



PLANNING COMMISSION

September 11, 2025 at 4:00 P.M.

City Hall, 3rd Floor, Council Chambers, 1737 Main Street, Columbia, S.C., 29201

MAJOR SUBDIVISION PRELIMINARY PLAT REVIEW CASE SUMMARY ±30.20 ACRES, 8300 AND 8400 BLOCK OF OLD PERCIVAL ROAD, TMS#19814-02-04 AND 22602-01-01 CYPRESS BEND SUBDIVISION

Council District:	1
Proposal:	Request preliminary plat approval for the construction of a 122-lot, single-family residential subdivision.
Applicant:	Bryan Dobek, Civil Engineering of Columbia
Proposed Use:	Single-Family Residential
Staff Recommendation:	Approval with staff comments.

DETAIL

This ±30.28 acre parcel is located on the north side of Percival Road within the 8300 and 8400 blocks. This proposed subdivision will contain a total of 122 detached single-family residences with an average lot size of 6,000 sq. ft. A portion of the site will be preserved as common area due to open space and tree canopy retention requirements.

In accordance with Section 17-2.5.(j)(6) of the Unified Development Ordinance, the Planning Commission shall approve a Preliminary Plat application upon a finding that the proposed Preliminary Plat is in substantial conformity with the approved Sketch Plan and complies with the standards in Article 6: Land Development (Subdivision) Standards, any other applicable standards in this Ordinance, and any other applicable City ordinances and regulations. Staff has reviewed the preliminary plat and determined that it is in substantial conformance with the approved sketch plan.

Should the Commission be inclined to grant approval of the site plan, staff would request that the Commission grant approval subject to staff comments.

CITY REVIEWING AGENCY COMMENTS

Planning & Development Services	<p>Recommend approval with conditions:</p> <ol style="list-style-type: none"> 1. All structures must meet the requirements of the current building code, 2021 IRC. 2. Stormwater management areas treated as amenities may be used for Open Space credit (75% of the area). If not, they must be fully screened.
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	<ol style="list-style-type: none"> 3. Canopy retention calculations must be resubmitted. 4. Green Building Standards must be submitted. 5. Sidewalks to be constructed along Old Percival Road adjacent of the subdivision.
Utilities	<p>Recommend approval with conditions:</p> <ol style="list-style-type: none"> 1. Any needed upgrade, extension or relocation of City utilities must be provided by the developer and must meet the City's design standards. 2. Any privately owned/maintained utilities or permanent structures cannot be located inside exclusive City of Columbia utility easements. 3. Water/Sewer mains, 4" and above water meters or any privately maintained utilities will not be allowed inside public right-of-ways without an approved encroachment permit and written approval from the City Engineer. 4. Easements for future expansion of the water and sewer systems to serve adjacent property may be required. If required these easements must be reserved at 600' intervals along the boundary of the property to allow future connection to the water/sewer system. 5. If sewer flows for this project result in flows above 4,000 gallons per day, calculations must be submitted to the City's Engineering Department to determine how the proposed project will affect the City's sewer system. Depending upon the results, this project may or may not be approved. If required, these calculations should be submitted to the Engineering Department as soon as possible. 6. Sidewalks are to be installed in accordance with the City of Columbia Engineering Regulations.
Traffic Engineering	Recommend approval.
Forestry	<p>Recommend approval with condition:</p> <ol style="list-style-type: none"> 1. New Trees must be planted in Right of Way in accordance with City ordinance. New trees must be watered and maintained for 2 years from planting. Be sure to use a species variety to prevent canopy monoculture. Any common open areas or green spaces must be maintained by the HOA or adjacent property owners.
Stormwater	<p>Recommend approval with condition:</p> <ol style="list-style-type: none"> 1. Development must comply with all applicable land disturbance requirements.
Parking Services	Recommend approval.
Street Division	<p>Recommend approval with conditions:</p> <ol style="list-style-type: none"> 1. There are many storm drain lines in the backyards with no access, so if the city is taking over street and drain maintenance in this complex, these lines will not be accepted.
Solid Waste	Recommend approval.
Fire	Recommend approval.



Cypress Bend

This map was prepared using
the City GIS Viewer
City of Columbia - GIS Division
3/24/2025 4:22 PM



Street & Ownership

CFCC, Ownership

Interstate



Highway



City Maintained



State Maintained



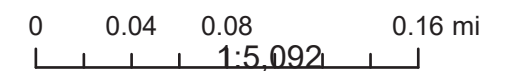
Private



Others



Columbia City Limits



1:5,092

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Cypress Bend

This map was prepared using the City GIS Viewer
 City of Columbia - GIS Division
 3/24/2025 3:50 PM



Street & Ownership

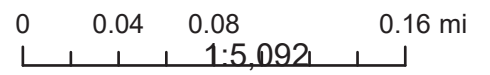
- CFCC, Ownership
- Interstate
- Highway
- City Maintained
- State Maintained
- Private
- Others
- Columbia City Limits

Zoning Districts

- Zoning District
- DAC: Downtown Activity Center/Corridor
- RAC: Regional Activity Center/Corridor
- CAC: Community Activity Center/Corridor
- NAC: Neighborhood Center/Corridor
- O-I: Office and Institutional District
- GC: General Commercial District
- MC: Mixed Commercial District
- MU-2: Mixed-Use

- MU-1: Mixed-Use
- RSF-3: Residential Single Family - Small Lot District
- RSF-2: Residential Single Family - Medium Lot District
- RSF-1: Residential Single Family - Large Lot District
- RM-2: Residential Mixed
- RM-1: Residential Mixed
- RD-MV: Residential Two-Family - Mill Village District
- RD: Residential Two-Family District
- HI: Heavy Industrial District
- LI: Light Industrial District

- EC: Employment Campus District
- PD: Planned Development
- T/C: Transitional/Conservation District
- LL-R: Large Lot - Reserve District
- INS-FJ: Institutional - Fort Jackson District
- INS-U/M: Institutional - University/Medical District
- INS-ZOO: Institutional - Riverbanks Zoo and Gardens District
- INS-T/U: Institutional - Transportation/Utilities District
- INS-GEN: Institutional - General District



1:5,092

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Major Subdivision – Preliminary Plat Application and Checklist

Checklist for All Applications

A complete preliminary plat application shall include the following information. Please initial to signify that the requested information has been provided.

		Applicant Initials	Staff Initials
A copy of this Application Checklist , completed by the applicant.		BD	
A completed and signed Application Form		BD	
Letters of Agency for all applications where the applicant is not the owner of the subject property		BD	
Payment of the required fee (see the Fee Schedule in Appendix <> of the Procedures Manual)		BD	
Preliminary Plat Multiple sheets may be required. Please see page 4 below for required content.	1 copy: min. 18 x 24 inches or 1 digital copy (pdf format)	BD	
Landscape Plan Please see below for required content.	1 copy: min. 18 x 24 inches or 1 digital copy (pdf format)	BD	



Major Subdivision – Preliminary Plat Application and Checklist

1. Applicant Information

Name Bryan Dobek	
Company (if applicable) Civil Engineering of Columbia	
Address (street, city, state, zip)	

2. Property Information

Address Intersection of Percival Woods Road and Old Percival Road		
Tax Map Reference Number(s) R19814-02-04 R22602-01-01		
Current use Undeveloped	Proposed use Single Family Residential	
Current zoning RSF3	Number of lots 110	Total acreage 30.2

3. Property Status

Pursuant to S.C. Code § 6-29-1145, is this tract or parcel restricted by any recorded covenant that is contrary to, conflicts with, or prohibits the activity described in this permit? Yes No

4. Property Ownership

Does the applicant own the property? Yes No

If the applicant does not own the property, complete the **Letter of Agency** for each property owner that authorizes the applicant to submit this application on the property owner's behalf.

<i>For staff use only</i>	
Date received (M/D/Y): ____/____/____	By: _____



Major Subdivision – Preliminary Plat

Application and Checklist

5. Approved Sketch Plan

Please provide the case number of the approved sketch plan related to this application:

SPLAT - 2025-0021

6. Additional Submission Requirements

Preliminary Plat

The proposed preliminary plat shall be prepared to scale and fully dimensioned, and include the following:

General Requirements	Applicant	Staff
Total acreage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Stamp of registered surveyor, engineer, and/or architect	<input checked="" type="checkbox"/>	<input type="checkbox"/>
North arrow	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Scale (no less than 1 inch equals 100 feet)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Date	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Proposed name of the subdivision	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Name of the owner and/or subdivider	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sealed and signed by a registered professional engineer licensed to practice in South Carolina	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Vicinity map (at 1 inch equals 1,000 feet)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Existing Conditions	Applicant	Staff
Topography by contours (at vertical intervals of not more than 5 feet)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Deed record names of adjoining property owners or subdivisions	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If a resubdivision, a copy of the existing plat with the proposed resubdivisions superimposed thereon	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Location of lakes, rivers, streams, swamps/wetlands, other bodies of water, and 100-year floodplains and floodway	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Location of existing adjoining property lines	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Location of existing buildings on the property to be subdivided	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Location of parking and access/driveways	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Location of rights-of-way and/or easements for streets, railroads, and utility	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Location of utility lines, identification of whether lines are in easements or rights-of-way, and identify the location of poles or towers, width of right-of-way, and name of each utility	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Location of streets, alleys, railroads, and utility lines upon and abutting subject property	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Location of intersections within 200 feet of the property	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Size and location of existing sewers, water mains, drains, culverts, or other underground facilities within the street or within the right-of-way of streets or roads adjoining or within the tract.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Grades, invert, and rim elevations of existing sewers shall be shown.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If relocation of existing sewers is proposed, a complete plan and profile of existing conditions, as well as a plan and profile of proposed conditions, must be shown	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Acreeage of each drainage area affecting the proposed subdivision	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Location of city limit lines and county lines, if applicable	<input checked="" type="checkbox"/>	<input type="checkbox"/>



Major Subdivision – Preliminary Plat Application and Checklist

Existing Conditions

Tax map reference number(s)
Existing zoning

Applicant	Staff
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Proposed Conditions

Layout of streets, roads, sidewalks, and alleys, with widths
Construction plans for streets showing natural and finished grades and cross sections. Where a proposed street is an extension of an existing street, the profile shall be extended to include 300 feet of the existing roadways; the cross section of the existing street also shall be shown
Layout of all lots, scaled dimensions on lots, lot and block numbers, utility easements with width and use, and street names as approved on the sketch plan
Construction plan and profile for sanitary sewers (if applicable), with grade, pipe size, and material, location of manholes, and points of discharge
Construction plans for the storm drainage system, with grade, pipe size and material, and location of outlets. Storm drains shall be designed in accordance with criteria outlined in the city storm drainage ordinance. Storm drainage plans shall show sufficient off-site information and include the method and computations where indicated, and a statement by a registered engineer or architect that storm drainage designs meet city ordinances must be provided
Construction plans for the water supply system, with hydraulic calculation, pipe sizes, material and location of hydrants and valves;
Total number of lots, total acreage, acreage per phase, and total length of new streets
Proposed major contour changes in areas where substantial cut or fill is to be done
Topography by contours (at vertical intervals of not more than 5 feet) of existing conditions
Proposed setbacks (front, side, rear, secondary front)
Location of mailbox kiosks (if applicable)

Applicant	Staff
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Landscape Plan Requirements

Proposed location for street trees
Proposed location of trees used to meet Site Tree Density and Tree Canopy Cover Retention Standards
Location of all Grand trees
Open Space Set-Aside (excluding stormwater management areas unless designed as site amenities)

Applicant	Staff
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

7. Signature

Signature of Applicant	
Print Name	Date
Bryan Dobek	8/11/2025



Letter of Agency

Application Supplement

TO: Planning and Development Services, City of Columbia

I, the undersigned property owner, do hereby attest that I am the person that holds, or I am authorized on behalf of the party that holds, fee simple interest in the following parcel(s):

Common Street Address

Intersection of Old Percival Road and Percival Woods Road

Tax Map Reference Numbers

R19814-02-04 & R22602-01-01

Further, I hereby authorize the persons and/or entities listed as AUTHORIZED AGENT(S) below to act on my behalf for the purpose of submitting documents, amending documents, meeting with staff, attending public meetings and hearings, and as otherwise may be necessary and proper to fulfill the required steps to request the following:

1. Variance, Special Exception, and/or Administrative Appeal (Board of Zoning Appeals)
2. Zoning Map Amendment (Planning Commission and City Council, if applicable)
3. Site Plan Review (Planning Commission or D/DRC)
4. Design Review (D/DRC)
5. Minor Subdivision (Staff)
6. Major Subdivision (Planning Commission)
7. Encroachment (Staff and City Council, if applicable)
8. Street Naming/Renaming (Planning Commission)

*****Please strike-through and initial any of the above-listed steps that do not fall under the scope of this Letter of Agency***

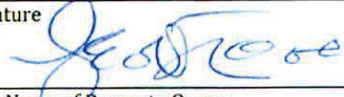
[signatures on following page]



Letter of Agency

Application Supplement

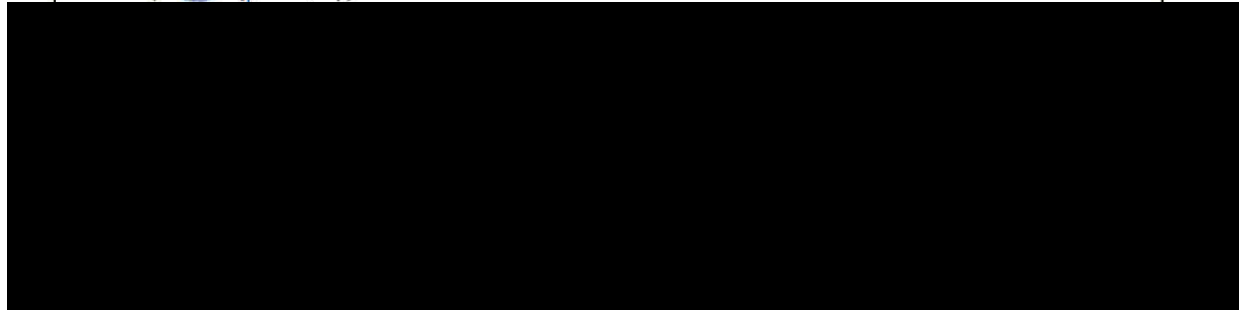
Property Owner

Signature 	Jean H. Toal, Member/Manager	Date 2-21-25
Print Name of Property Owner CSS Land, LLC		
Address (street, city, name, zip)		



Authorized Agent

Signature 	Date 2/25/2025
Print Name Bill Dixon	
Address (street, city, name, zip)	





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[signatures on following page]

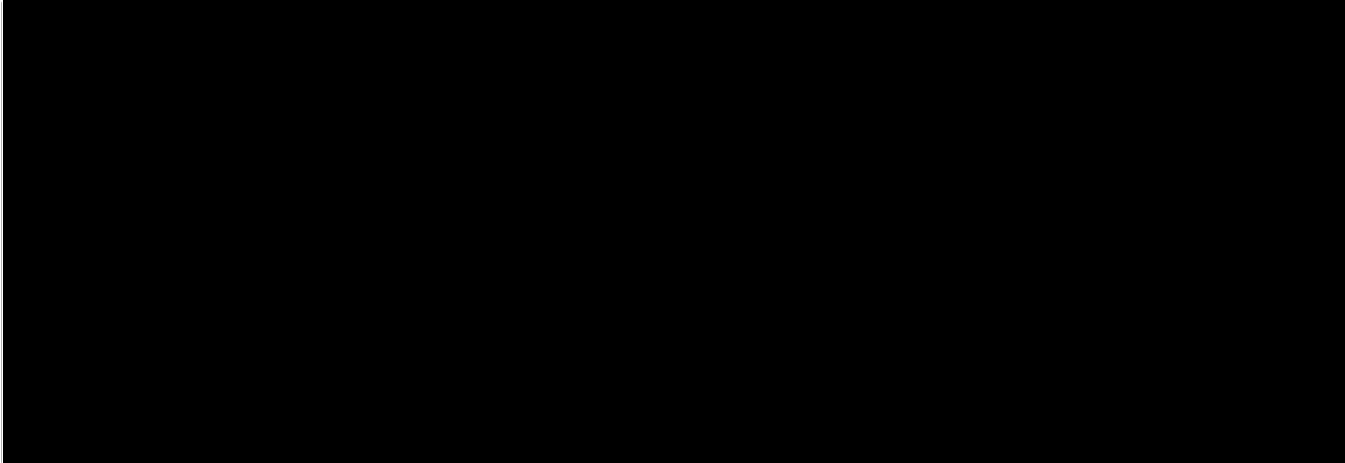


Letter of Agency


Application Supplement

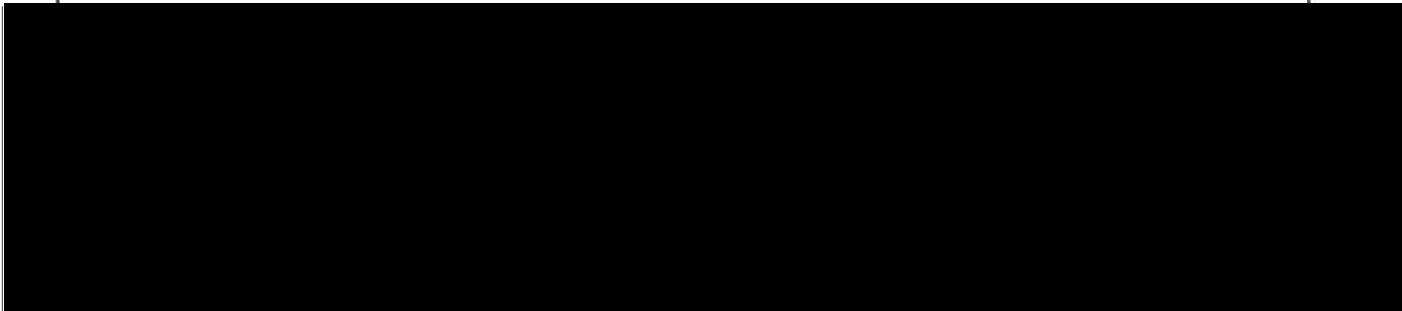
Property Owner

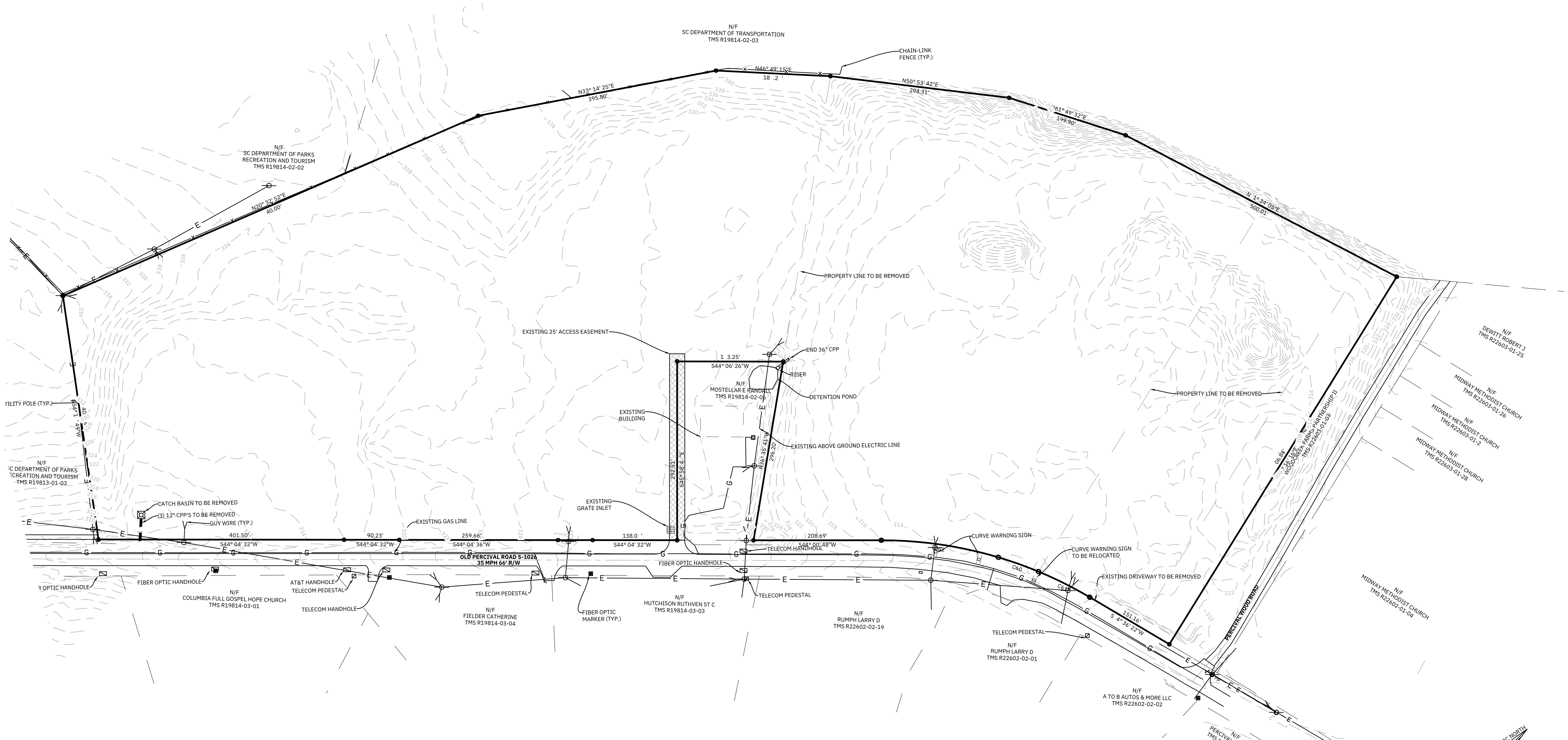
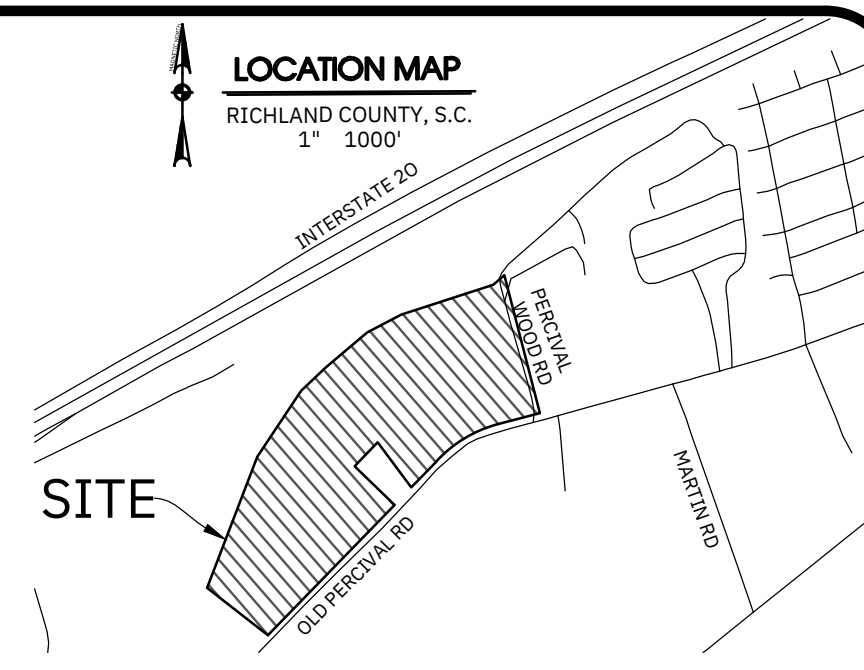
Signature 	Date 2/24/25
Print Name of Property Owner 8475 OLD PERCIVAL RD., LLC.	
Address (street, city, name, zip)	



Authorized Agent

Signature 	Date 4/17/25
Print Name Bill Dixon	
Address (street, city, name, zip)	





RICHLAND COUNTY TMS: #R19814-02-04 & #R22602-01-01

CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING UNDERGROUND UTILITIES (HORIZONTAL & VERTICAL) PRIOR TO CONSTRUCTION (INCLUDING BUT NOT LIMITED TO: GAS LINES, WATER LINES, SEWER LINES, ELECTRICAL AND TELECOMMUNICATION LINES, AND FIBER OPTIC CABLES.) CALL PALMETTO UTILITY PROTECTION SERVICE AT: 811 AT LEAST 3 DAYS BEFORE CONSTRUCTION. UNLESS STATED OTHERWISE IN CONTRACT WITH OWNER, THE CONTRACTOR SHALL INCLUDE ANY UTILITY RELOCATION COSTS IN HIS ORIGINAL AGREEMENT WITH THE OWNER.

THESE PLANS AND DETAILS ARE INTENDED TO SHOW MINIMUM REQUIREMENTS, MEASURES, AND METHODS TO RESTRICT RUNOFF AND CONTROL EROSION. ADDITIONAL MEASURES MAY BE NECESSARY. THE CONTRACTORS AND ANY SUBCONTRACTORS SHALL BE AWARE THAT UNKNOWN CONDITIONS OR UNOBSERVED OCCURRENCES MAY REQUIRE IMMEDIATE ACTION TO PROTECT THE SITE AND DOWNSTREAM PROPERTIES. NOTIFY THE DESIGN ENGINEER IMMEDIATELY IF SUCH A CONDITION OR OCCURRENCE IS KNOWN TO EXIST OR ARISE. FIELD TERMINATED TEMPORARY DIVERSIONS BEAMS AND/OR DITCHES SHALL BE CONSTRUCTED WHERE NECESSARY, TO PROTECT AREAS FROM UPSLOPE RUNOFF AND/OR TO DIVERT SEDIMENT AND/OR RUNOFF TO APPROPRIATE TREATMENT AREAS OR STABLE OUTLETS. THE CONTRACTOR SHALL CONFIRM POSITIVE DRAINAGE TO PROPOSED DRAINAGE STRUCTURES TO ENSURE THAT PONDING DOES NOT OCCUR. THIS PERTAINS TO PAVED AND UNPAVED AREAS. SLOPES TO STRUCTURES SHALL NOT BE EXTREME AND SHALL BE SUITABLE FOR THE INTENDED USE. STORM DRAINAGE PIPES SHALL HAVE A MINIMUM OF ONE FOOT OF COVER.

LEGEND:

	EXISTING CONTOUR
	EXISTING GAS LINE
	EXISTING POWER LINE
	EXISTING FENCE
	EXISTING EASEMENT

THE OWNER IS:
CLAYTON PROPERTIES GROUP, INC.
D/B/A MUNGO HOMES
441 WESTERN LANE
IRMO, S.C. 29063
TEL: (803) 49-9000
ATTN: MR. CONRAD KLEIN
EMAIL: CKLEIN@MUNGO.COM

THE STORMWATER OPERATOR IS:
CITY OF COLUMBIA
PO BOX 14
COLUMBIA, S.C. 29211
TEL: (803)545-3400
ATTN: MR. AJ JESSEE
EMAIL: ALFRED.JESSEE@COLUMBIASC.NET

THE ENGINEER IS:
CIVIL ENGINEERING OF COLUMBIA
PO BOX 113
IRMO, S.C. 29063
TEL: (803) 98-2820
ATTN: MR. JOSH RABON, PE
EMAIL: JOSH@CECOLA.COM

THE WATER OPERATOR IS:
CITY OF COLUMBIA
POST OFFICE BOX 14
COLUMBIA, SC 29211
TEL: (803) 545-3400
ATTN: MR. SCOTT ROGERS
EMAIL: MSROGERS@COLUMBIASC.NET

THE SURVEYOR IS:
BELTER & ASSOCIATES, INC
P.O. BOX 31
COLUMBIA, SC 29212
TEL: (803) 32-4004
ATTN: MR. RAYMOND PETERSON
EMAIL: RPERTERSON@ERCPDS.NET

THE SEWER OPERATOR IS:
EAST RICHLAND COUNTY PUBLIC SERVICE DISTRICT
PO BOX 23069
COLUMBIA, SC 29224
TEL: (803) 88-15 0
ATTN: MR. RAYMOND PETERSON
EMAIL: RPERTERSON@ERCPDS.NET

CYPRESS BEND
CITY OF COLUMBIA, SOUTH CAROLINA

SCALE IN FEET

SCALE 1" = 80'	DATE	AUG. 11, 2025	DRAWN	BPD	DESIGNED	BPD	DRAWING NUMBER	1 OF 30										
	PREPARED FOR	CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES		IRMO, SOUTH CAROLINA		CHECKED BY:		24082										
<p>EXISTING CONDITIONS & DEMOLITION PLAN</p>																		
<p>THE SURVEYOR IS: BELTER & ASSOCIATES, INC P.O. BOX 31 COLUMBIA, SC 29212 TEL: (803) 32-4004 ATTN: MR. RAYMOND PETERSON EMAIL: RPERTERSON@ERCPDS.NET</p>																		
<p>THE ENGINEER IS: CIVIL ENGINEERING OF COLUMBIA PO BOX 113 IRMO, S.C. 29063 TEL: (803) 98-2820 ATTN: MR. JOSH RABON, PE EMAIL: JOSH@CECOLA.COM</p>																		
<p>THE OWNER IS: CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES 441 WESTERN LANE IRMO, S.C. 29063 TEL: (803) 49-9000 ATTN: MR. CONRAD KLEIN EMAIL: CKLEIN@MUNGO.COM</p>																		
<p>THE STORMWATER OPERATOR IS: CITY OF COLUMBIA PO BOX 14 COLUMBIA, S.C. 29211 TEL: (803)545-3400 ATTN: MR. AJ JESSEE EMAIL: ALFRED.JESSEE@COLUMBIASC.NET</p>																		
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<p>THE SEWER OPERATOR IS: EAST RICHLAND COUNTY PUBLIC SERVICE DISTRICT PO BOX 23069 COLUMBIA, SC 29224 TEL: (803) 88-15 0 ATTN: MR. RAYMOND PETERSON EMAIL: RPERTERSON@ERCPDS.NET</p>																		
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<p>LOCATION MAP RICHLAND COUNTY, S.C. 1" = 1000'</p>																		
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NO.	DATE	DESCRIPTION																
<p>CIVIL ENGINEERING OF COLUMBIA NO. 000254 CERTIFICATE OF REGISTRATION</p>																		
<p>THE PRODUCT ON THIS SHEET WAS PREPARED FOR A SPECIFIC CLIENT FOR THE USE OF THAT CLIENT AND NO OTHER PERSON WITHOUT WRITTEN PERMISSION FROM THE DESIGN ENGINEER. IT IS STRICTLY PROHIBITED TO REPRODUCE, COPY, OR TRANSMIT ANY CERTIFICATIONS, WARRANTIES, OR WARRANTIES OF ANY KIND FOR THIS PROJECT ARE INTENDED TO EXPRESS THAT STANDARD AND NOT TO BE A BASIS FOR LIABILITY OR PREPARATION OF THESE DOCUMENTS.</p>																		
<p>CIVIL ENGINEERING of COLUMBIA PO BOX 1137 IRMO, SC 29063 TEL (803) 798-2820 FAX (803) 798-2826</p>																		

PROJECT NOTES AND REFERENCES:

- 1. PROJECT AREA: 30.20+ ACRES
- TO BE SUBDIVIDED INTO 110 SINGLE FAMILY RESIDENTIAL SLOTS.
2. RICHLAND COUNTY TMS: R22602-01-01 & R19814-02-04
3. I HEREBY CERTIFY THAT I HAVE CONSULTED THE FEMA FLOOD INSURANCE RATE MAP # 15-46000C-0101 (DATE 12/22/2011) AND MY KNOWLEDGE AND BELIEF, THE SUBJECT PROPERTY IS LOCATED WITHIN UNSHADED ZONE X, AN AREA WHERE NO BASE FLOOD ELEVATIONS HAVE BEEN DETERMINED.
4. EACH CONTRACTOR OR SUBCONTRACTOR SHALL OBTAIN COPIES OF ALL APPROVAL LETTERS, PERMITS AND APPROVED PLANS RELATING HIS PORTION OF THE CONSTRUCTION. CONTRACTORS OR SUBCONTRACTORS SHALL NOT BEGIN ANY WORK UNTIL HAVING POSSESSION OF ALL SAID LETTERS, PERMITS AND PLANS. THE CONTRACTOR SHALL ALSO REQUEST A PRECONSTRUCTION CONFERENCE WITH THE OWNER AND ENGINEER.
5. TOPOGRAPHIC BY BOUNDARY SURVEY BY CIVIL ENGINEERING OF COLUMBIA. BENCHMARK: ----, ELEV. D ----
6. NO OFFSITE DISTURBANCE IS PERMITTED WITHOUT PRIOR WRITTEN PERMISSION FROM THE AFFECTED PROPERTY OWNER.
10. THE PURPOSE OF THIS PLAN IS TO DEPICT THE MEASURES RECOMMENDED TO MINIMIZE THE SEDIMENT RUNOFF FROM THE SITE. EFFORT WAS MADE TO LOCATE AND IDENTIFY ALL STRUCTURES AND UTILITIES LOCATED IN THE PROJECT AREA. THE CONTRACTOR IS RESPONSIBLE FOR INVESTIGATING THE SITE PRIOR TO COMMENCING WORK IN ORDER TO CONFIRM THERE ARE NO OBSTRUCTIONS, ABOVE GROUND OR BELOW GROUND, THAT WOULD CONFLICT WITH THE PROPOSED IMPROVEMENTS.
8. CONSTRUCTION STAKING, BY SOMEONE OTHER THAN THE CONTRACTOR, DOES NOT RELIEVE THE RESPONSIBILITY OF THE CONTRACTOR TO OBSERVE THE SURVEYOR'S ALIGNMENT AND ELEVATION STAKES OR CONTROLS FOR COMPLIANCE WITH THE INTENT OF THE PLANS. THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER AND SURVEYOR IMMEDIATELY OF ANY CONCERNS, DIFFERENCES, OR DISCREPANCIES PRIOR TO PROCEEDING WITH CONSTRUCTION.
9. THESE PLANS DO NOT ADDRESS SUBSURFACE WATER. IF SUBSURFACE WATER IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY ALERT THE ENGINEER AND A SOILS LABORATORY SHALL BE EMPLOYED BY THE OWNER TO MAKE RECOMMENDATIONS FOR THE PLACEMENT OF PIPE UNDERDRAIN OR OTHER CORRECTIVE MEASURES. LANDSCAPING AND IRRIGATION SYSTEMS HAVE NOT BEEN CONSIDERED IN THE STORMWATER SYSTEM DESIGN ON THESE PLANS. COORDINATION FOR LANDSCAPING AND IRRIGATION, AND ANY SUBSURFACE DRAINAGE SYSTEM REQUIRED BY EITHER SHALL BE THE RESPONSIBILITY OF THE OWNER.
10. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE FULLY IMPLEMENTED BEFORE ANY LAND DISTURBANCE IS PERMITTED. ALL DISTURBED AREAS SHALL BE GRASSED AS DESCRIBED IN THE SPECIFICATIONS.
11. FOR ADDITIONAL STAKING INFORMATION, CONTACT THE ENGINEER TO OBTAIN A COORDINATE LIST.
12. ALL PROPERTY CORNERS ARE CALCULATED POINTS UNLESS SHOWN OTHERWISE.
13. CONTRACTOR TO PERFORM CONSTRUCTION IN ACCORDANCE WITH PROJECT TECHNICAL SPECIFICATIONS. CONTRACTORS ARE ADVISED THAT IF THEY HAVE A COPY OF THE PROJECT SPECIFICATIONS BEFORE BEGINNING CONSTRUCTION ACTIVITIES.
14. CATCH BASINS SHALL BE FIELD STAKED TO ENSURE PROPER CATCH BASIN ALIGNMENT WITH THE STREET AND GUTTER LINE. IN ADDITIONS, KNOCKOUT PANEL BOARD DEPTHS SHALL NOT EXCEED SIX FEET DEEP. DEEPER BOXES SHALL BE HAND-BUILD OR APPROVED PRE-CAST. PRE-CAST STORM DRAINAGE STRUCTURES WITH KNOCK OUT PANELS CAN BE NO GREATER THAN 6' IN DEPTH.
15. ALL UTILITY CROSSINGS TO MEET RCU STANDARD SPACING REQUIREMENTS.
16. CROSS LINE PIPES SHALL BE COMPACTED IN 12 LIFTS TO 95% STANDARD PROCTOR AND THE LAST 12 COMPACTED TO 100% PROCTOR.
10. CONCRETE WASHOUT AREAS TO BE FIELD DETERMINED
18. ADDITIONAL SILT FENCE MAY BE NEEDED IN AREAS NOT SHOWN ON PLANS IF EROSION START TO TAKE PLACE.
19. ALL SIDEWALKS, STRIPING, AND SIGNAGE SHALL MEET ADA, MUTCD, SCDOT AND RICHLAND COUNTY REQUIREMENTS.
20. IF NEEDED, CONTRACTOR SHALL DETERMINE THE LOCATION OF A STOCKPILE AND PLACE SEDIMENT FENCE AROUND TOE OF SLOPE AS NEEDED TO PROTECT SITE FROM EROSION.
21. SIDEWALKS WILL BE PROVIDED ALONG ALL EXISTING PUBLIC ROADS IN ACCORDANCE WITH CHAPTER 26 SECTION 179 ENTITLED PEDESTRIAN BICYCLE, AND TRANSIT AMENITIES. ALL SIDEWALKS WILL BE BUILT BY INDIVIDUAL HOMEBUILDERS.
22. LANDSCAPE BUFFERS WILL BE PROVIDED ALONG ALL EXISTING PUBLIC ROADS IN ACCORDANCE WITH CHAPTER 26 SECTION 176 SUBSECTION (C) ENTITLED VISUAL SCREENING FOR THOROUGHFARES AND ARTERIAL ROADWAYS.
23. ALL PROPOSED DETENTION/RETENTION PONDS WILL BE SCREENED IN ACCORDANCE WITH CHAPTER 26 SECTION STORMWATER MANAGEMENT UNDER SUBSECTION (E) ENTITLED STORMWATER MANAGEMENT FACILITIES.
24. MINIMUM BUILDING SETBACKS:
- SIDE PROPERTY LINES:
- 5' (0' TOTAL) EITHER SIDE OF PROPERTY LINE.
- REAR PROPERTY LINES:
- 10' ALONG ANY REAR PROPERTY LINE.
- FRONT AND SECONDARY LINES:
- 15' ALONG FRONT AND 15' ALONG SECONDARY LINES BOUNDED BY ROAD R.O.W.

OPEN SPACE NOTES & REFERENCES:

- 1. ALL OPEN SPACE AREAS SHOWN ON THE PLAN ARE SUBJECT TO PERPETUAL CONSERVATION EASEMENTS WHICH ARE CONTAINED IN LAND RECORDS OF COVENANTS PERTAINING TO THE DEVELOPMENT.
2. ALL OPEN SPACE AREAS SHALL BE OWNED AND MAINTAINED BY THE HOME OWNERS ASSOCIATION.
3. THERE SHALL BE NO CLEARING, GRADING, DISTURBANCE, CONSTRUCTION, OR CONSTRUCTION RUNOFF IMPACTS TO THE OPEN SPACE AREAS EXCEPT AS ALLOWED BY THE PUBLIC WORKS DEPARTMENT.
1. ALL WATER EASEMENTS TO BE DEDICATED TO THE CITY OF COLUMBIA.
1. ALL SEWER EASEMENTS TO BE DEDICATED TO RICHLAND COUNTY PUBLIC SERVICE DISTRICT.
1. ALL STORM DRAINAGE EASEMENTS TO BE DEDICATED TO RICHLAND COUNTY UNLESS NOTED TO BE PRIVATE.

UTILITY NOTES & REFERENCES:

- 1. FAILURE TO NOTIFY THE ENGINEER, IN WRITING, OF CONSTRUCTION COMMENCEMENT MAY RESULT IN HAVING TO UNCOVER UTILITY LINES FOR INSPECTION.
2. THE CONTRACTOR SHALL BE FAMILIAR WITH, AND KNOWLEDGEABLE OF, ALL FEDERAL, STATE, AND LOCAL CODES, REQUIREMENTS, REGULATIONS AND SPECIFICATIONS REGARDING THE CONSTRUCTION OF THIS PROJECT. ALL MATERIALS, WORKMANSHIP, INSTALLATION AND RESTORATION SHALL MEET OR EXCEED MINIMUM REQUIREMENTS. LACK OF DETAILS ON THE PLANS OR ABSENCE OF SPECIFIC INSTRUCTIONS SHALL NOT RELIEVE THE CONTRACTOR OF COMPLYING WITH ALL APPLICABLE CODES, REQUIREMENTS, REGULATIONS, AND SPECIFICATIONS.
3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS PRIOR TO CONDUCTING PRESSURE TESTS ON WATER LINES. FOR UNDERGROUND FIRE LINES CONNECTING BUILDING SPRINKLER SYSTEMS, THE CONTRACTOR SHALL COMPLY WITH NFPA24 (LATEST EDITION). NFPA REQUIRES A TESTING MINIMUM OF 200 PSI FOR TWO HOURS.
4. THE CONTRACTOR SHALL FURNISH THE ENGINEER WITH TWO SETS OF "AS BUILT" DRAWINGS PRIOR TO REQUESTING A FINAL INSPECTION. THE "AS BUILT" DRAWINGS SHALL SHOW THE LOCATIONS OF ALL SEWER AND WATER STRUCTURES, LINES, BENDS AND APPURTENANCES. THESE ITEMS SHALL BE TIED DOWN, WITH AT LEAST TWO DIMENSIONS TO STABLE POINTS SUCH AS PROPERTY IRONS, FIRE HYDRANTS, BUILDING CORNERS, CENTERLINE OF MANHOLES OR STORM DRAINAGE BOXES. GRADES ON GRAVITY SEWER LINES SHALL ALSO BE FURNISHED.
5. ALL SEWER MANHOLES GREATER THAN 8' DEEP SHALL BE 5' DIAMETER MINIMUM.
6. INSTALLATION OF ANY GRAVITY FLOW PIPE, SUCH AS SANITARY SEWER OR STORM DRAIN, SHALL REQUIRE THAT THE CONTRACTOR START AT THE LOWEST CONNECTION POINT ELEVATION, AND WORK IN THE UP HILL DIRECTION. IF, IN THE BEST INTEREST OF THE PROJECT, THE CONTRACTOR WISHES TO INITIATE PIPE LAYING AT SOME LOCATION OTHER THAN THE LOWEST CONTROL, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM A SATISFACTORY CONNECTION TO THE LOWEST CONTROL PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL REQUEST, IN WRITING, AND RECEIVE, IN WRITING, APPROVAL FROM THE DESIGN ENGINEER WHOSE NAME APPEARS ON THESE PLANS. SANITARY SEWER SEWER MAINS OR SERVICES WITH LESS THAN THREE FEET OF COVER SHALL BE DUCTILE IRON PIPE. WHEREVER A SANITARY SEWER SERVICE CROSSES OVER OR UNDER A STORM DRAIN PIPE AND/OR A WATER MAIN, THE SERVICE SHALL BE EXTENDED A MINIMUM OF FIVE FEET BEYOND THE FURTHEST PIPELINE. IN NO CASE, WITHOUT THE ENGINEER'S WRITTEN APPROVAL, SHALL THE CONTRACTOR TERMINATE THE SANITARY SEWER SERVICE AT A LOCATION THAT WOULD REQUIRE THE BUILDING PLUMBER TO CROSS THE STORM DRAIN PIPE AND/OR WATER MAIN.
10. DURING CONSTRUCTION PHASE SEWER MANHOLES AND CLEANOUTS SHALL NOT BE OBSTRUCTED OR COVERED BY DUMPSTERS, PORTA POTTIE, DIRT, ROCKS, CONSTRUCTION MATERIAL OR DEBRIS, ETC.
8. INFILTRATION/EXFILTRATION TESTS SHALL BE CONDUCTED ON THE SANITARY SEWER LINES AND MANHOLES. THE CONTRACTOR SHALL GIVE THE ENGINEER 48 HOURS NOTICE PRIOR TO CONDUCTING THESE TESTS. TESTS SHALL BE IN ACCORDANCE WITH ASTM C828 (LATEST REVISION).
9. WHEN PVC OR POLYETHYLENE PIPE IS USED IN WATER MAIN CONSTRUCTION, A CONTINUOUS 1/2 GAUGE BLUE INSULATED COPPER TRACER WIRE, APPROVED BY THE MANUFACTURER FOR DIRECT BURIAL, SHALL BE INSTALLED A MINIMUM OF 6" ABOVE THE TOP OF THE WATER LINE ALONG THE TRENCH LINE. THE TRACER WIRE SHALL TERMINATE AT EACH VALVE OR METER AND SHALL BE ARRANGED TO MOST EFFICIENTLY FACILITATE THE CONNECTING OF TESTING APPARATUS FOR TRACKING THE PVC OR POLYETHYLENE PIPE WITHOUT INTERFERING WITH THE PROPER OPERATION OF THE WATER VALVE OR METER.
- GREEN 12 AWG COPPER OR COPPER CLAD STEEL MINIMUM
- RATED FOR DIRECT BURIAL
- ALL CONNECTIONS SHALL MAINTAIN INTEGRITY OF TRACER WIRE
- ALL CONNECTIONS SHALL BE RATED FOR "DIRECT BURIAL"
10. ALL SEWER LINES SHALL HAVE A TRACER WIRE AND DETECTABLE TAPES AT 2' ABOVE THE MAIN. SEWER SERVICE LINES REQUIRE TRACER WIRE AND DETECTABLE GREEN TAPE. SEWER DETECTABLE TAPE WILL BE 24" ABOVE PIPING. CAUTION: BURIED SEWER LINE BELOW"
11. PROVIDE A TEMPORARY STONE SPLASH PAD AT ALL FIRE HYDRANTS OR OTHER POINTS OF DISCHARGE DURING TESTING OF THE WATER DISTRIBUTION SYSTEM.
12. PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES. AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING ALL UTILITY CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, GRADED, AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY CONSTRUCTION.
13. EACH CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER, IN WRITING, AFTER SANITARY SEWER MANHOLE INVERTS ARE ESTABLISHED AND BEFORE CONES, CORBELS, OR TOPS ARE CONSTRUCTED. THIS IS TO PROVIDE A NOTICE FOR A DIRECT VERTICAL READING IN DETERMINING PIPE GRADES. FAILURE TO NOTIFY THE ENGINEER CAN RESULT IN THE CONTRACTOR HAVING TO REMOVE, TO THE ENGINEER'S SATISFACTION, ENOUGH OF THE MANHOLE TO OBTAIN A DIRECT, VERTICAL INVERT READING.
14. SANITARY SEWER RIM AND CLEANOUT TOP ELEVATIONS SHOWN ARE APPROXIMATE AND MAY REQUIRE FIELD ADJUSTING TO BE 0.1- FEET ABOVE GROUND OR FLUSH WHEN IN PAVEMENT. MANHOLES OR CLEANOUTS SHALL NOT BE PLACED IN A SUMP. CONTRACTOR SHALL RAISE RIM, GRADE, OR FILL AROUND MANHOLE RIMS AND CLEANOUTS TO ENSURE POSITIVE SURFACE DRAINAGE AWAY FROM MANHOLES AND CLEANOUTS. CONSTRUCTION SHALL BE COMPLETED TO THE SATISFACTION OF THE UTILITY OWNER. MANHOLES, CLEANOUTS SHALL NOT BE PLACED IN ROADS, SIDEWALKS, DRIVEWAYS, OR OTHER "FINISHED" AREAS.
15. ALL WORK AND MATERIALS USED ON THE PROPOSED WASTEWATER SYSTEM ARE TO BE DONE IN ACCORDANCE WITH RICHLAND COUNTY UTILITIES REGULATIONS. ALL WORK AND MATERIALS USED ON THE PROPOSED WATER SYSTEM ARE TO BE DONE IN ACCORDANCE WITH CITY OF COLUMBIA SPECIFICATIONS. RCU CLEANOUTS TO BE PROTECTED BY CONCRETE DONUT PER RCU SPECS.
16. ALL WATER EASEMENTS TO BE DEDICATED TO THE CITY OF COLUMBIA. ALL SEWER EASEMENTS SHALL BE DEDICATED TO RICHLAND COUNTY UTILITIES (RCU).
10. CITY OF COLUMBIA SHALL HAVE A RESERVED 15' UTILITY EASEMENT (0.5' FROM THE CENTER OF THE UTILITY LINE) UNLESS OTHERWISE SPECIFIED ON PLANS.
18. NO VALVES, BOXES, MANHOLES, FIXTURES, OR OTHER APPURTENANCES SHALL BE LOCATED WITHIN THE PROPOSED ROADWAY.

