HCM Lane V/C Ratio	0.029	-	-	0.019	-
HCM Control Delay (s)	12.5	-	-	8.3	0.1
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	0	357	0	0	0	356	180	0	0	169	106
Future Volume (veh/h)	84	0	357	0	0	0	356	180	0	0	169	106
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	91	0	388	0	0	0	387	196	0	0	184	115
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	341	0	589	0	337	0	426	2452	0	43	945	532
Arrive On Green	0.18	0.00	0.18	0.00	0.00	0.00	0.19	0.69	0.00	0.00	0.45	0.45
Sat Flow, veh/h	1406	0	1583	0	1863	0	1774	3632	0	0	2230	1271
Grp Volume(v), veh/h	91	0	388	0	0	0	387	196	0	0	151	148
Grp Sat Flow(s),veh/h/ln	1406	0	1583	0	1863	0	1774	1770	0	0	1770	1638
Q Serve(g_s), s	4.7	0.0	15.0	0.0	0.0	0.0	13.5	1.5	0.0	0.0	4.3	4.8
Cycle Q Clear(g_c), s	4.7	0.0	15.0	0.0	0.0	0.0	13.5	1.5	0.0	0.0	4.3	4.8
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.00	0.00		0.78
Lane Grp Cap(c), veh/h	341	0	589	0	337	0	426	2452	0	0	0	0
V/C Ratio(X)	0.27	0.00	0.66	0.00	0.00	0.00	0.91	0.08	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	341	0	589	0	337	0	471	2452	0	0	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	29.8	0.0	21.7	0.0	0.0	0.0	29.0	4.1	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	2.7	0.0	0.0	0.0	20.3	0.1	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	7.8	0.0	0.0	0.0	11.0	0.7	0.0	0.0	0.0	0.0
LnGrp Delay(d),s/veh	30.2	0.0	24.4	0.0	0.0	0.0	49.3	4.2	0.0	0.0	0.0	0.0
LnGrp LOS	C		C				D	A				
Approach Vol, veh/h		479			0			583			299	
Approach Delay, s/veh		25.5			0.0			34.1			0.0	
Approach LOS		C						C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	20.4	43.1		19.5		63.5		19.5
Change Period (Y+Rc), s	4.5	6.0		4.5		6.0		4.5
Max Green Setting (Gmax), s	18.0	35.0		15.0		57.5		15.0
Max Q Clear Time (g_c+I1), s	15.5	6.8		17.0		3.5		0.0
Green Ext Time (p_c), s	0.3	1.5		0.0		1.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	23.6
HCM 2010 LOS	C

Lane Group	EBT	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	91	388	387	196	299
v/c Ratio	0.51	0.52	0.44	0.07	0.15
Control Delay	42.6	4.4	4.9	3.2	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	42.6	4.4	4.9	3.2	7.2
Queue Length 50th (ft)	45	0	47	11	22
Queue Length 95th (ft)	86	46	98	24	55
Internal Link Dist (ft)	4426			410	487
Turn Bay Length (ft)			480		
Base Capacity (vph)	255	835	937	2781	1963
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.36	0.46	0.41	0.07	0.15

Intersection Summary

Lane Group	EBL	EBT	EBR	NBL	NBT	SBT	Ø8
Lane Configurations							
Traffic Volume (vph)	84	0	357	356	180	169	
Future Volume (vph)	84	0	357	356	180	169	
Turn Type	Perm	NA	pm+ov	pm+pt	NA	NA	
Protected Phases		4	1	1	6	2	8
Permitted Phases	4		4	6			
Detector Phase	4	4	1	1	6	2	
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	15.0	15.0	5.0
Minimum Split (s)	9.5	9.5	9.5	9.5	21.0	21.0	9.5
Total Split (s)	19.5	19.5	22.5	22.5	63.5	41.0	19.5
Total Split (%)	23.5%	23.5%	27.1%	27.1%	76.5%	49.4%	23%
Yellow Time (s)	3.5	3.5	3.5	3.5	4.0	4.0	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	2.0	2.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.5	4.5	4.5	6.0	6.0	
Lead/Lag			Lead	Lead		Lag	
Lead-Lag Optimize?			Yes	Yes		Yes	
Recall Mode	None	None	None	None	C-Min	C-Min	None
Act Effct Green (s)		10.6	25.0	65.5	65.2	47.5	
Actuated g/C Ratio		0.13	0.30	0.79	0.79	0.57	
v/c Ratio		0.51	0.52	0.44	0.07	0.15	
Control Delay		42.6	4.4	4.9	3.2	7.2	
Queue Delay		0.0	0.0	0.0	0.0	0.0	
Total Delay		42.6	4.4	4.9	3.2	7.2	
LOS		D	A	A	A	A	
Approach Delay		11.6			4.4	7.2	
Approach LOS		B			A	A	

Intersection Summary	
Cycle Length: 83	
Actuated Cycle Length: 83	
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBSB, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.52	
Intersection Signal Delay: 7.5	Intersection LOS: A
Intersection Capacity Utilization 50.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Santa Fe Pike & N James Campbell Blvd/Driveway



PROJECTED CAPACITY ANALYSES

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	3	2	1	160	8	957	510	317	6	1	275	55
Future Volume (veh/h)	3	2	1	160	8	957	510	317	6	1	275	55
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	3	2	1	0	0	1232	554	345	7	1	299	60
Adj No. of Lanes	0	1	0	0	1	2	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	7	4	2	0	600	1741	672	1973	40	26	856	169
Arrive On Green	0.01	0.01	0.01	0.00	0.00	0.32	0.23	0.56	0.56	0.30	0.30	0.30
Sat Flow, veh/h	883	589	294	0	1863	3167	1774	3548	72	1	2886	569
Grp Volume(v), veh/h	6	0	0	0	0	1232	554	172	180	192	0	168
Grp Sat Flow(s),veh/h/ln	1767	0	0	0	1863	1583	1774	1770	1850	1862	0	1595
Q Serve(g_s), s	0.5	0.0	0.0	0.0	0.0	40.1	29.4	6.7	6.7	0.0	0.0	11.6
Cycle Q Clear(g_c), s	0.5	0.0	0.0	0.0	0.0	40.1	29.4	6.7	6.7	11.3	0.0	11.6
Prop In Lane	0.50		0.17	0.00		1.00	1.00		0.04	0.01		0.36
Lane Grp Cap(c), veh/h	13	0	0	0	600	1741	672	984	1029	578	0	473
V/C Ratio(X)	0.46	0.00	0.00	0.00	0.00	0.71	0.82	0.17	0.18	0.33	0.00	0.36
Avail Cap(c_a), veh/h	88	0	0	0	772	2032	728	984	1029	578	0	473
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	69.2	0.0	0.0	0.0	0.0	23.2	23.2	15.3	15.3	38.6	0.0	38.7
Incr Delay (d2), s/veh	8.9	0.0	0.0	0.0	0.0	0.7	6.5	0.4	0.4	1.5	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.0	0.0	17.6	15.5	3.4	3.5	6.1	0.0	5.4
LnGrp Delay(d),s/veh	78.1	0.0	0.0	0.0	0.0	23.9	29.7	15.7	15.7	40.2	0.0	40.8
LnGrp LOS	E					C	C	B	B	D		D
Approach Vol, veh/h		6			1232			906			360	
Approach Delay, s/veh		78.1			23.9			24.2			40.5	
Approach LOS		E			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	36.3	47.5		50.1		83.8		6.0
Change Period (Y+Rc), s	4.5	6.0		5.0		6.0		5.0
Max Green Setting (Gmax), s	36.2	18.3		58.0		59.0		7.0
Max Q Clear Time (g_c+I1), s	31.4	13.6		42.1		8.7		2.5
Green Ext Time (p_c), s	0.5	1.3		3.0		4.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	26.5
HCM 2010 LOS	C

Notes



Lane Group	NBT	SBT	SBR	NEL	NET	SWT
Lane Group Flow (vph)	6	495	728	554	352	360
v/c Ratio	0.09	1.06	0.61	0.85	0.20	0.82
Control Delay	62.8	93.2	5.4	45.2	21.1	72.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.8	93.2	5.4	45.2	21.1	72.8
Queue Length 50th (ft)	5	~478	110	383	89	164
Queue Length 95th (ft)	20	#716	187	#703	141	#237
Internal Link Dist (ft)	135	475			976	3424
Turn Bay Length (ft)			130	140		
Base Capacity (vph)	89	466	1195	648	1728	444
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.07	1.06	0.61	0.85	0.20	0.81

Intersection Summary

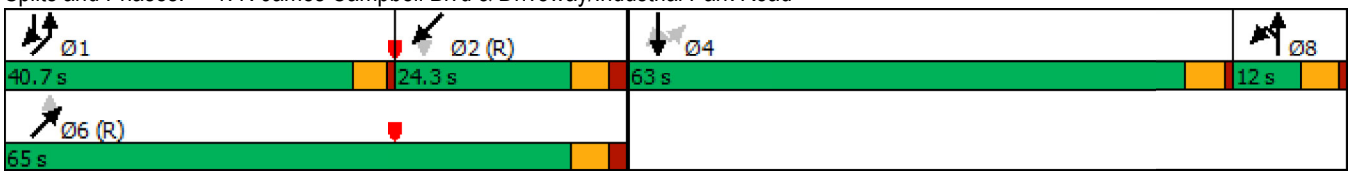
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	NBT	SBL	SBT	SBR	NEL	NET	SWL	SWT
Lane Configurations								
Traffic Volume (vph)	2	160	8	957	510	317	1	275
Future Volume (vph)	2	160	8	957	510	317	1	275
Turn Type	NA	Perm	NA	pm+ov	pm+pt	NA	Perm	NA
Protected Phases	8		4	1	1	6		2
Permitted Phases		4		4	6		2	
Detector Phase	8	4	4	1	1	6	2	2
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	15.0	15.0	15.0
Minimum Split (s)	12.0	23.0	23.0	9.5	9.5	24.0	24.0	24.0
Total Split (s)	12.0	63.0	63.0	40.7	40.7	65.0	24.3	24.3
Total Split (%)	8.6%	45.0%	45.0%	29.1%	29.1%	46.4%	17.4%	17.4%
Yellow Time (s)	4.0	4.0	4.0	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.0		5.0	4.5	4.5	6.0		6.0
Lead/Lag				Lead	Lead		Lag	Lag
Lead-Lag Optimize?				Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)	5.3		58.2	108.2	70.0	68.5		18.2
Actuated g/C Ratio	0.04		0.42	0.77	0.50	0.49		0.13
v/c Ratio	0.09		1.06	0.61	0.85	0.20		0.82
Control Delay	62.8		93.2	5.4	45.2	21.1		72.8
Queue Delay	0.0		0.0	0.0	0.0	0.0		0.0
Total Delay	62.8		93.2	5.4	45.2	21.1		72.8
LOS	E		F	A	D	C		E
Approach Delay	62.8		41.0			35.8		72.8
Approach LOS	E		D			D		E

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:SWTL and 6:NETL, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 43.7	Intersection LOS: D
Intersection Capacity Utilization 87.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: N James Campbell Blvd & Driveway/Industrial Park Road



Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	467	9	7	296	10	7	1	15	30	3	27
Future Vol, veh/h	9	467	9	7	296	10	7	1	15	30	3	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	508	10	8	322	11	8	1	16	33	3	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	333	0	0	518	0	0	712	882	259	619	882	167
Stage 1	-	-	-	-	-	-	533	533	-	344	344	-
Stage 2	-	-	-	-	-	-	179	349	-	275	538	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1223	-	-	1044	-	-	320	284	740	373	284	848
Stage 1	-	-	-	-	-	-	498	523	-	645	635	-
Stage 2	-	-	-	-	-	-	805	632	-	708	521	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1223	-	-	1044	-	-	301	278	740	358	278	848
Mov Cap-2 Maneuver	-	-	-	-	-	-	301	278	-	358	278	-
Stage 1	-	-	-	-	-	-	493	517	-	638	629	-
Stage 2	-	-	-	-	-	-	766	626	-	683	515	-

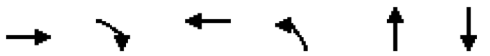
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	12.8	13.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	488	1223	-	-	1044	-	-	475
HCM Lane V/C Ratio	0.051	0.008	-	-	0.007	-	-	0.137
HCM Control Delay (s)	12.8	8	0	-	8.5	0	-	13.8
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	5	516	5	2	0	233	132	5	0	251	65
Future Volume (veh/h)	72	5	516	5	2	0	233	132	5	0	251	65
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	78	5	561	5	2	0	253	143	5	0	273	71
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	338	19	474	175	58	0	297	2417	84	43	1215	302
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.00	0.12	0.69	0.69	0.00	0.52	0.52
Sat Flow, veh/h	1403	106	1583	555	321	0	1774	3489	121	0	2886	713
Grp Volume(v), veh/h	83	0	561	7	0	0	253	72	76	0	171	173
Grp Sat Flow(s),veh/h/ln	1509	0	1583	876	0	0	1774	1770	1841	0	1770	1737
Q Serve(g_s), s	0.0	0.0	15.0	0.0	0.0	0.0	7.4	1.1	1.1	0.0	5.0	5.3
Cycle Q Clear(g_c), s	3.3	0.0	15.0	3.3	0.0	0.0	7.4	1.1	1.1	0.0	5.0	5.3
Prop In Lane	0.94		1.00	0.71		0.00	1.00		0.07	0.00		0.41
Lane Grp Cap(c), veh/h	357	0	474	233	0	0	297	1226	1276	0	0	0
V/C Ratio(X)	0.23	0.00	1.18	0.03	0.00	0.00	0.85	0.06	0.06	0.00	0.00	0.00
Avail Cap(c_a), veh/h	357	0	474	233	0	0	471	1226	1276	0	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	29.2	0.0	29.1	28.0	0.0	0.0	28.9	4.1	4.1	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	102.5	0.1	0.0	0.0	8.4	0.1	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	24.3	0.1	0.0	0.0	6.3	0.6	0.6	0.0	0.0	0.0
LnGrp Delay(d),s/veh	29.5	0.0	131.5	28.1	0.0	0.0	37.3	4.2	4.2	0.0	0.0	0.0
LnGrp LOS	C		F	C			D	A	A			
Approach Vol, veh/h		644			7			401			344	
Approach Delay, s/veh		118.4			28.1			25.1			0.0	
Approach LOS		F			C			C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	14.3	49.2		19.5		63.5		19.5
Change Period (Y+Rc), s	4.5	6.0		4.5		6.0		4.5
Max Green Setting (Gmax), s	18.0	35.0		15.0		57.5		15.0
Max Q Clear Time (g_c+I1), s	9.4	7.3		17.0		3.1		5.3
Green Ext Time (p_c), s	0.4	1.7		0.0		0.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	62.0
HCM 2010 LOS	E



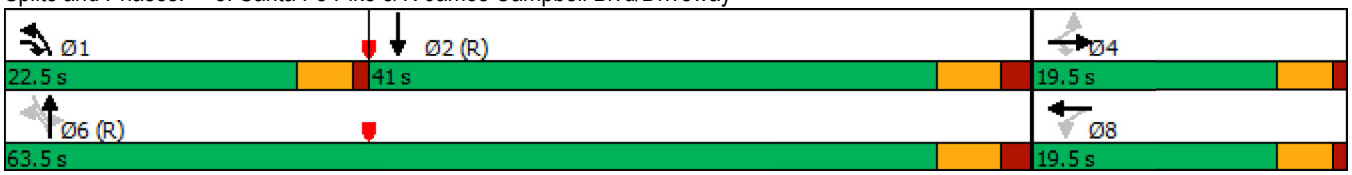
Lane Group	EBT	EBR	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	83	561	7	253	148	344
v/c Ratio	0.49	0.73	0.04	0.30	0.05	0.16
Control Delay	42.8	10.0	30.0	3.9	3.1	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.8	10.0	30.0	3.9	3.1	8.1
Queue Length 50th (ft)	41	34	3	27	7	34
Queue Length 95th (ft)	80	111	14	61	18	70
Internal Link Dist (ft)	4426		175		410	487
Turn Bay Length (ft)				480		
Base Capacity (vph)	247	884	275	919	2778	2089
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.63	0.03	0.28	0.05	0.16

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBT
Lane Configurations								
Traffic Volume (vph)	72	5	516	5	2	233	132	251
Future Volume (vph)	72	5	516	5	2	233	132	251
Turn Type	Perm	NA	pm+ov	Perm	NA	pm+pt	NA	NA
Protected Phases		4	1		8	1	6	2
Permitted Phases	4		4	8		6		
Detector Phase	4	4	1	8	8	1	6	2
Switch Phase								
Minimum Initial (s)	5.0	5.0	4.0	5.0	5.0	4.0	15.0	15.0
Minimum Split (s)	9.5	9.5	8.5	9.5	9.5	8.5	21.0	21.0
Total Split (s)	19.5	19.5	22.5	19.5	19.5	22.5	63.5	41.0
Total Split (%)	23.5%	23.5%	27.1%	23.5%	23.5%	27.1%	76.5%	49.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5		4.5	4.5	6.0	6.0
Lead/Lag			Lead			Lead		Lag
Lead-Lag Optimize?			Yes			Yes		Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min
Act Effct Green (s)		10.3	22.4		10.2	65.8	65.5	50.1
Actuated g/C Ratio		0.12	0.27		0.12	0.79	0.79	0.60
v/c Ratio		0.49	0.73		0.04	0.30	0.05	0.16
Control Delay		42.8	10.0		30.0	3.9	3.1	8.1
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0
Total Delay		42.8	10.0		30.0	3.9	3.1	8.1
LOS		D	A		C	A	A	A
Approach Delay		14.2			30.0		3.6	8.1
Approach LOS		B			C		A	A

Intersection Summary	
Cycle Length: 83	
Actuated Cycle Length: 83	
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBSB, Start of Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 9.7	Intersection LOS: A
Intersection Capacity Utilization 61.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Santa Fe Pike & N James Campbell Blvd/Driveway



Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	8	14	5	93	5	770	780	357	0	5	318	84
Future Volume (veh/h)	8	14	5	93	5	770	780	357	0	5	318	84
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	9	15	5	0	0	949	848	388	0	5	346	91
Adj No. of Lanes	0	1	0	0	1	2	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	107	163	45	0	389	1862	872	2367	0	43	651	167
Arrive On Green	0.21	0.21	0.21	0.00	0.00	0.21	0.38	0.67	0.00	0.24	0.24	0.24
Sat Flow, veh/h	262	779	217	0	1863	3167	1774	3632	0	11	2717	698
Grp Volume(v), veh/h	29	0	0	0	0	949	848	388	0	237	0	205
Grp Sat Flow(s),veh/h/ln	1258	0	0	0	1863	1583	1774	1770	0	1854	0	1572
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	15.9	31.8	3.7	0.0	0.0	0.0	10.3
Cycle Q Clear(g_c), s	1.2	0.0	0.0	0.0	0.0	15.9	31.8	3.7	0.0	10.0	0.0	10.3
Prop In Lane	0.31		0.17	0.00		1.00	1.00		0.00	0.02		0.44
Lane Grp Cap(c), veh/h	315	0	0	0	389	1862	872	2367	0	485	0	377
V/C Ratio(X)	0.09	0.00	0.00	0.00	0.00	0.51	0.97	0.16	0.00	0.49	0.00	0.54
Avail Cap(c_a), veh/h	342	0	0	0	435	1939	891	2367	0	485	0	377
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.6	0.0	0.0	0.0	0.0	10.9	15.1	5.5	0.0	29.8	0.0	29.9
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.1	23.2	0.1	0.0	3.5	0.0	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.0	0.0	6.9	25.9	1.8	0.0	5.6	0.0	5.0
LnGrp Delay(d),s/veh	28.7	0.0	0.0	0.0	0.0	11.0	38.3	5.7	0.0	33.3	0.0	35.4
LnGrp LOS	C					B	D	A		C		D
Approach Vol, veh/h		29			949			1236			442	
Approach Delay, s/veh		28.7			11.0			28.1			34.3	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	38.6	27.6		23.8		66.2		23.8
Change Period (Y+Rc), s	4.5	6.0		5.0		6.0		5.0
Max Green Setting (Gmax), s	35.1	18.4		21.0		58.0		21.0
Max Q Clear Time (g_c+I1), s	33.8	12.3		17.9		5.7		3.2
Green Ext Time (p_c), s	0.3	2.0		0.9		5.1		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	23.0
HCM 2010 LOS	C

Notes



Lane Group	NBT	SBT	SBR	NEL	NET	SWT
Lane Group Flow (vph)	29	474	469	848	388	442
v/c Ratio	0.12	0.99	0.45	1.02	0.17	0.68
Control Delay	25.4	63.5	6.2	57.0	6.9	36.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.4	63.5	6.2	57.0	6.9	36.9
Queue Length 50th (ft)	11	~214	80	~397	41	113
Queue Length 95th (ft)	34	#416	141	#655	60	164
Internal Link Dist (ft)	135	475			976	3424
Turn Bay Length (ft)			130	140		
Base Capacity (vph)	236	477	1040	828	2280	690
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.99	0.45	1.02	0.17	0.64

Intersection Summary

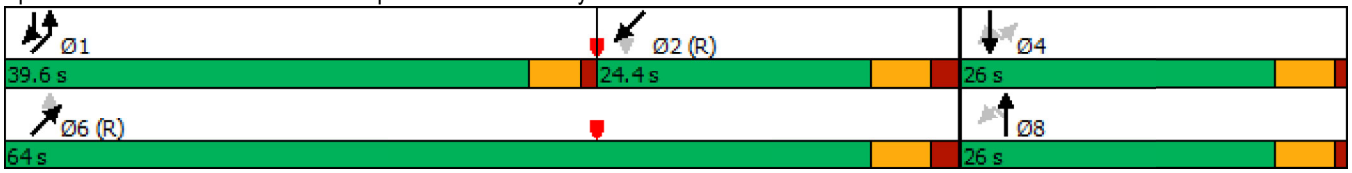
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	NBL	NBT	SBL	SBT	SBR	NEL	NET	SWL	SWT
Lane Configurations									
Traffic Volume (vph)	8	14	93	5	770	780	357	5	318
Future Volume (vph)	8	14	93	5	770	780	357	5	318
Turn Type	Perm	NA	Perm	NA	pm+ov	pm+pt	NA	Perm	NA
Protected Phases		8		4	1	1	6		2
Permitted Phases	8		4		4	6		2	
Detector Phase	8	8	4	4	1	1	6	2	2
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	15.0	15.0	15.0
Minimum Split (s)	12.0	12.0	23.0	23.0	9.5	9.5	24.0	24.0	24.0
Total Split (s)	26.0	26.0	26.0	26.0	39.6	39.6	64.0	24.4	24.4
Total Split (%)	28.9%	28.9%	28.9%	28.9%	44.0%	44.0%	71.1%	27.1%	27.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		5.0		5.0	4.5	4.5	6.0		6.0
Lead/Lag					Lead	Lead		Lag	Lag
Lead-Lag Optimize?					Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)		22.1		22.1	62.2	58.4	56.9		17.3
Actuated g/C Ratio		0.25		0.25	0.69	0.65	0.63		0.19
v/c Ratio		0.12		0.99	0.45	1.02	0.17		0.68
Control Delay		25.4		63.5	6.2	57.0	6.9		36.9
Queue Delay		0.0		0.0	0.0	0.0	0.0		0.0
Total Delay		25.4		63.5	6.2	57.0	6.9		36.9
LOS		C		E	A	E	A		D
Approach Delay		25.4		35.0			41.3		36.9
Approach LOS		C		D			D		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:SWTL and 6:NETL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 38.1	Intersection LOS: D
Intersection Capacity Utilization 96.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 1: N James Campbell Blvd & Driveway/Industrial Park Road



Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	396	14	19	373	34	7	3	6	20	2	18
Future Vol, veh/h	30	396	14	19	373	34	7	3	6	20	2	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	430	15	21	405	37	8	3	7	22	2	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	442	0	0	445	0	0	750	988	223	749	977	221
Stage 1	-	-	-	-	-	-	504	504	-	466	466	-
Stage 2	-	-	-	-	-	-	246	484	-	283	511	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1114	-	-	1112	-	-	300	246	780	300	249	783
Stage 1	-	-	-	-	-	-	518	539	-	546	561	-
Stage 2	-	-	-	-	-	-	736	550	-	700	535	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1114	-	-	1112	-	-	277	231	780	280	233	783
Mov Cap-2 Maneuver	-	-	-	-	-	-	277	231	-	280	233	-
Stage 1	-	-	-	-	-	-	498	518	-	525	547	-
Stage 2	-	-	-	-	-	-	697	536	-	663	514	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.5	15.9	15.4
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	348	1114	-	-	1112	-	-	388
HCM Lane V/C Ratio	0.05	0.029	-	-	0.019	-	-	0.112
HCM Control Delay (s)	15.9	8.3	0.1	-	8.3	0.1	-	15.4
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.1	-	-	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	0	373	0	0	0	383	180	0	0	169	113
Future Volume (veh/h)	88	0	373	0	0	0	383	180	0	0	169	113
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	96	0	405	0	0	0	416	196	0	0	184	123
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	341	0	612	0	337	0	451	2452	0	43	922	551
Arrive On Green	0.18	0.00	0.18	0.00	0.00	0.00	0.21	0.69	0.00	0.00	0.43	0.43
Sat Flow, veh/h	1406	0	1583	0	1863	0	1774	3632	0	0	2172	1320
Grp Volume(v), veh/h	96	0	405	0	0	0	416	196	0	0	155	152
Grp Sat Flow(s),veh/h/ln	1406	0	1583	0	1863	0	1774	1770	0	0	1770	1630
Q Serve(g_s), s	5.0	0.0	15.0	0.0	0.0	0.0	14.9	1.5	0.0	0.0	4.4	5.0
Cycle Q Clear(g_c), s	5.0	0.0	15.0	0.0	0.0	0.0	14.9	1.5	0.0	0.0	4.4	5.0
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.00	0.00		0.81
Lane Grp Cap(c), veh/h	341	0	612	0	337	0	451	2452	0	0	0	0
V/C Ratio(X)	0.28	0.00	0.66	0.00	0.00	0.00	0.92	0.08	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	341	0	612	0	337	0	471	2452	0	0	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	29.9	0.0	21.0	0.0	0.0	0.0	28.8	4.1	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	2.7	0.0	0.0	0.0	23.1	0.1	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	8.1	0.0	0.0	0.0	12.1	0.7	0.0	0.0	0.0	0.0
LnGrp Delay(d),s/veh	30.3	0.0	23.7	0.0	0.0	0.0	51.9	4.2	0.0	0.0	0.0	0.0
LnGrp LOS	C		C				D	A				
Approach Vol, veh/h		501			0			612			307	
Approach Delay, s/veh		24.9			0.0			36.6			0.0	
Approach LOS		C						D			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	21.6	41.9		19.5		63.5		19.5
Change Period (Y+Rc), s	4.5	6.0		4.5		6.0		4.5
Max Green Setting (Gmax), s	18.0	35.0		15.0		57.5		15.0
Max Q Clear Time (g_c+I1), s	16.9	7.0		17.0		3.5		0.0
Green Ext Time (p_c), s	0.2	1.5		0.0		1.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	24.6
HCM 2010 LOS	C



Lane Group	EBT	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	96	405	416	196	307
v/c Ratio	0.52	0.52	0.48	0.07	0.16
Control Delay	42.7	4.2	5.4	3.3	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	42.7	4.2	5.4	3.3	7.5
Queue Length 50th (ft)	47	0	53	11	23
Queue Length 95th (ft)	89	45	110	25	57
Internal Link Dist (ft)	4426			410	487
Turn Bay Length (ft)			480		
Base Capacity (vph)	256	853	931	2773	1939
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.38	0.47	0.45	0.07	0.16

Intersection Summary

Lane Group	EBL	EBT	EBR	NBL	NBT	SBT	Ø8
Lane Configurations							
Traffic Volume (vph)	88	0	373	383	180	169	
Future Volume (vph)	88	0	373	383	180	169	
Turn Type	Perm	NA	pm+ov	pm+pt	NA	NA	
Protected Phases		4	1	1	6	2	8
Permitted Phases	4		4	6			
Detector Phase	4	4	1	1	6	2	
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	15.0	15.0	5.0
Minimum Split (s)	9.5	9.5	9.5	9.5	21.0	21.0	9.5
Total Split (s)	19.5	19.5	22.5	22.5	63.5	41.0	19.5
Total Split (%)	23.5%	23.5%	27.1%	27.1%	76.5%	49.4%	23%
Yellow Time (s)	3.5	3.5	3.5	3.5	4.0	4.0	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	2.0	2.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.5	4.5	4.5	6.0	6.0	
Lead/Lag			Lead	Lead		Lag	
Lead-Lag Optimize?			Yes	Yes		Yes	
Recall Mode	None	None	None	None	C-Min	C-Min	None
Act Effct Green (s)		10.9	25.9	65.2	64.9	46.6	
Actuated g/C Ratio		0.13	0.31	0.79	0.78	0.56	
v/c Ratio		0.52	0.52	0.48	0.07	0.16	
Control Delay		42.7	4.2	5.4	3.3	7.5	
Queue Delay		0.0	0.0	0.0	0.0	0.0	
Total Delay		42.7	4.2	5.4	3.3	7.5	
LOS		D	A	A	A	A	
Approach Delay		11.6			4.7	7.5	
Approach LOS		B			A	A	

Intersection Summary	
Cycle Length: 83	
Actuated Cycle Length: 83	
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBSB, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.52	
Intersection Signal Delay: 7.7	Intersection LOS: A
Intersection Capacity Utilization 52.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Santa Fe Pike & N James Campbell Blvd/Driveway



PROJECTED CAPACITY ANALYSES WITH IMPROVEMENTS

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	3	2	1	160	8	957	510	317	6	1	275	55
Future Volume (veh/h)	3	2	1	160	8	957	510	317	6	1	275	55
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	3	2	1	0	0	1232	554	345	7	1	299	60
Adj No. of Lanes	0	1	0	0	1	2	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	7	4	2	0	600	1741	672	1973	40	26	856	169
Arrive On Green	0.01	0.01	0.01	0.00	0.00	0.32	0.23	0.56	0.56	0.30	0.30	0.30
Sat Flow, veh/h	883	589	294	0	1863	3167	1774	3548	72	1	2886	569
Grp Volume(v), veh/h	6	0	0	0	0	1232	554	172	180	192	0	168
Grp Sat Flow(s),veh/h/ln	1767	0	0	0	1863	1583	1774	1770	1850	1862	0	1595
Q Serve(g_s), s	0.5	0.0	0.0	0.0	0.0	40.1	29.4	6.7	6.7	0.0	0.0	11.6
Cycle Q Clear(g_c), s	0.5	0.0	0.0	0.0	0.0	40.1	29.4	6.7	6.7	11.3	0.0	11.6
Prop In Lane	0.50		0.17	0.00		1.00	1.00		0.04	0.01		0.36
Lane Grp Cap(c), veh/h	13	0	0	0	600	1741	672	984	1029	578	0	473
V/C Ratio(X)	0.46	0.00	0.00	0.00	0.00	0.71	0.82	0.17	0.18	0.33	0.00	0.36
Avail Cap(c_a), veh/h	88	0	0	0	772	2032	728	984	1029	578	0	473
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	69.2	0.0	0.0	0.0	0.0	23.2	23.2	15.3	15.3	38.6	0.0	38.7
Incr Delay (d2), s/veh	8.9	0.0	0.0	0.0	0.0	0.7	6.5	0.4	0.4	1.5	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.0	0.0	17.6	15.5	3.4	3.5	6.1	0.0	5.4
LnGrp Delay(d),s/veh	78.1	0.0	0.0	0.0	0.0	23.9	29.7	15.7	15.7	40.2	0.0	40.8
LnGrp LOS	E					C	C	B	B	D		D
Approach Vol, veh/h		6			1232			906			360	
Approach Delay, s/veh		78.1			23.9			24.2			40.5	
Approach LOS		E			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	36.3	47.5		50.1		83.8		6.0
Change Period (Y+Rc), s	4.5	6.0		5.0		6.0		5.0
Max Green Setting (Gmax), s	36.2	18.3		58.0		59.0		7.0
Max Q Clear Time (g_c+I1), s	31.4	13.6		42.1		8.7		2.5
Green Ext Time (p_c), s	0.5	1.3		3.0		4.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	26.5
HCM 2010 LOS	C

Notes



Lane Group	NBT	SBT	SBR	NEL	NET	SWT
Lane Group Flow (vph)	6	495	728	554	352	360
v/c Ratio	0.09	1.06	0.61	0.85	0.20	0.82
Control Delay	62.8	93.2	5.4	45.2	21.1	72.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.8	93.2	5.4	45.2	21.1	72.8
Queue Length 50th (ft)	5	~478	110	383	89	164
Queue Length 95th (ft)	20	#716	187	#703	141	#237
Internal Link Dist (ft)	135	475			976	3424
Turn Bay Length (ft)			130	140		
Base Capacity (vph)	89	466	1195	648	1728	444
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.07	1.06	0.61	0.85	0.20	0.81

Intersection Summary

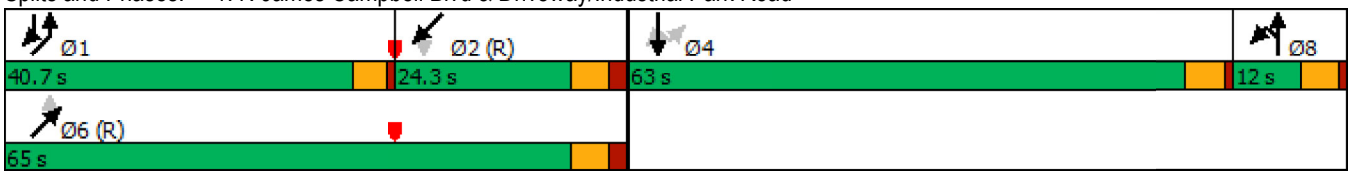
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	NBT	SBL	SBT	SBR	NEL	NET	SWL	SWT
Lane Configurations								
Traffic Volume (vph)	2	160	8	957	510	317	1	275
Future Volume (vph)	2	160	8	957	510	317	1	275
Turn Type	NA	Perm	NA	pm+ov	pm+pt	NA	Perm	NA
Protected Phases	8		4	1	1	6		2
Permitted Phases		4		4	6		2	
Detector Phase	8	4	4	1	1	6	2	2
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	15.0	15.0	15.0
Minimum Split (s)	12.0	23.0	23.0	9.5	9.5	24.0	24.0	24.0
Total Split (s)	12.0	63.0	63.0	40.7	40.7	65.0	24.3	24.3
Total Split (%)	8.6%	45.0%	45.0%	29.1%	29.1%	46.4%	17.4%	17.4%
Yellow Time (s)	4.0	4.0	4.0	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.0		5.0	4.5	4.5	6.0		6.0
Lead/Lag				Lead	Lead		Lag	Lag
Lead-Lag Optimize?				Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)	5.3		58.2	108.2	70.0	68.5		18.2
Actuated g/C Ratio	0.04		0.42	0.77	0.50	0.49		0.13
v/c Ratio	0.09		1.06	0.61	0.85	0.20		0.82
Control Delay	62.8		93.2	5.4	45.2	21.1		72.8
Queue Delay	0.0		0.0	0.0	0.0	0.0		0.0
Total Delay	62.8		93.2	5.4	45.2	21.1		72.8
LOS	E		F	A	D	C		E
Approach Delay	62.8		41.0			35.8		72.8
Approach LOS	E		D			D		E

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:SWTL and 6:NETL, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 43.7	Intersection LOS: D
Intersection Capacity Utilization 87.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: N James Campbell Blvd & Driveway/Industrial Park Road



Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	467	9	7	296	10	7	1	15	30	3	27
Future Vol, veh/h	9	467	9	7	296	10	7	1	15	30	3	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	508	10	8	322	11	8	1	16	33	3	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	333	0	0	518	0	0	712	882	259	619	882	167
Stage 1	-	-	-	-	-	-	533	533	-	344	344	-
Stage 2	-	-	-	-	-	-	179	349	-	275	538	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1223	-	-	1044	-	-	320	284	740	373	284	848
Stage 1	-	-	-	-	-	-	498	523	-	645	635	-
Stage 2	-	-	-	-	-	-	805	632	-	708	521	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1223	-	-	1044	-	-	302	279	740	359	279	848
Mov Cap-2 Maneuver	-	-	-	-	-	-	302	279	-	359	279	-
Stage 1	-	-	-	-	-	-	494	519	-	640	629	-
Stage 2	-	-	-	-	-	-	766	626	-	685	517	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	12.8	13.8
HCM LOS			B	B

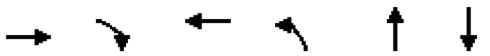
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	489	1223	-	-	1044	-	-	476
HCM Lane V/C Ratio	0.051	0.008	-	-	0.007	-	-	0.137
HCM Control Delay (s)	12.8	8	-	-	8.5	0	-	13.8
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	5	516	5	2	0	233	132	5	0	251	65
Future Volume (veh/h)	72	5	516	5	2	0	233	132	5	0	251	65
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	0	0	648	5	2	0	253	143	5	0	273	71
Adj No. of Lanes	0	1	2	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	393	980	266	85	0	335	1939	67	80	986	245
Arrive On Green	0.00	0.00	0.21	0.21	0.21	0.00	0.10	0.56	0.56	0.00	0.36	0.36
Sat Flow, veh/h	0	1863	3167	612	401	0	1774	3489	121	0	2886	713
Grp Volume(v), veh/h	0	0	648	7	0	0	253	72	76	0	171	173
Grp Sat Flow(s),veh/h/ln	0	1863	1583	1013	0	0	1774	1770	1841	0	1770	1737
Q Serve(g_s), s	0.0	0.0	8.0	0.0	0.0	0.0	2.6	0.9	0.9	0.0	3.1	3.3
Cycle Q Clear(g_c), s	0.0	0.0	8.0	0.1	0.0	0.0	2.6	0.9	0.9	0.0	3.1	3.3
Prop In Lane	0.00		1.00	0.71		0.00	1.00		0.07	0.00		0.41
Lane Grp Cap(c), veh/h	0	393	980	351	0	0	335	983	1023	0	0	0
V/C Ratio(X)	0.00	0.00	0.66	0.02	0.00	0.00	0.76	0.07	0.07	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	393	980	351	0	0	361	983	1023	0	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	13.5	14.1	0.0	0.0	10.1	4.6	4.6	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.7	0.0	0.0	0.0	8.2	0.1	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	3.7	0.1	0.0	0.0	2.5	0.4	0.5	0.0	0.0	0.0
LnGrp Delay(d),s/veh	0.0	0.0	15.1	14.1	0.0	0.0	18.3	4.8	4.8	0.0	0.0	0.0
LnGrp LOS			B	B			B	A	A			
Approach Vol, veh/h		648			7			401			344	
Approach Delay, s/veh		15.1			14.1			13.3			0.0	
Approach LOS		B			B			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	8.9	22.1		14.0		31.0		14.0
Change Period (Y+Rc), s	4.5	6.0		4.5		6.0		4.5
Max Green Setting (Gmax), s	5.1	15.4		9.5		25.0		9.5
Max Q Clear Time (g_c+I1), s	4.6	5.3		10.0		2.9		2.1
Green Ext Time (p_c), s	0.0	1.2		0.0		0.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	10.9
HCM 2010 LOS	B

Notes



Lane Group	EBT	EBR	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	324	320	7	253	148	344
v/c Ratio	0.71	0.40	0.04	0.41	0.07	0.27
Control Delay	15.5	3.0	14.5	6.4	4.5	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.5	3.0	14.5	6.4	4.5	9.2
Queue Length 50th (ft)	20	0	1	24	7	25
Queue Length 95th (ft)	#105	33	9	53	16	49
Internal Link Dist (ft)	4426		175		410	487
Turn Bay Length (ft)				480		
Base Capacity (vph)	497	805	233	622	2087	1286
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.40	0.03	0.41	0.07	0.27

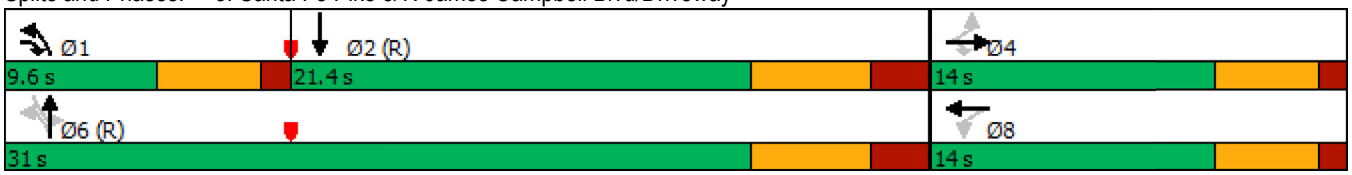
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBT
Lane Configurations								
Traffic Volume (vph)	72	5	516	5	2	233	132	251
Future Volume (vph)	72	5	516	5	2	233	132	251
Turn Type	Perm	NA	pm+ov	Perm	NA	pm+pt	NA	NA
Protected Phases		4	1		8	1	6	2
Permitted Phases	4		4	8		6		
Detector Phase	4	4	1	8	8	1	6	2
Switch Phase								
Minimum Initial (s)	5.0	5.0	4.0	5.0	5.0	4.0	15.0	15.0
Minimum Split (s)	9.5	9.5	8.5	9.5	9.5	8.5	21.0	21.0
Total Split (s)	14.0	14.0	9.6	14.0	14.0	9.6	31.0	21.4
Total Split (%)	31.1%	31.1%	21.3%	31.1%	31.1%	21.3%	68.9%	47.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5		4.5	4.5	6.0	6.0
Lead/Lag			Lead			Lead		Lag
Lead-Lag Optimize?			Yes			Yes		Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min
Act Effct Green (s)		8.0	18.5		8.0	28.0	26.5	16.0
Actuated g/C Ratio		0.18	0.41		0.18	0.62	0.59	0.36
v/c Ratio		0.71	0.40		0.04	0.41	0.07	0.27
Control Delay		15.5	3.0		14.5	6.4	4.5	9.2
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0
Total Delay		15.5	3.0		14.5	6.4	4.5	9.2
LOS		B	A		B	A	A	A
Approach Delay		9.3			14.5		5.7	9.2
Approach LOS		A			B		A	A

Intersection Summary	
Cycle Length: 45	
Actuated Cycle Length: 45	
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBSB, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 8.2	Intersection LOS: A
Intersection Capacity Utilization 53.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Santa Fe Pike & N James Campbell Blvd/Driveway



Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	8	14	5	93	5	770	780	357	0	5	318	84
Future Volume (veh/h)	8	14	5	93	5	770	780	357	0	5	318	84
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	9	15	5	0	0	949	848	388	0	5	346	91
Adj No. of Lanes	0	1	0	0	1	2	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	107	163	45	0	389	1862	872	2367	0	43	651	167
Arrive On Green	0.21	0.21	0.21	0.00	0.00	0.21	0.38	0.67	0.00	0.24	0.24	0.24
Sat Flow, veh/h	262	779	217	0	1863	3167	1774	3632	0	11	2717	698
Grp Volume(v), veh/h	29	0	0	0	0	949	848	388	0	237	0	205
Grp Sat Flow(s),veh/h/ln	1258	0	0	0	1863	1583	1774	1770	0	1854	0	1572
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	15.9	31.8	3.7	0.0	0.0	0.0	10.3
Cycle Q Clear(g_c), s	1.2	0.0	0.0	0.0	0.0	15.9	31.8	3.7	0.0	10.0	0.0	10.3
Prop In Lane	0.31		0.17	0.00		1.00	1.00		0.00	0.02		0.44
Lane Grp Cap(c), veh/h	315	0	0	0	389	1862	872	2367	0	485	0	377
V/C Ratio(X)	0.09	0.00	0.00	0.00	0.00	0.51	0.97	0.16	0.00	0.49	0.00	0.54
Avail Cap(c_a), veh/h	342	0	0	0	435	1939	891	2367	0	485	0	377
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.6	0.0	0.0	0.0	0.0	10.9	15.1	5.5	0.0	29.8	0.0	29.9
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.1	23.2	0.1	0.0	3.5	0.0	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.0	0.0	6.9	25.9	1.8	0.0	5.6	0.0	5.0
LnGrp Delay(d),s/veh	28.7	0.0	0.0	0.0	0.0	11.0	38.3	5.7	0.0	33.3	0.0	35.4
LnGrp LOS	C					B	D	A		C		D
Approach Vol, veh/h		29			949			1236			442	
Approach Delay, s/veh		28.7			11.0			28.1			34.3	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	38.6	27.6		23.8		66.2		23.8
Change Period (Y+Rc), s	4.5	6.0		5.0		6.0		5.0
Max Green Setting (Gmax), s	35.1	18.4		21.0		58.0		21.0
Max Q Clear Time (g_c+I1), s	33.8	12.3		17.9		5.7		3.2
Green Ext Time (p_c), s	0.3	2.0		0.9		5.1		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	23.0
HCM 2010 LOS	C

Notes

Lane Group	NBT	SBT	SBR	NEL	NET	SWT
Lane Group Flow (vph)	29	474	469	848	388	442
v/c Ratio	0.12	0.99	0.45	1.02	0.17	0.68
Control Delay	25.4	63.5	6.2	57.0	6.9	44.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.4	63.5	6.2	57.0	6.9	44.0
Queue Length 50th (ft)	11	~214	80	~397	41	133
Queue Length 95th (ft)	34	#416	141	#655	60	185
Internal Link Dist (ft)	135	475			976	3424
Turn Bay Length (ft)			130	140		
Base Capacity (vph)	236	477	1040	828	2280	690
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.99	0.45	1.02	0.17	0.64

Intersection Summary

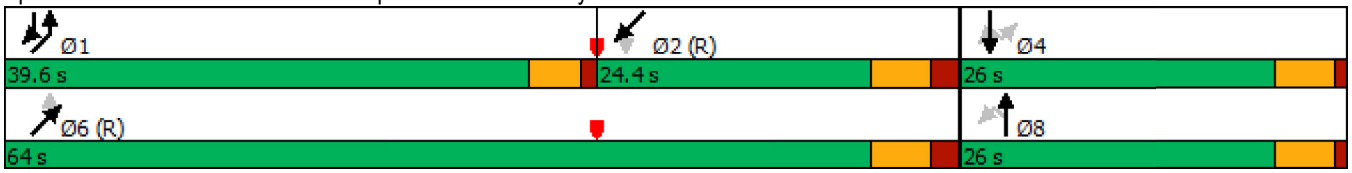
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	NBL	NBT	SBL	SBT	SBR	NEL	NET	SWL	SWT
Lane Configurations									
Traffic Volume (vph)	8	14	93	5	770	780	357	5	318
Future Volume (vph)	8	14	93	5	770	780	357	5	318
Turn Type	Perm	NA	Perm	NA	pm+ov	pm+pt	NA	Perm	NA
Protected Phases		8		4	1	1	6		2
Permitted Phases	8		4		4	6		2	
Detector Phase	8	8	4	4	1	1	6	2	2
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	15.0	15.0	15.0
Minimum Split (s)	12.0	12.0	23.0	23.0	9.5	9.5	24.0	24.0	24.0
Total Split (s)	26.0	26.0	26.0	26.0	39.6	39.6	64.0	24.4	24.4
Total Split (%)	28.9%	28.9%	28.9%	28.9%	44.0%	44.0%	71.1%	27.1%	27.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		5.0		5.0	4.5	4.5	6.0		6.0
Lead/Lag					Lead	Lead		Lag	Lag
Lead-Lag Optimize?					Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)		22.1		22.1	62.2	58.4	56.9		17.3
Actuated g/C Ratio		0.25		0.25	0.69	0.65	0.63		0.19
v/c Ratio		0.12		0.99	0.45	1.02	0.17		0.68
Control Delay		25.4		63.5	6.2	57.0	6.9		44.0
Queue Delay		0.0		0.0	0.0	0.0	0.0		0.0
Total Delay		25.4		63.5	6.2	57.0	6.9		44.0
LOS		C		E	A	E	A		D
Approach Delay		25.4		35.0			41.3		44.0
Approach LOS		C		D			D		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:SWTL and 6:NETL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 39.3	Intersection LOS: D
Intersection Capacity Utilization 96.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 1: N James Campbell Blvd & Driveway/Industrial Park Road



Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	396	14	19	373	34	7	3	6	20	2	18
Future Vol, veh/h	30	396	14	19	373	34	7	3	6	20	2	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	430	15	21	405	37	8	3	7	22	2	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	442	0	0	445	0	0	750	988	223	749	977	221
Stage 1	-	-	-	-	-	-	504	504	-	466	466	-
Stage 2	-	-	-	-	-	-	246	484	-	283	511	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1114	-	-	1112	-	-	300	246	780	300	249	783
Stage 1	-	-	-	-	-	-	518	539	-	546	561	-
Stage 2	-	-	-	-	-	-	736	550	-	700	535	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1114	-	-	1112	-	-	278	233	780	282	236	783
Mov Cap-2 Maneuver	-	-	-	-	-	-	278	233	-	282	236	-
Stage 1	-	-	-	-	-	-	502	523	-	530	547	-
Stage 2	-	-	-	-	-	-	697	536	-	669	519	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.5	15.8	15.4
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	350	1114	-	-	1112	-	-	391
HCM Lane V/C Ratio	0.05	0.029	-	-	0.019	-	-	0.111
HCM Control Delay (s)	15.8	8.3	-	-	8.3	0.1	-	15.4
HCM Lane LOS	C	A	-	-	A	A	-	C
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.1	-	-	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	0	373	0	0	0	383	180	0	0	169	113
Future Volume (veh/h)	88	0	373	0	0	0	383	180	0	0	169	113
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	96	232	250	0	0	0	416	196	0	0	184	123
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	180	221	510	0	323	0	424	2100	0	80	753	450
Arrive On Green	0.17	0.17	0.17	0.00	0.00	0.00	0.15	0.59	0.00	0.00	0.34	0.34
Sat Flow, veh/h	443	1275	1583	0	1863	0	1774	3632	0	0	2172	1320
Grp Volume(v), veh/h	328	0	250	0	0	0	416	196	0	0	155	152
Grp Sat Flow(s),veh/h/ln	1719	0	1583	0	1863	0	1774	1770	0	0	1770	1630
Q Serve(g_s), s	6.9	0.0	5.7	0.0	0.0	0.0	6.4	1.1	0.0	0.0	2.7	3.1
Cycle Q Clear(g_c), s	7.8	0.0	5.7	0.0	0.0	0.0	6.4	1.1	0.0	0.0	2.7	3.1
Prop In Lane	0.29		1.00	0.00		0.00	1.00		0.00	0.00		0.81
Lane Grp Cap(c), veh/h	401	0	510	0	323	0	424	2100	0	0	0	0
V/C Ratio(X)	0.82	0.00	0.49	0.00	0.00	0.00	0.98	0.09	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	401	0	510	0	323	0	424	2100	0	0	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	0.0	12.3	0.0	0.0	0.0	13.3	3.9	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	12.4	0.0	0.7	0.0	0.0	0.0	38.5	0.1	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	0.0	2.6	0.0	0.0	0.0	7.5	0.5	0.0	0.0	0.0	0.0
LnGrp Delay(d),s/veh	31.4	0.0	13.0	0.0	0.0	0.0	51.9	4.0	0.0	0.0	0.0	0.0
LnGrp LOS	C		B				D	A				
Approach Vol, veh/h		578			0			612			307	
Approach Delay, s/veh		23.4			0.0			36.5			0.0	
Approach LOS		C						D			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	11.2	21.5		12.3		32.7		12.3
Change Period (Y+Rc), s	4.5	6.0		4.5		6.0		4.5
Max Green Setting (Gmax), s	6.7	15.5		7.8		26.7		7.8
Max Q Clear Time (g_c+I1), s	8.4	5.1		9.8		3.1		0.0
Green Ext Time (p_c), s	0.0	1.1		0.0		1.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	24.0
HCM 2010 LOS	C

Notes



Lane Group	EBT	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	254	247	416	196	307
v/c Ratio	0.67	0.32	0.62	0.09	0.25
Control Delay	20.2	2.9	9.1	4.2	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	2.9	9.1	4.2	7.2
Queue Length 50th (ft)	49	0	43	10	17
Queue Length 95th (ft)	m92	m33	80	18	38
Internal Link Dist (ft)	4426			410	487
Turn Bay Length (ft)			480		
Base Capacity (vph)	401	777	672	2161	1249
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.63	0.32	0.62	0.09	0.25

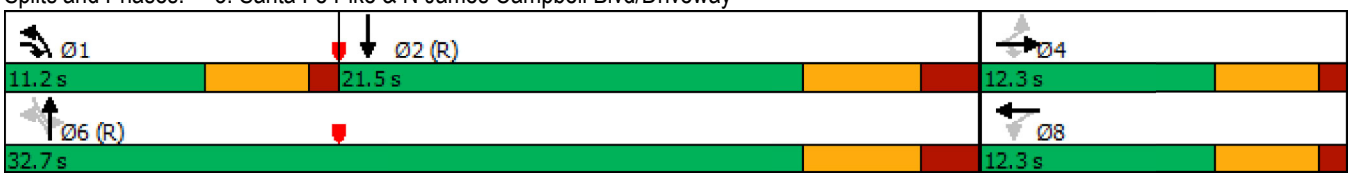
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	NBL	NBT	SBT	Ø8
Lane Configurations							
Traffic Volume (vph)	88	0	373	383	180	169	
Future Volume (vph)	88	0	373	383	180	169	
Turn Type	Perm	NA	pm+ov	pm+pt	NA	NA	
Protected Phases		4	1	1	6	2	8
Permitted Phases	4		4	6			
Detector Phase	4	4	1	1	6	2	
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	15.0	15.0	5.0
Minimum Split (s)	9.5	9.5	9.5	9.5	21.0	21.0	9.5
Total Split (s)	12.3	12.3	11.2	11.2	32.7	21.5	12.3
Total Split (%)	27.3%	27.3%	24.9%	24.9%	72.7%	47.8%	27%
Yellow Time (s)	3.5	3.5	3.5	3.5	4.0	4.0	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	2.0	2.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.5	4.5	4.5	6.0	6.0	
Lead/Lag			Lead	Lead		Lag	
Lead-Lag Optimize?			Yes	Yes		Yes	
Recall Mode	None	None	None	None	C-Min	C-Min	None
Act Effct Green (s)		7.3	19.0	28.7	27.2	15.5	
Actuated g/C Ratio		0.16	0.42	0.64	0.60	0.34	
v/c Ratio		0.67	0.32	0.62	0.09	0.25	
Control Delay		20.2	2.9	9.1	4.2	7.2	
Queue Delay		0.0	0.0	0.0	0.0	0.0	
Total Delay		20.2	2.9	9.1	4.2	7.2	
LOS		C	A	A	A	A	
Approach Delay		11.7			7.5	7.2	
Approach LOS		B			A	A	

Intersection Summary	
Cycle Length: 45	
Actuated Cycle Length: 45	
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBSB, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 8.9	Intersection LOS: A
Intersection Capacity Utilization 60.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Santa Fe Pike & N James Campbell Blvd/Driveway



APPENDIX C – DETAILED TRIP GENERATION CALCULATIONS

111 Southeast Pkwy Ct
Franklin, TN 37064
615-678-8212

www.T2-Eng.com

TRIP GENERATION

Project:	Oakwood Drive Subdivision – Columbia, TN
ITE Land Use:	Single-Family Housing
ITE Code:	210
Trip Ends vs:	**ITE 210** – 108 DU
Daily Equation:	Weekday – Fitted Curve Equation
AM Equation:	Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 AM – Fitted Curve Equation
PM Equation:	Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 PM – Fitted Curve Equation

Single-Family Homes (210) – 108 Dwelling Units

Time Period	Formula[1]	Calculation	Trips
Daily	$Ln\,(T) = 0.92Ln(X) + 2.68$	$Ln\,(T) = 0.92Ln(108) + 2.68$	1,083
AM Peak (Total)	$Ln\,(T) = 0.91Ln(X) + 0.12$	$Ln\,(T) = 0.91Ln(108) + 0.12$	80
AM Peak (Entering)	$T = 0.25(Total\ AM\ Trips)$	$T = 0.25(80)$	20
AM Peak (Exiting)	$T = 0.75(Total\ AM\ Trips)$	$T = 0.75(80)$	60
PM Peak (Total)	$Ln\,(T) = 0.94Ln(X) + 0.27$	$Ln\,(T) = 0.94Ln(108) + 0.27$	107
PM Peak (Entering)	$T = 0.63(Total\ PM\ Trips)$	$T = 0.63(107)$	67
PM Peak (Exiting)	$T = 0.37(Total\ PM\ Trips)$	$T = 0.37(107)$	40

[1] Institute of Transportation Engineers (ITE). Trip Generation Manual, 11th Edition. Washington, DC: ITE, 2024

Single-Family Detached Housing
(210)

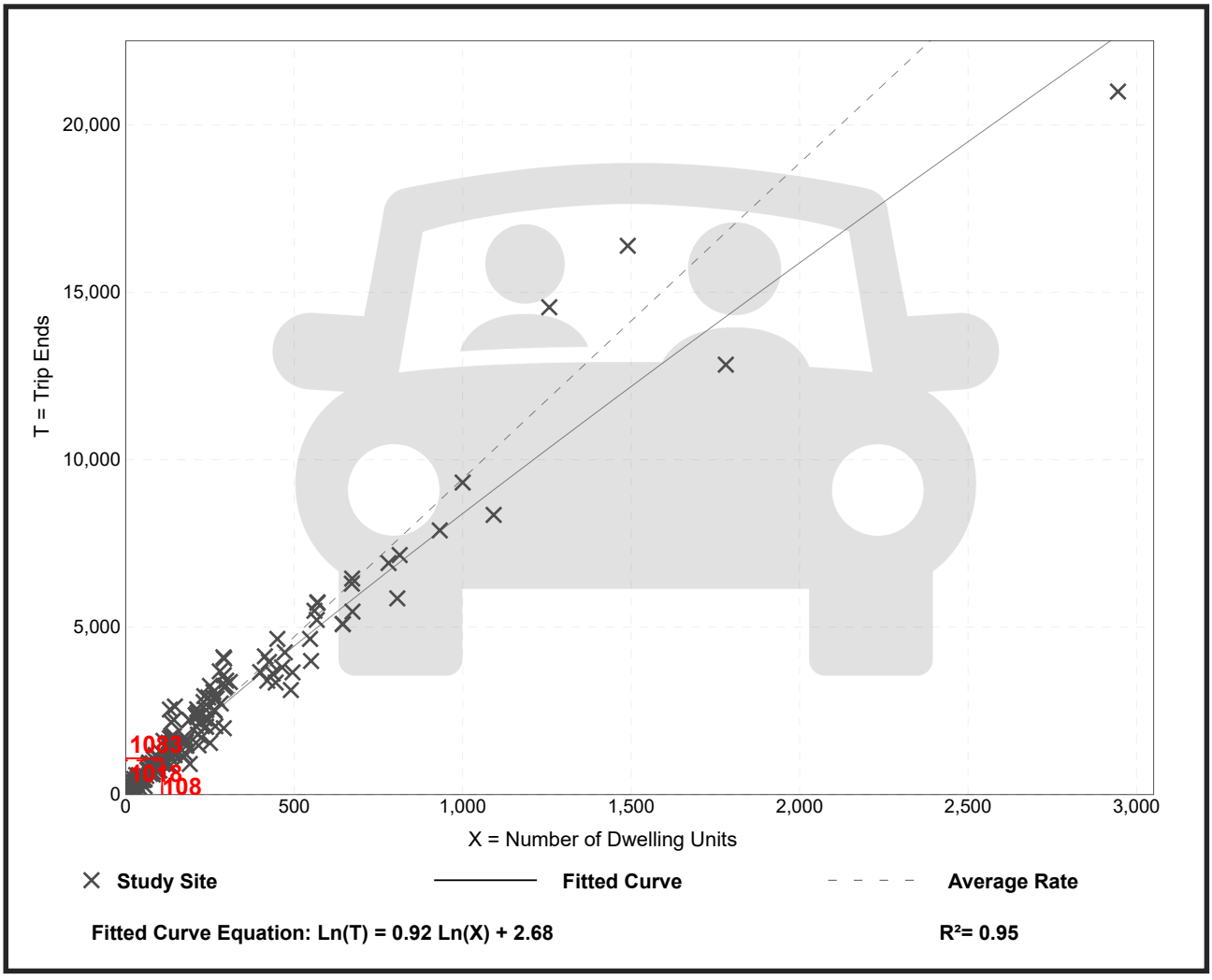
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 174
Avg. Num. of Dwelling Units: 246
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.43	4.45 - 22.61	2.13

Data Plot and Equation



Trip Gen Manual, 11th Edition ● Institute of Transportation Engineers

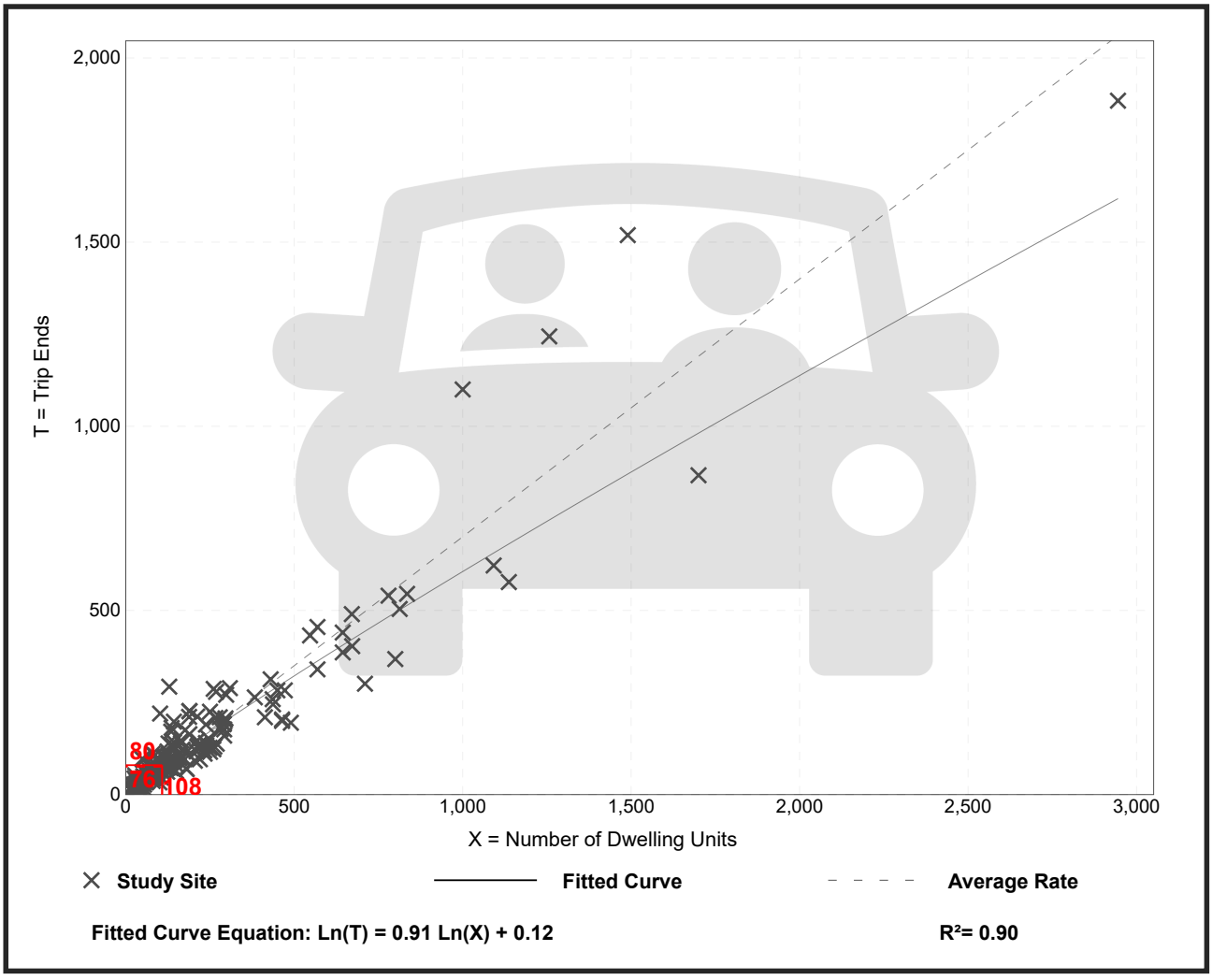
Single-Family Detached Housing
(210)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 192
Avg. Num. of Dwelling Units: 226
Directional Distribution: 25% entering, 75% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.70	0.27 - 2.27	0.24

Data Plot and Equation



Trip Gen Manual, 11th Edition ● Institute of Transportation Engineers

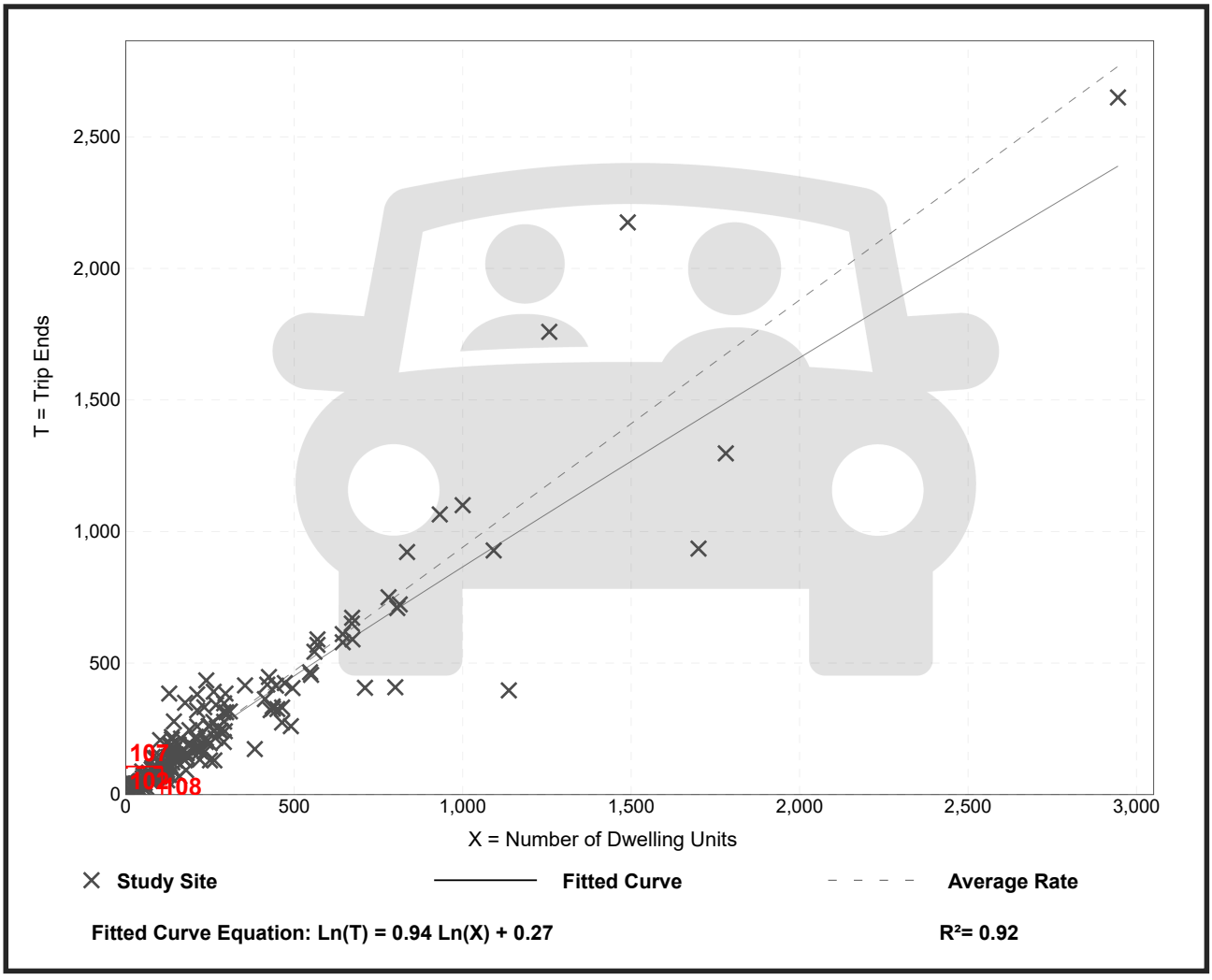
Single-Family Detached Housing
(210)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 208
Avg. Num. of Dwelling Units: 248
Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.94	0.35 - 2.98	0.31

Data Plot and Equation



Trip Gen Manual, 11th Edition ● Institute of Transportation Engineers

APPENDIX D – ADDITIONAL FIGURES

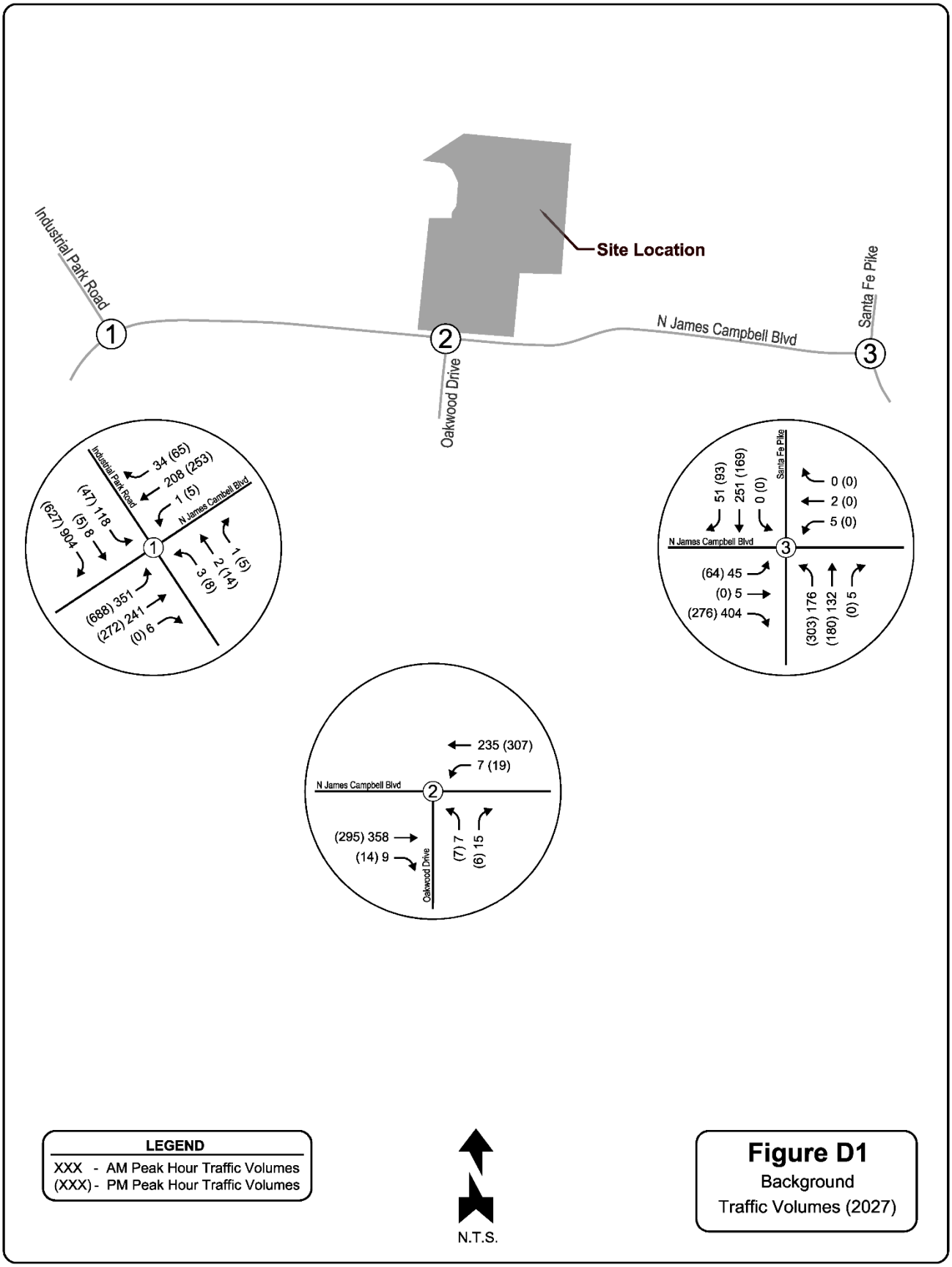
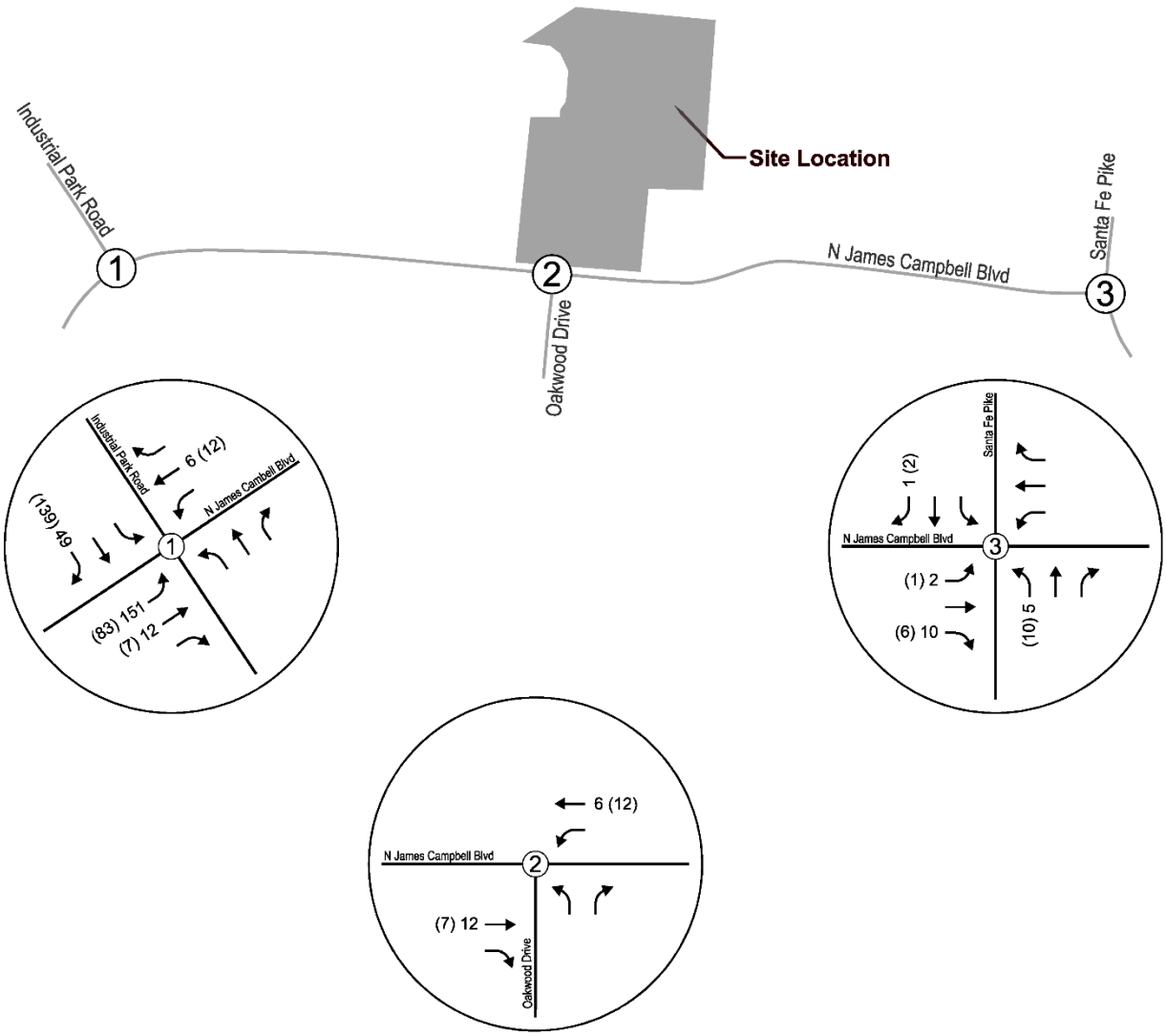


Figure D1
Background
Traffic Volumes (2027)



LEGEND

XXX - AM Peak Hour Traffic Volumes
(XXX) - PM Peak Hour Traffic Volumes

N.T.S.

Figure D2
Generated Background Developement Volumes (Steadfast)

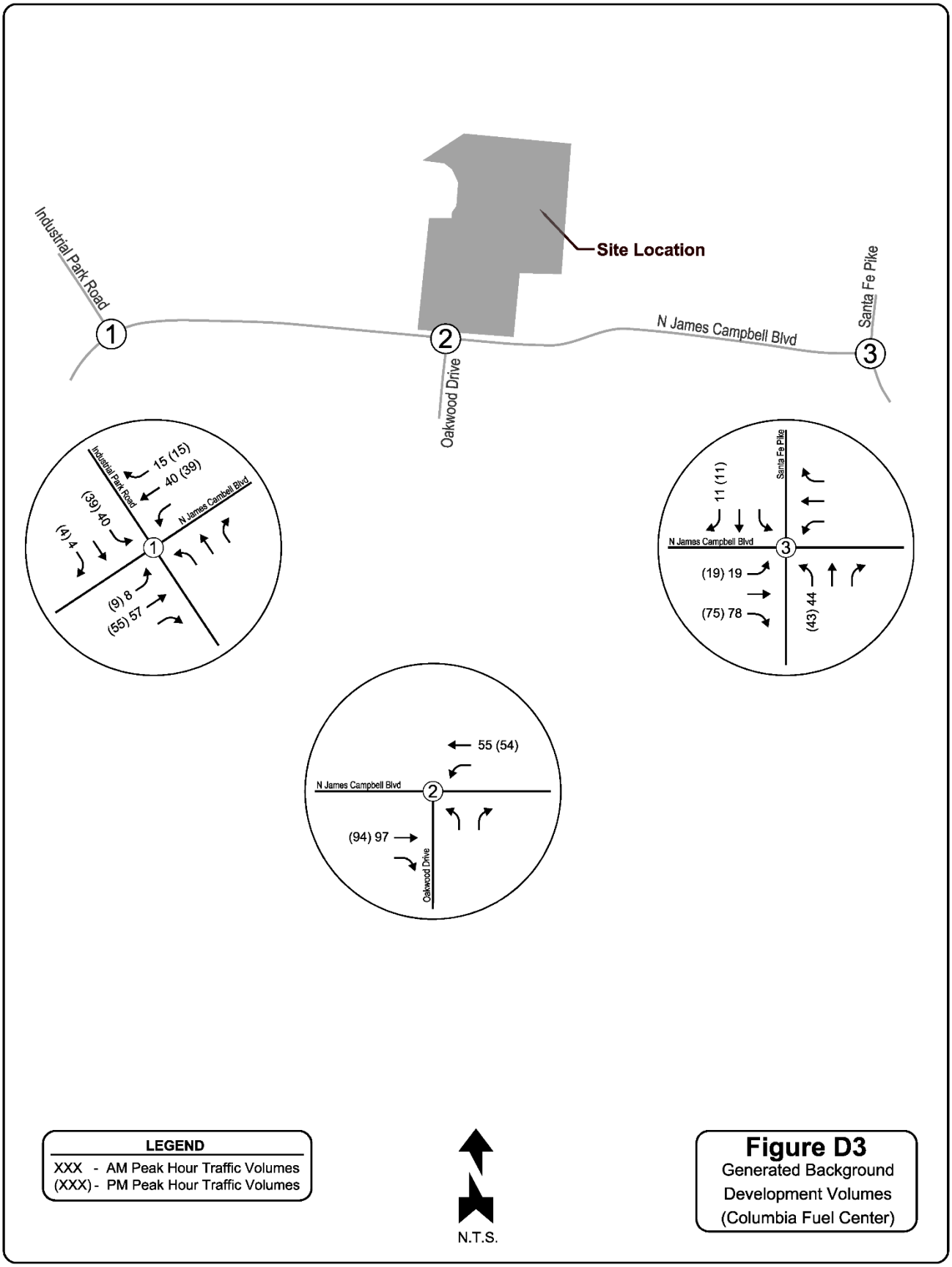


Figure D3
Generated Background Development Volumes (Columbia Fuel Center)

Sepac 3.34g Preempt Data

Location:	James Cambell
and	Industrial

TS #	21
Date:	3.10.22

key 7-4-1		Preempt 3 Misc						
Test		N-Lock		Link PE				
Delay		Extend		Duration				
		MxCall	90	Lock Out				
Phase	1	2	3	4	5	6	7	8
Exit		1				1		
Calls	1	1	1	1	1	1	1	1
	1 = yes 0 = no							

key 7-4-2	Preempt 3 Int Times		
SEL PED CLR	8	TRK YEL/10	0
SEL YEL/10	40	TRK RED/10	0
SEL RED/10	20	DWELL GRN	10
TRK GRN	0	RET PED CLR	8
TRK PED CLR	0	RET YEL/10	40
		RET RED/10	20

key 7-4-3	Preempt 3 Veh Status							
Phase	1	2	3	4	5	6	7	8
TRK GRN	0	0	0	0	0	0	0	0
DWELL	1					1		
0-RED 1-GRN 2-FLR 3-FLY 4-DARK 5-FLG								
CYCLE								
0-NO 1-ACT 2-MN REC 3-MX REC								

key 7-5-1		Preempt 4 Misc						
Test		N-Lock		Link PE				
Delay		Extend		Duration				
		MxCall	90	Lock Out				
Phase	1	2	3	4	5	6	7	8
Exit		1				1		
Calls	1	1	1	1	1	1	1	1
	1 = yes 0 = no							

key 7-5-2	Preempt 4 Int Times		
SEL PED CLR	8	TRK YEL/10	0
SEL YEL/10	40	TRK RED/10	0
SEL RED/10	20	DWELL GRN	10
TRK GRN	0	RET PED CLR	8
TRK PED CLR	0	RET YEL/10	40
		RET RED/10	20

key 7-5-3	Preempt 4 Veh Status							
Phase	1	2	3	4	5	6	7	8
TRK GRN	0	0	0	0	0	0	0	0
DWELL		1						
0-RED 1-GRN 2-FLR 3-FLY 4-DARK 5-FLG								
CYCLE								
0-NO 1-ACT 2-MN REC 3-MX REC								

key 7-6-1		Preempt 5 Misc						
Test		N-Lock		Link PE				
Delay		Extend		Duration				
		MxCall	90	Lock Out				
Phase	1	2	3	4	5	6	7	8
Exit		1				1		
Calls	1	1	1	1	1	1	1	1
	1 = yes 0 = no							

key 7-6-2	Preempt 5 Int Times		
SEL PED CLR	8	TRK YEL/10	0
SEL YEL/10	40	TRK RED/10	0
SEL RED/10	20	DWELL GRN	10
TRK GRN	0	RET PED CLR	8
TRK PED CLR	0	RET YEL/10	40
		RET RED/10	20

key 7-6-3	Preempt 5 Veh Status							
Phase	1	2	3	4	5	6	7	8
TRK GRN	0	0	0	0	0	0	0	0
DWELL				1				
0-RED 1-GRN 2-FLR 3-FLY 4-DARK 5-FLG								
CYCLE								
0-NO 1-ACT 2-MN REC 3-MX REC								

key 7-7-1		Preempt 6 Misc						
Test		N-Lock		Link PE				
Delay		Extend		Duration				
		MxCall	90	Lock Out				
Phase	1	2	3	4	5	6	7	8
Exit		1				1		
Calls	1	1	1	1	1	1	1	1
1 = yes 0 = no								

key 7-7-2	Preempt 6 Int Times		
SEL PED CLR	6	TRK YEL/10	0
SEL YEL/10	40	TRK RED/10	0
SEL RED/10	20	DWELL GRN	10
TRK GRN	0	RET PED CLR	6
TRK PED CLR	0	RET YEL/10	40
		RET RED/10	20

key 7-7-3	Preempt 6 Veh Status							
Phase	1	2	3	4	5	6	7	8
TRK GRN	0	0	0	0	0	0	0	0
DWELL			1					
0-RED 1-GRN 2-FLR 3-FLY 4-DARK 5-FLG								
CYCLE								
0-NO 1-ACT 2-MN REC 3-MX REC								

key 4-8	I/O MISC			
RING I/O	1	2	3	4
INPUT RESPONSE	1	2	0	0
OUTPUT SELECT	1	2	0	0
I/O MODES	INPUT	OUTPUT	BIT	
ABC CONN	0	0	0	
D CONN	1	0	-	

key 2-8-4	IP Addressing		
DHCP	0	NET	1
IP ADDRESS	10.112. 2.169		
SUBNET MSK	255.255.255.224		
BROADCAST	10.112. 2.191		

key 2-8-5	Network Config
TYPE	3
DESTINATION	
GATEWAY	10.112. 2.161
NETMASK	
HOP COUNT	

key 8-1-1		COMM ADDRESS
ADDRESS	1	-- KEYPAD
ADDRESS	0	-- T&F INPUTS

TS 22

Location:	JAMES CAMPBELL
and	JAMES CAMPBELL (SANTA FE PIKE)

TS #	22
Date:	8-31-20

key 3-1			Vehicle times					
Phase	1	2	3	4	5	6	7	8
min green	4	15	5	5	0	15	0	0
pass/10	20	50	20	20	0	50	0	0
max # 1	10	35	15	15	50	35	0	0
max # 2	0	0	0	0	0	0	0	0
yellow/10	35	40	35	35	40	40	40	40
red/10	10	20	10	10	20	20	20	20

key 3-2		Density Times						
Phase	1	2	3	4	5	6	7	8
aini/10								
max int								
Tb4								
carsb4								
Time to								
Min gap								

key 3-3		Pedestrian Times						
Phase	1	2	3	4	5	6	7	8
Walk	0	7	0	7	0	7	0	7
Ped clear	8	8	0	8	0	8	0	8
fl wk								
ext pcl								
act riw								
		1 = yes 0 = no						

key 3-7		Sequence control						
phase	1	2	3	4	5	6	7	8
ph. Omit	2	0	0	0	0	0	0	0
ph. Yell	0	0	0	0	0	0	0	0
Codes	0		01-08 # - phase					
	none		phase is omitted by # on					
	none phase yellow is omitted by # yellow							

key 3-5	V.& P. recalls							
Phases	1	2	3	4	5	6	7	8
veh.recall	0	2	0	0	0	2	0	0
ped recall								
delay								

Codes	0	1	2	3	4
	none	Inactive	red	yellow	gree
	none	to na 1	to na II	to both	
	none	1 call	minimum	maximum	soft
	none	1 call	ped	na	na+

key 3-6		N. lock & misc						
Phase	1	2	3	4	5	6	7	8
non lock	1	1	1	1	1	1	1	1
2 entry								
lc pass								
con. Ser.								
no sgap								
		1 = yes 0 = no						

key 3-4	Init. Na response							
	phas	1	2	3	4	5	6	7	8
	initial	1	4	1	1	0	4	0	0
	na resp								

Codes	0	1	2	3	4
Init	none	inact	red	yel	grn
na resp	none	to 1	to 2	both	

key 4-4

OVL TRAILING GREENS, YELLOWS AND REDS			
	GREEN	YELLOW	RED
OLA	0	40	20
OLB	0	40	20
OLC	0	40	20
OLD	0	40	20
OLE	0	40	20
OLF	0	40	20
OLG	0	40	20
OLH	0	40	20

key 3-8-1	Det. Controls										
detector	1	2	3	4	5	6	7	8			
assign phase	0	0	2	6	0	0	0	0			
oper mode	0	0	0	0	0	0	0	0			
switch	0	0	0	0	0	0	0	0			

key 3-8-2								
9	10	11	12	13	14	15	16	
3	0	1	0	0	0	4	6	
0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	

key 3-8-1	Det. Timings "Change From Controls to Timings"										
extend time											
delay time					0						

key 3-8-2								
			0					

key 3-8-3	Det. Controls										
detector	17	18	19	20	21	22	23	24			
assign phase											
oper mode					0						
switch											

key 3-8-4								
25	26	27	28	29	30	31	32	
			0					

key 3-8- 3	Det. Timings "Change From Controls to Timings"										
extend time											
delay time					0						

key 3-8-4								
			0					

codes	0		1		2		3		4	
	norm veh		norm ped		one call		st bar a		st bar b	
	none									
	none									

key3-8-9	Ped. Dets.							
Ped Det Control	1	2	3	4	5	6	7	8
Assigned phase	3	2	3	4	5	6	7	8
Operation Mode	1	1	1	1	1	1	1	1
Switch Phase	0	0	0	0	0	0	0	0

Mode	0-veh	1-ped	2-0ne	3-sba
	4-sbb	5-ppl	6-ppt	7-and

Startup & misc.		key 4-1
Startup time	5	time in sec.
Startup state	0	0-fl 1-red
red rev/10	40	time in tenths
auto ped clear	0	o-no 1- yes
Stop t reset	0	0-no 1-yes
Alt. sequence	0	0-18
I'NAT'L SEQ	0	0-no 1-yes

Coordination data and set up		key 5-1						
Coord. Setup		0	1	2	3	4	5	
Oper	1	fre	aut	man				
mode	0	prm	yld	pyl	pom	som	fac	
max	0	inh	mx1	mx2				
corr	0	dwl	ndw	swy	sw+	sw2		
ofst	0	beg	end of green					
frce	0	pln cycle time						
mx dwell	0							
yield period	0							

Overlap Standard use up/down to swtich between overlaps

key 4-3			0-no 1-yes

Overlap A

OVL Phase																			
PHS/CHN	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9
OVL CHN																			

Overlap B

OVL Phase																			
PHS/CHN	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9
OVL CHN																			

Overlap C

OVL Phase																			
PHS/CHN	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9
OVL CHN																			

Overlap D

OVL Phase																			
PHS/CHN	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9
OVL CHN																			

key 5-3 **Input Dial1 split1 Phase Param. Level 2**

Phase	1	2	3	4	5	6	7	8
Time								
Mode								

mode: 0-actuated 1-coord ph 2-min rec
3-max rec 4-ped rec 5-mx+p
6-ph omit 7-dual coord phase

key 5-3 **Input Dial 2 split 1 phase Param. Level 2**

Phase	1	2	3	4	5	6	7	8
Time								
Mode								

Mode: 0-actuatec 1-coord ph 2-min rec
3-max rec 4-ped rec 5-mx+p rec
6-ph omit 7-dual coord phase

key 5-3

Input Dial1 Split 1 Param. Level 1

offset	time	alt	patn	r2	r3	r4
#	sec	seq	mode	lag	lag	lag
1						
2						
3						

mode 0-6 nrm/prm/yld/pyl/pom/som/fac

key 5-3 **Input Dial 2 split 1 Param. Level 1**

Offset	time	alt	patn	r2	r3	r4
#	sec	seq	mode	lag	lag	lag
1						
2						
3						

Traffic Events						
key 6-3-E	DD	HH	MM	DL	SP	OF

Sepac 3.34g Preempt Data

Location:	James Campbell
and	Santa Fe PK

TS #	22
Date:	3·1·22

key 7-4-1		Preempt 3 Misc							
Test		N-Lock		Link PE					
Delay		Extend		Duration					
		MxCall	90	Lock Out					
Phase	1	2	3	4	5	6	7	8	
Exit		1				1			
Calls	1	1	1	1	1	1	1	1	
1 = yes 0 = no									

key 7-4-2	Preempt 3 Int Times		
SEL PED CLR	8	TRK YEL/10	0
SEL YEL/10	40	TRK RED/10	0
SEL RED/10	20	DWELL GRN	10
TRK GRN	0	RET PED CLR	8
TRK PED CLR	0	RET YEL/10	40
		RET RED/10	20

key 7-4-3	Preempt 3 Veh Status							
Phase	1	2	3	4	5	6	7	8
TRK GRN	0	0	0	0	0	0	0	0
DWELL	1					1		
0-RED 1-GRN 2-FLR 3-FLY 4-DARK 5-FLG								
CYCLE								
0-NO 1-ACT 2-MN REC 3-MX REC								

key 7-5-1		Preempt 4 Misc							
Test		N-Lock		Link PE					
Delay		Extend		Duration					
		MxCall	90	Lock Out					
Phase	1	2	3	4	5	6	7	8	
Exit		1				1			
Calls	1	1	1	1	1	1	1	1	
1 = yes 0 = no									

key 7-5-2	Preempt 4 Int Times		
SEL PED CLR	8	TRK YEL/10	0
SEL YEL/10	40	TRK RED/10	0
SEL RED/10	20	DWELL GRN	10
TRK GRN	0	RET PED CLR	8
TRK PED CLR	0	RET YEL/10	40
		RET RED/10	20

key 7-5-3	Preempt 4 Veh Status							
Phase	1	2	3	4	5	6	7	8
TRK GRN	0	0	0	0	0	0	0	0
DWELL		1						
0-RED 1-GRN 2-FLR 3-FLY 4-DARK 5-FLG								
CYCLE								
0-NO 1-ACT 2-MN REC 3-MX REC								

key 7-6-1		Preempt 5 Misc							
Test		N-Lock		Link PE					
Delay		Extend		Duration					
		MxCall	90	Lock Out					
Phase	1	2	3	4	5	6	7	8	
Exit		1				1			
Calls	1	1	1	1	1	1	1	1	
1 = yes 0 = no									

key 7-6-2	Preempt 5 Int Times		
SEL PED CLR	8	TRK YEL/10	0
SEL YEL/10	40	TRK RED/10	0
SEL RED/10	20	DWELL GRN	10
TRK GRN	0	RET PED CLR	8
TRK PED CLR	0	RET YEL/10	40
		RET RED/10	20

key 7-6-3		Preempt 5 Veh Status							
Phase	1	2	3	4	5	6	7	8	
TRK GRN	0	0	0	0	0	0	0	0	
DWELL				1					
0-RED 1-GRN 2-FLR 3-FLY 4-DARK 5-FLG									
CYCLE									
0-NO 1-ACT 2-MN REC 3-MX REC									

key 7-7-1		Preempt 6 Misc							
Test		N-Lock		Link PE					
Delay		Extend		Duration					
		MxCall	90	Lock Out					
Phase	1	2	3	4	5	6	7	8	
Exit		1				1			
Calls	1	1	1	1	1	1	1	1	
1 = yes 0 = no									

key 7-7-2	Preempt 6 Int Times		
SEL PED CLR	8	TRK YEL/10	0
SEL YEL/10	40	TRK RED/10	0
SEL RED/10	20	DWELL GRN	10
TRK GRN	0	RET PED CLR	8
TRK PED CLR	0	RET YEL/10	40
		RET RED/10	20

key 7-7-3		Preempt 6 Veh Status							
Phase	1	2	3	4	5	6	7	8	
TRK GRN	0	0	0	0	0	0	0	0	
DWELL			1						
0-RED 1-GRN 2-FLR 3-FLY 4-DARK 5-FLG									
CYCLE									
0-NO 1-ACT 2-MN REC 3-MX REC									

key 4-8	I/O MISC			
RING I/O	1	2	3	4
INPUT RESPONSE	1	2	Ø	Ø
OUTPUT SELECT	1	2	Ø	Ø
I/O MODES	INPUT	OUTPUT	BIT	
ABC CONN	0	0	0	
D CONN	1	0	-	

key 2-8-4		IP Addressing	
DHCP	0	NET	1
IP ADDRESS	10.112. 2.137		
SUBNET MSK	255.255.255.224		
BROADCAST	10.112. 2.159		

key 2-8-5	Network Config
TYPE	3
DESTINATION	
GATEWAY	10.112. 2.129
NETMASK	
HOP COUNT	

key 8-1-1		COMM ADDRESS
ADDRESS	1	-- KEYPAD
ADDRESS	0	-- T&F INPUTS

APPENDIX B – CAPACITY ANALYSES

EXISTING CAPACITY ANALYSES

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	3	2	1	105	7	803	312	214	5	1	185	30
Future Volume (veh/h)	3	2	1	105	7	803	312	214	5	1	185	30
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	3	2	1	114	8	873	339	233	5	1	201	33
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	7	4	2	306	21	441	827	2449	52	28	1683	270
Arrive On Green	0.01	0.01	0.01	0.18	0.18	0.18	0.09	0.69	0.69	0.56	0.56	0.56
Sat Flow, veh/h	883	589	294	1663	117	1583	1774	3543	76	2	2989	480
Grp Volume(v), veh/h	6	0	0	122	0	873	339	116	122	124	0	111
Grp Sat Flow(s),veh/h/ln	1767	0	0	1780	0	1583	1774	1770	1849	1861	0	1610
Q Serve(g_s), s	0.5	0.0	0.0	8.2	0.0	25.0	10.5	3.0	3.0	0.0	0.0	4.4
Cycle Q Clear(g_c), s	0.5	0.0	0.0	8.2	0.0	25.0	10.5	3.0	3.0	4.2	0.0	4.4
Prop In Lane	0.50		0.17	0.93		1.00	1.00		0.04	0.01		0.30
Lane Grp Cap(c), veh/h	13	0	0	327	0	441	827	1223	1278	1075	0	907
V/C Ratio(X)	0.46	0.00	0.00	0.37	0.00	1.98	0.41	0.09	0.10	0.12	0.00	0.12
Avail Cap(c_a), veh/h	195	0	0	327	0	441	985	1223	1278	1075	0	907
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	67.2	0.0	0.0	48.6	0.0	49.0	9.2	6.9	6.9	13.9	0.0	13.9
Incr Delay (d2), s/veh	8.9	0.0	0.0	0.3	0.0	448.3	0.1	0.2	0.1	0.2	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	4.1	0.0	71.5	5.1	1.5	1.5	2.2	0.0	2.0
LnGrp Delay(d),s/veh	76.1	0.0	0.0	48.9	0.0	497.4	9.3	7.1	7.1	14.1	0.0	14.2
LnGrp LOS	E			D		F	A	A	A	B		B
Approach Vol, veh/h		6			995			577			235	
Approach Delay, s/veh		76.1			442.4			8.4			14.2	
Approach LOS		E			F			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	17.4	82.6		30.0		100.0		6.0
Change Period (Y+Rc), s	4.5	6.0		5.0		6.0		5.0
Max Green Setting (Gmax), s	25.0	50.0		25.0		79.5		15.0
Max Q Clear Time (g_c+I1), s	12.5	6.4		27.0		5.0		2.5
Green Ext Time (p_c), s	0.4	2.6		0.0		2.8		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		247.6
HCM 2010 LOS		F

Lane Group	NBT	SBT	SBR	NEL	NET	SWT
Lane Group Flow (vph)	6	122	873	339	238	235
v/c Ratio	0.09	0.79	0.96	0.38	0.09	0.12
Control Delay	60.5	86.5	31.7	7.7	5.9	13.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.5	86.5	31.7	7.7	5.9	13.4
Queue Length 50th (ft)	4	105	249	72	24	37
Queue Length 95th (ft)	20	166	#369	185	61	93
Internal Link Dist (ft)	135	475			976	3424
Turn Bay Length (ft)			130	140		
Base Capacity (vph)	197	192	981	939	2641	2029
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.64	0.89	0.36	0.09	0.12

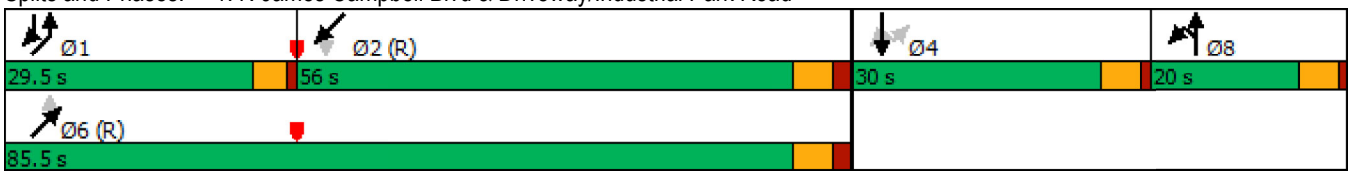
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	NBT	SBL	SBT	SBR	NEL	NET	SWL	SWT
Lane Configurations								
Traffic Volume (vph)	2	105	7	803	312	214	1	185
Future Volume (vph)	2	105	7	803	312	214	1	185
Turn Type	NA	Perm	NA	pm+ov	pm+pt	NA	Perm	NA
Protected Phases	8		4	1	1	6		2
Permitted Phases		4		4	6		2	
Detector Phase	8	4	4	1	1	6	2	2
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	15.0	15.0	15.0
Minimum Split (s)	12.0	23.0	23.0	9.5	9.5	24.0	24.0	24.0
Total Split (s)	20.0	30.0	30.0	29.5	29.5	85.5	56.0	56.0
Total Split (%)	14.8%	22.1%	22.1%	21.8%	21.8%	63.1%	41.3%	41.3%
Yellow Time (s)	4.0	4.0	4.0	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.0		5.0	4.5	4.5	6.0		6.0
Lead/Lag				Lead	Lead		Lag	Lag
Lead-Lag Optimize?				Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)	5.3		20.9	39.0	102.9	101.4		82.9
Actuated g/C Ratio	0.04		0.15	0.29	0.76	0.75		0.61
v/c Ratio	0.09		0.79	0.96	0.38	0.09		0.12
Control Delay	60.5		86.5	31.7	7.7	5.9		13.4
Queue Delay	0.0		0.0	0.0	0.0	0.0		0.0
Total Delay	60.5		86.5	31.7	7.7	5.9		13.4
LOS	E		F	C	A	A		B
Approach Delay	60.5		38.4			6.9		13.4
Approach LOS	E		D			A		B

Intersection Summary	
Cycle Length: 135.5	
Actuated Cycle Length: 135.5	
Offset: 29.5 (22%), Referenced to phase 2:SWTL and 6:NETL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 25.2	Intersection LOS: C
Intersection Capacity Utilization 79.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: N James Campbell Blvd & Driveway/Industrial Park Road



Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	318	8	6	209	6	13
Future Vol, veh/h	318	8	6	209	6	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	346	9	7	227	7	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	355	0	479	178
Stage 1	-	-	-	-	351	-
Stage 2	-	-	-	-	128	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1200	-	516	834
Stage 1	-	-	-	-	684	-
Stage 2	-	-	-	-	884	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1200	-	512	834
Mov Cap-2 Maneuver	-	-	-	-	512	-
Stage 1	-	-	-	-	684	-
Stage 2	-	-	-	-	878	-

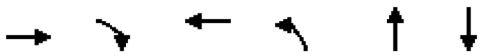
Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	10.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	696	-	-	1200	-
HCM Lane V/C Ratio	0.03	-	-	0.005	-
HCM Control Delay (s)	10.3	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	4	359	4	2	0	156	117	4	0	223	45
Future Volume (veh/h)	40	4	359	4	2	0	156	117	4	0	223	45
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	43	4	390	4	2	0	170	127	4	0	242	49
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	324	27	398	196	84	0	212	2427	76	43	1277	250
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.00	0.07	0.69	0.69	0.00	0.57	0.57
Sat Flow, veh/h	1335	147	1583	684	466	0	1774	3503	110	0	3036	586
Grp Volume(v), veh/h	47	0	390	6	0	0	170	64	67	0	144	147
Grp Sat Flow(s),veh/h/ln	1482	0	1583	1151	0	0	1774	1770	1843	0	1770	1759
Q Serve(g_s), s	0.0	0.0	15.0	0.0	0.0	0.0	3.7	1.0	1.0	0.0	4.2	4.3
Cycle Q Clear(g_c), s	1.8	0.0	15.0	1.8	0.0	0.0	3.7	1.0	1.0	0.0	4.2	4.3
Prop In Lane	0.91		1.00	0.67		0.00	1.00		0.06	0.00		0.33
Lane Grp Cap(c), veh/h	351	0	398	280	0	0	212	1226	1277	0	0	0
V/C Ratio(X)	0.13	0.00	0.98	0.02	0.00	0.00	0.80	0.05	0.05	0.00	0.00	0.00
Avail Cap(c_a), veh/h	351	0	398	280	0	0	471	1226	1277	0	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	28.6	0.0	30.8	28.0	0.0	0.0	26.6	4.1	4.1	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	39.4	0.0	0.0	0.0	6.8	0.1	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	13.2	0.1	0.0	0.0	4.2	0.5	0.5	0.0	0.0	0.0
LnGrp Delay(d),s/veh	28.8	0.0	70.3	28.0	0.0	0.0	33.4	4.1	4.1	0.0	0.0	0.0
LnGrp LOS	C		E	C			C	A	A			
Approach Vol, veh/h		437			6			301			291	
Approach Delay, s/veh		65.8			28.0			20.7			0.0	
Approach LOS		E			C			C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	10.4	53.1		19.5		63.5		19.5
Change Period (Y+Rc), s	4.5	6.0		4.5		6.0		4.5
Max Green Setting (Gmax), s	18.0	35.0		15.0		57.5		15.0
Max Q Clear Time (g_c+I1), s	5.7	6.3		17.0		3.0		3.8
Green Ext Time (p_c), s	0.3	1.4		0.0		0.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	34.0
HCM 2010 LOS	C



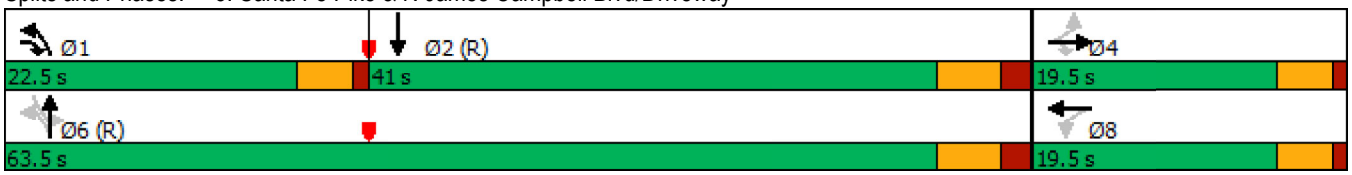
Lane Group	EBT	EBR	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	47	390	6	170	131	291
v/c Ratio	0.35	0.63	0.04	0.19	0.04	0.12
Control Delay	41.1	7.6	32.8	2.4	2.1	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.1	7.6	32.8	2.4	2.1	5.5
Queue Length 50th (ft)	23	0	3	15	6	24
Queue Length 95th (ft)	54	60	14	33	13	49
Internal Link Dist (ft)	4426		175		410	487
Turn Bay Length (ft)				480		
Base Capacity (vph)	249	770	263	1002	3010	2366
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.51	0.02	0.17	0.04	0.12

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBT
Lane Configurations								
Traffic Volume (vph)	40	4	359	4	2	156	117	223
Future Volume (vph)	40	4	359	4	2	156	117	223
Turn Type	Perm	NA	pm+ov	Perm	NA	pm+pt	NA	NA
Protected Phases		4	1		8	1	6	2
Permitted Phases	4		4	8		6		
Detector Phase	4	4	1	8	8	1	6	2
Switch Phase								
Minimum Initial (s)	5.0	5.0	4.0	5.0	5.0	4.0	15.0	15.0
Minimum Split (s)	9.5	9.5	8.5	9.5	9.5	8.5	21.0	21.0
Total Split (s)	19.5	19.5	22.5	19.5	19.5	22.5	63.5	41.0
Total Split (%)	23.5%	23.5%	27.1%	23.5%	23.5%	27.1%	76.5%	49.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5		4.5	4.5	6.0	6.0
Lead/Lag			Lead			Lead		Lag
Lead-Lag Optimize?			Yes			Yes		Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min
Act Effct Green (s)		8.2	15.9		8.0	70.0	70.9	56.6
Actuated g/C Ratio		0.10	0.19		0.10	0.84	0.85	0.68
v/c Ratio		0.35	0.63		0.04	0.19	0.04	0.12
Control Delay		41.1	7.6		32.8	2.4	2.1	5.5
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0
Total Delay		41.1	7.6		32.8	2.4	2.1	5.5
LOS		D	A		C	A	A	A
Approach Delay		11.2			32.8		2.3	5.5
Approach LOS		B			C		A	A

Intersection Summary	
Cycle Length: 83	
Actuated Cycle Length: 83	
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBSB, Start of Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 7.2	Intersection LOS: A
Intersection Capacity Utilization 51.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Santa Fe Pike & N James Campbell Blvd/Driveway



Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	7	12	4	42	4	557	611	242	0	4	225	58
Future Volume (veh/h)	7	12	4	42	4	557	611	242	0	4	225	58
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	8	13	4	46	4	605	664	263	0	4	245	63
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	115	175	47	342	27	682	848	2441	0	37	1192	297
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.69	0.00	0.44	0.44	0.44
Sat Flow, veh/h	343	814	220	1311	127	1583	1774	3632	0	12	2737	681
Grp Volume(v), veh/h	25	0	0	50	0	605	664	263	0	166	0	146
Grp Sat Flow(s),veh/h/ln	1377	0	0	1438	0	1583	1774	1770	0	1855	0	1575
Q Serve(g_s), s	0.0	0.0	0.0	1.7	0.0	25.0	23.0	2.9	0.0	0.0	0.0	6.7
Cycle Q Clear(g_c), s	1.3	0.0	0.0	3.0	0.0	25.0	23.0	2.9	0.0	6.4	0.0	6.7
Prop In Lane	0.32		0.16	0.92		1.00	1.00		0.00	0.02		0.43
Lane Grp Cap(c), veh/h	338	0	0	370	0	682	848	2441	0	839	0	686
V/C Ratio(X)	0.07	0.00	0.00	0.14	0.00	0.89	0.78	0.11	0.00	0.20	0.00	0.21
Avail Cap(c_a), veh/h	338	0	0	370	0	682	848	2441	0	839	0	686
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.2	0.0	0.0	36.8	0.0	30.4	11.1	6.0	0.0	20.3	0.0	20.4
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	13.0	4.4	0.1	0.0	0.5	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	1.3	0.0	20.3	12.1	1.4	0.0	3.4	0.0	3.0
LnGrp Delay(d),s/veh	36.2	0.0	0.0	36.9	0.0	43.4	15.5	6.1	0.0	20.8	0.0	21.1
LnGrp LOS	D			D		D	B	A		C		C
Approach Vol, veh/h		25			655			927			312	
Approach Delay, s/veh		36.2			42.9			12.8			21.0	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	29.5	56.5		30.0		86.0		30.0
Change Period (Y+Rc), s	4.5	6.0		5.0		6.0		5.0
Max Green Setting (Gmax), s	25.0	50.0		25.0		79.5		25.0
Max Q Clear Time (g_c+I1), s	25.0	8.7		27.0		4.9		3.3
Green Ext Time (p_c), s	0.0	3.6		0.0		3.4		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	24.7
HCM 2010 LOS	C

Lane Group	NBT	SBT	SBR	NEL	NET	SWT
Lane Group Flow (vph)	25	50	605	664	263	312
v/c Ratio	0.20	0.51	0.69	0.64	0.09	0.17
Control Delay	46.3	68.0	8.1	5.6	2.0	13.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.3	68.0	8.1	5.6	2.0	13.5
Queue Length 50th (ft)	15	36	37	90	14	53
Queue Length 95th (ft)	42	76	123	171	26	95
Internal Link Dist (ft)	135	475			976	3424
Turn Bay Length (ft)			130	140		
Base Capacity (vph)	350	282	893	1049	3031	1868
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.18	0.68	0.63	0.09	0.17

Intersection Summary

Lane Group	NBL	NBT	SBL	SBT	SBR	NEL	NET	SWL	SWT
Lane Configurations									
Traffic Volume (vph)	7	12	42	4	557	611	242	4	225
Future Volume (vph)	7	12	42	4	557	611	242	4	225
Turn Type	Perm	NA	Perm	NA	pm+ov	pm+pt	NA	Perm	NA
Protected Phases		8		4	1	1	6		2
Permitted Phases	8		4		4	6		2	
Detector Phase	8	8	4	4	1	1	6	2	2
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	15.0	15.0	15.0
Minimum Split (s)	12.0	12.0	23.0	23.0	9.5	9.5	24.0	24.0	24.0
Total Split (s)	30.0	30.0	30.0	30.0	29.5	29.5	85.5	56.0	56.0
Total Split (%)	26.0%	26.0%	26.0%	26.0%	25.5%	25.5%	74.0%	48.5%	48.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		5.0		5.0	4.5	4.5	6.0		6.0
Lead/Lag					Lead	Lead		Lag	Lag
Lead-Lag Optimize?					Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)		8.8		8.8	39.5	99.2	98.9		65.5
Actuated g/C Ratio		0.08		0.08	0.34	0.86	0.86		0.57
v/c Ratio		0.20		0.51	0.69	0.64	0.09		0.17
Control Delay		46.3		68.0	8.1	5.6	2.0		13.5
Queue Delay		0.0		0.0	0.0	0.0	0.0		0.0
Total Delay		46.3		68.0	8.1	5.6	2.0		13.5
LOS		D		E	A	A	A		B
Approach Delay		46.3		12.7			4.6		13.5
Approach LOS		D		B			A		B

Intersection Summary	
Cycle Length: 115.5	
Actuated Cycle Length: 115.5	
Offset: 22.5 (19%), Referenced to phase 2:SWTL and 6:NETL, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 9.3	Intersection LOS: A
Intersection Capacity Utilization 67.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: N James Campbell Blvd & Driveway/Industrial Park Road



Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	262	12	17	273	6	5
Future Vol, veh/h	262	12	17	273	6	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	285	13	18	297	7	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	298	0	477	149
Stage 1	-	-	-	-	292	-
Stage 2	-	-	-	-	185	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1260	-	517	871
Stage 1	-	-	-	-	732	-
Stage 2	-	-	-	-	828	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1260	-	508	871
Mov Cap-2 Maneuver	-	-	-	-	508	-
Stage 1	-	-	-	-	732	-
Stage 2	-	-	-	-	814	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	10.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	627	-	-	1260	-
HCM Lane V/C Ratio	0.019	-	-	0.015	-
HCM Control Delay (s)	10.9	-	-	7.9	0.1
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	0	245	0	0	0	269	160	0	0	150	83
Future Volume (veh/h)	57	0	245	0	0	0	269	160	0	0	150	83
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	62	0	266	0	0	0	292	174	0	0	163	90
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	320	0	485	0	310	0	336	2503	0	43	987	497
Arrive On Green	0.17	0.00	0.17	0.00	0.00	0.00	0.14	0.71	0.00	0.00	0.51	0.51
Sat Flow, veh/h	1406	0	1583	0	1863	0	1774	3632	0	0	2338	1180
Grp Volume(v), veh/h	62	0	266	0	0	0	292	174	0	0	127	126
Grp Sat Flow(s),veh/h/ln	1406	0	1583	0	1863	0	1774	1770	0	0	1770	1655
Q Serve(g_s), s	3.2	0.0	11.6	0.0	0.0	0.0	9.2	1.3	0.0	0.0	3.6	4.0
Cycle Q Clear(g_c), s	3.2	0.0	11.6	0.0	0.0	0.0	9.2	1.3	0.0	0.0	3.6	4.0
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.00	0.00		0.71
Lane Grp Cap(c), veh/h	320	0	485	0	310	0	336	2503	0	0	0	0
V/C Ratio(X)	0.19	0.00	0.55	0.00	0.00	0.00	0.87	0.07	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	341	0	508	0	337	0	471	2503	0	0	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	30.2	0.0	24.0	0.0	0.0	0.0	29.1	3.7	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	1.1	0.0	0.0	0.0	12.0	0.1	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	5.2	0.0	0.0	0.0	7.6	0.6	0.0	0.0	0.0	0.0
LnGrp Delay(d),s/veh	30.5	0.0	25.1	0.0	0.0	0.0	41.1	3.8	0.0	0.0	0.0	0.0
LnGrp LOS	C		C				D	A				
Approach Vol, veh/h		328			0			466			253	
Approach Delay, s/veh		26.1			0.0			27.2			0.0	
Approach LOS		C						C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	16.1	48.6		18.3		64.7		18.3
Change Period (Y+Rc), s	4.5	6.0		4.5		6.0		4.5
Max Green Setting (Gmax), s	18.0	35.0		15.0		57.5		15.0
Max Q Clear Time (g_c+I1), s	11.2	6.0		13.6		3.3		0.0
Green Ext Time (p_c), s	0.5	1.2		0.2		1.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	20.3
HCM 2010 LOS	C



Lane Group	EBT	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	62	266	292	174	253
v/c Ratio	0.41	0.45	0.32	0.06	0.12
Control Delay	41.5	5.2	3.5	2.7	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	41.5	5.2	3.5	2.7	5.6
Queue Length 50th (ft)	31	0	29	8	16
Queue Length 95th (ft)	65	47	62	19	41
Internal Link Dist (ft)	4426			410	487
Turn Bay Length (ft)			480		
Base Capacity (vph)	254	734	985	2843	2120
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.24	0.36	0.30	0.06	0.12

Intersection Summary

Lane Group	EBL	EBT	EBR	NBL	NBT	SBT	Ø8
Lane Configurations							
Traffic Volume (vph)	57	0	245	269	160	150	
Future Volume (vph)	57	0	245	269	160	150	
Turn Type	Perm	NA	pm+ov	pm+pt	NA	NA	
Protected Phases		4	1	1	6	2	8
Permitted Phases	4		4	6			
Detector Phase	4	4	1	1	6	2	
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	15.0	15.0	5.0
Minimum Split (s)	9.5	9.5	9.5	9.5	21.0	21.0	9.5
Total Split (s)	19.5	19.5	22.5	22.5	63.5	41.0	19.5
Total Split (%)	23.5%	23.5%	27.1%	27.1%	76.5%	49.4%	23%
Yellow Time (s)	3.5	3.5	3.5	3.5	4.0	4.0	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	2.0	2.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.5	4.5	4.5	6.0	6.0	
Lead/Lag			Lead	Lead		Lag	
Lead-Lag Optimize?			Yes	Yes		Yes	
Recall Mode	None	None	None	None	C-Min	C-Min	None
Act Effct Green (s)		9.0	20.8	67.0	66.7	51.7	
Actuated g/C Ratio		0.11	0.25	0.81	0.80	0.62	
v/c Ratio		0.41	0.45	0.32	0.06	0.12	
Control Delay		41.5	5.2	3.5	2.7	5.6	
Queue Delay		0.0	0.0	0.0	0.0	0.0	
Total Delay		41.5	5.2	3.5	2.7	5.6	
LOS		D	A	A	A	A	
Approach Delay		12.1			3.2	5.6	
Approach LOS		B			A	A	

Intersection Summary	
Cycle Length: 83	
Actuated Cycle Length: 83	
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBSB, Start of Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.45	
Intersection Signal Delay: 6.6	Intersection LOS: A
Intersection Capacity Utilization 45.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Santa Fe Pike & N James Campbell Blvd/Driveway



BACKGROUND CAPACITY ANALYSES

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	3	2	1	158	8	957	510	310	6	1	254	49
Future Volume (veh/h)	3	2	1	158	8	957	510	310	6	1	254	49
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	3	2	1	0	0	1230	554	337	7	1	276	53
Adj No. of Lanes	0	1	0	0	1	2	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	7	4	2	0	601	1727	691	1998	41	25	904	170
Arrive On Green	0.01	0.01	0.01	0.00	0.00	0.32	0.22	0.56	0.56	0.31	0.31	0.31
Sat Flow, veh/h	883	589	294	0	1863	3167	1774	3546	74	1	2910	548
Grp Volume(v), veh/h	6	0	0	0	0	1230	554	168	176	176	0	154
Grp Sat Flow(s),veh/h/ln	1767	0	0	0	1863	1583	1774	1770	1850	1862	0	1598
Q Serve(g_s), s	0.5	0.0	0.0	0.0	0.0	43.3	30.9	6.9	6.9	0.0	0.0	11.1
Cycle Q Clear(g_c), s	0.5	0.0	0.0	0.0	0.0	43.3	30.9	6.9	6.9	10.8	0.0	11.1
Prop In Lane	0.50		0.17	0.00		1.00	1.00		0.04	0.01		0.34
Lane Grp Cap(c), veh/h	13	0	0	0	601	1727	691	997	1042	602	0	496
V/C Ratio(X)	0.46	0.00	0.00	0.00	0.00	0.71	0.80	0.17	0.17	0.29	0.00	0.31
Avail Cap(c_a), veh/h	82	0	0	0	795	2057	763	997	1042	602	0	496
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	74.2	0.0	0.0	0.0	0.0	25.3	23.6	15.8	15.8	39.4	0.0	39.5
Incr Delay (d2), s/veh	9.1	0.0	0.0	0.0	0.0	0.7	4.9	0.4	0.4	1.2	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.0	0.0	19.0	15.9	3.5	3.6	5.8	0.0	5.1
LnGrp Delay(d),s/veh	83.3	0.0	0.0	0.0	0.0	26.0	28.5	16.2	16.1	40.6	0.0	41.1
LnGrp LOS	F					C	C	B	B	D		D
Approach Vol, veh/h		6			1230			898			330	
Approach Delay, s/veh		83.3			26.0			23.8			40.8	
Approach LOS		F			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	37.9	52.6		53.4		90.5		6.1
Change Period (Y+Rc), s	4.5	6.0		5.0		6.0		5.0
Max Green Setting (Gmax), s	39.5	19.0		64.0		63.0		7.0
Max Q Clear Time (g_c+I1), s	32.9	13.1		45.3		8.9		2.5
Green Ext Time (p_c), s	0.6	1.4		3.1		4.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	27.3
HCM 2010 LOS	C

Notes



Lane Group	NBT	SBT	SBR	NEL	NET	SWT
Lane Group Flow (vph)	6	493	728	554	344	330
v/c Ratio	0.10	1.03	0.61	0.88	0.20	0.72
Control Delay	67.5	85.5	5.6	50.6	23.1	69.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.5	85.5	5.6	50.6	23.1	69.6
Queue Length 50th (ft)	5	~501	125	418	95	158
Queue Length 95th (ft)	21	#743	189	#741	147	#218
Internal Link Dist (ft)	135	475			976	3424
Turn Bay Length (ft)			130	140		
Base Capacity (vph)	83	477	1195	629	1700	459
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.07	1.03	0.61	0.88	0.20	0.72

Intersection Summary

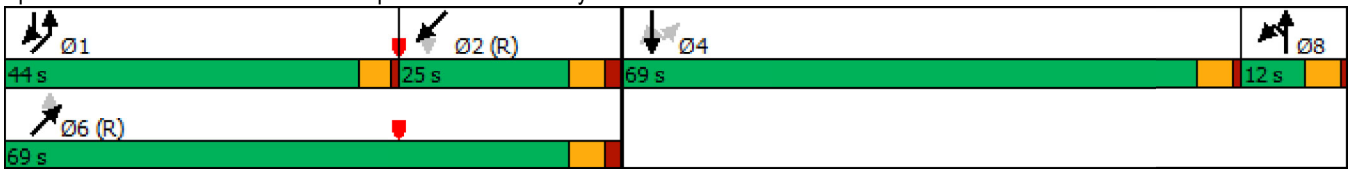
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	NBT	SBL	SBT	SBR	NEL	NET	SWL	SWT
Lane Configurations								
Traffic Volume (vph)	2	158	8	957	510	310	1	254
Future Volume (vph)	2	158	8	957	510	310	1	254
Turn Type	NA	Perm	NA	pm+ov	pm+pt	NA	Perm	NA
Protected Phases	8		4	1	1	6		2
Permitted Phases		4		4	6		2	
Detector Phase	8	4	4	1	1	6	2	2
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	15.0	15.0	15.0
Minimum Split (s)	12.0	23.0	23.0	9.5	9.5	24.0	24.0	24.0
Total Split (s)	12.0	69.0	69.0	44.0	44.0	69.0	25.0	25.0
Total Split (%)	8.0%	46.0%	46.0%	29.3%	29.3%	46.0%	16.7%	16.7%
Yellow Time (s)	4.0	4.0	4.0	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.0		5.0	4.5	4.5	6.0		6.0
Lead/Lag				Lead	Lead		Lag	Lag
Lead-Lag Optimize?				Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)	5.3		64.5	115.9	73.7	72.2		20.4
Actuated g/C Ratio	0.04		0.43	0.77	0.49	0.48		0.14
v/c Ratio	0.10		1.03	0.61	0.88	0.20		0.72
Control Delay	67.5		85.5	5.6	50.6	23.1		69.6
Queue Delay	0.0		0.0	0.0	0.0	0.0		0.0
Total Delay	67.5		85.5	5.6	50.6	23.1		69.6
LOS	E		F	A	D	C		E
Approach Delay	67.5		37.8			40.0		69.6
Approach LOS	E		D			D		E

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 0 (0%), Referenced to phase 2:SWTL and 6:NETL, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 43.0	Intersection LOS: D
Intersection Capacity Utilization 86.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: N James Campbell Blvd & Driveway/Industrial Park Road



Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	467	9	7	296	7	15
Future Vol, veh/h	467	9	7	296	7	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	508	10	8	322	8	16

