PLANNING COMMISSION

April 9, 2026 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
±44.2 ACRES, 2500 BLOCK OF ATLAS ROAD, TMS13500-02-04
THE CROSSING AT CONGAREE POINTE

Council District:	2
Proposal:	Request preliminary plat approval for the construction of a 182-lot, single-family residential cluster housing subdivision.
Applicant:	Joshua Rabon, Civil Enginering of Columbia
Proposed Use:	Single-Family Residential
Staff Recommendation:	Approval with staff comments.

DETAIL

This ±44.2 acre parcel is located on the north side of Atlas Road within the 2500 block. The proposed cluster housing subdivision will contain a total of 182 detached single-family residences with a typical lot size of 3,700 sq. ft. A portion of the site will be preserved as common area due to open space, wetlands, 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	Recommend approval with conditions: 1. Typical lot detail for single-family detached dwellings (lots 135-193) show a 37' wide lot, with 27' wide home and 5' side yard setback. This is permitted, but leaves the builder no room for error. 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. Provide details how retention ponds will become amenities. 3. Planning Commission approval includes the following road names: Quest Lane, Voyager Way, and Atlas Lane (changed from Atlas Drive due to duplication). 4. Green Building standards must be provided on the preliminary plat. 5. Mailbox kiosk and associated parking (if applicable) must be shown. 6. Second Avenue access shall be a gated emergency access only. 7. Ingress and egress access easement must be obtained from Dominion Energy for permission to cross the power line easement near Second Avenue.
Utilities	Recommend approval with conditions: 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	Recommend approval with condition: 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	Recommend approval with condition: 1. Development must comply with all applicable land disturbance requirements.

Parking Services	Recommend approval.
Street Division	Recommend approval.
Solid Waste	Recommend approval.
Fire	Recommend approval with condition: 1. Voyager Way adjacen to the City of Columbia Industrial Park to be a gated emergency access only. Gate to be reviewed and approved by Fire Department.

43 Acres Near Congaree Point

This map was prepared using
the City GIS Viewer
City of Columbia - GIS Division
8/22/2025 11:42 PM

CITY OF Columbia

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Address Point
Dwelling Type
- Single Family
- Multi Unit
- Others
- InActive

Tax Parcel

Street & Ownership
CFCC,Ownership
- Interstate
- Highway
- City Maintained
- State Maintained
- Private
- Others

Bailey Bill
Type
- Bailey Bill Property
- National Register of Historic Places

Adopted Area Plans
AreaPlan
- Villages of North Columbia - North Columbia Project Area
- Villages of North Columbia - Study Area
- Eau Claire Historic Resources Survey (2018)
- Capital City Mill District Area & Corridor Master Plan (2017)
- Walkable 29203 Pedestrian Master Plan (2017)
- South Main Capital District Plan (2017)
- A Plan for the Redevelopment of East Central City (2004)
- Five Points Master Plan (2006)
- Columbia Owens Master Plan (2002)
- Innovista Master Plan (2007)
- Lower Waverly Catalyst Redevelopment Plan (2006)
- West Gervais District Plan (2017)
- City Center Master Plan (1999)
- Devine St. / Ft. Jackson Commercial Node Plan (2014)
- Rosewood Corridor & Neighborhood Plan (2012)
- Reaching Riverbanks Community Mobility Plan (2025)
- Downtown Columbia Strategic Plan

0 0.03 0.06 0.11 mi
1:3,538

1:3,538

CITY OF COLUMBIA GIS DATA DISCLAIMER:
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Street & Ownership

CFCC,Ownership

- Interstate
- Highway
- City Maintained
- State Maintained
- Private
- Others

Bailey Bill

Type

- Bailey Bill Property
- National Register of Historic Places

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Zoning Districts

ZoningDistrict

- 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

0 0.03 0.06 0.12 mi

1:3,966

1:3,966

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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.		ML	
A completed and signed Application Form		ML	
Letters of Agency for all applications where the applicant is not the owner of the subject property		ML	
Payment of the required fee (see the Fee Schedule in Appendix <> of the Procedures Manual)		ML	
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)	ML	
Landscape Plan Please see below for required content.	1 copy: min. 18 x 24 inches or 1 digital copy (pdf format)	ML	

Major Subdivision – Preliminary Plat
Application and Checklist

1. Applicant Information

Name	Mark Langford
Company (if applicable)	[redacted]

2. Property Information

Address	Atlas Road	
Tax Map Reference Number(s)	R13500-02-04	
Current use	Undeveloped	Proposed use: Single Family Residential
Current zoning	RM-2	Number of lots: 182 / Total acreage: 44.2 acres

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.

For staff use only

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-2025-0066

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	☑	☐
Stamp of registered surveyor, engineer, and/or architect	☑	☐
North arrow	☑	☐
Scale (no less than 1 inch equals 100 feet)	☑	☐
Date	☑	☐
Proposed name of the subdivision	☑	☐
Name of the owner and/or subdivider	☑	☐
Sealed and signed by a registered professional engineer licensed to practice in South Carolina	☑	☐
Vicinity map (at 1 inch equals 1,000 feet)	☑	☐

Existing Conditions	Applicant	Staff
Topography by contours (at vertical intervals of not more than 5 feet)	☑	☐
Deed record names of adjoining property owners or subdivisions	☑	☐
If a resubdivision, a copy of the existing plat with the proposed resubdivisions superimposed thereon	☑	☐
Location of lakes, rivers, streams, swamps/wetlands, other bodies of water, and 100-year floodplains and floodway	☑	☐
Location of existing adjoining property lines	☑	☐
Location of existing buildings on the property to be subdivided	☑	☐
Location of parking and access/driveways	☑	☐
Location of rights-of-way and/or easements for streets, railroads, and utility	☑	☐
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	☑	☐
Location of streets, alleys, railroads, and utility lines upon and abutting subject property	☑	☐
Location of intersections within 200 feet of the property	☑	☐
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.	☑	☐
Grades, invert, and rim elevations of existing sewers shall be shown.	☑	☐
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	☑	☐
Acreage of each drainage area affecting the proposed subdivision	☑	☐
Location of city limit lines and county lines, if applicable	☑	☐

Major Subdivision – Preliminary Plat
Application and Checklist

Existing Conditions	Applicant	Staff
Tax map reference number(s)	☑	☐
Existing zoning	☑	☐

Proposed Conditions	Applicant	Staff
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)	☑	☐

Landscape Plan Requirements	Applicant	Staff
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)	☑	☐

7. Signature

Signature of Applicant	
Mark Langford	
Print Name: Mark Langford	Date: 3/9/26

Docusign Envelope ID: D206C643-48F0-433D-9EAC-CD1EBE6629E3

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
0 Atlas Rd Columbia, SC 29209
Tax Map Reference Numbers
Richland County TMS# R13510-01-05 & Richland County TMS# R13500-02-04

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]

Docusign Envelope ID: D206C643-48F0-433D-9EAC-CD1EBE6629E3

CITY OF Columbia

Letter of Agency

Application Supplement

Property Owner

Signature	Date
DocuSigned by: Nick Andersen A7A0706B1324476...	8.4.25
Print Name of Property Owner: Columbia Acquisition III, LLC	
Address (street, city, state, zip code) [redacted]	

Authorized Agent

Signature	Date
	8/27/25
Print Name: Josh Rabon	
Address (street, city, state, zip code) [redacted]	

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[signatures on following page]

Docusign Envelope ID: D206C643-48F0-433D-9EAC-CD1EBE6629E3

Letter of Agency

Application Supplement

Property Owner

Signature	Date
DocuSigned by: Mck Andersen A7A0706B1324476...	8.4.25
Print Name of Property Owner Columbia Acquisition III, LLC	
Address (street, city, state, zip code) [redacted]	

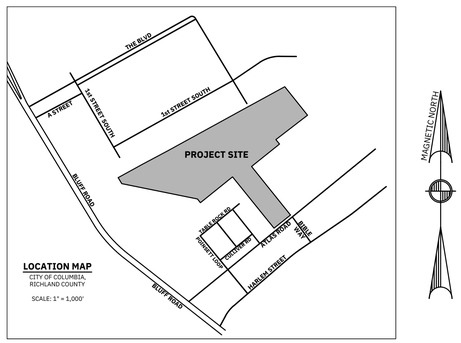
Authorized Agent

Signature	Date
	08/05/2025
Print Name Kyle Page	
Address (street, city, state, zip code) [redacted]	

PAVING, GRADING, DRAINAGE, SANITARY SYSTEM AND WATER SYSTEM

for the construction of

THE CROSSING AT CONGAREE POINTE



PREPARED FOR

CITY OF COLUMBIA, SOUTH CAROLINA

CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES

IRMO, SC 29063

THE OWNER IS:
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
441 WESTERN LANE
IRMO, SC 29063
TEL: (843) 276-5555
ATTN: MR. KEITH POSTAL
EMAIL: KPOSTAL@MUNGO.COM

THE ENGINEER IS:
CIVIL ENGINEERING OF COLUMBIA
PO BOX 1137
IRMO, S.C. 29063
TEL: 803-798-2820
FAX : 803-798-2826
ATTN: JOSH RABON
EMAIL: JOSH@CECOLA.COM

THE SURVEYOR IS:
BELTER AND ASSOCIATES
5945 WESTCOTT ROAD
COLUMBIA, SC 29212
TEL: (803) 732-4004
ATTN: GEORGE L. BRADLEY, JR
EMAIL: GBRADLEY@BELTERANDASSOCIATES.COM

THE STORMWATER OPERATOR IS:
RICHLAND COUNTY
400 POWELL ROAD
COLUMBIA, SC 29203
TEL: (803) 576-3576
ATTN: DR. SAHAD KHILQA, PE
EMAIL: KHILQA.SAHAD@RICHLANDCOUNTYSC.GOV

THE SEWER & WATER OPERATOR IS:
CITY OF COLUMBIA
PO BOX 147
COLUMBIA, SC 29217
TEL: (803) 545-3243
ATTN: MR. DENNY DANIELS
EMAIL: JAMES.DANIELS@COLUMBIASC.GOV

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER
NO. 31562
JOSHUA ROBERTSON RABON

MARCH 9, 2026

25034

SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION
CIVIL ENGINEERING OF COLUMBIA, INC.
NO. 000256

Sheet List Table	
Sheet Number	Sheet Title
1	EXISTING CONDITIONS PLAN
2	GENERAL NOTES AND REFERENCES
3	OVERALL SITE PLAN
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5	STAKING AND ALIGNMENT PLAN (2 OF 5)
6	STAKING AND ALIGNMENT PLAN (3 OF 5)
7	STAKING AND ALIGNMENT PLAN (4 OF 5)
8	STAKING AND ALIGNMENT PLAN (5 OF 5)
9	TRAFFIC CONTROL PLAN
10	OVERALL GRADING AND DRAINAGE PLAN
11	GRADING AND DRAINAGE PLAN (1 OF 5)
12	GRADING AND DRAINAGE PLAN (2 OF 5)
13	GRADING AND DRAINAGE PLAN (3 OF 5)
14	GRADING AND DRAINAGE PLAN (4 OF 5)
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19	UTILITIES PLAN (3 OF 5)
20	UTILITIES PLAN (4 OF 5)
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23	ROAD PROFILES (2 OF 2)
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25	SANITARY SEWER PROFILES (2 OF 2)
26	STORM DRAINAGE PROFILES (1 OF 4)
27	STORM DRAINAGE PROFILES (2 OF 4)
28	STORM DRAINAGE PROFILES (3 OF 4)
29	STORM DRAINAGE PROFILES (4 OF 4)
30	POLLUTION PREVENTION DETAILS (1 OF 4)
31	POLLUTION PREVENTION DETAILS (2 OF 4)
32	POLLUTION PREVENTION DETAILS (3 OF 4)
33	POLLUTION PREVENTION DETAILS (4 OF 4)
34	MISCELLANEOUS DETAILS (1 OF 4)
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36	MISCELLANEOUS DETAILS (3 OF 4)
37	MISCELLANEOUS DETAILS (4 OF 4)

Building Community.
Since 1974

CIVIL ENGINEERING *of* COLUMBIA

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

THE CROSSING AT CONGAREE POINTE

REVISION			
NO.	DATE	DESCRIPTION	BY

THE OWNER IS:
CLAYTON PROPERTIES GROUP, INC.
D/B/A MUNGO HOMES
441 WESTERN LANE
IRMO, SC 29063
TEL: (843) 276-5555
ATTN: MR. KEITH POSTAL
EMAIL: KPOSTAL@MUNGO.COM

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JAMES.DANIELS@COLUMBIASC.GOV

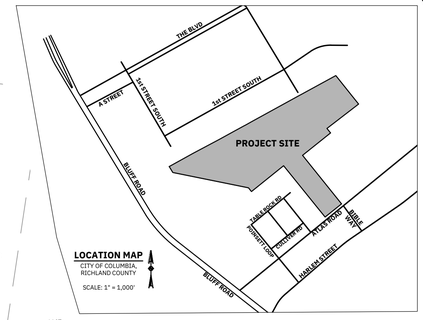
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ATTN: DR. SAHAD KHILQA, PE
EMAIL:
KHILQA.SAHAD@RICHLANDCOUNTYSC.GOV

PARCEL LINE TABLE		
LINE	BEARING	DISTANCE
L129	S50° 43' 10"W	53.90'
L130	S50° 43' 10"W	92.88'
L131	N39° 16' 29"W	105.04'
L132	N39° 43' 10"W	26.03'
L133	N39° 20' 50"W	106.08'
L134	S50° 43' 10"W	147.62'
L135	N39° 20' 50"W	131.46'
L136	N39° 20' 50"W	50.00'
L137	N31° 18' 52"W	96.35'
L138	N60° 42' 04"E	571.38'
L139	N60° 42' 04"E	248.66'
L140	N60° 42' 04"E	178.15'
L141	N60° 43' 31"E	100.02'
L142	N60° 43' 50"E	739.92'
L143	S61° 14' 43"W	50.00'
L144	N60° 51' 33"E	219.18'
L145	N60° 50' 25"E	150.00'
L146	N60° 52' 44"E	132.73'
L147	N60° 52' 44"E	41.57'
L148	S39° 08' 38"E	372.24'

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 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. FIELD DETERMINED TEMPORARY DIVERSIONS BERMS AND/OR DITCHES SHALL BE CONSTRUCTED, WHERE NECESSARY, TO PROTECT AREAS FROM UPSLOPE RUNOFF AND/OR TO DIVERT SEDIMENT LADEN 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 WETLAND LIMITS
- EXISTING BOUNDARY
- EXISTING PROPERTY LINE
- EXISTING EDGE OF PAVEMENT
- EXISTING STRIPING
- EXISTING FENCE
- E — EXISTING ELECTRICAL LINE
- W — EXISTING WATER LINE
- S — EXISTING SANITARY SEWER LINE
- G — EXISTING GAS LINE
- T — EXISTING TELEPHONE LINE
- OVERHEAD ELECTRICAL EASEMENT
- EXISTING WATER EASEMENT
- EXISTING SEWER EASEMENT
- TROPHY OR GRAND TREE TO BE REMOVED
- EXISTING MANHOLE

MAGNETIC NORTH

THE CROSSING AT CONGAREE POINTE

CITY OF COLUMBIA, SOUTH CAROLINA

100 50 0 100 200 300
SCALE IN FEET

REVISION		
NO.	DATE	DESCRIPTION

SOUTH CAROLINA — CIVIL ENGINEERING OF COLUMBIA, INC. NO. 000256 — CERTIFICATE OF AUTHORIZATION

THE PRODUCT ON THIS SHEET WAS PREPARED FOR CIVIL ENGINEERING OF COLUMBIA FOR A SPECIFIC PURPOSE. USE, BY ANY OTHER PERSON, WITHOUT WRITTEN AUTHORIZATION FROM CIVIL ENGINEER IS STRICTLY PROHIBITED.

ANY CERTIFICATIONS, WARRANTIES, OR GUARANTEES SIGNED BY THE ENGINEER SHALL BE INTENDED AND FOR THE PROJECT AS INTENDED

EXPRESS THAT STANDARD AND REASONABLE CARE WERE USED IN PREPARATION OF THESE DOCUMENTS.

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

SOUTH CAROLINA — PROFESSIONAL ENGINEER — JOSHUA ROBERTSON — LICENSED — NO. 31562

EXISTING CONDITIONS PLAN

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

SCALE	1" = 100'
DATE	----
DRAWN	ARR
DESIGNED	ARR
CHECKED BY:	
JOB NUMBER	25034
DRAWING NUMBER	1 OF

PROJECT NOTES AND REFERENCES:

1. PROJECT AREA: 44.2- ACRES
   - TO BE SUBDIVIDED INTO 193 SINGLE FAMILY RESIDENTIAL LOTS.
   - DISTURBED AREA: 21.7 ACRES
2. RICHLAND COUNTY TMS: R13500-02-04
3. I HEREBY CERTIFY THAT I HAVE CONSULTED THE FEMA FLOOD INSURANCE RATE MAP # 45079C0378L EFFECTIVE DATE 12/21/2017, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, NO PORTION OF THE SUBJECT PROPERTY IS LOCATED WITHIN ZONE AE.
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: TOP NUT OF EX HYDRANT. ELEV. = ----
6. NO OFFSITE DISTURBANCE IS PERMITTED WITHOUT PRIOR WRITTEN PERMISSION FROM THE AFFECTED PROPERTY OWNER.
7. THE PURPOSE OF THIS PLAN IS TO DEPICT THE MEASURES RECOMMENDED TO MINIMIZE THE SEDIMENT RUNOFF FROM THE SITE. EVERY 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. CONTRACTOR IS RESPONSIBLE TO ENSURE 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 WIT THE STREET AND GUTTER LINE. IN ADDITIONS, KNOCKOUT PANEL BLOCK 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. CROSS LINE PIPES SHALL BE COMPACTED IN 12 LIFTS TO 95% STANDARD PROCTOR AND THE LAST 12 COMPACTED TO 100% PROCTOR.
16. CONCRETE WASHOUT AREAS TO BE FIELD DETERMINED
17. ADDITIONAL SILT FENCE MAY BE NEEDED IN AREAS NOT SHOWN ON PLANS IF EROSION START TO TAKE PLACE.
18. ALL SIDEWALKS, STRIPING, AND SIGNAGE SHALL MEET ADA. MUTCD, SCDOT AND CITY OF COLUMBIA REQUIREMENTS.
19. 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.
20. MINIMUM BUILDING SETBACKS:
   - SIDE PROPERTY LINES:
     - 5' (10' 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 PLAT 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 CITY OF COLUMBIA.

APPLICANT'S CERTIFICATION:

I (WE) HEREBY CERTIFY THAT ALL CLEARING, GRADING, CONSTRUCTION, AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS PLAN AND I (WE) WILL BE RESPONSIBLE FOR THE LAND DISTURBANCE AND RELATED MAINTENANCE THEREOF. CITY OF COLUMBIA AUTHORITIES WILL BE ALLOWED TO ENTER THE PROJECT SITE FOR THE PURPOSE OF ON-SITE INSPECTIONS.

NOV. 18, 2025
DATE OWNER/PERSON FINANCIALLY RESPONSIBLE

I HAVE PLACED MY SIGNATURE AND SEAL ON THE DESIGN DOCUMENTS SUBMITTED SIGNIFYING THAT I ACCEPT RESPONSIBILITY FOR THE DESIGN OF THE SYSTEM. FURTHER,I CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE DESIGN IS CONSISTENT WITH THE REQUIREMENTS OF TITLE 48, CHAPTER 14 OF THE CODE OF LAWS OF SC, 1976 AS AMENDED, PURSUANT TO REGULATION 72-300 ET SEQ. (IF APPLICABLE), AND IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF SCR100000.

NOV. 18, 2025
DATE JOSH RABON, P.E. #31562

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 KNOWLEDGABLE 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 12' 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 UPHILL 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 SERVICE 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.
7. DURING CONSTRUCTION PHASE SEWER MANHOLES AND CLEANOUTS SHALL NOT BE OBSTRUCTED OR COVERED BY DUMPSTERS, PORTA POTTIES, 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 #12 GAUGE BLUE INSULATED COPPER TRACE 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 CONNECTIONS 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: BURRIED 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 AN OPPORTUNITY 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.
16. ALL WATER EASEMENTS TO BE DEDICATED TO THE CITY OF COLUMBIA. ALL SEWER EASEMENTS SHALL BE DEDICATED TO CITY OF COLUMBIA.
17. CITY OF COLUMBIA SHALL HAVE A RESERVED 15' UTILITY EASEMENT (7.5' 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' (7.5' FROM THE CENTER OF THE UTILITY LINE) EASEMENT FOR ALL INSTALLED WATER AND SEWER 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 POTTIEL, DIRT, ROCKS, CONSTRUCTION MATERIAL OR DEBRIS, ETC.

*ALL WATER EASEMENTS TO BE DEDICATE TO THE CITY OF COLUMBIA.

*ALL SEWER EASEMENTS TO BE DEDICATED TO CITY OF COLUMBIA.

*ALL STORM DRAINAGE EASEMENTS TO BE DEDICATED TO CITY OF COLUMBIA UNLESS NOTED TO BE PRIVATE.

DESIGNER'S CERTIFICATION:

I HEREBY CERTIFY THAT THIS PLAN IS DESIGNED TO CONTAIN SOIL ON THE PROPERTY CONCERNED TO THE MAXIMUM EXTENT FEASIBLE, TO PROVIDE FOR THE PROTECTION OF THE PROPERTY AND THE PROPOSED IMPROVEMENTS THEREON FROM THE EFFECTS OF FLOODING, TO PROVIDE FOR THE CONTROL OF THE RUNOFF FROM THE PROPERTY, AND THAT ALL PROVISIONS FOR SEDIMENT CONTROL AND STORM DRAINAGE ARE IN ACCORDANCE WITH THE STORMWATER MANAGEMENT AND SEDIMENT CONTROL ORDINANCE FOR CITY OF COLUMBIA, SOUTH CAROLINA.

NOV. 18, 2025
DATE JOSH RABON, P.E. #31562

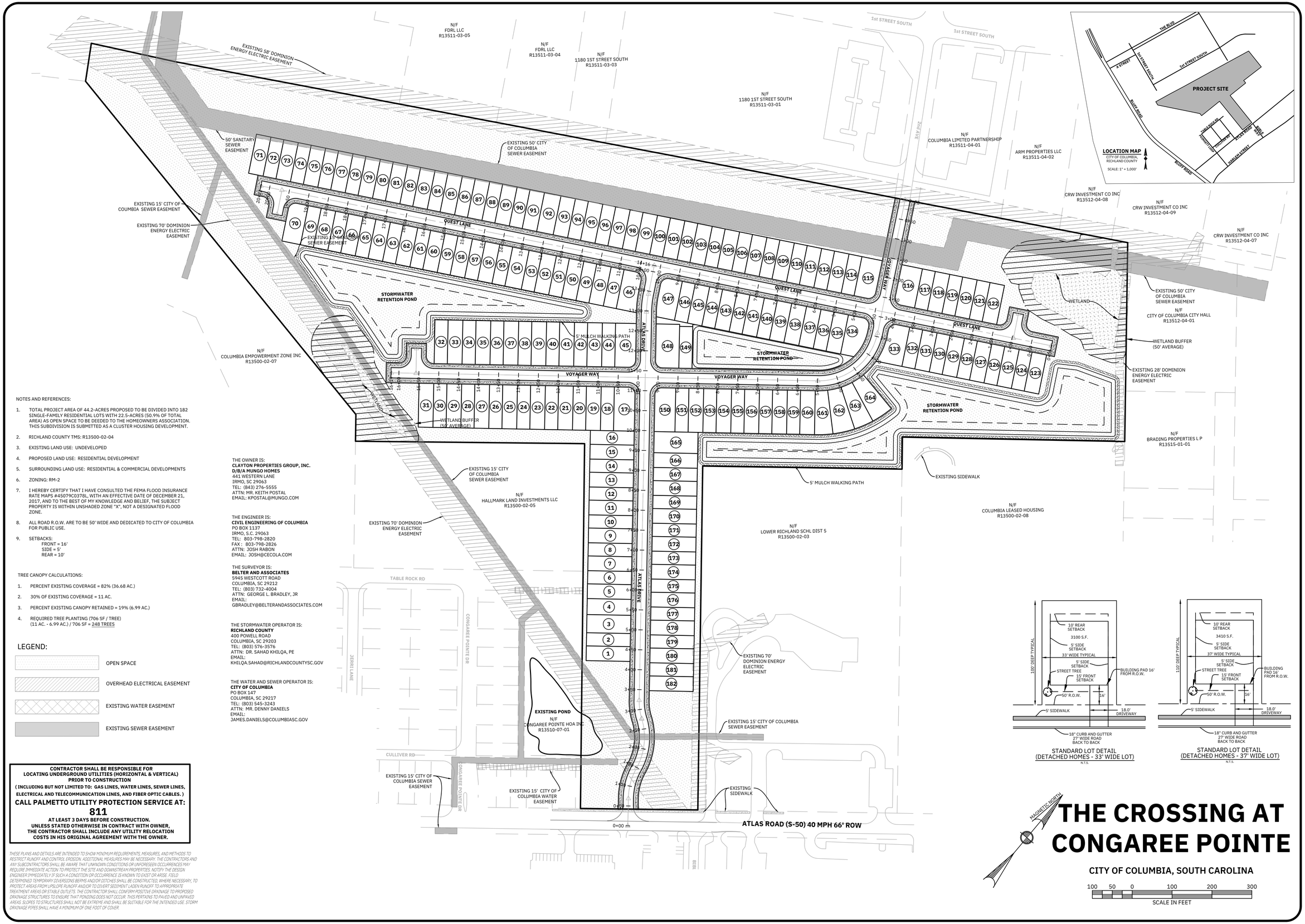
SEDIMENT AND EROSION CONTROL NOTES

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 SLOPE 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 (14) DAYS AFTER THE WORK HAS CEASED, EXCEPT AS STATED BELOW. - WHERE STABILIZATION BY THE 14TH 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.
3. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED ONCE EVERY CALANDAR 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 RECOMMENDED. 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 ONTO 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.
7. 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. 72-300 et seq. 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 50' 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 7 CALENDAR DAYS.
13. MINIMIZE SOIL COMPACTION AND, UNLESS INFEASIBLE, PRESERVE TOPSOIL.
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; AND
   - SOAPS OR SOLVENTS USED IN VEHICLE AND EQUIPMENT WASHING.
17. 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 BMPs NEED TO BE MODIFIED OR IF ADDITIONAL BMPs 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 BMPs 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 RESTRICT 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. 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.
23. 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.
24. UTILITY COMPANIES USING AN ANNUAL BLANKET NOI 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.
25. 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 JURIDICTIONAL SEDIMENT AND EROSION CONTROL OFFICER.
26. SEED ALL SWALES OR DITCHES TO SOME TYPE OF PERMANENT GRASS WHERE SLOPE OF LAND DOES NOT EXCEED 2% - PLANTINGS TO BE DONE AS OUTLINED IN GRASSING SPECIFICATIONS AS REQUIRED BY THE LOCAL AND STATE JURISDICTION.
27. PROVIDE A TEMPORARY STONE SPLASH PAD AT ALL FIRE HYDRANTS OR OTHER POINTS OF DISCHARGE DURING TESTING OF THE WATER DISTRIBUTION SYSTEM.
28. 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, SCDOT STANDARD SPECIFICATIONS SHALL BE MET OR EXCEEDED.
B. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A SATISFACTORY STAND OF GRASS 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, POND 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 TWO - PRODUCT
2.01 MATERIALS:
A. MATERIALS SHALL BE A SATISFACTORY BLEND OF TOPSOIL, LIME, SEED, FERTILIZER, AND SLOPE STABILIZER.
1. THE TOPSOIL SHALL BE BROUGHT TO THE REQUIRED FINISHED GRADES, FREE FROM LUMPS, RIDGES AND DEPRESSIONS.
2. THE LIME SHALL BE GROUND 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 ALL 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 NA



NOTES AND REFERENCES:

1. TOTAL PROJECT AREA OF 44.2-ACRES PROPOSED TO BE DIVIDED INTO 182 SINGLE-FAMILY RESIDENTIAL LOTS WITH 22.5-ACRES (50.9% OF TOTAL AREA) AS OPEN SPACE TO BE DEEDED TO THE HOMEOWNERS ASSOCIATION. THIS SUBDIVISION IS SUBMITTED AS A CLUSTER HOUSING DEVELOPMENT.
2. RICHLAND COUNTY TMS: R13500-02-04
3. EXISTING LAND USE: UNDEVELOPED
4. PROPOSED LAND USE: RESIDENTIAL DEVELOPMENT
5. SURROUNDING LAND USE: RESIDENTIAL & COMMERCIAL DEVELOPMENTS
6. ZONING: RM-2
7. I HEREBY CERTIFY THAT I HAVE CONSULTED THE FEMA FLOOD INSURANCE RATE MAPS #45079C0378L, WITH AN EFFECTIVE DATE OF DECEMBER 21, 2017, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE SUBJECT PROPERTY IS WITHIN UNSHADED ZONE "X", NOT A DESIGNATED FLOOD ZONE.
8. ALL ROAD R.O.W. ARE TO BE 50' WIDE AND DEDICATED TO CITY OF COLUMBIA FOR PUBLIC USE.
9. SETBACKS:
   FRONT = 16'
   SIDE = 5'
   REAR = 10'

TREE CANOPY CALCULATIONS:

1. PERCENT EXISTING COVERAGE = 82% (36.68 AC.)
2. 30% OF EXISTING COVERAGE = 11 AC.
3. PERCENT EXISTING CANOPY RETAINED = 19% (6.99 AC.)
4. REQUIRED TREE PLANTING (706 SF / TREE)
   (11 AC. - 6.99 AC.) / 706 SF = 248 TREES

LEGEND:

- OPEN SPACE
- OVERHEAD ELECTRICAL EASEMENT
- EXISTING WATER EASEMENT
- EXISTING SEWER EASEMENT

THE OWNER IS:
CLAYTON PROPERTIES GROUP, INC.
D/B/A MUNGO HOMES
441 WESTERN LANE
IRMO, SC 29063
TEL: (843) 276-5555
ATTN: MR. KEITH POSTAL
EMAIL: KPOSTAL@MUNGO.COM

THE ENGINEER IS:
CIVIL ENGINEERING OF COLUMBIA
PO BOX 1137
IRMO, S.C. 29063
TEL: 803-798-2820
FAX : 803-798-2826
ATTN: JOSH RABON
EMAIL: JOSH@CECOLA.COM

THE SURVEYOR IS:
BELTER AND ASSOCIATES
5945 WESTCOTT ROAD
COLUMBIA, SC 29212
TEL: (803) 732-4004
ATTN: GEORGE L. BRADLEY, JR
EMAIL:
GBRADLEY@BELTERANDASSOCIATES.COM

THE STORMWATER OPERATOR IS:
RICHLAND COUNTY
400 POWELL ROAD
COLUMBIA, SC 29203
TEL: (803) 576-3576
ATTN: DR. SAHAD KHILQA, PE
EMAIL:
KHILQA.SAHAD@RICHLANDCOUNTYSC.GOV

THE WATER AND SEWER OPERATOR IS:
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PO BOX 147
COLUMBIA, SC 29217
TEL: (803) 545-3243
ATTN: MR. DENNY DANIELS
EMAIL:
JAMES.DANIELS@COLUMBIASC.GOV

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STANDARD LOT DETAIL
(DETACHED HOMES - 33' WIDE LOT)
N.T.S.