EASEMENT NOTE:

- UNLESS OTHERWISE NOTED, THERE SHALL BE A 15' (0.5' FROM THE CENTER OF THE UTILITY LINE) EASEMENT FOR ALL INSTALLED WATER, SEWER, AND STORM DRAINAGE LINES.
IN ADDITION, THERE SHALL BE A RESERVED EASEMENT IN FAVOR OF THE DEVELOPER, THEIR HEIRS OR ASSIGNS AS DESCRIBED HEREIN. WHERE A LOT IN THIS SUBDIVISION IS ALONG THE SUBDIVISION PERIMETER PROPERTY LINE, THE ENTIRE EASEMENTS SHALL BE INCLUDED ON THE LOT WITHIN THE SUBDIVISION.
DURING CONSTRUCTION PHASE SEWER MANHOLES AND CLEANOUTS SHALL NOT BE OBSTRUCTED OR COVERED BY DUMPSTERS, PORTA POTTIE, DIRT, ROCKS, CONSTRUCTION MATERIAL OR DEBRIS, ETC.
1. ALL WATER EASEMENTS TO BE DEDICATED TO THE CITY OF COLUMBIA.
1. ALL SEWER EASEMENTS TO BE DEDICATED TO RICHLAND COUNTY PUBLIC SERVICE DISTRICT.
1. ALL STORM DRAINAGE EASEMENTS TO BE DEDICATED TO RICHLAND COUNTY UNLESS NOTED TO BE PRIVATE.

SEDIMENT AND EROSION CONTROL NOTES

- 1. CUT OR FILL SLOPES WHICH EXCEED FIVE (5) VERTICAL FEET ON SLOPES 4:1 OR STEEPER SHALL BE STABILIZED WITH SYNTHETIC OR VEGETATIVE MATS. IN ADDITION TO GRASSING OR HYDROSEEDING, IT MAY BE NECESSARY TO INSTALL TEMPORARY SOPE DRAINS DURING CONSTRUCTION. TEMPORARY BERMS MAY BE NEEDED UNTIL THE SLOPE IS BROUGHT TO GRADE.
2. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN (3) DAYS AFTER THE WORK HAS CEASED, EXCEPT AS STATED BELOW. - WHERE STABILIZATION BY THE 1401 DAY IS PRECLUDED BY SNOW COVER OR FROZEN GROUND - CONDITIONS STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRACTICABLE. - WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH-DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 14 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE. SEEDING SCHEDULE AND SLOPE STABILIZATION MEASURES ARE IN SECTION 0280 OF THE SPECS.
1. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED ONCE EVERY CALENDAR WEEK. IF PERIODIC INSPECTION OR OTHER INFORMATION INDICATES THAT A BMP HAS BEEN PLACED INAPPROPRIATELY, OR INCORRECTLY, THE PERMITTEE MUST ADDRESS THE NECESSARY REPLACEMENT OR MODIFICATION REQUIRED TO CORRECT THE BMP WITHIN 48 HOURS OF IDENTIFICATION.
4. PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES. AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING ALL UTILITY CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, GRADED AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY INSTALLATION. FILL COVER, AND TEMPORARY SEEDING AT THE END OF EACH DAY ARE REQUIRED. IF WATER IS ENCOUNTERED WHILE TRENCHING, THE WATER SHOULD BE FILTERED TO REMOVE ANY SEDIMENTS BEFORE BEING PUMPED BACK INTO WATERS OF THE STATE.
5. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.
6. THE CONTRACTOR MUST TAKE NECESSARY ACTION TO MINIMIZE THE TRACKING OF MUD/SOIL ON THE PAVED ROADWAY(S) FROM CONSTRUCTION AREAS AND THE GENERATION OF DUST. THE CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT, AS MAY BE REQUIRED.
1. RESIDENTIAL SUBDIVISIONS REQUIRE EROSION CONTROL FEATURES FOR INFRASTRUCTURE AS WELL AS FOR INDIVIDUAL LOT CONSTRUCTION. INDIVIDUAL PROPERTY OWNERS SHALL FOLLOW THESE PLANS DURING CONSTRUCTION OR OBTAIN APPROVAL OF AN INDIVIDUAL PLAN IN ACCORDANCE WITH S.C. REG. 12-300 03(D)(1), AND SCR 100000.
8. TEMPORARY DIVERSION BERMS AND/OR DITCHES SHALL BE PROVIDED AS NEEDED DURING CONSTRUCTION TO PROTECT WORK AREAS FROM UPSLOPE RUNOFF AND/OR DIVERT SEDIMENT LADEN WATER TO APPROPRIATE TRAPS OR STABLE OUTLETS.
9. ALL WATERS OF THE STATE (WOS), INCLUDING WETLANDS, ARE TO BE FLAGGED OR OTHERWISE CLEARLY MARKED IN THE FIELD. A DOUBLE ROW OF SEDIMENT FENCE IS TO BE INSTALLED IN ALL AREAS WHERE A 5' BUFFER CAN NOT BE MAINTAINED BETWEEN THE DISTURBED AREA AND ALL WOS. A 10' BUFFER SHOULD BE MAINTAINED BETWEEN THE LAST ROW OF SEDIMENT FENCE AND ALL WOS.
10. LITTER, CONSTRUCTION DEBRIS, OILS, FUELS, AND BUILDING PRODUCTS WITH SIGNIFICANT POTENTIAL FOR IMPACT (SUCH AS STOCKPILES OF FRESHLY TREATED LUMBER) AND CONSTRUCTION CHEMICALS THAT COULD BE EXPOSED TO STORM WATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE IN STORM WATER DISCHARGES.
11. A COPY OF THE SWPPP, INSPECTION RECORDS, AND RAINFALL DATA MUST BE RETAINED AT THE CONSTRUCTION SITE OR A NEARBY LOCATION EASILY ACCESSIBLE DURING NORMAL BUSINESS HOURS, FROM THE DATE OF COMMENCEMENT OF CONSTRUCTION ACTIVITIES TO THE DATE THAT FINAL STABILIZATION IS REACHED.
12. INITIATE STABILIZATION MEASURES ON ANY EXPOSED STEEP SLOPE (3H:1V OR GREATER) WHERE LAND-DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED, AND WILL NOT RESUME FOR A PERIOD OF 14 CALENDAR DAYS.
13. MINIMIZE SOIL COMPACTION AND, UNLESS INFEASIBLE, PRESERVE TOPOSOIL.
14. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING, WHEEL WASH WATER, AND OTHER WASH WATERS. WASH WATERS MUST BE TREATED IN A SEDIMENT BASIN OR ALTERNATIVE CONTROL METHOD THAT PROVIDES EQUIVALENT OR BETTER TREATMENT PRIOR TO DISCHARGE.
15. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM DEWATERING OF TRENCHES AND EXCAVATED AREAS. THESE DISCHARGES ARE TO BE ROUTED THROUGH APPROPRIATE BMP'S (SEDIMENT BASIN, FILTER BAG, ETC.).
16. THE FOLLOWING DISCHARGES FROM SITES ARE PROHIBITED:
- WASTEWATER FROM WASHOUT OF CONCRETE, UNLESS MANAGED BY AN APPROPRIATE CONTROL
- WASTEWATER FROM WASHOUT AND CLEANOUT OF STUCCO, PAINT, FROM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS
- FUELS, OILS, OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE
- SOAPS OR SOLVENTS USED IN VEHICLE AND EQUIPMENT WASHING.
10. AFTER CONSTRUCTION ACTIVITIES BEGIN, INSPECTIONS MUST BE CONDUCTED AT A MINIMUM OF AT LEAST ONCE EVERY CALENDAR WEEK AND MUST BE CONDUCTED UNTIL FINAL STABILIZATION IS REACHED ON ALL AREAS OF THE CONSTRUCTION SITE.
18. IF EXISTING BMP'S NEED TO BE MODIFIED OR IF ADDITIONAL BMP'S ARE NECESSARY TO COMPLY WITH THE REQUIREMENTS OF THIS PERMIT AND/OR SC'S WATER QUALITY STANDARDS, IMPLEMENTATION MUST BE COMPLETED BEFORE THE NEXT STORM EVENT WHENEVER PRACTICABLE. IF IMPLEMENTATION BEFORE THE NEXT STORM EVENT IS IMPRACTICABLE, THE SITUATION MUST BE DOCUMENTED IN THE SWPPP AND ALTERNATIVE BMP'S MUST BE IMPLEMENTED AS SOON AS REASONABLY POSSIBLE.
19. A PRE-CONSTRUCTION CONFERENCE MUST BE HELD FOR EACH CONSTRUCTION SITE WITH AN APPROVED ON-SITE SWPPP PRIOR TO THE IMPLEMENTATION OF CONSTRUCTION ACTIVITIES. FOR NON-LINEAR PROJECTS THAT DISTURB 10 ACRES OR MORE THIS CONFERENCE MUST BE HELD ON-SITE UNLESS THE DEPARTMENT HAS APPROVED OTHERWISE.
20. STOCKPILED TOP SOIL OR OTHER MATERIALS TO BE USED LATER IN PLANTING PERMANENT GRASS ON ALL DISTURBED AREAS NOT USED AS PAVED ROADS, BUILDINGS ETC. STOCKPILE LOCATION SHALL BE DETERMINED IN THE FIELD AND APPROVED BY THE OWNER/DEVELOPER AND SHOWN ON THE ON SITE SWPPP. AT A MINIMUM, SEDIMENT FENCE SHALL ENCIRCLE THE STOCKPILE TO PREVENT EROSION. WASHOUT AREAS WILL BE FIELD ESTABLISHED AND SHOWN ON THE ON SITE SWPPP.
21. THESE PLANS AND DETAILS ARE INTENDED TO SHOW MINIMUM REQUIREMENTS, MEASURES, AND METHODS TO REDUCE RUNOFF AND CONTROL EROSION. ADDITIONAL MEASURES MAY BE NECESSARY. THE CONTRACTORS AND ANY SUBCONTRACTORS SHALL BE AWARE THAT UNKNOWN CONDITIONS OR UNFORESEEN OCCURRENCES MAY REQUIRE IMMEDIATE ACTION TO PROTECT THE SITE AND DOWNSTREAM PROPERTIES. NOTIFY THE DESIGN ENGINEER IMMEDIATELY IF SUCH A CONDITION OR OCCURRENCE IS KNOWN TO EXIST OR ARISE.
22. EACH CONTRACTOR OR SUBCONTRACTOR SHALL OBTAIN COPIES OF ALL APPROVAL LETTERS, PERMITS AND APPROVED PLANS RELATING TO HIS PORTION OF THE CONSTRUCTION. CONTRACTORS OR SUBCONTRACTORS SHALL NOT BEGIN ANY WORK UNTIL HAVING POSSESSION OF ALL SAID LETTERS, PERMITS AND PLANS. THE CONTRACTOR SHALL ALSO REQUEST A PRECONSTRUCTION CONFERENCE WITH THE OWNER AND ENGINEER.
23. THE CONTRACTOR SHALL BE FAMILIAR WITH, AND KNOWLEDGEABLE OF, ALL FEDERAL, STATE, AND LOCAL CODES, REQUIREMENTS, REGULATIONS AND SPECIFICATIONS REGARDING THE CONSTRUCTION OF THIS PROJECT. ALL MATERIALS, WORKMANSHIP, INSTALLATION AND RESTORATION SHALL MEET OR EXCEED MINIMUM REQUIREMENTS. LACK OF DETAILS ON THE PLANS OR ABSENCE OF SPECIFIC INSTRUCTIONS SHALL NOT RELIEVE THE CONTRACTOR OF COMPLYING WITH ALL APPLICABLE CODES, REQUIREMENTS, REGULATIONS AND SPECIFICATIONS.
24. THE CONTRACTOR SHALL REQUEST A COPY OF ANY SOILS REPORTS OR RECOMMENDATIONS PERTAINING TO THIS PROJECT. SAID REPORT SHALL BE MADE A PART OF THESE SPECIFICATIONS. SHOULD A CONFLICT OCCUR BETWEEN THE SOILS REPORT AND THESE SPECIFICATIONS, THE SOILS REPORT SHALL TAKE PRECEDENCE.
25. THESE PLANS DO NOT ADDRESS SUBSURFACE WATER. IF SUBSURFACE WATER IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY ALERT THE ENGINEER. A SOILS LABORATORY SHALL BE EMPLOYED BY THE OWNER TO MAKE RECOMMENDATIONS FOR THE PLACEMENT OF PIPE UNDERDRAIN OR OTHER CORRECTIVE MEASURES. LANDSCAPING AND IRRIGATION SYSTEMS HAVE NOT BEEN CONSIDERED IN THE STORMWATER SYSTEM DESIGN ON THESE PLANS. COORDINATION FOR LANDSCAPING AND IRRIGATION, AND ANY SUBSURFACE DRAINAGE SYSTEM REQUIRED BY EITHER SHALL BE THE RESPONSIBILITY OF THE OWNER.
26. UTILITY COMPANIES USING AN ANNUAL BLANKET NOT THAT USE THESE PLANS MUST CONFORM TO THESE PLANS AT A MINIMUM. ANY DEVIATION FROM THESE PLANS OR AREAS OUTSIDE THE LIMITS OF DISTURBANCE MUST DEVELOP THEIR OWN SEPARATE SWPPP.
20. PLACE A STONE CHECK DAM IN ALL NATURAL OR CREATED DRAINAGEWAYS WHERE PIPES DISCHARGE WATER TO TRAP SEDIMENT ON SITE AND DO NOT ALLOW IT TO GO ONTO ADJACENT PROPERTY. ALL SEDIMENT AND EROSION CONTROL STRUCTURES SHALL BE INSTALLED BY A METHOD ACCEPTABLE TO THE JURISDICTIONAL SEDIMENT AND EROSION CONTROL OFFICER.
28. SEED ALL SWALES OR DITCHES TO SOME TYPE OF PERMANENT GRASS WHERE SLOPE OF LAND DOES NOT EXCEED 2:1 - PLANTINGS TO BE DONE AS OUTLINED IN GRASSING SPECIFICATIONS AS REQUIRED BY THE LOCAL AND STATE JURISDICTION.
29. PROVIDE A TEMPORARY STONE SPLASH PAD AT ALL FIRE HYDRANTS OR OTHER POINTS OF DISCHARGE DURING TESTING OF THE WATER DISTRIBUTION SYSTEM.
30. POLLUTANTS WITH POTENTIAL TO BE EXPOSED TO STORMWATER IN THE WORK AREA SHALL BE CONTAINED USING BEST MANAGEMENT PRACTICES AT A MINIMUM. PROPER SPILL CONTAINMENT AND CLEANUP SHALL BE ADDRESSED PRIOR TO BEGINNING WORK. QUALIFIED PERSONNEL FOR CONTAINMENT AND CLEANUP SHALL BE DOCUMENTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SPILL CLEANUP AND REPORTING. SPILL CONTACTS (AGENCY NAME/PHONE NUMBER) RELATIVE TO THE POTENTIAL POLLUTANT USED ON SITE SHALL BE LISTED IN THE SWPPP MANUAL.

SECTION 0280 - GRASSING

- PART 1 - GENERAL
1.01 SCOPE
A THIS SECTION COVERS GRASSING AND OR HYDROSEEDING FOR THE AREAS AS DESIGNATED ON THE GRADING PLAN, UNLESS STATED OTHERWISE. SCOOT STANDARD SPECIFICATIONS SHALL BE MET OR EXCEEDED.
B THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A SATISFACTORY STAND OF GRASSING ON ALL DISTURBED AREAS. IN AREAS OF POTENTIAL EROSION, THE CONTRACTOR SHALL PLACE TURF REINFORCING MATTING, SUCH AS NORTH AMERICAN GREEN C350, OR A DESIGN ENGINEER'S APPROVED EQUAL. THE CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY THE DESIGN ENGINEER WHEN AWARE OF ANY AREA NEEDING SUCH TURF REINFORCEMENT THAT ARE NOT SPECIFICALLY IDENTIFIED ON THE CONSTRUCTION DOCUMENTS, ALL GRADED EARTH AREAS, INCLUDING, BUT NOT LIMITED TO, SWALES, BERMS, ROAD BANKS, DAMS, AND DITCHES SHALL BE STABILIZED IMMEDIATELY AFTER DISTURBANCE.
1.02 HYDROSEEDING
A ALL HYDROSEEDING SHALL CONFORM TO THE APPLICABLE STATE DOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION SECTION 810
1.03 RELATED WORK SPECIFIED ELSEWHERE
A SITE CLEARING AND GRUBBING, SECTION 0210.
B SITE GRADING, SECTION 0220.
C EXCAVATION, TRENCHING AND BACKFILLING FOR PIPE LINES, SECTION 0255.
1.04 MEASUREMENT AND PAYMENT
A QUANTITIES SHALL BE MEASURED, AND PAYMENT SHALL BE MADE AT THE CONTRACT UNTIL PRICE FOR GRASSING/HYDROSEEDING.
1.05 PROTECTION
A THE CONTRACTOR SHALL EXECUTE THE GRASSING WORK SO AS TO PROTECT ADJACENT PROPERTY AGAINST DAMAGES FROM ANY GRASSING RELATED CAUSES.
1.06 TESTS
A THE OWNER AND/OR DESIGN ENGINEER RESERVES THE RIGHT TO TEST, REJECT OR APPROVE ALL SEED BEFORE SEEDING
PART 2 - PRODUCT
2.01 MATERIALS
A MATERIALS SHALL BE A SATISFACTORY BLEND OF TOPSOIL, LIME, SEED, FERTILIZER, AND SOPE STABILIZER.
1. THE TOPSOIL SHALL BE BROUGHT TO THE REQUIRED FINISHED GRADES, FREE FROM LUMPS, RIDGES AND DEPRESSIONS.
2. THE LIME SHALL BE GRIND LIMESTONE CONTAINING NOT LESS THAN EIGHTY-FIVE (85) PERCENT OF TOTAL CARBONATE AND SHALL BE GROUND TO SUCH FINENESS THAT AT LEAST FIFTY (50) PERCENT WILL PASS THROUGH A TWENTY (20) MESH SIEVE.
3. THE SEED SHALL CONFORM TO THE STATE LAWS AND TO ALL REQUIREMENTS AND REGULATIONS OF THE STATE DEPARTMENT OF AGRICULTURE. THE SEED SHALL BE DELIVERED TO THE SITE, PACKAGED OR BAGGED, AND TAGGED TO SHOW NAME OF SEED, NET WEIGHT, AND LOT NUMBER.
4. THE CONTRACTOR SHALL KEEP A RECORD OF THE SEED MIXTURES APPLIED, WHICH SHALL BE MADE AVAILABLE TO THE DESIGN ENGINEER UPON REQUEST.
2.02 SEED MIX AND APPLICATION:
FOR AREAS IN THE SANDHILLS AND SOUTHERN PIEDMONT OF SOUTH CAROLINA
FROM MAY 1 - THROUGH AUGUST 31:
USE THE FOLLOWING PER ONE THOUSAND (1000) SQUARE FEET:
ONE (1) POUND BROWN TOP MILLET
TWO (2) POUNDS HULLED BERMUODA
SEVENTY-FIVE (75) POUNDS LIMESTONE
FROM SEPTEMBER 1 - APRIL 30
USE THE FOLLOWING PER ONE THOUSAND (1000) SQUARE FEET:
ONE (1) POUND BROWN TOP MILLET
TWO (2) POUNDS ANNUAL RYE GRASS
ONE HALF (1/2) POUND HULLED BERMUODA
ONE AND ONE HALF (1 1/2) POUNDS UNHULLED BERMUODA
SEVENTY-FIVE (75) POUNDS LIMESTONE
FROM MAY 1 - AUGUST 31:
USE THE FOLLOWING PER ONE THOUSAND (1000) SQUARE FEET:
ONE (1) POUND BROWN TOP MILLET
TWO (2) POUNDS HULLED BERMUODA
SEVENTY-FIVE (75) POUNDS LIMESTONE
FROM SEPTEMBER 1 - MAY 1
USE THE FOLLOWING PER ONE THOUSAND (1000) SQUARE FEET:
ONE (1) POUND BROWN TOP MILLET
TWO (2) POUNDS HULLED BERMUODA
SEVENTY-FIVE (75) POUNDS LIMESTONE
FROM MAY 1 - AUGUST 31:
USE THE FOLLOWING PER ONE THOUSAND (1000) SQUARE FEET:
ONE (1) POUND BROWN TOP MILLET
TWO (2) POUNDS HULLED BERMUODA
SEVENTY-FIVE (75) POUNDS LIMESTONE
FROM SEPTEMBER 1 - APRIL 30
USE THE FOLLOWING PER ONE THOUSAND (1000) SQUARE FEET:
ONE (1) POUND HULLED BERMUODA
FOUR (4) TO SIX (6) OUNCES CENTIPEDE GRASS
TWENTY-FIVE (25) POUNDS 10-10-10 FERTILIZER
SEVENTY-FIVE (75) POUNDS LIME STONE
OR
ONE (1) POUND BROWN TOP MILLET
ONE (1) POUND HULLED BERMUODA
FOUR (4) TO SIX (6) OUNCES CENTIPEDE GRASS
TWENTY-FIVE (25) POUNDS 10-10-10 FERTILIZER
SEVENTY-FIVE (75) POUNDS LIME STON
FROM MAY 1 - AUGUST 31:
USE THE FOLLOWING PER ONE THOUSAND (1000) SQUARE FEET:
ONE (1) POUND BROWN TOP MILLET
TWO (2) POUNDS HULLED BERMUODA
SEVENTY-FIVE (75) POUNDS LIMESTONE
OR
ONE (1) POUND BROWN TOP MILLET
ONE (1) POUND HULLED BERMUODA
FOUR (4) TO SIX (6) OUNCES CENTIPEDE GRASS
TWENTY-FIVE (25) POUNDS 10-10-10 FERTILIZER
SEVENTY-FIVE (75) POUNDS LIMESTONE
OR
ONE (1) POUND BROWN TOP MILLET
ONE (1) POUND HULLED BERMUODA
FOUR (4) TO SIX (6) OUNCES CENTIPEDE GRASS
TWENTY-FIVE (25) POUNDS 10-10-10 FERTILIZER
SEVENTY-FIVE (75) POUNDS LIMESTONE
FOR DEEP SANDY SOILS
USE THE FOLLOWING PER ONE THOUSAND (1000) SQUARE FEET:
TWO (2) POUNDS BROWN TOP MILLET
FOUR (4) TO SIX (6) OUNCES CENTIPEDE GRASS
TWENTY-FIVE (25) POUNDS 10-10-10 FERTILIZER
SEVENTY-FIVE (75) POUNDS LIMESTONE
OR
ONE (1) POUND ANNUAL RYE GRASS
ONE AND ONE HALF (1 1/2) POUNDS UNHULLED BERMUODA
SEVENTY-FIVE (75) POUNDS LIMESTONE
OR
THREE (3) POUNDS FESCUE GRASS
TWENTY-FIVE (25) POUNDS 10-10-10 FERTILIZER
SEVENTY-FIVE (75) POUNDS LIMESTONE
OR
ONE (1) POUND UNHULLED BERMUODA
TWO (2) POUNDS RYE OR GRASS RYE GRASS
FOUR (4) TO SIX (6) OUNCES CENTIPEDE GRASS
TWENTY-FIVE (25) POUNDS 10-10-10 LIMESTONE
SEVENTY-FIVE (75) POUNDS LIMESTONE
(BAHIA GRASS IS A GOOD EROSION CONTROL GRASS; HOWEVER, IF IT PRODUCES MANY SEED HEADS WHICH SCATTER TO OTHER AREAS, BAHIA GRASS IS HARD TO MOVE, BUT IT DOES NOT REQUIRE THE CARE THAT OTHER GRASSES REQUIRE. AROUND OPTICAL BUILDINGS AND WIND SUBDIVISIONS, USE FOUR (4) TO SIX (6) OUNCES OF CENTIPEDE GRASS IN LIEU OF BAHIA GRASS OR IN COMBINATION WITH BERMUODA GRASS.
1) FOR SOILS WITH CLAY SUBSOIL. DO NOT PLANT IN SANDY SOILS.
IF HYDROSEEDED, USE THIRTEEN (13) POUNDS PER ONE THOUSAND (1000) SQUARE FEET OF LOW SALTY FORMULA OF 19-19-19 INSTEAD OF 10-10-10 TO GIVE LONG TERM FERTILIZATION BENEFITS.
2.03 WEEDING LOVEGRASS:
PER USUAL PLANT FACT SHEET FOR USE AS EROSION CONTROL.
A IF THE DEVELOPER CHOOSES AN ALTERNATE FOR STEEP BANKS:
B ESTABLISH WEEDING LOVEGRASS:
8. SEED ALONG AT A RATE OF 1 TO 5 POUNDS PER ACRE, OR 1 TO 2 POUNDS PER ACRE IN MIXTURES WITH OTHER SPECIES. SEEDS WILL GERMINATE QUICKLY AND PLANT GROWTH WILL BE RAPID. THE SEED IS EXTREMELY TOUGH AND REQUIRING MECHANICAL SEEDING EQUIPMENT TO HAVE SMALL SEED ATTACHMENTS. IF SEEDED WITH A HAND CYCLONE SEEDER, THE LOVEGRASS SEED SHOULD BE MIXED WITH A DILUENT OR A CARRIER (CORNEAL, SAND, OR FINE SAWDUST) FOR UNIFORM DISTRIBUTION OF SEED. DO NOT COVER SEED MORE THAN 0.5 TO 1 INCH ON SANDY SOILS. 0.25 INCH IS SUFFICIENT ON SILT LOAMS.

BMP MAINTENANCE NOTES:

- 1. ALL BMP'S WHOSE DISCHARGES REACH ADJACENT SURFACE WATERS SHOULD BE MAINTAINED UNTIL FINAL STABILIZATION IS REACHED.
2. ALL BMP'S DISCHARGING TO A LAZEN WATERS MUST BE MAINTAINED TO PREVENT THE DISCHARGE OF SEDIMENT-LADEN STORMWATER TO THE BEST EXTENT POSSIBLE.
3. ANY ACCUMULATED SEDIMENT WITHIN BMP'S ADJACENT TO SURFACE WATER IS TO BE REMOVED WHEN THE SEDIMENT DEPTH REACHES THE CLEANOUT HEIGHT OF EACH SPECIFIC BMP.
4. RECORDS OF MAINTENANCE OF ALL BMP'S DISCHARGING TO SURFACE WATERS MUST BE KEPT WITHIN THE SWPPP'S MAINTENANCE LOG.
BMP PLAN:
1. DURING CONSTRUCTION, BMP'S SHALL BE INSPECTED ONCE PER WEEK TO ENSURE PROPER FUNCTIONALITY THROUGHOUT.
2. SEDIMENT BUILDUP ON SLOPE SHALL BE REMOVED ONCE IT REACHES 1/3 OF THE HEIGHT OF FENCE.
3. INLET PROTECTION SHALL MAINTAIN PROPER FUNCTIONALITY THROUGHOUT CONSTRUCTION AND SHALL BE IMMEDIATELY REPLACED IF FOUND TO BE DYSFUNCTIONAL.
4. RIP-RAP SHALL BE CLEANED OF ANY SEDIMENT BUILD-UP AS NECESSARY.
5. GRAVEL CONSTRUCTION EXIT SHALL BE CLEANED OF ANY SEDIMENT BUILD-UP AS NECESSARY.
6. ROADS SHALL BE SWEEP WEEKLY OR IF ANY SIGNIFICANT SEDIMENT BUILDUP OCCURS.

CULTIPACKING SOIL BEFORE SEEDING IS HELPFUL.

- C. SITES TOO STEEP OR STONY FOR USE OF MECHANICAL EQUIPMENT CAN BE SEEDED WITHOUT SOIL SCARIFICATION. BROADCAST SEEDING BY AIR OR USE OF HYDROSEEDER IS SUCCESSFUL IF SEEDING RATES ARE INCREASED TO COMPENSATE FOR POOR SEEBED. WHERE POSSIBLE, THE SOIL SHOULD BE SCARIFIED AND FIRMED.
D. NORMALLY WEEDING LOVEGRASS CAN BE PLANTED AFTER DANGER OF SEVERE FROST IS OVER, AND ANYTIME THROUGHOUT THE SUMMER WITH SUCCESS. LIME AND FERTILIZER ARE ALSO SIMILAR TO THAT FOR TALL FESCUE AND RYEGRASS WHEN USED FOR TEMPORARY COVER.
PART 3 - EXECUTION
THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING TWO (2) DAYS PRIOR TO BEGINNING CONSTRUCTION.
3.01 PREPARATION
A. BEFORE THE FIELD OPERATIONS ARE BEGUN, MAKE CERTAIN THAT THE SEED BED IS FAIRLY FRABLE WITH ENOUGH LOOSE SOIL TO COVER THE SEED. SURFACE CRUSTING SHALL BE BROKEN BY LIGHT TILLAGE.
B. FERTILIZER AND LIME SHALL BE DISTRIBUTED UNIFORMLY OVER THE ENTIRE AREA. EACH MATERIAL SHALL BE INCORPORATED INTO THE TOPSOIL BY DISKING, HARROWING, DRILLING, OR OTHER APPROVED METHODS. THE AREA SHALL BE LEVELLED THROUGH SUCCESSIVE STAGES OF LIGHT ROLLING, FINE GRADING, AND RAKING OPERATIONS. ROLLING SHALL BE DONE WITH A ROLLER WEIGHING APPROXIMATELY SEVENTY-FIVE (75) TONS PER ACRE OVER THE ENTIRE AREA. THE ROLLER SHALL BE EQUIPPED WITH STUMPS, OR OTHER OBJECTS LARGER THAN ONE (1) INCH IN THICKNESS OR DIAMETER AND ALL ROOTS, BRUSH, WIRE, GRADE STAKES OR OTHER OBJECTS THAT MAY BE A HINDRANCE TO MAINTENANCE OPERATIONS SHALL BE REMOVED.
3.02 WATERING
A. IMMEDIATELY AFTER THE SEEDED AREA HAVE BEEN COMPACTED AND MULCHED, SUCH AREA SHALL BE SPRINKLED WITH WATER, APPLIED IN A LIGHT SPRAY, UNTIL THE SEED BED IS THOROUGHLY MOIST TO A DEPTH OF ONE (1) INCH. SPRINKLING SHALL BE CONTINUED DURING DRY WEATHER TO INSURE A GOOD STAND OF GRASS.
3.03 SLOPE STABILIZATION
A. SLOPES MUST BE MAINTAINED, AND WASHES REPAIRED UNTIL A STAND OF GRASS IS SATISFACTORY TO THE OWNER AND DESIGN ENGINEER IS OBTAINED. IN THE EVENT OF AN EROSION RAIN OR STRONG WIND BEFORE AN ADEQUATE STAND OF VEGETATION IS ESTABLISHED, THE OWNER WILL REQUIRE THAT DAMAGED AREAS BE REPAIRED, LIMED, FERTILIZED, SEEDED AND MULCHED WHOLLY AT THE CONTRACTORS EXPENSE. THIS PERIOD SHALL EXTEND FOR THIRTY (30) DAYS AFTER THE COMPLETION OF THE MULCHING.
B. THE AREA SHALL BE PROTECTED AGAINST TRAFFIC OR OTHER USE BY PLACING WARNING SIGNS OF AN APPROVED TYPE ON THE VARIOUS AREAS IMMEDIATELY AFTER SEEDING IS COMPLETED.
3.05 CLEANUP AND SITE
A. AT THE END OF EACH DAY'S WORK, THE CONTRACTOR SHALL PICK UP ALL PAPER BAGS AND OTHER DEBRIS RESULTING FROM HIS WORK AND REMOVE IT FROM THE SITE. AT THE COMPLETION OF THE WORK, THE CONTRACTOR SHALL REMOVE ALL RUBBISH AND EXCESS MATERIALS AND LEAVE THE SITE IN A NEAT AND WORKMANLIKE CONDITION.
3.06 CLEARING AND SITE
A. AT THE END OF EACH DAY'S WORK, THE CONTRACTOR SHALL PICK UP ALL PAPER BAGS AND OTHER DEBRIS RESULTING FROM HIS WORK AND REMOVE IT FROM THE SITE. AT THE COMPLETION OF THE WORK, THE CONTRACTOR SHALL REMOVE ALL RUBBISH AND EXCESS MATERIALS AND LEAVE THE SITE IN A NEAT AND WORKMANLIKE CONDITION.

CONSTRUCTION SEQUENCE

THE ANTICIPATED TIME FOR COMPLETION OF THE PROJECT INFRASTRUCTURE SHOWN ON THESE DRAWINGS IS SIX MONTHS FROM THE TIME OF INITIAL DISTURBANCE.

ALL PERIMETER CONTROLS (CONSTRUCTION EXIT, SEDIMENT FENCE, ETC.) MUST BE IN PLACE BEFORE ANY OTHER EARTH-MOVING ACTIVITIES BEGIN.

BEFORE SUBMITTING THE NOT, SUBMIT AS-BUILTS AND O&M TO CITY OF COLUMBIA FOR APPROVAL.

CONSTRUCT AND MAINTAIN ALL NECESSARY EROSION CONTROL MEASURES BEFORE BEGINNING EACH SEQUENCE.

EROSION CONTROL MEASURES AND SEDIMENTATION SHALL BE REMOVED AFTER DISTURBED AREAS HAVE BEEN 80% STABILIZED.

ONCE CURB HAS BEEN INSTALLED CONVERT FILTER FABRIC CATCH BASIN INLET PROTECTIONS TO PAVEMENT CATCH BASIN INLET PROTECTION

INITIAL STAGE

- 1. RECEIVE NPDES PERMIT APPROVAL FROM SCDES AND CITY OF COLUMBIA.
2. FLAG INITIAL LIMITS OF DISTURBANCE IF APPLICABLE.
3. ON-SITE PRE-CONSTRUCTION MEETING WITH ENGINEER, CONTRACTOR, AND CITY REPRESENTATIVES.
4. CLEAR ONLY WHAT IS NECESSARY TO INSTALL EROSION CONTROLS INCLUDING STABILIZED CONSTRUCTION ENTRANCE, PERIMETER SILT FENCING, SEDIMENT BASINS, AND INFILTRATION BASINS. BEGIN WEEKLY SWPPP INSPECTIONS UNTIL SITE IS STABILIZED.
5. INSTALL SEDIMENT AND EROSION CONTROL BMP'S (CONSTRUCTION ENTRANCE/ EXIT, SEDIMENT BASIN/DETENTION BASIN/SEDIMENT TRAPS, PERIMETER SILT FENCING ETC.) BEGIN WEEKLY SWPPP INSPECTIONS UNTIL SITE IS STABILIZED.
6. NOTIFY COUNTY PERSONNEL FOR INSPECTION OF EROSION CONTROL MEASURES AND THE DETENTION BASIN.
1. BEGIN MASS GRADING UPON APPROVAL OF EROSION CONTROL INSTALLATION.
8. AS APPLICABLE, CONTRACTOR SHALL CONFIRM TIMING AND PROCEDURE FOR TESTING WATER AND SEWER SYSTEMS PURSUANT TO UTILITY OWNER REQUIREMENTS

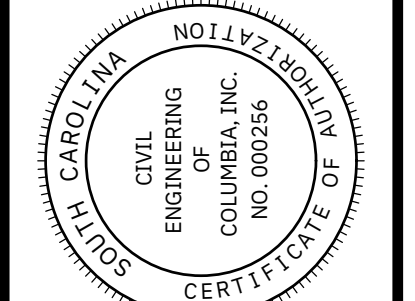
CONSTRUCTION STAGE

- 9. CLEAR AND GRUB REMAINING AREAS TO BE DISTURBED. WEEKS 3 WEEKS 4-11
11. INSTALL AND MAINTAIN EROSION AND SEDIMENT CONTROL BMP'S THROUGHOUT CONSTRUCTION INSTALL TEMPORARY TYPE A INLET PRIOR TO SUBMITTING NOT. WEEK 8
12. PROTECTION AT ALL CATCH BASINS AS THEY ARE CONSTRUCTED. NO ROUGH GRADING UNTIL PERIMETER BMP'S ARE INSTALLED WEEKS 9-13

STABILIZATION

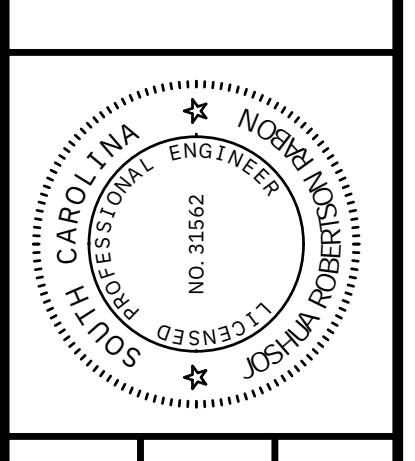
- 14. FINAL GRADING AND VEGETATIVE STABILIZATION. APPLY FINAL GRASSING WEEKS 14-16
15. SUBMIT AS-BUILTS AND O&M TO CITY OF COLUMBIA FOR APPROVAL WEEK 10
16. IF ADEQUATE STABILIZATION HAS OCCURRED (80% OF THE AREA DRAINING INTO THE WATER QUALITY BASIN), THEN WITH PERMISSION FROM THE GOVERNING REGULATORY AGENCY, REMOVE SEDIMENTATION FROM THE BASIN AND CONVERT THE BASIN FROM THE TEMPORARY STRUCTURE TO THE PERMANENT CONFIGURATION. WEEK 18
10. FINAL INSPECTION BY GOVERNING AGENCIATIONS. WEEK 19
18. REMOVAL OF TEMPORARY EROSION CONTROL STRUCTURES. WEEK 19

REVISION table with columns: NO., DATE, DESCRIPTION, BY, CHECKED BY.

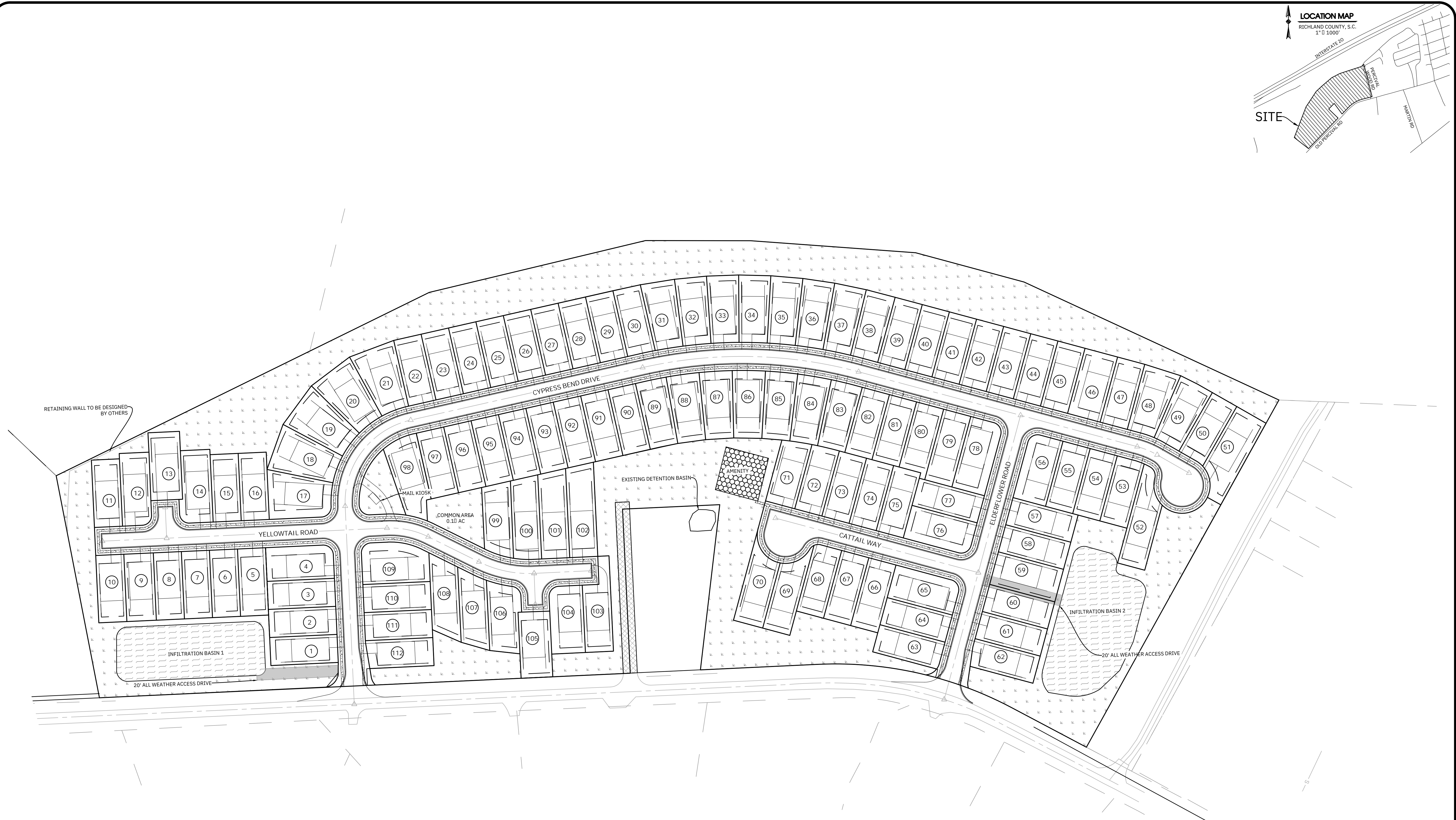
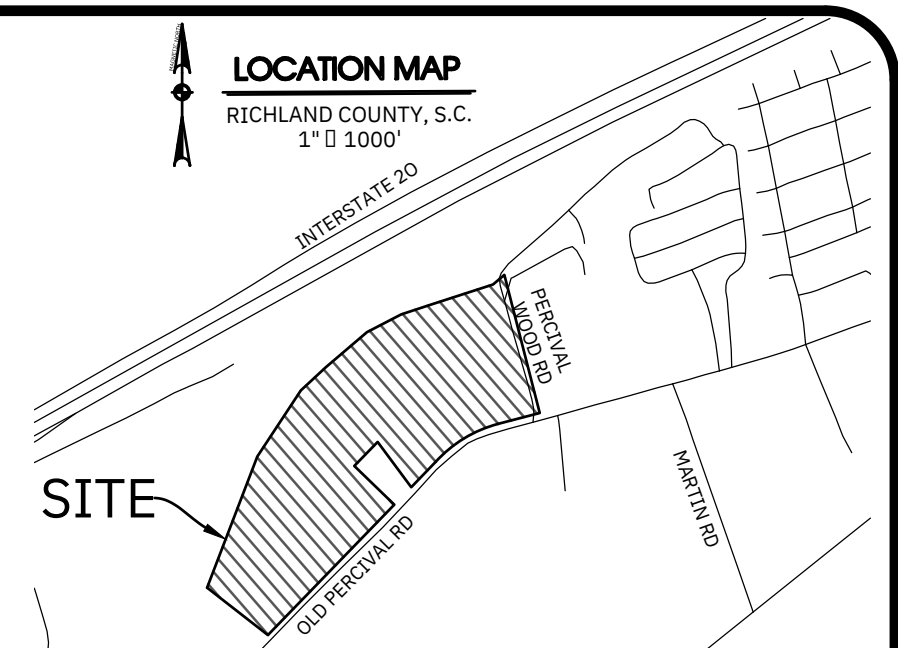


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CIVIL ENGINEERING OF COLUMBIA logo and contact information: PO BOX 1137 IRMO, SC 29063 TEL (803) 798-2820 FAX (803) 798-2826



GENERAL NOTES & REFERENCES section with text: PREPARED FOR CLAYTON PROPERTIES GROUP, INC. D/B/A WUNGG

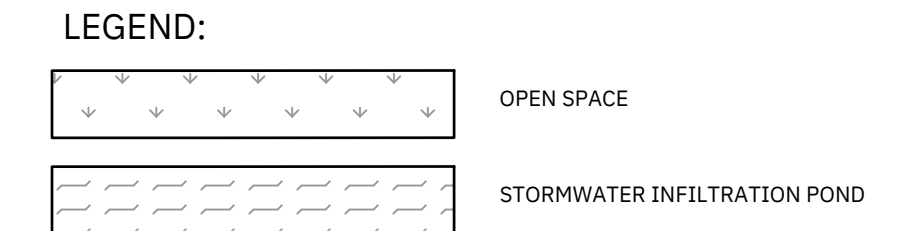


CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING UNDERGROUND UTILITIES (HORIZONTAL & VERTICAL) PRIOR TO CONSTRUCTION (INCLUDING BUT NOT LIMITED TO: GAS LINES, WATER LINES, SEWER LINES, ELECTRICAL AND TELECOMMUNICATION LINES, AND FIBER OPTIC CABLES.) CALL PALMETTO UTILITY PROTECTION SERVICE AT: 811 AT LEAST 3 DAYS BEFORE CONSTRUCTION UNLESS STATED OTHERWISE IN CONTRACT WITH OWNER. THE CONTRACTOR SHALL INCLUDE ANY UTILITY RELOCATION COSTS IN HIS ORIGINAL AGREEMENT WITH THE OWNER.