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	518	0	690	259
Stage 1	-	-	-	-	513	-
Stage 2	-	-	-	-	177	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1044	-	379	740
Stage 1	-	-	-	-	566	-
Stage 2	-	-	-	-	836	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1044	-	376	740
Mov Cap-2 Maneuver	-	-	-	-	376	-
Stage 1	-	-	-	-	566	-
Stage 2	-	-	-	-	828	-

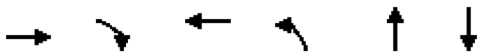
Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	11.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	566	-	-	1044	-
HCM Lane V/C Ratio	0.042	-	-	0.007	-
HCM Control Delay (s)	11.6	-	-	8.5	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	5	492	5	2	0	225	132	5	0	251	63
Future Volume (veh/h)	66	5	492	5	2	0	225	132	5	0	251	63
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	72	5	535	5	2	0	245	143	5	0	273	68
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	335	21	467	179	60	0	289	2417	84	43	1227	293
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.00	0.11	0.69	0.69	0.00	0.52	0.52
Sat Flow, veh/h	1390	114	1583	579	331	0	1774	3489	121	0	2913	690
Grp Volume(v), veh/h	77	0	535	7	0	0	245	72	76	0	170	171
Grp Sat Flow(s),veh/h/ln	1504	0	1583	909	0	0	1774	1770	1841	0	1770	1741
Q Serve(g_s), s	0.0	0.0	15.0	0.0	0.0	0.0	7.1	1.1	1.1	0.0	5.0	5.2
Cycle Q Clear(g_c), s	3.1	0.0	15.0	3.1	0.0	0.0	7.1	1.1	1.1	0.0	5.0	5.2
Prop In Lane	0.94		1.00	0.71		0.00	1.00		0.07	0.00		0.40
Lane Grp Cap(c), veh/h	356	0	467	239	0	0	289	1226	1276	0	0	0
V/C Ratio(X)	0.22	0.00	1.15	0.03	0.00	0.00	0.85	0.06	0.06	0.00	0.00	0.00
Avail Cap(c_a), veh/h	356	0	467	239	0	0	471	1226	1276	0	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	29.1	0.0	29.3	28.0	0.0	0.0	28.8	4.1	4.1	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	88.3	0.0	0.0	0.0	7.7	0.1	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	22.2	0.1	0.0	0.0	6.1	0.6	0.6	0.0	0.0	0.0
LnGrp Delay(d),s/veh	29.4	0.0	117.6	28.0	0.0	0.0	36.5	4.2	4.2	0.0	0.0	0.0
LnGrp LOS	C		F	C			D	A	A			
Approach Vol, veh/h		612			7			393			341	
Approach Delay, s/veh		106.5			28.0			24.3			0.0	
Approach LOS		F			C			C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	14.0	49.5		19.5		63.5		19.5
Change Period (Y+Rc), s	4.5	6.0		4.5		6.0		4.5
Max Green Setting (Gmax), s	18.0	35.0		15.0		57.5		15.0
Max Q Clear Time (g_c+I1), s	9.1	7.2		17.0		3.1		5.1
Green Ext Time (p_c), s	0.4	1.7		0.0		0.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	55.4
HCM 2010 LOS	E



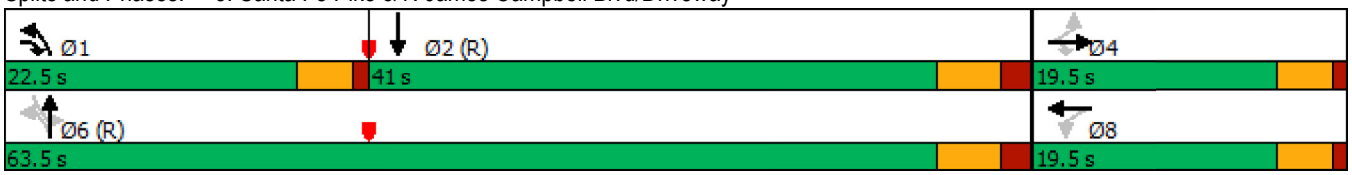
Lane Group	EBT	EBR	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	77	535	7	245	148	341
v/c Ratio	0.47	0.70	0.04	0.29	0.05	0.16
Control Delay	42.5	8.8	30.5	3.7	2.9	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.5	8.8	30.5	3.7	2.9	7.9
Queue Length 50th (ft)	38	23	3	26	7	33
Queue Length 95th (ft)	76	95	14	57	18	68
Internal Link Dist (ft)	4426		175		410	487
Turn Bay Length (ft)				480		
Base Capacity (vph)	247	880	274	923	2791	2110
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.61	0.03	0.27	0.05	0.16

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBT
Lane Configurations								
Traffic Volume (vph)	66	5	492	5	2	225	132	251
Future Volume (vph)	66	5	492	5	2	225	132	251
Turn Type	Perm	NA	pm+ov	Perm	NA	pm+pt	NA	NA
Protected Phases		4	1		8	1	6	2
Permitted Phases	4		4	8		6		
Detector Phase	4	4	1	8	8	1	6	2
Switch Phase								
Minimum Initial (s)	5.0	5.0	4.0	5.0	5.0	4.0	15.0	15.0
Minimum Split (s)	9.5	9.5	8.5	9.5	9.5	8.5	21.0	21.0
Total Split (s)	19.5	19.5	22.5	19.5	19.5	22.5	63.5	41.0
Total Split (%)	23.5%	23.5%	27.1%	23.5%	23.5%	27.1%	76.5%	49.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5		4.5	4.5	6.0	6.0
Lead/Lag			Lead			Lead		Lag
Lead-Lag Optimize?			Yes			Yes		Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min
Act Effct Green (s)		10.0	21.9		9.9	66.1	65.8	50.6
Actuated g/C Ratio		0.12	0.26		0.12	0.80	0.79	0.61
v/c Ratio		0.47	0.70		0.04	0.29	0.05	0.16
Control Delay		42.5	8.8		30.5	3.7	2.9	7.9
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0
Total Delay		42.5	8.8		30.5	3.7	2.9	7.9
LOS		D	A		C	A	A	A
Approach Delay		13.0			30.5		3.4	7.9
Approach LOS		B			C		A	A

Intersection Summary	
Cycle Length: 83	
Actuated Cycle Length: 83	
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBSB, Start of Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 9.0	Intersection LOS: A
Intersection Capacity Utilization 59.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Santa Fe Pike & N James Campbell Blvd/Driveway



Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	8	14	5	86	5	770	780	334	0	5	304	80
Future Volume (veh/h)	8	14	5	86	5	770	780	334	0	5	304	80
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	9	15	5	0	0	940	848	363	0	5	330	87
Adj No. of Lanes	0	1	0	0	1	2	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	108	164	46	0	390	1838	874	2365	0	44	672	173
Arrive On Green	0.21	0.21	0.21	0.00	0.00	0.21	0.37	0.67	0.00	0.25	0.25	0.25
Sat Flow, veh/h	263	781	218	0	1863	3167	1774	3632	0	11	2716	699
Grp Volume(v), veh/h	29	0	0	0	0	940	848	363	0	226	0	196
Grp Sat Flow(s),veh/h/ln	1262	0	0	0	1863	1583	1774	1770	0	1854	0	1572
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	15.9	30.9	3.4	0.0	0.0	0.0	9.6
Cycle Q Clear(g_c), s	1.2	0.0	0.0	0.0	0.0	15.9	30.9	3.4	0.0	9.4	0.0	9.6
Prop In Lane	0.31		0.17	0.00		1.00	1.00		0.00	0.02		0.44
Lane Grp Cap(c), veh/h	317	0	0	0	390	1838	874	2365	0	499	0	389
V/C Ratio(X)	0.09	0.00	0.00	0.00	0.00	0.51	0.97	0.15	0.00	0.45	0.00	0.50
Avail Cap(c_a), veh/h	343	0	0	0	435	1914	907	2365	0	499	0	389
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.6	0.0	0.0	0.0	0.0	11.3	14.4	5.5	0.0	29.0	0.0	29.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.1	22.3	0.1	0.0	3.0	0.0	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.0	0.0	6.9	25.7	1.7	0.0	5.2	0.0	4.7
LnGrp Delay(d),s/veh	28.6	0.0	0.0	0.0	0.0	11.3	36.7	5.7	0.0	32.0	0.0	33.7
LnGrp LOS	C					B	D	A		C		C
Approach Vol, veh/h		29			940			1211			422	
Approach Delay, s/veh		28.6			11.3			27.4			32.8	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	37.9	28.3		23.8		66.2		23.8
Change Period (Y+Rc), s	4.5	6.0		5.0		6.0		5.0
Max Green Setting (Gmax), s	35.1	18.4		21.0		58.0		21.0
Max Q Clear Time (g_c+I1), s	32.9	11.6		17.9		5.4		3.2
Green Ext Time (p_c), s	0.5	2.1		0.9		4.8		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	22.5
HCM 2010 LOS	C

Notes



Lane Group	NBT	SBT	SBR	NEL	NET	SWT
Lane Group Flow (vph)	29	475	460	848	363	422
v/c Ratio	0.12	0.96	0.44	1.01	0.16	0.65
Control Delay	25.5	54.2	5.9	52.7	6.8	36.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.5	54.2	5.9	52.7	6.8	36.0
Queue Length 50th (ft)	11	177	72	~376	38	106
Queue Length 95th (ft)	34	#396	130	#644	56	156
Internal Link Dist (ft)	135	475			976	3424
Turn Bay Length (ft)			130	140		
Base Capacity (vph)	232	493	1045	838	2280	690
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.96	0.44	1.01	0.16	0.61

Intersection Summary

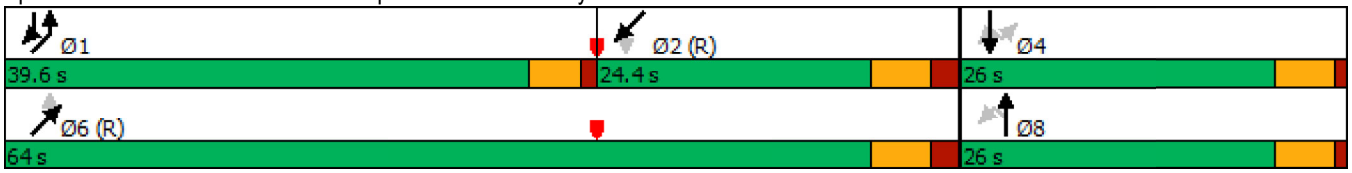
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	NBL	NBT	SBL	SBT	SBR	NEL	NET	SWL	SWT
Lane Configurations									
Traffic Volume (vph)	8	14	86	5	770	780	334	5	304
Future Volume (vph)	8	14	86	5	770	780	334	5	304
Turn Type	Perm	NA	Perm	NA	pm+ov	pm+pt	NA	Perm	NA
Protected Phases		8		4	1	1	6		2
Permitted Phases	8		4		4	6		2	
Detector Phase	8	8	4	4	1	1	6	2	2
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	15.0	15.0	15.0
Minimum Split (s)	12.0	12.0	23.0	23.0	9.5	9.5	24.0	24.0	24.0
Total Split (s)	26.0	26.0	26.0	26.0	39.6	39.6	64.0	24.4	24.4
Total Split (%)	28.9%	28.9%	28.9%	28.9%	44.0%	44.0%	71.1%	27.1%	27.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		5.0		5.0	4.5	4.5	6.0		6.0
Lead/Lag					Lead	Lead		Lag	Lag
Lead-Lag Optimize?					Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)		22.0		22.0	62.3	58.5	57.0		17.2
Actuated g/C Ratio		0.24		0.24	0.69	0.65	0.63		0.19
v/c Ratio		0.12		0.96	0.44	1.01	0.16		0.65
Control Delay		25.5		54.2	5.9	52.7	6.8		36.0
Queue Delay		0.0		0.0	0.0	0.0	0.0		0.0
Total Delay		25.5		54.2	5.9	52.7	6.8		36.0
LOS		C		D	A	D	A		D
Approach Delay		25.5		30.4			39.0		36.0
Approach LOS		C		C			D		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:SWTL and 6:NETL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 35.3	Intersection LOS: D
Intersection Capacity Utilization 95.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 1: N James Campbell Blvd & Driveway/Industrial Park Road



Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	396	14	19	373	7	6
Future Vol, veh/h	396	14	19	373	7	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	430	15	21	405	8	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	445	0	683	223
Stage 1	-	-	-	-	438	-
Stage 2	-	-	-	-	245	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1112	-	383	780
Stage 1	-	-	-	-	618	-
Stage 2	-	-	-	-	773	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1112	-	374	780
Mov Cap-2 Maneuver	-	-	-	-	374	-
Stage 1	-	-	-	-	618	-
Stage 2	-	-	-	-	754	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	12.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	492	-	-	1112	-
HCM Lane V/C Ratio	0.029	-	-	0.019	-
HCM Control Delay (s)	12.5	-	-	8.3	0.1
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	0	357	0	0	0	356	180	0	0	169	106
Future Volume (veh/h)	84	0	357	0	0	0	356	180	0	0	169	106
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	91	0	388	0	0	0	387	196	0	0	184	115
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	341	0	589	0	337	0	426	2452	0	43	945	532
Arrive On Green	0.18	0.00	0.18	0.00	0.00	0.00	0.19	0.69	0.00	0.00	0.45	0.45
Sat Flow, veh/h	1406	0	1583	0	1863	0	1774	3632	0	0	2230	1271
Grp Volume(v), veh/h	91	0	388	0	0	0	387	196	0	0	151	148
Grp Sat Flow(s),veh/h/ln	1406	0	1583	0	1863	0	1774	1770	0	0	1770	1638
Q Serve(g_s), s	4.7	0.0	15.0	0.0	0.0	0.0	13.5	1.5	0.0	0.0	4.3	4.8
Cycle Q Clear(g_c), s	4.7	0.0	15.0	0.0	0.0	0.0	13.5	1.5	0.0	0.0	4.3	4.8
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.00	0.00		0.78
Lane Grp Cap(c), veh/h	341	0	589	0	337	0	426	2452	0	0	0	0
V/C Ratio(X)	0.27	0.00	0.66	0.00	0.00	0.00	0.91	0.08	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	341	0	589	0	337	0	471	2452	0	0	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	29.8	0.0	21.7	0.0	0.0	0.0	29.0	4.1	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	2.7	0.0	0.0	0.0	20.3	0.1	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	7.8	0.0	0.0	0.0	11.0	0.7	0.0	0.0	0.0	0.0
LnGrp Delay(d),s/veh	30.2	0.0	24.4	0.0	0.0	0.0	49.3	4.2	0.0	0.0	0.0	0.0
LnGrp LOS	C		C				D	A				
Approach Vol, veh/h		479			0			583			299	
Approach Delay, s/veh		25.5			0.0			34.1			0.0	
Approach LOS		C						C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	20.4	43.1		19.5		63.5		19.5
Change Period (Y+Rc), s	4.5	6.0		4.5		6.0		4.5
Max Green Setting (Gmax), s	18.0	35.0		15.0		57.5		15.0
Max Q Clear Time (g_c+I1), s	15.5	6.8		17.0		3.5		0.0
Green Ext Time (p_c), s	0.3	1.5		0.0		1.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	23.6
HCM 2010 LOS	C

Lane Group	EBT	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	91	388	387	196	299
v/c Ratio	0.51	0.52	0.44	0.07	0.15
Control Delay	42.6	4.4	4.9	3.2	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	42.6	4.4	4.9	3.2	7.2
Queue Length 50th (ft)	45	0	47	11	22
Queue Length 95th (ft)	86	46	98	24	55
Internal Link Dist (ft)	4426			410	487
Turn Bay Length (ft)			480		
Base Capacity (vph)	255	835	937	2781	1963
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.36	0.46	0.41	0.07	0.15

Intersection Summary

Lane Group	EBL	EBT	EBR	NBL	NBT	SBT	Ø8
Lane Configurations							
Traffic Volume (vph)	84	0	357	356	180	169	
Future Volume (vph)	84	0	357	356	180	169	
Turn Type	Perm	NA	pm+ov	pm+pt	NA	NA	
Protected Phases		4	1	1	6	2	8
Permitted Phases	4		4	6			
Detector Phase	4	4	1	1	6	2	
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	15.0	15.0	5.0
Minimum Split (s)	9.5	9.5	9.5	9.5	21.0	21.0	9.5
Total Split (s)	19.5	19.5	22.5	22.5	63.5	41.0	19.5
Total Split (%)	23.5%	23.5%	27.1%	27.1%	76.5%	49.4%	23%
Yellow Time (s)	3.5	3.5	3.5	3.5	4.0	4.0	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	2.0	2.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.5	4.5	4.5	6.0	6.0	
Lead/Lag			Lead	Lead		Lag	
Lead-Lag Optimize?			Yes	Yes		Yes	
Recall Mode	None	None	None	None	C-Min	C-Min	None
Act Effct Green (s)		10.6	25.0	65.5	65.2	47.5	
Actuated g/C Ratio		0.13	0.30	0.79	0.79	0.57	
v/c Ratio		0.51	0.52	0.44	0.07	0.15	
Control Delay		42.6	4.4	4.9	3.2	7.2	
Queue Delay		0.0	0.0	0.0	0.0	0.0	
Total Delay		42.6	4.4	4.9	3.2	7.2	
LOS		D	A	A	A	A	
Approach Delay		11.6			4.4	7.2	
Approach LOS		B			A	A	

Intersection Summary	
Cycle Length: 83	
Actuated Cycle Length: 83	
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBSB, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.52	
Intersection Signal Delay: 7.5	Intersection LOS: A
Intersection Capacity Utilization 50.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Santa Fe Pike & N James Campbell Blvd/Driveway



PROJECTED CAPACITY ANALYSES

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	3	2	1	160	8	957	510	317	6	1	275	55
Future Volume (veh/h)	3	2	1	160	8	957	510	317	6	1	275	55
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	3	2	1	0	0	1232	554	345	7	1	299	60
Adj No. of Lanes	0	1	0	0	1	2	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	7	4	2	0	600	1741	672	1973	40	26	856	169
Arrive On Green	0.01	0.01	0.01	0.00	0.00	0.32	0.23	0.56	0.56	0.30	0.30	0.30
Sat Flow, veh/h	883	589	294	0	1863	3167	1774	3548	72	1	2886	569
Grp Volume(v), veh/h	6	0	0	0	0	1232	554	172	180	192	0	168
Grp Sat Flow(s),veh/h/ln	1767	0	0	0	1863	1583	1774	1770	1850	1862	0	1595
Q Serve(g_s), s	0.5	0.0	0.0	0.0	0.0	40.1	29.4	6.7	6.7	0.0	0.0	11.6
Cycle Q Clear(g_c), s	0.5	0.0	0.0	0.0	0.0	40.1	29.4	6.7	6.7	11.3	0.0	11.6
Prop In Lane	0.50		0.17	0.00		1.00	1.00		0.04	0.01		0.36
Lane Grp Cap(c), veh/h	13	0	0	0	600	1741	672	984	1029	578	0	473
V/C Ratio(X)	0.46	0.00	0.00	0.00	0.00	0.71	0.82	0.17	0.18	0.33	0.00	0.36
Avail Cap(c_a), veh/h	88	0	0	0	772	2032	728	984	1029	578	0	473
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	69.2	0.0	0.0	0.0	0.0	23.2	23.2	15.3	15.3	38.6	0.0	38.7
Incr Delay (d2), s/veh	8.9	0.0	0.0	0.0	0.0	0.7	6.5	0.4	0.4	1.5	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.0	0.0	17.6	15.5	3.4	3.5	6.1	0.0	5.4
LnGrp Delay(d),s/veh	78.1	0.0	0.0	0.0	0.0	23.9	29.7	15.7	15.7	40.2	0.0	40.8
LnGrp LOS	E					C	C	B	B	D		D
Approach Vol, veh/h		6			1232			906			360	
Approach Delay, s/veh		78.1			23.9			24.2			40.5	
Approach LOS		E			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	36.3	47.5		50.1		83.8		6.0
Change Period (Y+Rc), s	4.5	6.0		5.0		6.0		5.0
Max Green Setting (Gmax), s	36.2	18.3		58.0		59.0		7.0
Max Q Clear Time (g_c+I1), s	31.4	13.6		42.1		8.7		2.5
Green Ext Time (p_c), s	0.5	1.3		3.0		4.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	26.5
HCM 2010 LOS	C

Notes



Lane Group	NBT	SBT	SBR	NEL	NET	SWT
Lane Group Flow (vph)	6	495	728	554	352	360
v/c Ratio	0.09	1.06	0.61	0.85	0.20	0.82
Control Delay	62.8	93.2	5.4	45.2	21.1	72.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.8	93.2	5.4	45.2	21.1	72.8
Queue Length 50th (ft)	5	~478	110	383	89	164
Queue Length 95th (ft)	20	#716	187	#703	141	#237
Internal Link Dist (ft)	135	475			976	3424
Turn Bay Length (ft)			130	140		
Base Capacity (vph)	89	466	1195	648	1728	444
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.07	1.06	0.61	0.85	0.20	0.81

Intersection Summary

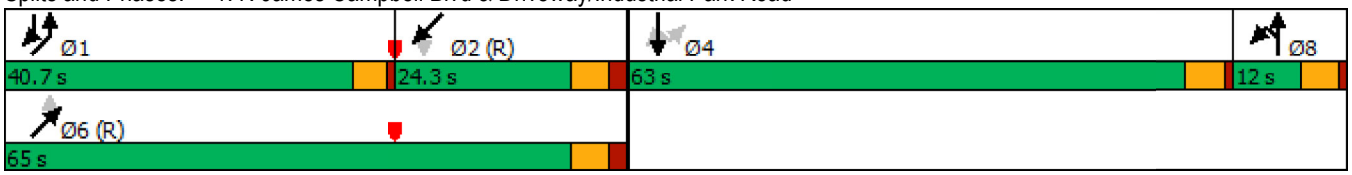
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	NBT	SBL	SBT	SBR	NEL	NET	SWL	SWT
Lane Configurations								
Traffic Volume (vph)	2	160	8	957	510	317	1	275
Future Volume (vph)	2	160	8	957	510	317	1	275
Turn Type	NA	Perm	NA	pm+ov	pm+pt	NA	Perm	NA
Protected Phases	8		4	1	1	6		2
Permitted Phases		4		4	6		2	
Detector Phase	8	4	4	1	1	6	2	2
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	15.0	15.0	15.0
Minimum Split (s)	12.0	23.0	23.0	9.5	9.5	24.0	24.0	24.0
Total Split (s)	12.0	63.0	63.0	40.7	40.7	65.0	24.3	24.3
Total Split (%)	8.6%	45.0%	45.0%	29.1%	29.1%	46.4%	17.4%	17.4%
Yellow Time (s)	4.0	4.0	4.0	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.0		5.0	4.5	4.5	6.0		6.0
Lead/Lag				Lead	Lead		Lag	Lag
Lead-Lag Optimize?				Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)	5.3		58.2	108.2	70.0	68.5		18.2
Actuated g/C Ratio	0.04		0.42	0.77	0.50	0.49		0.13
v/c Ratio	0.09		1.06	0.61	0.85	0.20		0.82
Control Delay	62.8		93.2	5.4	45.2	21.1		72.8
Queue Delay	0.0		0.0	0.0	0.0	0.0		0.0
Total Delay	62.8		93.2	5.4	45.2	21.1		72.8
LOS	E		F	A	D	C		E
Approach Delay	62.8		41.0			35.8		72.8
Approach LOS	E		D			D		E

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:SWTL and 6:NETL, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 43.7	Intersection LOS: D
Intersection Capacity Utilization 87.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: N James Campbell Blvd & Driveway/Industrial Park Road



Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	467	9	7	296	10	7	1	15	30	3	27
Future Vol, veh/h	9	467	9	7	296	10	7	1	15	30	3	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	508	10	8	322	11	8	1	16	33	3	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	333	0	0	518	0	0	712	882	259	619	882	167
Stage 1	-	-	-	-	-	-	533	533	-	344	344	-
Stage 2	-	-	-	-	-	-	179	349	-	275	538	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1223	-	-	1044	-	-	320	284	740	373	284	848
Stage 1	-	-	-	-	-	-	498	523	-	645	635	-
Stage 2	-	-	-	-	-	-	805	632	-	708	521	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1223	-	-	1044	-	-	301	278	740	358	278	848
Mov Cap-2 Maneuver	-	-	-	-	-	-	301	278	-	358	278	-
Stage 1	-	-	-	-	-	-	493	517	-	638	629	-
Stage 2	-	-	-	-	-	-	766	626	-	683	515	-

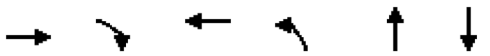
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	12.8	13.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	488	1223	-	-	1044	-	-	475
HCM Lane V/C Ratio	0.051	0.008	-	-	0.007	-	-	0.137
HCM Control Delay (s)	12.8	8	0	-	8.5	0	-	13.8
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	5	516	5	2	0	233	132	5	0	251	65
Future Volume (veh/h)	72	5	516	5	2	0	233	132	5	0	251	65
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	78	5	561	5	2	0	253	143	5	0	273	71
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	338	19	474	175	58	0	297	2417	84	43	1215	302
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.00	0.12	0.69	0.69	0.00	0.52	0.52
Sat Flow, veh/h	1403	106	1583	555	321	0	1774	3489	121	0	2886	713
Grp Volume(v), veh/h	83	0	561	7	0	0	253	72	76	0	171	173
Grp Sat Flow(s),veh/h/ln	1509	0	1583	876	0	0	1774	1770	1841	0	1770	1737
Q Serve(g_s), s	0.0	0.0	15.0	0.0	0.0	0.0	7.4	1.1	1.1	0.0	5.0	5.3
Cycle Q Clear(g_c), s	3.3	0.0	15.0	3.3	0.0	0.0	7.4	1.1	1.1	0.0	5.0	5.3
Prop In Lane	0.94		1.00	0.71		0.00	1.00		0.07	0.00		0.41
Lane Grp Cap(c), veh/h	357	0	474	233	0	0	297	1226	1276	0	0	0
V/C Ratio(X)	0.23	0.00	1.18	0.03	0.00	0.00	0.85	0.06	0.06	0.00	0.00	0.00
Avail Cap(c_a), veh/h	357	0	474	233	0	0	471	1226	1276	0	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	29.2	0.0	29.1	28.0	0.0	0.0	28.9	4.1	4.1	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	102.5	0.1	0.0	0.0	8.4	0.1	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	24.3	0.1	0.0	0.0	6.3	0.6	0.6	0.0	0.0	0.0
LnGrp Delay(d),s/veh	29.5	0.0	131.5	28.1	0.0	0.0	37.3	4.2	4.2	0.0	0.0	0.0
LnGrp LOS	C		F	C			D	A	A			
Approach Vol, veh/h		644			7			401			344	
Approach Delay, s/veh		118.4			28.1			25.1			0.0	
Approach LOS		F			C			C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	14.3	49.2		19.5		63.5		19.5
Change Period (Y+Rc), s	4.5	6.0		4.5		6.0		4.5
Max Green Setting (Gmax), s	18.0	35.0		15.0		57.5		15.0
Max Q Clear Time (g_c+I1), s	9.4	7.3		17.0		3.1		5.3
Green Ext Time (p_c), s	0.4	1.7		0.0		0.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	62.0
HCM 2010 LOS	E



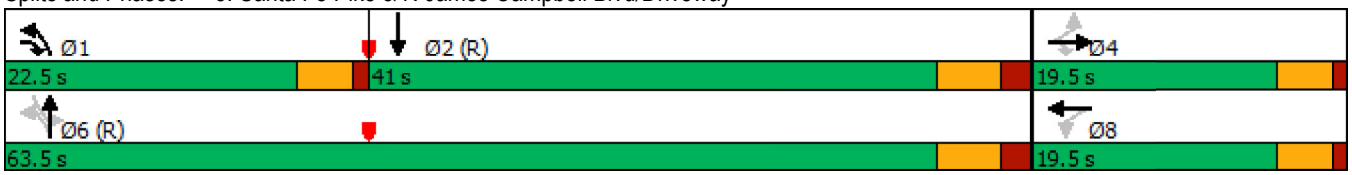
Lane Group	EBT	EBR	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	83	561	7	253	148	344
v/c Ratio	0.49	0.73	0.04	0.30	0.05	0.16
Control Delay	42.8	10.0	30.0	3.9	3.1	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.8	10.0	30.0	3.9	3.1	8.1
Queue Length 50th (ft)	41	34	3	27	7	34
Queue Length 95th (ft)	80	111	14	61	18	70
Internal Link Dist (ft)	4426		175		410	487
Turn Bay Length (ft)				480		
Base Capacity (vph)	247	884	275	919	2778	2089
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.63	0.03	0.28	0.05	0.16

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBT
Lane Configurations								
Traffic Volume (vph)	72	5	516	5	2	233	132	251
Future Volume (vph)	72	5	516	5	2	233	132	251
Turn Type	Perm	NA	pm+ov	Perm	NA	pm+pt	NA	NA
Protected Phases		4	1		8	1	6	2
Permitted Phases	4		4	8		6		
Detector Phase	4	4	1	8	8	1	6	2
Switch Phase								
Minimum Initial (s)	5.0	5.0	4.0	5.0	5.0	4.0	15.0	15.0
Minimum Split (s)	9.5	9.5	8.5	9.5	9.5	8.5	21.0	21.0
Total Split (s)	19.5	19.5	22.5	19.5	19.5	22.5	63.5	41.0
Total Split (%)	23.5%	23.5%	27.1%	23.5%	23.5%	27.1%	76.5%	49.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5		4.5	4.5	6.0	6.0
Lead/Lag			Lead			Lead		Lag
Lead-Lag Optimize?			Yes			Yes		Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min
Act Effct Green (s)		10.3	22.4		10.2	65.8	65.5	50.1
Actuated g/C Ratio		0.12	0.27		0.12	0.79	0.79	0.60
v/c Ratio		0.49	0.73		0.04	0.30	0.05	0.16
Control Delay		42.8	10.0		30.0	3.9	3.1	8.1
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0
Total Delay		42.8	10.0		30.0	3.9	3.1	8.1
LOS		D	A		C	A	A	A
Approach Delay		14.2			30.0		3.6	8.1
Approach LOS		B			C		A	A

Intersection Summary	
Cycle Length: 83	
Actuated Cycle Length: 83	
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBSB, Start of Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 9.7	Intersection LOS: A
Intersection Capacity Utilization 61.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Santa Fe Pike & N James Campbell Blvd/Driveway



Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	8	14	5	93	5	770	780	357	0	5	318	84
Future Volume (veh/h)	8	14	5	93	5	770	780	357	0	5	318	84
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	9	15	5	0	0	949	848	388	0	5	346	91
Adj No. of Lanes	0	1	0	0	1	2	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	107	163	45	0	389	1862	872	2367	0	43	651	167
Arrive On Green	0.21	0.21	0.21	0.00	0.00	0.21	0.38	0.67	0.00	0.24	0.24	0.24
Sat Flow, veh/h	262	779	217	0	1863	3167	1774	3632	0	11	2717	698
Grp Volume(v), veh/h	29	0	0	0	0	949	848	388	0	237	0	205
Grp Sat Flow(s),veh/h/ln	1258	0	0	0	1863	1583	1774	1770	0	1854	0	1572
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	15.9	31.8	3.7	0.0	0.0	0.0	10.3
Cycle Q Clear(g_c), s	1.2	0.0	0.0	0.0	0.0	15.9	31.8	3.7	0.0	10.0	0.0	10.3
Prop In Lane	0.31		0.17	0.00		1.00	1.00		0.00	0.02		0.44
Lane Grp Cap(c), veh/h	315	0	0	0	389	1862	872	2367	0	485	0	377
V/C Ratio(X)	0.09	0.00	0.00	0.00	0.00	0.51	0.97	0.16	0.00	0.49	0.00	0.54
Avail Cap(c_a), veh/h	342	0	0	0	435	1939	891	2367	0	485	0	377
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.6	0.0	0.0	0.0	0.0	10.9	15.1	5.5	0.0	29.8	0.0	29.9
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.1	23.2	0.1	0.0	3.5	0.0	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.0	0.0	6.9	25.9	1.8	0.0	5.6	0.0	5.0
LnGrp Delay(d),s/veh	28.7	0.0	0.0	0.0	0.0	11.0	38.3	5.7	0.0	33.3	0.0	35.4
LnGrp LOS	C					B	D	A		C		D
Approach Vol, veh/h		29			949			1236			442	
Approach Delay, s/veh		28.7			11.0			28.1			34.3	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	38.6	27.6		23.8		66.2		23.8
Change Period (Y+Rc), s	4.5	6.0		5.0		6.0		5.0
Max Green Setting (Gmax), s	35.1	18.4		21.0		58.0		21.0
Max Q Clear Time (g_c+I1), s	33.8	12.3		17.9		5.7		3.2
Green Ext Time (p_c), s	0.3	2.0		0.9		5.1		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	23.0
HCM 2010 LOS	C

Notes



Lane Group	NBT	SBT	SBR	NEL	NET	SWT
Lane Group Flow (vph)	29	474	469	848	388	442
v/c Ratio	0.12	0.99	0.45	1.02	0.17	0.68
Control Delay	25.4	63.5	6.2	57.0	6.9	36.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.4	63.5	6.2	57.0	6.9	36.9
Queue Length 50th (ft)	11	~214	80	~397	41	113
Queue Length 95th (ft)	34	#416	141	#655	60	164
Internal Link Dist (ft)	135	475			976	3424
Turn Bay Length (ft)			130	140		
Base Capacity (vph)	236	477	1040	828	2280	690
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.99	0.45	1.02	0.17	0.64

Intersection Summary

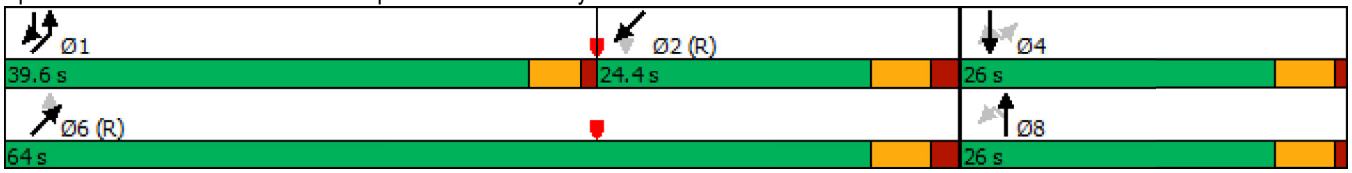
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	NBL	NBT	SBL	SBT	SBR	NEL	NET	SWL	SWT
Lane Configurations									
Traffic Volume (vph)	8	14	93	5	770	780	357	5	318
Future Volume (vph)	8	14	93	5	770	780	357	5	318
Turn Type	Perm	NA	Perm	NA	pm+ov	pm+pt	NA	Perm	NA
Protected Phases		8		4	1	1	6		2
Permitted Phases	8		4		4	6		2	
Detector Phase	8	8	4	4	1	1	6	2	2
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	15.0	15.0	15.0
Minimum Split (s)	12.0	12.0	23.0	23.0	9.5	9.5	24.0	24.0	24.0
Total Split (s)	26.0	26.0	26.0	26.0	39.6	39.6	64.0	24.4	24.4
Total Split (%)	28.9%	28.9%	28.9%	28.9%	44.0%	44.0%	71.1%	27.1%	27.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		5.0		5.0	4.5	4.5	6.0		6.0
Lead/Lag					Lead	Lead		Lag	Lag
Lead-Lag Optimize?					Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)		22.1		22.1	62.2	58.4	56.9		17.3
Actuated g/C Ratio		0.25		0.25	0.69	0.65	0.63		0.19
v/c Ratio		0.12		0.99	0.45	1.02	0.17		0.68
Control Delay		25.4		63.5	6.2	57.0	6.9		36.9
Queue Delay		0.0		0.0	0.0	0.0	0.0		0.0
Total Delay		25.4		63.5	6.2	57.0	6.9		36.9
LOS		C		E	A	E	A		D
Approach Delay		25.4		35.0			41.3		36.9
Approach LOS		C		D			D		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:SWTL and 6:NETL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 38.1	Intersection LOS: D
Intersection Capacity Utilization 96.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 1: N James Campbell Blvd & Driveway/Industrial Park Road



Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	396	14	19	373	34	7	3	6	20	2	18
Future Vol, veh/h	30	396	14	19	373	34	7	3	6	20	2	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	430	15	21	405	37	8	3	7	22	2	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	442	0	0	445	0	0	750	988	223	749	977	221
Stage 1	-	-	-	-	-	-	504	504	-	466	466	-
Stage 2	-	-	-	-	-	-	246	484	-	283	511	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1114	-	-	1112	-	-	300	246	780	300	249	783
Stage 1	-	-	-	-	-	-	518	539	-	546	561	-
Stage 2	-	-	-	-	-	-	736	550	-	700	535	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1114	-	-	1112	-	-	277	231	780	280	233	783
Mov Cap-2 Maneuver	-	-	-	-	-	-	277	231	-	280	233	-
Stage 1	-	-	-	-	-	-	498	518	-	525	547	-
Stage 2	-	-	-	-	-	-	697	536	-	663	514	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.5	15.9	15.4
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	348	1114	-	-	1112	-	-	388
HCM Lane V/C Ratio	0.05	0.029	-	-	0.019	-	-	0.112
HCM Control Delay (s)	15.9	8.3	0.1	-	8.3	0.1	-	15.4
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.1	-	-	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	0	373	0	0	0	383	180	0	0	169	113
Future Volume (veh/h)	88	0	373	0	0	0	383	180	0	0	169	113
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	96	0	405	0	0	0	416	196	0	0	184	123
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	341	0	612	0	337	0	451	2452	0	43	922	551
Arrive On Green	0.18	0.00	0.18	0.00	0.00	0.00	0.21	0.69	0.00	0.00	0.43	0.43
Sat Flow, veh/h	1406	0	1583	0	1863	0	1774	3632	0	0	2172	1320
Grp Volume(v), veh/h	96	0	405	0	0	0	416	196	0	0	155	152
Grp Sat Flow(s),veh/h/ln	1406	0	1583	0	1863	0	1774	1770	0	0	1770	1630
Q Serve(g_s), s	5.0	0.0	15.0	0.0	0.0	0.0	14.9	1.5	0.0	0.0	4.4	5.0
Cycle Q Clear(g_c), s	5.0	0.0	15.0	0.0	0.0	0.0	14.9	1.5	0.0	0.0	4.4	5.0
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.00	0.00		0.81
Lane Grp Cap(c), veh/h	341	0	612	0	337	0	451	2452	0	0	0	0
V/C Ratio(X)	0.28	0.00	0.66	0.00	0.00	0.00	0.92	0.08	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	341	0	612	0	337	0	471	2452	0	0	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	29.9	0.0	21.0	0.0	0.0	0.0	28.8	4.1	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	2.7	0.0	0.0	0.0	23.1	0.1	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	8.1	0.0	0.0	0.0	12.1	0.7	0.0	0.0	0.0	0.0
LnGrp Delay(d),s/veh	30.3	0.0	23.7	0.0	0.0	0.0	51.9	4.2	0.0	0.0	0.0	0.0
LnGrp LOS	C		C				D	A				
Approach Vol, veh/h		501			0			612			307	
Approach Delay, s/veh		24.9			0.0			36.6			0.0	
Approach LOS		C						D			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	21.6	41.9		19.5		63.5		19.5
Change Period (Y+Rc), s	4.5	6.0		4.5		6.0		4.5
Max Green Setting (Gmax), s	18.0	35.0		15.0		57.5		15.0
Max Q Clear Time (g_c+I1), s	16.9	7.0		17.0		3.5		0.0
Green Ext Time (p_c), s	0.2	1.5		0.0		1.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	24.6
HCM 2010 LOS	C



Lane Group	EBT	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	96	405	416	196	307
v/c Ratio	0.52	0.52	0.48	0.07	0.16
Control Delay	42.7	4.2	5.4	3.3	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	42.7	4.2	5.4	3.3	7.5
Queue Length 50th (ft)	47	0	53	11	23
Queue Length 95th (ft)	89	45	110	25	57
Internal Link Dist (ft)	4426			410	487
Turn Bay Length (ft)			480		
Base Capacity (vph)	256	853	931	2773	1939
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.38	0.47	0.45	0.07	0.16

Intersection Summary

Lane Group	EBL	EBT	EBR	NBL	NBT	SBT	Ø8
Lane Configurations							
Traffic Volume (vph)	88	0	373	383	180	169	
Future Volume (vph)	88	0	373	383	180	169	
Turn Type	Perm	NA	pm+ov	pm+pt	NA	NA	
Protected Phases		4	1	1	6	2	8
Permitted Phases	4		4	6			
Detector Phase	4	4	1	1	6	2	
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	15.0	15.0	5.0
Minimum Split (s)	9.5	9.5	9.5	9.5	21.0	21.0	9.5
Total Split (s)	19.5	19.5	22.5	22.5	63.5	41.0	19.5
Total Split (%)	23.5%	23.5%	27.1%	27.1%	76.5%	49.4%	23%
Yellow Time (s)	3.5	3.5	3.5	3.5	4.0	4.0	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	2.0	2.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.5	4.5	4.5	6.0	6.0	
Lead/Lag			Lead	Lead		Lag	
Lead-Lag Optimize?			Yes	Yes		Yes	
Recall Mode	None	None	None	None	C-Min	C-Min	None
Act Effct Green (s)		10.9	25.9	65.2	64.9	46.6	
Actuated g/C Ratio		0.13	0.31	0.79	0.78	0.56	
v/c Ratio		0.52	0.52	0.48	0.07	0.16	
Control Delay		42.7	4.2	5.4	3.3	7.5	
Queue Delay		0.0	0.0	0.0	0.0	0.0	
Total Delay		42.7	4.2	5.4	3.3	7.5	
LOS		D	A	A	A	A	
Approach Delay		11.6			4.7	7.5	
Approach LOS		B			A	A	

Intersection Summary	
Cycle Length: 83	
Actuated Cycle Length: 83	
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBSB, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.52	
Intersection Signal Delay: 7.7	Intersection LOS: A
Intersection Capacity Utilization 52.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Santa Fe Pike & N James Campbell Blvd/Driveway



PROJECTED CAPACITY ANALYSES WITH IMPROVEMENTS

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	3	2	1	160	8	957	510	317	6	1	275	55
Future Volume (veh/h)	3	2	1	160	8	957	510	317	6	1	275	55
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	3	2	1	0	0	1232	554	345	7	1	299	60
Adj No. of Lanes	0	1	0	0	1	2	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	7	4	2	0	600	1741	672	1973	40	26	856	169
Arrive On Green	0.01	0.01	0.01	0.00	0.00	0.32	0.23	0.56	0.56	0.30	0.30	0.30
Sat Flow, veh/h	883	589	294	0	1863	3167	1774	3548	72	1	2886	569
Grp Volume(v), veh/h	6	0	0	0	0	1232	554	172	180	192	0	168
Grp Sat Flow(s),veh/h/ln	1767	0	0	0	1863	1583	1774	1770	1850	1862	0	1595
Q Serve(g_s), s	0.5	0.0	0.0	0.0	0.0	40.1	29.4	6.7	6.7	0.0	0.0	11.6
Cycle Q Clear(g_c), s	0.5	0.0	0.0	0.0	0.0	40.1	29.4	6.7	6.7	11.3	0.0	11.6
Prop In Lane	0.50		0.17	0.00		1.00	1.00		0.04	0.01		0.36
Lane Grp Cap(c), veh/h	13	0	0	0	600	1741	672	984	1029	578	0	473
V/C Ratio(X)	0.46	0.00	0.00	0.00	0.00	0.71	0.82	0.17	0.18	0.33	0.00	0.36
Avail Cap(c_a), veh/h	88	0	0	0	772	2032	728	984	1029	578	0	473
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	69.2	0.0	0.0	0.0	0.0	23.2	23.2	15.3	15.3	38.6	0.0	38.7
Incr Delay (d2), s/veh	8.9	0.0	0.0	0.0	0.0	0.7	6.5	0.4	0.4	1.5	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.0	0.0	17.6	15.5	3.4	3.5	6.1	0.0	5.4
LnGrp Delay(d),s/veh	78.1	0.0	0.0	0.0	0.0	23.9	29.7	15.7	15.7	40.2	0.0	40.8
LnGrp LOS	E					C	C	B	B	D		D
Approach Vol, veh/h		6			1232			906			360	
Approach Delay, s/veh		78.1			23.9			24.2			40.5	
Approach LOS		E			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	36.3	47.5		50.1		83.8		6.0
Change Period (Y+Rc), s	4.5	6.0		5.0		6.0		5.0
Max Green Setting (Gmax), s	36.2	18.3		58.0		59.0		7.0
Max Q Clear Time (g_c+I1), s	31.4	13.6		42.1		8.7		2.5
Green Ext Time (p_c), s	0.5	1.3		3.0		4.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	26.5
HCM 2010 LOS	C

Notes

Lane Group	NBT	SBT	SBR	NEL	NET	SWT
Lane Group Flow (vph)	6	495	728	554	352	360
v/c Ratio	0.09	1.06	0.61	0.85	0.20	0.82
Control Delay	62.8	93.2	5.4	45.2	21.1	72.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.8	93.2	5.4	45.2	21.1	72.8
Queue Length 50th (ft)	5	~478	110	383	89	164
Queue Length 95th (ft)	20	#716	187	#703	141	#237
Internal Link Dist (ft)	135	475			976	3424
Turn Bay Length (ft)			130	140		
Base Capacity (vph)	89	466	1195	648	1728	444
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.07	1.06	0.61	0.85	0.20	0.81

Intersection Summary

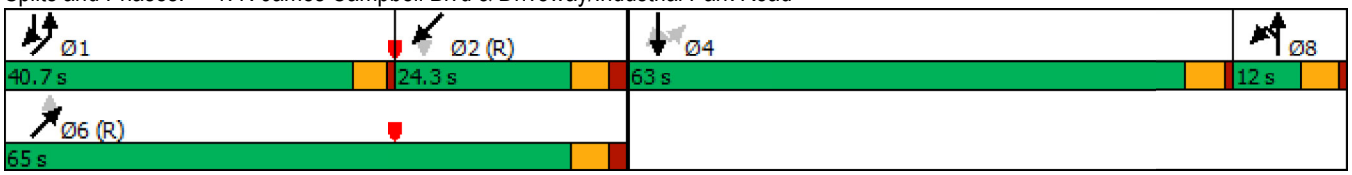
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	NBT	SBL	SBT	SBR	NEL	NET	SWL	SWT
Lane Configurations								
Traffic Volume (vph)	2	160	8	957	510	317	1	275
Future Volume (vph)	2	160	8	957	510	317	1	275
Turn Type	NA	Perm	NA	pm+ov	pm+pt	NA	Perm	NA
Protected Phases	8		4	1	1	6		2
Permitted Phases		4		4	6		2	
Detector Phase	8	4	4	1	1	6	2	2
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	15.0	15.0	15.0
Minimum Split (s)	12.0	23.0	23.0	9.5	9.5	24.0	24.0	24.0
Total Split (s)	12.0	63.0	63.0	40.7	40.7	65.0	24.3	24.3
Total Split (%)	8.6%	45.0%	45.0%	29.1%	29.1%	46.4%	17.4%	17.4%
Yellow Time (s)	4.0	4.0	4.0	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.0		5.0	4.5	4.5	6.0		6.0
Lead/Lag				Lead	Lead		Lag	Lag
Lead-Lag Optimize?				Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)	5.3		58.2	108.2	70.0	68.5		18.2
Actuated g/C Ratio	0.04		0.42	0.77	0.50	0.49		0.13
v/c Ratio	0.09		1.06	0.61	0.85	0.20		0.82
Control Delay	62.8		93.2	5.4	45.2	21.1		72.8
Queue Delay	0.0		0.0	0.0	0.0	0.0		0.0
Total Delay	62.8		93.2	5.4	45.2	21.1		72.8
LOS	E		F	A	D	C		E
Approach Delay	62.8		41.0			35.8		72.8
Approach LOS	E		D			D		E

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:SWTL and 6:NETL, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 43.7	Intersection LOS: D
Intersection Capacity Utilization 87.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: N James Campbell Blvd & Driveway/Industrial Park Road



Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	467	9	7	296	10	7	1	15	30	3	27
Future Vol, veh/h	9	467	9	7	296	10	7	1	15	30	3	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	508	10	8	322	11	8	1	16	33	3	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	333	0	0	518	0	0	712	882	259	619	882	167
Stage 1	-	-	-	-	-	-	533	533	-	344	344	-
Stage 2	-	-	-	-	-	-	179	349	-	275	538	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1223	-	-	1044	-	-	320	284	740	373	284	848
Stage 1	-	-	-	-	-	-	498	523	-	645	635	-
Stage 2	-	-	-	-	-	-	805	632	-	708	521	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1223	-	-	1044	-	-	302	279	740	359	279	848
Mov Cap-2 Maneuver	-	-	-	-	-	-	302	279	-	359	279	-
Stage 1	-	-	-	-	-	-	494	519	-	640	629	-
Stage 2	-	-	-	-	-	-	766	626	-	685	517	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	12.8	13.8
HCM LOS			B	B

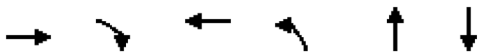
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	489	1223	-	-	1044	-	-	476
HCM Lane V/C Ratio	0.051	0.008	-	-	0.007	-	-	0.137
HCM Control Delay (s)	12.8	8	-	-	8.5	0	-	13.8
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	5	516	5	2	0	233	132	5	0	251	65
Future Volume (veh/h)	72	5	516	5	2	0	233	132	5	0	251	65
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	0	0	648	5	2	0	253	143	5	0	273	71
Adj No. of Lanes	0	1	2	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	393	980	266	85	0	335	1939	67	80	986	245
Arrive On Green	0.00	0.00	0.21	0.21	0.21	0.00	0.10	0.56	0.56	0.00	0.36	0.36
Sat Flow, veh/h	0	1863	3167	612	401	0	1774	3489	121	0	2886	713
Grp Volume(v), veh/h	0	0	648	7	0	0	253	72	76	0	171	173
Grp Sat Flow(s),veh/h/ln	0	1863	1583	1013	0	0	1774	1770	1841	0	1770	1737
Q Serve(g_s), s	0.0	0.0	8.0	0.0	0.0	0.0	2.6	0.9	0.9	0.0	3.1	3.3
Cycle Q Clear(g_c), s	0.0	0.0	8.0	0.1	0.0	0.0	2.6	0.9	0.9	0.0	3.1	3.3
Prop In Lane	0.00		1.00	0.71		0.00	1.00		0.07	0.00		0.41
Lane Grp Cap(c), veh/h	0	393	980	351	0	0	335	983	1023	0	0	0
V/C Ratio(X)	0.00	0.00	0.66	0.02	0.00	0.00	0.76	0.07	0.07	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	393	980	351	0	0	361	983	1023	0	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	13.5	14.1	0.0	0.0	10.1	4.6	4.6	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.7	0.0	0.0	0.0	8.2	0.1	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	3.7	0.1	0.0	0.0	2.5	0.4	0.5	0.0	0.0	0.0
LnGrp Delay(d),s/veh	0.0	0.0	15.1	14.1	0.0	0.0	18.3	4.8	4.8	0.0	0.0	0.0
LnGrp LOS			B	B			B	A	A			
Approach Vol, veh/h		648			7			401			344	
Approach Delay, s/veh		15.1			14.1			13.3			0.0	
Approach LOS		B			B			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	8.9	22.1		14.0		31.0		14.0
Change Period (Y+Rc), s	4.5	6.0		4.5		6.0		4.5
Max Green Setting (Gmax), s	5.1	15.4		9.5		25.0		9.5
Max Q Clear Time (g_c+I1), s	4.6	5.3		10.0		2.9		2.1
Green Ext Time (p_c), s	0.0	1.2		0.0		0.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	10.9
HCM 2010 LOS	B

Notes



Lane Group	EBT	EBR	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	324	320	7	253	148	344
v/c Ratio	0.71	0.40	0.04	0.41	0.07	0.27
Control Delay	15.5	3.0	14.5	6.4	4.5	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.5	3.0	14.5	6.4	4.5	9.2
Queue Length 50th (ft)	20	0	1	24	7	25
Queue Length 95th (ft)	#105	33	9	53	16	49
Internal Link Dist (ft)	4426		175		410	487
Turn Bay Length (ft)				480		
Base Capacity (vph)	497	805	233	622	2087	1286
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.40	0.03	0.41	0.07	0.27

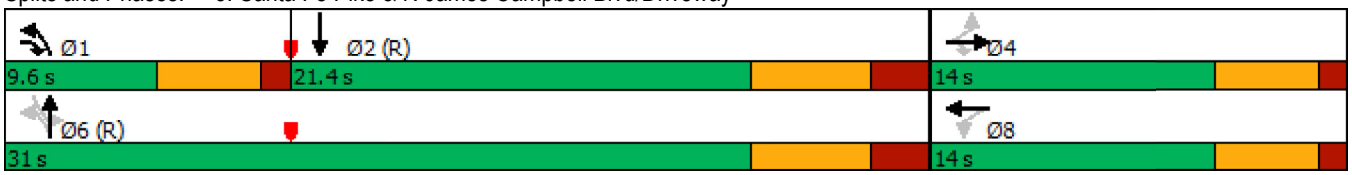
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBT
Lane Configurations								
Traffic Volume (vph)	72	5	516	5	2	233	132	251
Future Volume (vph)	72	5	516	5	2	233	132	251
Turn Type	Perm	NA	pm+ov	Perm	NA	pm+pt	NA	NA
Protected Phases		4	1		8	1	6	2
Permitted Phases	4		4	8		6		
Detector Phase	4	4	1	8	8	1	6	2
Switch Phase								
Minimum Initial (s)	5.0	5.0	4.0	5.0	5.0	4.0	15.0	15.0
Minimum Split (s)	9.5	9.5	8.5	9.5	9.5	8.5	21.0	21.0
Total Split (s)	14.0	14.0	9.6	14.0	14.0	9.6	31.0	21.4
Total Split (%)	31.1%	31.1%	21.3%	31.1%	31.1%	21.3%	68.9%	47.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5		4.5	4.5	6.0	6.0
Lead/Lag			Lead			Lead		Lag
Lead-Lag Optimize?			Yes			Yes		Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min
Act Effct Green (s)		8.0	18.5		8.0	28.0	26.5	16.0
Actuated g/C Ratio		0.18	0.41		0.18	0.62	0.59	0.36
v/c Ratio		0.71	0.40		0.04	0.41	0.07	0.27
Control Delay		15.5	3.0		14.5	6.4	4.5	9.2
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0
Total Delay		15.5	3.0		14.5	6.4	4.5	9.2
LOS		B	A		B	A	A	A
Approach Delay		9.3			14.5		5.7	9.2
Approach LOS		A			B		A	A

Intersection Summary	
Cycle Length: 45	
Actuated Cycle Length: 45	
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBSB, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 8.2	Intersection LOS: A
Intersection Capacity Utilization 53.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Santa Fe Pike & N James Campbell Blvd/Driveway



Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	8	14	5	93	5	770	780	357	0	5	318	84
Future Volume (veh/h)	8	14	5	93	5	770	780	357	0	5	318	84
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	9	15	5	0	0	949	848	388	0	5	346	91
Adj No. of Lanes	0	1	0	0	1	2	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	107	163	45	0	389	1862	872	2367	0	43	651	167
Arrive On Green	0.21	0.21	0.21	0.00	0.00	0.21	0.38	0.67	0.00	0.24	0.24	0.24
Sat Flow, veh/h	262	779	217	0	1863	3167	1774	3632	0	11	2717	698
Grp Volume(v), veh/h	29	0	0	0	0	949	848	388	0	237	0	205
Grp Sat Flow(s),veh/h/ln	1258	0	0	0	1863	1583	1774	1770	0	1854	0	1572
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	15.9	31.8	3.7	0.0	0.0	0.0	10.3
Cycle Q Clear(g_c), s	1.2	0.0	0.0	0.0	0.0	15.9	31.8	3.7	0.0	10.0	0.0	10.3
Prop In Lane	0.31		0.17	0.00		1.00	1.00		0.00	0.02		0.44
Lane Grp Cap(c), veh/h	315	0	0	0	389	1862	872	2367	0	485	0	377
V/C Ratio(X)	0.09	0.00	0.00	0.00	0.00	0.51	0.97	0.16	0.00	0.49	0.00	0.54
Avail Cap(c_a), veh/h	342	0	0	0	435	1939	891	2367	0	485	0	377
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.6	0.0	0.0	0.0	0.0	10.9	15.1	5.5	0.0	29.8	0.0	29.9
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.1	23.2	0.1	0.0	3.5	0.0	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.0	0.0	6.9	25.9	1.8	0.0	5.6	0.0	5.0
LnGrp Delay(d),s/veh	28.7	0.0	0.0	0.0	0.0	11.0	38.3	5.7	0.0	33.3	0.0	35.4
LnGrp LOS	C					B	D	A		C		D
Approach Vol, veh/h		29			949			1236			442	
Approach Delay, s/veh		28.7			11.0			28.1			34.3	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	38.6	27.6		23.8		66.2		23.8
Change Period (Y+Rc), s	4.5	6.0		5.0		6.0		5.0
Max Green Setting (Gmax), s	35.1	18.4		21.0		58.0		21.0
Max Q Clear Time (g_c+I1), s	33.8	12.3		17.9		5.7		3.2
Green Ext Time (p_c), s	0.3	2.0		0.9		5.1		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	23.0
HCM 2010 LOS	C

Notes



Lane Group	NBT	SBT	SBR	NEL	NET	SWT
Lane Group Flow (vph)	29	474	469	848	388	442
v/c Ratio	0.12	0.99	0.45	1.02	0.17	0.68
Control Delay	25.4	63.5	6.2	57.0	6.9	44.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.4	63.5	6.2	57.0	6.9	44.0
Queue Length 50th (ft)	11	~214	80	~397	41	133
Queue Length 95th (ft)	34	#416	141	#655	60	185
Internal Link Dist (ft)	135	475			976	3424
Turn Bay Length (ft)			130	140		
Base Capacity (vph)	236	477	1040	828	2280	690
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.99	0.45	1.02	0.17	0.64

Intersection Summary

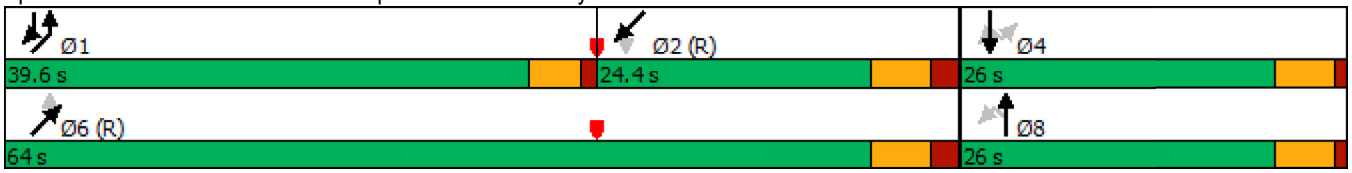
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	NBL	NBT	SBL	SBT	SBR	NEL	NET	SWL	SWT
Lane Configurations									
Traffic Volume (vph)	8	14	93	5	770	780	357	5	318
Future Volume (vph)	8	14	93	5	770	780	357	5	318
Turn Type	Perm	NA	Perm	NA	pm+ov	pm+pt	NA	Perm	NA
Protected Phases		8		4	1	1	6		2
Permitted Phases	8		4		4	6		2	
Detector Phase	8	8	4	4	1	1	6	2	2
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	15.0	15.0	15.0
Minimum Split (s)	12.0	12.0	23.0	23.0	9.5	9.5	24.0	24.0	24.0
Total Split (s)	26.0	26.0	26.0	26.0	39.6	39.6	64.0	24.4	24.4
Total Split (%)	28.9%	28.9%	28.9%	28.9%	44.0%	44.0%	71.1%	27.1%	27.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		5.0		5.0	4.5	4.5	6.0		6.0
Lead/Lag					Lead	Lead		Lag	Lag
Lead-Lag Optimize?					Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)		22.1		22.1	62.2	58.4	56.9		17.3
Actuated g/C Ratio		0.25		0.25	0.69	0.65	0.63		0.19
v/c Ratio		0.12		0.99	0.45	1.02	0.17		0.68
Control Delay		25.4		63.5	6.2	57.0	6.9		44.0
Queue Delay		0.0		0.0	0.0	0.0	0.0		0.0
Total Delay		25.4		63.5	6.2	57.0	6.9		44.0
LOS		C		E	A	E	A		D
Approach Delay		25.4		35.0			41.3		44.0
Approach LOS		C		D			D		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:SWTL and 6:NETL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 39.3	Intersection LOS: D
Intersection Capacity Utilization 96.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 1: N James Campbell Blvd & Driveway/Industrial Park Road



Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	396	14	19	373	34	7	3	6	20	2	18
Future Vol, veh/h	30	396	14	19	373	34	7	3	6	20	2	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	430	15	21	405	37	8	3	7	22	2	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	442	0	0	445	0	0	750	988	223	749	977	221
Stage 1	-	-	-	-	-	-	504	504	-	466	466	-
Stage 2	-	-	-	-	-	-	246	484	-	283	511	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1114	-	-	1112	-	-	300	246	780	300	249	783
Stage 1	-	-	-	-	-	-	518	539	-	546	561	-
Stage 2	-	-	-	-	-	-	736	550	-	700	535	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1114	-	-	1112	-	-	278	233	780	282	236	783
Mov Cap-2 Maneuver	-	-	-	-	-	-	278	233	-	282	236	-
Stage 1	-	-	-	-	-	-	502	523	-	530	547	-
Stage 2	-	-	-	-	-	-	697	536	-	669	519	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.5	15.8	15.4
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	350	1114	-	-	1112	-	-	391
HCM Lane V/C Ratio	0.05	0.029	-	-	0.019	-	-	0.111
HCM Control Delay (s)	15.8	8.3	-	-	8.3	0.1	-	15.4
HCM Lane LOS	C	A	-	-	A	A	-	C
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.1	-	-	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	0	373	0	0	0	383	180	0	0	169	113
Future Volume (veh/h)	88	0	373	0	0	0	383	180	0	0	169	113
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	96	232	250	0	0	0	416	196	0	0	184	123
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	180	221	510	0	323	0	424	2100	0	80	753	450
Arrive On Green	0.17	0.17	0.17	0.00	0.00	0.00	0.15	0.59	0.00	0.00	0.34	0.34
Sat Flow, veh/h	443	1275	1583	0	1863	0	1774	3632	0	0	2172	1320
Grp Volume(v), veh/h	328	0	250	0	0	0	416	196	0	0	155	152
Grp Sat Flow(s),veh/h/ln	1719	0	1583	0	1863	0	1774	1770	0	0	1770	1630
Q Serve(g_s), s	6.9	0.0	5.7	0.0	0.0	0.0	6.4	1.1	0.0	0.0	2.7	3.1
Cycle Q Clear(g_c), s	7.8	0.0	5.7	0.0	0.0	0.0	6.4	1.1	0.0	0.0	2.7	3.1
Prop In Lane	0.29		1.00	0.00		0.00	1.00		0.00	0.00		0.81
Lane Grp Cap(c), veh/h	401	0	510	0	323	0	424	2100	0	0	0	0
V/C Ratio(X)	0.82	0.00	0.49	0.00	0.00	0.00	0.98	0.09	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	401	0	510	0	323	0	424	2100	0	0	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	0.0	12.3	0.0	0.0	0.0	13.3	3.9	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	12.4	0.0	0.7	0.0	0.0	0.0	38.5	0.1	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	0.0	2.6	0.0	0.0	0.0	7.5	0.5	0.0	0.0	0.0	0.0
LnGrp Delay(d),s/veh	31.4	0.0	13.0	0.0	0.0	0.0	51.9	4.0	0.0	0.0	0.0	0.0
LnGrp LOS	C		B				D	A				
Approach Vol, veh/h		578			0			612			307	
Approach Delay, s/veh		23.4			0.0			36.5			0.0	
Approach LOS		C						D			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	11.2	21.5		12.3		32.7		12.3
Change Period (Y+Rc), s	4.5	6.0		4.5		6.0		4.5
Max Green Setting (Gmax), s	6.7	15.5		7.8		26.7		7.8
Max Q Clear Time (g_c+I1), s	8.4	5.1		9.8		3.1		0.0
Green Ext Time (p_c), s	0.0	1.1		0.0		1.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	24.0
HCM 2010 LOS	C

Notes



Lane Group	EBT	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	254	247	416	196	307
v/c Ratio	0.67	0.32	0.62	0.09	0.25
Control Delay	20.2	2.9	9.1	4.2	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	2.9	9.1	4.2	7.2
Queue Length 50th (ft)	49	0	43	10	17
Queue Length 95th (ft)	m92	m33	80	18	38
Internal Link Dist (ft)	4426			410	487
Turn Bay Length (ft)			480		
Base Capacity (vph)	401	777	672	2161	1249
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.63	0.32	0.62	0.09	0.25

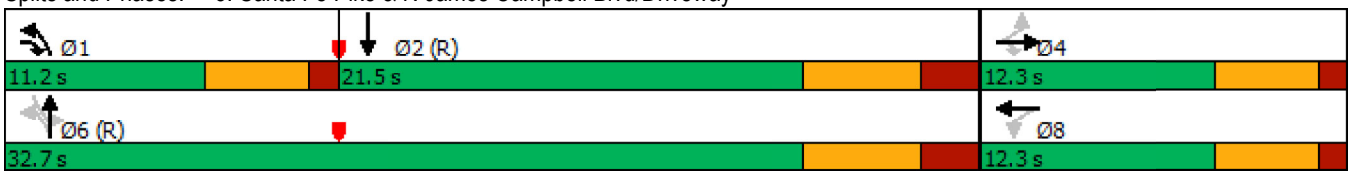
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	NBL	NBT	SBT	Ø8
Lane Configurations							
Traffic Volume (vph)	88	0	373	383	180	169	
Future Volume (vph)	88	0	373	383	180	169	
Turn Type	Perm	NA	pm+ov	pm+pt	NA	NA	
Protected Phases		4	1	1	6	2	8
Permitted Phases	4		4	6			
Detector Phase	4	4	1	1	6	2	
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	15.0	15.0	5.0
Minimum Split (s)	9.5	9.5	9.5	9.5	21.0	21.0	9.5
Total Split (s)	12.3	12.3	11.2	11.2	32.7	21.5	12.3
Total Split (%)	27.3%	27.3%	24.9%	24.9%	72.7%	47.8%	27%
Yellow Time (s)	3.5	3.5	3.5	3.5	4.0	4.0	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	2.0	2.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.5	4.5	4.5	6.0	6.0	
Lead/Lag			Lead	Lead		Lag	
Lead-Lag Optimize?			Yes	Yes		Yes	
Recall Mode	None	None	None	None	C-Min	C-Min	None
Act Effct Green (s)		7.3	19.0	28.7	27.2	15.5	
Actuated g/C Ratio		0.16	0.42	0.64	0.60	0.34	
v/c Ratio		0.67	0.32	0.62	0.09	0.25	
Control Delay		20.2	2.9	9.1	4.2	7.2	
Queue Delay		0.0	0.0	0.0	0.0	0.0	
Total Delay		20.2	2.9	9.1	4.2	7.2	
LOS		C	A	A	A	A	
Approach Delay		11.7			7.5	7.2	
Approach LOS		B			A	A	

Intersection Summary	
Cycle Length: 45	
Actuated Cycle Length: 45	
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBSB, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 8.9	Intersection LOS: A
Intersection Capacity Utilization 60.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Santa Fe Pike & N James Campbell Blvd/Driveway



APPENDIX C – DETAILED TRIP GENERATION CALCULATIONS

111 Southeast Pkwy Ct
Franklin, TN 37064
615-678-8212

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TRIP GENERATION

Project:	Oakwood Drive Subdivision – Columbia, TN
ITE Land Use:	Single-Family Housing
ITE Code:	210
Trip Ends vs:	**ITE 210** – 108 DU
Daily Equation:	Weekday – Fitted Curve Equation
AM Equation:	Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 AM – Fitted Curve Equation
PM Equation:	Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 PM – Fitted Curve Equation

Single-Family Homes (210) – 108 Dwelling Units

Time Period	Formula[1]	Calculation	Trips
Daily	$Ln\,(T) = 0.92Ln(X) + 2.68$	$Ln\,(T) = 0.92Ln(108) + 2.68$	1,083
AM Peak (Total)	$Ln\,(T) = 0.91Ln(X) + 0.12$	$Ln\,(T) = 0.91Ln(108) + 0.12$	80
AM Peak (Entering)	$T = 0.25(Total\ AM\ Trips)$	$T = 0.25(80)$	20
AM Peak (Exiting)	$T = 0.75(Total\ AM\ Trips)$	$T = 0.75(80)$	60
PM Peak (Total)	$Ln\,(T) = 0.94Ln(X) + 0.27$	$Ln\,(T) = 0.94Ln(108) + 0.27$	107
PM Peak (Entering)	$T = 0.63(Total\ PM\ Trips)$	$T = 0.63(107)$	67
PM Peak (Exiting)	$T = 0.37(Total\ PM\ Trips)$	$T = 0.37(107)$	40

[1] Institute of Transportation Engineers (ITE). Trip Generation Manual, 11th Edition. Washington, DC: ITE, 2024

Single-Family Detached Housing
(210)

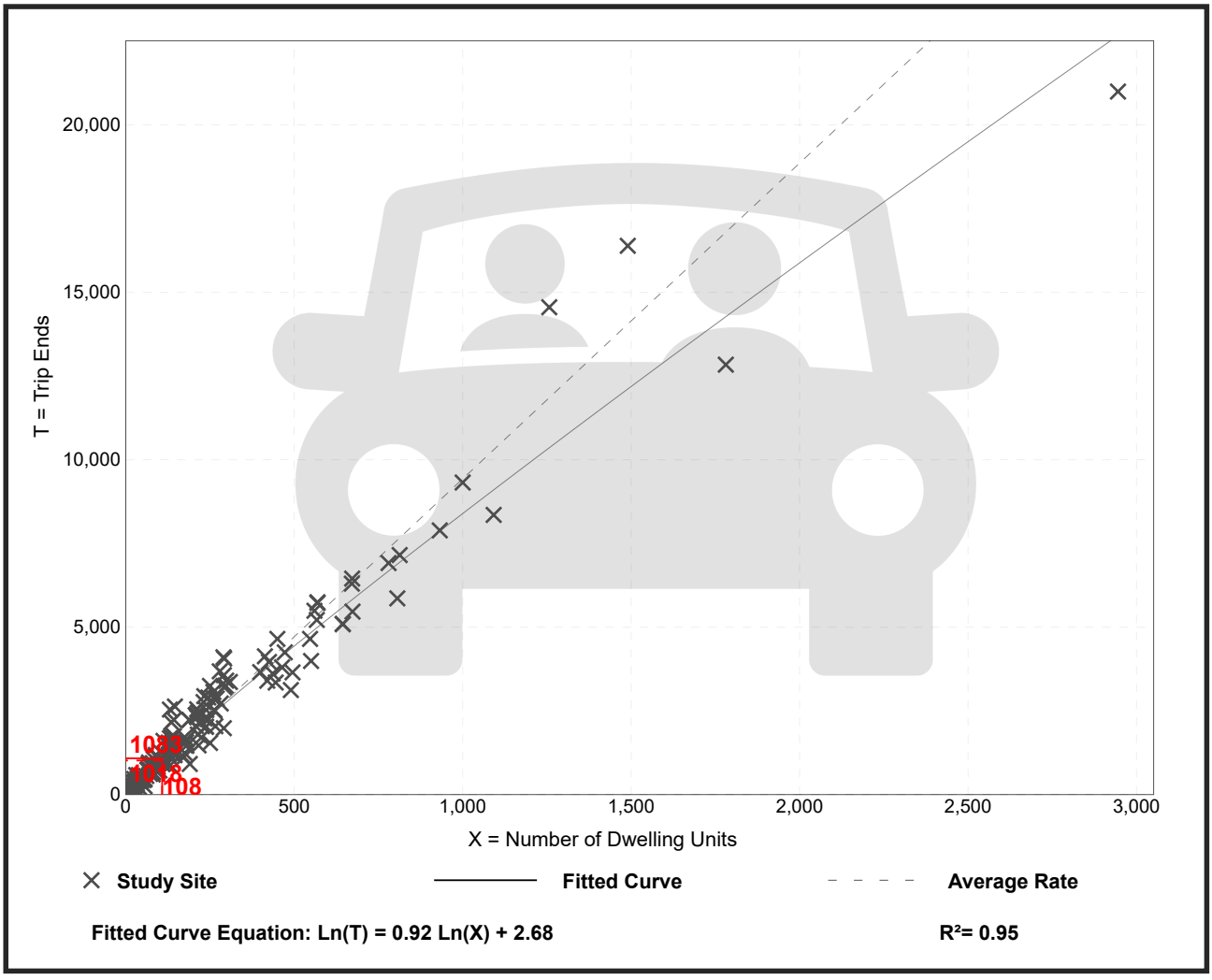
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 174
Avg. Num. of Dwelling Units: 246
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.43	4.45 - 22.61	2.13

Data Plot and Equation



Trip Gen Manual, 11th Edition ● Institute of Transportation Engineers

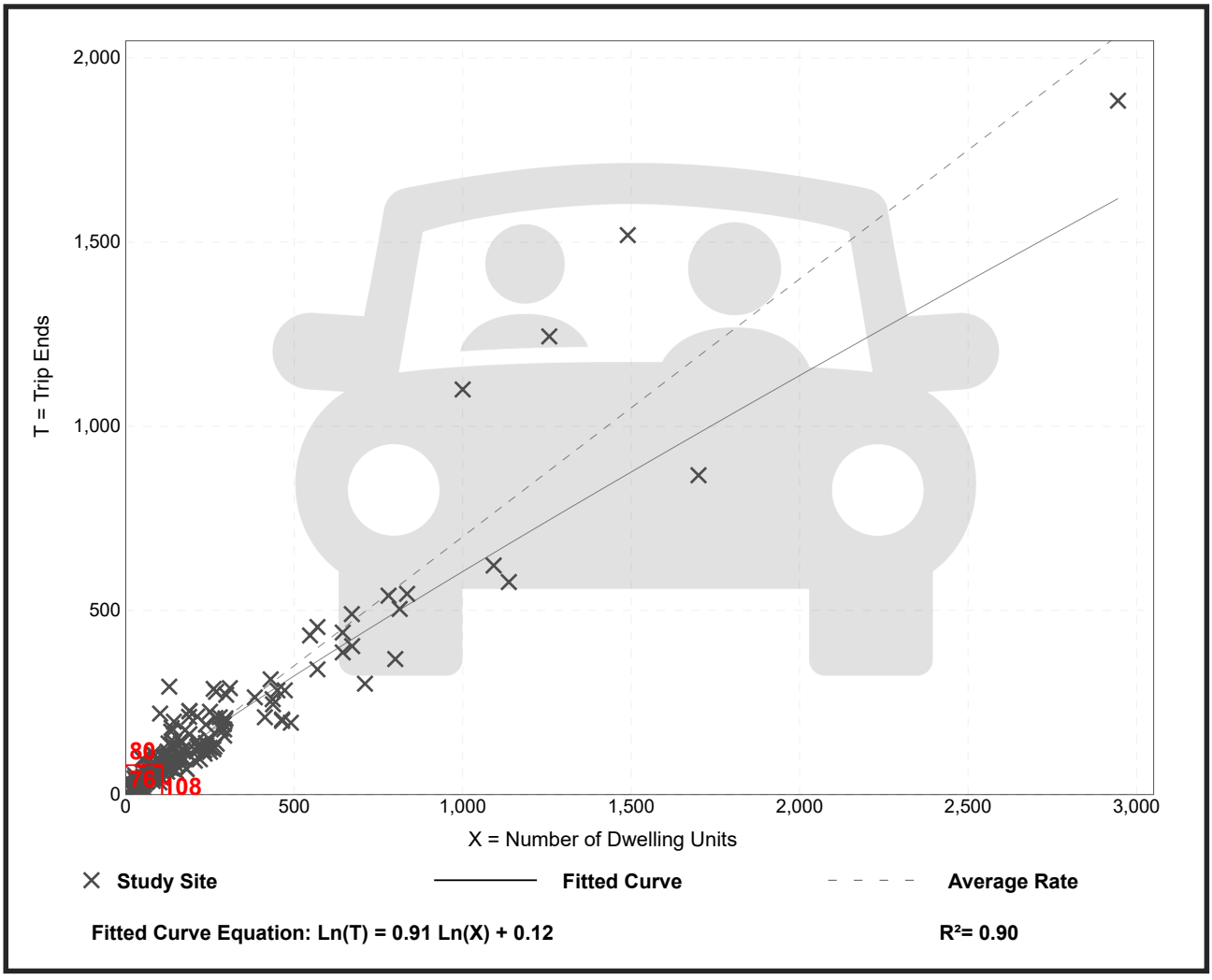
Single-Family Detached Housing
(210)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 192
Avg. Num. of Dwelling Units: 226
Directional Distribution: 25% entering, 75% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.70	0.27 - 2.27	0.24

Data Plot and Equation



Trip Gen Manual, 11th Edition ● Institute of Transportation Engineers

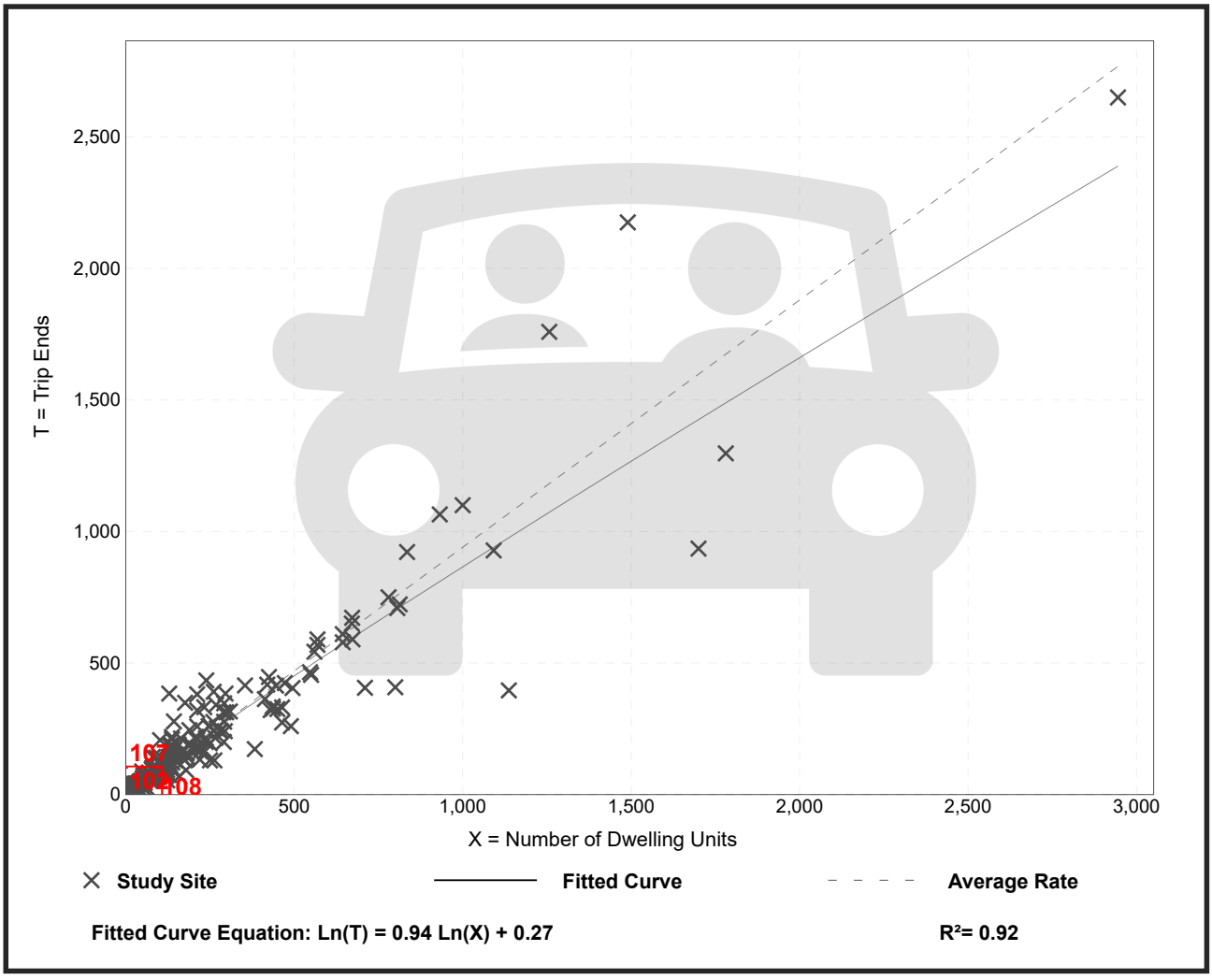
Single-Family Detached Housing
(210)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 208
Avg. Num. of Dwelling Units: 248
Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.94	0.35 - 2.98	0.31

Data Plot and Equation



Trip Gen Manual, 11th Edition ● Institute of Transportation Engineers

APPENDIX D – ADDITIONAL FIGURES

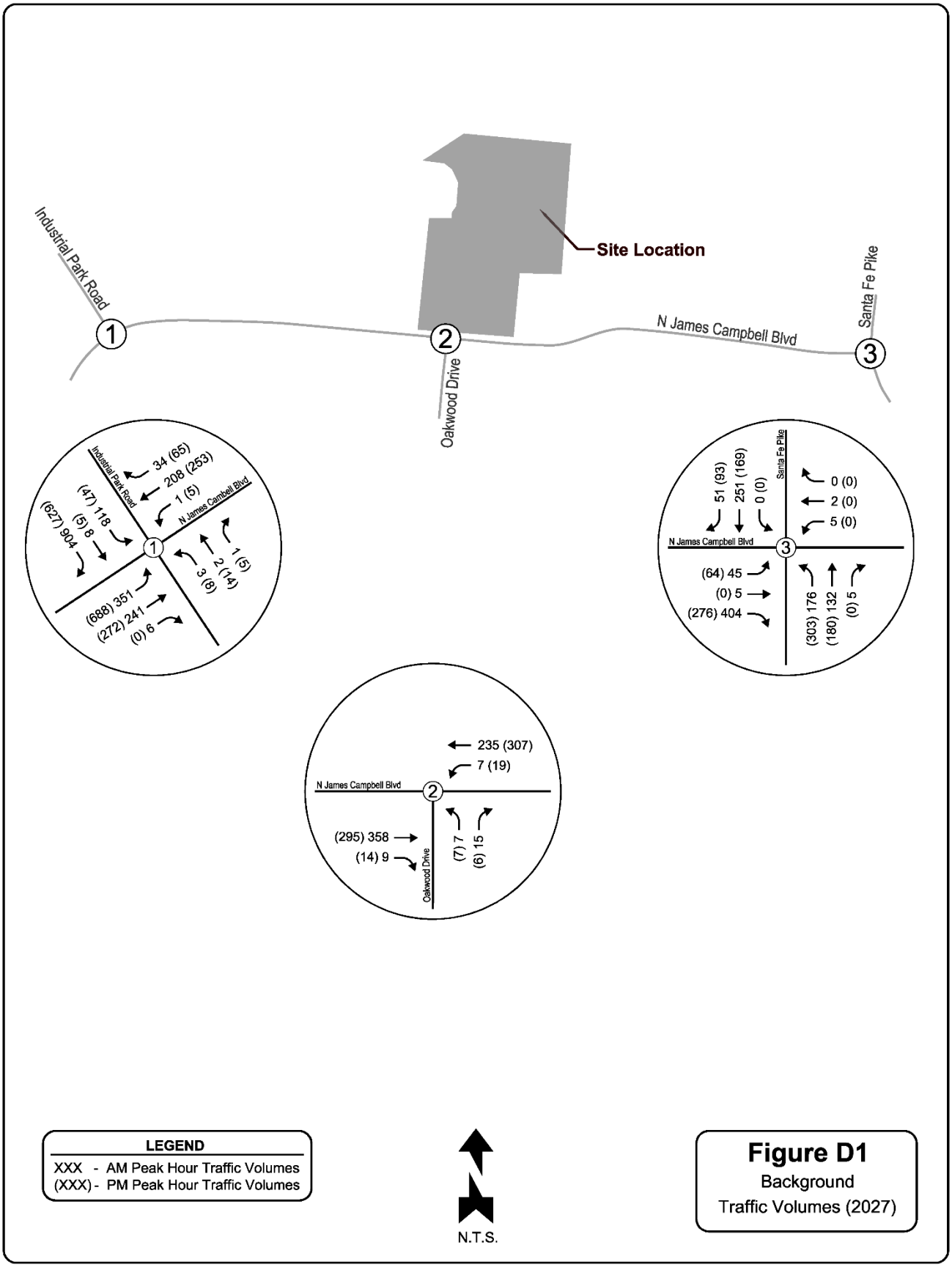
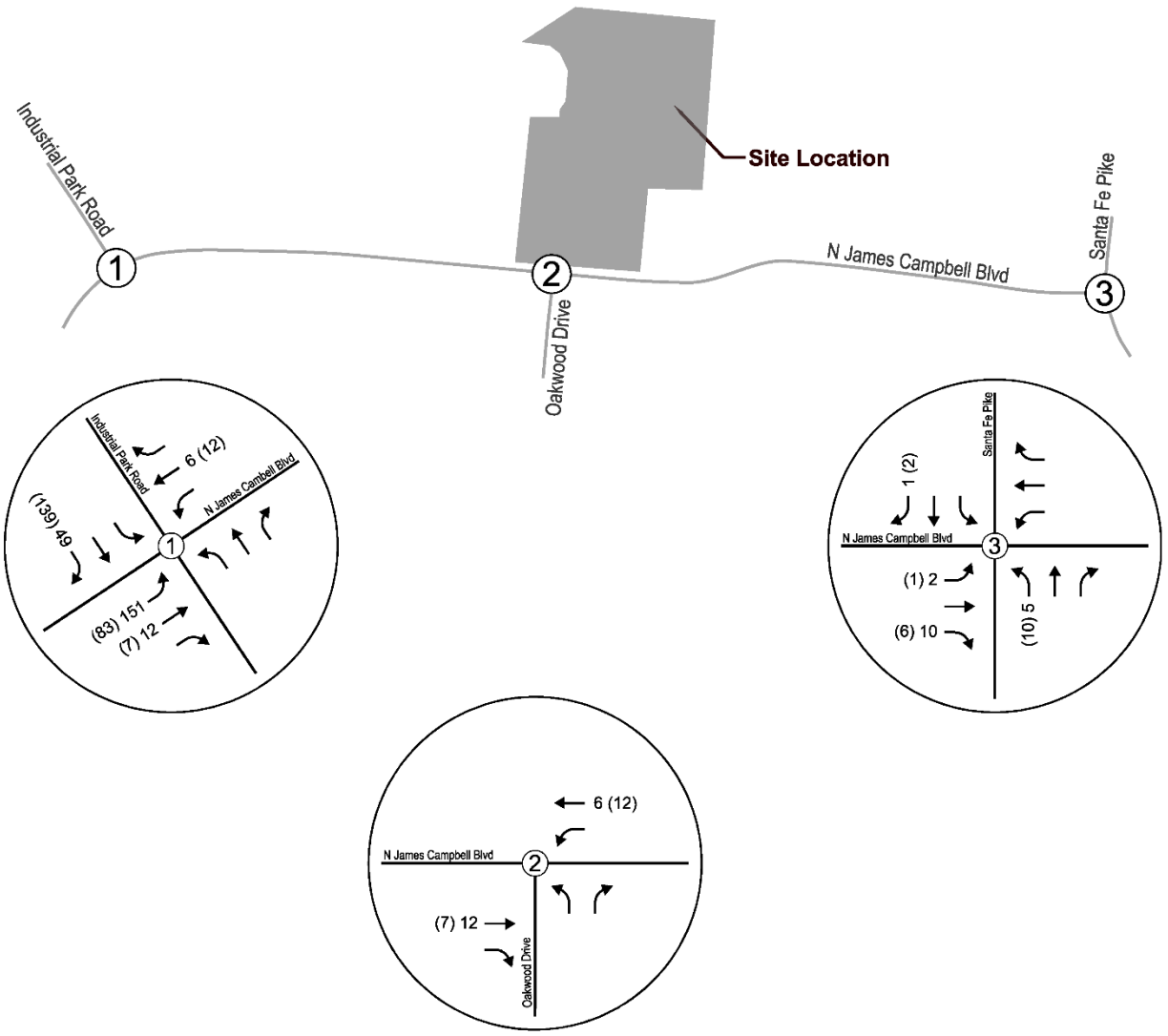


Figure D1
Background
Traffic Volumes (2027)



LEGEND

XXX - AM Peak Hour Traffic Volumes
(XXX) - PM Peak Hour Traffic Volumes

N.T.S.

Figure D2
Generated Background Developement Volumes (Steadfast)

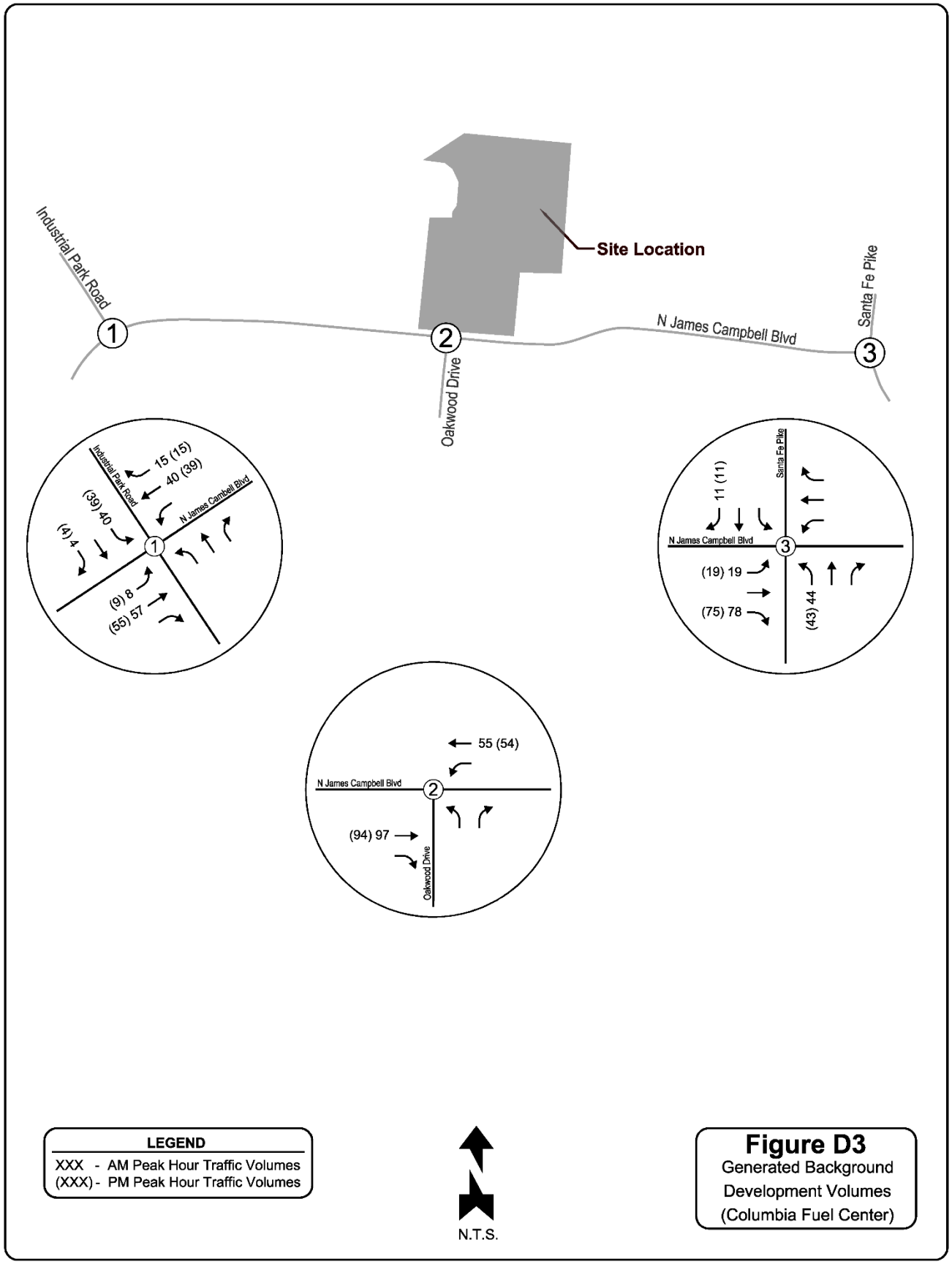
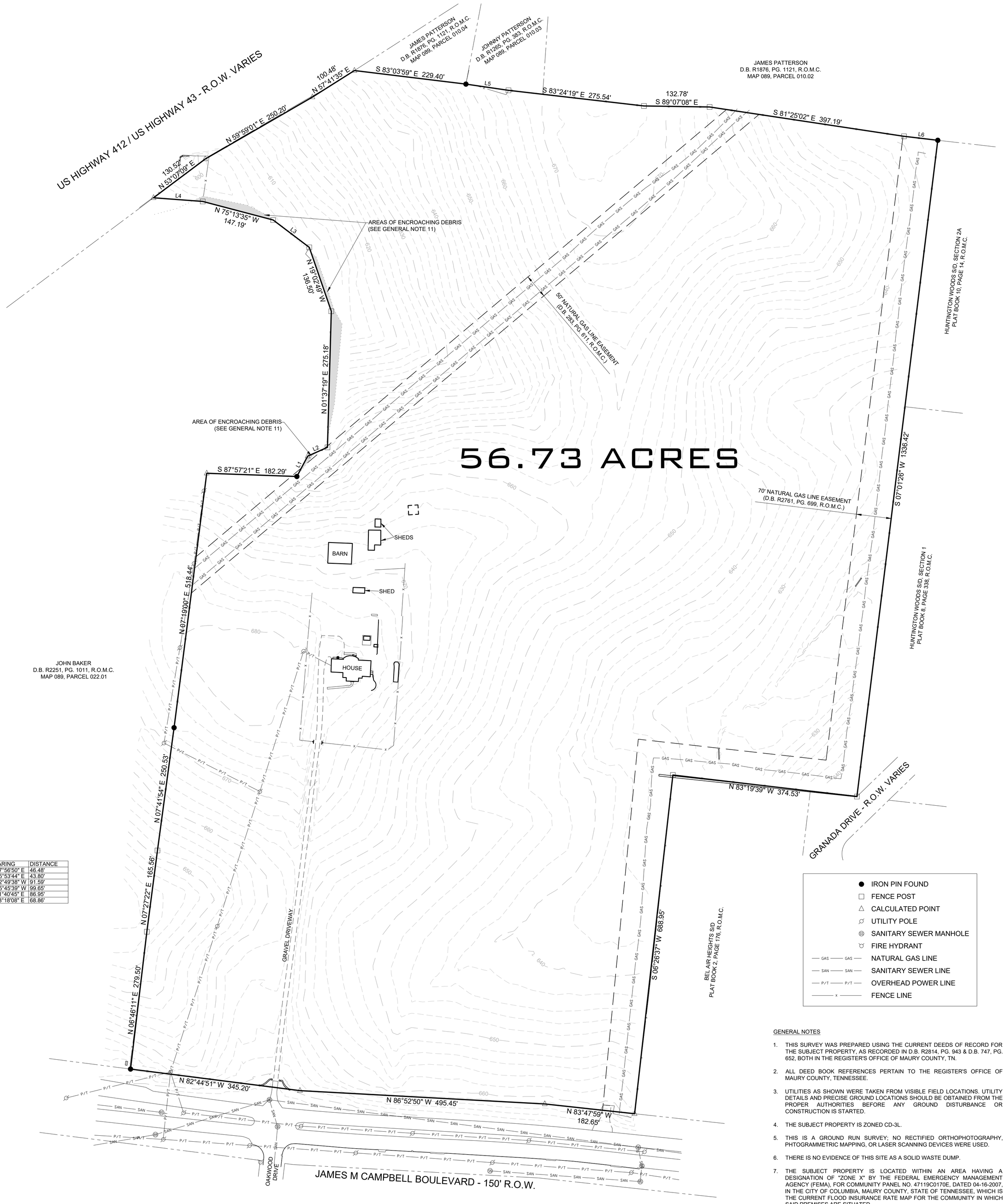


Figure D3
Generated Background Development Volumes (Columbia Fuel Center)



LINE	BEARING	DISTANCE
L1	N 27°56'50" E	46.48'
L2	N 65°53'44" E	43.80'
L3	N 52°49'38" W	91.59'
L4	N 85°45'39" W	99.65'
L5	S 81°40'45" E	86.95'
L6	S 83°18'08" E	68.86'

- IRON PIN FOUND
- FENCE POST
- CALCULATED POINT
- UTILITY POLE
- SANITARY SEWER MANHOLE
- FIRE HYDRANT
- NATURAL GAS LINE
- SANITARY SEWER LINE
- OVERHEAD POWER LINE
- FENCE LINE

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BELL BUCKLE, TN 37020
DEED BOOK R2814, PAGE 943, R.O.M.C.
MAP 089, PARCEL 021.00

Legal Description

Being a tract of land lying in Maury County, Tennessee, being generally bounded on the north by US Highway 412 (also known as US Highway 43, right-of-way varies), James Patterson (D.B. R1876, pg. 1121), and Johnny Patterson (D.B. R1265, pg. 383), on the east by Huntingdon Woods Subdivision, Section 2A (P.B. 10, pg. 14), Huntingdon Woods Subdivision, Section 1 (P.B. 8, pg. 338), and Bel Air Heights Subdivision (P.B. 2, pg. 176), on the south by James M. Campbell Boulevard (150 ft. right-of-way), and on the west by Baker (D.B. R2251, pg. 1011), and being more particularly described as follows:

Beginning at an iron pin found in the north margin of James M. Campbell Boulevard, being the southeast corner of Baker and the southwest corner of the property herein described; thence leaving the margin of said road and with the east line of Baker, the following calls: N 06°46'11" E , 279.50' to a fence post; thence N 07°27'22" E , 165.56' to a fence post; thence N 07°41'54" E , 250.53' to an iron pin found; thence N 07°19'00" E , 518.44' to a point; thence S 87°57'21" E , 182.29' to an iron pin found; thence N 27°56'50" E , 46.48' to a point; thence N 65°53'44" E , 43.80' to a fence post; thence N 01°37'19" E , 275.18' to a fence post; thence N 19°02'49" W , 136.50' to a fence post; thence N 52°49'38" W , 91.59' to a fence post; thence N 75°13'35" W , 147.19' to a fence post; thence N 85°45'39" W , 99.65' to a point in the southeast margin of US Highway 412, being the northeast corner of Baker and the northwest corner of the property herein described; thence along the margin of said road, the following calls: N 53°07'09" E , 130.52'; thence N 59°59'01" E , 250.20'; thence N 57°41'35" E , 100.48' to a point, being the southwest corner of James Patterson; thence leaving the margin of said road and with the south line of James Patterson, S 83°03'59" E , 227.01' to an iron pin found, being the southwest corner of Johnny Patterson; thence with the south line of Johnny Patterson, S 81°40'45" E , 86.95' to a fence post; thence continuing with Johnny Patterson and with the south line of James Patterson, the following calls: S 83°24'19" E , 275.54' to a fence post; thence S 89°07'08" E , 132.78' to a fence post; thence S 81°25'02" E , 397.19' to a fence post; thence S 83°18'08" E , 68.86' to an iron pin found, being the northwest corner of Lot 45 of Huntingdon Woods Subdivision, Section 2A and the northeast corner of the property herein described; thence leaving James Patterson and with the west line of Huntingdon Woods Subdivision, S 07°01'26" W , 1336.42' to a fence post in the northwest margin of Granada Drive, being the southwest corner of Lot 5 of Huntingdon Woods Subdivision, Section 1; thence leaving the margin of said road and with the north line of Bel Air Heights Subdivision, N 83°19'39" W , 374.53' to a fence post, being the northwest corner of Lot 9 of Bel Air Heights Subdivision; thence with the west line of said subdivision, S 06°26'37" W , 688.95' to a point in the north margin of James M. Campbell Boulevard, being the southwest corner of Lot 1 of Bel Ari Heights Subdivision and the southeast corner of the property herein described; thence along the margin of said road, the following calls: N 83°47'59" W , 182.65'; thence N 86°52'50" W , 495.45'; thence N 82°44'51" W , 345.20' to the Point of Beginning. Containing 56.73 Acres, as surveyed by T-Square Surveying, J. Mark Cantrell, RLS #1859, dated 09-07-2022, and being more or less the property described in DB. R2814, pg. 943, R.O.M.C.

SCHEDULE B, SECTION II - EXCEPTIONS

1. Any defect, lien, encumbrance, adverse claim, or other matter that appears for the first time in the Public Records or is created, attaches, or is disclosed between the Commitment Date and the date on which all of the Schedule B, Part I - Requirements are met. ***NOT A SURVEY MATTER.***
2. Any facts, rights, interest or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land. ***NOT A SURVEY MATTER.***
3. Easements, liens or encumbrances or claims thereof, not shown by the Public Record. ***NOT A SURVEY MATTER.***
4. Any encroachment, encumbrances, violations, variations, or adverse circumstances affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records. ***NOT A SURVEY MATTER.***
5. Any lien or rights to a lien, for labor, services or materials imposed by law and not shown by the Public Records. ***NOT A SURVEY MATTER.***
6. Any claims to (a) ownership of or rights to minerals and similar substances, including but not limited to ores, metals, coal, lignite, oil gas, uranium, limestone, clay, rock, sand, and gravel located in, on, or under the Land or produced from the Land, whether such ownership or rights arise by lease, grant, exception, conveyance, reservation, or otherwise; and (b) any rights, privileges, immunities, rights or way, and easements associated therewith or appurtenant thereto, whether or not the interests or rights excepted in (a) or (b) appear in the Public Records or are shown in Schedule B. ***NOT A SURVEY MATTER.***
7. Taxes and assessments for the year 2023 and subsequent years, not yet due and payable, including (a) taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records; and/or (c) taxes resulting from supplemental, revised or correction assessments pursuant to the provisions or Tennessee Code Annotated Section 67-5-603, et seq. ***NOT A SURVEY MATTER.***
8. Right of Way Agreement in favor of East Tennessee Natural Gas Company, of record in Book 283, Page 611. ***AFFECTS THE SUBJECT PROPERTY AS IT PERTAINS TO THE 50' NATURAL GAS LINE EASEMENT SHOWN HEREON.***
9. Pipeline Easement in favor of Atmos Energy corporation of record in Book R2761, Page 699. ***AFFECTS THE SUBJECT PROPERTY AS IT PERTAINS TO THE 70' NATURAL GAS LINE EASEMENT SHOWN HEREON.***
10. All of the recording information contained herein refers to the Public Records of Maury County, Tennessee, unless otherwise indicated. Any reference herein to a Book and Page is a reference to the Official Record Books of said county, unless indicated to the contrary. ***NOT A SURVEY MATTER.***
11. The Gap Exception (Schedule BII, Item 1) and the Standard Exceptions (Schedule BII, Items 2, 3, 5 and 6) will be deleted from the owner's final title insurance policy. The Survey Exception (Schedule BII, Item 4) can only be deleted upon receipt, review and approval of a new ALTA survey of the land. ***NOT A SURVEY MATTER.***

GENERAL NOTES

1. THIS SURVEY WAS PREPARED USING THE CURRENT DEEDS OF RECORD FOR THE SUBJECT PROPERTY, AS RECORDED IN D.B. R2814, PG. 943 & D.B. 747, PG. 652, BOTH IN THE REGISTER'S OFFICE OF MAURY COUNTY, TN.
2. ALL DEED BOOK REFERENCES PERTAIN TO THE REGISTER'S OFFICE OF MAURY COUNTY, TENNESSEE.
3. UTILITIES AS SHOWN WERE TAKEN FROM VISIBLE FIELD LOCATIONS. UTILITY DETAILS AND PRECISE GROUND LOCATIONS SHOULD BE OBTAINED FROM THE PROPER AUTHORITIES BEFORE ANY GROUND DISTURBANCE OR CONSTRUCTION IS STARTED.
4. THE SUBJECT PROPERTY IS ZONED CD-3L.
5. THIS IS A GROUND RUN SURVEY; NO RECTIFIED ORTHOPHOTOGRAPHY, PHTOGRAMMETRIC MAPPING, OR LASER SCANNING DEVICES WERE USED.
6. THERE IS NO EVIDENCE OF THIS SITE AS A SOLID WASTE DUMP.
7. THE SUBJECT PROPERTY IS LOCATED WITHIN AN AREA HAVING A DESIGNATION OF "ZONE X" BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), FOR COMMUNITY PANEL NO. 47119C0170E, DATED 04-16-2007, IN THE CITY OF COLUMBIA, MAURY COUNTY, STATE OF TENNESSEE, WHICH IS THE CURRENT FLOOD INSURANCE RATE MAP FOR THE COMMUNITY IN WHICH SAID PREMISES ARE SITUATED.
8. TITLE COMMITMENT NO. COM-2304224FC WAS FURNISHED TO THIS SURVEYOR. THIS SURVEYOR DID NOT PERFORM A TITLE SEARCH.
9. THE PROPERTY DESCRIBED HEREON IS MORE OR LESS THE PROPERTY DESCRIBED IN COMMITMENT NO. COM-2304224FC, WITH AN EFFECTIVE DATE OF MAY 24, 2023 AT 8:00 A.M., AND UPDATED AND REVISED TO MAY 31, 2023 AT 8:00 A.M., AND ALL EASEMENTS, COVENANTS, AND RESTRICTIONS REFERENCED IN SAID TITLE COMMITMENT OR APPARENT FROM A PHYSICAL INSPECTION OF THE SITE OR OTHERWISE KNOWN TO HAVE BEEN PLOTTED HEREON OR OTHERWISE NOTED AS TO THEIR EFFECT ON THE SUBJECT PROPERTY.
10. THE ACCOMPANYING SURVEY WAS MADE ON THE GROUND AND THERE ARE NO VISIBLE ENCROACHMENTS ON THE SUBJECT PROPERTY OR UPON ADJACENT LAND ABUTTING SAID PROPERTY EXCEPT AS SHOWN HEREON, AND WAS MADE IN ACCORDANCE WITH LAWS AND/OR MINIMUM STANDARDS OF THE STATE OF TENNESSEE.
11. SOLID HATCHED AREAS SHOWN HEREON REPRESENT AREAS OF DEBRIS FROM THE ADJOINING BAKER PROPERTY THAT ARE ENCROACHING ON THE SUBJECT PROPERTY.

TO FOUNDATION TITLE & ESCROW SERIES LLC, FIRST AMERICAN TITLE INSURANCE COMPANY, MICHAEL DAVID MUSGROVE, AND SDH NASHVILLE LLC, A GEORGIA LIMITED LIABILITY COMPANY, AND EACH OF THEIR RESPECTIVE SUCCESSORS AND/OR ASSIGNS:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1,2,4,8,13, AND 16 TABLE A THEREOF.

THE FIELD WORK WAS COMPLETED ON OCTOBER 28, 2022.

J .MARK CANTRELL, TN RLS #1859

SHEET: 1 OF 1

DATE: 13 MAR 2024
SCALE: 1" = 100'
DRAWN BY: DSW
REVIEWER:

NO.	DATE
1	3-13-2024

REVISIONS

PROJECT: 22-0720

ALTA/NSPS LAND TITLE SURVEY

200 OAKWOOD DRIVE
COLUMBIA, TN 38401
MAP 089, PARCEL 021.00
MAURY COUNTY, TENNESSEE

J. MARK CANTRELL
PROFESSIONAL LAND SURVEYOR
XVI
AGRICULTURE
COMMERCE
TENNESSEE NO. 1859
3-13-2024

T-SQUARE ENGINEERING
SURVEY DIVISION
1329 WEST MAIN STREET, FRANKLIN, TN. 37064

CPWS

May 20, 2024
Mr. Drew Taylor
Smith Douglas
361 Mallory Station Rd. Suite 103
Franklin, TN 37067
Sent via email: dtaylor@smithdouglas.com
RE: Water Availability Letter
Oakwood Subdivision – 130 Units
200 Oakwood Dr
Tax Map 89, Parcel 21
Columbia, Maury County, TN

Dear Mr. Taylor:

Columbia Power and 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, various Planning Commissions and other authorities in Cities and Counties. These Cities and Counties have also adopted rules and regulations. Subject to the payment of all charges and fees imposed by CPWS and the approval of any and all required governmental agencies, water service will be made available on a first-come, first-served basis, 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 130 units. CPWS has evaluated the projected water demands for the proposed residential development in the water system hydraulic model and is able to meet a fire-flow capacity of 1,000 gpm at 20 psi while maintaining the existing level of service and pressures in this portion of the distribution system. CPWS can provide water for the proposed development according to the following requirements:

- Domestic waterline connections will be made to the existing 16-inch water main located on North James M. Campbell Boulevard and the existing 8-inch water main on Dalya Lane.
- Minimum size 8-inch mains are required throughout the development.

All of the above requirements are to be constructed and paid for by the Applicant and dedicated to CPWS once complete up to and including the meter. No construction of CPWS infrastructure shall be initiated until final construction plans have been approved by TDEC and all parties have fully executed a water service agreement.

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

- Provide site base CAD files in DWG format, including roads, lot lines, existing and proposed contours, and other existing and proposed utilities, for use in development of water construction drawings.
- Remit to CPWS new water service fees:

New Water Service Fee: $1,500 + $370 per SFU (130 SFUs)	$49,600.00

- CPWS will then develop water construction drawings and submit to TDEC for approval. Upon approval by TDEC and payment of meter and impact fees by the applicant, applicant may then schedule a pre-construction meeting with CPWS. Pre-construction meeting will not be scheduled until fees are paid in full or surety is provided in lieu of full payment. Final meter and impact fees are subject to change based on final design and meter size determination. Meter fees are subject to change based on market costs at time of purchase. Meters will not be set until meter and impact fees are paid.

Meter Fee: $540 per 3/4" meter (130 meters)	$70,200.00
Impact Fee: $4,500 per 3/4" meter (130 meters)	$585,000.00
Total Meter and Impact Fees Due =	**$655,200.00**

- After the pre-construction meeting, CPWS will then issue a formal notice to proceed. No construction of CPWS infrastructure may take place prior to the pre-construction meeting.
- Applicant is then 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.

If you have any questions, please feel free to contact me at 423-774-0349 or eric.king@inflodesign.com. This letter is valid for one-hundred twenty (120) days from the date of this letter.

Sincerely,



Eric King, P.E.
Inflo Design Group, LLC
on behalf of Columbia Power and Water Systems

cc: Jonathan Hardin, CPWS
File 23-039

CITY OF COLUMBIA
TENNESSEE

WASTEWATER DEPARTMENT

21 July 2023

Drew Taylor
Land Acquisition Manager
Smith Douglas Homes
361 Mallory Station Road, Suite 103
Franklin, TN 37067

RE: Parcel ID: 089 02100 000; 200 Oakwood Drive, Columbia, TN 38401

Drew,

This letter serves as confirmation that the City of Columbia Wastewater Department has the available capacity to service the above-referenced 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. No detailed design plan for an extension of the sewer has been proposed at this time.

The sanitary sewer design must allow for the flow going to the pump station to be redirected towards MHID 1588 near Dalya Ln of the existing Columbia Wastewater Sewer System such that elimination of this proposed pump station in the future is possible. The pump station should be placed near Dalya Ln to make elimination possible, and the fenced area around the station should be designed to be 50'x50'. The pump station force main should terminated at MHID 174 on N James Campbell which drains westward.

Donnie Boshers, Director
City of Columbia, TN
Wastewater Department

T-SQUARE ENGINEERING
CIVIL-SITE | TRAFFIC | WASTEWATER

111 SE PKWY CT
FRANKLIN, TN 37064
615.678.8212

www.T2-ENG.COM

5/20/2024

City of Columbia
700 North Garden Street
Columbia, Tennessee 38401

RE: Oakwood Subdivision Site Development Plan & Preliminary Plat

Staff,

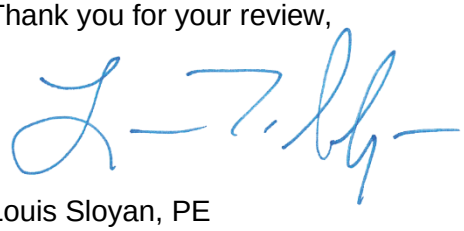
Please find included in this submittal the Site Development Plan and Preliminary Plat application. The property is on the north side of James Campbell Blvd and to the west of the Bel Air Heights and Huntington Woods Subdivisions.

This development includes 104 single-family homes to be developed within the CD-3 zoning specifications. This zoning complies with the Comprehensive Plan, adopted February 2024. The Future Land Use classification is City Center & Urban Village, which is compatible with CD-3 Neighborhood zoning due to the existing neighborhoods located adjacent to the property. The proposed subdivision is expected to break ground as soon as all necessary approvals/permits are obtained. This could be as early as January of 2025.

We would like to request a variance on the civic space frontage requirements, Section 5.3.3.C. The natural area with the wooded area, stream, and ponds prevent a thoroughfare from traversing the property, which would allow us to meet the 50% thoroughfare frontage requirement. Currently, the Natural Area civic space is approximately 5040 LF, with approximately 2153 LF of thoroughfare frontage (43%).

Thank you for accepting this submittal. Please contact Louis Sloyan at T-Square Engineering with comments.

Thank you for your review,



Louis Sloyan, PE
T-Square Engineering, Inc.

CITY OF COLUMBIA TENNESSEE

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

PLANNING COMMISSION
PROJECT DEVELOPMENT APPLICATION

SUBMITTAL REQUIREMENTS

Final Plat: * *1 hard copy of all materials for submittal + PDF copy on a USB flash drive (no multiple applications on one storage device)*
Fold hard copy submittals larger than 8½"x11"
All Others: * Please submit the Application online at City of Columbia | Permitting (onlama.com)

ADDRESS/LOCATION	200 Oakwood Drive		
	TAX MAP: 89	GROUP:	PARCEL: 21.00
SUMMARY OF NATURE OF REQUEST AND WORK	This application is for the Site Development Plan and Preliminary Plat for approval of the 104 lot subdivision in the CD-3 zoning district.		

DATE OF PRE-APPLICATION CONFERENCE	6/28/23	*Pre-application meetings are scheduled for Wednesdays.*

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 ☐ Other: **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) Oakwood Subdivision ☒ Total Number of Lots/Residential Units 104 ☐ Square Footage of Non-Residential Floor Space ☒ Total acreage 56.73 acres

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 go to the Applicant's email that is provided.

NAME	Louis Sloyan	PHONE	615-678-8212
ADDRESS	111 SE Parkway Court Franklin, TN 37064	EMAIL	Louis.Sloyan@T2-Eng.com

PROPERTY OWNER NAME	Michael Musgrove	PHONE	
ADDRESS	104 Cascade Lane Bell Buckle, TN 37020	EMAIL	

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.

Drew Taylor		5/17/2024
APPLICANT NAME	APPLICANT SIGNATURE	DATE
Michael Musgrove		5/17/2024
PROPERTY OWNER NAME	PROPERTY OWNER SIGNATURE	DATE

Preserve at Drumwright Phase 1 Final Plat Revision

Project #:	24-0362	Location:	Map 051 Parcel 034.00
Applicant:	Allen O'Leary, PE	Case Type(s):	Final Plat Revision
Staff Planner:	Robert Archibald, Planner II	Proposed Use:	Single-family

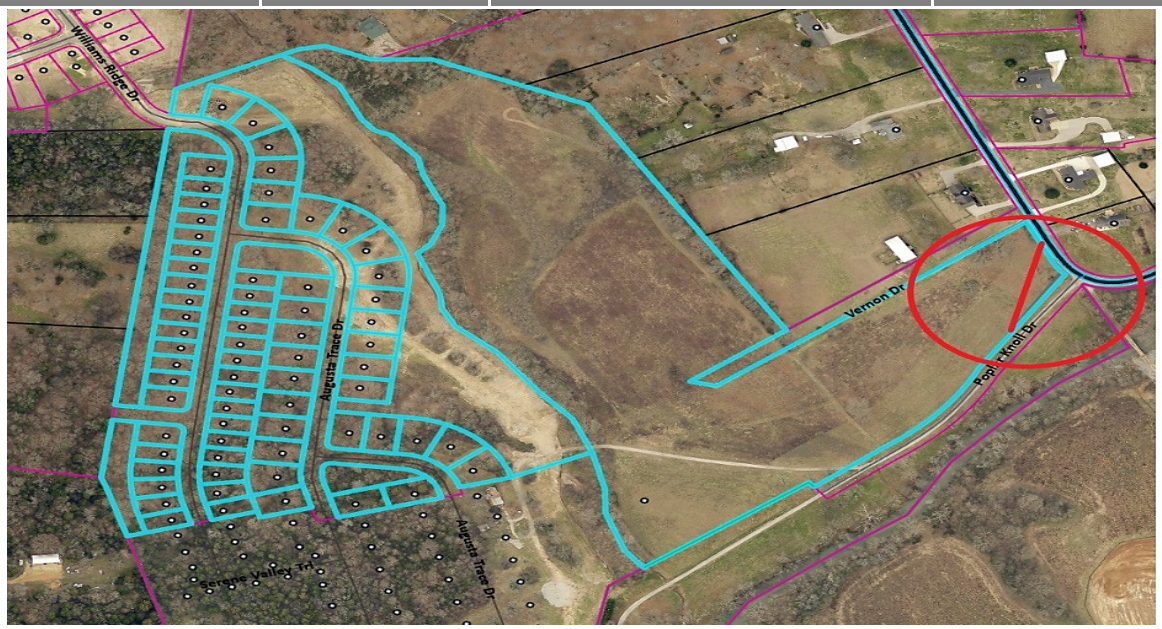
PROJECT SUMMARY

The applicant requests approval of a Final Plat revision to relocate an existing easement for an adjacent property. This revision will remove the current easement from Open Space 7 and create an additional Open Space (OS-8) in closer proximity to Greens Mill Rd. to provide driveway access to the adjoining property. The Planning Commission approved a Preliminary Plat for the development in July 2022. The approval created a vested right to develop under PUD Master Plan based on the RS-6 standards of the previous Zoning Ordinance.

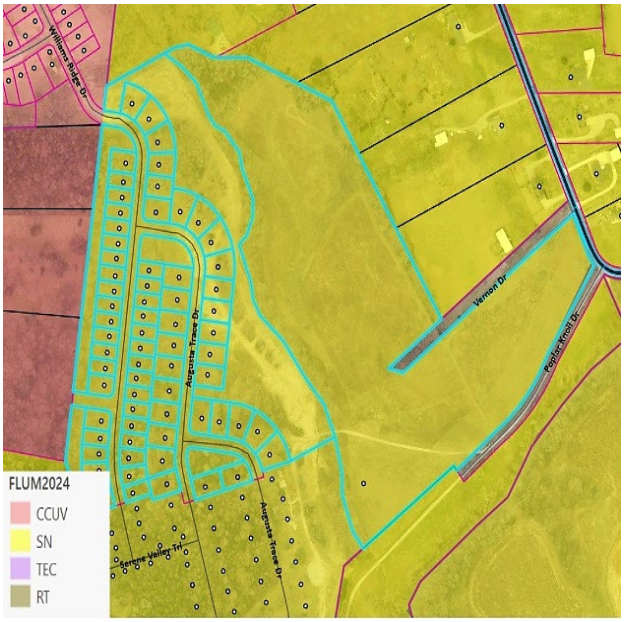
- The development is subject to Ordinance 3638, the pre-July 2022 zoning ordinance.
- The Final Plat conforms to the approved Preliminary Plat.
- The applicant has provided financial surety in the amount of $1,190,000 for Phase 1 & 2 to guarantee completion of infrastructure.
- The applicant has executed a development agreement in the format prescribed by Appendix B of the Subdivision Regulations.
- The applicant has provided a stormwater maintenance agreement.
- The DRC reviewed this proposal at its September 2024 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 Final Plat.
- Templates are provided at the end of the report to assist the Planning Commission in crafting properly formatted motions.

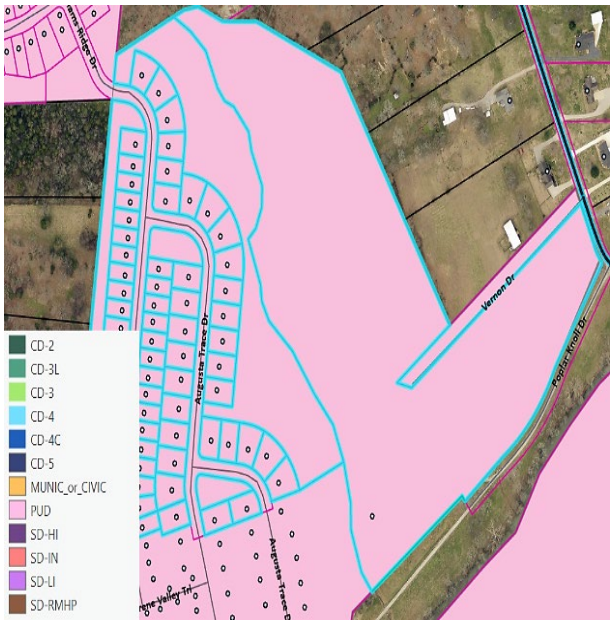
SITE INFORMATION

CURRENT ZONING	EXISTING USE	EXISTING IMP.	LAND AREA
PUD-R	Easement	Open Space	+/-0.13 Acres



FUTURE LAND USE MAP	ZONING MAP





SITE CONTEXT/ADJACENT PROPERTIES			
	Future Land Use	Zoning	Current Use
Subject Property	Suburban Neighborhood	PUD	Residential
North	Suburban Neighborhood	County	Residential
South	Suburban Neighborhood	PUD	Residential
East	Suburban Neighborhood	PUD	Residential
West	Suburban Neighborhood	PUD	Residential

The subject site is part of the larger multiphase development. The property is bounded on the north by property outside the City of Columbia jurisdiction. Property to the east and west of the site is part of the development. Situated to the south is a large undeveloped piece of property zoned PUD-R that has been recently annexed into the City. The preliminary plat and final PUD master plan associated with this final plat was approved by the Planning Commission on July 13th, 2022 for 111 single-family lots on a 77.50-acre tract. All lots as shown for the preliminary plat contain a minimum 25' front setback; 20' foot rear setback, and a 7.5' side setback.

CONFORMITY WITH ZONING ORDINANCE

The applicant is requesting a Final Plat revision to relocate the access easement from 2260 Nashville Hwy., a single-family residential lot off-site of development, to a connection point on Greens Mill Rd. via creation of a new open-space area. This proposal will not decrease the required open space for the Preserve Development.

The Final Plat conforms to the PUD Master Plan, the modified RS-6 standards of the applicable zoning ordinance (3638), the Subdivision Regulations, and the approved Preliminary Plat.

- The proposed structures conform to the setbacks and other bulk standards of the Master Plan.
- The PUD include architectural standards. Conformity with these and other applicable zoning standards will be confirmed at the time of building permit.
- Staff supports the requested modification.

REVIEW PROCESS

The Development Review Committee evaluated the proposed Final Plat at its September 2024 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 **2.3.6** 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.*
>
> *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 the Final Plat as presented and find that the plat conforms to the applicable zoning ordinance, the Subdivision Regulations, and the Preliminary Plat [subject to remaining technical comments from staff].

Approve with Conditions:

Move to approve the Final Plat as presented and find that the plat conforms to the applicable zoning ordinance, the Subdivision Regulations, and the Preliminary Plat, subject to the following conditions: [list conditions of approval crafted by Planning Commission].