STANDARD LOT DETAIL
(DETACHED HOMES - 37' WIDE LOT)
N.T.S.

THE CROSSING AT CONGAREE POINTE

CITY OF COLUMBIA, SOUTH CAROLINA

SCALE IN FEET

NO.	DATE	DESCRIPTION	BY
		REVISION	

THE PRODUCT ON THIS SHEET WAS PREPARED BY CIVIL ENGINEERING OF COLUMBIA FOR A SPECIFIC PURPOSE. USE, BY ANY OTHER PERSON, WITHOUT WRITTEN AUTHORIZATION FROM CIVIL ENGINEER, IS STRICTLY PROHIBITED.

ANY CERTIFICATIONS, WARRANTIES, OR GUARANTEES SIGNED BY THE ENGINEER SHALL BE INTERPRETED FOR THESE PROJECT SPECIFIC NEEDS AND EXPRESS THAT STANDARD AND REASONABLE CARE WERE USED IN PREPARATION OF THESE DOCUMENTS.

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

SOUTH CAROLINA — CIVIL ENGINEERING OF COLUMBIA, INC. NO. 000256 — CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA — PROFESSIONAL ENGINEER — NO. 31562 — JOSHUA ROBERTSON RABON — LICENSED

OVERALL SITE PLAN

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

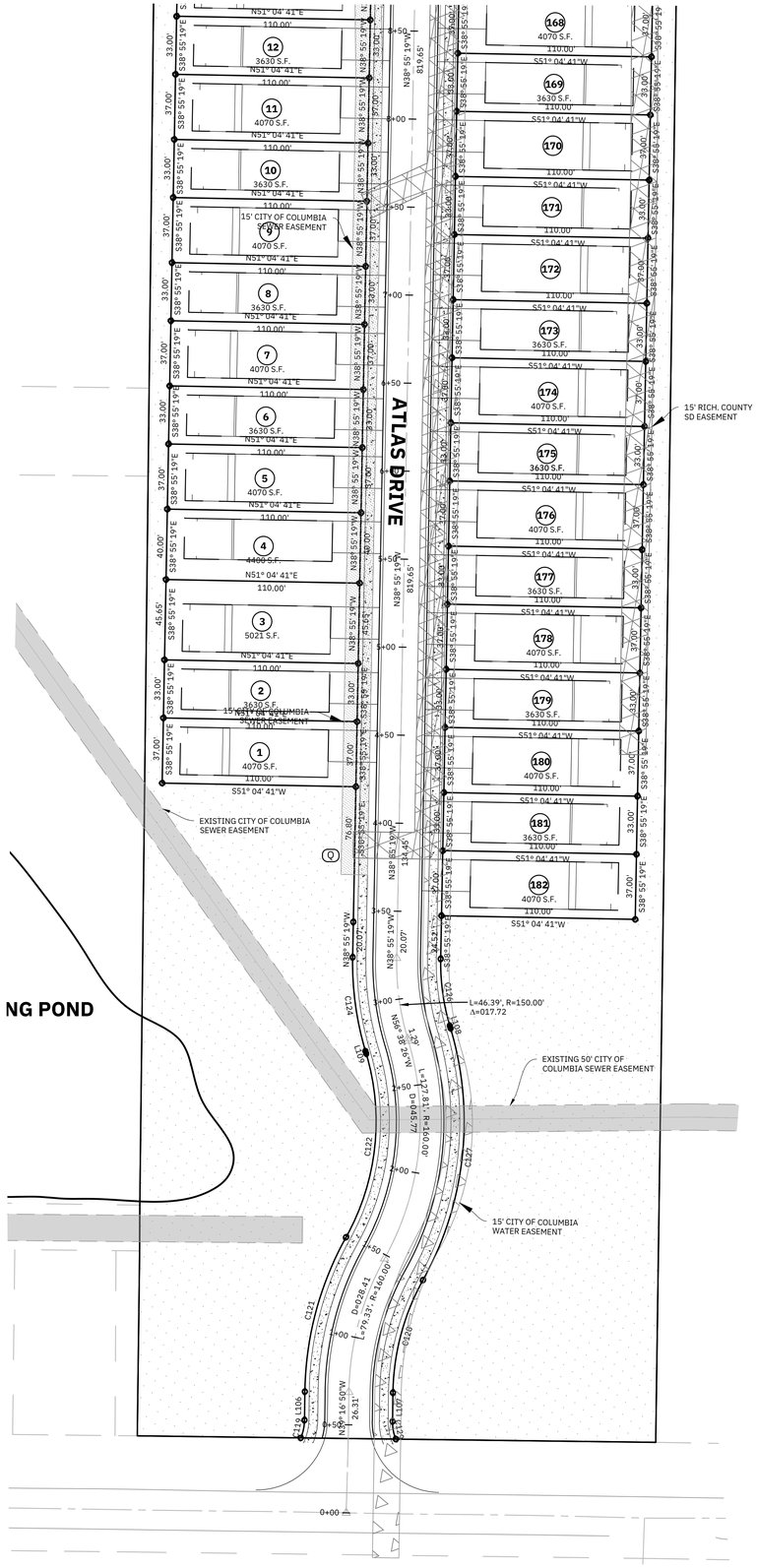
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CHECKED BY:	
JOB NUMBER	25034
DRAWING NUMBER	3 OF

PARCEL LINE TABLE		
LINE	BEARING	DISTANCE
L95	???	6.87'
L96	N28° 33' 56"W	50.00'
L99	N61° 26' 04"E	20.00'
L100	N61° 26' 04"E	33.00'
L101	N38° 55' 19"W	2.49'
L102	N38° 55' 19"W	27.16'
L103	N51° 04' 41"E	33.00'
L104	S51° 04' 41"W	12.00'
L105	S51° 04' 41"W	25.00'
L106	N39° 16' 50"W	16.17'
L107	S39° 16' 50"E	16.30'
L108	S56° 38' 26"E	1.29'
L109	N56° 38' 26"W	1.29'
L110	S51° 04' 41"W	25.00'
L111	S51° 04' 41"W	12.00'
L115	S51° 04' 41"W	33.00'
L116	N51° 04' 41"E	35.49'
L117	N51° 04' 41"E	6.02'
L118	N28° 19' 36"W	11.57'
L119	S38° 55' 19"E	11.63'

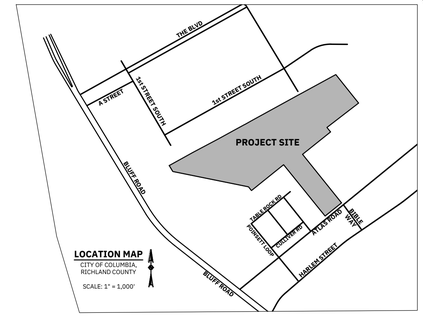
PARCEL LINE TABLE		
LINE	BEARING	DISTANCE
L120	S38° 55' 19"E	18.02'
L121	N61° 26' 04"E	33.00'
L122	N61° 26' 04"E	21.01'
L126	N61° 26' 04"E	46.24'
L127	N61° 26' 04"E	33.00'
L128	S61° 26' 04"W	66.23'

PARCEL CURVE TABLE						
CURVE	ARC	CHORD BEARING	RADIUS	DELTA	CHORD	TANGENT
C83	27.49'	N83° 55' 19"W	17.50'	90° 00' 00"	24.75'	17.50'
C87	40.67'	S33° 44' 37"E	225.00'	10° 21' 22"	40.61'	20.39'
C88	27.49'	S83° 55' 19"E	17.50'	90° 00' 00"	24.75'	17.50'
C89	27.49'	S06° 04' 41"W	17.50'	90° 00' 00"	24.75'	17.50'
C90	99.00'	N28° 23' 18"E	125.00'	45° 22' 48"	96.44'	52.26'
C91	74.23'	N11° 18' 51"W	125.00'	34° 01' 30"	73.14'	38.25'
C92	29.14'	N73° 26' 46"W	18.50'	90° 14' 20"	26.22'	18.58'
C93	29.06'	S16° 26' 05"W	18.50'	89° 59' 58"	26.16'	18.50'
C94	28.98'	N16° 33' 14"E	18.50'	89° 45' 40"	26.11'	18.42'
C98	24.93'	N46° 59' 48"E	175.00'	8° 09' 47"	24.91'	12.49'
C99	34.30'	N37° 18' 01"E	175.00'	11° 13' 46"	34.24'	17.20'
C100	30.55'	N26° 41' 05"E	175.00'	10° 00' 08"	30.51'	15.31'
C101	34.30'	N16° 04' 08"E	175.00'	11° 13' 46"	34.24'	17.20'
C102	46.75'	N02° 48' 02"E	175.00'	15° 18' 27"	46.61'	23.52'
C103	40.61'	N46° 59' 48"E	285.00'	8° 09' 47"	40.57'	20.34'
C104	55.86'	N37° 18' 01"E	285.00'	11° 13' 46"	55.77'	28.02'
C105	49.75'	N26° 41' 05"E	285.00'	10° 00' 08"	49.69'	24.94'
C106	55.86'	N16° 04' 08"E	285.00'	11° 13' 46"	55.77'	28.02'
C114	29.06'	N06° 04' 41"E	18.50'	90° 00' 00"	26.16'	18.50'
C115	29.06'	S83° 55' 19"E	18.50'	90° 00' 00"	26.16'	18.50'

PARCEL CURVE TABLE						
CURVE	ARC	CHORD BEARING	RADIUS	DELTA	CHORD	TANGENT
C116	29.06'	S83° 55' 19"E	18.50'	90° 00' 00"	26.16'	18.50'
C117	27.49'	N06° 04' 41"E	17.50'	90° 00' 00"	24.75'	17.50'
C118	49.71'	N33° 44' 37"W	275.00'	10° 21' 22"	49.64'	24.92'
C119	10.39'	N28° 15' 29"W	27.00'	22° 02' 43"	10.32'	5.26'
C121	91.73'	N25° 04' 36"W	185.00'	28° 24' 29"	90.79'	46.83'
C122	107.84'	N33° 45' 24"W	135.00'	45° 46' 04"	104.99'	56.98'
C124	54.12'	N47° 46' 52"W	175.00'	17° 43' 07"	53.90'	27.28'
C126	38.66'	S47° 46' 52"E	125.00'	17° 43' 07"	38.50'	19.48'
C127	147.78'	S33° 45' 24"E	185.00'	45° 46' 04"	143.88'	78.09'
C128	66.93'	S25° 04' 36"E	135.00'	28° 24' 29"	66.25'	34.17'
C129	10.26'	S50° 09' 44"E	27.00'	21° 45' 47"	10.19'	5.19'
C132	71.70'	N16° 35' 24"W	175.00'	23° 28' 24"	71.20'	36.36'
C136	29.14'	S73° 26' 46"E	18.50'	90° 14' 20"	26.22'	18.58'



NG POND



LEGEND:

- EXISTING WETLAND LIMITS
- EXISTING PROPERTY BOUNDARY

EASEMENT LEGEND:

- EXISTING SEWER EASEMENT
- RICHLAND COUNTY PUBLIC WORKS STORM DRAINAGE EASEMENT (WIDTH VARIES)
- PROPOSED 15' CITY OF COLUMBIA WATER LINE EASEMENT
- PROPOSED CITY OF COLUMBIA SANITARY SEWER EASEMENT (WIDTH VARIES)

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EMAIL: KPOSTAL@MUNGO.COM

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ATTN: MR. DENNY DANIELS
EMAIL:
JAMES.DANIELS@COLUMBIASC.GOV

MAGNETIC NORTH

THE CROSSING AT CONGAREE POINTE

CITY OF COLUMBIA, SOUTH CAROLINA

40 20 0 40 80 120
SCALE IN FEET

REVISION		
NO.	DATE	DESCRIPTION

SOUTH CAROLINA — CIVIL ENGINEERING OF COLUMBIA, INC. NO. 000256 — CERTIFICATE OF AUTHORIZATION

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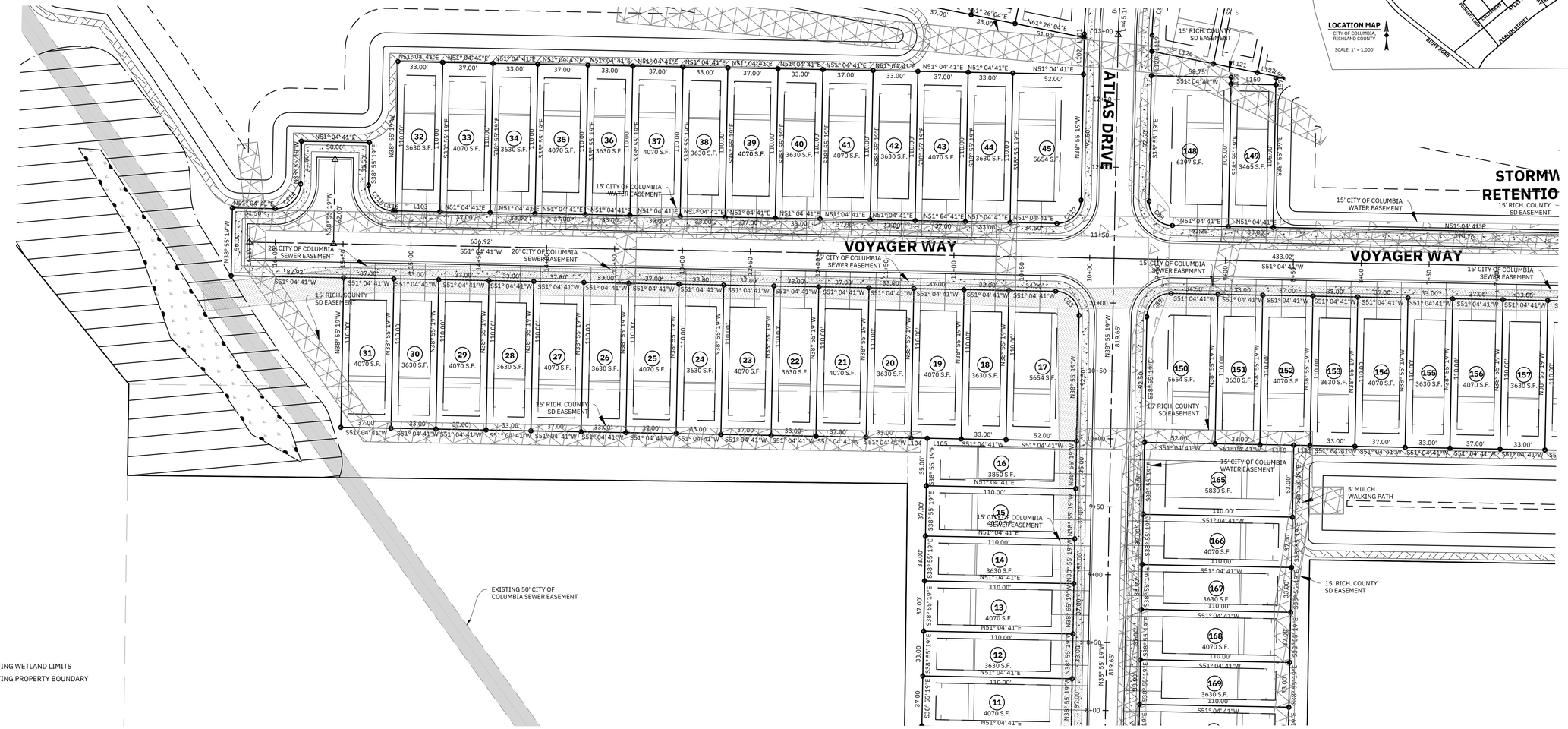
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TEL (803) 798-2820 FAX (803) 798-2826

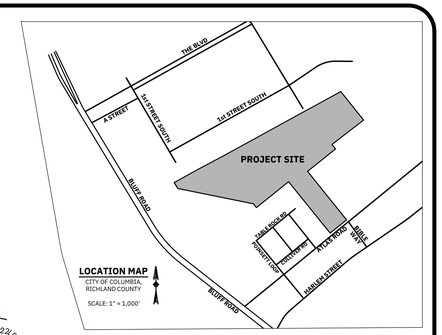
SOUTH CAROLINA — JOSHUA ROBERSON — LICENSED — NO. 31562 — PROFESSIONAL ENGINEER

STAKING AND ALIGNMENT PLAN (1 OF 5)

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

JOB NUMBER	25034
CHECKED BY:	
SCALE	1" = 40'
DATE	----
DRAWN	ARR
DESIGNED	ARR
DRAWING NUMBER	4 OF





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- EXISTING PROPERTY BOUNDARY

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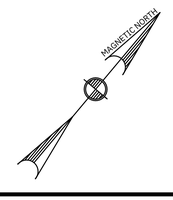
THE OWNER IS:
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441 WESTERN LANE
IRMO, SC 29063
TEL: (843) 276-5555
ATTN: MR. KEITH POSTAL
EMAIL: KPOSTAL@MUNGO.COM

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THE CROSSING AT CONGAREE POINTE

CITY OF COLUMBIA, SOUTH CAROLINA

40 20 0 40 80 120
SCALE IN FEET

NO.	DATE	REVISION DESCRIPTION	BY

SOUTH CAROLINA — NOTIFICATION OF CERTIFICATE OF AUTHORIZATION — CIVIL ENGINEERING OF COLUMBIA, INC. NO. 000256

THE PRODUCT ON THIS SHEET WAS PREPARED BY CIVIL ENGINEERING OF COLUMBIA FOR A SPECIFIC PURPOSE, USE, BY ANY OTHER PERSON, WITHOUT WRITTEN AUTHORIZATION FROM CIVIL ENGINEER, IS STRICTLY PROHIBITED.

ANY CERTIFICATIONS, WARRANTIES, OR GUARANTEES SIGNED BY THE ENGINEER WITH RESPECT TO THE DOCUMENTS SHALL BE INTENDED TO BE EXPRESS THAT STANDARD AND REASONABLE CARE WERE USED IN PREPARATION OF THESE DOCUMENTS.

CIVIL ENGINEERING of COLUMBIA

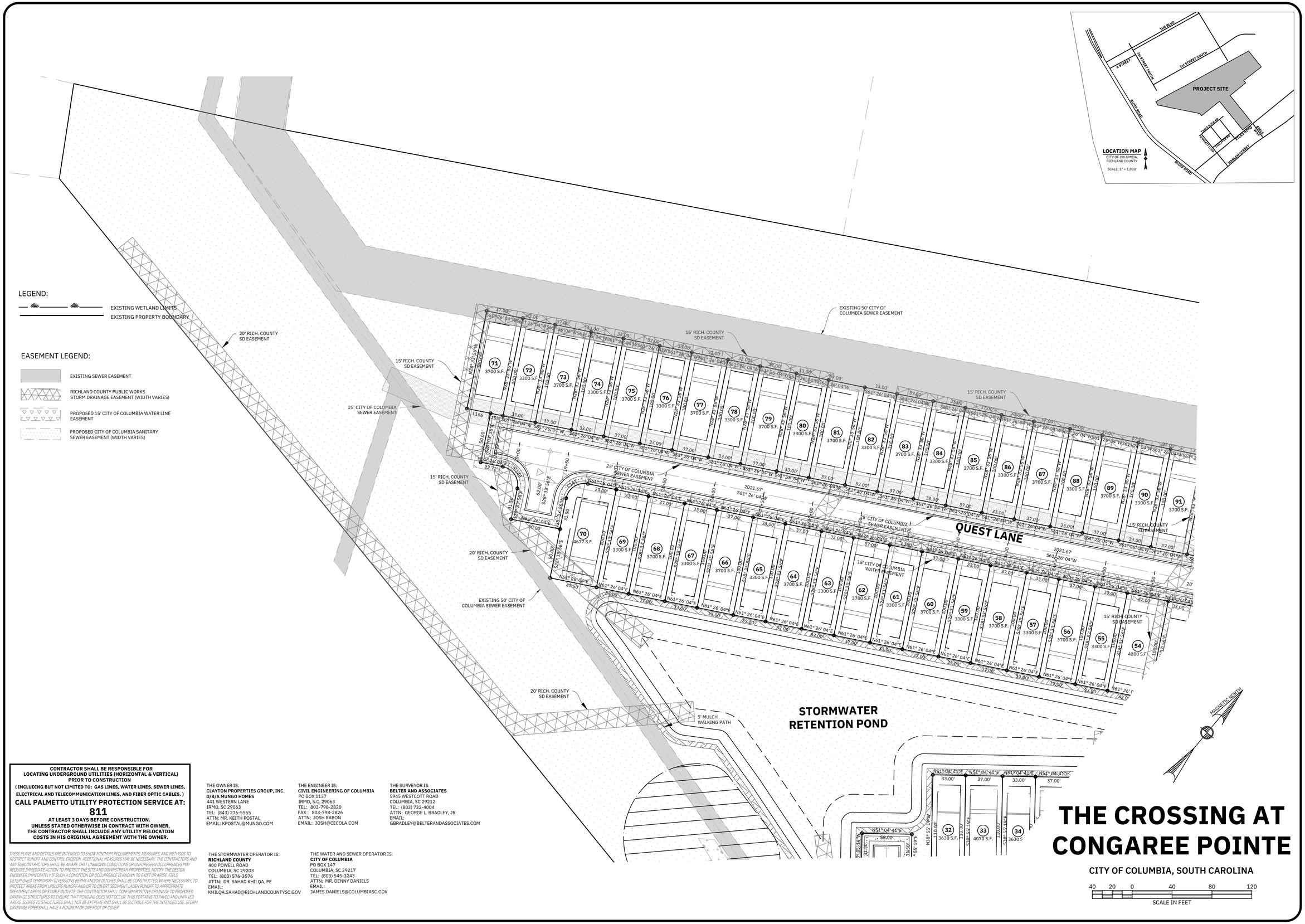
PO BOX 1137 IRMO, SC 29063
TEL (803) 798-2820 FAX (803) 798-2826

SOUTH CAROLINA — PROFESSIONAL ENGINEER — JOSHUA ROBERTSON — NO. 31562 — LICENSED

STAKING AND ALIGNMENT PLAN (2 OF 5)

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

SCALE	1" = 40'
DATE	----
DRAWN	ARR
DESIGNED	ARR
DRAWING NUMBER	5 OF
CHECKED BY:	
JOB NUMBER	25034



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THE CROSSING AT CONGAREE POINTE

CITY OF COLUMBIA, SOUTH CAROLINA

40 20 0 40 80 120
SCALE IN FEET

NO.	DATE	REVISION DESCRIPTION	BY

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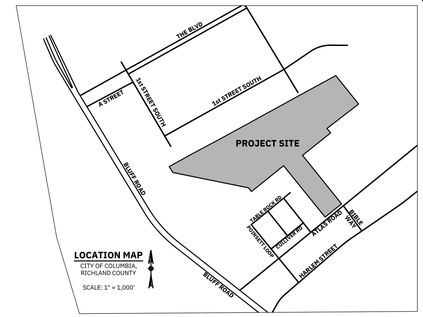
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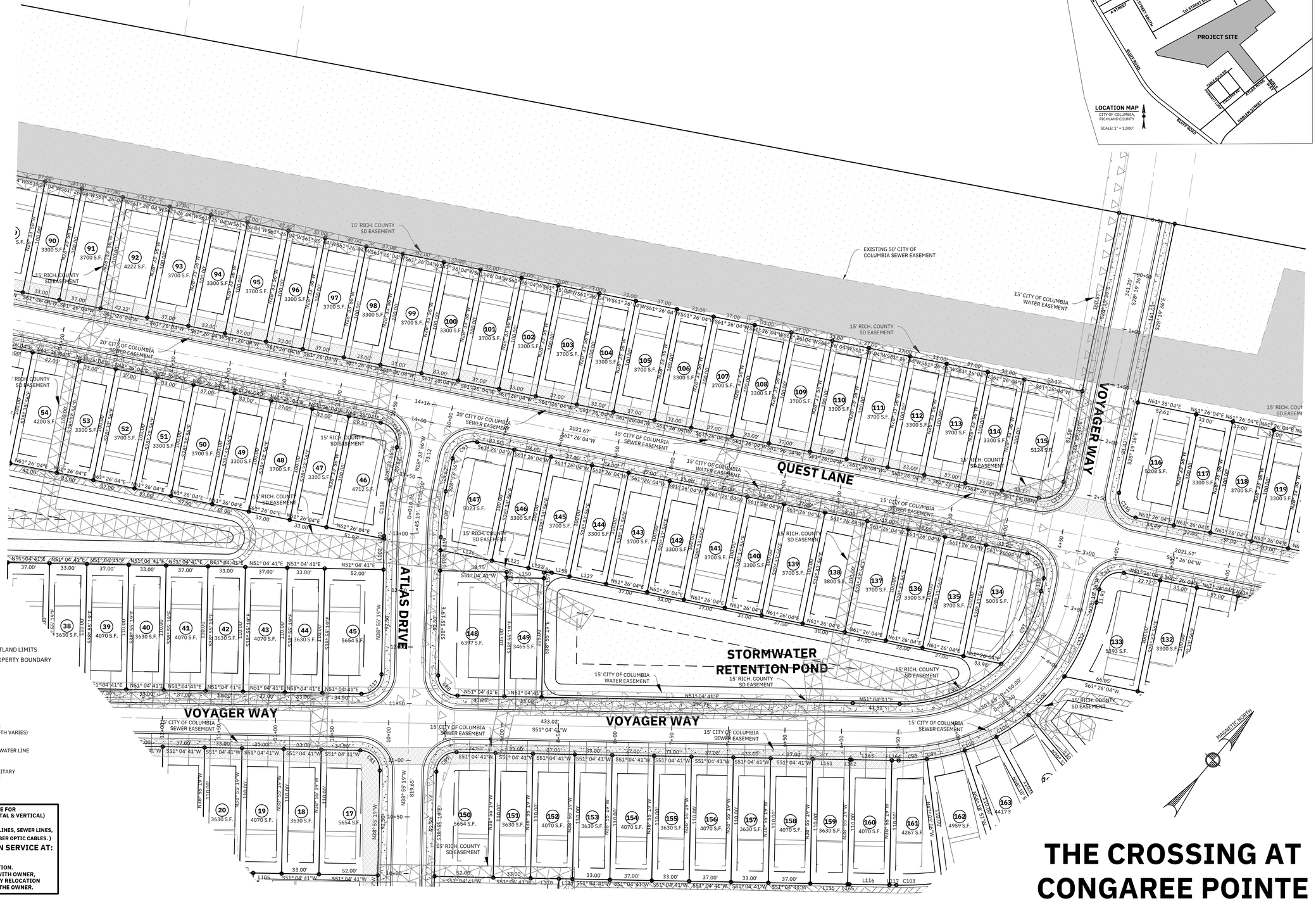
SOUTH CAROLINA — PROFESSIONAL ENGINEER — NO. 31562 — LICENSED — JOSHUA ROBERTSON

STAKING AND ALIGNMENT PLAN (3 OF 5)

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

SCALE	1" = 40'
DATE	----
DRAWN	ARR
DESIGNED	ARR
CHECKED BY:	
JOB NUMBER	25034
DRAWING NUMBER	6 OF





LEGEND:

EXISTING WETLAND LIMITS

EXISTING PROPERTY BOUNDARY

EASEMENT LEGEND:

EXISTING SEWER EASEMENT

RICHLAND COUNTY PUBLIC WORKS STORM DRAINAGE EASEMENT (WIDTH VARIES)

PROPOSED 15' CITY OF COLUMBIA WATER LINE EASEMENT

PROPOSED CITY OF COLUMBIA SANITARY SEWER EASEMENT (WIDTH VARIES)

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THE CROSSING AT CONGAREE POINTE