THESE PLANS AND DETAILS ARE INTENDED TO SHOW MINIMUM REQUIREMENTS, MEASURES, AND METHODS TO RESTRICT RUNOFF AND CONTROL EROSION. ADDITIONAL MEASURES MAY BE NECESSARY. THE CONTRACTORS AND ANY SUBCONTRACTORS SHALL BE AWARE THAT UNKNOWN CONDITIONS OR UNPREDICTED OCCURRENCES MAY REQUIRE IMMEDIATE ACTION TO PROTECT THE SITE AND DOWNSTREAM PROPERTIES. NOTIFY THE DESIGN ENGINEER IMMEDIATELY IF SUCH A CONDITION OR OCCURRENCE IS KNOWN TO EXIST OR ARISE. FIELD DETERMINED TEMPORARY DIVERSIONS BERMS AND/OR DITCHES SHALL BE CONSTRUCTED WHERE NECESSARY, TO PROTECT AREAS FROM UPSLOPE RUNOFF AND/OR TO DIVERT SEDIMENT AND/OR RUNOFF TO APPROPRIATE TREATMENT AREAS OR STABLE OUTLETS. THE CONTRACTOR SHALL CONFIRM POSITIVE DRAINAGE TO PROPOSED DRAINAGE STRUCTURES TO ENSURE THAT PONDING DOES NOT OCCUR. THIS PERTAINS TO PAVED AND UNPAVED AREAS. SLOPES TO STRUCTURES SHALL NOT BE EXTREME AND SHALL BE SUITABLE FOR THE INTENDED USE. STORM DRAINAGE PIPES SHALL HAVE A MINIMUM OF ONE FOOT OF COVER.

- NOTES AND REFERENCES:
- TOTAL PROJECT AREA OF 30.2-ACRES PROPOSED TO BE DIVIDED INTO 112 SINGLE-FAMILY RESIDENTIAL LOTS WITH 0.49-ACRES (25% OF TOTAL AREA) AS OPEN SPACE TO BE DEEDED TO THE HOMEOWNERS ASSOCIATION.
 - RICHLAND COUNTY TMS: R22602-01-01 & R19814-02-04
 - EXISTING LAND USE: UNDEVELOPED
 - PROPOSED LAND USE: RESIDENTIAL DEVELOPMENT
 - SURROUNDING LAND USE: RESIDENTIAL DEVELOPMENT / PARKS
 - ZONING: RSF3 (CITY OF COLUMBIA)
 - I HEREBY CERTIFY THAT I HAVE CONSULTED THE FEMA FLOOD INSURANCE RATE MAP # 450019C0259L EFFECTIVE DATE DECEMBER 21, 2010, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE SUBJECT PROPERTY IS WITHIN UNSHADED ZONE X, NOT A DESIGNATED 100-YEAR FLOOD PRONE AREA.
 - ALL ROAD R.O.W. ARE TO BE 50' WIDE AND DEDICATED TO CITY OF COLUMBIA FOR PUBLIC USE.
 - SETBACKS:
FRONT 15'
SIDE 5'
REAR 10'

OPEN SPACE SET-ASIDES:
TOTAL SITE AREA: 30.2-AC
OPEN SPACE REQUIRED: 0.5-AC (25% OF SITE)
OPEN SPACE PROVIDED: 0.6 AC (EXCLUDES STORMWATER MANAGEMENT AREAS)



THE OWNER IS:
CLAYTON PROPERTIES GROUP, INC.
D/B/A MUNGO HOMES
441 WESTERN LANE
IRMO, S.C. 29063
TEL: (803) 149-9000
ATTN: MR. CONRAD KLEIN
EMAIL: CKLEIN@MUNGO.COM

THE ENGINEER IS:
CIVIL ENGINEERING OF COLUMBIA
P.O. BOX 1131
IRMO, S.C. 29063
TEL: (803) 198-2820
ATTN: MR. JOSH RABON, PE
EMAIL: JOSH@CECOLA.COM

THE SURVEYOR IS:
BELTER & ASSOCIATES, INC.
P.O. BOX 131
COLUMBIA, SC 29212
SERVICE DISTRICT
TEL: (803) 132-4004
ATTN: RONALD W. FISHER
EMAIL: -----

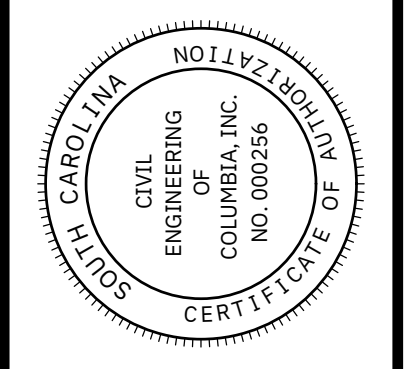
THE STORMWATER OPERATOR IS:
CITY OF COLUMBIA
POST OFFICE BOX 140
COLUMBIA, S.C. 29210
TEL: (803) 545-3400
ATTN: MR. AJ JESSEE
EMAIL: ALJESSEE@COLUMBIASC.NET

THE WATER OPERATOR IS:
CITY OF COLUMBIA
POST OFFICE BOX 140
COLUMBIA, SC 29210
TEL: (803) 545-3400
ATTN: MR. SCOTT ROGERS
EMAIL: MSROGERS@COLUMBIASC.NET

THE SEWER OPERATOR IS:
EAST RICHLAND COUNTY PUBLIC
SERVICE DISTRICT
PO BOX 23069
COLUMBIA, SC 29224
TEL: (803) 88-1500
ATTN: MR. RAYMOND PETERSON
EMAIL: RPERTERSON@ERCPD.NET

CYPRESS BEND
CITY OF COLUMBIA, SOUTH CAROLINA

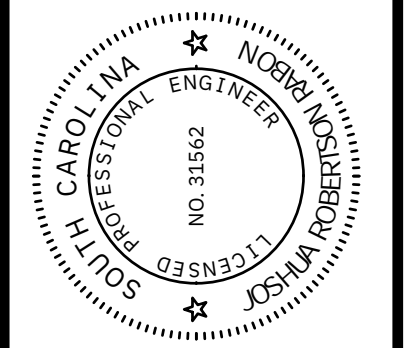
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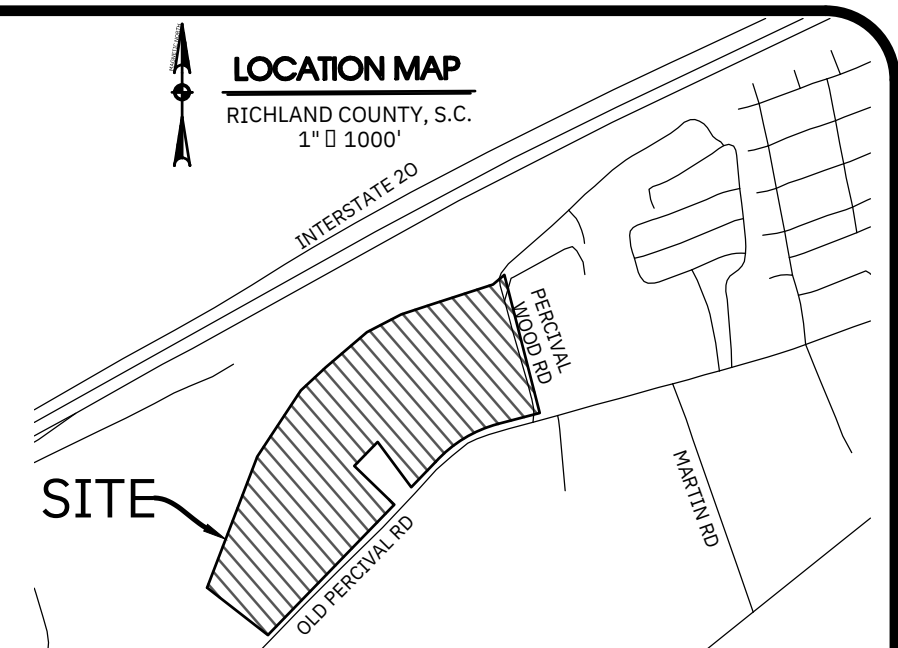
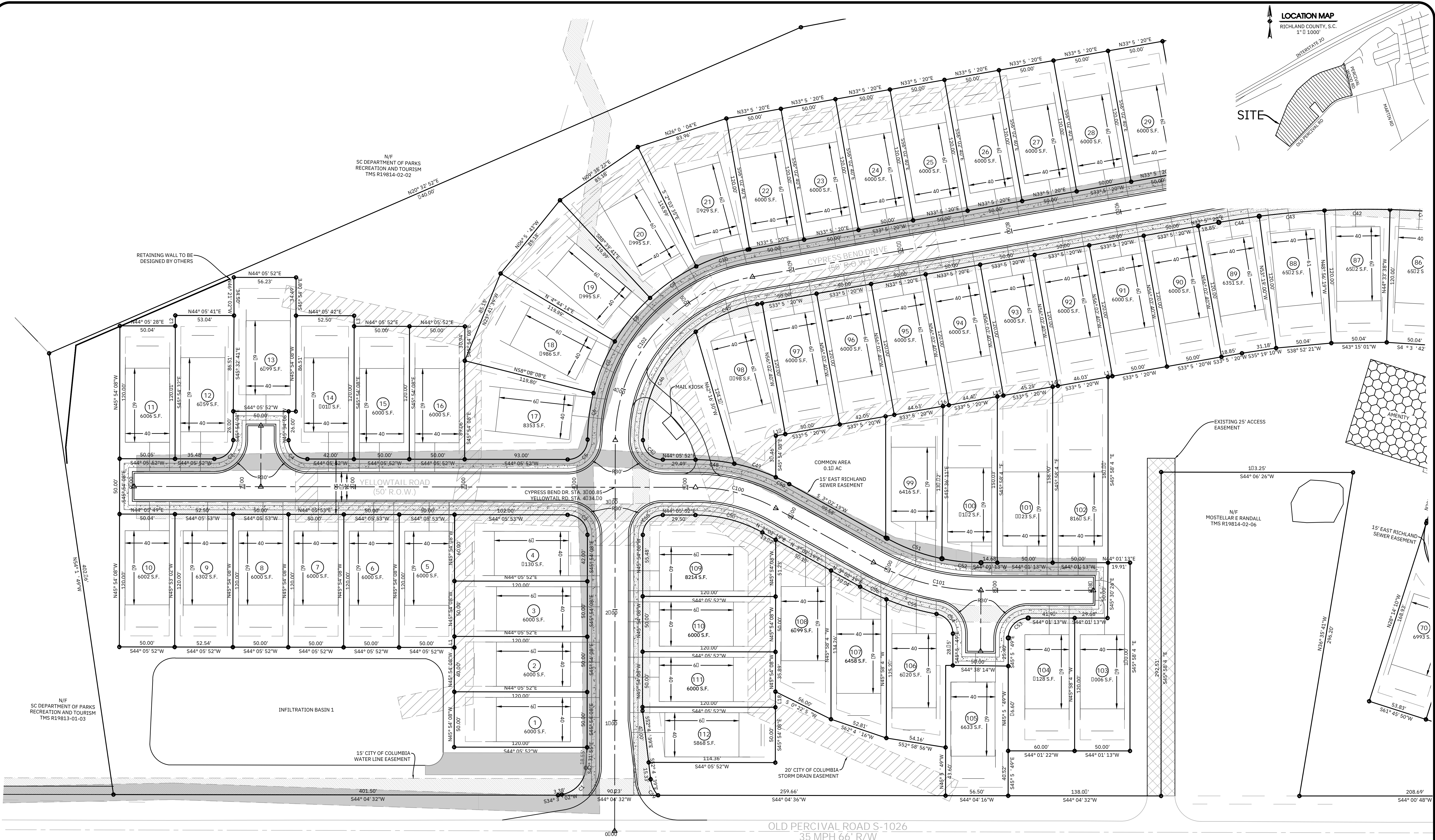
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CIVIL ENGINEERING of COLUMBIA

PO BOX 1137 IRMO, SC 29063
TEL: (803) 798-2820 FAX: (803) 798-2826



SITE LAYOUT & OPEN SPACE PLAN		PREPARED FOR	CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
SCALE 1" = 80'	DATE AUG. 11, 2025	DRAWN BPD	IRMO, SOUTH CAROLINA
DESIGNED BPD	CHECKED BY:	JOB NUMBER	24082
DRAWING NUMBER	3	OF	30



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N/F COLUMBIA FULL GOSPEL HOPE CHURCH TMS R19814-03-01

- LEGEND:**
- CITY OF COLUMBIA STORM DRAIN EASEMENT
 - EAST RICHLAND SEWER LINE EASEMENT
 - CITY OF COLUMBIA WATER LINE EASEMENT
 - EXISTING ACCESS EASEMENT

THE OWNER IS:
CLAYTON PROPERTIES GROUP, INC.
D/B/A MUNGO HOMES
441 WESTERN LANE
IRMO, S.C. 29068
TEL: (803) 498-2820
ATTN: MR. CONRAD KLEIN
EMAIL: CKLEIN@MUNGO.COM

THE ENGINEER IS:
CIVIL ENGINEERING OF COLUMBIA
PO BOX 140
IRMO, S.C. 29068
TEL: (803) 498-2820
ATTN: MR. JOSH RABON, PE
EMAIL: JOSH@CECOLA.COM

THE SURVEYOR IS:
BELTER & ASSOCIATES, INC.
P.O. BOX 131
COLUMBIA, SC 29212
TEL: (803) 332-4004
ATTN: RONALD W. FISHER
EMAIL: ----

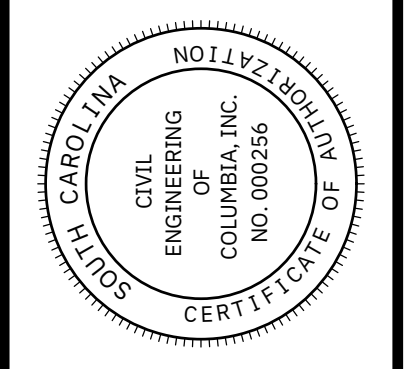
THE STORMWATER OPERATOR IS:
CITY OF COLUMBIA
POST OFFICE BOX 140
COLUMBIA, S.C. 29212
TEL: (803) 545-3400
ATTN: MR. AJ JESSEE
EMAIL: ALFRED.JESSEE@COLUMBIASC.NET

THE WATER OPERATOR IS:
CITY OF COLUMBIA
POST OFFICE BOX 140
COLUMBIA, S.C. 29212
TEL: (803) 545-3400
ATTN: MR. SCOTT ROGERS
EMAIL: MSROGERS@COLUMBIASC.NET

THE SEWER OPERATOR IS:
EAST RICHLAND COUNTY PUBLIC SERVICE DISTRICT
POST BOX 23069
COLUMBIA, SC 29224
TEL: (803) 888-1510
ATTN: MR. RAYMOND PETERSON
EMAIL: RPERTERSON@ERCPD.NET

CYPRESS BEND
CITY OF COLUMBIA, SOUTH CAROLINA

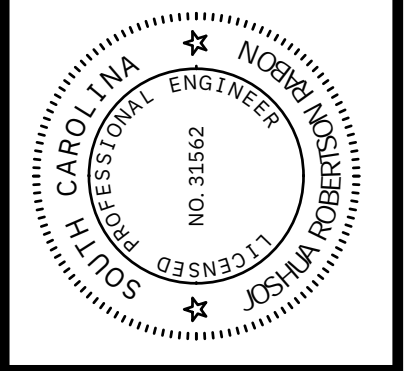
NO.	DATE	DESCRIPTION



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CIVIL ENGINEERING of COLUMBIA

PO BOX 1137 IRMO, SC 29063
TEL: (803) 798-2820 FAX: (803) 798-2826



SCALE 1" = 10' 0"	DATE	AUG. 11, 2025
	DRAWN	BPD
STAKING & ALIGNMENT PLAN (1 OF 3)	DESIGNED	BPD
	DRAWING NUMBER	6 OF 30
PREPARED FOR	CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES IRMO, SOUTH CAROLINA	CHECKED BY:
JOB NUMBER	24082	



LOCATION MAP
RICHLAND COUNTY, S.C.
1" = 1000'

SITE

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TEL: (803) 649-9000
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EMAIL: CKLEIN@MUNGO.COM

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IRMO, S.C. 29063
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TEL: (803) 732-4004
ATTN: RONALD W. FISHER
EMAIL: ---

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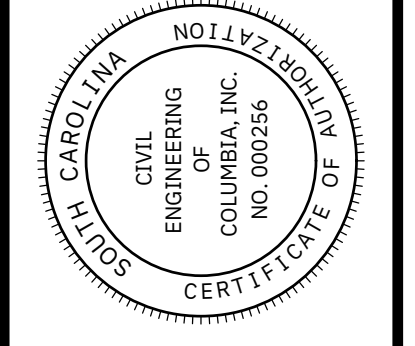
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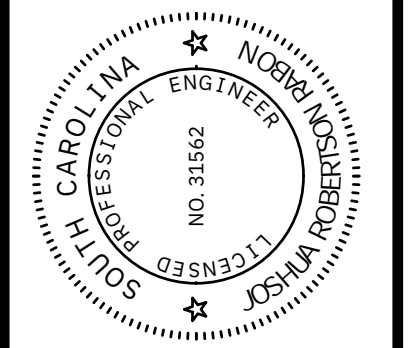
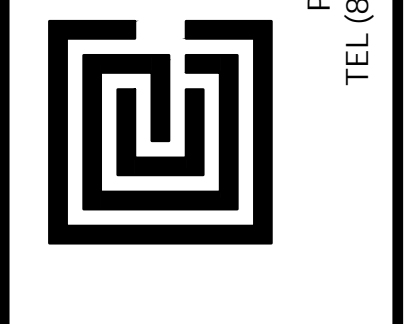
SCALE 1" = 40'
40 20 0 40 80 120
SCALE IN FEET

NO.	DATE	DESCRIPTION	BY

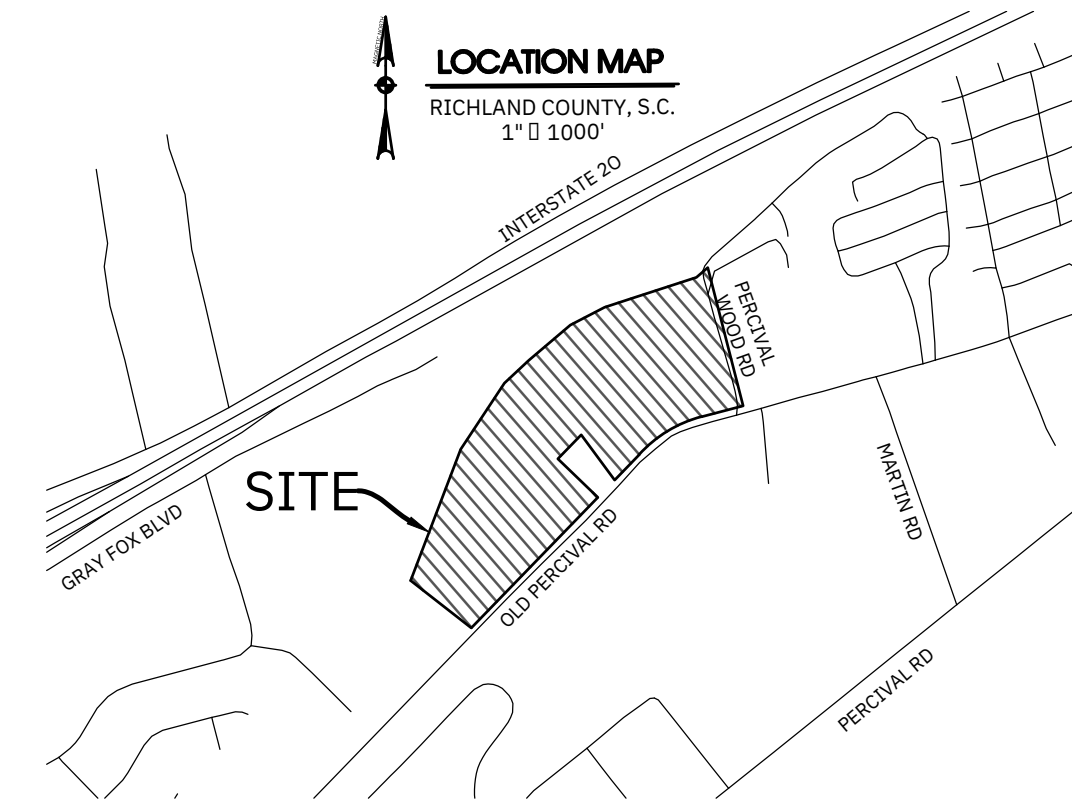


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TEL: (803) 798-2820 FAX: (803) 798-2826



SCALE	1" = 40'
DATE	AUG. 11, 2025
DRAWN	BPD
DESIGNED	BPD
DRAWING NUMBER	7 OF 30
CHECKED BY:	JOB NUMBER 24082
STAKING & ALIGNMENT PLAN (2 OF 3)	
PREPARED FOR: CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES IRMO, SOUTH CAROLINA	



LINE	BEARING	DISTANCE
L1	N45° 54' 08"W	10.00'
L2	N45° 54' 32"W	9.49'
L3	S45° 54' 08"E	9.51'
L5	S61° 45' 50"W	10.00'
L6	N28° 14' 10"W	15.00'
L8	N61° 45' 50"E	10.00'
L8	S28° 14' 10"E	10.00'
L9	N61° 45' 50"E	10.00'
L10	N61° 45' 50"E	10.00'
L11	N61° 45' 50"E	10.00'
L12	N61° 45' 50"E	3.53'
L13	S33° 5' 20"W	3.90'
L14	S33° 5' 20"W	4.05'
L15	S33° 5' 20"W	5.53'
L16	S33° 5' 20"W	5.30'
L10	S33° 5' 20"W	8.61'
L18	S45° 54' 08"E	14.11'

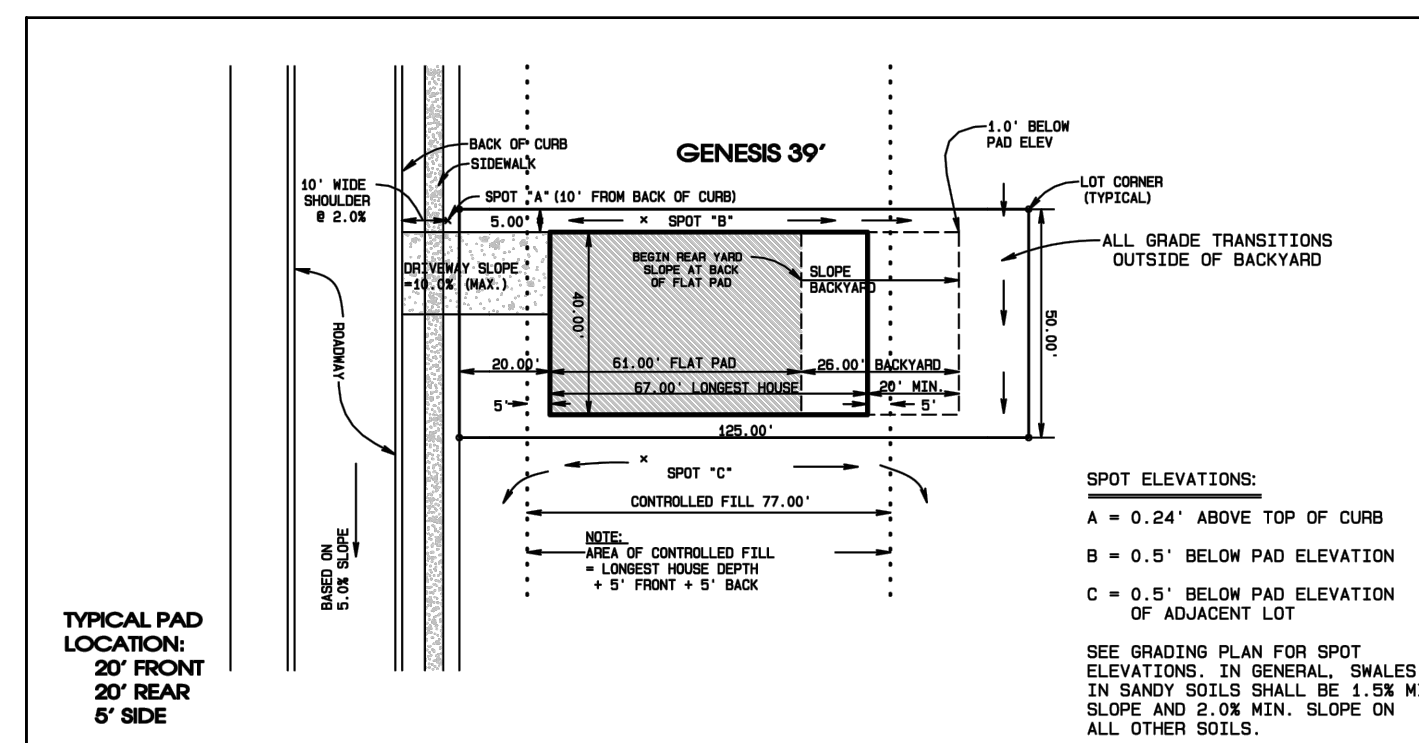
CURVE	ARC	CHORD BEARING	RADIUS	DELTA	CHORD	TANGENT
C1	35.01'	S03° 5' 2" E	26.00'	0° 08' 5" "	32.42'	20.04'
C2	28.20'	N89° 05' 53"E	18.00'	89° 59' 59"	25.46'	18.00'
C3	26.00'	S00° 54' 08"E	10.00'	90° 00' 00"	24.04'	10.00'
C4	26.00'	S89° 05' 52"W	10.00'	90° 00' 00"	24.04'	10.00'
C5	28.20'	S00° 54' 04"E	18.00'	89° 59' 43"	25.46'	18.00'
C6	42.43'	S38° 49' 16"E	104.95'	13° 53' 43"	42.32'	21.32'
C0	50.01'	S23° 34' 11"E	104.95'	16° 36' 26"	50.53'	25.53'
C8	50.01'	S06° 5' 45"E	104.95'	16° 36' 2" "	50.53'	25.53'
C9	50.01'	S09° 38' 42"W	104.95'	16° 36' 26"	50.53'	25.53'
C10	48.92'	S25° 5' 32"W	104.95'	16° 01' 13"	48.06'	24.62'
C11	28.52'	N34° 56' 45"E	825.00'	1° 58' 51"	28.52'	14.26'
C12	50.11'	N3° 40' 36"E	825.00'	3° 28' 49"	50.11'	25.06'
C13	50.03'	S41° 09' 14"W	825.00'	3° 28' 29"	50.02'	25.02'
C14	50.03'	N44° 3' 43"E	825.00'	3° 28' 29"	50.02'	25.02'
C15	50.03'	N48° 06' 12"E	825.00'	3° 28' 29"	50.02'	25.02'
C16	50.03'	N51° 34' 40"E	825.00'	3° 28' 29"	50.02'	25.02'
C10	50.03'	S55° 03' 09"W	825.00'	3° 28' 29"	50.02'	25.02'
C18	50.03'	N58° 31' 3" E	825.00'	3° 28' 29"	50.02'	25.02'
C19	21.59'	N61° 00' 51"E	825.00'	1° 29' 58"	21.59'	10.80'
C20	24.95'	S65° 50' 55"W	105.00'	8° 10' 11"	24.93'	12.50'

CURVE	ARC	CHORD BEARING	RADIUS	DELTA	CHORD	TANGENT
C21	19.99'	N 3° 12' 19"E	105.00'	6° 32' 3" "	19.98'	10.00'
C22	15.30'	N85° 14' 42"E	50.00'	1° 31' 43"	15.24'	0.01'
C23	59.59'	N51° 50' 45"W	50.00'	68° 1' 22"	56.13'	33.91'
C24	95.33'	N36° 55' 0" E	50.00'	109° 14' 22"	81.53'	10.41'
C25	52.28'	S58° 30' 19"E	50.00'	59° 54' 46"	49.93'	28.82'
C26	22.90'	S66° 02' 09"E	10.50'	4° 58' 26"	21.30'	13.42'
C20	12.04'	N 3° 43' 04"E	125.00'	5° 31' 09"	12.04'	6.03'
C28	20.06'	N66° 21' 39"E	125.00'	9° 11' 40"	20.04'	10.05'
C29	28.20'	S16° 45' 50"W	18.00'	90° 00' 00"	25.46'	18.00'
C30	11.66'	S 4° 58' 4" E	26.00'	25° 42' 09"	11.50'	5.93'
C31	22.02'	N18° 2' 04"E	20.00'	48° 12' 38"	22.05'	12.08'
C32	28.20'	N 3° 14' 10"W	18.00'	90° 00' 00"	25.46'	18.00'
C33	12.35'	S41° 32' 39"W	10.50'	40° 26' 22"	12.10'	6.45'
C34	61.58'	N22° 04' 2" E	50.00'	0° 34' 06"	50.06'	35.38'
C35	81.36'	N 6° 01' 3" W	50.00'	93° 13' 4" "	02.68'	52.90'
C36	28.20'	S16° 45' 50"W	18.00'	90° 00' 00"	25.46'	18.00'
C30	28.20'	N 3° 14' 10"W	18.00'	90° 00' 00"	25.46'	18.00'
C38	43.18'	S60° 10' 04"W	105.00'	3° 11' 32"	43.00'	21.59'
C39	60.68'	S56° 39' 42"W	105.00'	4° 29' 11"	60.60'	30.36'
C40	50.03'	S51° 5' 05"W	105.00'	4° 16' 04"	50.02'	28.88'

CURVE	ARC	CHORD BEARING	RADIUS	DELTA	CHORD	TANGENT
C41	59.22'	S4° 3' 42"W	105.00'	4° 22' 41"	59.20'	29.62'
C42	59.22'	S43° 15' 01"W	105.00'	4° 22' 41"	59.20'	29.62'
C43	59.22'	S38° 52' 21"W	105.00'	4° 22' 41"	59.20'	29.62'
C44	36.90'	N35° 19' 10"E	105.00'	2° 43' 40"	36.89'	18.45'
C45	61.50'	N19° 51' 35"E	125.00'	28° 11' 29"	60.89'	31.39'
C46	112.02'	S20° 04' 08"E	125.00'	51° 39' 58"	108.94'	60.52'
C40	20.85'	N88° 20' 45"E	18.01'	88° 35' 1" "	25.15'	10.50'
C48	35.20'	S49° 51' 38"W	105.00'	11° 31' 32"	35.14'	10.66'
C49	39.54'	N62° 05' 49"E	105.00'	12° 56' 49"	39.46'	19.86'
C50	13.65'	S 0° 48' 1" W	105.00'	4° 28' 06"	13.64'	6.83'
C51	53.09'	N64° 20' 54"E	105.00'	1° 22' 52"	52.88'	26.05'
C52	35.54'	S49° 50' 20"W	105.00'	11° 38' 15"	35.48'	10.83'
C53	28.20'	S00° 58' 18"E	18.00'	90° 00' 00"	25.45'	18.00'
C54	25.05'	S85° 49' 4" E	18.00'	9° 43' 55"	23.08'	15.03'
C55	40.22'	N60° 19' 01"E	225.00'	12° 01' 32"	40.14'	23.00'
C56	26.35'	N69° 41' 03"E	225.00'	6° 42' 32"	26.33'	13.19'
C56	14.16'	N53° 34' 28"E	655.00'	1° 14' 19"	14.16'	0.08'
C50	63.14'	N58° 34' 06"E	125.00'	28° 56' 2" "	62.40'	32.26'
C50	40.03'	N55° 56' 40"E	655.00'	3° 30' 05"	40.02'	20.02'
C58	28.20'	N00° 54' 08"W	18.00'	90° 00' 00"	25.46'	18.00'

CURVE	ARC	CHORD BEARING	RADIUS	DELTA	CHORD	TANGENT
C102	209.00'	N05° 58' 24"W	150.00'	9° 51' 28"	192.55'	125.55'
C103	388.28'	N4° 51' 35"E	800.00'	2° 48' 30"	384.48'	198.04'
C104	38.52'	N69° 0' 14"E	150.00'	14° 42' 48"	38.41'	19.30'
C101	101.29'	N58° 31' 46"E	200.00'	29° 01' 0" "	100.21'	51.06'
C100	05.00'	N58° 34' 06"E	150.00'	28° 56' 2" "	04.96'	38.01'

CURVE	ARC	CHORD BEARING	RADIUS	DELTA	CHORD	TANGENT
C58	10.02'	N58° 08' 00"E	655.00'	0° 52' 35"	10.02'	5.01'
C59	16.18'	N 0° 3' 05"W	26.00'	35° 38' 50"	15.92'	8.36'
C59	36.49'	N60° 10' 04"E	655.00'	3° 11' 32"	36.49'	18.25'
C60	69.90'	S63° 34' 1" W	669.62'	5° 58' 51"	69.80'	34.98'
C61	93.59'	S 0° 35' 3" W	669.62'	8° 00' 29"	93.52'	46.80'
C62	194.16'	S52° 16' 28"W	669.62'	16° 36' 48"	193.48'	90.00'
C123	10.64'	S16° 56' 43"E	20.00'	22° 34' 55"	10.50'	5.39'



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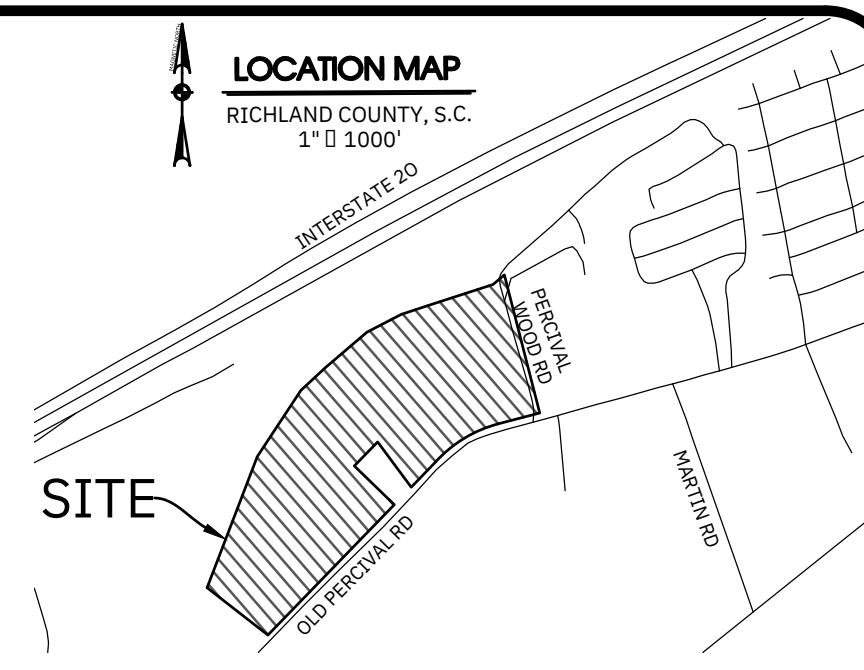
THE SEWER OPERATOR IS: EAST RICHLAND COUNTY PUBLIC SERVICE DISTRICT PO BOX 23069 COLUMBIA, SC 29224 TEL: (803) 888-1500 ATTN: MR. RAYMOND PETERSON EMAIL: RPERTERSON@ERCPD.NET

CYPRESS BEND
CITY OF COLUMBIA, SOUTH CAROLINA

SCALE	N/A	STAKING & ALIGNMENT PLAN	PREPARED FOR	CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES	CHECKED BY:	JOB NUMBER	24082
DATE	AUG. 11, 2025	(3 OF 3)	DESIGNED	IRMO, SOUTH CAROLINA			
DRAWN	BPD		DESIGNED				
DRAWING NUMBER	8 OF 30						

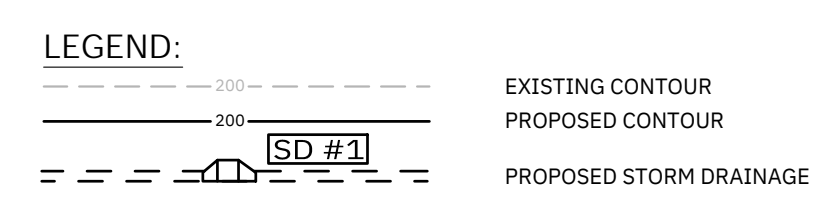
CIVIL ENGINEERING of COLUMBIA

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TEL: (803) 798-2820 FAX: (803) 798-2826



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THE OWNER IS:
CLAYTON PROPERTIES GROUP, INC.
D/B/A MUNGO HOMES
441 WESTERN LANE
IRMO, S.C. 29063
TEL: (803) 449-9000
ATTN: MR. CONRAD KLEIN
EMAIL: CKLEIN@MUNGO.COM

THE ENGINEER IS:
CIVIL ENGINEERING OF COLUMBIA
P.O. BOX 1131
IRMO, S.C. 29063
TEL: (803) 498-2820
ATTN: MR. JOSH RABON, PE
EMAIL: JOSH@CECOLA.COM

THE SURVEYOR IS:
BELTER & ASSOCIATES, INC.
P.O. BOX 131
COLUMBIA, SC 29212
SERVICE DISTRICT
PO BOX 23069
COLUMBIA, SC 29224
TEL: (803) 88-1500
ATTN: MR. RAYMOND PETERSON
EMAIL: RPERTERSON@ERPCSD.NET

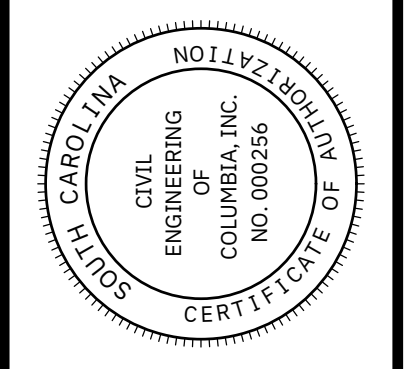
THE STORMWATER OPERATOR IS:
CITY OF COLUMBIA
PO BOX 141
COLUMBIA, S.C. 29211
TEL: (803) 545-3400
ATTN: MR. AJ JESSEE
EMAIL: ALJESSEE@COLUMBIASC.NET

THE WATER OPERATOR IS:
CITY OF COLUMBIA
POST OFFICE BOX 141
COLUMBIA, SC 29211
TEL: (803) 545-3400
ATTN: MR. SCOTT ROGERS
EMAIL: MSROGERS@COLUMBIASC.NET

THE SEWER OPERATOR IS:
EAST RICHLAND COUNTY PUBLIC
SERVICE DISTRICT
PO BOX 23069
COLUMBIA, SC 29224
TEL: (803) 88-1500
ATTN: MR. RAYMOND PETERSON
EMAIL: RPERTERSON@ERPCSD.NET

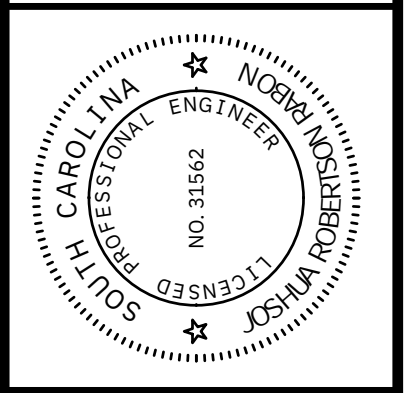
CYPRESS BEND
CITY OF COLUMBIA, SOUTH CAROLINA

NO.	DATE	DESCRIPTION	BY

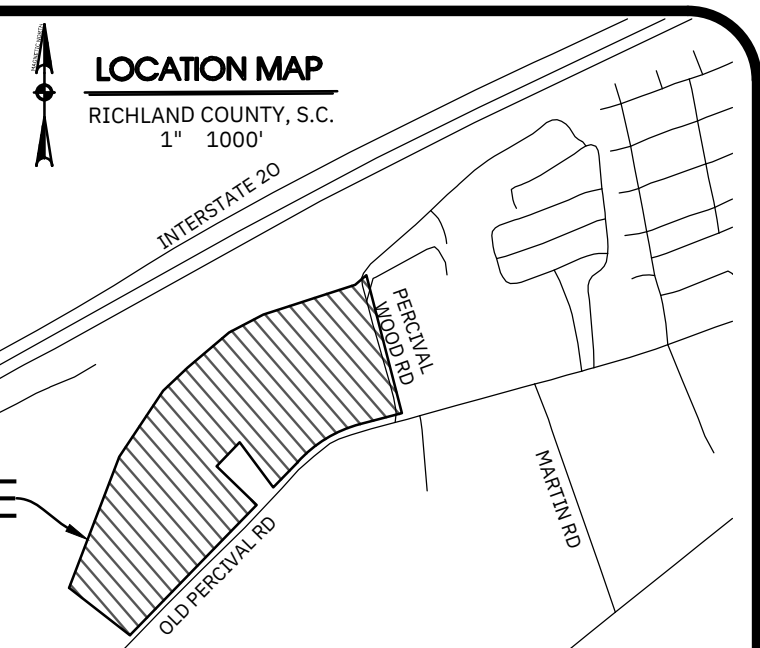
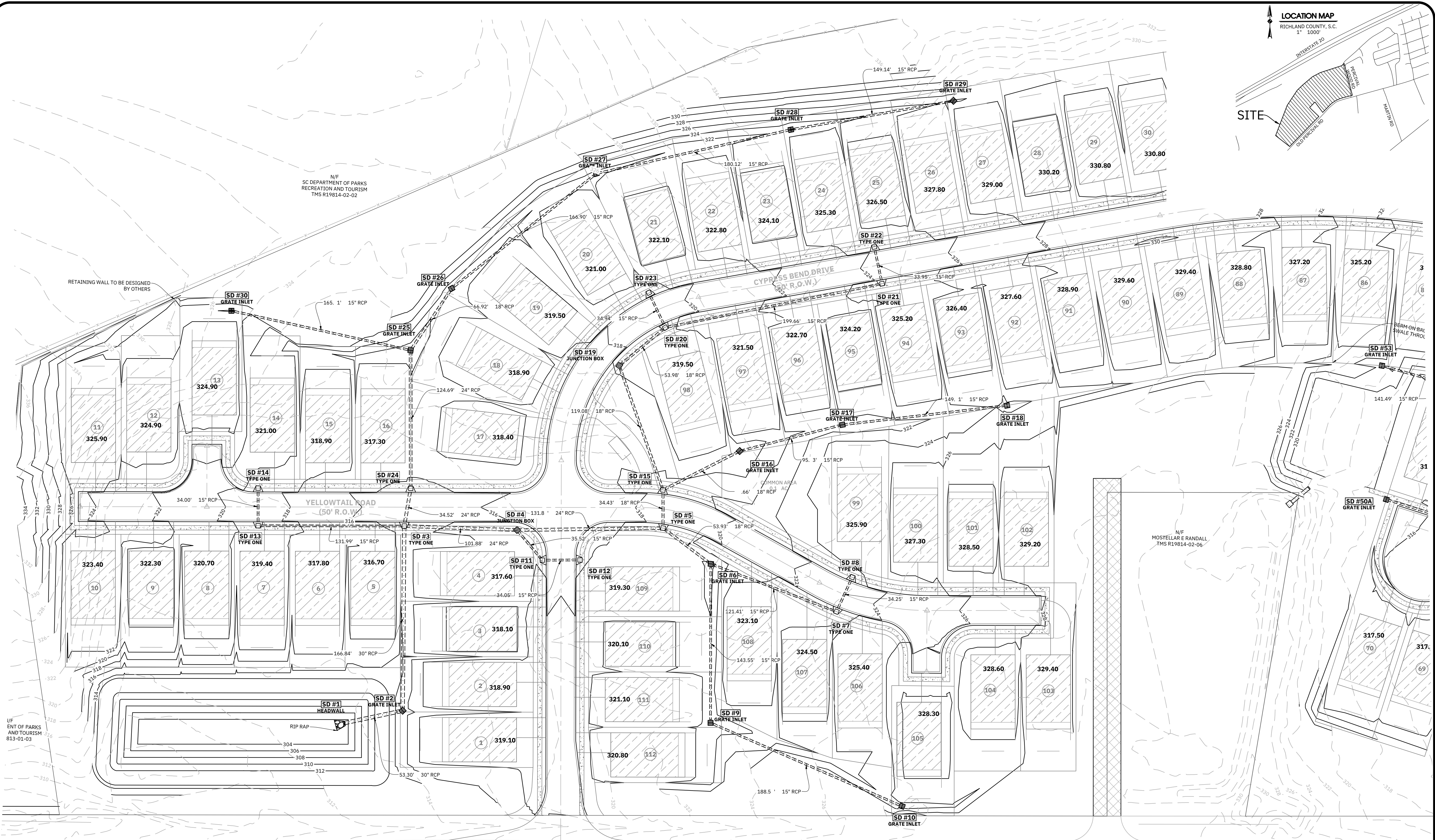


THE PRODUCT ON THIS SHEET WAS PREPARED FOR A SPECIFIC CLIENT FOR THE PROJECT AND SITE SHOWN. NO OTHER PERSON WITHOUT WRITTEN PERMISSION FROM THE DESIGN ENGINEER, IS STRICTLY PROHIBITED ANY CERTIFICATIONS, WARRANTIES, ENGINEER OR SURVEYOR OF RECORD FOR THIS PROJECT ARE INTENDED TO EXPRESS THAT STANDARD AND NOT BE PREPARATION OF THESE DOCUMENTS.

CIVIL ENGINEERING of COLUMBIA
PO BOX 1137 IRMO, SC 29063
TEL: (803) 798-2820 FAX: (803) 798-2826



SCALE	1" = 0' 80"
DATE	AUG. 11, 2025
DRAWN	BPD
DESIGNED	BPD
DRAWING NUMBER	9 OF 30
CHECKED BY:	JOB NUMBER 24082
OVERALL GRADING & DRAINAGE PLAN	PREPARED FOR CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES IRMO, SOUTH CAROLINA



CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING UNDERGROUND UTILITIES (HORIZONTAL & VERTICAL) PRIOR TO CONSTRUCTION (INCLUDING BUT NOT LIMITED TO: GAS LINES, WATER LINES, SEWER LINES, ELECTRICAL AND TELECOMMUNICATION LINES, AND FIBER OPTIC CABLES.) CALL PALMETTO UTILITY PROTECTION SERVICE AT: 811

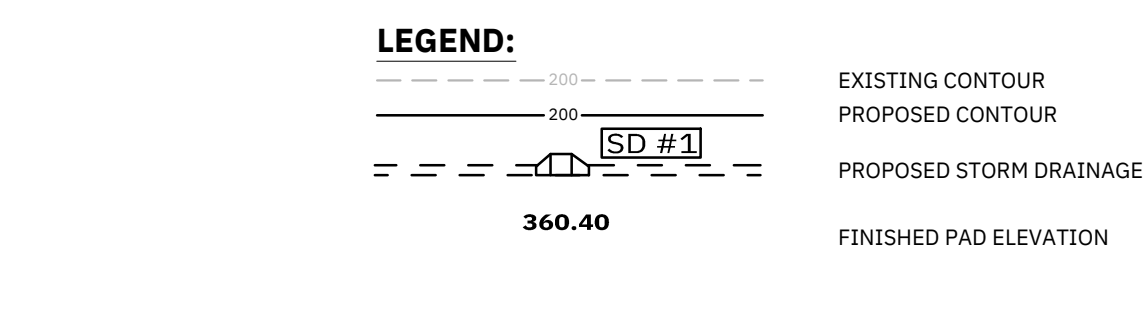
AT LEAST 3 DAYS BEFORE CONSTRUCTION, UNLESS STATED OTHERWISE IN CONTRACT WITH OWNER, THE CONTRACTOR SHALL INCLUDE ANY UTILITY RELOCATION COSTS IN HIS ORIGINAL AGREEMENT WITH THE OWNER.