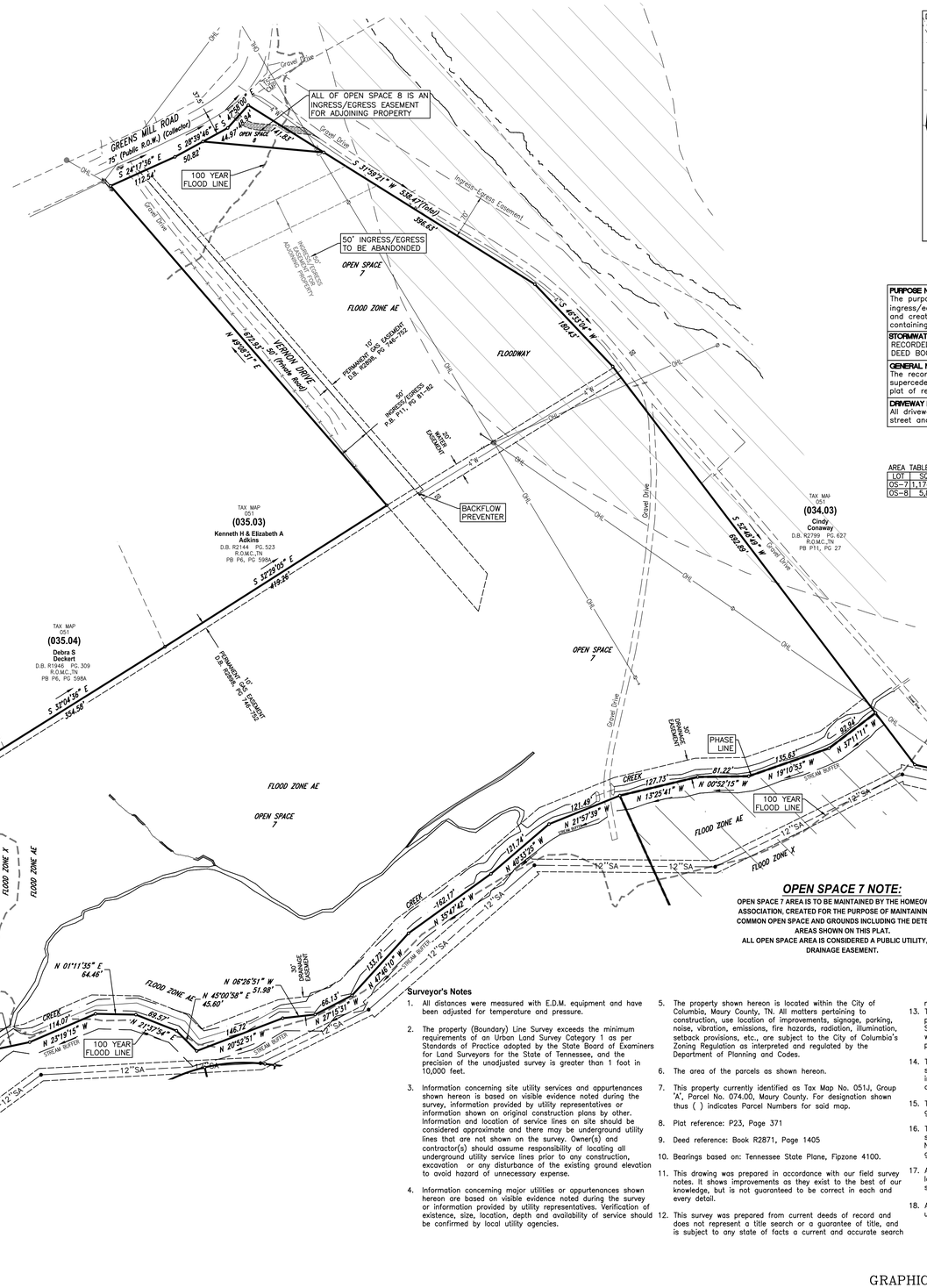
Defer for Continued Review:

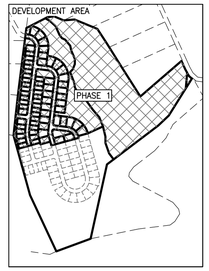
Move to find that there is insufficient information to make a decision, defer the application for continued review, and request that the applicant provide: [list additional information] for review at the next regularly scheduled meeting of the Planning Commission.

Deny:

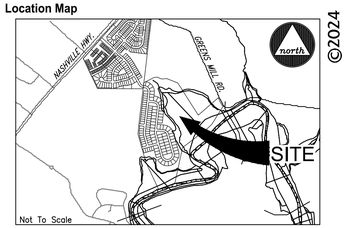
Move to find that the Final Plat as presented does not conform to the applicable zoning ordinance, the Subdivision Regulations, or the approved Preliminary Plat, and deny the request due to [list specific deficiencies].

TN GRID NORTH





Location Map



©2024

PARCEL NUMBER:
TAX MAP 051J, GROUP 'A', PARCEL 074.00

DEED BOOK:
R2871, PAGE 1405

PLAT BOOK:
P23, PAGE 371

PARCEL ADDRESS:
AUGUSTA TRACE DRIVE
COLUMBIA, TN 38401

PROPERTY OWNER:
LENNAR HOMES OF TENNESSEE LLC
381 MALLORY STATION RD
SUITE 200
FRANKLIN, TN 37067

EXISTING ZONING:
PUD

BUILDING SETBACKS:
FRONT – 25'
SIDE – 7.5'
REAR – 20'

ACREAGE OF PARCEL:
±27.09 ACRES OR ±1,179,852.6 SQFT

PURPOSE NOTE:
The purpose of this plat is to relocate the ingress/egress easement for the adjoining property and create Open Space 8 for the purposes of containing said easement.

STORMWATER MANAGEMENT AGREEMENT:
RECORDED: 03/22/24
DEED BOOK: R2979 PAGE: 801-806

GENERAL NOTE:
The recording of this plat vacates, voids, & supercedes Open Space 7 as shown on previous plat of record P23, page 371.

DRIVEWAY NOTE:
All driveways shall be constructed to contain gutter flow within the street and right-of-way, particularly lots that do not have a sidewalk.

AREA TABLE

LOT	SQ. FT.	ACRES
OS-7	1,174,019.0	26.95
OS-8	5,833.6	0.13

OPEN SPACE 7 NOTE:

OPEN SPACE 7 AREA IS TO BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION, CREATED FOR THE PURPOSE OF MAINTAINING ALL COMMON OPEN SPACE AND GROUNDS INCLUDING THE DETENTION AREAS SHOWN ON THIS PLAT.
ALL OPEN SPACE AREA IS CONSIDERED A PUBLIC UTILITY, AND DRAINAGE EASEMENT.

OPEN SPACE 8 NOTE:

OPEN SPACE 8 AREA IS TO BE MAINTAINED BY THE FEE SIMPLE OWNER OF OPEN SPACE 8.

Surveyor's Notes

1. All distances were measured with E.D.M. equipment and have been adjusted for temperature and pressure.
2. The property (Boundary) Line Survey exceeds the minimum requirements of an Urban Land Survey Category 1 as per Standards of Practice adopted by the State Board of Examiners for Land Surveyors for the State of Tennessee, and the precision of the unadjusted survey is greater than 1 foot in 10,000 feet.
3. Information concerning site utility services and appurtenances shown hereon is based on visible evidence noted during the survey, information provided by utility representatives or information shown on original construction plans by other. Information and location of service lines on site should be considered approximate and there may be underground utility lines that are not shown on the survey. Owner(s) and contractor(s) should assume responsibility of locating all underground utility service lines prior to any construction, excavation or any disturbance of the existing ground elevation to avoid hazard of unnecessary expense.
4. Information concerning major utilities or appurtenances shown hereon are based on visible evidence noted during the survey or information provided by utility representatives. Verification of existence, size, location, depth and availability of service should be confirmed by local utility agencies.
5. The property shown hereon is located within the City of Columbia, Maury County, TN. 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.
6. The area of the parcels as shown hereon.
7. This property currently identified as Tax Map No. 051J, Group 'A', Parcel No. 074.00, Maury County. For designation shown thus ( ) indicates Parcel Numbers for said map.
8. Plat reference: P23, Page 371
9. Deed reference: Book R2871, Page 1405
10. Bearings based on: Tennessee State Plane, Fipzone 4100.
11. This drawing was prepared in accordance with our field survey notes. It shows improvements as they exist to the best of our knowledge, but is not guaranteed to be correct in each and every detail.
12. This survey was prepared from current deeds of record and does not represent a title search or a guarantee of title, and is subject to any state of facts a current and accurate search may reveal.
13. 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.
14. The certification as provided on this survey, is purely a statement of professional opinion based on knowledge, information and belief, based on existing field evidence and documentary evidence provided by others.
15. The certification is not an expressed or implied warranty or guarantee.
16. This property is located in a Special Flood Hazard Area as shown on F.E.M.A. Flood Insurance Rate Map, Community Panel No. 47119C0180E, dated April 16, 2007, and shown hereon graphically.
17. All public utility and drainage easements located on proposed lots are to be maintained by the individual property owner for said lot.
18. All property corners are ½" rebar with cap reading "WES 1987" unless otherwise noted.

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 Number R2871, Page 1405, Maury County Registers Office, and that I (we) hereby adopt this plan of subdivision with my (our) free consent, establish the minimum building restriction lines, and that offers of irrevocable dedication for all public ways, utilities, and other facilities have been filed.

Date — Lennar Homes of Tennessee LLC

CERTIFICATE OF APPROVAL FOR SUBDIVISION NAME AND STREET NAMES

Subdivision name and street names approved by the City Engineering Department and by E-911 Maury County.

Date — Maury County E-911
Columbia, Tennessee

CERTIFICATE OF APPROVAL OF SEWER SYSTEM

I hereby certify that the 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 has been filed to guarantee said installation.

Date — Director of Wastewater Department
Columbia, Tennessee

CERTIFICATE OF APPROVAL OF WATER SYSTEM

I, (we) hereby certify that the water system(s) outlined or indicated on the final subdivision plat entitled Preserve at Drumwright, Phase 1, Revision to Open Space 7 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.

Date — Columbia Power & Water Systems
Columbia, Tennessee

CERTIFICATE OF COMPLIANCE

I hereby certify that the subdivision plat shown hereon has been found to comply with the City of Columbia Subdivision Regulations and other adopted ordinances and policies.

Date — City Engineer
Columbia, Tennessee

CERTIFICATE OF APPROVAL FOR RECORDING

I hereby certify that the 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 are noted in the minutes of the Planning Commission, and that it has been approved for recording in the Office of the County Register:

Date — Secretary, Planning Commission
Columbia, Tennessee

SURVEYOR'S CERTIFICATION (TENNESSEE)

I hereby certify that to the best of my 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.

9/16/24 — Allen B. O'Leary — TN RLS #1987
Date — Allen B. O'Leary — Number



Register of Deed Recording Stamp

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

Legend

EIP Iron Rod Found	Bench Mark	Catch Basin	Electric Riser	Power Pole	Adjoining Property Line	Edge of Water	Overhead Electric Line
IPS Iron Rod Set	Stake Found	Curb Inlet	Telephone Riser	Flag Pole	Subject Property Line	Ditch / Creek Centerline	Overhead Telephone Line
I.P.F. Iron Pipe Found	Fire Hydrant	Storm Pipe	Telephone Booth	Guy Wire	Easement Line	Minor Contour Line	Underground Utility Line
AXLE Axle Found	Water Meter	Cable Manhole	Gas Meter	Mailbox	Building Setback Line	Index Contour Line	Underground Cable Line
FCM Fence Post	Water Valve	Electric Manhole	Gas Valve	Parking Block	Centerline	Gas Line	Underground Electric Line
Concrete Monument Existing	Water Reducer	Telephone Manhole	Light Pole	Satellite Dish	Edge of Pavement	Sanitary Sewer Line	Underground Telephone Line
P.K.F. PK Nail Found	Clean Out	Water Manhole	Power Pole	Handicap Parking	Edge of Gravel	Water Line	Forced Main Line
P.K.S. PK Nail Set	Sanitary Sewer Manhole	Electric Meter	Telephone Pole	Water Spigot	Fence Line	Storm Sewer Line	
R.R.S.-F Railroad Spike Found	Storm Sewer Manhole	Cable Riser	Guy Pole	Bollard	Landscape	Overhead Utility Line	
R.R.S.-S Railroad Spike Set					Woods / Tree line	Overhead Cable Line	

Evergreen Tree, Deciduous Tree, Bush, Sign

WES E NGINEERS & S URVEYORS
CIVIL ENGINEERS & LAND SURVEYORS
2486 NASHVILLE HIGHWAY
COLUMBIA, TN 38401
PHONE: (931) 388-2329
www.wesengineers.com

ENGINEERS & SURVEYORS

Client
LENNAR HOMES
381 MALLORY STATION ROAD
SUITE 200
FRANKLIN, TN 37067

FINAL PLAT
PRESERVE AT DRUMWRIGHT, PHASE 1, REVISION TO OPEN SPACE 7
COLUMBIA, TN

REVISIONS	DATE
TECH REVIEW COMMENTS ADDRESSED	09-16-2024

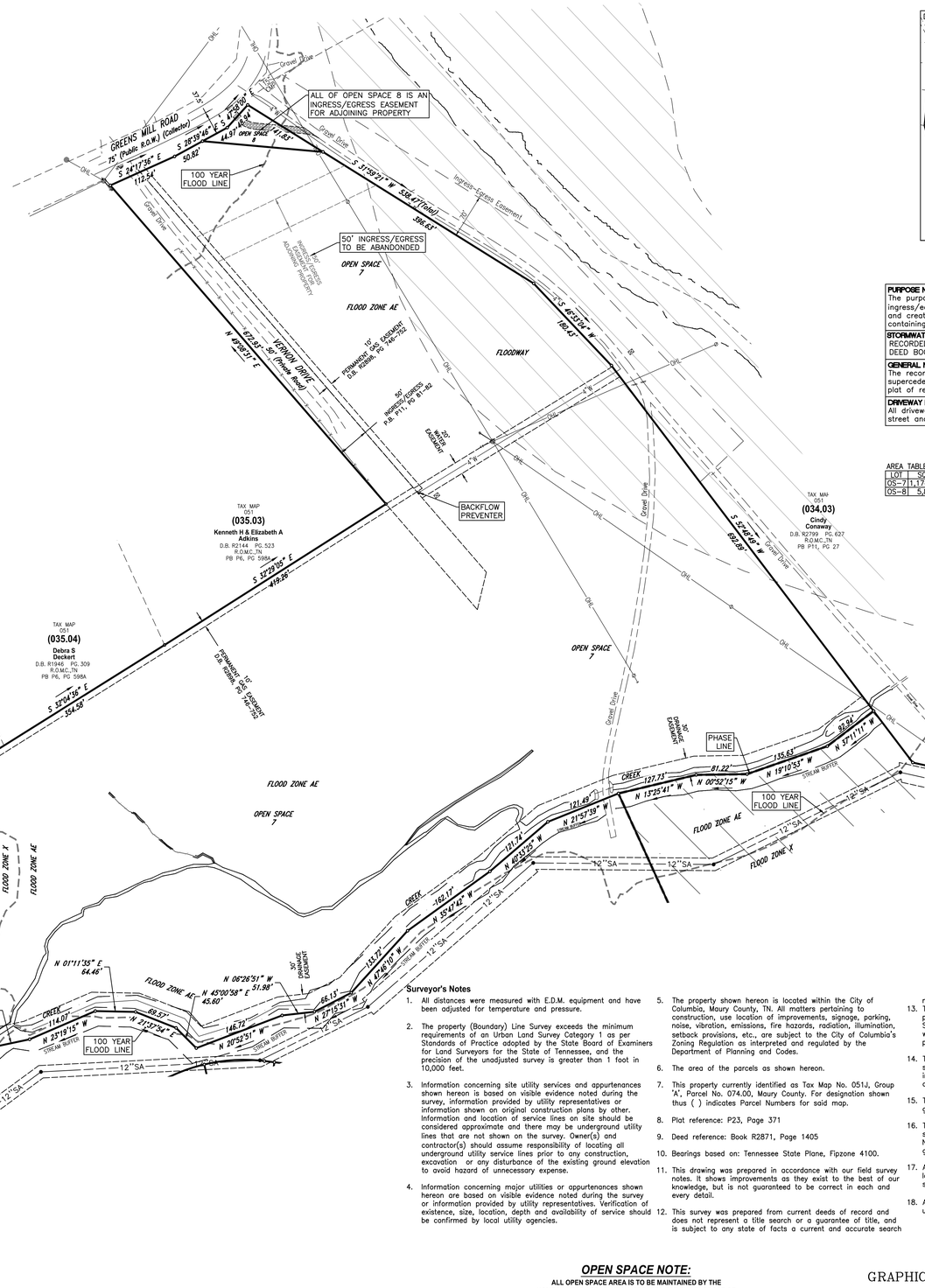
Drawn: EB
Checked: AO
Approved: AO
Date: 08-19-2024

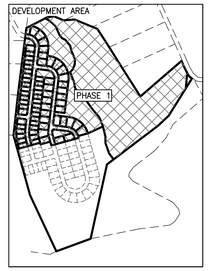
Job. no. 21523-100
Scale: Vertical: 1"=100' Horizontal:

1 OF 1

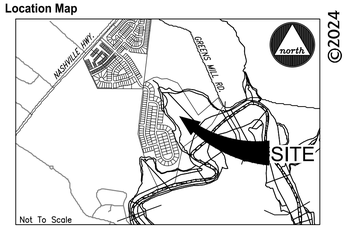
FILE: J:\WES_Engineers_Surveyors 2021\21523 - Drumwright - Smith\21523-100 Preserve Lennar\Dwg\Survey\01 - Final Plat\21523-100 - Phase 1 - OS 7 REV Final Plat.dwg

TN GRID NORTH





Location Map



Not To Scale

©2024

PARCEL NUMBER:
TAX MAP 051J, GROUP 'A', PARCEL 074.00

DEED BOOK:
R2871, PAGE 1405

PLAT BOOK:
P23, PAGE 371

PARCEL ADDRESS:
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COLUMBIA, TN 38401

PROPERTY OWNER:
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SIDE – 7.5'
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RECORDED: 03/22/24
DEED BOOK: R2979 PAGE: 801-806

GENERAL NOTE:
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GRAPHIC SCALE

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(IN FEET)
1 inch = 100 ft.

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Date — Lennar Homes of Tennessee LLC

CERTIFICATE OF APPROVAL FOR SUBDIVISION NAME AND STREET NAMES

Subdivision name and street names approved by the City Engineering Department and by E-911 Maury County.

Date — Maury County E-911
Columbia, Tennessee

CERTIFICATE OF APPROVAL OF SEWER SYSTEM

I hereby certify that the 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 has been filed to guarantee said installation.

Date — Director of Wastewater Department
Columbia, Tennessee

CERTIFICATE OF APPROVAL OF WATER SYSTEM

I, (we) hereby certify that the water system(s) outlined or indicated on the final subdivision plat entitled Preserve at Drumwright, Phase 1, Revision to Open Space 7 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.

Date — Columbia Power & Water Systems
Columbia, Tennessee

CERTIFICATE OF COMPLIANCE

I hereby certify that the subdivision plat shown hereon has been found to comply with the City of Columbia Subdivision Regulations and other adopted ordinances and policies.

Date — City Engineer
Columbia, Tennessee

CERTIFICATE OF APPROVAL FOR RECORDING

I hereby certify that the 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 are noted in the minutes of the Planning Commission, and that it has been approved for recording in the Office of the County Register:

Date — Secretary, Planning Commission
Columbia, Tennessee

SURVEYOR'S CERTIFICATION (TENNESSEE)

I hereby certify that to the best of my 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.

9/16/24 — Allen B. O'Leary — TN RLS #1987
Date — Allen B. O'Leary — Number

Register of Deed Recording Stamp



WES Engineers & Surveyors
CIVIL ENGINEERS & LAND SURVEYORS
2486 NASHVILLE HIGHWAY
COLUMBIA, TN 38401
PHONE: (931) 388-2329
www.wesengineers.com
allen@wesengineers.com

ENGINEERS & SURVEYORS

Client
LENNAR HOMES
381 MALLORY STATION ROAD
SUITE 200
FRANKLIN, TN 37067

FINAL PLAT
PRESERVE AT DRUMWRIGHT, PHASE 1, REVISION TO OPEN SPACE 7
COLUMBIA, TN

REVISIONS	DATE
TECH REVIEW COMMENTS ADDRESSED	09-16-2024

Drawn: EB
Checked: AO
Approved: AO
Date: 08-19-2024

Job. no. 21523-100
Scale: Vertical: 1"=100' Horizontal:

1 OF 1

Legend

EIP	Iron Rod Found	Bench Mark	Catch Basin	Electric Riser	Power Pole	Adjoining Property Line	Edge of Water	Overhead Electric Line
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AXLE	Axle Found	Water Meter	Cable Manhole	Gas Meter	Mailbox	Building Setback Line	Index Contour Line	Underground Cable Line
FCM	Fence Post	Water Valve	Electric Manhole	Gas Valve	Parking Block	Centerline	Gas Line	Underground Electric Line
	Concrete Monument Existing	Water Reducer	Telephone Manhole	Light Pole	Satellite Dish	Edge of Pavement	Sanitary Sewer Line	Underground Telephone Line
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Evergreen Tree	Sign
Deciduous Tree	
Bush	

FILE: J:\WES_Engineers_Surveyors 2021\21523 - Drumwright - Smith\21523-100 Preserve Lennar\Dwg\Survey\01 - Final Plat\21523-100 - Phase 1 - OS 7 REV Final Plat.dwg

September 16, 2024

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

RE: Project Name: Preserve at Drumwright, OS-7, Final Plat
Item No. 24-0362
City of Columbia Planning Submittal

On behalf of Lennar Homes of Tennessee LLC, the owner of Open Space 7 Lot, **WES Engineers & Surveyors** would like to resubmit this Final Plat to the City of Columbia for Planning Commission approval. Comments are addressed below in red.

Planning

1. The lead staff person for this case is Planner II Robert Archibald; he will prepare the staff report for this item. Please contact rarchibald@columbiatn.gov with questions about the development review process or technical comments. The lead planner should be copied on all communication with other city staff. Noted.
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. Noted.
3. Notate required easement width on Plat in area of easement. Plat has been revised that all of the easement is now contained within the created Open Space 8.

Engineering

4. Remove certificate of approval streets, drainage, street signs, and utilities.
   The streets certificate has been removed.

Wastewater

5. Columbia Wastewater has no comments. Noted.

Fire

6. No comments. Noted.

Maury County Schools

7. No comment. Noted.

Building

8. No comment. Noted.

Police

9. No comment. Noted.

Columbia Water

10. "No comments." Noted.

Columbia Power

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

Duck River Electric Membership Corp

13. No comments provided. Noted.

Maury County Highway Dept.

14. No comments provided. Noted.

ATT

15. No comments provided. Noted.

Maury County E911

16. No comments provided. Noted.

Atmos Energy

17. Natural gas installed in development. Noted.

Public Works

18. No comments. Noted.

If you have any questions or comments with this submittal, please do not hesitate to contact me directly.

Sincerely,
WES Engineers & Surveyors



Allen B. O'Leary, RLS
Principal

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, September 10, 2024

ITEM NO.
24-0362

DESCRIPTION: Preserve at Drumwright, Phase 1Parcel: 051 034.00

COMMENTS:

Planning

1. The lead staff person for this case is Planner II Robert Archibald; he will prepare the staff report for this item. Please contact rarchibald@columbiatn.gov with questions about the development review process or technical comments. The lead 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. Notate required easement width on Plat in area of easement.

Engineering

4. Remove certificate of approval streets, drainage, street signs, and utilities.

Wastewater

5. Columbia Wastewater has no comments.

Fire

6. No comments

Maury County Schools

7. No comment

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

Building

8. No comment.

Police

9. No comment.

Columbia Water

10. "No comments."

Columbia Power

11. 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.
12. Unfortunately, due to current supply chain challenges, no timeframe can be guaranteed regarding the availability of meters or transformers appropriate for your development.

Duck River Electric Membership Corp

13. No comments provided.

Maury County Highway Dept.

14. No comments provided.

ATT

15. No comments provided.

Maury County E911

16. No comments provided.

CITY OF COLUMBIA TENNESSEE

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

Atmos Energy

17. Natural gas installed in development.

Public Works

18. 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.

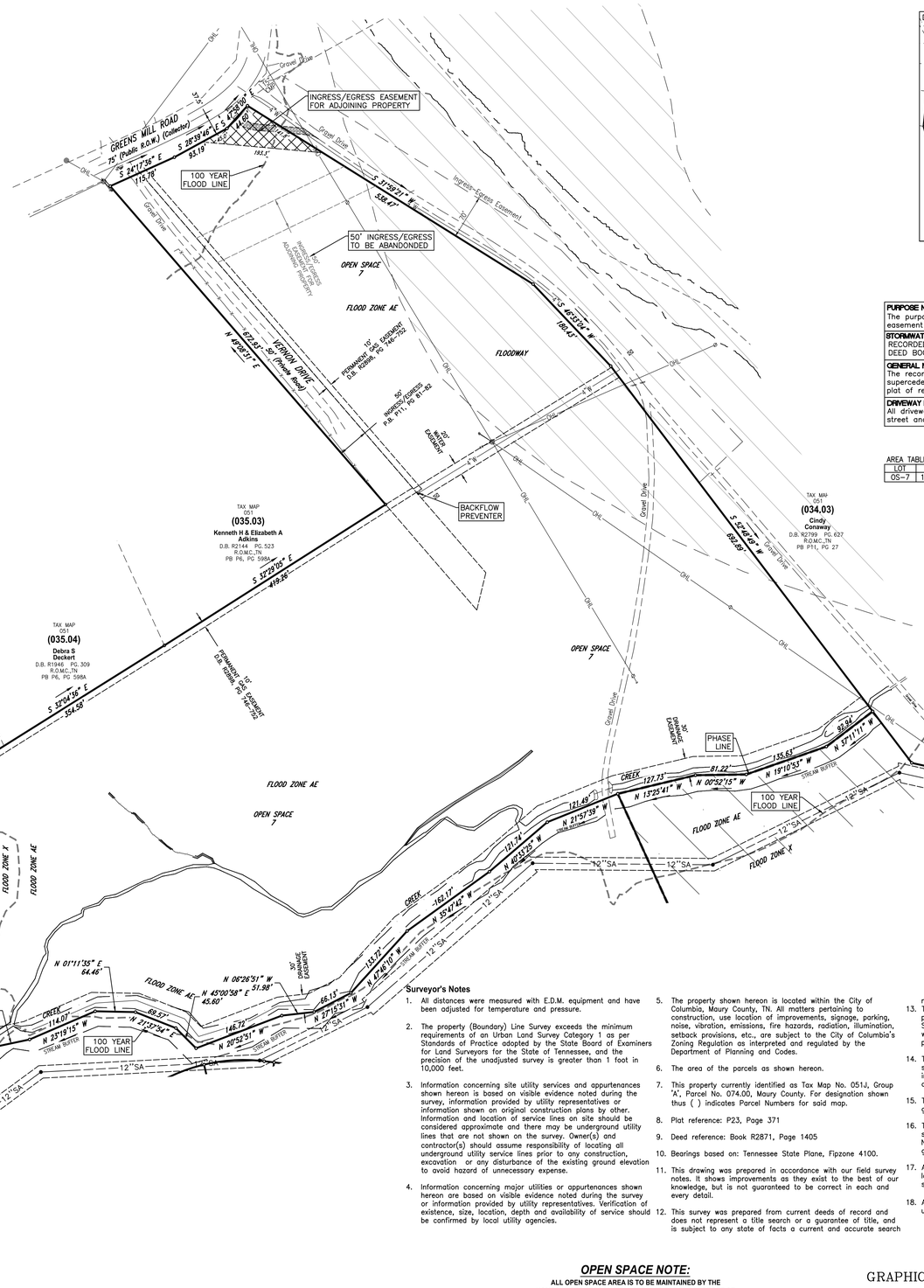
Please contact the case planner identified in the Planning Comments with any questions about the review process.

Please contact kmccarthy@columbiatn.com or msanders@columbiatn.com if you encounter difficulties with the online portal.

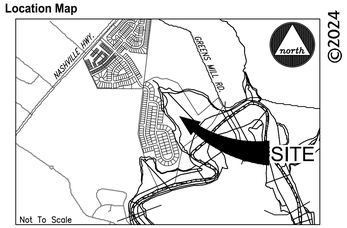
You will receive an invoice for required advertising and mailing fees. All fees must be paid by the Friday following resubmittal in order advance to the Planning Commission agenda.

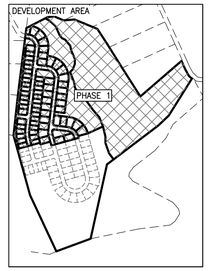
NOTE: All resubmittals must demonstrate compliance with city standards prior to Planning Commission review. Requests which do not adhere to regulations and/or remain unresponsive to technical comments will not be forwarded to the next agenda until such items are amended. Final Plat applications which 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.

TN GRID NORTH



Location Map





©2024

PARCEL NUMBER:
TAX MAP 051J, GROUP 'A', PARCEL 074.00

DEED BOOK:
R2871, PAGE 1405

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P23, PAGE 371

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COLUMBIA, TN 38401

PROPERTY OWNER:
LENNAR HOMES OF TENNESSEE LLC
381 MALLORY STATION RD
SUITE 200
FRANKLIN, TN 37067

EXISTING ZONING:
PUD

BUILDING SETBACKS:
FRONT – 25'
SIDE – 7.5'
REAR – 20'

ACREAGE OF PARCEL:
±27.09 ACRES OR 1,179,852.6 SQFT OPEN SPACE 7

PURPOSE NOTE:
The purpose of this to relocate the ingress/egress easement for adjoining property.

STORMWATER MANAGEMENT AGREEMENT:
RECORDED: 03/22/24
DEED BOOK: R2979 PAGE: 801-806

GENERAL NOTE:
The recording of this plat vacates, voids, & supercedes Open Space 7 as shown on previous plat of record P23, page 371.

DRIVEWAY NOTE:
All driveways shall be constructed to contain gutter flow within the street and right-of-way, particularly lots that do not have a sidewalk.

AREA TABLE

LOT	SQ. FT.	ACRES
OS-7	1,179,852.6	27.09

Surveyor's Notes

1. All distances were measured with E.D.M. equipment and have been adjusted for temperature and pressure.
2. The property (Boundary) Line Survey exceeds the minimum requirements of an Urban Land Survey Category 1 as per Standards of Practice adopted by the State Board of Examiners for Land Surveyors for the State of Tennessee, and the precision of the unadjusted survey is greater than 1 foot in 10,000 feet.
3. Information concerning site utility services and appurtenances shown hereon is based on visible evidence noted during the survey, information provided by utility representatives or information shown on original construction plans by other. Information and location of service lines on site should be considered approximate and there may be underground utility lines that are not shown on the survey. Owner(s) and contractor(s) should assume responsibility of locating all underground utility service lines prior to any construction, excavation or any disturbance of the existing ground elevation to avoid hazard of unnecessary expense.
4. Information concerning major utilities or appurtenances shown hereon are based on visible evidence noted during the survey or information provided by utility representatives. Verification of existence, size, location, depth and availability of service should be confirmed by local utility agencies.
5. The property shown hereon is located within the City of Columbia, Maury County, TN. 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.
6. The area of the parcels as shown hereon.
7. This property currently identified as Tax Map No. 051J, Group 'A', Parcel No. 074.00, Maury County. For designation shown thus ( ) indicates Parcel Numbers for said map.
8. Plat reference: P23, Page 371
9. Deed reference: Book R2871, Page 1405
10. Bearings based on: Tennessee State Plane, Fipzone 4100.
11. This drawing was prepared in accordance with our field survey notes. It shows improvements as they exist to the best of our knowledge, but is not guaranteed to be correct in each and every detail.
12. This survey was prepared from current deeds of record and does not represent a title search or a guarantee of title, and is subject to any state of facts a current and accurate search may reveal.
13. 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.
14. The certification as provided on this survey, is purely a statement of professional opinion based on knowledge, information and belief, based on existing field evidence and documentary evidence provided by others.
15. The certification is not an expressed or implied warranty or guarantee.
16. This property is located in a Special Flood Hazard Area as shown on F.E.M.A. Flood Insurance Rate Map, Community Panel No. 47119C0180E, dated April 16, 2007, and shown hereon graphically.
17. All public utility and drainage easements located on proposed lots are to be maintained by the individual property owner for said lot.
18. All property corners are ½" rebar with cap reading "WES 1987" unless otherwise noted.

OPEN SPACE NOTE:

ALL OPEN SPACE AREA IS TO BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION, CREATED FOR THE PURPOSE OF MAINTAINING ALL COMMON OPEN SPACE AND GROUNDS INCLUDING THE DETENTION AREAS SHOWN ON THIS PLAT. ALL OPEN SPACE AREA IS CONSIDERED A PUBLIC UTILITY, AND DRAINAGE EASEMENT.

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

Register of Deed Recording Stamp

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 Number R2871, Page 1405, Maury County Registers Office, and that I (we) hereby adopt this plan of subdivision with my (our) free consent, establish the minimum building restriction lines, and that offers of irrevocable dedication for all public ways, utilities, and other facilities have been filed.

Date — Lennar Homes of Tennessee LLC

CERTIFICATE OF APPROVAL OF STREETS, DRAINAGE, STREET SIGNS, AND UTILITIES

I hereby certify that the streets, drainage, and utilities designated in Preserve at Drumwright, Phase 1, Revision to Open Space 7 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.

Date — City Engineer, Columbia, Tennessee

CERTIFICATE OF APPROVAL FOR SUBDIVISION NAME AND STREET NAMES

Subdivision name and street names approved by the City Engineering Department and by E-911 Maury County.

Date — Maury County E-911, Columbia, Tennessee

CERTIFICATE OF APPROVAL OF SEWER SYSTEM

I hereby certify that the 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 has been filed to guarantee said installation.

Date — Director of Wastewater Department, Columbia, Tennessee

CERTIFICATE OF APPROVAL OF WATER SYSTEM

I, (we) hereby certify that the water system(s) outlined or indicated on the final subdivision plat entitled Preserve at Drumwright, Phase 1, Revision to Open Space 7 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.

Date — Columbia Power & Water Systems, Columbia, Tennessee

CERTIFICATE OF COMPLIANCE

I hereby certify that the subdivision plat shown hereon has been found to comply with the City of Columbia Subdivision Regulations and other adopted ordinances and policies.

Date — City Engineer, Columbia, Tennessee

CERTIFICATE OF APPROVAL FOR RECORDING

I hereby certify that the 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 are noted in the minutes of the Planning Commission, and that it has been approved for recording in the Office of the County Register:

Date — Secretary, Planning Commission, Columbia, Tennessee

SURVEYOR'S CERTIFICATION (TENNESSEE)

I hereby certify that to the best of my 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.

8/19/24 — Allen B. O'Leary — TN RLS #1987 Number

ALLEN B. O'LEARY — REGISTERED LAND SURVEYOR — TENNESSEE NO. 1987

allen@wesengineers.com

WES Engineers & Surveyors
CIVIL ENGINEERS & LAND SURVEYORS
2486 NASHVILLE HIGHWAY
COLUMBIA, TN 38401
PHONE: (931) 388-2329
www.wesengineers.com

ENGINEERS & SURVEYORS

Client
LENNAR HOMES
381 MALLORY STATION ROAD
SUITE 200
FRANKLIN, TN 37067

FINAL PLAT

PRESERVE AT DRUMWRIGHT, PHASE 1, REVISION TO OPEN SPACE 7

COLUMBIA, TN

REVISIONS	DATE

Drawn: EB
Checked: AO
Approved: AO
Date: 08-19-2024

Job. No. 21523-100
Scale:
Vertical: 1"=100'
Horizontal:

1 OF 1

Legend

- EIP — Iron Rod Found
- IPS — Iron Rod Set
- I.P.F. — Iron Pipe Found
- AXLE — Axle Found
- FENCE — Fence Post
- CM — Concrete Manument Existing
- P.K.F. — PK Nail Found
- P.K.S. — PK Nail Set
- R.R.S..F — Railroad Spike Found
- R.R.S.S — Railroad Spike Set
- Bench Mark
- Stake Found
- Fire Hydrant
- Water Meter
- Water Valve
- Water Reducer
- Clean Out
- Sanitary Sewer Manhole
- Storm Sewer Manhole
- Catch Basin
- Curb Inlet
- Storm Pipe
- Cable Manhole
- Electric Manhole
- Telephone Manhole
- Water Manhole
- Electric Meter
- Cable Riser
- Electric Riser
- Telephone Riser
- Telephone Booth
- Gas Meter
- Gas Valve
- Light Pole
- Power Pole
- Telephone Pole
- Guy Pole
- Power Pole
- Flag Pole
- Guy Wire
- Mailbox
- Parking Block
- Satellite Dish
- Handicap Parking
- Water Spigot
- Bollard
- Evergreen Tree
- Deciduous Tree
- Bush
- Sign
- Adjoining Property Line
- Subject Property Line
- Easement Line
- Building Setback Line
- Centerline
- Edge of Pavement
- Edge of Gravel
- Fence Line
- Landscape
- Woods / Tree line
- Edge of Water
- Ditch / Creek Centerline
- Minor Contour Line
- Index Contour Line
- Gas Line
- Sanitary Sewer Line
- Water Line
- Storm Sewer Line
- Overhead Utility Line
- Overhead Cable Line
- Overhead Electric Line
- Overhead Telephone Line
- Underground Utility Line
- Underground Cable Line
- Underground Electric Line
- Underground Telephone Line
- Forced Main Line

FILE: J:\WES_Engineers_Surveyors 2021\21523 - Drumwright - Smith\21523-100 Preserve Lennar\Dwg\Survey\01 - Final Plat\21523-100 - Phase 1 - OS 7 REV Final Plat.dwg

Appendix B: Subdivision Development Agreement

This DEVELOPMENT AGREEMENT is made and entered into on this

_____ day of _____, 20_____ ,
between THE CITY OF COLUMBIA, TENNESSEE, (hereinafter the "CITY"), and

LENNAR HOMES OF TENNESSEE, LLC, the DEVELOPER (hereinafter the "DEVELOPER") named on the Addendum to this Agreement attached hereto and by this reference made a part hereof (hereinafter the "ADDENDUM").

WITNESSETH:

WHEREAS, the DEVELOPER desires to develop the property described on the ADDENDUM (hereinafter the "PROJECT"); and,

WHEREAS, the Development Plan of the PROJECT has been approved by the Columbia Municipal Planning Commission (hereinafter the "CMPC") on the

_____ day of _____, 20_____ ,
pursuant to Tennessee Code Annotated Title 13, Chapter 4, and the Subdivision Regulations of Columbia, Tennessee (hereinafter the "SUBDIVISION REGULATIONS"); and,

WHEREAS, the DEVELOPER is the owner of the PROJECT and has authority to engage in such development; and,

WHEREAS, the DEVELOPER desires to develop and improve said PROJECT; and,

WHEREAS, in order to provide for the health, safety, and welfare of future residents of the PROJECT, it will be necessary for certain improvements to the CITY'S utility systems, public infrastructure, and common areas to be constructed within and to serve the PROJECT including but not be limited to roads, bridges, sidewalks, pedestrian facilities, stormwater facilities, street signs, markings, signals, street lighting, recreation and park facilities, landscaping, and the like (hereinafter the "IMPROVEMENTS"); and,

WHEREAS, in order for the IMPROVEMENTS to be fully integrated with the utility systems and public infrastructure of the CITY and to function in a satisfactory manner, the DEVELOPER has agreed to construct, in accordance with the Subdivision Regulations and other rules, regulations, and ordinances of the CITY, the IMPROVEMENTS in said PROJECT and extend utilities to the PROJECT at their own cost; and,

WHEREAS, the CITY is willing to accept the dedication of the streets, utilities, and other improvements as determined in the Development Plan of the PROJECT, subject to the City of Columbia City Council approval by resolution, and subject to the applicant's compliance with all requirements in this agreement and applicable existing laws of the CITY of Columbia and the State of Tennessee,

NOW, THEREFORE, it is agreed and understood as follows:

B1 General Conditions

B1.1 Construction Costs

The DEVELOPER shall pay for all material and labor necessary to install and complete the roads, sidewalks, sewers, utilities, and other facilities in accordance with this agreement.

B1.2 City Ordinances, Rules and Regulations

All currently existing CITY ordinances, rules and regulations, and the Subdivision Regulations adopted by the CMPC are made a part of this agreement. In the event of a conflict between the terms of this agreement and a CITY ordinance, the ordinance shall prevail. In the event of a conflict between the terms of this agreement and the Subdivision Regulations, the Subdivision Regulations shall prevail. All work done under this agreement is to be performed in accordance with plans and specifications approved by the City and made a part, hereof.

B1.3 Fees

Review fees, inspection fees, and other amounts established by the CITY shall be paid prior to any review of the plans. If the DEVELOPER fails to install the facilities in accordance with the terms of this Agreement, no portion of the review fees, inspection fees, or other amounts paid to the CITY shall be refundable to the DEVELOPER.

B1.4 Inspection

The CITY shall have a continuous right to inspect the work and facilities to assure that the work and facilities are in accordance with the Subdivision Regulations, approved Construction Plans, and other rules, regulations, and ordinances of the CITY.

B1.5 Right of Entry

The CITY shall have the right, in case of breach of the Performance Agreement, to enter upon any property of the DEVELOPER and take all necessary actions to complete the work and obligations not completed.

B1.6 Easements

The DEVELOPER shall obtain and dedicate to the CITY or cause to be dedicated to the CITY, either by dedication on the plat or by easement deed, in either case in a form acceptable to the CITY, permanent easements of such widths as required by the CITY and noted on the Plans. The DEVELOPER further agrees to grant the necessary easements and rights-of-way across the DEVELOPER's properties without expense to the CITY and waive any claim for damages.

B1.7 Stormwater Maintenance Agreement

If the PROJECT includes any detention or retention ponds, common drainage ditches, water quality facilities, or stormwater facilities outside of the CITY rights-of-way, the DEVELOPER will submit a Stormwater Maintenance Agreement, to be filed with and recorded with the Final Plat.

B1.8 Attorney Fees and Other Expenses

The DEVELOPER shall pay all reasonable costs and expenses incurred by the CITY in enforcing or completing this agreement. The DEVELOPER shall pay all costs and expenses, including the CITY'S attorney fees, of any legal proceedings brought by the CITY against the DEVELOPER seeking remedies for the DEVELOPER'S failure to perform any of its obligations hereunder, whether or not any proceedings are prosecuted to judgment.

B1.9 Agreement Not Assignable

No third party shall obtain any benefits or rights under this agreement nor shall the rights or duties be assigned by either party.

B1.10 Revocation and Interpretation

This agreement shall bind the DEVELOPER when executed by the DEVELOPER and may not be revoked by the DEVELOPER without permission of the CITY, even if the agreement has not been executed by the CITY, or does not bind CITY, for other reasons. This agreement shall be interpreted in accordance with Tennessee law and may only be enforced in the Chancery Court or Circuit Court or Court of competent jurisdiction of Maury County, Tennessee, and Tennessee Appellate Courts.

B1.11 No Oral Agreement

This agreement may not be orally amended and supersedes all prior negotiations, commitments, or understandings.

B1.12 Separability

If any portion of this agreement is held to be unenforceable, the CITY shall have the right to determine whether the remainder of the agreement shall remain in effect, or whether the agreement shall be void and all rights of the DEVELOPER pursuant to this agreement terminated.

B 1.13 Transferability

The DEVELOPER agrees to not transfer the property on which this PROJECT is to be located without first providing the CITY with written notice. The transferee shall provide the CITY an Assumption Agreement of this Agreement, whereby the transferee agrees to perform the IMPROVEMENTS required under this agreement and to provide a performance surety. The DEVELOPER understands that if the DEVELOPER transfers said property without providing the notice of transfer and Assumption Agreement as required herein, they will be in breach of this agreement and in violation of the Subdivision Regulations.

B1.14 Indemnity

The DEVELOPER shall indemnify and hold the CITY harmless from all loss, costs, expenses, liability, money damages, penalties, or claims arising out of any work covered by this agreement, including any attorney fees incurred by the CITY in connection therewith. Inspection of the IMPROVEMENTS by an authorized representative of the CITY shall not constitute a waiver by the CITY of any defect or of any of the DEVELOPER'S obligations hereunder.

B1.15 Binding Effect

This agreement shall be binding upon the DEVELOPER and the DEVELEPOR's heirs, administrators, executors, assigns, and any other successors in interest.

B1.16 Entire Agreement

This document contains the entire agreement between the parties, and there are no collateral understandings or agreements between them. No variations or alterations of the terms of this agreement shall be binding upon either of the parties, unless the same be reduced to writing and made an amendment to this agreement.

B1.17 Headings

Paragraph titles and headings contained herein are inserted for convenience only and shall not be deemed a part of the agreement and in no way shall define, limit, extend, or describe the scope or intent of any provision, hereof.

B2 Performance Surety

At the time of execution of this agreement, the DEVELOPER shall provide the CITY a performance surety, in an amount determined by the City Engineer for the IMPROVEMENTS and other items specified by the Construction Plans, plats, and plans approved by the CMPC. This performance surety shall secure performance of all obligations of the DEVELOPER under this agreement. The performance surety shall meet all requirements established in Chapter 4: Performance Agreement of the Subdivision Regulations and secure full compliance with all terms and conditions of this agreement. The performance surety may be called for failure to comply with the provisions of this agreement in whole or in part according to the terms of the performance surety. The performance surety will not be released, except and until there has been full compliance with this agreement.

B3 Construction

B3.1 Construction Plans

The DEVELOPER shall submit to the CITY, Construction Plans describing in reasonable detail all utility systems, all storm water management systems, all street systems, pedestrian facilities, and all IMPROVEMENTS. The Construction Plans shall be designed according to the Engineering Standards and Specifications, all other codes and ordinances enforced by the City, and sound engineering judgment. The design of all utility systems shall follow the State of Tennessee and utility provider design criteria and specifications. In the event of a disagreement as to compliance with or interpretation of the Construction Plans and the CITY'S specifications, the decision of the CITY shall be final and binding on the DEVELOPER. The Construction Plans shall be prepared by a design professional licensed by the State of Tennessee to design all systems and shall bear the seal, signature, date, and license number of the professional preparing the Construction Plans.

B3.2 Commencement of Construction

Construction of IMPROVEMENTS may not begin until the following events have occurred:

A. The Preliminary Plat has been approved by the CMPC;
B. The Construction Plans are approved by the CITY;
C. The Tennessee Department of Environment and Conservation has approved the applicable portions of the Plans and has confirmed its approval to the CITY and/or DEVELOPER in writing;
D. The CITY shall have received an appropriately executed Development Agreement; and
E. The DEVELOPER shall give the CITY notice of commencement of construction, in writing at least one (1) working day prior to commencement.

B3.3 Site Grading

The DEVELOPER, hereby, agrees to construct all site grading to comply with the approved Construction Plans, including the approved Erosion Control Plan for the PROJECT and to comply with the Engineering Standards and Specifications, Stormwater Ordinance, and all other codes and ordinances enforced by the CITY.

B3.4 Storm Water Management Systems

The DEVELOPER shall be responsible for all storm water management work made necessary by the development of this PROJECT. It is understood and agreed that the CITY in its proprietary function is not and could not be expected to oversee, supervise, or direct the construction of all drainage improvements, and the excavation incident thereto. Neither is the CITY vested with the original design responsibility nor the means to formally survey elevations or the locations of improvements at every stage of the construction process. The CITY is vested with the right of periodic inspections, stop work order, and final approval as a measure of secondary or subsequent enforcement. The DEVELOPER has and shall retain the responsibility to properly anticipate, survey, design and construct the subdivision storm water improvements and give full assurance that same shall not adversely affect the flow or quality of surface water from or upon any property. In providing technical assistance, plan and design review, the CITY does not and shall not relieve or accept any liability from the DEVELOPER.

B3.5 Street Construction

The DEVELOPER, hereby, agrees to construct and improve the streets shown on the Construction Plans to comply with the CITY's specifications and to the satisfaction and approval of the City Engineer by grading, draining, subgrade preparation, base preparation, curbing, signage, striping, signalization, sidewalk installation, and paving with the required preparation, amounts, and types of material. The DEVELOPER further agrees to pay the cost of all engineering, inspection and laboratory cost incidental to the construction of subdivision streets including but not limited to material and density testing. The DEVELOPER further agrees to make all necessary adjustments to manholes and valve boxes to meet finished surface grade and to repair subsurface or base material, as required, in areas directed by the CITY Engineer, prior to application of final surface.

B3.6 Time Period for Construction

The DEVELOPER agrees to be bound to complete, within three (3) years of commencement of construction, all IMPROVEMENTS shown on the plat and plans and all things required by this agreement.

The DEVELOPER further agrees that if due to unforeseen circumstances, he is unable to complete all work included in this agreement within the time specified above, but desires to complete said agreement to the satisfaction of the CITY, the DEVELOPER shall submit a written request for extension of the agreement period to the CITY at least sixty (60) days prior to the expiration of the existing agreement period, specifying the reason for the DEVELOPER's failure to complete the work as agreed and a prospective date for such completion. The DEVELOPER further agrees that if the performance surety executed to secure the value of the work to be performed under this agreement, due to inflation or rising costs, is determined to be inadequate by the City Engineer to secure the cost of said IMPROVEMENTS at the time an extension is sought, the DEVELOPER will provide the additional security to bring the performance surety amount in line with current cost projections as made by the CITY. The DEVELOPER understands that the DEVELOPER's failure to follow the extension procedure constitutes a breach of this agreement and places the DEVELOPER in violation of the Subdivision Regulations. The DEVELOPER further understands, that should the DEVELOPER fail to complete any part of the work outlined in this agreement in a good and workmanlike manner as approved, the CITY shall reserve the right to withhold and withdraw all building permits within the PROJECT until all items of this Agreement have been fulfilled by the DEVELOPER.

B3.7 Off-Site Improvements

The DEVELOPER shall construct any and all off-site facilities that may be required to serve the PROJECT. Unless specifically noted in the Construction Plans and made a part of separate agreement with the CITY, the CITY shall not be required to reimburse the DEVELOPER for construction of off-site improvements.

B3.9 Inspection and Compliance

After construction begins, the CITY shall provide on-site construction inspection as the CITY deems necessary to ensure that all work is performed and completed in accordance with the Construction Plans, CITY specifications, and the contents of this agreement. In the event of a disagreement as to compliance with or interpretation of the Construction Plans and the CITY'S specifications, the decision of the CITY shall be final and binding on the DEVELOPER. If the DEVELOPER fails to construct in accordance with the approved Construction Plans or to comply with the CITY'S specifications, the CITY may issue a stop-work order and DEVELOPER, hereby, agrees to be bound by such order.

B3.10 Testing

The DEVELOPER agrees to pay the cost of all engineering, inspection, and laboratory cost incidental to construction of the streets, sidewalks, utilities, sewers, compacted fill material, and other facilities included within this agreement. Such testing includes, but is not limited to, material and density testing.

B3.11 Scrap Removal

The DEVELOPER agrees to comply with all local, state, and federal rules and regulations regarding waste material and debris disposal.

B3.12 Traffic Control

The DEVELOPER, hereby, agrees to prepare a traffic control/detour plan where required and shall submit said plan to the CITY for review and approval. All traffic control and safety devices, including

signs, lane markings, and barriers necessitated by construction activity undertaken pursuant to this agreement shall be installed and maintained by the DEVELOPER. All traffic control devices shall meet the standards and be installed in accordance with the latest edition of the Manual on Uniform Traffic Control Devices for Streets and Highways, published by the United States Department of Transportation.

B3.13 Temporary Facilities

The DEVELOPER shall provide all temporary facilities including but not limited to utilities and roadways, that are determined by the CITY to be required in connection with or as a result of interruption of service or access that occurs as a consequence of construction activity associated with the work covered by this agreement. Such temporary services shall in all regards and at all points in time be adequate to assure emergency access and adequate fire flows.

B4 Acceptance of Improvements

B4.1 Completion of Improvements

At such time as the improvements have been constructed and installed, in accordance with the Constructions Plans and specifications, required testing and inspections completed and found satisfactory, and all clean-up and cover-up has been done to the satisfaction the City Engineer, a letter requesting preliminary acceptance of the PROJECT will be provided by the DEVELOPER. Formal acceptance shall follow the procedure established in the Subdivision Regulations.

The DEVELOPER agrees the DEVELOPER shall have no claim, direct or implied, in the title or ownership of the IMPROVEMENTS specified in this agreement when the IMPROVEMENTS are complete and thereafter accepted by the CITY. The DEVELOPER will be responsible for construction failures and defects in PROJECT prior to final acceptance. During this period, it shall remain the responsibility of the DEVELOPER to correct and cure these defects and failures.

B4.2 As-Built Drawings and Post-Completion Items

The DEVELOPER agrees to furnish to the CITY as-built plans, on a reproducible, stable media, of the sanitary sewer, storm water management, water mains and service system, and streets within the subdivision before the CITY shall accept the subdivision.

B4.3 Acceptance of Facilities

Upon final acceptance of all or part of the IMPROVEMENTS in the PROJECT, then those IMPROVEMENTS shall become the property of the CITY free from all claims from any person or entity without the necessity of any further writing, agreement, or deed. The DEVELOPER further agrees that any facilities placed within a public or platted right-of-way or dedicated public easement are irrevocably dedicated to the public use without any right of reimbursement or compensation of any kind.

B4.4 Failure to Install

In the event the DEVELOPER fails to install the facilities in accordance with the terms of this agreement, the CITY may, in its sole discretion, elect to accept all or a portion of the IMPROVEMENTS in the PROJECT. Should the CITY choose to accept all or a portion of these IMPROVEMENTS, the CITY shall become the sole owner of these facilities. The CITY may give notice of acceptance by writing delivered to the DEVELOPER or recorded in the Register's Office of Maury County, Tennessee. No further writing or deed shall be required.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed in multiple originals by persons properly authorized so, to do on or as of the day and year first given.

The Preserve @ Dramwright
PROJECT

Completed by the Developer	*Completed by the City*
Lennar Homes of Tennessee LLC DEVELOPER NAME	
Nick Branam AUTHORIZED AGENT NAME	 CITY ENGINEER
 SIGNATURE	 SIGNATURE
10 · 05 · 2023 DATE	 DATE
381 Mallory Station Rd Suite #200 STREET	
Franklin, TN 37067 CITY, STATE, ZIP	
(615) 305-8321 PHONE	
Nick.Branum@lennar.com EMAIL	
Attest	*Attest*
Kenneth E. Zumstein ATTEST NAME	 ATTEST NAME
 ATTEST SIGNATURE	 ATTEST SIGNATURE
10-5-2023 DATE	 DATE

August 19, 2024

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

RE: **Project Name: Preserve at Drumwright, Phase 1, Revision to Open Space 7, Final Plat**
City of Columbia Staff Review Submittal

On behalf of Lennar Homes of Tennessee LLC, the owner of the Open Space 7 lot, **WES Engineers & Surveyors** would like to submit this Final Plat to the City of Columbia for Planning Commission approval.

If you have any questions or comments with this submittal, please do not hesitate to contact me directly.

Sincerely,
WES Engineers & Surveyors



Allen B. O'Leary, RLS
Principal

CITY OF COLUMBIA TENNESSEE

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

PLANNING COMMISSION
PROJECT DEVELOPMENT APPLICATION

SUBMITTAL REQUIREMENTS

** 1 hard copy of all materials for submittal + PDF copy on a USB thumb drive or CD (no multiple applications on one storage device)*
Fold hard copy submittals larger than 8½"x11"

ADDRESS/LOCATION	Augusta Trace Drive, Columbia, TN		
	TAX MAP: 051J	GROUP: A	PARCEL: 074.00
SUMMARY OF NATURE OF REQUEST AND WORK	Request Final Plat approval for the relocation of the ingress/egress easement for the adjoining property that is located on Preserve at Drumwright, Phase 1, Open Space 7.		

DATE OF PRE-APPLICATION CONFERENCE		*Pre-application meetings are scheduled for Wednesdays.*

SELECT REQUEST	SUBMITTALS SHALL INCLUDE BUT NOT LIMITED TO:
❑ Annexation ❑ Rezoning ❑ Preliminary Plat ☑ Final Plat ❑ PUD Preliminary Master Plan ❑ PUD Final Site Plan ❑ Multi-Family Site Plan ❑ Other: **File naming nomenclature examples:* *Freedom Point Site Plan* *Freedom Point Master Plan* *Freedom Point Final Plat*	**Annexations/Rezoning/PUD's:** ❑ Written Legal Description copy ❑ Requested Zone Listed ❑ Compliance with Comprehensive Plan ❑ Annexation Permission Form ❑ Plans and/or Plats conforming to City standards with check list completed ❑ Columbia Water System Availability Letter **Plats/PUDs:** ☑ Project Name (include Sections & Phases) Preserve at Drumwright, Phase 1, Revision to Open Space 7 ☑ Total Number of Lots 1 ☑ Total acreage ±27.09

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 meetings dates must be requested by the resubmittal date listed on the Planning Commission schedule.

APPLICANT

All communications go to the Applicant's email that is provided.

NAME	Allen B. O'Leary	PHONE	931-388-2329
ADDRESS	2486 Nashville Hwy, Columbia, TN	EMAIL	allen@wesengineers.com

PROPERTY OWNER NAME	Lennar Homes of Tennessee LLC	PHONE	
ADDRESS	381 Mallory Station Rd, Suite 200 Franklin, TN 37067	EMAIL	

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.

Allen B. O'Leary	Allen B. O'Leary	8/16/24
APPLICANT NAME	APPLICANT SIGNATURE	DATE

Lennar Homes of Tennessee LLC	DPR	8/16/24
PROPERTY OWNER NAME	PROPERTY OWNER SIGNATURE	DATE

STAFF USE ONLY

DOCKET NO.		FEE PAID	
RECEIPT NO.		REQUESTED AGENDA	

DATE NOTICES SENT TO ADJACENT PROPERTY OWNERS	
DATE OF PUBLIC NOTICES IN DAILY HERALD	

BOARD ACTION	

Horizon Park Final Plat

Project #:	24-0359	Location:	Map 114 Parcel 18.00
Applicant:	TKC Arch. & Eng.	Case Type(s):	Final Plat
Staff Planner:	Austin Brass, AICP	Proposed Use:	15 residential lots

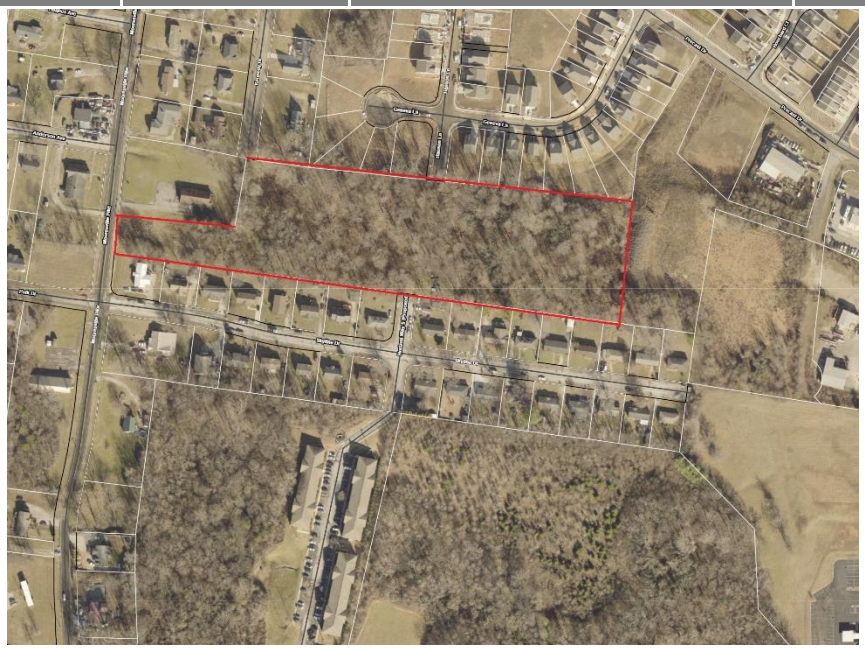
PROJECT SUMMARY

The applicant requests approval of a Final Plat to create 15 lots with accompanying infrastructure. The Planning Commission approved a Preliminary Plat for this Subdivision on December 9th, 2021. The approval created a vested right to develop under the R-10 standards of the previous Zoning Ordinance.

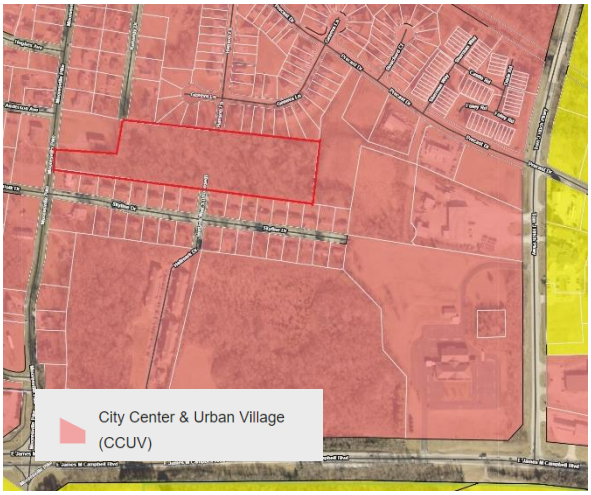
- The development is subject to Ordinance 3638, the pre-July 2022 zoning ordinance.
- The Final Plat conforms to the approved Preliminary Plat.
- The Planning Commission previously approved the Preliminary Plat for this subdivision on December 9th, 2021. The applicant has stated in the application for this Final Plat that these lots may be either single-family homes or duplex homes. Under the previous Zoning Ordinance that is subject to vesting under this plat, duplexes were permissible in an R-10 Zoning District if a lot minimum was 15,000 SF. The applicant indicates lots that are at minimum 15,000 SF on this Final Plat in matching the approved Preliminary Plat.
- The applicant has provided financial surety in the amount of $195,000 to guarantee completion of infrastructure.
- The applicant has provided a stormwater maintenance agreement.
- The DRC reviewed this proposal at its September 2024 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 Final Plat.
- Templates are provided at the end of the report to assist the Planning Commission in crafting properly formatted motions.

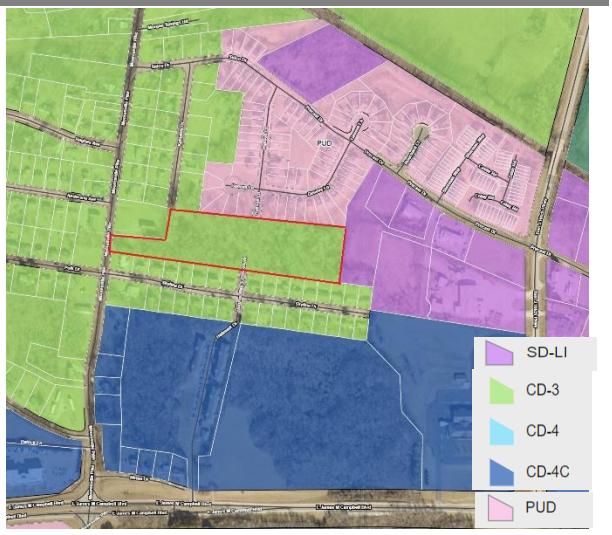
SITE INFORMATION

CURRENT ZONING	EXISTING USE	EXISTING IMP.	LAND AREA
CD-3	Vacant	Infrastructure for Development	+/-7.97 Acres



FUTURE LAND USE MAP	ZONING MAP





SITE CONTEXT/ADJACENT PROPERTIES			
	Future Land Use	Zoning	Current Use
Subject Property	City Center & Urban Village	CD-3	Vacant/Developing
North	City Center & Urban Village	PUD	Single-Family
South	City Center & Urban Village	CD-3	Single-Family
East	City Center & Urban Village	SD-LI	Vacant
West	City Center & Urban Village	CD-3	Church

The subject site is proposed to be developed with one phase. The property is bounded on the north by single-family residential development within a previously approved Planned Unit Development (*Summerdale*).

CONFORMITY WITH ZONING ORDINANCE

The Final Plat conforms to the previous approved Preliminary Plat of the applicable zoning ordinance (3638), the Subdivision Regulations, and the approved Preliminary Plat.

REVIEW PROCESS

The Development Review Committee evaluated the proposed Final Plat at its September 2024 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 **2.3.6** 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.

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 the Final Plat as presented and find that the plat conforms to the applicable zoning ordinance, the Subdivision Regulations, and the Preliminary Plat [subject to remaining technical comments from staff].

Approve with Conditions:

Move to approve the Final Plat as presented and find that the plat conforms to the applicable zoning ordinance, the Subdivision Regulations, and the Preliminary 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:

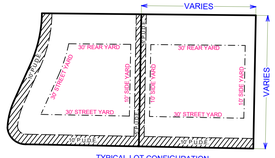
Move to find that the Final Plat as presented does not conform to the applicable zoning ordinance, the Subdivision Regulations, or the approved Preliminary Plat, and deny the request due to [list specific deficiencies].

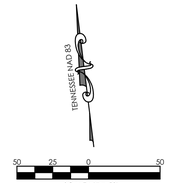
HORIZON PARK SUBDIVISION

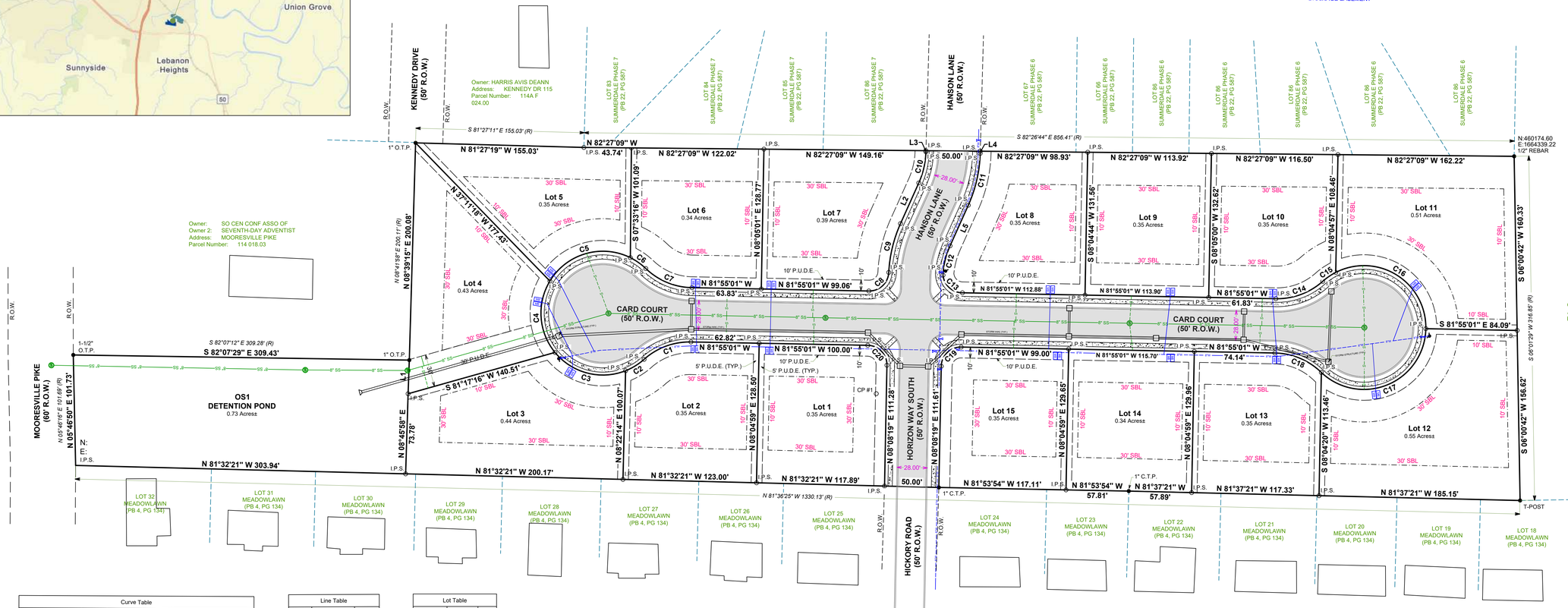
FINAL PLAT

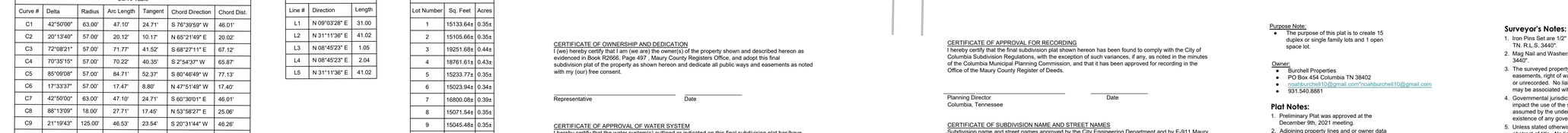
CONTROL MAP 114, PARCEL 018.00
9TH CIVIL DISTRICT
CITY OF COLUMBIA, MAURY COUNTY, TENNESSEE











Curve Table						
Curve #	Delta	Radius	Arc Length	Tangent	Chord Direction	Chord Dist.
C1	42°50'00"	63.00'	47.10'	24.71'	S 76°39'59" W	46.01'
C2	20°13'40"	57.00'	20.12'	10.17'	N 65°21'49" E	20.02'
C3	72°08'21"	57.00'	71.77'	41.52'	S 68°27'11" E	67.12'
C4	70°35'15"	57.00'	70.22'	40.35'	S 2°54'37" W	65.87'
C5	85°09'08"	57.00'	84.71'	52.37'	S 80°46'49" W	77.13'
C6	17°33'37"	57.00'	17.47'	8.80'	N 47°51'49" W	17.40'
C7	42°50'00"	63.00'	47.10'	24.71'	S 60°30'01" E	46.01'
C8	88°13'09"	18.00'	27.71'	17.45'	N 53°58'27" E	25.06'
C9	21°19'43"	125.00'	46.53'	23.54'	S 20°31'44" W	46.26'
C10	22°35'48"	75.00'	29.58'	14.98'	N 19°53'42" E	29.39'
C11	22°33'38"	125.00'	49.22'	24.93'	N 19°54'47" E	48.90'
C12	21°19'43"	75.00'	27.92'	14.12'	S 20°31'44" W	27.76'
C13	84°16'13"	18.00'	26.47'	16.28'	S 40°47'04" E	24.15'
C14	42°50'00"	63.00'	47.10'	24.71'	N 76°39'59" E	46.01'
C15	14°39'34"	57.00'	14.58'	7.33'	S 62°34'46" W	14.54'
C16	118°10'27"	57.00'	117.56'	95.19'	N 51°00'14" W	97.81'
C17	132°22'28"	57.00'	131.69'	129.16'	N 74°16'13" E	104.30'
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C19	90°00'00"	18.00'	28.27'	18.00'	S 53°04'59" W	25.46'
C20	90°00'00"	18.00'	28.27'	18.00'	N 36°55'01" W	25.46'

Line Table		
Line #	Direction	Length
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L2	N 31°11'36" E	41.02
L3	N 08°45'23" E	1.05
L4	N 08°45'23" E	2.04
L5	N 31°11'36" E	41.02

Lot Table		
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3	19251.68±	0.44±
4	18761.61±	0.43±
5	15233.77±	0.35±
6	15023.94±	0.34±
7	16800.08±	0.39±
8	15071.54±	0.35±
9	15045.48±	0.35±
10	15034.77±	0.35±
11	22304.82±	0.51±
12	23888.04±	0.55±
13	15050.78±	0.35±
14	15010.47±	0.34±
15	15102.98±	0.35±
OS1	31645.29±	0.73±

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 R2666, Page 497 , 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.

Representative 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 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 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 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

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 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 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

Purpose Note:
- The purpose of this plat is to create 15 duplex or single family lots and 1 open space lot.

Owner:
- Burchell Properties
- PO Box 454 Columbia TN 38402
- noahburchell10@gmail.com"noahburchell10@gmail.com
- 931.540.8881

Plat Notes:
1. Preliminary Plat was approved at the December 9th, 2021 meeting.
2. Adjoining property lines and or owner data shown hereon are derived via current TN Property Viewer maps.
3. This final plat is vested under the Zoning Ordinance 3638

GNSS Notes:
1. NAD83 TENNESSEE STATE PLANE COORDINATE SYSTEM UTILIZED.
2. STATE PLANE COORDINATES WERE ESTABLISHED USING STATIC GNSS OBSERVATIONS AND CORRECTED VIA NGS OPUS.
3. FIELD MEASUREMENTS WERE DERIVED VIA CARLSON BRX7 BASE AND ROVER RTK GNSS.
4. GEOID 18 UTILIZED.
5. NO SCALE FACTOR CALCULATED OR APPLIED.

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DM4145	TN39 TDOT DISTRICT 39 CORS ARP	N351129.046	W0870026.748	44558.4
DJ9560	TN36 TDOT DISTRICT 36 CORS ARP	N351520.743	W0871933.740	46312.9
DM3531	TN30 TDOT DISTRICT 30 CORS ARP	N353305.845	W0873426.207	49962.2

OBS USED: 16002 / 17637 : 91%
FIXED AMB: 89 / 99 : 90%

CP #1 - N: 460029.25 E: 1663729.67 MAG HUB SET

Utility Notes:
1. Private Stormwater Management Facilities shown on this Final Plat shall be maintained as directed in the Long Term Maintenance Plan as recorded in Record Book_____, Pages_____ in the Register's Office of Maury County, Tennessee

2. OS1 and Public Utility Drainage Easement to be Maintained by Homeowners accocation.

Surveyor's Notes:
1. Iron Pins Set are 1/2" rebar capped and stamped with "Campbell D. Cook TN. R.L.S. 3440".
2. Mag Nail and Washers Set are stamped with "Campbell D. Cook TN. R.L.S. 3440".
3. The surveyed property shown hereon is subject to any and all existing easements, right of ways, restrictions and set back lines that may be recorded or unrecorded. No liability is assumed by the undersigned for any loss that may be associated with the existence of any easements.
4. Governmental jurisdictional areas or negative easements, if any, which may impact the use of the surveyed property were not located. No liability is assumed by the undersigned for any loss that may be associated with the existence of any governmental jurisdiction.
5. Unless stated otherwise, this survey was performed without benefit of an abstract of title. No liability is assumed by the undersigned for any loss relating to any matter that might be discovered by an abstract or title search of the property.
6. Aerial imagery if shown may or may not be reflective of current site conditions.
7. The property shown hereon is located within the City of Columbia, Maury County, TN. 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 Regulations as interpreted and regulated by the Department of Development Services.
8. This property currently identified as a portion of Parcel Number 018.00 per Tax Map No. 114.
9. Total area of property surveyed is 7.97 Acres ± or 347,173.20 Sq Ft.
10. New Right-Of-Way dedication: 1.47 Acres ±.
11. Public Utility and Drainage Easements (PUDE) shall be required and be 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, except for interior lot lines with a zero-lot line or a common wall along a lot line, unless mentioned below.
12. The property is located in an area designated as "zone x" (areas determined to be outside the 0.2% annual chance floodplain) as noted on the current FEMA firm panel, map no. 47119c0285e, effective date 4/16/2007
13. Road classification: Minor Local; This includes a 50' ROW that is dedicated to the City with this Final Plat.
14. Private Stormwater Management Facilities shown on this Final Plat shall be maintained as directed in the Long Term Maintenance Plan as recorded in Record Book_____, Pges_____ in the Register's Office of Maury County, Tennessee
15. OS1 and Public Utility Drainage Easement to be Maintained by Homeowners accocation.
16. This project was completed in one phase.

Registered Surveyor Of Record On This Project:
Campbell D. Cook
T.R.L.S. #3440
2923 N. Jackson Highway,
Sheffield, Al 35660
Phone: 256.381.7009

I hereby certify that this is a Category 1 Survey, that this survey was done in compliance with the current Tennessee Minimum Standards of Practice and the ratio of precision of the unadjusted survey is 1:10,000 feet as shown hereon.

CAMPBELL D. COOK
REGISTERED LAND SURVEYOR
STATE OF TENNESSEE
COMMERCE
9/10/24
3440

Campbell D. Cook R.L.S., Registered Land Surveyor
Tennessee Registration No. 3440

ALEXANDER LAND SURVEYING, INC.
2923 North Jackson Highway, P. O. Box 140,
Sheffield, Alabama 35660
Phone: (256) 381-7009 • Fax: (256) 381-7226
Email: info@alexanderlandsurveying.com
www.alexanderlandsurveying.com

ELECTRONIC FILE DISCLAIMER: The official drawings are those that are signed, sealed and dated by the Professional Engineer/Surveyor. Alexander Land Surveying, Inc. cannot guarantee the accuracy of the true representation of the official document. Alexander Land Surveying is not responsible for any modifications made to the original file after it is provided verbally by others, written by others or interpreted by others.

Legend:

⊠ CALC	Calculated Corner		
■ CIPF	Capped Iron Pin Found		
□ CMF	Concrete Monument Found		
CMS	Concrete Monument Set		
CONC	Concrete		
C.T.P.	Crimp Top Pipe		
E.O.P.	Edge of Pavement		
ESMT.	Easement		
● I.P.F.	Iron Pin Found		
○ I.P.S.	Iron Pin Set		
▲ MNNF	Mag Nail & Washer Found		
△ MNWS	Mag Nail & Washer Set		
OE	Overhead Electric		
O.T.P.	Open Top Pipe		
P.O.C.	Point of Commencement		
P.O.B.	Point of Beginning		
PRES	Present		
REQ'D	Required		
R.O.W.	Right of Way		
SBL	Building Setback Line		
SS	Sanitary Sewer		
U & D	Utility & Drainage		
(R)	Record		
(M)	Measured		
(D)	Deed		
DB	Deed Book		
PG	Page		
METER BOX			
FIRE HYDRANT			
Guy Anchor			
Manhole			
Buried-			
Telephone		BT	
Fence Line		X	
Fiber Optic		FO	
Gas Line		G	
OE Line		OE	
8" SEWER Line		8" SS	
SEWER SERVICE		SS	
WATER VALVE			

Survey Information:
Class of Survey: CLASS_1
Type of Survey: BOUNDARY

Source of Information:
DB_R2666_PG_497-498

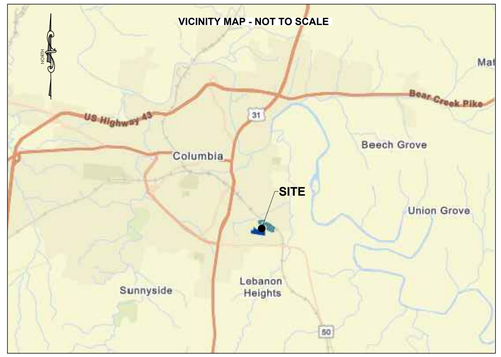
Revision:	Revision:	Revision:	
Drawing By: DJC	Project No.: 24-310	Location: LOCATION-1	MAURY - CO., TENNESSEE
Surveyed By: JH	Cad File: 24-310		
Approved By: CDC	Survey Date: 07/18/2024	Client: CLIENT_NEWTON	
Scale: 1" = 50'	Dwg. Date: 09/10/2024	Dwg. File: 24-310 Horizon Park Sub.dwg, Sep/30/2024 - 3:53pm	

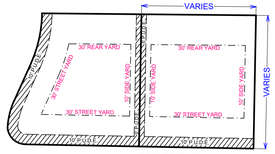
SHEET
1 OF 1

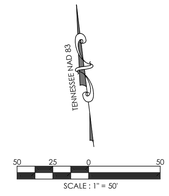
HORIZON PARK SUBDIVISION

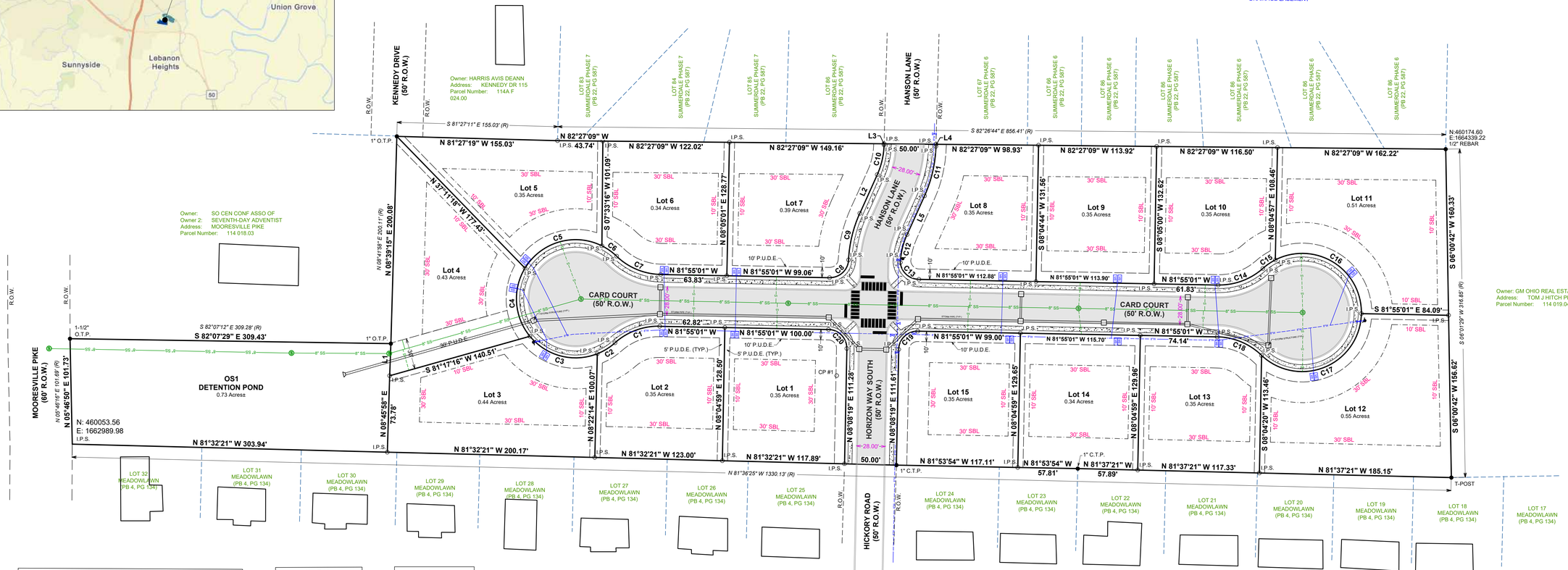
FINAL PLAT

CONTROL MAP 114, PARCEL 018.00
9TH CIVIL DISTRICT
CITY OF COLUMBIA, MAURY COUNTY, TENNESSEE









Curve Table						
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C20	90°00'00"	18.00'	28.27'	18.00'	N 36°55'01" W	25.46'

Line Table		
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15	15102.98±	0.35±
OS1	31645.29±	0.73±

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 R2666, Page 497 , 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.

Representative 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 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 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 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

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 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 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

Purpose Note:

- The purpose of this plat is to create 15 duplex or single family lots and 1 open space lot.

Owner:

- Burchell Properties
- PO Box 454 Columbia TN 38402
- noahburchell10@gmail.com"noahburchell10@gmail.com
- 931.540.8881

Plat Notes:

1. Preliminary Plat was approved at the December 9th, 2021 meeting.
2. Adjoining property lines and or owner data shown hereon are derived via current TN Property Viewer maps.
3. This final plat is vested under the Zoning Ordinance 3638

GNSS Notes:

1. NAD83 TENNESSEE STATE PLANE COORDINATE SYSTEM UTILIZED.
2. STATE PLANE COORDINATES WERE ESTABLISHED USING STATIC GNSS OBSERVATIONS AND CORRECTED VIA NGS OPUS.
3. FIELD MEASUREMENTS WERE DERIVED VIA CARLSON BRX7 BASE AND ROVER RTK GNSS.
4. GEOID 18 UTILIZED.
5. NO SCALE FACTOR CALCULATED OR APPLIED.

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DM4145	TN39 TDOT DISTRICT 39 CORS ARP	N351129.046	W0870026.748	44558.4
DJ9560	TN36 TDOT DISTRICT 36 CORS ARP	N351520.743	W0871933.740	46312.9
DM3531	TN30 TDOT DISTRICT 30 CORS ARP	N353305.845	W0873426.207	49962.2

OBS USED: 16002 / 17637 : 91%
FIXED AMB: 89 / 99 : 90%

CP #1 - N: 460029.25 E: 1663729.67 MAG HUB SET

Utility Notes:

1. OS1 and Public Utility Drainage Easement to be Maintained by Homeowners Association.

Surveyor's Notes:

1. Iron Pins Set are 1/2" rebar capped and stamped with "Campbell D. Cook TN. R.L.S. 3440".
2. Mag Nail and Washers Set are stamped with "Campbell D. Cook TN. R.L.S. 3440".
3. The surveyed property shown hereon is subject to any and all existing easements, right of ways, restrictions and set back lines that may be recorded or unrecorded. No liability is assumed by the undersigned for any loss that may be associated with the existence of any easements.
4. Governmental jurisdictional areas or negative easements, if any, which may impact the use of the surveyed property were not located. No liability is assumed by the undersigned for any loss that may be associated with the existence of any governmental jurisdiction.
5. Unless stated otherwise, this survey was performed without benefit of an abstract of title. No liability is assumed by the undersigned for any loss relating to any matter that might be discovered by an abstract or title search of the property.
6. Aerial imagery if shown may or may not be reflective of current site conditions.
7. The property shown hereon is located within the City of Columbia, Maury County, TN. 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 Regulations as interpreted and regulated by the Department of Development Services.
8. This property currently identified as a portion of Parcel Number 018.00 per Tax Map No. 114.
9. Total area of property surveyed is 7.97 Acres ± or 347,173.20 Sq.Ft.
10. New Right-Of-Way dedication: 1.47 Acres ±.
11. Public Utility and Drainage Easements (PUDE) shall be required and be 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, except for interior lot lines with a zero-lot line or a common wall along a lot line, unless mentioned below.
12. The property is located in an area designated as "zone x" (areas determined to be outside the 0.2% annual chance floodplain) as noted on the current FEMA firm panel, map no. 47119c0285e, effective date 4/16/2007
13. Road classification: Minor Local; This includes a 50' ROW that is dedicated to the City with this Final Plat.
14. Private Stormwater Management Facilities shown on this Final Plat shall be maintained as directed in the Long Term Maintenance Plan as recorded in Record Book_____, Pges_____ in the Register's Office of Maury County, Tennessee
15. OS1 and Public Utility Drainage Easement to be Maintained by Homeowners accocation.
16. This project was completed in one phase.

Registered Surveyor Of Record On This Project:
Campbell D. Cook
T.R.L.S. #3440
2923 N. Jackson Highway,
Sheffield, Al 35660
Phone: 256.381.7009

I hereby certify that this is a Category I Survey, that this survey was done in compliance with the current Tennessee Minimum Standards of Practice and the ratio of precision of the unadjusted survey is 1:10,000 feet as shown hereon.

CAMPBELL D. COOK — REGISTERED LAND SURVEYOR — STATE OF TENNESSEE — 3440

Campbell D. Cook R.L.S., Registered Land Surveyor
Tennessee Registration No. 3440

ALEXANDER LAND SURVEYING, INC.
2923 North Jackson Highway, P.O. Box 140,
Sheffield, Alabama 35660
Phone: (256) 381-7009 • Fax: (256) 381-7226
Email: office@alexanderlandsurveying.com
www.alexanderlandsurveying.com

ELECTRONIC FILE DISCLAIMER: The official drawings are those that are signed, sealed and dated by the Professional Engineer/Surveyor. Electronic files are provided for convenience only and may not be a true representation of the official document. Alexander Land Surveying is not responsible for any modifications made to the electronic files provided verbally by others, written by others or interpreted by others.

Legend:

- ⊠ CALC — Calculated Corner
- ■ CIPF — Capped Iron Pin Found
- □ CMF — Concrete Monument Found
- CMS — Concrete Monument Set
- CONC — Concrete
- C.T.P. — Crimp Top Pipe
- E.O.P. — Edge of Pavement
- ESMT — Easement
- ● I.P.F. — Iron Pin Found
- ○ I.P.S. — Iron Pin Set
- ▲ MNAIF — Mag Nail & Washer Found
- △ MNWS — Mag Nail & Washer Set
- OE — Overhead Electric
- O.T.P. — Open Top Pipe
- P.O.C. — Point of Commencement
- P.O.B. — Point of Beginning
- PRES — Present
- REQ'D — Required
- R.O.W. — Right of Way
- SBL — Building Setback Line
- SS - — Sanitary Sewer
- U & D — Utility & Drainage
- (R) — Record
- (M) — Measured
- DB — Deed Book
- PG — Page
- METER BOX
- FIRE HYDRANT
- Guy Anchor
- Manhole
- Buried-Telephone — BT
- Fence Line — X
- Fiber Optic — FO
- Gas Line — G
- OE Line — OE
- 8" SEWER Line — 8" SS
- SEWER SERVICE — S
- WATER VALVE

Survey Information:
Class of Survey: CLASS_1
Type of Survey: BOUNDARY

Source of Information:
DB_R2666_PG_497-498

Revision:	Revision:	Revision:	
Drawing By: DC	Project No.: 24-310		Location: LOCATION-1 MAURY CO., TENNESSEE
Surveyed By: JH	Cad File: 24-310		
Approved By: ADC	Survey Date: 07/18/2024		
Scale: 1" = 50'	Dwg. Date: 09/10/2024	Crew: CBC, DJE, HEWTON	Dwg. File: 24-310 Horizon Park Sub.dwg, Sep/13/2024 - 4:14pm

SHEET 1 OF 1

TKC ARCHITECTURE INTERIORS CIVIL SITE

818 South Main Street
COLUMBIA, TN 38401
TKC-AE.COM
615.617.7477

Sept. 13th, 2024

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

Project: 24-0359 – Final Plat for 153 Hallmark Drive Horizon Park

Subject: Final Plat Resubmittal

Staff,

The below is a response to comments received at the City's Technical Meeting on Tuesday 9/10/24. We believe we have addressed all the questions and have the final plat resubmittal in good order and the site construction in compliance.

COMMENTS:

Planning

1) Provide Purpose note that describes the intent of the plat.
   a) Purpose note has been added – The purpose of this plat is to create 15 duplex or single family lots and 1 open space lot.
2) Provide square footage of each lot being subdivided.
   a) The lot table has been updated.
3) Provide the approximate location of all existing structures adjacent to property
   a) Approximate location of adjacent structures has been added from aerial imagery. The Summerdale development shows to still be in construction on available imagery.
4) Indicate FEMA Special Flood Hazard Area (SFHA). Indicate the Flood Insurance Rate Map (FIRM) panel number, its effective date, and flood insurance zones.
   a) Note has been added as note 12.
5) Indicate Streets including widths & classification. Provide maintenance and ownership responsibility in notes section
   a) Road classification has been added, Minor Local. The road is shown with a 50 foot ROW section.
6) Show sidewalks and include lot typical section
   a) Sidewalks have been added and a typical lot detail has been added.
7) Provide note that Final Plat is vested under Zoning Ordinance 3638 with the specific date the Preliminary Plat was approved associated with this Final Plat.
   a) Note has been added under the Plat Notes
8) Indicate proposed phasing and timetable for all phases of development.
   a) Note has been added that the site was developed as one phase.
9) Provide typical lot layout depicting proposed setbacks and easements.
   a) Typical lot has been added
10) Review buffering from previously approved Preliminary Plat.

818 South Main Street
COLUMBIA, TN 38401
TKC-AE.COM
615.617.7477

a) This has been reviewed

Engineering

11) Provide Letter of Credit in the amount of $195,000 by resubmittal date. The LOC (Listerhill #829101803-02) has the correct language but incorrect amount. The LOC (CB&S Bank #555894) has the correct amount but the incorrect language.
    a) This has been corrected and provided to the City per email with Lindsay on 9/12.
12) Provide all items listed on the final plat checklist in the ESS (utilities, roadway/infrastructure, curbing, sidewalk, roadway classification,
    a) Plat has been updated to include the information.
13) Label detention area as open space, include in the lot table.
    a) Labeled and the table has been updated.
14) Public Utility and Drainage Easements (PUDE) shall be required and be 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, except for interior lot lines with a zero-lot line or a common wall along a lot line, unless mentioned below.
    a) Note has been updated and is shown on the Typical lot detail
15) Date the signature/seal
    a) Corrected

Fire

16) No comments

Building

17) No comment.

Maury County Schools

18) Brown Elementary School, Cox Middle School, Central High School. See Attached Capacity Numbers. The development combined with current neighborhoods and additional approved developments in these zones may require either new construction or realignment of school zones to accommodate new students.

Public Works

818 South Main Street
COLUMBIA, TN 38401
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615.617.7477

19) No comment on the alternative compliance approval submittal. Private sanitation services may be utilized. Please retain the attached City of Columbia Dumpster Guidelines & Accessibility Requirements for your reference.

Columbia Water

20) "Show water infrastructure up to and including Meter box".
"Coordinate walk-through, Bacteria pressure testing with CPWS."

"Be prepared to deed infrastructure to CPWS at time of plat signing, water system must be active at time of plat signing."

a) Noted and coordinated with CPWS. All water information shown is from asbuilt locates from the CPWS GIS information.

Duck River Electric Membership Corp

21) No comments provided.

Maury County Highway Dept.

22) No comments provided.

Columbia Power

23) 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.

Atmos Energy

24) No comment.

Police

818 South Main Street
COLUMBIA, TN 38401
TKC-AE.COM
615.617.7477

25) No comment provided.

Maury County E911

26) No comments provided.

ATT

27) No comments provided.

If you have any comments or questions please contact Cole Newton at TKC Architecture and Engineering at cole@tkc-ae.com or 615.617.7477.

Thank you,

Cole Newton, PE, LEED AP
TKC Architecture and Engineering LLC
615.617.7477 (o)
931.797.3323 (c)
cole@tkc-ae.com

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, September 10, 2024

ITEM NO.
24-0359

DESCRIPTION: 153 Hallmark Drive Horizon Park

COMMENTS:

Planning

1. Provide Purpose note that describes the intent of the plat.
2. Provide square footage of each lot being subdivided.
3. Provide the approximate location of all existing structures adjacent to property
4. Indicate FEMA Special Flood Hazard Area (SFHA). Indicate the Flood Insurance Rate Map (FIRM) panel number, its effective date, and flood insurance zones.
5. Indicate Streets including widths & classification. Provide maintenance and ownership responsibility in notes section
6. Show sidewalks and include lot typical section
7. Provide note that Final Plat is vested under Zoning Ordinance 3638 with the specific date the Preliminary Plat was approved associated with this Final Plat.
8. Indicate proposed phasing and timetable for all phases of development.
9. Provide typical lot layout depicting proposed setbacks and easements.
10. Review buffering from previously approved Preliminary Plat.

Engineering

11. Provide Letter of Credit in the amount of $195,000 by resubmittal date. The LOC (Listerhill #829101803-02) has the correct language but incorrect amount. The LOC (CB&S Bank #555894) has the correct amount but the incorrect language.
12. Provide all items listed on the final plat checklist in the ESS (utilities, roadway/infrastructure, curbing, sidewalk, roadway classification,
13. Label detention area as open space, include in the lot table.
14. Public Utility and Drainage Easements (PUDE) shall be required and be 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, except for interior lot lines with a zero-lot line or a common wall along a lot line, unless mentioned below.
15. Date the signature/seal

CITY OF COLUMBIA TENNESSEE

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

Fire

16. No comments

Building

17. No comment.

Maury County Schools

18. Brown Elementary School, Cox Middle School, Central High School. See Attached Capacity Numbers. The development combined with current neighborhoods and additional approved developments in these zones may require either new construction or realignment of school zones to accommodate new students.

Public Works

19. No comment on the alternative compliance approval submittal. Private sanitation services may be utilized. Please retain the attached City of Columbia Dumpster Guidelines & Accessibility Requirements for your reference.

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20. "Show water infrastructure up to and including Meter box".
"Coordinate walk-through, Bacteria pressure testing with CPWS."

"Be prepared to deed infrastructure to CPWS at time of plat signing, water system must be active at time of plat signing."

Duck River Electric Membership Corp

21. No comments provided.

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Maury County Highway Dept.

22. No comments provided.

Columbia Power

23. 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.

Atmos Energy

24. No comment.

Police

25. No comment provided.

Maury County E911

26. No comments provided.

ATT

27. 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.

CITY OF
COLUMBIA
TENNESSEE

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

Please contact kmccarthy@columbiatn.com or msanders@columbiatn.com 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.

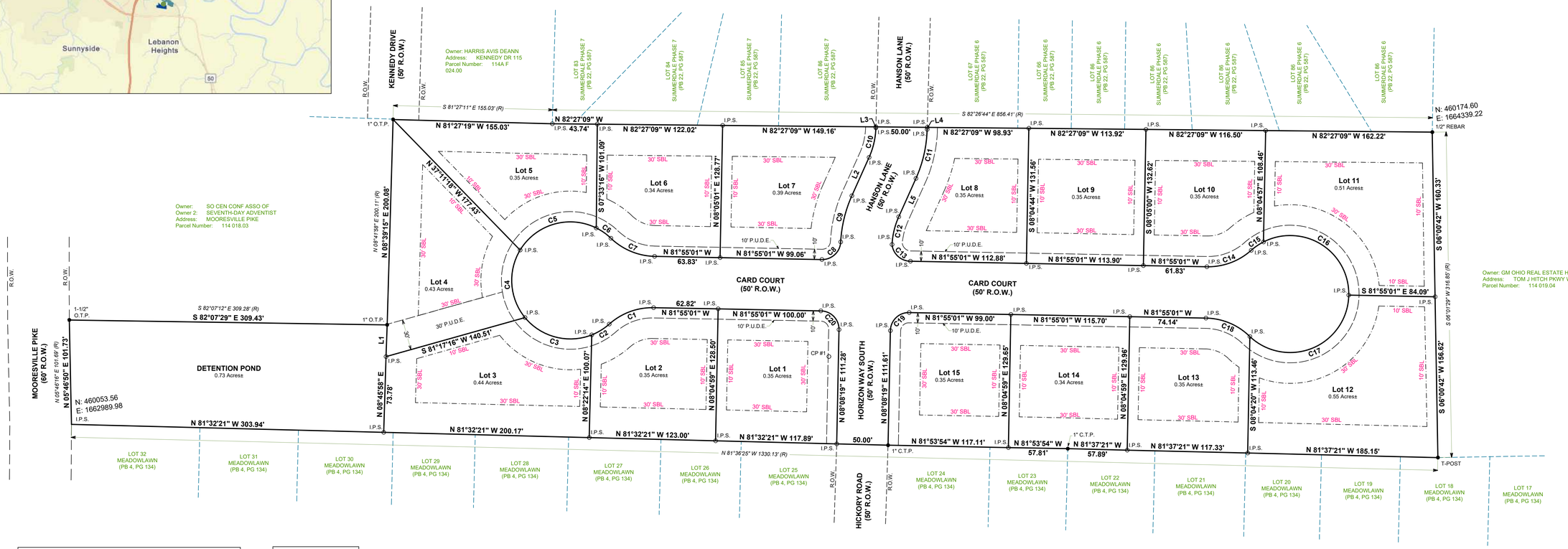
NOTE: All resubmittals must demonstrate compliance with city standards prior to Planning Commission review. Requests which do not adhere to regulations and/or remain unresponsive to technical comments will not be forwarded to the next agenda until such items are amended. Final Plat applications which 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.

HORIZON PARK SUBDIVISION

FINAL PLAT

CONTROL MAP 114, PARCEL 018.00
9TH CIVIL DISTRICT
CITY OF COLUMBIA, MAURY COUNTY, TENNESSEE





Curve Table						
Curve #	Delta	Radius	Arc Length	Tangent	Chord Direction	Chord Dist.
C1	42°50'00"	63.00'	47.10'	24.71'	S 76°39'59" W	46.01'
C2	20°13'40"	57.00'	20.12'	10.17'	N 65°21'49" E	20.02'
C3	72°08'21"	57.00'	71.77'	41.52'	S 68°27'11" E	67.12'
C4	70°35'15"	57.00'	70.22'	40.35'	S 2°54'37" W	65.87'
C5	85°09'08"	57.00'	84.71'	52.37'	S 80°46'49" W	77.13'
C6	17°33'37"	57.00'	17.47'	8.80'	N 47°51'49" W	17.40'
C7	42°50'00"	63.00'	47.10'	24.71'	S 60°30'01" E	46.01'
C8	88°13'09"	18.00'	27.71'	17.45'	N 53°58'27" E	25.06'
C9	21°19'43"	125.00'	46.53'	23.54'	S 20°31'44" W	46.26'
C10	22°35'48"	75.00'	29.58'	14.98'	N 19°53'42" E	29.39'
C11	22°33'38"	125.00'	49.22'	24.93'	N 19°54'47" E	48.90'
C12	21°19'43"	75.00'	27.92'	14.12'	S 20°31'44" W	27.76'
C13	84°16'13"	18.00'	26.47'	16.28'	S 40°47'04" E	24.15'
C14	42°50'00"	63.00'	47.10'	24.71'	N 76°39'59" E	46.01'
C15	14°39'34"	57.00'	14.58'	7.33'	S 62°34'46" W	14.54'
C16	118°10'27"	57.00'	117.56'	95.19'	N 51°00'14" W	97.81'
C17	132°22'28"	57.00'	131.69'	129.16'	N 74°16'13" E	104.30'
C18	43°15'00"	63.00'	47.56'	24.98'	N 60°17'48" W	46.43'
C19	90°00'00"	18.00'	28.27'	18.00'	S 53°04'59" W	25.46'
C20	90°00'00"	18.00'	28.27'	18.00'	N 36°55'01" W	25.46'

Line Table		
Line #	Direction	Length
L1	N 09°03'28" E	31.00
L2	N 31°11'36" E	41.02
L3	N 08°45'23" E	1.05
L4	N 08°45'23" E	2.04
L5	N 31°11'36" E	41.02

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 R2666, Page 497 , 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.

Representative _____ 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 _____ 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.

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Planning Director _____ 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 _____

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Director of Wastewater Department _____ Date _____
Columbia, Tennessee

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City Engineer _____ Date _____
Columbia, Tennessee

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T.R.L.S. #3440
2923 N. Jackson Highway,
Sheffield, Al 35660
Phone: 256.381.7009

I hereby certify that this is a Category 1 Survey, that this survey was done in compliance with the current Tennessee Minimum Standards of Practice and the ratio of precision of the unadjusted survey is 1:10,000 feet as shown hereon.

Campbell D. Cook R.L.S., Registered Land Surveyor
Tennessee Registration No. 3440

CAMPBELL D. COOK
REGISTERED LAND SURVEYOR
STATE OF TENNESSEE
DEPARTMENT OF COMMERCE
TENNESSEE NO. 3440

Plat Notes:
1. Preliminary Plat was approved at the December 9th, 2021 meeting.
2. Adjoining property lines and or owner data shown hereon are derived via current TN Property Viewer maps.

GNSS Notes:
1. STATE PLANE COORDINATES WERE ESTABLISHED USING STATIC GNSS OBSERVATIONS AND CORRECTED VIA NGS OPUS.
2. FIELD MEASUREMENTS WERE DERIVED VIA CARLSON BRX7 BASE AND ROVER RTK GNSS.
3. GEOID 18 UTILIZED.
4. NO SCALE FACTOR CALCULATED OR APPLIED.

BASE STATIONS USED

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OBS USED: 16002 / 17637 : 91%
FIXED AMB: 89 / 99 : 90%

CP #1 - N: 460029.25 E: 1663729.67 MAG HUB SET

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6. Aerial imagery if shown may or may not be reflective of current site conditions.

TENNESSEE NAD 83
50 25 0 50
SCALE : 1" = 50'

ALEXANDER LAND SURVEYING, INC.
2923 North Jackson Highway, P. O. Box 160,
Sheffield, Alabama 35660
Phone: (256) 381-7009 • Fax: (256) 381-7226
Email: office@alexanderlandsurveying.com
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ELECTRONIC FILE DISCLAIMER: The official drawings are those that are signed, sealed and dated by the Professional Engineer/Surveyor. Alexander Land Surveying, Inc. will not be responsible for any electronic file representation of the official document. Alexander Land Surveying is not responsible for any modifications made to the original document. Files provided verbally by others, written by others or interpreted by others.

Legend:

⊠ CALC	Calculated Corner
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PRES	Present
REQ'D	Required
R.O.W.	Right of Way
SBL	Building Setback Line
SS	Sanitary Sewer
U & D	Utility & Drainage
(R)	Record
(M)	Measured
DB	Deed Book
PG	Page
Light Pole	
Power Pole	
Guy Anchor	
Manhole	
Buried-Telephone	BT
Fence Line	X
Fiber Optic	FO
Gas Line	G
OE Line	OE
SS Line	SS

Survey Information:
Class of Survey: Category 1
Type of Survey: Boundary

Source of Information:
DB R2666, PG 497-498

Scale: 1" = 50'	Drawing By: DT	Revision:	
Drawn By: DT	Project No.: 24-310	Revision:	
Approved By: Campbell D. Cook	Cad File: 24-310	Revision:	
Survey Date: 07/18/2024	Location: 9th Civil District Maury Co., Tennessee		
Client: Scott Newton	Dwg File: 24-310 Horizon Park Sub.dwg, Aug/16/2024 - 10:49am		

SHEET 1 OF 1

DOCUMENT PREPARED BY:
Name: Cole Newton
Company TKC Architecture & Engineering LLC
Address: 818 S. Main Street
Columbia, TN 38401
After recording return copy to City of Columbia, Development Services

INSPECTION AND MAINTENANCE AGREEMENT OF PRIVATE STORMWATER MANAGEMENT FACILITIES

Map & Parcel Number: Map 114, Parcel 18.00
Project Name: Horizon Park

Recorded by deed in the Register of Deeds Office of Maury County in Deed Book _____, Page(s) _____.

THIS AGREEMENT, made this _____ day of _____, 20____ , by and between _____ hereinafter referred to as the "OWNER(S)" of the following property and City of Columbia, Tennessee, hereinafter referred to as the "CITY",

WE, the OWNER(S), with full authority to execute deeds, mortgages, other covenants, all rights, titles, and interests in the property described above, do hereby covenant with the CITY and agree as follows:

1. The OWNER(S) covenant and agree with the CITY that the OWNER(S) shall provide for adequate long term maintenance and continuation of stormwater control measures described in the Long Term Maintenance Plan and shown on the location map, deed of easement drawing or plat attached hereto to ensure that the facilities, are and remain in proper working condition in accordance with approved design standards, rules and regulations, and applicable laws. The OWNER(S) shall perform preventative maintenance activities at intervals described in the schedule attached hereto along with necessary landscaping (grass cutting, etc.) and trash removal as part of regular maintenance.

2. The OWNER(S) shall perform routine inspections to ensure that all long term stormwater management facilities are properly functioning. These inspections shall be conducted on an annual basis, at a minimum. These inspections shall be conducted by a person familiar with control measures implemented at the site. The OWNER(S) or operators shall maintain documents of these inspections.

3. The OWNER(S) shall perform comprehensive inspections of all stormwater management facilities and practices. These inspections shall be conducted once every five years, at a minimum. Such inspections must be conducted by either a professional engineer or landscape architect.

4. The OWNER(S) shall grant to the CITY or its agent or contractor the right of entry at reasonable times and in a reasonable manner for the purpose of inspecting, operating, installing, constructing, reconstructing, maintaining or repairing the facility within the CITY.

5. The OWNER(S) shall record and grant to the CITY the necessary easements and rights-of-way and maintain perpetual access from public rights-of-way to the facility for the CITY or its agent and contractor.

6. If, upon inspection, the CITY finds that the OWNER(S) has failed to properly maintain the facilities, the CITY may order the work performed within ten (10) days. In the event the work is not performed within the specified time, the ONWER(S) agrees to allow the CITY to enter the property and take whatever steps it deems necessary to maintain the stormwater control facilities. This provision shall not be construed to allow the CITY to erect any structure of a permanent nature on the PROPERTY without first obtaining written approval of the OWNER(S).

7. The CITY is under no obligation to maintain or repair said facilities, and in no event shall this Agreement be construed to impose any obligation on the CITY. The OWNER(S) shall reimburse the CITY upon demand the costs incurred in the maintenance of the facilities.

8. If the OWNER(S) fails to pay the CITY for the above expensive after forty-five (45) days written notice, the OWNER(S) authorizes the CITY to collect said expenses from the OWNER(S) through appropriate legal action and the OWNER(S) shall be liable for the reasonable expenses of collection, court costs, and attorney fees.

9. The OWNER(S) and the OWNER(S) heirs, administrators, executors, assigns, and any other successor in interest shall indemnify and hold harmless the CITY and its officers, agents and employees for any and all damages, accidents, casualties, occurrences, claims or attorney's fees which might arise or be asserted, in whole or in part, against the CITY from the construction, presence, existence, or maintenance of the stormwater control facilities subject to this AGREEMENT. In the event a claim is asserted against the CITY, its officers, agents or employees, the CITY shall notify OWNER(S) and the OWNER(S) shall defend at OWNER(S) expense any suit based on such claim. If any judgment or claims against the CITY, its officers, agents or employees, shall be allowed, the OWNER(S) shall pay all costs and expenses in connection therewith. The CITY will not indemnify, defend or hold harmless in any fashion the OWNER(S) from any claims arising from any failure, regardless of any language in any attachment or other document that the OWNER(S) may provide.

10. The OWNER(S) shall not be able to transfer, assign or modify its responsibilities with respect to this agreement without the CITY's written prior consent. Nothing herein shall be construed to prohibit a transfer by OWNER(S) to subsequent owners and assigns.

11. No waiver of any provision of this AGREEMENT shall affect the right of any party thereafter to enforce such provision or to exercise any right or remedy available to it in the event of any default.

12. The OWNER(S) shall record a plat showing and accurately defining the easements for stormwater control facilities. The plat must reference the Instrument Number where this AGREEMENT and its attachments are recorded and contain a note that the OWNER(S) is responsible for maintaining the stormwater management facilities.

13. The OWNER(S) shall record this AGREEMENT in the office of the Register of Deeds for the county of Maury, Tennessee, and the AGREEMENT shall constitute a covenant running with the land, and shall be binding upon the OWNER(S) and the OWNER(S) heirs, administrators, executors, assigns, and any other successors in interest

ATTEST BY OWNER(S):

Print Name Benjamin Noah Burchell

Title Manager

Signature _____

Owner Burchell Properties, LLC

Address PO Box 454

City, State ZIP Columbia, TN 38402

STATE OF _____
COUNTY OF _____

Before me, _____ of the state and county mentioned, personally appeared _____, with whom I am personally acquainted and who acknowledged that he/she executed the foregoing instrument of the purposes therein contained.

Witness my hand this the _____ day of _____, 20_____.

_____
Notary Public

My Commission Expires:_____

CITY OF COLUMBIA, TENNESSEE
ENGINEERING DEPARTMENT APPROVED BY :_____

STATE OF TENNESSEE
COUNTY OF MAURY

Before me, _____ of the state and county mentioned, personally appeared _____, with whom I am personally acquainted, and who acknowledged themselves to be the City Engineer of the City of Columbia or his designee and as such, being authorized so to do, executed the foregoing instrument of the purposes therein contained.

Witness my hand this the _____ day of _____, 20_____.

_____
Notary Public
My Commission Expires:_____

ARCHITECTURE
INTERIORS
CIVIL SITE

818 South Main Street
COLUMBIA, TN 38401
TKC-AE.COM
615.617.7477

POST CONSTRUCTION LONG TERM MAINTENANCE PLAN

HORIZON PARK
153 HALLMARK DRIVE
COLUMBIA, TN 38401

Prepared by:

ARCHITECTURE
INTERIORS
CIVIL SITE

TKC ARCHITECTURE AND ENGINEERING LLC

July 22, 2024

818 South Main Street
COLUMBIA, TN 38401
TKC-AE.COM
615.617.7477

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SECTION 1: INTRODUCTION

The project is to construct 15 housing lots for the proposed Horizon Park development in Columbia, Maury County, Tennessee. This post construction long term maintenance plan addresses the development which consists of 7.97 acres in which utility infrastructures (water, sewer, and storm) will be installed. Proposed construction consists primarily of site grading related to the installation of roadway pavements, curbs, sidewalks, residential lots, utility infrastructure, and storm water conveyance system located within the permitted project area.

SECTION 2: SYSTEM DESCRIPTION

The site consists of a stormwater detention basin, stormwater conveyance inlets and pipes.

1. There is a stormwater detention basin sized to detain the 2-yr through 100-yr peak events, with the detention outfall structure designed to contain the first flush, 1 inch, for 48 hours.
2. 341 LF OF 18" pipe, 763 LF of 24" pipe, 14 storm inlets, and 2 headwalls.

Upon completion of the site construction, 'Record Drawings' in a version not less than AutoCAD 2006 LT (NAD83, NAVD88) of the stormwater controls will be provided to the City of Columbia for verification.

SECTION 3: MAINTENANCE PROCEDURES

3.1 Stormwater Detention Basin:

1. The outlet structure shall be checked regularly for clogging and shall be cleaned and repaired as necessary. The outlet structure shall be checked on a monthly basis until the detention basin side slopes and grass lines ditches have stabilized and no heavy sediment laden runoff enters the detention basin. Then it shall be checked on a quarterly basis and after a large rain event.
2. Check detention basin side slopes and bottom for erosion and correct necessary at least on a quarterly basis.
3. At least quarterly and after each large rain event, the facility should be cleaned of accumulated debris. Remove nuisance wetland species and take appropriate measures to control mosquitos.
4. At least quarterly and after each large rain event, the retention basin outfall structure shall be cleaned of sediment, floatables, and debris.
5. Remove sediment within retention basin outfall structure and headwalls when sediment accumulation reaches 6" or if resuspension is observed or probable. This sediment may contain contaminants and should be disposed of using the Tennessee Department of Environment and Conservation (TDEC) special disposal procedure. If there is any uncertainty about what the sediment contains or it is known to contain contaminants, then TDEC should be consulted, and their disposal recommendations followed. The TDEC Division of Water Pollution Control should be contacted at (931)-380-3371.
6. Some sediment collected may be innocuous (free from pollutants) and can be used as

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fill material, cover or land spreading. It is important that the material not be placed in a way that may promote or allow re-suspension in storm runoff.

3.2 Storm Drains and storm inlets:

These structures to be inspected annually and cleaned monthly of accumulated debris and sediment. All sediment to be disposed of per TDEC disposal procedures. All debris (paper products, floatables) to be disposed of per Maury County Waste Management requirements.

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Stormwater Pond Inspection and Maintenance Checklist

Site Name: _____Owner Change since last inspection? Y N

Location: _____

Owner Name: _____

Address: _____ Phone Number _____

Site Status: _____

Date: _____ Time: _____ Site conditions:

Stormwater Pond Type: Wet Pond fl Wet ED Pond fl Micropool Pond fl Multiple Pond System fl
Dry Pond fl

Inspection Frequency Key: A=annual(required); M=monthly(recommended); S=after major storms(recommended)

Inspection Items	Inspection Frequence	Inspected? (Yes/No)	Maintenance Needed? (Yes/No)	Comments/Description
Embankment and Emergency Spillway				
Vegetation Healthy?	A/S			
Erosion on embankment?	A/S			
Animal burrows in embankment?	A/S			
Cracking, sliding, bulging of dam?	A/S			
Drains blocked or not functioning?	A/S			
Leaks or seeps on embankment?	A/S			
Slope protection failure functional?	A/S			
Emergency spillway obstructed?	A/S			
Erosion in/around emergency spillway?	A/S			
Other (describe)	A/S			
Riser and Principal Spillway		(described type: concrete pipe, slotted weir, channel etc.)		
Low-flow orifice functional?	A/S			
Trash rack (Debris removal needed? Corrosion noted?)	A/S			
Sediment buildup in riser?	A			
Concrete/masonry condition (Cracks or displacement? Spalling?)	A			
Metal pipe in good condition?	A			
Control valve operation?	A			

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Pond drain valve operation?	A			
Outfall channels function, not eroding?	A			
Other (describe)	A			
Sediment Forebays				
Sedimentation description				
Sediment cleanout needed (over 50 percent full?	A/S			
Permanent Pool Areas (if applicable)				
Undesirable vegetation growth?	A/M			
Visible pollution?	A/M			
Shoreline erosion?	A/M			
Erosion at outfalls into pond?	A/M			
Headwalls and endwalls in good condition?	A/M			
Encroachment into pond or easement area by other activities?	A/M			
Evidence of sediment accumulation?	A			
Dry Pond Area (if applicable)				
Vegetation adequate?	A/M			
Undesirable vegetation or woody plant growth?	A/M			
Excessive sedimentation?	A			
Hazards				
Have there ben complaints from residents?	A/M			
Public hazards noted?	A/M			

Inspector Comments: _____

_____

_____

_____

Overall Condition of Facility: ☐Acceptable ☐Unacceptable

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If any of the above Inspection Items are checked "Yes" for "Maintenance Need," list Maintenance actions and their completion dates below:

Maintenance Action Needed	Due Date

The next routine inspection is scheduled for approximately: _____

(date)

Inspected by: (signature) _____

Inspected by: (printed) _____

TKC ARCHITECTURE INTERIORS CIVIL SITE

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Grass Channel Inspections and Maintenance Checklist

Site Name: _____Owner Change since last inspection? Y N

Location: _____

Owner Name: _____

Address: _____ Phone Number _____

Site Status: _____

Date: _____ Time: _____ Site conditions:

Inspection Frequency Key: A=annual(required); M=monthly(recommended); S=after major storms(recommended)

Inspection Items	Inspection Frequence	Inspected? (Yes/No)	Maintenance Needed? (Yes/No)	Comments/Description
Debris Removal				
Facility and adjacent area free of debris?	A/M			
Inlets and outlets free of debris?	A/M			
Any dumping of yard wastes into facility?	A/M			
Litter (branches) removed?	A/M			
Vegetation				
Surrounding area fully stabilized? (no evidence of eroding material into swale, channel or filter strip)	A/M			
Grass mowed?	A/M			
Grass height not less than 3 to 4 inches?	A/M			
Fertilized per specifications?	A/M			
Grasses planted according to approved plan?	A/M			
Unauthorized or inappropriate plantings?	A			
Grasses healthy? (no diseased or dying vegetation)	A/M			
Evidence of grasses stressed from inadequate watering?	A/M			

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Filtration Capacity				
Clogging from oil or grease?	A/M			
Facility dewaters between storms?	A/M			
Check dams and energy dissipater/sumps				
Any evidence of sedimentation buildup?	A/S			
Are sumps greater than 50% full of sediment?	A/S			
Any evidence of erosion and downstream toe of drop structures?	A/S			
Any trash or blockages at weep holes?	A/S			
Sediment Deposition				
Swale clean of sediments?	A			
Sediment not > 25% of swale design?	A			
Outlet/Overflow Spillway				
In good condition?	A			
Any evidence of erosion?	A			
Any evidence of blockages?	A			
Has facility been filled or blocked inappropriately?	A			
Hazards				
Have there been complaints from residents?	A/M			
Public hazards noted?	A/M			
Maintenance accesses free of hazards and fully operational?	A/M			

Inspector Comments: _____

_____

_____

_____

Overall Condition of Facility: ☐Acceptable ☐Unacceptable

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If any of the above Inspection Items are checked "Yes" for "Maintenance Need," list Maintenance actions and their completion dates below:

Maintenance Action Needed	Due Date

The next routine inspection is scheduled for approximately: _____

(date)

Inspected by: (signature) _____

Inspected by: (printed) _____

TKC ARCHITECTURE INTERIORS CIVIL SITE

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Storm Sewer Inspections and Maintenance Checklist

Site Name: _____Owner Change since last inspection? Y N

Location: _____

Owner Name: _____

Address: _____ Phone Number _____

Site Status: _____

Date: _____ Time: _____ Site conditions:

Stormwater Pond Type: Catch Basins fl Storm Pipe fl Headwalls fl Outfalls fl Catch Basin Inlets fl

Inspection Frequency Key: A=annual; M=monthly; S=after major storms

Inspection Items	Inspection Frequence	Inspected? (Yes/No)	Maintenance Needed? (Yes/No)	Comments/Description
Catch Basins				
Ensure all are structurally sound and in good condition. Note any deficiencies and repair to proper working condition to ensure all are set properly in place over inlets	A/S			
Check for sediment, leaf, or debris clogging grates and remove	A/S			
Catch Basin Inlets				
Ensure all are structurally sound and in good condition. Note any deficiencies and repair to proper working condition	A/S			
Inspect for blockage or sediment accumulation and remove when capacity is diminished by 20% or greater	A/S			
Pipes				
Ensure all are structurally sound and in good condition. Note any deficiencies and repair to proper working condition	A/S			
Inspect for blockage or sediment	A/S			

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accumulation and remove when capacity is diminished by 20% or greater				
Concrete/masonry condition of pipes and joints? (Cracks or displacement? Spalling?)	A/S			
Headwalls and Endwalls				
Ensure all are structurally sound and in good condition. Note any deficiencies and repair to proper working condition	A/S			
Inspect for blockage or sediment	A/S			
Check for erosion or scouring around headwalls inlets and repair	A/S			
Evidence of staining?	A/S			
If flowing water is present does it appear to contain anything other than stormwater? I.e. Discoloration, odors, sheens, etc? Note location and describe.	A/S			
Hazards				
Have there been complaints from residents?	A/S			

Inspector Comments: _____

_____

_____

_____

Overall Condition of Facility: ☐Acceptable ☐Unacceptable

If any of the above Inspection Items are checked "Yes" for "Maintenance Need," list Maintenance actions and their completion dates below:

Maintenance Action Needed	Due Date

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The next routine inspection is scheduled for approximately: _____

(date)

Inspected by: (signature) _____

Inspected by: (printed) _____

Appendix B: Subdivision Development Agreement

This DEVELOPMENT AGREEMENT is made and entered into on this

22 day of July, 2024,
between THE CITY OF COLUMBIA, TENNESSEE, (hereinafter the "CITY"), and

Burchell Properties LLC, the DEVELOPER (hereinafter the "DEVELOPER") named on the Addendum to this Agreement attached hereto and by this reference made a part hereof (hereinafter the "ADDENDUM").

WITNESSETH:

WHEREAS, the DEVELOPER desires to develop the property described on the ADDENDUM and referred to as _____ (hereinafter the "PROJECT"); and,

WHEREAS, the Development Plan of the PROJECT has been approved by the Columbia Municipal Planning Commission (hereinafter the “CMPC”) on the

_____ day of _____, 20_____ ,
pursuant to Tennessee Code Annotated Title 13, Chapter 4, and the Subdivision Regulations of Columbia, Tennessee (hereinafter the "SUBDIVISION REGULATIONS”); and,

WHEREAS, the DEVELOPER is the owner of the PROJECT and has authority to engage in such development; and,

WHEREAS, the DEVELOPER desires to develop and improve said PROJECT; and,

WHEREAS, in order to provide for the health, safety, and welfare of future residents of the PROJECT, it will be necessary for certain improvements to the CITY'S utility systems, public infrastructure, and common areas to be constructed within and to serve the PROJECT including but not be limited to roads, bridges, sidewalks, pedestrian facilities, stormwater facilities, street signs, markings, signals, street lighting, recreation and park facilities, landscaping, and the like (hereinafter the “IMPROVEMENTS”); and,

WHEREAS, in order for the IMPROVEMENTS to be fully integrated with the utility systems and public infrastructure of the CITY and to function in a satisfactory manner, the DEVELOPER has agreed to construct, in accordance with the Subdivision Regulations and other rules, regulations, and ordinances of the CITY, the IMPROVEMENTS in said PROJECT and extend utilities to the PROJECT at their own cost; and,

WHEREAS, the CITY is willing to accept the dedication of the streets, utilities, and other improvements as determined in the Development Plan of the PROJECT, subject to the City of Columbia City Council approval by resolution, and subject to the applicant's compliance with all requirements in this agreement and applicable existing laws of the CITY of Columbia and the State of Tennessee,

NOW, THEREFORE, it is agreed and understood as follows:

B1 General Conditions

B1.1 Construction Costs

The DEVELOPER shall pay for all material and labor necessary to install and complete the roads, sidewalks, sewers, utilities, and other facilities in accordance with this agreement.

B1.2 City Ordinances, Rules and Regulations

All currently existing CITY ordinances, rules and regulations, and the Subdivision Regulations adopted by the CMPC are made a part of this agreement. In the event of a conflict between the terms of this agreement and a CITY ordinance, the ordinance shall prevail. In the event of a conflict between the terms of this agreement and the Subdivision Regulations, the Subdivision Regulations shall prevail. All work done under this agreement is to be performed in accordance with plans and specifications approved by the City and made a part, hereof.

B1.3 Fees

Review fees, inspection fees, and other amounts established by the CITY shall be paid prior to any review of the plans. If the DEVELOPER fails to install the facilities in accordance with the terms of this Agreement, no portion of the review fees, inspection fees, or other amounts paid to the CITY shall be refundable to the DEVELOPER.

B1.4 Inspection

The CITY shall have a continuous right to inspect the work and facilities to assure that the work and facilities are in accordance with the Subdivision Regulations, approved Construction Plans, and other rules, regulations, and ordinances of the CITY.

B1.5 Right of Entry

The CITY shall have the right, in case of breach of the Performance Agreement, to enter upon any property of the DEVELOPER and take all necessary actions to complete the work and obligations not completed.

B1.6 Easements

The DEVELOPER shall obtain and dedicate to the CITY or cause to be dedicated to the CITY, either by dedication on the plat or by easement deed, in either case in a form acceptable to the CITY, permanent easements of such widths as required by the CITY and noted on the Plans. The DEVELOPER further agrees to grant the necessary easements and rights-of-way across the DEVELOPER's properties without expense to the CITY and waive any claim for damages.

B1.7 Stormwater Maintenance Agreement

If the PROJECT includes any detention or retention ponds, common drainage ditches, water quality facilities, or stormwater facilities outside of the CITY rights-of-way, the DEVELOPER will submit a Stormwater Maintenance Agreement, to be filed with and recorded with the Final Plat.