CITY OF COLUMBIA, SOUTH CAROLINA

40 20 0 40 80 120
SCALE IN FEET

NO.	DATE	REVISION DESCRIPTION	BY

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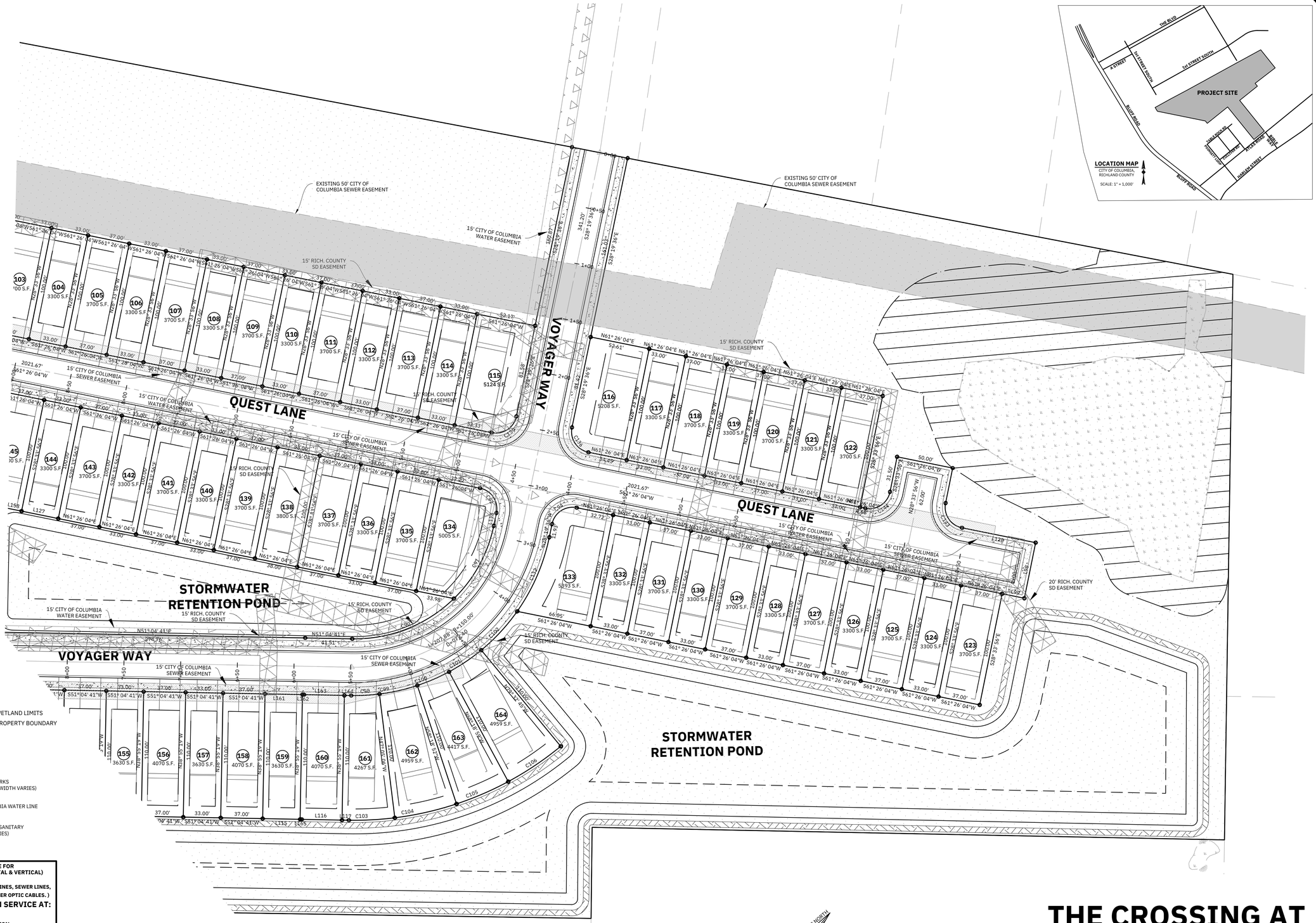
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SOUTH CAROLINA — PROFESSIONAL ENGINEER — NO. 31562 — LICENSED — JOSHUA T. RABON

STAKING AND ALIGNMENT PLAN (2 OF 5)

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

SCALE	1" = 40'
DATE	----
DRAWN	ARR
DESIGNED	ARR
CHECKED BY:	
JOB NUMBER	25034
DRAWING NUMBER	5 OF



LEGEND:

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- EXISTING PROPERTY BOUNDARY

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THE CROSSING AT CONGAREE POINTE

CITY OF COLUMBIA, SOUTH CAROLINA

MAGNETIC NORTH

40 20 0 40 80 120
SCALE IN FEET

NO.	DATE	DESCRIPTION	BY
		REVISION	

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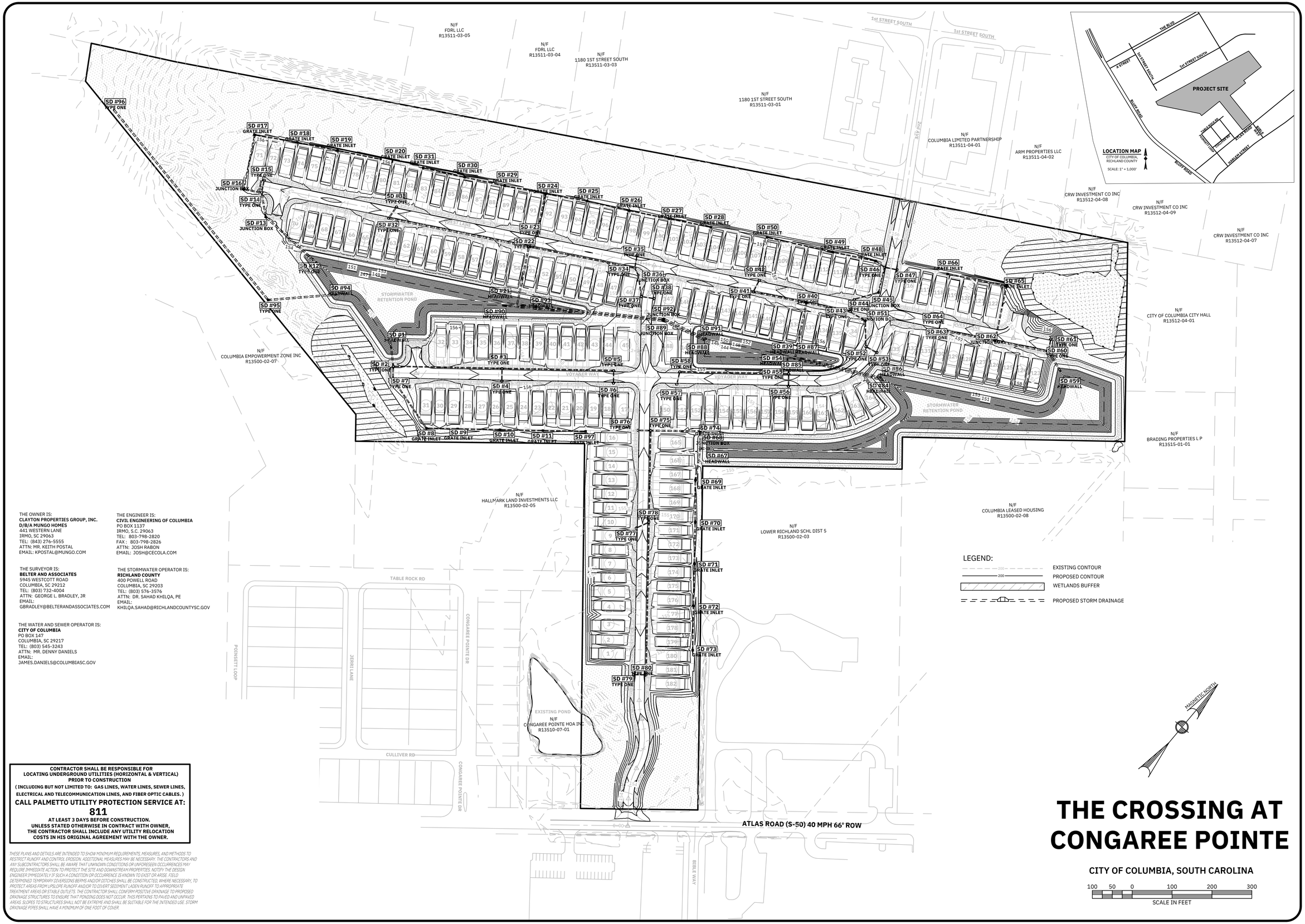
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SOUTH CAROLINA — PROFESSIONAL ENGINEER — JOSHUA ROBERTSON — NO. 31562 — LICENSED

STAKING AND ALIGNMENT PLAN (3 OF 5)

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

SCALE	1" = 40'
DATE	----
DRAWN	ARR
DESIGNED	ARR
CHECKED BY:	
JOB NUMBER	25034
DRAWING NUMBER	6 OF



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THE CROSSING AT CONGAREE POINTE

CITY OF COLUMBIA, SOUTH CAROLINA

100 50 0 100 200 300
SCALE IN FEET

NO.	DATE	DESCRIPTION	BY
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SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION — CIVIL ENGINEERING OF COLUMBIA, INC. NO. 000256

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SOUTH CAROLINA PROFESSIONAL ENGINEER — JOSHUA ROBERTSON — NO. 31562 — LICENSED

OVERALL GRADING AND DRAINAGE PLAN

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

SCALE	1" = 100'
DATE	----
DRAWN	ARR
DESIGNED	ARR
CHECKED BY:	
JOB NUMBER	25034
DRAWING NUMBER	10 OF

LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- 421.80 PAD ELEVATION
- ×459.27 SPOT ELEVATION
- WETLANDS BUFFER
- SD #1 PROPOSED STORM DRAINAGE
- LOD ——— LOD LIMITS OF DISTURBANCE
- GRATE INLET
- TYPE ONE CATCH BASIN
- JUNCTION BOX

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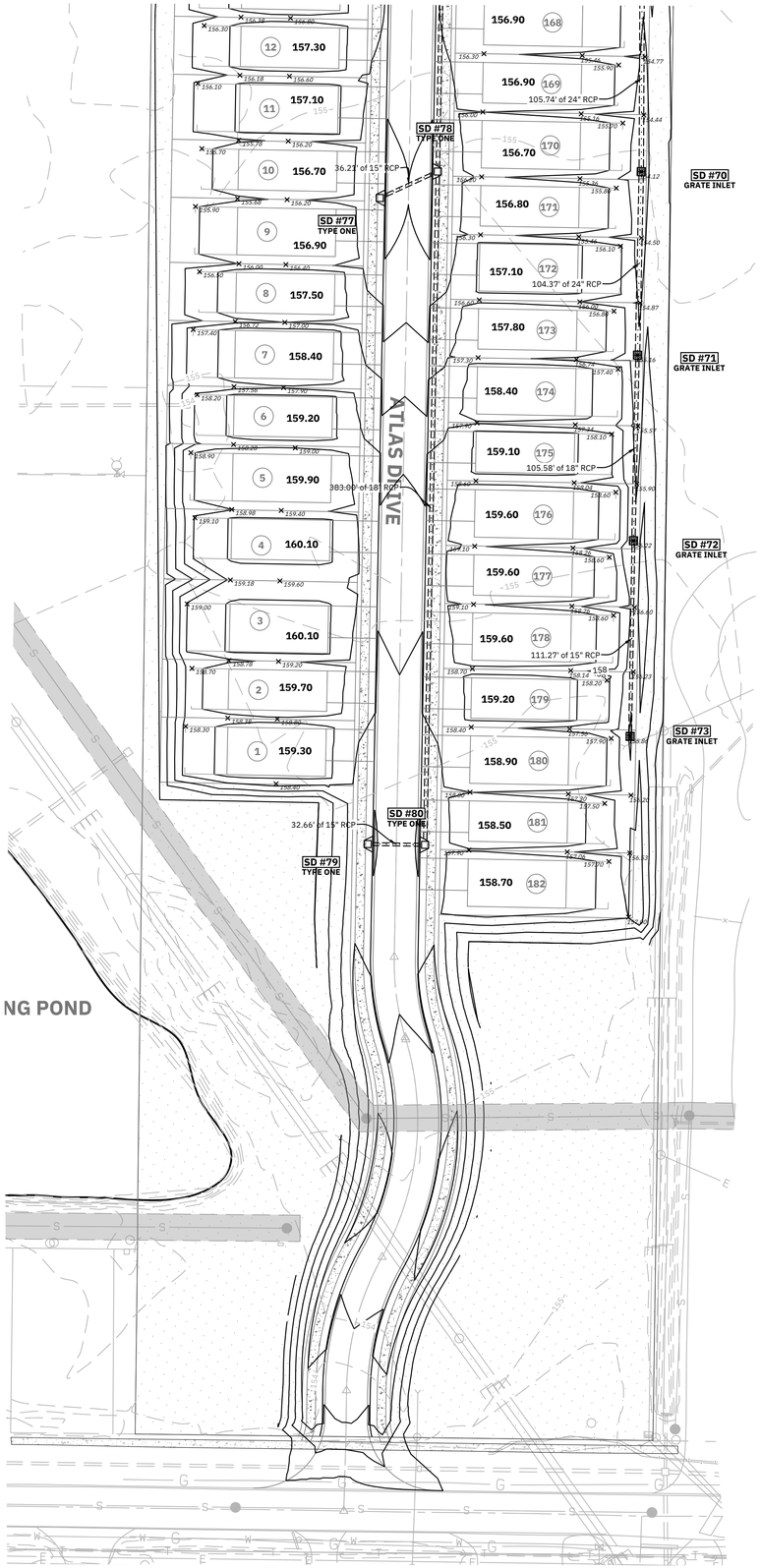
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EMAIL:
GBRADLEY@BELTERANDASSOCIATES.COM

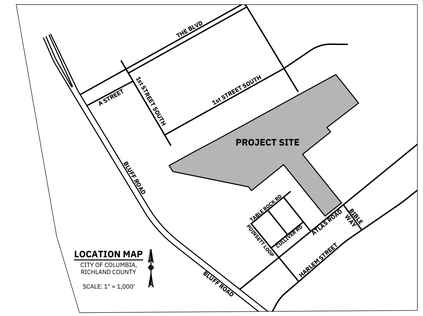
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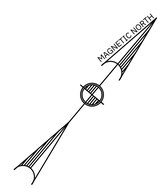
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THE CROSSING AT CONGAREE POINTE

CITY OF COLUMBIA, SOUTH CAROLINA

40 20 0 40 80 120
SCALE IN FEET

REVISION

NO.	DATE	DESCRIPTION	BY

SOUTH CAROLINA — CERTIFICATE OF AUTHORIZATION — CIVIL ENGINEERING OF COLUMBIA, INC. NO. 000256

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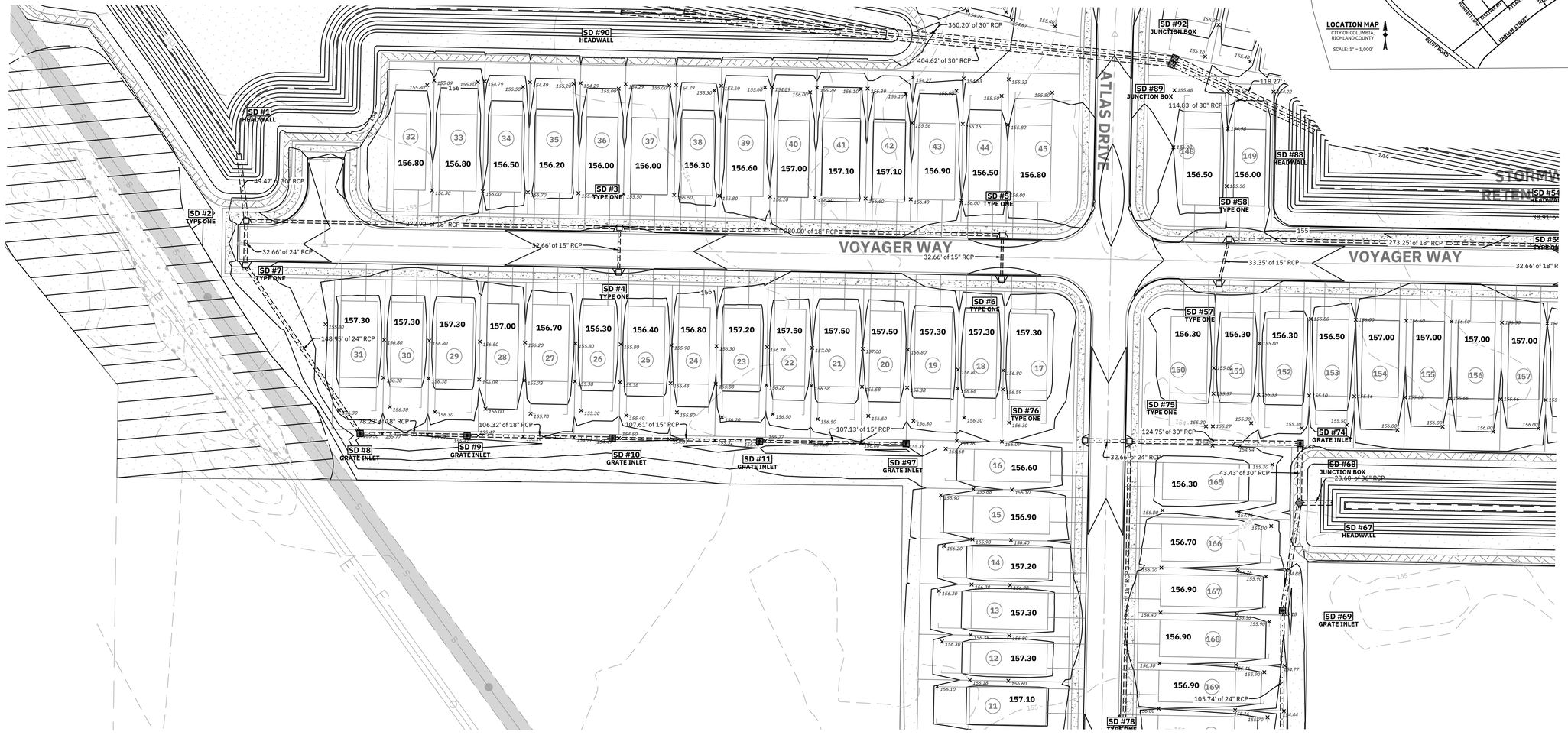
CIVIL ENGINEERING of COLUMBIA
PO BOX 1137 IRMO, SC 29063
TEL (803) 798-2820 FAX (803) 798-2826

SOUTH CAROLINA — PROFESSIONAL ENGINEER — JOSHUA ROBERT RABON — LICENSED — NO. 31562

GRADING AND DRAINAGE PLAN (1 OF 5)

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

SCALE	1" = 40'
DATE	----
DRAWN	ARR
DESIGNED	ARR
CHECKED BY:	
JOB NUMBER	25034
DRAWING NUMBER	11 OF



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IRMO, SC 29063
TEL: (843) 276-5555
ATTN: MR. KEITH POSTAL
EMAIL: KPOSTAL@MUNGO.COM

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LEGEND:

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200	PROPOSED CONTOUR
421.80	PAD ELEVATION
×459.27	SPOT ELEVATION
	WETLANDS BUFFER
SD #1	PROPOSED STORM DRAINAGE
LOD — LOD	LIMITS OF DISTURBANCE
	GRATE INLET
	TYPE ONE CATCH BASIN
	JUNCTION BOX

MAGNETIC NORTH

THE CROSSING AT CONGAREE POINTE

CITY OF COLUMBIA, SOUTH CAROLINA

40 20 0 40 80 120
SCALE IN FEET

NO.	DATE	DESCRIPTION	BY
		REVISION	

SOUTH CAROLINA — CIVIL ENGINEERING OF COLUMBIA, INC. NO. 000256 — CERTIFICATE OF AUTHORIZATION

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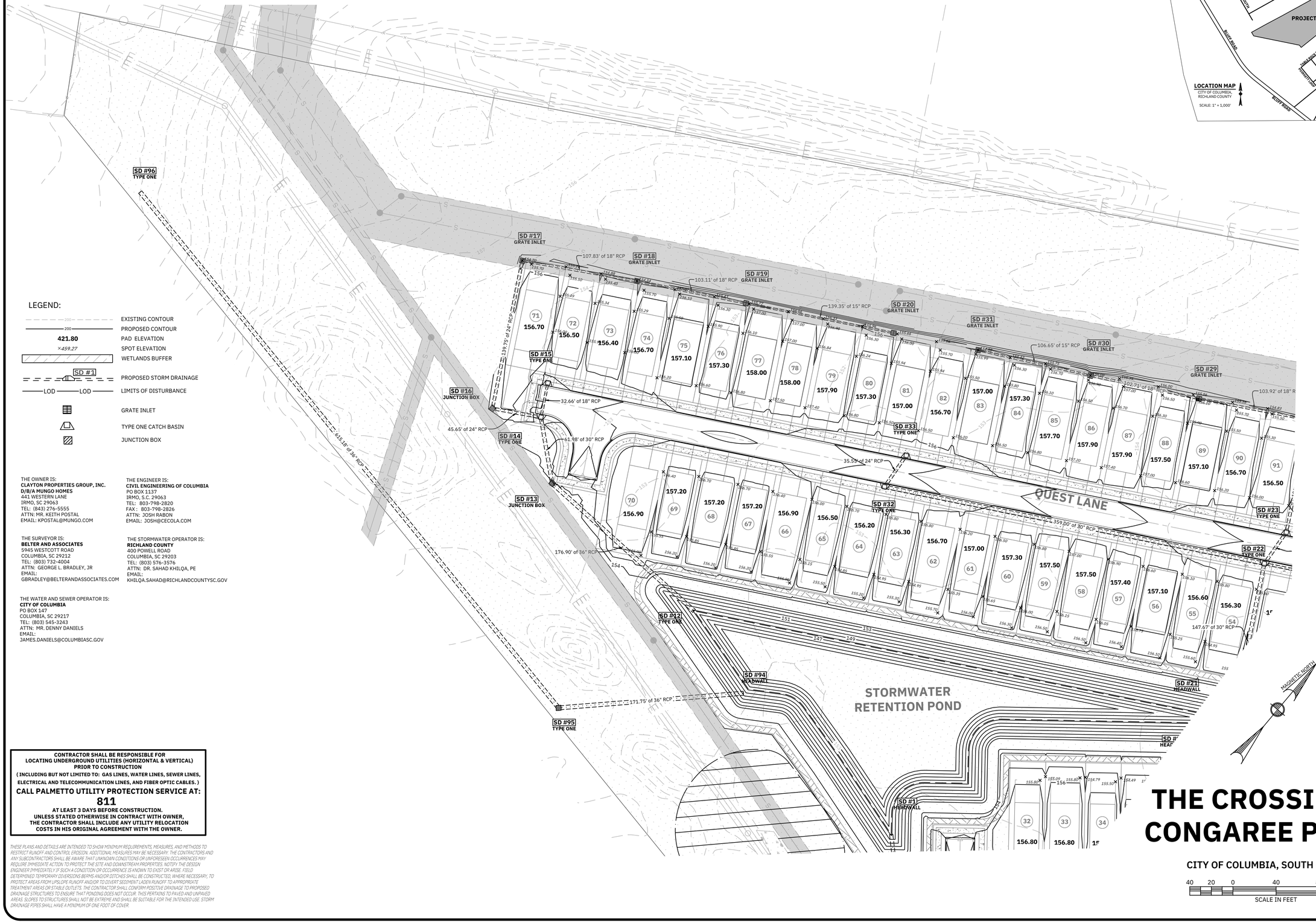
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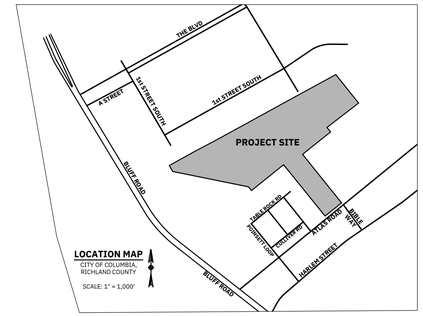
SOUTH CAROLINA — JOSHUA ROBSON — LICENSED PROFESSIONAL ENGINEER — NO. 31562

GRADING AND DRAINAGE PLAN (2 OF 5)

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IRMO, SC 29063

SCALE	1" = 40'
DATE	----
DRAWN	ARR
DESIGNED	ARR
CHECKED BY:	
JOB NUMBER	25034
DRAWING NUMBER	12 OF





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THE CROSSING AT CONGAREE POINTE

CITY OF COLUMBIA, SOUTH CAROLINA

40 20 0 40 80 120
SCALE IN FEET

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REVISION			

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SOUTH CAROLINA NOTIFICATION OF INTENT TO PRACTICE CIVIL ENGINEERING OF COLUMBIA, INC. NO. 000256 CERTIFICATE OF AUTHORIZATION

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

SOUTH CAROLINA PROFESSIONAL ENGINEER LICENSED NO. 31562 JOSHUA ROBERTSON RABON

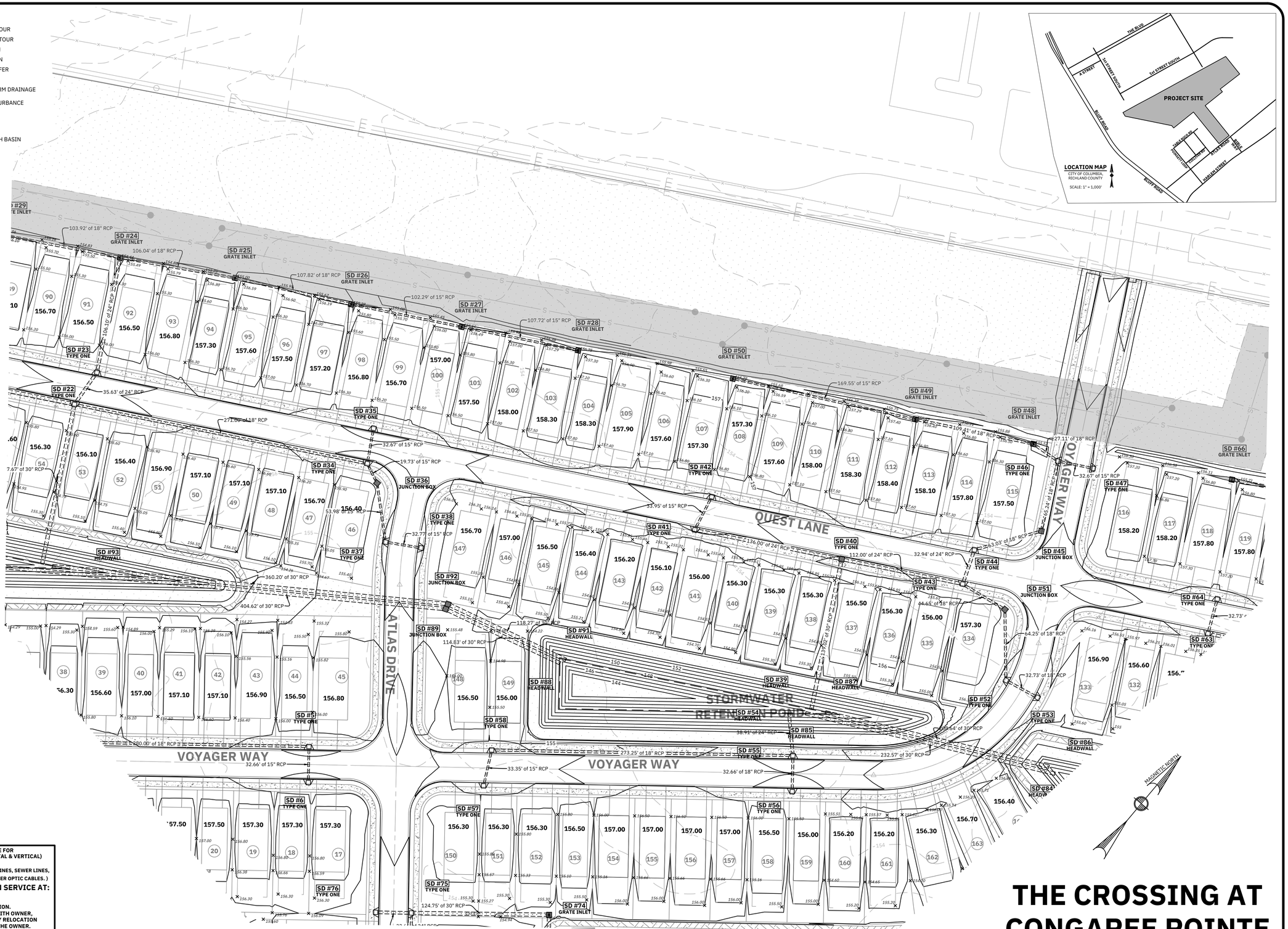
GRADING AND DRAINAGE PLAN (3 OF 5)

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

SCALE	1" = 40'
DATE	----
DRAWN	ARR
DESIGNED	ARR
CHECKED BY:	
JOB NUMBER	25034
DRAWING NUMBER	13 OF

LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- 421.80 PAD ELEVATION
- ×459.27 SPOT ELEVATION
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- SD #1 PROPOSED STORM DRAINAGE
- LOD LOD LIMITS OF DISTURBANCE
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THE CROSSING AT CONGAREE POINTE

CITY OF COLUMBIA, SOUTH CAROLINA

40 20 0 40 80 120
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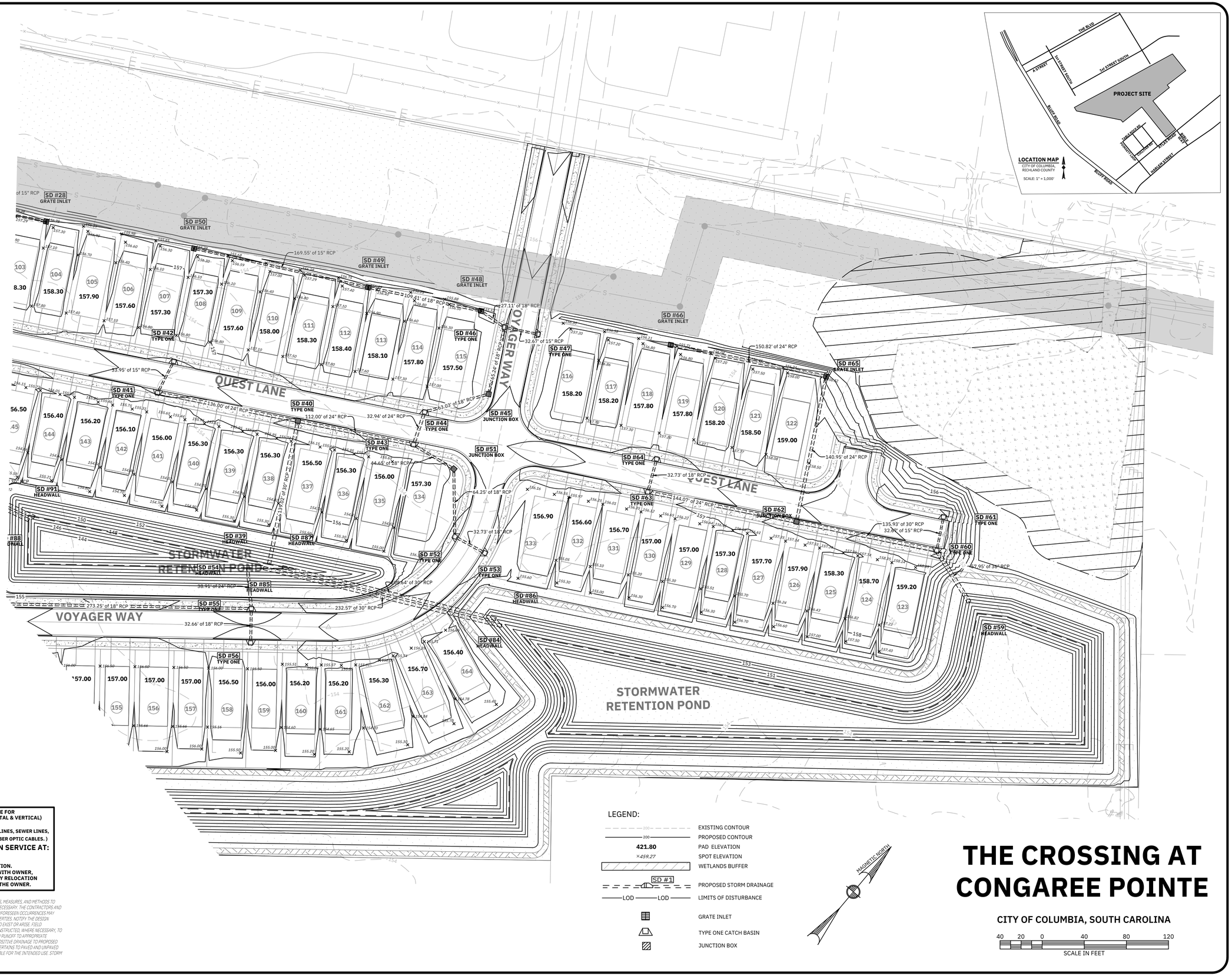
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SOUTH CAROLINA — LICENSED PROFESSIONAL ENGINEER — NO. 31562 — JOSHUA ROBERT RABON