IF ENT OF PARKS AND TOURISM 813-01-03

N/F SC DEPARTMENT OF PARKS RECREATION AND TOURISM TMS R19814-02-02

N/F COLUMBIA FULL GOSPEL HOPE CHURCH TMS R19814-03-01

N/F MOSTELLER RANDALL TMS R19814-02-06



THE OWNER IS:
CLAYTON PROPERTIES GROUP, INC.
D/B/A MUNGO HOMES
441 WESTERN LANE
IRMO, S.C. 29063
TEL: (803) 49-9000
ATTN: MR. CONRAD KLEIN
EMAIL: CKLEIN@MUNGO.COM

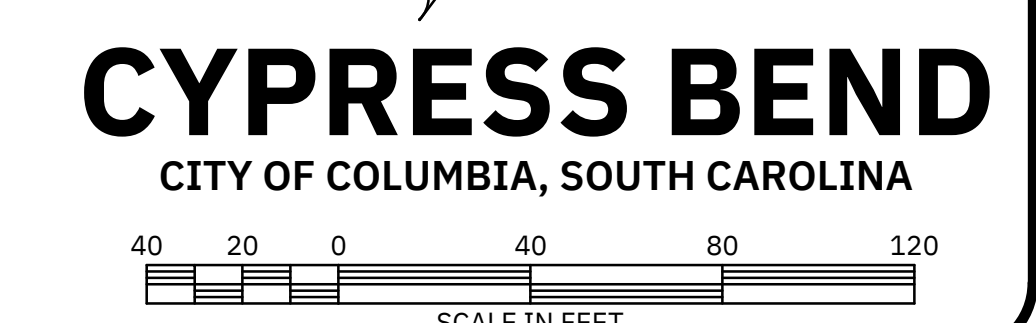
THE ENGINEER IS:
CIVIL ENGINEERING OF COLUMBIA
PO BOX 113
IRMO, S.C. 29063
TEL: (803) 98-2820
ATTN: MR. JOSH RABON, PE
EMAIL: JOSH@CECOLA.COM

THE SURVEYOR IS:
BELTER & ASSOCIATES, INC.
P.O. BOX 31
COLUMBIA, SC 29212
TEL: (803) 32-4004
ATTN: MR. RAYMOND PETERSON
EMAIL: RPERTERSON@ERCPD.NET

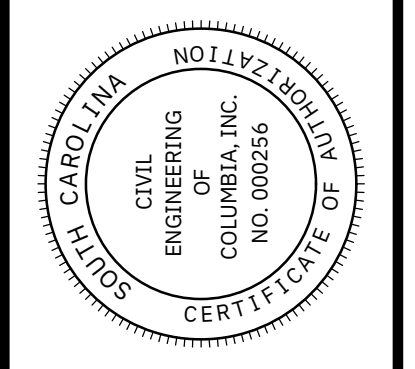
THE STORMWATER OPERATOR IS:
CITY OF COLUMBIA
PO BOX 14
COLUMBIA, S.C. 2921
TEL: (803) 545-3400
ATTN: MR. AJ JESSEE
EMAIL: ALFREDD.JESSEE@COLUMBIASC.NET

THE WATER OPERATOR IS:
CITY OF COLUMBIA
POST OFFICE BOX 14
COLUMBIA, SC 2921
TEL: (803) 545-3400
ATTN: MR. SCOTT ROGERS
EMAIL: MSROGERS@COLUMBIASC.NET

THE SEWER OPERATOR IS:
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PO BOX 23069
COLUMBIA, SC 29224
TEL: (803) 88-15 0
ATTN: MR. RAYMOND PETERSON
EMAIL: RPERTERSON@ERCPD.NET



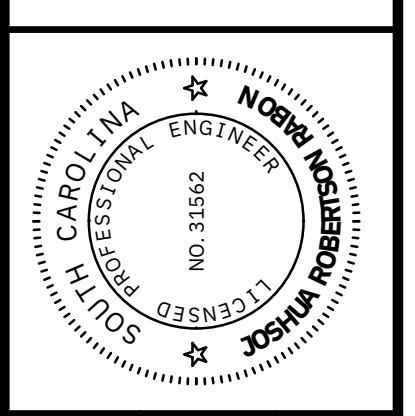
NO.	DATE	DESCRIPTION



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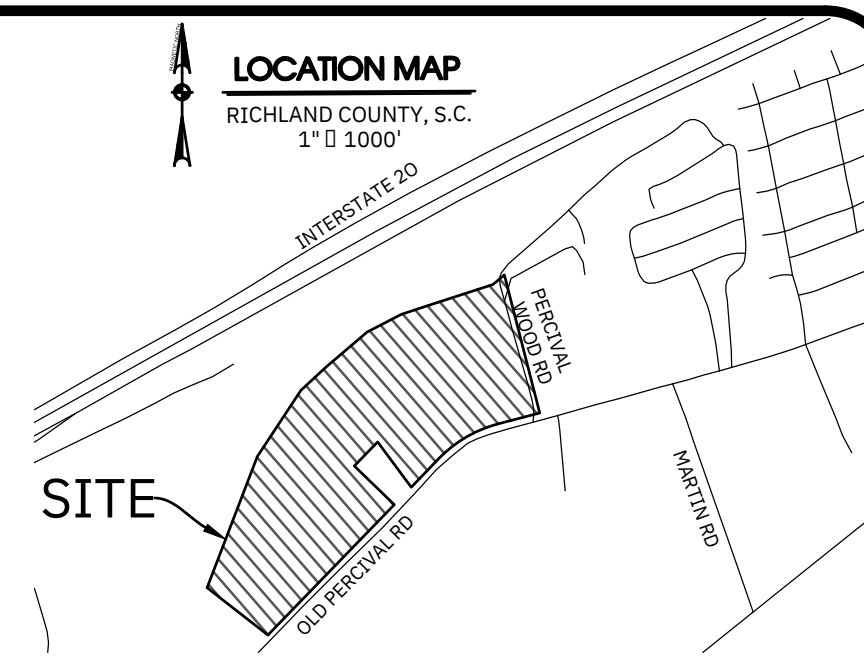
CIVIL ENGINEERING of COLUMBIA

PO BOX 1137 IRMO, SC 29063
TEL: (803) 998-2820 FAX: (803) 798-2826

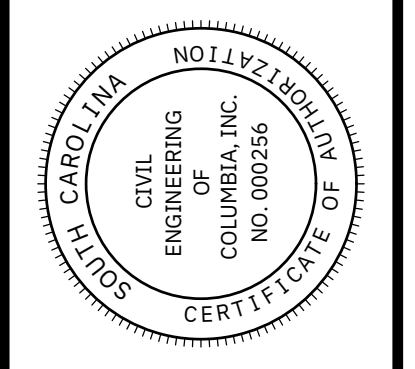


GRADING & DRAINAGE PLAN (1 OF 2)	DATE	AUG. 11, 2025
	DRAWN	BPD
CHECKED BY:	DESIGNED	BPD
	DRAWING NUMBER	10 OF 30
JOB NUMBER		24082

CYPRESS BEND
CITY OF COLUMBIA, SOUTH CAROLINA



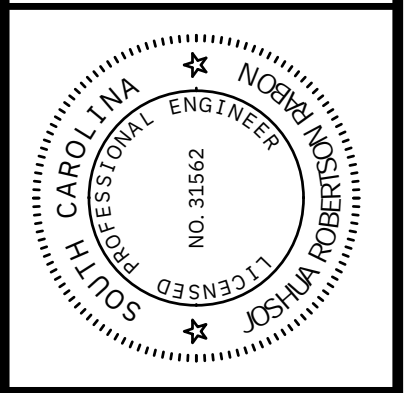
NO.	DATE	DESCRIPTION	BY



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CIVIL ENGINEERING of COLUMBIA

PO BOX 1137 IRMO, SC 29063
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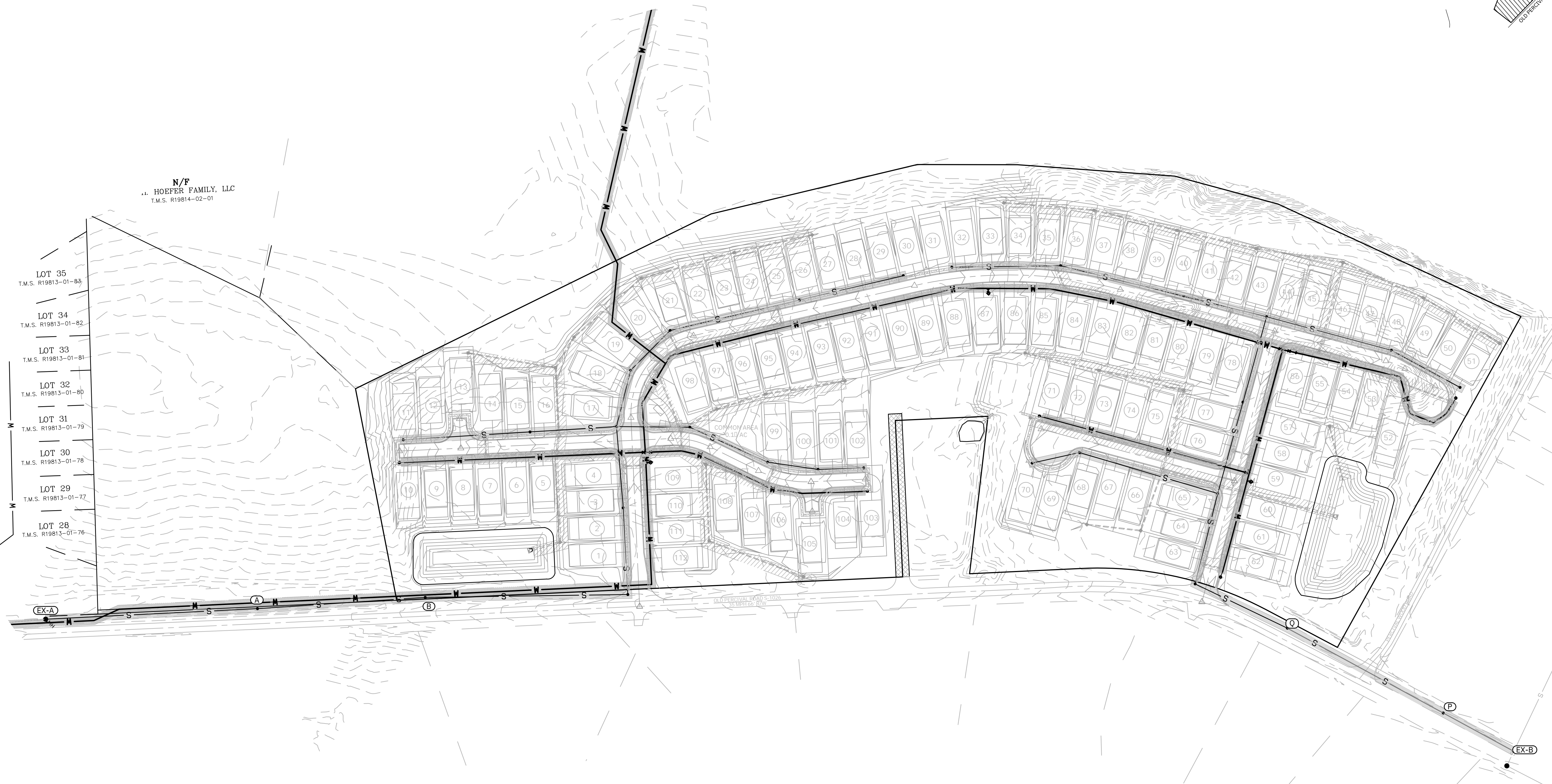


OVERALL UTILITIES PLAN		PREPARED FOR CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES IRMO, SOUTH CAROLINA	CHECKED BY: 24082
SCALE 1"=100'	DATE AUG. 11, 2025	DRAWN BPD	DRAWING NUMBER 12 OF 30
DESIGNED BPD	THE OWNER IS: CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES 441 WESTERN LANE IRMO, S.C. 29063 TEL: (803) 049-9000 ATTN: MR. CONRAD KLEIN EMAIL: CKLEIN@MUNGO.COM		THE ENGINEER IS: CIVIL ENGINEERING OF COLUMBIA PO BOX 1137 IRMO, S.C. 29063 TEL: (803) 798-2820 ATTN: MR. JOSH RABON, PE EMAIL: JOSH@CECOLA.COM
THE SURVEYOR IS: BELTER & ASSOCIATES, INC. P.O. BOX 031 COLUMBIA, SC 29212 SERVICE DISTRICT PO BOX 23069 COLUMBIA, SC 29224 TEL: (803) 888-1500 ATTN: MR. RAYMOND PETERSON EMAIL: RPERTERSON@ERPCPSD.NET	THE STORMWATER OPERATOR IS: CITY OF COLUMBIA POST OFFICE BOX 140 COLUMBIA, S.C. 29211 TEL: (803) 545-3400 ATTN: MR. AJ JESSEE EMAIL: ALFRED.JESSEE@COLUMBIASC.NET	THE WATER OPERATOR IS: CITY OF COLUMBIA POST OFFICE BOX 140 COLUMBIA, S.C. 29211 TEL: (803) 545-3400 ATTN: MR. SCOTT ROGERS EMAIL: MSROGERS@COLUMBIASC.NET	THE SEWER OPERATOR IS: EAST RICHLAND COUNTY PUBLIC SERVICE DISTRICT PO BOX 23069 COLUMBIA, SC 29224 TEL: (803) 888-1500 ATTN: MR. RAYMOND PETERSON EMAIL: RPERTERSON@ERPCPSD.NET

N/P
HOFER FAMILY, LLC
T.M.S. R19814-02-01

- LOT 35
T.M.S. R19813-01-85
- LOT 34
T.M.S. R19813-01-82
- LOT 33
T.M.S. R19813-01-81
- LOT 32
T.M.S. R19813-01-80
- LOT 31
T.M.S. R19813-01-79
- LOT 30
T.M.S. R19813-01-76
- LOT 29
T.M.S. R19813-01-72
- LOT 28
T.M.S. R19813-01-76

EAST
E
AGE 3435



LEGEND:

--- 200 ---	EXISTING CONTOUR		CITY OF COLUMBIA STORM DRAIN EASEMENT
--- 200 ---	PROPOSED CONTOUR		EAST RICHLAND SEWER LINE EASEMENT
— W —	PROPOSED WATER LINE		CITY OF COLUMBIA WATER LINE EASEMENT
— W —	EXISTING WATER LINE		EXISTING ACCESS EASEMENT
— S —	PROPOSED GRAVITY SEWER LINE		
— S —	EXISTING GRAVITY SEWER LINE		
— SD #1 —	PROPOSED STORM DRAINAGE		

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CYPRESS BEND
CITY OF COLUMBIA, SOUTH CAROLINA

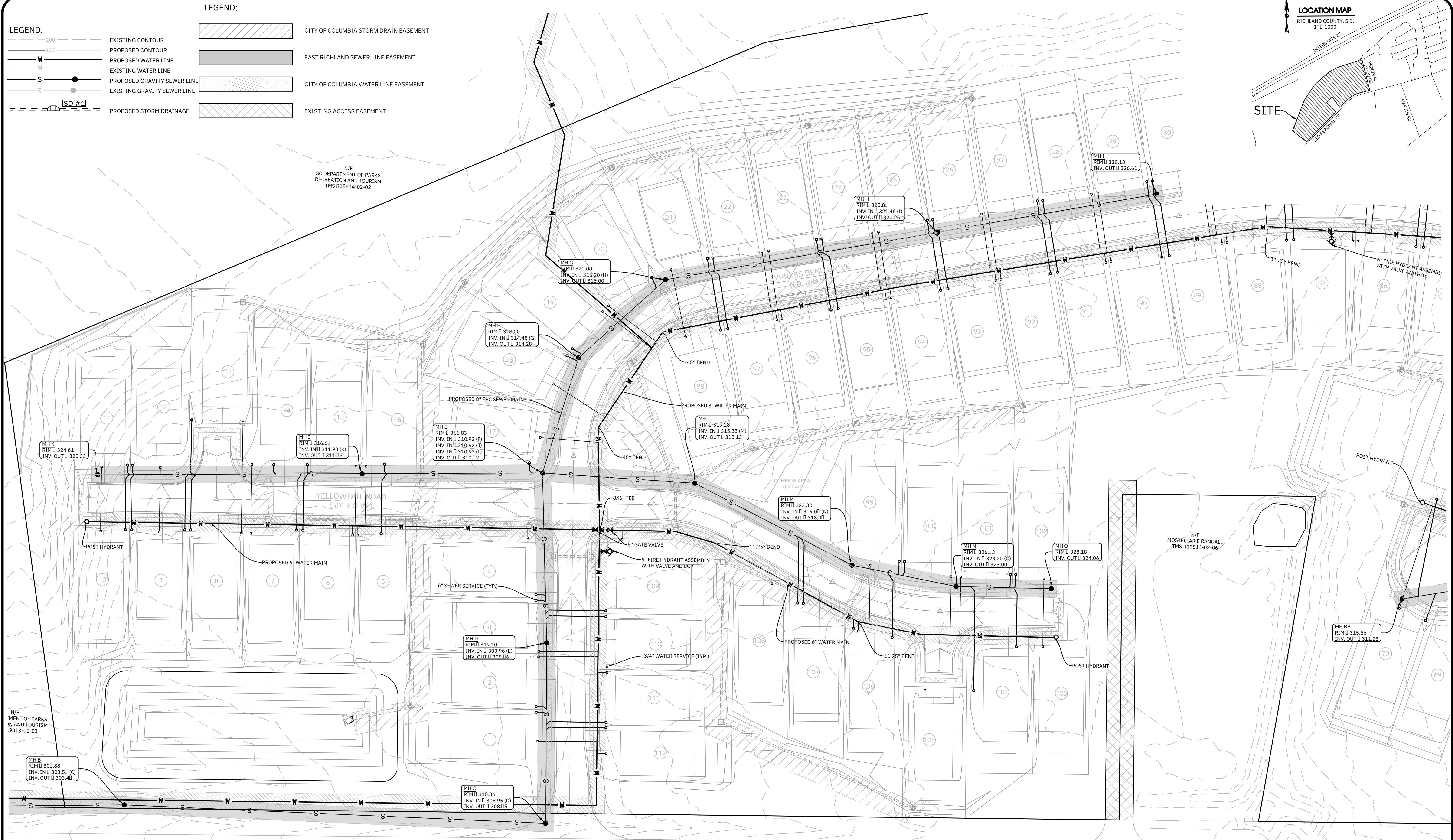
SCALE IN FEET

LEGEND:

---200---	EXISTING CONTOUR		CITY OF COLUMBIA STORM DRAIN EASEMENT
—200—	PROPOSED CONTOUR		EAST RICHLAND SEWER LINE EASEMENT
—W—	PROPOSED WATER LINE		CITY OF COLUMBIA WATER LINE EASEMENT
—W—	EXISTING WATER LINE		EXISTING ACCESS EASEMENT
—S—	PROPOSED GRAVITY SEWER LINE		
—S—	EXISTING GRAVITY SEWER LINE		
—SD #1	PROPOSED STORM DRAINAGE		

LOCATION MAP
RICHLAND COUNTY, S.C.
1" = 1000'

SITE



N/F
MENT OF PARKS
IN AND TOURISM
.9813-01-03

N/F
SC DEPARTMENT OF PARKS
RECREATION AND TOURISM
TMS R19814-02-02

N/F
MOSTELLAR E RANDALL
TMS R19814-02-06

N/F
COLUMBIA FULL GOSPEL HOPE CHURCH
TMS R19814-03-01

OLD PERCIVAL ROAD S-1026
35 MPH 66'R/W

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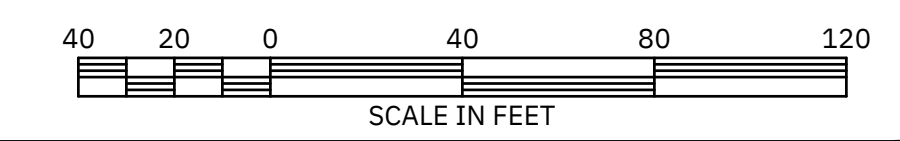
THE SURVEYOR IS:
BELTER & ASSOCIATES, INC.
P.O. BOX 131
COLUMBIA, SC 29212
TEL: (803) 332-4004
ATTN: RONALD W. FISHER
EMAIL: ----

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PO BOX 140
COLUMBIA, S.C. 29210
TEL: (803) 545-3400
ATTN: MR. AJ JESSEE
EMAIL: ALFRED.JESSEE@COLUMBIASC.NET

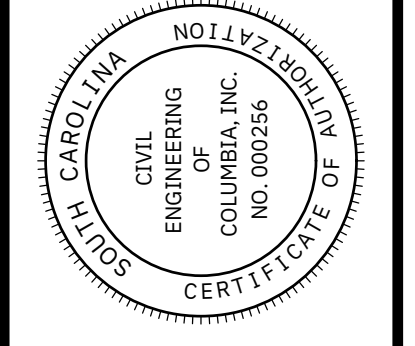
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COLUMBIA, SC 29224
TEL: (803) 88-1510
ATTN: MR. RAYMOND PETERSON
EMAIL: RPERTERSON@ERCPD.NET

CYPRESS BEND
CITY OF COLUMBIA, SOUTH CAROLINA

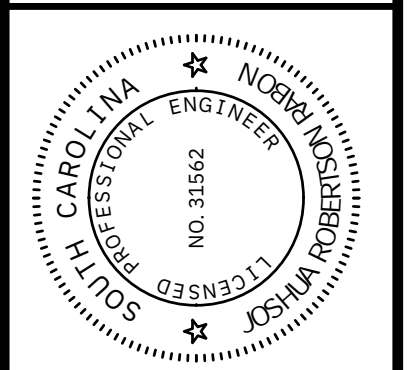
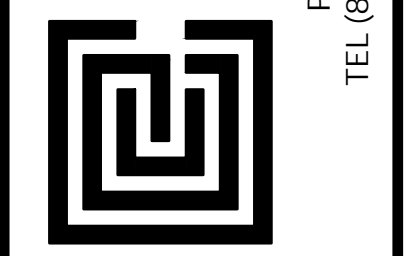


NO.	DATE	DESCRIPTION	BY



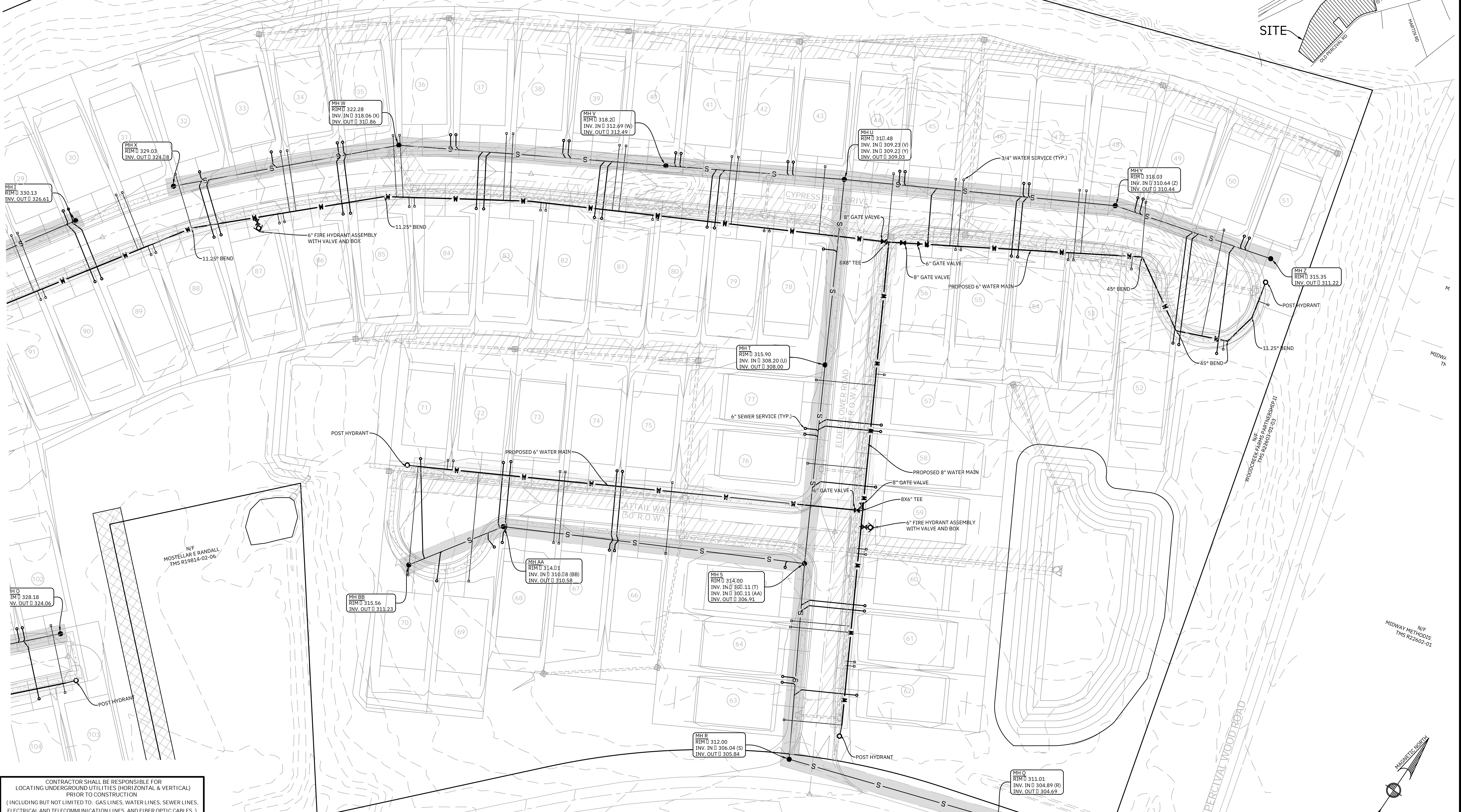
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CIVIL ENGINEERING of COLUMBIA
PO BOX 1137 IRMO, SC 29063
TEL (803) 798-2820 FAX (803) 798-2826



UTILITIES PLAN (1 OF 2)	
DATE: AUG. 11, 2025	PREPARED FOR: CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES IRMO, SOUTH CAROLINA
DRAWN: BPD	CHECKED BY: JOURNAL NUMBER 24082
DESIGNED: BPD	
DRAWING NUMBER: 13 OF 30	

SITE



CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING UNDERGROUND UTILITIES (HORIZONTAL & VERTICAL) PRIOR TO CONSTRUCTION (INCLUDING BUT NOT LIMITED TO: GAS LINES, WATER LINES, SEWER LINES, ELECTRICAL AND TELECOMMUNICATION LINES, AND FIBER OPTIC CABLES.) CALL PALMETTO UTILITY PROTECTION SERVICE AT: 811 AT LEAST 3 DAYS BEFORE CONSTRUCTION. UNLESS STATED OTHERWISE IN CONTRACT WITH OWNER, THE CONTRACTOR SHALL INCLUDE ANY UTILITY RELOCATION COSTS IN HIS ORIGINAL AGREEMENT WITH THE OWNER.

LEGEND:

	EXISTING CONTOUR		CITY OF COLUMBIA STORM DRAIN EASEMENT
	PROPOSED CONTOUR		EAST RICHLAND SEWER LINE EASEMENT
	PROPOSED WATER LINE		CITY OF COLUMBIA WATER LINE EASEMENT
	EXISTING WATER LINE		EXISTING ACCESS EASEMENT
	PROPOSED GRAVITY SEWER LINE		
	EXISTING GRAVITY SEWER LINE		
	PROPOSED STORM DRAINAGE		

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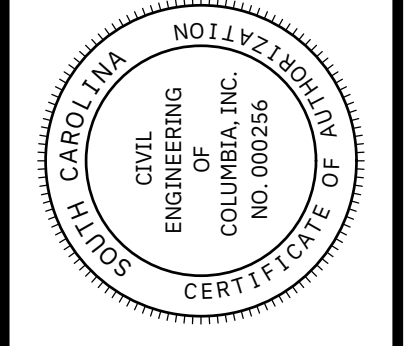
THE SEWER OPERATOR IS:
EAST RICHLAND COUNTY PUBLIC SERVICE DISTRICT
PO BOX 23069
COLUMBIA, SC 29224
TEL: (803) 88-1310
ATTN: MR. RAYMOND PETERSON
EMAIL: RPETERSON@ERCPD.SC.NET

CYPRESS BEND

CITY OF COLUMBIA, SOUTH CAROLINA

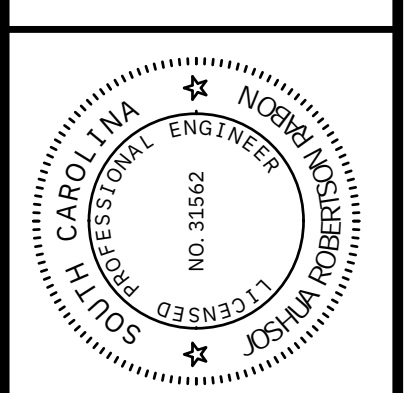
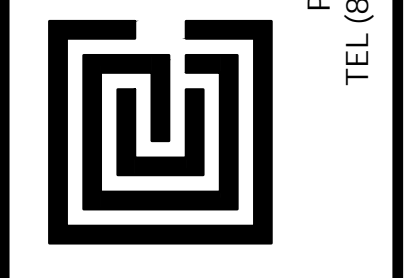
SCALE 1" = 40'
SCALE IN FEET

NO.	DATE	DESCRIPTION	BY

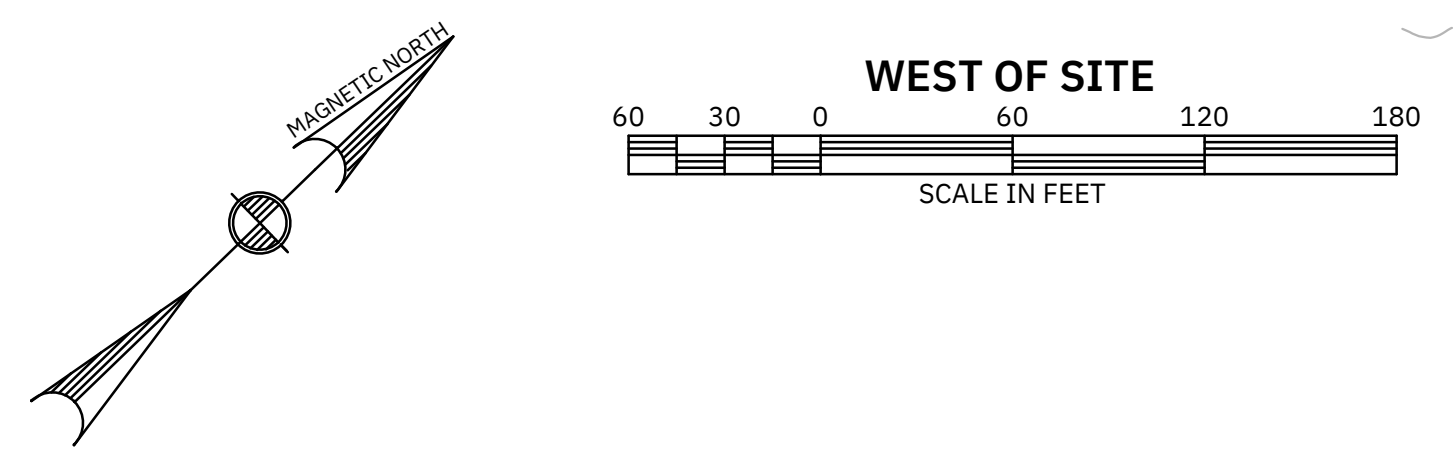
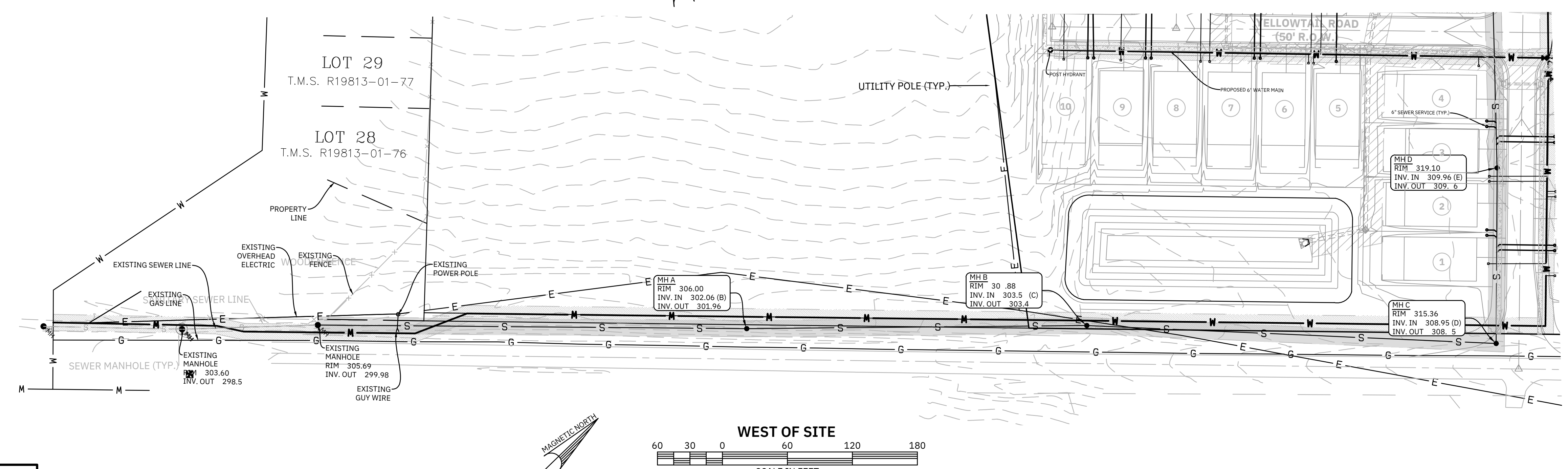
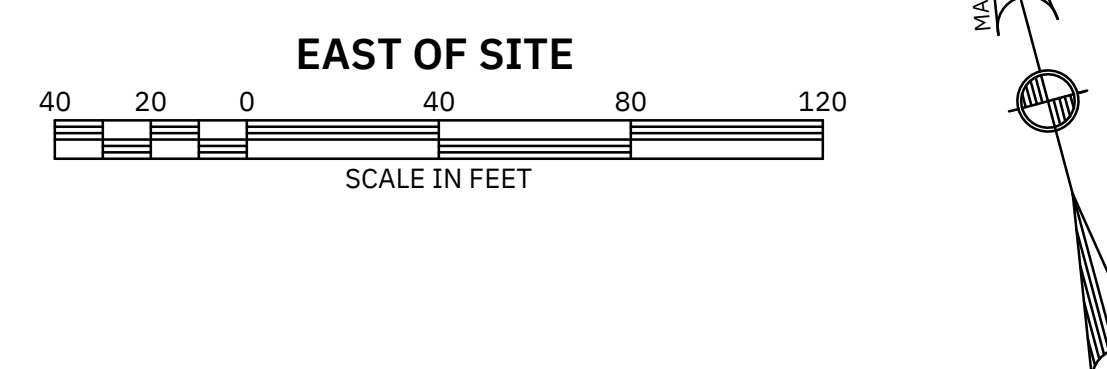
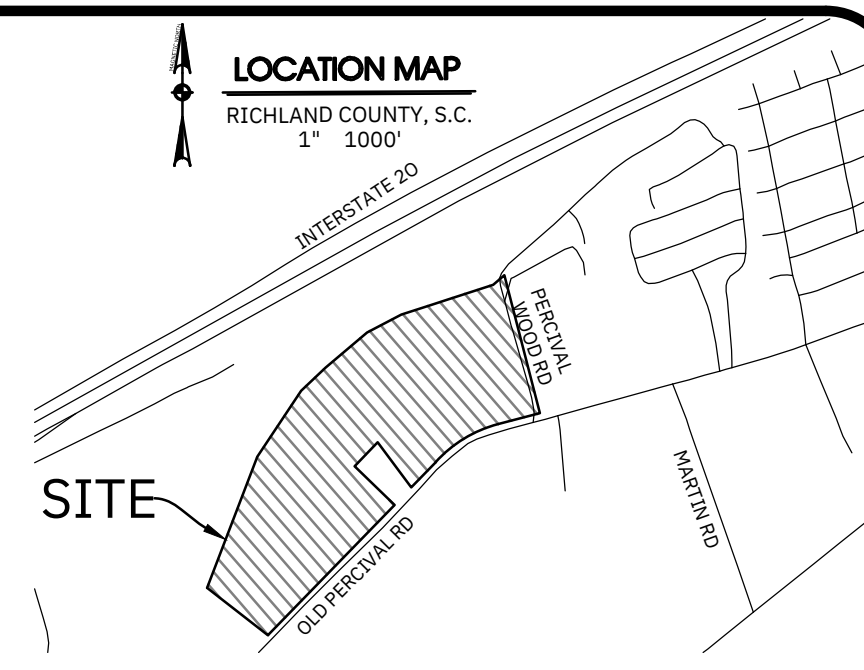
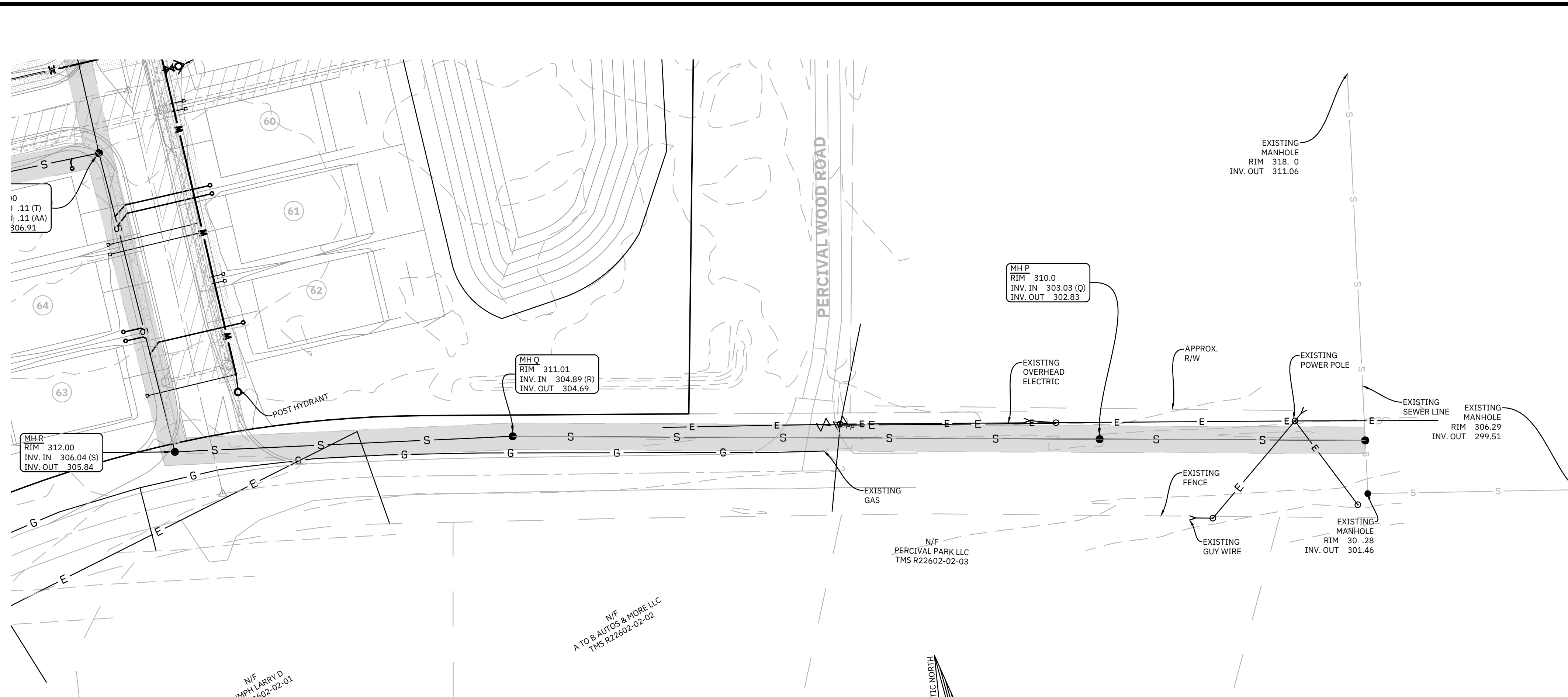


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CIVIL ENGINEERING of COLUMBIA
PO BOX 11137 IRMO, SC 29063
TEL: (803) 798-2820 FAX: (803) 798-2826



UTILITIES PLAN (2 OF 2)		DATE	AUG. 11, 2025
DRAWN	BPD	PREPARED FOR	CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES IRMO, SOUTH CAROLINA
DESIGNED	BPD	CHECKED BY:	JOB NUMBER 24082
DRAWING NUMBER	14 OF 30		



CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING UNDERGROUND UTILITIES (HORIZONTAL & VERTICAL) PRIOR TO CONSTRUCTION
 (INCLUDING BUT NOT LIMITED TO: GAS LINES, WATER LINES, SEWER LINES, ELECTRICAL AND TELECOMMUNICATION LINES, AND FIBER OPTIC CABLES.)
CALL PALMETTO UTILITY PROTECTION SERVICE AT: 811
 AT LEAST 3 DAYS BEFORE CONSTRUCTION. UNLESS STATED OTHERWISE IN CONTRACT WITH OWNER, THE CONTRACTOR SHALL INCLUDE ANY UTILITY RELOCATION COSTS IN HIS ORIGINAL AGREEMENT WITH THE OWNER.

THESE PLANS AND DETAILS ARE INTENDED TO SHOW MINIMUM REQUIREMENTS, MEASURES, AND METHODS TO RESTRICT RUNOFF AND CONTROL EROSION. ADDITIONAL MEASURES MAY BE NECESSARY. THE CONTRACTORS AND ANY SUBCONTRACTORS SHALL BE AWARE THAT UNUSUAL CONDITIONS OR UNPREDICTED OCCURRENCES MAY REQUIRE IMMEDIATE ACTION TO PROTECT THE SITE AND DOWNSTREAM PROPERTIES. NOTIFY THE DESIGN ENGINEER IMMEDIATELY IF SUCH A CONDITION OR OCCURRENCE IS KNOWN TO EXIST OR ARISE. FIELD DETERMINED TEMPORARY DIVERSIONS, BERMS AND/OR CUTS SHALL BE CONSTRUCTED, WHERE NECESSARY, TO PROTECT AREAS FROM UNDESIRABLE RUNOFF AND/OR TO DIVERT SEWAGE TO APPROPRIATE TREATMENT AREAS OR STABLE OUTLETS. THE CONTRACTOR SHALL CONFIRM POSITIVE DRAINAGE TO PROPOSED DRAINAGE STRUCTURES TO ENSURE THAT FLOODING DOES NOT OCCUR. THIS PERTAINS TO PAVED AND UNPAVED AREAS. SLOPES TO STRUCTURES SHALL NOT BE EXTREME AND SHALL BE SUITABLE FOR THE INTENDED USE. STORM DRAINAGE PIPES SHALL HAVE A MINIMUM OF ONE FOOT OF COVER.