B1.8 Attorney Fees and Other Expenses

The DEVELOPER shall pay all reasonable costs and expenses incurred by the CITY in enforcing or completing this agreement. The DEVELOPER shall pay all costs and expenses, including the CITY'S attorney fees, of any legal proceedings brought by the CITY against the DEVELOPER seeking remedies for the DEVELOPER'S failure to perform any of its obligations hereunder, whether or not any proceedings are prosecuted to judgment.

B1.9 Agreement Not Assignable

No third party shall obtain any benefits or rights under this agreement nor shall the rights or duties be assigned by either party.

B1.10 Revocation and Interpretation

This agreement shall bind the DEVELOPER when executed by the DEVELOPER and may not be revoked by the DEVELOPER without permission of the CITY, even if the agreement has not been executed by the CITY, or does not bind CITY, for other reasons. This agreement shall be interpreted in accordance with Tennessee law and may only be enforced in the Chancery Court or Circuit Court or Court of competent jurisdiction of Maury County, Tennessee, and Tennessee Appellate Courts.

B1.11 No Oral Agreement

This agreement may not be orally amended and supersedes all prior negotiations, commitments, or understandings.

B1.12 Separability

If any portion of this agreement is held to be unenforceable, the CITY shall have the right to determine whether the remainder of the agreement shall remain in effect, or whether the agreement shall be void and all rights of the DEVELOPER pursuant to this agreement terminated.

B 1.13 Transferability

The DEVELOPER agrees to not transfer the property on which this PROJECT is to be located without first providing the CITY with written notice. The transferee shall provide the CITY an Assumption Agreement of this Agreement, whereby the transferee agrees to perform the IMPROVEMENTS required under this agreement and to provide a performance surety. The DEVELOPER understands that if the DEVELOPER transfers said property without providing the notice of transfer and Assumption Agreement as required herein, they will be in breach of this agreement and in violation of the Subdivision Regulations.

B1.14 Indemnity

The DEVELOPER shall indemnify and hold the CITY harmless from all loss, costs, expenses, liability, money damages, penalties, or claims arising out of any work covered by this agreement, including any attorney fees incurred by the CITY in connection therewith. Inspection of the IMPROVEMENTS by an authorized representative of the CITY shall not constitute a waiver by the CITY of any defect or of any of the DEVELOPER'S obligations hereunder.

B1.15 Binding Effect

This agreement shall be binding upon the DEVELOPER and the DEVELEPOR's heirs, administrators, executors, assigns, and any other successors in interest.

B1.16 Entire Agreement

This document contains the entire agreement between the parties, and there are no collateral understandings or agreements between them. No variations or alterations of the terms of this agreement shall be binding upon either of the parties, unless the same be reduced to writing and made an amendment to this agreement.

B1.17 Headings

Paragraph titles and headings contained herein are inserted for convenience only and shall not be deemed a part of the agreement and in no way shall define, limit, extend, or describe the scope or intent of any provision, hereof.

B2 Performance Surety

At the time of execution of this agreement, the DEVELOPER shall provide the CITY a performance surety, in an amount determined by the City Engineer for the IMPROVEMENTS and other items specified by the Construction Plans, plats, and plans approved by the CMPC. This performance surety shall secure performance of all obligations of the DEVELOPER under this agreement. The performance surety shall meet all requirements established in Chapter 4: Performance Agreement of the Subdivision Regulations and secure full compliance with all terms and conditions of this agreement. The performance surety may be called for failure to comply with the provisions of this agreement in whole or in part according to the terms of the performance surety. The performance surety will not be released, except and until there has been full compliance with this agreement.

B3 Construction

B3.1 Construction Plans

The DEVELOPER shall submit to the CITY, Construction Plans describing in reasonable detail all utility systems, all storm water management systems, all street systems, pedestrian facilities, and all IMPROVEMENTS. The Construction Plans shall be designed according to the Engineering Standards and Specifications, all other codes and ordinances enforced by the City, and sound engineering judgment. The design of all utility systems shall follow the State of Tennessee and utility provider design criteria and specifications. In the event of a disagreement as to compliance with or interpretation of the Construction Plans and the CITY'S specifications, the decision of the CITY shall be final and binding on the DEVELOPER. The Construction Plans shall be prepared by a design professional licensed by the State of Tennessee to design all systems and shall bear the seal, signature, date, and license number of the professional preparing the Construction Plans.

B3.2 Commencement of Construction

Construction of IMPROVEMENTS may not begin until the following events have occurred:

A. The Preliminary Plat has been approved by the CMPC;
B. The Construction Plans are approved by the CITY;
C. The Tennessee Department of Environment and Conservation has approved the applicable portions of the Plans and has confirmed its approval to the CITY and/or DEVELOPER in writing;
D. The CITY shall have received an appropriately executed Development Agreement; and
E. The DEVELOPER shall give the CITY notice of commencement of construction, in writing at least one (1) working day prior to commencement.

B3.3 Site Grading

The DEVELOPER, hereby, agrees to construct all site grading to comply with the approved Construction Plans, including the approved Erosion Control Plan for the PROJECT and to comply with the Engineering Standards and Specifications, Stormwater Ordinance, and all other codes and ordinances enforced by the CITY.

B3.4 Storm Water Management Systems

The DEVELOPER shall be responsible for all storm water management work made necessary by the development of this PROJECT. It is understood and agreed that the CITY in its proprietary function is not and could not be expected to oversee, supervise, or direct the construction of all drainage improvements, and the excavation incident thereto. Neither is the CITY vested with the original design responsibility nor the means to formally survey elevations or the locations of improvements at every stage of the construction process. The CITY is vested with the right of periodic inspections, stop work order, and final approval as a measure of secondary or subsequent enforcement. The DEVELOPER has and shall retain the responsibility to properly anticipate, survey, design and construct the subdivision storm water improvements and give full assurance that same shall not adversely affect the flow or quality of surface water from or upon any property. In providing technical assistance, plan and design review, the CITY does not and shall not relieve or accept any liability from the DEVELOPER.

B3.5 Street Construction

The DEVELOPER, hereby, agrees to construct and improve the streets shown on the Construction Plans to comply with the CITY's specifications and to the satisfaction and approval of the City Engineer by grading, draining, subgrade preparation, base preparation, curbing, signage, striping, signalization, sidewalk installation, and paving with the required preparation, amounts, and types of material. The DEVELOPER further agrees to pay the cost of all engineering, inspection and laboratory cost incidental to the construction of subdivision streets including but not limited to material and density testing. The DEVELOPER further agrees to make all necessary adjustments to manholes and valve boxes to meet finished surface grade and to repair subsurface or base material, as required, in areas directed by the CITY Engineer, prior to application of final surface.

B3.6 Time Period for Construction

The DEVELOPER agrees to be bound to complete, within three (3) years of commencement of construction, all IMPROVEMENTS shown on the plat and plans and all things required by this agreement.

The DEVELOPER further agrees that if due to unforeseen circumstances, he is unable to complete all work included in this agreement within the time specified above, but desires to complete said agreement to the satisfaction of the CITY, the DEVELOPER shall submit a written request for extension of the agreement period to the CITY at least sixty (60) days prior to the expiration of the existing agreement period, specifying the reason for the DEVELOPER's failure to complete the work as agreed and a prospective date for such completion. The DEVELOPER further agrees that if the performance surety executed to secure the value of the work to be performed under this agreement, due to inflation or rising costs, is determined to be inadequate by the City Engineer to secure the cost of said IMPROVEMENTS at the time an extension is sought, the DEVELOPER will provide the additional security to bring the performance surety amount in line with current cost projections as made by the CITY. The DEVELOPER understands that the DEVELOPER's failure to follow the extension procedure constitutes a breach of this agreement and places the DEVELOPER in violation of the Subdivision Regulations. The DEVELOPER further understands, that should the DEVELOPER fail to complete any part of the work outlined in this agreement in a good and workmanlike manner as approved, the CITY shall reserve the right to withhold and withdraw all building permits within the PROJECT until all items of this Agreement have been fulfilled by the DEVELOPER.

B3.7 Off-Site Improvements

The DEVELOPER shall construct any and all off-site facilities that may be required to serve the PROJECT. Unless specifically noted in the Construction Plans and made a part of separate agreement with the CITY, the CITY shall not be required to reimburse the DEVELOPER for construction of off-site improvements.

B3.9 Inspection and Compliance

After construction begins, the CITY shall provide on-site construction inspection as the CITY deems necessary to ensure that all work is performed and completed in accordance with the Construction Plans, CITY specifications, and the contents of this agreement. In the event of a disagreement as to compliance with or interpretation of the Construction Plans and the CITY'S specifications, the decision of the CITY shall be final and binding on the DEVELOPER. If the DEVELOPER fails to construct in accordance with the approved Construction Plans or to comply with the CITY'S specifications, the CITY may issue a stop-work order and DEVELOPER, hereby, agrees to be bound by such order.

B3.10 Testing

The DEVELOPER agrees to pay the cost of all engineering, inspection, and laboratory cost incidental to construction of the streets, sidewalks, utilities, sewers, compacted fill material, and other facilities included within this agreement. Such testing includes, but is not limited to, material and density testing.

B3.11 Scrap Removal

The DEVELOPER agrees to comply with all local, state, and federal rules and regulations regarding waste material and debris disposal.

B3.12 Traffic Control

The DEVELOPER, hereby, agrees to prepare a traffic control/detour plan where required and shall submit said plan to the CITY for review and approval. All traffic control and safety devices, including

signs, lane markings, and barriers necessitated by construction activity undertaken pursuant to this agreement shall be installed and maintained by the DEVELOPER. All traffic control devices shall meet the standards and be installed in accordance with the latest edition of the Manual on Uniform Traffic Control Devices for Streets and Highways, published by the United States Department of Transportation.

B3.13 Temporary Facilities

The DEVELOPER shall provide all temporary facilities including but not limited to utilities and roadways, that are determined by the CITY to be required in connection with or as a result of interruption of service or access that occurs as a consequence of construction activity associated with the work covered by this agreement. Such temporary services shall in all regards and at all points in time be adequate to assure emergency access and adequate fire flows.

B4 Acceptance of Improvements

B4.1 Completion of Improvements

At such time as the improvements have been constructed and installed, in accordance with the Constructions Plans and specifications, required testing and inspections completed and found satisfactory, and all clean-up and cover-up has been done to the satisfaction the City Engineer, a letter requesting preliminary acceptance of the PROJECT will be provided by the DEVELOPER. Formal acceptance shall follow the procedure established in the Subdivision Regulations.

The DEVELOPER agrees the DEVELOPER shall have no claim, direct or implied, in the title or ownership of the IMPROVEMENTS specified in this agreement when the IMPROVEMENTS are complete and thereafter accepted by the CITY. The DEVELOPER will be responsible for construction failures and defects in PROJECT prior to final acceptance. During this period, it shall remain the responsibility of the DEVELOPER to correct and cure these defects and failures.

B4.2 As-Built Drawings and Post-Completion Items

The DEVELOPER agrees to furnish to the CITY as-built plans, on a reproducible, stable media, of the sanitary sewer, storm water management, water mains and service system, and streets within the subdivision before the CITY shall accept the subdivision.

B4.3 Acceptance of Facilities

Upon final acceptance of all or part of the IMPROVEMENTS in the PROJECT, then those IMPROVEMENTS shall become the property of the CITY free from all claims from any person or entity without the necessity of any further writing, agreement, or deed. The DEVELOPER further agrees that any facilities placed within a public or platted right-of-way or dedicated public easement are irrevocably dedicated to the public use without any right of reimbursement or compensation of any kind.

B4.4 Failure to Install

In the event the DEVELOPER fails to install the facilities in accordance with the terms of this agreement, the CITY may, in its sole discretion, elect to accept all or a portion of the IMPROVEMENTS in the PROJECT. Should the CITY choose to accept all or a portion of these IMPROVEMENTS, the CITY shall become the sole owner of these facilities. The CITY may give notice of acceptance by writing delivered to the DEVELOPER or recorded in the Register's Office of Maury County, Tennessee. No further writing or deed shall be required.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed in multiple originals by persons properly authorized so, to do on or as of the day and year first given.

Horizon Park PROJECT	
Completed by the Developer	*Completed by the City*
Burchell Properties LLC. DEVELOPER NAME	
Noah Burchell AUTHORIZED AGENT NAME	_____ CITY ENGINEER
B Noah Burchell SIGNATURE	_____ SIGNATURE
8/16/24 DATE	_____ DATE
PO Box 454 STREET	
Columbia, TN 38402 CITY, STATE, ZIP	
931 698 1634 PHONE	
noahburchell10@gmail.com EMAIL	
Attest	*Attest*
Cole Newton ATTEST NAME	_____ ATTEST NAME
Cole Newton ATTEST SIGNATURE	_____ ATTEST SIGNATURE
8/16/24 DATE	_____ DATE

TKC ARCHITECTURE INTERIORS CIVIL SITE

818 South Main Street
COLUMBIA, TN 38401
TKC-AE.COM
615.617.7477

July 22, 2024

Planning Staff
City of Columbia
700 N. Garden Street
Columbia TN 38401

Subject: Owner Consent Form –

Address: Map 114, Parcel 18.00

As the property owner of the property located at 153 Hallmark Drive in Columbia, TN (Map 114, Parcel 18.00), I hereby give consent for TKC Architecture and Engineering LLC to submit a Final Plat application for approval on our property and represent that Final Plat to the City at Boards and Commissions.

Sincerely,

B Noah B

Owners Signature

Benjamin Noah Burchell

Owners Printed Name

TKC ARCHITECTURE INTERIORS CIVIL SITE

818 S. Main Street
COLUMBIA, TN 38401
TKC-AE.COM
615.617.7477

July 22nd, 2024

Planning Staff
City of Columbia
700 N Garden Street
Columbia, TN 38401

Project: Horizon Park

Subject: Final Plat at 153 Hallmark Dr.

Staff,

We are proposing a Final Plat for the proposed development of Horizon Park at 153 Hallmark Drive in Columbia, TN 38401 (Map 114, Parcel 18.00). This submittal follows the City's zoning ordinance and subdivision regulations. The Final Plat proposes 15 single-family or duplex residential lots. The total site is +/-7.97 acres.

If you have any comments or questions please contact Cole Newton at TKC Architecture and Engineering at cole@tkc-ae.com or 931.797.3323

Thank you,

Cole Newton, PE, LEED AP
TKC Architecture and Engineering LLC
615.617.7477 (o)
931.797.3323 (c)
cole@tkc-ae.com

CITY OF COLUMBIA TENNESSEE

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

PLANNING COMMISSION
PROJECT DEVELOPMENT APPLICATION

SUBMITTAL REQUIREMENTS

Final Plat: * *1 hard copy of all materials for submittal + PDF copy on a USB flash drive (no multiple applications on one storage device)*
Fold hard copy submittals larger than 8½"x11"
All Others: * Please submit the Application online at City of Columbia | Permitting (onlama.com)

ADDRESS/LOCATION	Horizon Park		
	TAX MAP: 114	GROUP: C	PARCEL: 18.00
SUMMARY OF NATURE OF REQUEST AND WORK	Submittal of the Final Plat for the property located at 153 Hallmark Drive in Columbia, TN. The property consists of 7.97 acres. The Final Plat shows 15 single-family or duplex lots.		

DATE OF PRE-APPLICATION CONFERENCE		*Pre-application meetings are scheduled for Wednesdays.*

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 ❑ Other: **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) ☒ Total Number of Lots/Residential Units ☐ Square Footage of Non-Residential Floor Space ☒ Total acreage

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 go to the Applicant's email that is provided.

NAME	TKC Architecture & Engineering LLC	PHONE	615.617.7477
ADDRESS	818 S. Main St. Columbia, TN	EMAIL	cole@tkc-ae.com

PROPERTY OWNER NAME	Burchell Properties, LLC	PHONE	931.698. 1634
ADDRESS	PO Box 454 Columbia, TN	EMAIL	noahburchell10@gmail.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.

TKC Architecture and Engineering	Cole Newton	8/16/24
APPLICANT NAME	APPLICANT SIGNATURE	DATE
Burchell Properties, LLC	B Noah B	8/16/24
PROPERTY OWNER NAME	PROPERTY OWNER SIGNATURE	DATE

201 James M Campbell Blvd/ Design Review, Alternative Compliance

Project #:	24-0373	Location:	Map 113E Parcel 004.00
Applicant:	Steven Saenz	Case Type(s):	Design Review
Staff Planner:	Austin Brass, AICP	Proposed Use:	Panda Express Restaurant

PROJECT SUMMARY

The applicant is seeking Design Review approval with Alternative Compliance for the exterior of a new one-story Panda Express restaurant located on the former Columbia Ford property on James M. Campbell Blvd. More specifically, the applicant is seeking an alternative compliance deviation to provide 49.2% glazing at the front façade. This is a deviation from the required 70% glazing requirement at time of submittal of this request for a required shopfront elevation within a CD-4C district. A proposed text amendment before City Council on October 10th, 2024 recommends a shopfront glazing requirement of 50%. Among the proposed 49.2% glazing, 0.56% is proposed to be spandrel glass as an alternative to the required clear glass. In addition, the applicant is proposed 16.2% glazing on the side elevation that will enfront Nicholas Long Drive.

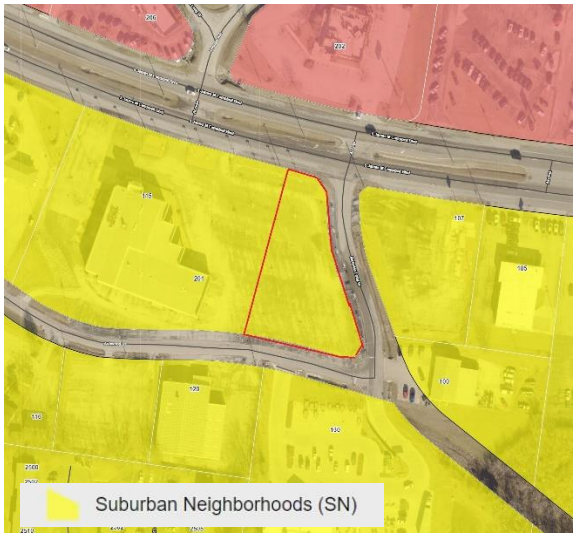
- This alternative compliance request is for design elevations only. Additional site standards will be addressed at the preliminary plat and site development plan for this request. A site concept plan conforming to the Zoning Ordinance has been submitted in reference to this request indicating the proposed building footprint and principal frontage elevation enfronting James M. Campbell Blvd. In addition, the drive-thru elevation and parking is shown within the 3rd layer of the site demonstrating compliance with the site standards of a drive-thru restaurant in a CD-4C Character District.
- At resubmittal, the applicant has identified a material of “cementitious stucco” on elevations. The Zoning Ordinance permits cementitious siding and authentic stucco over masonry as an approved façade material type. Additional discussion may be required regarding this material type, and if it may be an additional item of alternative compliance.
- As noted, there is a proposed text amendment before City Council that reduces the required shopfront glazing from 70% to 50% in a CD-4C District. With this text amendment, the shopfront glazing would comply if not proposing spandrel glass.
- This request proposed a Coronado strip stone for foundations base. The current Zoning Ordinance requires all stone to be natural stone.
- The DRC reviewed this proposal at its September 2024 meeting. Staff review included standard comments. Full technical comments are provided in the agenda packet.
- The Planning Commission is the **Decision-Making Authority** for this Design Review Alternative Compliance.

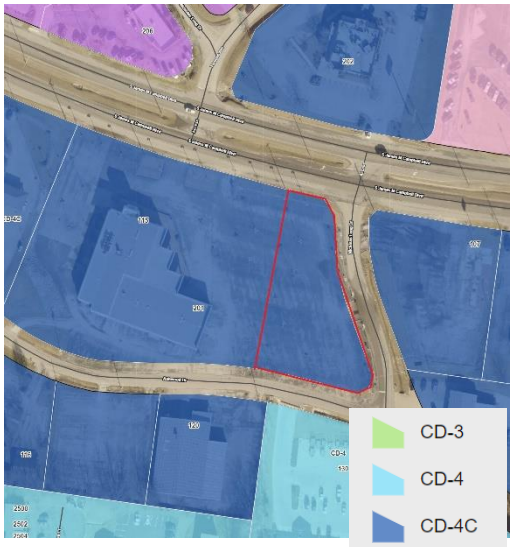
SITE INFORMATION

CURRENT ZONING	EXISTING USE	EXISTING IMP.	LAND AREA
CD-4C	Vacant	Proposed Restaurant	+/- 34 Acres



FUTURE LAND USE MAP	ZONING MAP





SITE CONTEXT/ADJACENT PROPERTIES			
	Future Land Use	Zoning	Current Use
Subject Property	Suburban Neighborhoods	CD-4C	Vacant Lot
North	City Center & Urban Village	CD-4C	First Watch Restaurant
South	Suburban Neighborhoods	CD-4	Commercial
East	Suburban Neighborhoods	CD-4C	Stan McNabb Car Sales
West	Suburban Neighborhoods	CD-4C	Vacant Lot

CONFORMITY WITH ZONING ORDINANCE

- **The proposed design elevations and orientation of the building conform to the CD-4C Character District design standards with the exception of details highlighted in red below:**

(CD-4C) District Standards : Panda Express Restaurant		
Design Standards:	**Required**	**Proposed**
Vertical Composition:	Identifiable Base, Middle, & Cap	All structure indicates a defined base, middle, and cap.
Finished Floor Elevation:	Min 18 inches FFE	691 FFE
Façade Position & Façade Articulation:	Main entrance at façade & position parallel to frontage line	The proposed restaurant enfront James M. Campbell Blvd with a principal entrance.
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 % (70% glazing for shopfront elevation)	49.2%
Window Shape:	Square or vertical proportions	All windows are square or vertical proportioned.
Window Alignment:	Upper floor windows and other features must be aligned with those of first floor	All windows align with no second floor proposed.
Window Types:	Single-hung, double-hung, casement except in shopfront or galley	Windows are fixed glass at shopfront elevation.
Window Glazing Material:	Clear	(0.56%) of shopfront windows are proposed to be spandrel 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 have window trim details.

Shutters:	Functional to cover half of window width/ shutter dogs	N/A
Façade Window Sill Height:	5 ft. min above grade if residential	N/A (only applies to residential uses)
Porch Frontages:	Min. 6ft. clear depth, excluding rails, pillars, columns	N/A
Façade Variety:	No façade may exist more than once on a block face or within view of same façade	This use proposed is a single site use that consist of one façade.
Roof Type & Pitch:	Hip/ Gable / Flat	Flat
Primary Building Materials:	Brick, Fiber Cement Board, Wood, Authentic Stucco over Masonry	Elevations consists of a primary façade material of cementitious siding, cementitious stucco, and stone.
Foundation Cladding:	Brick or Natural Stone	Foundation cladding indicated is stone
Porch Pier/ Chimney Cladding:	Brick or Natural Stone & any space under porch concealed by lattice/ brick or natural stone for chimney	N/A
Building Height:	4 stories max.	1 story

REVIEW PROCESS

The Development Review Committee evaluated the proposed Design Review request at its September 2024 meeting, as directed by section **8.3.7** of the Zoning Ordinance. 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 section **8.3.6** described 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 be by a written notice to the Zoning Administrator, stating: the guideline at issue; the alternative compliance proposed; and, the owner's reasons for seeking relief from the guideline. 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 a written notice to the Zoning Administrator, stating: the guideline at issue; the alternative compliance proposed; and, the owner's reasons for seeking relief from the guideline. The appeal shall be treated as a site development plan for purposes of assessing fees and application requirements.

SAMPLE MOTIONS

Approve:

Move to approve the façade elevations with alternative compliance 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 with Conditions:

Move to approve the façade elevations with alternative compliance 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].

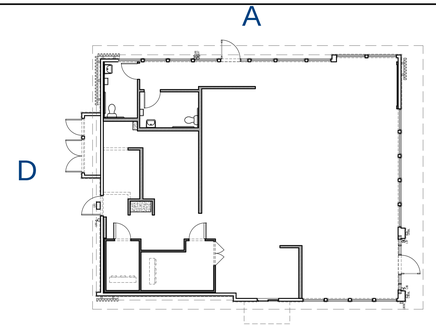
Defer for Continued Review:

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.

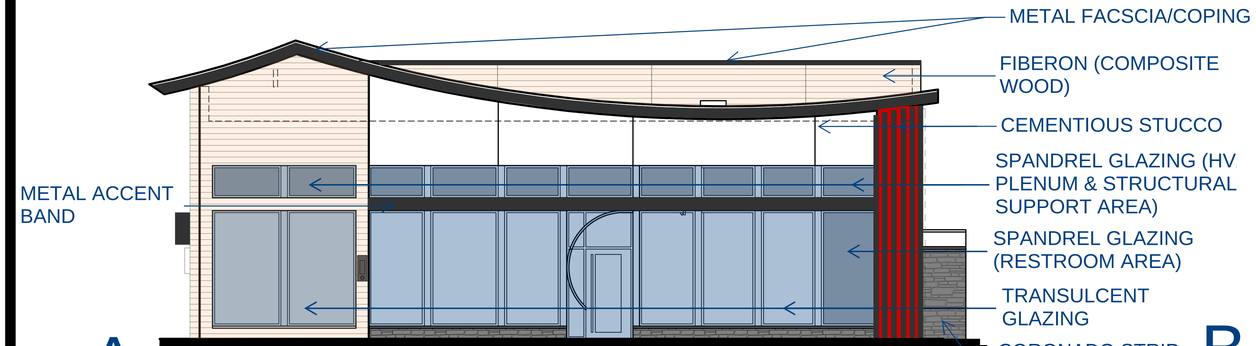
Deny:

Move to find that the façade elevations with alternative compliance as presented does not conform to the applicable Zoning Ordinance, and deny the request due to [list specific deficiencies].

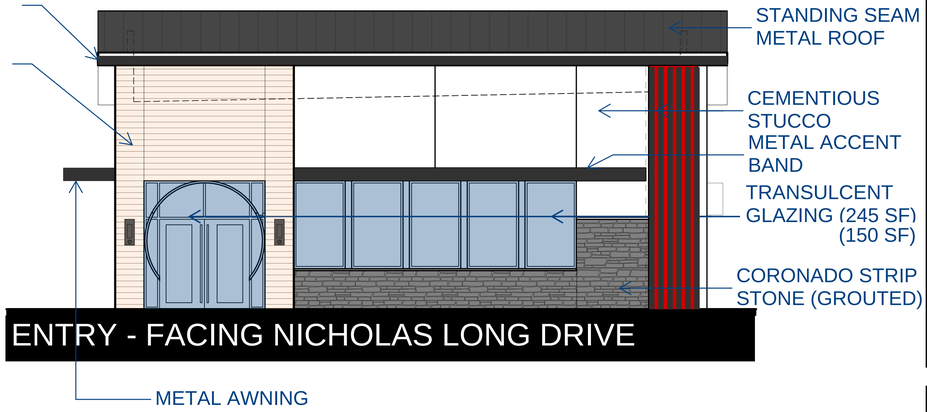
1,212 SF	A	STREET FRONT TOTAL FACADE AREA
848 SF		REQUIRED GLAZING (70%)
606 SF		STAFF REDUCTION (-20%)
586.4 SF		PROVIDED (49.2%)
33.2 SF		SPANDREL GLASS (0.56%)
150.3 SF	B	ENTRY GLAZING (16.2%)
140 SF	C	DRIVE-THRU GLAZING (11%)



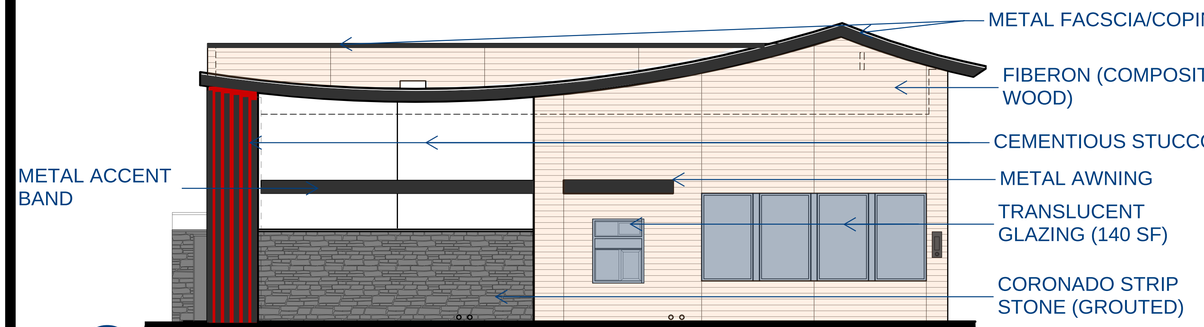
PANDA EXPRESS FLOOR PLAN



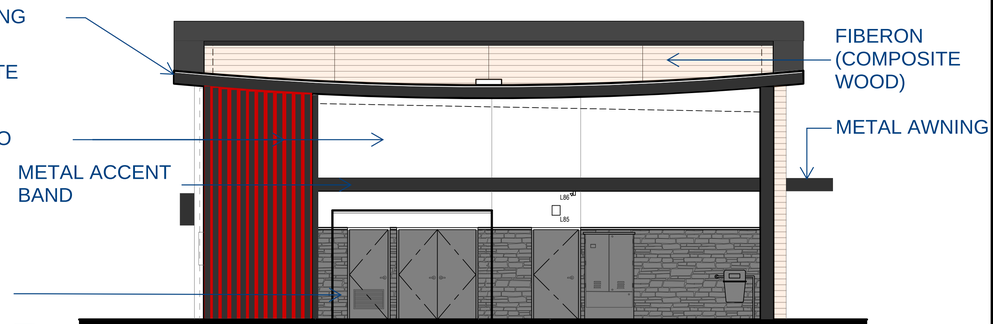
A STREET FRONT - FACING S. JAMES CAMPBELL BLVD.



B ENTRY - FACING NICHOLAS LONG DRIVE



C DRIVE-THRU - FACING ASHWOOD DRIVE



D REAR - FACING ADJACENT PROPERTY

PANDA EXPRESS, INC.
1683 Walnut Grove Ave.
Rosemead, California
91770
Telephone: 626.799.9898
Facsimile: 626.372.8288

All ideas, designs, arrangement and plans indicated or represented by this drawing are the property of Panda Express Inc. and were created for use on this specific project. None of these ideas, designs, arrangements or plans may be used by or disclosed to any person, firm, or corporation without the written permission of Panda Express Inc.

REVISIONS:

ISSUE DATE:

DRAWN BY: SS

PANDA PROJECT #: D32343
PANDA STORE #:
ARCH PROJECT #: 261-563

idGROUP

PANDA EXPRESS

PANDA HOME NEW URBANISM
115 S JAMES CAMPBELL BLVD
COLUMBIA, TN 38401

A-200

EXTERIOR ELEVATIONS

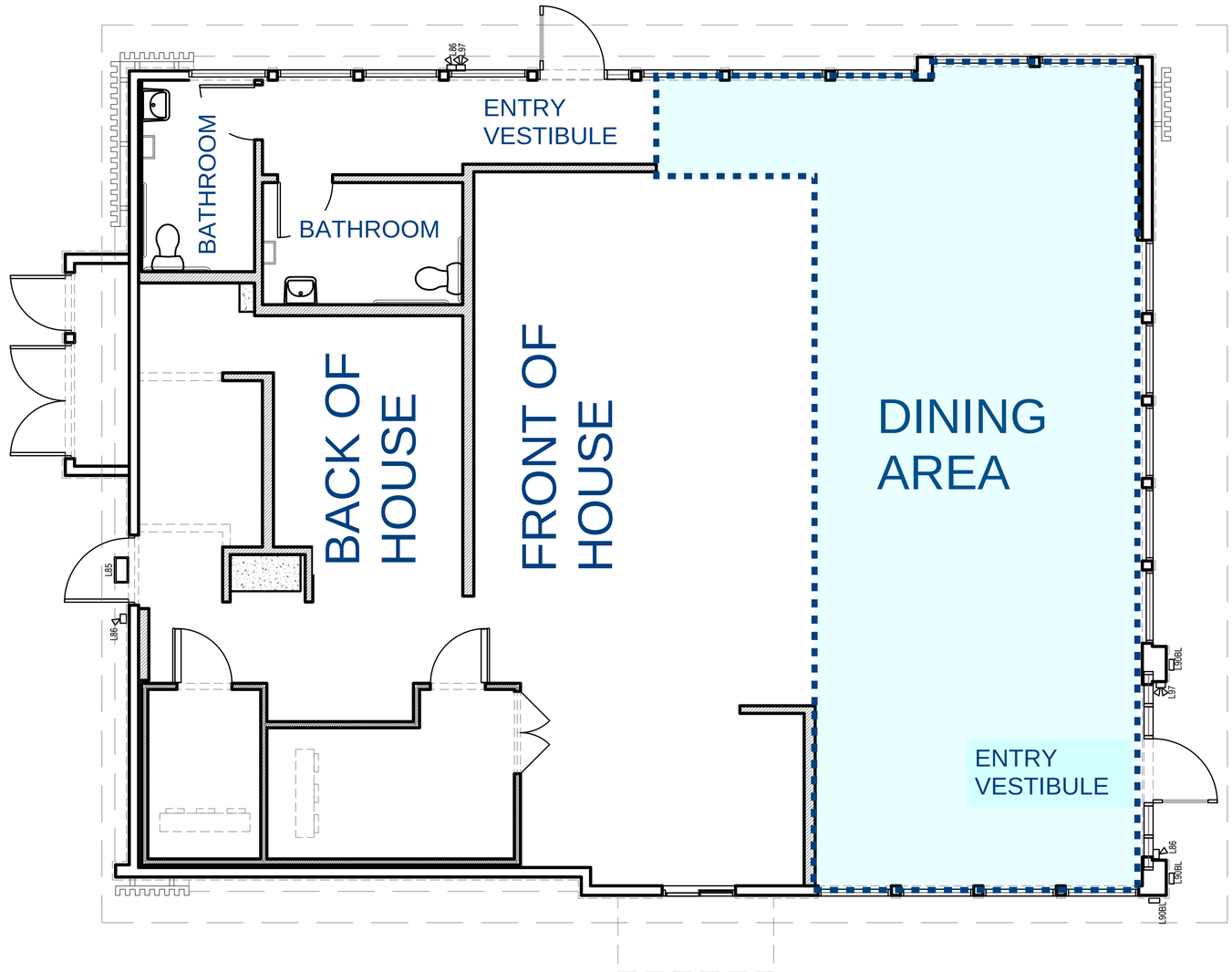
SOUTH JAMES CAMPBELL BOULEVARD

A

D

B

C



PANDA EXPRESS FLOOR PLAN

PANDA EXPRESS, INC.
1683 Walnut Grove Ave.
Rosemead, California
91770
Telephone: 626.799.9898
Facsimile: 626.372.8288

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REVISIONS:

ISSUE DATE:

DRAWN BY: SS

PANDA PROJECT #: D32343
PANDA STORE #:
ARCH PROJECT #: 261-563

idGROUP

PANDA EXPRESS

PANDA HOME NEW URBANISM
115 S JAMES CAMPBELL BLVD
COLUMBIA, TN 38401

A-103

FLOOR 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, September 10, 2024

ITEM NO.
24-0373

DESCRIPTION: 201 James M Campbell Blvd

COMMENTS:

Planning

1. Please indicate specific material to stone cladding. A CD 4-C district requires a natural stone base. Please provide more detail to indicate that this stone is "natural stone" as required. ZO 4400 Pg. 91.

2. Please provide further calculation breakout from spandrel glazing and translucent glazing. Among the 49.2 % of glazing shown, what percentage of that is broken down from spandrel and translucent glazing.
3. Provide callout of primary façade material panels. Please refer to pg. 91 of the Zoning Ordinance for permitted building material standards.
4. Provide clarity regarding metal accent panels. What type of metal is the panel?

Engineering

5. No comments

Fire

6. No comments

Maury County Schools

7. No comment.

Duck River Electric Membership Corp

8. No comments provided.

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.

9. No comments provided.

Police

10. No comments provided.

Building

11. No comments.

Columbia Water

12. "No comments."

Columbia Power

13. 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.

Public Works

14. No comment.

Atmos Energy

15. No comments provided.

CITY OF COLUMBIA
TENNESSEE

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

Maury County E911

16. No comments provided.

ATT

17. 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.

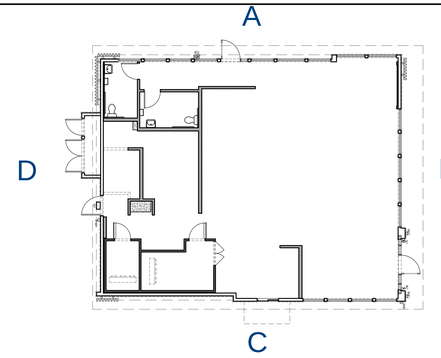
Please contact the case planner identified in the Planning Comments with any questions about the review process.

Please contact kmccarthy@columbiatn.com or msanders@columbiatn.com if you encounter difficulties with the online portal.

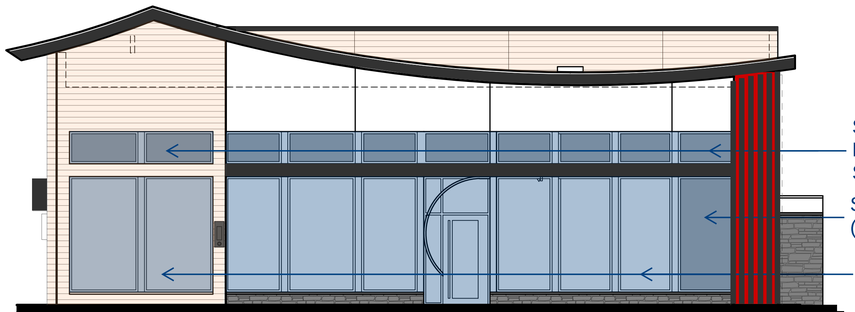
You will receive an invoice for required advertising and mailing fees. All fees must be paid by the Friday following resubmittal in order advance to the Planning Commission agenda.

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.

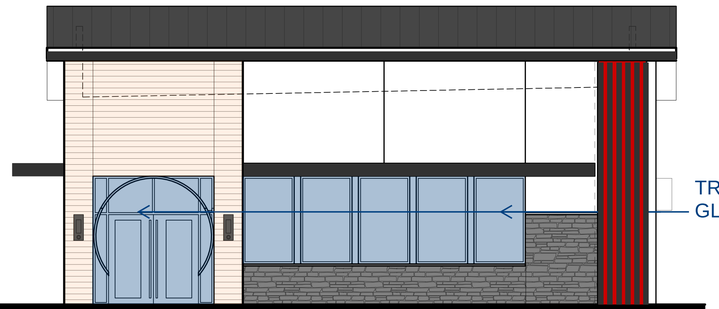
1,212 SF	STREET FRONT TOTAL FACADE AREA
848 SF	REQUIRED GLAZING (70%)
606 SF	STAFF REDUCTION (-20%)
586.4 SF	PROVIDED (49.2%)



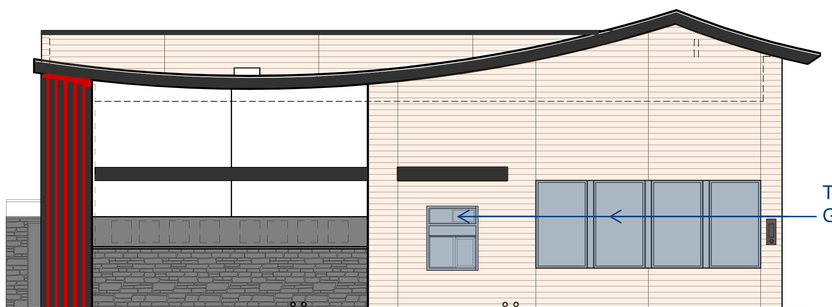
PANDA EXPRESS FLOOR PLAN



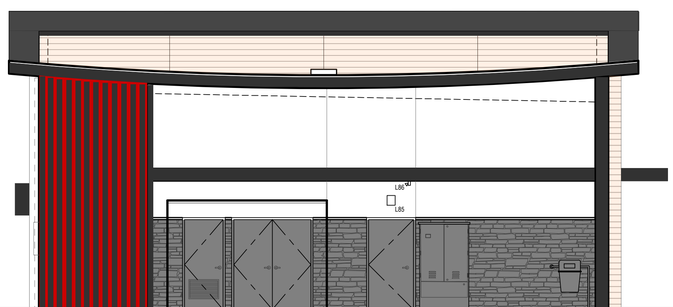
A STREET FRONT - FACING S. JAMES CAMPBELL BLVD.



B ENTRY - FACING NICHOLAS LONG DRIVE



C DRIVE-THRU - FACING ASHWOOD DRIVE



D REAR - FACING ADJACENT PROPERTY

PANDA EXPRESS, INC.
1683 Walnut Grove Ave.
Rosemead, California
91770
Telephone: 626.799.9898
Facsimile: 626.372.8288

All ideas, designs, arrangement and plans indicated or represented by this drawing are the property of Panda Express Inc. and were created for use on this specific project. None of these ideas, designs, arrangements or plans may be used by or disclosed to any person, firm, or corporation without the written permission of Panda Express Inc.

REVISIONS:

ISSUE DATE:

DRAWN BY: SS

PANDA PROJECT #: D32343
PANDA STORE #:
ARCH PROJECT #: 261-563

idGROUP

PANDA EXPRESS

PANDA HOME NEW URBANISM
115 S JAMES CAMPBELL BLVD
COLUMBIA, TN 38401

A-200

EXTERIOR ELEVATIONS

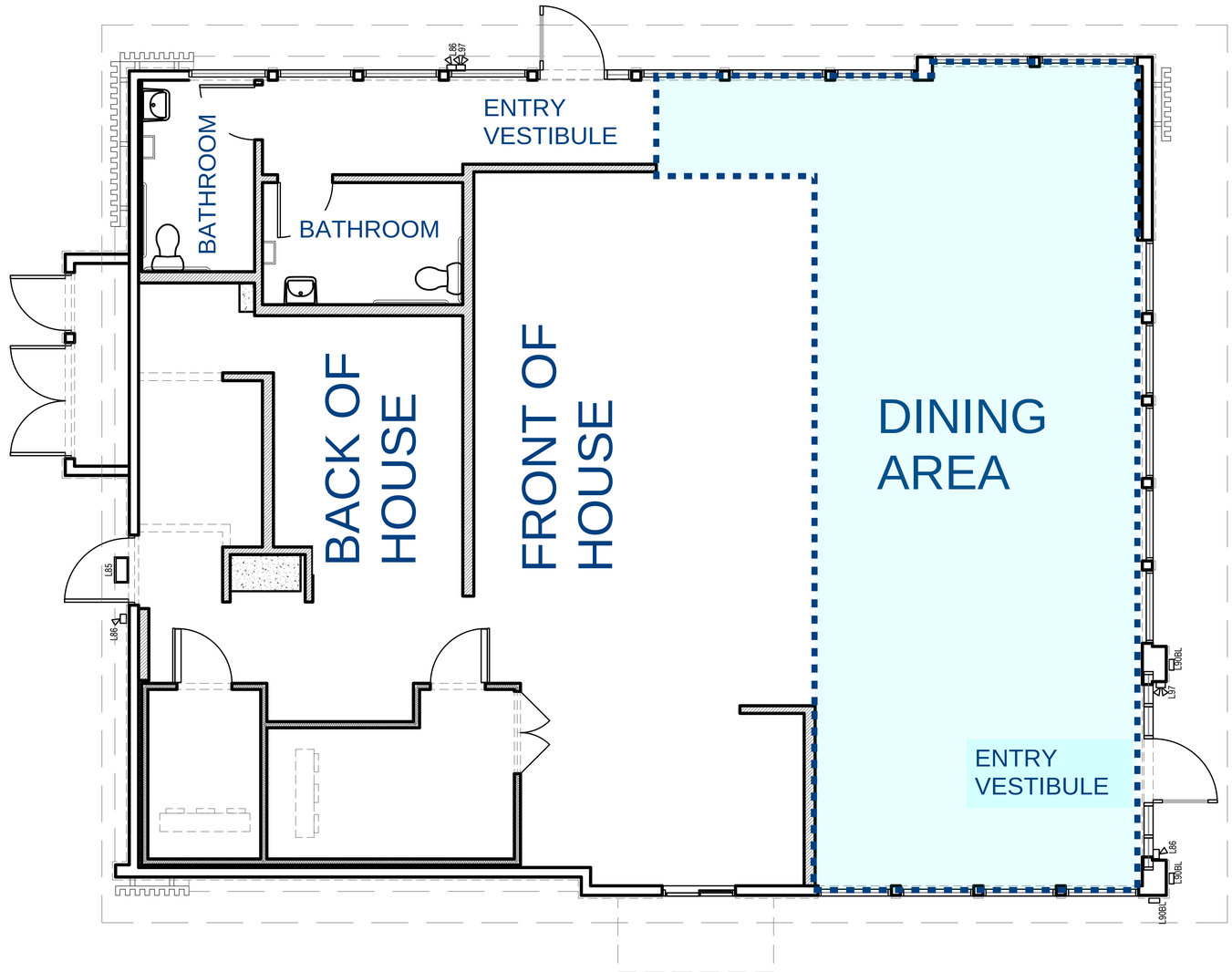
SOUTH JAMES CAMPBELL BOULEVARD

A

D

B

C



PANDA EXPRESS FLOOR PLAN

PANDA EXPRESS, INC.
1683 Walnut Grove Ave.
Rosemead, California
91770
Telephone: 626.799.9898
Facsimile: 626.372.8288

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REVISIONS:

ISSUE DATE:

DRAWN BY: SS

PANDA PROJECT #: D32343
PANDA STORE #:
ARCH PROJECT #: 261-563

idGROUP

PANDA EXPRESS

PANDA HOME NEW URBANISM
115 S JAMES CAMPBELL BLVD
COLUMBIA, TN 38401

A-103

FLOOR PLAN

idGROUP

08.19.24

Steven Saenz
idGROUP
2641 Irving Blvd.
Dallas, TX 75207

RE: Columbia, TN
Alternative Compliance Request

Dear Staff,

Panda Express is proposing a free-standing drive-through restaurant of approximately 2,600 square feet. Panda Express is introducing a brand-new national prototype called New Urbanism for the site at 115 South James Campbell Boulevard. Panda Express has made diligent efforts to meet the Street Front glazing requirement of 70 percent the total Street Front façade.

Panda Express is seeking alternative compliance from the 70 percent requirement of Street Front glazing. Panda Express is also seeking additional consideration to allow the use of spandrel glass (non-transparent) in some areas on the Street Front façade. Spandrel glass is used in areas along the façade that house HVAC duct work and structural trusses. The proposed Street Front glazing meets nearly 50 percent of the overall requirement, of which approximately 16 percent is spandrel glazing.

The New Urbanism design employs additional glazing that face all rights-of-way, which is a plus given the buildings position on a corner lot. Approximately 245 square feet of glazing face Nicholas Long Drive and approximately 140 square feet face Ashwood Drive. The glazing is generously proposed in public areas such as the Dining room and restroom vestibule. The rear of the building (back of house) faces the adjacent property to the West and does not include glazing, but houses fenestration via hollow metal doors.

Panda Express is excited to introduce the New Urbanism prototype with the City of Columbia – thank you for your consideration.

Sincerely,

Steven Saenz
Project Manager

2641 IRVING BLVD.
DALLAS, TX 75207
www.idgroupdallas.com
(214) 638-6800 T
(214) 689-0301 F

CITY OF COLUMBIA TENNESSEE

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

PLANNING COMMISSION
PROJECT DEVELOPMENT APPLICATION

SUBMITTAL REQUIREMENTS

Final Plat: * *1 hard copy of all materials for submittal + PDF copy on a USB flash drive (no multiple applications on one storage device)*
Fold hard copy submittals larger than 8½"x11"
All Others: * Please submit the Application online at City of Columbia | Permitting (onlama.com)

ADDRESS/LOCATION	EXISTING: 201 JAMES M CAMPBELL BLVD (FUTURE REPLAT)		
	TAX MAP: 113E	GROUP: B	PARCEL: 004.00
SUMMARY OF NATURE OF REQUEST AND WORK	Seeking alternate compliance with a reduction of 20% of the required 70% shopfront elevation requirement and use of spandrel glass toward meeting the reduced requirement in CD-4C district.		

DATE OF PRE-APPLICATION CONFERENCE	07-23-24	*Pre-application meetings are scheduled for Wednesdays.*

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 ☑ Other: Alternate Compliance **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) ❑ Total Number of Lots/Residential Units ❑ Square Footage of Non-Residential Floor Space ❑ Total acreage

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 go to the Applicant's email that is provided.

NAME	Steven Saenz	PHONE	956.202.3814
ADDRESS	2641 Irving Blvd. Dallas, TX 75207	EMAIL	Steven. Saenz@gmail.com

PROPERTY OWNER NAME	Oldacre McDonald	PHONE	615.269.5444
ADDRESS	3841 Green Hills Village Drive, Suite 400, Nashville, TN 37215	EMAIL	oldacre@oldacremcdonald.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.

Steven Saenz		08.08.24
APPLICANT NAME	APPLICANT SIGNATURE	DATE
Oldacre		8/19/24
PROPERTY OWNER NAME	PROPERTY OWNER SIGNATURE	DATE

8th & Walters/ Preliminary & Final Plat

Project #:	24-0369	Location:	Map 090 Parcel 004.03
Applicant:	Chapdelaine & Associates	Case Type(s):	Preliminary Plat/ Final Plat
Staff Planner:	Austin Brass, AICP	Proposed Use:	2 Single-Family Lots

PROJECT SUMMARY

The applicant is seeking approval for a Preliminary and Final Plat approval for the creation of two residential lots and the reservation of right-of-way. This subdivision creates two additional lots out of a larger tract that was previously split by an Administrative Minor Plat on January 15th, 2021. This minor plat was for the creation of two lots enfronting 8th Avenue under the previous Zoning Ordinance 3638. This Preliminary and Final plat creates an additional subdivision for two lots on lot 3 that meets all standards of the CD-3 Character District for lot width enfrontment and orientation.

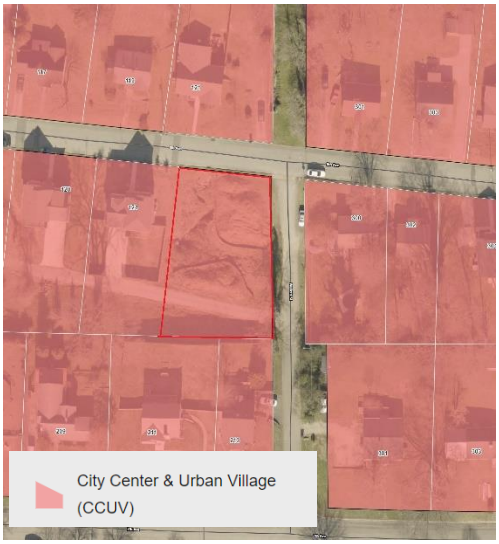
- The Final & Preliminary Plat is for the creation of two single-family residential lots and the 5 ft. reservation of right-of-way enfronting the lots.
- A surety is not applicable for this final plat as there is no new public infrastructure associated with this final plat that is being created.
- An Administrative Adjustment of 20 percent was granted to allow for 5' for the front 25' setback to be utilized from the property line and not the newly established right-of-way reservation line.
- Engineering noted that drainage improvements shall be completed prior to Certificate of Occupancy for either lot, with the applicant acknowledging this request.
- Planning noted that all proposed driveways shall be a paved surface in compliance with the Zoning Ordinance within a CD-3 Character District.
- A condition has been added that driveway be removed on lot 3A at resubmittal noting that existing shared driveway utilized and consist of a paved condition.
- The DRC reviewed this proposal at its September 10, 2024 meeting. Staff review included standard comments. Full technical comments are provided in the agenda packet.
- The Planning Commission is the **Decision-Making Authority** for this Final & Preliminary Plat.
- Templates are provided at the end of the report to assist the Planning Commission in crafting properly formatted motions.

SITE INFORMATION

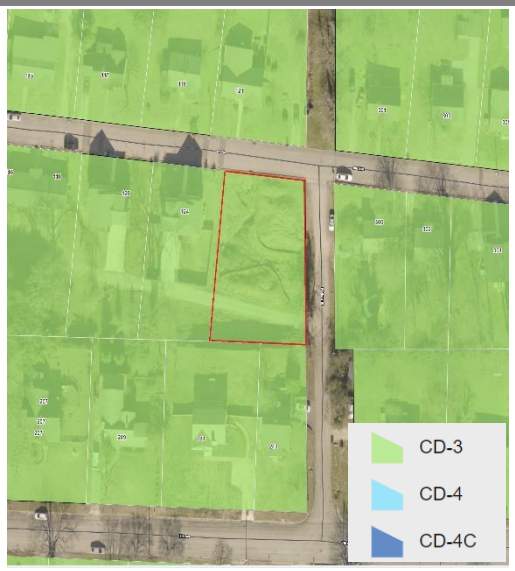
CURRENT ZONING	EXISTING USE	EXISTING IMP.	LAND AREA
CD-3	Vacant	2 Single-Family Residential Lots	+/- 34 Acres



FUTURE LAND USE MAP



ZONING MAP



SITE CONTEXT/ADJACENT PROPERTIES			
	Future Land Use	Zoning	Current Use
Subject Property	City Center & Urban Village	CD-3	Vacant Lot
North	City Center & Urban Village	CD-3	Single-Family Residential
South	City Center & Urban Village	CD-3	Single-Family Residential
East	City Center & Urban Village	CD-3	Single-Family Residential
West	City Center & Urban Village	CD-3	Single-Family Residential

CONSISTENCY WITH CONNECT COLUMBIA

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.

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.

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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





CONFORMITY WITH ZONING ORDINANCE

- **The proposed Preliminary & Final Plat conform to the bulk standards of the Ordinance within a CD-3 Character District.**

Lots, Building Sites & Bulk Standards:

- The Zoning Ordinance permits single-family house types and conforms to Table § 4.3.1-C of the Zoning Ordinance. This proposed preliminary plat includes two front-loaded lots for single-family homes.
- Table 1 describes applicable bulk standards per section 4.3.1-C (building, lot & building site standards) of the Zoning Ordinance for a CD-3-character district in which the subject property is zoned.

Table 1 (CD-3) Neighborhood Character District Standards		
Bulk Standards:	**Required**	**Proposed**
Minimum Lot width:	40 ft if alley loaded/ 65ft front-loaded	65ft. + (both *lots are proposed to be front-loaded*)
Lot/Building Enfrontment:	Vehicle Throughfare/ 20% or less may enfront pedestrian path	All lots enfront a street section
Parking:	2 spaces/ Dwelling Unit	2 spaces/ Dwelling Unit

Max. Impervious:	50 Percent	Less than 50 Percent
Setbacks:	**Front** – 25 ft **Front Secondary:** 20 ft min **Side** – 8 ft. **Rear:** 25' or 15 min from center line of rear alley	Front – 25' Front Secondary- 20' Side- 8' Rear- 25' (*no lots are proposed to be alley loaded*)

Architecture:

- **Staff will determine conformity with the prescriptive design standards of the Ordinance at the time of building permit.**
  - The applicant has acknowledged **that all structures must conform to the prescriptive design standards in Table 4.3.1-C of the Ordinance.**
  - The Ordinance requires garages to maintain minimum interior dimensions of 10 feet by 20 feet. The Ordinance also establishes a maximum garage door width of 33% of total of garage plus façade width if garage door is in 1st of 2nd layer *(not setback 20' behind principal frontage).*

REVIEW PROCESS

The Development Review Committee evaluated the proposed Preliminary & Final Plat at its September 2024 meeting, as directed by section **8.3.7** of the Zoning Ordinance. Technical comments are provided in the agenda package and summarized above.

2.2.7 Property Vestment In accordance with TCA 13-4-310, approval by the CMPC of a Preliminary Plat on or after January 1, 2015, will cause a vested property right to be established. Vestment rights and periods shall be in accordance with TCA 13-4-310 and the Zoning Ordinance.

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 Preliminary & Final Plats under **§ 8.3.3.B.1** of the Zoning Ordinance and **§ 2.3 (Final) & § 2.2.6 (Preliminary)** of the Subdivision Regulations.

Section **2.3.6** of the Subdivision Regulations establishes the review criteria for approval of Final 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 these 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.*
>
> *B. 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.*
> >
> > *Final Plat approval shall be subject to the completion of required improvements, or in lieu, the CMPC may approve a Performance Agreement.*

Staff recommends approval of Preliminary & Final Plat 23-0532 with the following conditions:

1. *That final plat be recorded at the Register of Deeds within sixty (60) days of Planning Commission approval per 2.3.5, Final Action of the City of Columbia Subdivision Regulations.*
2. *Approval subject to any technical comments as listed.*

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 Plat [subject to remaining technical comments from staff & staff conditions of approval as listed].

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 Plat, subject to the following conditions: [list any additional 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].

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 R-2666, PAGE 1061 AND BOOK R-2664 PAGE 985, 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 DATE

OWNER 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 AND THAT THE RATIO OF PRECISION OF THE UNADJUSTED SURVEY IS GREATER THAN OR EQUAL TO 1: 10,000.

RANDOLPH L. CHAPDELAINE, R.L.S. # 1444 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 AUTHORIZING AGENCY

CERTIFICATE OF SANITARY SEWER SYSTEM

I HEREBY CERTIFY THAT THE 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 WASTE WATER 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

CERTFICATE 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

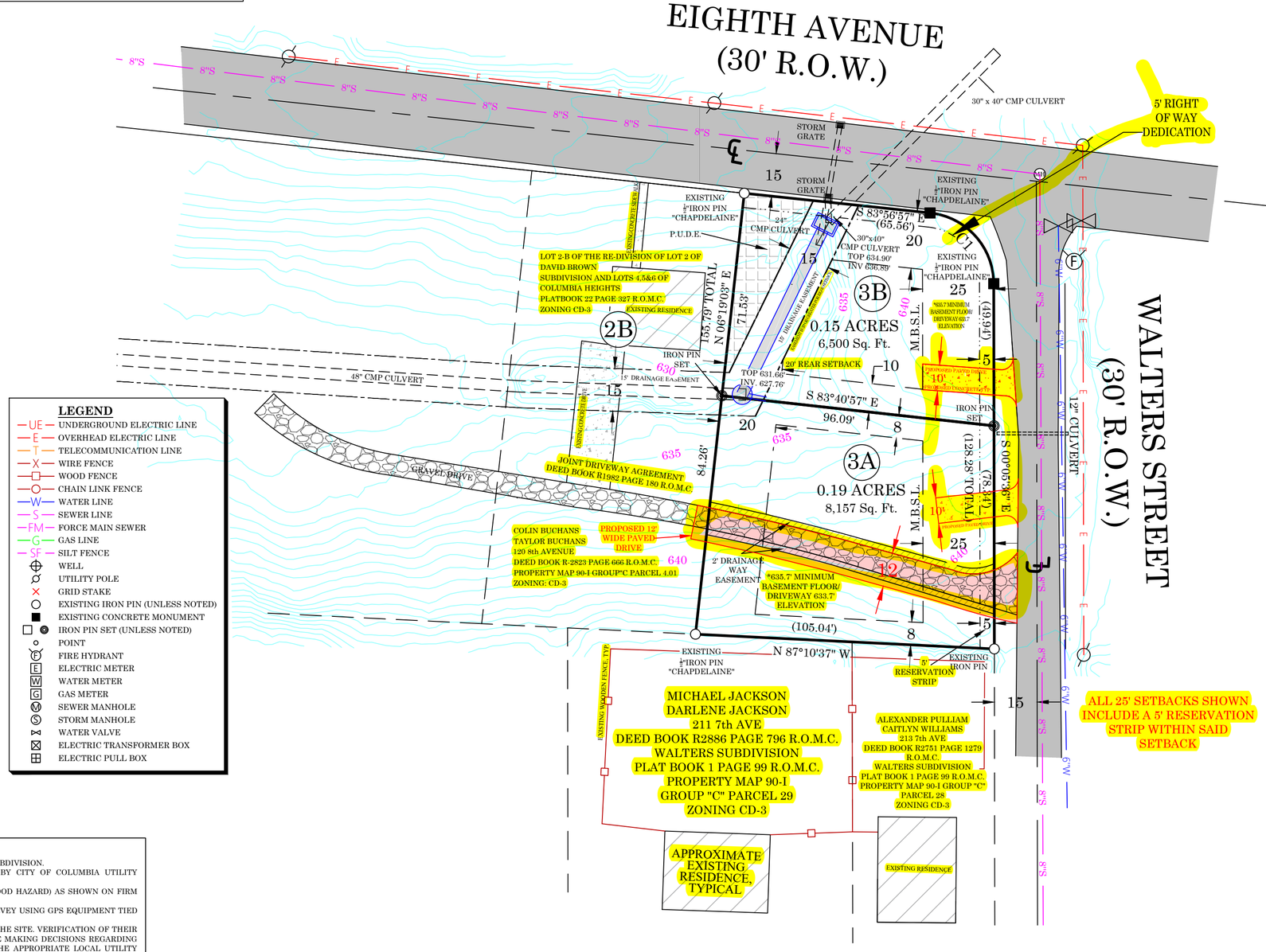
CERTIFICATE OF APPROVAL FOR RECORDING

I HEREBY CERTIFY THAT THE FINAL SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE CITY 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

SPECIAL WASTEWATER NOTE:
WATER AND WASTEWATER TAPS AND HOOK-UPS TO BE DETERMINED BY THE WASTEWATER/WATER DEPARTMENT SO THAT EXISTING SANITARY SEWER SERVICES AND FUTURE CONNECTIONS CAN BE DETERMINED.

STATE PLANE NORTH (NAD83 NAVD88)



LEGEND

- UE — UNDERGROUND ELECTRIC LINE
- E — OVERHEAD ELECTRIC LINE
- T — TELECOMMUNICATION LINE
- X — WIRE FENCE
- WOOD FENCE
- CHAIN LINK FENCE
- W — WATER LINE
- S — SEWER LINE
- FM — FORCE MAIN SEWER
- G — GAS LINE
- SF — SILT FENCE
- WELL
- UTILITY POLE
- GRID STAKE
- EXISTING IRON PIN (UNLESS NOTED)
- EXISTING CONCRETE MONUMENT
- IRON PIN SET (UNLESS NOTED)
- POINT
- (F) FIRE HYDRANT
- (E) ELECTRIC METER
- (W) WATER METER
- (G) GAS METER
- (M) SEWER MANHOLE
- (S) STORM MANHOLE
- WATER VALVE
- ELECTRIC TRANSFORMER BOX
- ELECTRIC PULL BOX

GENERAL NOTES

1. THE PURPOSE OF THIS PLAT IS TO DIVIDE LOT 3 TO CREATE A 2 LOT SUBDIVISION.
2. POTABLE WATER AND SANITARY SEWER FOR PROPERTY SERVED BY CITY OF COLUMBIA UTILITY DISTRICT.
3. THE SUBJECT PROPERTY LIES IN A ZONE "X" (AREA OF MINIMAL FLOOD HAZARD) AS SHOWN ON FIRM MAP 47119C0170E DATED 4/16/2007.
4. ALL DISTANCES SHOWN HEREON ARE BASED UPON A FIELD-RUN SURVEY USING GPS EQUIPMENT TIED TO TDOT CORS.
5. UTILITIES, IF SHOWN, WERE TAKEN FROM VISIBLE STRUCTURES AT THE SITE. VERIFICATION OF THEIR EXISTENCE, LOCATION, SIZE, AND DEPTH, SHOULD BE MADE BEFORE MAKING DECISIONS REGARDING THEM. AVAILABILITY OF SERVICE SHOULD BE CONFIRMED WITH THE APPROPRIATE LOCAL UTILITY COMPANY. TENNESSEE ONE CALL (811) SHOULD BE CALLED BEFORE ANY CONSTRUCTION OR DIGGING.
6. THIS SURVEY WAS MADE WITHOUT THE BENEFIT OF A TITLE REPORT, IT IS THEREFORE SUBJECT TO THE FINDINGS OF AN ACCURATE TITLE REPORT.
7. THIS PROPERTY IS SUBJECT TO BOTH RECORDED EASEMENTS, AND TO THOSE UNKNOWN TO THIS SURVEYOR.
8. PROBABLE WETLAND AREAS, AS IDENTIFIED EITHER BY THE NATIONAL WETLANDS INVENTORY OR FOUND AT THE TIME OF THE SURVEY, ARE SHOWN ON THIS PLAT. VERIFICATION AND DELINEATION OF THE PERIMETER LOCATION OF THESE OR ANY OTHER SUCH AREAS WHICH MAY EXIST ON THE PROPERTY SHOULD BE MADE BY THE OWNER OR DEVELOPER THROUGH THE RELEVANT GOVERNMENT AGENCY AND A WETLAND DELINEATION CONSULTANT PRIOR TO IMPROVEMENT, DESIGN, OR DEVELOPMENT OF THE PROPERTY. AT LEAST SIX GOVERNMENT AGENCIES HAVE REGULATION AUTHORITY OVER THE USE OR ALTERATION OF WETLAND AREAS, AND INCLUDE THE FOLLOWING: U.S. ARMY CORPS OF ENGINEERS; U.S. ENVIRONMENTAL PROTECTION AGENCY; U.S. FISH AND WILDLIFE SERVICE; TENNESSEE WILDLIFE RESOURCES AGENCY; TENNESSEE DIVISION OF WATER POLLUTION CONTROL; TENNESSEE NATURAL RESOURCES CONSERVATION SERVICE.
9. TOPOGRAPHY DATUM BASED ON NAVD 1988 TAKEN FROM TENNESSEE LIDAR MAPPING AND FIELD CHECKED.
10. PROPERTY ZONED CD-3. SETBACKS: FRONT-25'; SIDE-8'; SECONDARY SIDE SETBACK-10'; REAR-20'.
11. THE RECORDING OF THIS PLAT VOIDS, VACATES AND SUPERSEDES LOT 3 OF THE PREVIOUSLY RECORDED PLAT OF THE MINOR SUBDIVISION FINAL PLAT FOR THE RE-DIVISION OF LOT 2 OF THE DAVID BROWN SUBDIVISION AND LOTS 4,5, & 6 OF COLUMBIA HEIGHTS BLOCK B AS RECORDED IN PLAT BOOK P22 PAGE 327 R.O.M.C..
12. THIS PLAT IS BEING REVIEWED UNDER ZONING ORDINANCE 4400 AND WILL ADHERE TO ALL DESIGN AND BULK STANDARDS FOR A CD-3 DISTRICT PER TABLE 4.3.1-C DISTRICT STANDARDS.
13. ALL DRAINAGE IMPROVEMENTS SHALL BE COMPLETED PRIOR TO CERTIFICATE OF OCCUPANCY FOR BOTH PROPOSED LOTS 3A AND 3B.
14. PUDE: PUBLIC UTILITY AND DRAINAGE EASEMENTS (PUDE) SHALL BE REQUIRED AND BE 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, EXCEPT FOR INTERIOR LOT LINES WITH A ZERO-LOT LINE OR A COMMON WALL ALONG A LOT LINE, UNLESS MENTIONED.

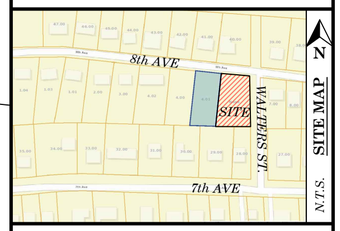
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SPECIAL NOTE:
LOTS 3A & 3B REQUIRE STAMPED ENGINEERED STORMWATER DESIGN PRIOR TO THE ISSUANCE OF BUILDING PERMIT (ACCESS AND CIRCULATION)

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	25.00'	36.59'	33.41'	S 42°01'16" E	83°51'21"

CHAPDELAINE & ASSOCIATES
LAND SURVEYING

7376 WALKER ROAD,
FAIRVIEW, TENNESSEE 37062
(615) 799-8104
chapsurveyors@msn.com
Randolph L. Chapdelaine
TN R.L.S. #1444





CERTIFICATE OF ACCURACY

I HEREBY CERTIFY THAT THIS IS A CATEGORY IV SURVEY AND THAT THIS MAP WAS DRAWN UNDER MY SUPERVISION, THIS SURVEY WAS DONE IN COMPLIANCE WITH CURRENT TENNESSEE MINIMUM STANDARDS OF PRACTICE, AND THE FOLLOWING INFORMATION WAS USED TO PERFORM THE SURVEY:

a. REAL TIME KINEMATIC & BASE SOKKIA GRX 3
b. POSITIONAL ACCURACY: 0.05 FEET
c. DATE OF SURVEY:10/01/2020
d. DATUM / EPOCH: NAD83 (2011) EPOCH
e. PUBLISHED / FIXED CONTROL: TDOT CORS NETWORK
f. GEOID MODEL: GEOID 12B
g. COMBINED GRID FACTOR: 0.99992807

RANDOLPH L. CHAPDELAINE, R.L.S. # 1444 DATE

OWNER: WILLIAM DAVID AND REBECCA HOLLADAY
WALTERS STREET
DEED BOOK R-2666 PAGE 1061 R.O.W.C.
9th CIVIL DISTRICT OF MAURY COUNTY, TENNESSEE
PROPERTY MAP 90-I GROUP "C" PARCEL 4.03

REVISION #	DATE
REVISION # 3	9/13/2024
REVISION # 2	8/16/2024
REVISION # 1	4/10/2023

DATE:	MARCH 22, 2023
DRAWN BY:	NAB
JOB #:	7416
SCALE:	1" = 30'

0 30 60

V-1.1

REVISION OF THE RE-DIVISION OF LOT 2 OF DAVID BROWN SUBDIVISION (AND LOTS 4,5&6 OF COLUMBIA HEIGHTS) LOT 3

4-10-2023

CITY OF COLUMBIA
TENNESSEE

WASTEWATER DEPARTMENT

16 September 2024

William D. Holladay
314 W. 6th Street #8 and 9
Spring Hill, TN 37064

RE: 8th Ave and Walters, Columbia, TN 38401; 090I C 004.03

William,

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.

The property currently has no taps available to it and so taps will need to be purchased in the event of a subdivision development. In the event the property is not subdivided, a single tap shall be purchased in the event of development.

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

September 12, 2024

Project Name: 8th Avenue & Walters St
Project #: 24-0369

Dear Chapdelaine and Associates Land Surveying,

We received a plan for review at the above referenced project. Our review of your project requires additional information, corrections, or revisions before we can proceed.

After reviewing the specific comments from each department, please submit your revised plans in the following manner:

- Include a copy of this letter with your own letter of response that corresponds to our items on the original letter
- Submit revised copies of any requested item showing revision date, totally the original required copies.
- Cloud or Highlight all changes in the revised drawings showing revision date

Submittal Guidelines

Provide digital copies of construction plans and all supporting documentation. Submit all required documents electronically. Plan sheets should be appropriately compiled into one file. All plan sheets shall be vector format.

Electronic documents must be emailed to **development@columbiatn.com**. If the files are oversized, please provide a file sharing link.

Please do not submit scanned documents, only digital files of original documents.

Please address the comments on the following page. For any questions regarding corrections, the reviewer's name and contact information have been included.

ALL COMMENTS MUST BE ADDRESSED IN ONE COMPLETE RESUBMITTAL

Further corrections may be necessary as a result of submitting additional information.

Please be advised that submissions for the fourth and any subsequent reviews will result in an additional fee totaling half of the original submittal, if applicable.

Planning

1. Plat indicates existing gravel drive on lots 3A that is shared in common ownership with adjacent properties. Driveway is indicated on the lot within the proposed building envelope. Will driveway be relocated? DRIVEWAY WILL BE WIDENED TO 12' WIDE AND PAVED, AND WILL NOT BE RELOCATED.
2. Note 25' setback is from property line and includes a 5' reservation strip in setback. THIS HAS BEEN NOTED ON THE DRAWING.
3. Driveway required to be a paved surface in a CD-3 Character District. Please note paving and width of driveway. IT IS SHOWN THAT IT WILL BE PAVED AND WIDENED TO 12' WIDE.
4. Indicate width of proposed drive and include materials for lot 3B. PROPOSED DRIVES WILL BE 10' WIDE AND MADE OF CONCRETE MATERIAL.
5. Provide rear setback for lot 3B. *Note that principal entrance will be required to front Walters Street when utilizing a secondary side setback for lot on 8th Ave. REAR SETBACK HAS BEEN PROVIDED TO LOT 3B AND ALL PRINCIPAL ENTRANCES WILL BE FRONTING WALTERS STREET AND 3B WILL BE UTILIZING A SECONDARY SIDE SETBACK.
6. Provide additional note on general note 10 for secondary setback (10'). ADDITIONAL NOTE ADDED TO GENERAL NOTE 10.
7. Provide note that this plat is being reviewed under Zoning Ordinance 4400 and will adhere to all design and bulk standards for a CD-3 district per table 4.3.1-C district standards. NOTE HAS BEEN ADDED, SEE NOTE 12 ON PLAT.
8. Provide the approximate location of all existing structures adjacent to property. ALL EXISTING STRUCTURES ADJACENT TO SUBJECT PROPERTY HAS BEEN APPROXIMATELY LOCATED AND SHOWN ON THE PLAT.
9. Provide parcel identification, owner, and deed and plat references of adjoining properties.ALL PARCELS WERE ALREADY PROVIDING ALL PARCEL IDENTIFICATION INFORMATION PRIOR TO THIS COMMENT AND THEY HAVE SINCE BEEN TRIPLE CHECKED TO CONFIRM THIS.

Engineering

10. Drainage improvements shall be completed prior to certificate of occupancy for either proposed lot (3A or 3B). SEE SPECIAL NOTE AND NOTE 13 ON GENERAL NOTES IN PLAT.
11. The note for minimum FFE and Basement should be for both 3A and 3B NOTE WAS APPLIED TO BOTH LOTS VISUALLY AND ARE HIGHLIGHTED.
12. Remove topographical information from Final Plat, add to Preliminary Plat. TOPO IS ON THE PLAT SINCE THIS IS A PRELIMINARY PLAT.
13. Provide general note for PUDE: Public Utility and Drainage Easements (PUDE) shall be required and be 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, except for interior lot lines with a zero-lot line or a common wall along a lot line, unless mentioned below. ADDED. SEE GENERAL NOTE 14 ON PLAT.
14. Change proposed reservation strip to dedication of ROW. Provide ROW dedication along 8th Avenue. ADDED AND NOTED ON THE DRAWING VISUALLY AND IS HIGHLIGHTED.

Wastewater

1. Please request a tap locate with the front office of the Wastewater Department so the existing sanitary sewer services can be displayed on the plat and future connections determined. SPECIAL WATER/WASTEWATER NOTE ADDED TO PLAT.

Fire

2. No comments

Building

3. No comment.

Police

4. No comment.

City Attorney

5. No comment provided.

Maury County Schools

6. Riverside Elementary, Cox Middle School, Central High School. See Attached Capacity Numbers. The development combined with current neighborhoods and additional approved developments in these

zones may require either new construction or realignment of school zones to accommodate new students. UNDERSTOOD (NOTHING IS LISTED ON OUR PLAT)

Duck River Electric Membership Corp

7. No comment provided.

Columbia Water

8. "Coordinate water services for each lot with CPWS and show location on Final Plat." SPECIAL WATER/WASTEWATER NOTE ADDED TO PLAT.

Columbia Power

9. 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 (NOTHING IS LISTED ON OUR PLAT)

Maury County Highway Dept.

10. No comments provided.

ATT

11. No comments provided.

Public Works

12. No Comments.

Atmos Energy

13. No comments provided.

Maury County E911

14. No comments provided.

Sincerely,

Austin Brass
Planner

CITY OF
COLUMBIA
TENNESSEE

DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
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Fire

16. No comments

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ATT

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27. No comments provided.

Maury County E911

28. No comments provided.

Sincerely,

Austin Brass
Planner

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 R-2666, PAGE 1061 AND BOOK R-2664 PAGE 985, 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 DATE

OWNER 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 AND THAT THE RATIO OF PRECISION OF THE UNADJUSTED SURVEY IS GREATER THAN OR EQUAL TO 1: 10,000.

RANDOLPH L. CHAPDELAINE, R.L.S. # 1444 8/16/2024

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 AUTHORIZING AGENCY

CERTIFICATE OF SANITARY SEWER SYSTEM

I HEREBY CERTIFY THAT THE 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 WASTE WATER 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

CERTFICATE OF COMPLIANCE

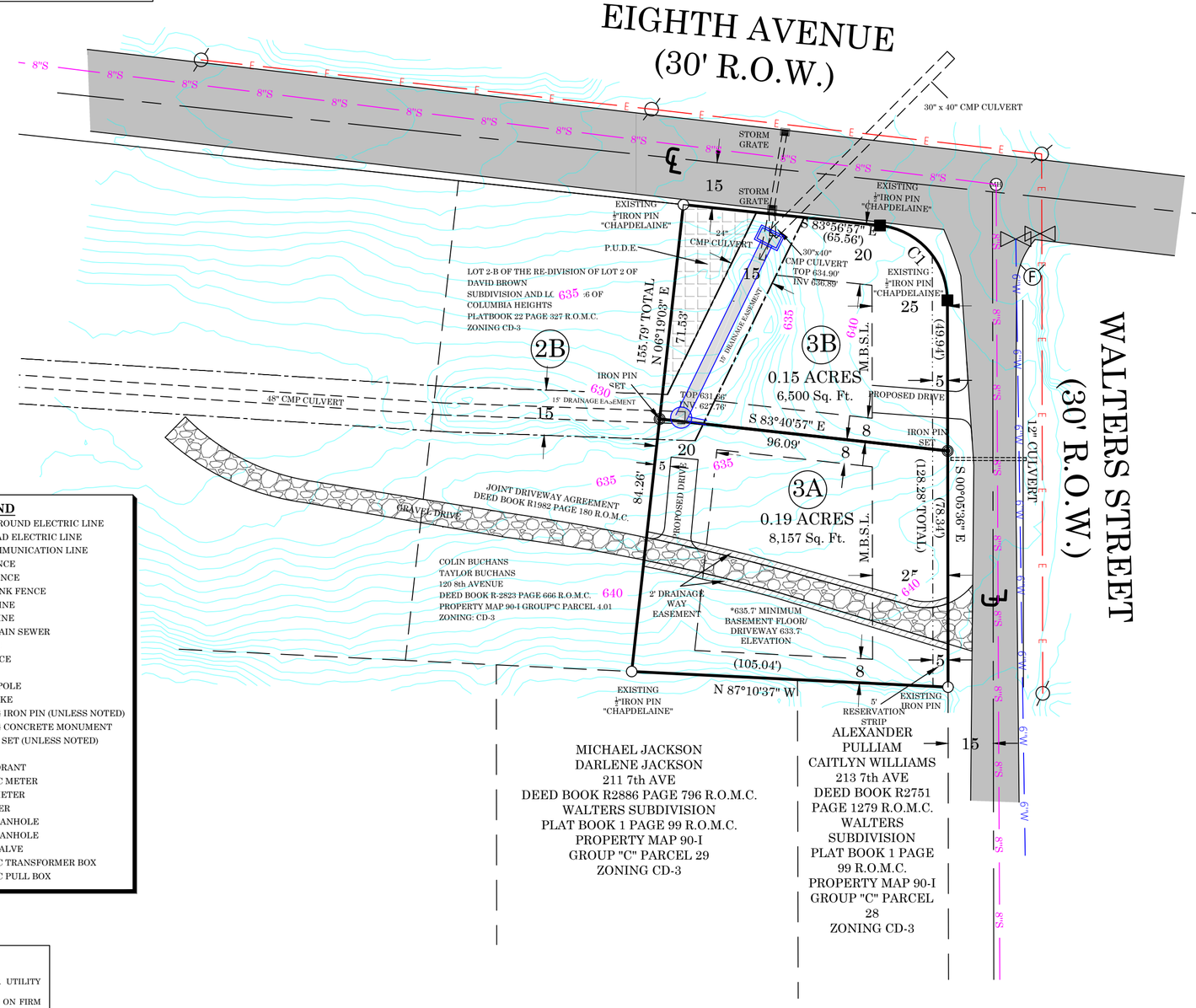
I HEREBY CERTIFY THAT THE FINAL SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE CITY OF COLUMBIA SUBDIVISION REGULATIONS AND OTHER ADOPTED ORDINANCES AND POLICIES.

CITY ENGINEER DATE
COLUMBIA, TENNESSEE

CERTIFICATE OF APPROVAL FOR RECORDING

I HEREBY CERTIFY THAT THE FINAL SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE CITY 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



LEGEND

- UE — UNDERGROUND ELECTRIC LINE
- E — OVERHEAD ELECTRIC LINE
- T — TELECOMMUNICATION LINE
- X — WIRE FENCE
- WOOD FENCE
- CHAIN LINK FENCE
- W — WATER LINE
- S — SEWER LINE
- FM — FORCE MAIN SEWER
- G — GAS LINE
- SF — SILT FENCE
- WELL
- UTILITY POLE
- GRID STAKE
- EXISTING IRON PIN (UNLESS NOTED)
- EXISTING CONCRETE MONUMENT
- IRON PIN SET (UNLESS NOTED)
- POINT
- FIRE HYDRANT
- E ELECTRIC METER
- W WATER METER
- G GAS METER
- M SEWER MANHOLE
- S STORM MANHOLE
- WATER VALVE
- ELECTRIC TRANSFORMER BOX
- ELECTRIC PULL BOX

GENERAL NOTES

1. THE PURPOSE OF THIS PLAT IS TO DIVIDE LOT 3 TO CREATE A 2 LOT SUBDIVISION.
2. POTABLE WATER AND SANITARY SEWER FOR PROPERTY SERVED BY CITY OF COLUMBIA UTILITY DISTRICT.
3. THE SUBJECT PROPERTY LIES IN A ZONE "X" (AREA OF MINIMAL FLOOD HAZARD) AS SHOWN ON FIRM MAP 47119C0170E DATED 4/16/2007.
4. ALL DISTANCES SHOWN HEREON ARE BASED UPON A FIELD-RUN SURVEY USING GPS EQUIPMENT TIED TO TDOT CORS.
5. UTILITIES, IF SHOWN, WERE TAKEN FROM VISIBLE STRUCTURES AT THE SITE. VERIFICATION OF THEIR EXISTENCE, LOCATION, SIZE, AND DEPTH, SHOULD BE MADE BEFORE MAKING DECISIONS REGARDING THEM. AVAILABILITY OF SERVICE SHOULD BE CONFIRMED WITH THE APPROPRIATE LOCAL UTILITY COMPANY. TENNESSEE ONE CALL (811) SHOULD BE CALLED BEFORE ANY CONSTRUCTION OR DIGGING.
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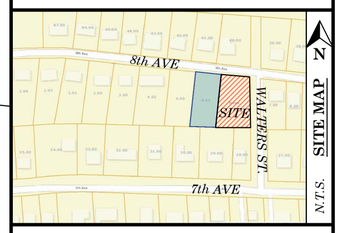
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b. POSITIONAL ACCURACY: 0.05 FEET
c. DATE OF SURVEY:10/01/2020
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SCALE:	1" = 30'

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V-1.1

REVISION OF THE RE-DIVISION OF LOT 2 OF DAVID BROWN SUBDIVISION (AND LOTS 4,5&6 COLUMBIA HEIGHTS) LOT 3

4-10-2023

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OWNER DATE

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RANDOLPH L. CHAPDELAINE, R.L.S. # 1444 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 AUTHORIZING AGENCY

CERTIFICATE OF SANITARY SEWER SYSTEM

I HEREBY CERTIFY THAT THE 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 WASTE WATER 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

CERTFICATE OF COMPLIANCE

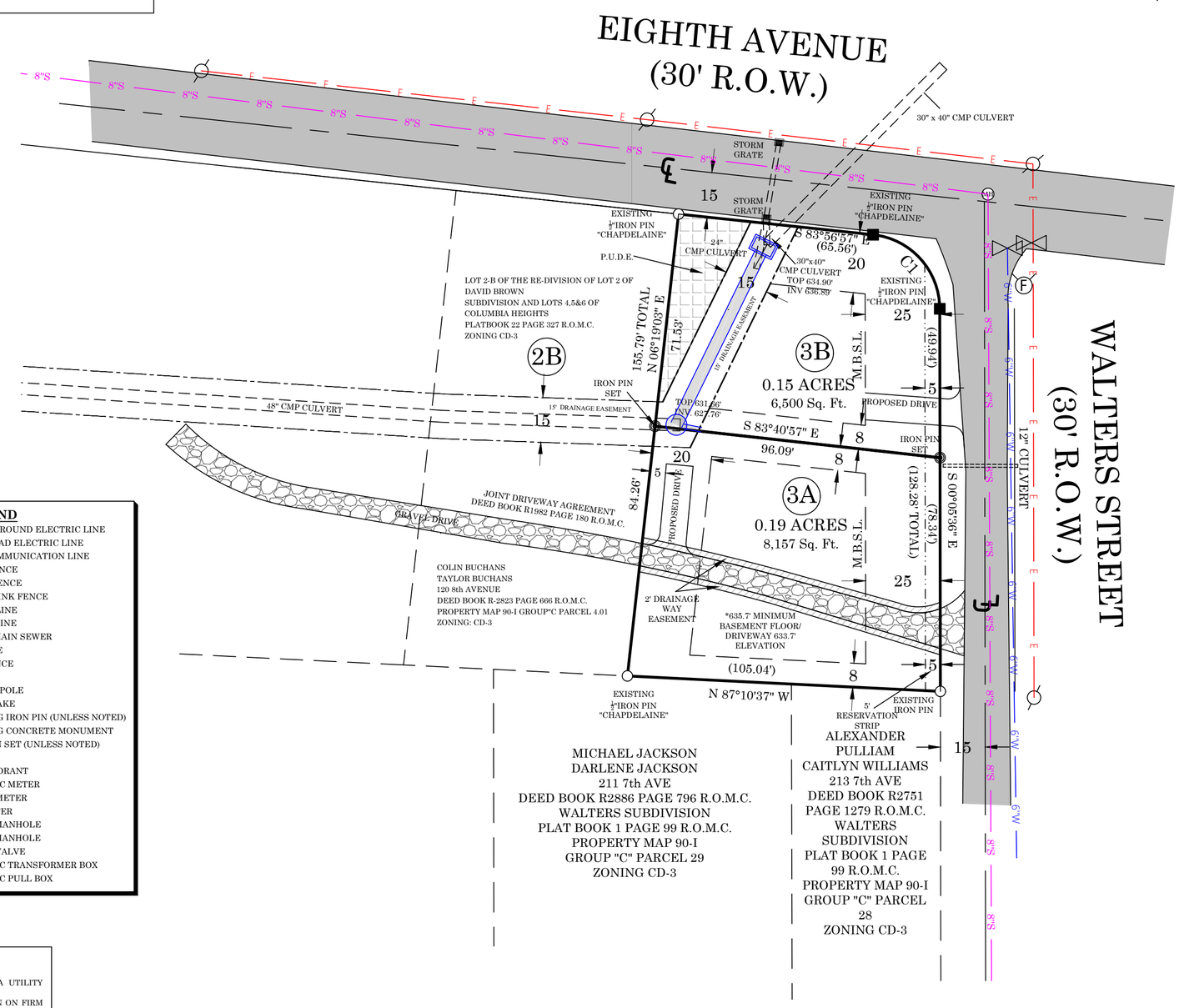
I HEREBY CERTIFY THAT THE FINAL SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE CITY OF COLUMBIA SUBDIVISION REGULATIONS AND OTHER ADOPTED ORDINANCES AND POLICIES.

CITY ENGINEER DATE
COLUMBIA, TENNESSEE

CERTIFICATE OF APPROVAL FOR RECORDING

I HEREBY CERTIFY THAT THE FINAL SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE CITY 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



LEGEND

- UE — UNDERGROUND ELECTRIC LINE
- E — OVERHEAD ELECTRIC LINE
- T — TELECOMMUNICATION LINE
- X — WIRE FENCE
- WOOD FENCE
- CHAIN LINK FENCE
- W — WATER LINE
- S — SEWER LINE
- FM — FORCE MAIN SEWER
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- UTILITY POLE
- GRID STAKE
- EXISTING IRON PIN (UNLESS NOTED)
- EXISTING CONCRETE MONUMENT
- IRON PIN SET (UNLESS NOTED)
- POINT
- FIRE HYDRANT
- E ELECTRIC METER
- W WATER METER
- G GAS METER
- M SEWER MANHOLE
- S STORM MANHOLE
- WATER VALVE
- ELECTRIC TRANSFORMER BOX
- ELECTRIC PULL BOX

GENERAL NOTES

1. THE PURPOSE OF THIS PLAT IS TO DIVIDE LOT 3 TO CREATE A 2 LOT SUBDIVISION.
2. POTABLE WATER AND SANITARY SEWER FOR PROPERTY SERVED BY CITY OF COLUMBIA UTILITY DISTRICT.
3. THE SUBJECT PROPERTY LIES IN A ZONE "X" (AREA OF MINIMAL FLOOD HAZARD) AS SHOWN ON FIRM MAP 47119C0170E DATED 4/16/2007.
4. ALL DISTANCES SHOWN HEREON ARE BASED UPON A FIELD-RUN SURVEY USING GPS EQUIPMENT TIED TO TDOT CORS.
5. UTILITIES, IF SHOWN, WERE TAKEN FROM VISIBLE STRUCTURES AT THE SITE. VERIFICATION OF THEIR EXISTENCE, LOCATION, SIZE, AND DEPTH, SHOULD BE MADE BEFORE MAKING DECISIONS REGARDING THEM. AVAILABILITY OF SERVICE SHOULD BE CONFIRMED WITH THE APPROPRIATE LOCAL UTILITY COMPANY. TENNESSEE ONE CALL (811) SHOULD BE CALLED BEFORE ANY CONSTRUCTION OR DIGGING.
6. THIS SURVEY WAS MADE WITHOUT THE BENEFIT OF A TITLE REPORT, IT IS THEREFORE SUBJECT TO THE FINDINGS OF AN ACCURATE TITLE REPORT.
7. THIS PROPERTY IS SUBJECT TO BOTH RECORDED EASEMENTS, AND TO THOSE UNKNOWN TO THIS SURVEYOR.
8. PROBABLE WETLAND AREAS, AS IDENTIFIED EITHER BY THE NATIONAL WETLANDS INVENTORY OR FOUND AT THE TIME OF THE SURVEY, ARE SHOWN ON THIS PLAT. VERIFICATION AND DELINEATION OF THE PERIMETER LOCATION OF THESE OR ANY OTHER SUCH AREAS WHICH MAY EXIST ON THE PROPERTY SHOULD BE MADE BY THE OWNER OR DEVELOPER THROUGH THE RELEVANT GOVERNMENT AGENCY AND A WETLAND DELINEATION CONSULTANT PRIOR TO IMPROVEMENT, DESIGN, OR DEVELOPMENT OF THE PROPERTY. AT LEAST SIX GOVERNMENT AGENCIES HAVE REGULATION AUTHORITY OVER THE USE OR ALTERATION OF WETLAND AREAS, AND INCLUDE THE FOLLOWING: U.S. ARMY CORPS OF ENGINEERS; U.S. ENVIRONMENTAL PROTECTION AGENCY; U.S. FISH AND WILDLIFE SERVICE; TENNESSEE WILDLIFE RESOURCES AGENCY; TENNESSEE DIVISION OF WATER POLLUTION CONTROL; TENNESSEE NATURAL RESOURCES CONSERVATION SERVICE.
9. TOPOGRAPHY DATUM BASED ON NAVD 1988 TAKEN FROM TENNESSEE LIDAR MAPPING AND FIELD CHECKED.
10. PROPERTY ZONED CD-3. SETBACKS: FRONT-25'; SIDE-8'; REAR-20'.
11. THE RECORDING OF THIS PLAT VOIDS, VACATES AND SUPERSEDES LOT 3 OF THE PREVIOUSLY RECORDED PLAT OF THE MINOR SUBDIVISION FINAL PLAT FOR THE RE-DIVISION OF LOT 2 OF THE DAVID BROWN SUBDIVISION AND LOTS 4,5, & 6 OF COLUMBIA HEIGHTS BLOCK B AS RECORDED IN PLAT BOOK P22 PAGE 327 R.O.M.C..

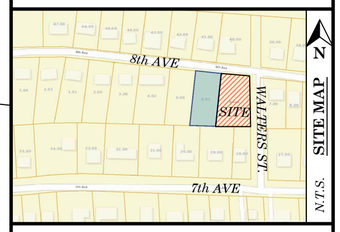
LOT 3A 0.19 ACRES 8,157 SQ.FT.
LOT 3B 0.15 ACRES 6,500 SQ.FT.

SPECIAL NOTE:.
LOTS 3A & 3B REQUIRE STAMPED ENGINEERED STORMWATER DESIGN PRIOR TO THE ISSUANCE OF BUILDING PERMIT (ACCESS AND CIRCULATION)

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	25.00'	36.59'	33.41'	S 42°01'16" E	83°51'21"

CHAPDELAINE & ASSOCIATES
LAND SURVEYING

7376 WALKER ROAD,
FAIRVIEW, TENNESSEE 37062
(615) 799-8104
chapsurveyors@msn.com
Randolph L. Chapdelaine
TN R.L.S. #1444





CERTIFICATE OF ACCURACY

I HEREBY CERTIFY THAT THIS IS A CATEGORY IV SURVEY AND THAT THIS MAP WAS DRAWN UNDER MY SUPERVISION, THIS SURVEY WAS DONE IN COMPLIANCE WITH CURRENT TENNESSEE MINIMUM STANDARDS OF PRACTICE, AND THE FOLLOWING INFORMATION WAS USED TO PERFORM THE SURVEY:

a. REAL TIME KINEMATIC & BASE SOKKIA GRX 3
b. POSITIONAL ACCURACY: 0.05 FEET
c. DATE OF SURVEY:10/01/2020
d. DATUM / EPOCH: NAD83 (2011) EPOCH
e. PUBLISHED / FIXED CONTROL: TDOT CORS NETWORK
f. GEOID MODEL: GEOID 12B
g. COMBINED GRID FACTOR: 0.99992807

8/16/2024

RANDOLPH L. CHAPDELAINE, R.L.S. # 1444 DATE

OWNER: WILLIAM DAVID AND REBECCA HOLLADAY
WALTERS STREET
DEED BOOK R-2666 PAGE 1061 R.O.W.C.
9th CIVIL DISTRICT OF MAURY COUNTY, TENNESSEE
PROPERTY MAP 90-I GROUP "C" PARCEL 4.03

REVISION #	DATE
REVISION # 2	8/16/2024
REVISION # 1	4/10/2023

DATE:	MARCH 22, 2023
DRAWN BY:	NAB
JOB #:	7416
SCALE:	1" = 30'

0 30 60

V-1.1

REVISION OF THE RE-DIVISION OF LOT 2 OF DAVID BROWN SUBDIVISION (AND LOTS 4,5&6 OF COLUMBIA HEIGHTS) LOT 3

4-10-2023

CITY OF COLUMBIA
TENNESSEE

WASTEWATER DEPARTMENT

10 August 2023

Zack Harvill
Chapdelaine and Associates Land Surveying
7376 Walker Road
Fairview, TN 37062

RE: Map 090I, Group C, Parcel 004.03, Riverside, Columbia, TN 38401

Zack,

This letter serves as confirmation that the City of Columbia Wastewater Department has the available capacity to service the above-referenced 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. 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

From:	Mike Harris
To:	Kevin McCarthy
Cc:	Eric King; Sandra Richardson; Melissa Sanders; Austin Brass; Paul Keltner
Subject:	[Caution External Email] - RE: 8th Avenue & Walters Street (24-0369)
Date:	Friday, August 23, 2024 6:21:09 AM

Assuming this would be for single family I don't see the need for an availability. I would not anticipate any concerns, Eric can chime in if he is aware of problems in this area.

From: Kevin McCarthy <KMcCarthy@Columbiatn.gov>
Sent: Thursday, August 22, 2024 1:47 PM
To: Mike Harris <mike.harris@inflodesign.com>
Cc: Eric King <eric.king@inflodesign.com>; Sandra Richardson <SRichardson@Columbiatn.gov>; Melissa Sanders <MSanders@Columbiatn.gov>; Austin Brass <ABrass@Columbiatn.gov>; Paul Keltner <PKeltner@Columbiatn.gov>
Subject: 8th Avenue & Walters Street (24-0369)

Mike,

We have received an application to further subdivide the property at 8th and Walters. Is this property too small for a water availability letter? If so, do you have any concerns about the availability of water for fire and domestic at this site?

Thanks!

Please note that our email addresses have changed from a ".com" to ".gov" domain. My email is now kmccarthy@columbiatn.gov

Kevin C. McCarthy, AICP
City Planner
700 N. Garden Street
Columbia, TN 38401
kmccarthy@columbiatn.gov



Disclaimer

The information contained in this communication from the sender is confidential. It is intended solely for use by the recipient and others authorized to receive it. If you are not the recipient, you are hereby notified that any disclosure, copying, distribution or taking action in relation of the contents of this information is strictly prohibited and may be unlawful.

This email has been scanned for viruses and malware, and may have been automatically archived by Mimecast, a leader in email security and cyber resilience. Mimecast integrates email defenses with brand protection, security awareness training, web security, compliance and other essential capabilities. Mimecast helps protect large and small organizations from malicious activity, human error and technology failure; and to lead the movement toward building a more resilient world. To find out more, visit our website.

Columbia Fire & Rescue

Fire Flow Requirements

Water Purveyor: Columbia Power & Water System

Date: 8/8/2023
Name: Zack Harvill
Phone: 615-799-8104
Email:
zharvill@chapsurveyor.com
Address/Parcel ID: Map 090I, Group C, Parcel 004.03
Property Type: ○ Residential
○ Commercial
○ Industrial
Construction Type: Residential
Enclosed Area (ft^2): Less than 3,600sqft

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: 8/9/2023

OWNERS CERTIFICATE

I (WE) HEREBY CERTIFY THAT I AM (WE ARE) THE OWNER(S) OF THE PROPERTY SHOWN AND DESCRIBED HEREON AS EVIDENCED IN BOOK R-2666 PAGE 1061 AND R-2664,PAGE 985, MAURY COUNTY REGISTERS OFFICE, AND THAT I (WE) ADOPT THIS PLAN OF SUBDIVISION WITH MY (OUR) FREE CONSENT ESTABLISH THE MINIMUM BUILDING RESTRICTION LINES AND THAT OFFERS OF IRREVOCABLE DEDICATION FOR ALL PUBLIC WAYS, UTILITIES AND OTHER FACILITIES HAVE BEEN FILED.

OWNER DATE

OWNER 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 "1" LAND SURVEY AS DEFINED IN TITLE 62, CHAPTER 18, TENNESSEE CODE ANNOTATED AND THAT THE RATIO OF PRECISION OF THE UNADJUSTED SURVEY IS GREATER THAN 1: 10,000.

Preliminary
08/08/2023 12:42:45 PM

RANDOLPH L. CHAPDELAINE, R.L.S. # 1444 DATE

CERTIFICATE OF APPROVAL OF WATER SYSTEM

I HEREBY CERTIFY THAT THE WATER SYSTEM(S) OUTLINED OR INDICATED ON THIS FINAL SUBDIVISION PLAT ENTITLED "MINOR SUBDIVISION OF LOT 3 FOR THE RE-SUBDIVISION OF LOT 2 OF DAVID BROWN SUBDIVISION AND LOTS 4,5&6 OF COLUMBIA HEIGHTS" 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.

TITLE AUTHORIZING AGENCY

CERTIFICATE OF SANITARY SEWER SYSTEM

I HEREBY CERTIFY THAT THE 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 WASTE WATER DEPARTMENT DATE
COLUMBIA, TENNESSEE

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PLANNING DIRECTOR 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

CERTFICATE OF COMPLIANCE

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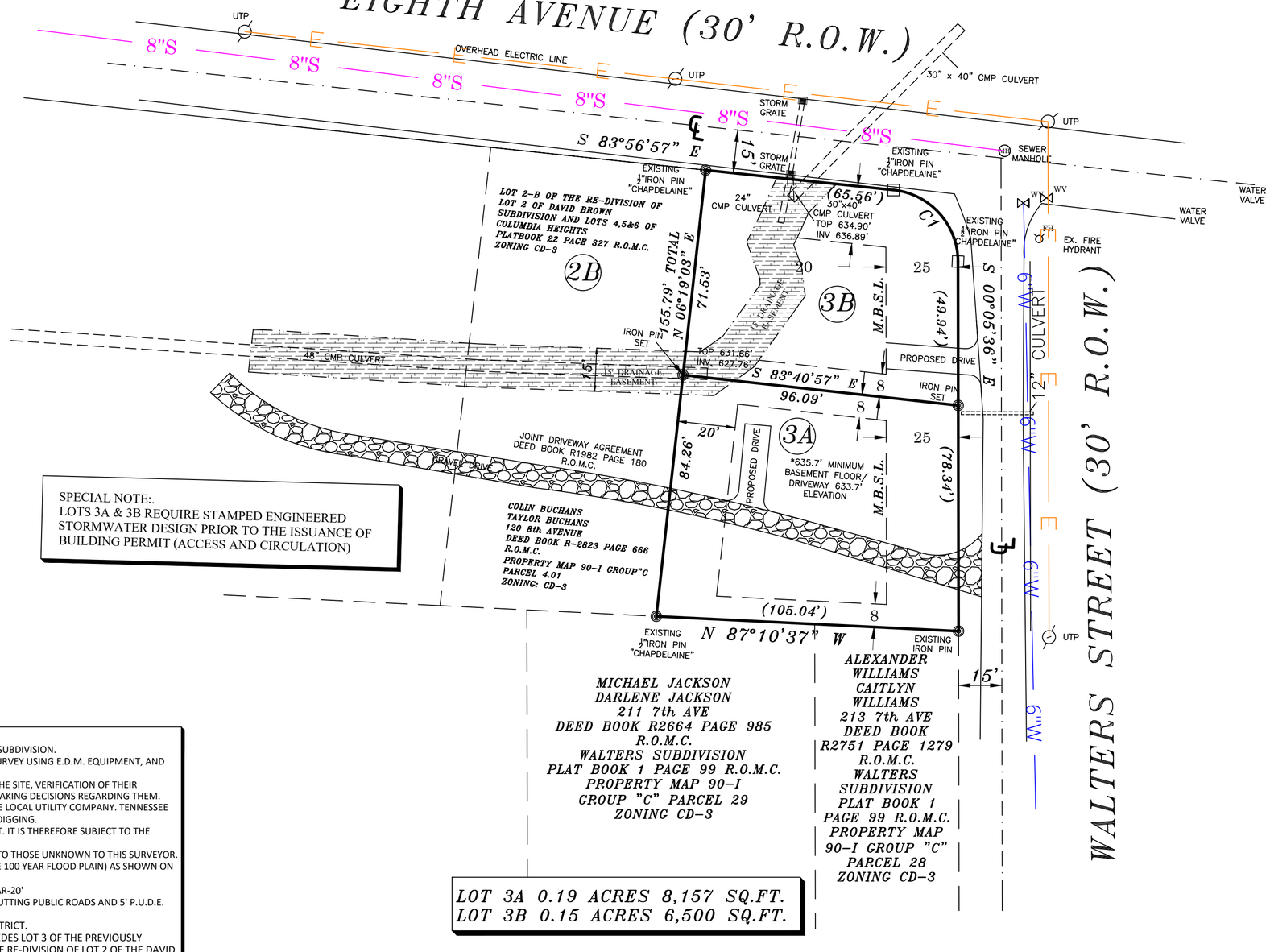
CITY ENGINEER DATE
COLUMBIA, TENNESSEE

LEGEND

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- E — OVERHEAD ELECTRIC LINE
- T — TELECOMMUNICATION LINE
- X — WIRE FENCE
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- E — ELECTRIC METER
- W — WATER METER
- G — GAS METER
- M — SEWER MANHOLE
- S — STORM MANHOLE
- WATER VALVE
- ELECTRIC TRANSFORMER BOX
- ELECTRIC PULL BOX

STATE PLANE NORTH (NAD83 NAVD88)

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	25.00'	36.59'	33.41'	S 42°01'16" E	83°51'21"



SPECIAL NOTE:.
LOTS 3A & 3B REQUIRE STAMPED ENGINEERED STORMWATER DESIGN PRIOR TO THE ISSUANCE OF BUILDING PERMIT (ACCESS AND CIRCULATION)

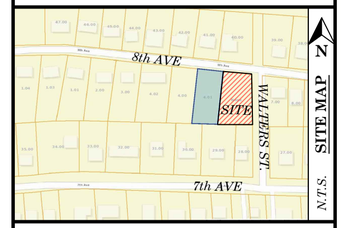
LOT 3A 0.19 ACRES 8,157 SQ.FT.
LOT 3B 0.15 ACRES 6,500 SQ.FT.

GENERAL NOTES

1.) THE PURPOSE OF THIS PLAT IS TO DIVIDE LOT 3 TO CREATE A 2 LOT SUBDIVISION.
2.) ALL DISTANCES SHOWN HEREON ARE BASED UPON A FIELD--RUN SURVEY USING E.D.M. EQUIPMENT, AND ARE ADJUSTED FOR TEMPERATURE.
3.) UTILITIES, IF SHOWN WERE TAKEN FROM VISIBLE STRUCTURES AT THE SITE, VERIFICATION OF THEIR EXISTENCE, LOCATION, SIZE, AND DEPTH SHOULD BE MADE BEFORE MAKING DECISIONS REGARDING THEM. AVAILABILITY OF SERVICE SHOULD BE CONFIRMED WITH APPROPRIATE LOCAL UTILITY COMPANY. TENNESSEE ONE CALL (811) SHOULD BE CALLED BEFORE ANY CONSTRUCTION OR DIGGING.
4.) THIS SURVEY WAS MADE WITHOUT THE BENEFIT OF A TITLE REPORT. IT IS THEREFORE SUBJECT TO THE FINDINGS OF AN ACCURATE TITLE REPORT.
5.) THIS PROPERTY IS SUBJECT TO BOTH RECORDED EASEMENTS, AND TO THOSE UNKNOWN TO THIS SURVEYOR.
6.) THE SUBJECT PROPERTY LIES IN A ZONE "X" (AREAS OUTSIDE OF THE 100 YEAR FLOOD PLAIN) AS SHOWN ON FIRM MAP 47119C0170E DATED 04/16/2007.
7.) PROPERTY ZONED CD-3 SETBACKS ARE: FRONT-25'; SIDE-8'; REAR-20'
8.) THERE IS A 10' P.U.D.E. ON ALL PROPERTY LINES PARALLEL AND ABUTTING PUBLIC ROADS AND 5' P.U.D.E. ALONG ALL INTERIOR LOT LINES.
9.) WATER AND SEWER IS SERVED BY CITY OF COLUMBIA UTILITY DISTRICT.
10.)THE RECORDING OF THIS PLAT, VOIDS, VACATES AND SUPERCEDES LOT 3 OF THE PREVIOUSLY RECORDED PLAT OF THE MINOR SUBDIVISION FINAL PLAT FOR THE RE-DIVISION OF LOT 2 OF THE DAVID BROWN SUBDIVISION AND LOTS 4,5 & 6 OF COLUMBIA HEIGHTS BLOCK B AS RECORDED IN PLATBOOK P22 PAGE 327 R.O.M.C.

CHAPDELAINE & ASSOCIATES
LAND SURVEYING

7376 WALKER ROAD,
FAIRVIEW, TENNESSEE 37062
(615) 799-8104
chapsurveyors@msn.com
Randolph L. Chapdelaine
TN R.L.S. #1444



RANDOLPH L. CHAPDELAINE
REGISTERED LAND SURVEYOR
AGRICULTURE
STATE OF TENNESSEE
TENNESSEE NO. 1444

Preliminary
08/08/2023 12:42:45 PM

CERTIFICATE OF ACCURACY

I HEREBY CERTIFY THAT THIS IS A CATEGORY IV SURVEY AND THAT THIS MAP WAS DRAWN UNDER MY SUPERVISION; THIS SURVEY WAS DONE IN COMPLIANCE WITH CURRENT TENNESSEE MINIMUM STANDARDS OF PRACTICE, AND THE FOLLOWING INFORMATION WAS USED TO PERFORM THE SURVEY:

a. REAL TIME KINEMATIC & BASE SOKKIA GRX 3
b. POSITIONAL ACCURACY: 0.05 FEET
c. DATE OF SURVEY:10/01/2020
d. DATUM / EPOCH: NAD83 (2011) EPOCH
e. PUBLISHED / FIXED CONTROL: TDOT CORS NETWORK
f. GEOID MODEL: GEOID 12B
g. COMBINED GRID FACTOR: 0.99992807

Preliminary
08/08/2023 12:42:32 PM

RANDOLPH L. CHAPDELAINE, R.L.S. # 1444 DATE

OWNER: WILLIAM DAVID AND REBECCA HOLLADAY
WALTERS STREET
DEED BOOK R-2666 PAGE 1061 R.O.W.C.
9th CIVIL DISTRICT OF MAURY COUNTY, TENNESSEE
PROPERTY MAP 90-I GROUP "C" PARCEL 4.03

REVISION #	DATE
REVISION # 1	4/10/2023

DATE:	MARCH 22, 2023
DRAWN BY:	RLC
JOB #:	7416
SCALE:	1" = 30'

0 30 60

V-1.1

REVISION OF THE RE-DIVISION OF LOT 2 OF DAVID BROWN SUBDIVISION (AND LOTS 4,5&6 COLUMBIA HEIGHTS) LOT 3

4-10-2023

To the zoning administrator,

Our client is attempting to subdivide their property at 8th Ave, Columbia, TN 38401. We are requesting an administrative adjustment for the M.B.S.L and the reservation strip for this project. The reservation strip will significantly reduce the M.B.S.L. and make the subdivision non-feasible for our client.

Sincerely,

Alan Brawner

CITY OF COLUMBIA
TENNESSEE

DEVELOPMENT SERVICES

June 26, 2024

Mr. Zack Harville *email:surveying@chapsurveyor.com*
Chapdelaine & Associates
7376 Walker Rd.
Fairview, TN 37062
Mr. Doc Holladay

RE: 8th Ave & Walters St.
TM 90I Group C Parcel 4.03

Dear Mr. Harville:

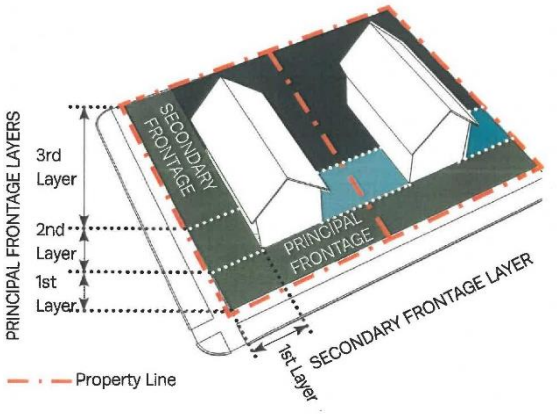
As a follow up to the meeting with staff concerning the proposed development of the property referenced above, this letter summarizes staff comments. The property is currently zoned CD-3 (Neighborhood Character District).

Planning – Zoning Processes

- The pre-application conference required under §8.5.4.B and other sections of Article 8 of the Zoning Ordinance occurred on **Wednesday, June 26, 2024**. Please note this date application fee. If no application for development review is received before **December 25, 2024**, a new pre-application meeting will be required.
- Austin Brass, AICP, abrass@columbiatn.com. will be lead planner on this project.
- Preliminary and Final Plat is required for DRC review and **approval by Planning Commission.** The preliminary and final plat must be submitted for review by Planning Commission including a site development plan that would run concurrently.

Planning – Zoning Ordinance Standards

- FLU: AoC Activate, City Center Urban Village (CCUV); Special Area: Riverside
- Zoning: CD-3
- District Standards: Table 4.3.1-C
- Comply with Use Table: 4.3.9.1-A.
- Parking: Table 4.3.12.B-1
- Frontage Types Table 4.3.7
- Building Types Table 4.3.8



- Submit Plat Checklist
- 65’ frontage required as the property is Zoned CD-3. This frontage is where the home is placed in which the principal entrance enfronts.
- Clarify C1 information
- Driveway will need to be brought into conformance with development and creation of Lot. This driveway would be required to be a paved surface and would not permit gravel. Discussions with the applicant delved into the possible improvement of the driveway section for additional lots that have two single-family home built on them enfronting 8th street.
- No structure can be developed on an easement. The zoning code has an 8’ side yard setback.
- Add note to plat for conformance to CD-3 standards.
- Garage width limitation on front loaded product. Only 33 percent of a front-loaded garage door can enfront a street section. This in sum requires the home to have a building width that is sufficient to support this if proposing a front-loaded garage door. The zoning code recommends that all garage units are rear loaded.

Engineering:

- Culvert under Walters Street and culvert from 8th Avenue as well.
- Forward the engineering information.
- Engineering information will be required at permit stage.
- Is the shared drive plan to relocate or keep? Owner stated it may be adjusted south toward 7th Ave. depending on envelope.
- Lot 3A may need the easement set to the west to provide a larger building site.
- Provide a reservation of right-of-way. Measured 25’ from center of Row.

Fire & Rescue:

- Contact Fire Marshal, Brad Massey at bmassey@columbiatn.com with questions.
- Fire Flow requirements must submitted to the office of the Fire Marshal in order to start the process of water availability modeling. To request a flow analysis, visit https://www.columbiatn.com/713/Fire-Flow-Requirement-Letter.

Wastewater:

- Contact Ryan Filipkowski at rfilipkowski@columbiatn.com with questions. A Wastewater Will Serve Letter is required at the time of application. Please visit https://www.columbiatn.com/FormCenter/Development-Services-12/Wastewater-WillServeLetter-Request-80.

- Contact Travis Howell, thowell2@columbiatn.com, at the Wastewater Department to confirm requirements for FOG requirements: https://www.columbiatn.com/391/FOG-Program.

CPWS/Inflo

- Contact CPWS for utility requirements and information.
- A water availability letter is required at the time of application. CPWS charges a significant fee for the letter. There can be a significant lead time. After obtaining the fire flow analysis from the Fire Marshal, you can request the availability letter from CPWS by visiting https://cpws.com/application-for-water-service/.

Building

- Contact Building Official, Travis Neas, at tneas@columbiatn.com with questions.

Others

- Contact Tara Thompson at Public Works, tthompson@columbiatn.com concerning sanitation requirements and services.

These comments are based on the concept plan presented, and do not suggest an approval. A formal review will be provided for upon application. Alteration to the concept prior to application may trigger additional requirements. Site development involves the application of several overlapping regulatory documents. It is not possible to identify every possible variation of the process during a short meeting. Pease review all applicable codes and checklists while preparing an application. Please let us know if you have any questions.

Sincerely,

Austin Brass

Austin Brass, AICP
Principal Planner

408 Hatcher Lane

Project #:	24-0363	Location:	Map 100L Parcel 26 & 27
Applicant:	WES Engineers & Surveyors	Case Type(s):	Final Plat
Staff Planner:	Kevin C. McCarthy, AICP	Proposed Use:	Single Family Homes

PROJECT SUMMARY

The applicant requests approval of Preliminary & Final Plat to create three alley-loaded single-family home lots. The applicant also proposes to dedicate right of way along Hatcher Lane and the alley known as Rayburn Avenue. The property is zoned CD-3 (Neighborhood Character District).

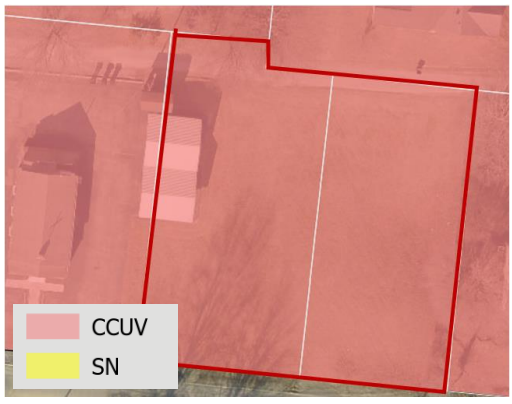
- The DRC reviewed this proposal at its September 2024 meeting.
- Staff review included standard comments and requests for technical corrections.
- Full technical comments, along with the applicant's responses, are provided in the agenda packet.
- The Planning Commission is the **Decision-Making Authority** 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
CD-3	Vacant Lots	Vacant	+/- 0.48



FUTURE LAND USE MAP	ZONING MAP





SITE CONTEXT/ADJACENT PROPERTIES			
	Future Land Use	Zoning	Current Use
Subject Property	Suburban Neighborhood	CD-3	Vacant
North	Suburban Neighborhood	CD-3	Single Family
South	Suburban Neighborhood	CD-3	Single Family
East	Suburban Neighborhood	CD-3	Single Family
West	Suburban Neighborhood	CD-3	Religious Facility

The property is bounded on all sides by other properties zoned CD-3. An existing religious facility abuts the property on the west. Existing single family residential properties are adjacent to the property on other sides.

CONSISTENCY WITH CONNECT COLUMBIA

Suburban Neighborhoods: The future land use of the subject site is Suburban Neighborhoods. 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 future land use classification is usually implemented by the CD-3L and CD-3 character districts, as well as PUDs.

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

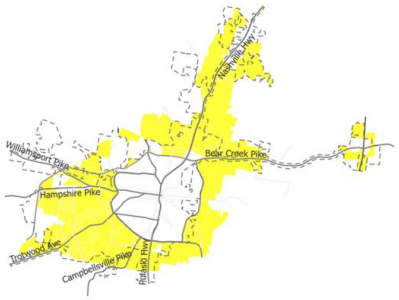
The SN future land use area is characterized by the organization of the built environment to extend a succession of large-lot neighborhoods and compact walkable neighborhoods. Development parcels extend established neighborhood patterns. Leap-frogging development is inappropriate. The SN future land 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

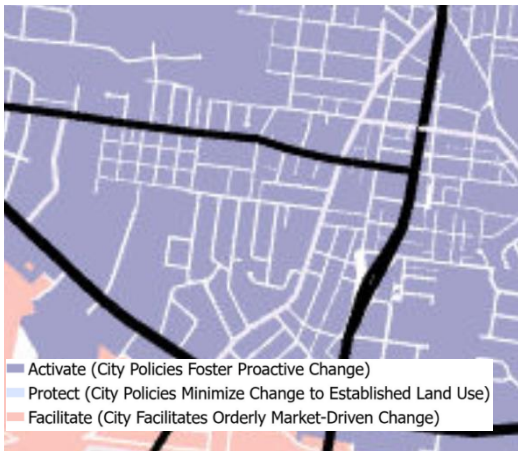
General Development Pattern: Mixed Uses & Isolated Uses
Density (density unites per ace): 4 - 24 du/ac
Building Height: 1 - 4 stories
Open Space Elements: Civic Spaces, Parks & Greenways





AREA OF CHANGE

Connect Columbia established the Areas of Change Policy designation for the subject site as Activate. The classification indicates the community identified the areas as a place 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

The Preliminary and Final Plat conforms to the Subdivision Regulations as well as the CD-3 standards of the zoning ordinance.

- The applicant utilizes the reduced (40') width available to alley-loaded lots with a garage at the rear.
- The plat includes dedication of right of way to complete the alley.
- The plat also includes dedication of right of way to accommodate future expansion of Hatcher Lane along the frontage of this property.

REVIEW PROCESS

The Development Review Committee evaluated the proposed Final Plat at its September 2024 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.

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 these 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 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.

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.

SUMMARY OF DEVELOPMENT REVIEW COMMITTEE COMMENTS

The DRC reviewed this proposal at its September 2024 meeting. A full list of comments, and the applicant's responses, is provided in the agenda packet. Some key comments are noted below.

- **Planning** asked the applicant to provide a completed checklist and make several minor revisions to notes on the plat.
- **Engineering** requested that the plat show the necessary 10' dedication of right of way along Hatcher Lane.
- **Wastewater** requested a note indicating the location of a sanitary sewer easement.

COMMENTARY FROM PROFESSIONAL PLANNING STAFF

Homes constructed on the lots must have a garage at the rear. As discussed above, the Final Plat utilizes a reduced width available to alley-loaded lots. The Zoning Ordinance allows CD-3 lots with a width less than 65' only in cases where there is a Garage at rear.

SAMPLE MOTIONS

Approve:

Move to approve the Preliminary and Final Plat as presented and find that the plat conforms to the applicable zoning ordinance, the Subdivision Regulations, and the Preliminary Plat [subject to remaining technical comments from staff].

Approve with Conditions:

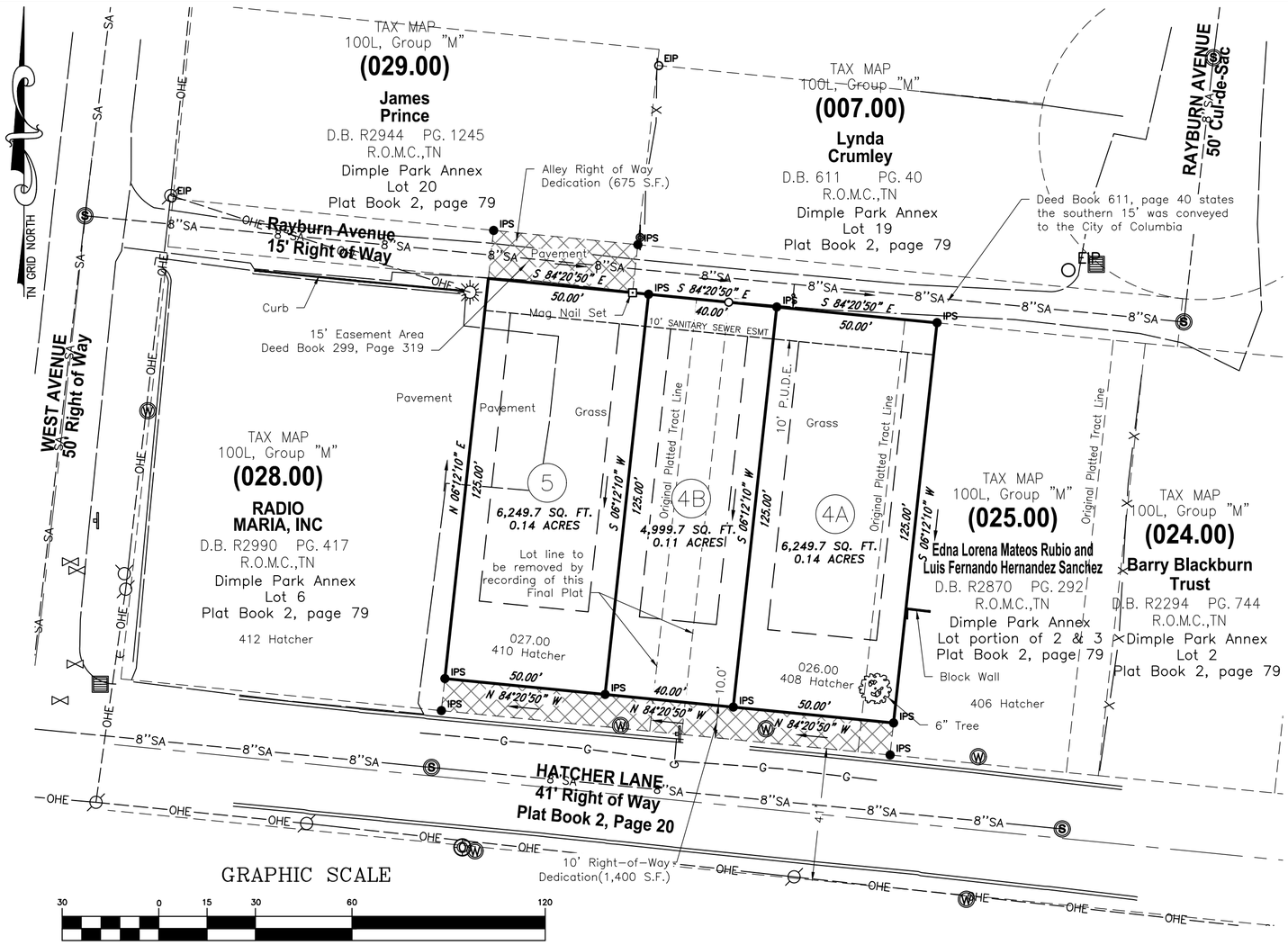
Move to approve the Preliminary and Final Plat as presented and find that the plat conforms to the applicable zoning ordinance, the Subdivision Regulations, and the Preliminary Plat, subject to the following conditions: [list conditions of approval crafted by Planning Commission].

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 and 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].