GRADING AND DRAINAGE PLAN (4 OF 5)

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DRAWING NUMBER	14 OF
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MAGNETIC NORTH

THE CROSSING AT CONGAREE POINTE

CITY OF COLUMBIA, SOUTH CAROLINA

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SCALE IN FEET

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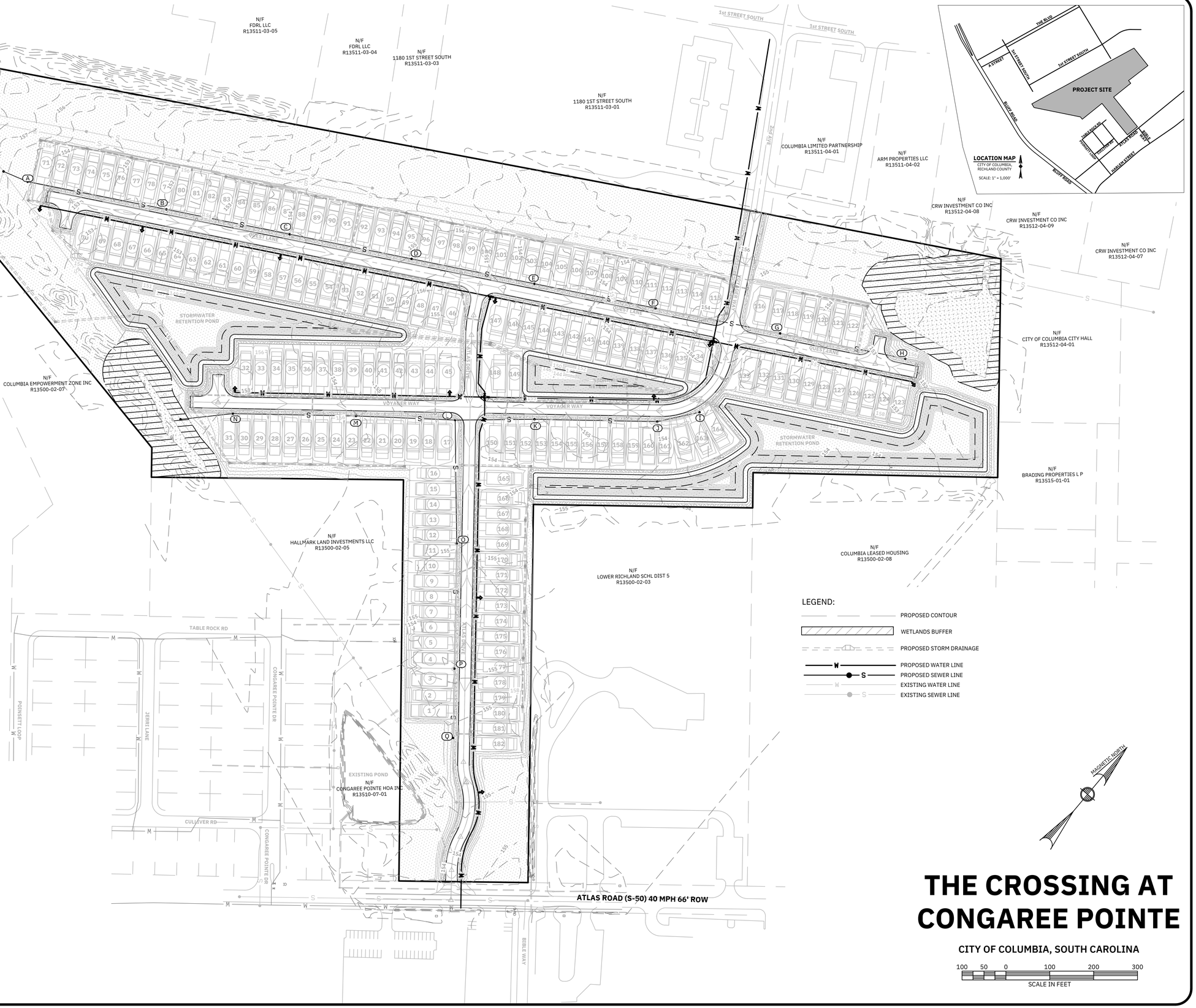
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SOUTH CAROLINA PROFESSIONAL ENGINEER NO. 31562 LICENSED JOSHUA ROBERTS RABON

GRADING AND DRAINAGE PLAN (5 OF 5)

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FAX: 803-798-2826
ATTN: JOSH RABON
EMAIL: JOSH@CECOLA.COM

THE SURVEYOR IS:
BELTER AND ASSOCIATES
5945 WESTCOTT ROAD
COLUMBIA, SC 29212
TEL: (803) 732-4004
ATTN: GEORGE L. BRADLEY, JR
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400 POWELL ROAD
COLUMBIA, SC 29203
TEL: (803) 576-3576
ATTN: DR. SAHAD KHILQA, PE
EMAIL:
KHILQA.SAHAD@RICHLANDCOUNTYSC.GOV

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COLUMBIA, SC 29217
TEL: (803) 545-3243
ATTN: MR. DENNY DANIELS
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THE CROSSING AT CONGAREE POINTE

CITY OF COLUMBIA, SOUTH CAROLINA

NO.	DATE	REVISION DESCRIPTION	BY

SOUTH CAROLINA — CIVIL ENGINEERING OF COLUMBIA, INC. NO. 000256 — CERTIFICATE OF AUTHORIZATION

THE PRODUCT ON THIS SHEET WAS PREPARED BY CIVIL ENGINEERING OF COLUMBIA FOR A SPECIFIC PURPOSE, USE, BY ANY OTHER PERSON, WITHOUT WRITTEN AUTHORIZATION FROM CIVIL ENGINEER IS STRICTLY PROHIBITED.

ANY CERTIFICATIONS, WARRANTIES, OR GUARANTEES SIGNED BY THE ENGINEER HEREIN ARE INTENDED TO BE FOR THE PROJECT AS INTENDED AND EXPRESS THAT STANDARD AND REASONABLE CARE WERE USED IN PREPARATION OF THESE DOCUMENTS.

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

SOUTH CAROLINA — LICENSED PROFESSIONAL ENGINEER — NO. 31562 — JOSHUA ROBERTSON

OVERALL UTILITIES PLAN

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

SCALE	1" = 100'
DATE	----
DRAWN	ARR
DESIGNED	ARR
CHECKED BY:	
JOB NUMBER	25034
DRAWING NUMBER	16 OF

LEGEND:

- PROPOSED CONTOUR
- WETLANDS BUFFER
- PROPOSED RICHLAND COUNTY STORM DRAINAGE LINE EASEMENT
- EXISTING CITY OF COLUMBIA SEWER LINE EASEMENT
- PROPOSED CITY OF COLUMBIA SEWER LINE EASEMENT
- PROPOSED CITY OF COLUMBIA WATER MAIN EASEMENT
- PROPOSED STORM DRAINAGE LINE
- PROPOSED WATER MAIN
- PROPOSED SEWER LINE
- EXISTING SEWER LINE

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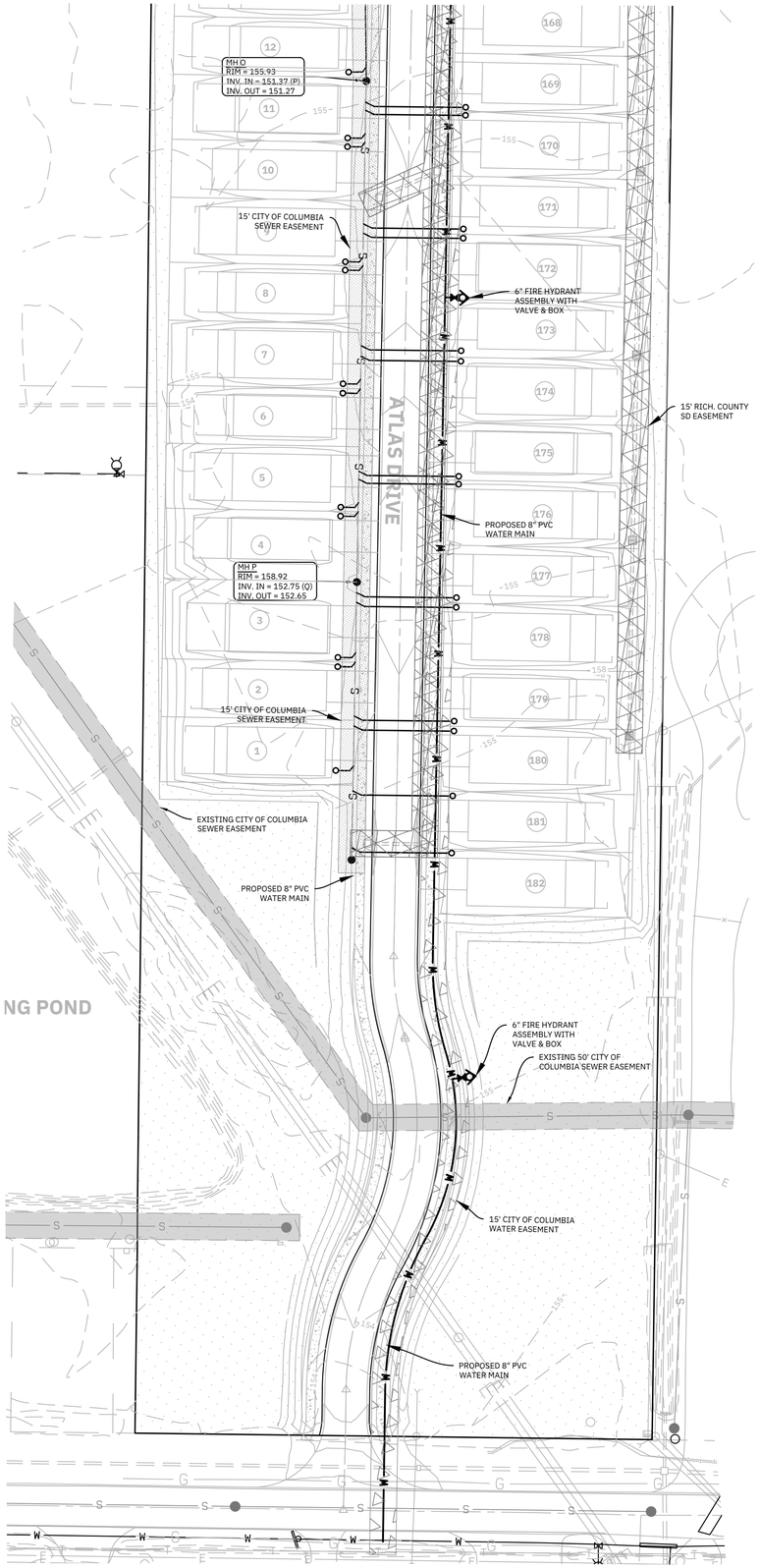
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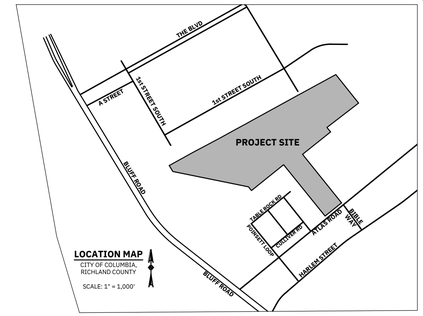
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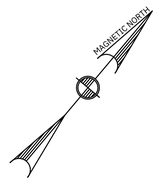
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THE CROSSING AT CONGAREE POINTE

CITY OF COLUMBIA, SOUTH CAROLINA

40 20 0 40 80 120
SCALE IN FEET

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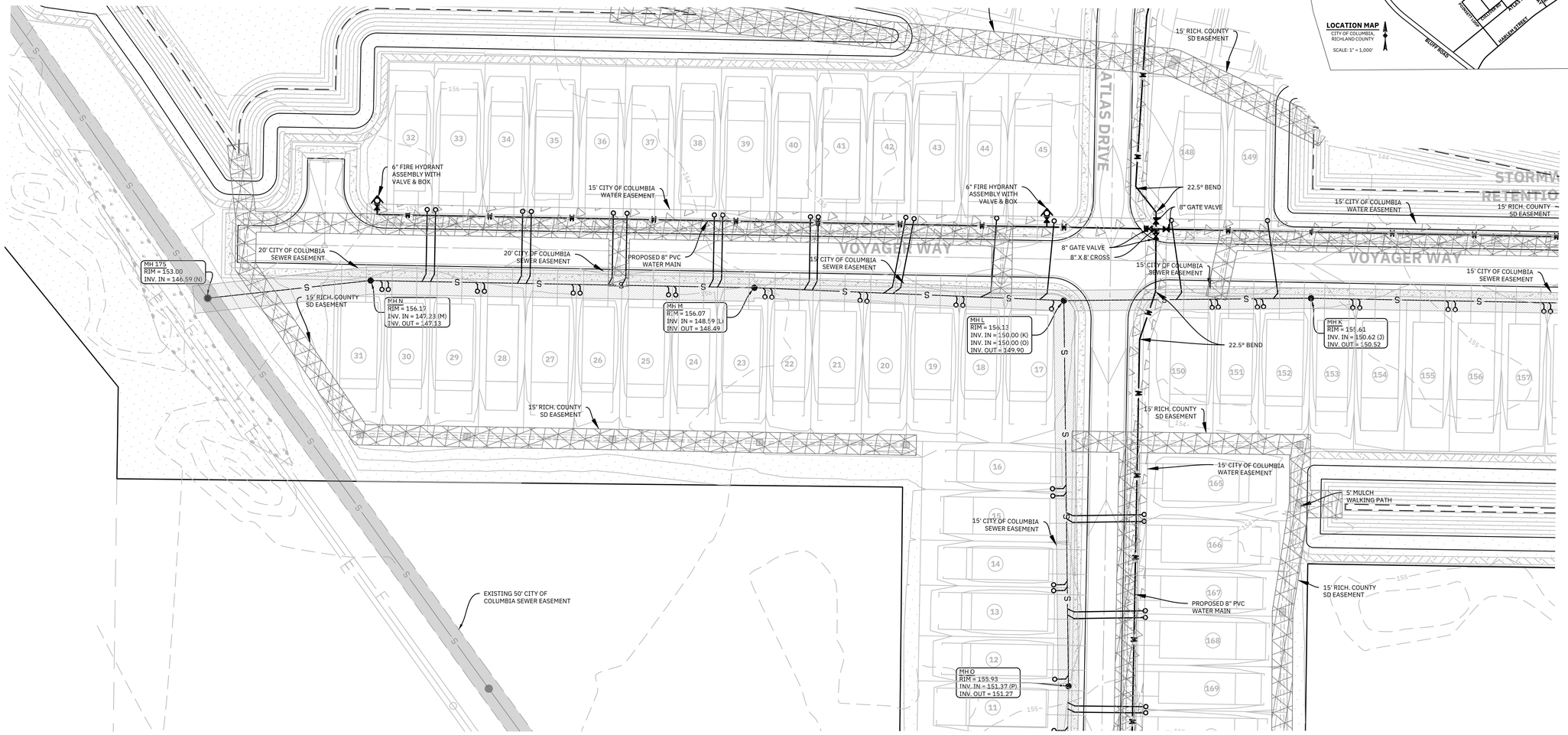
CIVIL ENGINEERING of COLUMBIA
PO BOX 1137 IRMO, SC 29063
TEL (803) 798-2820 FAX (803) 798-2826

SOUTH CAROLINA — JOSHUA NELSON ROBSON — LICENSED PROFESSIONAL ENGINEER — NO. 31562

UTILITIES PLAN (1 OF 5)

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

SCALE	1" = 40'
DATE	----
DRAWN	ARR
DESIGNED	ARR
CHECKED BY:	
JOB NUMBER	25034
DRAWING NUMBER	17 OF



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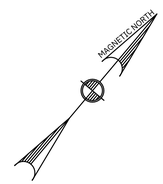
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THE CROSSING AT CONGAREE POINTE

CITY OF COLUMBIA, SOUTH CAROLINA

40 20 0 40 80 120
SCALE IN FEET

NO.	DATE	DESCRIPTION	BY
		REVISION	

SOUTH CAROLINA — CIVIL ENGINEERING OF COLUMBIA, INC. NO. 000256 — NOTIFICATION OF CERTIFICATE OF AUTHORIZATION

THE PRODUCT ON THIS SHEET WAS PREPARED FOR USE BY CECOLA FOR A SPECIFIC PURPOSE. USE, BY ANY OTHER PERSON, WITHOUT WRITTEN AUTHORIZATION FROM CECOLA, THE ENGINEER, IS STRICTLY PROHIBITED.

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

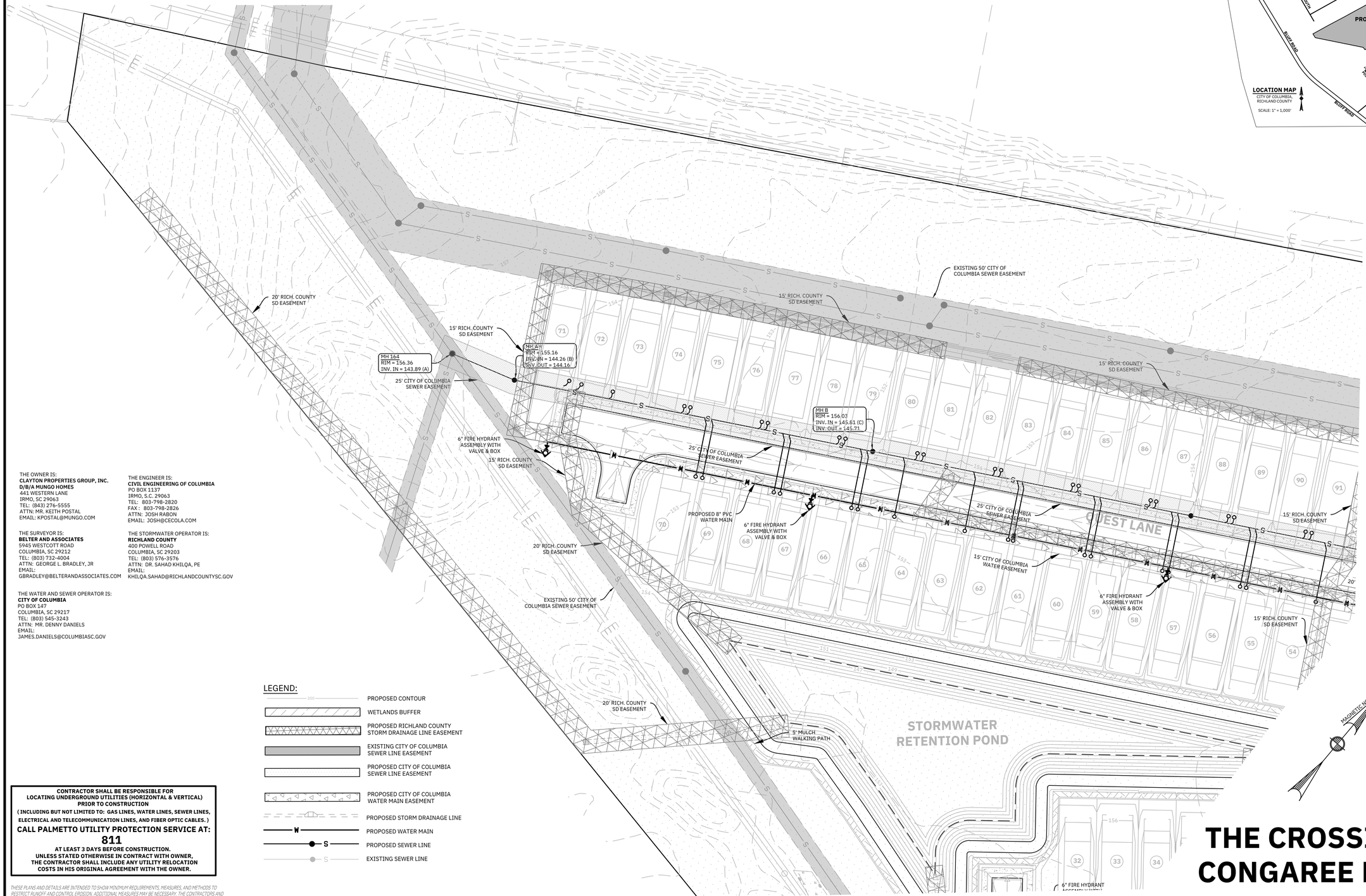
SOUTH CAROLINA PROFESSIONAL ENGINEER — LICENSED — NO. 31542 — JOSHUA ROBERTS RABON

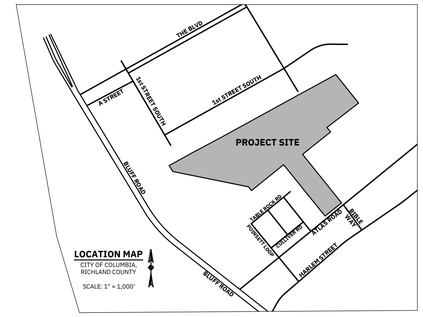
UTILITIES PLAN (2 OF 5)

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

JOB NUMBER **25034**

SCALE	1" = 40'
DATE	----
DRAWN	ARR
DESIGNED	ARR
CHECKED BY:	
DRAWING NUMBER	18 OF





THE OWNER IS:
CLAYTON PROPERTIES GROUP, INC.
D/B/A MUNGO HOMES
441 WESTERN LANE
IRMO, SC 29063
TEL: (843) 276-5555
ATTN: MR. KEITH POSTAL
EMAIL: KPOSTAL@MUNGO.COM

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40 20 0 40 80 120
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SOUTH CAROLINA — JOSHUA RABON ROBERTS — LICENSED PROFESSIONAL ENGINEER NO. 31562

UTILITIES PLAN (3 OF 5)

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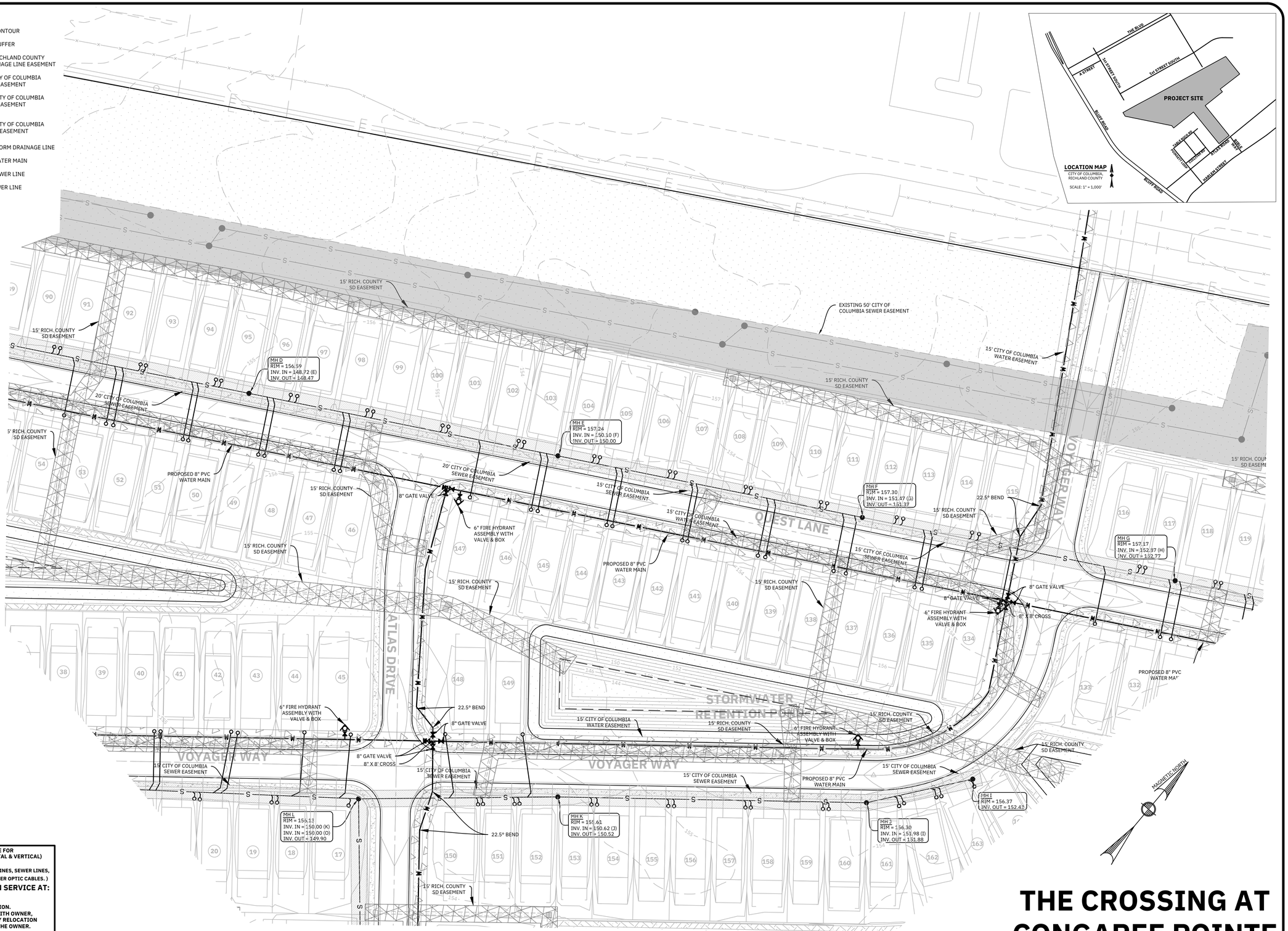
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TEL (803) 798-2820 FAX (803) 798-2826

SOUTH CAROLINA — PROFESSIONAL ENGINEER — JOSHUA ROBERTSON — NO. 31562 — LICENSED

UTILITIES PLAN (4 OF 5)

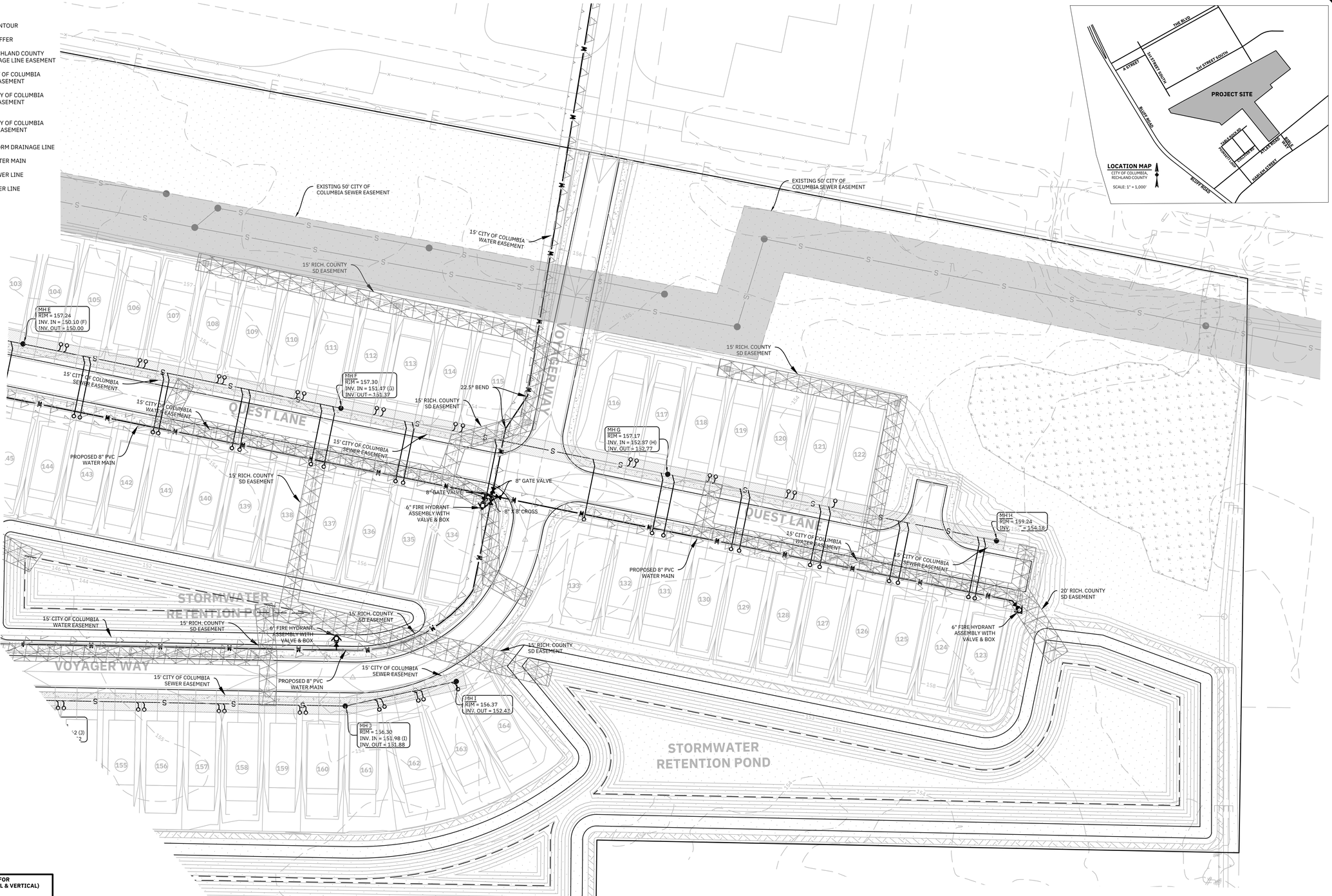
PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

JOB NUMBER 25034

SCALE	1" = 40'
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LEGEND:

- PROPOSED CONTOUR
- WETLANDS BUFFER
- PROPOSED RICHLAND COUNTY STORM DRAINAGE LINE EASEMENT
- EXISTING CITY OF COLUMBIA SEWER LINE EASEMENT
- PROPOSED CITY OF COLUMBIA SEWER LINE EASEMENT
- PROPOSED CITY OF COLUMBIA WATER MAIN EASEMENT
- PROPOSED STORM DRAINAGE LINE
- PROPOSED WATER MAIN
- PROPOSED SEWER LINE
- EXISTING SEWER LINE



THE ENGINEER IS:
CIVIL ENGINEERING OF COLUMBIA
PO BOX 1137
IRMO, S.C. 29063
TEL: 803-798-2820
FAX: 803-798-2826
ATTN: JOSH RABON
EMAIL: JOSH@CECOLA.COM

THE STORMWATER OPERATOR IS:
RICHLAND COUNTY
400 POWELL ROAD
COLUMBIA, SC 29203
TEL: (803) 576-3576
ATTN: DR. SAHAD KHILQA, PE
EMAIL:
KHILQA.SAHAD@RICHLANDCOUNTYSC.GOV

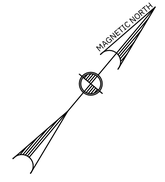
THE OWNER IS:
CLAYTON PROPERTIES GROUP, INC.
D/B/A MUNGO HOMES
441 WESTERN LANE
IRMO, SC 29063
TEL: (843) 276-5555
ATTN: MR. KEITH POSTAL
EMAIL: KPOSTAL@MUNGO.COM

THE SURVEYOR IS:
BELTER AND ASSOCIATES
5945 WESTCOTT ROAD
COLUMBIA, SC 29212
TEL: (803) 732-4004
ATTN: GEORGE L. BRADLEY, JR
EMAIL:
GBRADLEY@BELTERANDASSOCIATES.COM

THE WATER AND SEWER OPERATOR IS:
CITY OF COLUMBIA
PO BOX 147
COLUMBIA, SC 29217
TEL: (803) 545-3243
ATTN: MR. DENNY DANIELS
EMAIL:
JAMES.DANIELS@COLUMBIASC.GOV

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 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. FIELD DETERMINED TEMPORARY DIVERSIONS BERMS AND/OR DITCHES SHALL BE CONSTRUCTED, WHERE NECESSARY, TO PROTECT AREAS FROM UPSLOPE RUNOFF AND/OR TO DIVERT SEDIMENT LADEN 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.