THE OWNER IS:
CLAYTON PROPERTIES GROUP, INC.
 D/B/A MUNGO HOMES
 441 WESTERN LANE
 IRMO, S.C. 29063
 TEL: (803) 49-9000
 ATTN: MR. CONRAD KLEIN
 EMAIL: CKLEIN@MUNGO.COM

THE ENGINEER IS:
CIVIL ENGINEERING OF COLUMBIA
 P.O. BOX 113
 IRMO, S.C. 29063
 TEL: (803) 98-2820
 ATTN: MR. JOSH RABON, PE
 EMAIL: JOSH@CECOLA.COM

THE SURVEYOR IS:
BELTER & ASSOCIATES, INC
 P.O. BOX 31
 COLUMBIA, SC 29212
 TEL: (803) 32-4004
 ATTN: RONALD W. FISHER
 EMAIL: ----

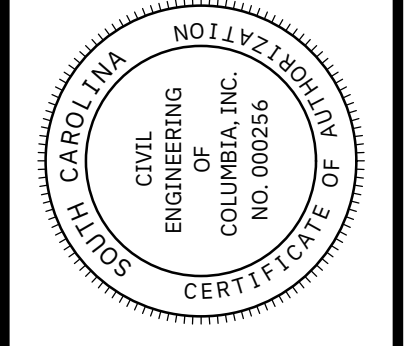
THE STORMWATER OPERATOR IS:
CITY OF COLUMBIA
 PO BOX 14
 COLUMBIA, S.C. 29211
 TEL: (803)545-3400
 ATTN: MR. AJ JESSEE
 EMAIL: ALFRED.JESSEE@COLUMBIASC.NET

THE WATER OPERATOR IS:
CITY OF COLUMBIA
 POST OFFICE BOX 14
 COLUMBIA, SC 29211
 TEL: (803) 545-3400
 ATTN: MR. SCOTT ROGERS
 EMAIL: MSROGERS@COLUMBIASC.NET

THE SEWER OPERATOR IS:
EAST RICHLAND COUNTY PUBLIC SERVICE DISTRICT
 PO BOX 23069
 COLUMBIA, SC 29224
 TEL: (803) 98-15 0
 ATTN: MR. RAYMOND PETERSON
 EMAIL: RPERTERSON@ERPCPSD.NET

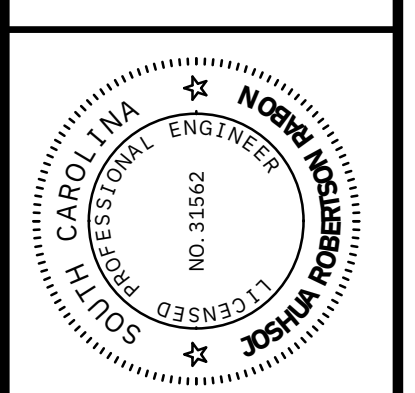
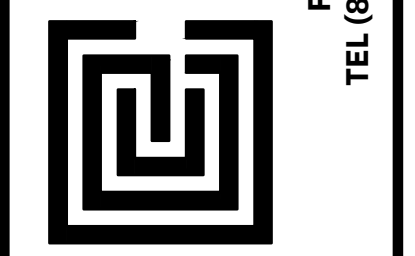
CYPRESS BEND
 CITY OF COLUMBIA, SOUTH CAROLINA

NO.	DATE	DESCRIPTION

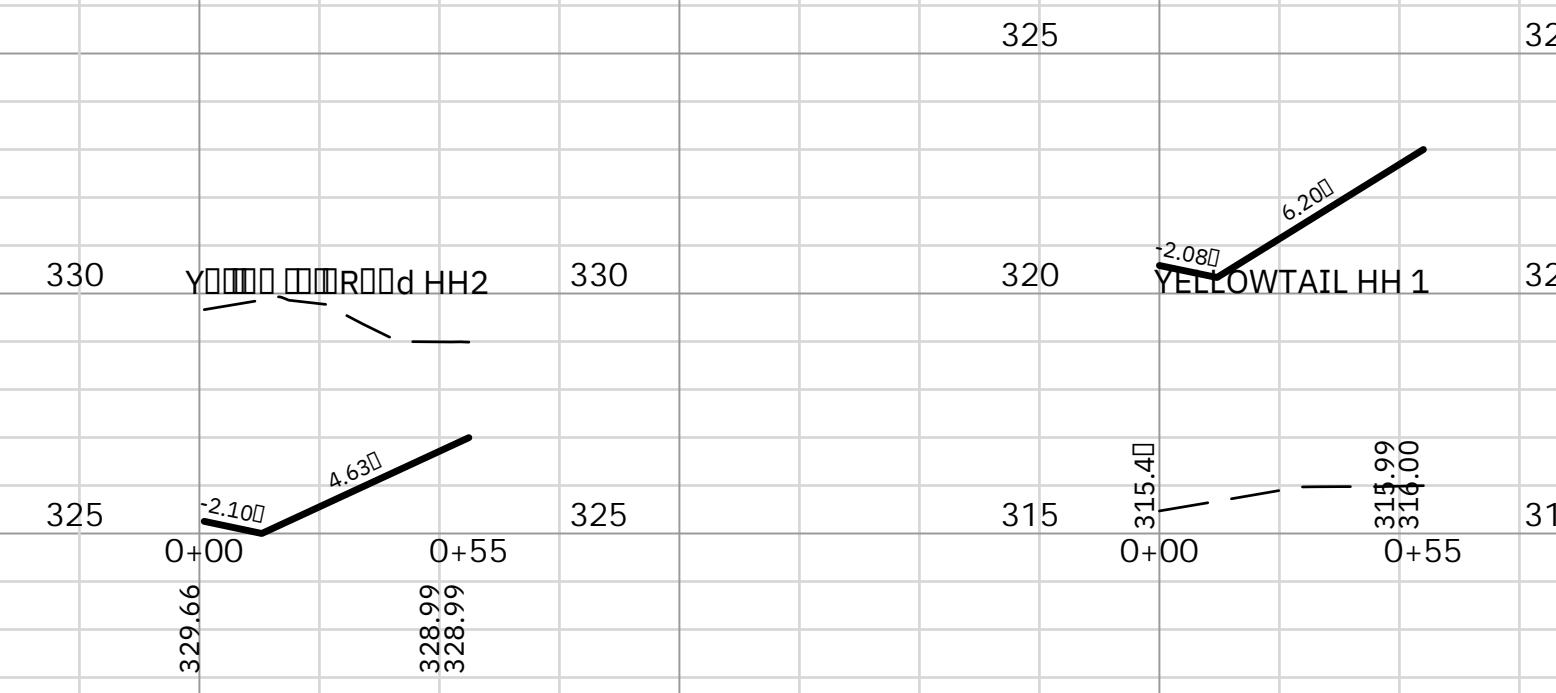
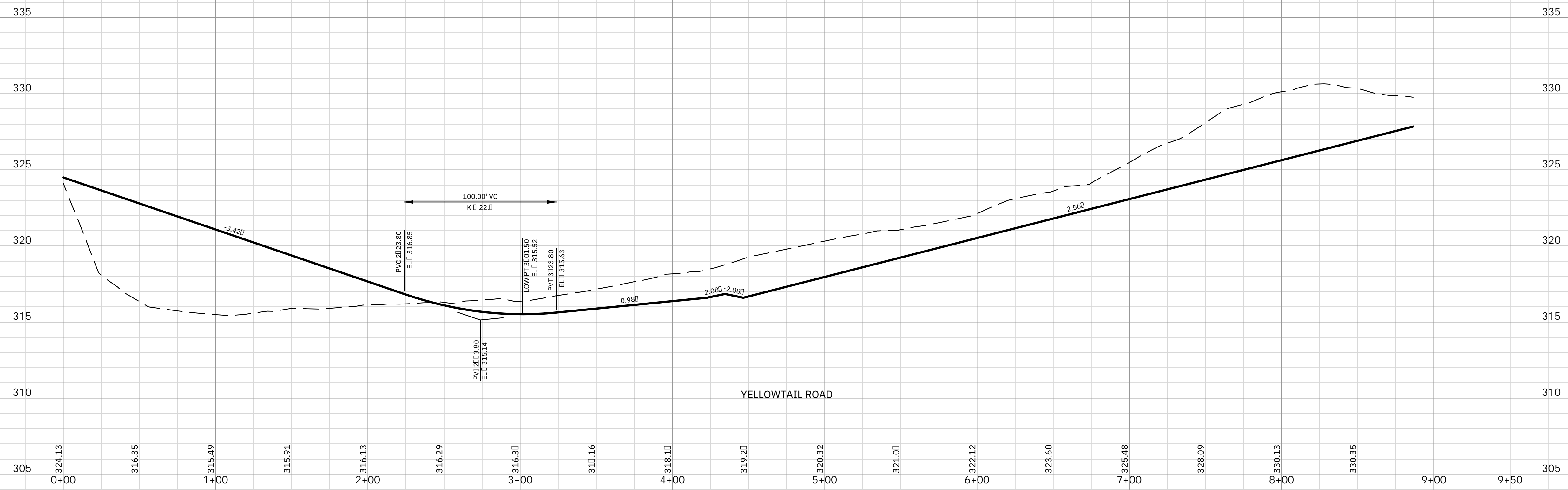
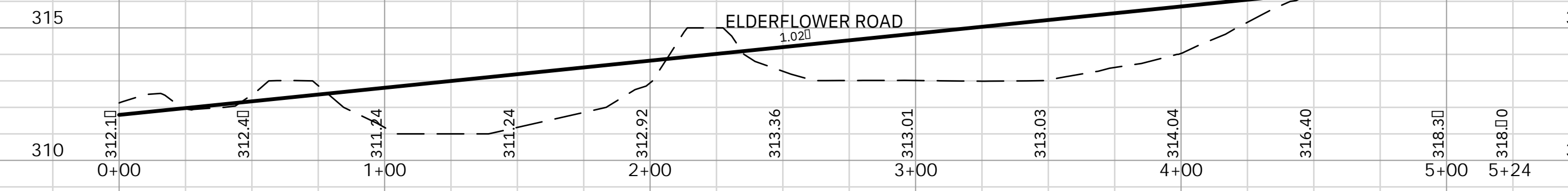
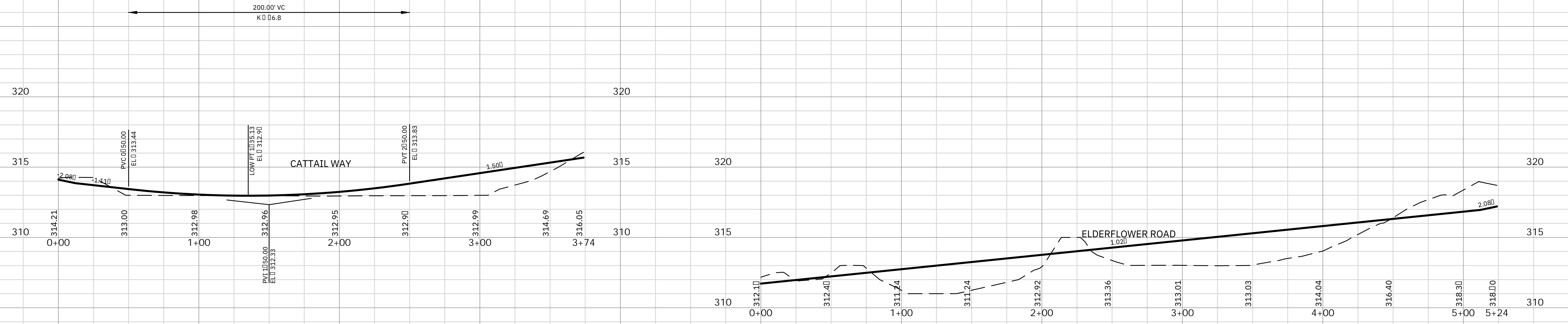


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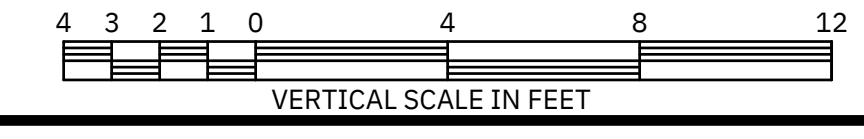
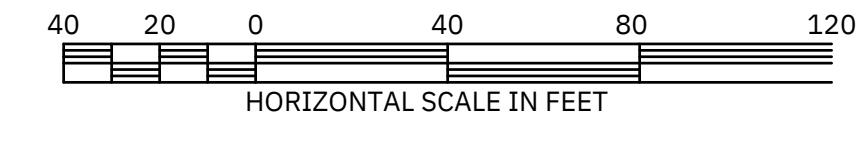


OFFSITE UTILITIES PLAN		PREPARED FOR CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES IRMO, SOUTH CAROLINA	CHECKED BY: 24082
SCALE	VARIABLES		
DATE	AUG. 11, 2025		
DRAWN	BPD		
DESIGNED	BPD		
DRAWING NUMBER	15 OF 30		

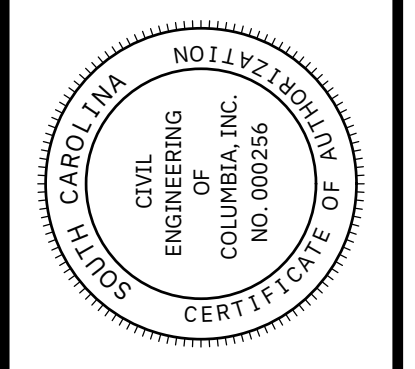


CYPRESS BEND

CITY OF COLUMBIA, SOUTH CAROLINA



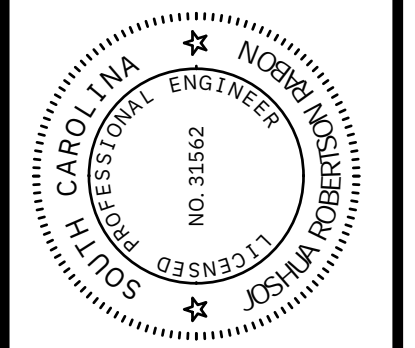
NO.	DATE	DESCRIPTION	BY



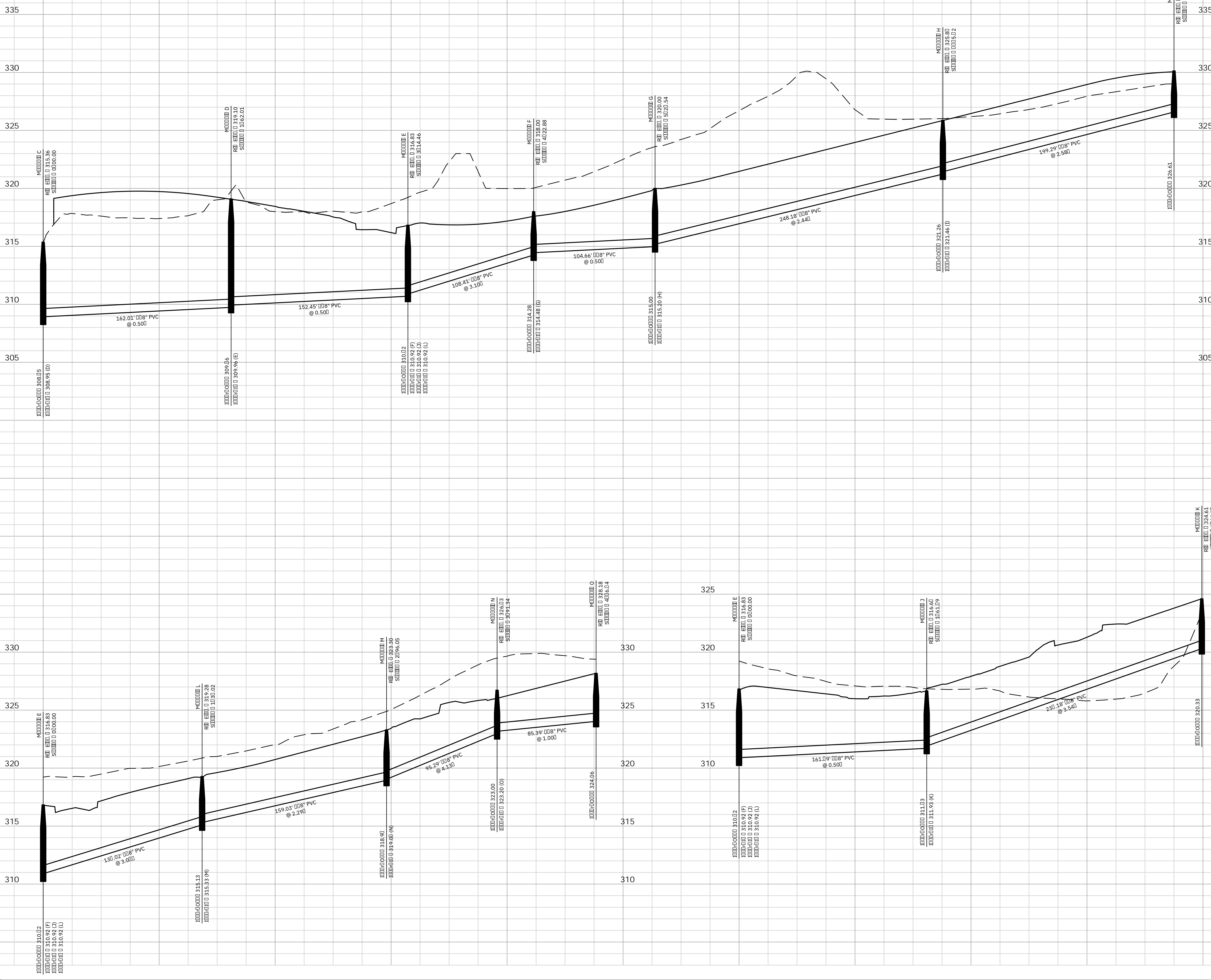
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CIVIL ENGINEERING of COLUMBIA

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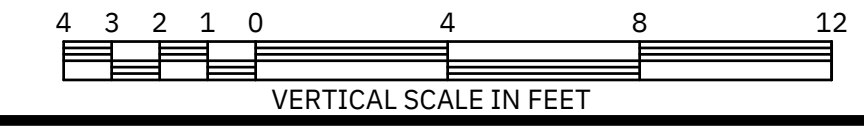
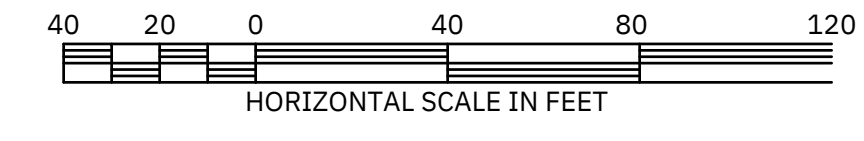


SCALE	AS SHOWN	ROAD PROFILES (2 OF 2)
DATE	AUG. 11, 2025	PREPARED FOR
DRAWN	BPD	CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
DESIGNED	BPD	IRMO, SOUTH CAROLINA
DRAWING NUMBER	17 OF 30	CHECKED BY:
		JOB NUMBER
		24082

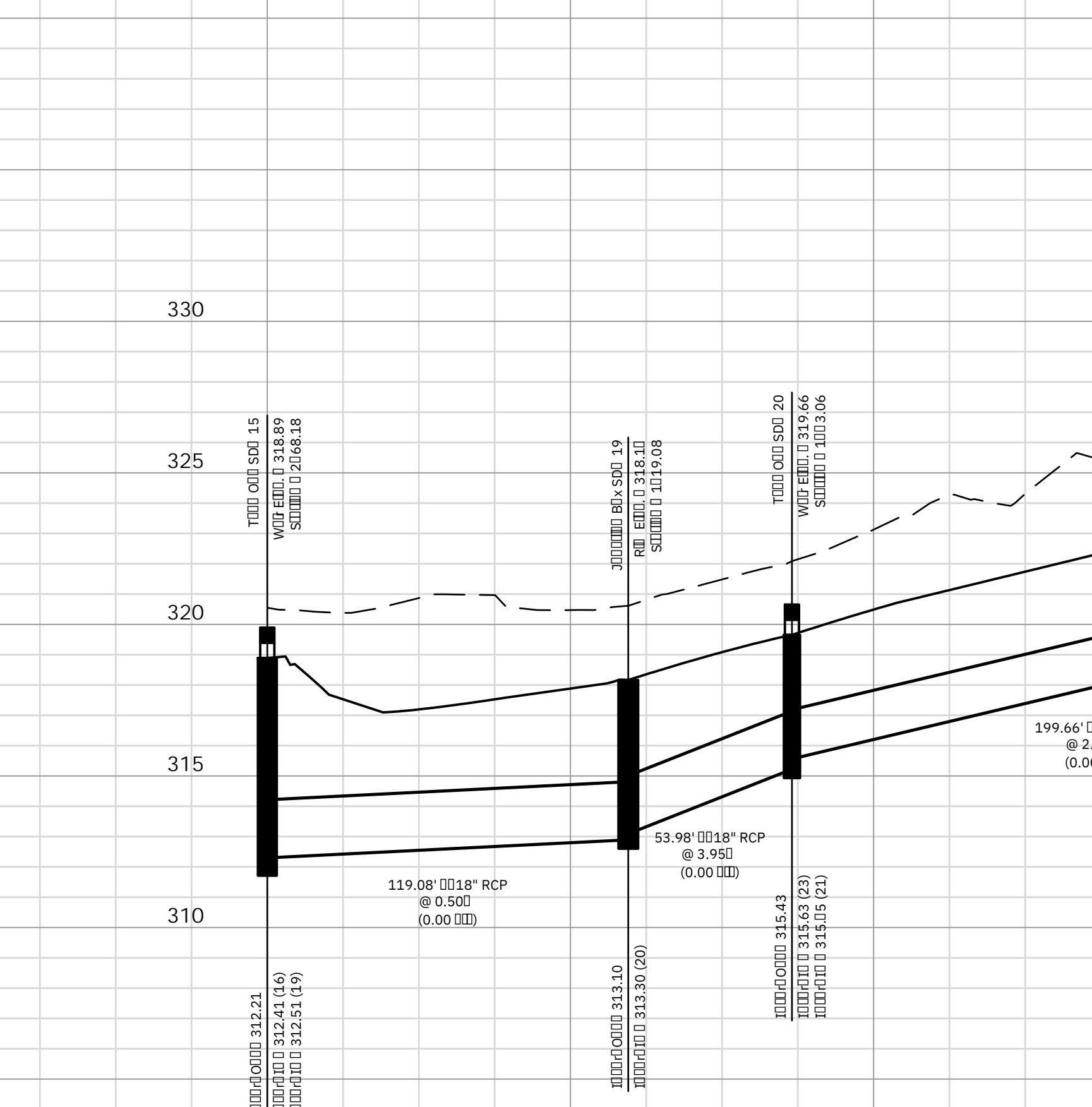
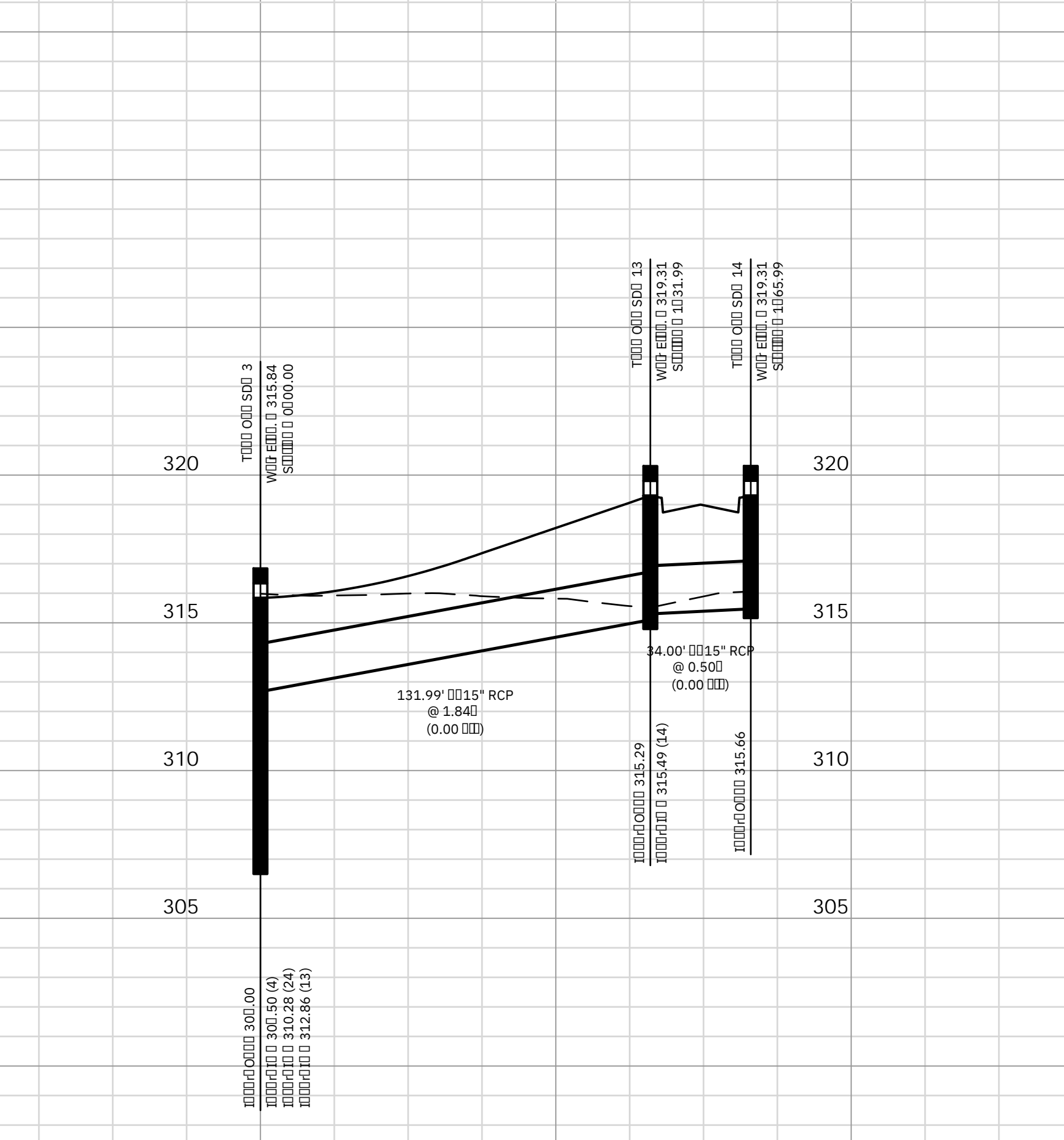
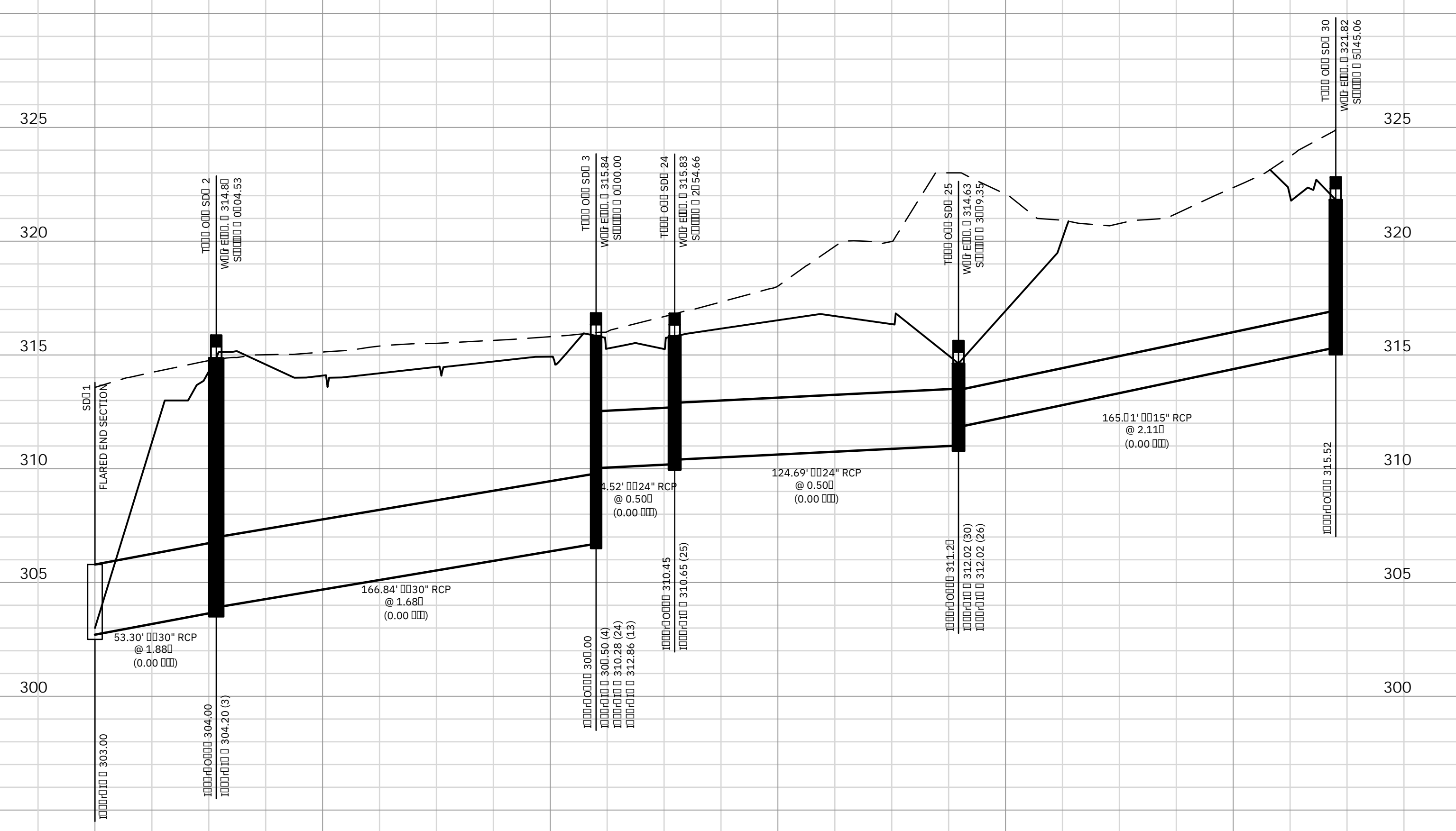
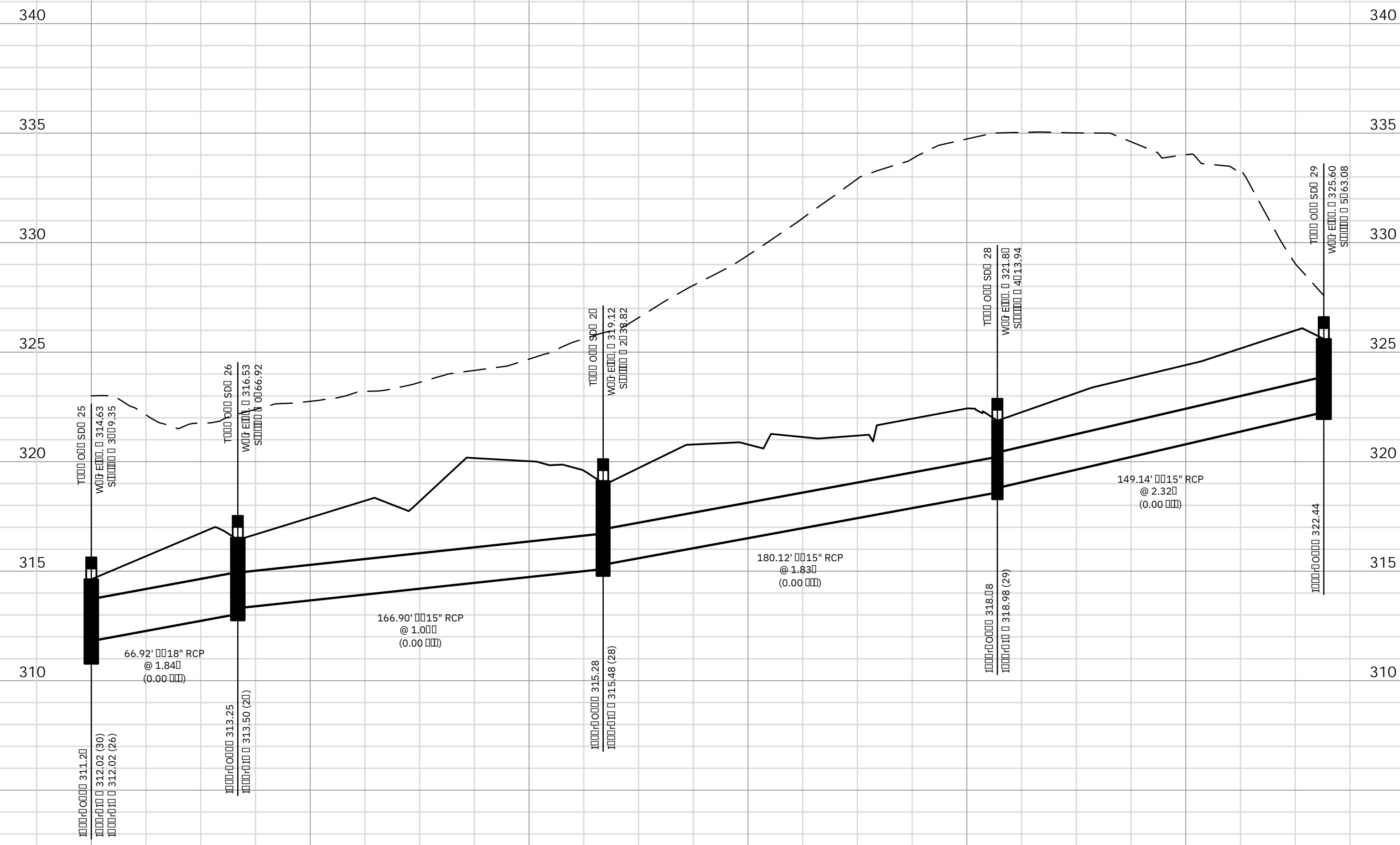


CYPRESS BEND

CITY OF COLUMBIA, SOUTH CAROLINA

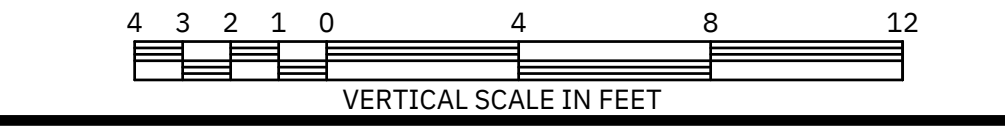
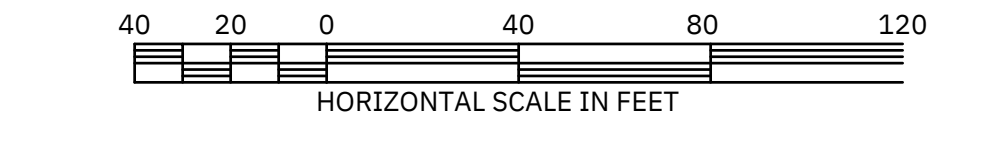


SCALE	AS SHOWN	SANITARY SEWER PROFILES		
DATE	AUG. 11, 2025	(2 OF 3)		
DRAWN	BPD	PREPARED FOR		
DESIGNED	BPD	CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES		
DRAWING NUMBER	19 OF 30	CHECKED BY:		TEL (803) 798-2820 FAX (803) 798-2826 PO BOX 11137 IRMO, SC 29063
		JOB NUMBER		24082
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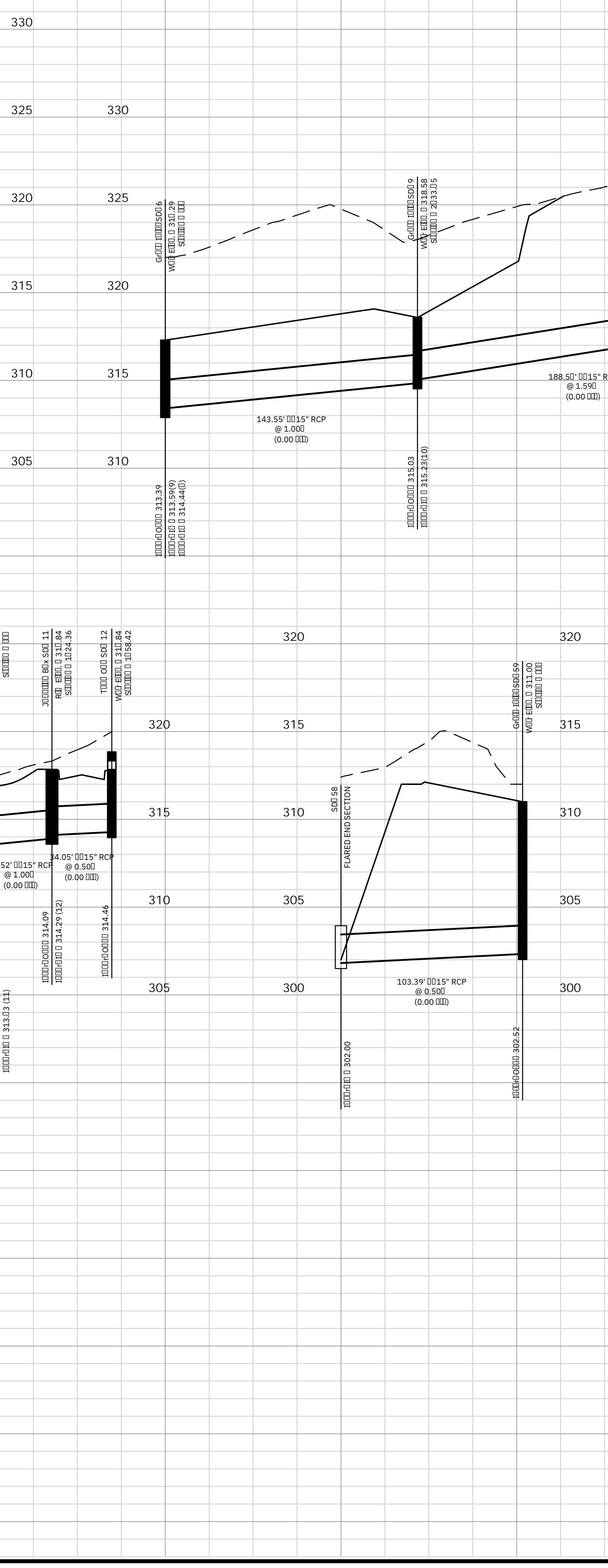
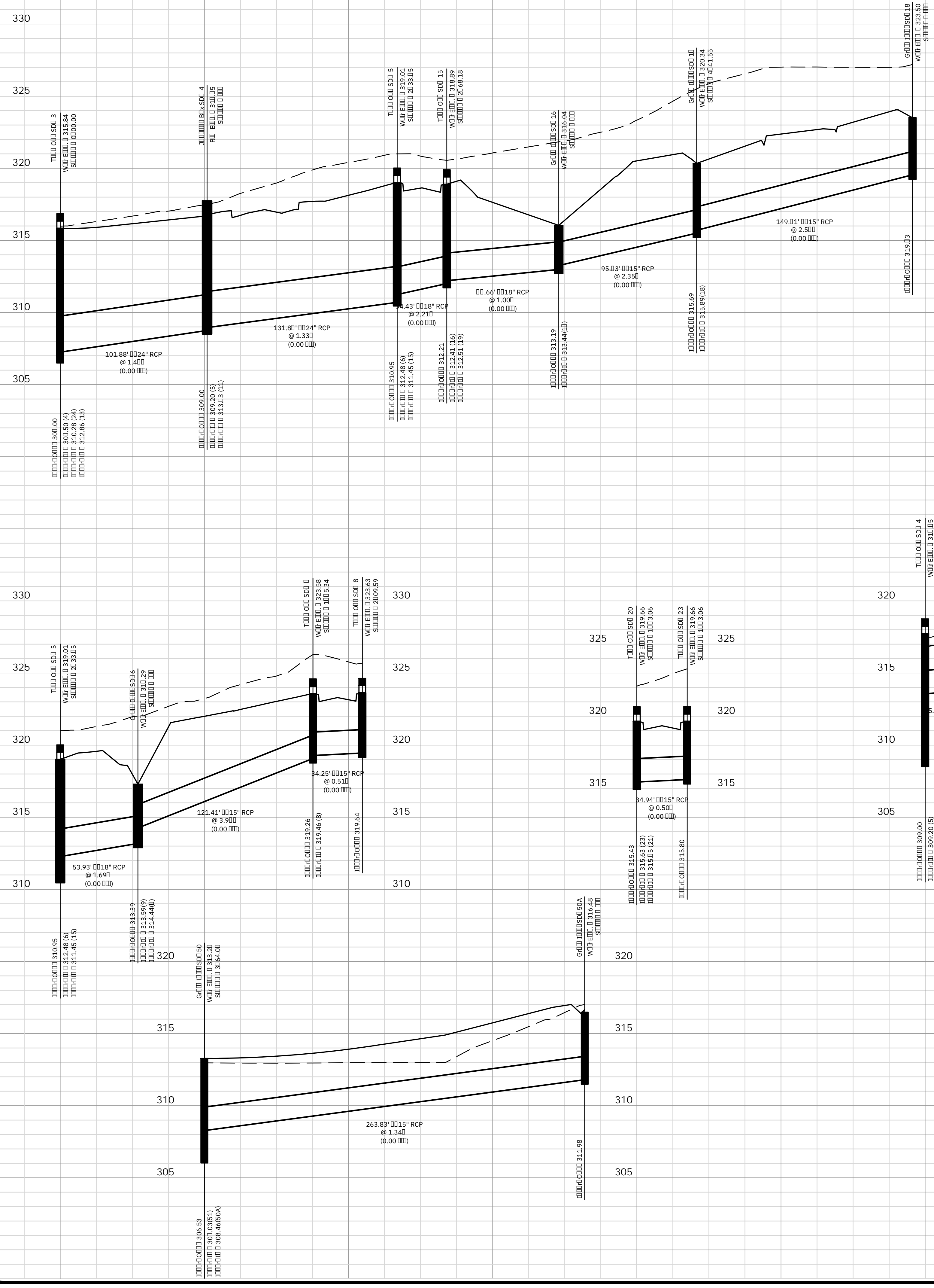


CYPRESS BEND

CITY OF COLUMBIA, SOUTH CAROLINA

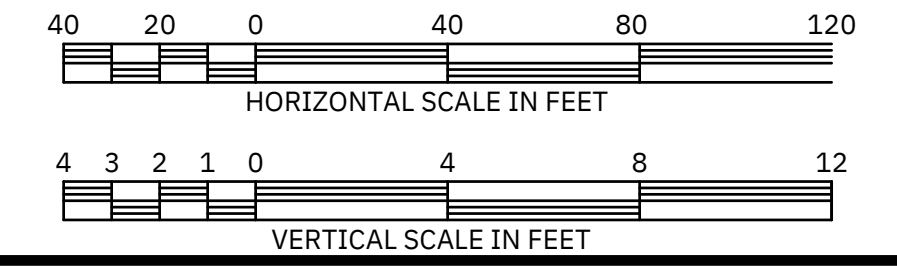


SCALE	AS SHOWN	STORM DRAINAGE PROFILES							
DATE	AUG. 11, 2025	(1 OF 4)							
DRAWN	BPD	PREPARED FOR	CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES						
DESIGNED	BPD	CHECKED BY:	JOB NUMBER 24082						
DRAWING NUMBER	21 OF 30	CIVIL ENGINEERING of COLUMBIA							
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<p>PO BOX 11137 IRMO, SC 29063 TEL (803) 798-2820 FAX (803) 798-2826</p>		<p>REVISION</p> <table border="1"> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>		NO.	DATE	DESCRIPTION			
NO.	DATE	DESCRIPTION							



CYPRESS BEND

CITY OF COLUMBIA, SOUTH CAROLINA



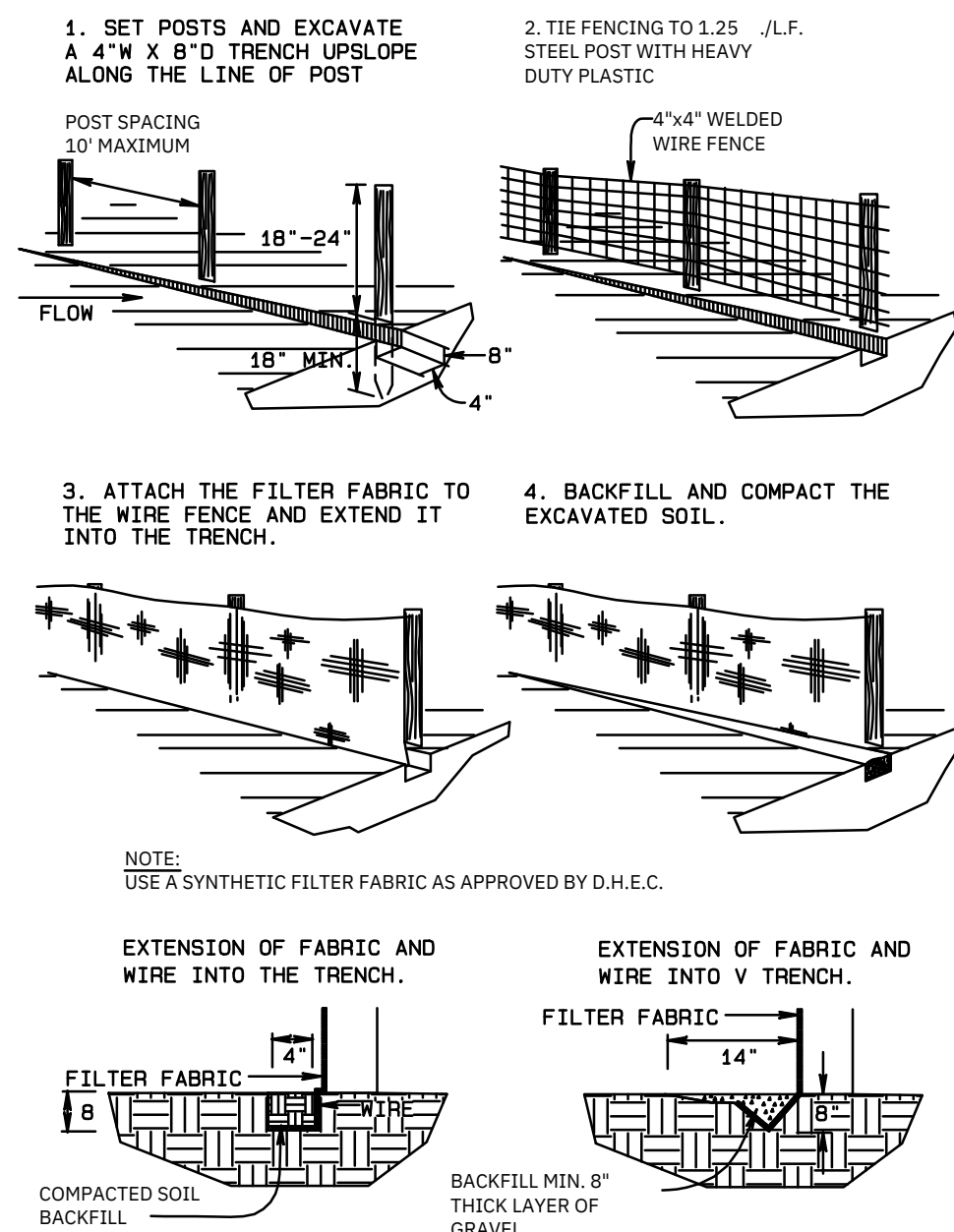
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DATE	AUG. 11, 2025	(2 OF 4)	NO. 2	DATE		DESCRIPTION	
DRAWN	BPD	PREPARED FOR	NO. 3	DATE		DESCRIPTION	
DESIGNED	BPD	CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES	NO. 4	DATE		DESCRIPTION	
DRAWING NUMBER	22 OF 30	IRMO, SOUTH CAROLINA	NO. 5	DATE		DESCRIPTION	
CHECKED BY:	JOB NUMBER		NO. 6	DATE		DESCRIPTION	
	24082		NO. 7	DATE		DESCRIPTION	

ROBERT M. NIERMAN
REGISTERED PROFESSIONAL ENGINEER
NO. 31562
STATE OF SOUTH CAROLINA

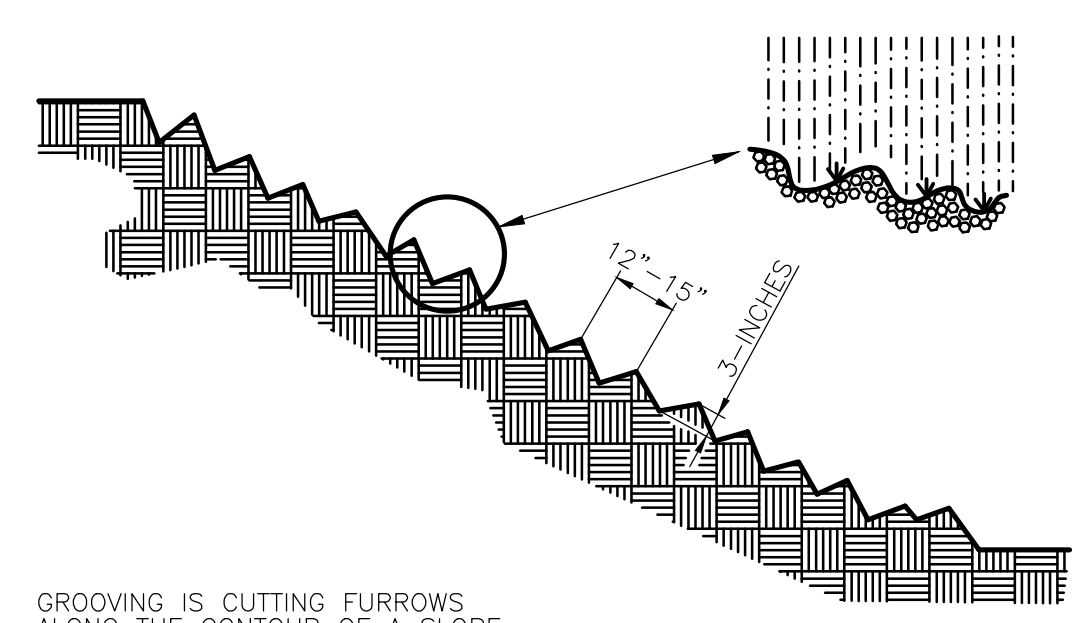
CIVIL ENGINEERING of COLUMBIA

PO BOX 11137 IRMO, SC 29063
TEL (803) 798-2820 FAX (803) 798-2826

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TEMPORARY SILT FENCE
N.T.S.