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

PARCEL NUMBER:
TAX MAP 100L, GROUP "M", PARCEL 026.00 & 027.00

DEED BOOK:
R2994, PAGE 914

Plat Book:
Plat Book 2, Page 79, Tracts 4 and 5 and portion of 6

PARCEL ADDRESS:
026.00 – 408 Hatcher Lane
027.00 – 410 Hatcher Lane

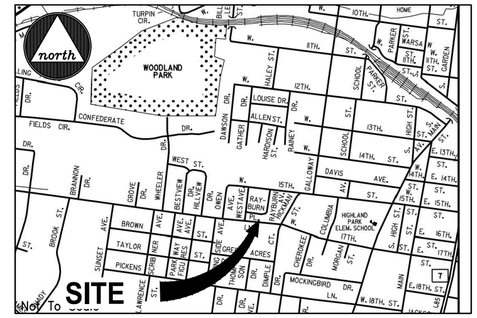
EXISTING ZONING:
CD-3 (NEIGHBORHOOD)

BUILDING SETBACKS:
FRONT – 25'
SIDE – 8'
REAR – 15' off Centerline of Alley

ACREAGE OF PARCEL:
±0.428 ACRE – 18,628 S.F.

PROPERTY OWNER:
McBroom Investments
Nathan McBroom

Location Map



©2024

Surveyor's Notes

1. All distances were measured with E.D.M. equipment and have been adjusted for temperature and pressure, portions of the survey were done utilizing a Carlson BRX7, utilizing Base and Rover.
2. The property (Boundary) Line Survey exceeds the minimum requirements of an Urban Land Survey Category IV as per Standards of Practice adopted by the State Board of Examiners for Land Surveyors for the State of Tennessee, and the precision of the unadjusted survey is greater than 1 foot in 10,000 feet.
3. Information concerning site utility services and appurtenances shown hereon is based on visible evidence noted during the survey, information provided by utility representatives or information shown on original construction plans by other. Information and location of service lines on site should be considered approximate and there may be underground utility lines that are not shown on the survey. Owner(s) and contractor(s) should assume responsibility of locating all underground utility service lines prior to any construction, excavation or any disturbance of the existing ground elevation to avoid hazard of unnecessary expense.
4. Information concerning major utilities or appurtenances shown hereon are based on visible evidence noted during the survey or information provided by utility representatives. Verification of existence, size, location, depth and availability of service should be confirmed by local utility agencies.
5. The property shown hereon is located within the City of Columbia, Maury County, TN. All matters pertaining to construction, use location of improvements, signage, parking, noise, vibration, emissions, fire hazards, radiation, illumination, setback provisions, etc., are subject to City of Columbia's Zoning Regulation as interpreted and regulated by the Department of Development Services.
6. The area of the parcel is as shown hereon.
7. This property currently identified as Tax Map No. 100L, Group "M", Parcel No. 026.00 & 027.00, Maury County. For designation shown thus ( ) indicates Parcel Numbers for said map.
8. Plat reference: P2, Page 79
9. Deed reference: Book R2994, Book 914.
10. Bearings based on: Tennessee State Plane (NAD83).
11. This drawing was prepared in accordance with our field survey notes. It shows improvements as they exist to the best of our knowledge, but is not guaranteed to be correct in each and every detail.
12. This survey was prepared from current deeds of record and title search as provided by others and noted hereon.
13. 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.
14. The certification as provided on this survey, is purely a statement of professional opinion based on knowledge, information and belief, based on existing field evidence and documentary evidence provided by others.
15. The certification is not an expressed or implied warranty or guarantee.
16. The property as shown hereon is not located in a Special Flood Hazard Area as shown on F.E.M.A. Flood Insurance Rate Map, Community Panel No. 47119C0285E, dated April 16, 2007, as scaled graphically.
17. There is a 10' Public Utility and Drainage Easement along the front and rear property lines and 5' on all interior side property lines.

PURPOSE NOTE:
The purpose of this final plat is to subdivide 2 lots into 3 lots with alley access at the rear of the lot.

DRIVEWAY NOTE:
All driveways shall be constructed to contain gutter flow within the street and right-of-way, particularly lots that do not have a sidewalk.

ALLEY NOTE:
The alley and associated easements as shown hereon are owned by the City of Columbia.

GENERAL PLAT NOTE:
The recording of this final plat voids, vacates, and superceded the previous plat of record in Plat Book 2, page 79, for the property shown hereon.

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 Number R2994, Page 914, Maury County Registers Office, and that I (we) hereby adopt this plan of subdivision with my (our) free consent, establish the minimum building restriction lines, and that offers of irrevocable dedication for all public ways, utilities, and other facilities have been filed.

Date — McBroom Investments, Nathan McBroom

CERTIFICATE OF APPROVAL OF SEWER SYSTEM

I hereby certify that the 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 has been filed to guarantee said installation.

Date — Director of Wastewater Department, Columbia, Tennessee

CERTIFICATE OF APPROVAL OF WATER SYSTEM

I, (we) hereby certify that the water system(s) outlined or indicated on the final subdivision plat entitled McBroom-408 and 410 Hatcher Lane 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.

Date — Columbia Power & Water Systems, Columbia, Tennessee

CERTIFICATE OF APPROVAL FOR SUBDIVISION NAME AND STREET NAMES

Subdivision name and street names approved by the City Engineering Department and by E-911 Maury County.

Date — Maury County E-911, Columbia, Tennessee

CERTIFICATE OF COMPLIANCE

I hereby certify that the subdivision plat shown hereon has been found to comply with the City of Columbia Subdivision Regulations and other adopted ordinances and policies.

Date — City Engineer, Columbia, Tennessee

CERTIFICATE OF APPROVAL FOR RECORDING

I hereby certify that the 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 are noted in the minutes of the Planning Commission, and that it has been approved for recording in the Office of the County Register:

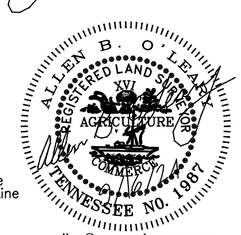
Date — Secretary, Planning Commission, Columbia, Tennessee

SURVEYOR'S CERTIFICATION (TENNESSEE)

I hereby certify that to the best of my 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.

9/16/24 — Allen B. O'Leary — TN RLS #1987
Date — Allen B. O'Leary — Number

Register of Deed Recording Stamp



allen@wesengineers.com

Legend

EIP	Iron Rod Found	Bench Mark	Catch Basin	Electric Riser	Power Pole	Evergreen Tree
IPS	Iron Rod Set	Stake Found	Curb Inlet	Telephone Riser	Flag Pole	Deciduous Tree
I.P.F.	Iron Pipe Found	Fire Hydrant	Storm Pipe	Telephone Booth	Guy Wire	Bush
AXLE	Axle Found	Water Meter	Cable Manhole	Gas Meter	Mailbox	Sign
	Fence Post	Water Valve	Electric Manhole	Gas Valve	Parking Block	
	Concrete Monument Existing	Water Reducer	Telephone Manhole	Light Pole	Satellite Dish	
P.K.F.	PK Nail Found	Clean Out	Water Manhole	Power Pole	Handicap Parking	
P.K.S.	PK Nail Set	Sanitary Sewer Manhole	Electric Meter	Telephone Pole	Water Spigot	
R.R.S.F.	Railroad Spike Found	Storm Sewer Manhole	Cable Riser	Guy Pole	Bollard	
R.R.S.S.	Railroad Spike Set					

Adjoining Property Line
Subject Property Line
Easement Line
Building Setback Line
Centerline
Edge of Pavement
Edge of Gravel
Fence Line
Landscape
Woods / Tree line
Edge of Water
Ditch / Creek Centerline
Minor Contour Line
Index Contour Line
Gas Line
Sanitary Sewer Line
Water Line
Storm Sewer Line
Overhead Utility Line
Overhead Cable Line
Overhead Electric Line
Overhead Telephone Line
Underground Utility Line
Underground Cable Line
Underground Electric Line
Underground Telephone Line
Forced Main Line

WES Engineers & Surveyors
CIVIL ENGINEERS & LAND SURVEYORS
2486 NASHVILLE HIGHWAY
COLUMBIA, TN 38401
PHONE: (931) 388-2329
www.wesengineers.com
ENGINEERS & SURVEYORS

Client
McBroom Investments
Nathan McBroom
P.O. Box 277
Columbia, TN 38402

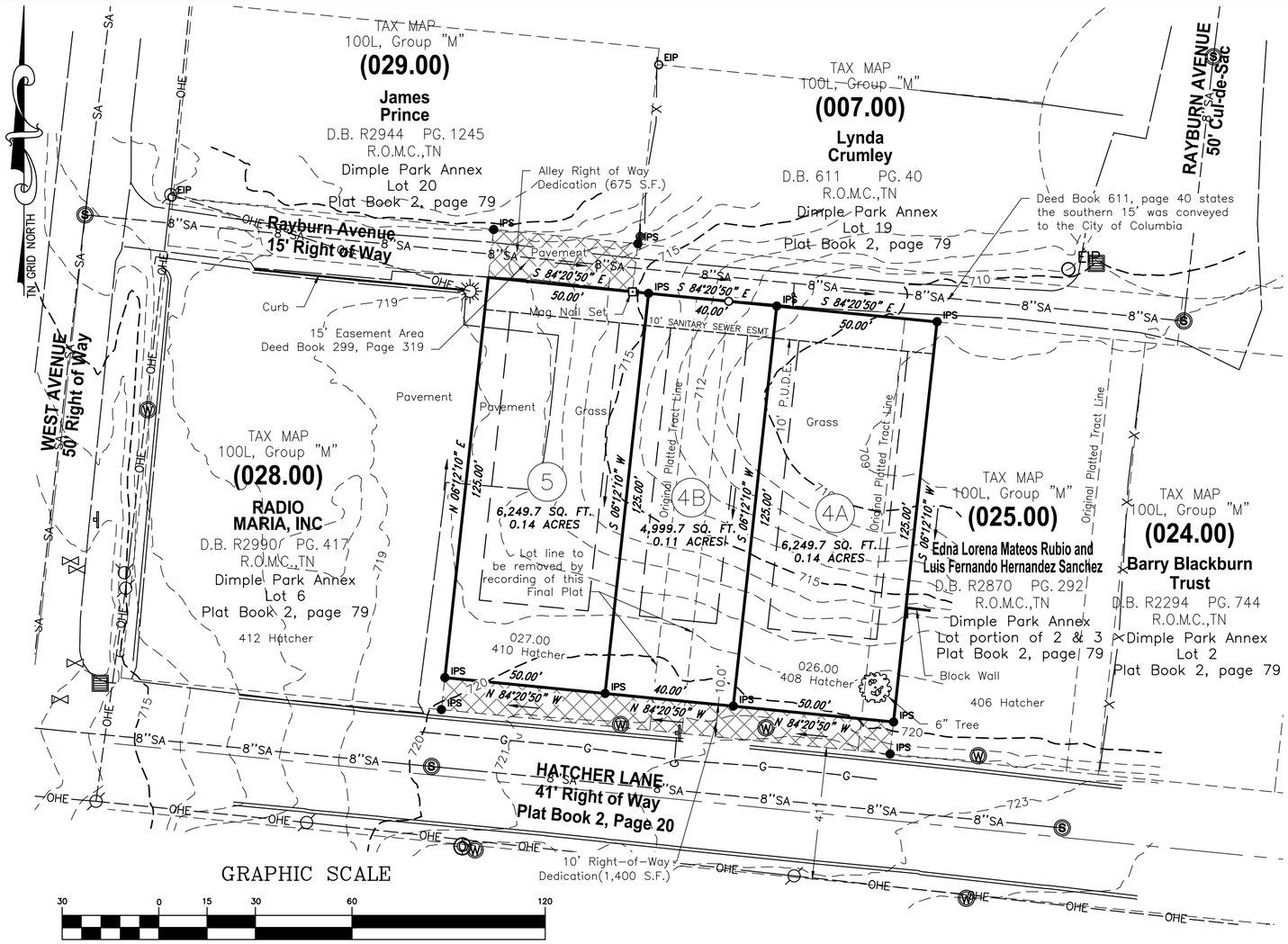
FINAL PLAT
McBroom - 408 & 410 HATCHER LANE
COLUMBIA, TN 38401

DATE	REVISIONS
09-16-2024	

Drawn: EB | Checked: AO | Approved: AO | Date: 8-7-24

Job. no. 24545 | Scale: Vertical: 1"=30' Horizontal:

FILE:J:\WES_Engineers_Surveyors 2024\24545 - 408 & 410 Hatcher Lane - McBroom\Dwg\Survey\02 - Final Plat\24545 - Hatcher Final Plat - Survey.dwg



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

PARCEL NUMBER:
TAX MAP 100L, GROUP "M", PARCEL 026.00 & 027.00

DEED BOOK:
R2994, PAGE 914

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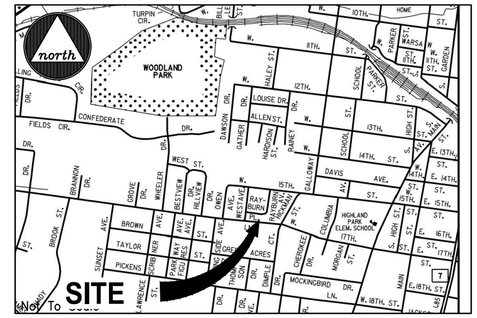
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CD-3 (NEIGHBORHOOD)

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ACREAGE OF PARCEL:
±0.428 ACRE – 18,628 S.F.

PROPERTY OWNER:
McBroom Investments
Nathan McBroom

Location Map



©2024

Surveyor's Notes

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PURPOSE NOTE:
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DRIVEWAY NOTE:
All driveways shall be constructed to contain gutter flow within the street and right-of-way, particularly lots that do not have a sidewalk.

ALLEY NOTE:
The alley and associated easements as shown hereon are owned by the City of Columbia.

Legend

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R.R.S.F.	Railroad Spike Found	Storm Sewer Manhole	Cable Riser	Guy Pole	Bollard		

Adjoining Property Line	Edge of Water	OHE	Overhead Electric Line
Subject Property Line	Ditch / Creek Centerline	OHT	Overhead Telephone Line
Easement Line	Minor Contour Line	UG	Underground Utility Line
Building Setback Line	Index Contour Line	UGC	Underground Cable Line
Centerline	Gas Line	UGE	Underground Electric Line
Edge of Pavement	Sanitary Sewer Line	UGT	Underground Telephone Line
Edge of Gravel	Water Line	FM	Forced Main Line
Fence Line	Storm Sewer Line		
Landscape	Overhead Utility Line		
Woods / Tree line	Overhead Cable Line		

SURVEYOR'S CERTIFICATION (TENNESSEE)

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9/16/24 — Date
Allen B. O'Leary — Allen B. O'Leary
TN RLS #1987 — Number

ALLEN B. O'LEARY
REGISTERED LAND SURVEYOR
AGRICULTURE
COMMERCE
TENNESSEE NO. 1987

allen@wesengineers.com

WES ENGINEERS & SURVEYORS
CIVIL ENGINEERS & LAND SURVEYORS
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ENGINEERS & SURVEYORS

Client
McBroom Investments
Nathan McBroom
P.O. Box 277
Columbia, TN 38402

PRELIMINARY PLAT
McBroom - 408 & 410 HATCHER LANE
COLUMBIA, TN 38401

REVISIONS	DATE
TECH REVIEW COMMENTS ADDRESSED	09-16-2024

Drawn: EB
Checked: AO
Approved: AO
Date: 8-7-24

Job. no. 24545
Scale: Vertical: 1"=30' Horizontal:

FILE: J:\WES_Engineers_Surveyors 2024\24545 - 408 & 410 Hatcher Lane - McBroom\Dwg\Survey\02 - Final Plat\24545 - Hatcher Final Plat - Survey.dwg

WARRANTY DEED

FOR AND IN CONSIDERATION of the sum of Ten Dollars cash received and other good and valuable considerations, we, James Farris, Vernon Gilliam, Ernest Grissom, Loyd Pruett, J. C. Warren, Robert Waddell and Buford Dreaden, Trustees for the Graymere Church of Christ at Columbia, Tennessee, have this day bargained and sold and do hereby transfer and convey unto Lynda Crumley Vandiver, her heirs and assigns, the following described real estate:

Located in the Ninth Civil District of Maury County, Tennessee.

No. 1710 Rayburn Avenue in the City of Columbia.

Being Lot No. 19, Dimple Park Annex, an addition to Columbia, Tennessee, and being further described as follows: Beginning at a stake in the west margin of Rayburn Avenue and being the Southeast corner of Lot No. 18, and being the Northeast corner of the herein described lot. Thence in a Westerly direction with the south line of Lot No. 18, 120 feet to a stake; thence in a Southerly direction 71 feet to a stake; thence in an Easterly direction 170 feet to a stake; thence in a Northerly direction 15 feet to a stake in the margin of Rayburn Avenue; thence on an arc radius of 50 feet to a chord distance of 75 feet to the beginning.

Included in the above description, but excluded from this conveyance, is a strip of land 15 feet wide along the entire Southern side of said Lot No. 19, heretofore sold to the City of Columbia, Tennessee.

Said property is subject to restrictions recorded in Book 281, Page 522, Register's Office, Maury County, Tennessee.

Being the same property conveyed to said grantors by deed recorded in Book 531, Page 193, of said Register's Office.

TO HAVE AND TO HOLD said real estate, together with all rights, title, interest, estate, appurtenances and hereditaments thereunto belonging, unto said Lynda Crumley Vandiver, her heirs and assigns, in fee simple.

WE COVENANT with said grantee, her heirs and assigns, that we are lawfully seized and possessed of said property, have a good and lawful right to sell and convey it, and that the title thereto is unencumbered.

WE FURTHER COVENANT and bind ourselves, our successors in trust and representatives to warrant and

Filed

THIS INSTRUMENT PREPARED BY JOHN D. PAGE, ATTORNEY, COLUMBIA, TENN.

September 16, 2024

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

RE: Item No. 24-0363, 408 Hatcher Lane
City of Columbia Staff Review Submittal

On behalf of Nathan McBroom, the owner of the property shown on the Final Plat, **WES Engineers & Surveyors** would like to re-submit this Final Plat to the City of Columbia for approval. The request is to make 2 existing lots into 3 alley loaded lots. The comments are addressed below in RED.

Planning

1. The lead staff person for this case is Kevin McCarthy, AICP; he will prepare the staff report for this item. Please contact kmccarthy@columbiatn.gov with questions about the development review process or technical comments. The lead planner should be copied on all communication with other city staff. Noted.
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. Noted.
3. Please revise the application to show the name of the applicant as McBroom Investments.
   The application has been updated to reflect McBroom Investments as applicant.

4. Please complete the application checklist and provide any omitted items. https://www.columbiatn.gov/DocumentCenter/View/1813/Checklist-for-Planning-Commission-items.
   The checklist has been updated.

5. Please revise Alley Note to say alley and associated easements shown hearon are owned by the City of Columbia. Please remove the phrase "…and will continue to be maintained by the City of Columbia."
   The alley note has been updated.

6. Please provide copies of recorded documents which indicate that the City of Columbia holds an easement or fee simple interest, or is custodian of a public right-of-way south of parcel 100L M 7.0 (Crumley property).
   The deed referencing the City property on the Crumley property has been provided as recorded in Deed Book 611, page 40.

7. Please add "Department of" to note #5.
   Note #5 has been revised.

Engineering

8. Provide ROW dedication of 10 ft. along Hatcher Ln.
   Added right of way dedication along Hatcher Lane.

Fire

9. Advisory note: Fire water will be looked at, at the time of a building permit. Noted.

Wastewater

10. Columbia Wastewater would like for a 10 ft sanitary sewer easement offset to be added to the back of the lots.
    The 10' P.U.D.E. along the rear of the lot has also been labeled as a 10' Sanitary Sewer Esmt.

11. Please request a tap locate so the existing sanitary sewer services can be displayed on the plat and future connections determined.
    Request was placed and information has been shown.

Columbia Water

12. Coordinate new service/meter for third lot and show location on Final Plat.
    A proposed water service meter has been shown.

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. Noted.

Atmos Energy

14. Natural gas available along Hatcher lane and West Ave. Noted.

If you have any questions or comments with this submittal, please do not hesitate to contact me directly.

Sincerely,
WES Engineers & Surveyors



Allen B. O'Leary, RLS
Principal

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, September 10, 2024

ITEM NO.
24-0363

DESCRIPTION: 408 Hatcher Ln

COMMENTS:

Planning

1. The lead staff person for this case is Kevin McCarthy, AICP; he will prepare the staff report for this item. Please contact kmccarthy@columbiatn.gov with questions about the development review process or technical comments. The lead 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. Please revise the application to show the name of the applicant as McBroom Investments.
4. Please complete the application checklist and provide any omitted items. https://www.columbiatn.gov/DocumentCenter/View/1813/Checklist-for-Planning-Commission-items.
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DEVELOPMENT SERVICES
700 NORTH GARDEN STREET
COLUMBIA, TN 38401
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    . Unfortunately, due to current supply chain challenges, no timeframe can be guaranteed regarding the availability of meters or transformers appropriate for your development.

Atmos Energy

14. Natural gas available along Hatcher lane and West Ave.

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.gov. 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.

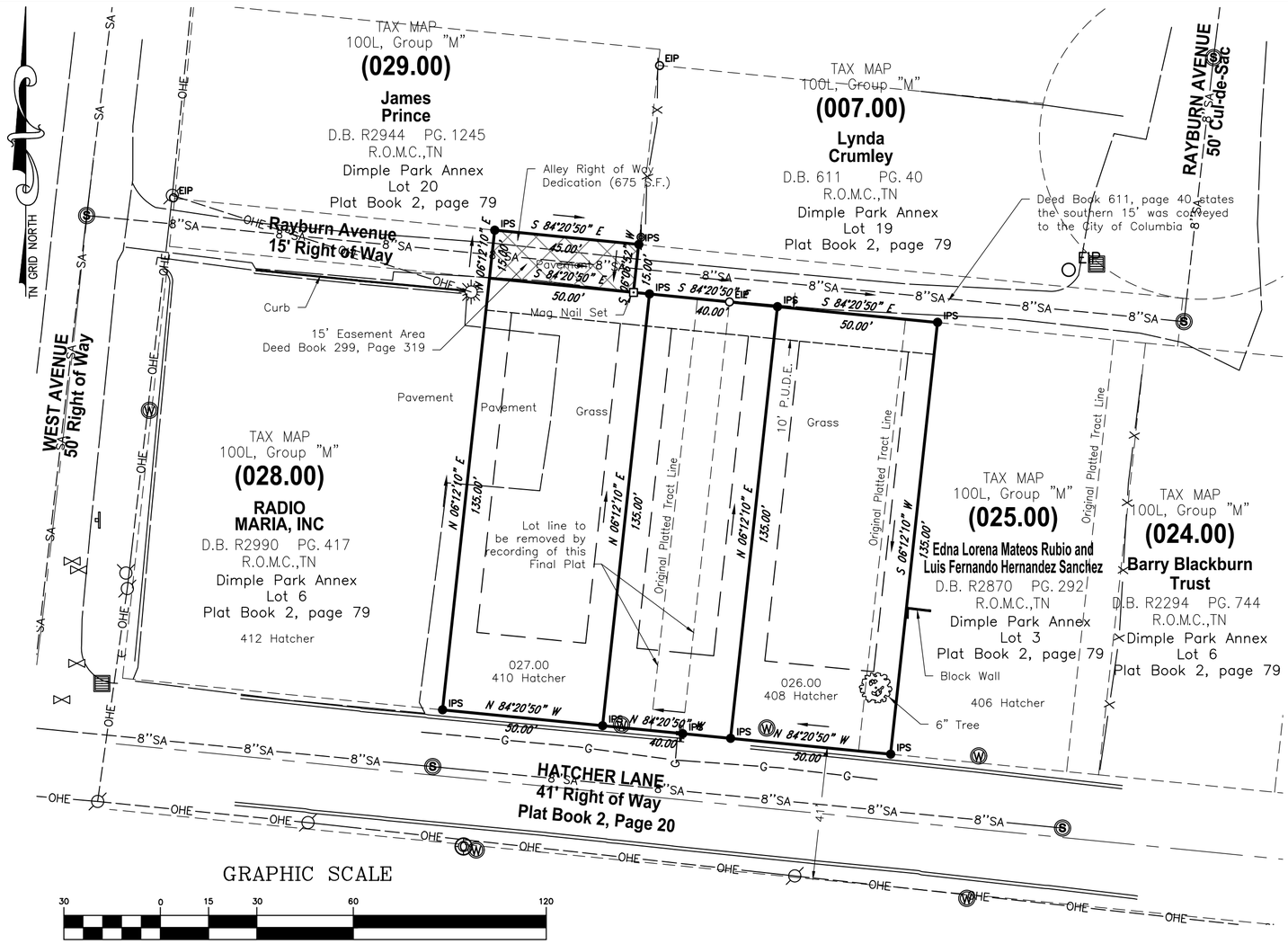
Please contact kmccarthy@columbiatn.gov or msanders@columbiatn.gov if you encounter difficulties with the online portal.

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.

CITY OF
COLUMBIA
TENNESSEE

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



PARCEL NUMBER:
TAX MAP 100L, GROUP "M", PARCEL 026.00 & 027.00

DEED BOOK:
R2994, PAGE 914

Plat Book:
Plat Book 2, Page 79, Tracts 4 and 5 and portion of 6

PARCEL ADDRESS:
026.00 – 408 Hatcher Lane
027.00 – 410 Hatcher Lane

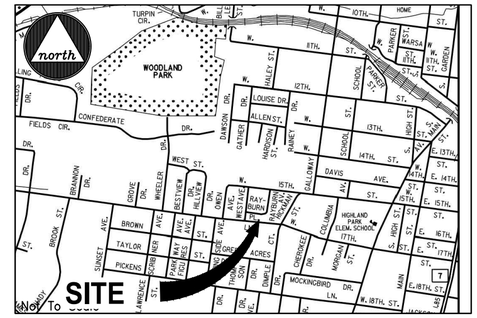
EXISTING ZONING:
CD–3 (NEIGHBORHOOD)

BUILDING SETBACKS:
FRONT – 25'
SIDE – 8'
REAR – 15' off Centerline of Alley

ACREAGE OF PARCEL:
±0.428 ACRE – 18,628 S.F.

PROPERTY OWNER:
McBroom Investments
Nathan McBroom

Location Map



©2024

Surveyor's Notes

1. All distances were measured with E.D.M. equipment and have been adjusted for temperature and pressure, portions of the survey were done utilizing a Carlson BRX7, utilizing Base and Rover.
2. The property (Boundary) Line Survey exceeds the minimum requirements of an Urban Land Survey Category IV as per Standards of Practice adopted by the State Board of Examiners for Land Surveyors for the State of Tennessee, and the precision of the unadjusted survey is greater than 1 foot in 10,000 feet.
3. Information concerning site utility services and appurtenances shown hereon is based on visible evidence noted during the survey, information provided by utility representatives or information shown on original construction plans by other. Information and location of service lines on site should be considered approximate and there may be underground utility lines that are not shown on the survey. Owner(s) and contractor(s) should assume responsibility of locating all underground utility service lines prior to any construction, excavation or any disturbance of the existing ground elevation to avoid hazard of unnecessary expense.
4. Information concerning major utilities or appurtenances shown hereon are based on visible evidence noted during the survey or information provided by utility representatives. Verification of existence, size, location, depth and availability of service should be confirmed by local utility agencies.
5. The property shown hereon is located within the City of Columbia, Maury County, TN. All matters pertaining to construction, use location of improvements, signage, parking, noise, vibration, emissions, fire hazards, radiation, illumination, setback provisions, etc., are subject to City of Columbia's Zoning Regulation as interpreted and regulated by the Development Services.
6. The area of the parcel is as shown hereon.
7. This property currently identified as Tax Map No. 100E, Group "E", Parcel No. 029.00 & 030.00, Maury County. For designation shown thus ( ) indicates Parcel Numbers for said map.
8. Plat reference: n/a
9. Deed reference: Book R2960, Book 735.
10. Bearings based on: Tennessee State Plane (NAD83).
11. This drawing was prepared in accordance with our field survey notes. It shows improvements as they exist to the best of our knowledge, but is not guaranteed to be correct in each and every detail.
12. This survey was prepared from current deeds of record and title search as provided by others and noted hereon.
13. 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.
14. The certification as provided on this survey, is purely a statement of professional opinion based on knowledge, information and belief, based on existing field evidence and documentary evidence provided by others.
15. The certification is not an expressed or implied warranty or guarantee.
16. The property as shown hereon is not located in a Special Flood Hazard Area as shown on F.E.M.A. Flood Insurance Rate Map, Community Panel No. 47119C0285E, dated April 16, 2007, as scaled graphically.
17. There is a 10' Public Utility and Drainage Easement along the front and rear property lines and 5' on all interior side property lines.

PURPOSE NOTE:
The purpose of this final plat is to subdivide 2 lots into 3 lots with alley access at the rear of the lot.

DRIVEWAY NOTE:
All driveways shall be constructed to contain gutter flow within the street and right–of–way, particularly lots that do not have a sidewalk.

ALLEY NOTE:
The alley as shown hereon is owned by the City of Columbia and will continue to be maintained by the City of Columbia.

GENERAL PLAT NOTE:
The recording of this final plat voids, vacates, and superceded the previous plat of record in Plat Book 2, page 79, for the property shown hereon.

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 Number R2994, Page 914, Maury County Registers Office, and that I (we) hereby adopt this plan of subdivision with my (our) free consent, establish the minimum building restriction lines, and that offers of irrevocable dedication for all public ways, utilities, and other facilities have been filed.

Date — McBroom Investments, Nathan McBroom

CERTIFICATE OF APPROVAL OF SEWER SYSTEM

I hereby certify that the 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 has been filed to guarantee said installation.

Date — Director of Wastewater Department, Columbia, Tennessee

CERTIFICATE OF APPROVAL OF WATER SYSTEM

I, (we) hereby certify that the water system(s) outlined or indicated on the final subdivision plat entitled McBroom-408 and 410 Hatcher Lane 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.

Date — Columbia Power & Water Systems, Columbia, Tennessee

CERTIFICATE OF APPROVAL FOR SUBDIVISION NAME AND STREET NAMES

Subdivision name and street names approved by the City Engineering Department and by E-911 Maury County.

Date — Maury County E-911, Columbia, Tennessee

CERTIFICATE OF COMPLIANCE

I hereby certify that the subdivision plat shown hereon has been found to comply with the City of Columbia Subdivision Regulations and other adopted ordinances and policies.

Date — City Engineer, Columbia, Tennessee

CERTIFICATE OF APPROVAL FOR RECORDING

I hereby certify that the 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 are noted in the minutes of the Planning Commission, and that it has been approved for recording in the Office of the County Register:

Date — Secretary, Planning Commission, Columbia, Tennessee

SURVEYOR'S CERTIFICATION (TENNESSEE)

I hereby certify that to the best of my 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.

8-7-24 (Date) — Allen B. O'Leary — TN RLS #1987 (Number)

Register of Deed Recording Stamp

Legend

- EIP Iron Rod Found
- IPS Iron Rod Set
- I.P.F. Iron Pipe Found
- AXLE Axle Found
- Fence Post
- Concrete Monument Existing
- P.K.F. PK Nail Found
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- R.R.S.F. Railroad Spike Found
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- Gas Meter
- Gas Valve
- Light Pole
- Power Pole
- Telephone Pole
- Guy Pole
- Power Pole
- Flag Pole
- Guy Wire
- Mailbox
- Parking Block
- Satellite Dish
- Handicap Parking
- Water Spigot
- Bollard
- Evergreen Tree
- Deciduous Tree
- Bush
- Sign
- Adjoining Property Line
- Subject Property Line
- Easement Line
- Building Setback Line
- Centerline
- Edge of Pavement
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- Fence Line
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- Woods / Tree line
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- UGT— Underground Telephone Line
- FM— Forced Main Line

ALLEN B. O'LEARY — REGISTERED LAND SURVEYOR — XVI — AGRICULTURE — COMMERCE — TENNESSEE NO. 1987

allen@wesengineers.com

WES ENGINEERS & SURVEYORS
CIVIL ENGINEERS & LAND SURVEYORS
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COLUMBIA, TN 38401
PHONE: (931) 388-2329
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ENGINEERS & SURVEYORS

Client
McBroom Investments
Nathan McBroom
P.O. Box 277
Columbia, TN 38402

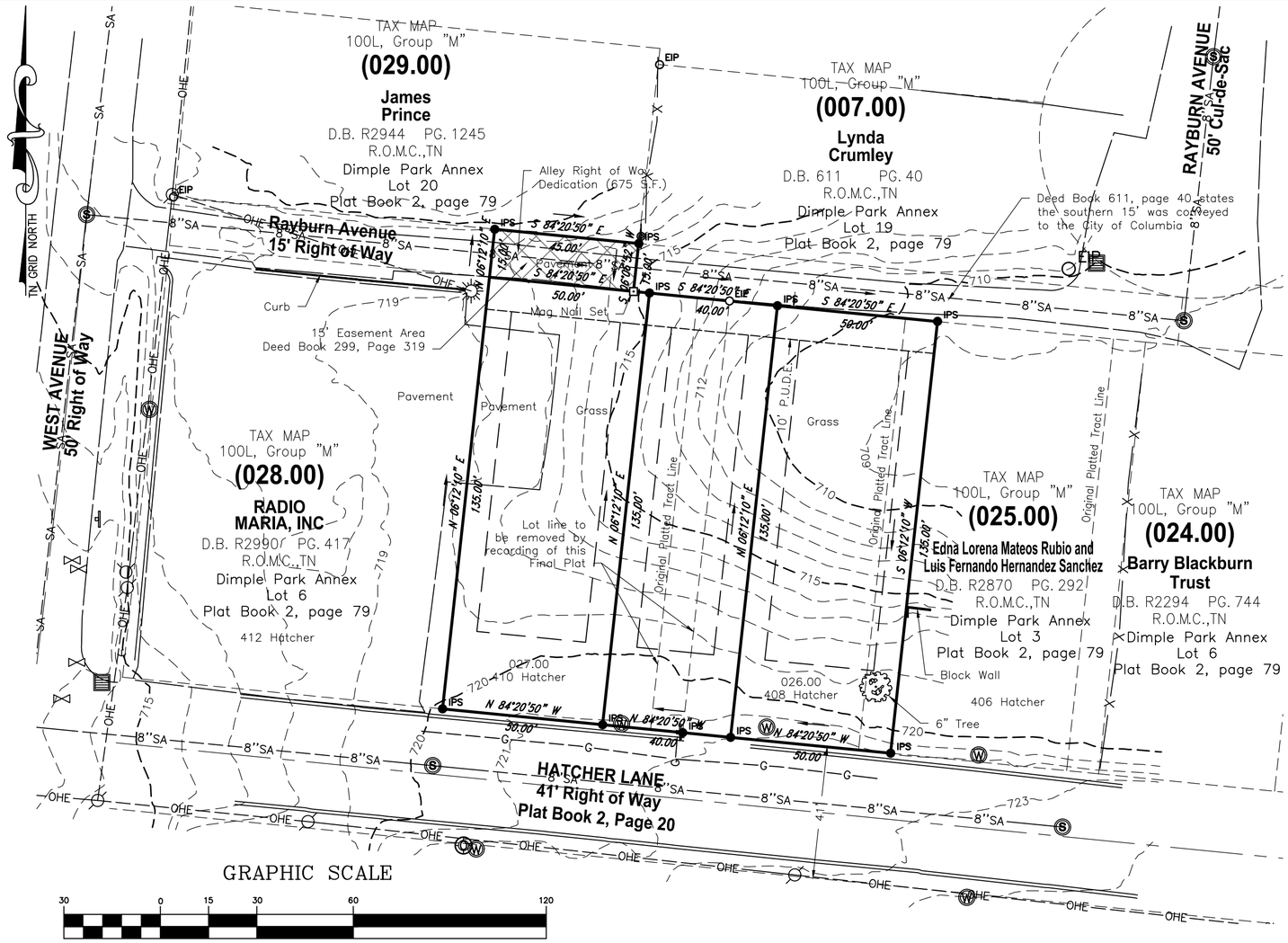
FINAL PLAT
McBroom - 408 & 410 HATCHER LANE
COLUMBIA, TN 38401

DATE	REVISIONS

Drawn: EB
Checked: AO
Approved: AO
Date: 8-7-24

Job. no. 24545
Scale:
Vertical: 1"=30'
Horizontal:

FILE:J:\WES_Engineers_Surveyors 2024\24545 – 408 & 410 Hatcher Lane – McBroom\Dwg\Survey\02 – Final Plat\24545 – Hatcher Final Plat – Survey.dwg



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

PARCEL NUMBER:
TAX MAP 100L, GROUP "M", PARCEL 026.00 & 027.00

DEED BOOK:
R2994, PAGE 914

Plat Book:
Plat Book 2, Page 79, Tracts 4 and 5 and portion of 6

PARCEL ADDRESS:
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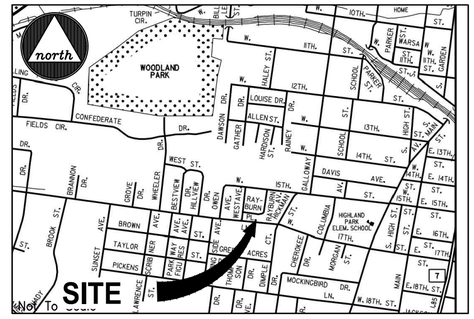
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CD-3 (NEIGHBORHOOD)

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SIDE – 8'
REAR – 15' off Centerline of Alley

ACREAGE OF PARCEL:
±0.428 ACRE – 18,628 S.F.

PROPERTY OWNER:
McBroom Investments
Nathan McBroom

Location Map



©2024

Surveyor's Notes

1. All distances were measured with E.D.M. equipment and have been adjusted for temperature and pressure, portions of the survey were done utilizing a Carlson BRX7, utilizing Base and Rover.
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6. The area of the parcel is as shown hereon.
7. This property currently identified as Tax Map No. 100E, Group "E", Parcel No. 029.00 & 030.00, Maury County. For designation shown thus ( ) indicates Parcel Numbers for said map.
8. Plat reference: n/a
9. Deed reference: Book R2960, Book 735.
10. Bearings based on: Tennessee State Plane (NAD83).
11. This drawing was prepared in accordance with our field survey notes. It shows improvements as they exist to the best of our knowledge, but is not guaranteed to be correct in each and every detail.
12. This survey was prepared from current deeds of record and title search as provided by others and noted hereon.
13. 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.
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16. The property as shown hereon is not located in a Special Flood Hazard Area as shown on F.E.M.A. Flood Insurance Rate Map, Community Panel No. 47119C0285E, dated April 16, 2007, as scaled graphically.
17. There is a 10' Public Utility and Drainage Easement along the front and rear property lines and 5' on all interior side property lines.

PURPOSE NOTE:
The purpose of this preliminary plat is to subdivide 2 lots into 3 lots with alley access at the rear of the lot.

DRIVEWAY NOTE:
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Legend

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- I.P.F. — Iron Pipe Found
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- Telephone Riser
- Telephone Booth
- Gas Meter
- Gas Valve
- Light Pole
- Power Pole
- Telephone Pole
- Guy Pole
- Power Pole
- Flag Pole
- Guy Wire
- Mailbox
- Parking Block
- Satellite Dish
- Handicap Parking
- Water Spigot
- Bollard
- Evergreen Tree
- Deciduous Tree
- Bush
- Sign
- Adjoining Property Line
- Subject Property Line
- Easement Line
- Building Setback Line
- Centerline
- Edge of Pavement
- Edge of Gravel
- Fence Line
- Landscape
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8-7-24 — Date
Allen B. O'Leary — Allen B. O'Leary
TN RLS #1987 — Number

ALLEN B. O'LEARY — REGISTERED LAND SURVEYOR — XVI — AGRICULTURE — COMMERCE — TENNESSEE NO. 1987

allen@wesengineers.com

WES ENGINEERS & SURVEYORS
CIVIL ENGINEERS & LAND SURVEYORS
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COLUMBIA, TN 38401
PHONE: (931) 388-2329
www.wesengineers.com
ENGINEERS & SURVEYORS

Client
McBroom Investments
Nathan McBroom
P.O. Box 277
Columbia, TN 38402

PRELIMINARY PLAT
McBroom - 408 & 410 HATCHER LANE
COLUMBIA, TN 38401

DATE	REVISIONS

Drawn: EB
Checked: AO
Approved: AO
Date: 8-7-24

Job. no. 24545
Scale:
Vertical: 1"=30'
Horizontal:

FILE:J:\WES_Engineers_Surveyors 2024\24545 - 408 & 410 Hatcher Lane - McBroom\Dwg\Survey\02 - Final Plat\24545 - Hatcher Final Plat - Survey.dwg

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none
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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

Preliminary Plat, Site Development Plan, and PUD Checklist

Development: McBroom-408 & 410 Hatcher Ln

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.

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
- ☑ 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.

CITY OF
COLUMBIA
TENNESSEE

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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:

Erik Bakke		9/11/24
Print Name	Signature	Date

CITY OF COLUMBIA TENNESSEE

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

PLANNING COMMISSION
PROJECT DEVELOPMENT APPLICATION

SUBMITTAL REQUIREMENTS

Final Plat: * *1 hard copy of all materials for submittal + PDF copy on a USB flash drive (no multiple applications on one storage device)*
Fold hard copy submittals larger than 8½"x11"
All Others: * Please submit the Application online at City of Columbia | Permitting (onlama.com)

ADDRESS/LOCATION	408 & 410 Hatcher Lane, Columbia, TN 38401		
	TAX MAP: 100L	GROUP: M	PARCEL: 26 & 27
SUMMARY OF NATURE OF REQUEST AND WORK	Subdivide 2 parcels of land into 3 parcels with alley access.		

DATE OF PRE-APPLICATION CONFERENCE		*Pre-application meetings are scheduled for Wednesdays.*

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 ❑ Other: **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) 408 and 410 Hatcher Lane ☒ Total Number of Lots/Residential Units 3 ☐ Square Footage of Non-Residential Floor Space ☒ Total acreage 0.428

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 go to the Applicant's email that is provided.

NAME	W.E.S. - Engineers and Surveyors	PHONE	931-388-2329
ADDRESS	2486 Nashville Highway Columbia, TN 38401	EMAIL	allen@wesengineers.com

PROPERTY OWNER NAME	Nathan McBroom	PHONE	931-698-7163
ADDRESS	P.O. Box 277 Columbia, TN 38402	EMAIL	mcbroom.invest@gmail.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.

Allen B. O'Leary		8/16/24
APPLICANT NAME	APPLICANT SIGNATURE	DATE
Nathan McBroom		8/14/24
PROPERTY OWNER NAME	PROPERTY OWNER SIGNATURE	DATE

StorPlace (Honey Farm) PUD Revision

Project #:	23-0313	Location:	Tax Map 51 Parcel 58.03
Applicant:	Adam Crunk	Case Type(s):	PUD Revision
Staff Planner:	Kevin C. McCarthy, AICP	Proposed Use:	Retail

PROJECT SUMMARY

The applicant requests approval of a revised Final Planned Unit Development (PUD) Master Plan to develop 5,738 square foot retail building on a 0.79-acre site. The development includes three self-storage buildings and a 1,300 square foot office building. The proposed revision adds a retail component to the office building.

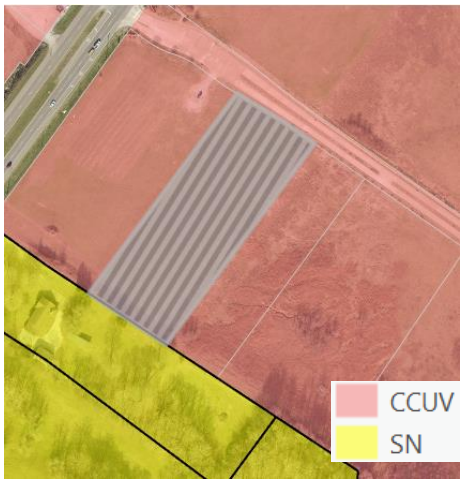
- The development was approved under Ordinance 3638, in effect between 2006 and 2022. The approvals created a vested right to develop under the standards in effect at the time.
- The property is subject to a Final PUD Master Plan based on the CEG-PUD standards of the previous zoning ordinance. The applicant is requesting to revise the Master Plan.
- The proposed revision adds more than 3% to the commercial floor area, requiring City Council evaluation of the Preliminary Planned Unit Development Master Plan.
- The Planning Commission is a recommending body for a Preliminary PUD Master Plan. The City Council is the **Decision-Making Authority.**
- Professional planning staff commentary identifies recommended conditions of approval.
- 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	Vacant	+/- 0.79



FUTURE LAND USE MAP	ZONING MAP





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	Vacant
South	Suburban Neighborhoods	County/CD-2	Single Family Detached
East	City Center Urban Village	PUD-MU	Vacant
West	City Center Urban Village	PUD-MU	Vacant

CONSISTENCY WITH CONNECT COLUMBIA

City Center Urban Village: The requested rezoning is consistent with the future land use map. The future land use of most of the subject site is CCUV. The City Center & Urban Village (CCUV) future land use area comprises Columbia's iconic core and ancillary focal points (Connect Columbia, p. 35). 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. The future land use classification is implemented by the CD-4 and CD-5 character districts, as well as CV and PUDs. In some cases, the Planning Commission may determine that CD-3 and CD-4C are also appropriate implementing zones.



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

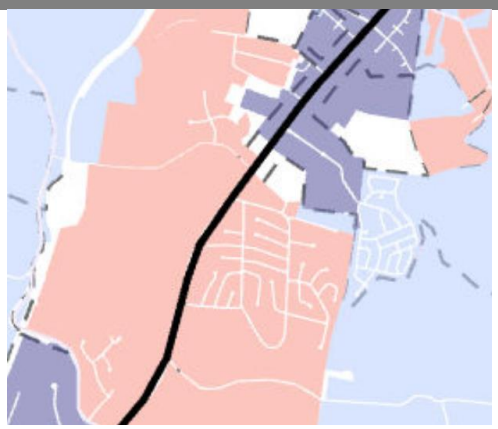
Neighborhood CD-3 (Only where compatible with established pattern)
General Urban CD-4
Urban Center CD-5
General Urban-Corridor CD-4C (only along Arterial roadways)
Urban Center – Corridor CD-5C (only along Arterial roadways)*
Mixed Use PUD PUD-MU
Civic CV

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

AREA OF CHANGE

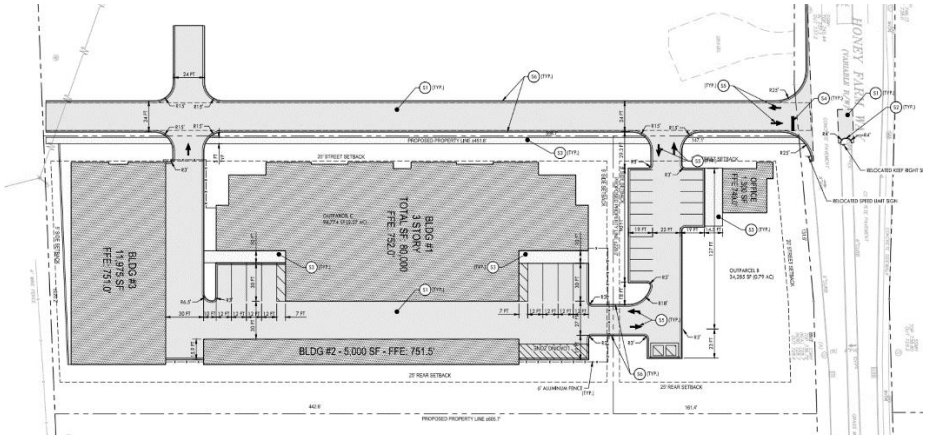
Connect Columbia established the areas of change policy designation for the subject site as *activate*. The designation includes areas where significant and beneficial change is occurring or is desired. These areas are the focus of proactive City policies to bring the community's values to fruition. 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

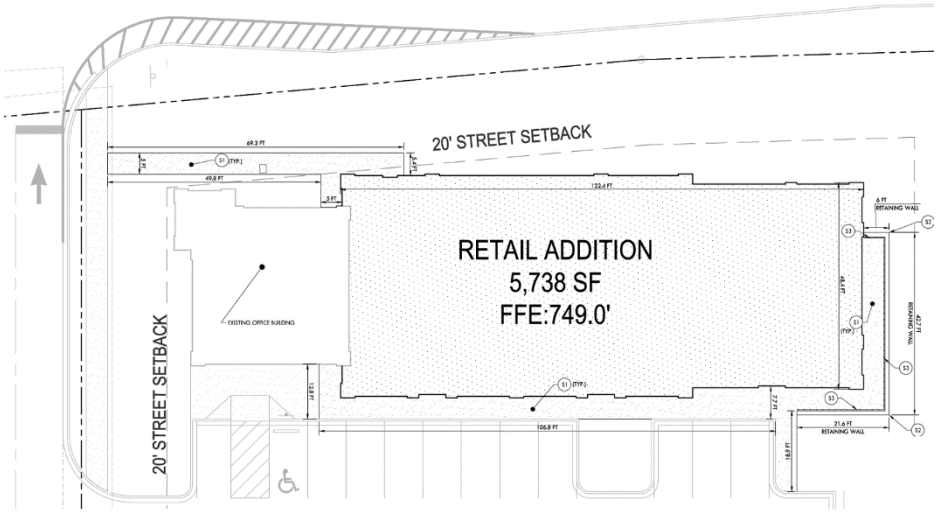
The Final PUD Master Plan approved in 2022 established the bulk standards for the development.

- Under the previous ordinance, setbacks in a CEG-PUD were established by the Planning Commission and City Council through the "process of plan review and approval" (§ 7.4.8). Maximum height was established at 35 feet. Decision making bodies were authorized to customize standards to fit unique sites and developments.
- The current request seeks to modify the master plan by extending one of the buildings.
- The applicant used the PUD-MU standards of the current ordinance to inform its design. The request represents a blend of the two standards which is mostly conforming to PUD-MU.



Original 2022 PUD Master Plan

- **The Revised Final PUD Master Plan adds retaining walls.**
  - The applicant has identified the retaining walls on the plans in red with a line weight similar to the parcel boundaries.
  - On the current iteration of the plan, walls are placed in 11-foot-wide easements.
  - A wall is used within a stormwater detention facility above an existing pond near the southwest portion of Phase 2 (see comments from Engineering in the DRC summary later in this report).



Site Plan Depicting Previously Approved Office and Retail Addition

- **The revised Final PUD Master Plan adds retail space to the site.**
  - The original PUD Master Plan depicted three buildings used for self-storage as well as a small office building.
  - The proposed revision depicts a 5,738 square foot addition to the office building.
  - The addition will provide retail space.
  - The Zoning Ordinance permits most retail uses in a PUD-MU.

- **The revised Final PUD Master Plan depicts the minimum required parking stalls.**
  - The minimum parking ratio for most retail uses is 1 parking space per 500 square feet of usable floor space.
  - The minimum parking ratio for office uses is 1 space per 200 square feet of usable floor space (the applicant's resubmittal misidentifies this as 1 space per 300 square feet).
  - The shared parking factor at Table 4.3.12.B-2 of the Ordinance reduces the total parking requirement by 20% when retail and office uses are co-located.

- Together, the proposed office and retail spaces will require 14 spaces.
- Parking for the self-storage facility was determined under the standards of the previous ordinance which required 1 space per 75 storage units.
- The applicant's plan depicts a sufficient number of spaces for each of the principal uses.
- The parking provided could not accommodate any significant amount of restaurant space.
- Restaurants require much more parking than office or retail uses. The applicant has been advised that it will be infeasible to lease space to a restaurant under the current configuration.

- **Comparison with PUD-MU standards generally.**
  - A Main Entrance is in the façade oriented to Honey Farm Way.
  - The plan depicts a band sign on the façade elevation, which would conform to PUD-MU, as well as an additional sign band facing into the site.
  - The plan depicts the retail addition with a front setback greater than 20' on the secondary frontage (Honey Farm Way). This exceeds the maximum front setback of a PUD-MU under current standards but conforms to the standard established in the previously approved CEG-PUD master plan.
  - The current PUD-MU standards require all principal buildings to have a minimum height of two stories. The CEG-PUD did not impose this requirement.
  - The applicant requests approval to add a single-story building. The design of the building gives the appearance of a taller structure due to a high parapet, steepled roofline of the office, and the slope of the site.
  - The Plan depicts retaining walls in the rear setback which are approximately 6.7 feet tall at their highest point. The Zoning Ordinance limits the height of retaining walls on individual lots to 6 feet tall.



Elevations of Single-Story Retail/Office Building

(PUD-MU) Mixed Use Planned Unit Development Architectural Standards		
Design Standards:	**Required**	**Proposed**
Main Entrance:	Identifiable Base, Middle, & Cap	Base consists of brick with a defined middle and cap.
Façade Position & Façade Articulation:	Main entrance at façade parallel to frontage line. In addition, facades greater than 100' in width must be differentiated so that it appears to be comprised of two or more adjacent buildings.	The principal frontage enfronts the Honey Farm Way. The elevation includes a main entrance fronting this street section. Additional entrances face the parking area on the internal elevation. The entire width of the building site frontage is 180' with the code requiring the façade to be differentiated every 100' at a 90 percent maximum building frontage buildout. The front façade indicates a 111' frontage with an additional 20' street screen wall. Among the front façade, differential of materials is provided with brick modulations, and material changes from brick & EIFS.
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, 70% for shopfront	Approximately 20% on façade; 50-70% on internal elevation.
Window Shape:	Square or vertical proportions	All windows are square or vertical proportioned
Window Glazing Material:	Clear	All windows proposed are clear glass.

Shopfront Frontages:	12 in. knee wall required at Frontage	A knee wall is provided at shopfront elevation
Façade Variety:	No façade may exist more than once on a block face or within view of same façade	This is a single site building with one façade.
Roof Type & Pitch:	Hip/ Gable/ Flat	Flat
Primary Building Materials:	Brick, Fiber Cement Board, Wood	All elevations indicate a primary façade material of brick
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.

REVIEW PROCESS

The Development Review Committee reviewed the proposed PUD Master Plan revision at its August 2024 meeting, as directed by **§ 8.3.7** of the Zoning Ordinance. Technical comments are provided in the agenda package and summarized above.

Section **8.5.21.W** of the Zoning Ordinance authorizes the City Council to approve modifications to a Final PUD Master Plan during the period of actual Development when the proposed change introduces new uses or adds more than 3% to the commercial floor area. The same language was included in Ordinance 3638 at **§ 3.2.16**.

The criteria for the Planning Commission's evaluation is listed at **§ 8.5.21.W.4**.

> *For any modification to an approved Final Master PUD Development Plan or amendment to Final Master PUD Development Plan […] such modification shall be subject to satisfactory proof by the applicant and written findings by the Planning Commission and City Council as follows and approval as an amendment to the approved Final Master PUD Development Plan or amendment to Final Master PUD Development Plan.*
>
> a. *The modification shall be limited to the minimum necessary;*
> b. *Strict application of the provisions of the approved Final Master PUD Development Plan or amendment to Final Master PUD Development Plan would result in practical difficulties or unnecessary hardship;*
> c. *There are exceptional or extraordinary circumstances or conditions applying to the land, Buildings, Structures or Uses referred to in the request for modification, which circumstances or conditions do not apply generally to other land, Buildings, Structures or uses in the same type of PUD District.*

d. The requested modification will not be detrimental to the public welfare or injurious to property or improvements in the neighborhood of the premises.

e. Under the circumstances of the particular case, the requested modification will not adversely affect the health or safety of persons working or residing in the neighborhood of the premises.

f. The requested modification is consistent the intent and purpose of this Ordinance, the Comprehensive Plan, and the approved Final Master PUD Development Plan or amendment to Final Master PUD Development Plan and will not adversely affect the community objectives of the Comprehensive Plan.

g. The requested modification will not result in any reduction of required Buffer areas or other specific open spaces required by this Ordinance and will not vary any District or Development standard applicable to the PUD under this Ordinance.

SUMMARY OF DEVELOPMENT REVIEW COMMITTEE COMMENTS

The DRC reviewed this proposal at its June 2024 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 revisions to details of the plan to better compare the proposed revision to the PUD-MU standards of the zoning ordinance.
- Planning also requested addition information pertaining to landscaping, parking, and lighting, which the applicant provided at resubmittal.
- **Columbia Water System's** (**CPWS**) consultant (Inflow) noted that the applicant's water availability letter was dated July 15, 2024 and would expire in 120 days.

COMMENTARY FROM PROFESSIONAL PLANNING STAFF

The site cannot support parking for a restaurant use. The proposed addition is identified as retail. The plan depicts sufficient parking for the retail use in combination with the previously approved office use. However, it is likely that restaurant operators will be interested in the space.

The water availability letter will need to be renewed prior to second consideration at City Council. The water availability letter will expire on November 12th. If the Planning Commission recommends approval and the City Council approves the revision upon first consideration, the item will be on the December 12th City Council agenda. An updated letter will be required in order to proceed.

SAMPE 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 section 8.5.21.W of the City of Columbia Zoning Ordinance have been satisfied and approve the revision to 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 section 8.5.21.W of the City of Columbia Zoning Ordinance have been satisfied and approve the revision to the Final Planned Unit Development Master Plan, subject to the following conditions: [*list conditions of approval crafted by Planning Commission*].

Deny:

Move to deny the requested revisions to 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 section 8.5.21.W 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.

HONEY FARM STORPLACE RETAIL ADDITION

NASHVILLE HWY (HWY 31)

COLUMBIA, TN 38401

PRELIMINARY PLANNED UNIT DEVELOPMENT REVISION

GENERAL INFORMATION

DEVELOPER

STORPLACE SELF STORAGE
109 MURPHY COURT
NASHVILLE, TN 37203-1005
Contact: J. EDMOND FREEMAN, JR.
Phone: 615-383-3111
Email: ed@storplace.com

CIVIL ENGINEER

Crunk Engineering LLC
7112 Crossroads Boulevard, Suite 201
Brentwood, TN 37027
Contact: Adam Crunk, PE
Phone: 615.873.1795
Email: adam@crunkeng.com



LOCATION MAP
NOT TO SCALE

Sheet List Table	
Sheet Number	Sheet Title
C0.0	COVER
C1.0	EXISTING CONDITIONS
C2.0	DEMOLITION PLAN
C3.0	SITE LAYOUT PLAN
C4.0	GRADING PLAN
C5.0	UTILITY PLAN
E1.0	SITE PHOTOMETRIC PLAN
E1.1	EXTERIOR LIGHTING DETAIL

DEVIATION TABLE		
CODE	DEVIATION	REASONING
ZONING ORDINANCE 6.3.B	PUBLIC FRONTAGE ELEMENTS	SIDEWALK, PLANTER, AND STREET LIGHTS ARE NOT BEING PROPOSED AT THIS TIME. PUBLIC SIDEWALK WOULD LEAD TO THE DEDICATED POND LOT, RESULTING IN A DEAD END SIDEWALK. THE EXISTING PUBLIC SIDEWALK LOCATED ON THE NORTH SIDE OF HONEY FARM WAY AND THE SIDEWALK ALONG LEAFCUTTER BEE ROAD SHALL BE UTILIZED FOR PEDESTRIAN ACCESS TO THE LOT.

CRUNK ENGINEERING LLC
7112 CROSSROADS BOULEVARD
SUITE 201
BRENTWOOD, TN 37027
(615) 873-1795
WWW.CRUNKENG.COM

ENGINEERING CRUNK

ALAN WILSON CRUNK
REGISTERED PROFESSIONAL ENGINEER
AGRICULTURE
COMMERCE
No. 114180
STATE OF TENNESSEE
9/16/24

HONEY FARM RETAIL

COLUMBIA, TN

REVISIONS		
No.	DATE	

09/16/2024 22132

C0.0
COVER

Drawing Path: P:\2022\2212 - Honey Farm Commercial\Dwg\Construction\Retail\C0.0-COV.dwg

HONEY FARM STORPLACE LANDSCAPE PLANT SCHEDULE

PLANT SCHEDULE

SYMBOL	QTY	BOTANICAL / COMMON NAME	SIZE	CONTAINER
TREES				
	4	Cercis canadensis / Eastern Redbud	1.5" Cal.	B&B
	6	Cornus florida 'Cherokee Princess' / Cherokee Princess Dogwood	2" Cal.	B&B
	18	Fagus grandifolia / American Beech	2" Cal.	B&B
	29	Magnolia acuminata / Cucumbertree Magnolia	2" Cal.	B&B
	23	Quercus nuttallii / Nuttall Oak	2" Cal.	B&B
SHRUBS				
	20	Ilex x 'Little Red' / Little Red Holly	3 gal.	Pot
	71	Loropetalum chinense rubrum / Purpleleaf Fringe Flower	3 gal.	Pot
	26	Myrica cerifera 'Don's Dwarf' / Don's Dwarf Wax Myrtle	3 gal.	Pot
	64	Prunus laurocerasus / English Laurel	3 gal.	Pot
	34	Rosa x 'Radtko' / Double Knock Out® Red Rose	3 gal.	Pot

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ENGINEERING CRUNK

TENNESSEE LICENSED LANDSCAPE ARCHITECT REGISTERED LANDSCAPE ARCHITECT AGRICULTURE COMMERCE No. 114180 STATE OF TENNESSEE 9/16/24

HONEY FARM RETAIL

COLUMBIA, TN

REVISIONS	
No.	DATE

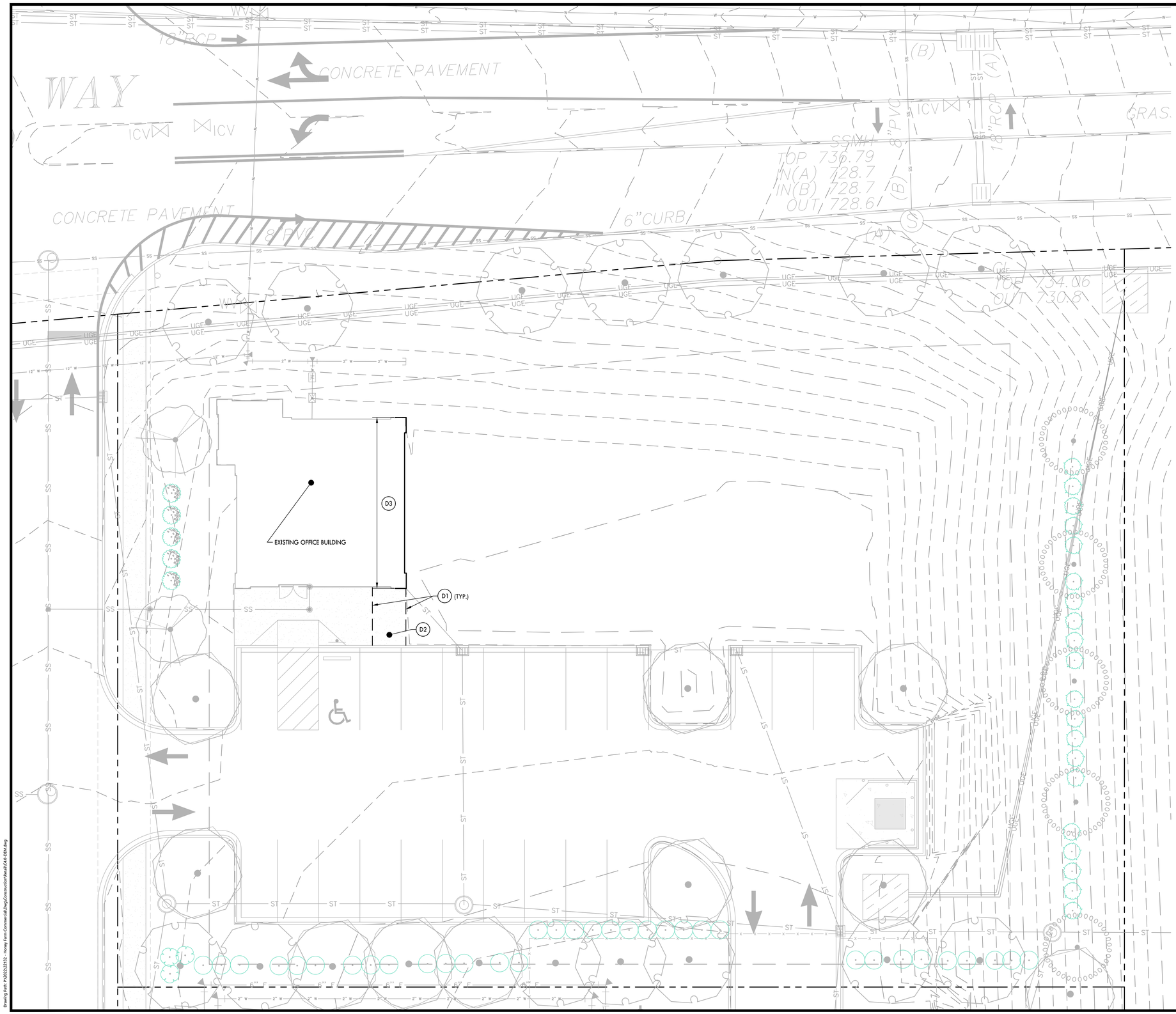
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EXISTING CONDITIONS

0 5 10 20
GRAPHIC SCALE

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DEMOLITION PLAN KEYNOTES	
CODE	DESCRIPTION
D1	SAWCUT EDGE OF PAVEMENT DEMOLITION
D2	SIDEWALK DEMOLITION
D3	EXISTING BUILDING WALL DEMOLITION

PROPOSED DEMOLITION LEGEND

— — — EDGE OF PAVEMENT REMOVAL

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TENNESSEE LICENSED PROFESSIONAL ENGINEER
REGISTERED LANDSCAPE ARCHITECT
AGRICULTURE
5/24/2024
COMMERCE
TENNESSEE
STATE OF TENNESSEE

HONEY FARM RETAIL

COLUMBIA, TN

REVISIONS

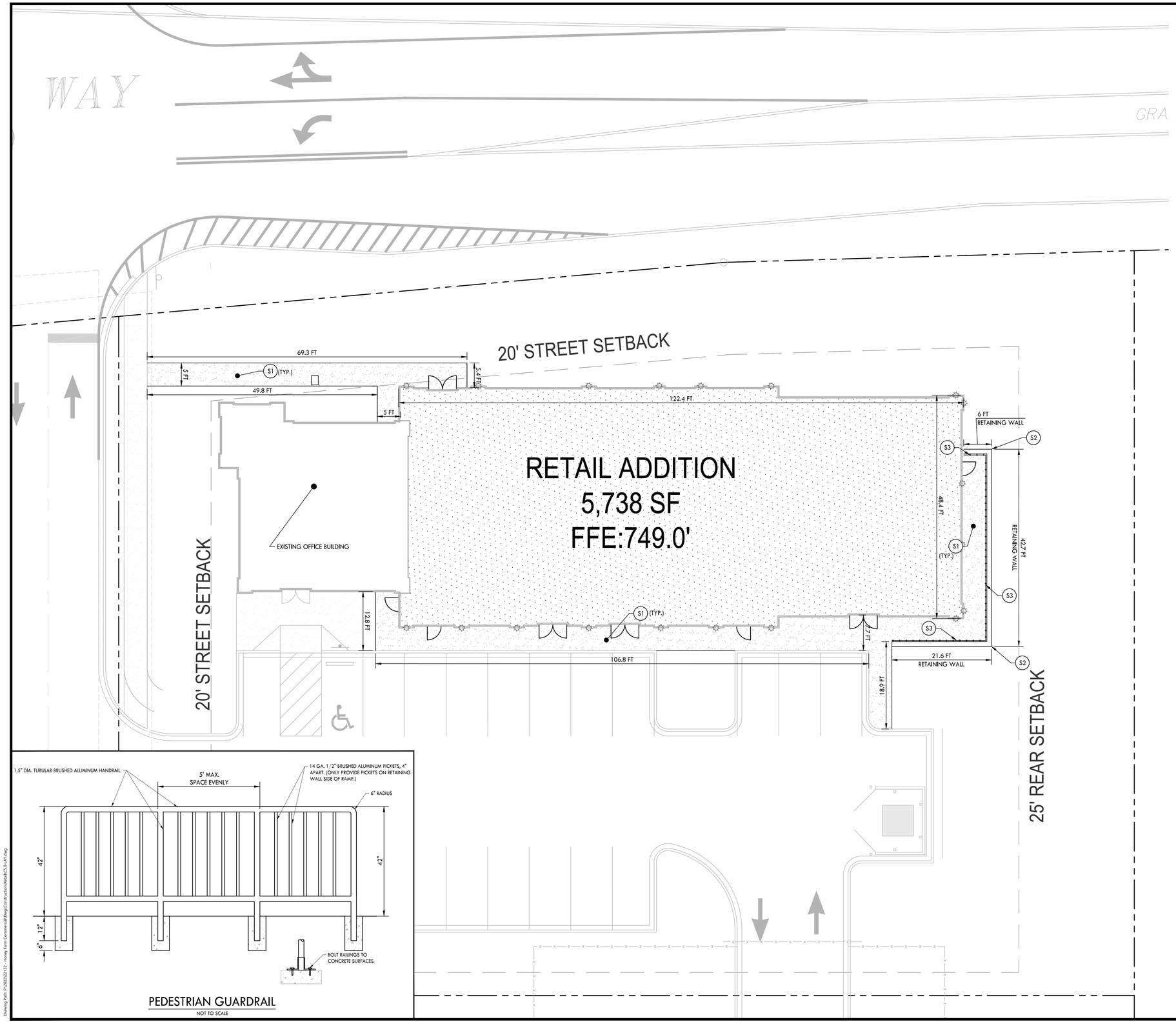
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DEMOLITION PLAN

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PEDESTRIAN GUARDRAIL

NOT TO SCALE

LAYOUT PLAN KEYNOTES

CODE	DESCRIPTION
S1	CONCRETE SIDEWALK
S2	RETAINING WALL
S3	PEDESTRIAN GUARDRAIL

PROPOSED LAYOUT LEGEND

- PROPOSED BUILDING
- CONCRETE SIDEWALK
- PROPERTY LINE

SITE SUMMARY TABLE

ADDRESS	2301 LEAFCUTTER BEE ROAD, COLUMBIA, TN 38401
ZONING	PUD-MU
EXISTING PARCEL ID	PORTION OF 051 058.03
EXISTING PARCEL ACREAGE	132,858 SF (3.05 AC)
EXISTING PARKING REQUIREMENTS (OFFICE)	1 PER 300 SF = 5 SPACES
EXISTING PARKING PROVIDED	22 SPACES
PROPOSED SITE	34,285 SF (0.79 AC)
PROPOSED PARKING REQUIREMENT (RETAIL)	1 PER 500 SF = 12 SPACES
PARKING REQUIRED (TOTAL)	17 SPACES
PARKING PROVIDED	22 SPACES

LAND USE SUMMARY TABLE

LOT AREA	34,285 SF (0.79 AC)
EXISTING OFFICE BUILDING AREA	1,258 SF / 0.029 AC
EXISTING SIDEWALK AREA	1,070 SF / 0.025 AC
EXISTING PARKING AREA	9,179 SF / 0.21 AC
PROPOSED RETAIL BUILDING AREA	5,738 SF / 0.13 AC
PROPOSED SIDEWALK AREA	1,133 SF / 0.026 AC

0 5 10 20

GRAPHIC SCALE

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REGISTERED ENGINEER AGRICULTURE COMMERCE No. 114180 STATE OF TENNESSEE 9/16/24

HONEY FARM RETAIL

COLUMBIA, TN

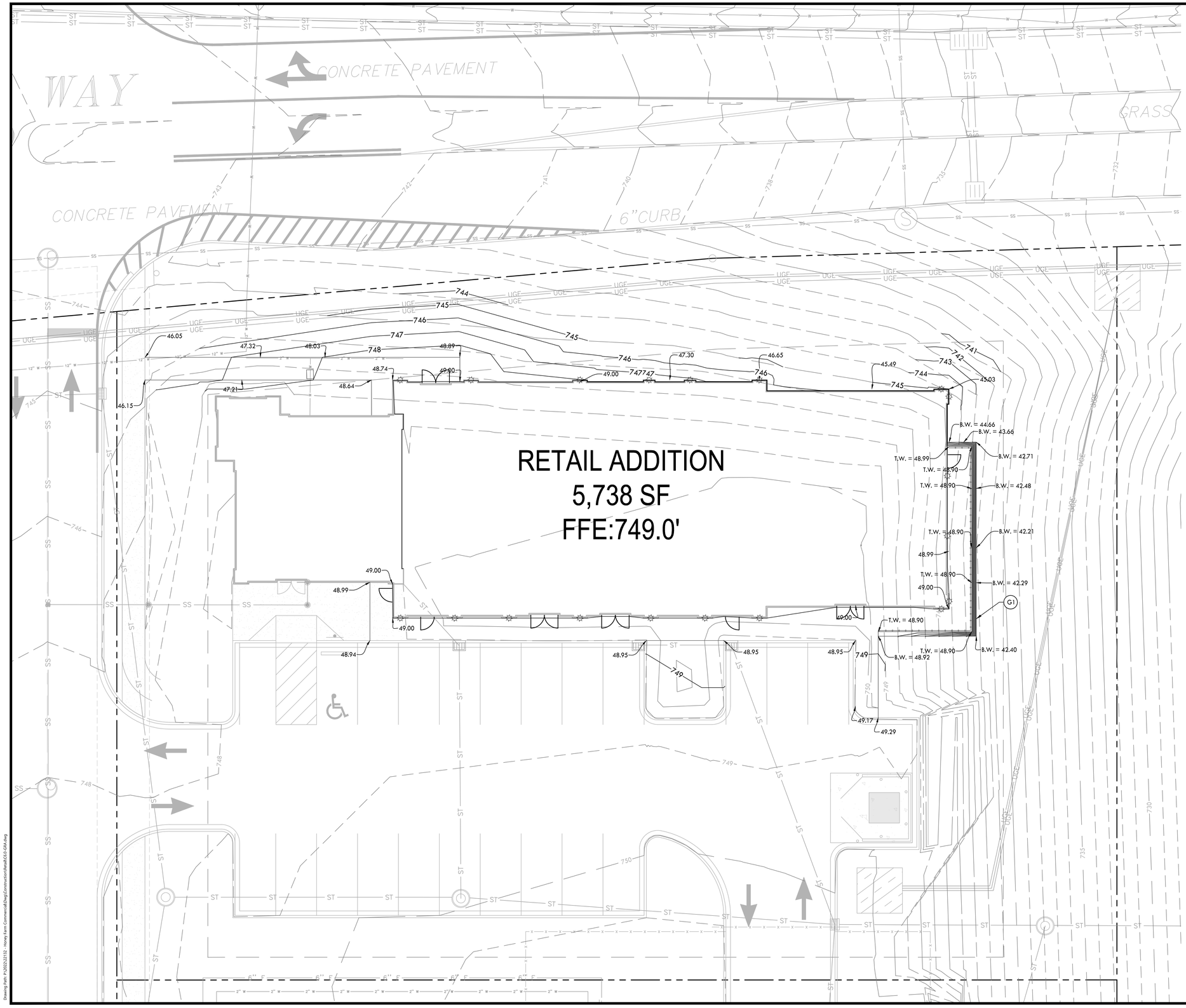
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No.	DATE

09/16/2024 22132

C3.0

SITE LAYOUT PLAN

Drawing Path: P:\2022\22132 - Honey Farm Commercial\Dwg\Construction\Retail\C3.0-LAY.dwg



GRADING PLAN KEYNOTES

CODE	DESCRIPTION
G1	RETAINING WALL

PROPOSED GRADING LEGEND

- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- EXISTING STORM PIPE
- EXISTING SINGLE CURB INLET
- EXISTING JUNCTION BOX

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ENGINEERING CRUNK



HONEY FARM RETAIL

COLUMBIA, TN

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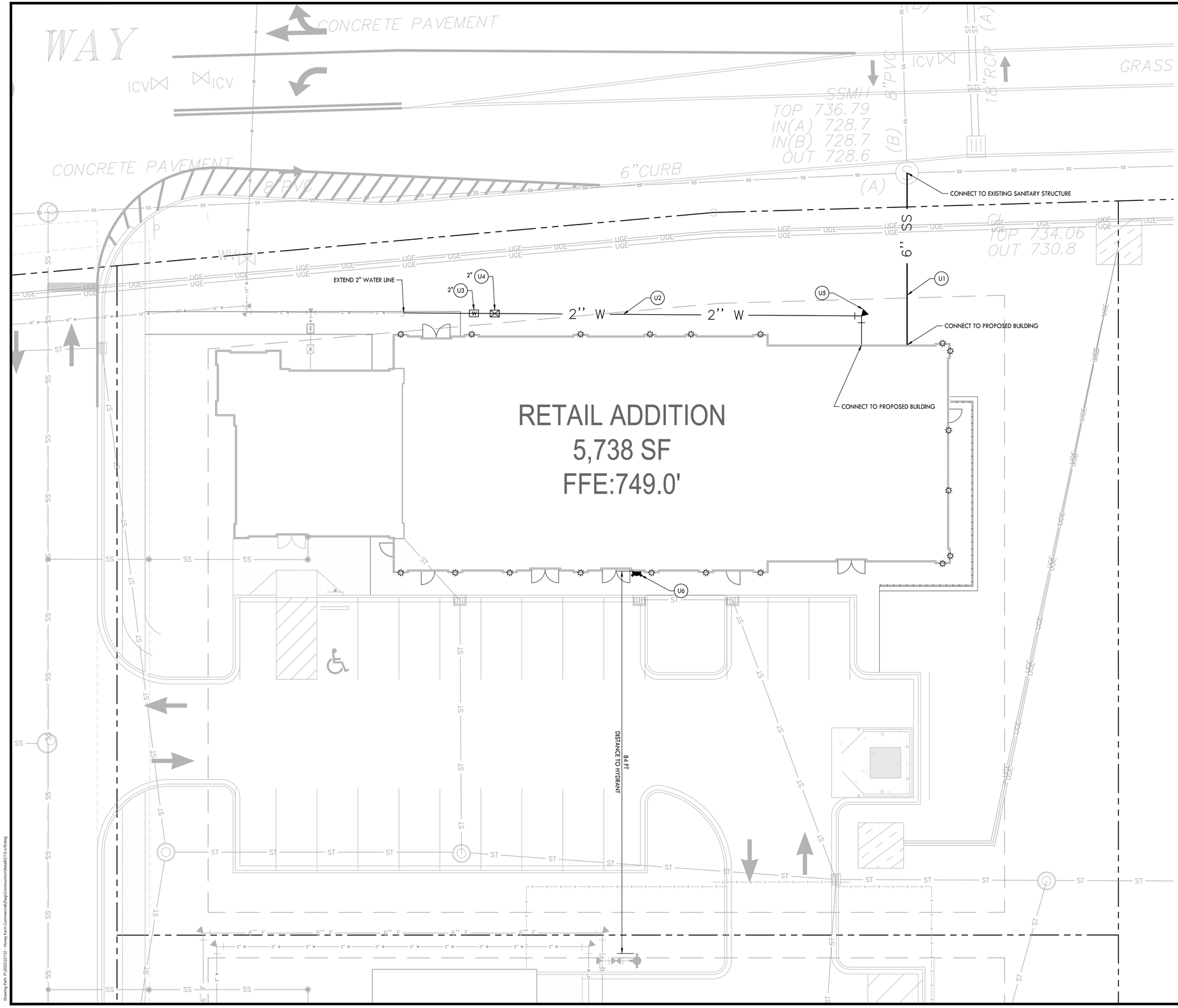
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GRADING PLAN

0 5 10 20
GRAPHIC SCALE

Drawing Path: P:\2022\22132 - Honey Farm Commercial\Dwg\Construction\Revit\C4.0-GRA.dwg



UTILITY PLAN KEYNOTES

CODE	DESCRIPTION
U1	SANITARY SEWER SERVICE LINE - 6"
U2	WATER SERVICE LINE - 2"
U3	WATER METER
U4	REDUCE PRESSURE BACKFLOW PREVENTER
U5	THRUST BLOCK
U6	FIRE DEPARTMENT CONNECTION

NOTES:
1. BUILDER TO INSTALL CLEANOUTS AT BUILDING, PROPERTY LINE, AND EVERY 50 FEET.

PROPOSED UTILITY LEGEND

SS — SANITARY SEWER LINE

W — WATER LINE

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HONEY FARM RETAIL

COLUMBIA, TN

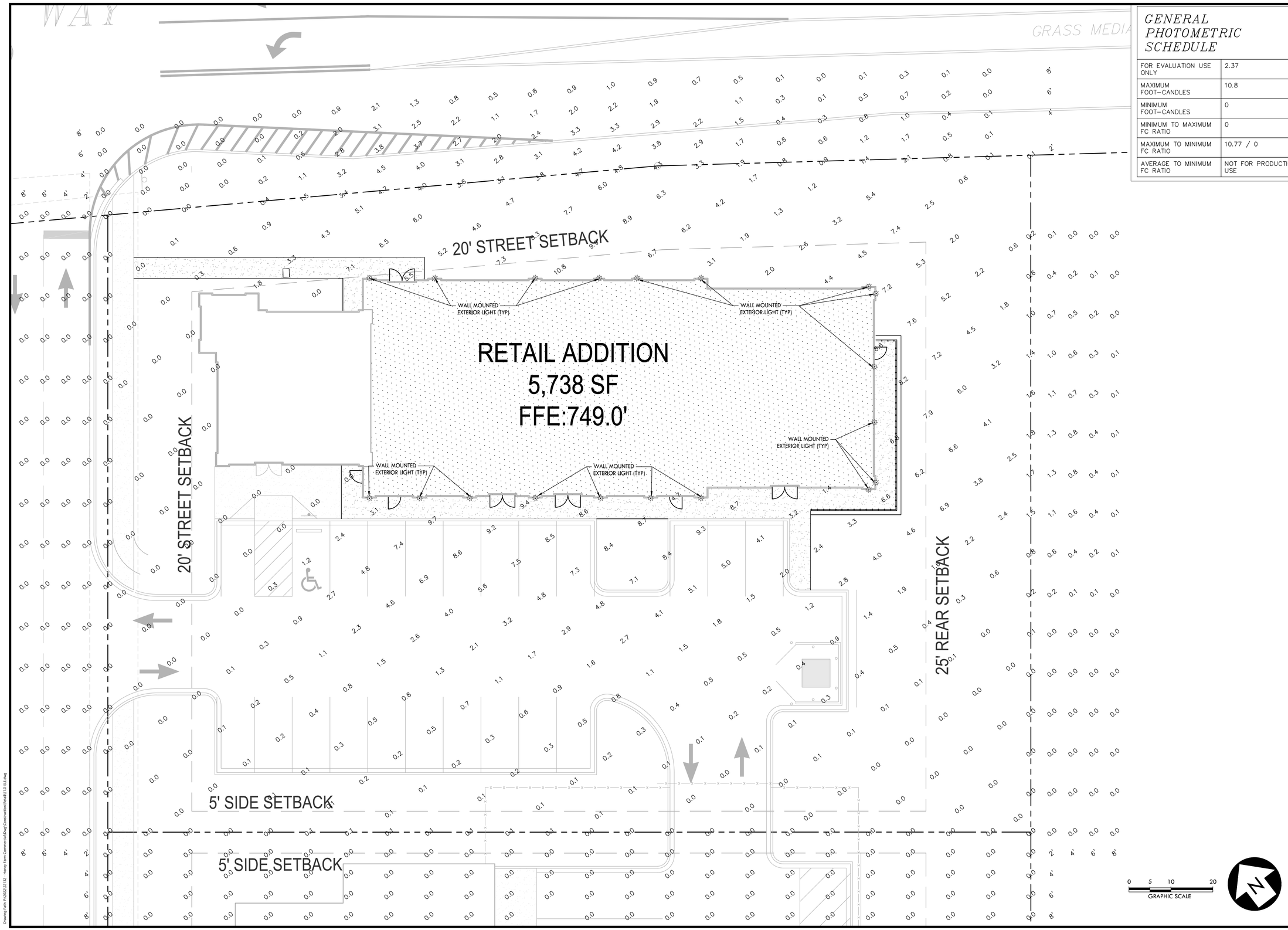
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C5.0

UTILITY PLAN

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GENERAL PHOTOMETRIC SCHEDULE

FOR EVALUATION USE ONLY	2.37
MAXIMUM FOOT–CANDLES	10.8
MINIMUM FOOT–CANDLES	0
MINIMUM TO MAXIMUM FC RATIO	0
MAXIMUM TO MINIMUM FC RATIO	10.77 / 0
AVERAGE TO MINIMUM FC RATIO	NOT FOR PRODUCTION USE

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HONEY FARM RETAIL

COLUMBIA, TN

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SITE PHOTOMETRIC PLAN

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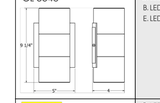
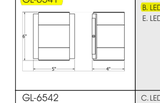
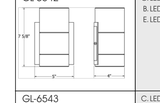
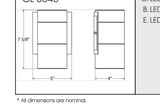
DESIGNLIGHT	Project 18-28857-6 Storplace Nolensville Road Submitted By DESIGNLIGHT	Catalog Number GL-6541-B-CC-R5-TBZ-A Notes	Type N

CYLINDER

Outdoor ADA Wall Sconce

GLighting
9777 Reavis Park Drive
St. Louis, MO 63123
800.331.2425 or 314.631.6000
Fax 314.631.7800
sales@glighting.com www.glighting.com

SAMPLE CATALOG NUMBER:
GL-6540- B- R2-R2 TBL- A

MODEL NO.	LAMPING	REFLECTOR	FINISH	OPTIONS
GL-6540 	C. LED30 B. LED35 E. LED40	Up R2 20° Fresnel Lens R3 30° Flat, Clear Lens Down R2 20° Fresnel Lens R3 30° Flat, Clear Lens	Textured: TLV - Light Verdigris TWH - White TBL - Black TS - Silver TBN - Terra Brown TBZ - Bronze Premium: SA - Satin Aluminum	A. No Options EL. Emergency Ballast - Must be remotely mounted in a controlled enviornment with an ambi temperature range of 32°-131°F.
GL-6541 	C. LED30 B. LED35 E. LED40	Up R5 50° Flat, Clear Lens CC Closed Cap Down R5 50° Flat, Clear Lens CC Closed Cap		
GL-6542 	C. LED30 B. LED35 E. LED40	Up R2 20° Fresnel Lens R3 30° Flat, Clear Lens Down R5 50° Flat, Clear Lens CC Closed Cap		
GL-6543 	C. LED30 B. LED35 E. LED40	Up R5 50° Flat, Clear Lens CC Closed Cap Down R2 20° Fresnel Lens R3 30° Flat, Clear Lens	Complete LM-79 data available at glighting.com	

* All dimensions are nominal.

LED
- 13W 80CRI high power LED per side
- 0-10V dimming standard with LED lamping option
- Lumen maintenance +90% over 50,000 hour life
- Light source is field replaceable

Mounting
- Driver mounted in 4" square by 2 1/8" deep junction box: Steel City #52171 or equivalent (supplied by others)

Driver
- Protection: electronic internal, resettable short circuit protection, thermal protection, and overload regulation
- Universal voltage 120-277 volt

Code	Kelvin	Reflector	Total Wattage	CRI	Rated Life Hrs	Delivered Lumens
LED30	3000K	20	13	+80	50000	1231
		30	13	+80	50000	867
		50	13	+80	50000	956
LED35	3500K	20	13	+80	50000	1231
		30	13	+80	50000	867
		50	13	+80	50000	956
LED40	4000K	20	13	+80	50000	1231
		30	13	+80	50000	867
		50	13	+80	50000	956

Fixture is ETL listed for wet locations

© Gross Chandelier Co.
G Lighting reserves the right to modify existing designs to improve appearance or function lighting facts G Lighting products are never made 10/16

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114180
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HONEY FARM RETAIL

COLUMBIA, TN

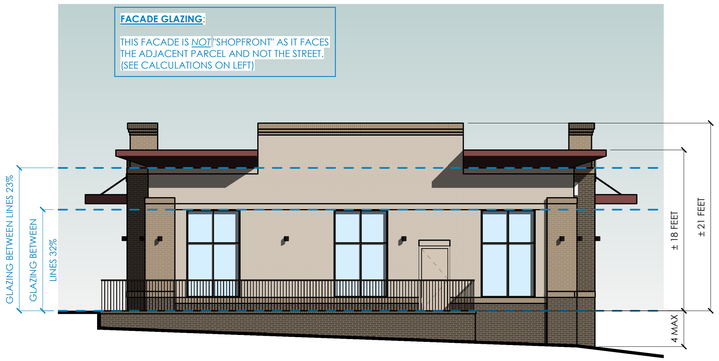
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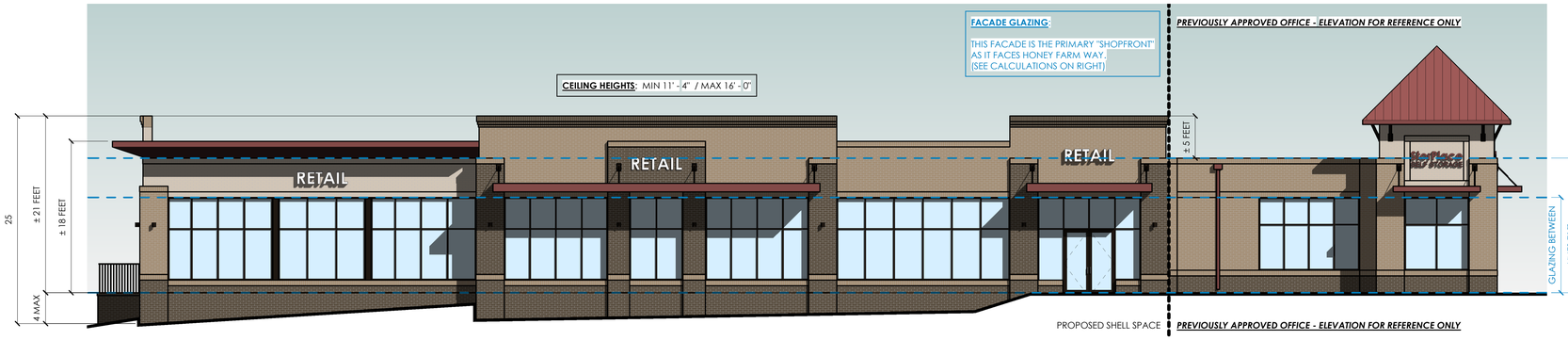
EXTERIOR LIGHTING DETAIL

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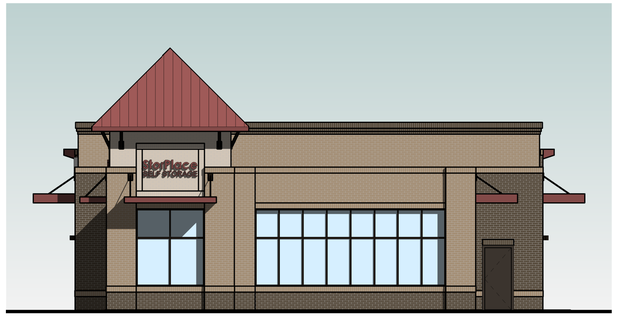
SOUTHEAST ELEVATION - RETAIL ADDITION

SCALE: 1/8" = 1'-0"



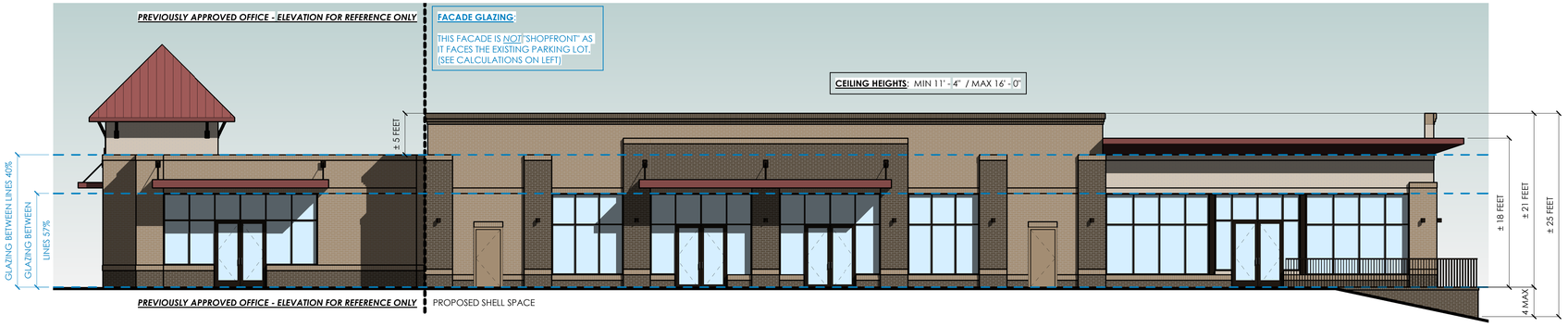
NORTHEAST ELEVATION - RETAIL ADDITION (ALONG HONEY FARM WAY)

SCALE: 1/8" = 1'-0"



NORTHWEST ELEVATION - OFFICE (PREVIOUSLY APPROVED)

SCALE: 1/8" = 1'-0"



SOUTHWEST ELEVATION - RETAIL ADDITION (PARKING LOT SIDE)

SCALE: 1/8" = 1'-0"

MATERIAL LEGEND

BRICK (LIGHT, MEDIUM, DARK)		STOREFRONT FRAME / RAIL	
RETAINING WALL (MASONRY)		ROOF / AWNING	
GLASS			

REQUESTED DEVIATONS - PUD-MU BUILDING STANDARDS

REFERENCE: TABLE 4.3.1-L DISTRICT STANDARDS FOR PLANNED USE DEVELOPMENT - MIXED USE (PUD-MU)

BUILDING HEIGHT (REQUEST FOR DEVIATION):

THE BUILDING STANDARD GUIDELINES FOR THE PUD-MU ZONING DISTRICT CALL FOR A 2-STORY MINIMUM FOR BUILDINGS. THE PROPOSED PROJECT IS THE ADDITION TO AN EXISTING 1-STORY BUILDING AND SITE PLAN APPROVED UNDER THE PREVIOUS REGULATIONS.

DUE TO THE EXISTING BUILDING AND SITE CONDITIONS, THE PROPOSED DESIGN FOR THE ADDITION IS FOR A 1-STORY BUILDING THAT INCLUDES FEATURES THAT ARE INTENDED TO ACHIEVE PROPORTIONS APPROACHING THAT OF A 2-STORY BUILDING.

FIRST, THE ADDITION HAS A TALLER ROOFLINE / PARAPET ADJACENT TO THE EXISITNG 1-STORY STRUCTURE TO CREATE THE PERCEPTION OF A TALLER BUILDING.

SECOND, THE GRADE ON THE FACADE FACING HONEY FARM WAY IS INCREASINGLY LOWER FROM WEST-TO-EAST WHICH ADDS ADDITIONAL HEIGHT AND THE PERCEPTION OF A TALLER BUILDING.

LASTLY, IT WAS DISCUSSED AT THE PRE-APPLICAITON MEETING THAT THE DESIGN GUIDELINES FOR THE CD-4C ZONING DISTRICT WOULD BE A GOOD REFERENCE POINT AND ARE VERY SIMILAR TO THAT OF PUD-MU WHILE ALLOWING FOR 1-STORY BUILDING.

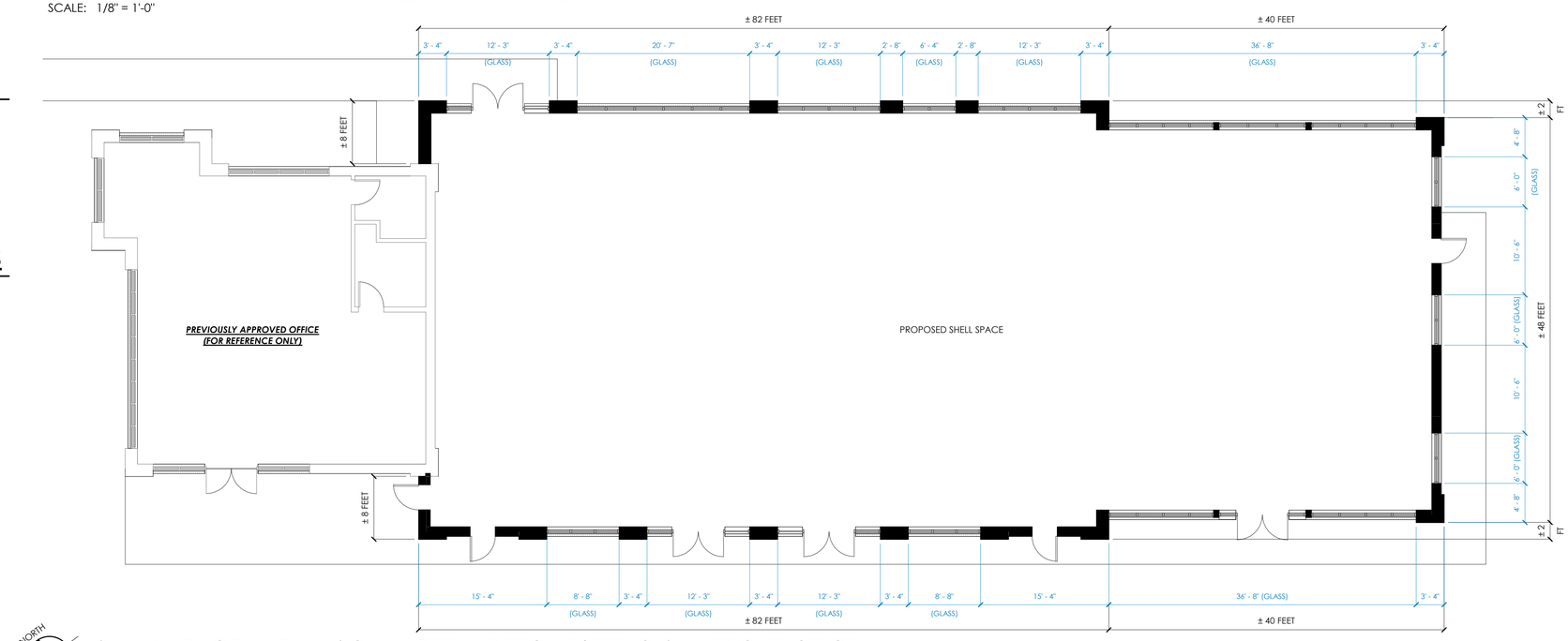
WITH THE EXISTING CONDITIONS AND PROPOSED DESIGN FEATURES DESCRIBED ABOVE TO APPROXIMATE THE DESIGN GUIDELINES, THE DEVELOPER WOULD LIKE TO RESPECTFULLY REQUEST APPROVAL FOR THE ADDITION AS PRESENTED.

FACADE GLAZING (REQUEST FOR DEVIATION ON SHOPFRONT FACADE ONLY):

THE BUILDING STANDARD GUIDELINES FOR THE PUD-MU ZONING DISTRICT CALL FOR 70% MIN. OF TOTAL FACADE AREA FOR SHOPFRONT FRONTAGE TO BE GLAZING. ONLY 20% - 60% IS REQUIRED FOR ALL OTHER NON-SHOPFRONT FACADES.

THE FACADE FACING HONEY FARM WAY IS CONSIDERED THE "SHOPFRONT" FACADE DUE TO ITS PROMINENT VISIBILITY. FOR THE PURPOSES OF TRYING TO ACHIEVE THE REQUIRED PERCENTAGE, WE HAVE MEASURED THE GLAZING BETWEEN THE FINISHED FLOOR OF THE BUILDING AND THE HEIGHT OF A TYPICAL GROUND FLOOR FACADE AND CAN ONLY ACHIEVE 50% GLAZING. IF MEASURED TO THE TOP OF THE GROUND FLOOR WINDOWS (11'-4"), WE BARELY ACHEIVE THE MINIMUM REQUIREMENT AT APPROXIMATELY 71%.

AS IS ILLUSTRATED IN THE ELEVATIONS, THE FACADE IS ALMOST ENTIRELY GLAZING FROM END-TO-END OF THE BUILDING. THEREFORE, THE DEVELOPER WOULD LIKE TO RESPECTFULLY REQUEST APPROVAL OF THE SHOPFRONT GLAZING AS PRESENTED.



SHELL BUILDING PLAN DIMENSIONED - RETAIL ADDITION W/ PREVIOUSLY APPROVED OFFICE

SCALE: 1/8" = 1'-0"

NORTH

24-403

noble architects
p.o. box 2008
brentwood
tennessee
37024
615.292.4017

CHRISTIAN A. NOBLE — REGISTERED ARCHITECT — NO. 104224 — STATE OF TENNESSEE

09/16/2024

STORPLACE - HONEY FARM RETAIL ADDITION

2301 LEAFCUTTER BEE ROAD - COLUMBIA, TN 38401

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issue date
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sheet title
BUILDING PLAN & ELEVATIONS

A-1



OFFICE + RETAIL - BIRD'S EYE VIEW OF ROOF TOP UNITS BEHIND PARAPET / SCREEN WALL



OFFICE + RETAIL - SOUTHWEST FACADE NEAR OFFICE (PREVIOUSLY APPROVED)



OFFICE + RETAIL - NORTHEAST FACADE ALONG HONEY FARM WAY (W/ APPROVED OFFICE)



OFFICE + RETAIL - SOUTHWEST + SOUTHEAST FACADES

24-403

noble
architects

p.o. box 2008
brentwood
tennessee
37024

615.292.4017

CHRISTIAN A. NOBLE
REGISTERED ARCHITECT
ARCHITECTURE
ACOMMERCIAL
No. 104224
STATE OF TENNESSEE

09/16/2024

STORPLACE - HONEY FARM RETAIL ADDITION

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EXTERIOR 3D VIEWS

A-2

BK/PG:R2969/454-461
24000985

8 PGS : EASEMENT
BECKY BUCHANAN 320111 - 24000985
01/26/2024 - 01:40 PM
VALUE
MORTGAGE TAX 0.00
TRANSFER TAX 0.00
RECORDING FEE 40.00
DP FEE 2.00
REGISTER'S FEE 0.00
TOTAL AMOUNT 42.00
STATE of TENNESSEE, MAURY COUNTY
JOHN FLEMING
REGISTER OF DEEDS

This instrument was prepared by:
G. Miller Hogan, II, Esq.
Hawkins Hogan PLC
205 17th Avenue North, Suite 202
Nashville, TN 37203

ACCESS AND PARKING EASEMENT

This ACCESS AND PARKING EASEMENT (the "Agreement") is made and entered into by **Freegard Partners X**, a Tennessee general partnership (the "Grantor").

WHEREAS, Grantor owns two contiguous parcels of real property located in Maury County, Tennessee, as more particularly described on **Exhibit A** attached hereto and incorporated herein by this reference (collectively, the "Lots");

WHEREAS, Grantor desires to establish access and parking easements for the benefit of Lot 3 as more particularly depicted on **Exhibit B** attached hereto and incorporated herein by this reference;

1. Establishment of Easements.

(a) Access Easement. Grantor by these presents grants, transfers, conveys, and establishes a perpetual 24-foot (24') wide non-exclusive easement for pedestrian and vehicular ingress and egress across Lot 2 for the use and benefit of Lot 3 as depicted on the descriptive plat attached hereto as **Exhibit B** and incorporated herein by this reference (the "Access Easement").

(b) Parking Easement. Grantor by these presents grants, transfers, conveys, and establishes a non-exclusive easement to use all parking spaces and areas located on Lot 2 for the use and benefit of Lot 3 as depicted on the descriptive plat attached hereto as **Exhibit B** and incorporated herein by this reference (the "Parking Easement").

The Access Easement and the Parking Easement are collectively referred to herein as the "Easements." The Easements shall run with the land for the benefit and use of the Owner of Lot 3. The owners of the Lots are collectively referred to herein as the "Owners" and individually as an "Owner."

2. Mutual Indemnification. The Owners for themselves and their respective heirs, successors, and assigns shall indemnify and agree to defend and hold harmless the other Owner and his, her or its heirs, successors, and assigns from and against all liabilities, damages, claims, costs, and expenses whatsoever (including, without limitation, reasonable attorneys' fees, court costs at all trial and appellate levels and all other litigation related expenses) arising out of or in connection with such Owner and its agents, guests, invitees, customers, visitors and employees use of the Easements. This indemnity shall run with the land and shall be for the benefit and use of each Owner and all subsequent Owners of any interest in the Lots and their respective heirs, successors, and assigns and shall always bind the Owners of the Lots. The indemnity set forth in this Section 2 shall survive any termination of this Agreement.

3. Maintenance and Repair of Easements. The Owners of the Lots shall each pay one-half of the costs to maintain and repair the Easements in good and useable condition and in accordance with all applicable laws, codes, and regulations. Notwithstanding the preceding, each Owner and its heirs, successors, and assigns shall be obligated to repair any damage (ordinary wear and tear excepted) occurring to the Easements caused by such Owner or its agents, customers, employees, tenants, invitees, successors, and assigns.

4. Jurisdiction and Venue. For any suit, action, or proceeding involving this Agreement, the Owners expressly submit to the jurisdiction of all federal and state courts for Maury County, Tennessee, and consent that any order, process, notice of motion, or other application to or by any such court or a judge thereof may be served within or without such court's jurisdiction by registered mail or by personal service, provided that a reasonable time for appearance is allowed. The Owners agree that such courts shall have exclusive jurisdiction over any such suit, action, or proceeding commenced by either or both parties.

5. Miscellaneous. This Agreement shall be governed by, construed, and enforced under the laws of the State of Tennessee. This Agreement shall constitute the entire agreement between the parties hereto. Any prior understandings or representations, whether oral or written, shall not be binding upon either party. Any modification of this Agreement or additional obligation assumed by either party in connection with this Agreement shall only be binding if evidenced in writing, signed by each party hereto, and recorded with the Register of Deeds for Maury County, Tennessee. For the purposes of this Agreement, the term "Grantor" shall refer to the Grantor hereunder and its respective successors in title; and the term "Owner" or "Owners" shall refer to the Owner of the respective Lot and his, her or its respective heirs, successors, successors in title and assigns. The respective rights, duties, benefits, and obligations hereunder shall inure to such person or persons holding title to the Lots from time to time. If legal action is commenced to enforce or interpret any part of this Agreement, the prevailing party, in addition to any damages or other relief awarded, shall be entitled to recover reasonable attorneys' fees, court costs, and litigation expenses. As used herein, the singular shall include the plural (and vice versa), and the masculine, feminine, or neuter gender shall include any other gender where the context so requires.

[SIGNATURE ON FOLLOWING PAGE]

IN WITNESS WHEREOF, the undersigned has executed this Right of Way Easement this 22nd day of January, 2024.

GRANTOR:

Freegard Partners X, a Tennessee general partnership

By: _____
J. Edmond Freeman, Jr.
Its: Managing Partner

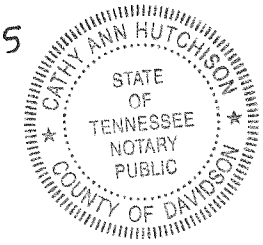
STATE OF TENNESSEE)
)
COUNTY OF Davidson)

Before me, the undersigned, a Notary Public in and for said County and State, personally appeared **J. Edmond Freeman, Jr.**, with whom I am personally acquainted (or proved to me based on satisfactory evidence) and who, upon oath, acknowledged himself to be the Managing Partner of **Freegard Partners X, a Tennessee general partnership**, the within named bargainor, and that he as such Managing Partner, executed the foregoing instrument for the purpose therein contained, by signing the name of the partnership by himself as Managing Partner.

Witness my hand and seal, this 22nd day of January, 2024

_____
Notary Public

My commission expires: September 8th, 2025



STATE OF TENNESSEE)
)
COUNTY OF WILSON)

The actual consideration or value whichever is greater, for this transfer is $ -0-.

Affiant

Subscribed and sworn to before me,
this the 26th day of January 2024.

Notary Public

My Commission Expires: 1/28/26

KIM HURST
STATE OF TENNESSEE NOTARY PUBLIC
WILSON COUNTY
My Commission Expires 01-28-2026

EXHIBIT A

[*Property Description*]

All those tracts or parcels of land lying and being in the Third Civil District of Maury County, Tennessee, and being more particularly described as follows:

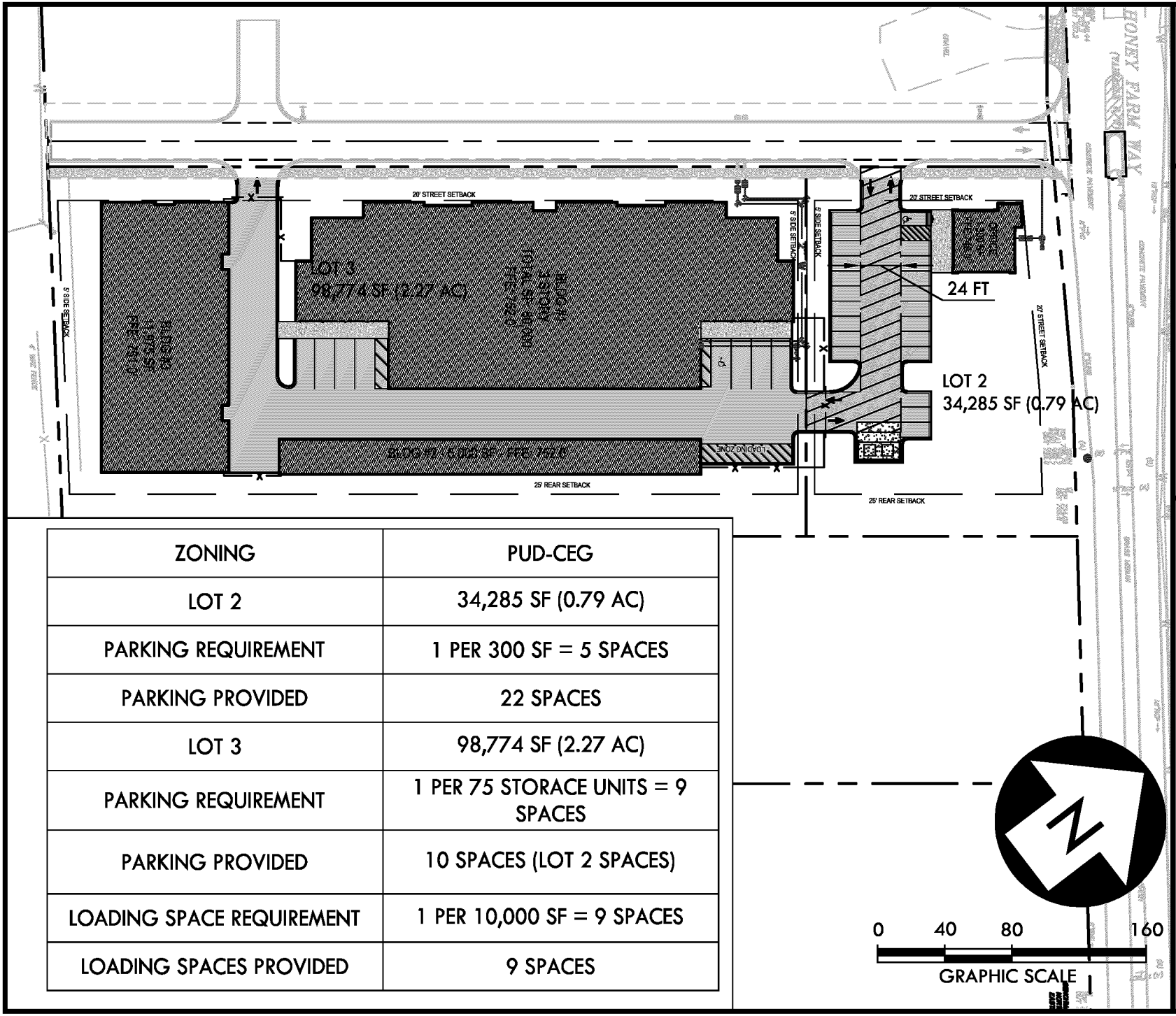
LOT 2 and LOT 3 as shown on Final Plat of Honey Farm Crossing, recorded in Plat Book 23, Page 218, in the Register of Deeds Office of Maury County, Tennessee.

Being the same property conveyed to Freegard Partners X, a Tennessee general partnership by deed from EMG Honey Farm, LLC, a Tennessee limited liability company dated May 31, 2023, and recorded in Book R2923, page 1047 in the Register's Office for Maury County, Tennessee.

EXHIBIT B

[*Depiction of Easements*]

SEE FOLLOWING PAGE



ZONING	PUD-CEG
LOT 2	34,285 SF (0.79 AC)
PARKING REQUIREMENT	1 PER 300 SF = 5 SPACES
PARKING PROVIDED	22 SPACES
LOT 3	98,774 SF (2.27 AC)
PARKING REQUIREMENT	1 PER 75 STORACE UNITS = 9 SPACES
PARKING PROVIDED	10 SPACES (LOT 2 SPACES)
LOADING SPACE REQUIREMENT	1 PER 10,000 SF = 9 SPACES
LOADING SPACES PROVIDED	9 SPACES

PARKING AGREEMENT EXHIBIT

HONEY FARM STORPLACE

SITE LOCATION

01/15/2024 PROJECT NO. 22132

CRUNK ENGINEERING LLC
7112 CROSSROADS BOULEVARD
SUITE 201
BRENTWOOD, TN 37027
(615) 873-1795
WWW.CRUNKENG.COM

CRUNK ENGINEERING

Drawing Path: P:\2022\22132 - Honey Farm Commercial\Dwg\Construction\StorPlace\C5.0-LAY.dwg

CERTIFICATE OF AUTHENTICITY

I, G. Miller Hogan II, do hereby make oath that I am 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 January 22, 2024.

G. Miller Hogan II

Affiant

Date: JAN. 26, 2024

Sworn to and subscribed before me this
26th day of January 2024.

Kim Hurst

NOTARY PUBLIC

My Commission Expires: 1/28/26

KIM HURST
STATE OF TENNESSEE NOTARY PUBLIC
WILSON COUNTY
My Commission Expires 01-28-2026

noble
architects

September 16, 2024

City of Columbia
Design Review Committee Staff

RE: StorPlace Honey Farm – Retail Addition (Item No. 24-0313) – Responses to Staff Review (08/13/2024)

To Whom It May Concern:

The following are responses to the Staff Review dated August 13, 2024 for the Planning Commission submittal for a Retail Addition to the StorPlace at Honey Farm project that has been previously approved and permitted. Of note, several items are related to the Civil Engineer's scope of design which will be responded to separately.

1) No response required.
2) No response required.
3) The following are requested deviations from the PUD-MU standard represented on the drawings and will be responded to in writing on a table attached to the drawings.
    a. Building Height (2 Stories min.) – We are requesting that our design for a 1-story building be considered based on the reasons provided on the drawings.
    b. Façade Glazing 70% for Shopfront Façade Facing Honey Farm Way – Depending on how the façade glazing is measured, we are requesting that our design for the glazing on the shopfront façade be considered as it may not meet the requirement for 70% of the total façade. We have maximized the glazing as shown by the calculations on the elevations.
4) See separate response from Civil Engineer.
5) Response related to this request can be found on table included on drawings.
6) Response related to this request can be found on table included on drawings.
7) The finished floor of the building is at or near grade / sidewalks at most of the building. One corner (roughly northwest) is at the maximum 48" above grade due to significant sloping of the existing site. Any opportunity to lessen this distance will be taken, but the current design should hopefully allow for compliance with requirements.
8) Signage on the building is shown for reference only and <u>not</u> for approval. Signage will be submitted for approval and permitting at a later date. The building is intended to house one or more tenants, so the precise count, location, and type of signage has not been determined. The Developer understands that there are different types of signage allowed based on the number of tenants and by façade and will have the signage designed to the allowable standards.
9) Ceiling heights are noted on the elevations. Depending on the use and tenant, they will be a minimum of 11 feet (11'-4" to be more precise) and cannot not exceed the maximum allowable for first floor Commercial / Retail of 25 feet as the roof deck is roughly 16 feet above the FFE.
10) See separate response from Civil Engineer.
11) See separate response from Civil Engineer.
12) See separate response from Civil Engineer.
13) The Developer understands that the available parking will only allow for Business / Retail uses and will not be sufficient for higher uses such as a restaurant. The Developer does not wish to have a restaurant tenant, so that restriction is not an issue. Also, see separate response from Civil Engineer.
14) See separate response from Civil Engineer.
15) Response related to this request can be found on table included on drawings.
16) See separate response from Civil Engineer.

Noble Architects, LLC PO Box 2008 Brentwood, Tennessee 37024

17) No response required.
18) No response required.
19) No response required.
20) No response required.
21) No response required.
22) No response required.
23) No response required.

If there is any additional clarification required, please let me know as I would be happy to discuss it further.

Sincerely,



Christian A. Noble

Principal Architect
Noble Architects, LLC

Noble Architects, LLC PO Box 2008 Brentwood, Tennessee 37024

Melissa Sanders

From: Kevin McCarthy
Sent: Tuesday, August 20, 2024 12:21 AM
To: Christian Noble
Cc: Chase Kerr; Adam Crunk (adam@crunkeng.com); Ed Freeman; James Freeman; David Kidd; Melissa Sanders; Sandra Richardson
Subject: RE: Project 24-0313-PUD - StorPlace Retail Addition

Thank you, Christian. We look forward to your resubmittal on September 16th for the October CMPC agenda.

Please note that our email addresses have changed from a ".com" to ".gov" domain. My email is now kmccarthy@columbiatn.gov

Kevin C. McCarthy, AICP
City Planner
700 N. Garden Street
Columbia, TN 38401
kmccarthy@columbiatn.gov

CITY OF COLUMBIA
TENNESSEE

From: Christian Noble <christian@noblearchitects.com>
Sent: Friday, August 16, 2024 2:23 PM
To: Kevin McCarthy <KMcCarthy@Columbiatn.gov>
Cc: Chase Kerr <chase@crunkeng.com>; Adam Crunk (adam@crunkeng.com) <adam@crunkeng.com>; Ed Freeman <ed@storplace.com>; James Freeman <jimmyf@storplace.com>; David Kidd <david@dkkarchitect.com>
Subject: [Caution External Email] - Project 24-0313-PUD - StorPlace Retail Addition

Kevin –

Thanks again for taking my call this afternoon to discuss the submittal for the Retail Addition at StorPlace off of Honey Farm Way. We are going to take the opportunity to defer by a month and resubmit at that time. We'd like to make sure that any revisions to the design we submit addresses the comments you and your staff have shared and to be best prepared for conversations with the Planning Commission about any proposed revisions for the guidelines. As you and I discussed, I will be in touch with you to share a preview of any potential changes relative to the guidelines and comments.

Let me know if myself or Crunk Engineering (copied) need to do anything beyond this email to officially defer. Otherwise, we'll get to work and be prepared ahead of the next deadline in about a month.

Thanks again,

Christian Noble | **Principal**
phone: 615.292.4017 ext 3

Noble Architects, LLC
office: 8005 Church St E | Suite 104
city / zip: Brentwood, TN / 37027
mail / zip: PO Box 2008 / 37024
www.noblearchitects.com

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, August 13, 2024

ITEM NO.
24-0313

DESCRIPTION: StorPlace Retail Addition (HF PUD)

COMMENTS:

Planning

1. The lead staff person for this case is City Planner Kevin McCarthy, AICP; he will prepare the staff report for this item. Please contact kmccarthy@columbiatn.com with questions about the development review process or technical comments. The lead 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. Please provide a list of requested deviations from the PUD –MU standards (e.g. single story instead of two story). Request should be presented as a table depicting each standard in 4.3.1-L and the proposed deviation. Please provide an explanation for each requested deviation explaining how it improves upon the site and performs better than the default standards. (sheet A-1 is a good start)
4. Please revise site plan to include sidewalks and other required absent elements of the public frontage along honey farm way described in 6.3 of the zoning ordinance.
5. 4.3.1-L requires two story buildings, please revise or make specific request for modification of standard as part of the PUD.
6. 4.3.1-L requires minimum glazing of 70% of total Facade area. Please revise.
7. Please indicate that the finished floor meets the standards at 4.3.1-L.
8. Please identify sign types, location, number, and placement.
9. Please indicate ceiling height.
10. At resubmittal, please provide a landscape plan.
11. Please show screening for parking, mechanical equipment, etc.
12. At resubmittal, please provide a photometric plan conforming to section 4.3.17.B and the PUD checklist

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

13. Confirm that parking meets the ratios listed at 4.3.12-A for the intended uses. The parking depicted in the proposed plan conforms for retail uses but will not be sufficient to serve any restaurant use or higher parking demand use.
14. If parking is shared with StorPlace, please show calculation and provide a draft shared parking agreement.
15. Provide list of deviations from PUD-MU standards in tablular format similar to Table 4.3.1-L.
16. Please show building site width. Building site must conform to the dimensional standards of the Zoning Ordinance for PUD-MU. If requesting modification of this standard as part of the PUD, please include that request as part of the resubmittal.

Engineering

17. No comments on PUD revision

Fire

18. No comments

Columbia Water

19. A water availability letter was issued on July 15, 2024, it remains valid for 120 days. 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

20. No comments on revision to preliminary PUD master plan. Private sanitation services may be utilized. Please retain the attached City of Columbia Dumpster Guidelines & Accessibility Requirements for your reference.

Columbia Power

21. 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.

Wastewater

22. Columbia Wastewater has no comments.

ATT

23. ATT TO SERVE

Resubmittal Guidelines

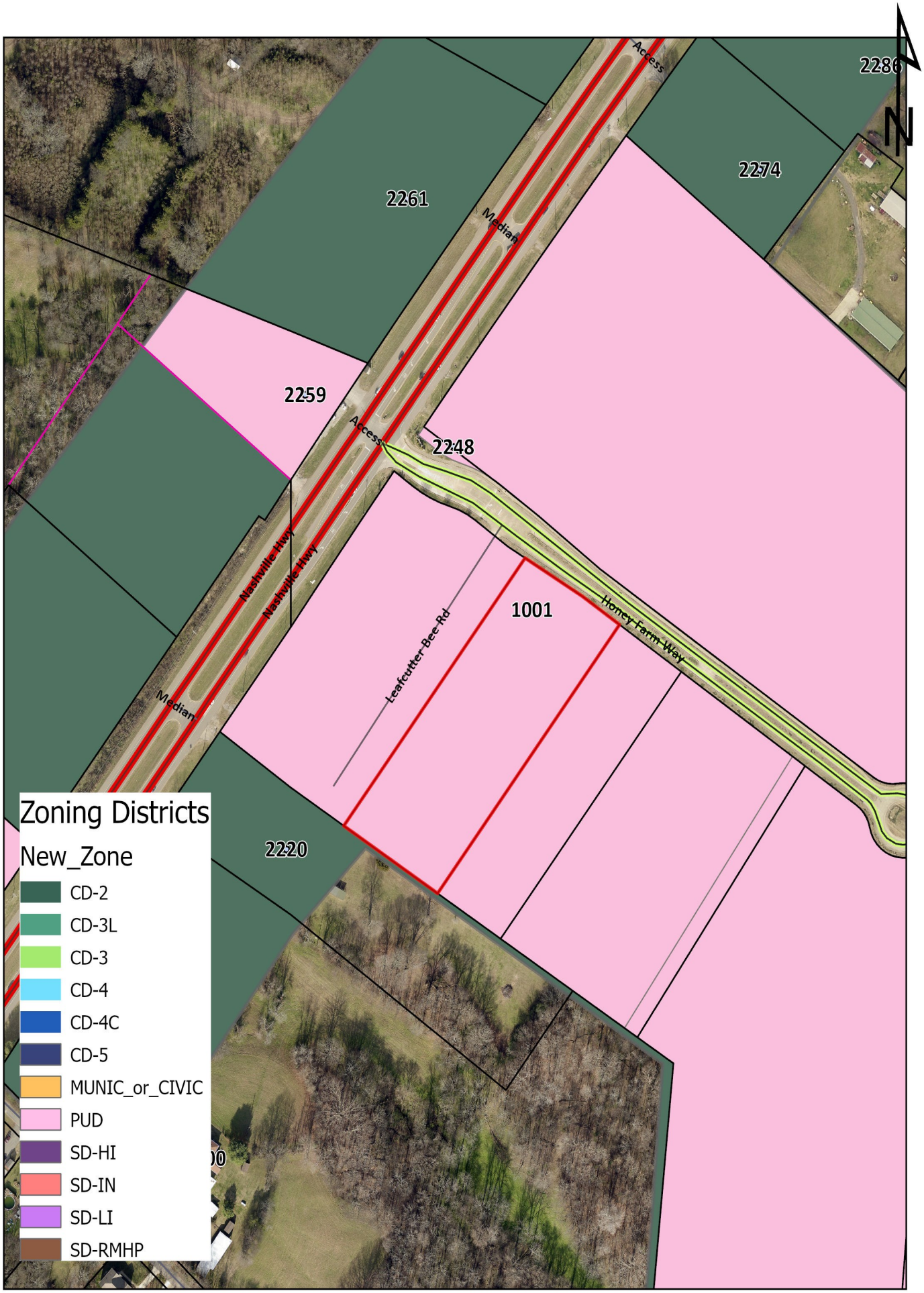
Please provide a comment response letter as well as digital copies of revised plans and supporting documentation. Submit all required documents electronically through the online portal: columbia.onlama.com. If the files are oversized, please provide a file sharing link.