THE CROSSING AT CONGAREE POINTE

CITY OF COLUMBIA, SOUTH CAROLINA

40 20 0 40 80 120
SCALE IN FEET

NO.	DATE	DESCRIPTION	BY
		REVISION	

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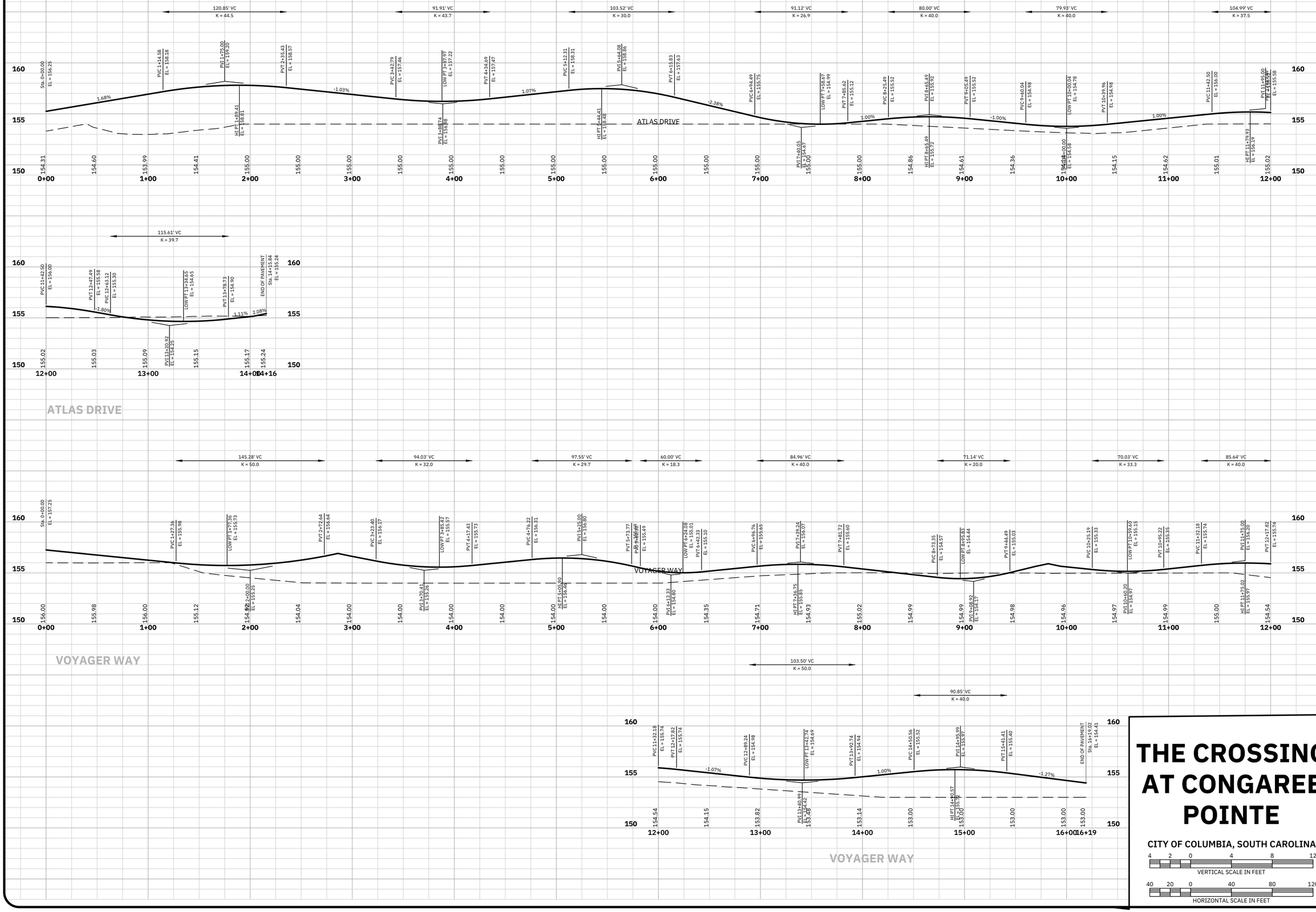
CIVIL ENGINEERING of COLUMBIA
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TEL (803) 798-2820 FAX (803) 798-2826

SOUTH CAROLINA — PROFESSIONAL ENGINEER — NO. 31562 — LICENSED — JOSHUA ROBERT RABON

UTILITIES PLAN (5 OF 5)

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

SCALE	1" = 40'
DATE	----
DRAWN	ARR
DESIGNED	ARR
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DRAWING NUMBER	21 OF
JOB NUMBER	25034



THE CROSSING AT CONGAREE POINTE

CITY OF COLUMBIA, SOUTH CAROLINA

VERTICAL SCALE IN FEET: 4 2 0 4 8 12

HORIZONTAL SCALE IN FEET: 40 20 0 40 80 120

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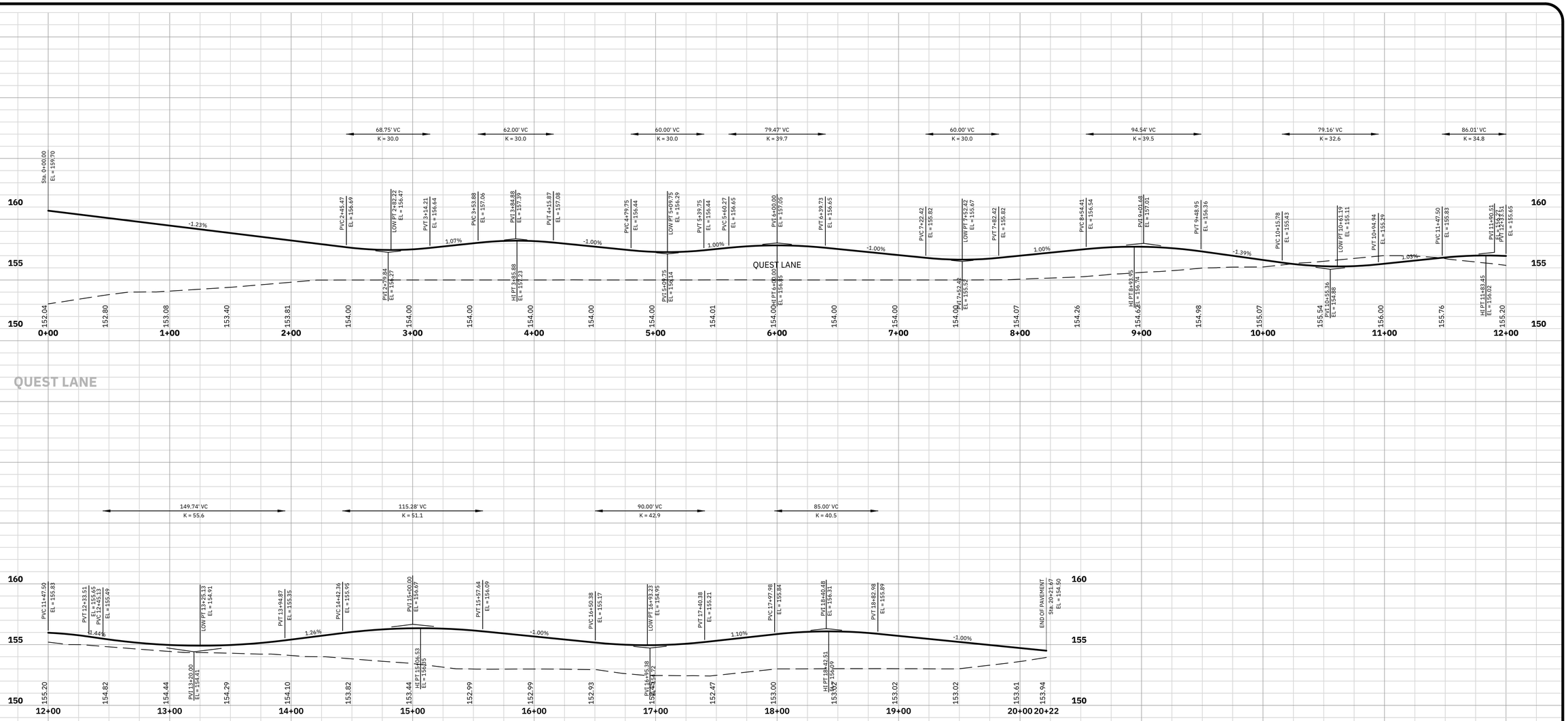
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SOUTH CAROLINA — LICENSED PROFESSIONAL ENGINEER — JOSHUA ROBERTSON — NO. 31562 — NOLLA

ROAD PROFILES (1 OF 2)

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

SCALE	1" = 40'
DATE	----
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JOB NUMBER	25034
DRAWING NUMBER	22 OF



QUEST LANE

QUEST LANE

THE CROSSING AT CONGAREE POINTE

CITY OF COLUMBIA, SOUTH CAROLINA

4 2 0 4 8 12
VERTICAL SCALE IN FEET

40 20 0 40 80 120
HORIZONTAL SCALE IN FEET

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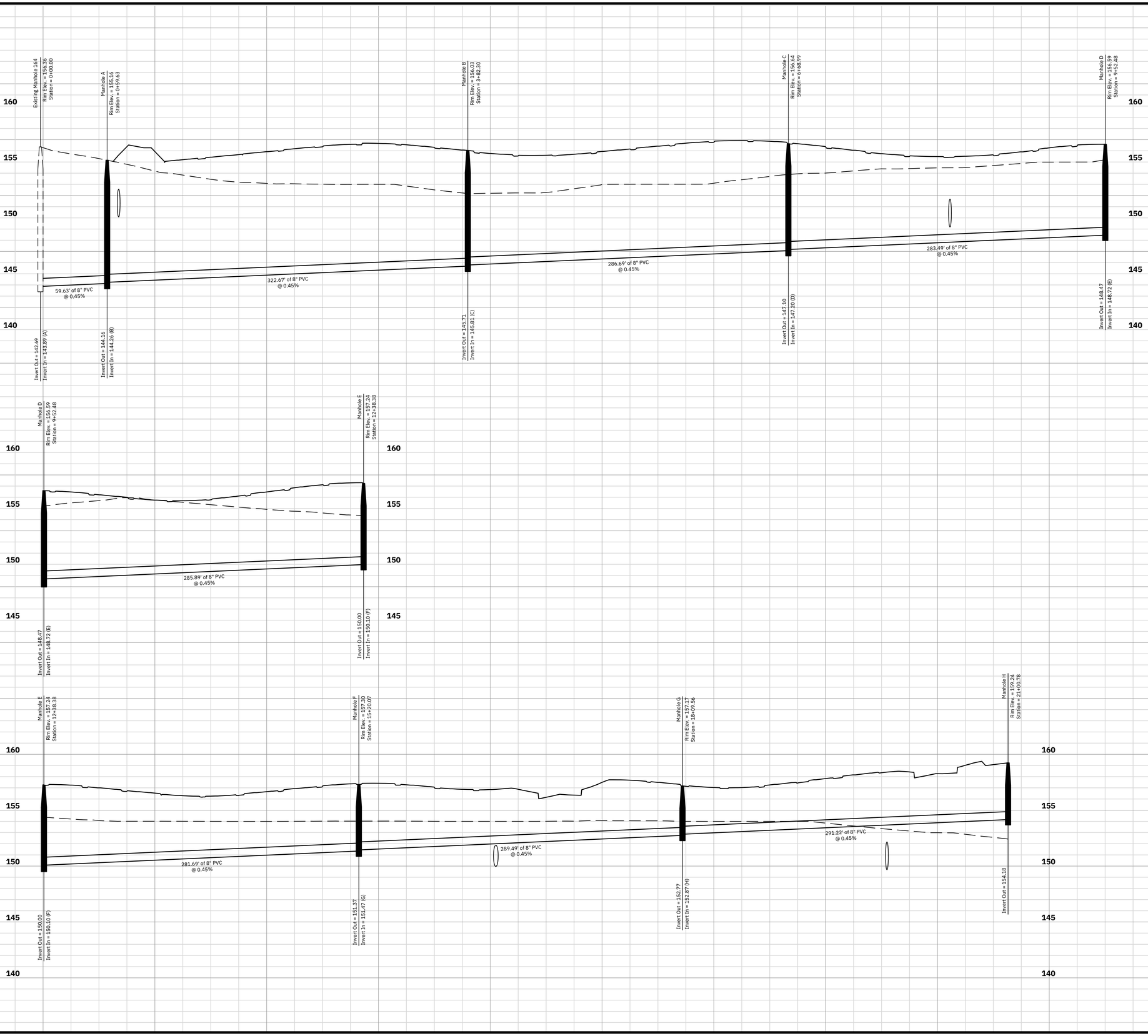
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SOUTH CAROLINA — PROFESSIONAL ENGINEER — NO. 31562 — LICENSED — JOSHUA ROBERTSON WHICH — NORTH

ROAD PROFILES (2 OF 2)

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

SCALE	1" = 40'
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DESIGNED	ARR
CHECKED BY:	
JOB NUMBER	25034
DRAWING NUMBER	23 OF



THE CROSSING AT CONGAREE POINTE

CITY OF COLUMBIA, SOUTH CAROLINA

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HORIZONTAL SCALE IN FEET

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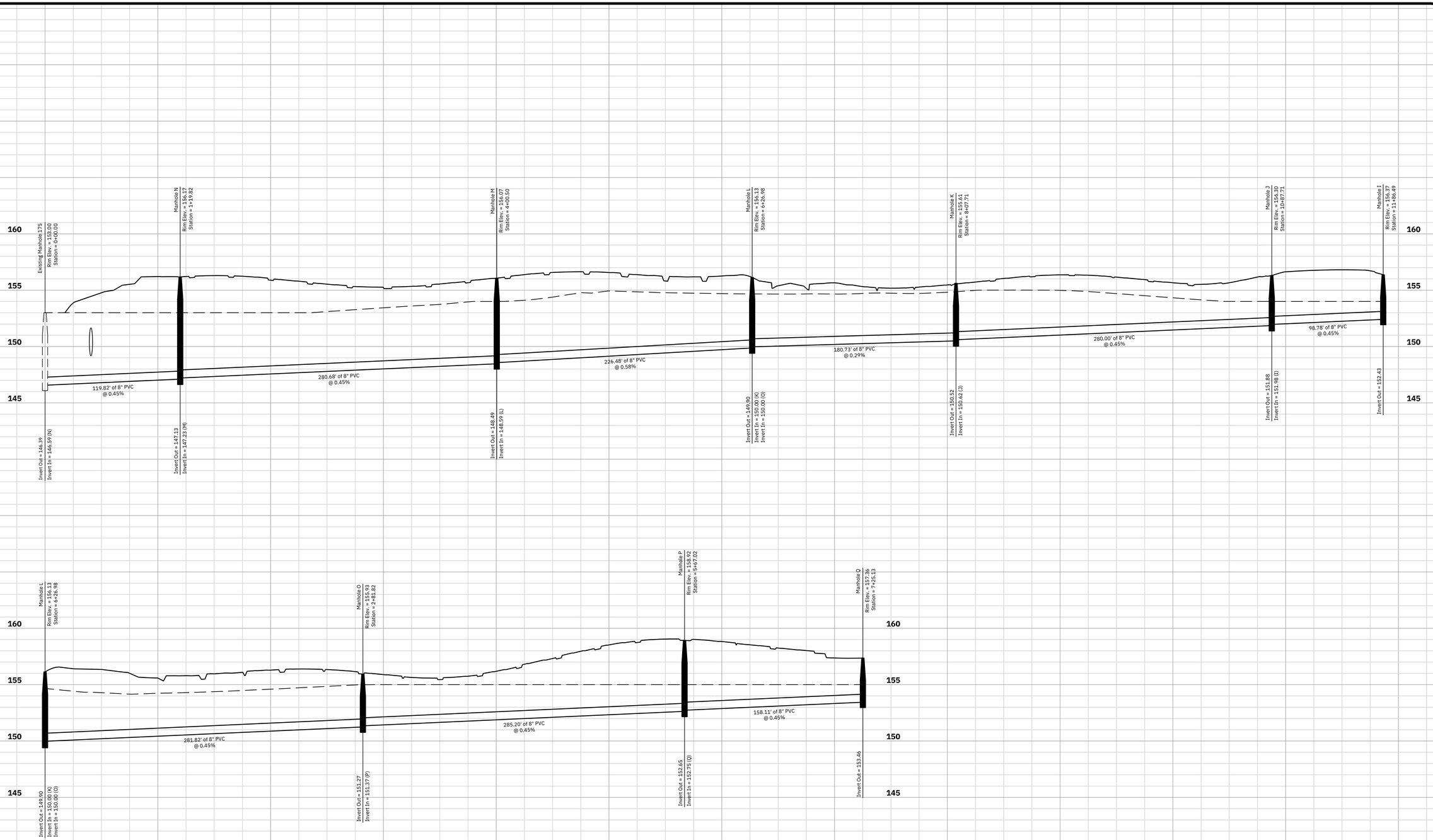
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SOUTH CAROLINA — PROFESSIONAL ENGINEER — LICENSED — JOSHUA ROBINSON — NO. 31562

SANITARY SEWER PROFILES (1 OF 2)

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

SCALE	1" = 40'
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JOB NUMBER	25034
DRAWING NUMBER	24 OF



THE CROSSING AT CONGAREE POINTE

CITY OF COLUMBIA, SOUTH CAROLINA

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VERTICAL SCALE IN FEET

40 20 0 40 80 120
HORIZONTAL SCALE IN FEET

NO.	DATE	REVISION DESCRIPTION	BY

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SOUTH CAROLINA — LICENSED PROFESSIONAL ENGINEER — NO. 31562 — JOSHUA ROBERTSON

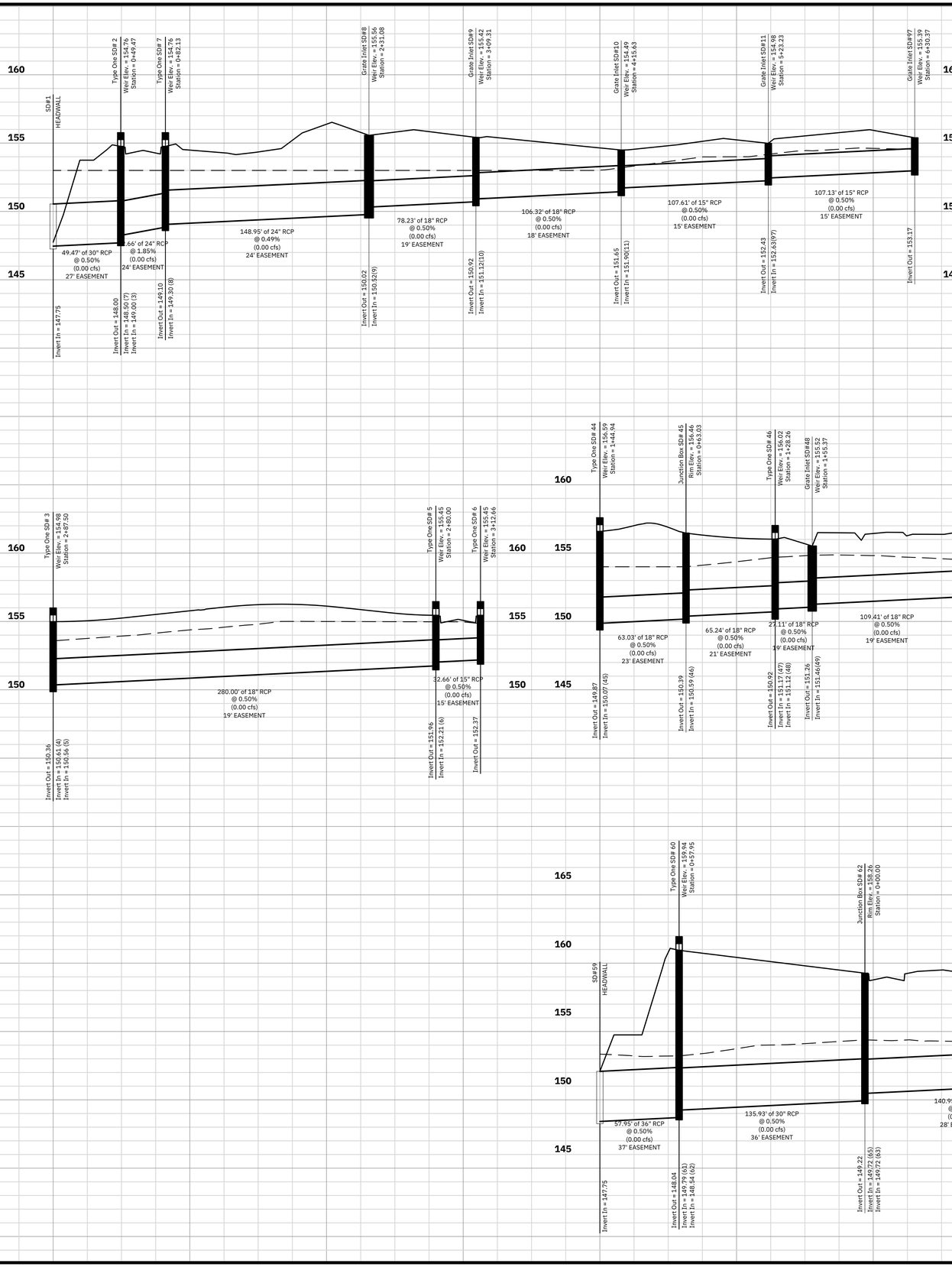
SANITARY SEWER PROFILES (2 OF 2)

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

CHECKED BY:

JOB NUMBER 25034

SCALE	1" = 40'
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THE CROSSING AT CONGAREE POINTE

CITY OF COLUMBIA, SOUTH CAROLINA

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VERTICAL SCALE IN FEET

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HORIZONTAL SCALE IN FEET

NO.	DATE	DESCRIPTION	BY

SOUTH CAROLINA NOTIFICATION OF CERTIFICATE OF AUTHORIZATION
CIVIL ENGINEERING OF COLUMBIA, INC. NO. 000256

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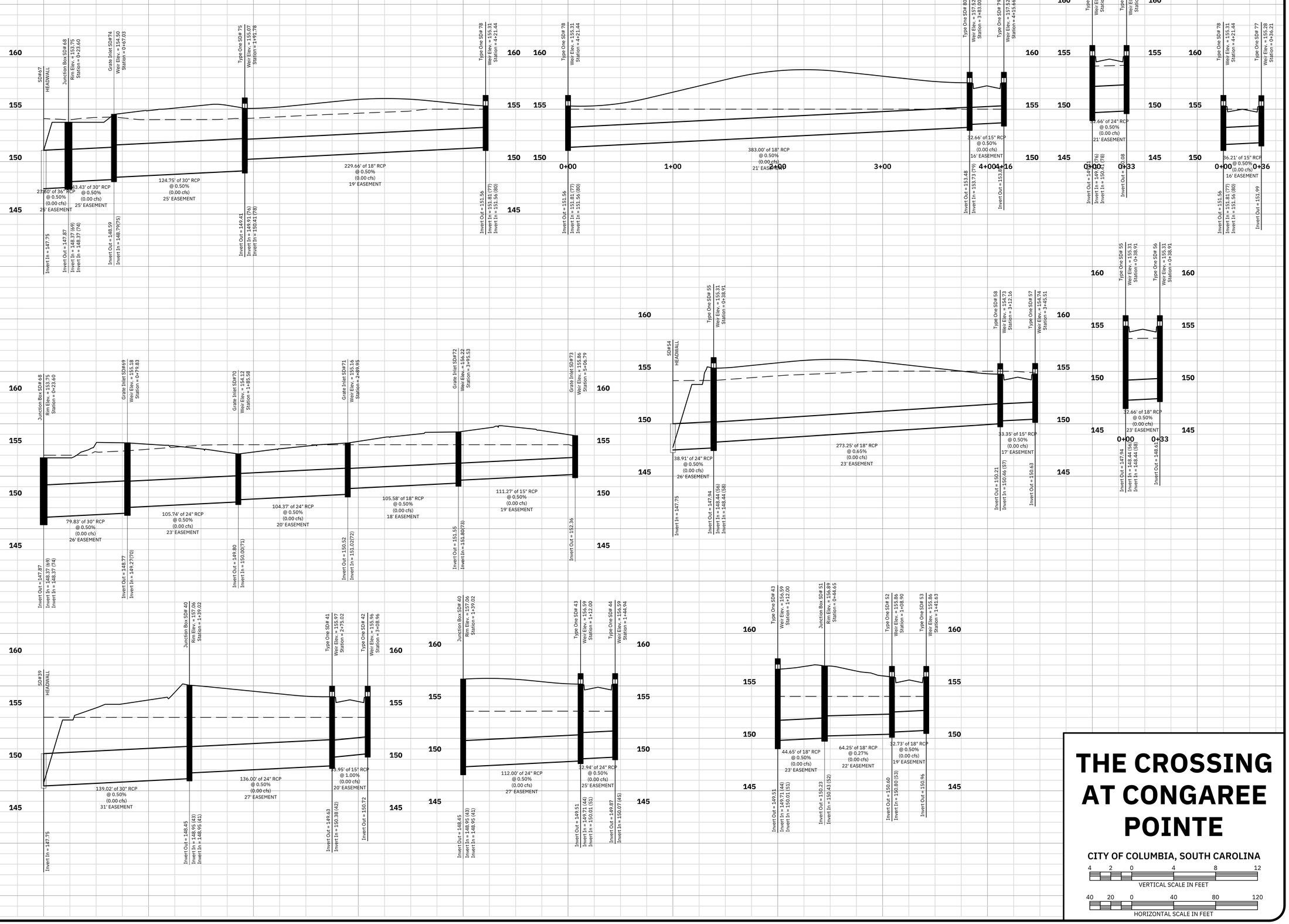
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TEL (803) 798-2820 FAX (803) 798-2826

SOUTH CAROLINA PROFESSIONAL ENGINEER JOSHUA ROBERTSON WAGY NO. 31562 LICENSED

STORM DRAINAGE PROFILES (1 OF 4)

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

SCALE	1" = 40'
DATE	----
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DESIGNED	ARR
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JOB NUMBER	25034
DRAWING NUMBER	26 OF