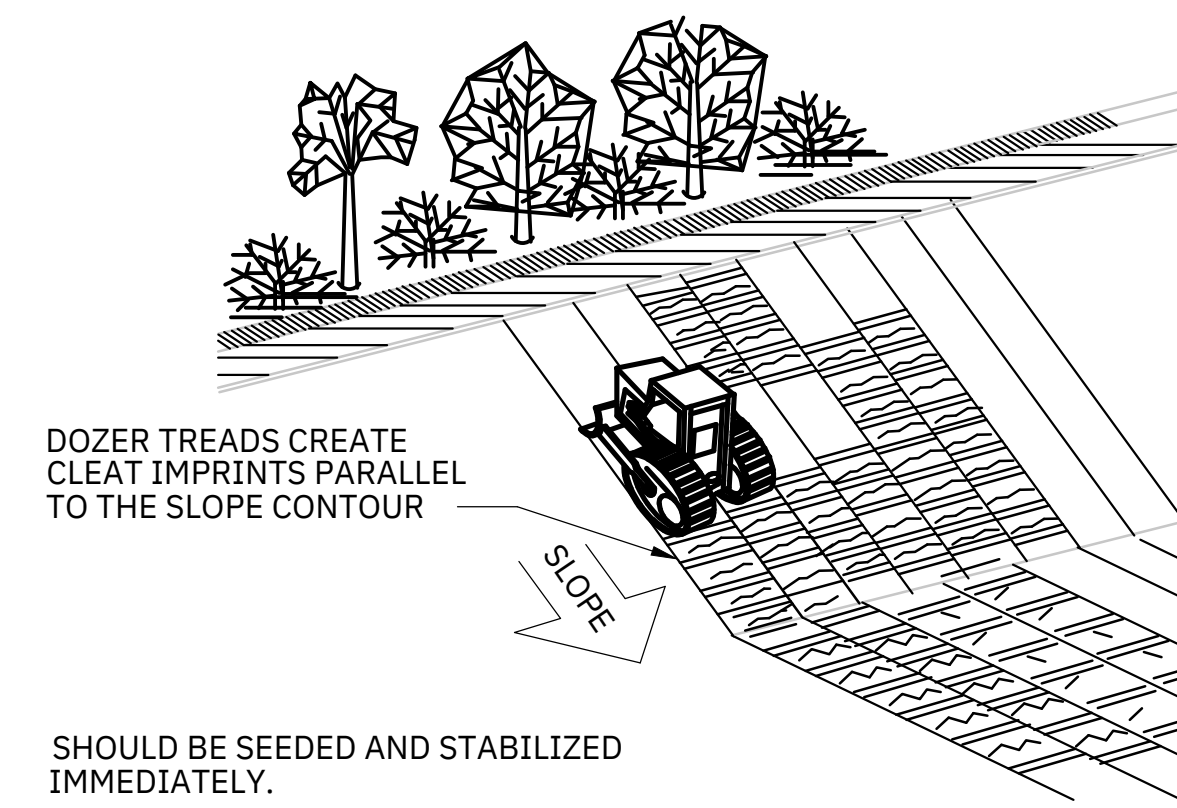


SLOPE GROOVING

GROOVING IS CUTTING FURROWS ALONG THE CONTOUR OF A SLOPE. IRREGULARITIES IN THE SOIL SURFACE CATCH RAINWATER AND PROVIDE SOME COVERAGE OF LIME, FERTILIZER AND SEED.

SHOULD BE SEEDED AND STABILIZED IMMEDIATELY.

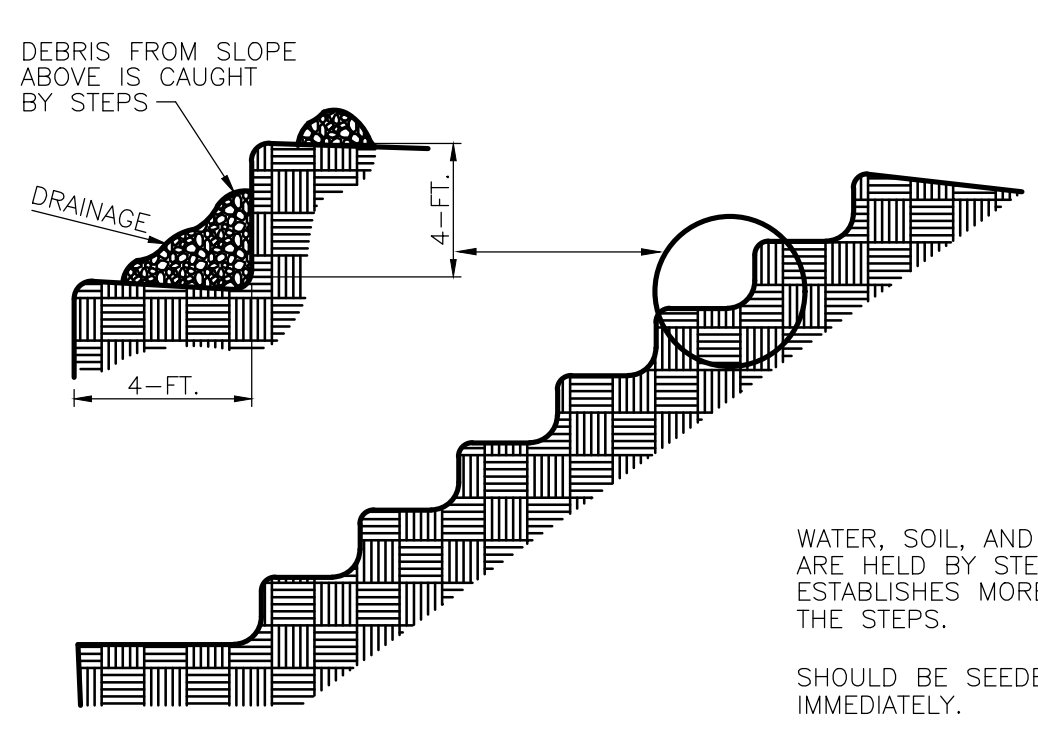
South Carolina Department of Health and Environmental Control
SLOPE GROOVING
STANDARD DRAWING NO. EC-03 Page 1
APPROVED BY: _____ DATE: _____



TRACKING

SHOULD BE SEEDED AND STABILIZED IMMEDIATELY.

South Carolina Department of Health and Environmental Control
TRACKING
STANDARD DRAWING NO. EC-01 Page 1
APPROVED BY: _____ DATE: _____



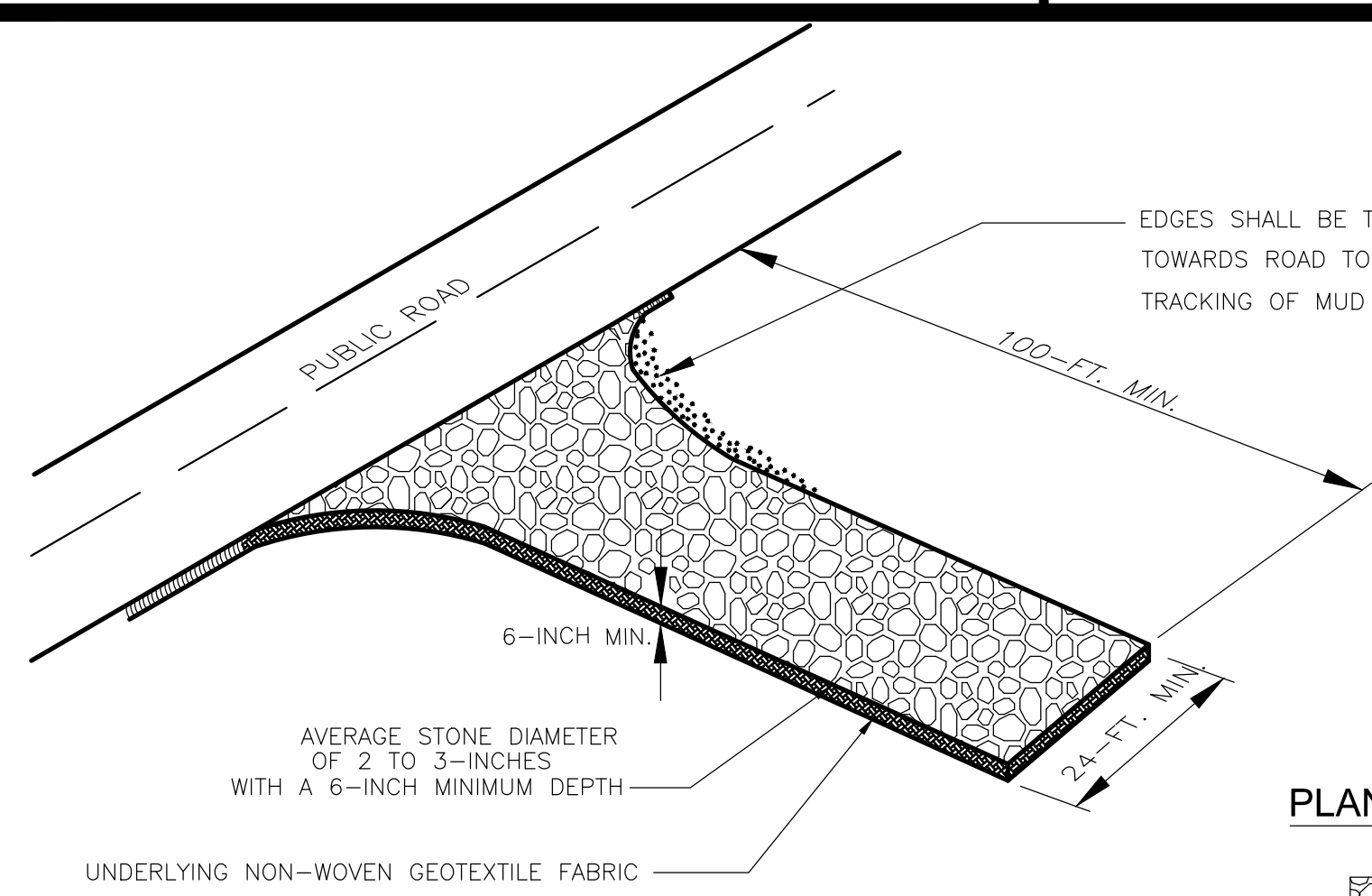
STAIR STEP GRADING

DEBRIS FROM SLOPE ABOVE IS CAUGHT BY STEPS.

WATER, SOIL, AND FERTILIZER ARE HELD BY STEPS - VEGETATION ESTABLISHES MORE EASILY ON THE STEPS.

SHOULD BE SEEDED AND STABILIZED IMMEDIATELY.

South Carolina Department of Health and Environmental Control
STAIR STEP GRADING
STANDARD DRAWING NO. EC-02 Page 1
APPROVED BY: _____ DATE: _____



SPECIFICATION	SIZE
ROCK PAD THICKNESS	6 INCHES
ROCK PAD WIDTH	24 FEET
ROCK PAD LENGTH	100 FEET
ROCK PAD STONE SIZE	D = 2-3 INCHES

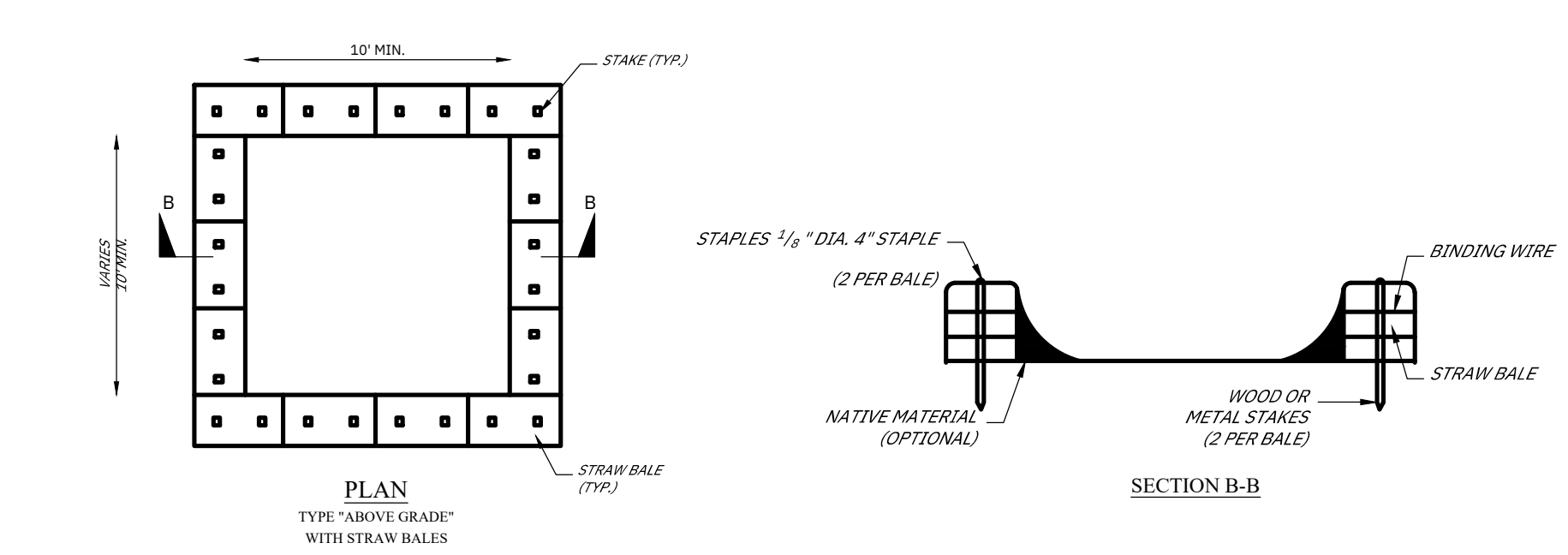
South Carolina Department of Health and Environmental Control
CONSTRUCTION ENTRANCE
STANDARD DRAWING NO. SC-06 PAGE 1 2
NOT TO SCALE FEBRUARY 2014 DATE: _____

- CONSTRUCTION ENTRANCE - GENERAL NOTES**
- Stabilized construction entrances should be used at all points where traffic will egress/ingress a construction site onto a public road or any impervious surfaces, such as parking lots.
 - Install a non-woven geotextile fabric prior to placing any stone.
 - Install a culvert pipe across the entrance when needed to provide positive drainage.
 - The entrance shall consist of 2-inch to 3-inch D50 stone placed at a minimum depth of 6-inches.
 - Minimum dimensions of the entrance shall be 24-feet wide by 100-feet long, and may be modified as necessary to accommodate site constraints.
 - The edges of the entrance shall be tapered out towards the road to prevent tracking at the edge of the entrance.
 - Divert all surface runoff and drainage from the stone pad to a sediment trap or basin or other sediment trapping structure.
 - Limestone may not be used for the stone pad.

- CONSTR. ENTRANCE - INSPECTION & MAINTENANCE**
- The key to functional construction entrances is weekly inspections, routine maintenance, and regular sediment removal.
 - Regular inspections of construction entrances shall be conducted once every calendar week and, as recommended, within 24-hours after each rainfall event that produces 1/2-inch or more of precipitation.
 - During regular inspections, check for mud and sediment buildup and pad integrity. Inspection frequencies may need to be more frequent during long periods of wet weather.
 - Reshape the stone pad as necessary for drainage and runoff control.
 - Wash or replace stones as needed and as directed by site inspector. The stone in the entrance should be washed or replaced whenever the entrance fails to reduce the amount of mud being carried off-site by vehicles. Frequent washing will extend the useful life of stone pad.
 - Immediately remove mud and sediment tracked or washed onto adjacent impervious surfaces by brushing or sweeping. Flushing should only be used when the water can be discharged to a sediment trap or basin.
 - During maintenance activities, any broken pavement should be repaired immediately.
 - Construction entrances should be removed after the site has reached final stabilization. Permanent vegetation should replace areas from which construction entrances have been removed, unless area will be converted to an impervious surface to serve post-construction.

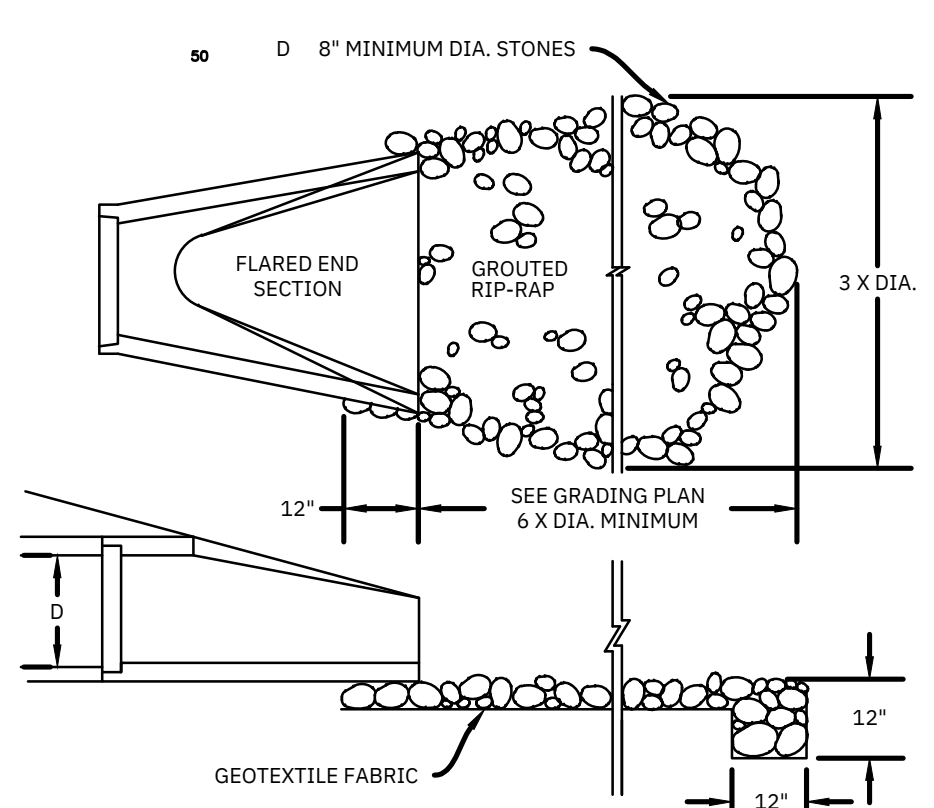
South Carolina Department of Health and Environmental Control
CONSTRUCTION ENTRANCE
STANDARD DRAWING NO. SC-06 PAGE 2 2
GENERAL NOTES FEBRUARY 2014 DATE: _____

STRAW BALE BARRIER CONCRETE WASHOUT



- CONCRETE WASHOUT SIGN DETAIL**
- LETTERS A MINIMUM OF 5" IN HEIGHT
- NOTES:
- ACTUAL LAYOUT DETERMINED IN FIELD.
 - INSTALL CONCRETE WASHOUT SIGN (24"x24", MINIMUM) WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
 - TEMPORARY WASHOUT AREA MUST BE AT LEAST 50' FROM A STORM DRAIN, CREEK BANK OR PERIMETER CONTROL.
 - CLEAN OUT CONCRETE WASHOUT AREA WHEN 50% FULL.
 - THE KEY TO FUNCTIONAL CONCRETE WASHOUTS IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR CLEAN OUT.
 - SILT FENCE SHALL BE INSTALLED AROUND PERIMETER OF CONCRETE WASHOUT AREA EXCEPT FOR THE SIDE UTILIZED FOR ACCESSING THE WASHOUT.
 - A ROCK CONSTRUCTION ENTRANCE MAY BE NECESSARY ALONG ONE SIDE OF THE WASHOUT TO PROVIDE VEHICLE ACCESS.

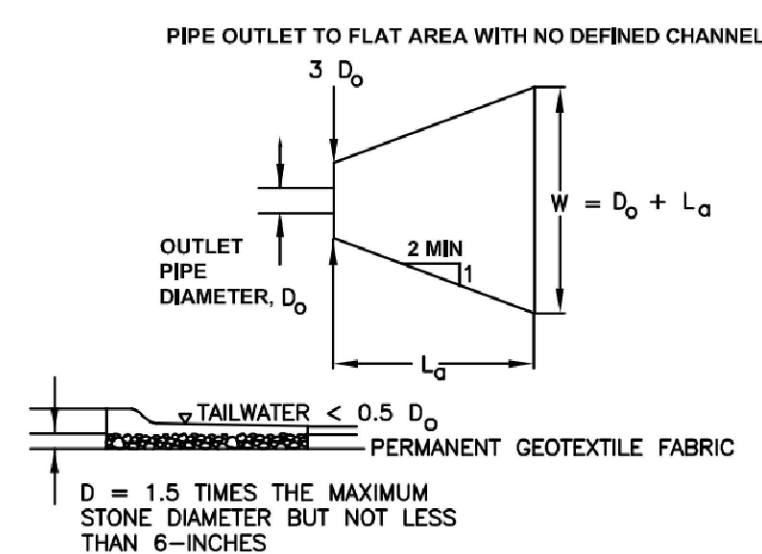
South Carolina Department of Health and Environmental Control
CONCRETE WASHOUT STRAW BALES OR ABOVE GROUND
STANDARD DRAWING NO. RC-0 PAGE 1 1
NOT TO SCALE FEBRUARY 2014 DATE: _____



RIP RAP VELOCITY BREAKER
N.T.S.

NOTE: DURING CONSTRUCTION, PROVIDE A "PLUNGE POOL" AT THE PIPE OUTLET FOR PIPES DISCHARGING INTO A BASIN. "PLUNGE POOL" SHALL BE A MINIMUM OF 2' DEEP X 2D WIDE X 2D LONG. RIP RAP VELOCITY BREAKERS AT THE BASIN INLETS ARE TO BE INSTALLED AFTER SITE IS 80% STABILIZED.

- PLACEMENT NOTES:**
- FLUSH WITH BARRIER CURB
 - 2' OFFSET FROM GUTTER-LINE ON ROLLED CURB.
 - 3' OFFSET FROM VALEYS GUTTER.
 - ADD ONE(1) ADDITIONAL FOOT OF OFFSET IF CATCH BASIN IS LOCATED IN INTERSECTION RADIUS.



RIP-RAP OUTLET PROTECTION SIZING DETAIL

STRUCTURE ID	D	3D	L	W
1	15"	45"	8'	9.25'
3	18"	54"	10'	11.5'
19	24"	2"	14'	16'
39	18"	54"	10'	11.5'
49	15"	45"	8'	9.25'
59	30"	90"	16'	18.5'
5	15"	45"	8'	9.25'

SIZING BASED ON SCDHEC FIGURE RR6 AND 10-YR PIPE FLOW

REVISION

NO.	DATE	DESCRIPTION

CAROLINA PROFESSIONAL ENGINEER
NO. 31562
COLUMBIA ENGINEERING OF COLUMBIA, INC.
NO. 00026

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CIVIL ENGINEERING of COLUMBIA

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TEL (803) 798-2820 FAX (803) 798-2826

CAROLINA PROFESSIONAL ENGINEER
NO. 31562
COLUMBIA ENGINEERING OF COLUMBIA, INC.

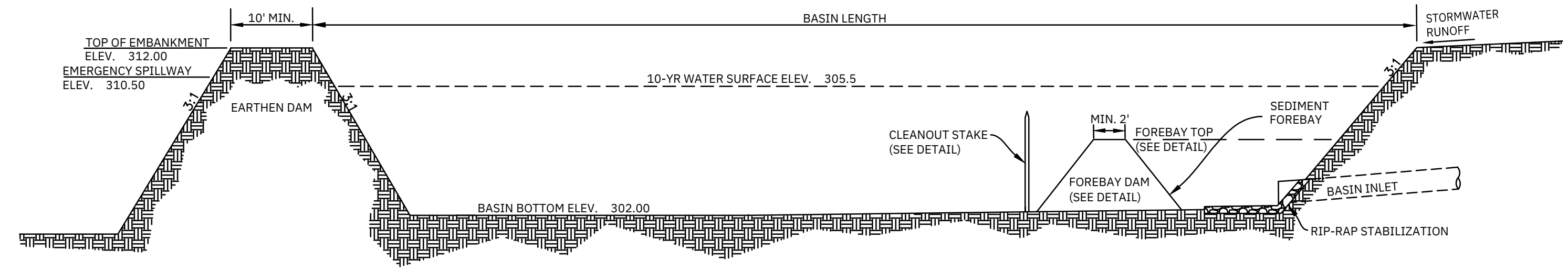
POLLUTION PREVENTION DETAILS (1 OF 3)

SCALE: N/A
DATE: AUG. 11, 2025
DRAWN: BPD
DESIGNED: BPD

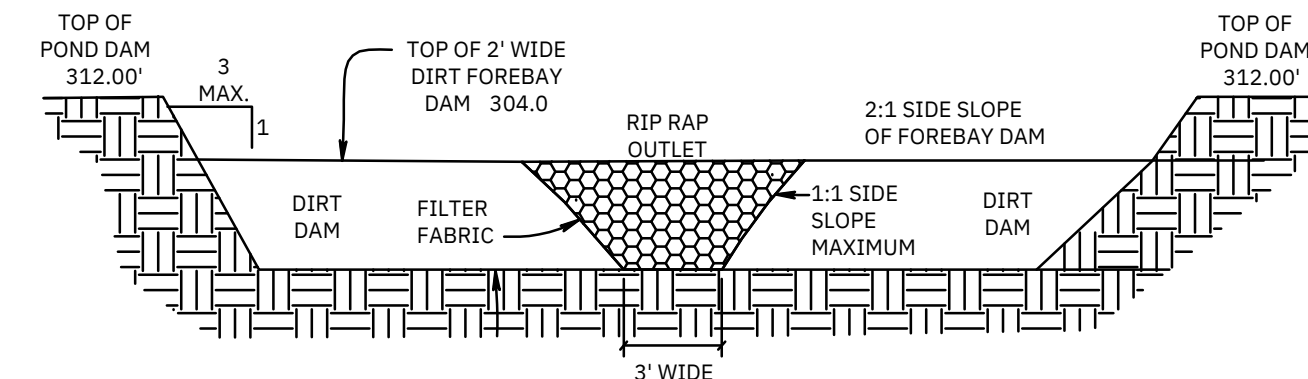
PREPARED FOR: CLAYTON PROPERTIES GROUP, INC. D/B/A WUNGO HOMES
IRMO, SOUTH-CAROLINA

CHECKED BY: _____
JOB NUMBER: 24082

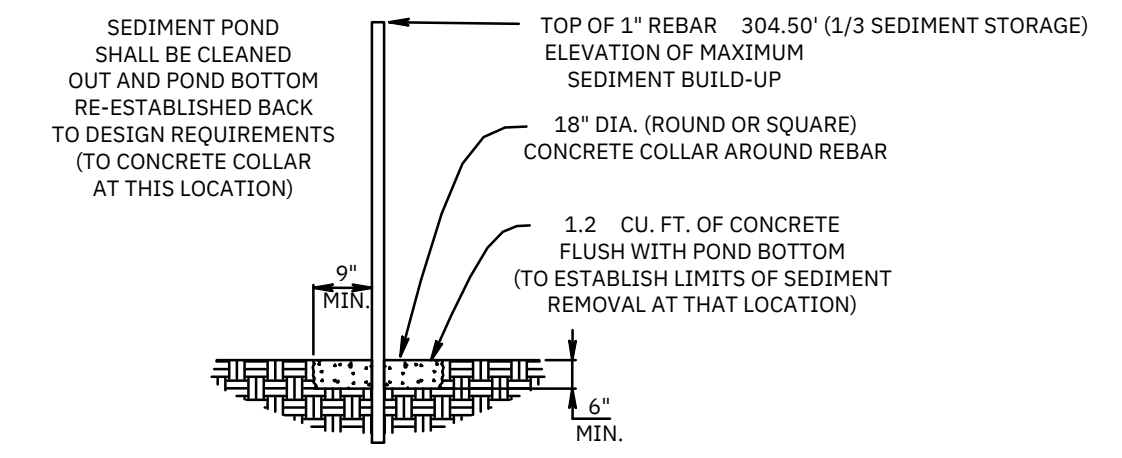
DRAWING NUMBER: 25 OF 30



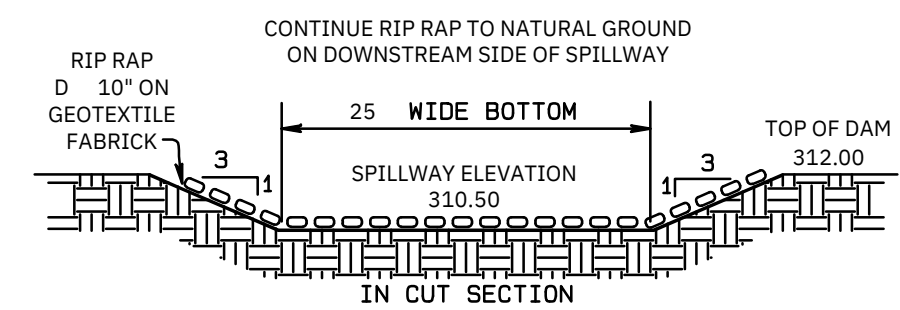
BASIN 1 - INFILTRATION BASIN DURING AND POST CONSTRUCTION



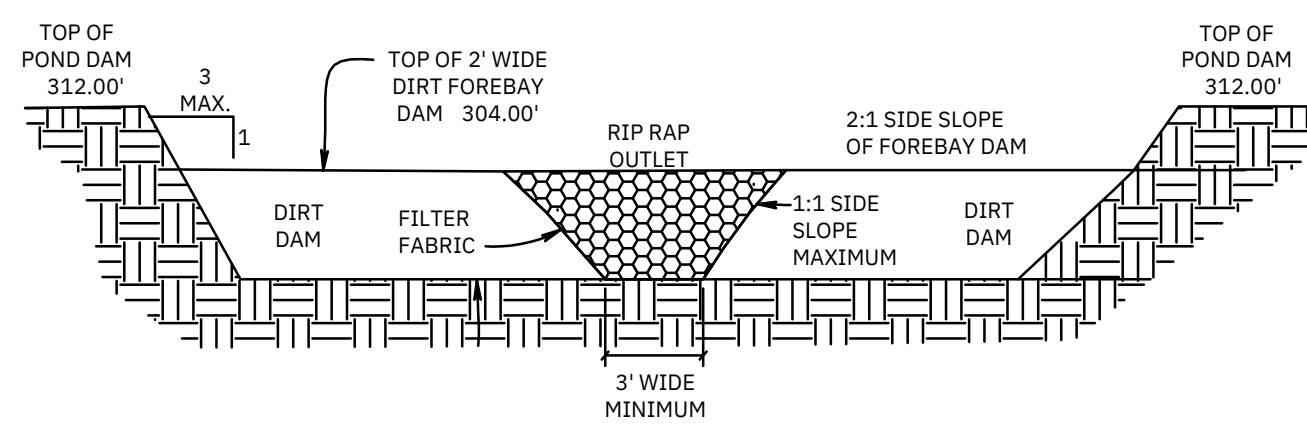
POND 2 FOREBAY DAM DETAIL
N.T.S.



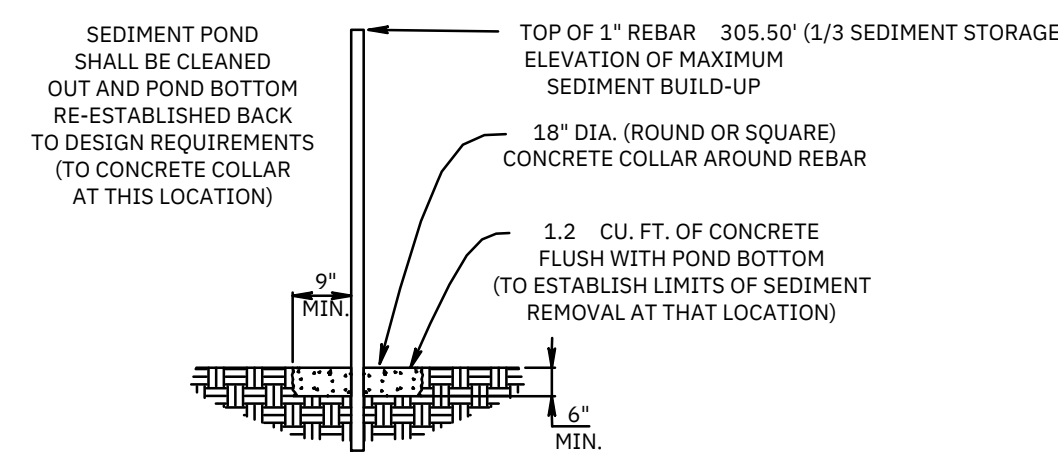
POND 2 SEDIMENT STAKE DETAIL
N.T.S.



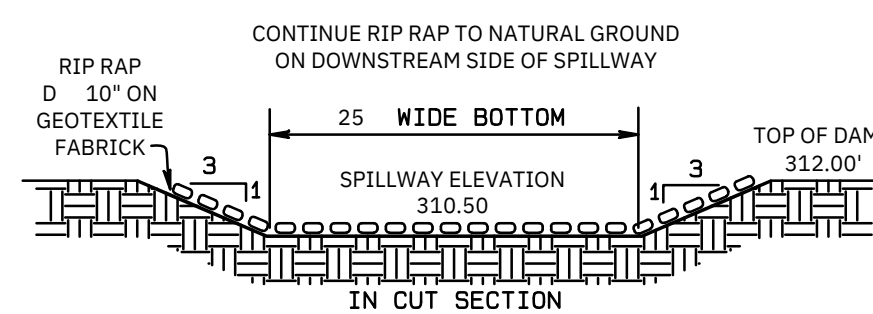
POND 2 EMERGENCY SPILLWAY
N.T.S.



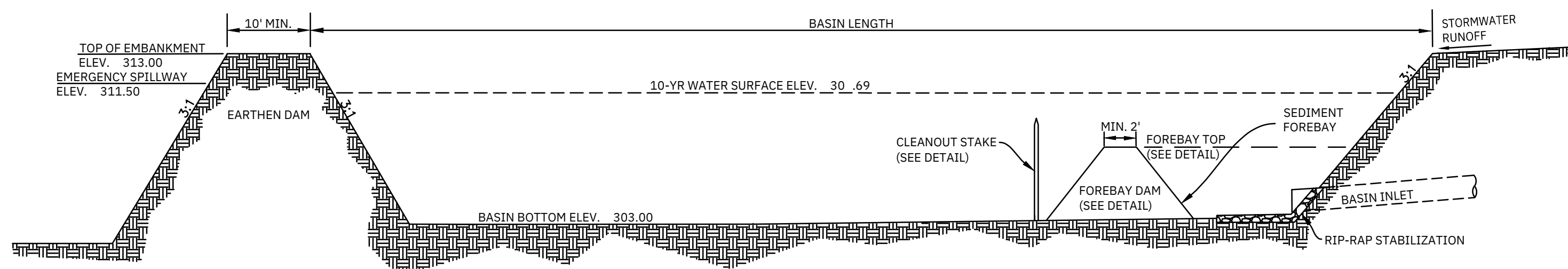
POND 1 FOREBAY DAM DETAIL
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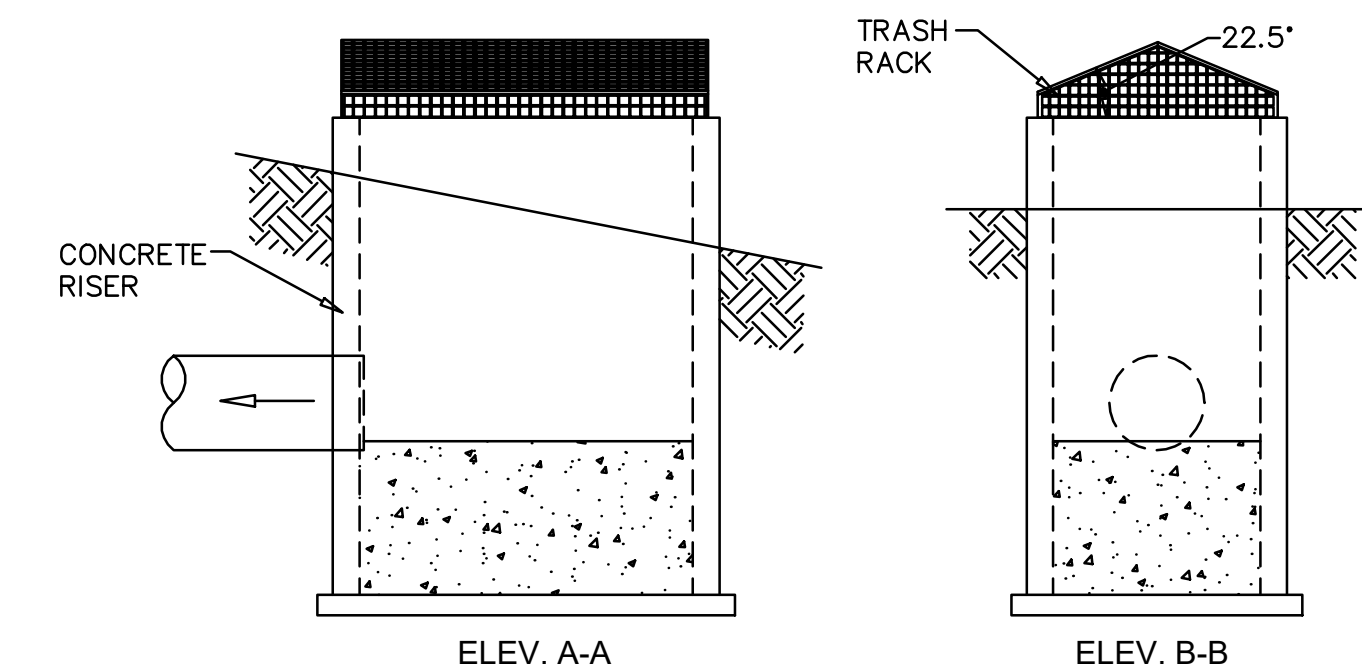
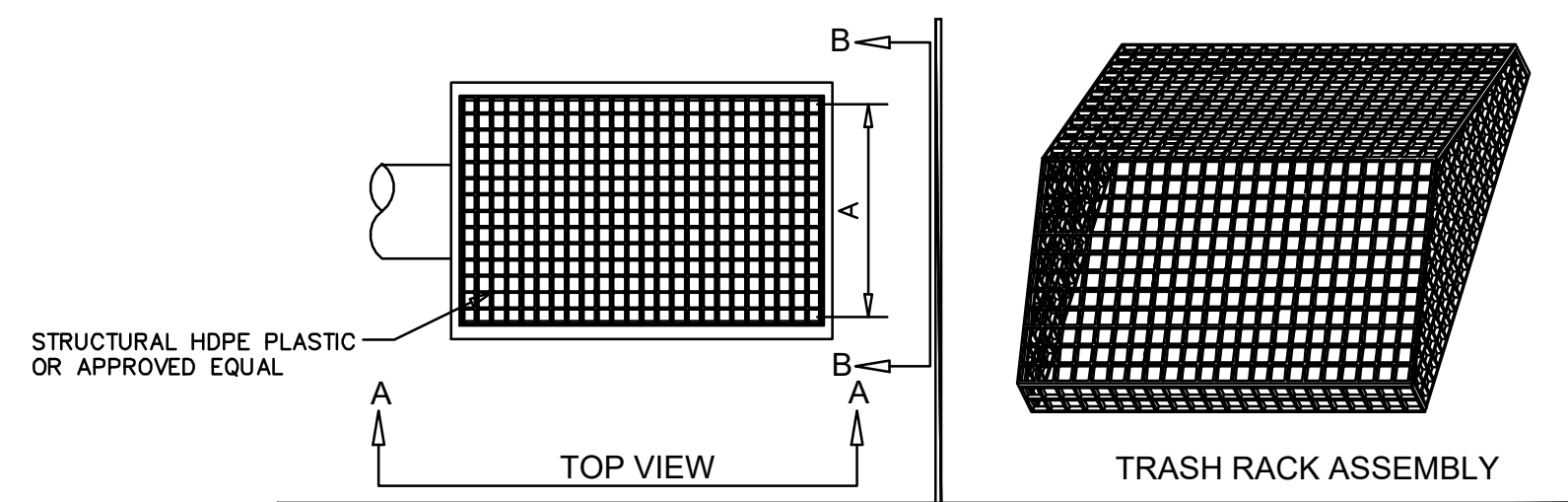
POND 1 SEDIMENT STAKE DETAIL
N.T.S.



POND 1 EMERGENCY SPILLWAY
N.T.S.



BASIN 1 - INFILTRATION BASIN DURING AND POST CONSTRUCTION



A	49 3/4	59 3/4	69 1/2	79 1/2	89 1/2	99 1/2	109 1/4	120 1/2
WIDTH CODE	10	12	14	16	18	20	22	24
C	18	20	22	24	26	28	30	32

B	49	54 1/2	59 3/4	65 1/4	70 1/2	76	82	87 1/4
LENGTH CODE	09	10	11	12	13	14	15	16

PART CODE= PR + WIDTH CODE +LENGTH CODE
(EX. PR1213)
NUMBERS ROUNDED TO 1/4"

PITCHED TRASH RACK DETAIL
N.T.S.

NO.	DATE	REVISION	DESCRIPTION

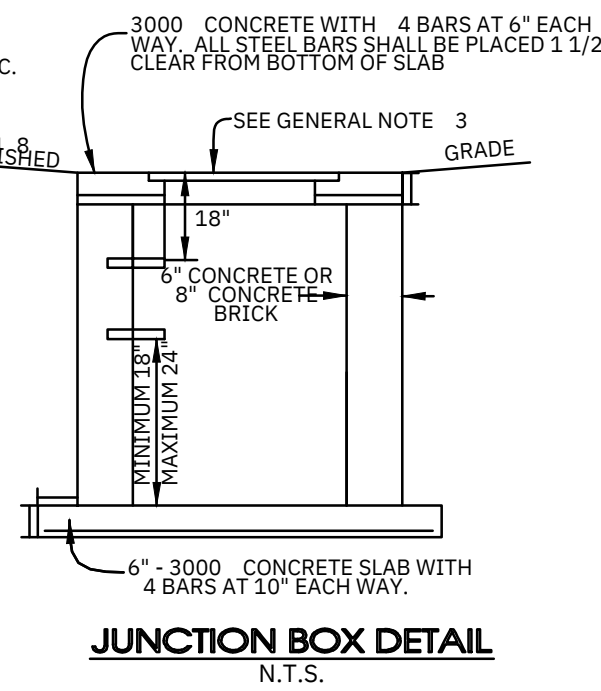
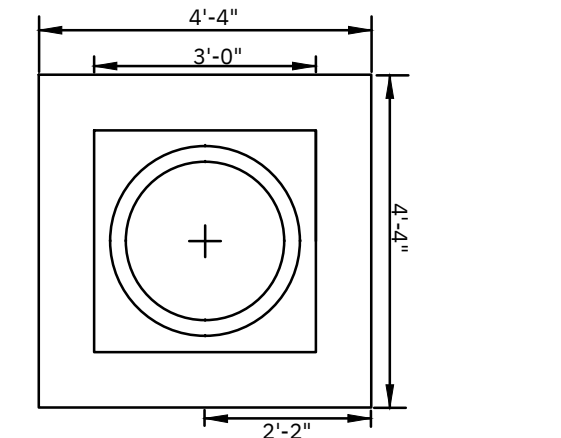
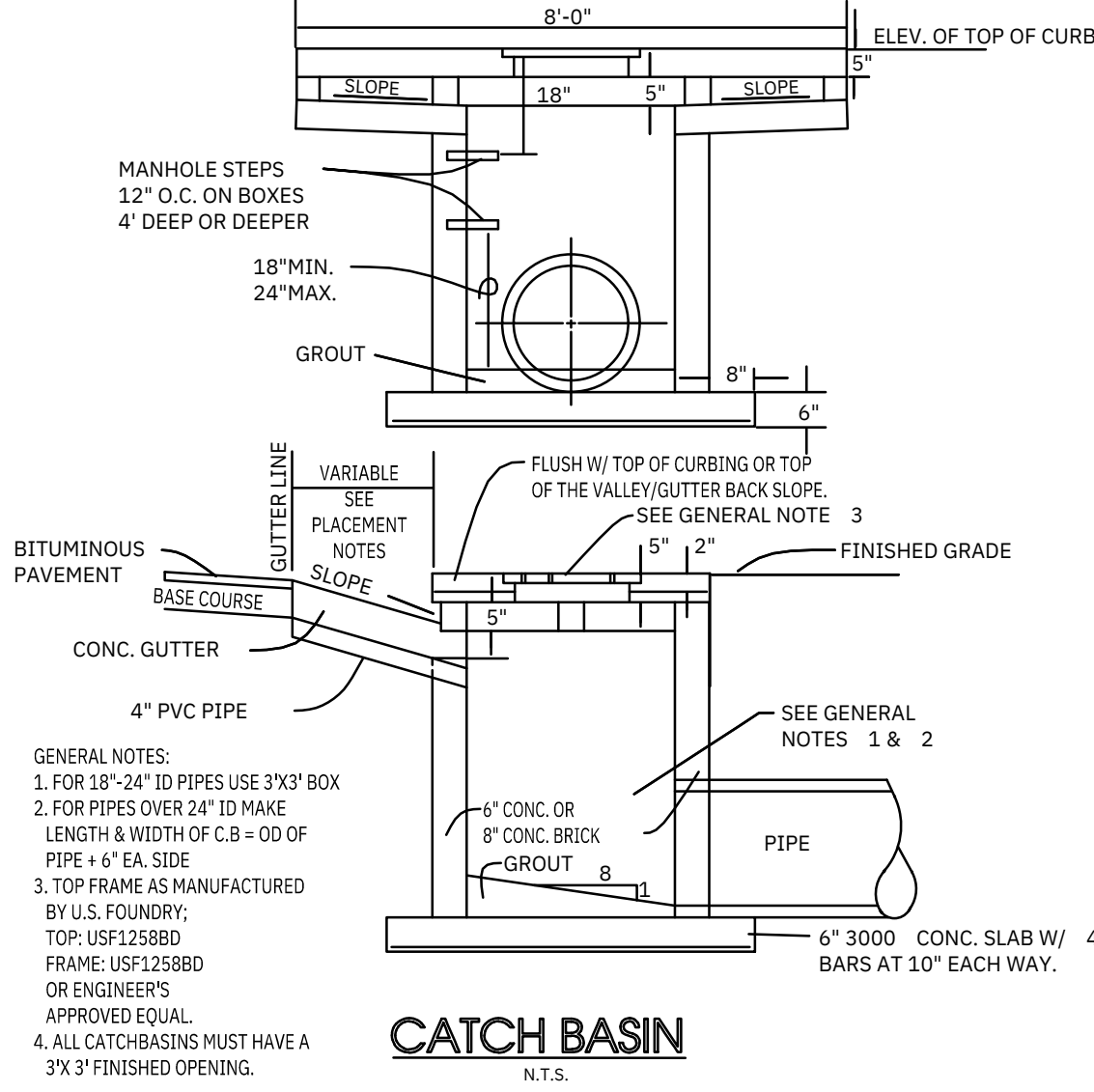
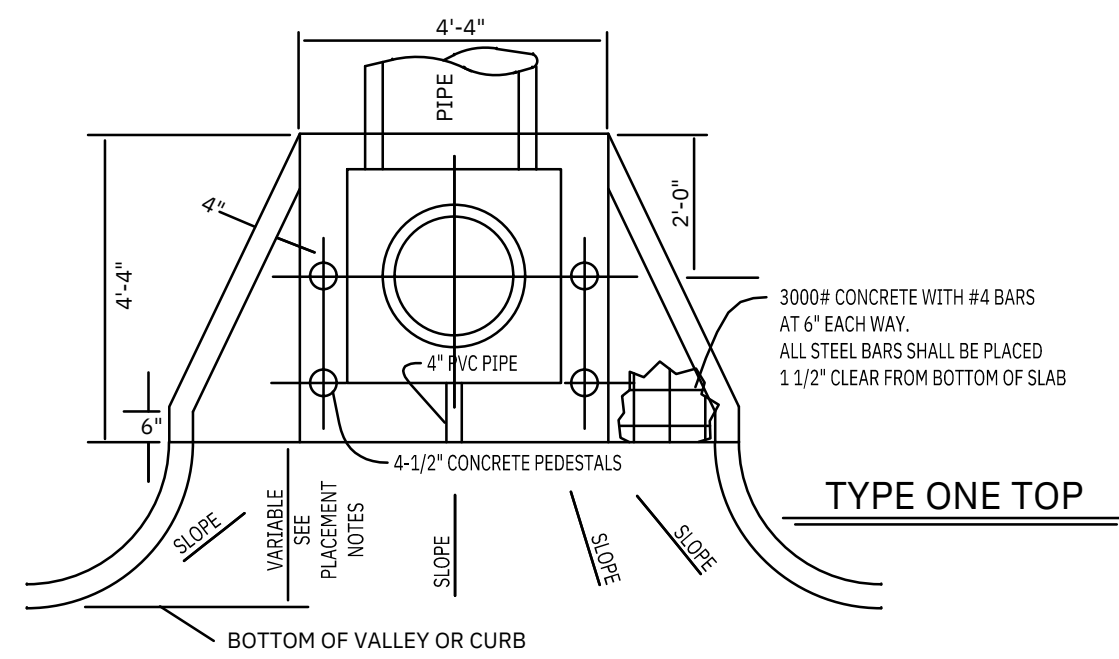
THE PRODUCT ON THIS SHEET WAS PREPARED FOR A SPECIFIC CLIENT FOR THE USE OF THAT CLIENT. NO OTHER PERSON SHALL BE PERMITTED TO REPRODUCE OR TRANSMIT THIS INFORMATION WITHOUT THE WRITTEN PERMISSION OF THE DESIGN ENGINEER. ANY CERTIFICATIONS, WARRANTIES, OR CONDITIONS OF CONTRACT ARE LIMITED TO THE PROJECT AND THE DESIGN ENGINEER'S SUPERVISOR OF RECORD FOR THIS PROJECT ARE INTENDED TO EXPRESS THAT STANDARD AND NOT BE A BASIS FOR LIABILITY OR REPARATION OF THESE DOCUMENTS.