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

Please contact kmccarthy@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.



Case #24-0313
Honey Farm Way & Leafcutter Bee Rd.
Tax Map 51 Parcel 58.03

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

HONEY FARM STORPLACE RETAIL ADDITION

NASHVILLE HWY (HWY 31)
COLUMBIA, TN 38401
PRELIMINARY PLANNED UNIT DEVELOPMENT REVISION

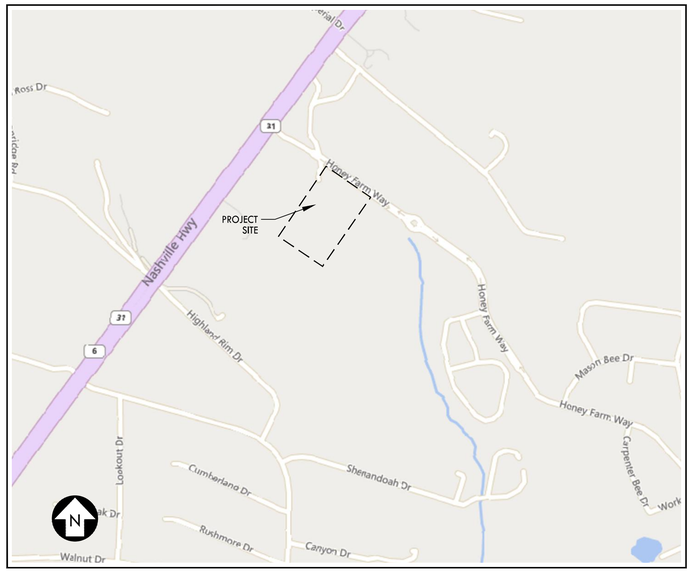
GENERAL INFORMATION

DEVELOPER

STORPLACE SELF STORAGE
109 MURPHY COURT
NASHVILLE, TN 37203-1005
Contact: J. EDMOND FREEMAN, JR.
Phone: 615-383-3111
Email: ed@storplace.com

CIVIL ENGINEER

Crunk Engineering LLC
7112 Crossroads Boulevard, Suite 201
Brentwood, TN 37027
Contact: Adam Crunk, PE
Phone: 615.873.1795
Email: adam@crunkeng.com



LOCATION MAP
NOT TO SCALE

Sheet List Table	
Sheet Number	Sheet Title
C0.0	COVER
C1.0	EXISTING CONDITIONS
C2.0	DEMOLITION PLAN
C3.0	SITE LAYOUT PLAN
C4.0	GRADING PLAN
C5.0	UTILITY PLAN

CRUNK ENGINEERING LLC
7112 CROSSROADS BOULEVARD
SUITE 201
BRENTWOOD, TN 37027
(615) 873-1795
WWW.CRUNKENG.COM

ENGINEERING CRUNK

ADAM W. CRUNK
REGISTERED PROFESSIONAL ENGINEER
AGRICULTURE
COMMERCE
114180
STATE OF TENNESSEE
7/15/24

HONEY FARM RETAIL
COLUMBIA, TN

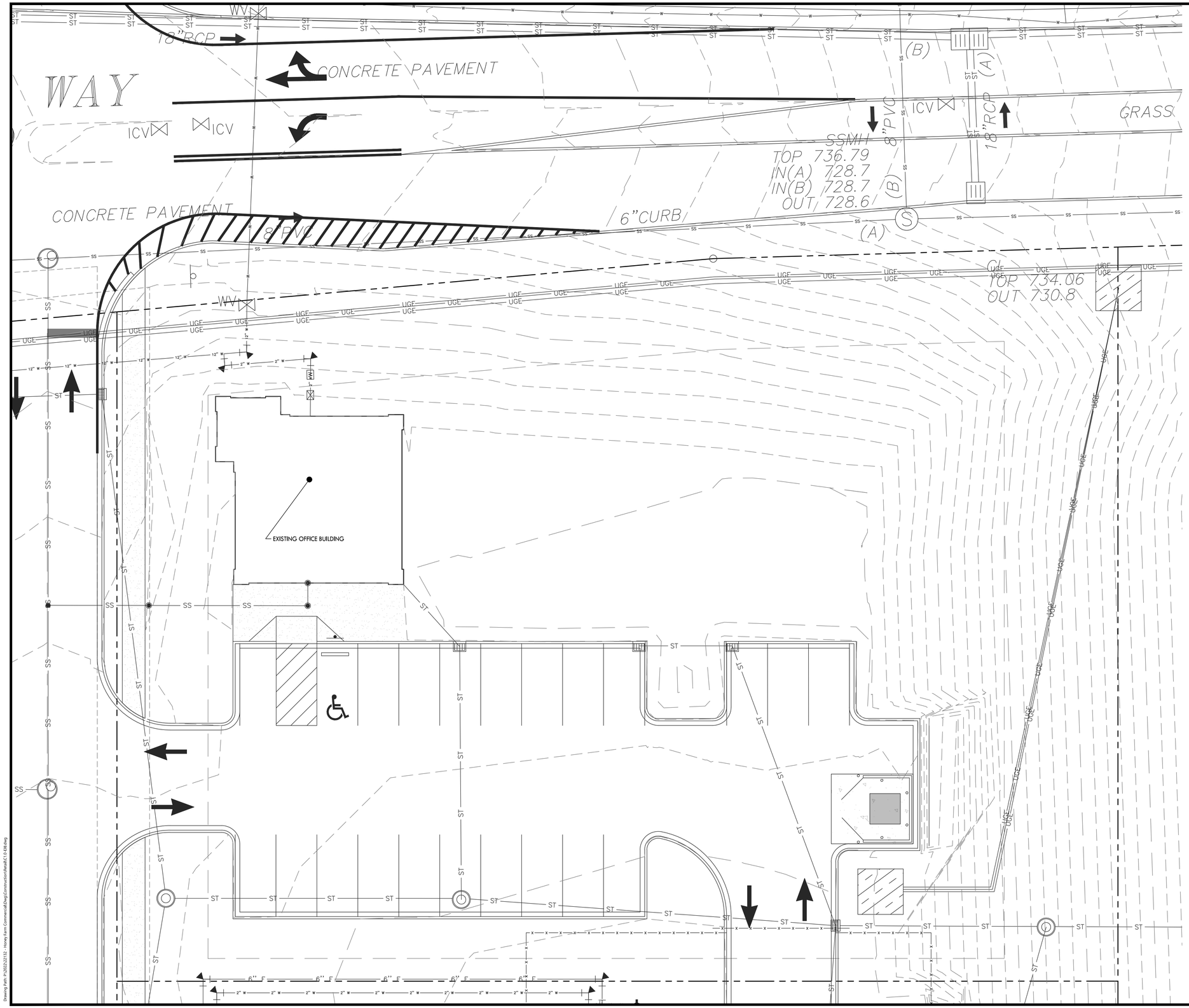
REVISIONS

No.	DATE

07/15/2024 22132

C0.0
COVER

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CRUNK ENGINEERING LLC
7112 CROSSROADS BOULEVARD
SUITE 201
BRENTWOOD, TN 37027
(615) 873-1795
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ENGINEERING CRUNK

WILSON CRUNK
REGISTERED LANDSCAPE ARCHITECT
AGRICULTURE
COMMERCE
No. 114180
STATE OF TENNESSEE
7/15/24

HONEY FARM RETAIL

COLUMBIA, TN

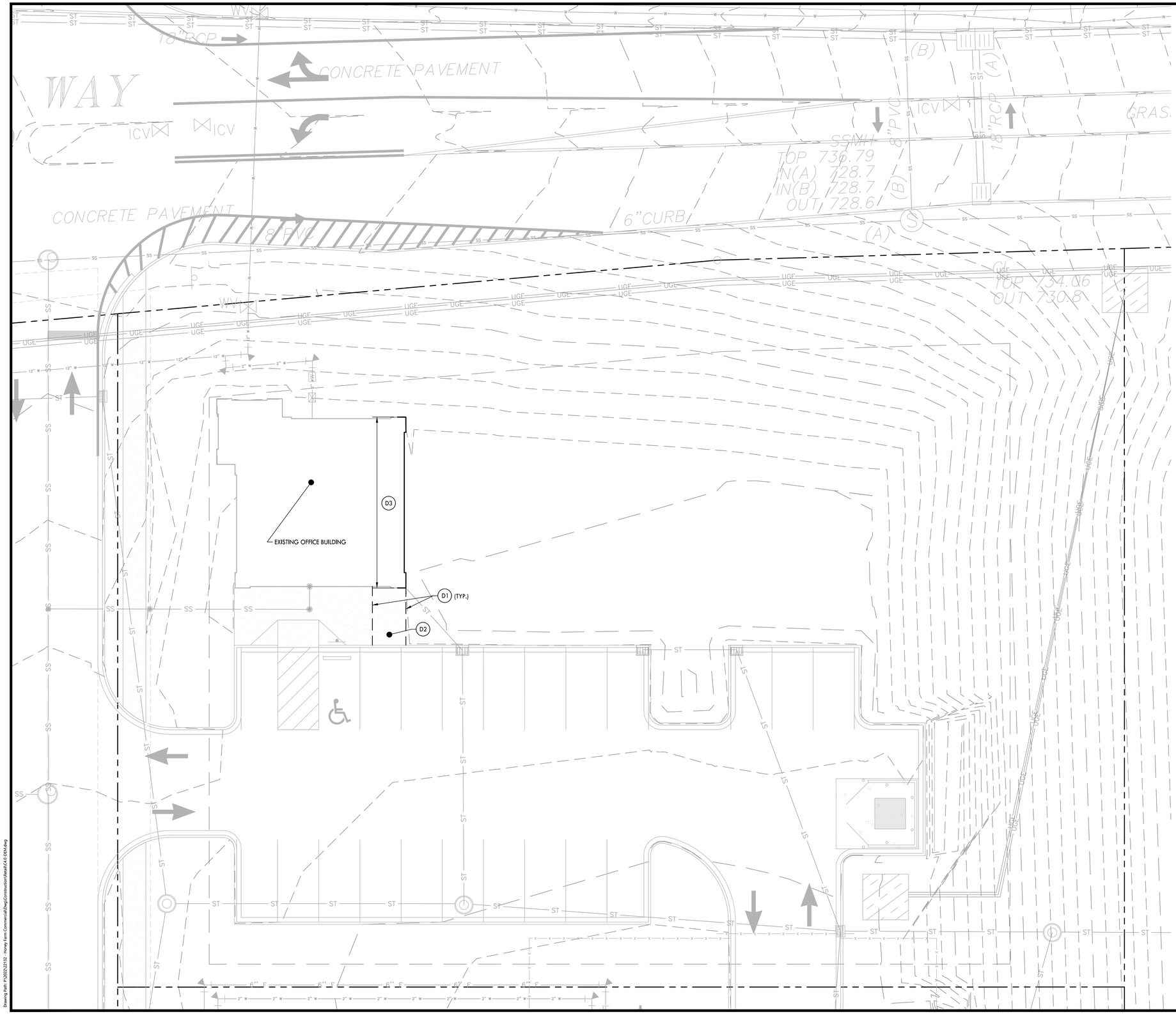
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No.	DATE

07/15/2024 22132

C1.0

EXISTING CONDITIONS

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DEMOLITION PLAN KEYNOTES

CODE	DESCRIPTION
D1	SAWCUT EDGE OF PAVEMENT DEMOLITION
D2	SIDEWALK DEMOLITION
D3	EXISTING BUILDING WALL DEMOLITION

PROPOSED DEMOLITION LEGEND

— — — EDGE OF PAVEMENT REMOVAL

0 5 10 20
GRAPHIC SCALE

CRUNK ENGINEERING LLC
7112 CROSSROADS BOULEVARD
SUITE 201
BRENTWOOD, TN 37027
(615) 873-1795
WWW.CRUNKENG.COM

ENGINEERING CRUNK

STATE OF TENNESSEE
REGISTERED LANDSCAPE ARCHITECT
AGRICULTURE
5/24/2024
COMMERCE
TENNESSEE-BORN
LANDSCAPE ARCHITECTURE

HONEY FARM RETAIL

COLUMBIA, TN

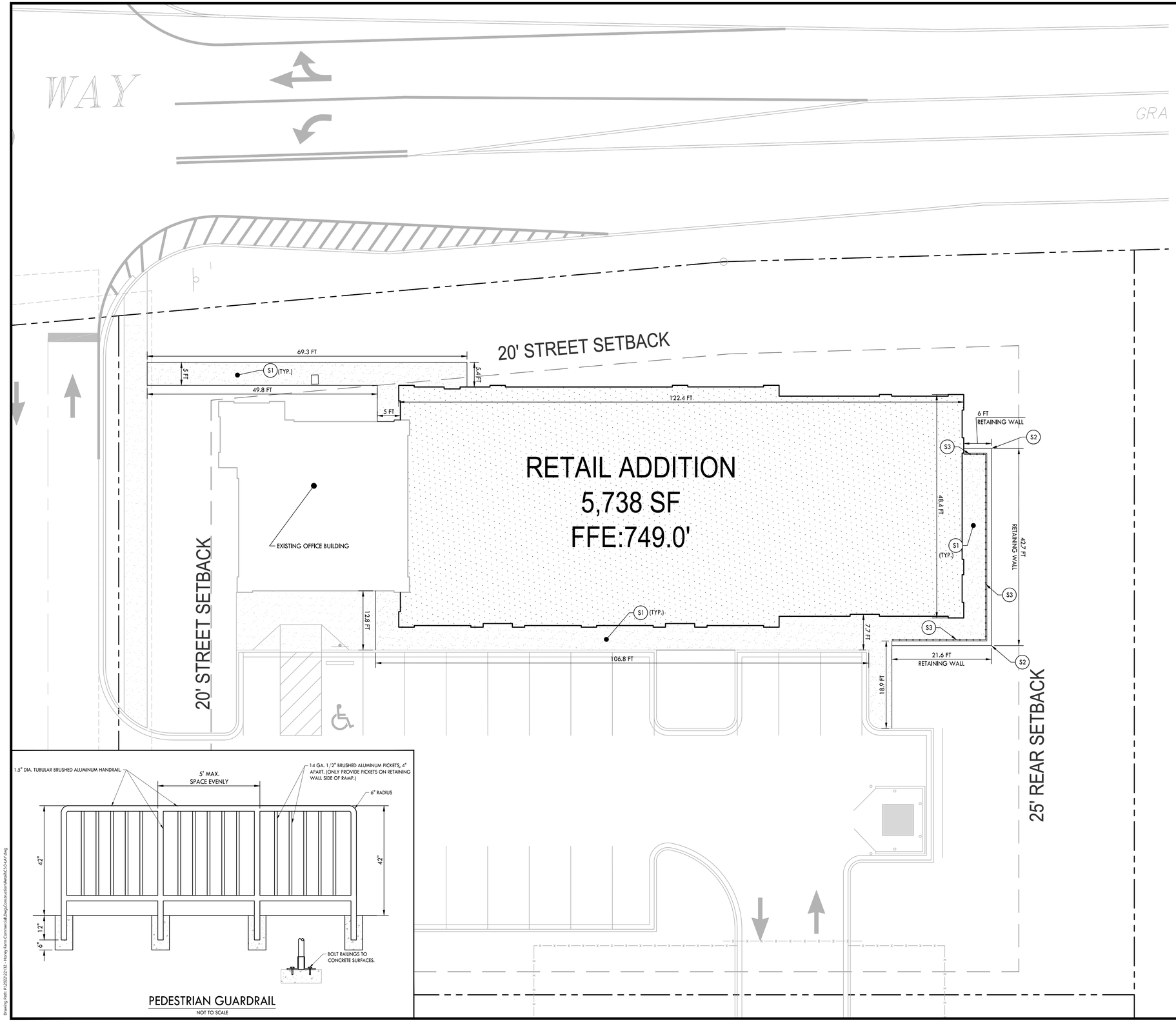
REVISIONS

No.	DATE

07/15/2024 22132

C2.0
DEMOLITION PLAN

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PEDESTRIAN GUARDRAIL
NOT TO SCALE

LAYOUT PLAN KEYNOTES

CODE	DESCRIPTION
S1	CONCRETE SIDEWALK
S2	RETAINING WALL
S3	PEDESTRIAN GUARDRAIL

PROPOSED LAYOUT LEGEND

- PROPOSED BUILDING
- CONCRETE SIDEWALK
- PROPERTY LINE

SITE SUMMARY TABLE

ADDRESS	2301 LEAFCUTTER BEE ROAD, COLUMBIA, TN 38401
ZONING	PUD-MU
EXISTING PARCEL ID	PORTION OF 051 058.03
EXISTING PARCEL ACREAGE	132,858 SF (3.05 AC)
EXISTING PARKING REQUIREMENTS (OFFICE)	1 PER 300 SF = 5 SPACES
EXISTING PARKING PROVIDED	22 SPACES
PROPOSED SITE	34,285 SF (0.79 AC)
PROPOSED PARKING REQUIREMENT (RETAIL)	1 PER 500 SF = 12 SPACES
PARKING REQUIRED (TOTAL)	17 SPACES
PARKING PROVIDED	22 SPACES

LAND USE SUMMARY TABLE

LOT AREA	34,285 SF (0.79 AC)
EXISTING OFFICE BUILDING AREA	1,258 SF / 0.029 AC
EXISTING SIDEWALK AREA	1,070 SF / 0.025 AC
EXISTING PARKING AREA	9,179 SF / 0.21 AC
PROPOSED RETAIL BUILDING AREA	5,738 SF / 0.13 AC
PROPOSED SIDEWALK AREA	1,133 SF / 0.026 AC

0 5 10 20
GRAPHIC SCALE

CRUNK ENGINEERING LLC
7112 CROSSROADS BOULEVARD
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ENGINEERING CRUNK

TENNESSEE REGISTERED LANDSCAPE ARCHITECT AGRICULTURE COMMERCE No. 114180 STATE OF TENNESSEE 7/15/24

HONEY FARM RETAIL

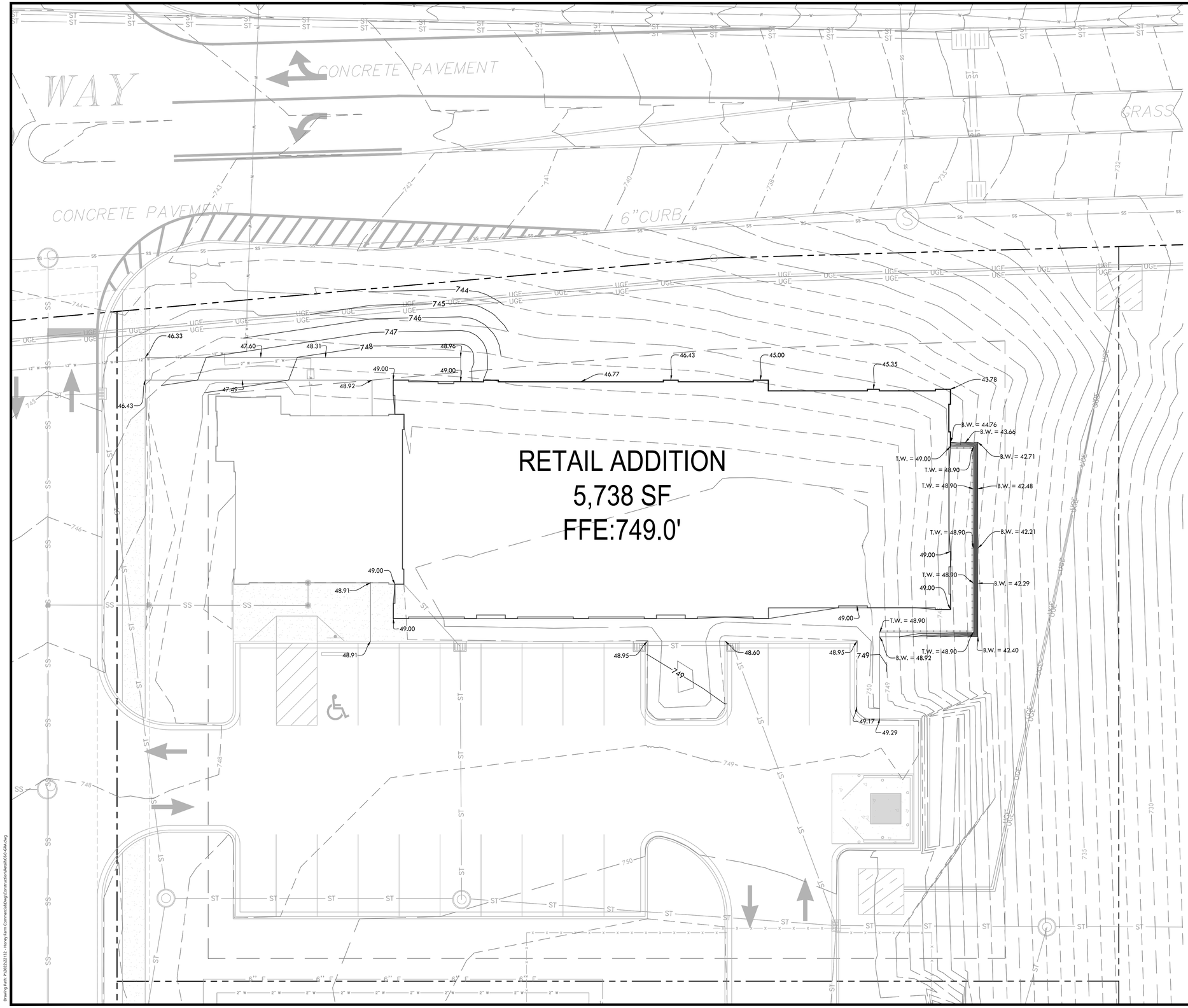
COLUMBIA, TN

REVISIONS	
No.	DATE

07/15/2024 22132

C3.0
SITE LAYOUT PLAN

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GRADING PLAN KEYNOTES

CODE	DESCRIPTION
G1	RETAINING WALL

PROPOSED GRADING LEGEND

- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- EXISTING STORM PIPE
- EXISTING SINGLE CURB INLET
- EXISTING JUNCTION BOX

CRUNK ENGINEERING LLC
7112 CROSSROADS BOULEVARD
SUITE 201
BRENTWOOD, TN 37027
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WWW.CRUNKENG.COM

ENGINEERING CRUNK

TENNESSEE LICENSED PROFESSIONAL ENGINEER
WILLIAM SCOTT CRUNK
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 114180
STATE OF TENNESSEE
7/15/24

HONEY FARM RETAIL

COLUMBIA, TN

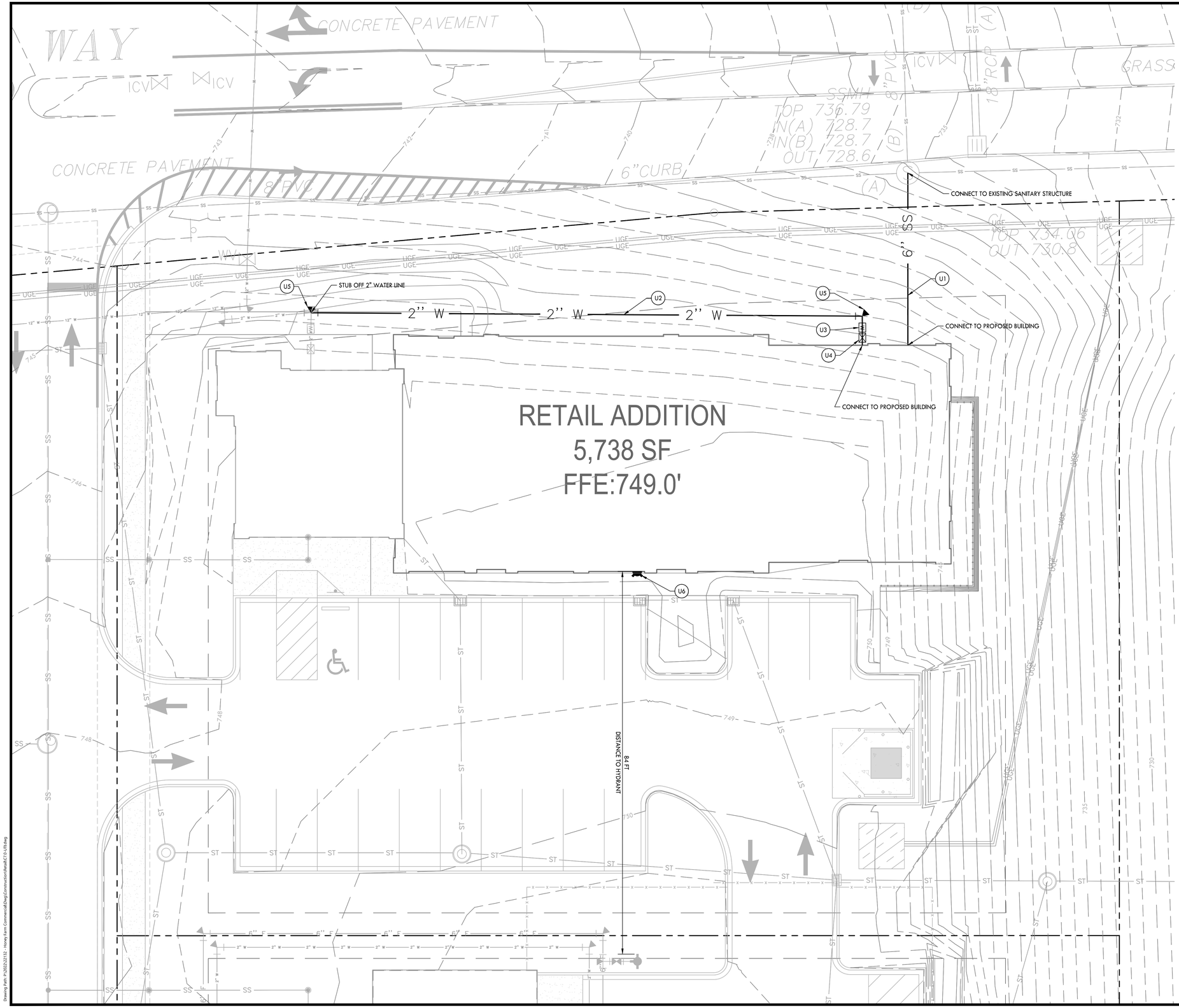
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No.	DATE

07/15/2024 22132

C4.0

GRADING PLAN

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UTILITY PLAN KEYNOTES

CODE	DESCRIPTION
U1	SANITARY SEWER SERVICE LINE - 6"
U2	WATER SERVICE LINE - 2"
U3	WATER METER
U4	REDUCE PRESSURE BACKFLOW PREVENTER
U5	THRUST BLOCK
U6	FIRE DEPARTMENT CONNECTION

NOTES:
1. BUILDER TO INSTALL CLEANOUTS AT BUILDING, PROPERTY LINE, AND EVERY 50 FEET.

PROPOSED UTILITY LEGEND

SS — SANITARY SEWER LINE

W — WATER LINE

CRUNK ENGINEERING LLC
7112 CROSSROADS BOULEVARD
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BRENTWOOD, TN 37027
(615) 873-1795
WWW.CRUNKENG.COM

ENGINEERING CRUNK

WILSON CRUNK — REGISTERED ENGINEER — AGRICULTURE — COMMERCE — No. 114180 — STATE OF TENNESSEE — 7/15/24

HONEY FARM RETAIL

COLUMBIA, TN

REVISIONS

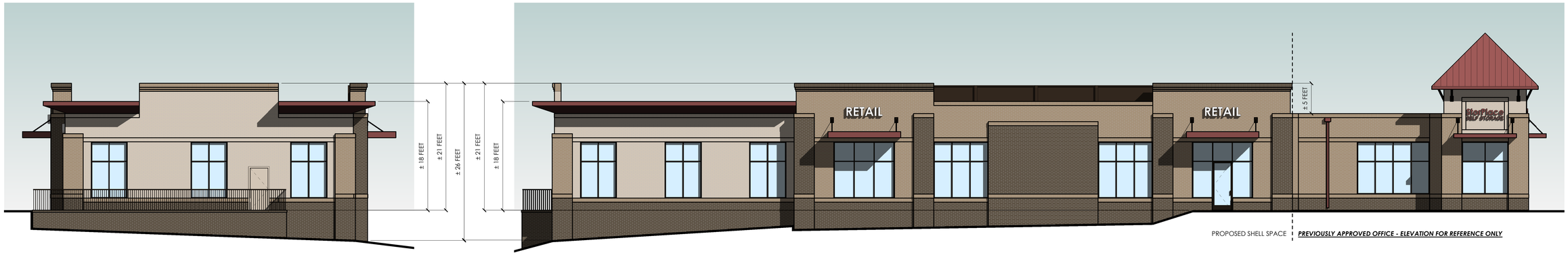
No.	DATE

07/15/2024 22132

C5.0

UTILITY PLAN

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SOUTHEAST ELEVATION - RETAIL ADDITION

SCALE: 1/8" = 1'-0"

NORTHEAST ELEVATION - RETAIL ADDITION (ALONG HONEY FARM WAY)

SCALE: 1/8" = 1'-0"



PREVIOUSLY APPROVED OFFICE - ELEVATION FOR REFERENCE ONLY

NORTHWEST ELEVATION - OFFICE (PREVIOUSLY APPROVED)

SCALE: 1/8" = 1'-0"



SOUTHWEST ELEVATION - RETAIL ADDITION

SCALE: 1/8" = 1'-0"

MATERIAL LEGEND

- BRICK (LIGHT, MEDIUM, DARK)
- RETAINING WALL (MASONRY)
- GLASS
- STOREFRONT FRAME / RAIL / SCREEN WALL
- ROOF / AWNING

BUILDING STANDARDS NOTES

ZONING DISTRICT: PUD-MU

BUILDING HEIGHT:

THE BUILDING STANDARD GUIDELINES FOR THE PUD-MU ZONING DISTRICT CALL FOR A 2-STORY MINIMUM FOR BUILDINGS. THE PROPOSED PROJECT IS THE ADDITION TO AN EXISTING 1-STORY BUILDING AND SITE PLAN APPROVED UNDER THE PREVIOUS REGULATIONS.

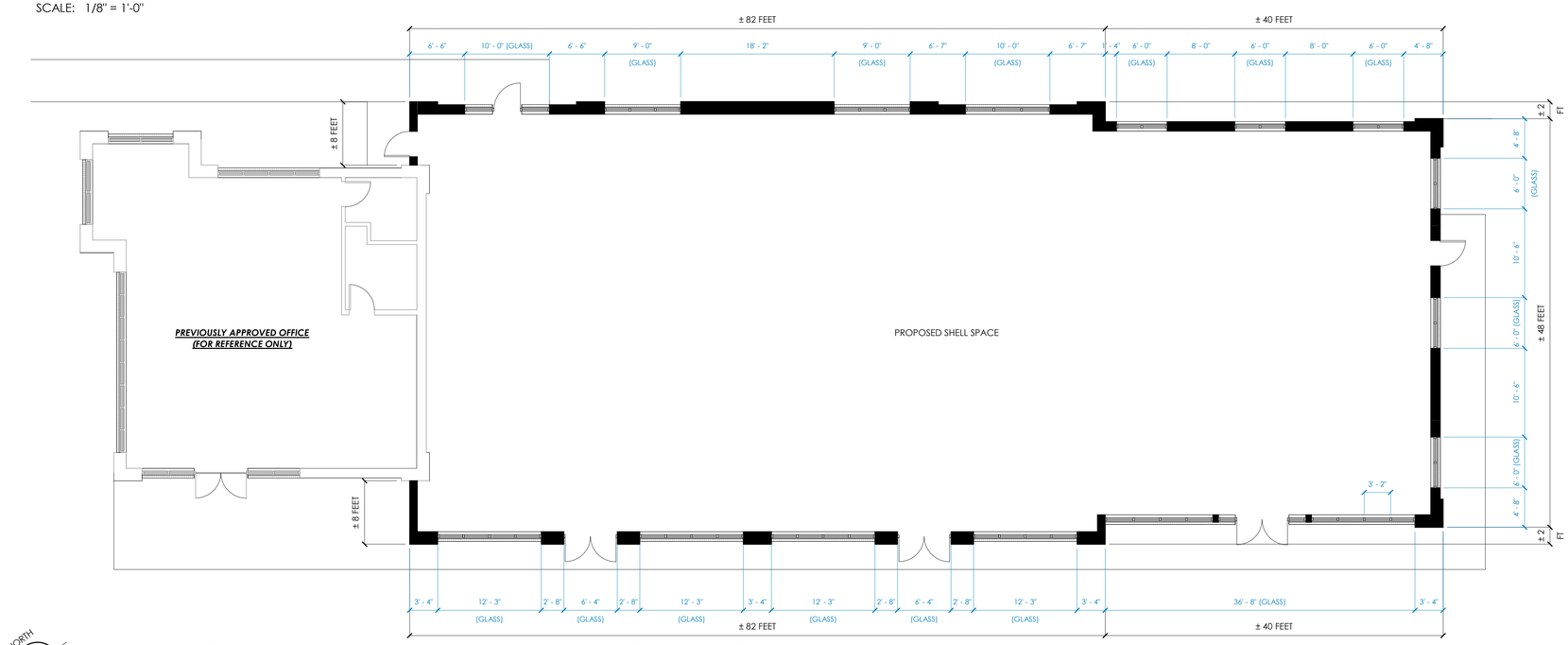
DUE TO THE EXISTING BUILDING AND SITE CONDITIONS, THE PROPOSED DESIGN FOR THE ADDITION IS FOR A 1-STORY BUILDING THAT INCLUDES FEATURES THAT ARE INTENDED TO ACHIEVE PROPORTIONS APPROACHING THAT OF A 2-STORY BUILDING.

FIRST, THE ADDITION HAS A TALLER ROOFLINE / PARAPET ADJACENT TO THE EXISITNG 1-STORY STRUCTURE TO CREATE THE PERCEPTION OF A TALLER (I.E. 2-STORY) BUILDING.

SECOND, THE GRADE ON THE FACADE FACING HONEY FARM WAY IS INCREASINGLY LOWER FROM WEST-TO-EAST WHICH ADDS ADDITIONAL HEIGHT AND THE PERCEPTION OF A TALLER BUILDING.

LASTLY, IT WAS DISCUSSED AT THE PRE-APPLICAITON MEETING THAT THE DESIGN GUIDELINES FOR THE CD-4C ZONING DISTRICT WOULD BE A GOOD REFERENCE POINT AND ARE VERY SIMILAR TO THAT OF PUD-MU WHILE ALLOWING FOR 1-STORY BUILDING.

WITH THE EXISTING CONDITIONS AND PROPOSED DESIGN FEATURES DESCRIBED ABOVE TO APPROXIMATE THE DESIGN GUIDELINES, THE DEVELOPER WOULD LIKE TO RESPECTFULLY REQUEST APPROVAL FOR THE 1-STORY ADDITION AS PRESENTED.



SHELL BUILDING PLAN DIMENSIONED - RETAIL ADDITION W/ PREVIOUSLY APPROVED OFFICE

SCALE: 1/8" = 1'-0"

24-403

noble architects
p.o. box 2008
brentwood
tennessee
37024
615.292.4017

CHRISTIAN A. NOBLE
REGISTERED ARCHITECT
No. 104224
STATE OF TENNESSEE
07/15/2024

STORPLACE - HONEY FARM RETAIL ADDITION

2301 LEAFCUTTER BEE ROAD - COLUMBIA, TN 38401

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revisions

issue date
07.15.2024

sheet title
BUILDING PLAN & ELEVATIONS

A-1



OFFICE + RETAIL - BIRD'S EYE VIEW OF ROOF TOP UNITS BEHIND PARAPET / SCREEN WALL



OFFICE + RETAIL - SOUTHWEST FACADE NEAR OFFICE (PREVIOUSLY APPROVED)



OFFICE + RETAIL - NORTHEAST FACADE ALONG HONEY FARM WAY (W/ APPROVED OFFICE)



OFFICE + RETAIL - SOUTHWEST + SOUTHEAST FACADES

24-403

noble
architects

p.o. box 2008
brentwood
tennessee
37024

615.292.4017

CHRISTIAN A. NOBLE
REGISTERED ARCHITECT
No. 104224
STATE OF TENNESSEE

07/15/2024

STORPLACE - HONEY FARM RETAIL ADDITION

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revisions

issue date
07.15.2024

sheet title
EXTERIOR 3D VIEWS

A-2

July 15, 2024

City of Columbia
Technical Review Committee
700 N Garden Street
Columbia, TN 38401

Honey Farm StorPlace Retail Addition

Below is the description of the proposed project we are submitting today, July 15, 2024.

This proposed project will include a building addition off the Honey Farm StorPlace Office Building. This addition will serve as a retail area. This Preliminary PUD Revision submission is being submitted to permit, approve, and construct the proposed building addition.

The building addition has a square footage of 5738 sf. The accompanying site plans show the building location along with necessary sidewalks, retaining walls, and utilities. The architectural elevations and floor plan shows the building dimensions and exterior styling of the building.

If you have any questions or need additional information, please do not hesitate to contact me at adam@crunkeng.com or 615-873-1795.

Sincerely,

Adam Crunk, PE
Crunk Engineering LLC

CITY OF COLUMBIA
TENNESSEE

WASTEWATER DEPARTMENT

28 June 2024

Richard Woodson
7112 Crossroads Blvd Suite 201
Brentwood, TN 37027

RE: 2301 Leafcutter Bee Road, Columbia, TN 38401; 051 058.03

Chase,

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.

Sanitary sewer service for this property will be connected to the manhole near the site as shown in the availability letter schematic.

Donnie Boshers, Director
City of Columbia, TN
Wastewater Department

July 31, 2024
Mr. Adam Crunk P.E.
Crunk Engineering, LLC
7112 Crossroads Blvd, Suite 201
Brentwood, TN 37027
Sent via email: adam@crunkeng.com
RE: Water Availability Letter
Honey Farm StorPlace / Leafcutter Bee Rd Commercial Developments
Tax Map 51, Parcel 58.03
Columbia, Maury County, TN

Dear Mr. Crunk:

Columbia Power and 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, various Planning Commissions and other authorities in Cities and Counties. These Cities and Counties have also adopted rules and regulations. Subject to the payment of all charges and fees imposed by CPWS and the approval of any and all required governmental agencies, water service will be made available on a first-come, first-served basis, 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 includes a self-storage facility in three buildings totaling 96,975 square feet, a 1300 square-foot office, and a 5,840 square-foot retail building. CPWS has evaluated the projected water demands for the proposed development in the water system hydraulic model and is able to meet a fire-flow capacity of 2,250 gpm at 20 psi while maintaining the existing level of service and pressures in this portion of the distribution system. CPWS can provide water for the proposed development according to the following requirements:

- Domestic waterline connection will be made to the existing 12-inch stub-out located on Honey Farm Way.
- A minimum-size 12-inch water main will be required along Leafcutter Bee Road to meet fireflow requirements.

All of the above requirements are to be constructed and paid for by the Applicant and dedicated to CPWS once complete up to and including the meter. No construction of CPWS

infrastructure shall be initiated until final construction plans have been approved by TDEC and all parties have fully executed a water service agreement.

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

- Provide revised drawings resolving the tee/tap and meter locations for the office and retail building per comments provided by CPWS.
- ***Prior to your preconstruction meeting***, remit to CPWS all new water service fees and impact fees:

New Water Service Fee Base Rate	$1,500.00
New Water Service Fee: $370 per SFU (7.3 SFUs, storage)	$2,701.00
New Water Service Fee: $370 per SFU (13.2 SFUs, retail)	$4,884.00
New Water Service Fee: $370 per SFU (1 SFU, office)	$370.00
Total New Service Fees Due =	**$9,455.00**

Meter Fee: TBD per 6" fire meter (1 meter, storage)	TBD
Meter Fee: TBD per 2" meter (1 meter, storage)	TBD
Meter Fee: TBD per 2" meter (1 meter, retail)	TBD
Meter Fee: $540 per 3/4" meter (1 meter, office)	$540.00
Impact Fee: $25,000 per 2" meter (1 meter, storage)	$25,000.00
Impact Fee: $25,000 per 2" meter (1 meter, retail)	$25,000.00
Impact Fee: $4,500 per 3/4" meter (1 meter, office)	$4,500.00
Total Meter and Impact Fees Due =	**$55,040.00**

- After the pre-construction meeting, CPWS will then issue a formal notice to proceed. No construction of CPWS infrastructure may take place prior to the pre-construction meeting.
- Applicant is then 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.

If you have any questions, please feel free to contact me at 423-774-0349 or eric.king@inflodesign.com. This letter is valid for one-hundred twenty (120) days from the date of this letter.

Sincerely,



Eric King, P.E.
Inflo Design Group, LLC
on behalf of Columbia Power and Water Systems

cc: Jonathan Hardin, CPWS
File 24-045

Columbia Fire & Rescue

Fire Flow Requirements

Water Purveyor: Columbia Power & Water System

Date: 2024-06-27
Name: Chase Kerr
Phone: 615-873-1795
Email: chase@crunkeng.com
Address/Parcel ID: 2301 Leafcutter Bee Road
Property Type: ○ Residential ◉ Commercial ○ Industrial
Construction Type: Timber Frame/Masor
Enclosed Area (ft²): 6086

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: 2,250 gpm Duration: 2 hours

Fire Hydrant Location and Distribution (International Fire Code Appendix C)

Minimum number of hydrants: 2

Average spacing between hydrants: 450 ft.

Maximum distance from frontage to hydrant: 225 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: 7-1-2024

UTILITY PLAN KEYNOTES

CODE	DESCRIPTION	DETAIL LOCATION
U1	SANITARY SEWER LINE - SEE PLAN FOR SIZE	-
U2	WATER LINE - SEE PLAN FOR SIZE	-

NOTES:
1. REFER TO SHEET C2.0 FOR NOTES.
2. ALL SEWER IN THE PROPOSED ROAD SHALL BE BACKFILLED WITH #57 CRUSHED STONE UP TO THE ROAD SUBGRADE.
3. BUILDER TO INSTALL CLEANOUTS AT BUILDING, PROPERTY LINE, AND EVERY 50 FEET.

PROPOSED UTILITY LEGEND

- SS — SANITARY SEWER LINE
- W — WATER LINE
- GAS — GAS LINE
- ELEC — UNDERGROUND ELECTRIC LINE
- UGT — UNDERGROUND TELEPHONE LINE
- A1 — SEWER STRUCTURE LABEL

STUB OFF 2" WATER LINE

CONNECT TO BUILDING

CONNECT TO BUILDING

CONNECT TO EXISTING SANITARY STRUCTURE

0 10 20 40
GRAPHIC SCALE

CRUNK ENGINEERING LLC
7112 CROSSROADS BOULEVARD
SUITE 201
BRENTWOOD, TN 37027
(615) 873-1795
WWW.CRUNKENG.COM

HONEY FARM RETAIL

COLUMBIA, TN

REVISIONS	
No.	DATE

05/02/2023 22132

C7.0

UTILITY PLAN

Drawing Path: P:\2022\22132 - Honey Farm Commercial\Dwg\Construction Retail\C7.0 Util.dwg

CITY OF COLUMBIA TENNESSEE

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

PLANNING COMMISSION
PROJECT DEVELOPMENT APPLICATION

SUBMITTAL REQUIREMENTS

** 1 hard copy of all materials for submittal + PDF copy of submittal on USB thumb drive or CD*
Fold hard copy submittals larger than 8½"x11"

ADDRESS/LOCATION	2301Leafcutter Bee Road		
	TAX MAP: 051	GROUP: n/a	PARCEL: 058.03
SUMMARY OF NATURE OF REQUEST AND WORK	Preliminary PUD Revision for the Honey Farm StorPlace development to install a Retail addition on the Honey Farm StorPlace Office Building. Work will include construction of building addition along with needed utilities and sidewalks.		

REQUEST DATE FOR PRE-APPLICATION CONFERENCE	07/03/2024	*Pre-application meetings are scheduled for Wednesdays.*

SELECT REQUEST	SUBMITTALS SHALL INCLUDE BUT NOT LIMITED TO:
❑ Annexation ❑ Rezoning ❑ Sketch Plat – *Must be submitted at least two weeks prior to Preliminary Plat submittal* ❑ Preliminary Plat ❑ Final Plat ☑ PUD Preliminary Master Plan + Checklist ❑ PUD Final Site Plan + Checklist ❑ Multi-Family Site Plan ❑ Other: _____ **File naming nomenclature examples:* *Freedom Point Site Plan* *Freedom Point Master Plan* *Freedom Point Final Plat* *Freedom Point Elevations*	Annexations/Rezoning: ❑ Written Legal Description copy ❑ Requested Zone Listed ❑ Compliance with Comprehensive Plan ❑ Annexation Permission Form ❑ Plans and/or Plats conforming to City standards Plats/PUDs: • Project Name (include Sections & Phases) Preliminary PUD Revision Honey Farm StorPlace Retail Addition • Total Number of Lots 1 • Total acreage 0.79 AC

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.

APPLICANT

All communications go to the Applicant's email that is provided.

NAME	Adam Crunk	PHONE	615-873-1795
ADDRESS	7112 Crossroads BLVD Suite 201 Brentwood, TN 37027	EMAIL	adam@crunkeng.com

PROPERTY OWNER NAME	FREEGARD PARTNERS	PHONE	615-383-3111
ADDRESS	109 MURPHY CT NASHVILLE, TN 37203	EMAIL	ed@storplace.com

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.

Adam Crunk		07/11/2024
APPLICANT NAME	APPLICANT SIGNATURE	DATE
Ed Freeman		July 11, 2024
PROPERTY OWNER NAME	PROPERTY OWNER SIGNATURE	DATE

STAFF USE ONLY

DOCKET NO.		FEE PAID	
RECEIPT NO.		REQUESTED AGENDA	

DATE NOTICES SENT TO ADJACENT PROPERTY OWNERS	
DATE OF PUBLIC NOTICES IN DAILY HERALD	

BOARD ACTION	

Carters Station Revision

Project #:	24-0377	Location:	Tax Map 41 Parcel 15.0
Applicant:	Adam Crunck	Case Type(s):	Preliminary Plat Revision
Staff Planner:	Kevin C. McCarthy, AICP	Proposed Use:	Single Family/Amenities/Comm.

PROJECT SUMMARY

The applicant requests approval of a revised Preliminary Plat for 399 lots as well as associated infrastructure, open spaces, and amenities. The original plat was approved in 2021 under the previous ordinance. It includes multiple zoning districts (R-6, R-10, and MCD). The development has proceeded in phases. Two separate developers have taken over different phases. The plat created a vested right to develop under the standards of the previous zoning ordinance, 3638. The applicant seeks to remove five R-6 lots and replace them with a amenity center for future residents. The applicant also seeks to convert a small open space area to three new R-6 lots. The net effect is the reduction of two lots, the addition of the amenity center, and a small reduction of open space. The applicant now requests that the Planning Commission consider a modification to the approved plan to accomplish these changes.

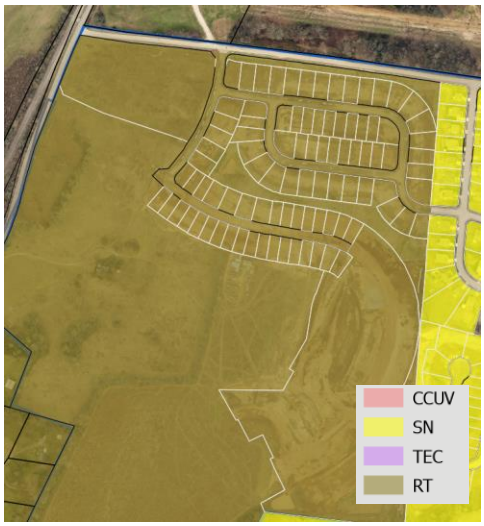
- The requested modification conforms to the applicable standards of ordinance 3638.
- The Planning Commission is the **decision-making authority** for the Preliminary Plat.
- The Zoning Ordinance permits the decisions-making authority to approve modifications of vested plans under limited circumstances.
- 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-3	Residential	Single-Family Homes	15.64



FUTURE LAND USE MAP	ZONING MAP





SITE CONTEXT/ADJACENT PROPERTIES			
	Future Land Use	Zoning	Current Use
Subject Property	Suburban Neighborhoods	CD-3 (R-6/R-10 Vested)	Development Site
North	Suburban Neighborhoods	CD-3 (R-10)	Single Family
South	Suburban Neighborhoods	CD-3 (R-6/R-10 Vested)	Development Site
East	Suburban Neighborhoods	CD-3 (R-10)	Single Family
West	Suburban Neighborhoods	unincorporated	Single Family

CONSISTENCY WITH CONNECT COLUMBIA

Rural Transitions: The Rural Transition (RT) future land use classification is comprised of unincorporated areas within Columbia's UGB as well as areas of low-intensity development. The area is characterized by very low-density residential neighborhoods, large-lot semi-rural estates, open spaces, and legacy agricultural operations. The intent of the RT future land use classification is to create and maintain a discernable transition between agricultural uses in unincorporated Maury County and the suburban areas within Columbia. The future land use classification is usually implemented by the CD-2 and Civic districts, as well as PUDs.

Rural Transition

Character & Intent
The Rural Transition (RT) future land use classification is comprised of unincorporated areas within Columbia's UGB as well as areas of low-intensity development. The area is characterized by very low-density residential neighborhoods, large-lot semi-rural estates, open spaces, and legacy agricultural operations. The intent of the RT future land use classification is to create and maintain a discernable transition between agricultural uses in unincorporated Maury County and the suburban areas within Columbia.

Future development is limited and emphasizes the preservation of agricultural uses, open spaces, and the semi-rural character of areas adjacent to the city. Natural and scenic features, such as rolling hills, rivers, rock outcroppings, and historic homes should be preserved.

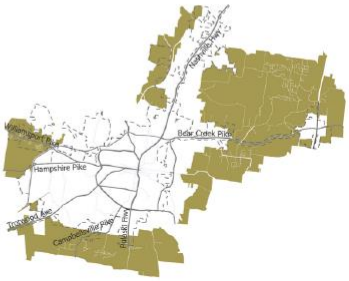


Land Use Considerations
The primary land use is very low-density detached housing. Secondary land uses include accessory dwellings, low-intensity agricultural operations, utility facilities, civic spaces, parks, and open space. New mixed-use, medium-density residential, commercial, industrial and warehouse uses are inappropriate

Form & Pattern
The RT future land use area is characterized by single-family detached residential areas and legacy agricultural operations. Implementing bulk and design standards prescribe large lots with very deep setbacks. In contrast to other areas, site and design requirements are minimal. Public frontages are insignificant and the delineation of public and private space is imprecise. Lots and roadways generally do not form blocks; however, large blocks become discernable in proximity to areas under other land use classifications. Complete urban services may not be available. Annexations and rezonings are inappropriate without concurrent extensions of urban services. Private land users provide their own parking.

Implementing Districts
Rural Character District CD-2
Civic CV

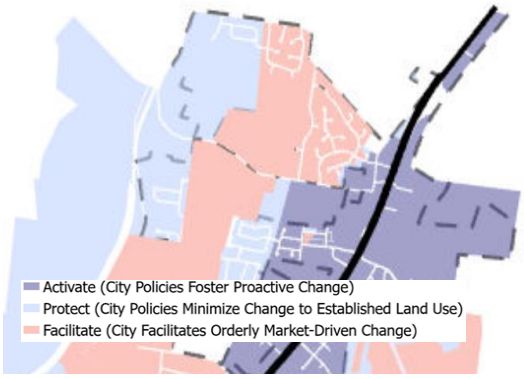
Implementing Standards
General Development Pattern: Isolated Uses
Density (density unites per ace): 1 du/ac
Building Height: 1-3 stories
Open Space Elements: Parks & Greenways, Occasional Civic Spaces, Private Yards





AREA OF CHANGE

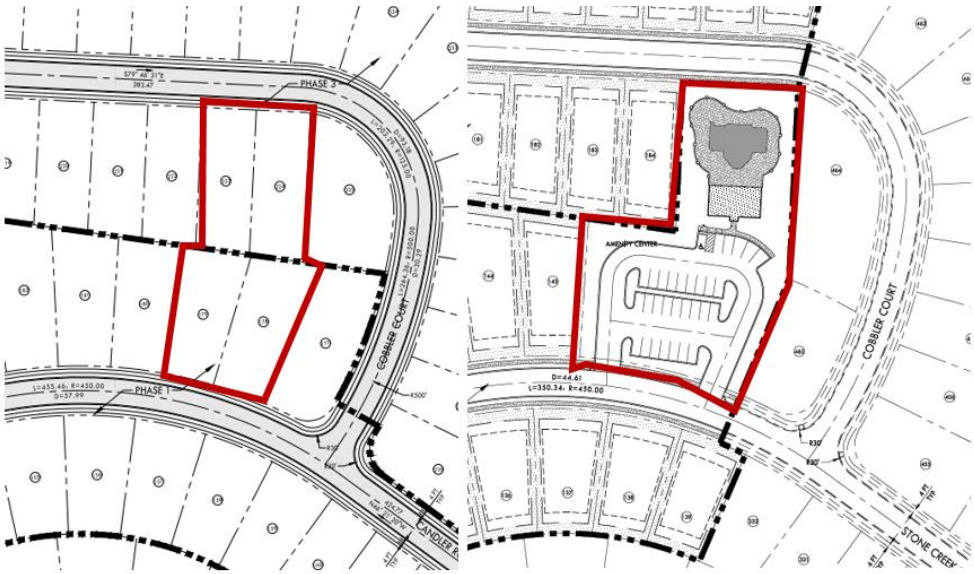
Connect Columbia established the areas of change policy designation for the subject site as *protect*. The designation includes areas that are not expected (or do not desire) to experience significant change in character. Occasional new or infill development within these areas may enhance quality of place and improve connectivity and transportation options. However, the land use pattern is established and major changes or intense development should provide clear public benefits. Review processes should emphasize compatibility and adequacy of municipal services. (Connect Columbia p. 32).



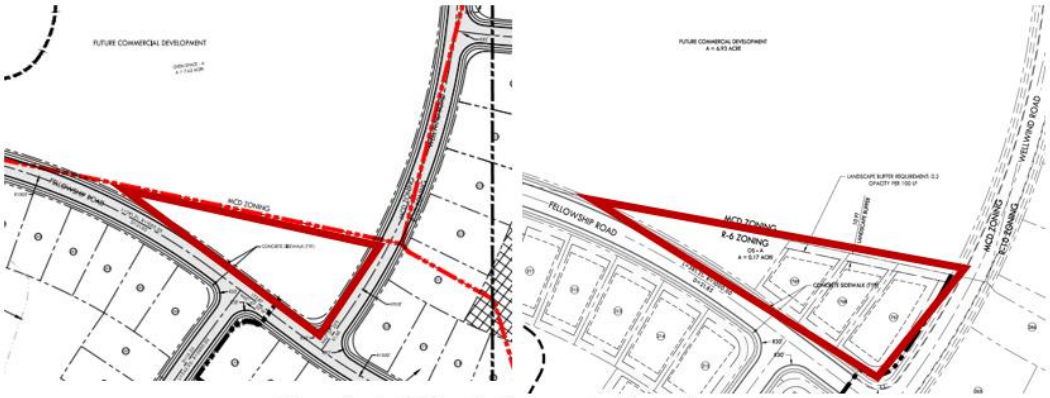
CONFORMITY WITH ZONING ORDINANCE

The applicable standard for review is §6.3.8 of ordinance 3638. The Planning Commission determined that the lots conformed to the applicable standard when it approved the Preliminary Plat in 2022.

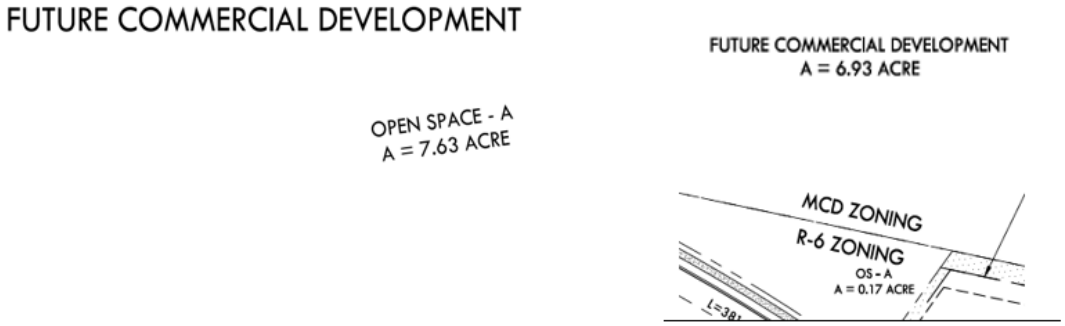
The proposed revision eliminates five lots and relocates three of them within the development. It also adds an amenity center for residents. The changes are illustrated below.



Amenity Center Replaces Lots



Three Lots Added in Triangular Open Space Area



Open Space Note Revisions

REVIEW PROCESS

The Development Review Committee evaluated the proposed rezoning at its September 2024 meeting, as directed by section **8.3.7** of the Zoning Ordinance and **2.2.4** of the Subdivision Regulations. Technical comments are provided in the agenda package.

Section **1.24.7** of the Zoning Ordinance establishes the review criteria for amendments to previously approved and vested plans. Changes are subject to approval by Decision-Making Authority which is the Planning Commission in this case. A proposed amendment may be denied based upon a written finding by the Decision-Making Authority that the amendment:

1. Changes the proposed Use;
2. Increases the overall area of the Development;
3. Changes the size of any non-Residential Structures included in the Development Plan or Master PUD Development Plan;
4. Increases the Density of the Development so as to affect traffic, noise or other environmental impacts; or
5. Increases any City expenditure necessary to implement or sustain the proposed Use.

The Planning Commission may decline to approve the amendment without impacting the property owner's vested rights.

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 these 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.

SUMMARY OF DEVELOPMENT REVIEW COMMITTEE COMMENTS

The DRC reviewed this proposal at its September 2024 meetings. A full list of comments, and the applicant's responses, is provided in the agenda packet. Some key comments are noted below.

- **Planning** requested that the applicant clarify provide parking and landscape details.
- Planning also requested that the applicant provide information about the appearance of the amenity center..
- **Engineering** requested that the applicant provide and off-site grading agreement executed by the adjacent property owner (due to necessary grading of the three new lots).
- Engineering also noted the need for additional dedication of right of way.
- **Fire** and **CPWS**'s consultant (Inflo) request a water availability letter for the amenity center.
- **Maury County Schools** provided attendance zones for the subject property and indicated that these are subject to change due to realignment or construction of new facilities based on the operational needs of the school system. This is a standard comment on residential projects.

COMMENTARY FROM PROFESSIONAL PLANNING STAFF

Revision of the vested plan is at the discretion of the Planning Commission. The applicant has a right to develop the site based on the previous approval. The City of Columbia has adopted new standards for development. The Zoning Ordinance makes clear that the Planning Commission, as the decision-making authority for subdivisions, may approve revisions to vested plans. It may also decline to approve changes without affecting the underlying vested right. Under §1.24.7, the Planning Commission may deny the request based on a finding that the changes will

a) have negative impacts related to traffic, noise, or the environment; or

b) increase City expenditures related to urban services. Alternatively, the Planning Commission may find that the addition of one unit does not change the layout of the development has a de minimis impact on the community.

Planning staff would like clarification of which homes are served by the amenity center. The applicant engineering firm represents one of two developers working in Carters Station. The lots immediately to the east are controlled by the other developer. They will be impacted by noise and traffic from the pool and recreation center. It is unclear whether they will be able to utilize the pool.

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 section **1.24.7** of the City of Columbia Zoning Ordinance, and Section **2.2.6** of the Subdivision Regulations, have been satisfied and approve revised Preliminary Plat 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 section **1.24.7** of the City of Columbia Zoning Ordinance, and Section **2.2.6** of the Subdivision Regulations, have been satisfied and approve the revised Preliminary Plat subject to the following conditions: [*list conditions of approval crafted by Planning Commission*].

Deny:

Move to deny the Site Development Plan and Preliminary Plat having found, based on the information presented by the applicant and the analysis provided by city staff, that the criteria listed in section **1.24.7** of the City of Columbia Zoning Ordinance, and Section **2.2.6** of the Subdivision Regulations 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 that future meeting.

Docusign Envelope ID: 1897F9A9-94F3-46A3-B7DD-899D8BBCC37C

October 01, 2024

RMC Land LLC
1333 John Sharp Road
Spring Hill, Tennessee 37174
tyler.ring@tenncontractors.com
nelson@fortunallc.net

RE: Summit at Carter's Station West – Offsite Grading Agreement

The purpose of this letter is to create an agreement for offsite grading onto the adjacent commercial tract (Parcel Number: 041 015.00) for the construction of the Summit at Carter's Station West subdivision development. The total acreage of offsite grading onto the commercial tract will be 0.44 acres at 37 ft onto the property at its furthest distance from the shared property line as shown in the attached exhibit. A signature below from an authorized representative will indicate an official agreement to allow such offsite grading for the purpose of the adjacent subdivision development.

Thank you,

Jason Demuth, Division President
Pulte Group
100 Westwood Place, Suite 100
Brentwood, TN 37027
615-435-2297

Docusign Envelope ID: 1897F9A9-94F3-46A3-B7DD-899D8BBCC37C

Acknowledgment

RMC Land LLC Representative: Tyler Ring,
President

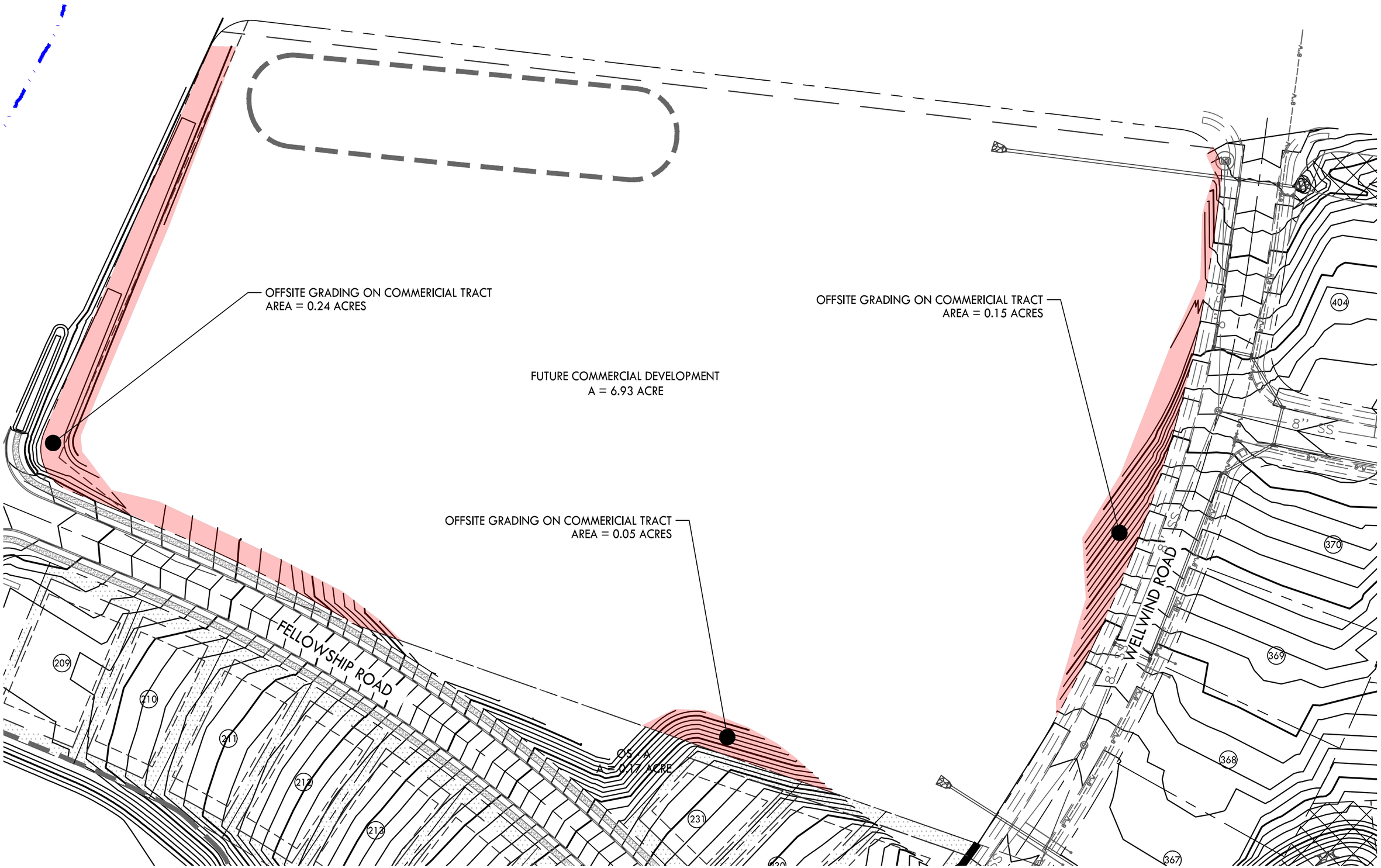
Address: 1333 John Sharp Road, Spring Hill TN 37174

Phone: 615-305-1033

Email: tyler.ring@tenncontractors.com

RMC Land LLC Representative Signature: DocuSigned by: Tyler Ring 1705D05ADA14412... President, RMC

Date: 10/14/2024


OFFSITE GRADING ON COMMERICIAL TRACT
AREA = 0.24 ACRES
FUTURE COMMERCIAL DEVELOPMENT
A = 6.93 ACRE
OFFSITE GRADING ON COMMERICIAL TRACT
AREA = 0.15 ACRES
OFFSITE GRADING ON COMMERICIAL TRACT
AREA = 0.05 ACRES
OS_A
A = 0.17 ACRE
FELLOWSHIP ROAD
WELLWIND ROAD
8" SS
209
210
211
212
213
231
367
368
369
370
404

REFER TO SHEET C1.8 FOR DETAILED INFORMATION ON ZONING R-10 CLUSTERED LOT

REFER TO SHEET C1.1 FOR DETAILED INFORMATION IN THIS AREA.

REFER TO SHEET C1.3 FOR DETAILED INFORMATION IN THIS AREA.

REFER TO SHEET C1.5 FOR DETAILED INFORMATION IN THIS AREA.

REFER TO SHEET C1.2 FOR DETAILED INFORMATION IN THIS AREA.

REFER TO SHEET C1.4 FOR DETAILED INFORMATION IN THIS AREA.

REFER TO SHEET C1.6 FOR DETAILED INFORMATION IN THIS AREA.

LOTS 229-231 AND OS-A TO BE INCLUDED IN PHASE 3

FUTURE COMMERCIAL DEVELOPMENT A = 6.93 ACRE

MCD ZONING
R-6 ZONING

MCD ZONING
R-10 ZONING

PHASE 5 BY OTHERS

OS - A
A = 1.48 ACRE

OS - B
A = 3.02 ACRE

PHASE 1

OS - C
A = 0.26 ACRE

PHASE 2

OS - D
A = 8.43 ACRE

PHASE 3

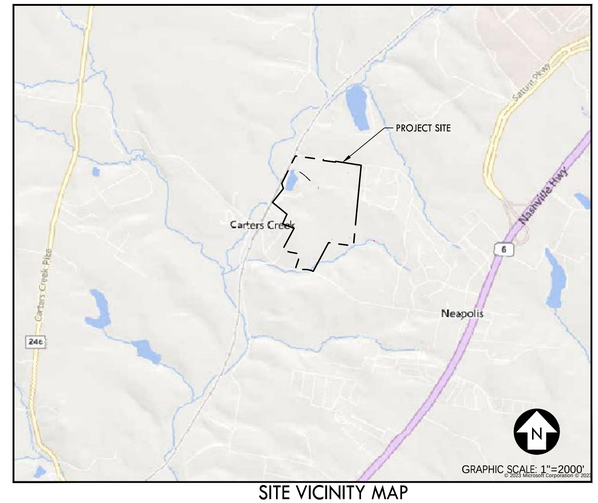
OS - 3
A = 2.30 ACRE

PHASE 4

OS - E
A = 6.27 ACRE

OS - F
A = 11.02 ACRE

R-10 ZONING
R-6 ZONING



SITE VICINITY MAP

FLOOD HAZARD NOTE:

1. THE SUBJECT PROPERTY DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD ZONE ACCORDING TO PANEL No. 47119C0180E OF THE F.E.M.A. FLOOD INSURANCE RATE MAPS FOR MAURY COUNTY, TENNESSEE, DATED 4/16/2007

SITE DATA TABLE

PROJECT: CARTERS STATION NORTH
ADDRESS: 3040 CLEBURNE ROAD
PARCEL ID: 060041 0 1500
SITE ACREAGE: 113.55 ACRES
IMPERVIOUS AREA: 234,050 SF

EXISTING ZONING: MCD & R-6 & R-10
PROPOSED ZONING: MCD & R-6 & R-10

ZONING DISTRICT:	R-6	R-10	MCO
AREA:	91.72 AC	19.64 AC	0.48 AC
PROPOSED LOTS:	396	71	N/A
BUILDING HEIGHT:	35 FT	35 FT	N/A
MIN. LOT SIZE:	6,000 SF	5,000 SF	N/A
MIN. LOT WIDTH:	50 FT	50 FT	N/A
FRONT YARD:	20 FT	30 FT	N/A
SIDE SETBACK:	15 FT TOTAL	15 FT TOTAL	N/A
REAR SETBACK:	20 FT	30 FT	N/A
OPEN SPACE REQ'D:	10% OF TOTAL 9.17 AC	7% OF TOTAL 1.37 AC	N/A
TOTAL FOR DEVELOPMENT:	10.55 AC[1]	10.55 AC[1]	N/A
OPEN SPACE PROVIDED:	19.94 AC (17.6%)[1]	19.94 AC (17.6%)[1,2]	N/A
USABLE OPEN SPACE REQ'D:	33% OF REQUIRED	33% OF REQUIRED	N/A
USABLE OPEN SPACE PROVIDED:	6.87 (65.0%)	6.87 (65.0%)	N/A

PROJECT PHASING:
PHASE I: 38 LOTS
PHASE II: 36 LOTS
PHASE III: 61 LOTS
PHASE IV: 90 LOTS

1 - SINCE THE SITE IS CONSIDERED 1 NEIGHBORHOOD, THE REQUIRED OPEN SPACE FOR BOTH ZONINGS IS COMBINED.
2 - ADDITIONAL OPEN SPACE IS REQUIRED FOR ZONING R-10 CLUSTER LOTS

R-10 REQUIRED OPEN SPACE CALCULATIONS FOR CLUSTERED LOTS:

REQUIREMENT: REQUIRED OPEN SPACE EQUAL TO THE REDUCTION IN AGGREGATE LOT AREA IF THE PROJECT WERE DEVELOPED UNDER CONVENTIONAL DEVELOPMENT STANDARDS.

TOTAL LOTS ZONED R-10, LESS THAN 10,000 SQ-FT:		24 LOTS
TOTAL AREA OF LOTS ZONED, R-10 LESS THAN 10,000 SQ-FT:		4.22 AC
TOTAL AREA OF LOTS, IF DEVELOPED UNDER CONVENTIONAL STANDARDS:		5.51 AC
REQUIRED OPEN SPACE:		1.29 AC
TOTAL REQUIRED OPEN SPACE:	1.29 + 10.55 AC =	[3]11.84 AC
TOTAL REQUIRED USABLE OPEN SPACE:		3.86 AC

3 - THE REQUIRED AND PROVIDED OPEN SPACE MUST BE PROVIDED IN ADDITION TO THE REQUIRED OPEN SPACE CALCULATED FOR THE TOTAL DEVELOPMENT.

NOTES:
1. REFER TO SHEET C1.7 FOR PARCEL AREA TABLES.
2. REFER TO SHEET C1.7 FOR TYPICAL LOT LAYOUT.

USABLE OPEN SPACE

0 50 100 150 300
GRAPHIC SCALE

N

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STATE OF TENNESSEE

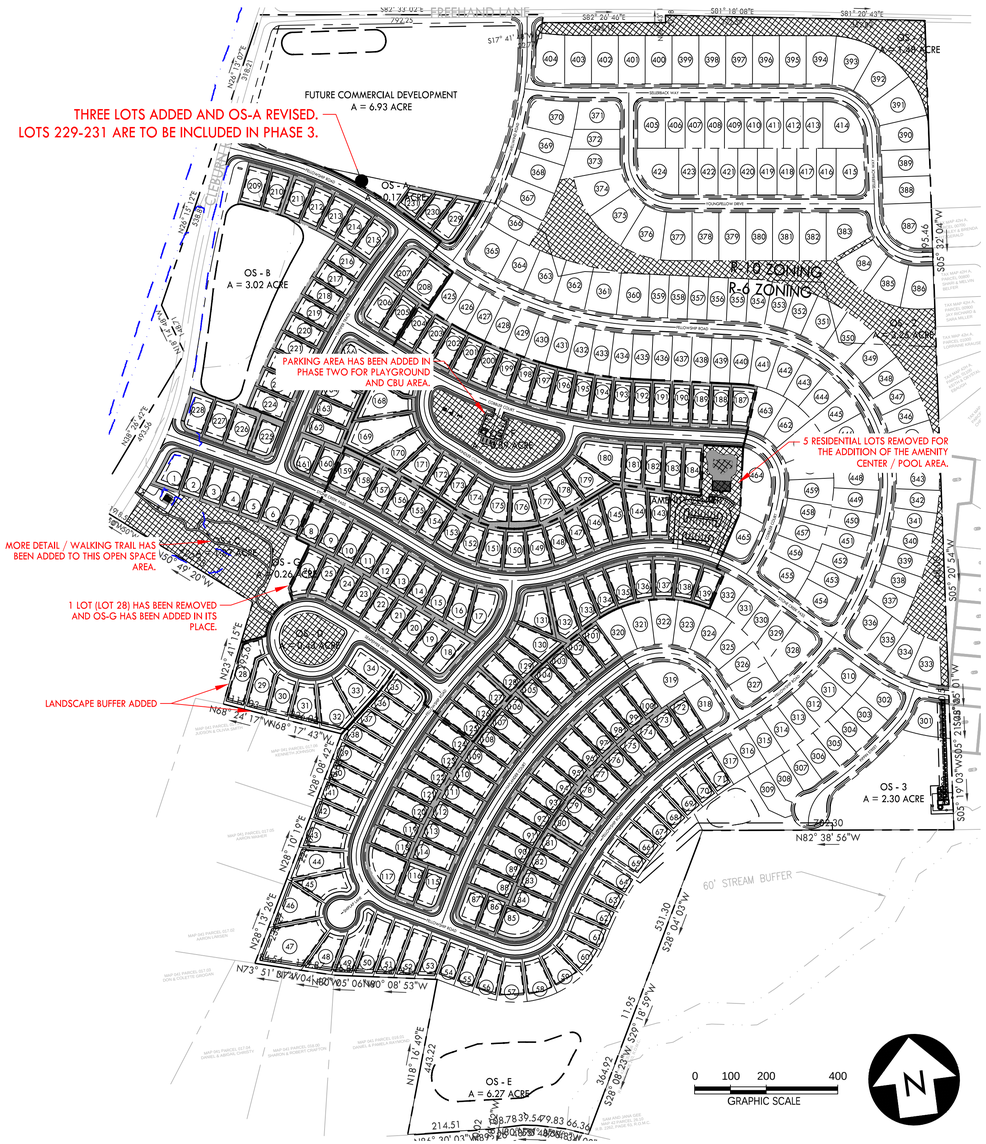
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CARTERS CREEK STATION ROAD
MAURY COUNTY, TENNESSEE

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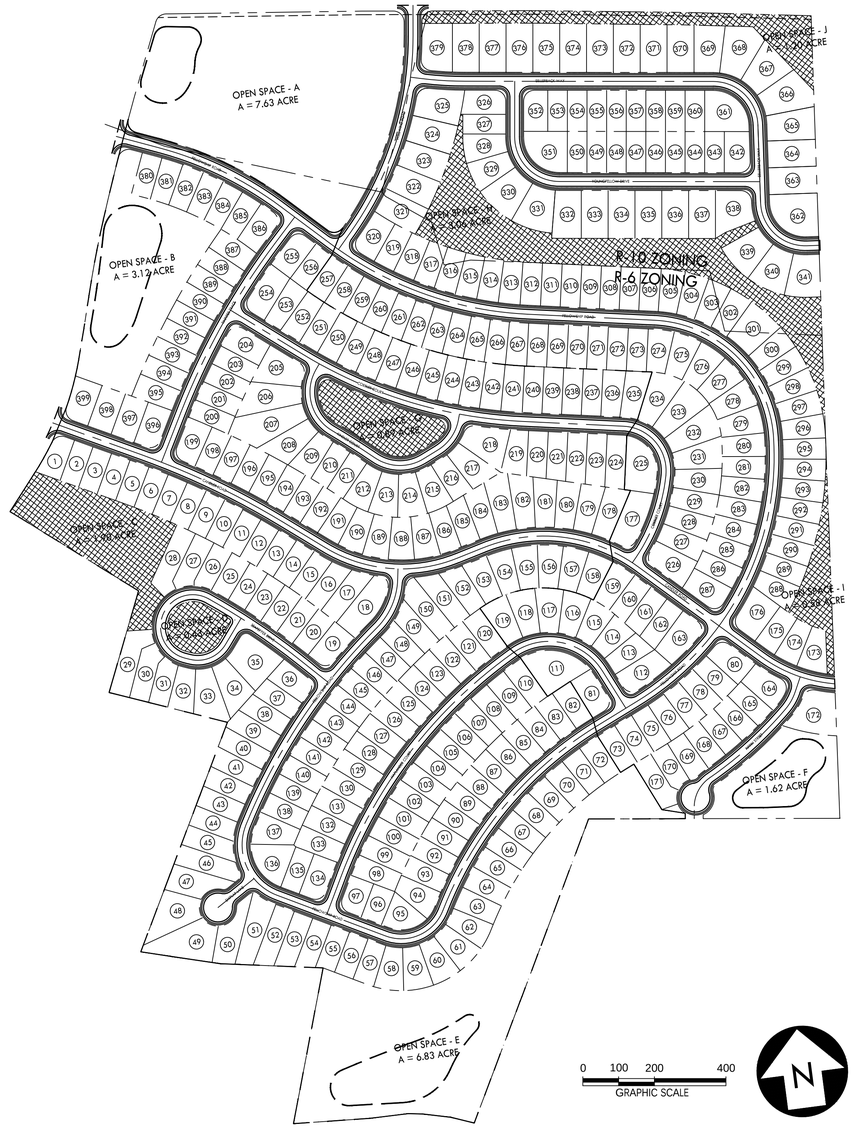
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C1.0
PRELIMINARY PLAT

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REVISED PRELIMINARY PLAT



ORIGINALLY APPROVED PRELIMINARY PLAT

SITE DATA TABLE

PROJECT: CARTERS STATION NORTH
ADDRESS: 3040 CLEBURNE ROAD
PARCEL ID: 060041.01000
SITE ACREAGE: 113.55 ACRES
IMPERVIOUS AREA: 234,000 SF

EXISTING ZONING: MCD & R-6 & R-10
PROPOSED ZONING: MCD & R-6 & R-10

ZONING DISTRICT:	R-6	R-10	MCD
AREA:	91.72 AC	19.84 AC	0.48 AC
PROPOSED LOTS:	396	71	N/A
BUILDING HEIGHT:	35 FT	35 FT	N/A
MIN. LOT SIZE:	6,000 SF	5,000 SF	N/A
MIN. LOT WIDTH:	50 FT	50 FT	N/A
FRONT YARD:	20 FT	20 FT	N/A
SIDE SETBACK:	15 FT TOTAL	15 FT TOTAL	N/A
REAR SETBACK:	20 FT	30 FT	N/A
OPEN SPACE REQ'D:	10% OF TOTAL 9.17 AC	7% OF TOTAL 1.37 AC	N/A
TOTAL FOR DEVELOPMENT:	10.55 AC	10.55 AC	N/A
OPEN SPACE PROVIDED:	20.87 AC (18.3%)	20.87AC (18.3%)[1]	N/A
USABLE OPEN SPACE REQ'D:	33% OF REQUIRED	33% OF REQUIRED	N/A
USABLE OPEN SPACE PROVIDED:	8.73 (83.9%)	8.73 (83.9%)	N/A

PROJECT PHASING:
PHASE A: 38 LOTS
PHASE B: 36 LOTS
PHASE B: 61 LOTS
PHASE B: 90 LOTS

1. SINCE THE OS-E IS CONSIDERED 1 NEIGHBORHOOD, THE REQUIRED OPEN SPACE FOR BOTH ZONINGS IS COMBINED.
2. ADDITIONAL OPEN SPACE IS REQUIRED FOR ZONING IS 10 CLUSTER LOTS.

R-10 REQUIRED OPEN SPACE CALCULATIONS FOR CLUSTERED LOTS:

REQUIREMENT: REQUIRED OPEN SPACE EQUAL TO THE REDUCTION IN AGGREGATE LOT AREA IF THE PROJECT WERE DEVELOPED UNDER CONVENTIONAL DEVELOPMENT STANDARDS.

TOTAL LOTS ZONED R-10, LESS THAN 10,000 SQ-FT:	33 LOTS
TOTAL AREA OF LOTS ZONED, R-10 LESS THAN 10,000 SQ-FT:	5.12 AC
TOTAL AREA OF LOTS, IF DEVELOPED UNDER CONVENTIONAL STANDARDS:	7.58 AC
REQUIRED OPEN SPACE:	2.43 AC
PROVIDED OPEN SPACE	19.564 AC - 10.55 AC = 11.84 AC

1. THE REQUIRED AND PROVIDED OPEN SPACE MUST BE PROVIDED IN ADDITION TO THE REQUIRED OPEN SPACE CALCULATED FOR THE TOTAL DEVELOPMENT.

SITE DATA TABLE

PROJECT: CARTERS STATION NORTH
ADDRESS: 3040 CLEBURNE ROAD
PARCEL ID: 060041.01000
SITE ACREAGE: 113.55 ACRES
IMPERVIOUS AREA: 234,000 SF

EXISTING ZONING: MCD & R-6 & R-10
PROPOSED ZONING: MCD & R-6 & R-10

ZONING DISTRICT:	R-6	R-10	MCD
AREA:	91.72 AC	19.84 AC	0.48 AC
PROPOSED LOTS:	399	71	N/A
BUILDING HEIGHT:	35 FT	35 FT	N/A
MIN. LOT SIZE:	6,000 SF	5,000 SF	N/A
MIN. LOT WIDTH:	50 FT	50 FT	N/A
FRONT YARD:	20 FT	20 FT	N/A
SIDE SETBACK:	15 FT TOTAL	15 FT TOTAL	N/A
REAR SETBACK:	20 FT	30 FT	N/A
OPEN SPACE REQ'D:	10% OF TOTAL 9.17 AC	7% OF TOTAL 1.37 AC	N/A
TOTAL FOR DEVELOPMENT:	10.55 AC	10.55 AC	N/A
OPEN SPACE PROVIDED:	19.64 AC (17.6%)	19.64 AC (17.6%)[2]	N/A
USABLE OPEN SPACE REQ'D:	33% OF REQUIRED	33% OF REQUIRED	N/A
USABLE OPEN SPACE PROVIDED:	7.48 (70.9%)	7.48 (70.9%)	N/A

PROJECT PHASING:
PHASE A: 93 LOTS
PHASE B: 108 LOTS
PHASE B: 71 LOTS
PHASE N: 123 LOTS

1. SINCE THE OS-E IS CONSIDERED 1 NEIGHBORHOOD, THE REQUIRED OPEN SPACE FOR BOTH ZONINGS IS COMBINED.
2. ADDITIONAL OPEN SPACE IS REQUIRED FOR ZONING IS 10 CLUSTER LOTS.

R-10 REQUIRED OPEN SPACE CALCULATIONS FOR CLUSTERED LOTS:

REQUIREMENT: REQUIRED OPEN SPACE EQUAL TO THE REDUCTION IN AGGREGATE LOT AREA IF THE PROJECT WERE DEVELOPED UNDER CONVENTIONAL DEVELOPMENT STANDARDS.

TOTAL LOTS ZONED R-10, LESS THAN 10,000 SQ-FT:	33 LOTS
TOTAL AREA OF LOTS ZONED, R-10 LESS THAN 10,000 SQ-FT:	5.12 AC
TOTAL AREA OF LOTS, IF DEVELOPED UNDER CONVENTIONAL STANDARDS:	7.58 AC
REQUIRED OPEN SPACE:	2.43 AC
PROVIDED OPEN SPACE.	19.564 AC - 10.55 AC = 9.09 AC

1. THE REQUIRED AND PROVIDED OPEN SPACE MUST BE PROVIDED IN ADDITION TO THE REQUIRED OPEN SPACE CALCULATED FOR THE TOTAL DEVELOPMENT.

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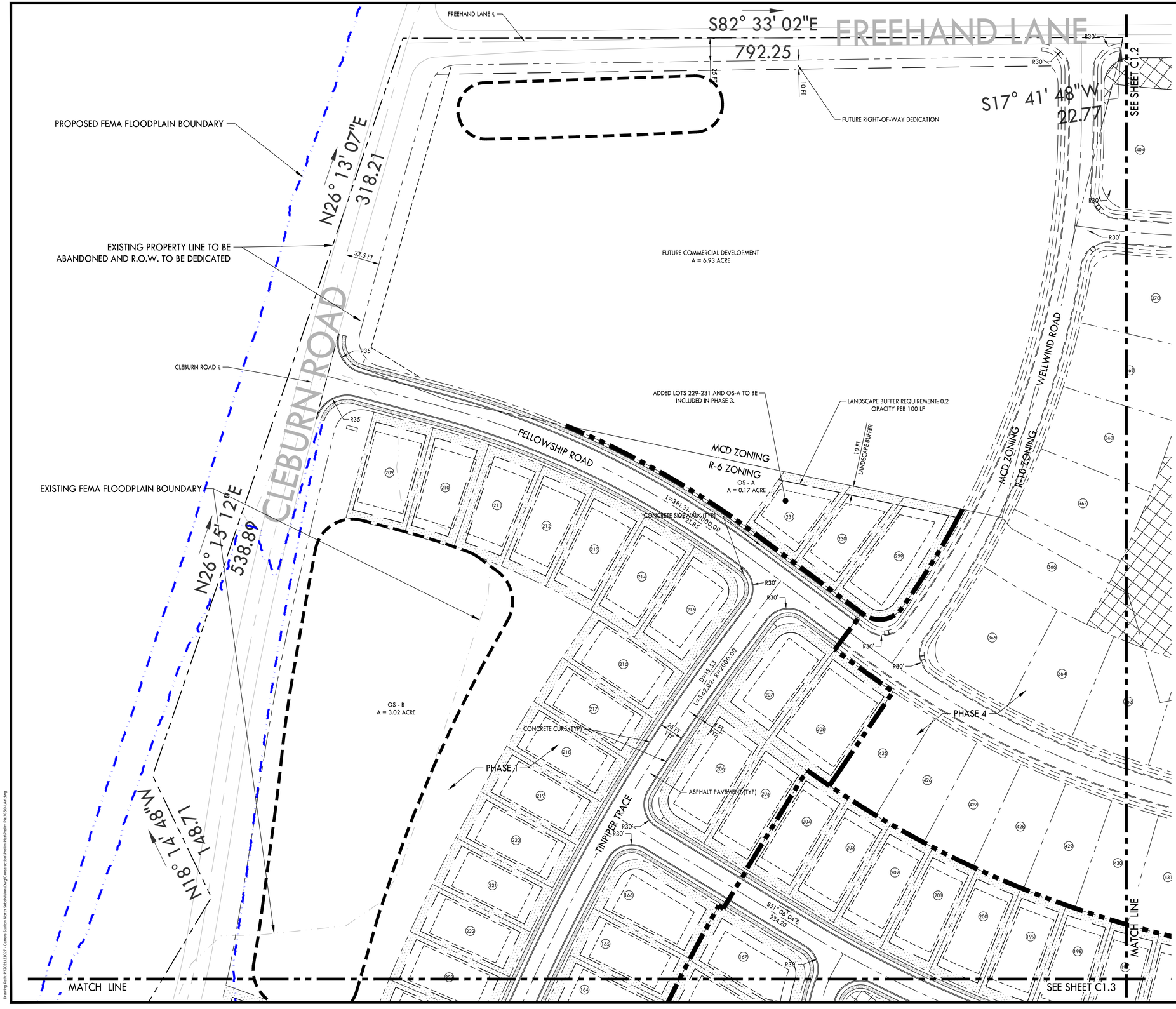
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C1.0A
EXHIBIT OF CHANGES

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NOTES:
1. REFER TO SHEET C1.7 FOR PARCEL AREA TABLES.
2. REFER TO SHEET C1.7 FOR TYPICAL LOT LAYOUT.

PROPOSED LAYOUT LEGEND

- PROPOSED BUILDING
- HEAVY DUTY ASPHALT PAVEMENT
- LIGHT DUTY ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- CONCRETE SIDEWALK
- PROPERTY LINE
- EDGE OF NEW PAVEMENT

0 10 20 30 40 50 100
GRAPHIC SCALE

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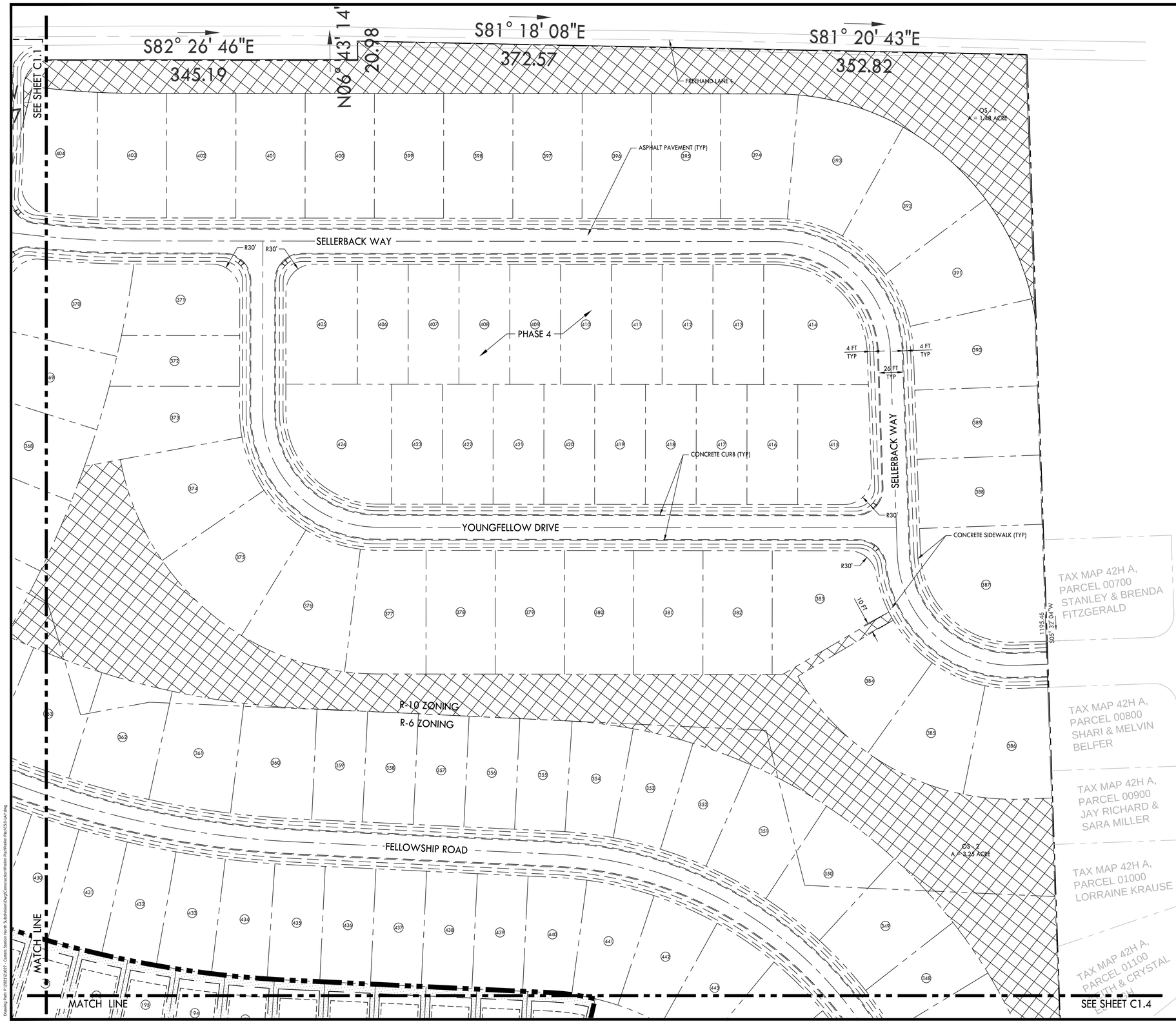
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C1.1
SITE LAYOUT PLAN

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NOTES:
1. REFER TO SHEET C1.7 FOR PARCEL AREA TABLES.
2. REFER TO SHEET C1.7 FOR TYPICAL LOT LAYOUT.

PROPOSED LAYOUT LEGEND

- PROPOSED BUILDING
- HEAVY DUTY ASPHALT PAVEMENT
- LIGHT DUTY ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- CONCRETE SIDEWALK
- PROPERTY LINE
- EDGE OF NEW PAVEMENT

0 10 20 30 40 50 100
GRAPHIC SCALE

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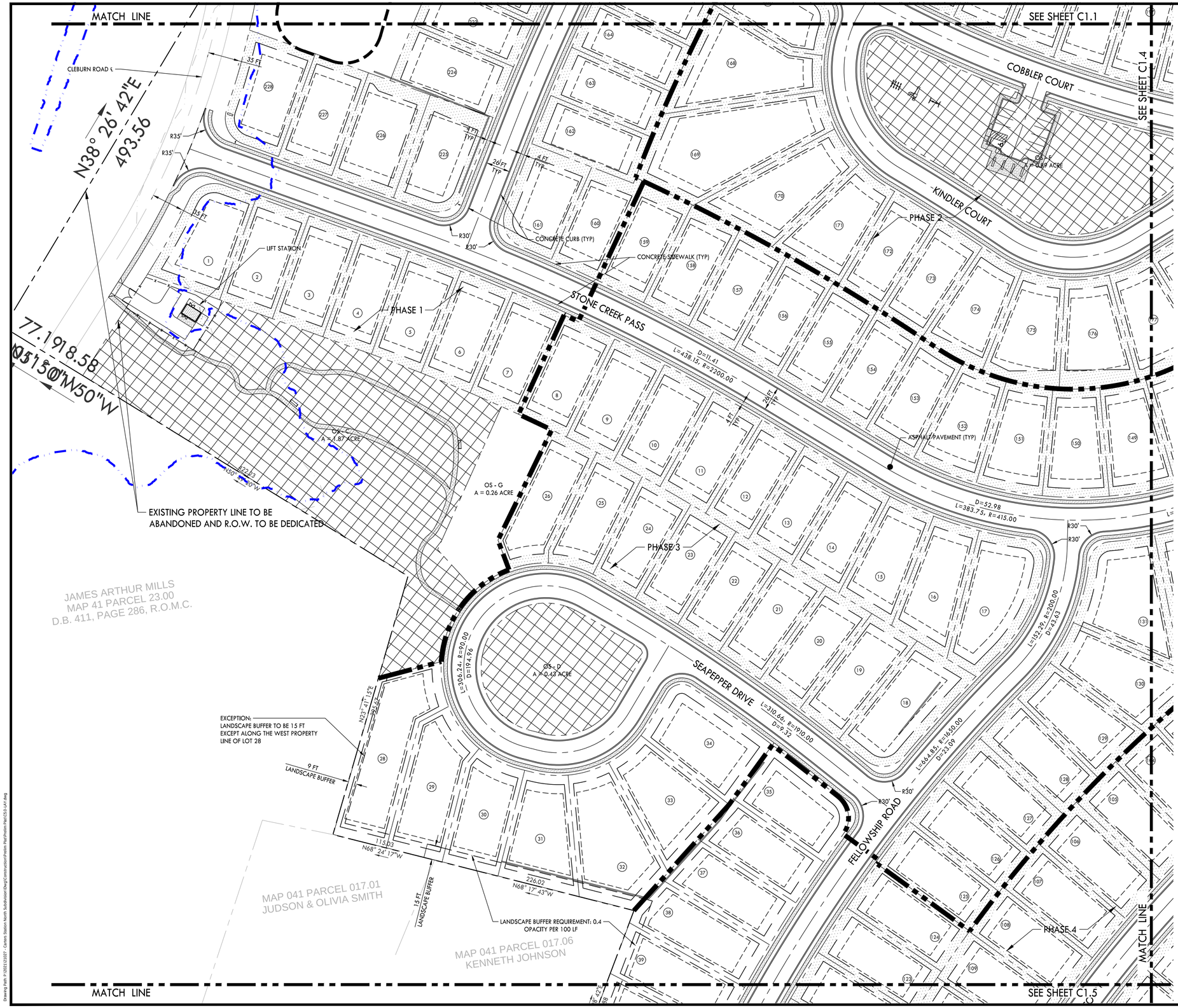
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C1.2
SITE LAYOUT PLAN

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NOTES:
1. REFER TO SHEET C1.7 FOR PARCEL AREA TABLES.
2. REFER TO SHEET C1.7 FOR TYPICAL LOT LAYOUT.

PROPOSED LAYOUT LEGEND

- PROPOSED BUILDING
- HEAVY DUTY ASPHALT PAVEMENT
- LIGHT DUTY ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- CONCRETE SIDEWALK
- PROPERTY LINE
- EDGE OF NEW PAVEMENT

0 10 20 30 40 50 100
GRAPHIC SCALE

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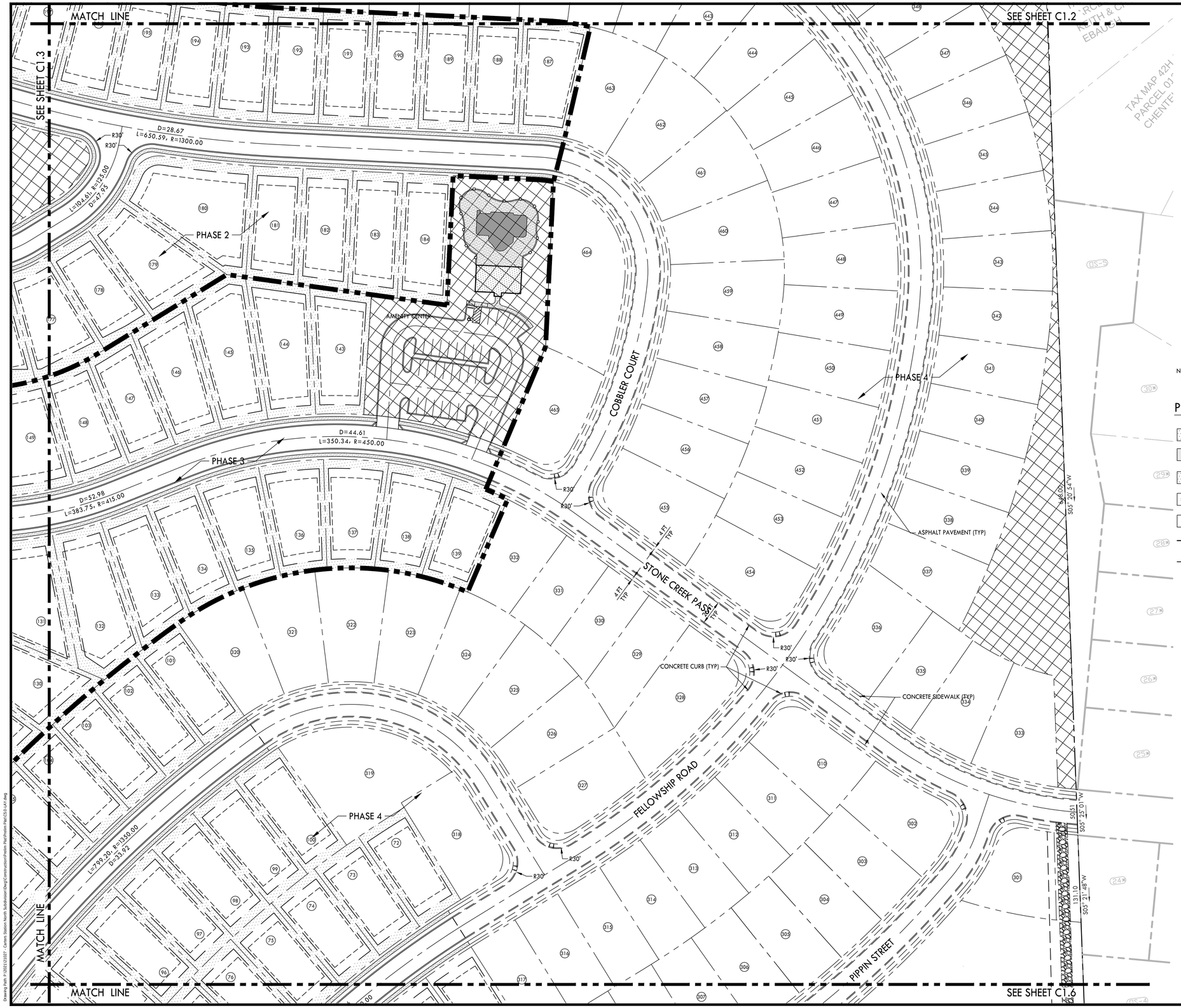
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C1.3
SITE LAYOUT PLAN

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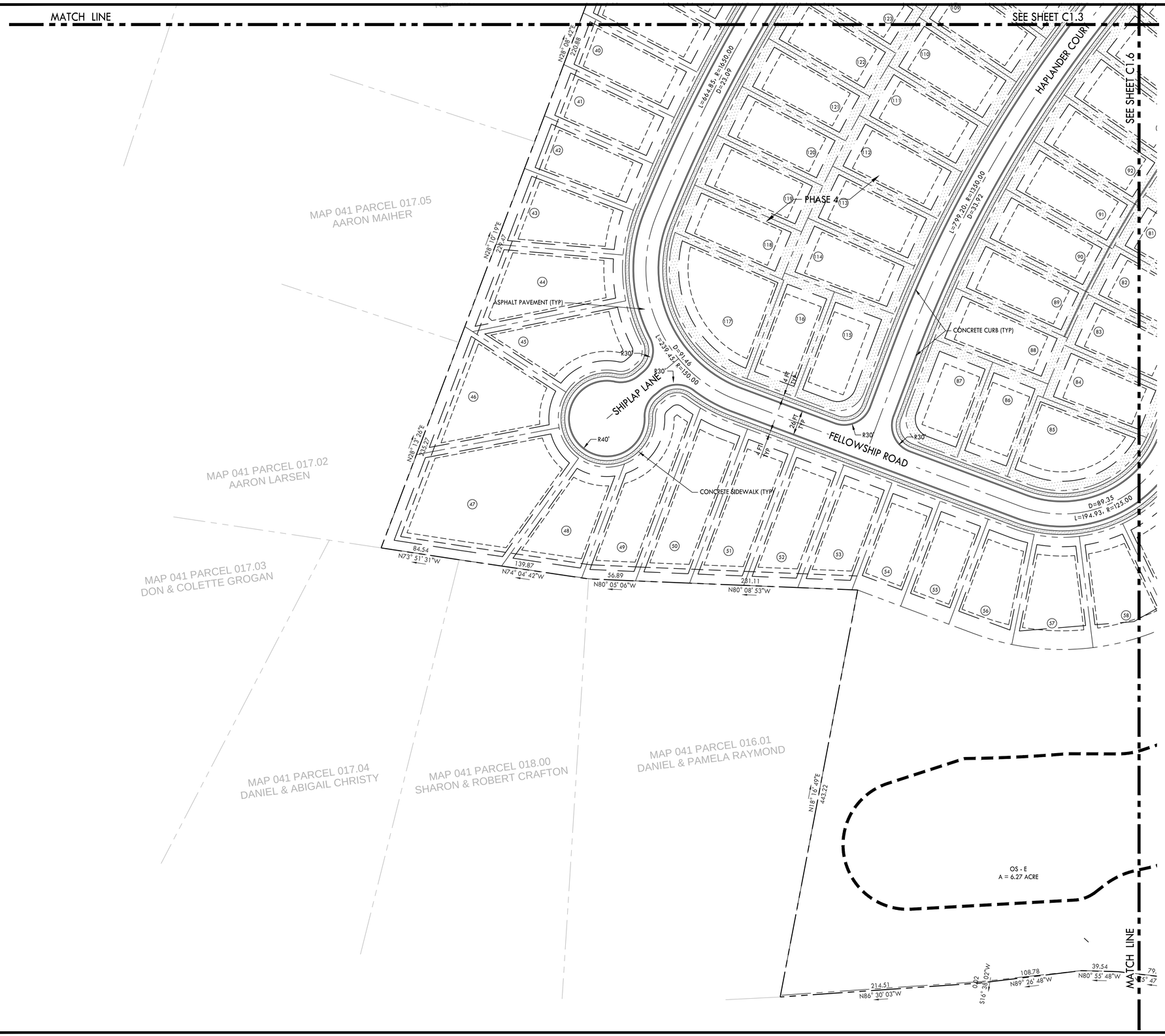
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C1.4
SITE LAYOUT PLAN

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NOTES:
1. REFER TO SHEET C1.7 FOR PARCEL AREA TABLES.
2. REFER TO SHEET C1.7 FOR TYPICAL LOT LAYOUT.

PROPOSED LAYOUT LEGEND

- PROPOSED BUILDING
- HEAVY DUTY ASPHALT PAVEMENT
- LIGHT DUTY ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- CONCRETE SIDEWALK
- PROPERTY LINE
- EDGE OF NEW PAVEMENT

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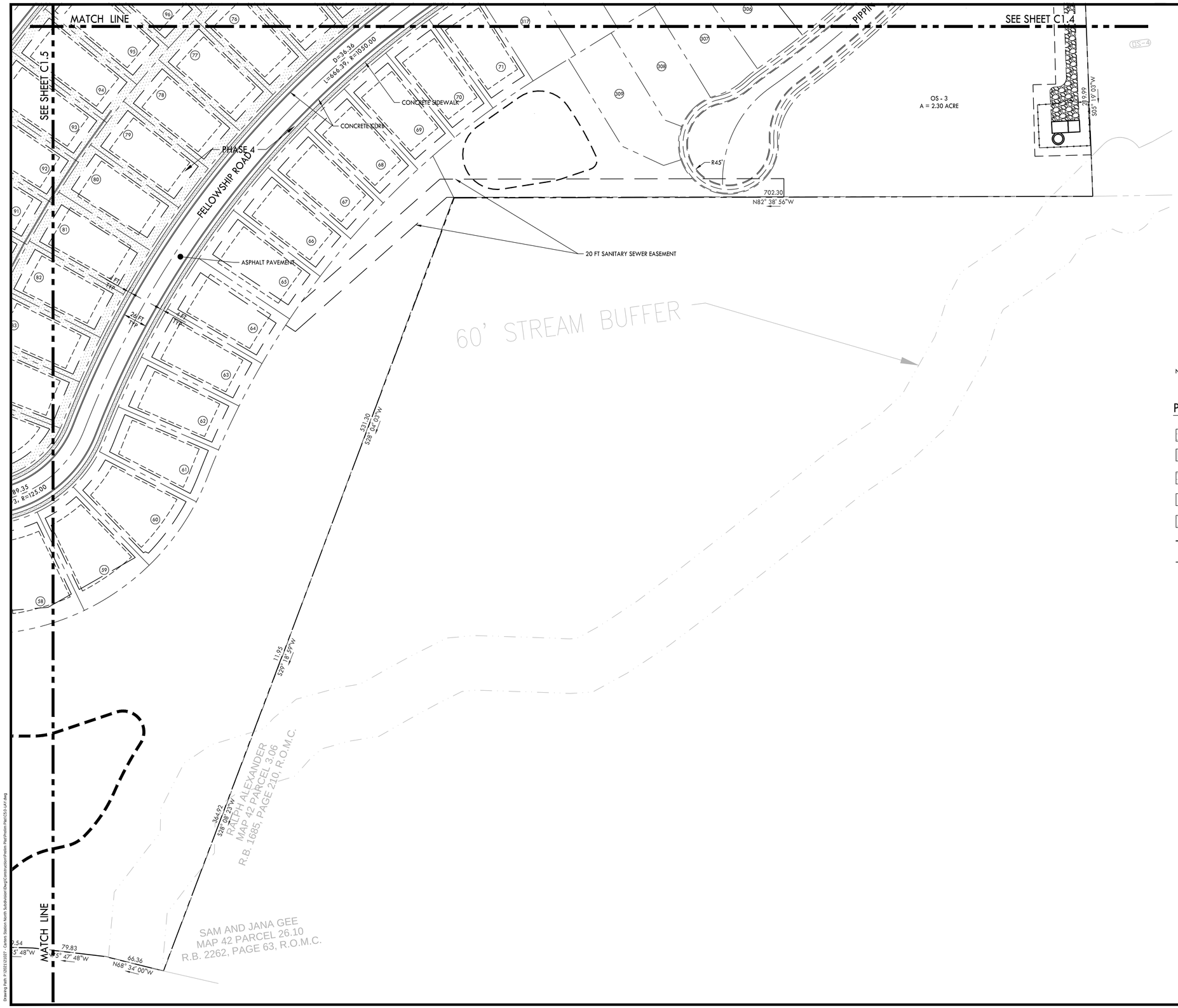
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C1.5
SITE LAYOUT PLAN

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NOTES:
1. REFER TO SHEET C1.7 FOR PARCEL AREA TABLES.
2. REFER TO SHEET C1.7 FOR TYPICAL LOT LAYOUT.

PROPOSED LAYOUT LEGEND

- PROPOSED BUILDING
- HEAVY DUTY ASPHALT PAVEMENT
- LIGHT DUTY ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- CONCRETE SIDEWALK
- PROPERTY LINE
- EDGE OF NEW PAVEMENT

0 10 20 30 40 50 100
GRAPHIC SCALE

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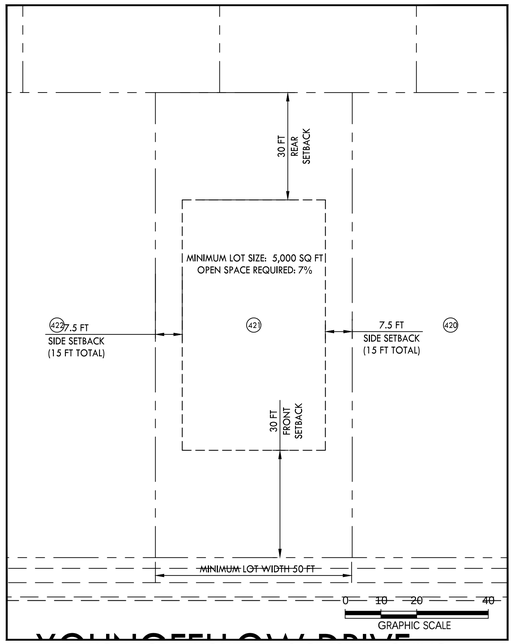
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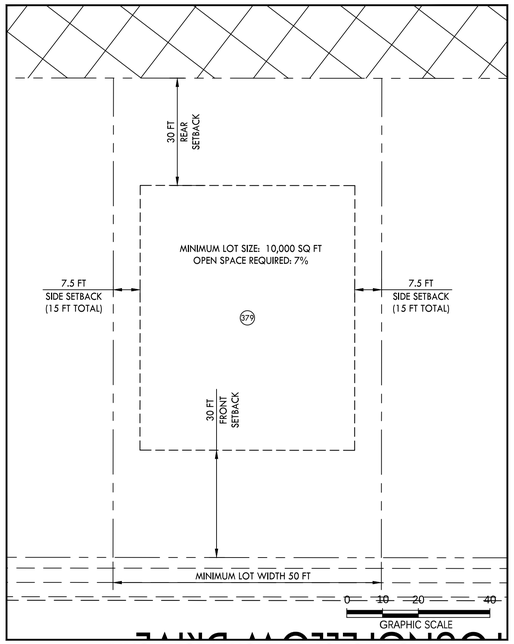
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C1.6
SITE LAYOUT PLAN

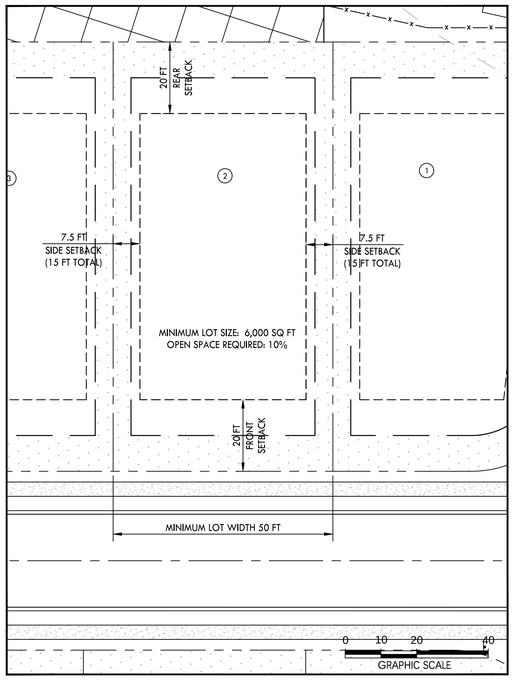
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TYPICAL LOT LAYOUT - R-10 CLUSTER ZONING



TYPICAL LOT LAYOUT - R-10 ZONING



TYPICAL LOT LAYOUT - R-6 ZONING

ZONING R-6 - LOT TABLE

Parcel Table	
Lot #	Area
1	8680
2	7370
3	7083
4	6802
5	7186
6	7186
7	7186
8	7186
9	7186
10	7186
11	7186
12	6600
13	6600
14	6877
15	7450
16	8278
17	10231
18	9771
19	7544
20	7216
21	6962
22	6804
23	6740
24	6919
25	6967
26	8113
28	12187
29	9585
30	7781
31	8587
32	11288
33	9199
34	9763
35	8270
36	6989
37	7519
38	8134
39	7971
40	7556
41	7255
42	7155
43	8653
44	10946
45	9578
46	11900
47	19631
48	8378
49	10295
50	10227
51	9195
52	8200
53	7204
54	6606
55	6600
56	7360
57	8153
58	8153
59	8153
60	8153
61	6938

Parcel Table	
Lot #	Area
62	6814
63	6814
64	7371
65	7371
66	6814
67	6814
68	6814
69	6814
70	6814
71	6814
72	6774
73	6781
74	6781
75	6781
76	6781
77	6781
78	6781
79	6781
80	7095
81	7089
82	6781
83	6781
84	6875
85	9351
86	6324
87	7210
88	7384
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94	7384
95	7384
96	7384
97	7384
98	7384
99	7384
100	7379
101	7085
102	7085
103	7086
104	7087
105	7414
106	7406
107	7365
108	7365
109	7365
110	7365
111	7365
112	7365
113	7365
114	7492
115	7911
116	6616
117	11387
118	6876
119	7037
120	7037
121	7037

Parcel Table	
Lot #	Area
122	7037
123	7037
124	7037
125	7037
126	7037
127	7357
128	7228
129	7826
130	9617
131	10512
132	10189
133	7979
134	7225
135	7589
136	7495
137	7370
138	7217
139	6695
141	40701
143	8198
144	9083
145	9655
146	8399
147	6991
148	7156
149	7511
150	7461
151	7412
152	7366
153	6736
154	6714
155	6799
156	6905
157	6905
158	6905
159	6905
160	6473
161	7352
162	6689
163	6706
164	6706
165	6706
166	8213
167	8136
168	11557
169	15743
170	10125
171	8181
172	6683
173	6683
174	7593
175	8153
176	8153
177	7964
178	7018
179	9037
180	12561
181	6986
182	7143
183	7418

Parcel Table	
Lot #	Area
184	7692
187	7832
188	6875
189	6875
190	6875
191	6875
192	6923
193	7038
194	7038
195	7038
196	7038
197	7038
198	7038
199	7038
200	7038
201	7038
202	7038
203	6957
204	6956
205	7171
206	9299
207	8303
208	10252
209	8050
210	7217
211	7217
212	6904
213	7217
214	7217
215	8227
216	7413
217	6713
218	6713
219	6713
220	6713
221	6713
222	6713
223	6713
224	7601
225	8396
226	8657
227	7457
228	8520
229	9636
230	6469
231	6002
301	7229
302	8246
303	7294
304	6875
305	6875
306	6996
307	6851
308	6706
309	8076
310	8458
311	6914
312	6914
313	6914
314	6914

Parcel Table	
Lot #	Area
315	6694
316	6600
317	6674
318	8220
319	13706
320	8210
321	8225
322	8225
323	8225
324	8225
325	8225
326	7621
327	8609
328	11323
329	7099
330	6216
331	6090
332	6958
333	8732
334	7606
335	6701
336	9282
337	7749
338	6914
339	6914
340	6914
341	6914
342	7050
343	7166
344	7166
345	7166
346	7166
347	7166
348	7166
349	10038
350	10038
351	10038
352	7166
353	7166
354	7166
355	6682
356	6600
357	6600
358	6600
359	6600
360	10058
361	10112
362	10112
363	10112
364	8836
365	11721
366	10003
425	7155
426	7155
427	7155
428	7155
429	7155
430	7155
431	7155
432	7155

Parcel Table	
Lot #	Area
433	7155
434	7155
435	6984
436	6875
437	6875
438	6875
439	6875
440	7329
441	7877
442	7877
443	7877
444	7877
445	7877
446	7877
447	7877
448	7877
449	7456
450	7313
451	7313
452	7313
453	7313
454	8954
455	9186
456	7414
457	7414
458	7414
459	7964
460	8632
461	8632
462	8632
463	8632
464	13761
465	8265

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PATRICK JOSEPH CARROLL
REGISTERED ENGINEER
AGRICULTURE
No. 124695
9/16/24
STATE OF TENNESSEE

CARTERS STATION NORTH
PRELIMINARY PLAT
CARTERS CREEK STATION ROAD
MAURY COUNTY, TENNESSEE

REVISIONS	
No.	DATE

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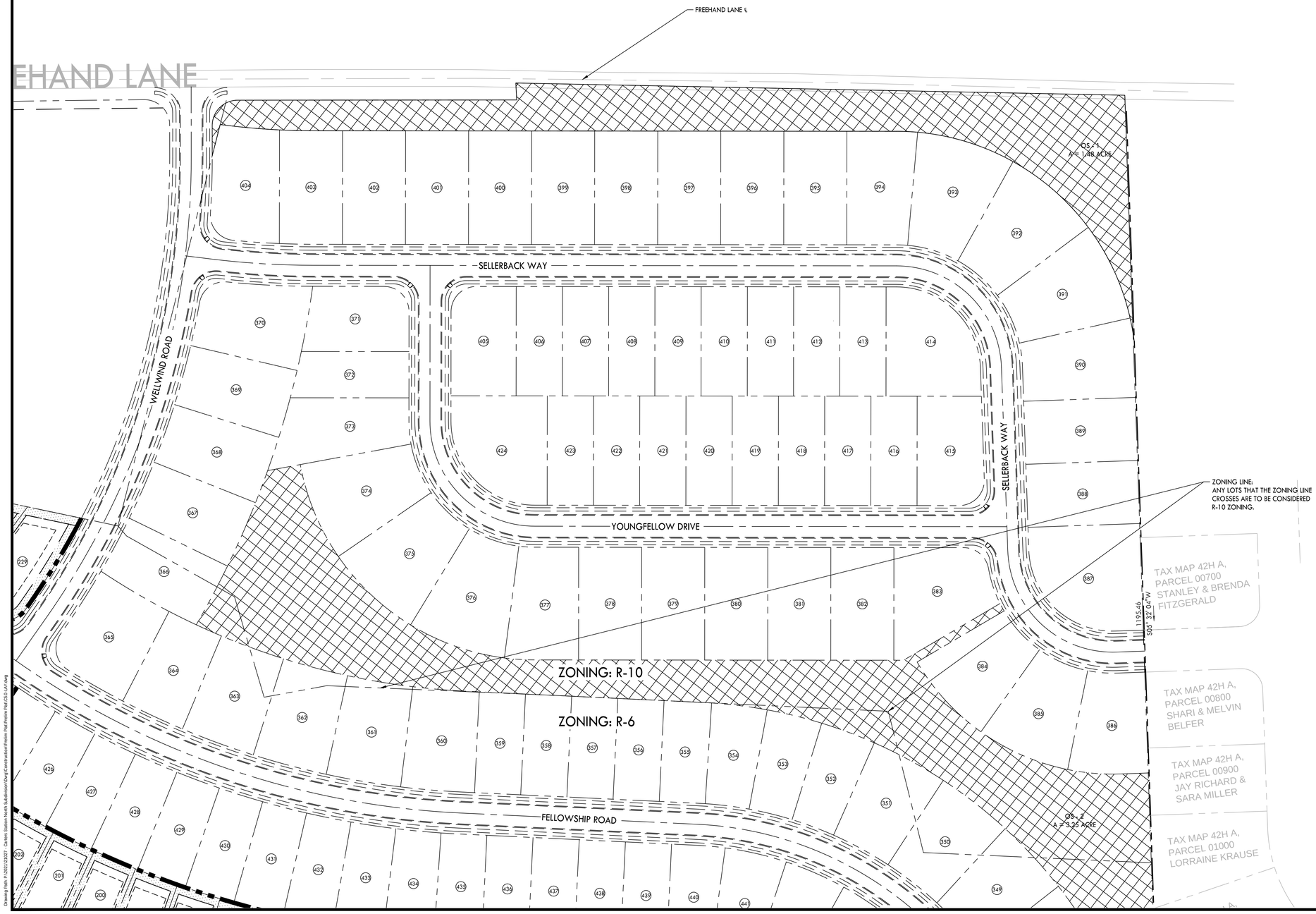
C1.7

TYPICAL LOT LAYOUT

Drawing Path: P:\2021\21027 - Carters Station North Subdivision\Dwg\Construction\Prelim Plat\Prelim Plat\C1.7 - LOT LAY.dwg

ZONING R-10 (CLUSTERED LOTS):

BASE ZONING:	R-10
MINIMUM LOT AREA:	5,000 SQ-FT
GROSS ACREAGE:	855,211 SQ-FT
RIGHT-OF-WAY/EASEMENT AREA:	139,462 SQ-FT
NET ACREAGE:	715,748 SQ-FT
PERMITTED NET DENSITY:	715,748/10,000 = 71.57 UNITS (4.36 UNITS/ACRE)
TOTAL LOTS ZONED R-10:	68 UNITS
REQUIRED OPEN SPACE:	SEE SHEET C1.0



ZONING R-10 LOTS:

Parcel Table	
Lot #	Area
349	10038
350	10038
351	10038
358	6600
359	6600
360	10058
361	10112
362	10112
363	10112
366	10003
367	10092
368	10092
369	10092
370	11490
371	9173
372	7391
373	10738
374	12205
375	12205
376	12205
377	10689
378	10050
379	10050
380	10050
381	10050
382	10050
383	12191
384	10577
385	10577
386	9859
387	14711
388	9964
389	9963
390	10957
391	12325

Parcel Table	
Lot #	Area
392	12325
393	12325
394	10571
395	10125
396	10125
397	10125
398	10125
399	10125
400	10125
401	10125
402	10125
403	10127
404	10615
405	9882
406	7150
407	7150
408	7150
409	7150
410	7150
411	7150
412	7150
413	7150
414	12484
415	10028
416	7150
417	7150
418	7150
419	7150
420	7150
421	7150
422	7150
423	7150
424	12747

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C1.8
CLUSTER LOT SITE LAYOUT PLAN

Drawing Path: P:\2021\21027 - Carters Station North Subdivision\Dwg\Construction\Prelim Plat\Prelim Plat C0.5-1.5A1.dwg

NOTES:

1. GRADING TO MATCH BUILDING TYPE AND ANY LOTS OVER 20% GRADE SHALL BE LABELED AS CRITICAL.
2. A GEOTECHNICAL INVESTIGATION WILL BE REQUIRED TO INVESTIGATE THE EXISTENCE OF SINKHOLES. ANY SINKHOLES DISCOVERED WILL BE REMEDIATED AS NECESSARY.

REFER TO SHEET C2.1 FOR DETAILED INFORMATION IN THIS AREA.

REFER TO SHEET C2.2 FOR DETAILED INFORMATION IN THIS AREA.

REFER TO SHEET C2.3 FOR DETAILED INFORMATION IN THIS AREA.

REFER TO SHEET C2.4 FOR DETAILED INFORMATION IN THIS AREA.

REFER TO SHEET C2.5 FOR DETAILED INFORMATION IN THIS AREA.

REFER TO SHEET C2.6 FOR DETAILED INFORMATION IN THIS AREA.