THE CROSSING AT CONGAREE POINTE

CITY OF COLUMBIA, SOUTH CAROLINA

VERTICAL SCALE IN FEET: 4 2 0 4 8 12

HORIZONTAL SCALE IN FEET: 40 20 0 40 80 120

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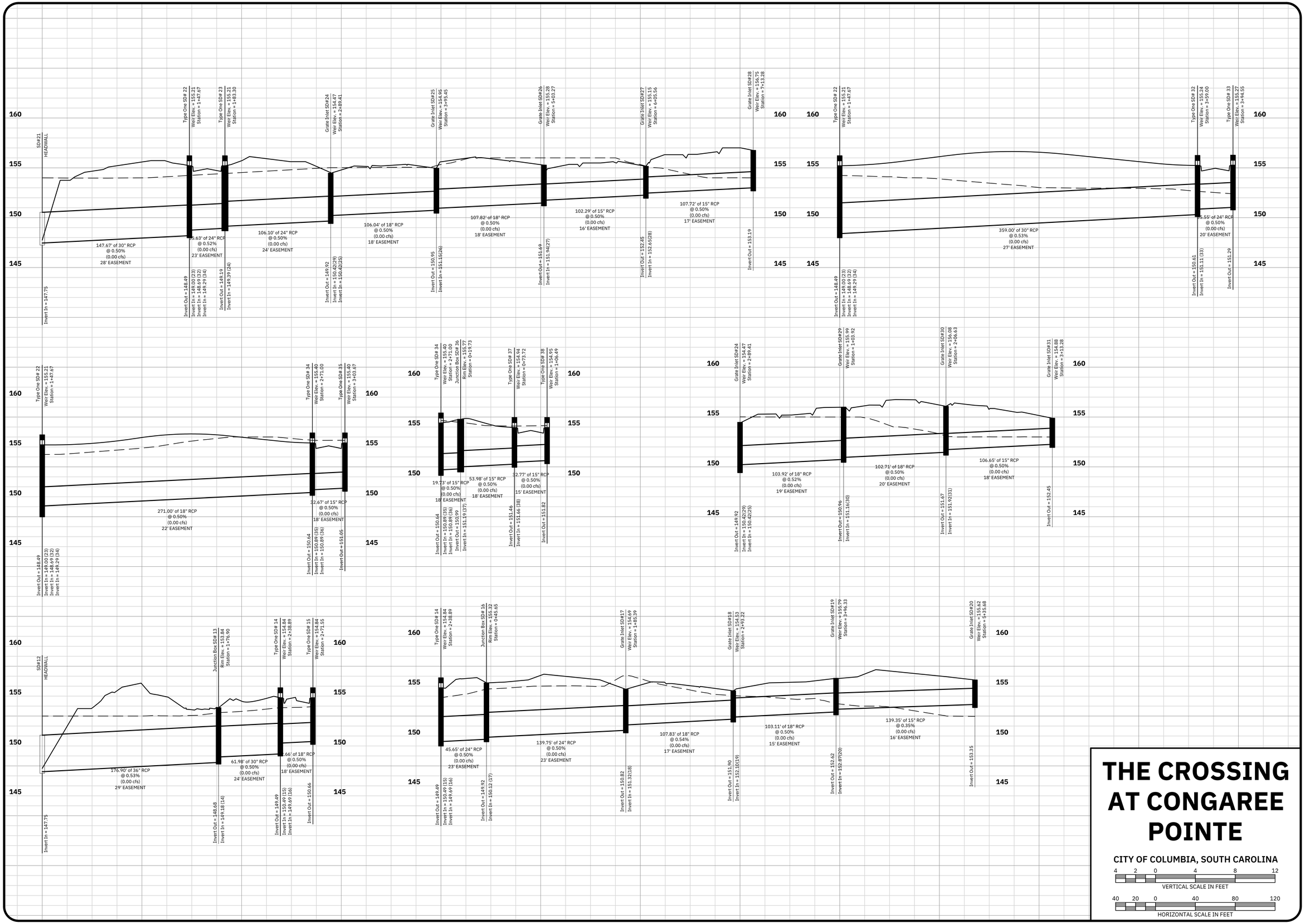
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SOUTH CAROLINA — LICENSED PROFESSIONAL ENGINEER — NO. 31562 — JOSHUA ROBERTSON

STORM DRAINAGE PROFILES (2 OF 4)

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

SCALE	1" = 40'
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THE CROSSING AT CONGAREE POINTE

CITY OF COLUMBIA, SOUTH CAROLINA

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SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION
CIVIL ENGINEERING OF COLUMBIA, INC.
NO. 000256

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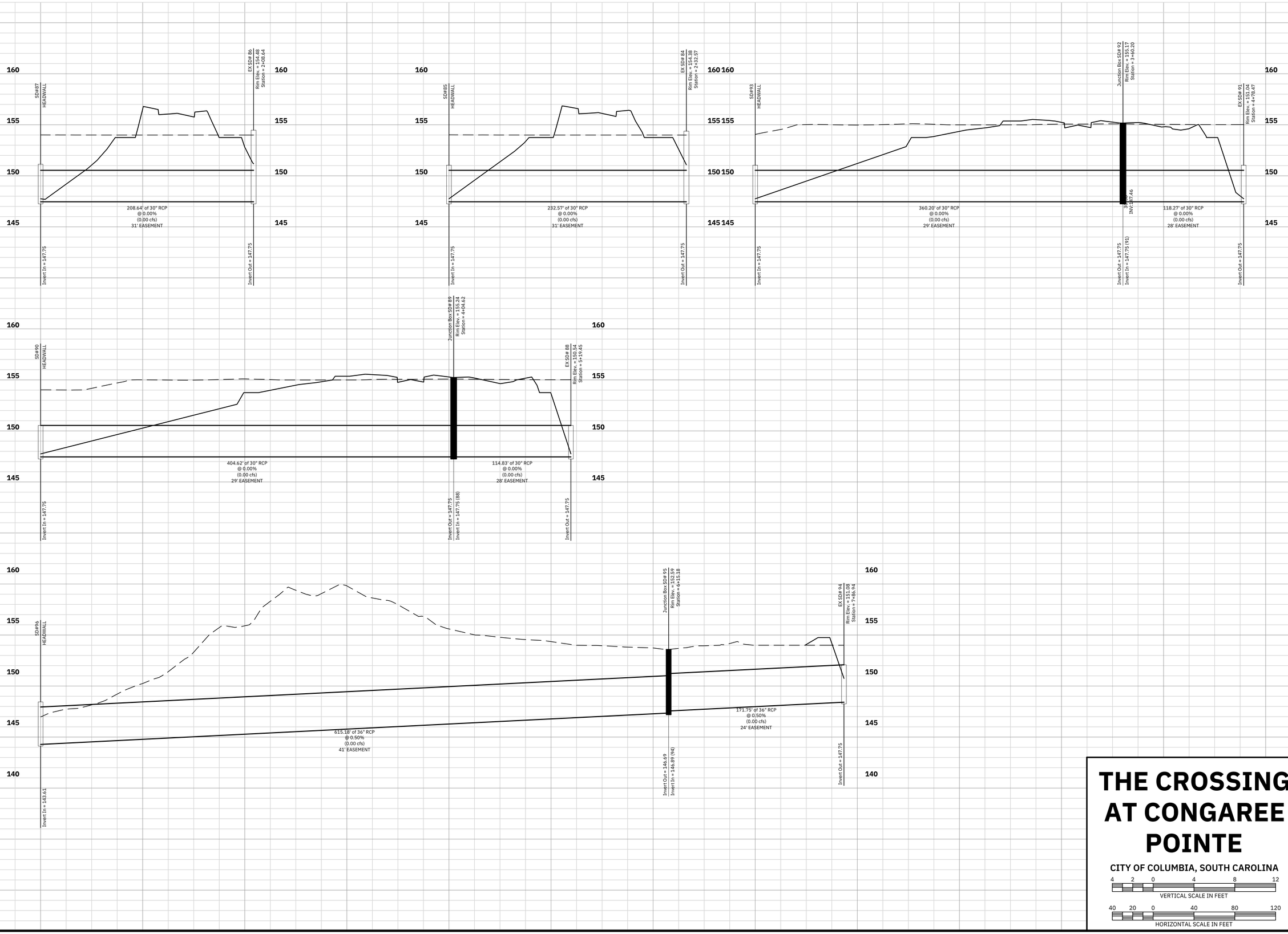
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SOUTH CAROLINA PROFESSIONAL ENGINEER
NELSON ROBINSON BRASH
LICENSED
NO. 31562

STORM DRAINAGE PROFILES (3 OF 4)

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

SCALE	1" = 40'
DATE	----
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DESIGNED	ARR
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JOB NUMBER	25034
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THE CROSSING AT CONGAREE POINTE

CITY OF COLUMBIA, SOUTH CAROLINA

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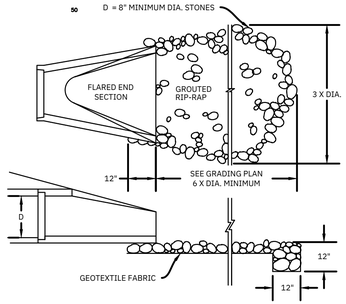
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SOUTH CAROLINA — JOSHUA ROBERSON — LICENSED PROFESSIONAL ENGINEER — NO. 31562

STORM DRAINAGE PROFILES (4 OF 4)

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

SCALE	1" = 40'
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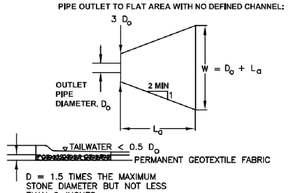
NOTE:
DURING CONSTRUCTION, PROVIDE A "PLUNGE POOL" AT THE PIPE OUTLET FOR PIPES DISCHARGING INTO A BASIN. "PLUNGE POOL" SHALL BE A MINIMUM OF 2' DEEP X 2D WIDE X 2D LONG. RIP RAP VELOCITY BREAKERS AT THE BASIN INLETS ARE TO BE INSTALLED AFTER SITE IS 80% STABILIZED.

RIP RAP VELOCITY BREAKER
N. T. S.

PLACEMENT NOTES:

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

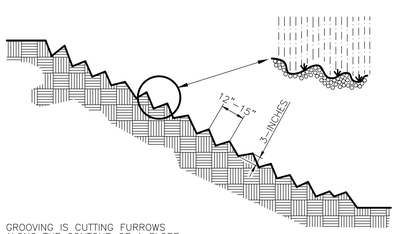
PIPE OUTLET TO FLAT AREA WITH NO DEFINED CHANNEL:



RIP-RAP OUTLET PROTECTION
SIZING DETAIL

STRUCTURE ID	Do	3Do	La	W
1	24"	6"	15'	17'
3	54"	13.5"	30'	34.5'
28	24"	6"	13'	15'
37	24"	6"	13'	15'
39	54"	13.5"	30'	34.5'

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



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.

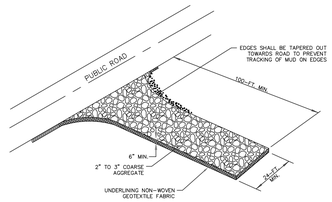
South Carolina Department of Health and Environmental Control

SLOPE GROOVING

STANDARD DRAWING NO. EC-03 Page 1

APPROVED BY: SCDHEC — AUGUST, 2005 DATE

SLOPE GROOVING



TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT DETAIL
NOT TO SCALE

NOTES:

1. STABILIZED CONSTRUCTION ENTRANCE SHOULD BE USED AT ALL POINTS WHERE TRAFFIC WILL BE LEAVING A CONSTRUCTION SITE AND MOVING DIRECTLY ONTO A PUBLIC ROAD.
2. INSTALL A CULVERT PIPE ACROSS THE ENTRANCE WHEN NEEDED TO PROVIDE POSITIVE DRAINAGE.
3. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WAS WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE. WASHDOWN AREAS IN GENERAL MUST BE ESTABLISHED WITH CRUSHED GRAVEL, AND DRAIN INTO A SEDIMENT TRAP OR SEDIMENT BASIN. CONSTRUCTION ENTRANCES SHOULD BE USED IN CONJUNCTION WITH THE STABILIZATION OF CONSTRUCTION ROADS TO REDUCE THE AMOUNT OF MUD PICKED UP BY VEHICLES.
4. REMOVE ALL VEGETATION AND AY OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA.
5. DIVERT ALL RUNOFF AND DRAINAGE FROM STONES TO A SEDIMENT TRAP OR BASIN.
6. INSTALL A NON-WOVEN GEOTEXTILE FABRIC IN ACCORDANCE WITH SCDOT'S STANDARD SPECIFICATION, LATEST EDITION, PRIOR TO PLACING ANY STONE.
7. MINIMUM DIMENSIONS OF THE ENTRANCE SHALL BE 24 FEET WIDE X 100 FEET LONG, AND MAY BE MODIFIED AS NECESSARY TO ACCOMMODATE SITE CONSTRAINTS.
8. CHECK MUD AND SEDIMENT BUILDUP, AS WELL AS PAD INTEGRITY. RESHAPE THE STONE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL.
9. WASH OR REPLACE STONES AS NEEDED AND AS DIRECTED BY THE ENGINEER. THE STONE IN THE ENTRANCE SHOULD BE WASHED OR REPLACED WHENEVER THE ENTRANCE FAILS TO REDUCE MUD BEING CARRIED OFF SITE BY VEHICLES.
10. IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS BY BRUSHING OR SWEEPING. FLUSHING SHOULD ONLY BE USED WHEN THE WATER CAN BE DISCHARED TO A SEDIMENT TRAP OR BASIN.
11. REPAIR ANY BROKEN PAVEMENT IMMEDIATELY.

CITY OF COLUMBIA RESERVES THE RIGHT TO CHANGE SPECIFICATIONS AS NEEDED IN THE FUTURE. ENGINEERS ARE RESPONSIBLE FOR SPECIFYING A HIGHER PRESSURE RATED PIPE IF FIELD CONDITIONS WARRANT.

Columbia Water

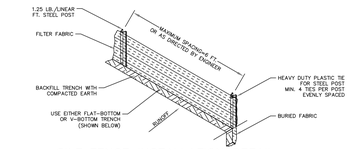
CITY OF COLUMBIA
DEPARTMENT OF ENGINEERING
P.O. BOX 147
COLUMBIA SOUTH CAROLINA 29217

SCALE: N.T.S.
DATE:02/17/2020
REVISED: 01/05/2022
DRAWING NO: 18

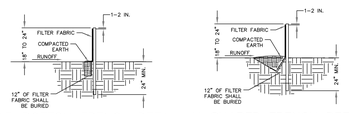
TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT DETAIL

DATE:XXX XX, 20XX

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 19071 DANA R. HIGGINS



SILT FENCE INSTALLATION DETAIL



STANDARD SILT FENCE DETAIL
NOT TO SCALE

NOTES:

1. SILT FENCE CHECKS MUST BE LOCATED EVERY 100 FEET MAXIMUM AND AT LOW POINTS ALONG THE FENCE LINE.
2. ONLY STEEL POSTS MAY BE USED. POSTS SHALL BE A MINIMUM OF 5 FEET LONG AND INSTALLED TO A MINIMUM DEPTH OF 24 INCHES WITH NO MORE THAN 3 FEET OF THE POST ABOVE GROUND. STEEL POSTS SHALL WEIGH A MINIMUM OF 1.25 POUNDS PER FOOT AND HAVE PROJECTIONS FOR FASTENING THE FABRIC TO THE POST. AT LEAST 1 TO 2 INCHES OF THE POSTS SHALL EXTEND ABOVE THE TOP OF THE FABRIC. POST SPACING WILL BE A MAXIMUM OF 6 FEET ON CENTER.
3. ATTACHED FABRIC TO STEEL POSTS USING HEAVY DUTY PLASTIC TIES THAT ARE EVENLY SPACED AND PLACED IN A MANNER TO PREVENT SAGGING OR TEARING OF THE FABRIC. IN ALL CASES, TIES SHOULD BE ATTIXED IN NO LESS THAN 4 PLACES

CITY OF COLUMBIA RESERVES THE RIGHT TO CHANGE SPECIFICATIONS AS NEEDED IN THE FUTURE. ENGINEERS ARE RESPONSIBLE FOR SPECIFYING A HIGHER PRESSURE RATED PIPE IF FIELD CONDITIONS WARRANT.

Columbia Water

CITY OF COLUMBIA
DEPARTMENT OF ENGINEERING
P.O. BOX 147
COLUMBIA SOUTH CAROLINA 29217

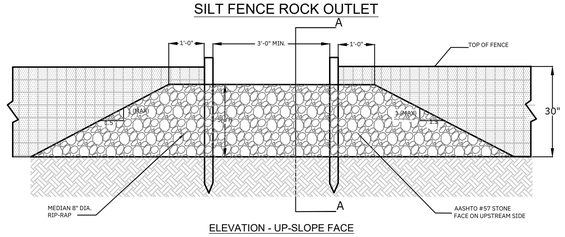
SCALE: N.T.S.
DATE:02/17/2020
REVISED: 01/05/2022
DRAWING NO: 14

STANDARD SILT FENCE DETAIL

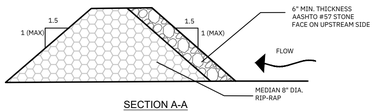
DATE:XXX XX, 20XX

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 19071 DANA R. HIGGINS

SILT FENCE ROCK OUTLET



ELEVATION - UP-SLOPE FACE



SECTION A-A

RO

PLAN SYMBOL

NOTES:

1. WASHED STONE (#57) TO BE REMOVED AND REPLACED ONCE IT BECOMES CLOGGED WITH SEDIMENT.
2. SEDIMENT TO BE REMOVED WHEN ACCUMULATIONS REACH 1/3 HEIGHT OF SILT FENCE
3. THE KEY TO FUNCTIONAL ROCK OUTLETS IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR SEDIMENT REMOVAL.

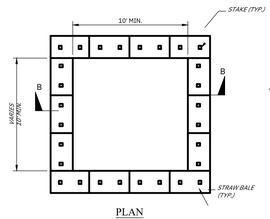
South Carolina Department of Health and Environmental Control

SILT FENCE ROCK OUTLET

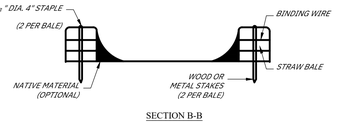
STANDARD DRAWING NO. SC-14 PAGE 1 of 1

NOT TO SCALE — FEBRUARY 2014 DATE

STRAW BALE BARRIER CONCRETE WASHOUT



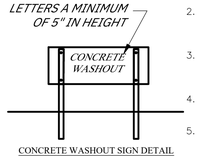
PLAN
TYPE "ABOVE GRADE" WITH STRAW BALES



SECTION B-B

NOTES:

1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. INSTALL CONCRETE WASHOUT SIGN (24"X24", MINIMUM) WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
3. TEMPORARY WASHOUT AREA MUST BE AT LEAST 50' FROM A STORM DRAIN, CREEK BANK OR PERIMETER CONTROL.
4. CLEAN OUT CONCRETE WASHOUT AREA WHEN 50% FULL.
5. THE KEY TO FUNCTIONAL CONCRETE WASHOUTS IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR CLEAN OUT.
6. SILT FENCE SHALL BE INSTALLED AROUND PERIMETER OF CONCRETE WASHOUT AREA EXCEPT FOR THE SIDE UTILIZED FOR ACCESSING THE WASHOUT.
7. A ROCK CONSTRUCTION ENTRANCE MAY BE NECESSARY ALONG ONE SIDE OF THE WASHOUT TO PROVIDE VEHICLE ACCESS.



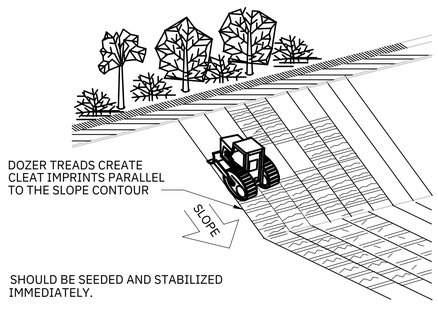
CONCRETE WASHOUT SIGN DETAIL

South Carolina Department of Health and Environmental Control

CONCRETE WASHOUT
STRAW BALES OR ABOVE GROUND

STANDARD DRAWING NO. RC-07 PAGE 1 of 1

NOT TO SCALE — FEBRUARY 2014 DATE



SHOULD BE SEEDED AND STABILIZED IMMEDIATELY.

TRACKING

South Carolina Department of Health and Environmental Control

TRACKING

STANDARD DRAWING NO. EC-01 Page 1

APPROVED BY: SCDHEC — AUGUST, 2005 DATE

NO.	DATE	DESCRIPTION	BY
		REVISION	

SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION — CIVIL ENGINEERING OF COLUMBIA, INC. NO. 000256

THE PRODUCT ON THIS SHEET WAS PREPARED BY CIVIL ENGINEERING OF COLUMBIA FOR A SPECIFIC PURPOSE. USE, BY ANY OTHER PERSON, WITHOUT WRITTEN PERMISSION FROM CIVIL ENGINEERING OF COLUMBIA, INC. ENGINEER, IS STRICTLY PROHIBITED.

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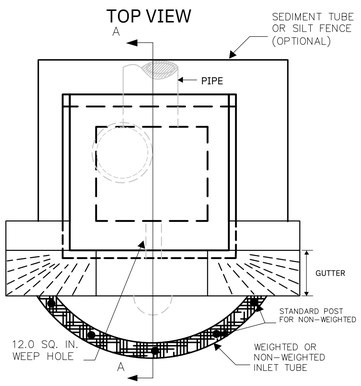
CIVIL ENGINEERING of COLUMBIA
PO BOX 1137 IRMO, SC 29063
TEL (803) 798-2820 FAX (803) 798-2826

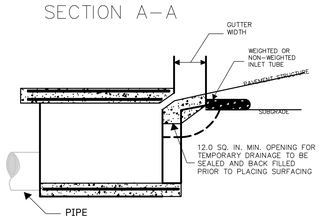
SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER NO. 31562 JOSHUA ROBERTSON

POLLUTION PREVENTION DETAILS (1 OF 4)

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

SCALE	N/A
DATE	----
DRAWN	ARR
DESIGNED	ARR
DRAWING NUMBER	30 OF
CHECKED BY:	
JOB NUMBER	25034





PLAN SYMBOL



South Carolina Department of Health and Environmental Control	
Type F	
INLET TUBES	
STANDARD DRAWING NO.	SC-11 PAGE 1 of 2
NOT TO SCALE	FEBRUARY 2014 DATE

TYPE F – INLET TUBES INLET PROTECTION

GENERAL NOTES

1. Inlets tubes should be composed of compacted geotextiles, curled excelsior wood, natural coconut fibers, a hardwood mulch, or a mix of these materials enclosed by a flexible netting material.

2. Inlets tubes should utilize an outer netting that consists of seamless, high–density polyethylene photodegradable materials treated with ultraviolet stabilizers or a seamless, high–density polyethylene non–degradable material. Curled wood excelsior fiber, or natural coconut fiber rolled erosion control products rolled up to create an inlet tube device are not allowed.

3. Do not use straw, straw fiber, straw bales, pine needles, or leaf mulch as fill material within inlet tubes.

4. Weighted inlet tubes must be capable of staying in place without external stabilization measures and may have a weighted inner core or other weighted mechanism to keep them in place.

5. Install weighted tubes lying flat on the ground, with no gaps between the underlying surface and the inlet tube. Do not stack inlet tubes. Do not completely block inlet with tube.

6. Non–weighted inlet tubes require staking or other stabilization methods to keep them safely in place.

7. Overflow or overtopping of inlet tubes must be allowed to flow into inlet unobstructed.

8. To avoid possible flooding, two or three concrete cinder blocks may be placed between the tube and the inlet.

INSPECTION AND MAINTENANCE

1. The key to functional inlet protection is weekly inspection, routine maintenance, and regular sediment removal.

2. Regular inspections of all inlet protection 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.

3. Attention to sediment accumulations in front of the inlet protection is extremely important. Accumulated sediment should be continually monitored and removed when necessary.

4.Remove accumulated sediment when it reaches 1/3 the height of the blocks. If a sump is used, sediment should be removed when it fills approximately 1/3 the depth of the hole.

5. Removed sediment shall be placed in stockpile storage areas or spread thinly across disturbed area. Stabilize the removed sediment after it is relocated.

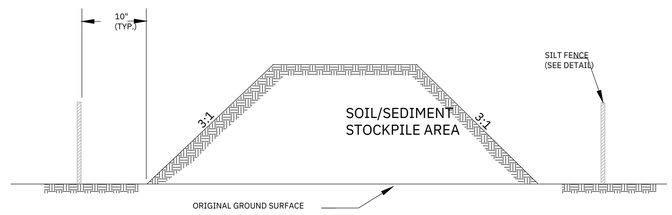
6. Large debris, trash, and leaves should be removed from in front of tubes when found.

7. Replace inlet tube when damaged or as recommended by manufacturer's specifications.

8. Inlet protection structures should be removed after the disturbed areas are permanently stabilized. Remove all construction material and sediment, and dispose of them properly. Grade the disturbed area to the elevation of the drop inlet structure crest. Stabilize all bare areas immediately.

South Carolina Department of Health and Environmental Control	
Type F	
INLET TUBES	
STANDARD DRAWING NO.	SC-11 PAGE 2 of 2
GENERAL NOTES	FEBRUARY 2014 DATE

TEMPORARY STOCKPILE AREA



NOTES:

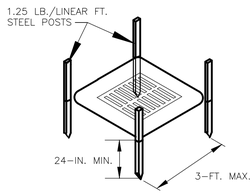
1. SILT FENCE TO EXTEND AROUND ENTIRE PERIMETER OF STOCKPILE, OR IF STOCKPILE AREA IS LOCATED ON/NEAR A SLOP THE SILT FENCE IS TO EXTEND ALONG CONTOURS OF THE DOWN–GRADIENT AREA.

2. IF STOCKPILE IS TO REMAIN FOR MORE THAN 14 DAYS, TEMPORARY STABILIZATION MEASURES MUST BE IMPLEMENTED.

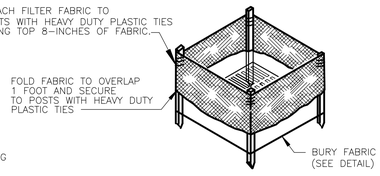
3. SILT FENCE SHALL BE MAINTAINED UNTIL STOCKPILE AREA HAS EITHER BEEN REMOVED OR PERMANENTLY STABILIZED.

4. THE KEY TO FUNCTIONAL TEMPORARY STOCKPILE AREAS IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR SEDIMENT REMOVAL.

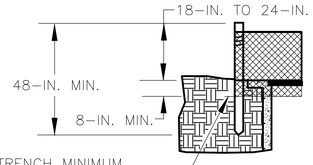
South Carolina Department of Health and Environmental Control	
TEMPORARY STOCKPILE	
STANDARD DRAWING NO.	SC–15 PAGE 1 of 1
NOT TO SCALE	FEBRUARY 2014 DATE



POST INSTALLATION DETAIL



FILTER FABRIC INSTALLATION DETAIL



FILTER FABRIC BURIAL DETAIL

PLAN SYMBOL



South Carolina Department of Health and Environmental Control	
Type A	
FILTER FABIC INLET PROTECTION	
STANDARD DRAWING NO.	SC-07 PAGE 1 of 2
NOT TO SCALE	FEBRUARY 2014 DATE

TYPE A - FILTER FABRIC REQUIREMENTS

1. Silt fence must be composed of woven geotextile filter fabric that consists of the following requirements:
   – Composed of fibers consisting of long chain synthetic polymers of at least 85% by weight of polyolefins, polyesters, or polyamides that are formed into a network such that the filaments or yarns retain dimensional stability relative to each other;
   – Free of any treatment or coating which might adversely alter its physical properties after installation;
   – Free of any defects or flaws that significantly affect its physical and/or filtering properties; and,
   – Have a minimum width of 36–inches.
2. Use only fabric appearing on SC DOT's Qualified Products Listing (QPL), Approval Sheet #34, meeting the requirements of the most current edition of the SC DOT Standard Specifications for Highway Construction.
3. 12–inches of the fabric should be placed within excavated trench and toed in when the trench is backfilled.
4. Filter Fabric shall be purchased in continuous rolls and cut to the length of the barrier to avoid joints.
5. Filter Fabric shall be installed at a minimum of 24–inches above the ground.

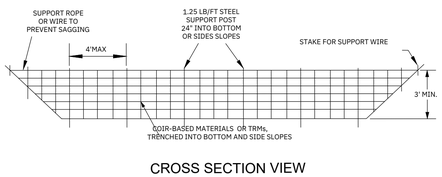
TYPE A - POST REQUIREMENTS

1. Silt Fence posts must be 48–inch long steel posts that meet, at a minimum, the following physical characteristics.
   – Composed of a high strength steel with a minimum yield strength of 50,000 psi.
   – Include a standard "T" section with a nominal face width of 1.38–inches and a nominal "T" length of 1.48–inches.
   – Weigh 1.25 pounds per foot (± 8%)
2. Posts shall be equipped with projections to aid in fastening of filter fabric.
3. Install posts to a minimum of 24–inches. A minimum height of 1– to 2– inches above the fabric shall be maintained, and a maximum height of 3 feet shall be maintained above the ground.
4. Post spacing shall be at a maximum of 3–feet on center.

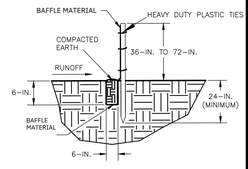
TYPE A - INSPECTION & MAINTENANCE

1. The key to functional inlet protection is weekly inspections, routine maintenance, and regular sediment removal.
2. Regular inspections of inlet protection shall be conducted once every calendar week and, as recommended, within 24–hours after each rainfall even that produces 1/2–inch or more of precipitation.
3. Attention to sediment accumulations along the filter fabric is extremely important. Accumulated sediment should be continually monitored and removed when necessary.
4. Remove accumulated sediment when it reaches 1/3 the height of the filter fabric. When a sump is installed in front of the fabric, sediment should be removed when it fills approximately 1/3 the depth of the sump.
5. Removed sediment shall be placed in stockpile storage areas or spread thinly across disturbed area. Stabilize the removed sediment after it is relocated.
6. Check for areas where stormwater runoff has eroded a channel beneath the filter fabric, or where the fabric has sagged or collapsed due to runoff overtopping the inlet protection.
7. Check for tears within the filter fabric, areas where fabric has begun to decompose, and for any other circumstance that may render the inlet protection ineffective. Removed damaged fabric and reinstall new filter fabric immediately.
8. Inlet protection structures should be removed after all the disturbed areas are permanently stabilized. Remove all construction material and sediment, and dispose of them properly. Grade the disturbed area to the elevation of the drop inlet structure crest. Stabilize all bare areas immediately.