CIVIL ENGINEERING of COLUMBIA

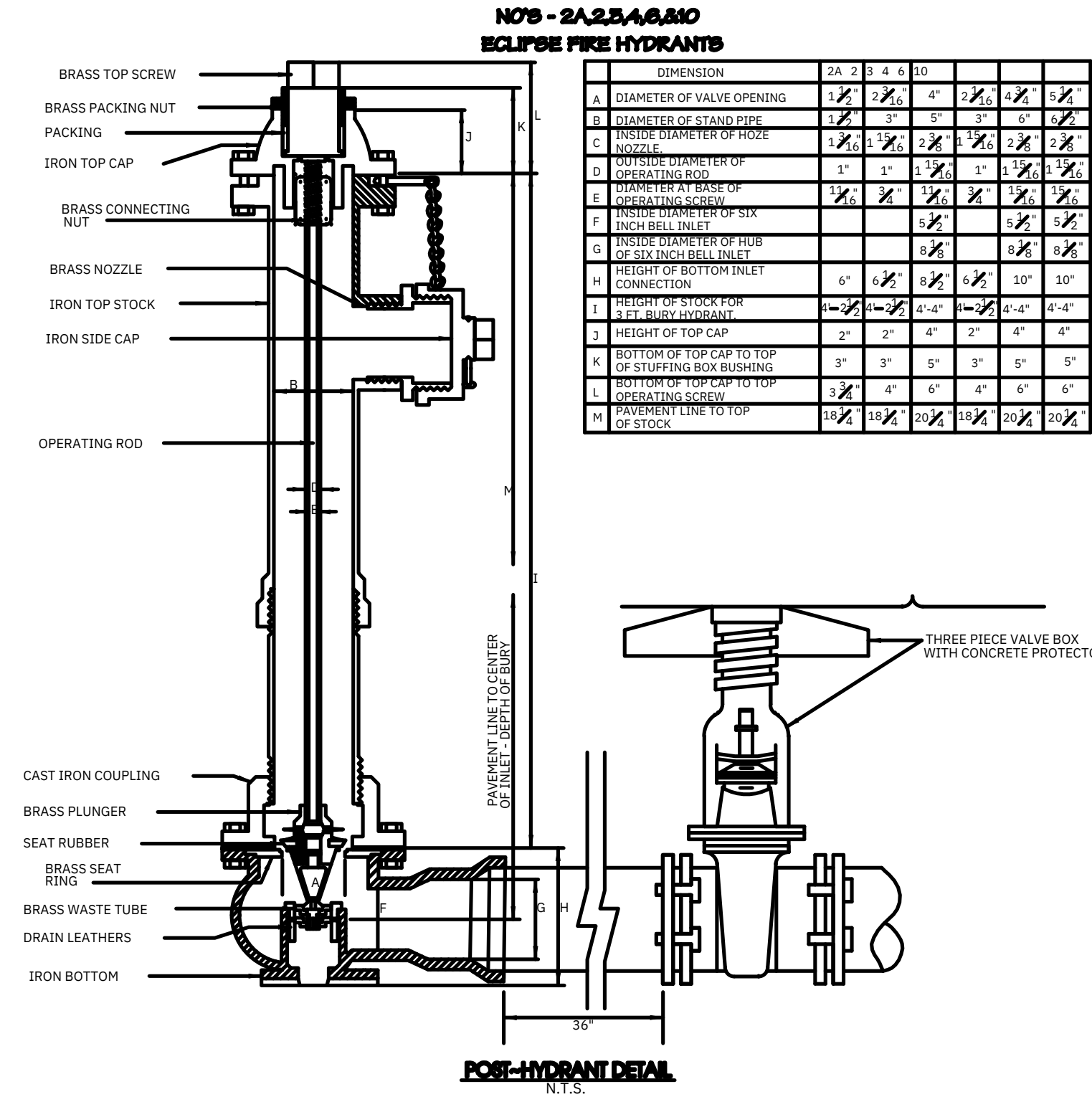
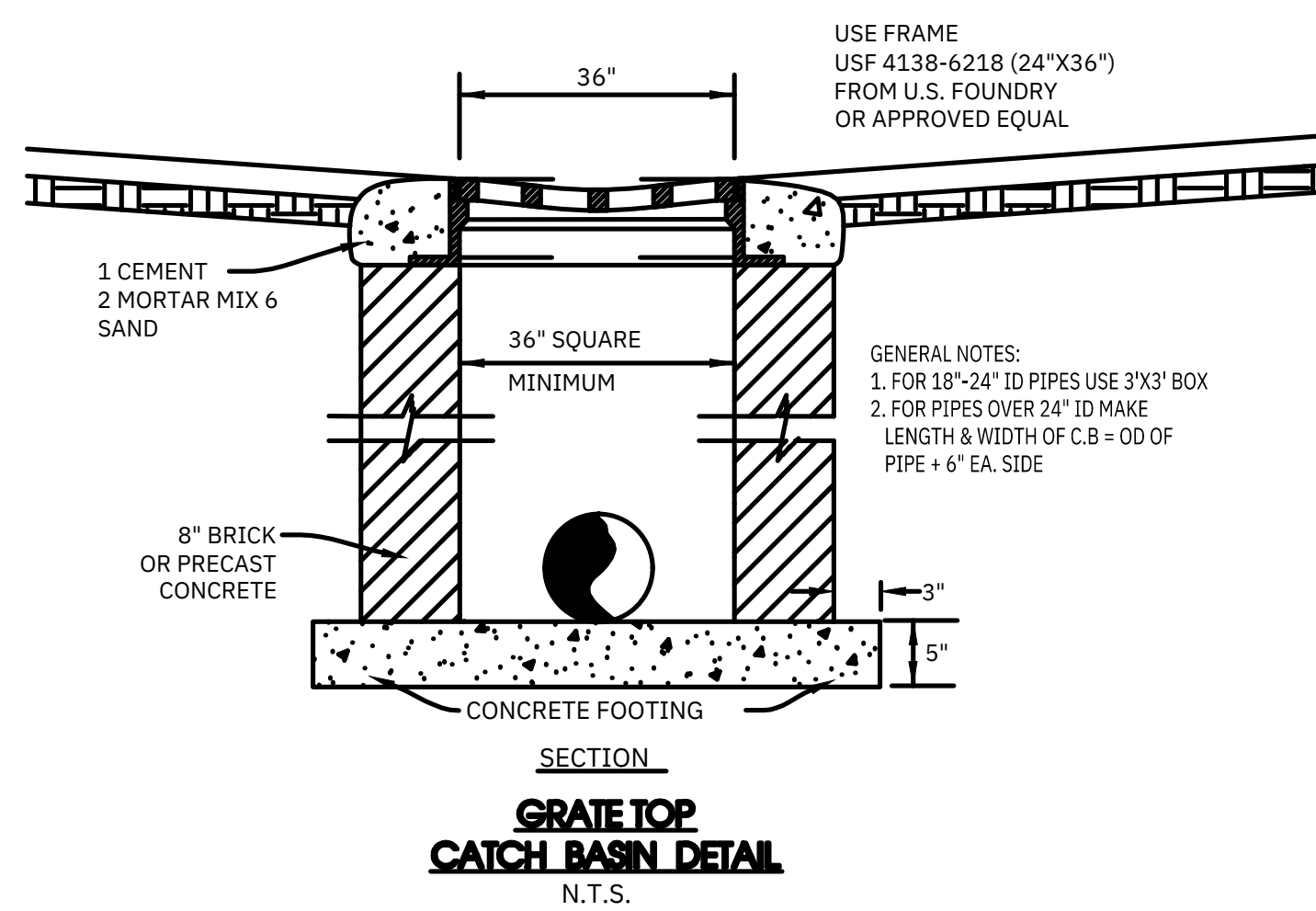
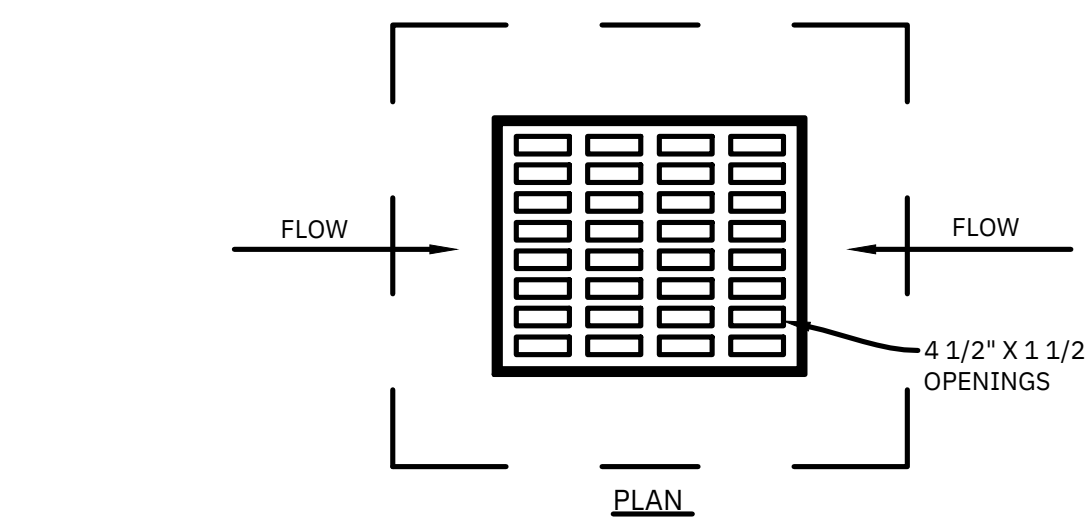
PO BOX 1137 IRMO, SC 29063
TEL (803) 798-2820 FAX (803) 798-2826

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER
NO. 31562
ROBERTA ROBERTSON

SCALE	N/A	POLLUTION PREVENTION DETAILS (3 OF 3)	PREPARED FOR CLAYTON PROPERTIES GROUP, INC. D/B/A WUNGO HOMES IRMO, SOUTH CAROLINA	JOB NUMBER 24082
DATE	AUG. 11, 2025			
DRAWN	BPD	CHECKED BY:	DRAWING NUMBER 27 OF 30	
DESIGNED	BPD			



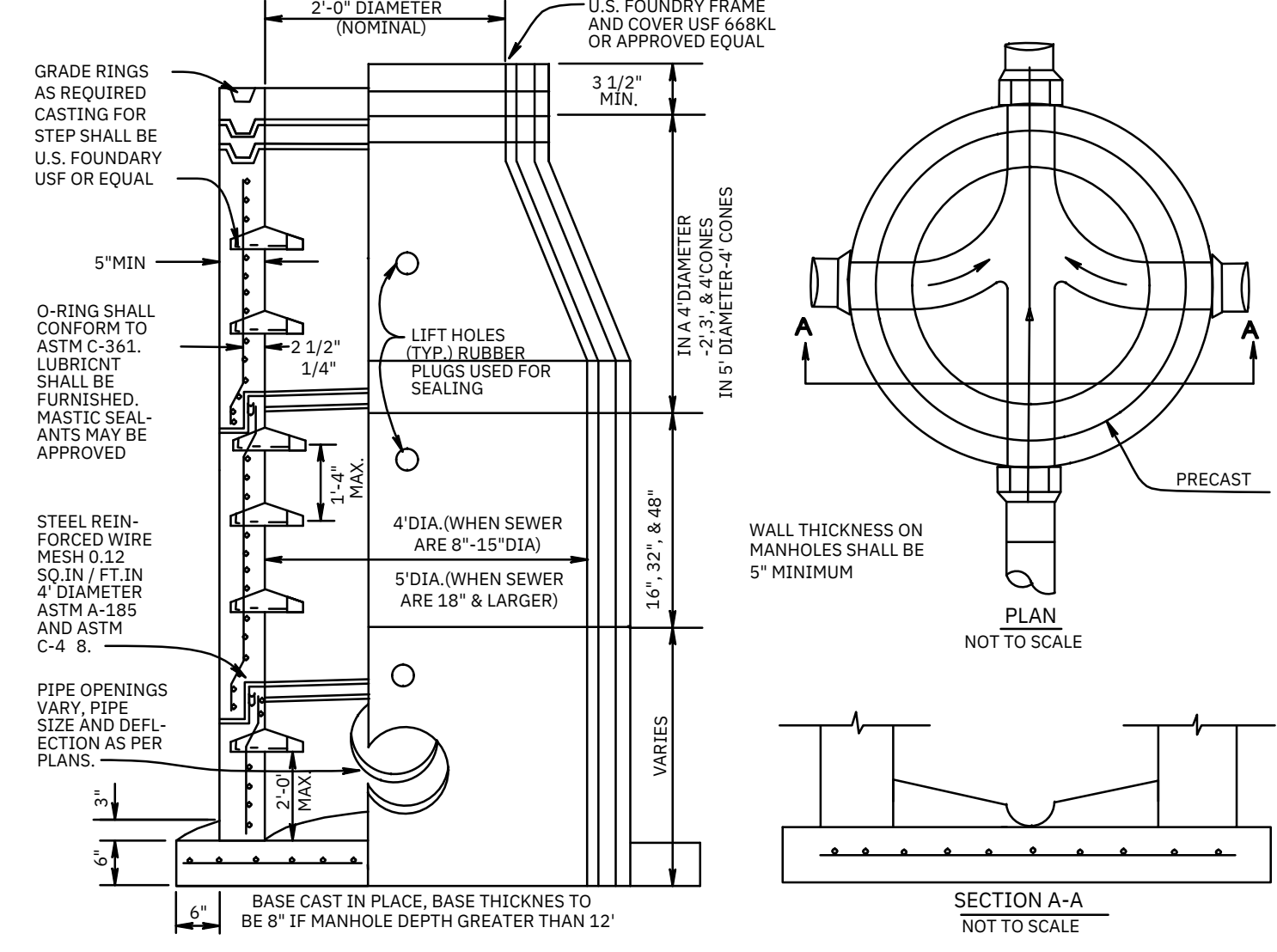
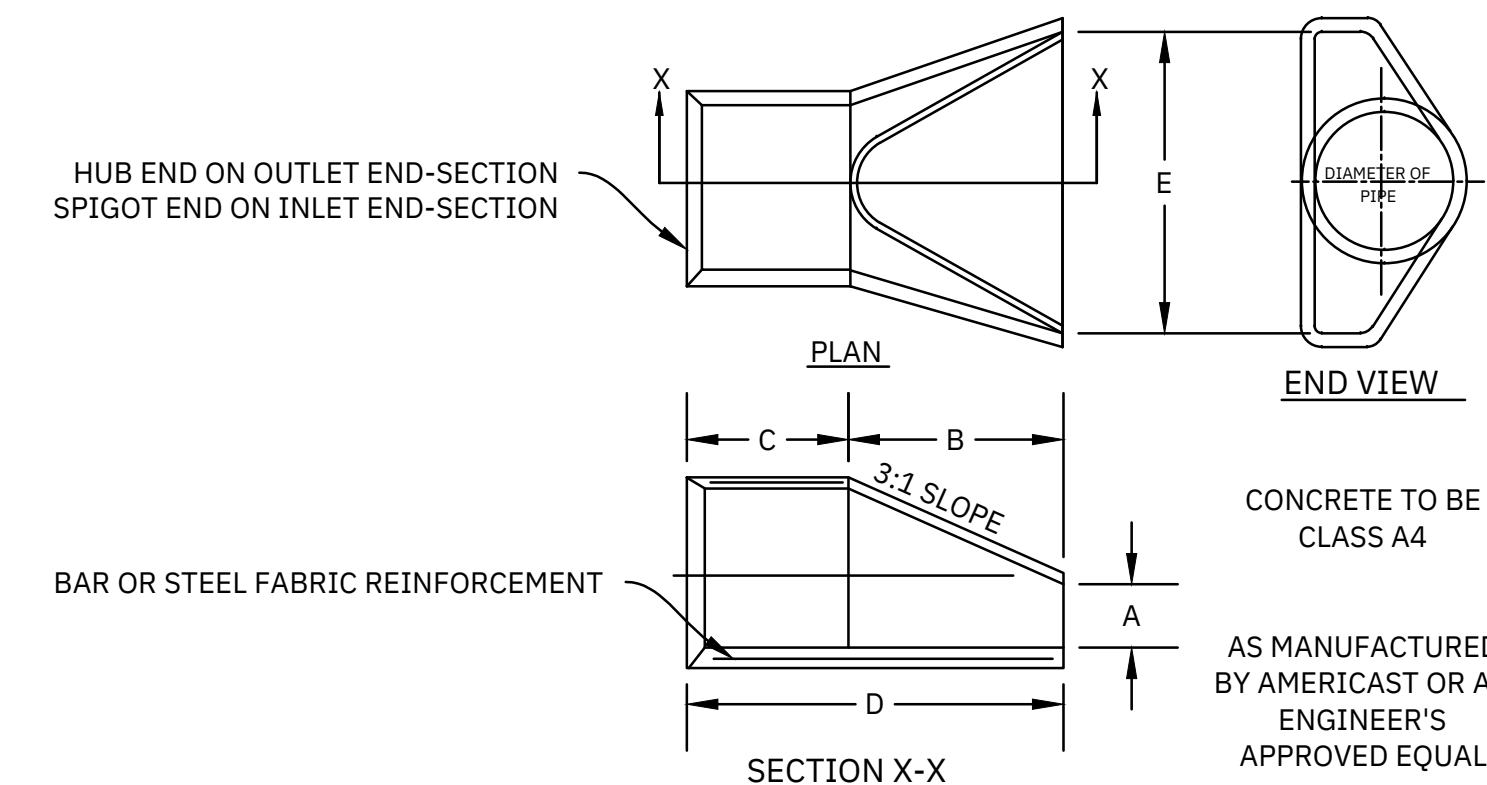
- GENERAL NOTES:
1. FOR 18"-24" ID PIPES USE 3'X3' BOX
 2. FOR PIPES OVER 24" ID MAKE LENGTH & WIDTH OF C.B. = OD OF PIPE + 6" EA. SIDE
 3. TOP FRAME AS MANUFACTURED BY U.S. FOUNDRY TOP: USF1258BD FRAME: USF1258BD OR ENGINEER'S APPROVED EQUAL
 4. ALL CATCHBASINS MUST HAVE A 3'X3' FINISHED OPENING.



- NOTES FOR INSTALLATION OF DW3 STYLE DETECTABLE WARNINGS:
1. FIELD CUT DETECTABLE WARNING SURFACES TO FIT BACK OF CURB AS SHOWN OR ORDER CUSTOM FABRICATED PIECES TO MATCH CURB. EDGE OF DETECTABLE WARNING MUST BE WITHIN 1" OF BACK OF CURB AT ANY MEASURED LOCATION. COVER ENTIRE BOUNDARY BETWEEN LANDING AND BACK OF CURB WITH DETECTABLE WARNING SURFACE.
 2. IN LOCATIONS WHERE RADIUS DETECTABLE WARNING SURFACES ARE SPECIFIED IN THE PLANS OR SPECIAL PROVISIONS DUE TO AESTHETIC REQUIREMENTS, FRONT EDGE OF DETECTABLE WARNING MUST BE LOCATED ALONG BACK OF CURB RADIUS (NO MORE THAN 8" FROM EDGE OF TRAVELWAY WHERE CURB & GUTTER IS NOT PRESENT) AND BACK OF DETECTABLE WARNING SET 2'-0" PARALLEL.
 3. REGARDLESS OF EXISTING SIDEWALK WIDTH, CONSTRUCT FULL SIZE RAMPS AS SHOWN UNLESS RIGHT OF WAY LIMITS DO NOT ACCOMMODATE STANDARD RAMPS. EXISTING RAMPS THAT MEET THE SLOPE REQUIREMENTS MAY BE RETROFITTED WITH DRY BONDED DETECTABLE WARNINGS.
 4. DETECTABLE WARNING AND SIDEWALK CONNECTION SHALL MEET ADA, SCOTD AND LOCAL REGULATIONS AND REQUIREMENTS.

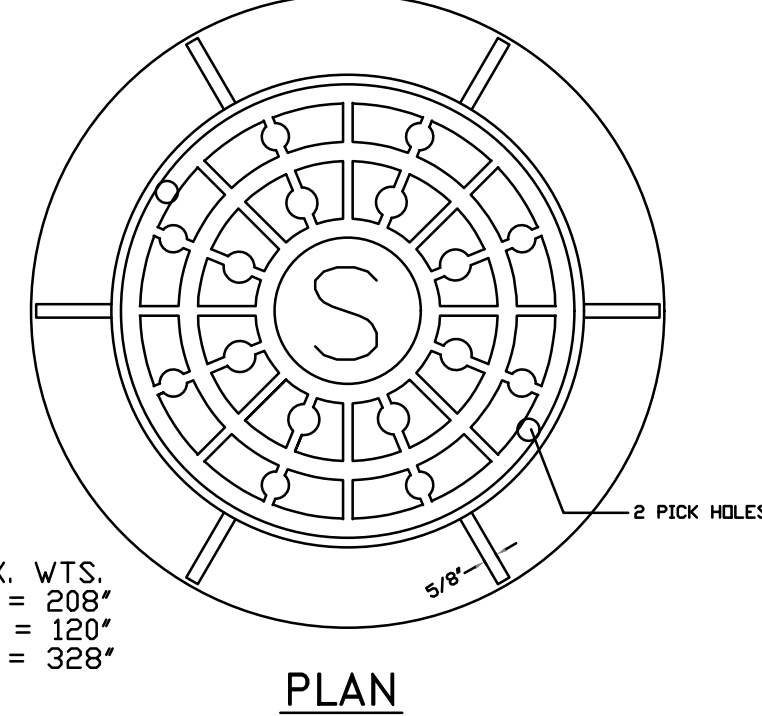
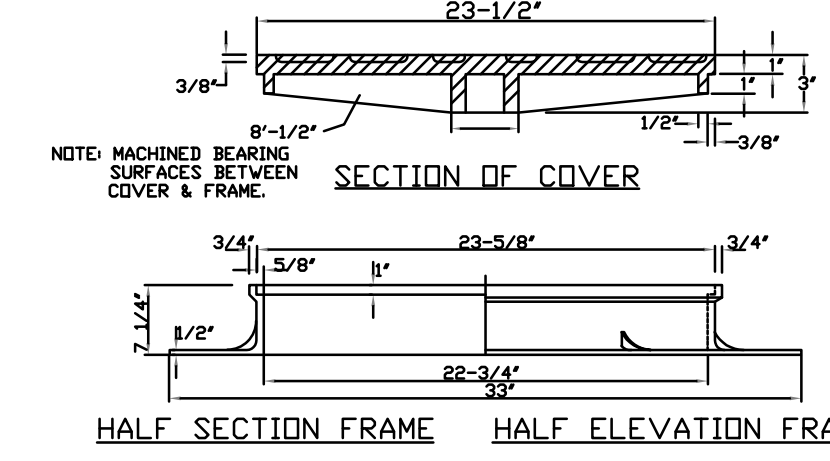
HANDICAP ACCESS FOR RESIDENTIAL DEVELOPMENTS

N.T.S.



STANDARD MANHOLE DETAIL

N.T.S.



APPROX. WTS.
 FRAME = 208"
 COVER = 120"
 TOTAL = 328"

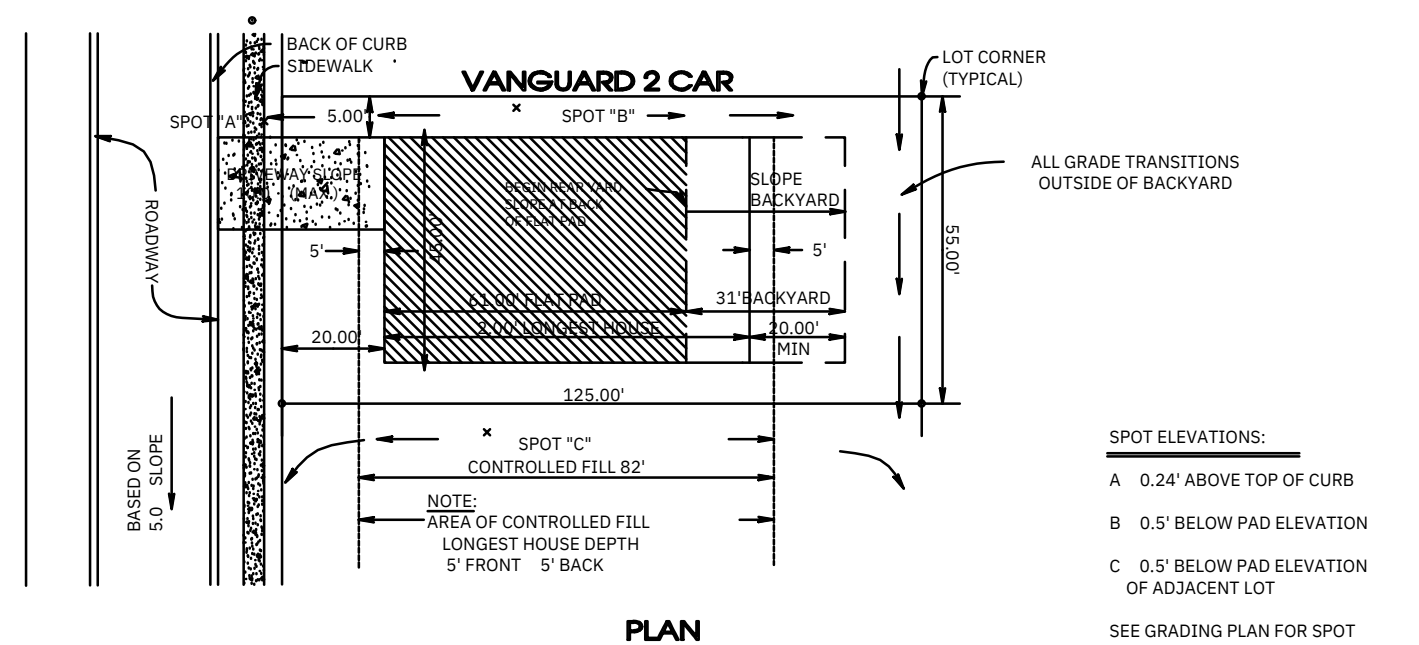
SCALE	N/A	MISCELLANEOUS DETAILS (1 OF 3)
DATE	AUG. 11, 2025	PREPARED FOR
DRAWN	BPD	CLAYTON PROPERTIES GROUP, INC. D/B/A WUNGO HOMES
DESIGNED	BPD	IRMO, SOUTH CAROLINA
DRAWING NUMBER	28 OF 30	CHECKED BY:
		JOB NUMBER
		24082
		REVISED
		NO. 1113
		DESCRIPTION
		NO. 1113
		DATE
		BY

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CIVIL ENGINEERING of COLUMBIA

PO BOX 1137 IRMO, SC 29063
 TEL (803) 798-2820 FAX (803) 798-2826

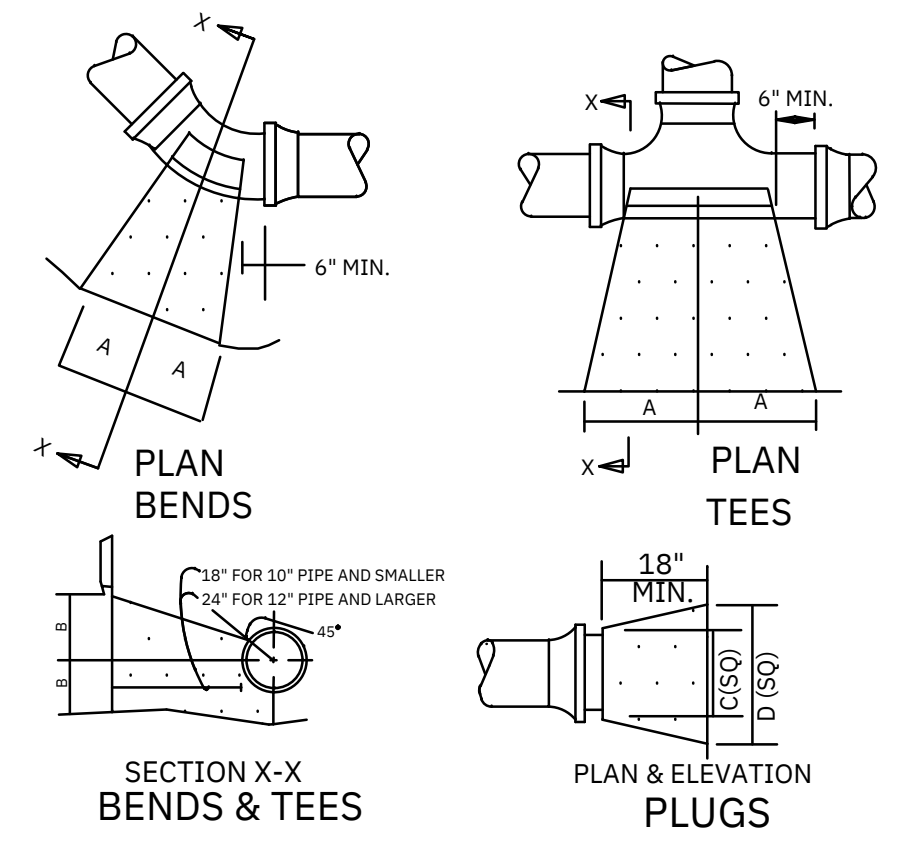
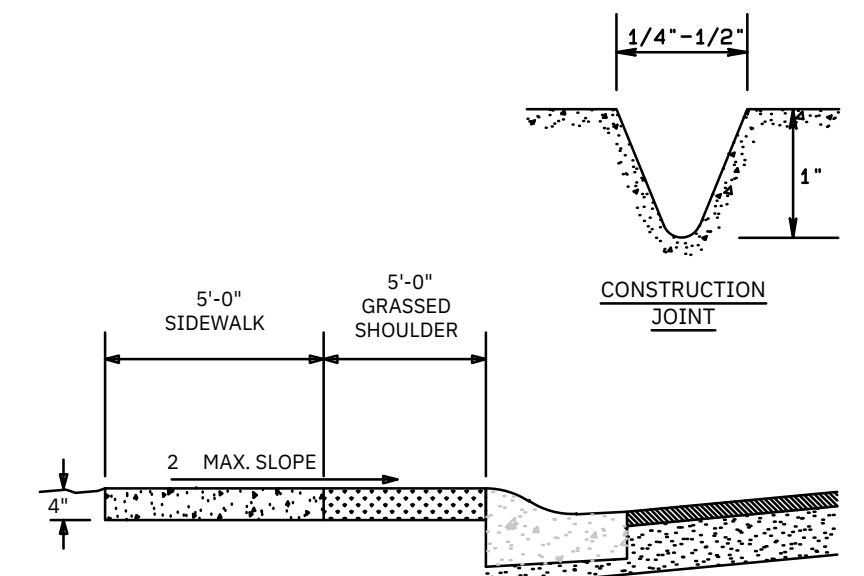
SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER NO. 31562



TYPICAL BUILDING SETBACK:
 20' FRONT
 20' REAR
 5' SIDE

TYPICAL LOT SIZE:
 55' WIDE
 125' DEEP

TYPICAL GRADING FOR VANGUARD HOME LOTS WITHOUT RETAINING WALL



BASED ON 100 PSI LINE PRESSURE

TYPE	SIZE	1/4 BEND		1/8 BEND		7/16 BEND		TEES		PLUGS	
		A	B	A	B	A	B	A	B	C	D
TYPE 1 4000 PPSF SOIL	6"	8"	10"	6"	8"	3"	8"	8"	8"	10"	15"
	8"	12"	12"	8"	10"	5"	9"	9"	12"	12"	20"
	10"	16"	14"	10"	12"	6"	10"	11"	14"	14"	25"
	12"	19"	16"	12"	14"	8"	13"	14"	16"	16"	30"
TYPE 111 2000 PPSF SOIL	6"	16"	10"	9"	10"	6"	8"	10"	12"	10"	21"
	8"	22"	13"	12"	13"	8"	10"	13"	16"	12"	29"
	10"	26"	1	14"	1	10"	13"	16"	20"	14"	36"
	12"	29"	21"	16"	21"	11"	16"	18"	24"	16"	41"
TYPE 111 2000 PPSF SOIL	14"	35"	24"	19"	24"	12"	20"	22"	2	18"	48"
	16"	38"	2	21"	2	12"	24"	24"	30"	20"	54"

THRUST BLOCK DETAIL

N.T.S.

NOTES:

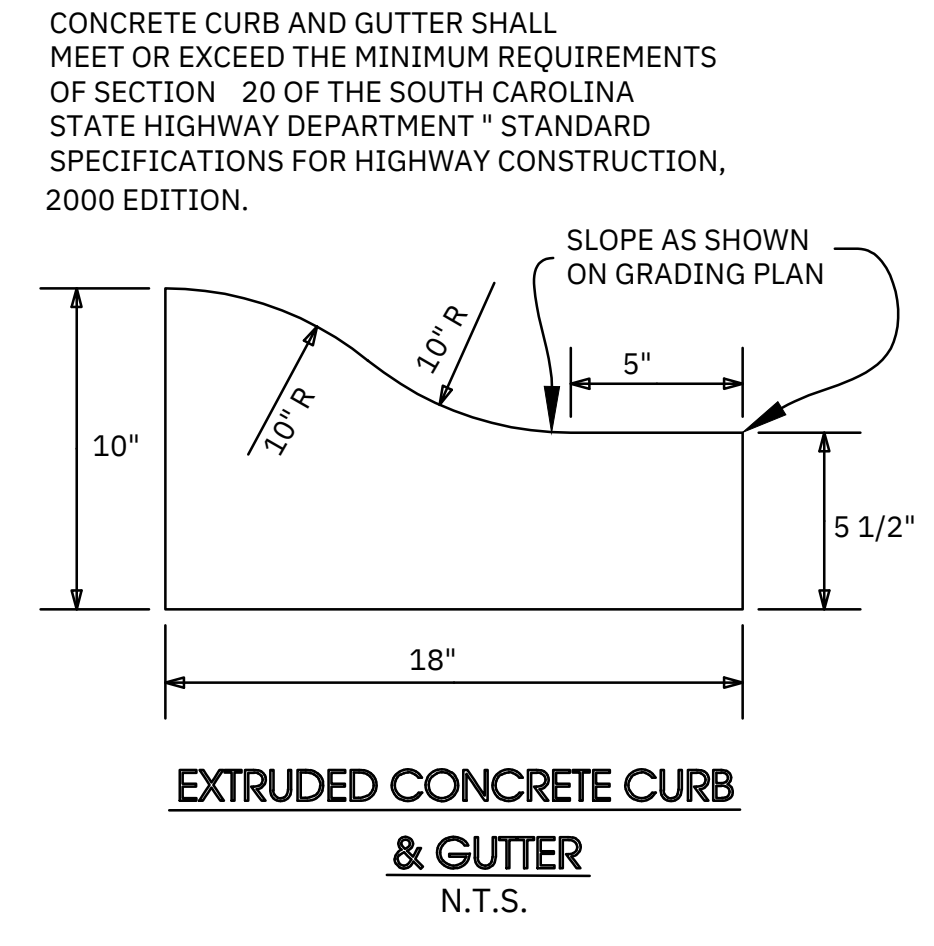
- ALL PIPE SIZES LESS THAN 6" DIA. USE 6" DIMENSIONS.
- BASED ON THE FOLLOWING FORMULAE, THIS DETAIL MEETS OR EXCEEDS NFPA 24 10.8.2:

$T = 2PA \times \sin(\text{ANGLE}/2)$

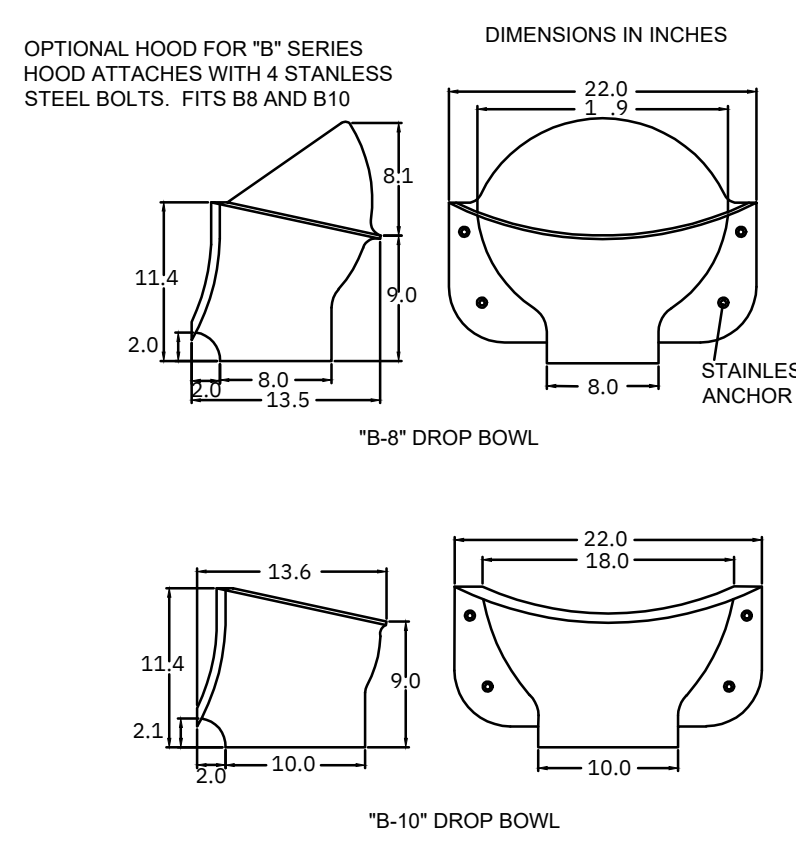
AND

A T/S

WHERE T THRUST FORCE
 P INTERNAL PRESSURE
 A AREA OF PIPE
 S REQUIRED BEARING AREA
 S SOIL BEARING CAPACITY



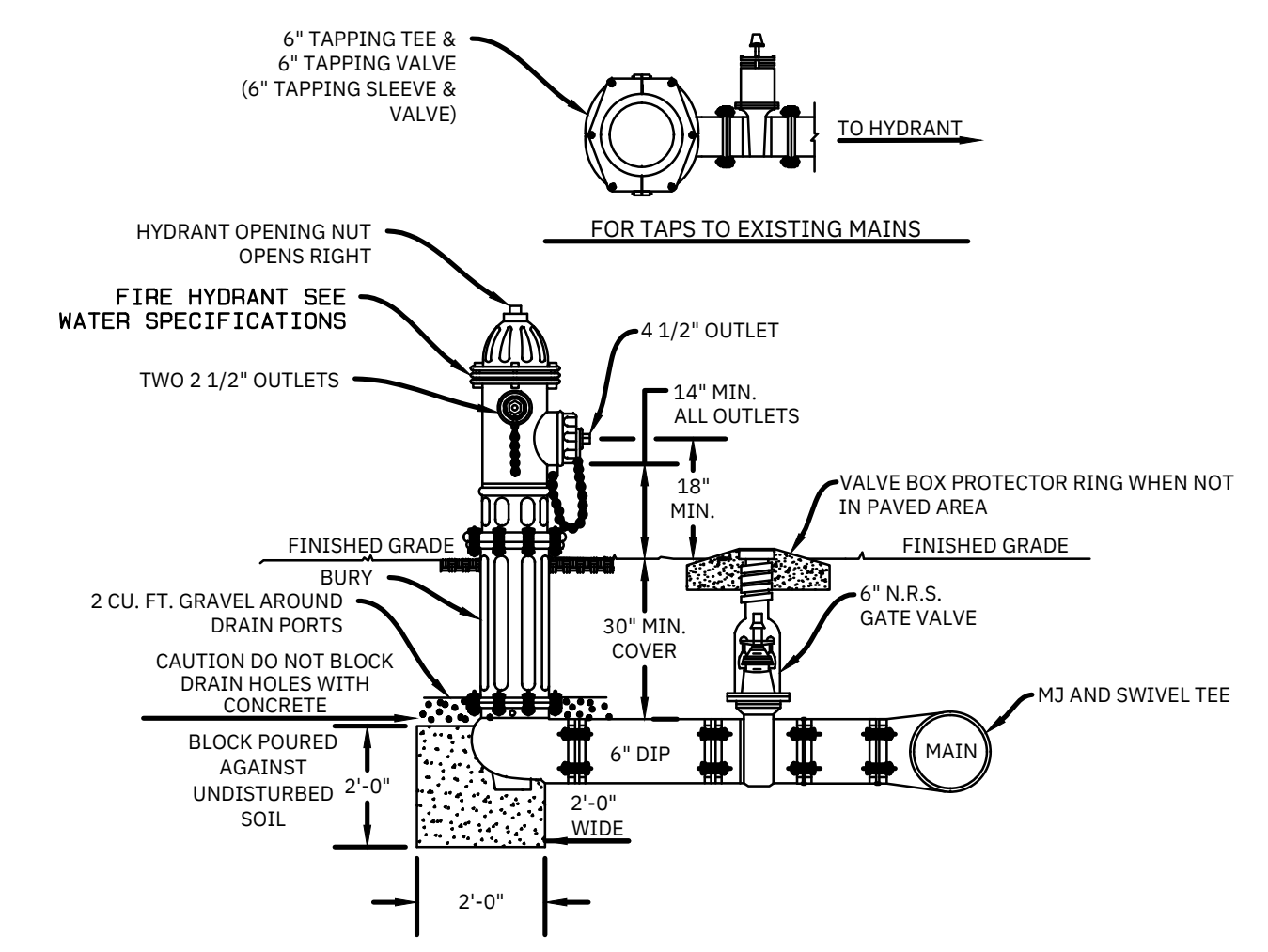
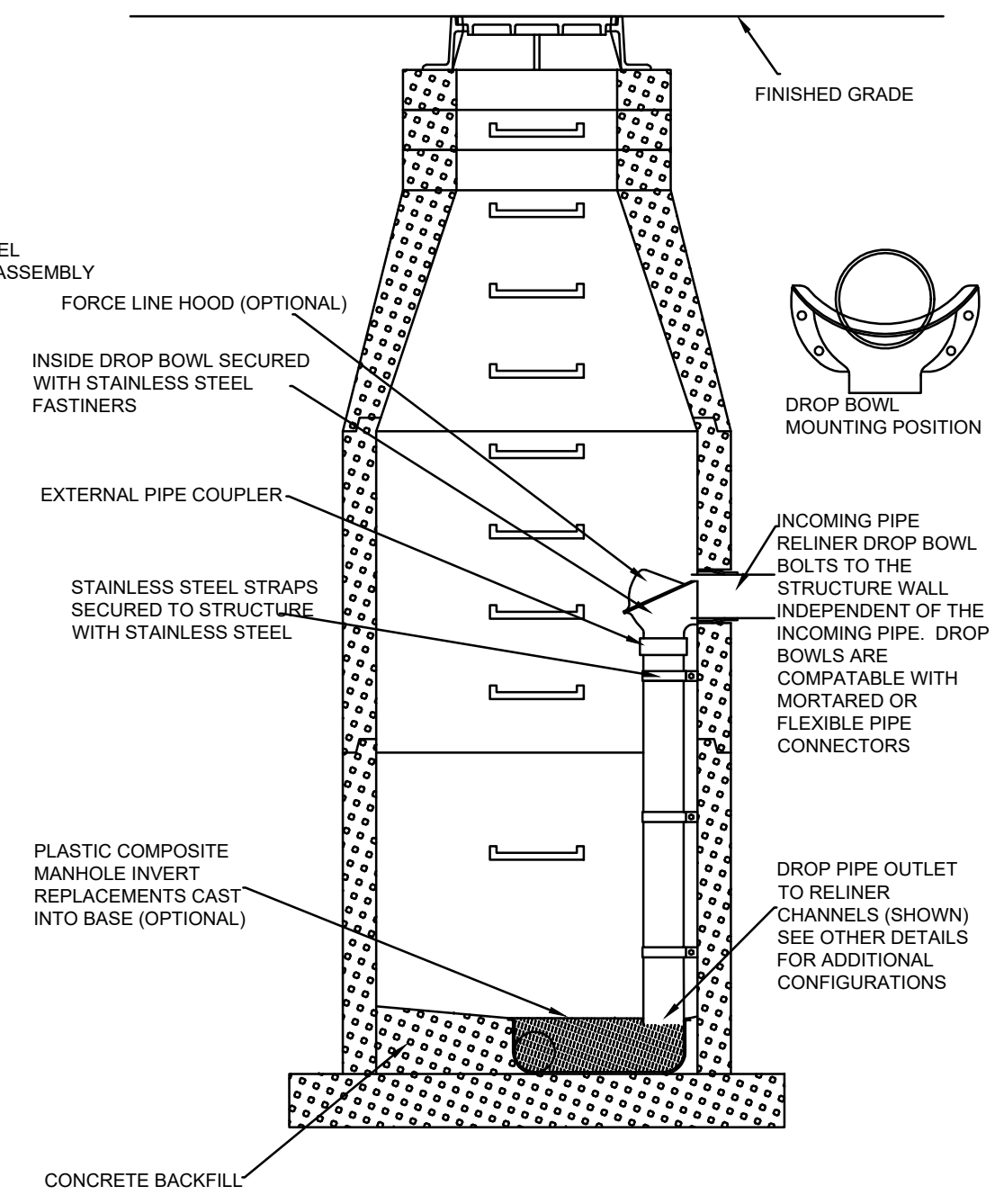
CONCRETE CURB AND GUTTER SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS OF SECTION 20 OF THE SOUTH CAROLINA STATE HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2000 EDITION.