FREEHAND LANE

FUTURE COMMERCIAL DEVELOPMENT
A = 6.93 ACRE

FEMA FLOOD ZONE

OS - A
A = 1.48 ACRE

OS - B
A = 3.02 ACRE

OS - 1
A = 3.33 ACRE

OS - F
A = 0.89 ACRE

AMENITY CENTER

OS - C
A = 1.87 ACRE

OS - D
A = 0.43 ACRE

OS - 2
A = 2.30 ACRE

OS - E
A = 6.27 ACRE

CREEK FLOOD

S05° 32' 04"W

S05° 20' 54"W

S05° 21' 48"W

S05° 19' 03"W

N82° 38' 56"W

N22° 41' 15"E 395.35

N68° 24' 17"W

N68° 17' 43"W

N28° 10' 19"E

N29° 13' 24"E

N73° 51' 31"W 74.42

N80° 05' 06"W

N80° 08' 53"W

N18° 12' 40"E 443.22

N24° 30' 03"W 214.51

S16° 20' 58"W 108.78

S28° 08' 23"W 364.02

S28° 04' 09"W 531.30

S27° 18' 59"W 119.5

S16° 20' 58"W 39.54

S16° 20' 58"W 9.83

S16° 20' 58"W 66.36

S16° 20' 58"W 68.06

N68° 20' 20"W 622.23

0 50 100 150 300
GRAPHIC SCALE

N

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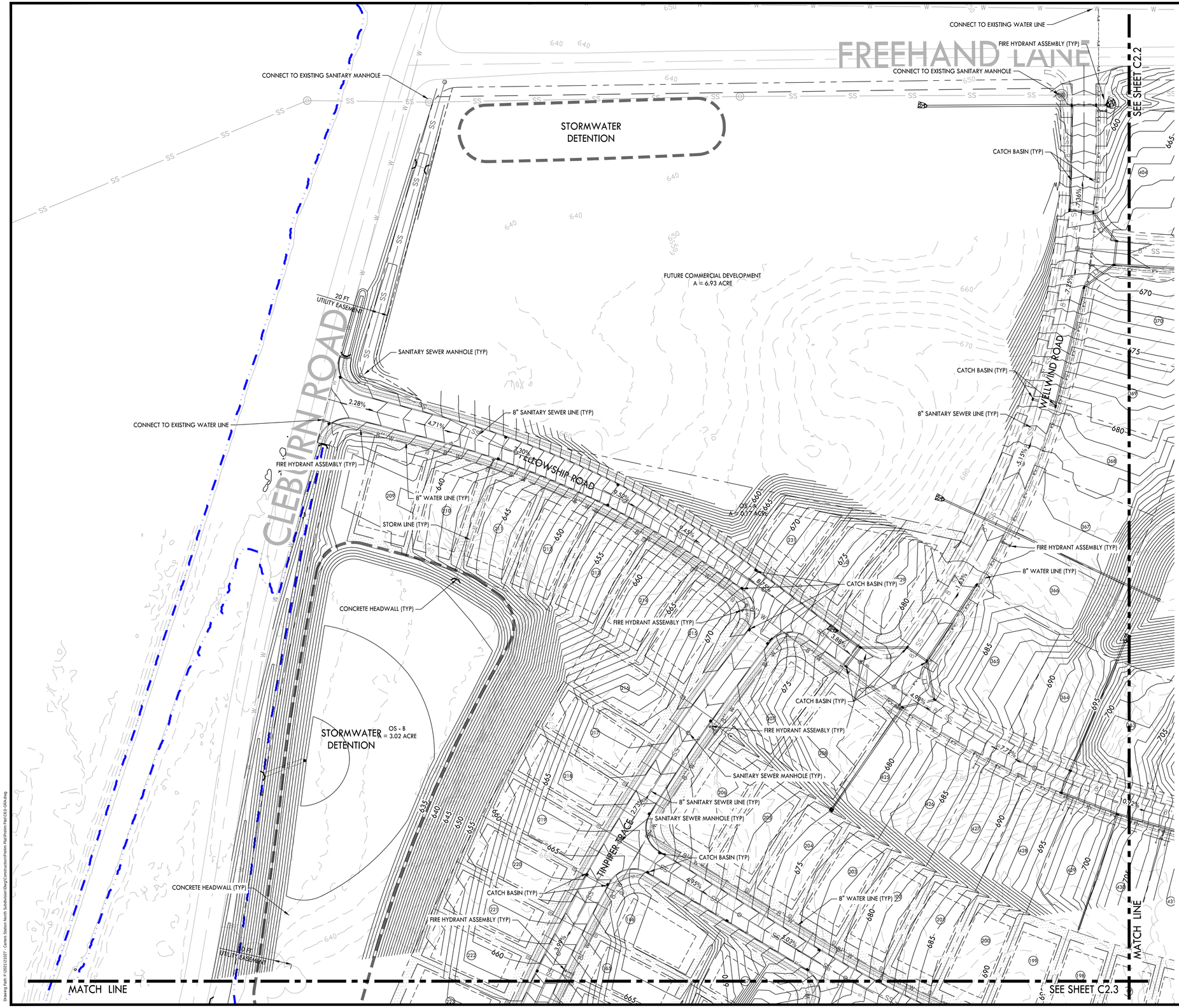
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C2.0
OVERALL GRADING, DRAINAGE, & UTILITY PLAN

Drawing Path: P:\2021\21027 - Carters Station North Subdivision\Dwg\Construction\Prelim Plat\Prelim Plat C2.0 -GRA.dwg



PROPOSED GRADING & DRAINAGE LEGEND

- PROPOSED CONTOUR
- STORM PIPE
- SINGLE CURB INLET
- SINGLE CATCH BASIN
- JUNCTION BOX

PROPOSED UTILITY LEGEND

- SANITARY SEWER LINE
- WATER LINE

0 10 20 30 40 50 100
GRAPHIC SCALE

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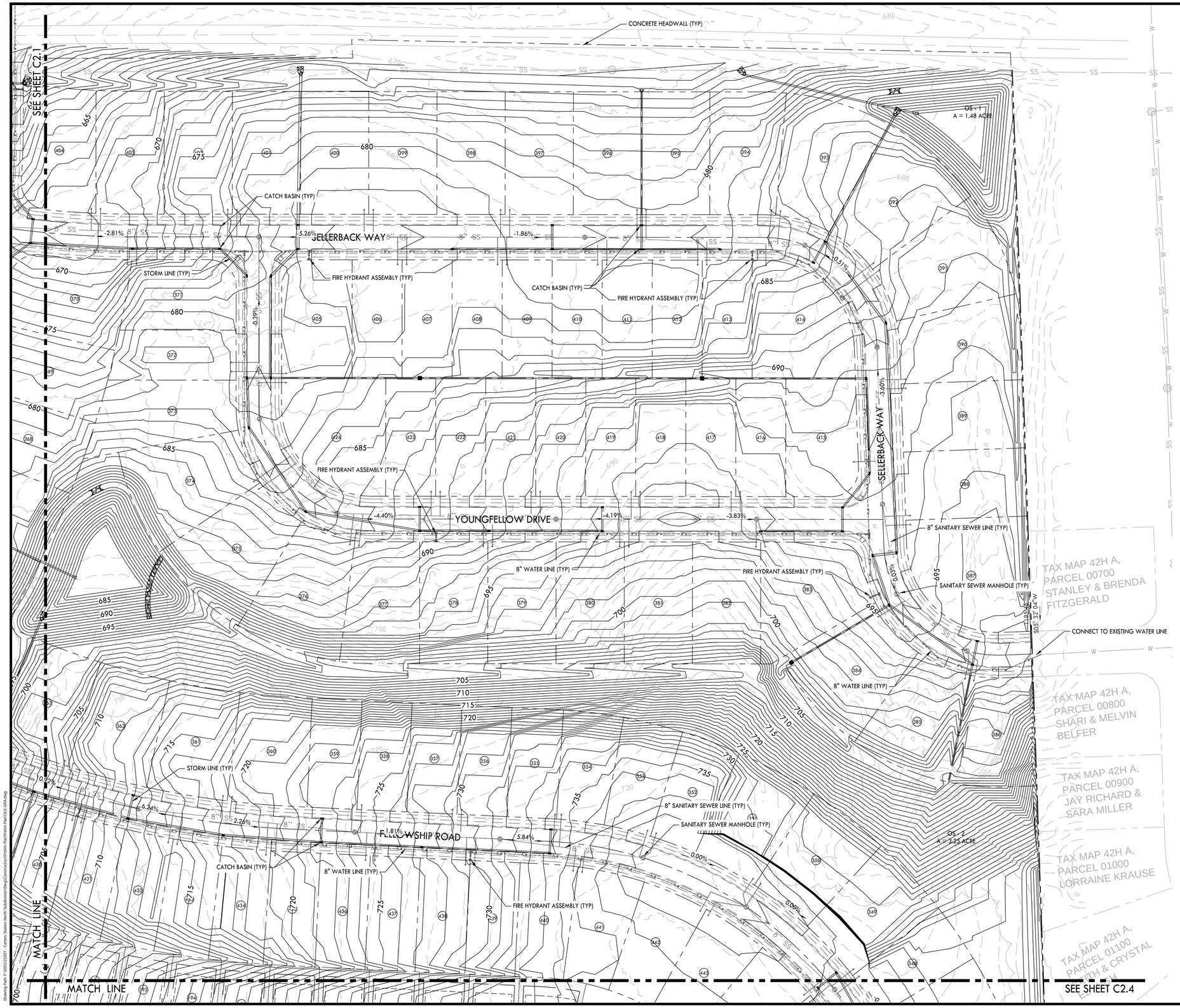
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C2.1
GRADING, DRAINAGE, & UTILITY PLAN

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PROPOSED GRADING & DRAINAGE LEGEND

- PROPOSED CONTOUR
- STORM PIPE
- SINGLE CURB INLET
- SINGLE CATCH BASIN
- JUNCTION BOX

PROPOSED UTILITY LEGEND

- SANITARY SEWER LINE
- WATER LINE

0 10 20 30 40 50 100
GRAPHIC SCALE

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C2.2
GRADING, DRAINAGE, & UTILITY PLAN

Drawing Path: P:\2021\21027 - Carters Station North Subdivision\Dwg\Construction\Prelim Plat\Prelim Plat C2.0 - GRA.dwg

MATCH LINE

SEE SHEET C2.1

SEE SHEET C2.4

FIRE HYDRANT ASSEMBLY (TYP)

CONNECT TO EXISTING WATER LINE

8" WATER LINE (TYP)

SANITARY SEWER MANHOLE (TYP)

COBBLER COURT

OS - F
A = 0.89 ACRE

KINDLER COURT

8" SANITARY SEWER LINE (TYP)

STONE CREEK PASS

STORM LINE (TYP)

OS - C
A = 1.87 ACRE

422.23'
S00° 40' 40"W

OS - G
A = 0.26 ACRE

8" SANITARY SEWER LINE (TYP)

CATCH BASIN (TYP)

JAMES ARTHUR MILLS
MAP 41 PARCEL 23.00
D.B. 411, PAGE 286, R.O.M.C.

OS - D
A = 0.43 ACRE

SEAPEPPER DRIVE

N23° 41' 15"E
29.62'

N75° 05' 57"W
N68° 24' 17"W

226.02'
N68° 17' 43"W

FELLOWSHIP ROAD

MAP 041 PARCEL 017.01
JUDSON & OLIVIA SMITH

MAP 041 PARCEL 017.06
KENNETH JOHNSON

MATCH LINE

SEE SHEET C2.5

PROPOSED GRADING & DRAINAGE LEGEND

- 55 — PROPOSED CONTOUR
- ST — STORM PIPE
- SINGLE CURB INLET
- SINGLE CATCH BASIN
- JUNCTION BOX

PROPOSED UTILITY LEGEND

- SS — SANITARY SEWER LINE
- W — WATER LINE

0 10 20 30 40 50 100
GRAPHIC SCALE

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C2.3
GRADING, DRAINAGE, & UTILITY PLAN

Drawing Path: P:\2021\21027 - Carters Station North Subdivision\Dwg\Construction\Preliminary Plat\Prelim Plat\C2.0_GRA.dwg

MATCH LINE

SEE SHEET C2.3

SEE SHEET C2.2

FIRE HYDRANT ASSEMBLY (TYP)

8" WATER LINE (TYP)

STORM LINE (TYP)

CATCH BASIN (TYP)

AMENITY CENTER

GOBBLER COURT

8" SANITARY SEWER LINE (TYP)

SANITARY SEWER MANHOLE (TYP)

STONE CREEK PASS

FELLOWSHIP ROAD

PIPPIN TRACE

TAX MAP 42H PARCEL 01.

CHENTE

US-2

PROPOSED GRADING & DRAINAGE LEGEND

- PROPOSED CONTOUR
- STORM PIPE
- SINGLE CURB INLET
- SINGLE CATCH BASIN
- JUNCTION BOX

PROPOSED UTILITY LEGEND

- SANITARY SEWER LINE
- WATER LINE

0 10 20 30 40 50 100
GRAPHIC SCALE

N

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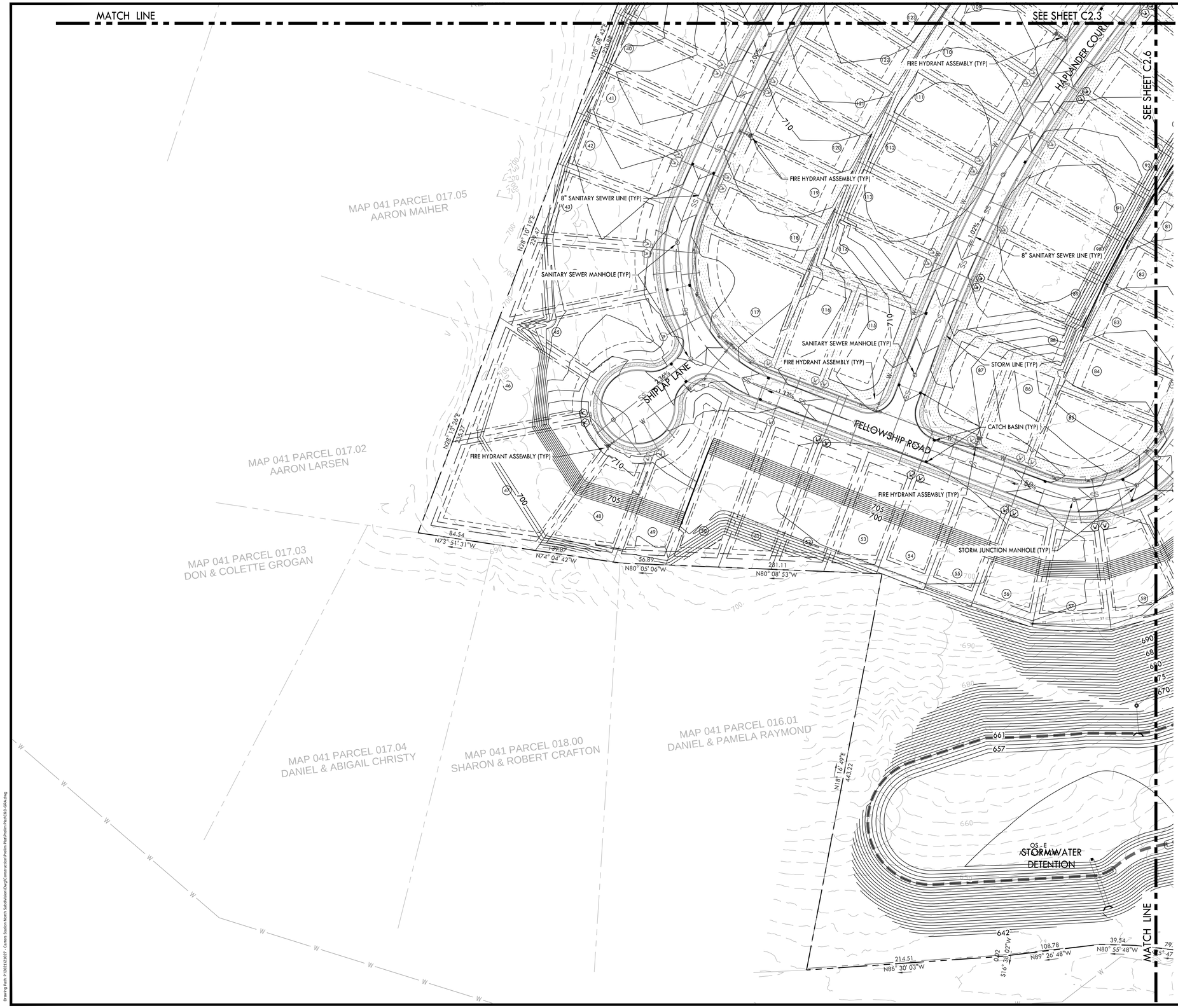
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C2.4
GRADING, DRAINAGE, & UTILITY PLAN

Drawing Path: P:\2021\21027 - Carters Station North Subdivision\Design\Construction\Prelim. Plat\Prelim Plat\C2.5 -GRA.dwg



PROPOSED GRADING & DRAINAGE LEGEND

- PROPOSED CONTOUR
- STORM PIPE
- SINGLE CURB INLET
- SINGLE CATCH BASIN
- JUNCTION BOX

PROPOSED UTILITY LEGEND

- SANITARY SEWER LINE
- WATER LINE

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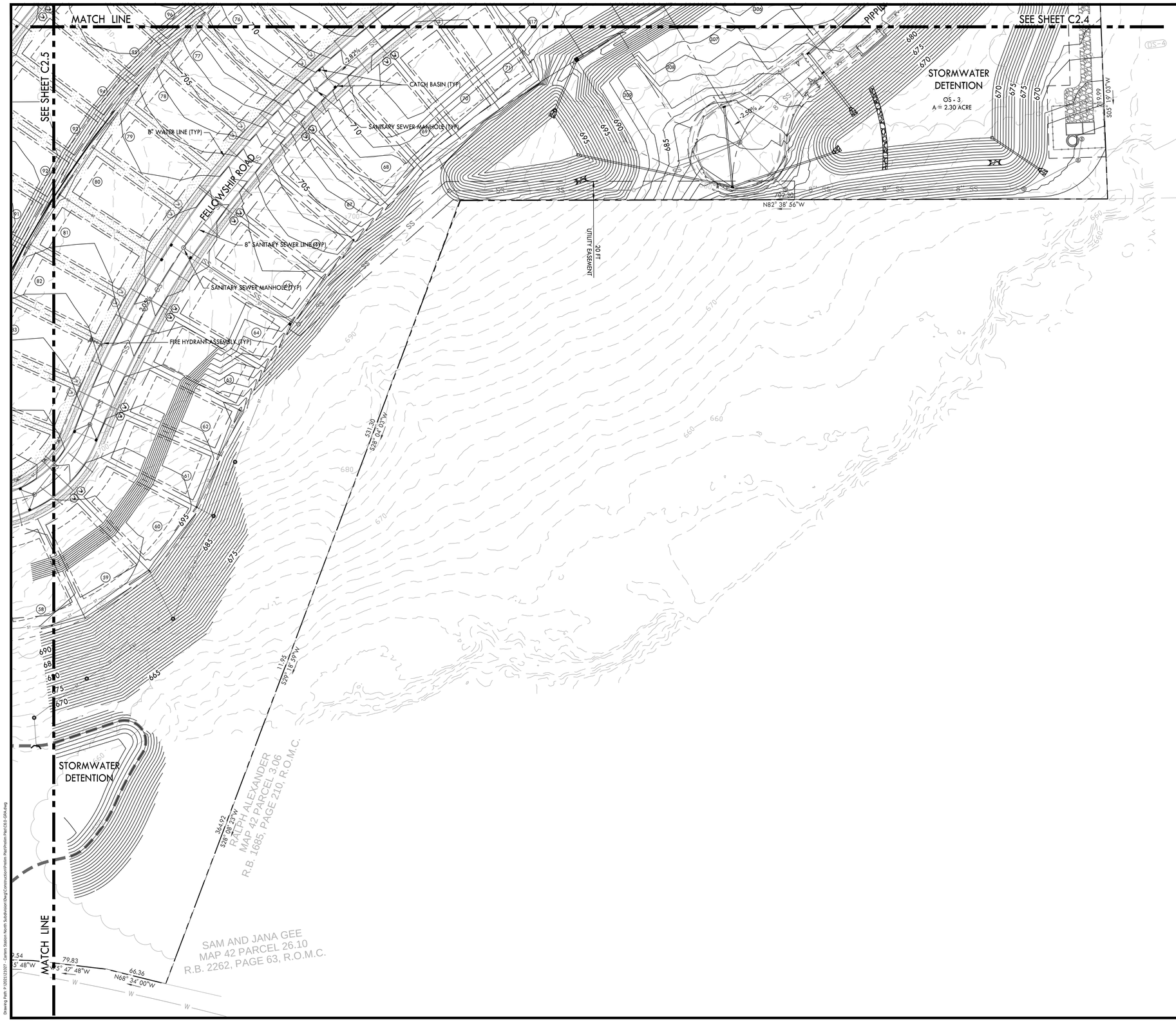
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C2.5
GRADING, DRAINAGE, & UTILITY PLAN

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PROPOSED GRADING & DRAINAGE LEGEND

- PROPOSED CONTOUR
- STORM PIPE
- SINGLE CURB INLET
- SINGLE CATCH BASIN
- JUNCTION BOX

PROPOSED UTILITY LEGEND

- SANITARY SEWER LINE
- WATER LINE

0 10 20 30 40 50 100
GRAPHIC SCALE

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C2.6
GRADING, DRAINAGE, & UTILITY PLAN

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0 50 100 150 300
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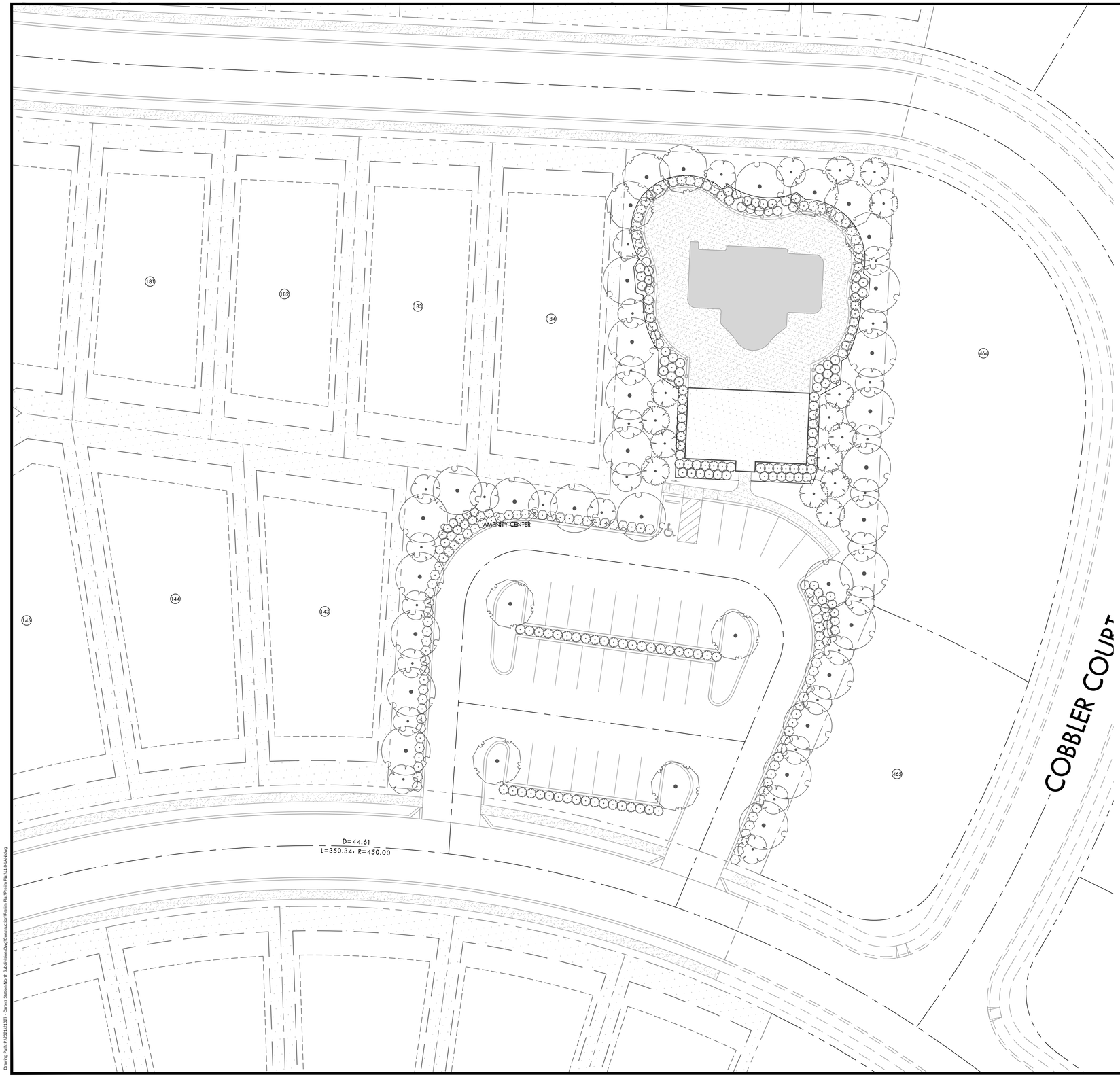
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L1.0
OVERALL
LANDSCAPE PLAN

Drawing Path: P:\2021\21027 - Carters Station North Subdivision\Dwg\Construction\Prelim Plat\Prelim Plat L1.0.LAN.dwg



PLANT SCHEDULE

SYMBOL	QTY	BOTANICAL / COMMON NAME	SIZE	CONTAINER
CANOPY TREES				
	26	Acer rubrum 'Frank Jr.' / Redpointe® Maple	2" Cal.	B&B
	10	Liriodendron tulipifera 'Little Volunteer' / Little Volunteer Tulip Poplar	2" Cal.	B&B
UNDERSTORY TREES				
	28	Cercis canadensis 'JN2' / The Rising Sun™ Eastern Redbud	1.5" Cal.	B&B
	14	Chionanthus retusus / Chinese Fringe Tree	1.5" Cal.	B&B
SHRUBS				
	41	Azalea x 'Conled' / Autumn Coral® Encore® Azalea	3 gal.	Pot
	51	Hydrangea paniculata 'Limelight' / Limelight Panicle Hydrangea	3 gal.	Pot
	83	Prunus laurocerasus 'Otto Luyken' / Otto Luyken English Laurel	3 gal.	Pot
	76	Taxus x media / Anglo-Japanese Yew	3 gal.	Pot
	27	Viburnum dentatum 'Arrowwood' / Arrowwood Viburnum	3 gal.	Pot

0 10 20 40
GRAPHIC SCALE

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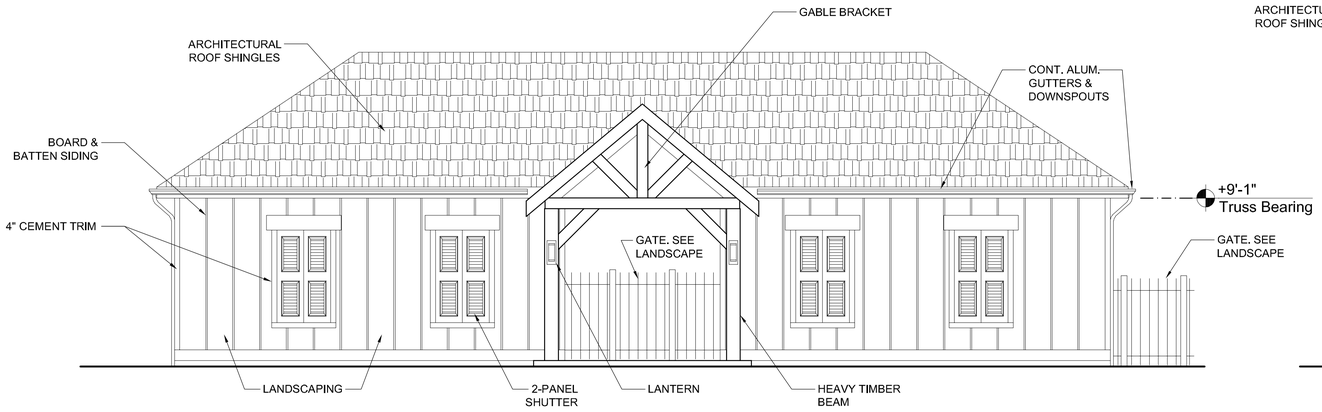
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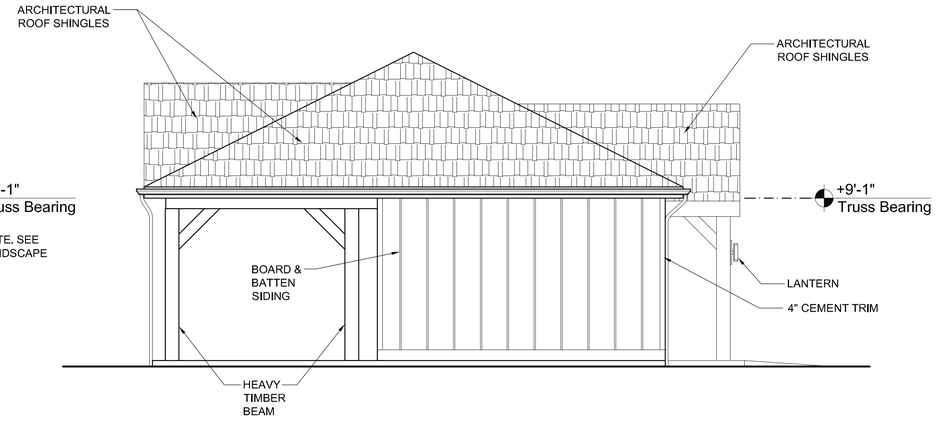
L1.1
DETAILED PLANTING PLAN

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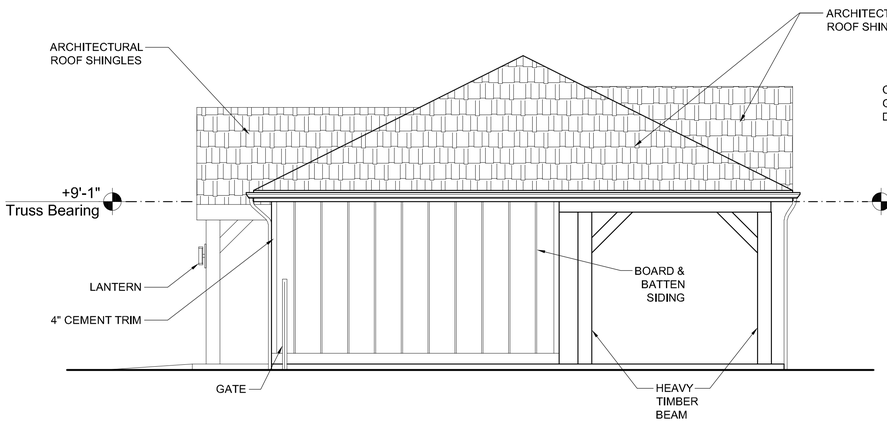
1. FRONT ELEVATION

SCALE: $\frac{1}{4}$" = 1'-0"



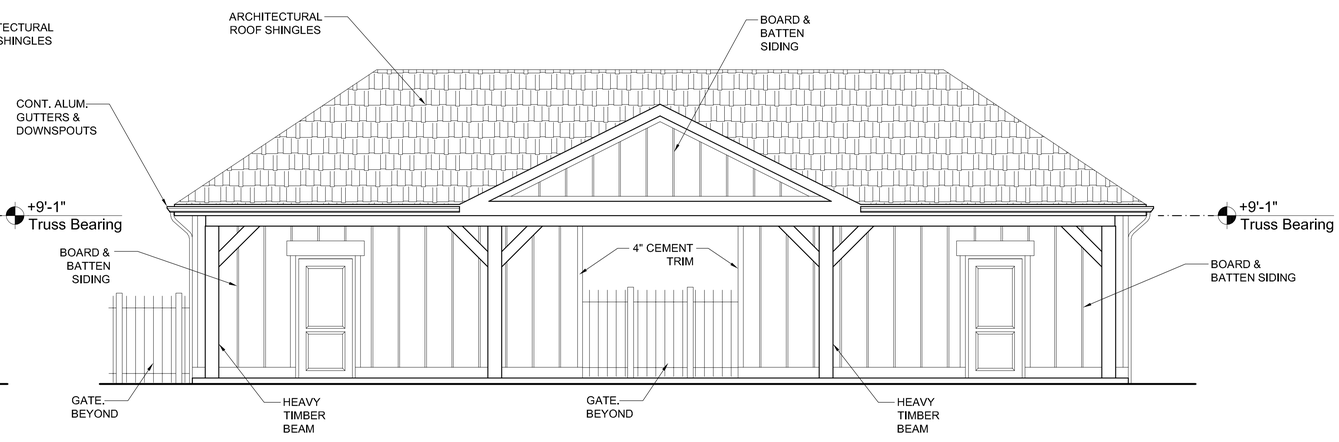
2. LEFT ELEVATION

SCALE: $\frac{1}{4}$" = 1'-0"



3. RIGHT ELEVATION

SCALE: $\frac{1}{4}$" = 1'-0"



4. REAR ELEVATION

SCALE: $\frac{1}{4}$" = 1'-0"

PRELIMINARY:
NOT FOR
CONSTRUCTION

Purser White
architecture + interior design
2819 Columbine Place, Suite 5
Nashville, TN 37204
629.202.4170

PULTEGROUP

Summit at Carter's Station Amenity Center

Hearth Hollow Rd.
Columbia, TN 38401

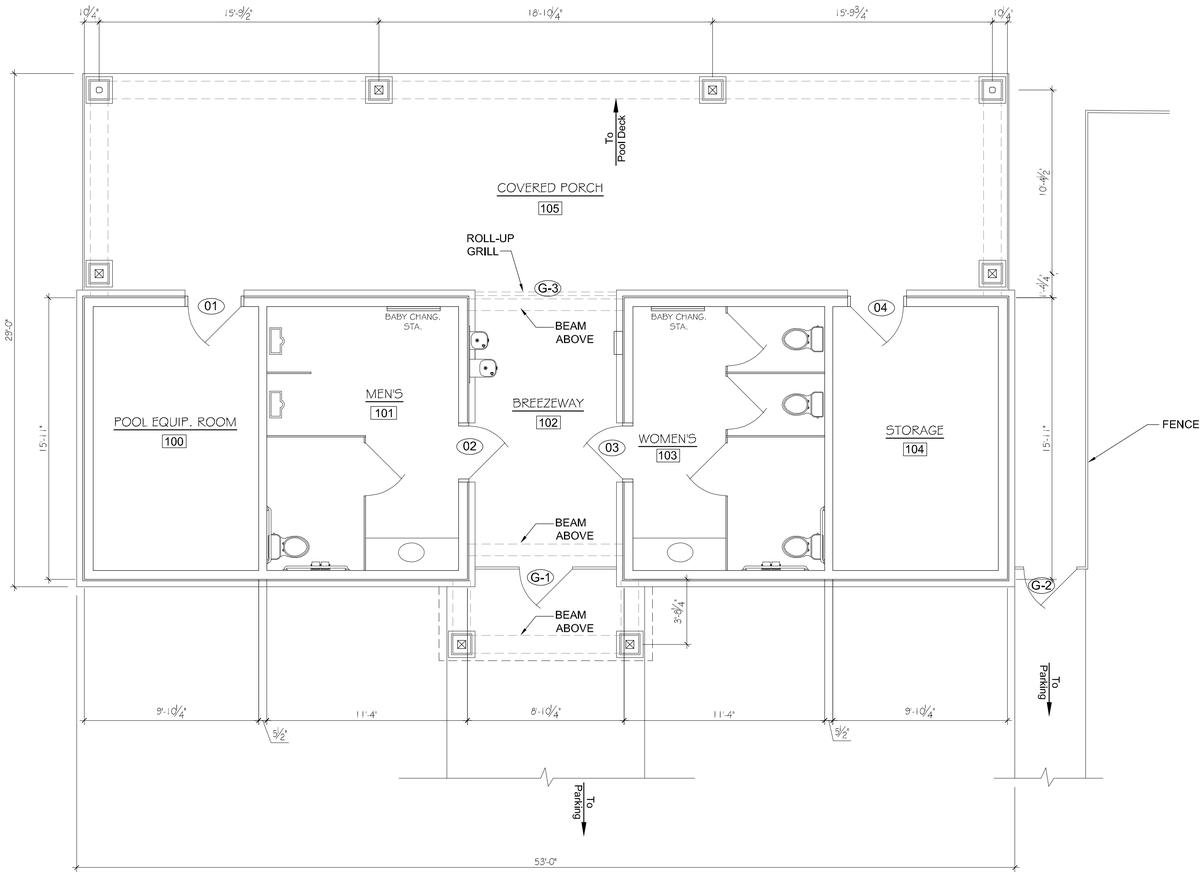
JOHN DAVID PURSER — REGISTERED ARCHITECT — STATE OF TENNESSEE — No. 107769 — 09/16/24

No.	Revision/Issue	Date

Project Number:
Drawn by: TVH
Checked by: DP
Issue: 09/16/2024
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Sheet Title & Number:

Exterior Elevations



FLOOR PLAN

SCALE: $\frac{1}{4}$" = 1'-0"

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NOT FOR
CONSTRUCTION

Purser White
architecture + interior design
2819 Columbine Place, Suite 5
Nashville, TN 37204
629.202.4170

PULTEGROUP

Summit at Carter's Station
Amenity Center
Hearth Hollow Rd.
Columbia, TN 38401

JOHN DAVID PURSER
REGISTERED ARCHITECT
ARCHITECTURE
No. 103769
STATE OF TENNESSEE
09/16/24

No.	Revision/Issue	Date

Project Number:
Drawn by: TVH
Checked by: DP
Issue: 09/16/2024
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Sheet Title & Number:
Floor Plan

September 16, 2024

City of Columbia
Land Disturbance Permit Review
700 N Garden Street
Columbia, TN 38401

RE: 3040 Cleburne Road – Preliminary Plat Plat

Below are our responses to comments received on September 10, 2024. We believe we have satisfied all comments, but if you have additional concerns or questions, please do not hesitate to contact us. Our responses are as follows:

COMMENTS:

Planning

1. The lead staff person for this case is Kevin McCarthy, AICP; he and Austin Brass, AICP will jointly prepare the staff report for this item. Please contact kmccarthy@columbiatn.com with questions about the development review process or technical comments. One or both planners should be copied on all communication with other city staff.
   Response: Noted.

2. Please provide an updated water availability letter.
   Response: A revised water availability letter has been included in this submittal.

3. Please provide a will serve letter from Columbia Wastewater Department.
   Response: A will serve letter is included in this submittal.

4. This is a request to modify a plan vested under the previous zoning ordinance. Please provide a narrative explanation of the changes for the Planning Commission's consideration. See section 1.24.6 of the current zoning ordinance. In the narrative explanation, please indicate how compatibility between the amenity center and adjacent homesites is to be addressed.
   Response: Sheet C1.0A has been added to the plan set to show a direct comparison and bulleted list explaining the modifications between this new submission and the previously approved preliminary plat. Also included with this submittal are HOA documents that annex the adjacent property owners into the HOA for use of the amenity center.

5. Please revised the submittal to demonstrate conformity with the parking area standards of Article 10 of the previous zoning ordinance (3638) including landscaping.
   Response: The current layout complies with Article 10 of the zoning ordinance. Additionally, a landscape plan has been submitted with this Preliminary Plat Revision that also conforms to Article 10 of the zoning ordinance.

6. Please revised the note on C1.1 to simply read "future right-of-way dedication".
   Response: This note on sheet C1.1 has been updated accordingly.

7. The planning commission will likely want to see more information about the design of the amenity center. Consider providing illustrative material and a description of the amenities offered.
   Response: More detailed documentation about the amenity center has been provided with this submittal including architect drawings and descriptions.

8. Please indicate the appropriate phasing of the three additional lots.
   Response: The numbering of these three lots has been corrected and are indicated on the plans to be part of Phase 3.

Engineering

9. Provide offsite grading agreement.
   Response: An agreement will be made for offsite grading on the adjacent commercial tract.

10. Check lot numbers between sheets. Site layout and grading sheets don't match.
    Response: Lot numbering has been corrected.

11. Please proved a description of all proposed changes from the approved preliminary plat and clearly define the limits of the proposed preliminary plat. Modify the language of the application/request and visuals to only affect the lots in question.
    Response: The language of the application has been revised to better describe the changes between this new submittal and the original approval. Sheet C1.0A has been added to the plan set to show a direct visual representation of the changes being made between the original approval and this new submission. A bulleted list of changes are also included for a narrative description of these changes.

12. Provide commercial lot owner signature on application.
    Response: Commercial lot owner signature has been include on the revised application.

13. Provide dedication of right-of-way along commercial lot frontage with to Phase 4 final plat, final plat for the 3 proposed lots adjoining commercial parcel, or prior to development of commercial parcel, whichever is first.
    Response: Noted.

14. The lot summarization table on the cover sheet incorrectly modifies the lot count of the RS-10 lots instead of the RS-6 lots.
    Response: The lot summarization table has been corrected.

Fire

15. You will need to get a new water availability letter.
    Response: A new water availability letter and fire flow availability letter has been included in this submittal.

Maury County Schools

1. Spring hill Elementary, Spring Hill Middle School, Spring Hill High School.
   See Attached Capacity Numbers. The development combined with current neighborhoods and additional approved developments in these zones may require either new construction or realignment of school zones to accommodate new students.

   Response: Noted.

Columbia Water

1. Given the change in use by adding an amenity area a revised/updated Fire Flow Requirements Letter and Water Availability Letter is required.

   Response: Both updated letters for fire flow and water availability have been included.

Columbia Power

1. 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.

   Response: Noted.

We believe that all comments have been addressed. If you have any questions or need additional information, please do not hesitate to contact me at adam@crunkeng.com or 615-873-1795.

Sincerely,



Adam Crunk, PE
Crunk Engineering LLC

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, September 10, 2024

ITEM NO.
24-0377

DESCRIPTION: 3040 Cleburne Rd

COMMENTS:

Planning

1. The lead staff person for this case is Kevin McCarthy, AICP; he and Austin Brass, AICP will jointly prepare the staff report for this item. Please contact kmccarthy@columbiatn.com with questions about the development review process or technical comments. One or both of the planners should be copied on all communication with other city staff.
2. Please provide an updated water availability letter.
3. Please provide a will serve letter from the Columbia Wastewater Department.
4. This is a request to modify a plan vested under the previous zoning ordinance. Please provide a narrative explanation of the changes for the Planning Commission's consideration. See section 1.24.7 of the current zoning ordinance. In the narrative explanation, please indicate how compatibility between the amenity center and adjacent homesites is to be addressed.
5. Please revise the submittal to demonstrate conformity with the parking area standards of Article 10 of the previous zoning ordinance (3638) including landscaping.
6. Please revise the note on C1.1 to simply read "future right-of-way dedication" and remove the "..owner to submit future right-of-way dedication when owners submit for site plan review and approval. Land is not owned by current developer of Summit West."
7. The planning commission will likely want to see more information about the design of the amenity center. Consider providing illustrative material and a description of the amenities offered.
8. Please indicate the appropriate phasing of lots 767-769 and OS-A.

Engineering

9. Provide offsite grading agreement.
10. Check lot numbers between sheets. Site layout and grading sheets don't match
    Note: Offsite road improvement at Carter's Creek Sta Rd and Old 31 shall be completed prior to Phase 3 final plat.

DEVELOPMENT SERVICES
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PHONE: (931) 560-1560
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11. Please provide a description of all proposed changes from approved preliminary plat and clearly define the limits of the proposed preliminary plat. Modify the language of the application/request and visuals to only affect the lots in question.
12. Provide commercial lot owner signature on application.
13. Provide dedication of right-of-way along commercial lot frontage with to Phase 4 final plat, final plat for the 3 proposed lots adjoining commercial parcel, or prior to development of commercial parcel, whichever is first.
14. The lot summarization table on the cover sheet incorrectly modifies the lot count of the RS-10 lots instead of the RS-6 lots.

Fire

15. You will need to get a new water availability letter. The old one covers only residential structures.

Maury County Schools

16. Spring Hill Elementary, Spring Hill Middle School, Spring Hill High School.
    See Attached Capacity Numbers. The development combined with current neighborhoods and additional approved developments in these zones may require either new construction or realignment of school zones to accommodate new students.

Columbia Water

17. Given the change in use by adding an amenity area a revised/updated Fire Flow Requirements Letter and Water Availability Letter is required.

Columbia Power

18. 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.

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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 kmccarthy@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.

CPWS

September 12, 2024

Mr. Patrick Carroll
Crunk Engineering, LLC
7112 Crossroads Blvd, Suite 201
Brentwood, TN 37027
Sent via email: patrick@crunkeng.com

RE: Fireflow Letter
Summit Amenity Center
Columbia, Maury County, TN

Dear Mr. Carroll:

CPWS has evaluated the projected water demands for the proposed development in the water system hydraulic model and is able to meet a fire-flow capacity of 1,500 gpm at 20 psi while maintaining the existing level of service and pressures in this portion of the distribution system. CPWS can provide water for the proposed development according to the following requirements:

- The existing hydrant on Cobbler Ct, installed as part of Phase 2 and Northwest of the proposed location of the amenity center, meets the required fireflow.

If you have any questions, please feel free to contact me at 423-774-0349 or eric.king@inflodesign.com. This letter is valid for one-hundred twenty (120) days from the date of this letter.

Sincerely,

Eric King, P.E.
Inflo Design Group, LLC
on behalf of Columbia Power and Water Systems

cc: Jonathan Hardin, CPWS
File 23-037

CITY OF COLUMBIA
TENNESSEE

WASTEWATER DEPARTMENT

16 September 2024

Patrick Carroll
7112 Crossroads Blvd
Brentwood, TN 37027

RE: Summit at Carter's Station North; 3040 Cleburne Road, Columbia, TN 38401; 041 015.05

Patrick,

This letter serves as confirmation that the City of Columbia Wastewater Department has the available capacity to service the above-referenced 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. 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

REFER TO SHEET C1.8 FOR DETAILED INFORMATION ON ZONING R-10 CLUSTERED LOT

REFER TO SHEET C1.1 FOR DETAILED INFORMATION IN THIS AREA.

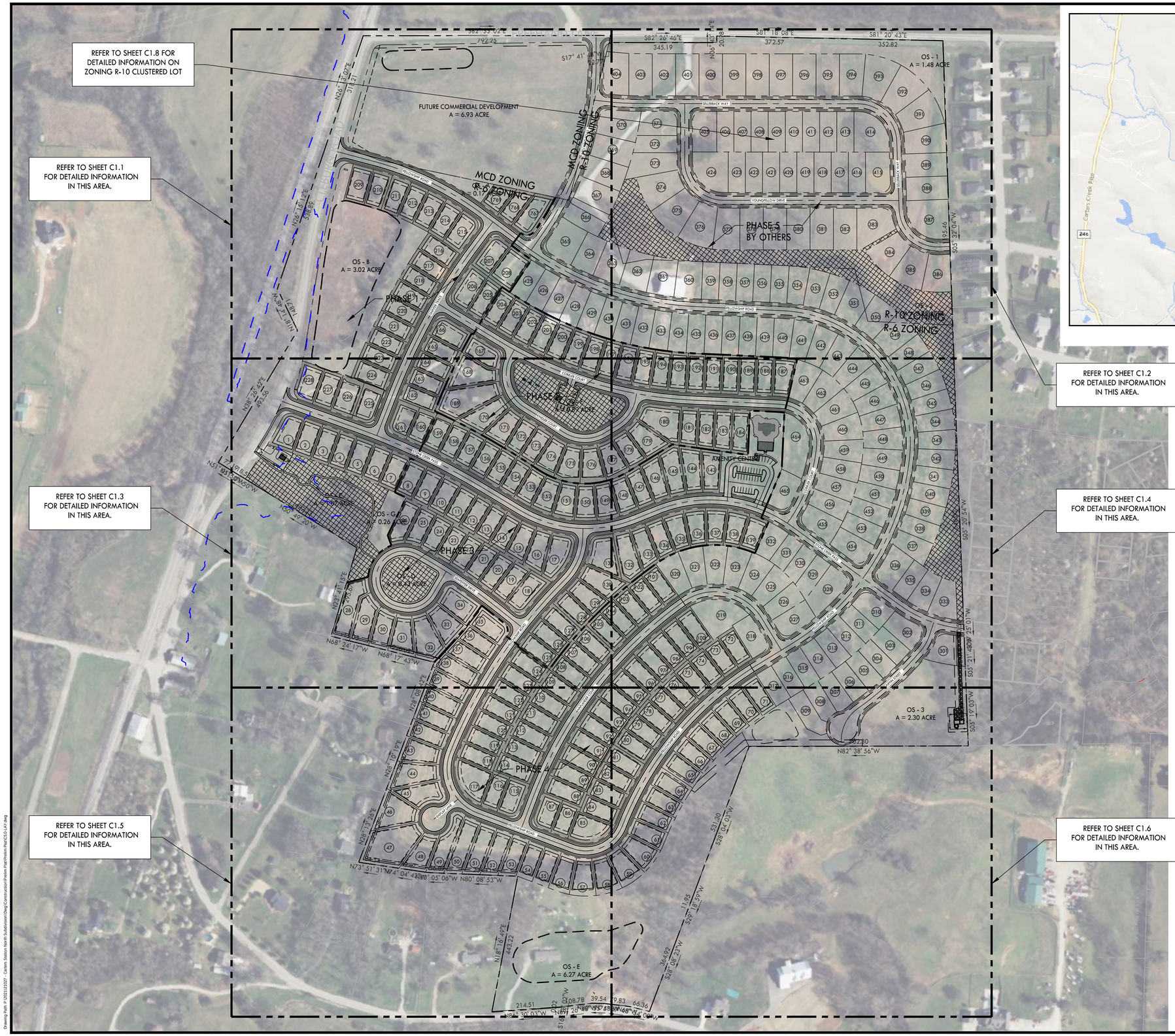
REFER TO SHEET C1.3 FOR DETAILED INFORMATION IN THIS AREA.

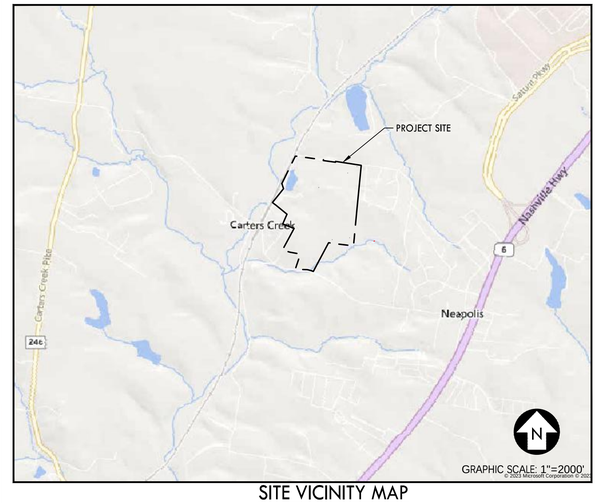
REFER TO SHEET C1.5 FOR DETAILED INFORMATION IN THIS AREA.

REFER TO SHEET C1.2 FOR DETAILED INFORMATION IN THIS AREA.

REFER TO SHEET C1.4 FOR DETAILED INFORMATION IN THIS AREA.

REFER TO SHEET C1.6 FOR DETAILED INFORMATION IN THIS AREA.





SITE VICINITY MAP

FLOOD HAZARD NOTE:

1. THE SUBJECT PROPERTY DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD ZONE ACCORDING TO PANEL No. 47119C0180E OF THE F.E.M.A. FLOOD INSURANCE RATE MAPS FOR MAURY COUNTY, TENNESSEE, DATED 4/16/2007

SITE DATA TABLE

PROJECT: CARTERS STATION NORTH
ADDRESS: 3040 CLEBURNE ROAD
PARCEL ID: 060041 0 1500
SITE ACREAGE: 113.55 ACRES
IMPERVIOUS AREA: 234,050 SF

EXISTING ZONING: MCD & R-6 & R-10
PROPOSED ZONING: MCD & R-6 & R-10

ZONING DISTRICT:	R-6	R-10	MCO
AREA:	91.72 AC	19.64 AC	0.48 AC
PROPOSED LOTS:	399	68	N/A
BUILDING HEIGHT:	35 FT	35 FT	N/A
MIN. LOT SIZE:	6,000 SF	5,000 SF	N/A
MIN. LOT WIDTH:	50 FT	50 FT	N/A
FRONT YARD:	20 FT	30 FT	N/A
SIDE SETBACK:	15 FT TOTAL	15 FT TOTAL	N/A
REAR SETBACK:	20 FT	30 FT	N/A
OPEN SPACE REQ'D:	10% OF TOTAL 9.17 AC.	7% OF TOTAL 1.37 AC	N/A
TOTAL FOR DEVELOPMENT:	10.55 AC[1]	10.55 AC[1]	N/A
OPEN SPACE PROVIDED:	19.94 AC (17.9%)[1]	19.94 AC (17.9%)[1,2]	N/A
USABLE OPEN SPACE REQ'D:	33% OF REQUIRED	33% OF REQUIRED	N/A
USABLE OPEN SPACE PROVIDED:	6.86 (65.0%)	6.86 (65.0%)	N/A

PROJECT PHASING:
PHASE I: 41 LOTS
PHASE II: 36 LOTS
PHASE III: 58 LOTS
PHASE IV: 90 LOTS

1 - SINCE THE SITE IS CONSIDERED 1 NEIGHBORHOOD, THE REQUIRED OPEN SPACE FOR BOTH ZONINGS IS COMBINED.
2 - ADDITIONAL OPEN SPACE IS REQUIRED FOR ZONING R-10 CLUSTER LOTS

R-10 REQUIRED OPEN SPACE CALCULATIONS FOR CLUSTERED LOTS:

REQUIREMENT: REQUIRED OPEN SPACE EQUAL TO THE REDUCTION IN AGGREGATE LOT AREA IF THE PROJECT WERE DEVELOPED UNDER CONVENTIONAL DEVELOPMENT STANDARDS.

TOTAL LOTS ZONED R-10, LESS THAN 10,000 SQ-FT:		24 LOTS
TOTAL AREA OF LOTS ZONED, R-10 LESS THAN 10,000 SQ-FT:		4.22 AC
TOTAL AREA OF LOTS, IF DEVELOPED UNDER CONVENTIONAL STANDARDS:		5.51 AC
REQUIRED OPEN SPACE:		1.29 AC
TOTAL REQUIRED OPEN SPACE:	1.29 + 10.55 AC =	[3]11.84 AC
TOTAL REQUIRED USABLE OPEN SPACE:		3.86 AC

3 - THE REQUIRED AND PROVIDED OPEN SPACE MUST BE PROVIDED IN ADDITION TO THE REQUIRED OPEN SPACE CALCULATED FOR THE TOTAL DEVELOPMENT.

NOTES:
1. REFER TO SHEET C1.7 FOR PARCEL AREA TABLES.
2. REFER TO SHEET C1.7 FOR TYPICAL LOT LAYOUT.

USABLE OPEN SPACE

0 50 100 150 300
GRAPHIC SCALE

CRUNK ENGINEERING LLC
7112 CROSSROADS BOULEVARD
SUITE 201
BRENTWOOD, TN 37027
(615) 873-1795
WWW.CRUNKENG.COM

ENGINEERING CRUNK

WILSON TENNESSEE LICENSED PROFESSIONAL ENGINEER AGRICULTURE 7/15/24 CERTIFICATE No. 114180 STATE OF TENNESSEE

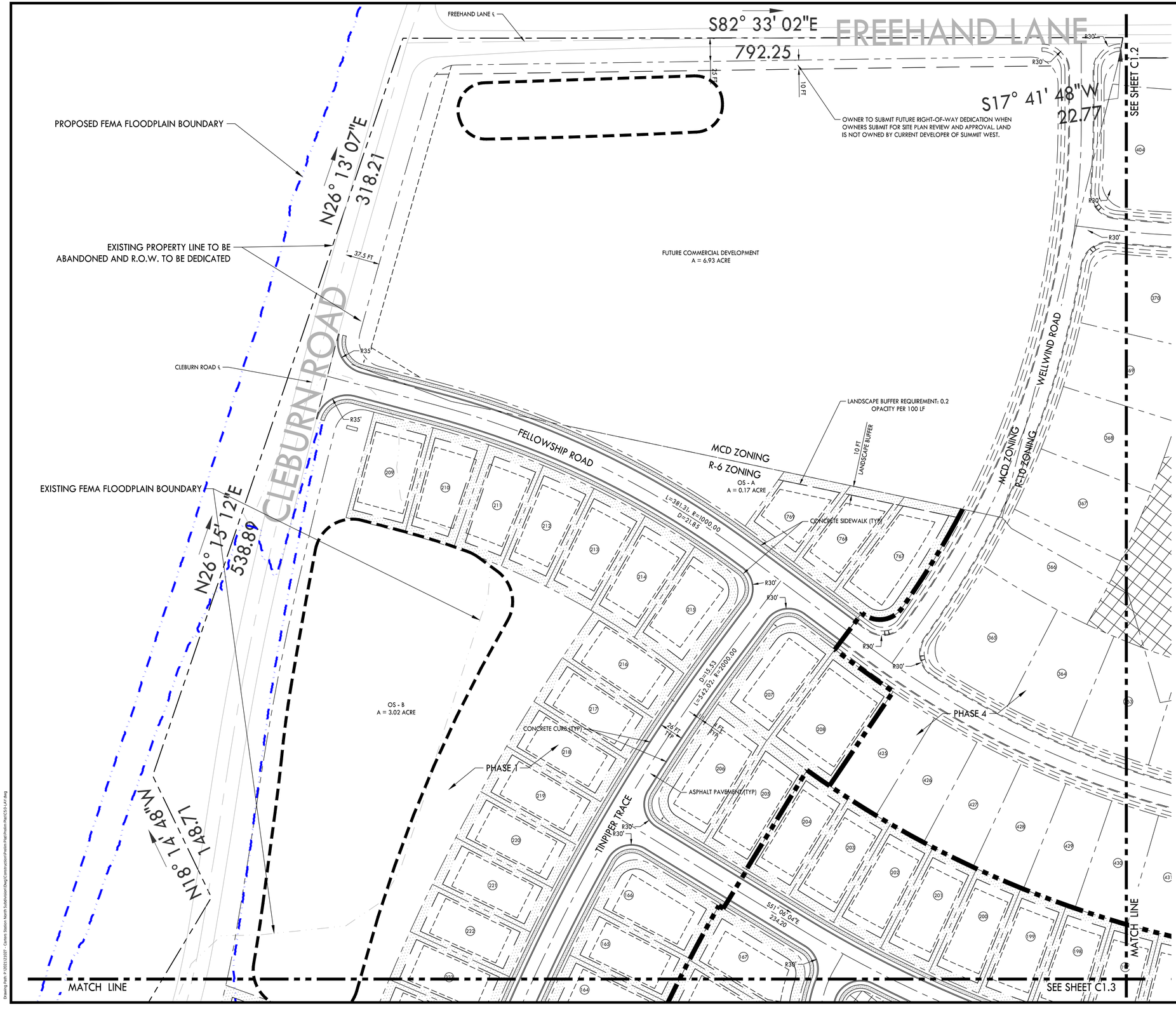
CARTERS STATION NORTH
PRELIMINARY PLAT
CARTERS CREEK STATION ROAD
MAURY COUNTY, TENNESSEE

REVISIONS		
No.	DATE	

07/15/24 21027

C1.0
PRELIMINARY PLAT

Drawing Path: P:\2021\21027 - Carters Station North Subdivision\Dwg\Construction\Prelim Plat\Prelim Plat\C1.0-LAY.dwg



NOTES:
1. REFER TO SHEET C1.7 FOR PARCEL AREA TABLES.
2. REFER TO SHEET C1.7 FOR TYPICAL LOT LAYOUT.

PROPOSED LAYOUT LEGEND

- PROPOSED BUILDING
- HEAVY DUTY ASPHALT PAVEMENT
- LIGHT DUTY ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- CONCRETE SIDEWALK
- PROPERTY LINE
- EDGE OF NEW PAVEMENT

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ANDREW WILSON KLINK — REGISTERED ENGINEER — AGRICULTURE — 7/15/24 — COMMERCE — STATE OF TENNESSEE

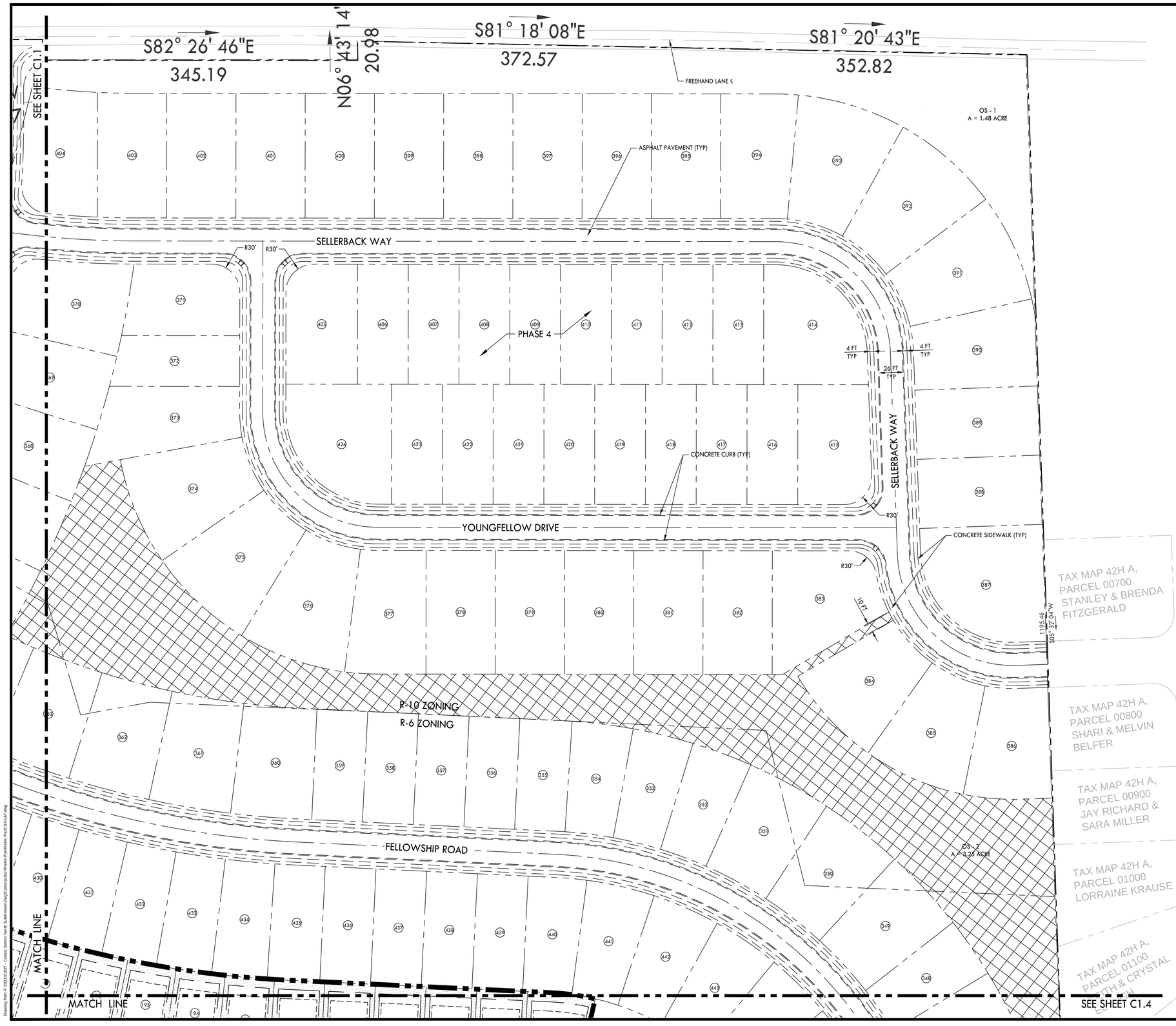
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PRELIMINARY PLAT
CARTERS CREEK STATION ROAD
MAURY COUNTY, TENNESSEE

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C1.1
SITE LAYOUT PLAN

Drawing Path: P:\2021\21027 - Carters Station North Subdivision\Dwg\Construction\Prelim Plat\Prelim Plat\C1.0-LAY.dwg



NOTES:
1. REFER TO SHEET C1.7 FOR PARCEL AREA TABLES.
2. REFER TO SHEET C1.7 FOR TYPICAL LOT LAYOUT.

PROPOSED LAYOUT LEGEND

- PROPOSED BUILDING
- HEAVY DUTY ASPHALT PAVEMENT
- LIGHT DUTY ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- CONCRETE SIDEWALK
- PROPERTY LINE
- EDGE OF NEW PAVEMENT

0 10 20 30 40 50 100
GRAPHIC SCALE

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WWW.CRUNKENG.COM

ENGINEERING CRUNK

WILSON DAVID FRANK
REGISTERED ENGINEER
AGRICULTURE
7/15/24
NO. 114189
STATE OF TENNESSEE

CARTERS STATION NORTH
PRELIMINARY PLAT
CARTERS CREEK STATION ROAD
MAURY COUNTY, TENNESSEE

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C1.2
SITE LAYOUT PLAN

Drawing Path: P:\2021\21027 - Carters Station North Subdivision\Dwgs\Construction\Preliminary Plat\Preliminary Plat\C1.2-LAY.dwg

MATCH LINE

SEE SHEET C1.1

SEE SHEET C1.4

CLEBURN ROAD

N38° 26' 42"E 493.56

N35° 30' 50"W 77.19

18.58

EXISTING PROPERTY LINE TO BE ABANDONED AND R.O.W. TO BE DEDICATED

JAMES ARTHUR MILLS
MAP 41 PARCEL 23.00
D.B. 411, PAGE 286, R.O.M.C.

MAP 041 PARCEL 017.01
JUDSON & OLIVIA SMITH

MAP 041 PARCEL 017.06
KENNETH JOHNSON

35 FT

R35'

R35'

55 FT

LIFT STATION

PHASE 1

PHASE 2

PHASE 3

PHASE 4

STONE CREEK PASS

KINDLER COURT

COBBLER COURT

SEAPEPPER DRIVE

FELLOWSHIP ROAD

26 FT TYP

4 FT TYP

R30'

CONCRETE CURB (TYP)

CONCRETE SIDEWALK (TYP)

ASPHALT PAVEMENT (TYP)

D=11.41
L=438.15, R=2200.00

D=52.98
L=383.75, R=415.00

L=306.24, R=320.00
D=194.78

L=310.66, R=1910.00
D=9.32

L=152.29, R=200.00
D=43.63

L=464.85, R=1630.00
D=23.89

OS - C
A = 1.87 ACRE

OS - G
A = 0.26 ACRE

OS - D
A = 0.43 ACRE

OS - E
A = 0.89 ACRE

N30° 22' 03"W 22.03

N23° 41' 15"E 25.87

115.03
N68° 24' 17"W

226.02
N68° 17' 43"W

EXCEPTION:
LANDSCAPE BUFFER TO BE 15 FT
EXCEPT ALONG THE WEST PROPERTY
LINE OF LOT 28

9 FT LANDSCAPE BUFFER

15 FT LANDSCAPE BUFFER

LANDSCAPE BUFFER REQUIREMENT: 0.4 OPACITY PER 100 LF

NOTES:
1. REFER TO SHEET C1.7 FOR PARCEL AREA TABLES.
2. REFER TO SHEET C1.7 FOR TYPICAL LOT LAYOUT.

PROPOSED LAYOUT LEGEND

- PROPOSED BUILDING
- HEAVY DUTY ASPHALT PAVEMENT
- LIGHT DUTY ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- CONCRETE SIDEWALK
- PROPERTY LINE
- EDGE OF NEW PAVEMENT

0 10 20 30 40 50 100
GRAPHIC SCALE

MATCH LINE

SEE SHEET C1.5

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WILSON TENNESSEE AGRICULTURE 7/15/24 STATE OF TENNESSEE

CARTERS STATION NORTH
PRELIMINARY PLAT
CARTERS CREEK STATION ROAD
MAURY COUNTY, TENNESSEE

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C1.3
SITE LAYOUT PLAN

Drawing Path: P:\2021\21027 - Carters Station North Subdivision\Dwgs\Construction\Prelim Plat\Prelim Plat\C1C5-LAY.dwg

MATCH LINE

SEE SHEET C1.2

SEE SHEET C1.3

PHASE 2

PHASE 3

PHASE 4

PHASE 4

AMENITY CENTER

COBBLER COURT

STONE CREEK PASS

FELLOWSHIP ROAD

PIPPIN STREET

D=28.67
L=650.59, R=1300.00

R30'

L=104.61, R=135.00
D=47.95

D=44.61
L=350.34, R=450.00

D=52.98
L=383.75, R=415.00

4 FT. TYP

CONCRETE CURB (TYP)

CONCRETE SIDEWALK (TYP)

ASPHALT PAVEMENT (TYP)

L=799.20, R=1350.00
D=33.92

S05° 20' 54"W
146.00

S05° 25' 01"W
50.51

S05° 21' 48"W
131.10

TAX MAP 42H
PARCEL 01
CHENTE

NOTES:
1. REFER TO SHEET C1.7 FOR PARCEL AREA TABLES.
2. REFER TO SHEET C1.7 FOR TYPICAL LOT LAYOUT.

PROPOSED LAYOUT LEGEND

- PROPOSED BUILDING
- HEAVY DUTY ASPHALT PAVEMENT
- LIGHT DUTY ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- CONCRETE SIDEWALK
- PROPERTY LINE
- EDGE OF NEW PAVEMENT

0 10 20 30 40 50 100
GRAPHIC SCALE

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AGRICULTURE
7/15/24
COMMERCE
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STATE OF TENNESSEE

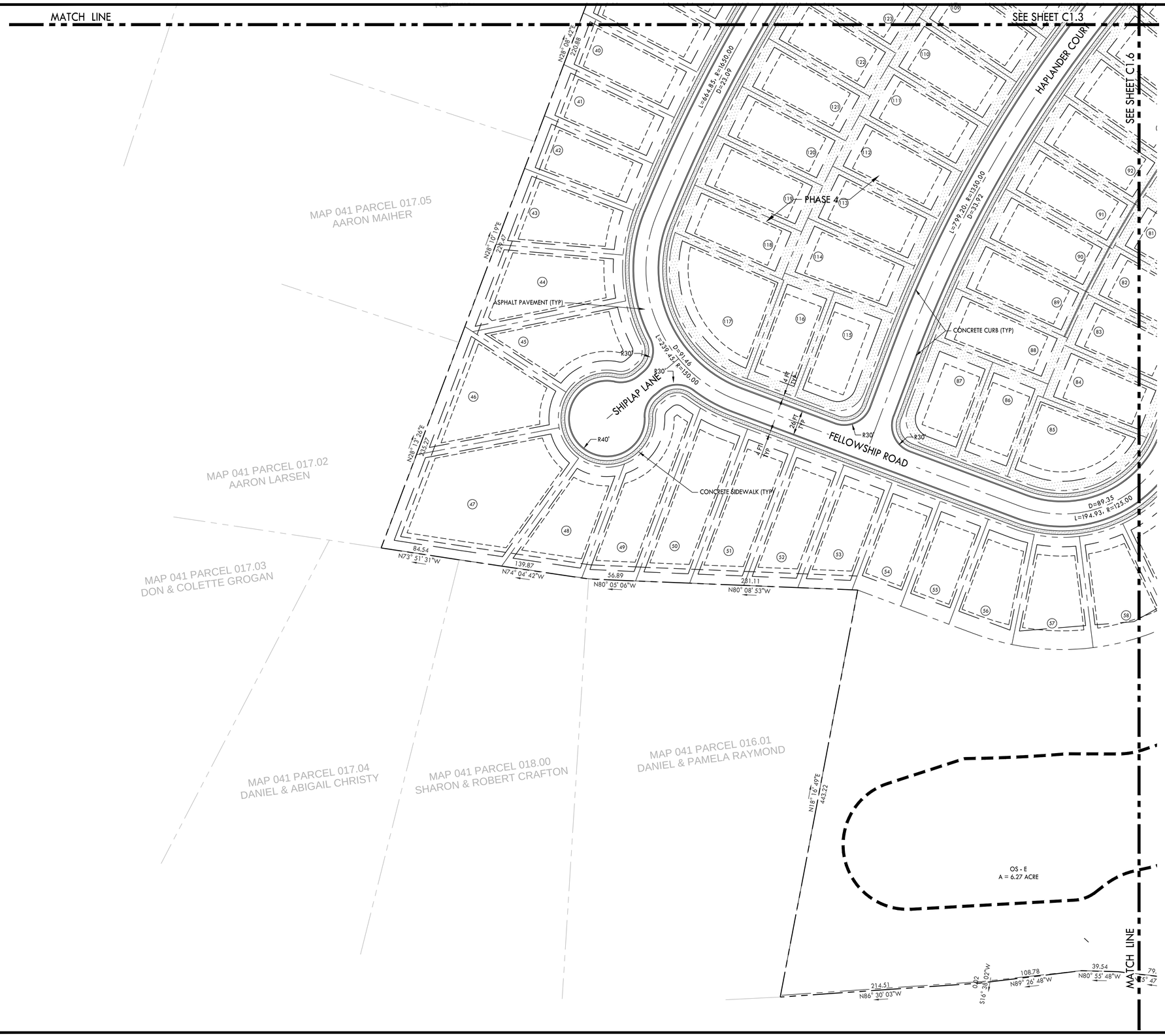
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CARTERS CREEK STATION ROAD
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REVISIONS	
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07/15/24 21027

C1.4
SITE LAYOUT PLAN

Drawing Path: P:\2021\21027 - Carters Station North Subdivision\Dwg\Construction\Prelim Plat\Prelim Plat\C1.4.dwg



NOTES:
1. REFER TO SHEET C1.7 FOR PARCEL AREA TABLES.
2. REFER TO SHEET C1.7 FOR TYPICAL LOT LAYOUT.

PROPOSED LAYOUT LEGEND

- PROPOSED BUILDING
- HEAVY DUTY ASPHALT PAVEMENT
- LIGHT DUTY ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- CONCRETE SIDEWALK
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ENGINEERING CRUNK

WILSON, ANDREW TERRELL, 114180, REGISTERED ENGINEER, AGRICULTURE, COMMERCE, STATE OF TENNESSEE, 7/15/24

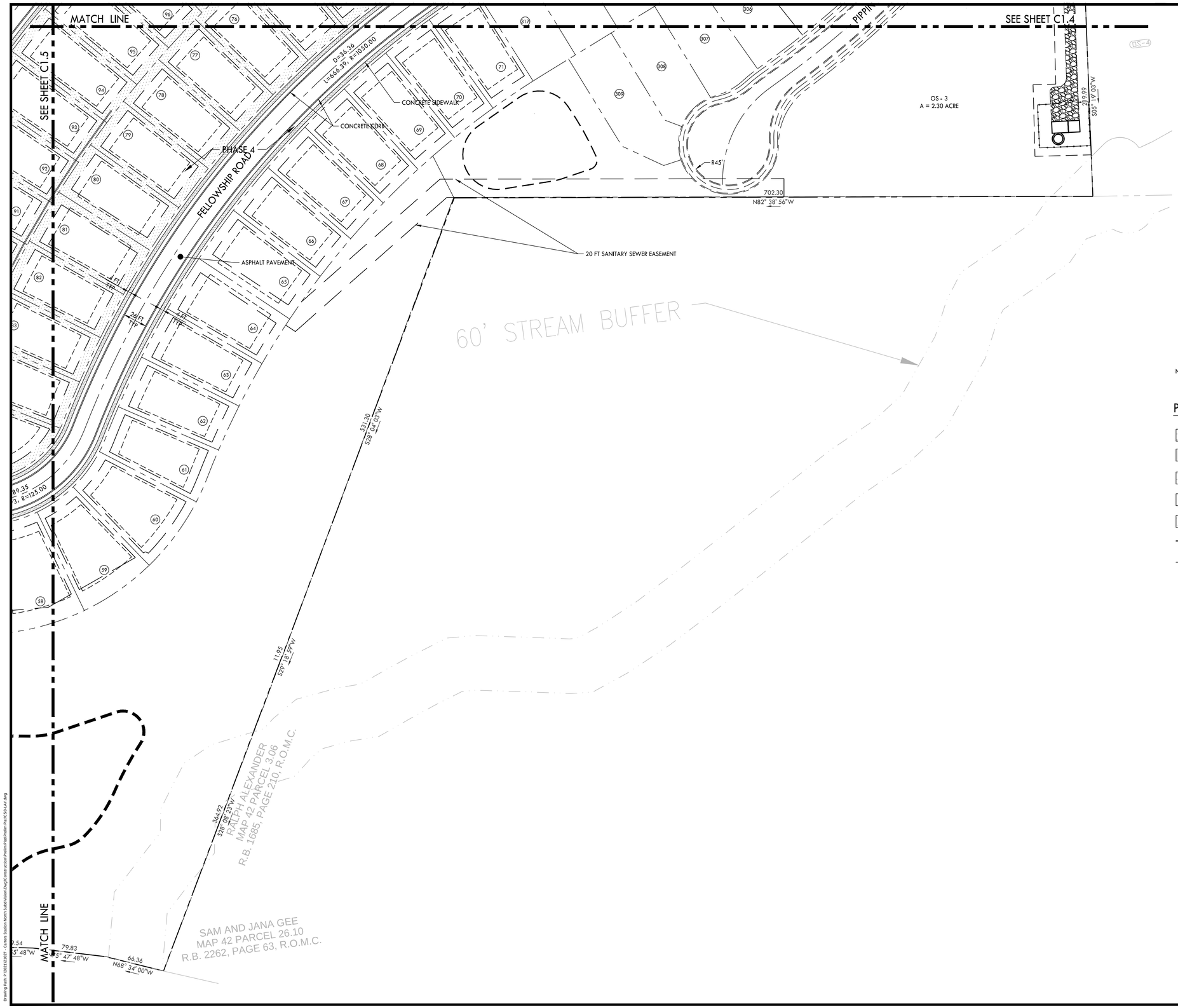
CARTERS STATION NORTH
PRELIMINARY PLAT
CARTERS CREEK STATION ROAD
MAURY COUNTY, TENNESSEE

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C1.5
SITE LAYOUT PLAN

Drawing Path: P:\2021\21027 - Carters Station North Subdivision\Dwg\Construction\Prelim Plat\Prelim Plat\CS-LAY.dwg



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ANDREW WILSON PERRY FARNSWORTH REGISTERED LANDSCAPE ARCHITECT AGRICULTURE 7/15/24 COMMERCE No. 114180 STATE OF TENNESSEE

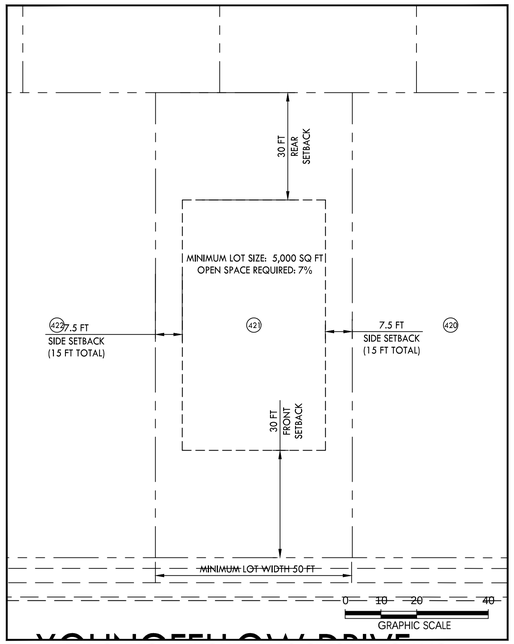
CARTERS STATION NORTH
PRELIMINARY PLAT
CARTERS CREEK STATION ROAD
MAURY COUNTY, TENNESSEE

REVISIONS	
No.	DATE

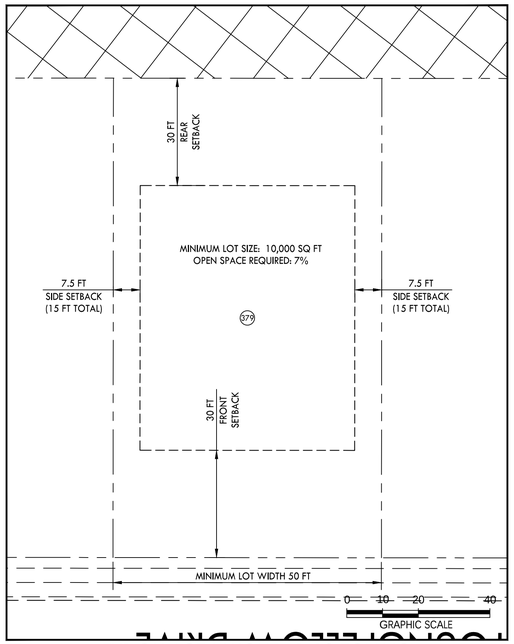
07/15/24 21027

C1.6
SITE LAYOUT PLAN

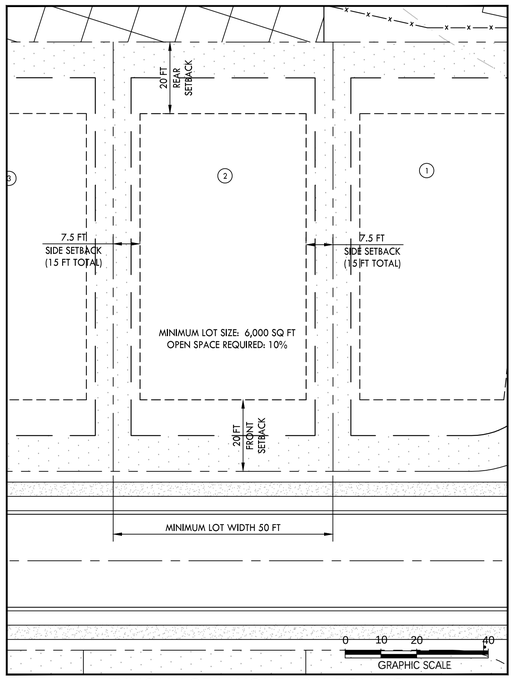
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TYPICAL LOT LAYOUT - R-10 CLUSTER ZONING



TYPICAL LOT LAYOUT - R-10 ZONING



TYPICAL LOT LAYOUT - R-6 ZONING

ZONING R-6 - LOT TABLE

Parcel Table	
Lot #	Area
1	8680
2	7370
3	7083
4	6802
5	7186
6	7186
7	7186
8	7186
9	7186
10	7186
11	7186
12	6600
13	6600
14	6877
15	7450
16	8278
17	10231
18	9771
19	7544
20	7216
21	6962
22	6804
23	6740
24	6919
25	6967
26	8113
28	12187
29	9585
30	7781
31	8587
32	11288
33	9199
34	9763
35	8270
36	6989
37	7519
38	8134
39	7971
40	7556
41	7255
42	7155
43	8653
44	10946
45	9578
46	11900
47	19631
48	8378
49	10295
50	10227
51	9195
52	8200
53	7204
54	6606
55	6600
56	7360
57	8153
58	8153
59	8153
60	8153
61	6938

Parcel Table	
Lot #	Area
62	6814
63	6814
64	7371
65	7371
66	6814
67	6814
68	6814
69	6814
70	6814
71	6814
72	6774
73	6781
74	6781
75	6781
76	6781
77	6781
78	6781
79	6781
80	7095
81	7089
82	6781
83	6781
84	6875
85	9351
86	6324
87	7210
88	7384
89	7384
90	7384
91	7384
92	7384
93	7384
94	7384
95	7384
96	7384
97	7384
98	7384
99	7384
100	7379
101	7085
102	7085
103	7086
104	7087
105	7414
106	7406
107	7365
108	7365
109	7365
110	7365
111	7365
112	7365
113	7365
114	7492
115	7911
116	6616
117	11387
118	6876
119	7037
120	7037
121	7037

Parcel Table	
Lot #	Area
122	7037
123	7037
124	7037
125	7037
126	7037
127	7357
128	7228
129	7826
130	9617
131	10512
132	10189
133	7979
134	7225
135	7589
136	7495
137	7370
138	7217
139	6695
141	40701
143	8198
144	9083
145	9655
146	8399
147	6991
148	7156
149	7511
150	7461
151	7412
152	7366
153	6736
154	6714
155	6799
156	6905
157	6905
158	6905
159	6905
160	6473
161	7352
162	6689
163	6706
164	6706
165	6706
166	8213
167	8136
168	11557
169	15743
170	10125
171	8181
172	6683
173	6683
174	7593
175	8153
176	8153
177	7964
178	7018
179	9037
180	12561
181	6986
182	7143
183	7418

Parcel Table	
Lot #	Area
184	7692
187	7832
188	6875
189	6875
190	6875
191	6875
192	6923
193	7038
194	7038
195	7038
196	7038
197	7038
198	7038
199	7038
200	7038
201	7038
202	7038
203	6957
204	6956
205	7171
206	9299
207	8303
208	10252
209	8050
210	7217
211	7217
212	6904
213	7217
214	7217
215	8227
216	7413
217	6713
218	6713
219	6713
220	6713
221	6713
222	6713
223	6713
224	7601
225	8396
226	8657
227	7457
228	8520
301	7229
302	8246
303	7294
304	6875
305	6875
306	6996
307	6851
308	6706
309	8076
310	8458
311	6914
312	6914
313	6914
314	6914
315	6694
316	6600
317	6674

Parcel Table	
Lot #	Area
318	8220
319	13706
320	8210
321	8225
322	8225
323	8225
324	8225
325	8225
326	7621
327	8609
328	11323
329	7099
330	6216
331	6090
332	6958
333	8732
334	7606
335	6701
336	9282
337	7749
338	6914
339	6914
340	6914
341	6914
342	7050
343	7166
344	7166
345	7166
346	7166
347	7166
348	7166
349	10038
350	10038
351	10038
352	7166
353	7166
354	7166
355	6682
356	6600
357	6600
358	6600
359	6600
360	10058
361	10112
362	10112
363	10112
364	8836
365	11721
366	10003
425	7155
426	7155
427	7155
428	7155
429	7155
430	7155
431	7155
432	7155
433	7155
434	7155
435	6984

Parcel Table	
Lot #	Area
436	6875
437	6875
438	6875
439	6875
440	7329
441	7877
442	7877
443	7877
444	7877
445	7877
446	7877
447	7877
448	7877
449	7456
450	7313
451	7313
452	7313
453	7313
454	8954
455	9186
456	7414
457	7414
458	7414
459	7964
460	8632
461	8632
462	8632
463	8632
464	13761
465	8265

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CARTERS STATION NORTH
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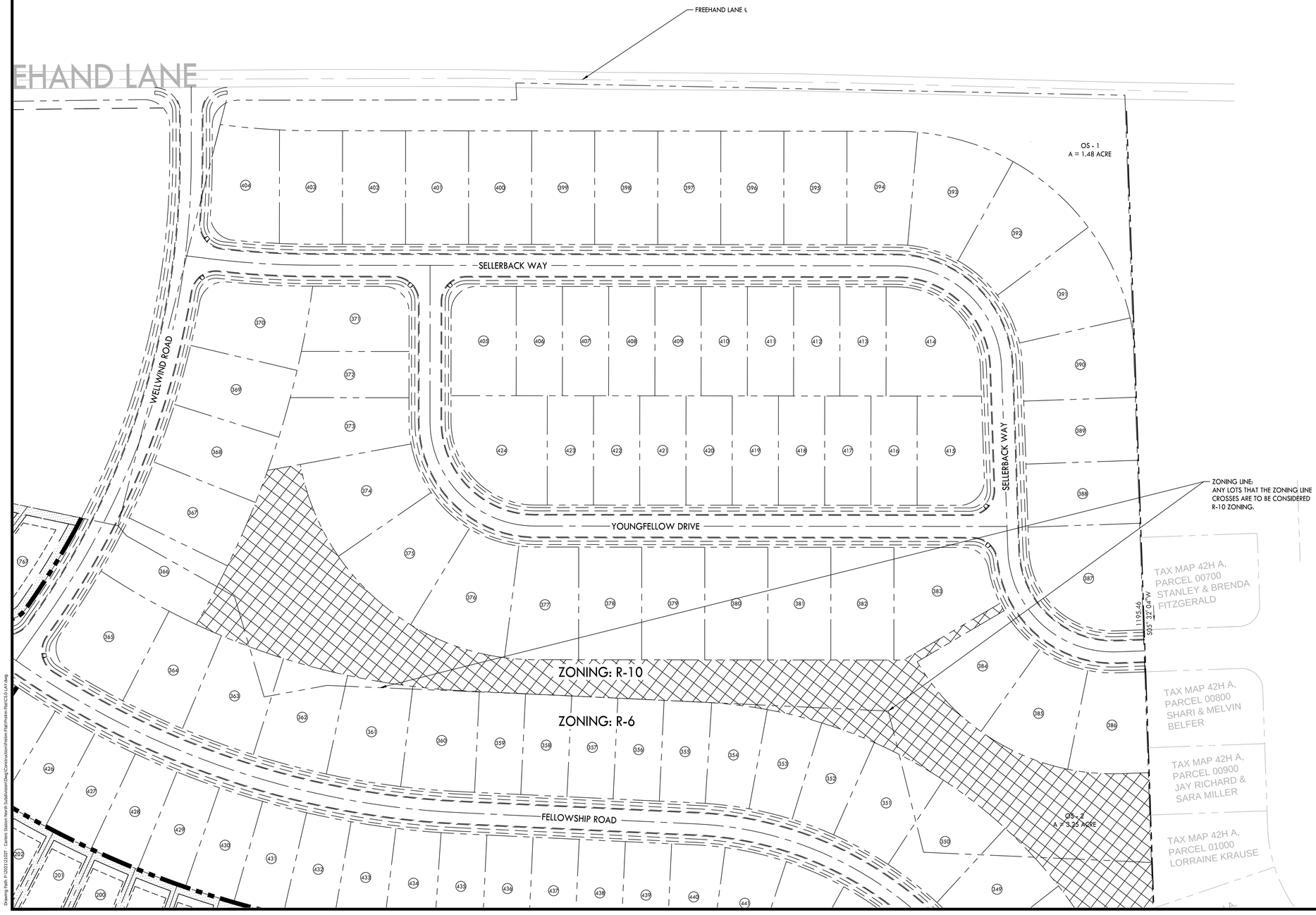
C1.7

TYPICAL LOT LAYOUT

Drawing Path: P:\2021\21027 - Carters Station North Subdivision\Dwg\Construction\Prelim Plat\Prelim Plat\C1.7-LO-LAY.dwg

ZONING R-10 (CLUSTERED LOTS):

BASE ZONING:	R-10
MINIMUM LOT AREA:	5,000 SQ-FT
GROSS ACREAGE:	855,211 SQ-FT
RIGHT-OF-WAY/EASEMENT AREA:	139,462 SQ-FT
NET ACREAGE:	715,748 SQ-FT
PERMITTED NET DENSITY:	715,748/10,000 = 71.57 UNITS (4.36 UNITS/ACRE)
TOTAL LOTS ZONED R-10:	68 UNITS
REQUIRED OPEN SPACE:	SEE SHEET C1.0



ZONING R-10 LOTS:

Parcel Table	
Lot #	Area
349	10038
350	10038
351	10038
358	6600
359	6600
360	10058
361	10112
362	10112
363	10112
366	10003
367	10092
368	10092
369	10092
370	11490
371	9173
372	7391
373	10738
374	12205
375	12205
376	12205
377	10689
378	10050
379	10050
380	10050
381	10050
382	10050
383	12191
384	10577
385	10577
386	9859
387	14711
388	9964
389	9963
390	10957
391	12325

Parcel Table	
Lot #	Area
392	12325
393	12325
394	10571
395	10125
396	10125
397	10125
398	10125
399	10125
400	10125
401	10125
402	10125
403	10127
404	10615
405	9882
406	7150
407	7150
408	7150
409	7150
410	7150
411	7150
412	7150
413	7150
414	12484
415	10028
416	7150
417	7150
418	7150
419	7150
420	7150
421	7150
422	7150
423	7150
424	12747

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JAMES W. WILSON 2024 REGISTERED ENGINEER AGRICULTURE COMMERCE 114180 STATE OF TENNESSEE 7/15/24

CARTERS STATION NORTH
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CARTERS CREEK STATION ROAD
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C1.8
CLUSTER LOT SITE LAYOUT PLAN

Drawing Path: P:\2021\21027 - Carters Station North Subdivision\Dwg\Construction\Prelim Plat\Prelim Plat\C8-LAY.dwg

NOTES:

1. GRADING TO MATCH BUILDING TYPE AND ANY LOTS OVER 20% GRADE SHALL BE LABELED AS CRITICAL.
2. A GEOTECHNICAL INVESTIGATION WILL BE REQUIRED TO INVESTIGATE THE EXISTENCE OF SINKHOLES. ANY SINKHOLES DISCOVERED WILL BE REMEDIATED AS NECESSARY.

REFER TO SHEET C2.1 FOR DETAILED INFORMATION IN THIS AREA.

REFER TO SHEET C2.2 FOR DETAILED INFORMATION IN THIS AREA.

REFER TO SHEET C2.3 FOR DETAILED INFORMATION IN THIS AREA.

REFER TO SHEET C2.4 FOR DETAILED INFORMATION IN THIS AREA.

REFER TO SHEET C2.5 FOR DETAILED INFORMATION IN THIS AREA.

REFER TO SHEET C2.6 FOR DETAILED INFORMATION IN THIS AREA.

FREEHAND LANE

CREEK ROAD

FEMA FLOOD ZONE

OS - A
A = 1.48 ACRE

OS - B
A = 3.02 ACRE

OS - 1
A = 0.89 ACRE

OS - 2
A = 3.33 ACRE

OS - C
A = 1.87 ACRE

OS - D
A = 0.43 ACRE

OS - 3
A = 2.30 ACRE

OS - E
A = 6.27 ACRE

AMENITY CENTER

S05° 32' 04"W

S05° 20' 54"W

S05° 21' 48"W

S05° 19' 03"W

N82° 38' 56"W

N29° 41' 15"E 295.35

N68° 24' 37"W

N68° 17' 43"W

N28° 10' 19"E

N29° 13' 24"E

N73° 51' 31"W 74.42

N80° 05' 06"W

N80° 08' 53"W

N18° 12' 40"E 443.22

N82° 30' 03"W 214.51

S28° 08' 23"W 364.02

S28° 04' 09"W 531.30

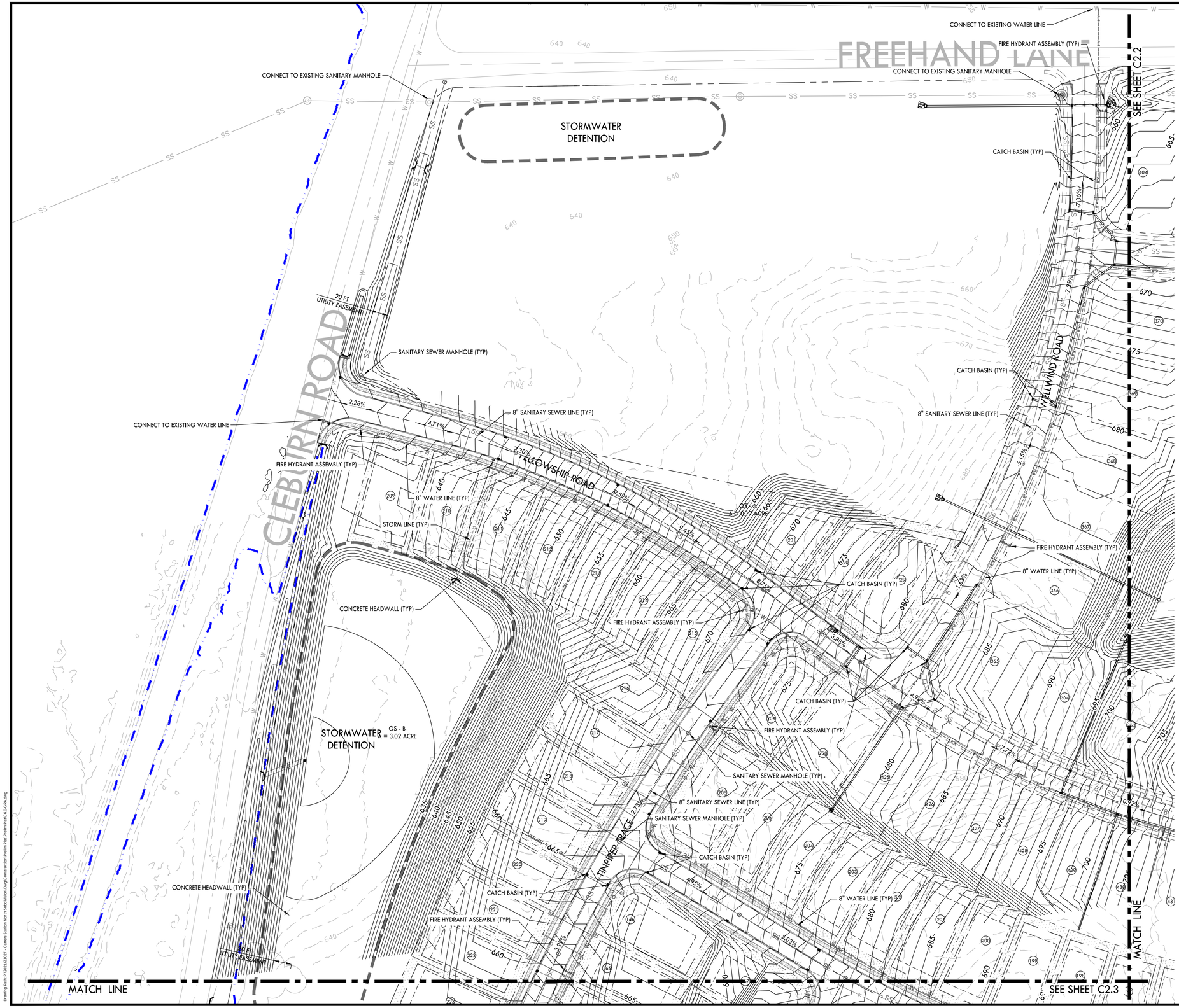
S67° 18' 59"W 115.23

S68° 17' 43"E 66.36

S68° 24' 37"E 39.54

S68° 08' 78"E 108.78

S68° 25' 22"E 9.83



PROPOSED GRADING & DRAINAGE LEGEND

- PROPOSED CONTOUR
- STORM PIPE
- SINGLE CURB INLET
- SINGLE CATCH BASIN
- JUNCTION BOX

PROPOSED UTILITY LEGEND

- SANITARY SEWER LINE
- WATER LINE

0 10 20 30 40 50 100
GRAPHIC SCALE

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PATRICK JOSEPH CARROLL
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AGRICULTURE
7/15/24
No. 124693
STATE OF TENNESSEE

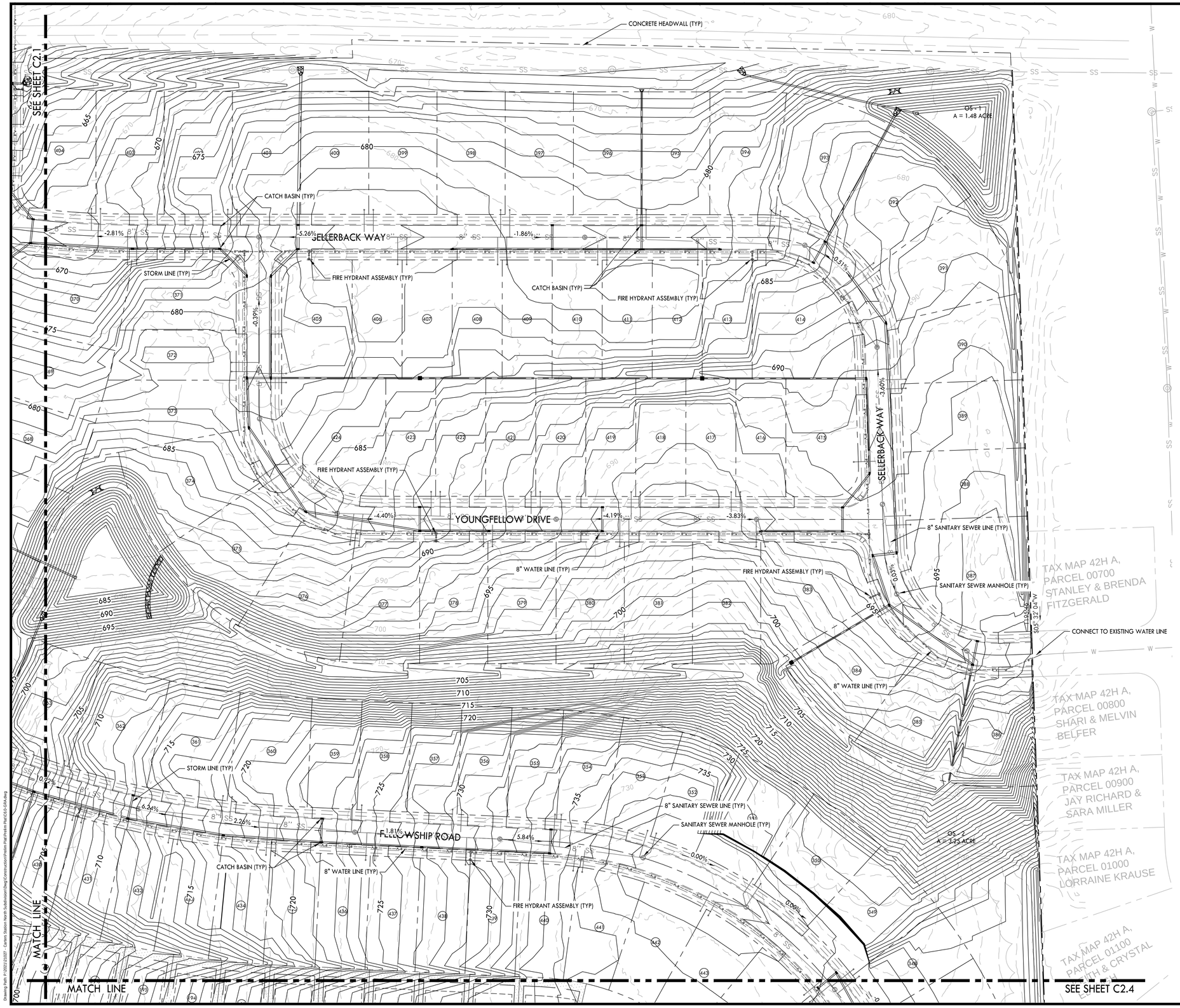
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C2.1
GRADING, DRAINAGE, & UTILITY PLAN

Drawing Path: P:\2021\121027 - Carters Station North Subdivision\Dwg\Construction\Prelim Plat\Prelim Plat\CLG-GRA.dwg



PROPOSED GRADING & DRAINAGE LEGEND

- PROPOSED CONTOUR
- STORM PIPE
- SINGLE CURB INLET
- SINGLE CATCH BASIN
- JUNCTION BOX

PROPOSED UTILITY LEGEND

- SANITARY SEWER LINE
- WATER LINE

0 10 20 30 40 50 100
GRAPHIC SCALE

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C2.2
GRADING, DRAINAGE, & UTILITY PLAN

Drawing Path: P:\2021\21027 - Carters Station North Subdivision\Dwg\Construction\Prelim Plat\Prelim Plat C4.0-C5.0.dwg

MATCH LINE

SEE SHEET C2.1

SEE SHEET C2.4

FIRE HYDRANT ASSEMBLY (TYP)

CONNECT TO EXISTING WATER LINE

8" WATER LINE (TYP)

8" SANITARY SEWER LINE (TYP)

STORM LINE (TYP)

SANITARY SEWER MANHOLE (TYP)

CATCH BASIN (TYP)

COBBLER COURT

KINDLER COURT

STONE CREEK PASS

SEAPEPPER DRIVE

FELLOWSHIP ROAD

OS - C
A = 1.87 ACRE

OS - G
A = 0.26 ACRE

OS - D
A = 0.43 ACRE

OS - F
A = 0.89 ACRE

422.23
S00° 40' 40"W

N23° 41' 15"E
29.65

N75° 15' 15"
N68° 24' 17"W

226.02
N68° 17' 43"W

JAMES ARTHUR MILLS
MAP 41 PARCEL 23.00
D.B. 411, PAGE 286, R.O.M.C.

MAP 041 PARCEL 017.01
JUDSON & OLIVIA SMITH

MAP 041 PARCEL 017.06
KENNETH JOHNSON

MATCH LINE

SEE SHEET C2.5

PROPOSED GRADING & DRAINAGE LEGEND

- PROPOSED CONTOUR
- STORM PIPE
- SINGLE CURB INLET
- SINGLE CATCH BASIN
- JUNCTION BOX

PROPOSED UTILITY LEGEND

- SANITARY SEWER LINE
- WATER LINE

0 10 20 30 40 50 100
GRAPHIC SCALE

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STATE OF TENNESSEE
7/15/24

CARTERS STATION NORTH
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C2.3
GRADING, DRAINAGE, & UTILITY PLAN

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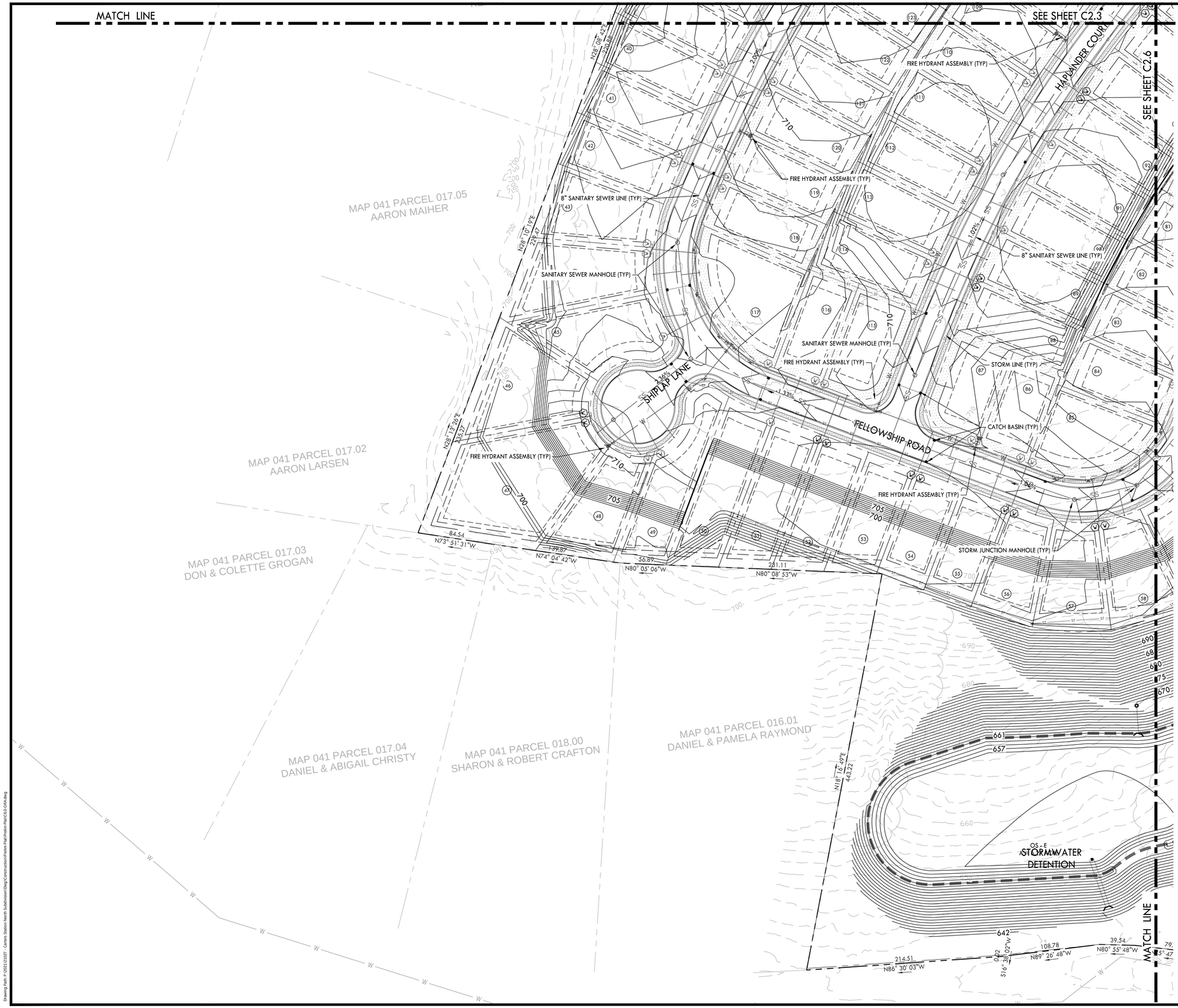
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C2.4
GRADING, DRAINAGE, & UTILITY PLAN

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PROPOSED GRADING & DRAINAGE LEGEND

- PROPOSED CONTOUR
- STORM PIPE
- SINGLE CURB INLET
- SINGLE CATCH BASIN
- JUNCTION BOX

PROPOSED UTILITY LEGEND

- SANITARY SEWER LINE
- WATER LINE

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PRELIMINARY PLAT

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MAURY COUNTY, TENNESSEE

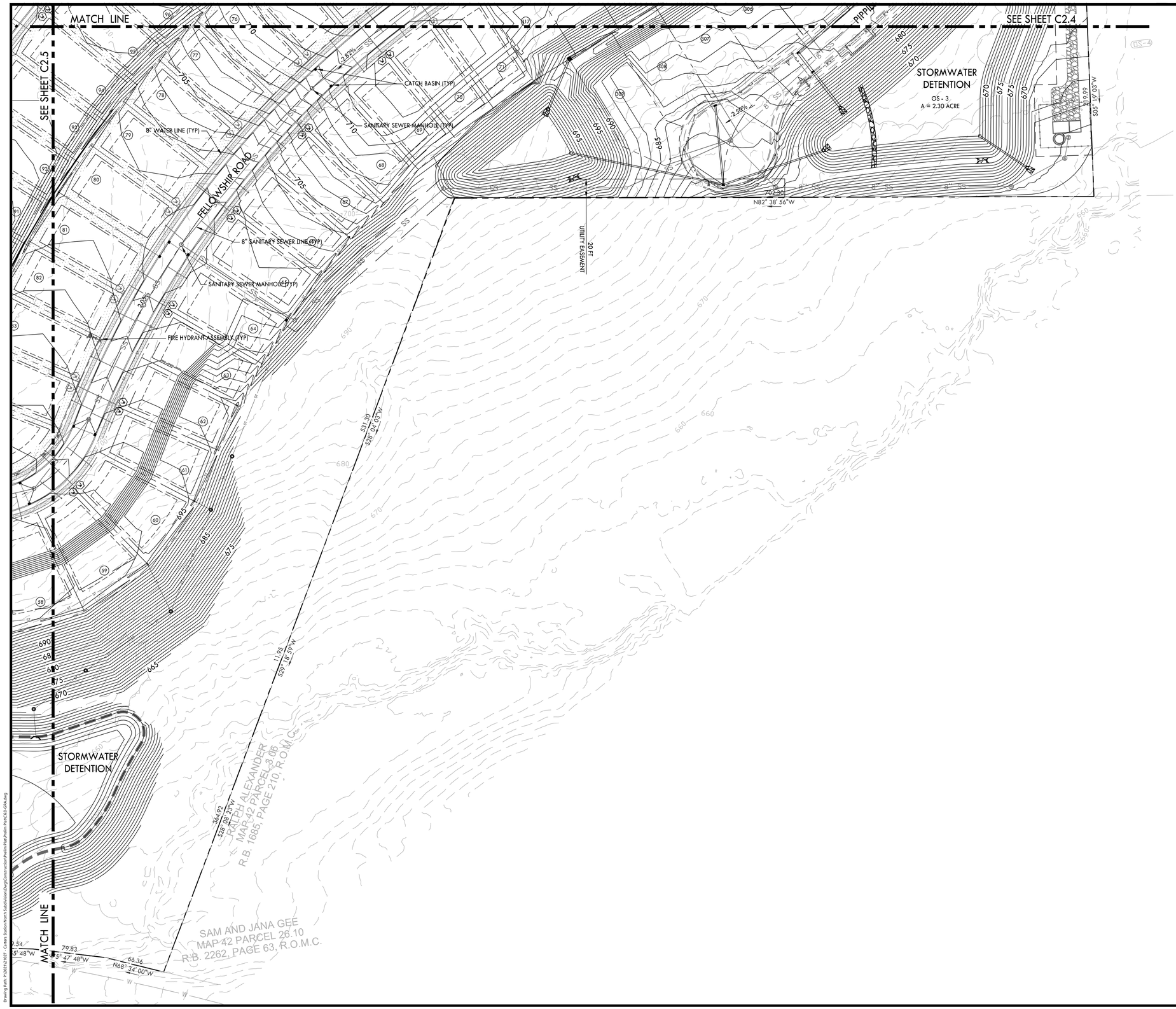
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C2.5

GRADING, DRAINAGE, & UTILITY PLAN

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PROPOSED GRADING & DRAINAGE LEGEND

- PROPOSED CONTOUR
- STORM PIPE
- SINGLE CURB INLET
- SINGLE CATCH BASIN
- JUNCTION BOX

PROPOSED UTILITY LEGEND

- SANITARY SEWER LINE
- WATER LINE

0 10 20 30 40 50 100
GRAPHIC SCALE

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C2.6
GRADING, DRAINAGE, & UTILITY PLAN

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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

Preliminary Plat, Site Development Plan, and PUD Checklist

Development: Summit at Carter's Station - West

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.

CITY OF COLUMBIA TENNESSEE

DEVELOPMENT SERVICES
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COLUMBIA, TN 38401
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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
- ☒ 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.

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:

Patrick Carroll, PE		07/15/2024
Print Name	Signature	Date

CITY OF COLUMBIA TENNESSEE

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

PLANNING COMMISSION
PROJECT DEVELOPMENT APPLICATION

SUBMITTAL REQUIREMENTS

Final Plat: * *1 hard copy of all materials for submittal + PDF copy on a USB flash drive (no multiple applications on one storage device)*
Fold hard copy submittals larger than 8½"x11"
All Others: * Please submit the Application online at City of Columbia | Permitting (onlama.com)

ADDRESS/LOCATION	3040 Cleburne Rd., Columbia, TN 38401		
	TAX MAP: 41	GROUP:	PARCEL: 15.00
SUMMARY OF NATURE OF REQUEST AND WORK	Preliminary Plat for 399 residential units and 0.48 ac undeveloped commercial tract.		

DATE OF PRE-APPLICATION CONFERENCE	03-13-2024	*Pre-application meetings are scheduled for Wednesdays.*

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 ❑ Other: **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) ❑ Total Number of Lots/Residential Units ❑ Square Footage of Non-Residential Floor Space ❑ Total acreage

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 go to the Applicant's email that is provided.

NAME	Crunk Engineering - Adam Crunk, PE	PHONE	615-873-1795
ADDRESS	7112 Crossroads Blvd. Suite 201 Brentwood, TN 37027	EMAIL	adam@crunkeng.com

PROPERTY OWNER NAME	Pulte Homes TN Limited Partnership	PHONE	(627) 867-8449
ADDRESS	100 Westwood Place, Suite 100 Brentwood, TN 37027	EMAIL	Kim.Maynord@pultegroup.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.

Adam Crunk		7/11/2024
APPLICANT NAME	APPLICANT SIGNATURE	DATE
Pulte Homes TN Limited Partnership	DocuSigned by: Jason Demuth 45BEF7218ZE44DF...	7/13/2024
PROPERTY OWNER NAME	PROPERTY OWNER SIGNATURE	DATE

Woodward Estates Preliminary Plat/ Site Development Plan

Project #:	24-0370	Location:	Map 100 Parcel 036.06
Applicant:	Gerald Vick, PE	Case Type(s):	Preliminary Plat/SDP
Staff Planner:	Austin Brass, AICP	Proposed Use:	Single-Family Homes

PROJECT SUMMARY

The applicant requests approval of a Preliminary Plat and Site Development Plan for 12 residential lots as well as associated infrastructure and open spaces including 1 defined civic space. This 12.55 -acre Development Parcel yields 1 density unit per acre (du/ac). The subject site is located on the west side of Rutherford Lane, 800' north of the Rutherford Lane & Oakland Parkway intersection.

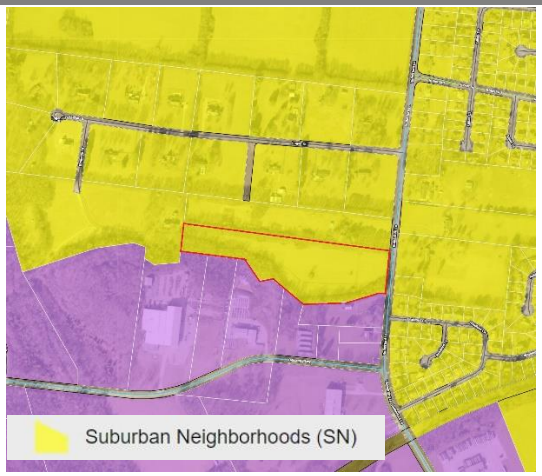
- A proposed rezoning from RS-40 (*CD-2*) to RS-6 (*CD-3*) was denied by Planning Commission on November 11, 2020 for the subject property.
- A proposed rezoning from RS-40 (*CD-2*) to RS-10 (*CD-3*) was requested and denied by the Planning Commission on January 13th, 2021 for the subject property.
- The subject property has continued to remain being zoned as RS-40 that transitioned to CD-2 (*Rural Residential*) with the adoption of Zoning Ordinance 4400 in July 2022. This Preliminary Plat and Site Development Plan has been requested to develop the property under the current development requirements within a CD-2 (*Rural Residential*) Character District.
- The Site Development Plan/Preliminary Plat utilizes a cul-de-sac terminus that is not permitted unless approved by a waiver of the Zoning Administrator to accommodate site conditions. This site does provide a ROW reservation to the property at the north.
- This staff report evaluates the site development plan in adherence to all required bulk and area standards including civic space and tree canopy retention requirements.
- The Planning Commission is the **decision-making authority** for the Site Development Plan and Preliminary Plat.
- Any approval should be conditioned on timely submittal of "as-approved" plans which, in the determination of the Zoning Administrator and the City Engineer, reflect the substance of the plans approved by the Planning Commission.
- Templates are provided at the end of the report to assist the Planning Commission in crafting properly formatted motions.

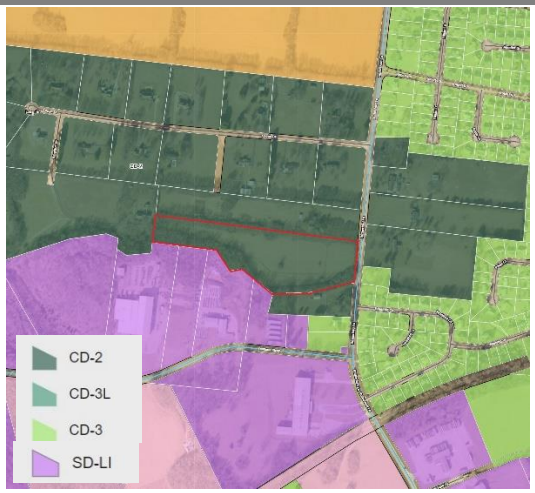
SITE INFORMATION

CURRENT ZONING	EXISTING USE	EXISTING IMP.	LAND AREA
CD-2 (*Rural Residential*)	Vacant	Infrastructure for 12 homes	+ /- 12.55 acres



FUTURE LAND USE MAP	ZONING MAP





SITE CONTEXT/ADJACENT PROPERTIES			
	Future Land Use	Zoning	Current Use
Subject Property	Suburban Neighborhoods	CD-2	Vacant
North	Suburban Neighborhoods	CD-2	Single-Family Home
South	Technology & Employment Centers	SD-LI/ CD-2	Single-Family Home/ Light Manufacturing
East	Suburban Neighborhoods	CD-2/ CD-3	Single-Family Home
West	Suburban Neighborhoods	CD-2	Single-Family Home

CONSISTENCY WITH CONNECT COLUMBIA

Suburban Neighborhoods: This requested Preliminary Plat & Site Development Plan is located within the Suburban Neighborhoods Future Land Use. 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.

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

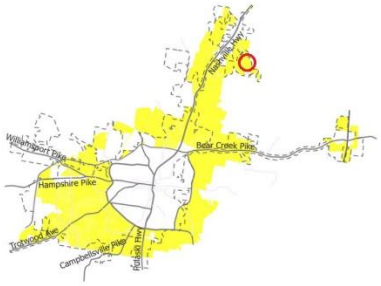
The SN future land use area is characterized by the organization of the built environment to extend a succession of large-lot neighborhoods and compact walkable neighborhoods. Development parcels extend established neighborhood patterns. Leap-frogging development is inappropriate. The SN future land 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

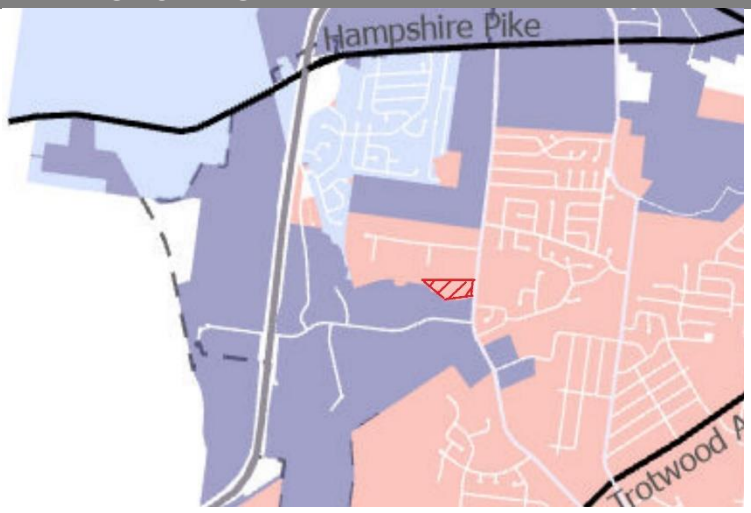
General Development Pattern: Mixed Uses & Isolated Uses
Density (density unites per ace): 4 - 24 du/ac
Building Height: 1 - 4 stories
Open Space Elements: Civic Spaces, Parks & Greenways





AREA OF CHANGE

Connect Columbia established the areas of change policy designation for the subject site as ***facilitate*****.** The designation includes changes only when the city facilitates orderly market-drive change. 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

- **The proposed Site Development Plan and Preliminary Plat conform to the bulk standards of the Ordinance for a CD-2 Rural Character District.**

Lots, Building Sites & Bulk Standards:

- The Zoning Ordinance permits single-family house types and conforms to section 4.3.1-A of the Zoning Ordinance. This proposed preliminary plat includes front-loaded lots for single-family homes.
- Lot variations include:
  - 12 (125') front-loaded single-family home lots; 12,500 SF min;
  - 1 civic space lot;
  - 1 open space lot.
- Table 1 describes applicable bulk standards per Table 4.3.1-A (building, lot & building site standards) of the Zoning Ordinance for a CD-2-character district in which the subject property is zoned.

Table 1 (CD-2) Rural Character District Standards		
Bulk Standards:	**Required**	**Proposed**
Density:	1 Density Unit Per Acre Maximum	1 Density Unit Per Acre
Minimum Lot width:	125'	125'
Minimum Building Site/ Lot Area:	12,500 SF.	12,500 SF. +
Lot/Building Enfrontment:	Vehicular Thoroughfare	50' Local Road Thoroughfare
Parking:	2 spaces/ Dwelling Unit	2 spaces/ Dwelling Unit
Max. Impervious:	N/A	N/A
Setbacks:	Front – 30 ft. Front Secondary- 30 ft Side- 20 ft. Rear- 30' or 15 min from center line of rear alley	Front – 30 ft. Front Secondary- 30 ft. Side- 20 ft. Rear- 30 ft. (*no lots are proposed to be alley loaded*)

Architecture:

- **Staff will determine conformity with the prescriptive design standards of the Ordinance at the time of building permit.**
    - The applicant has acknowledged **that all structures must conform to the prescriptive design standards in Table 4.3.1-C of the Ordinance.**
    - The Ordinance requires garages to maintain minimum interior dimensions of 10 feet by 20 feet. The Ordinance also establishes a maximum garage door width of 33% of total of garage plus façade width if garage door is in 1st of 2nd layer *(not setback 20' behind principal frontage).*

Civic Spaces:

- **Section 5.3.1 of Zoning Ordinance requires any development parcel to utilize at least 5% but no more than 20% of its gross acreage as Civic Space conforming to the standards of Table 5.3.3-A.[1] The proposed Site Development Plan provides the required Civic Space in the form of a Playground.**

    - The applicant proposes to dedicate 0.65 acres (5.41%) of the 12.55 -acre site to a Civic Space in the form of a Playground.