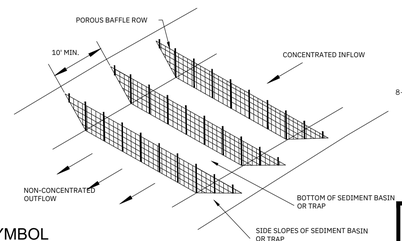
South Carolina Department of Health and Environmental Control	
Type A	
FILTER FABIC INLET PROTECTION	
STANDARD DRAWING NO.	SC-07 PAGE 2 of 2
GENERAL NOTES	FEBRUARY 2014 DATE



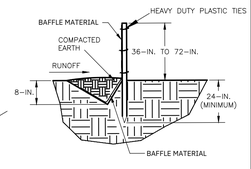
CROSS SECTION VIEW



FLAT-BOTTOM TRENCH DETAIL

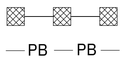


PERSPECTIVE VIEW



V-SHAPED TRENCH DETAIL

PLAN SYMBOL



South Carolina Department of Health and Environmental Control	
POROUS BAFFLES	
STANDARD DRAWING NO.	SC–13 PAGE 1 of 2
NOT TO SCALE	FEBRUARY 2014 DATE

BAFFLES – POST REQUIREMENTS

1. Porous baffle posts must be 60–inch to 96–inch long steel posts that meet, at a minimum, the following physical characteristics.
   – Composed of a high strength steel with a minimum yield strength of 50,000 psi.
   – Include a standard "T" section with a nominal face width of 1.38–inches and a nominal "T" length of 1.48–inches.
   – Weigh 1.25 pounds per foot (± 8%)
2. Posts shall be equipped with projections to aid in fastening of baffle material.
3. Install posts to a minimum of 24–inches. A minimum height of 1– to 2–inches above the fabric shall be maintained, and a maximum height of 3 feet shall be maintained above the ground.
4. Post spacing shall be at a maximum of 4–feet on center.

BAFFLES – MATERIAL REQUIREMENTS

1. Baffle material must be composed of coir–based materials or Turf Reinforcement Matting (TRM) that consists of the following requirements:
   – Have a light penetration (% openings) between 10–35%;
   – Free of loose straw material;
   – Have a minimum tensile strength of 145 lb/ft; and,
   – Have a minimum width of 48–inches.
2. 12–inches of the fabric should be placed within excavated trench and toed in when the trench is backfilled or baffle material may be stapled into ground by using 12–inch staples with a maximum spacing of 12–inches.
3. Baffle material shall be purchased in continuous rolls and cut to the width of the sediment basin or trap to avoid joints.

BAFFLES – GENERAL NOTES

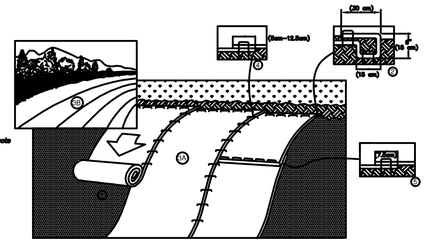
1. Attach baffle to the steel posts using heavy–duty plastic ties that are evenly spaced along the above ground portion of each post.
2. Install the baffle rows perpendicular to the direction of the stormwater flow and place each baffle the proper distance from inlet and outlets to allow access for maintenance and clean–out.

BAFFLES – INSPECTION & MAINTENANCE

1. The key to functional porous baffles is weekly inspection, routine maintenance, and regular sediment removal.
2. Regular inspections of porous baffles shall be conducted once every calendar week and, as recommended, within 24–hours after each rainfall even that produces 1/2–inch or more of precipitation.
3. Attention to sediment accumulations along each row of baffles is extremely important. Accumulated sediment should be continually monitored and removed when necessary.
4. Remove accumulated sediment when it reaches 1/3 the height of the baffle row or when it reaches the clean–out height of the sediment basin or trap, whichever is reached first.
5. Removed sediment shall be placed in stockpile storage areas or spread thinly across disturbed area. Stabilize the removed sediment after it is relocated.
6. Check for areas where stormwater runoff has eroded a channel beneath each row of baffles, or where the baffle has sagged or collapsed due to runoff overtopping the baffle.
7. Check for tears/rips within the baffles, areas where the baffle has begun to decompose, and for any other circumstance that may render the baffle ineffective. Removed damaged baffles and reinstall new baffles immediately.
8. Porous baffles should be removed within 30 days after final stabilization is achieved and once it is removed, the resulting disturbed area shall be permanently stabilized.

South Carolina Department of Health and Environmental Control	
POROUS BAFFLES	
STANDARD DRAWING NO.	SC–13 PAGE 2 of 2
GENERAL NOTES	FEBRUARY 2014 DATE

NORTH AMERICAN GREEN
EROSION CONTROL Products Guaranteed SOLUTIONS
14649 HIGHWAY 41 NORTH
EVANSVILLE, IN 47725
800-772-2040
www.nagreen.com



1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.

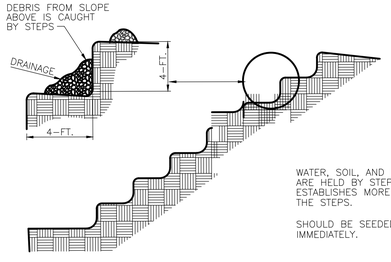
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP's IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF RECP's EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP's WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP's BACK OVER SEED AND COMPACTED SOIL.SECURE RECP's OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE RECP's.

3. ROLL THE RECP's (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE.WHEN USING THE DOT SYSTEM,STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.

4. THE EDGES OF PARALLEL RECP's MUST BE STAPLED WITH APPROXIMATELY 2" - 5" (5 CM - 12.5 CM) OVERLAP DEPENDING ON RECP's TYPE.

5. CONSECUTIVE RECP's SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP's WIDTH. NOTE: *IN LOOSE SOIL CONDITIONS,THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP's.

EROSION CONTROL MATTING INSTALLATION DETAIL
N.T.S.



STAIR STEP GRADING

South Carolina Department of Health and Environmental Control	
STAIR STEP GRADING	
STANDARD DRAWING NO.	EC–02 Page 1
APPROVED BY: SCDHEC	AUGUST, 2005 DATE

NO.	DATE	DESCRIPTION	BY
		REVISION	

SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION
CIVIL ENGINEERING OF COLUMBIA, INC. NO. 000256

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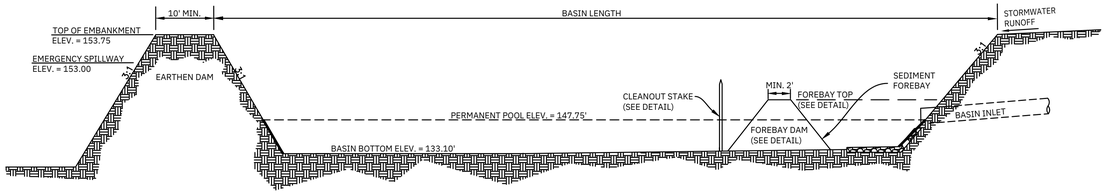
CIVIL ENGINEERING of COLUMBIA
PO BOX 1137 IRMO, SC 29063
TEL (803) 798-2820 FAX (803) 798-2826

SOUTH CAROLINA PROFESSIONAL ENGINEER
JOSHUA ROBERTSON
NO. 31562
LICENSED

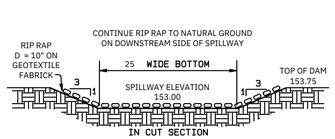
POLLUTION PREVENTION DETAILS (2 OF 4)

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

SCALE	N/A
DATE	----
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DESIGNED	ARR
CHECKED BY:	
JOB NUMBER	25034
DRAWING NUMBER	31 OF

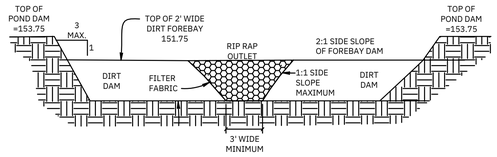


BASIN 1 - STORMWATER BASIN DURING AND POST CONSTRUCTION



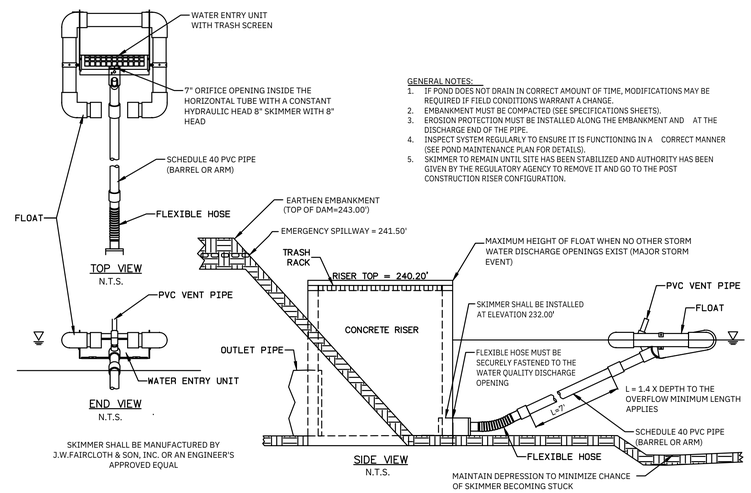
EMERGENCY SPILLWAY DETAIL BASIN 1

N.T.S.



POND FOREBAY DAM DETAIL BASIN 1

N. T. S.



8" SKIMMER DISCHARGE SYSTEM WITH OUTLET STRUCTURE - BASIN 1

DETAIL TAKEN FROM J.W.FAIRCLOTH & SON, INC. WEBSITE (WWW.FAIRCLOTHSKIMMER.COM)

GENERAL NOTES:

1. IF POND DOES NOT DRAIN IN CORRECT AMOUNT OF TIME, MODIFICATIONS MAY BE REQUIRED IF FIELD CONDITIONS WARRANT A CHANGE.
2. EMBANKMENT MUST BE COMPACTED (SEE SPECIFICATIONS SHEETS).
3. EROSION PROTECTION MUST BE INSTALLED ALONG THE EMBANKMENT AND AT THE DISCHARGE END OF THE PIPE.
4. INSPECT SYSTEM REGULARLY TO ENSURE IT IS FUNCTIONING IN A CORRECT MANNER (SEE POND MAINTENANCE PLAN FOR DETAILS).
5. SKIMMER TO REMAIN UNTIL SITE HAS BEEN STABILIZED AND AUTHORITY HAS BEEN GIVEN BY THE REGULATORY AGENCY TO REMOVE IT AND GO TO THE POST CONSTRUCTION RISER CONFIGURATION.

NO.	DATE	REVISION DESCRIPTION	BY

SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION
CIVIL ENGINEERING OF COLUMBIA, INC.
NO. 000256

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

SOUTH CAROLINA PROFESSIONAL ENGINEER LICENSED JOSHUA ROBERTSON NO. 31562

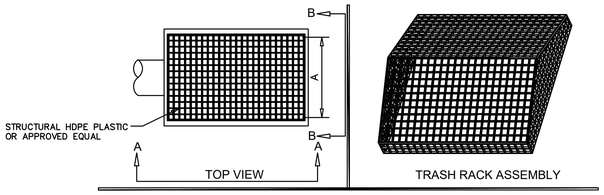
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DRAWING NUMBER	32 OF

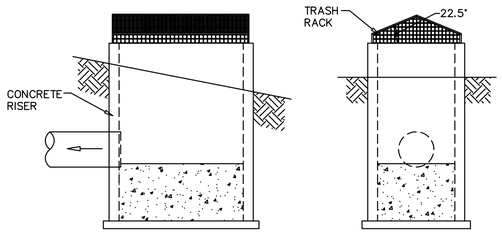
POLLUTION PREVENTION DETAILS (3 OF 4)

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

CHECKED BY:

JOB NUMBER 25034





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

NUMBERS ROUNDED TO 1/4"

PART CODE= PR + WIDTH CODE +LENGTH CODE
(EX. PR1213)

PITCHED TRASH RACK DETAIL

N.T.S.

NO.	DATE	REVISION DESCRIPTION	BY

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

SOUTH CAROLINA PROFESSIONAL ENGINEER
JOSHUA ROBERTSON
LICENSED NO. 31562

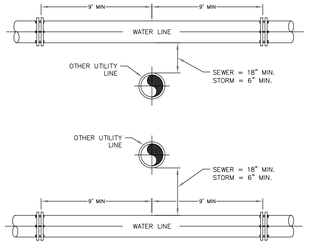
SCALE	N/A
DATE	----
DRAWN	ARR
DESIGNED	ARR
DRAWING NUMBER	33 OF

POLLUTION PREVENTION DETAILS (4 OF 4)

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

CHECKED BY:

JOB NUMBER 25034



WATER AND SEWER/STORM CROSSING DETAIL

NOT TO SCALE

NOTES:

1. WHERE A WATER LINE CROSSES UNDER AN EXISTING UTILITY, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVED FOR THE OTHER EXISTING UTILITY TO PREVENT DAMAGE TO THE WATER MAIN.
2. IF CLEARANCE OF STORM DRAIN IS LESS THAN 18", USE CONCRETE ENCASEMENT ON DIP, WHICH SHALL HAVE POLYETHYLENE ENCASEMENT PRIOR TO CONCRETE BEING POURED.

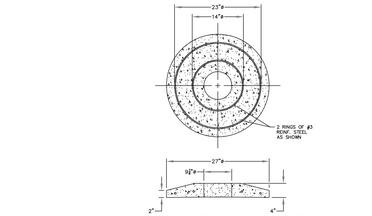
CITY OF COLUMBIA RESERVES THE RIGHT TO CHANGE SPECIFICATIONS AS NEEDED IN THE FUTURE. ENGINEERS ARE RESPONSIBLE FOR SPECIFYING A HIGHER PRESSURE RATED PIPE IF FIELD CONDITIONS WARRANT.

Columbia Water

CITY OF COLUMBIA DEPARTMENT OF ENGINEERING P.O. BOX 147 COLUMBIA SOUTH CAROLINA 29217	SCALE: N.T.S.
	DATE:02/17/2020
	REVISED: 01/05/2022
WATER AND SEWER/STORM CROSSING DETAIL	DRAWING NO: 10

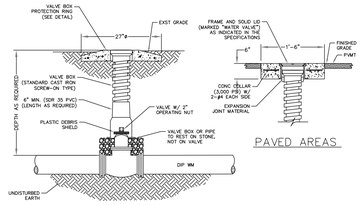
DATE:XXX XX, 20XX

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 19071 DANA R. HIGGINS



CONCRETE PROTECTION RING DETAIL

NOT TO SCALE



GATE VALVE AND VALVE BOX DETAIL

NOT TO SCALE

NOTES:

1. FOR UNPAVED LOCATIONS, A CONCRETE VALVE BOX PROTECTOR RING SHALL BE PROVIDED AND INSTALLED FLUSH WITH GRADE. PROTECTOR RING PAD IS NOT REQUIRED FOR VALVE LOCATED IN THE ROADWAY, UNLESS SHOWN OR NOTED OTHERWISE.
3. FOR NEW CONSTRUCTION, THE VALVE BOX SHALL BE ADJUSTED TO MIDRANGE TO ALLOW FOR FUTURE BOX ADJUSTMENTS. ROUTE LOCATE WIRES THROUGH THE ADJUSTMENT SECTION OF BOX OR DRILL 2" HOLE IN THE BOX TOP SECTION. THE LOCATE WIRES SHALL BE CONNECTED TOGETHER WITH WIRE NUT.
4. GATE VALVES SHALL OPEN LEFT.
5. PROVIDE A WHITE OR BLACK PLASTIC DEBRIS SHIELD WHICH INSTALLS BELOW THE OPERATING NUT. SHIELD SHALL BE BY AFC, BIALOK, OR APPROVED EQUAL.

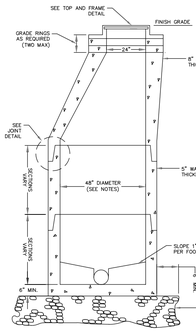
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Columbia Water

CITY OF COLUMBIA DEPARTMENT OF ENGINEERING P.O. BOX 147 COLUMBIA SOUTH CAROLINA 29217	SCALE: N.T.S.
	DATE:02/17/2020
	REVISED: 01/05/2022
GATE VALVE AND VALVE BOX DETAIL	DRAWING NO: 7

DATE:XXX XX, 20XX

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 19071 DANA R. HIGGINS

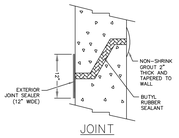


PRECAST MANHOLE DETAIL

NOT TO SCALE

NOTES:

1. BENCH CAN BE PRECAST, OR BRICK AND MORTAR TROWELED SMOOTH.
2. MANHOLE SHALL BE UNLINED UNLESS IT IS THE RECEIVING MANHOLE FOR A FORCE MAIN OR THE NEXT MANHOLE DOWNSTREAM.
3. MANHOLES OVER 12 FT. DEEP SHALL HAVE A 60" (5') MINIMUM INSIDE DIAMETER.
4. THE FRAME AND COVER AND GRADE RINGS SHALL BE SECURED TO THE CONE WITH GROUT ON BOTH THE INTERIOR & EXTERIOR.
5. IF MANHOLE DEPTH IS GREATER THAN 12 FEET, BASE THICKNESS SHALL BE A MINIMUM OF 8 INCHES.



JOINT

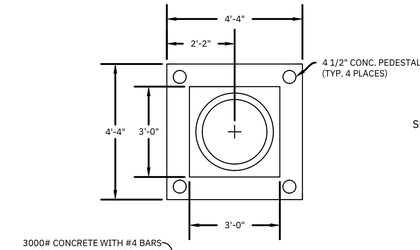
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Columbia Water

CITY OF COLUMBIA DEPARTMENT OF ENGINEERING P.O. BOX 147 COLUMBIA SOUTH CAROLINA 29217	SCALE: N.T.S.
	DATE:02/17/2020
	REVISED: 01/05/2022
PRECAST MANHOLE DETAIL	DRAWING NO: 20

DATE:XXX XX, 20XX

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 19071 DANA R. HIGGINS

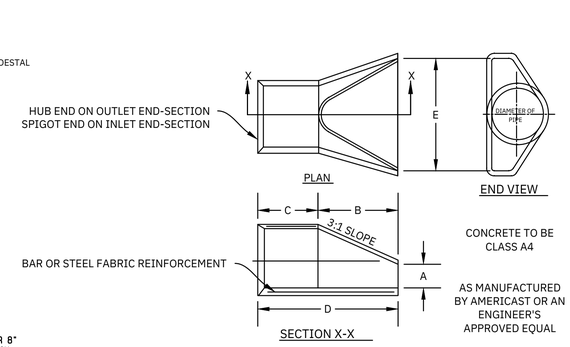


GENERAL NOTES:

1. FOR 18"-24" ID PIPES USE 3' X 3' 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: 1258BD FRAME: USF1258BD OR ENGINEER'S APPROVED EQUAL
4. ALL CATCH BASINS MUST HAVE A 3' X 3' FINISHED OPENING

YARD DRAIN DETAIL

N.T.S.



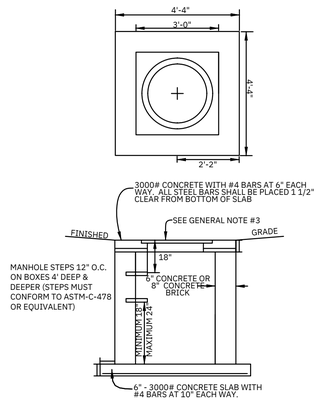
SECTION X-X

END SECTION 12"-60" PIPE

END SECTION DIMENSIONS					
DIA.	A	B	C	D	E
12"	4"	2'-0"	2'-0"	4'-0"	2'-0"
15"	6"	2'-3"	1'-9"	4'-0"	2'-6"
18"	9"	2'-3"	1'-9"	4'-0"	3'-0"
24"	9.5"	3'-7"	2'-6"	6'-1"	4'-0"
30"	1'-0"	4'-6"	1'-7.75"	6'-1.75"	5'-0"
36"	1'-3"	5'-3"	2'-10.75"	8'-1.75"	6'-0"
42"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"
48"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"
54"	2'-3"	5'-5"	2'-9.5"	8'-2.5"	7'-6"
60"	2'-11"	5'-0"	3'-3"	8'-3"	8'-0"

FLARED END SECTION

N.T.S.

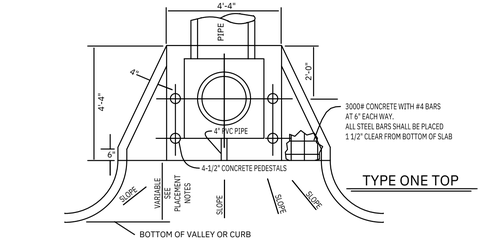


JUNCTION BOX DETAIL

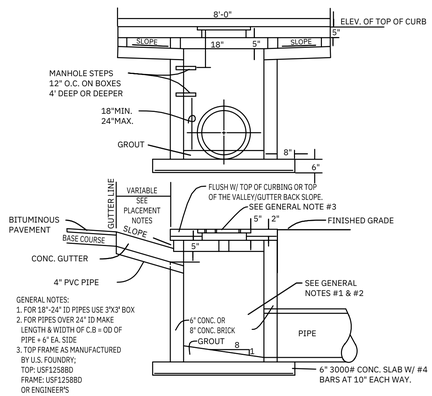
N.T.S.

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4. ALL CATCHBASINS MUST HAVE A 3'X 3' FINISHED OPENING.



TYPE ONE TOP



GENERAL NOTES:

1. FOR 18"-24" ID PIPES USE 3'X3' BOX
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4. ALL CATCHBASINS MUST HAVE A 3'X 3' FINISHED OPENING.

CATCH BASIN

N.T.S.

NO.	DATE	DESCRIPTION	REVISION BY

SOUTH CAROLINA NOTIFICATION OF CERTIFICATE OF AUTHORIZATION CIVIL ENGINEERING OF COLUMBIA, INC. NO. 000256

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

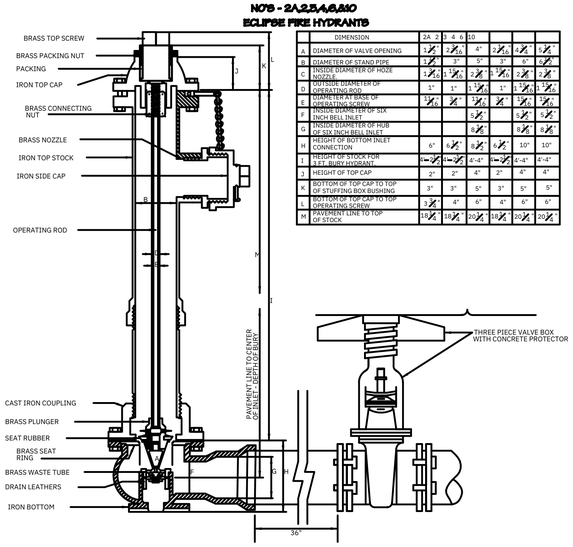
SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER NO. 31562 JOSHUA ROBERTSON LICENSED

MISCELLANEOUS DETAILS (1 OF 4)

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

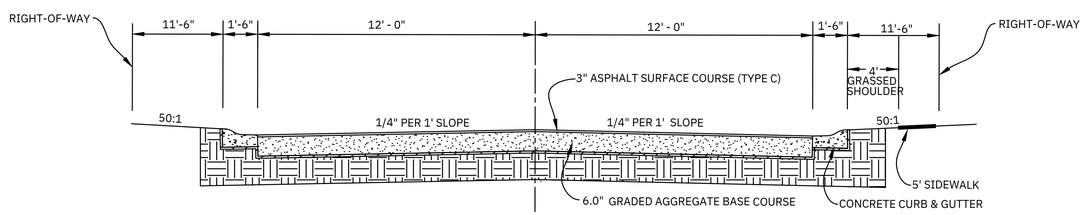
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DATE	----
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DESIGNED	ARR
CHECKED BY:	
DRAWING NUMBER	34 OF
JOB NUMBER	25034

NOTE - 2A,2,3,4,6&10
ECLIPSE FIRE HYDRANTS



	DIMENSION	2A	2	3	4	6	10			
A	DIAMETER OF VALVE OPENING	1 3/4"	2 3/16"			4"	2 3/16"	4"	5"	
B	DIAMETER OF STAND PIPE	3"				5"	5"	6"	6"	
C	INSIDE DIAMETER OF HOSE NOZZLE	3 7/16"	3 7/16"	2 9/16"	2 9/16"	5"	3 7/16"	3 7/16"	2 9/16"	
D	OUTSIDE DIAMETER OF OPERATING ROD	1"		1"		1"	1"	1 1/16"	1 1/16"	
E	DIAMETER AT BASE OF OPERATING SCREW	1 1/16"				1 3/16"	1 1/16"	1 1/16"	1 1/16"	
F	INSIDE DIAMETER OF SIX INCH BELL INLET					5 3/4"		5 3/4"	5 3/4"	
G	INSIDE DIAMETER OF HUB OF SIX INCH BELL INLET					6 3/4"		6 3/4"	6 3/4"	
H	HEIGHT OF BOTTOM INLET CONNECTION	6"		6 3/4"		6 3/4"	6 3/4"	10"	10"	
I	HEIGHT OF STOCK FOR 4 FT. BURY HYDRANT	4'-4"		4'-4"		4'-4"		4'-4"	4'-4"	
J	HEIGHT OF TOP CAP	2"		2"		4"	2"	4"	4"	
K	BOTTOM OF TOP CAP TO TOP OF STUFFING BOX BUSHING	3"		3"		5"	3"	5"	5"	
L	BOTTOM OF TOP CAP TO TOP OPERATING SCREW	3 1/4"		4"		6"	4"	6"	6"	
M	PAVEMENT LINE TO TOP OF STOCK	18 1/4"	18 1/4"	20 1/4"	20 1/4"	18 1/4"	20 1/4"	20 1/4"	20 1/4"	

POST-HYDRANT DETAIL
N.T.S.



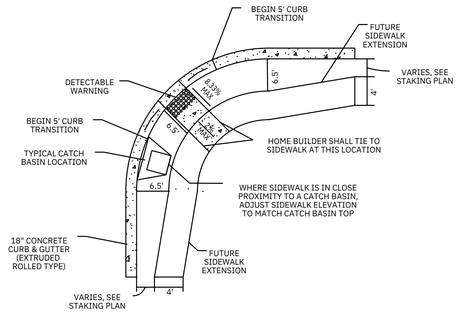
ROADWAY TYPICAL SECTION
N.T.S.

PAVEMENT SECTION TAKE FROM A GEOTECHNICAL ENGINEERING REPORT PREPARED BY ECS SOUTHEAST, LLC DATED DECEMBER 12, 2024.

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."



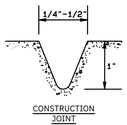
NOTES FOR INSTALLATION OF DW3 STYLE DETECTABLE WARNINGS:

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.

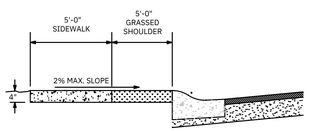
3. REGARDLESS OF EXISTING SIDEWALK WIDTH, CONSTRUCT FULL SIZE RAMPS AS SHOWN UNLESS RIGHT-OF-WAY LIMITS DO NOT ACCOMMODATE STANDARD RAMPS. EXISTING RAMPS THAT MEET THE SLOPE REQUIREMENTS MAY BE RETROFITTED WITH DRY BONDED DETECTABLE WARNINGS.

4. DETECTABLE WARNING AND SIDEWALK CONNECTION SHALL MEET ADA, SCDOT AND LOCAL REGULATIONS AND REQUIREMENTS.



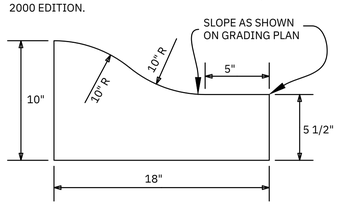
CONSTRUCTION JOINT

HANDICAP ACCESS FOR RESIDENTIAL DEVELOPMENTS
N.T.S.

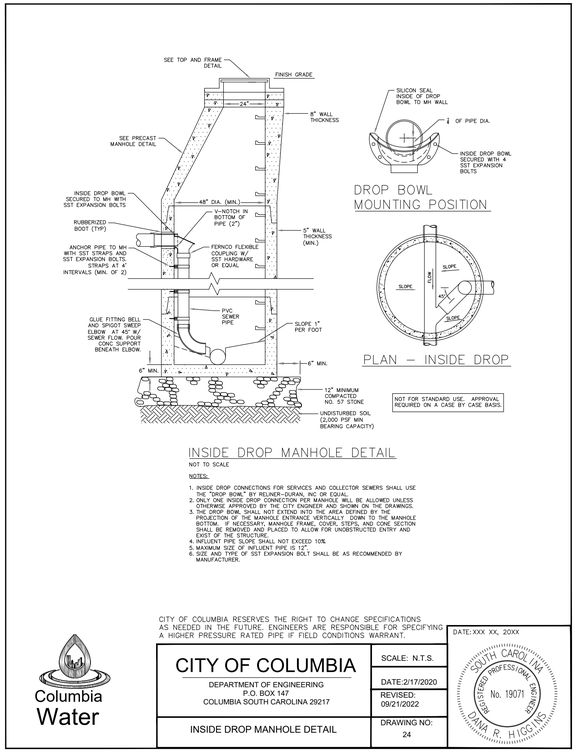


SIDEWALK DETAIL
N.T.S.

CONCRETE CURB AND GUTTER SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS OF SECTION 720 OF THE SOUTH CAROLINA STATE HIGHWAY DEPARTMENT " STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2000 EDITION.



EXTRUDED CONCRETE CURB & GUTTER
N.T.S.



INSIDE DROP MANHOLE DETAIL

NOT TO SCALE

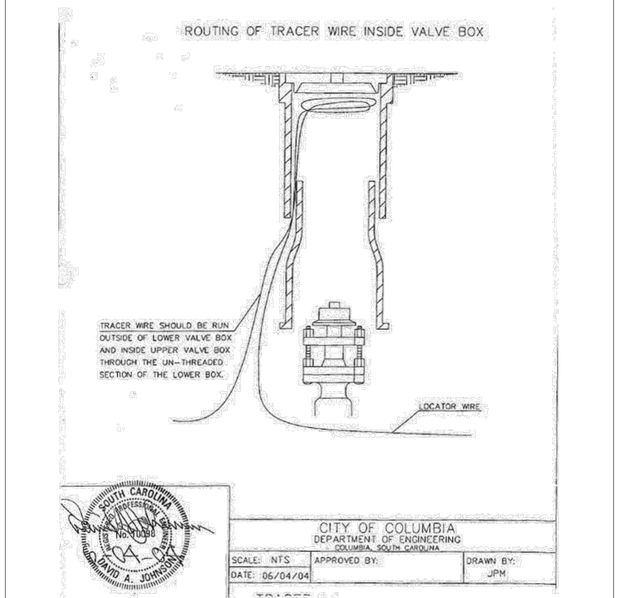
NOTES:
1. INSIDE DROP CONNECTIONS FOR SERVICES AND COLLECTOR SEWERS SHALL USE THE "DROP BOWL" BY RELINER-DURAN, INC OR EQUAL.
2. ONLY ONE INSIDE DROP CONNECTION PER MANHOLE WILL BE ALLOWED UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER AND SHOWN ON THE DRAWINGS.
3. ALL MANHOLES WITH INSIDE DROP CONNECTIONS SHALL HAVE A CLEAR PROJECTION OF THE MANHOLE ENTRANCE VERTICALLY DOWN TO THE MANHOLE BOTTOM. IF NECESSARY, MANHOLE FRAME, COVER, STEPS, AND CONE SECTION SHALL BE REMOVED AND PLACED TO ALLOW FOR UNOBSTRUCTED ENTRY AND EXIST OF THE STRUCTURE.
4. INFLUENT PIPE SLOPE SHALL NOT EXCEED 10%
5. MAXIMUM SIZE OF INFLUENT PIPE IS 12".
6. SIZE AND TYPE OF SST EXPANSION BOLT SHALL BE AS RECOMMENDED BY MANUFACTURER.