OPTIONAL HOOD FOR "B" SERIES HOOD ATTACHES WITH 4 STAINLESS STEEL BOLTS. FITS B8 AND B10

THE "B-8" BOWL WILL SERVICE UP THROUGH FULL "10" INLETS. THE "B-10" BOWL WILL SERVICE UP THROUGH FULL "12" INLETS. CAN BE USED FOR 15" AND 16" INLET MODERATE FLOWS. ALL SIZES ARE FOR RETROFIT OR NEW CONSTRUCTION. FABRICATED IN MARINE GRADE FIBERGLASS AND FINISHED IN BRIGHT WHITE GEL COAT.

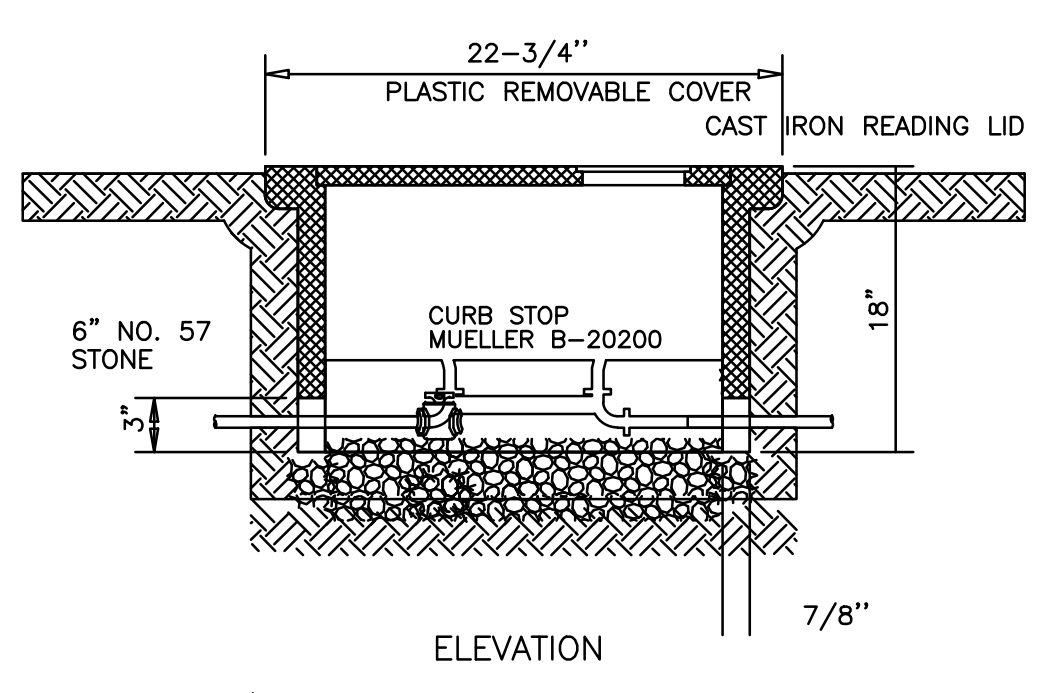
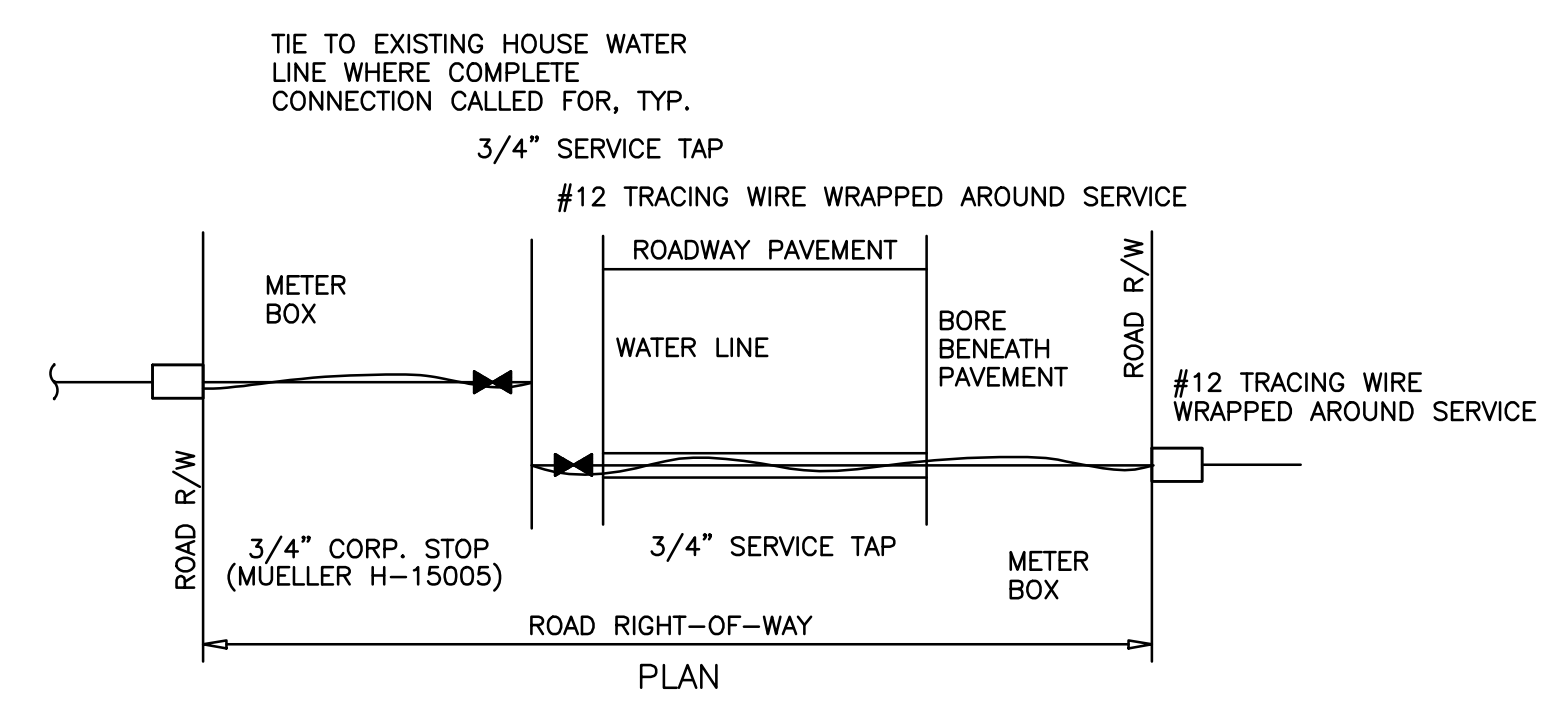
USE 4 ANCHOR ASSEMBLIES TO ATTACH DROP BOWL TO MANHOLE WALL. USE STAINLESS STEEL PIPE BRACKETS TO SUPPORT DOWN PIPE. EXTERNAL PIPE COUPLER REQUIRED. PROVIDE SWEEP AT DOWN PIPE OUTLET.



NOTE:

- ALL JOINTS SHALL BE RESTRAINED MECHANICAL JOINTS.
- HYDRANTS SHALL BE NO LESS THAN 3' NOR MORE THAN 6' FROM THE CURB OR THE EDGE OF A HARD SURFACE STREET OR ACCESS ROAD. EXCEPT THAT ALONG RURAL ROADS THROUGH UNDEVELOPED AREAS THE MAXIMUM DISTANCE MAY BE INCREASED TO 10'.
- HYDRANTS MUST BE LOCATED SO AS TO BE UNOBSTRUCTED FOR 15' EITHER SIDE AS MEASURED ALONG THE CURB OR THE EDGE OF A HARD SURFACE STREET OR ACCESS ROAD. THIS AREA MUST BE FREE OF GROWTH AND OTHER OBSTRUCTIONS WHICH WOULD HINDER ACCESS TO THE HYDRANT.
- MINIMUM DISTANCE BETWEEN VALVE AND HYDRANT SHALL BE 3'.
- BENDS MAY BE USED IN HYDRANT LEAD TO FACILITATE HYDRANT LOCATION.
- GATE VALVES TO OPEN TO THE LEFT.

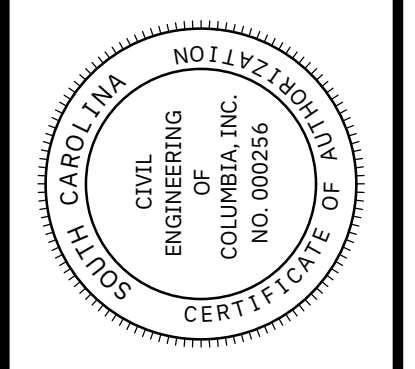
PER NFPA 24 .1.1.2 CONTROL VALVE TO BE MAX 20' FROM HYDRANT.



(DETAIL PROVIDED BY JOINT MUNICIPAL WATER AND SEWER COMMISSION)

STANDARD 3/4" WATER SERVICE CONNECTION

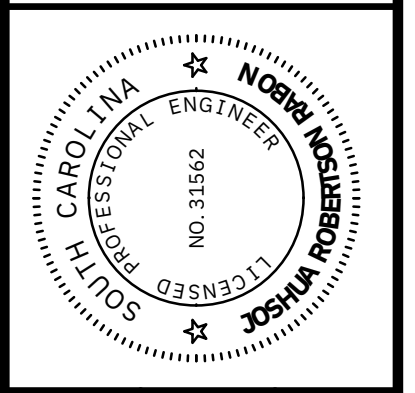
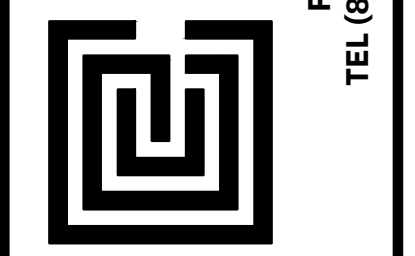
NO.	DATE	DESCRIPTION



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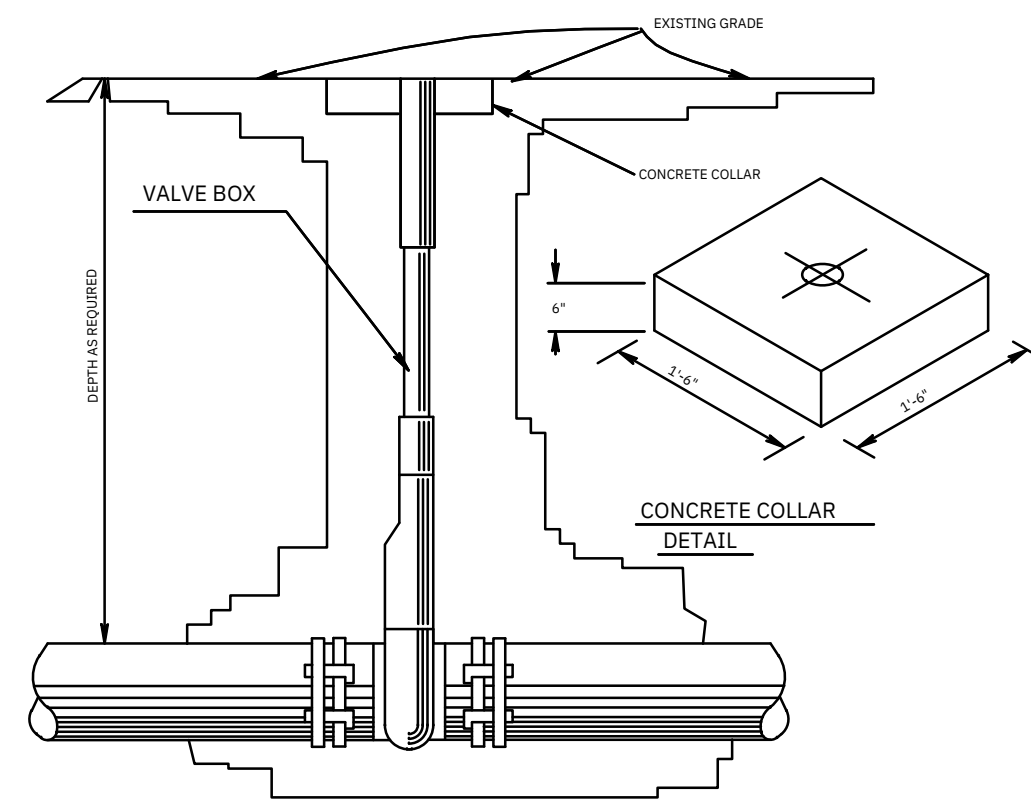
MISCELLANEOUS DETAILS (2 OF 3)

SCALE: N/A
 DATE: AUG. 11, 2025
 DRAWN: BPD
 DESIGNED: BPD
 DRAWING NUMBER: 29 OF 30

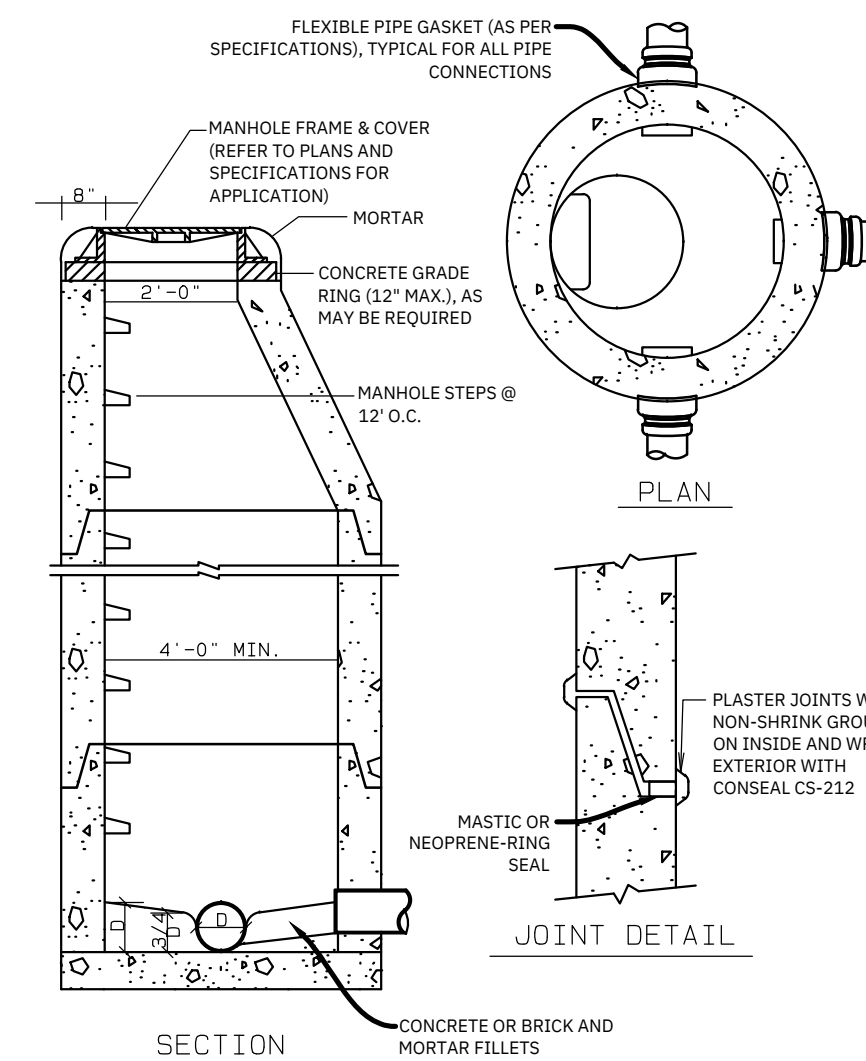
PREPARED FOR: CLAYTON PROPERTIES GROUP, INC. D/B/A WUNGO HOMES IRMO, SOUTH CAROLINA

CHECKED BY: **24082**

JOB NUMBER: **24082**

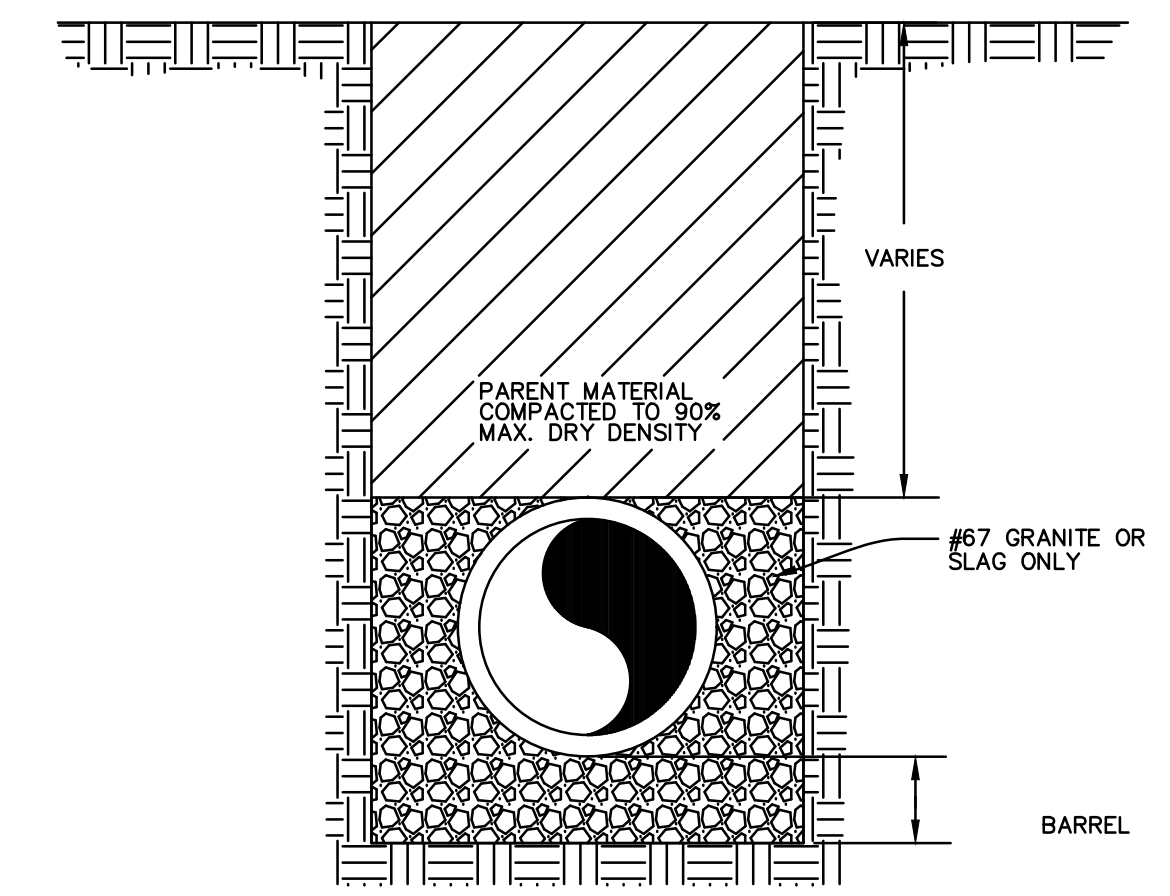


VALVE BOX DETAIL
N.T.S.

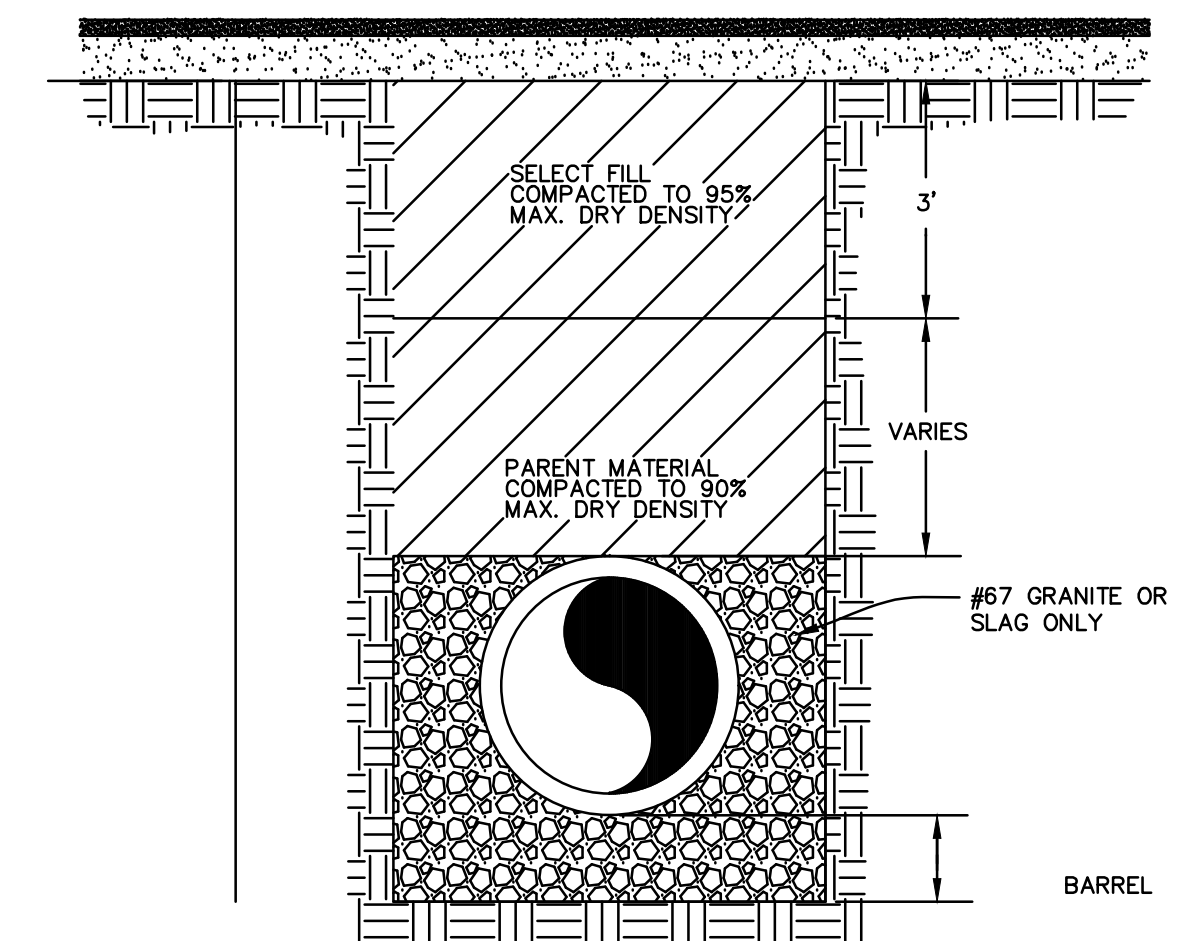


- NOTES:**
1. IN PAVED AREAS MANHOLE FRAMES WILL BE FLUSH WITH FINISHED PAVEMENT GRADE. IN NON-PAVED AREAS MANHOLE FRAMES WILL BE SET 2" ABOVE FINISHED GRADE.
 2. PRECAST REINFORCED CONCRETE MANHOLE TOPS, RISERS, AND BASES SHALL CONFORM TO ASTM C478.

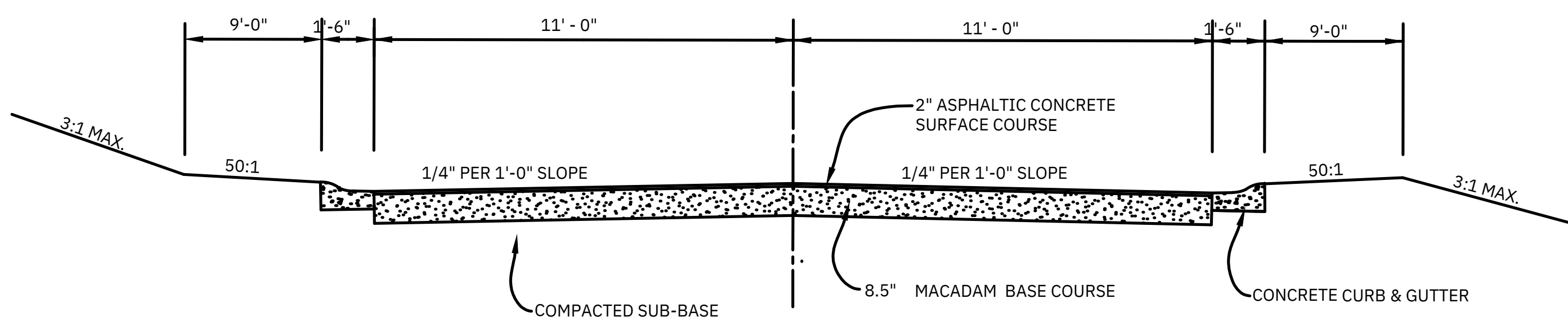
STANDARD MANHOLE
N.T.S.



GRAVITY SEWER LINE BEDDING DETAIL FOR UNPAVED AREAS
N.T.S.



GRAVITY SEWER LINE BEDDING DETAIL FOR PAVED AREAS
N.T.S.

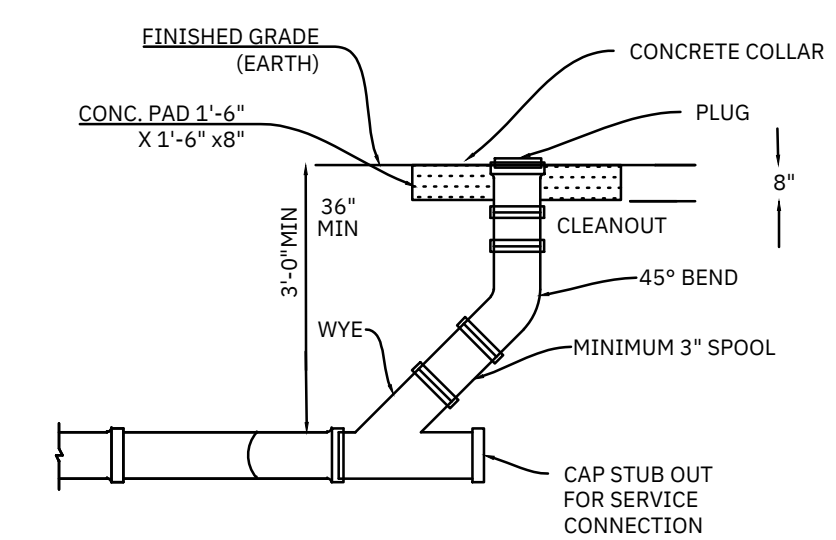
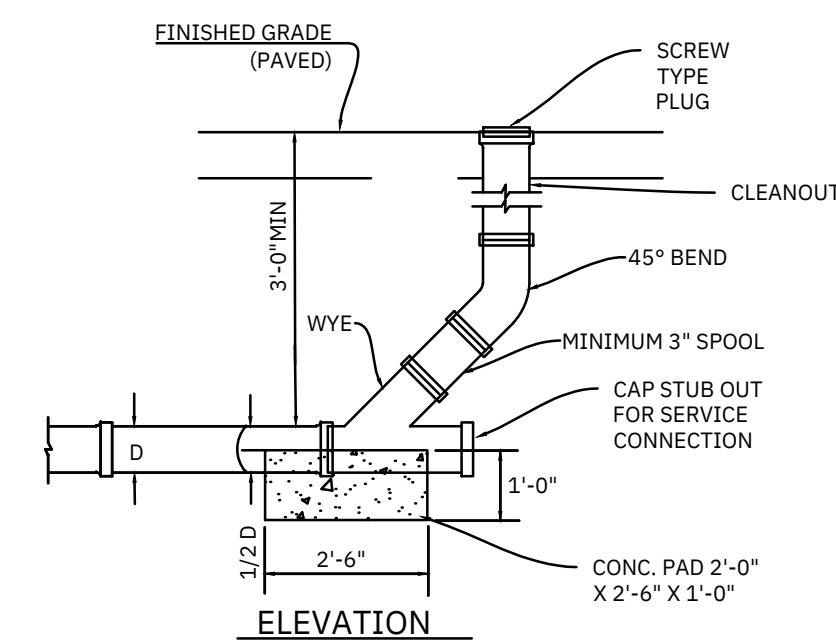


ROADWAY TYPICAL SECTION
N.T.S.

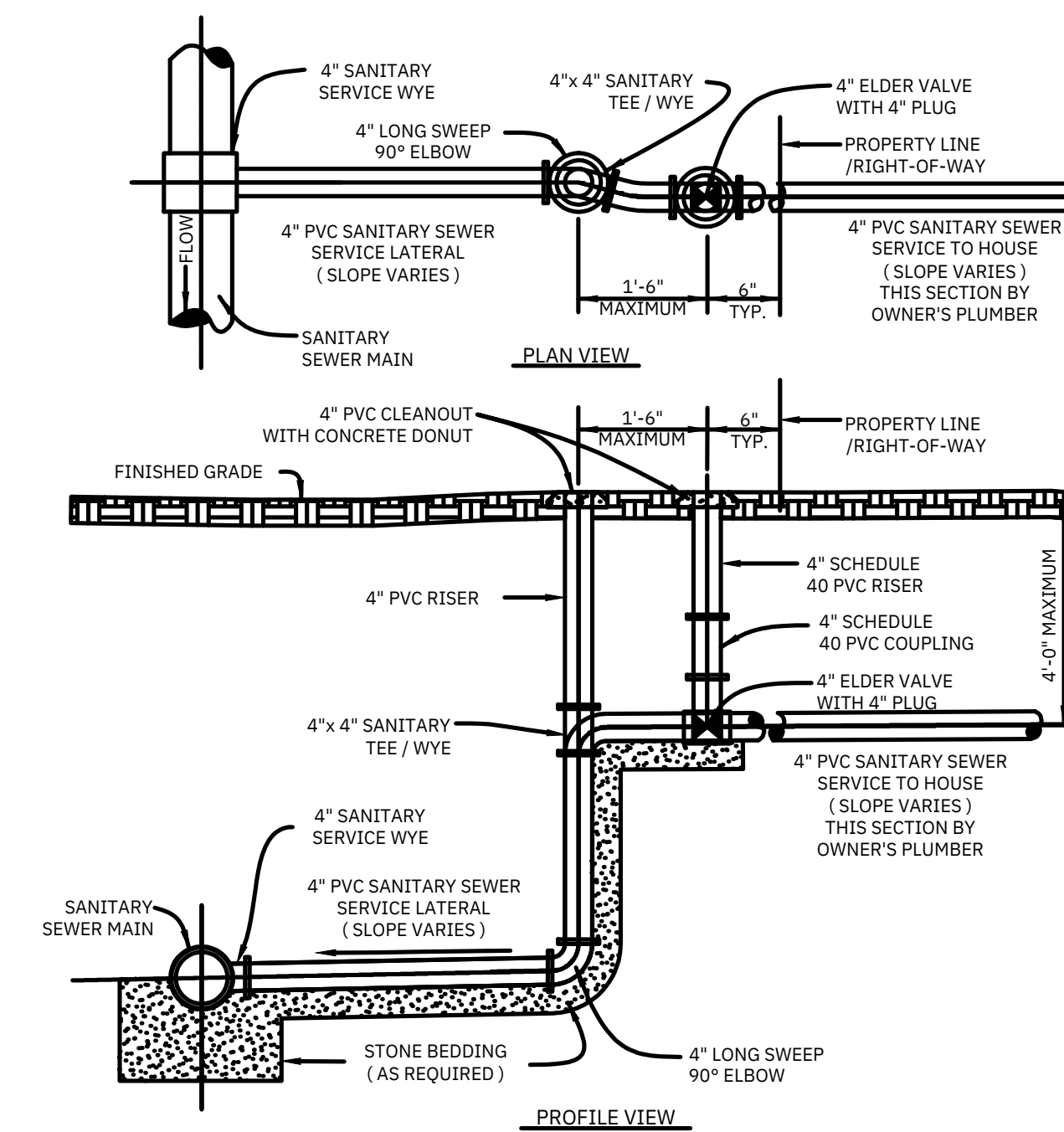
THE SECTION SHOWN IS TYPICAL FOR ACCEPTABLE SOIL SUPPORT REQUIREMENTS HAVING NO SUBSURFACE WATER PROBLEMS.

IF ANY OTHER MATERIAL OR DESIGN IS TO BE USED OTHER THAN WHAT IS SHOWN ON THE ROAD TYPICAL SECTION, A GEOTECHNICAL ENGINEER SHALL TEST THE SOIL AND SUBMIT DESIGN DATA TO THE GOVERNING AUTHORITY BEFORE ANY WORK BEGINS.

ALL MATERIALS, WORKMANSHIP, SIGNING, INSTALLATION (INCLUDING COMPACTION), AND RESTORATION SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS OF THE SCDOT "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION," LATEST EDITION. BASES AND SUB-BASES SHALL MEET THE APPLICABLE SECTION OF "DIVISION 300." SURFACE AND BINDER COURSES SHALL MEET THE APPLICABLE SECTION OF "DIVISION 400."

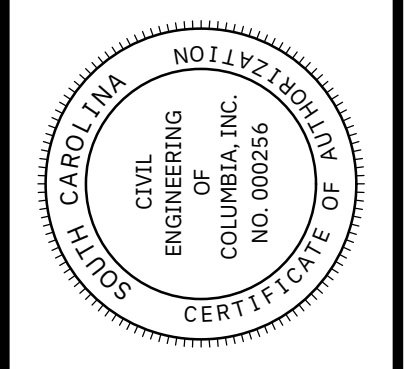


CLEANOUT DETAIL
N.T.S.



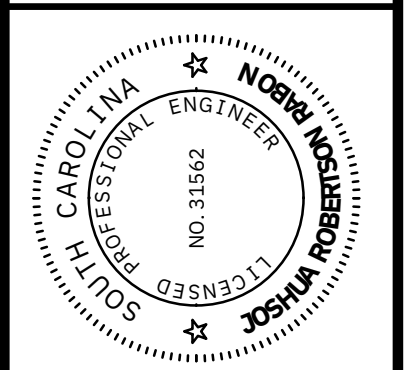
PALMETTO UTILITIES STANDARD SERVICE LATERAL WITH ELDER VALVE
N.T.S.

NO.	DATE	DESCRIPTION	BY



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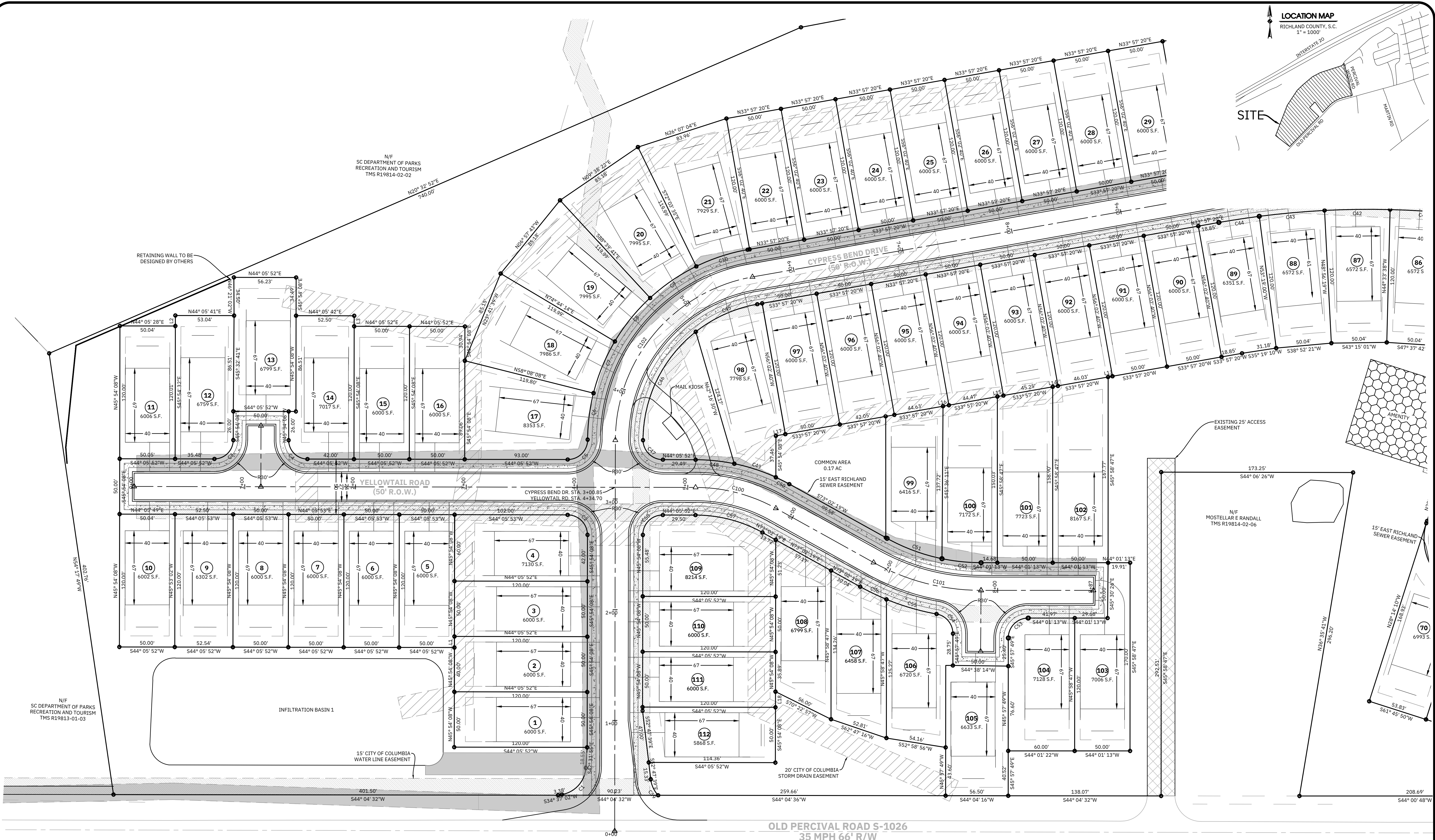
CIVIL ENGINEERING of COLUMBIA
PO BOX 1137 IRMO, SC 29063
TEL (803) 798-2820 FAX (803) 798-2826



MISCELLANEOUS DETAILS (3 OF 3)	
SCALE	N/A
DATE	AUG. 11, 2025
DRAWN	BPD
DESIGNED	BPD
DRAWING NUMBER	30 OF 30
CHECKED BY:	JOB NUMBER 24082
PREPARED FOR CLAYTON PROPERTIES GROUP, INC. D/B/A WUNGO HOMES IRMO, SOUTH CAROLINA	

LOCATION MAP
RICHLAND COUNTY, S.C.
1" = 1000'

SITE



CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING UNDERGROUND UTILITIES (HORIZONTAL & VERTICAL) PRIOR TO CONSTRUCTION
(INCLUDING BUT NOT LIMITED TO: GAS LINES, WATER LINES, SEWER LINES, ELECTRICAL AND TELECOMMUNICATION LINES, AND FIBER OPTIC CABLES.)
CALL PALMETTO UTILITY PROTECTION SERVICE AT: 811
AT LEAST 3 DAYS BEFORE CONSTRUCTION.
UNLESS STATED OTHERWISE IN CONTRACT WITH OWNER, THE CONTRACTOR SHALL INCLUDE ANY UTILITY RELOCATION COSTS IN HIS ORIGINAL AGREEMENT WITH THE OWNER.

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N/F
COLUMBIA FULL GOSPEL HOPE CHURCH
TMS R19814-03-01

- LEGEND:**
- CITY OF COLUMBIA STORM DRAIN EASEMENT
 - EAST RICHLAND SEWER LINE EASEMENT
 - CITY OF COLUMBIA WATER LINE EASEMENT
 - EXISTING ACCESS EASEMENT

THE OWNER IS:
CLAYTON PROPERTIES GROUP, INC.
D/B/A MUNGO HOMES
441 WESTERN LANE
IRMO, S.C. 29068
ATTN: MR. CONRAD KLEIN
EMAIL: CKLEIN@MUNGO.COM

THE ENGINEER IS:
CIVIL ENGINEERING OF COLUMBIA
PO BOX 1137
IRMO, S.C. 29068
TEL: (803) 798-2820
ATTN: MR. JOSH RABON, PE
EMAIL: JOSH@CECOLA.COM

THE SURVEYOR IS:
BELTER & ASSOCIATES, INC.
P.O. BOX 731
COLUMBIA, SC 29212
TEL: (803) 732-4004
ATTN: RONALD W. FISHER
EMAIL: ----

THE STORMWATER OPERATOR IS:
CITY OF COLUMBIA
POST OFFICE BOX 147
COLUMBIA, S.C. 29217
TEL: (803) 545-3400
ATTN: MR. AJ JESSEE
EMAIL: ALFREDD.JESSEE@COLUMBIASC.NET

THE WATER OPERATOR IS:
CITY OF COLUMBIA
POST OFFICE BOX 147
COLUMBIA, S.C. 29217
TEL: (803) 545-3400
ATTN: MR. SCOTT ROGERS
EMAIL: MSROGERS@COLUMBIASC.NET

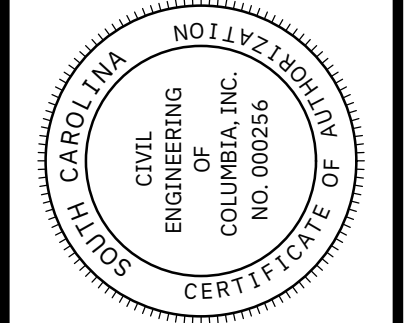
THE SEWER OPERATOR IS:
EAST RICHLAND COUNTY PUBLIC SERVICE DISTRICT
PO BOX 23069
COLUMBIA, SC 29224
TEL: (803) 788-1570
ATTN: MR. RAYMOND PETERSON
EMAIL: RPERTERSON@ERPCSD.NET

CYPRESS BEND

CITY OF COLUMBIA, SOUTH CAROLINA

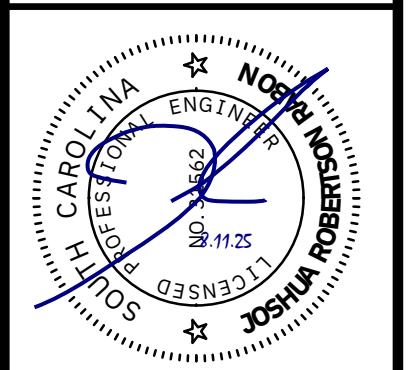
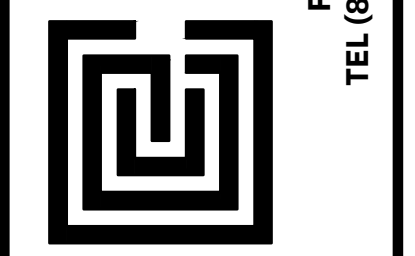


NO.	DATE	DESCRIPTION



THE PRODUCT ON THIS SHEET WAS PREPARED FOR A SPECIFIC CLIENT FOR THE USE OF THAT CLIENT. NO OTHER PERSON WITHOUT WRITTEN PERMISSION FROM THE DESIGN ENGINEER, IS STRICTLY PROHIBITED FROM REPRODUCING OR USING ANY CERTIFICATIONS, WARRANTIES, OR STATEMENTS OF LIABILITY FOR THIS PROJECT ARE INTENDED TO EXPRESS THAT STANDARD AND, WITHOUT LIMITATION, THE PREPARATION OF THESE DOCUMENTS.

CIVIL ENGINEERING of COLUMBIA
PO BOX 1137 IRMO, SC 29068
TEL (803) 798-2820 FAX (803) 798-2826



PRELIMINARY PLAT (1 OF 2)
PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SOUTH CAROLINA
JOB NUMBER
24082

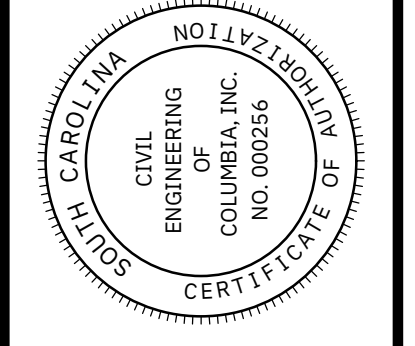
SCALE	1" = 40'
DATE	AUG. 11, 2025
DRAWN	BPD
DESIGNED	BPD
DRAWING NUMBER	1 OF 2



LOCATION MAP
RICHLAND COUNTY, S.C.
1" = 1000'

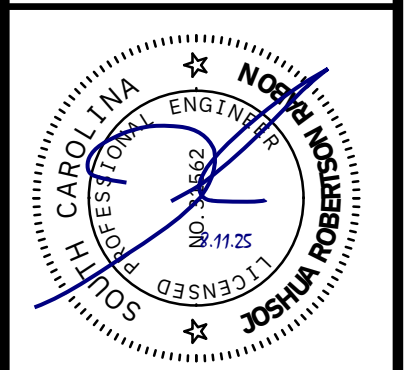
SITE

NO.	DATE	DESCRIPTION



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CIVIL ENGINEERING of COLUMBIA



PRELIMINARY PLAT (2 OF 2)

PREPARED FOR:
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SOUTH CAROLINA

CHECKED BY: **24082**

JOB NUMBER

CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING UNDERGROUND UTILITIES (HORIZONTAL & VERTICAL) PRIOR TO CONSTRUCTION
(INCLUDING BUT NOT LIMITED TO: GAS LINES, WATER LINES, SEWER LINES, ELECTRICAL AND TELECOMMUNICATION LINES, AND FIBER OPTIC CABLES.)
CALL PALMETTO UTILITY PROTECTION SERVICE AT: 811
AT LEAST 3 DAYS BEFORE CONSTRUCTION.
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THE OWNER IS:
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441 WESTERN LANE
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CYPRESS BEND
CITY OF COLUMBIA, SOUTH CAROLINA



SCALE 1" = 40'

DATE **AUG. 11, 2025**

DRAWN **BPD**

DESIGNED **BPD**

DRAWING NUMBER **2 OF 2**