Civic Space Types for Development Plan	Number/ Size	Area/ Enfrontment
Playground	1 (*0.65 acres)*	N/A (*Playgrounds are not required to enfront throughfares*).

[1] Development Parcel: a parcel of land: (1) which, either alone or together with one or more other parcels under a common Development scheme, program or plan, is ten (10) or more gross acres; (2) with respect to the Development of which any new Thoroughfare, Internal Drive, or extension or change of the design of any existing Thoroughfare or Internal Drive is required or will be made or proposed; or (3) with respect to which any District assignment or any Thoroughfare or Internal Drive or alignment thereof is proposed to be made or changed by a Zoning Map or Zoning Map amendment. (§ 9.3, p. 490).

Tree Canopy Cover Retention/ Specimen Tree Preservation:

Section 4.3.16 of the Zoning Ordinance requires a percentage of existing tree cover to be preserved based upon the existing canopy on the development site.

- A CD-2-character district has a tree canopy retention based off the existing tree canopy on site. The applicant's tree canopy retention plan indicates that 5.35 acres (42.6%) of the 12.55-acre site is existing tree canopy. Table 4.3.16 L of the Zoning Ordinance indicates that a site with 40-59% existing tree canopy cover is required to retain 45% of the site as a tree save area. This site development plan indicates 3.10 acres (57%) of the 5.35 acres of existing tree canopy to be fully preserved at the southern boundary of the development site in an environmental sensitive area that consists of a 30' aquatic buffer.
- Section **4.3.16** of the Zoning Ordinance requires the general protection of Specimen and Heritage Trees (*canopy diameter of 24 inches or greater*) with the Zoning Ordinance recommending that they not be removed. Furthermore, the Zoning Ordinance states that if a Specimen tree is removed, that a replacement tree shall be provided for two and half caliper inches per tree removed. That applicant has indicated that no heritage trees have been identified to be removed as part of the Site Development Plan requiring removal and replacement.

REVIEW PROCESS

The Development Review Committee reviewed the proposed Preliminary Plat/Site Development Plan at its September 2024 meeting, as directed by section **8.3.7** of the Zoning Ordinance. Technical comments are provided in the agenda package and summarized above.

The Planning Commission is the Decision-Making Authority for all Site Development Plans that include one or more Development Parcels under **§ 8.5.6.D.3**.[2]

Sections **8.5.6.N** and **O** establish the criteria for review of a Site Development Plan.

> N. Review Criteria.
>
> > *1. The criteria to be applied by the Zoning Administrator in reviewing a Development Plan and application shall be whether such Plan and application*

[2] [2] Development Parcel: a parcel of land: (1) which, either alone or together with one or more other parcels under a common Development scheme, program or plan, is ten (10) or more gross acres; (2) with respect to the Development of which any new Thoroughfare, Internal Drive, or extension or change of the design of any existing Thoroughfare or Internal Drive is required or will be made or proposed; or (3) with respect to which any District assignment or any Thoroughfare or Internal Drive or alignment thereof is proposed to be made or changed by a Zoning Map or Zoning Map amendment. (§ 9.3, p. 490).

comply with the applicable conditions, standards, and requirements of this Ordinance, all applicable previously approved Plans, such as earlier Development Plans, the Comprehensive Plan and all other applicable Land Use Plans.

2. With respect to a Development Plan the Planning Commission shall rely on all conditions, standards, and requirements of Articles 1-5 and Article 7 of this Ordinance and the Planning Commission shall review the Plan and application for compliance with all other conditions, standards, and requirements of this Ordinance, including without limitation those of Article 6 (Supplemental Standards) , and compliance with all applicable previously approved Plans, such as earlier Development Plans, the Comprehensive Plan and all other applicable Land Use Plans. Additionally, in the case of Development in a Special District, the Planning Commission shall determine:

a. Whether the Development design and Development intensity are appropriate for and tailored to the unique characteristics of the site, such as significant wooded areas, specimen trees, wetlands, steep slopes, floodplains, and zoning of or existing Development on Adjacent property;

b. Whether the proposed access and circulation are adequate with respect to traffic patterns, traffic control measures, and street pavement areas, with provisions for maintaining traffic flows and reducing any negative effects of traffic on nearby properties;

c. Compliance with site construction requirements;

d. Adequacy of stormwater facilities, water supply, sanitary sewer service, fire protection, street signs, and street lighting as evidenced by conformance with City standards, specifications and guidelines; and

e. Compliance with requirements for Easements or dedications.

O. Development Plan Procedures Decision-Making Authority's Action.

1. Within 62 days for a Development Plan and application for which the Zoning Administrator is the Decision-Making Authority, or within 62 days after the hearing on a Development Plan and application for which the Planning Commission is the Decision-Making Authority, the Development Plan and application shall be approved or disapproved by the Decision-Making Authority in accordance with the review criteria of Section 8.5.6.N and Sections 8.5.6.O.2-.5 below:

2. A Development Plan and application shall be approved by the Decision-Making Authority, upon a finding that the Development Plan and application are in compliance with the review criteria set forth in Section 8.5.6.N.

3. If a Development Plan and Application are approved, the Development Plan as approved shall become part of the record of approval, and subsequent actions relating to the authorized Development must be consistent with approved items.

4. A Development Plan and application shall be disapproved if the Decision-Making Authority determines that the Plan and application do not comply with any one or more of the review criteria set forth in Section 8.5.6.N.

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 these 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.

SUMMARY OF DEVELOPMENT REVIEW COMMITTEE COMMENTS

The DRC reviewed this proposal at its September 10th, 2024 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 that a reservation be provided as a ROW (right-of-way) as a connection to the property at the north. The applicant responded that reservation strip to the north of the cul-de-sac has been removed and is being shown as a 50 ft. ROW.

- **Engineering** noted that this site development plan is subject to a USACE Flood study and that a 70' reservation be provided in the form of a ROW. The applicant has acknowledged this request.
- **Wastewater** indicated no comments.
- **Columbia Water** indicated that the water availability letter was issued on August 17th, 2024 and remains valid for 120 days. 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.

COMMENTS FROM PLANNING STAFF

This preliminary plat and site development plan adheres to all standards of Zoning Ordinance 4400. As noted on the preliminary plat/site development plan, all structures are required to conform to the prescriptive design standards in Table 4.3.1-A of the Ordinance.

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 **8.5.6.N** and **O** of the City of Columbia Zoning Ordinance, and Section **2.2.6** of the Subdivision Regulations, have been satisfied and approve the Site Development Plan and Preliminary Plat 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 **8.5.6.N** and **O** of the City of Columbia Zoning Ordinance, and Section **2.2.6** of the Subdivision Regulations, have been satisfied and approve the Site Development Plan and Preliminary Plat subject to the following conditions: [*list conditions of approval crafted by Planning Commission*].

Deny:

Move to deny the Site Development Plan and Preliminary Plat having found, based on the information presented by the applicant and the analysis provided by city staff, that the

criteria listed in sections **8.5.6.N** and **O** of the City of Columbia Zoning Ordinance and Section **2.2.6** of the Subdivision Regulations 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 that future meeting.

PRELIMINARY PLAT

© 2024

SITE DATA:

OWNER: KLF INVESTMENTS, LLC.
2000 MALLORY LANE #130-83
FRANKLIN, TN 37067

PARCEL NUMBER: TAX MAP 101 PARCEL 036.06
DEED BOOK: R2913, PG 479

SUBJECT PARCEL ZONING: CD-2

ACREAGE OF SITE: 12.55 ACRES
(PROPOSED 52,613.7 S.F. - 1.21 Ac. RIGHT OF WAY DEDICATION)

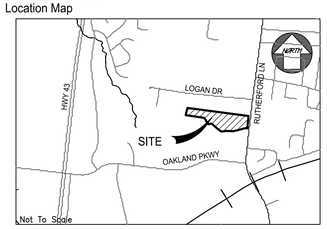
MINIMUM REQUIRED BUILDING SETBACKS:
30' FRONT
30' REAR
20' SIDE

UTILITY SERVICES: WATER SERVICE
COLUMBIA POWER & WATER SYSTEMS
201 PICKENS LANE
COLUMBIA, TENNESSEE 38401
(931) 388-4833

ELECTRIC SERVICE
COLUMBIA POWER & WATER SYSTEMS
201 PICKENS LANE
COLUMBIA, TENNESSEE 38401
(931) 388-4833

PURPOSE NOTE: CONSTRUCT 1,188 L.F. OF ROADWAY AND PROVIDE 12 RESIDENTIAL LOTS WITH RELATED APPURTENANCES

Location Map



PARCEL CALCULATIONS:

DENSITY:

TOTAL ACRES: 12.55 ACRES
ALLOWED: 1 UNIT PER ACRE
TOTAL ALLOWED: 12 UNITS
TOTAL SHOWN: 12 UNITS
DENSITY SHOWN: 1 UNIT PER ACRE

TREE CANOPY PRESERVATION:

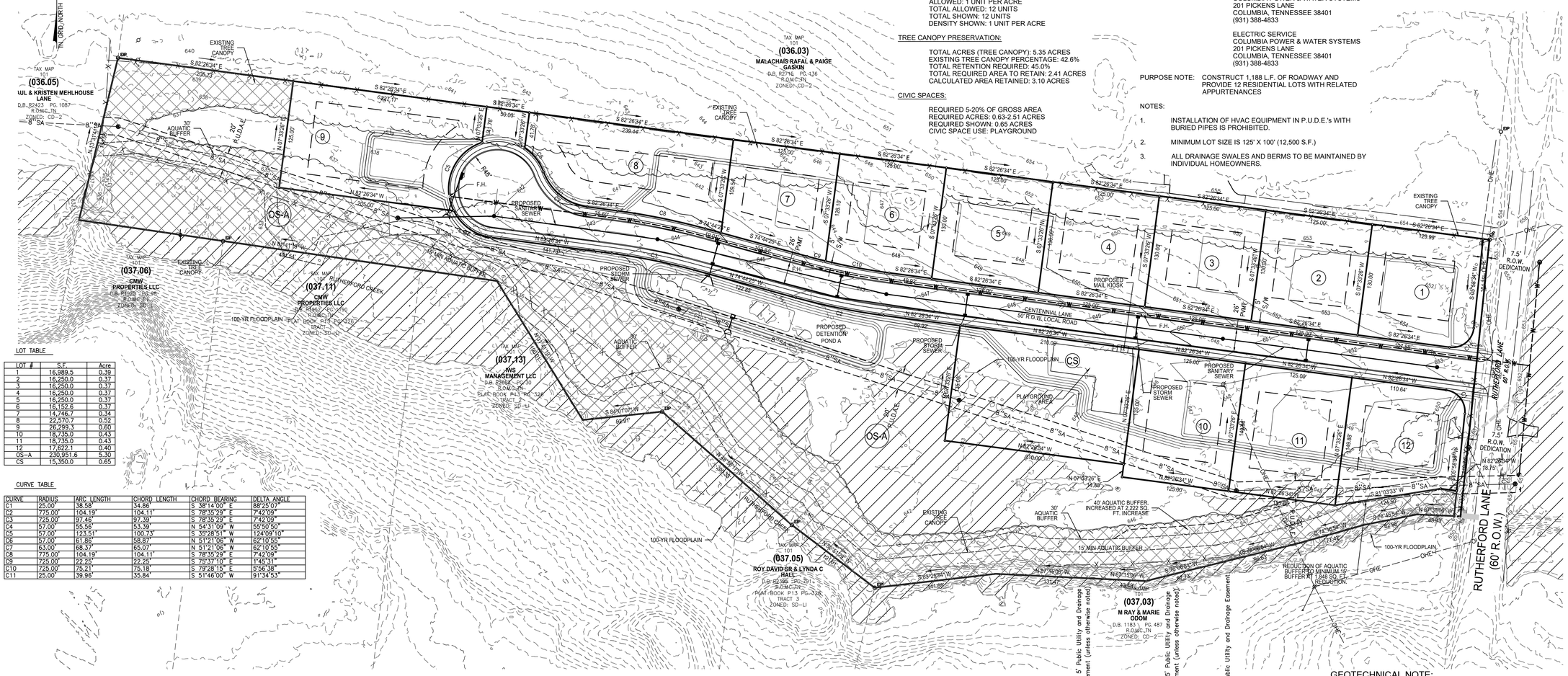
TOTAL ACRES (TREE CANOPY): 5.35 ACRES
EXISTING TREE CANOPY PERCENTAGE: 42.6%
TOTAL RETENTION REQUIRED: 45.0%
TOTAL REQUIRED AREA TO RETAIN: 2.41 ACRES
CALCULATED AREA RETAINED: 3.10 ACRES

CIVIC SPACES:

REQUIRED 5-20% OF GROSS AREA
REQUIRED ACRES: 0.63-2.51 ACRES
REQUIRED SHOWN: 0.65 ACRES
CIVIC SPACE USE: PLAYGROUND

NOTES:

1. INSTALLATION OF HVAC EQUIPMENT IN P.U.D.E.'s WITH BURIED PIPES IS PROHIBITED.
2. MINIMUM LOT SIZE IS 125' X 100' (12,500 S.F.)
3. ALL DRAINAGE SWALES AND BERMS TO BE MAINTAINED BY INDIVIDUAL HOMEOWNERS.



LOT TABLE

LOT #	S.F.	Acre
1	16,889.5	0.39
2	16,250.0	0.37
3	16,250.0	0.37
4	16,250.0	0.37
5	16,250.0	0.37
6	16,152.6	0.37
7	14,746.7	0.34
8	22,570.7	0.52
9	26,299.3	0.60
10	18,735.0	0.43
11	18,735.0	0.43
12	17,822.1	0.40
OS-A	230,951.6	5.30
CS	15,350.0	0.65

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Tennessee811 Know what's below Call before you dig.

LEGEND

	EXISTING	PROPOSED
WATER MAIN		W
SANITARY SEWER	SA	SA
STORM SEWER		
OVERHEAD	OHE	OHE
FENCE		
GAS		
DRAINAGE DITCH		
TREE PROTECTION FENCE		
SIGN		
UTILITY POLE		
IRON PIN SET		
EXISTING IRON PIN	EIP	
CONCRETE MONUMENT		
DECIDUOUS TREE		
GATE VALVE IN BOX		
LIGHT POLE		
BENCHMARK	BM 1	

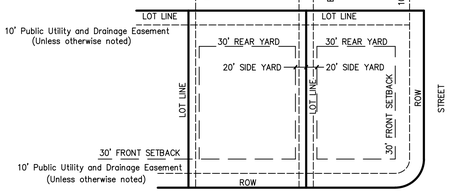
TREE LINE
STORM STRUCTURE LABEL (R1)
ASPHALT
CONCRETE
PARKING SPACES (14)

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PROPOSED CONSTRUCTION SCHEDULE FOR THE YEAR 2023

ACTIVITY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP
TEMPORARY SEDIMENT STRUCTURES												
SEDIMENT BASINS												
DIVERSION DITCHES												
CLEARING & CHIPPING												
TOPSOIL STRIPPING AND STORAGE												
ROADWAY GRADING												
PERMANENT STORM SEWER												
UTILITIES												
TEMPORARY VEGETATION												
PAVING												
PERMANENT VEGETATION												
REMOVE TEMPORARY STRUCTURES												



SUBDIVISION
TYPICAL LOT LAYOUT

GRAPHIC SCALE

60 0 30 60 120 240
(IN FEET)
1 inch = 60 ft.

GEOTECHNICAL NOTE:

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WES ENGINEERS & SURVEYORS
W.E.S. ENGINEERS AND SURVEYORS
2486 NASHVILLE HWY
COLUMBIA, TENNESSEE 38401
(931) 388-2329

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gerald@wesengineers.com

SUBMITTED FOR MUNICIPAL APPROVAL
NOT FOR CONSTRUCTION

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ENGINEERS & SURVEYORS

WOODWARD ESTATES
RUTHERFORD LANE
COLUMBIA, MAURY COUNTY, TENNESSEE
PRELIMINARY PLAT

Client
KLF INVESTMENTS LLC
2000 MALLORY LANE #130-83
FRANKLIN, TN 37067

REVISIONS	DATE
STAFF COMMENTS ADDRESSED	09/16/24

Drawn: JG
Checked: JG
Approved: GV
Date: 08/19/2024

Job. no. 24538
Scale:
Vertical: 1"=60'
Horizontal:

1 OF 1

FILE: J:\WES_Engineers_Surveyors 2024\24538 - Rutherford Lane Brandon Roberts - A1 Builders\Dwg\Engineering\24538_base REV1.dwg

SITE DEVELOPMENT PLAN

© 2024

SITE DATA:

OWNER: KLF INVESTMENTS, LLC.
2000 MALLORY LANE #130-83
FRANKLIN, TN 37067

PARCEL NUMBER: TAX MAP 101 PARCEL 036.06
DEED BOOK: R2913, PG 479

SUBJECT PARCEL ZONING: CD-2

ACREAGE OF SITE: 12.55 ACRES
(PROPOSED 52,613.7 S.F. - 1.21 Ac.
RIGHT OF WAY DEDICATION)

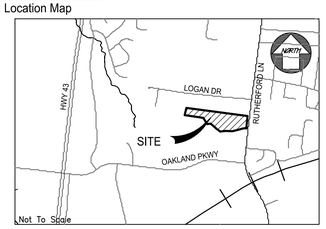
MINIMUM REQUIRED BUILDING SETBACKS:
30' FRONT
30' REAR
20' SIDE

UTILITY SERVICES: WATER SERVICE
COLUMBIA POWER & WATER SYSTEMS
201 PICKENS LANE
COLUMBIA, TENNESSEE 38401
(931) 388-4833

ELECTRIC SERVICE
COLUMBIA POWER & WATER SYSTEMS
201 PICKENS LANE
COLUMBIA, TENNESSEE 38401
(931) 388-4833

PURPOSE NOTE: CONSTRUCT 1,188 L.F. OF ROADWAY AND PROVIDE 12 RESIDENTIAL LOTS WITH RELATED APPURTENANCES

Location Map



PARCEL CALCULATIONS:

DENSITY:

TOTAL ACRES: 12.55 ACRES
ALLOWED: 1 UNIT PER ACRE
TOTAL ALLOWED: 12 UNITS
TOTAL SHOWN: 12 UNITS
DENSITY SHOWN: 1 UNIT PER ACRE

TREE CANOPY PRESERVATION:

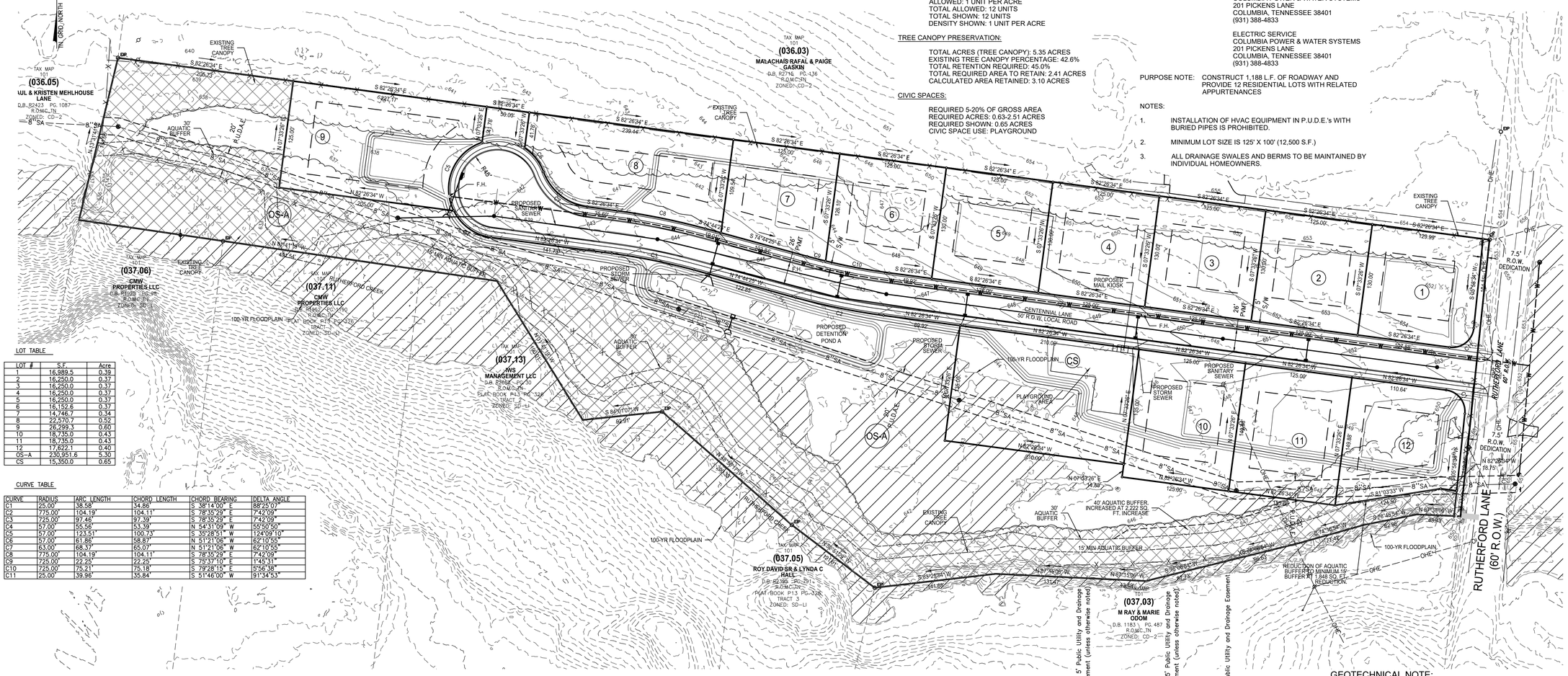
TOTAL ACRES (TREE CANOPY): 5.35 ACRES
EXISTING TREE CANOPY PERCENTAGE: 42.6%
TOTAL RETENTION REQUIRED: 45.0%
TOTAL REQUIRED AREA TO RETAIN: 2.41 ACRES
CALCULATED AREA RETAINED: 3.10 ACRES

CIVIC SPACES:

REQUIRED 5-20% OF GROSS AREA
REQUIRED ACRES: 0.63-2.51 ACRES
REQUIRED SHOWN: 0.65 ACRES
CIVIC SPACE USE: PLAYGROUND

NOTES:

1. INSTALLATION OF HVAC EQUIPMENT IN P.U.D.E.'s WITH BURIED PIPES IS PROHIBITED.
2. MINIMUM LOT SIZE IS 125' X 100' (12,500 S.F.)
3. ALL DRAINAGE SWALES AND BERMS TO BE MAINTAINED BY INDIVIDUAL HOMEOWNERS.



LOT TABLE

LOT #	S.F.	Acre
1	16,889.5	0.39
2	16,250.0	0.37
3	16,250.0	0.37
4	16,250.0	0.37
5	16,250.0	0.37
6	16,152.6	0.37
7	14,746.7	0.34
8	22,570.7	0.52
9	26,299.3	0.60
10	18,735.0	0.43
11	18,735.0	0.43
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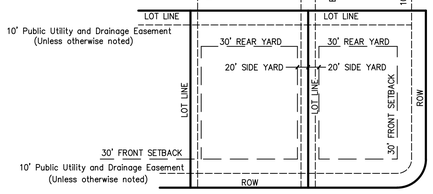
	EXISTING	PROPOSED
WATER MAIN		W
SANITARY SEWER	SA	SA
STORM SEWER		
OVERHEAD	OHE	
FENCE		
GAS	G	G
DRAINAGE DITCH		
TREE PROTECTION FENCE		
SIGN		
UTILITY POLE		
IRON PIN SET		
EXISTING IRON PIN	EIP	
CONCRETE MONUMENT		
DECIDUOUS TREE		
GATE VALVE IN BOX		
LIGHT POLE		
BENCHMARK	BM 1	
TREE LINE		
STORM STRUCTURE LABEL		(#1)
ASPHALT		
CONCRETE		
# PARKING SPACES		(14)

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PERMANENT STORM SEWER												
UTILITIES												
TEMPORARY VEGETATION												
PAVING												
PERMANENT VEGETATION												
REMOVE TEMPORARY STRUCTURES												



SUBDIVISION
TYPICAL LOT LAYOUT

GRAPHIC SCALE

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(IN FEET)
1 inch = 60 ft.

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(931) 388-2329

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gerald@wesengineers.com

SUBMITTED FOR MUNICIPAL APPROVAL
NOT FOR CONSTRUCTION

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2486 NASHVILLE HIGHWAY
COLUMBIA, TN 38401
PHONE: (931) 388-2329
www.wesengineers.com
ENGINEERS & SURVEYORS

WOODWARD ESTATES
RUTHERFORD LANE
COLUMBIA, MAURY COUNTY, TENNESSEE
SITE DEVELOPMENT PLAN

Client
KLF INVESTMENTS LLC
2000 MALLORY LANE #130-83
FRANKLIN, TN 37067

REVISIONS	DATE
STAFF COMMENTS ADDRESSED	09/16/24

Drawn: JG
Checked: JG
Approved: GW
Date: 08/19/2024

Job. no. 24538
Scale:
Vertical: 1"=60'
Horizontal:

1 OF 1

FILE: J:\WES_Engineers_Surveyors 2024\24538 - Rutherford Lane Brandon Roberts - A1 Builders\Dwg\Engineering\24538_base REV1.dwg

September 16, 2024

Paul Keltner, AICP, Director
Development Services – City of Columbia
700 North Garden Street
Columbia, Tennessee 38401

RE: Rutherford Lane – Woodward Estates – Preliminary Plat / Site Development Plan

On behalf of the owner for the proposed development, WES Engineers & Surveyors would like to resubmit the documents attached to the City of Columbia for the Preliminary Plat / Site Development Plan. Staff comments have been addressed below in GREEN.

Planning

1. Provide specific location of playground and pedestrian connection for Civic Space lot. Please provide square footage of lot indicating that civic space lot is at least 5%.
   Calculations for the civic space minimum/maximum area requirements can be found in the parcel calculations on the preliminary plat/site development plan.

2. Protection of Specimen Trees required on page. 295 of the Zoning Ordinance. A site inventory is required of all proposed Specimen Trees being proposed for removal (tree with a caliper trunk of 24 inches or greater). If a specimen tree is to be removed it shall be listed on the tree inventory, with a replacement tree at a minimum of two and half caliper inches of caliper inches of trees removed.
   At this time, there are no heritage trees identified to be removed as part of this development.

3. Please sign and date the checklists.
   A signed checklist is part of the submittal package.

4. Please provide for dedication of RoW in place of reservation with a note that a connection will be made with the property to the north should it develop.
   Reservation strip to the north of the cul-de-sac has been removed and is being shown as 50' R.O.W.

5. Provide clarification that tree protection areas counted towards code requirement are not located on private lots but in open space areas.
   In 4.3.16-L.4.(4), Tree save areas are allowed to be counted towards tree save areas for single family residential lots as part of the development plan. When tree save areas are established and recorded in the final plat, it protects the established tree save area from future removal. Without the designation of the tree save areas in single family lots, the future homeowner would be allowed to remove said trees due to the mechanisms as described in 4.3.16-L.1.a.1 and 4.3.16-L.2.a. Not establishing a tree save area on private lots offers no protection for possible future removal. With the case of this project, there

is ample tree canopy to not include the canopy located on the single family residential lots, therefore, it has been demonstrated on this preliminary plat/site development plan to not include the areas located in the single family lot. See the parcel calculations for the adjusted retention of the tree canopy area.

Engineering

6. Subject to construction plans.
   Acknowledged.

7. Provide proposed 70' reservation strip as ROW.
   Removed the 70' reservation strip to the south and transformed the 70' reservation strip to the north to a 50' R.O.W.

8. Remove stub to south. Align north stub such that cul-de-sac could be remove and a horz. curve could be constructed in place.
   Removed the 70' reservation strip to the south and transformed the 70' reservation strip to the north to a 50' R.O.W.

9. Subject to USACE Flood Study.
   Acknowledged.

10. Stormwater run-on from the north will need to be accounted for including the roadside ditch.
    Acknowledged.

11. Stream buffers shall be contained within open space.
    Lots 9-12 have been readjusted to not include the aquatic buffer on a lot. The 30' aquatic buffer located on lot 12 and a portion of Lot 11 has been readjusted to a minimum of a 15' aquatic buffer. The aquatic buffer was adjusted to 40' on the areas behind lot 10 and the remainder of lot 11 to provide the 30' average.

12. No dead-end street shall be permitted to be longer than six hundred and fifty (650) feet.
    We understand that the maximum length of the cul-de-sac cannot be greater than 650'. The original conceptual idea of this proposed development, as presented to staff, was to have a T-intersection. Staff expressed they were more in favor of a cul-de-sac even though it does not meet certain requirements of the code. For fire protection, we must have a turnaround, as the t-intersection would have met international fire code standards, the fire department expressed they are opposed to the design at concept. Also, we have extended the road to the point that it will work best should a future connection to the north become an interest again, as demonstrated by providing the dedicated ROW to the north property line at the cul-de-sac for future extension. If either alternative would not be allowed, this lot would make the parcel much less developable for anything more than

one single family residential lot due to sight constraints (no aquatic buffer in lots, limiting access to collector roads, the existing sanitary sewer line, the 100-year floodplain, tree canopy preservation, etc.) The plan presented before staff is a conglomeration that best uses the space available and keeps with the suburban rural characteristics while minimizing impact to the site constraints as well as providing for future continuation of the road.

Fire

13. No comments

Maury County Schools

14. Woodard Elementary, Whitthorne Middle, Central High School
    See Attached Capacity Numbers.
    The development combined with current neighborhoods and additional approved developments in these zones may require either new construction or realignment of school zones to accommodate new students.
    Acknowledged.

Building

15. No comments.

Police

16. No comments provided.

Public Works

17. No comments.

Columbia Water

18. "A water availability letter was issued on August 18, 2024, it remains valid for 120 days. 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.

Duck River Electric Membership Corp

19. No comments.

Maury County Highway Dept.

20. No comments provided.

Columbia Power

21. 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.

Atmos Energy

22. Natural gas available along Rutherford Lane.
    Acknowledged.

Maury County E911

23. No comments provided.

ATT

24. No comments provided.

ATTACHMENTS: Preliminary Plat, Site Development Plan

I hope you find the attached information helpful in your review. If you have any questions or comments regarding this and the associated documentation, please do not hesitate to contact me directly.

Sincerely,
WES Engineers & Surveyors

Gerald W. Vick, PE
Principal

CITY OF COLUMBIA TENNESSEE

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

September 12, 2024

Project Name: 413 Rutherford Ln
Project #: 24-0370

Dear WES Engineers & Surveyors,

We received a plan for review at the above referenced project. Our review of your project requires additional information, corrections, or revisions before we can proceed.

After reviewing the specific comments from each department, please submit your revised plans in the following manner:

- Include a copy of this letter with your own letter of response that corresponds to our items on the original letter
- Submit revised copies of any requested item showing revision date, totally the original required copies.
- Cloud or Highlight all changes in the revised drawings showing revision date

Submittal Guidelines

Provide digital copies of construction plans and all supporting documentation. Submit all required documents electronically. Plan sheets should be appropriately compiled into one file. All plan sheets shall be vector format.

Electronic documents must be emailed to **development@columbiatn.com**. If the files are oversized, please provide a file sharing link.

Please do not submit scanned documents, only digital files of original documents.

Please address the comments on the following page. For any questions regarding corrections, the reviewer's name and contact information have been included.

ALL COMMENTS MUST BE ADDRESSED IN ONE COMPLETE RESUBMITTAL

Further corrections may be necessary as a result of submitting additional information.

Please be advised that submissions for the fourth and any subsequent reviews will result in an additional fee totaling half of the original submittal, if applicable.

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Columbia Power

22. 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.

Atmos Energy

23. Natural gas available along Rutherford Lane.

Maury County E911

24. No comments provided.

ATT

25. No comments provided.

Sincerely,

Austin Brass
Planner

PRELIMINARY PLAT

© 2024

SITE DATA:

OWNER: KLF INVESTMENTS, LLC.
2000 MALLORY LANE #130-83
FRANKLIN, TN 37067

PARCEL NUMBER: TAX MAP 101 PARCEL 036.06
DEED BOOK: R2913, PG 479

SUBJECT PARCEL ZONING: CD-2

ACREAGE OF SITE: 12.55 ACRES
(PROPOSED 52,613.7 S.F. - 1.21 Ac. RIGHT OF WAY DEDICATION)

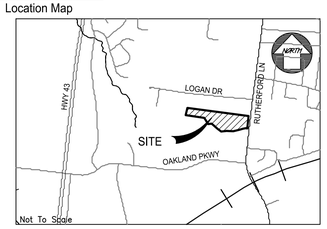
MINIMUM REQUIRED BUILDING SETBACKS:
30' FRONT
30' REAR
20' SIDE

UTILITY SERVICES: WATER SERVICE
COLUMBIA POWER & WATER SYSTEMS
201 PICKENS LANE
COLUMBIA, TENNESSEE 38401
(931) 388-4833

ELECTRIC SERVICE
COLUMBIA POWER & WATER SYSTEMS
201 PICKENS LANE
COLUMBIA, TENNESSEE 38401
(931) 388-4833

PURPOSE NOTE: CONSTRUCT 1,188 L.F. OF ROADWAY AND PROVIDE 12 RESIDENTIAL LOTS WITH RELATED APPURTENANCES

Location Map



DENSITY:

TOTAL ACRES: 12.55 ACRES
ALLOWED: 1 UNIT PER ACRE
TOTAL ALLOWED: 12 UNITS
TOTAL SHOWN: 12 UNITS
DENSITY SHOWN: 1 UNIT PER ACRE

TREE CANOPY PRESERVATION:

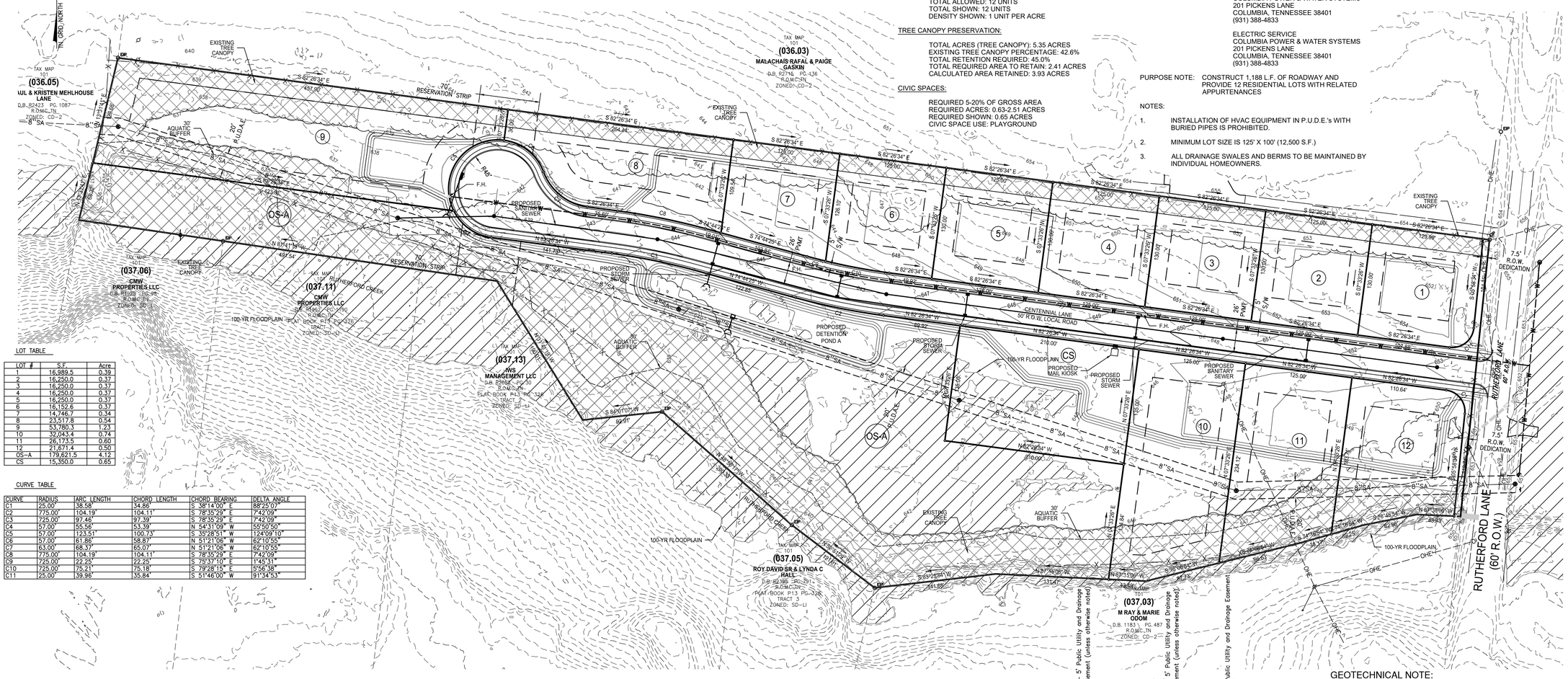
TOTAL ACRES (TREE CANOPY): 5.35 ACRES
EXISTING TREE CANOPY PERCENTAGE: 42.6%
TOTAL RETENTION REQUIRED: 45.0%
TOTAL REQUIRED AREA TO RETAIN: 2.41 ACRES
CALCULATED AREA RETAINED: 3.93 ACRES

CIVIC SPACES:

REQUIRED 5-20% OF GROSS AREA
REQUIRED ACRES: 0.63-2.51 ACRES
REQUIRED SHOWN: 0.65 ACRES
CIVIC SPACE USE: PLAYGROUND

NOTES:

1. INSTALLATION OF HVAC EQUIPMENT IN P.U.D.E.'s WITH BURIED PIPES IS PROHIBITED.
2. MINIMUM LOT SIZE IS 125' X 100' (12,500 S.F.)
3. ALL DRAINAGE SWALES AND BERMS TO BE MAINTAINED BY INDIVIDUAL HOMEOWNERS.


TN. GRID NORTH
TAX MAP 101
(036.05)
LOUL & KRISTEN MEHLHOUSE LANE
D.B. 82423 PG. 1087
R.O.M.C. TN
ZONED: CD-2
TAX MAP 101
(036.03)
MALACHAIS RAFAL & PAIGE GASKIN
D.B. R2716 PG. 136
R.O.M.C. TN
ZONED: CD-2
TAX MAP 101
(037.06)
CMW PROPERTIES LLC
D.B. R1035 PG. 98
R.O.M.C. TN
ZONED: SD-LI
TAX MAP 101
(037.11)
CMW PROPERTIES LLC
D.B. R1662 PG. 190
R.O.M.C. TN
PLAT BOOK P13 PG. 328
TRACT 2
ZONED: SD-LI
TAX MAP 101
(037.13)
WS MANAGEMENT LLC
D.B. R2958 PG. 30
R.O.M.C. TN
PLAT BOOK P13 PG. 328
TRACT 1
ZONED: SD-LI
TAX MAP 101
(037.05)
ROY DAVID SR & LYNDA C HALL
D.B. R2195 PG. 791
R.O.M.C. TN
PLAT BOOK P13 PG. 328
TRACT 3
ZONED: SD-LI
TAX MAP 101
(037.03)
M RAY & MARIE ODOM
D.B. 1183 PG. 487
R.O.M.C. TN
ZONED: CD-2
EXISTING TREE CANOPY
70' RESERVATION STRIP
PROPOSED SANITARY SEWER
PROPOSED STORM SEWER
PROPOSED DETENTION POND A
CENTENNIAL LANE
50' R.O.W, LOCAL ROAD
PROPOSED MAIL KIOSK
30' AQUATIC BUFFER
100-YR FLOODPLAIN
RUTHERFORD CREEK
RUTHERFORD LANE
(60' R.O.W.)
7.5' R.O.W. DEDICATION
20' P.U.D.E.
30' P.U.D.E.
OS-A
CS
F.H.
OHE
8"SA
S 82°26'34" E 497.54'
N 07°41'11" W 497.54'
S 82°26'34" E 264.34'
S 82°26'34" E 125.00'
S 82°26'34" E 129.96'
S 07°33'26" W 109.54'
S 07°33'26" W 126.10'
S 07°33'26" W 150.00'
S 07°33'26" W 134.99'
S 07°33'26" W 130.00'
S 74°44'25" E 49.84'
N 83°26'34" W 141.79'
N 74°44'25" W 132.85'
N 82°26'34" W 68.92'
N 82°26'34" W 210.00'
N 82°26'34" W 126.00'
N 82°26'34" W 125.00'
N 82°26'34" W 110.64'
N 07°33'26" W 234.12'
S 84°01'07" W 69.91'
N 38°39'39" W 431.93'
N 07°33'26" W 130.00'
S 82°26'34" E 125.00'
S 82°26'34" E 102.96'
S 65°36'54" W 44.44'
N 82°26'34" W 68.92'
N 82°26'34" W 125.00'
N 82°26'34" W 110.64'
N 07°33'26" W 234.12'
S 82°26'34" E 125.00'
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SITE DEVELOPMENT PLAN

© 2024

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COLUMBIA, TENNESSEE 38401
(931) 388-4833

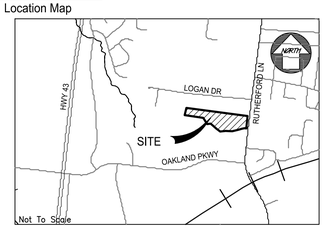
ELECTRIC SERVICE
COLUMBIA POWER & WATER SYSTEMS
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COLUMBIA, TENNESSEE 38401
(931) 388-4833

PURPOSE NOTE: CONSTRUCT 1,188 L.F. OF ROADWAY AND PROVIDE 12 RESIDENTIAL LOTS WITH RELATED APPURTENANCES

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Location Map



DENSITY:

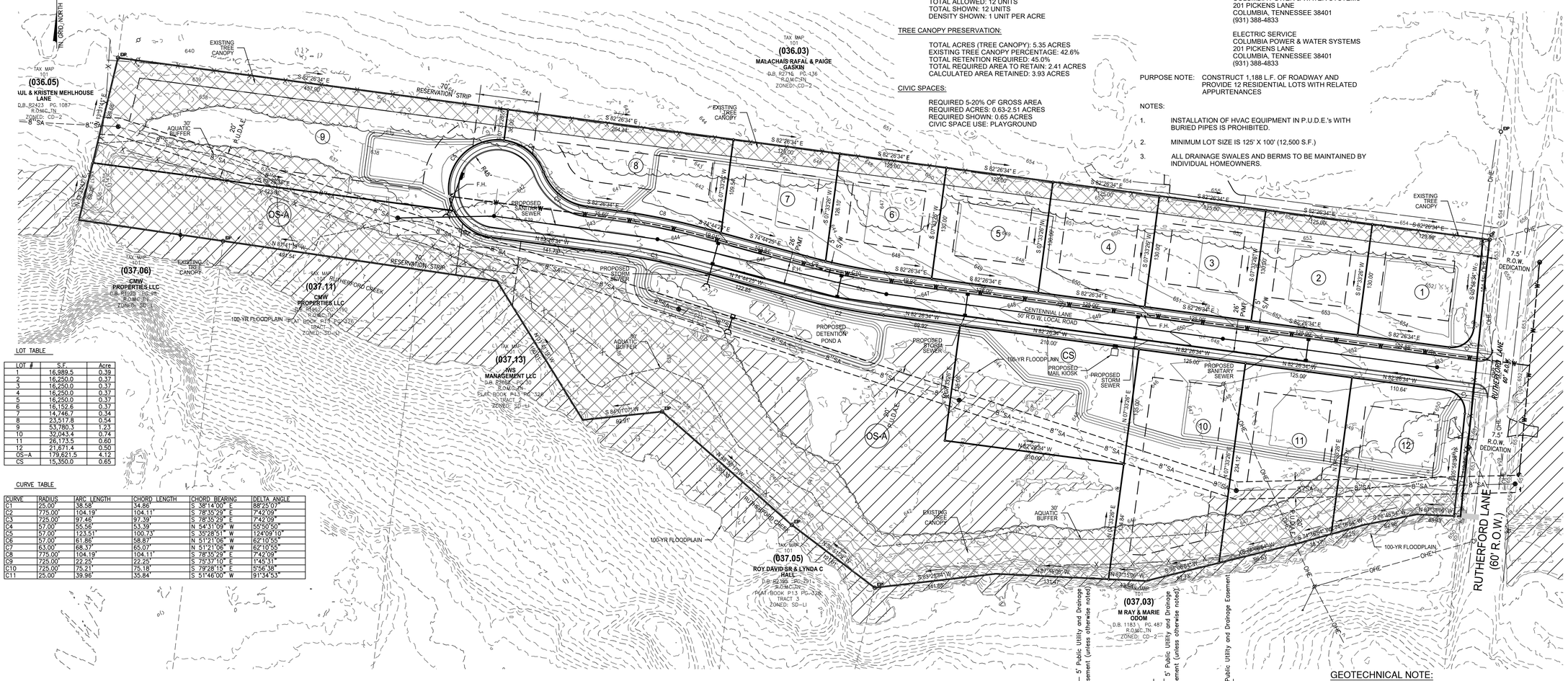
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REQUIRED ACRES: 0.63-2.51 ACRES
REQUIRED SHOWN: 0.65 ACRES
CIVIC SPACE USE: PLAYGROUND



LOT TABLE

LOT #	S.F.	Acre
1	16,889.5	0.39
2	16,250.0	0.37
3	16,250.0	0.37
4	16,250.0	0.37
5	16,250.0	0.37
6	16,152.6	0.37
7	14,746.7	0.34
8	23,517.8	0.54
9	53,780.3	1.23
10	32,043.4	0.74
11	26,173.5	0.60
12	21,671.4	0.50
OS-A	179,621.5	4.12
CS	15,350.0	0.65

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	25.00'	38.58'	34.86'	S. 38°14'00" E.	88°25'07"
C2	775.00'	104.19'	104.11'	S. 78°35'29" E.	7°42'09"
C3	725.00'	97.46'	97.39'	S. 78°35'29" E.	7°42'09"
C4	57.00'	55.56'	53.39'	N. 54°31'09" W.	55°50'50"
C5	57.00'	123.51'	100.73'	S. 35°28'51" W.	124°09'10"
C6	57.00'	61.86'	58.87'	N. 51°21'06" W.	62°10'55"
C7	63.00'	68.37'	65.07'	N. 51°21'06" W.	62°10'55"
C8	775.00'	104.19'	104.11'	S. 78°35'29" E.	7°42'09"
C9	725.00'	22.25'	22.25'	S. 75°37'10" E.	1°45'31"
C10	725.00'	75.21'	75.18'	S. 79°28'15" E.	5°56'38"
C11	25.00'	39.96'	35.84'	S. 51°46'00" W.	91°34'53"

WARNING! UTILITY LINES!

THE CONTRACTOR WILL EXERCISE EXTREME CAUTION IN THE USE OF EQUIPMENT IN AND AROUND OVERHEAD AND UNDERGROUND UTILITY WIRES AND SERVICES. IF AT ANY TIME IN THE PURSUIT OF THIS WORK THE CONTRACTOR MUST WORK IN CLOSE PROXIMITY OF OVERHEAD OR UNDERGROUND SERVICES, THE UTILITY COMPANY SHALL BE CONTACTED PRIOR TO SUCH WORK AND THE PROPER SAFETY MEASURES TAKEN. A THOROUGH EXAMINATION OF THE OVERHEAD WIRES IN THE PROJECT AREA SHOULD BE MADE BY THE CONTRACTOR PRIOR TO THE INITIATION OF CONSTRUCTION. THE UNDERGROUND UTILITY LINES HAVE BEEN SHOWN AS BEST AS CAN BE DETERMINED AT THIS TIME FROM THE INFORMATION OBTAINED FROM THE SURVEY. THE CONTRACTOR SHALL CONTACT EACH OF THESE COMPANIES PRIOR TO BEGINNING CONSTRUCTION AND HAVE THEM DETERMINE THE EXACT LOCATION AND TYPE OF THEIR SERVICES.

Tennessee811 Know what's below Call before you dig.

LEGEND

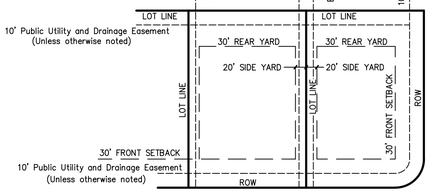
	EXISTING	PROPOSED
WATER MAIN		W
SANITARY SEWER	SA	SA
STORM SEWER		
OVERHEAD FENCE		
GAS	G	G
DRAINAGE DITCH		
TREE PROTECTION FENCE		
SIGN		
UTILITY POLE		
IRON PIN SET		
EXISTING IRON PIN	EIP	
CONCRETE MONUMENT		
DECIDUOUS TREE		
GATE VALVE IN BOX		
LIGHT POLE		
BENCHMARK	BM 1	
TREE LINE		
STORM STRUCTURE LABEL		(ST)
ASPHALT		
CONCRETE		
# PARKING SPACES		(14)

OPEN SPACE NOTE:

ALL OPEN SPACE AREA IS TO BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION, CREATED FOR THE PURPOSE OF MAINTAINING ALL COMMON OPEN SPACE AND GROUNDS INCLUDING THE DETENTION AREAS SHOWN ON THIS PLAT.

PROPOSED CONSTRUCTION SCHEDULE FOR THE YEAR 2023

ACTIVITY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP
TEMPORARY SEDIMENT STRUCTURES												
SEDIMENT BASINS												
DIVERSION DITCHES												
CLEARING & CHIPPING												
TOPSOIL STRIPPING AND STORAGE												
ROADWAY GRADING												
PERMANENT STORM SEWER												
UTILITIES												
TEMPORARY VEGETATION												
PAVING												
PERMANENT VEGETATION												
REMOVE TEMPORARY STRUCTURES												



SUBDIVISION TYPICAL LOT LAYOUT

GRAPHIC SCALE

60 0 30 60 120 240

(IN FEET)
1 inch = 60 ft.

GEOTECHNICAL NOTE:

CONTRACTOR TO COMPLETE A GEOTECHNICAL STUDY CONDUCTED ON THIS SITE PRIOR TO COMINCEMENT OF CONSTRUCTION. THE DESIGN FOR THE SITE IMPROVEMENTS SHOWN ON THIS PLAN HAVE RELIED ON GENERAL INFORMATION FROM FIELD REVIEW OF EXISTING TERRAIN, IF, IN THE PURSUIT OF THIS WORK BY THE CONTRACTOR, CONDITIONS OR CIRCUMSTANCES ARE ENCOUNTERED THAT ARE DIFFERENT THAN REFLECTED IN THESE PLANS OR THAT APPEAR TO IMPACT THE SCOPE OF THE WORK, THE CONTRACTOR WILL IMMEDIATELY NOTIFY THE CIVIL ENGINEER, THE GEOTECHNICAL ENGINEER AND THE OWNER/DEVELOPER. BEFORE ANY REMEDIAL COURSE OF ACTION OR DESIGN CHANGE IS INITIATED, ALL PARTIES TO THE PROCESS (OWNER, CIVIL ENGINEER, GEOTECHNICAL ENGINEER, AND CONTRACTOR) MUST BE IN AGREEMENT AND THE MAGNITUDE OF THE COST/TIME REQUIRED FOR THE MEASURES ESTABLISHED.

SITE BENCHMARK NOTE:

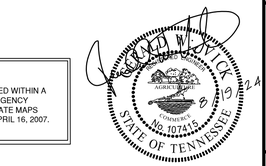
CONTRACTOR SHALL ESTABLISH A BENCHMARK PRIOR TO CONSTRUCTION. EXISTING BENCHMARK MUST BE RE-VERIFIED AND APPROVED BY THE ENGINEER/SURVEYOR PRIOR TO USE.

BOUNDARY & TOPOGRAPHIC SURVEY PROVIDED BY:

W.E.S. ENGINEERS AND SURVEYORS
2486 NASHVILLE HWY
COLUMBIA, TENNESSEE 38401
(931) 388-2329

FLOOD STUDY NOTE:

A PORTION OF THE PROPERTY IS NOT LOCATED WITHIN A FLOOD HAZARD AREA AS PER FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAPS (FIRM's) MAP NUMBER 47119C0290E DATED APRIL 16, 2007.



gerald@wesengineers.com

SUBMITTED FOR MUNICIPAL APPROVAL
NOT FOR CONSTRUCTION

WES E NGINEERS & S URVEYORS
CIVIL ENGINEERS & LAND SURVEYORS
2486 NASHVILLE HIGHWAY
COLUMBIA, TN 38401
PHONE: (931) 388-2329
www.wesengineers.com

WES A ENGINEERS & SURVEYORS

Client
KLF INVESTMENTS LLC
2000 MALLORY LANE #130-83
FRANKLIN, TN 37067

DATE
REVISIONS

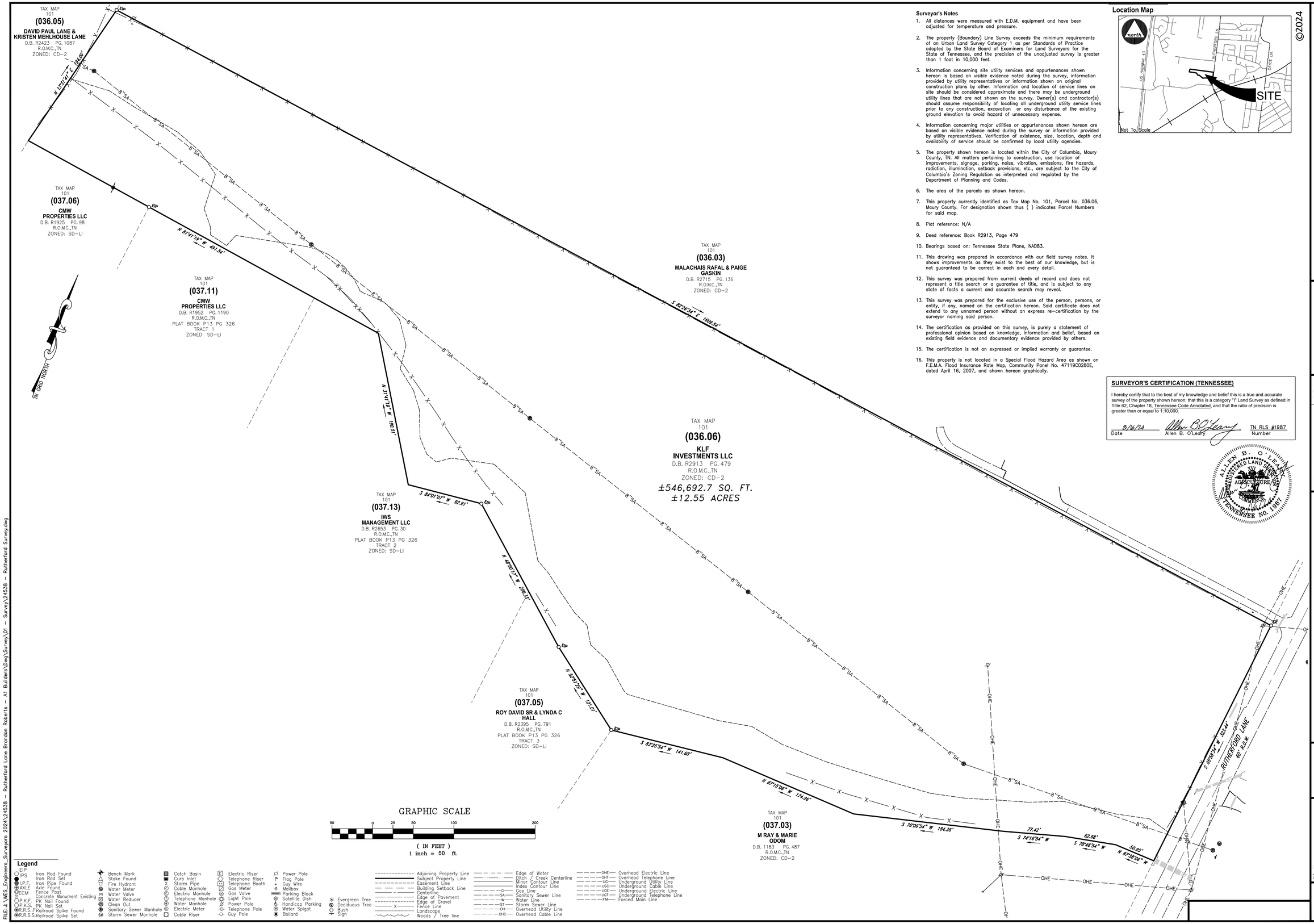
WOODWARD ESTATES
RUTHERFORD LANE
COLUMBIA, MAURY COUNTY, TENNESSEE
SITE DEVELOPMENT PLAN

Drawn: JG
Checked: JG
Approved: GV
Date: 08/19/2024

Job. no. 24538
Scale:
Vertical: 1"=60'
Horizontal:

1 OF 1

FILE: J:\WES_Engineers_Surveyors 2024\24538 - Rutherford Lane Brandon Roberts - A1 Builders\Dwg\Engineering\24538_base REV1.dwg



GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)

1 inch = 50 ft.

Legend

- EIP Iron Rod Found
- EIR Iron Rod Set
- I.P.F. Iron Pipe Found
- AXLE Axle Found
- FCM Fence Post
- CM Concrete Monument Existing
- P.K.F. PK Nail Found
- P.K.S. PK Nail Set
- R.R.S.-F Railroad Spike Found
- R.R.S.-S Railroad Spike Set
- Bench Mark
- Stake Found
- Fire Hydrant
- Water Meter
- Water Valve
- Water Reducer
- Clean Out
- Sanitary Sewer Manhole
- Storm Sewer Manhole
- Catch Basin
- Curb Inlet
- Storm Pipe
- Cable Manhole
- Electric Manhole
- Telephone Manhole
- Water Manhole
- Electric Meter
- Cable Riser
- Electric Riser
- Telephone Riser
- Telephone Booth
- Gas Meter
- Gas Valve
- Light Pole
- Power Pole
- Telephone Pole
- Guy Pole
- Power Pole
- Flag Pole
- Guy Wire
- Mailbox
- Parking Block
- Satellite Dish
- Handicap Parking
- Water Spigot
- Bollard
- Evergreen Tree
- Deciduous Tree
- Bush
- Sign
- Adjoining Property Line
- Subject Property Line
- Easement Line
- Building Setback Line
- Centerline
- Edge of Pavement
- Edge of Gravel
- Fence Line
- Landscape
- Woods / Tree line
- Edge of Water
- Ditch / Creek Centerline
- Minor Contour Line
- Index Contour Line
- Gas Line
- Sanitary Sewer Line
- Water Line
- Storm Sewer Line
- Overhead Utility Line
- Overhead Cable Line
- Overhead Electric Line
- Overhead Telephone Line
- Underground Utility Line
- Underground Cable Line
- Underground Electric Line
- Underground Telephone Line
- Forced Main Line

Surveyor's Notes

1. All distances were measured with E.D.M. equipment and have been adjusted for temperature and pressure.
2. The property (Boundary) Line Survey exceeds the minimum requirements of an Urban Land Survey Category 1 as per Standards of Practice adopted by the State Board of Examiners for Land Surveyors for the State of Tennessee, and the precision of the unadjusted survey is greater than 1 foot in 10,000 feet.
3. Information concerning site utility services and appurtenances shown hereon is based on visible evidence noted during the survey, information provided by utility representatives or information shown on original construction plans by other. Information and location of service lines on site should be considered approximate and there may be underground utility lines that are not shown on the survey. Owner(s) and contractor(s) should assume responsibility of locating all underground utility service lines prior to any construction, excavation or any disturbance of the existing ground elevation to avoid hazard of unnecessary expense.
4. Information concerning major utilities or appurtenances shown hereon are based on visible evidence noted during the survey or information provided by utility representatives. Verification of existence, size, location, depth and availability of service should be confirmed by local utility agencies.
5. The property shown hereon is located within the City of Columbia, Maury County, TN. 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.
6. The area of the parcels as shown hereon.
7. This property currently identified as Tax Map No. 101, Parcel No. 036.06, Maury County. For designation shown thus ( ) indicates Parcel Numbers for said map.
8. Plat reference: N/A
9. Deed reference: Book R2913, Page 479
10. Bearings based on: Tennessee State Plane, NAD83.
11. This drawing was prepared in accordance with our field survey notes. It shows improvements as they exist to the best of our knowledge, but is not guaranteed to be correct in each and every detail.
12. This survey was prepared from current deeds of record and does not represent a title search or a guarantee of title, and is subject to any state of facts a current and accurate search may reveal.
13. 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.
14. The certification as provided on this survey, is purely a statement of professional opinion based on knowledge, information and belief, based on existing field evidence and documentary evidence provided by others.
15. The certification is not an expressed or implied warranty or guarantee.
16. This property is not located in a Special Flood Hazard Area as shown on F.E.M.A. Flood Insurance Rate Map, Community Panel No. 47119C0280E, dated April 16, 2007, and shown hereon graphically.

Location Map

©2024

SURVEYOR'S CERTIFICATION (TENNESSEE)

I hereby certify that to the best of my 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.

8/16/24 — Date
Allen B. O'Leary — TN RLS #1987 Number

ALLEN B. O'LEARY — REGISTERED LAND SURVEYOR — XVI — AGRICULTURE — NUMBER — TENNESSEE NO. 1987

WES Engineers & Surveyors
CIVIL ENGINEERS & LAND SURVEYORS
2486 NASHVILLE HIGHWAY
COLUMBIA, TN 38401
PHONE: (931) 388-2329
www.wesengineers.com
ENGINEERS & SURVEYORS

Client
KLF INVESTMENTS LLC
2000 MALLORY LANE #130-83
FRANKLIN, TN 37067

REVISIONS	DATE

PLAT OF SURVEY

RUTHERFORD LN
COLUMBIA, TN 38401

Drawn: EB
Checked: AO
Approved: AO
Date: 08-16-2024

Job. no. 24538
Scale: Vertical: Horizontal: 1"=50'

1 of 1

FILE:J:\WES_Engineers_Surveyors 2024\24538 - Rutherford Lane Brandon Roberts - A1 Builders\Dwg\Survey\01 - Survey\24538 - Rutherford Survey.dwg

August 16, 2024
Mr. Gerald W. Vick P.E.
WES Engineers & Surveyors
2486 Nashville Hwy
Columbia, TN 38401
Sent via email: gerald@wesengineers.com
RE: Water Availability Letter
415 Rutherford Lane – 12 Units
Rutherford Lane
Tax Map 101, Parcel 36.06
Columbia, Maury County, TN

Dear Mr. Vick:

Columbia Power and 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, various Planning Commissions and other authorities in Cities and Counties. These Cities and Counties have also adopted rules and regulations. Subject to the payment of all charges and fees imposed by CPWS and the approval of any and all required governmental agencies, water service will be made available on a first-come, first-served basis, 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 12 units. CPWS has evaluated the projected water demands for the proposed residential development in the water system hydraulic model and is able to meet a fire-flow capacity of 1,000 gpm at 20 psi while maintaining the existing level of service and pressures in this portion of the distribution system. CPWS can provide water for the proposed development according to the following requirements:

- Domestic waterline connection will be made to the existing 6-inch water main located on Rutherford.
- Minimum size 8-inch water mains will be required throughout the development.

All of the above requirements are to be constructed and paid for by the Applicant and dedicated to CPWS once complete up to and including the meter. No construction of CPWS infrastructure shall be initiated until final construction plans have been approved by TDEC and all parties have fully executed a water service agreement.

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

- Provide site base CAD files in DWG format, including roads, lot lines, existing and proposed contours, and other existing and proposed utilities, for use in development of water construction drawings.
- Remit to CPWS new water service fees:

New Water Service Fee: $1,500 + $370 per SFU (12 SFUs)	$5,940.00

- CPWS will then develop water construction drawings and submit to TDEC for approval. Upon approval by TDEC and payment of meter and impact fees by the applicant, applicant may then schedule a pre-construction meeting with CPWS. Pre-construction meeting will not be scheduled until fees are paid in full or surety is provided in lieu of full payment. Final meter and impact fees are subject to change based on final design and meter size determination. Meter fees are subject to change based on market costs at time of purchase. Meters will not be set until meter and impact fees are paid.

Meter Fee: $540 per 3/4" meter (12 meters)	$6,480.00
Impact Fee: $4,500 per 3/4" meter (12 meters)	$54,000.00
Total Meter and Impact Fees Due =	**$60,480.00**

- After the pre-construction meeting, CPWS will then issue a formal notice to proceed. No construction of CPWS infrastructure may take place prior to the pre-construction meeting.
- Applicant is then 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.

If you have any questions, please feel free to contact me at 423-774-0349 or eric.king@inflodesign.com. This letter is valid for one-hundred twenty (120) days from the date of this letter.

Sincerely,



Eric King, P.E.
Inflo Design Group, LLC
on behalf of Columbia Power and Water Systems

cc: Jonathan Hardin, CPWS
File 24-051

Columbia Fire & Rescue

Fire Flow Requirements

Water Purveyor: Columbia Power & Water System

Date: 7/24/2024
Name: Gerald W. Vick, PE
Phone: 931-388-2329
Email: gerald@wesengineers.com
Address/Parcel ID: Rutherford Lane Map 101 Parcel 36.06
Property Type: (•) Residential ( ) Commercial ( ) Industrial
Construction Type: V-B - Wood Frame
Enclosed Area (ft^2): +/- 3,000 SF per home

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)

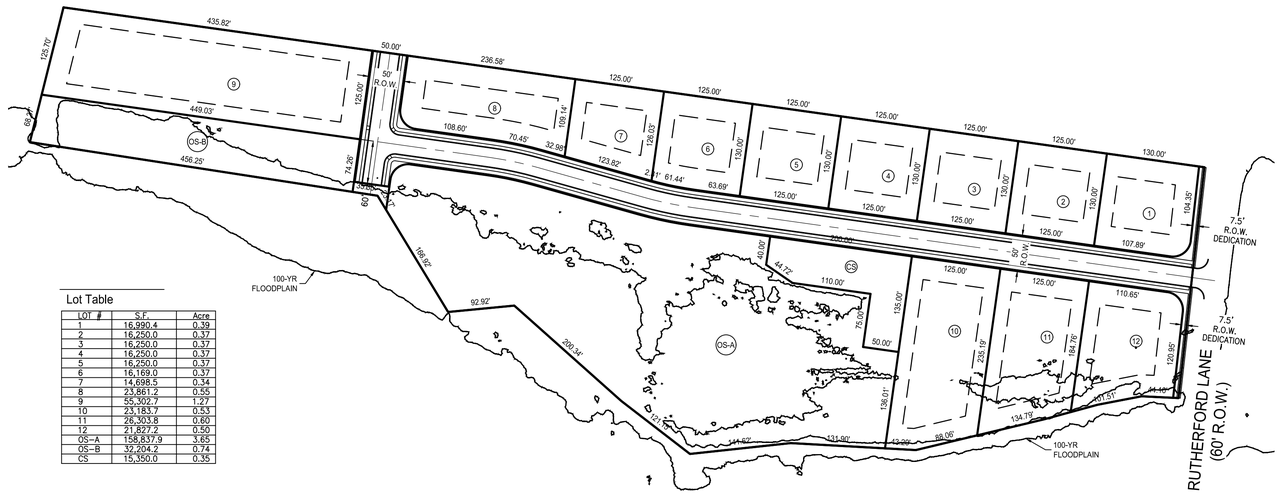
Minimum number of hydrants: 1

Average spacing between hydrants: 500 ft.

Maximum distance from frontage to hydrant: 250 ft.

Fire Plan Reviewer: Brad Massey Date: 7/25/2024

CONCEPT PLAN



Lot Table

LOT #	S.F.	Acre
1	16,990.4	0.39
2	16,250.0	0.37
3	16,250.0	0.37
4	16,250.0	0.37
5	16,250.0	0.37
6	16,169.0	0.37
7	14,698.5	0.34
8	23,861.2	0.55
9	55,302.7	1.27
10	23,183.7	0.53
11	26,303.8	0.60
12	21,827.2	0.50
OS--A	158,837.9	3.65
OS--B	32,204.2	0.74
CS	15,350.0	0.35

TN GRID NORTH

SITE DATA:

OWNER: KLF INVESTMENTS, LLC.
2000 MALLORY LANE #130-83
FRANKLIN, TN 37067

PARCEL NUMBER: TAX MAP 101 PARCEL 36.06
DEED BOOK: R2913, PG 479

SUBJECT PARCEL ZONING: CD-2

ACREAGE OF SITE: 12.58 ACRES
(PROPOSED 52,613.7 S.F. - 1.21 Ac. RIGHT OF WAY DEDICATION)

MINIMUM REQUIRED BUILDING SETBACKS:
25' FRONT
25' REAR
8' SIDE

UTILITY SERVICES: WATER SERVICE
COLUMBIA POWER & WATER SYSTEMS
201 PICKENS LANE
COLUMBIA, TENNESSEE 38401
(931) 388-4833

ELECTRIC SERVICE
COLUMBIA POWER & WATER SYSTEMS
201 PICKENS LANE
COLUMBIA, TENNESSEE 38401
(931) 388-4833

PURPOSE NOTE: CONSTRUCT 640.54 L.F. OF ROADWAY AND PROVIDE 16 RESIDENTIAL LOTS.

NOTES:

1. INSTALLATION OF HVAC EQUIPMENT IN P.U.D.E.'s WITH BURIED PIPES IS PROHIBITED.
2. MINIMUM LOT SIZE IS 65' X 120' (7,800 S.F.)
3. ALL DRAINAGE SWALES AND BERMS TO BE MAINTAINED BY INDIVIDUAL HOMEOWNERS.

© 2024

WES E NGINEERS & S URVEYORS
CIVIL ENGINEERS & LAND SURVEYORS
2486 NASHVILLE HIGHWAY
COLUMBIA, TN 38401
PHONE: (931) 388-2329
www.wesengineers.com
ENGINEERS & SURVEYORS

Client

DATE	

REVISIONS

BENCHMARK

BENCHMARK #1
XXXXX
ELEV = XXX.XX'
N = XXX,XXX.X
E = X,XXX,XXX.X
TENNESSEE COORDINATE
SYSTEM OF 1983
NAVD 88

WARNING! UTILITY LINES!

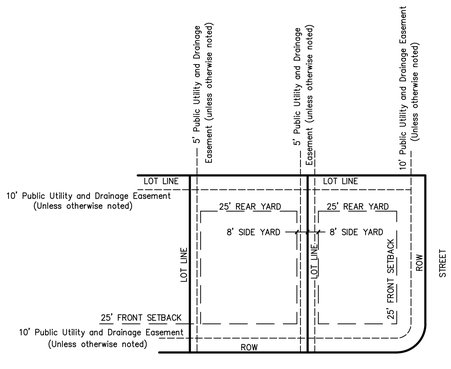
THE CONTRACTOR WILL EXERCISE EXTREME CAUTION IN THE USE OF EQUIPMENT IN AND AROUND OVERHEAD AND UNDERGROUND UTILITY WIRES AND SERVICES. IF AT ANY TIME IN THE PURSUIT OF THIS WORK THE CONTRACTOR MUST WORK IN CLOSE PROXIMITY OF OVERHEAD OR UNDERGROUND SERVICES, THE UTILITY COMPANY SHALL BE CONTACTED PRIOR TO SUCH WORK AND THE PROPER SAFETY MEASURES TAKEN. A THOROUGH EXAMINATION OF THE OVERHEAD WIRES IN THE PROJECT AREA SHOULD BE MADE BY THE CONTRACTOR PRIOR TO THE INITIATION OF CONSTRUCTION. THE UNDERGROUND UTILITY LINES HAVE BEEN SHOWN AS BEST AS CAN BE DETERMINED AT THIS TIME FROM THE INFORMATION OBTAINED FROM THE SURVEY. THE CONTRACTOR SHALL CONTACT EACH OF THESE COMPANIES PRIOR TO BEGINNING CONSTRUCTION AND HAVE THEM DETERMINE THE EXACT LOCATION AND TYPE OF THEIR SERVICES.

Tennessee811
Know what's **below**
Call before you dig.

LEGEND

	EXISTING	PROPOSED
WATER MAIN		W
SANITARY SEWER		
STORM SEWER	15"ST	15"ST
OVERHEAD		
FENCE		
GAS		
DRAINAGE DITCH		
TREE PROTECTION FENCE		
SIGN		
UTILITY POLE		
IRON PIN SET		
EXISTING IRON PIN	EIP	
CONCRETE MONUMENT		
DECIDUOUS TREE		
GATE VALVE IN BOX		
LIGHT POLE		
BENCHMARK	BM 1	

TREE LINE
STORM STRUCTURE LABEL (ST)
ASPHALT
CONCRETE
PARKING SPACES (14)



SUBDIVISION
TYPICAL LOT LAYOUT

GEOTECHNICAL NOTE:

CONTRACTOR TO COMPLETE A GEOTECHNICAL STUDY CONDUCTED ON THIS SITE PRIOR TO COMINCEMENT OF CONSTRUCTION. THE DESIGN FOR THE SITE IMPROVEMENTS SHOWN ON THIS PLAN HAVE RELIED ON GENERAL INFORMATION FROM FIELD REVIEW OF EXISTING TERRAIN. IF, IN THE PURSUIT OF THIS WORK BY THE CONTRACTOR, CONDITIONS OR CIRCUMSTANCES ARE ENCOUNTERED THAT ARE DIFFERENT THAN REFLECTED IN THESE PLANS OR THAT APPEAR TO IMPACT THE SCOPE OF THE WORK, THE CONTRACTOR WILL IMMEDIATELY NOTIFY THE CIVIL ENGINEER, THE GEOTECHNICAL ENGINEER AND THE OWNER/DEVELOPER, BEFORE ANY REMEDIAL COURSE OF ACTION OR DESIGN CHANGE IS INITIATED, ALL PARTIES TO THE PROCESS (OWNER, CIVIL ENGINEER, GEOTECHNICAL ENGINEER, AND CONTRACTOR) MUST BE IN AGREEMENT AND THE MAGNITUDE OF THE COST/TIME REQUIRED FOR THE MEASURES ESTABLISHED.

SITE BENCHMARK NOTE:

CONTRACTOR SHALL ESTABLISH A BENCHMARK PRIOR TO CONSTRUCTION. EXISTING BENCHMARK MUST BE RE-VERIFIED AND APPROVED BY THE ENGINEER/SURVEYOR PRIOR TO USE.

BOUNDARY & TOPOGRAPHIC SURVEY PROVIDED BY:

W.E.S. ENGINEERS AND SURVEYORS
2486 NASHVILLE HWY
COLUMBIA, TENNESSEE 38401
(931) 388-2329

OPEN SPACE NOTE:

ALL OPEN SPACE AREA IS TO BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION, CREATED FOR THE PURPOSE OF MAINTAINING ALL COMMON OPEN SPACE, DRAINAGE EASEMENTS AND GROUNDS INCLUDING THE DETENTION AREAS SHOWN ON THIS PLAT.

FLOOD STUDY NOTE:

NO PORTION OF THE PROPERTY IS LOCATED WITHIN A FLOOD HAZARD AREA AS PER FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAPS (FIRM's) MAP NUMBER 47117C0280E DATED APRIL 16, 2007.

GRAPHIC SCALE

100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

gerald@wesengineers.com

SUBMITTED FOR MUNICIPAL APPROVAL
NOT FOR CONSTRUCTION

CONCEPT PLAN
RUTHERFORD LANE
COLUMBIA, MAURY COUNTY, TENNESSEE
SITE LAYOUT & UTILITY PLAN

Drawn: BD
Checked:
Approved:
Date: 5/16/2024

Job. no. 24538
Scale:
Vertical: 1"=100'
Horizontal:

1 of 1

FILE: J:\ WES_Engineers_Surveyors 2024\24538 - Rutherford Lane Brandon Roberts - A1 Builders\Dwg\Engineering\24538_base CD-2.dwg

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: Woodward Estates

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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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.
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PUD Specific Items

- ❑ List of all deviations from PUD Standards requested
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- ❑ Exterior lighting plan.

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Checklist Completed By:

Print Name	Signature	Date

CITY OF COLUMBIA TENNESSEE

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Checklist Completed By:

Print Name	Signature	Date

August 19, 2024

Paul Keltner, AICP, Director
Development Services – City of Columbia
700 North Garden Street
Columbia, Tennessee 38401

RE: Rutherford Lane – Woodward Estates – Preliminary Plat / Site Development Plan

On behalf of the owner for the proposed development, WES Engineers & Surveyors would like to present the documents attached to the City of Columbia for the Preliminary Plat / Site Development Plan.

The development consists of 12 proposed residential lots. The configuration with existing conditions and the width of the existing lot limits the development to one proposed public access. The original concept design was to have a t intersection towards the rear of the property. This would have allowed a connection to the north that would give the ability of access to Rutherford Estates in the future. The Planning Commission voted to abandon this right of way connection. Therefore, with the feasible other connections points, we elected the proposed roadway to be a cul-de-sac approximately 1,190' in length from Rutherford Lane.

ATTACHMENTS: Preliminary Plat, Site Development Plan

I hope you find the attached information helpful in your review. If you have any questions or comments regarding this and the associated documentation, please do not hesitate to contact me directly.

Sincerely,
WES Engineers & Surveyors

Gerald W. Vick, PE
Principal

CITY OF COLUMBIA TENNESSEE

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

PLANNING COMMISSION
PROJECT DEVELOPMENT APPLICATION

SUBMITTAL REQUIREMENTS

Final Plat: * *1 hard copy of all materials for submittal + PDF copy on a USB flash drive (no multiple applications on one storage device)*
Fold hard copy submittals larger than 8½"x11"
All Others: * Please submit the Application online at City of Columbia | Permitting (onlama.com)

ADDRESS/LOCATION	Rutherford Lane, approximately 800' north of Oakland Pkwy		
	TAX MAP: 101	GROUP:	PARCEL: 036.06
SUMMARY OF NATURE OF REQUEST AND WORK	Seeking preliminary plat approval for a 12 lot subdivision with related appurtenances.		

DATE OF PRE-APPLICATION CONFERENCE	07-24-24	*Pre-application meetings are scheduled for Wednesdays.*

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 ❑ Other: **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) Woodward Estates ☒ Total Number of Lots/Residential Units 12 ☒ Square Footage of Non-Residential Floor Space N/A ☒ Total acreage 12.55

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 go to the Applicant's email that is provided.

NAME	Gerald Vick	PHONE	931-388-2329
ADDRESS	2486 Nashville Hwy Columbia, TN 38401	EMAIL	Gerald@wesengineers.com

PROPERTY OWNER NAME	KLF Investments LLC	PHONE	
ADDRESS	2000 Mallory Lane #130-83 Franklin, TN 37067	EMAIL	brandon@a1hbs.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.

Gerald Vick		8/19/24
APPLICANT NAME	APPLICANT SIGNATURE	DATE
Brandon Robertson	Brandon Robertson	8/14/2024
PROPERTY OWNER NAME	PROPERTY OWNER SIGNATURE	DATE

Melissa Sanders

From: Kevin McCarthy
Sent: Wednesday, October 2, 2024 11:14 AM
To: Allen O'Leary; Glenn Harper
Cc: Roger Witherow; John Hill; Melissa Sanders
Subject: RE: James Campbell Blvd. 24-0365

Thank you, Allen. We'll let the CMPC know that you have requested to defer.

Thanks!

Kevin C. McCarthy, AICP

Please note that our email addresses have changed from a ".com" to ".gov" domain. My email is now kmccarthy@columbiatn.gov

---

From: Allen O'Leary <allen@wesengineers.com>
Sent: Wednesday, October 2, 2024 10:45 AM
To: Kevin McCarthy <KMcCarthy@Columbiatn.gov>; Glenn Harper <GHarper@Columbiatn.gov>
Cc: Roger Witherow <rwitherow@hotmail.com>; John Hill <johnrosshill@gmail.com>
Subject: [Caution External Email] - James Campbell Blvd. 24-0365

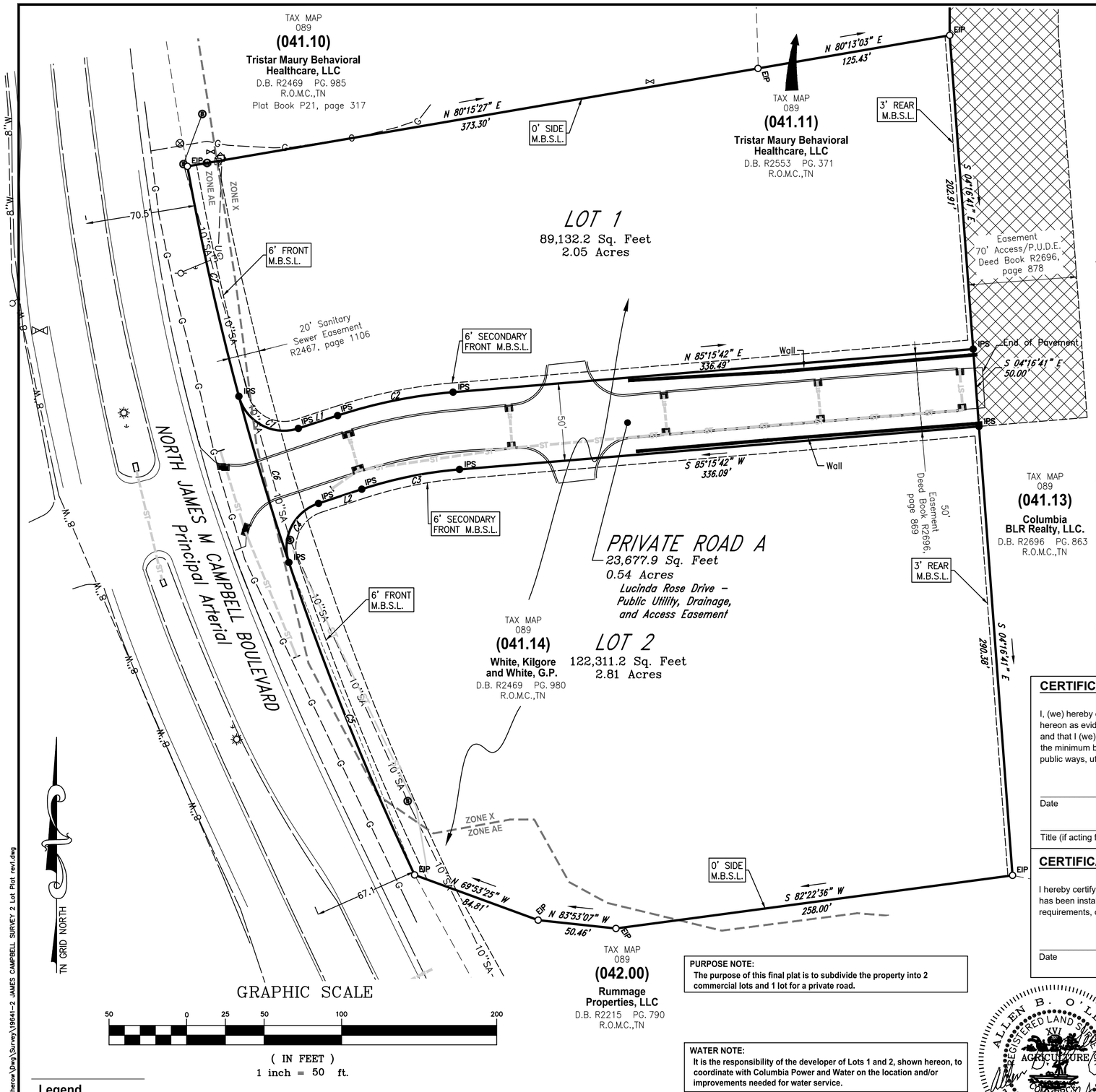
Kevin/Glenn,
I have spoken to the owner on this project and they would like to request this plat be deferred and allow some time for discussions on this project.

Allen B. O'Leary, RLS
Principal

W.E.S. - *Engineers & Surveyors*

2486 Nashville Highway
Columbia, TN 38401
O: 931.388.2329
F: 931.548.2013
allen@wesengineers.com

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PARCEL NUMBER:
TAX MAP 089, PARCEL 41.14

DEED BOOK:
R2469, PAGE 980

PARCEL ADDRESS:
N JAMES M CAMPBELL BOULEVARD

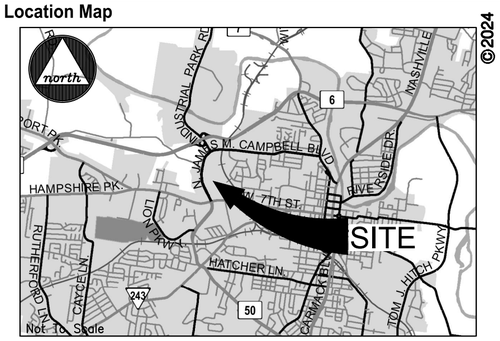
EXISTING ZONING:
CD-4C

BUILDING SETBACKS:
FRONT - 6'
SECONDARY FRONT - 6'
SIDE - 0'
REAR - 3'

ACREAGE OF PARCEL:
±5.40 ACRES (±235,121.3 SQFT) TOTAL
±4.86 ACRES (±211,443.4 SQFT) 2 COMMERCIAL LOTS
±0.54 ACRES (±23,667.9 SQFT) LOT PRIVATE ROAD A

PROPERTY OWNER:
ROGER WITHERROW, DANIEL FAMILY PARTNERSHIP & WHITE, KILGORE AND WHITE, G.P.
P.O. BOX 375
COLUMBIA, TN 38402

Location Map



©2024

Surveyor's Notes

1. All distances were measured with E.D.M. equipment and have been adjusted for temperature and pressure.
2. The property (Boundary) Line Survey exceeds the minimum requirements of an Urban Land Survey Category 1 as per Standards of Practice adopted by the State Board of Examiners for Land Surveyors for the State of Tennessee, and the precision of the unadjusted survey is greater than 1 foot in 10,000 feet.
3. Information concerning site utility services and appurtenances shown hereon is based on visible evidence noted during the survey, information provided by utility representatives or information shown on original construction plans by other. Information and location of service lines on site should be considered approximate and there may be underground utility lines that are not shown on the survey. Owner(s) and contractor(s) should assume responsibility of locating all underground utility service lines prior to any construction, excavation or any disturbance of the existing ground elevation to avoid hazard of unnecessary expense.
4. Information concerning major utilities or appurtenances shown hereon are based on visible evidence noted during the survey or information provided by utility representatives. Verification of existence, size, location, depth and availability of service should be confirmed by local utility agencies.
5. The property shown hereon is located within the City of Columbia, Maury County, TN. 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 Development Services.
6. The area of the parcels as shown hereon.
7. This property currently identified as Tax Map No. 089, Parcel No. 41.14, Maury County. For designation shown thus ( ) indicates Parcel Numbers for said map.
8. Plat reference: NA
9. Deed reference: Book R2469, Page 980
10. Bearings based on: Tennessee State Plane (NAD83).
11. This drawing was prepared in accordance with our field survey notes. It shows improvements as they exist to the best of our knowledge, but is not guaranteed to be correct in each and every detail.
12. This survey was prepared from current deeds of record and does not represent a title search or a guarantee of title, and is subject to any state of facts a current and accurate search may reveal.
13. 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.
14. The certification as provided on this survey, is purely a statement of professional opinion based on knowledge, information and belief, based on existing field evidence and documentary evidence provided by others.
15. The certification is not an expressed or implied warranty or guarantee.
16. A portion of this property is located in a Special Flood Hazard Area (Zone AE) as shown on F.E.M.A. Flood Insurance Rate Map, Community Panel No. 47119C0280E, dated April 16, 2007, and shown hereon graphically.
17. All public utility and drainage easements located on proposed lots are to be maintained by the individual property owner for said lot.
18. All property corners are ½" rebar with cap reading "WES 1987" unless otherwise noted.

PURPOSE NOTE:
The purpose of this final plat is to subdivide the property into 2 commercial lots and 1 lot for a private road.

WATER NOTE:
It is the responsibility of the developer of Lots 1 and 2, shown hereon, to coordinate with Columbia Power and Water on the location and/or improvements needed for water service.

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 Number R2469, Page 980, Maury County Registers Office, and that I (we) hereby adopt this plan of subdivision with my (our) free consent, establish the minimum building restriction lines, and that offers of irrevocable dedication for all public ways, utilities, and other facilities have been filed.

Date — White, Kilgore & White, G.P.

Title (if acting for partnership or corporation)

CERTIFICATE OF APPROVAL OF SEWER SYSTEM

I hereby certify that the 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 has been filed to guarantee said installation.

Date — Director of Wastewater Department, Columbia, Tennessee

CERTIFICATE OF APPROVAL OF WATER SYSTEM

I, (we) hereby certify that the water system(s) outlined or indicated on the final subdivision plat entitled 3 Lots - N James M Campbell Boulevard 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.

Date — Columbia Power & Water Systems, Columbia, Tennessee

CERTIFICATE OF APPROVAL FOR SUBDIVISION NAME, STREET NAMES, AND STREET SIGNS

Subdivision name and street names approved by the City Engineering Department and by E-911 Maury County.

Date — Maury County E-911, Columbia, Tennessee

CERTIFICATE OF COMPLIANCE

I hereby certify that the subdivision plat shown hereon has been found to comply with the City of Columbia Subdivision Regulations and other adopted ordinances and policies.

Date — City Engineer, Columbia, Tennessee

CERTIFICATE OF APPROVAL FOR RECORDING

I hereby certify that the 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 are noted in the minutes of the Planning Commission, and that it has been approved for recording in the Office of the County Register:

Date — Secretary, Planning Commission

SURVEYOR'S CERTIFICATION (TENNESSEE)

I hereby certify that to the best of my 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.

9-16-24 — Allen B. O'Leary — TN RLS #1987

Date — Allen B. O'Leary — Number

ALLEN B. O'LEARY
REGISTERED LAND SURVEYOR
XVI
AGRICULTURE
COMMERCE
TENNESSEE NO. 1987

Register of Deed Recording Stamp

PRIVATE ROAD A

LINE TABLE

LINE	BEARING	DISTANCE
L1	N 71°50'42" E	26.68'
L2	S 71°50'42" W	29.37'

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	30.00'	48.77'	43.58'	S 61°34'47" E	93°09'02"
C2	325.00'	76.10'	75.93'	N 78°33'12" E	13°25'01"
C3	275.00'	64.40'	64.25'	S 78°33'12" W	13°25'01"
C4	30.00'	47.31'	42.56'	S 26°40'11" W	90°21'03"
C6	1,830.82'	111.88'	111.87'	N 16°45'18" W	3°30'05"

PROPERTY

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C5	1,830.82'	217.39'	217.26'	N 21°54'26" W	6°48'11"
C7	1,830.82'	152.02'	151.97'	N 12°37'32" W	4°45'27"

Legend

- EIP — Angle Iron Found
- EIP — Iron Rod Found
- IPS — Iron Rod Set
- I.P.F. — Iron Pipe Found
- AXLE — Axle Found
- ECM — Fence Post
- Concrete Monument Existing
- P.K.F. — PK Nail Found
- P.K.S. — PK Nail Set
- R.R.S..F. — Railroad Spike Found
- R.R.S.S. — Railroad Spike Set
- Bench Mark
- Stake Found
- Fire Hydrant
- Water Meter
- Water Valve
- Water Reducer
- Clean Out
- Sanitary Sewer Manhole
- Storm Sewer Manhole
- Catch Basin
- Curb Inlet
- Storm Pipe
- Cable Manhole
- Electric Manhole
- Telephone Manhole
- Water Manhole
- Electric Meter
- Cable Riser
- Electric Riser
- Telephone Riser
- Telephone Booth
- Gas Meter
- Gas Valve
- Light Pole
- Power Pole
- Telephone Pole
- Guy Pole
- Power Pole
- Flag Pole
- Guy Wire
- Mailbox
- Parking Block
- Satellite Dish
- Handicap Parking
- Water Spigot
- Bollard
- Water Irrigation
- Evergreen Tree
- Deciduous Tree
- Bush
- Sign
- Adjoining Property Line
- Subject Property Line
- Easement Line
- Building Setback Line
- Centerline
- Edge of Pavement
- Edge of Gravel
- Fence Line
- Landscape
- Woods / Tree line
- Edge of Water
- Ditch / Creek Centerline
- Minor Contour Line
- Index Contour Line
- G — Gas Line
- SA — Sanitary Sewer Line
- W — Water Line
- ST — Storm Sewer Line
- OH — Overhead Utility Line
- OHC — Overhead Cable Line
- OHE — Overhead Electric Line
- OHT — Overhead Telephone Line
- UG — Underground Utility Line
- UGC — Underground Cable Line
- UGE — Underground Electric Line
- UGT — Underground Telephone Line
- FM — Forced Main Line
- Rail-Road Track

WES Engineers & Surveyors
CIVIL ENGINEERS & LAND SURVEYORS
2486 NASHVILLE HIGHWAY
COLUMBIA, TN 38401
PHONE (931) 388-2329
www.wesengineers.com
ENGINEERS & SURVEYORS

Client
W. ROGER WITHEROW
167 HATCHER LANE
COLUMBIA, TN 38401

FINAL PLAT

3 LOTS - N JAMES M CAMPBELL BOULEVARD
COLUMBIA, MAURY COUNTY, TENNESSEE

DATE	REVISIONS

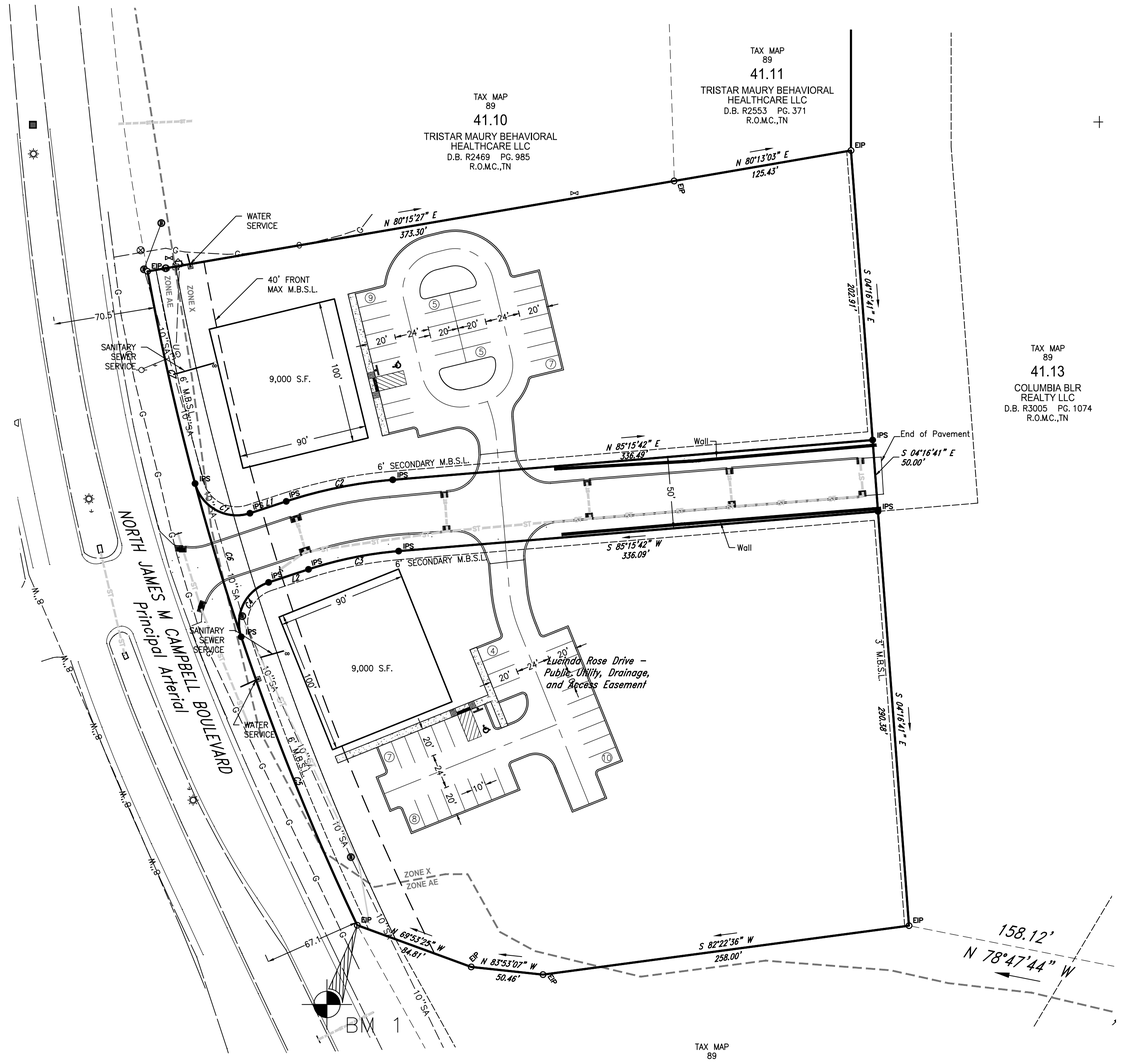
Drawn: BD | Checked: | Approved: | Date: 07-25-2024

Job. no. 19641 | Scale: Vertical: 1" = 50' | Horizontal:

1 of 1

FILE: J:\ WES_Engineers_Surveyors 2019\19641 – James Campbell – Witherow\Dwg\Survey\19641-2 JAMES CAMPBELL SURVEY 2 Lot Plat rev1.dwg

CONCEPT PLAN



WATER NOTE:

COORDINATE LOCATION OF PROPOSED WATER SERVICE WITH CPWS.

BENCHMARK

BENCHMARK #1
IRON ROD
ELEV = 577.22'
N = 470,249.12
E = 1,651,532.91
TENNESSEE COORDINATE
SYSTEM OF 1983
NAVD 88

WARNING! UTILITY LINES!

THE CONTRACTOR WILL EXERCISE EXTREME CAUTION IN THE USE OF EQUIPMENT IN AND AROUND OVERHEAD AND UNDERGROUND UTILITY WIRES AND SERVICES. IF AT ANY TIME IN THE PURSUIT OF THIS WORK THE CONTRACTOR MUST WORK IN CLOSE PROXIMITY OF OVERHEAD OR UNDERGROUND SERVICES, THE UTILITY COMPANY SHALL BE CONTACTED PRIOR TO SUCH WORK AND THE PROPER SAFETY MEASURES TAKEN. A THOROUGH EXAMINATION OF THE OVERHEAD WIRES IN THE PROJECT AREA SHOULD BE MADE BY THE CONTRACTOR PRIOR TO THE INITIATION OF CONSTRUCTION. THE UNDERGROUND UTILITY LINES HAVE BEEN SHOWN AS BEST AS CAN BE DETERMINED AT THIS TIME FROM THE INFORMATION OBTAINED FROM THE SURVEY. THE CONTRACTOR SHALL CONTACT EACH OF THESE COMPANIES PRIOR TO BEGINNING CONSTRUCTION AND HAVE THEM DETERMINE THE EXACT LOCATION AND TYPE OF THEIR SERVICES.

Tennessee811
Know what's below
Call before you dig.

LEGEND

	EXISTING	PROPOSED
WATER MAIN		W
SANITARY SEWER		
STORM SEWER		
OVERHEAD		
FENCE		
GAS		
DRAINAGE DITCH		
TREE PROTECTION FENCE		
SIGN		
UTILITY POLE		
IRON PIN SET		
EXISTING IRON PIN	EIP	
CONCRETE MONUMENT		
DECIDUOUS TREE		
GATE VALVE IN BOX		
LIGHT POLE		
BENCHMARK	BM 1	

TREE LINE
STORM STRUCTURE LABEL (RT)
ASPHALT
CONCRETE
PARKING SPACES (14)

PROPOSED CONSTRUCTION SCHEDULE FOR THE YEAR 2024/2025

ACTIVITY	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY
TEMPORARY SEDIMENT STRUCTURES												
SEDIMENT BASINS												
DIVERSION DITCHES												
CLEARING & CHIPPING												
TOPSOIL STRIPPING AND STORAGE												
ROADWAY GRADING												
PERMANENT STORM SEWER												
UTILITIES												
TEMPORARY VEGETATION												
PAVING												
PERMANENT VEGETATION												
REMOVE TEMPORARY STRUCTURES												

LINE TABLE

LINE	BEARING	DISTANCE
L1	N 71°50'42" E	26.68'
L2	S 71°50'42" W	29.37'

CURVE TABLE

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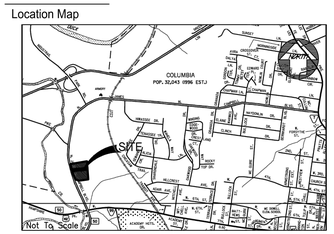
CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
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C7	1,830.82'	152.02'	151.97'	N 12°37'32" W	4°45'27"

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

Location Map



TN GRID NORTH

SITE DATA:

OWNER: ROGER & DANIEL WITHEROW FAMILY PARTNERSHIP & WHITE KILGORE & WHITE GP
P.O. BOX 375
COLUMBIA, TN 38402

PARCEL NUMBER: TAX MAP 89 PARCEL 41.14
DEED BOOK: R2469, PG 980

SUBJECT PARCEL ZONING: CD-4C

ACREAGE OF SITE: 235,121.3 SF = 5.40 ACRES TOTAL
211,443.4 SF = 4.85 ACRES (2 LOTS)
23,667.90 SF = 0.54 ACRES PRIVATE ROAD

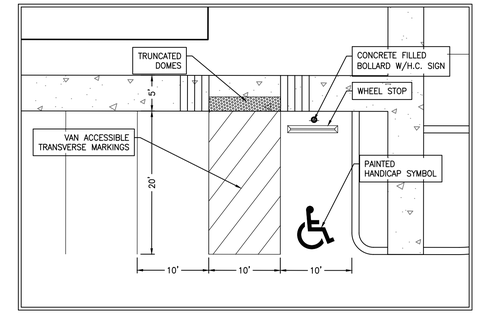
MINIMUM REQUIRED BUILDING SETBACKS:
6' FRONT
3' REAR
0 SIDE

UTILITY SERVICES: WATER SERVICE
COLUMBIA POWER & WATER SYSTEMS
201 PICKENS LANE
COLUMBIA, TENNESSEE 38401
(931) 388-4833

ELECTRIC SERVICE
COLUMBIA POWER & WATER SYSTEMS
201 PICKENS LANE
COLUMBIA, TENNESSEE 38401
(931) 388-4833

PURPOSE NOTE: CONSTRUCT 2 (EA) 9,000 S.F. FLEX-USE BUILDINGS WITH PARKING LOTS

PARKING SUMMARY: 1 SPACE PER 500 S.F. REQUIRED
18,000 S.F. PROPOSED BUILDINGS
18,000 / 500 = 36 REQUIRED
53 STANDARD SPACES
2 ACCESSIBLE SPACES
55 SPACES PROVIDED



ACCESSIBLE PARKING

N.T.S.

GEOTECHNICAL NOTE:

CONTRACTOR TO COMPLETE A GEOTECHNICAL STUDY CONDUCTED ON THIS SITE PRIOR TO COMINCEMENT OF CONSTRUCTION. THE DESIGN FOR THE SITE IMPROVEMENTS SHOWN ON THIS PLAN HAVE RELIED ON GENERAL INFORMATION FROM FIELD REVIEW OF EXISTING TERRAIN. IF, IN THE PURSUIT OF THIS WORK BY THE CONTRACTOR, CONDITIONS OR CIRCUMSTANCES ARE ENCOUNTERED THAT ARE DIFFERENT THAN REFLECTED IN THESE PLANS OR THAT APPEAR TO IMPACT THE SCOPE OF THE WORK, THE CONTRACTOR WILL IMMEDIATELY NOTIFY THE CIVIL ENGINEER, THE GEOTECHNICAL ENGINEER AND THE OWNER/DEVELOPER, BEFORE ANY REMEDIAL COURSE OF ACTION OR DESIGN CHANGE IS INITIATED, ALL PARTIES TO THE PROCESS (OWNER, CIVIL ENGINEER, GEOTECHNICAL ENGINEER, AND CONTRACTOR) MUST BE IN AGREEMENT AND THE MAGNITUDE OF THE COST/TIME REQUIRED FOR THE MEASURES ESTABLISHED.

SITE BENCHMARK NOTE:

CONTRACTOR SHALL ESTABLISH A BENCHMARK PRIOR TO CONSTRUCTION. EXISTING BENCHMARK MUST BE RE-VERIFIED AND APPROVED BY THE ENGINEER/SURVEYOR PRIOR TO USE.

BOUNDARY & TOPOGRAPHIC SURVEY PROVIDED BY:

WES ENGINEERS & SURVEYORS

W.E.S. ENGINEERS AND SURVEYORS
2486 NASHVILLE HWY
COLUMBIA, TENNESSEE 38401
(931) 388-2329

FLOOD STUDY NOTE:

A PORTION OF THE PROPERTY IS LOCATED WITHIN A FLOOD HAZARD AREA AS PER FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAPS (FIRM's) MAP NUMBER 47117C0280E DATED APRIL 16, 2007.



geraldw@wesengineers.com

SUBMITTED FOR MUNICIPAL APPROVAL
NOT FOR CONSTRUCTION

© 2024

WES ENGINEERS & SURVEYORS
CIVIL ENGINEERS & LAND SURVEYORS
2486 NASHVILLE HIGHWAY
COLUMBIA, TN 38401
PHONE: (931) 388-2329
www.wesengineers.com
ENGINEERS & SURVEYORS

Client
W. ROGER WITHEROW
1517 HATCHER LANE
COLUMBIA, TN 38401

DATE	REVISIONS

TWO COMMERCIAL LOTS

NORTH JAMES CAMPBELL BOULEVARD
COLUMBIA, MAURY COUNTY, TENNESSEE
CONCEPT PLAN

Drawn: RP
Checked: GV
Approved: GV
Date: Sept. 16, 2024

Job no. 19641-2
Scale:
Vertical: 1"=50'
Horizontal:

1 of 1

FILE: J:_WES_Engineers_Surveyors 2019\19641 - James Campbell - Witherow\Dwg\Engineering\19641_WITHEROW 2 LOTSbase.dwg

September 16, 2024

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

RE: Item No. 24-0365, N. James Campbell, Witherow Property
City of Columbia Staff Review Submittal

On behalf of Mr. Witherow, the owner of the property shown on the Final Plat, WES Engineers & Surveyors would like to re-submit this Final Plat to the City of Columbia for approval. The request is to create 3 parcels of land with the roadway parcel being and easement for access and utilities. The comments are addressed below in RED.

Planning

1. The lead staff person for this case is Kevin McCarthy, AICP; he will prepare the staff report for this item. Please contact kmccarthy@columbiatn.gov with questions about the development review process or technical comments. The lead planner should be copied on all communication with other city staff.
   Noted
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.
   Noted
3. Please provide a site development plan to accompany the plat showing buildings sites which conform to the CD-4C standards (e.g. maximum lot width). The site development plan may be subsequently revised.
   A site development plan has been provided
4. Please submit an application using the most recent form (rev. 2/7/2024). It is available on the Planning and Zoning website: https://www.columbiatn.gov/DocumentCenter/View/2264/Application---Planning-Commmission-PDF/.
   The updated application form has been provided.
5. Please revise note 5 to indicate the name of the Department of Development Services. Please also add to the note that development of the site will be controlled by a site development plan.
   Note 5 has been revised and added the note regarding site development plan note.

Engineering

6. Provide existing ROW width along North JCB. 125' ROW minimum width.
   Right of Way on JCB has been labeled with required right of way.
7. Minimum equivalent ROW width is 75 ft for 250 feet where intersecting an arterial roadway. The remainder of the PUDAE shall be 70 ft to match align with the adjacent development.

This final platting is in accordance with the previously approved plans.

8. Provide proposed road name to E-911 for approval
   The proposed road name is Lucinda Rose Drive, and has been reserved with E-911.
9. Note: Future development of Lots 1 and 2 will require the sidewalks to be installed along the private roadway, removal/relocation of the retaining walls, and potential dedication as public ROW.
   Noted

Fire

10. Advisory note: A water availability letter will be required, at a later date, before anything is built
    Noted

Columbia Water

11. A water availability will be required at the time a development is proposed.
    Noted
12. Coordinate new water service/meter locations for each lot and show on Final Plat.
    A water note has been added to the Final Plat noting coordination with CPWS is required prior to development of these parcels.
13. Show existing 8" water line on the west side of North James Campbell.
    The 8" water line has been shown.

Columbia Power

14. 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.
    Noted

If you have any questions or comments with this submittal, please do not hesitate to contact me directly.

Sincerely,
WES Engineers & Surveyors



Allen B. O'Leary, RLS
Principal

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, September 10, 2024

ITEM NO.
24-0365

DESCRIPTION: Witherow NJCB (089 041.14)

COMMENTS:

Planning

1. The lead staff person for this case is Kevin McCarthy, AICP; he will prepare the staff report for this item. Please contact kmccarthy@columbiatn.gov with questions about the development review process or technical comments. The lead 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. Please provide a site development plan to accompany the plat showing buildings sites which conform to the CD-4C standards (e.g. maximum lot width). The site development plan may be subsequently revised.
4. Please submit an application using the most recent form (rev. 2/7/2024). It is available on the Planning and Zoning website: https://www.columbiatn.gov/DocumentCenter/View/2264/Application---Planning-Commmission-PDF/.
5. Please revise note 5 to indicate the name of the Department of Development Services. Please also add to the note that development of the site will be controlled by a site development plan.

Engineering

6. Provide existing ROW width along North JCB. 125' ROW minimum width.
7. Minimum equivalent ROW width is 75 ft for 250 feet where intersecting an arterial roadway. The remainder of the PUDAE shall be 70 ft to match align wit h the adjacent development.
8. Provide proposed road name to E-911 for approval
9. Note: Future development of Lots 1 and 2 will require the sidewalks to be installed along the private roadway, removal/relocation of the retaining walls, and potential dedication as public ROW.

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    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.

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.gov. 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.

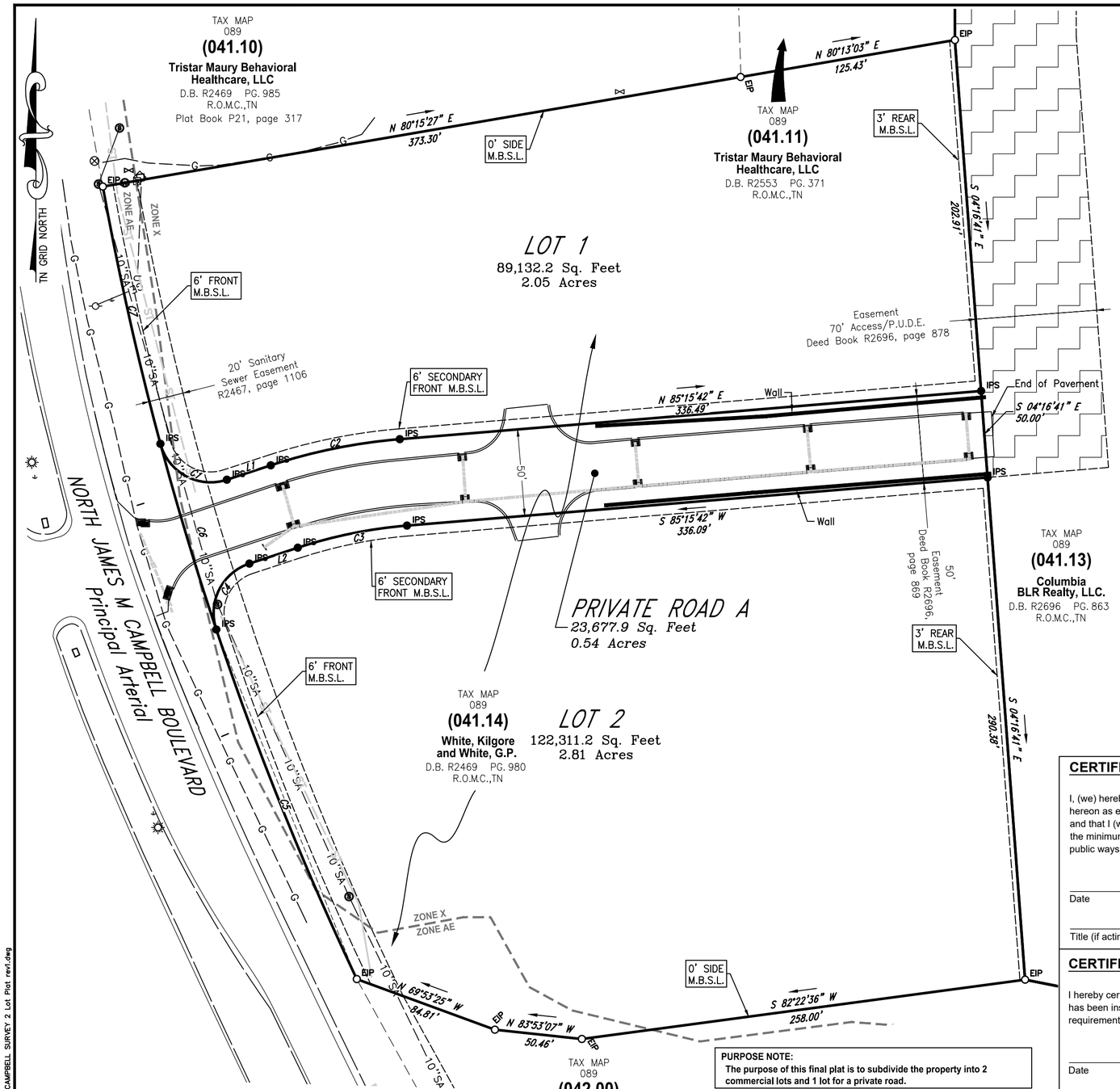
Please contact kmccarthy@columbiatn.gov or msanders@columbiatn.gov if you encounter difficulties with the online portal.

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

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required infrastructure and utilities. Applications which remain incomplete following two resubmittal deadlines will be closed.



GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

Legend

- Angle Iron Found
- Iron Rod Found
- Iron Rod Set
- Iron Pipe Found
- Axle Found
- Fence Post
- Concrete Monument Existing
- PK Nail Found
- PK Nail Set
- Railroad Spike Found
- Railroad Spike Set
- Bench Mark
- Stake Found
- Fire Hydrant
- Water Meter
- Water Valve
- Water Reducer
- Clean Out
- Sanitary Sewer Manhole
- Storm Sewer Manhole
- Catch Basin
- Curb Inlet
- Storm Pipe
- Cable Manhole
- Electric Manhole
- Telephone Manhole
- Water Manhole
- Electric Meter
- Cable Riser
- Electric Riser
- Telephone Riser
- Telephone Booth
- Gas Meter
- Gas Valve
- Light Pole
- Power Pole
- Telephone Pole
- Guy Pole
- Power Pole
- Flag Pole
- Guy Wire
- Mailbox
- Parking Block
- Satellite Dish
- Handicap Parking
- Water Spigot
- Bollard
- Water Irrigation
- Evergreen Tree
- Deciduous Tree
- Bush
- Sign
- Adjoining Property Line
- Subject Property Line
- Easement Line
- Building Setback Line
- Centerline
- Edge of Pavement
- Edge of Gravel
- Fence Line
- Landscape
- Woods / Tree line
- Edge of Water
- Ditch / Creek Centerline
- Minor Contour Line
- Index Contour Line
- Gas Line
- Sanitary Sewer Line
- Water Line
- Storm Sewer Line
- Overhead Utility Line
- Overhead Cable Line
- Overhead Electric Line
- Overhead Telephone Line
- Underground Utility Line
- Underground Cable Line
- Underground Electric Line
- Underground Telephone Line
- Forced Main Line
- Rail-Road Track

PARCEL NUMBER:
TAX MAP 089, PARCEL 41.14

DEED BOOK:
R2469, PAGE 980

PARCEL ADDRESS:
N JAMES M CAMPBELL BOULEVARD

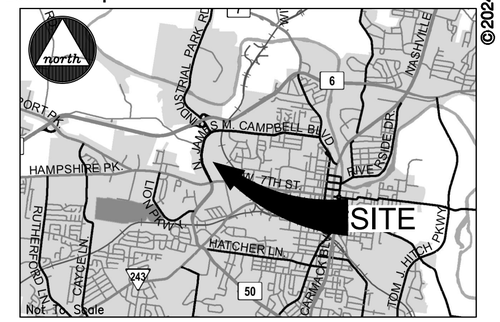
EXISTING ZONING:
CD-4C

BUILDING SETBACKS:
FRONT - 6'
SECONDARY FRONT - 6'
SIDE - 0'
REAR - 3'

ACREAGE OF PARCEL:
±5.40 ACRES (±235,121.3 SQFT) TOTAL
±4.86 ACRES (±211,443.4 SQFT) 2 COMMERCIAL LOTS
±0.54 ACRES (±23,667.9 SQFT) LOT PRIVATE ROAD A

PROPERTY OWNER:
ROGER WITHERROW, DANIEL FAMILY PARTNERSHIP & WHITE, KILGORE AND WHITE, G.P.
P.O. BOX 375
COLUMBIA, TN 38402

Location Map



©2024

Surveyor's Notes

1. All distances were measured with E.D.M. equipment and have been adjusted for temperature and pressure.
2. The property (Boundary) Line Survey exceeds the minimum requirements of an Urban Land Survey Category 1 as per Standards of Practice adopted by the State Board of Examiners for Land Surveyors for the State of Tennessee, and the precision of the unadjusted survey is greater than 1 foot in 10,000 feet.
3. Information concerning site utility services and appurtenances shown hereon is based on visible evidence noted during the survey, information provided by utility representatives or information shown on original construction plans by other. Information and location of service lines on site should be considered approximate and there may be underground utility lines that are not shown on the survey. Owner(s) and contractor(s) should assume responsibility of locating all underground utility service lines prior to any construction, excavation or any disturbance of the existing ground elevation to avoid hazard of unnecessary expense.
4. Information concerning major utilities or appurtenances shown hereon are based on visible evidence noted during the survey or information provided by utility representatives. Verification of existence, size, location, depth and availability of service should be confirmed by local utility agencies.
5. The property shown hereon is located within the City of Columbia, Maury County, TN. 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.
6. The area of the parcels as shown hereon.
7. This property currently identified as Tax Map No. 089, Parcel No. 41.14, Maury County. For designation shown thus ( ) indicates Parcel Numbers for said map.
8. Plat reference: NA
9. Deed reference: Book R2469, Page 980
10. Bearings based on: Tennessee State Plane (NAD83).
11. This drawing was prepared in accordance with our field survey notes. It shows improvements as they exist to the best of our knowledge, but is not guaranteed to be correct in each and every detail.
12. This survey was prepared from current deeds of record and does not represent a title search or a guarantee of title, and is subject to any state of facts a current and accurate search may reveal.
13. 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.
14. The certification as provided on this survey, is purely a statement of professional opinion based on knowledge, information and belief, based on existing field evidence and documentary evidence provided by others.
15. The certification is not an expressed or implied warranty or guarantee.
16. A portion of this property is located in a Special Flood Hazard Area (Zone AE) as shown on F.E.M.A. Flood Insurance Rate Map, Community Panel No. 47119C0280E, dated April 16, 2007, and shown hereon graphically.
17. All public utility and drainage easements located on proposed lots are to be maintained by the individual property owner for said lot.
18. All property corners are ½" rebar with cap reading "WES 1987" unless otherwise noted.

PRIVATE ROAD A

LINE TABLE

LINE	BEARING	DISTANCE
L1	N 71°50'42" E	26.68'
L2	S 71°50'42" W	29.37'

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	30.00'	48.77'	43.58'	S 61°34'47" E	93°09'02"
C2	325.00'	76.10'	75.93'	N 78°33'12" E	13°25'01"
C3	275.00'	64.40'	64.25'	S 78°33'12" W	13°25'01"
C4	30.00'	47.31'	42.56'	S 26°40'11" W	90°21'03"
C6	1,830.82'	111.88'	111.87'	N 16°45'18" W	3°30'05"

PROPERTY

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C5	1,830.82'	217.39'	217.26'	N 21°54'26" W	6°48'11"
C7	1,830.82'	152.02'	151.97'	N 12°37'32" W	4°45'27"

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 Number R2469, Page 980, Maury County Registers Office, and that I (we) hereby adopt this plan of subdivision with my (our) free consent, establish the minimum building restriction lines, and that offers of irrevocable dedication for all public ways, utilities, and other facilities have been filed.

Date — White, Kilgore & White, G.P.

Title (if acting for partnership or corporation)

CERTIFICATE OF APPROVAL OF SEWER SYSTEM

I hereby certify that the 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 has been filed to guarantee said installation.

Date — Director of Wastewater Department, Columbia, Tennessee

CERTIFICATE OF APPROVAL OF WATER SYSTEM

I, (we) hereby certify that the water system(s) outlined or indicated on the final subdivision plat entitled 3 Lots - N James M Campbell Boulevard 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.

Date — Columbia Power & Water Systems, Columbia, Tennessee

CERTIFICATE OF APPROVAL FOR SUBDIVISION NAME, STREET NAMES, AND STREET SIGNS

Subdivision name and street names approved by the City Engineering Department and by E-911 Maury County.

Date — Maury County E-911, Columbia, Tennessee

CERTIFICATE OF COMPLIANCE

I hereby certify that the subdivision plat shown hereon has been found to comply with the City of Columbia Subdivision Regulations and other adopted ordinances and policies.

Date — City Engineer, Columbia, Tennessee

CERTIFICATE OF APPROVAL FOR RECORDING

I hereby certify that the 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 are noted in the minutes of the Planning Commission, and that it has been approved for recording in the Office of the County Register:

Date — Secretary, Planning Commission

SURVEYOR'S CERTIFICATION (TENNESSEE)

I hereby certify that to the best of my 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.

ALLEN B. O'LEARY
REGISTERED LAND SURVEYOR
XVI
AGRICULTURE
COMMERCE
TENNESSEE NO. 1987

Date — Allen B. O'Leary — TN RLS #1987 Number

Register of Deed Recording Stamp

WES ENGINEERS & SURVEYORS
CIVIL ENGINEERS & LAND SURVEYORS
2486 NASHVILLE HIGHWAY
COLUMBIA, TN 38401
PHONE (931) 388-2329
www.wesengineers.com

Client
W. ROGER WITHEROW
1617 HATCHER LANE
COLUMBIA, TN 38401

FINAL PLAT

3 LOTS - N JAMES M CAMPBELL BOULEVARD
COLUMBIA, MAURY COUNTY, TENNESSEE

REVISIONS	DATE

Drawn: BD
Checked:
Approved:
Date: 07-25-2024

Job. no. 19641
Scale: Vertical: 1" = 50'
Horizontal:

1 of 1

FILE:J:\WES_Engineers_Surveyors 2019\19641 - James Campbell - Witherow\Dwg\Survey\19641-2 JAMES CAMPBELL SURVEY 2 Lot Plat rev1.dwg

CITY OF
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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: JAMES CAMPBELL / WITHROW

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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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

N/A

- ☑ 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:

Allen O'Leary		8/23/24
Print Name	Signature	Date

CITY OF COLUMBIA TENNESSEE

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PLANNING COMMISSION
PROJECT DEVELOPMENT APPLICATION

SUBMITTAL REQUIREMENTS

Final Plat: * *1 hard copy of all materials for submittal + PDF copy on a USB flash drive (no multiple applications on one storage device)*
Fold hard copy submittals larger than 8½"x11"
All Others: * Please submit the Application online at City of Columbia | Permitting (onlama.com)

ADDRESS/LOCATION	North James Campbell Boulevard		
	TAX MAP: 089	GROUP:	PARCEL: 041.14
SUMMARY OF NATURE OF REQUEST AND WORK	Request Final Plat approval to subdivide the subject property into 2 commercial lots and a tract for a private road.		

DATE OF PRE-APPLICATION CONFERENCE		*Pre-application meetings are scheduled for Wednesdays.*

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 ❑ Other: **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) 3 Lots - N. James Campbell Blvd. ☒ Total Number of Lots/Residential Units 3 Lots ☐ Square Footage of Non-Residential Floor Space N/A ☒ Total acreage 5.4 ACRES

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 go to the Applicant's email that is provided.

NAME	W.E.S. - Allen B. O'Leary	PHONE	931-388-2329
ADDRESS	2486 Nashville Highway, Columbia, TN	EMAIL	allen@wesengineers.com

PROPERTY OWNER NAME	Roger Witherow, Daniel Family Partnership, White, Kilgore and White, G.P.	PHONE	931-388-1258
ADDRESS	P.O. Box 375 Columbia, TN 38402	EMAIL	office@rwitherow.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.

Allen O'Leary — APPLICANT NAME

Allen B O'Leary — APPLICANT SIGNATURE

8/16/24 — DATE

Roger Witherow — PROPERTY OWNER NAME

Roger Witherow — PROPERTY OWNER SIGNATURE

8.15.24 — DATE

CITY OF COLUMBIA TENNESSEE

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Allen O'Leary	Allen B O'Leary	8/16/24
APPLICANT NAME	APPLICANT SIGNATURE	DATE
Roger Witherow	Roger Witherow	8.15.24
PROPERTY OWNER NAME	PROPERTY OWNER SIGNATURE	DATE