CITY OF COLUMBIA RESERVES THE RIGHT TO CHANGE SPECIFICATIONS AS NEEDED IN THE FUTURE. ENGINEERS ARE RESPONSIBLE FOR SPECIFYING A HIGHER PRESSURE RATED PIPE IF FIELD CONDITIONS WARRANT.

Columbia Water

CITY OF COLUMBIA DEPARTMENT OF ENGINEERING P.O. BOX 147 COLUMBIA SOUTH CAROLINA 29217	SCALE: N.T.S.	DATE:XXX XX, 20XX
	DATE:2/17/2020	
	REVISED: 09/21/2022	
INSIDE DROP MANHOLE DETAIL	DRAWING NO: 24	

SOUTH CAROLINA PROFESSIONAL ENGINEER No. 19071 DIANA R. HIGGINS



SOUTH CAROLINA PROFESSIONAL ENGINEER No. 10398 DAVID A. JOHNSON

CITY OF COLUMBIA DEPARTMENT OF ENGINEERING COLUMBIA, SOUTH CAROLINA		
SCALE: NTS	APPROVED BY:	DRAWN BY: JPM
DATE: 06/04/04		

Figure 16-21. *Routing of Tracer Wire Inside Valve Box*

NO.	DATE	DESCRIPTION	BY
		REVISION	

SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION — CIVIL ENGINEERING OF COLUMBIA, INC. NO. 000256

THE PRODUCT ON THIS SHEET WAS PREPARED FOR USE ON THE CLIENT FOR A SPECIFIC PURPOSE. USE, BY ANY OTHER PERSON, WITHOUT WRITTEN PERMISSION FROM THE ENGINEER, IS STRICTLY PROHIBITED.

ANY CERTIFICATIONS, WARRANTIES, OR GUARANTEES SIGNED BY THE ENGINEER SHALL BE RECORDED FOR THIS PROJECT ARE INTENDED TO EXPRESS THAT STANDARD AND REASONABLE CARE WERE USED IN PREPARATION OF THESE DOCUMENTS.

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

SOUTH CAROLINA PROFESSIONAL ENGINEER — JOSHUA M. ROBERTSON — NO. 31562 — LICENSED

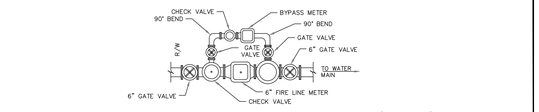
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MISCELLANEOUS DETAILS (2 OF 4)

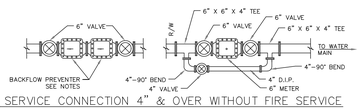
PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

CHECKED BY:

JOB NUMBER 25034

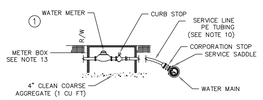


FIRE SERVICE COMBINED WITH DOMESTIC SERVICE (TYPICAL)

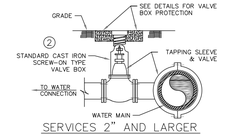


SERVICE CONNECTION 4" & OVER WITHOUT FIRE SERVICE

NOTE:
BACKFLOW PREVENTERS MAY BE HOUSED INSIDE BUILDING OR IN SEPARATE VALVE PIT



SERVICE SADDLE DETAIL TYPICAL



SERVICES 2" AND LARGER

NOTE:
1. SIZE-ON-SIZE TAPPING SLEEVES SHALL BE MECHANICAL JOINTS.
2. SMALLER TAPS ONTO LARGER LINES MAY USED FABRICATED TAPPING SLEEVES AND VALVES

TYPICAL SERVICE CONNECTIONS

NOT TO SCALE

NOTES:

1. FIRE SERVICE METER ASSEMBLY UTILIZES ONLY ONE LINE FOR FIRE PROTECTION SERVICE AND DOMESTIC WATER SERVICE. ONLY ONE METER BOX REQUIRED TO HOUSE SERVICE TO PROPERTY.
2. THE SIZES OF FIRE LINE METER AND BYPASS METER VARIES WITH APPLICATION.
3. METERS AND BACKFLOW PREVENTERS ARE IN SEPARATE PITS NORMALLY.
4. TYPE OF BACKFLOW PREVENTER VARIES WITH APPLICATION.
5. METERS ARE INSTALLED BY CITY FORCES AT OWNER'S EXPENSE.
6. ALL VALVES MUST MEET CITY OF COLUMBIA SPECIFICATIONS.
7. VALVES NOT IN PITS WILL BE IN CAST IRON BOXES WITH CAST IRON LIDS AS SHOWN IN MUELLER CATALOG W-103, OR APPROVED EQUAL.
8. ALL D.I. PIPE JOINTS TO BE FLANGED.
9. ALL COPPER JOINTS TO BE FLARED.
10. SERVICE LINES 2" AND SMALLER SHALL BE POLYETHYLENE PE 3408 DR-11 CLASS 160 CTS TUBING WITH BRASS FITTINGS. SERVICE SADDLES ARE REQUIRED ON ALL SERVICE CONNECTIONS 2" OR SMALLER ON ALL WATER MAINS. SERVICE SADDLES USED TO MAKE SERVICE CONNECTIONS SHALL PROVIDE FULL SUPPORT AROUND THE CIRCUMFERENCE OF THE WATER MAIN. DIRECT SERVICE TAPS ON WATER MAINS SHALL NOT BE ALLOWED.
11. WHEN THE CITY ELECTS TO INSTALL THE SERVICE ON NEW MAINS, THE CONTRACTOR SHALL STUBOUT THE SERVICE WITH A FLANGED TO MECHANICAL JOINT VALVE.
12. ALL PRESSURE REDUCING BACKFLOW PREVENTERS SHALL BE IN ACCORDANCE WITH SCDHEC REQUIREMENTS.
13. METER BOXES FOR METERS 2" AND SMALLER WITHIN THE TRAVELED WAY MUST BE CAST IRON OR CONCRETE. METER BOXES OUTSIDE THE TRAVELED WAY MAY BE CAST IRON, CONCRETE, OR PLASTIC. CAST IRON METER READER COVERS ARE REQUIRED. FOR METERS 3" AND LARGER REFER TO THE STANDARD DETAIL.
14. ALL LONG LINE SERVICES 2" AND SMALLER ARE TO BE DRY BORED.
15. ALL SERVICES WILL BE CONTINUOUS FROM MAIN TO METER, TAKING INTO ACCOUNT ANY STRUCTURES I.E. STORMWATER, SIDEWALKS, ETC.

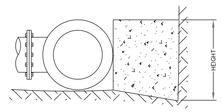
CITY OF COLUMBIA RESERVES THE RIGHT TO CHANGE SPECIFICATIONS AS NEEDED IN THE FUTURE. ENGINEERS ARE RESPONSIBLE FOR SPECIFYING A HIGHER PRESSURE RATED PIPE IF FIELD CONDITIONS WARRANT.

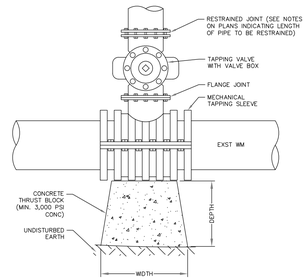
Columbia Water

CITY OF COLUMBIA DEPARTMENT OF ENGINEERING P.O. BOX 147 COLUMBIA SOUTH CAROLINA 29217	SCALE: N.T.S. DATE:02/17/2020 REVISED: 08/14/2025
TYPICAL SERVICE CONNECTIONS DETAIL	DRAWING NO: 5

DATE:XXX XX, 20XX

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 19071 DANA R. HIGGINS





TYPICAL TAPPING SLEEVE AND VALVE DETAIL

NOT TO SCALE

NOTES:
1. BASED ON 100 PSI STATIC PRESSURE PLUS AWWA WATER HAMMER ALLOWANCE
2. ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED GROUND WITH 2000 PSF BEARING CAPACITY.
3. THRUST BLOCKS TO BE USED AT ALL LINES OPERATING UNDER PRESSURE.
4. KEEP ALL PIPING JOINTS CLEAR OF THRUST BLOCKS.
5. POOR SOIL, A-4-A-8, SILTY SOILS, CLAYS, MUCK, AND PEAT WILL REQUIRE LARGER THRUST BLOCKS.

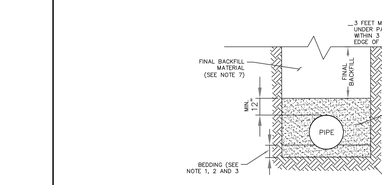
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Columbia Water

CITY OF COLUMBIA DEPARTMENT OF ENGINEERING P.O. BOX 147 COLUMBIA SOUTH CAROLINA 29217	SCALE: N.T.S. DATE:02/17/2020 REVISED: 01/05/2022
TYPICAL TAPPING SLEEVE AND VALVE DETAIL	DRAWING NO: 6

DATE:XXX XX, 20XX

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 19071 DANA R. HIGGINS



MINIMUM BEDDING FOR WATER MAIN DETAIL

NOT TO SCALE

NOTES:

1. BEDDING DEPTH SHALL BE 1/8" PIPE DIAMETER, 6" MINIMUM.
2. DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING MATERIAL BELOW THE PIPE. THE ENGINEER SHALL DETERMINE IN THE FIELD THE AMOUNT OF UNSUITABLE MATERIAL REQUIRED TO REACH A SUITABLE FOUNDATION.
3. BELL HOLES SHALL BE DUG TO PERMIT THE ENTIRE STRAIGHT BARREL OF THE PIPE TO REST ON THE BEDDING MATERIAL.
4. BEDDING AND INITIAL BACKFILL MATERIAL SHALL BE SAND CONTAINING NOT MORE THAN 10% TOTAL MATERIAL PASSING THE NO. 200 SIEVE WITH A MAXIMUM OF 6% CLAY OR SUITABLE SAND CLAY MATERIAL AS APPROVED BY A LICENSED GEOTECHNICAL ENGINEER.
5. BEDDING AND INITIAL BACKFILL MATERIAL SHALL BE COMPACTED IN 6" LAYERS TO A MINIMUM COMPACTION OF 95% STANDARD PROCTOR WITH AN ALLOWABLE ±5% OF OPTIMUM MOISTURE CONTENT. BACKFILL MATERIAL UP TO A LEVEL 6" OVER TOP OF PIPE.
6. WHERE COMPACTION IS REQUIRED IN NOTES 5, AND NOTE 7B, CONTRACTOR WILL PROVIDE TESTING TO DEMONSTRATE COMPACTION COMPLIANCE ONCE PER LIFT AND AT LEAST ONCE PER EVERY 500 LINEAR FEET.
7. FINAL BACKFILL MATERIAL:
   A. IN CROSS COUNTRY AREAS: FINAL BACKFILL MATERIAL SHALL MEET THE REQUIREMENTS OF AASHTO M145 GROUP CLASSIFICATION A1-A6 AND BE COMPACTED IN SUFFICIENT DEPTHS TO MEET A MINIMUM COMPACTION OF 90% STANDARD PROCTOR WITH AN ALLOWABLE ±5% OF OPTIMUM MOISTURE CONTENT.
   B. AREAS INSIDE THE SCDOT, COUNTY, AND CITY RIGHTS-OF-WAY: FINAL BACKFILL MATERIAL SHALL MEET THE REQUIREMENTS OF AASHTO M145 GROUP CLASSIFICATION A-1, A-2-4 & A-3 AND BE COMPACTED IN 6" LAYERS TO A MINIMUM COMPACTION OF 95% STANDARD PROCTOR WITH AN ALLOWABLE, OR SUITABLE MATERIAL AS APPROVED BY A LICENSED GEOTECHNICAL ENGINEER, ±5% OF OPTIMUM MOISTURE CONTENT.
   C. UNDER PAVEMENT AND WITHIN THREE FEET OF EDGE OF PAVEMENT: FINAL BACKFILL MATERIAL SHALL BE SCDOT EXCAVATABLE (200 PSI MAX) FLOWABLE FILL TO SUB-BASE OF PAVEMENT OR TO GROUND SURFACE A MINIMUM OF 3 FEET. IN CASES OF DEEP TRENCHING THE ENGINEER MAY SPECIFY ALTERNATE BACKFILL MATERIALS UP TO 3 FEET BELOW PAVEMENT SUB-BASE OR GROUND SURFACE.
   D. USE OF NATIVE MATERIAL: CLEAN NATIVE MATERIAL MAY BE USED IN BACKFILL ONLY WHEN APPROVED BY THE OWNER.

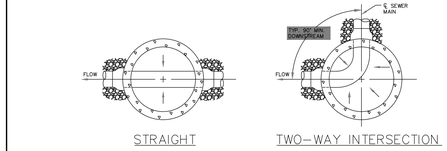
CITY OF COLUMBIA RESERVES THE RIGHT TO CHANGE SPECIFICATIONS AS NEEDED IN THE FUTURE. ENGINEERS ARE RESPONSIBLE FOR SPECIFYING A HIGHER PRESSURE RATED PIPE IF FIELD CONDITIONS WARRANT.

Columbia Water

CITY OF COLUMBIA DEPARTMENT OF ENGINEERING P.O. BOX 147 COLUMBIA SOUTH CAROLINA 29217	SCALE: N.T.S. DATE:05/18/2023 REVISED: 04/01/2024
MINIMUM BEDDING FOR WATER MAIN DETAIL	DRAWING NO: 1

DATE:XXX XX, 20XX

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 19071 DANA R. HIGGINS



STANDARD MANHOLES SCHEDULE OF GOVERNING DIMENSIONS				
PIPE SIZE	ANGLE Δ	INSIDE DIAMETER	"R"	"X"
8" TO 15"	0° TO 90°	4'-0"*	2'-0"	0"
16" TO 30"	0° TO 90°	5'-0"	2'-0"	6"
36" TO 42"	0° TO 60°	6'-0"	3'-0"	9"
36" TO 42"	60° TO 90°	6'-0	3'-0"	1'-2"
48" OR LARGER	0° TO 45°	7'-0	4'-0"	6"
48" OR LARGER	45° TO 90°	8'-0	3'-0"	1'-3"

*MANHOLE DEEPER THAN 12' SHALL BE 5' MIN.

MANHOLE PLAN AND INVERT DETAIL

NOT TO SCALE

NOTES:

1. TROWEL SHAPE INVERTS TO BE UNIFORM AND SMOOTH.
2. ARROWS INDICATE DIRECTION OF SLOPE.

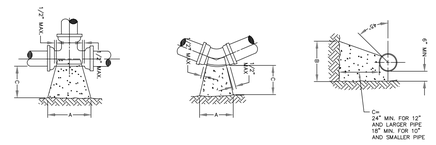
CITY OF COLUMBIA RESERVES THE RIGHT TO CHANGE SPECIFICATIONS AS NEEDED IN THE FUTURE. ENGINEERS ARE RESPONSIBLE FOR SPECIFYING A HIGHER PRESSURE RATED PIPE IF FIELD CONDITIONS WARRANT.

Columbia Water

CITY OF COLUMBIA DEPARTMENT OF ENGINEERING P.O. BOX 147 COLUMBIA SOUTH CAROLINA 29217	SCALE: N.T.S. DATE:02/17/2020 REVISED: 01/05/2022
MANHOLE PLAN AND INVERT DETAIL	DRAWING NO: 22

DATE:XXX XX, 20XX

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 19071 DANA R. HIGGINS



THRUST BLOCK FOR TEES & PLUGS				
	TEES			S.F. BEARING
SIZE	A	B	C	SURFACE
4"	16"	16"	18"	1.78
6"	20"	24"	18"	3.33
8"	26"	32"	18"	5.78
10"	32"	40"	18"	8.89
12"	36"	48"	24"	12.00
14"	40"	56"	24"	15.56
16"	48"	60"	24"	20.00
18"	56"	64"	24"	24.89
20"	60"	76"	24"	31.67
24"	72"	90"	24"	45.00
30"	86"	102"	24"	60.67
36"	116"	108"	24"	86.11

THRUST BLOCK FOR BENDS															
	90° BEND			S.F. BEARING	45° BEND			S.F. BEARING	22-1/2° BEND			S.F. BEARING	11-1/4° BEND			S.F. BEARING
SIZE	A	B	C	SURFACE	A	B	C	SURFACE	A	B	C	SURFACE	A	B	C	SURFACE
4"	16"	16"	18"	1.78	14"	16"	18"	1.56	14"	16"	18"	1.56	14"	16"	18"	1.56
6"	20"	24"	18"	4.89	16"	18"	18"	2.00	14"	16"	18"	1.56	14"	16"	18"	1.56
8"	32"	36"	18"	8.00	24"	28"	18"	4.67	16"	18"	18"	2.00	14"	16"	18"	1.56
10"	36"	46"	18"	11.50	26"	36"	18"	6.50	20"	24"	18"	3.33	14"	16"	18"	1.75
12"	44"	56"	24"	17.11	32"	40"	24"	8.89	24"	30"	24"	5.00	16"	20"	24"	2.22
14"	52"	62"	24"	22.39	36"	48"	24"	12.00	26"	36"	24"	6.50	20"	24"	24"	3.33
16"	58"	72"	24"	29.00	40"	54"	24"	15.00	32"	38"	24"	8.44	22"	26"	24"	3.97
18"	64"	80"	24"	35.56	46"	60"	24"	19.17	36"	42"	24"	10.50	24"	32"	24"	5.33
20"	72"	88"	24"	44.00	52"	66"	24"	23.83	38"	48"	24"	12.67	26"	36"	24"	6.50
24"	96"	96"	24"	36.89	64"	78"	24"	34.67	46"	56"	24"	17.89	32"	40"	24"	8.89
30"	122"	102"	24"	86.11	72"	94"	24"	47.00	56"	62"	24"	24.11	36"	48"	24"	12.00
36"	166"	104"	24"	123.33	88"	108"	24"	66.00	64"	78"	24"	34.67	44"	54"	24"	16.50

NOTES:

1. ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED SOIL.
2. THESE TABLES SHOW MINIMUM SIZES FOR THRUST BLOCKS IN GOOD SOIL (A-1 THRU A-3, CLEAN SANDS AND GRAVELS) WITH MINIMUM BEARING CAPACITY OF 2000 psi.
3. POOR SOILS A-4 THRU A-8, SILTY SOILS, CLAYS, MUCK AND PEAT WILL REQUIRE LARGER THRUST BLOCKING.
4. BOTH CONCRETE THRUST BLOCKS AND TIE RODS/RESTRAINED JOINTS MUST BE USED WHEN, IN THE JUDGMENT OF THE ENGINEER, THE NATURE AND CRITICALITY OF AN INSTALLATION IS SUCH AS TO REQUIRE POSITIVE ASSURANCE OF STABILITY.
5. THE USE OF THRUST BLOCKS SHALL BE LIMITED TO SITUATIONS SUCH AS POINT REPAIR WHERE EXPOSING SEVERAL JOINTS OF PIPE IS NOT FEASIBLE DUE TO EXISTING GROUND CONDITIONS.
6. MAXIMUM TEST PRESSURE TO BE 150 PSI.

THRUST BLOCK SIZE CHART AND DETAIL

NOT TO SCALE

CITY OF COLUMBIA RESERVES THE RIGHT TO CHANGE SPECIFICATIONS AS NEEDED IN THE FUTURE. ENGINEERS ARE RESPONSIBLE FOR SPECIFYING A HIGHER PRESSURE RATED PIPE IF FIELD CONDITIONS WARRANT.

Columbia Water

CITY OF COLUMBIA DEPARTMENT OF ENGINEERING P.O. BOX 147 COLUMBIA SOUTH CAROLINA 29217	SCALE: N.T.S. DATE:02/17/2020 REVISED: 01/05/2022
THRUST BLOCK SIZE CHART DETAIL	DRAWING NO: 8

DATE:XXX XX, 20XX

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 19071 DANA R. HIGGINS

NO.	DATE	DESCRIPTION	REVISION BY

SOUTH CAROLINA NOTIFICATION OF CERTIFICATE OF AUTHORIZATION CIVIL ENGINEERING OF COLUMBIA, INC. NO. 000256

THE PRODUCT ON THIS SHEET WAS PREPARED BY OR UNDER THE SUPERVISION OF A SPECIFIC PURPOSE. USE, BY ANY OTHER PERSON, WITHOUT WRITTEN AUTHORIZATION OF CIVIL ENGINEERING OF COLUMBIA, INC. ENGINEER IS STRICTLY PROHIBITED.

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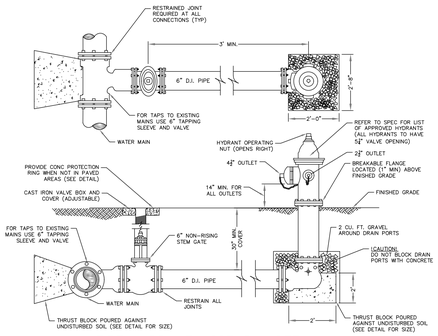
CIVIL ENGINEERING of COLUMBIA
PO BOX 1137 IRMO, SC 29063
TEL (803) 798-2820 FAX (803) 798-2826

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER JOSHUA ROBERTSON NO. 31562

MISCELLANEOUS DETAILS (3 OF 4)

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

SCALE	N/A
DATE	----
DRAWN	ARR
DESIGNED	ARR
DRAWING NUMBER	36 OF
CHECKED BY:	
JOB NUMBER	25034



FIRE HYDRANT ASSEMBLY DETAIL

NOT TO SCALE

NOTES:

1. POOR SOIL A-4-A-8, SILTY SOILS, CLAYS, MUCK, AND PEAT WILL REQUIRE LARGER THRUST BLOCKS OR THE ADDITION OF TWO 3/4" DIA (THREADED ENDS) STEEL RODS AND EYE BOLTS BETWEEN THE TEE AND GATE VALVE AND BETWEEN THE GATE VALVE AND THE HYDRANT. ALL OTHER JOINTS NOT RESTRAINED BY RODS MUST BE MECHANICALLY RESTRAINED.
2. PRIOR TO PROJECT FINAL INSPECTION, THE HYDRANT AND ALL ABOVE GROUND PIPING SHALL BE OILED, GREASED AND PAINTED. PAINT HYDRANT IN ACCORDANCE WITH THE SPECIFICATIONS.
3. FIRE HYDRANTS SHALL BE ORDERED WITH PROPER "BURY DEPTH" TO MEET ACTUAL FIELD CONDITIONS. THE USE OF HYDRANT EXTENSIONS SHOULD BE MINIMIZED.
4. BLUE REFLECTIVE MARKERS SHALL BE INSTALLED AS INDICATED IN THE SPECIFICATIONS.
5. THE HYDRANT AND VALVE SHALL BE LOCATED AS SHOWN ON THE PLANS AND SHALL BE LOCATED AS CLOSE AS POSSIBLE TO THE STREET RIGHT-OF-WAY, BUT NOT LESS THEN 3' FROM THE BACK OF CURB OR EDGE OF ROADWAY..
6. MINIMUM DISTANCE BETWEEN THE VALVE AND THE HYDRANT SHALL BE 3
7. BENDS MAY BE USED IN HYDRANT LEAD TO FACILITATE HYDRANT LOCATION.
8. FIRE HYDRANT ASSEMBLY INCLUDES TEE.
9. GATE VALVE TO OPEN LEFT.

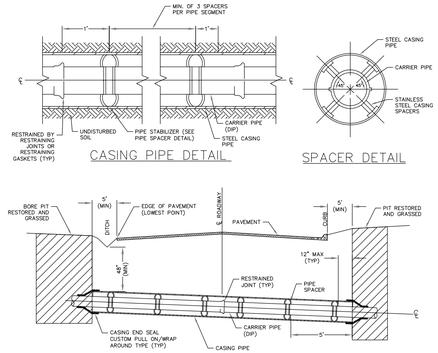
CITY OF COLUMBIA RESERVES THE RIGHT TO CHANGE SPECIFICATIONS AS NEEDED IN THE FUTURE. ENGINEERS ARE RESPONSIBLE FOR SPECIFYING A HIGHER PRESSURE RATED PIPE IF FIELD CONDITIONS WARRANT.

Columbia Water

CITY OF COLUMBIA	SCALE: N.T.S.
DEPARTMENT OF ENGINEERING P.O. BOX 147 COLUMBIA SOUTH CAROLINA 29217	DATE:02/17/2020
FIRE HYDRANT ASSEMBLY DETAIL	REVISED: 01/05/2022
	DRAWING NO: 13

DATE:XXX XX, 20XX

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 19071 DIANA R. HIGGINS



CASING PIPE DETAIL

SPACER DETAIL

BORE AND JACK AND CASING DETAIL

NOT TO SCALE

NOTES:

1. STEEL CASING LENGTH SHALL BE IN ACCORDANCE WITH SCDOT "A POLICY FOR ACCOMMODATING UTILITIES ON HIGHWAY RIGHTS-OF-WAY OR "RAILROAD SPECIFICATIONS FOR PIPELINE OCCUPANCY" AND THE SPECIFICATIONS.
2. CASING PIPE AND CARRIER PIPE DIAMETERS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND DRAWINGS.
3. USE SPIDER SUPPORTS (SEE DETAIL) TO MOVE CARRIER PIPE INTO CASING PIPE. SPACING OF SPIDERS WILL BE DICTATED BY THE LENGTH OF CASING PIPE AND NUMBER OF JOINTS OF CARRIER PIPE.
4. MINIMUM OF 3 SPACERS PER JOINT OF PIPE.
5. SCDOT REQUIRES A MINIMUM OF 48" OF COVER BENEATH ALL SCDOT ROADWAYS.

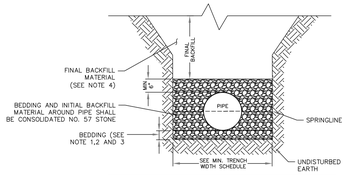
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Columbia Water

CITY OF COLUMBIA	SCALE: N.T.S.
DEPARTMENT OF ENGINEERING P.O. BOX 147 COLUMBIA SOUTH CAROLINA 29217	DATE:02/17/2020
BORE AND JACK CASING DETAIL	REVISED: XX/XX/XXXX
	DRAWING NO: 17

DATE:XXX XX, 20XX

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 19071 DIANA R. HIGGINS



MINIMUM TRENCH WIDTH SCHEDULE			
PIPE SIZE I.D.	12" OR LESS	12" TO 21"	24" TO 30"	33" TO 54"
TRENCH WIDTH (W/O SHORING)	36"	I.D. + 24"	I.D. + 30"	I.D. + 30"
TRENCH WIDTH (W/ SHORING)	48"	I.D. + 36"	I.D. + 42"	I.D. + 42"

MINIMUM BEDDING FOR GRAVITY SEWER MAIN DETAIL

NOT TO SCALE

NOTES:

1. BEDDING DEPTH SHALL BE 6" MINIMUM FOR PIPE DIAMETER LESS THAN 12".
2. DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING MATERIAL BELOW THE PIPE. THE ENGINEER SHALL DETERMINE IN THE FIELD THE AMOUNT OF UNSUITABLE MATERIAL REQUIRED TO REACH A SUITABLE FOUNDATION.
3. THE PIPE BEDDING SHALL BE CONSOLIDATED NO. 57 STONE IN 6" LAYERS TO THE BOTTOM OF THE PIPE. THEN BACKFILLED WITH HAND PLACED MATERIAL CONSOLIDATED IN 6" LAYERS TO THE SPRINGLINE OF THE PIPE.
4. FINAL BACKFILL MATERIAL
   A. AREAS OUTSIDE THE SCDOT, COUNTY, AND CITY RIGHT-OF-WAYS: FINAL BACKFILL MATERIAL SHALL MEET THE REQUIREMENTS OF AASHTO M145 GROUP CLASSIFICATION A1-A6 AND BE COMPACTED IN SUFFICIENT DEPTHS TO MEET A MINIMUM COMPACTION OF 85% STANDARD PROCTOR WITH AN ALLOWABLE ±5% OF OPTIMUM MOISTURE CONTENT.
   B. AREAS INSIDE THE SCDOT, COUNTY, AND CITY RIGHT-OF-WAYS: FINAL BACKFILL MATERIAL SHALL MEET THE REQUIREMENTS OF AASHTO M145 GROUP CLASSIFICATION A1-A3 AND BE COMPACTED IN 6" LAYERS TO A MINIMUM COMPACTION OF 95% STANDARD PROCTOR WITH AN ALLOWABLE ±5% OF OPTIMUM MOISTURE CONTENT.
   C. UNDER ROADWAY PAVEMENT (TO THREE FEET FROM EDGE OF PAVEMENT): FINAL BACKFILL MATERIAL SHALL BE SCDOT EXCAVATABLE (200 PSI MAX) FLOWABLE FILL TO SUBBASE OF PAVEMENT OR TO GROUND SURFACE A MINIMUM OF 5 FEET FOR ALL SCDOT ROADWAYS.
   D. UNDER DRIVEWAYS: FINAL BACKFILL MATERIAL SHALL MEET REQUIREMENTS OF AASHTO M145 GROUP CLASSIFICATION A1-A3 AND BE COMPACTED IN 6" LAYERS TO A MINIMUM COMPACTION OF 98% STANDARD PROCTOR WITH AN ALLOWABLE ±5% OF OPTIMUM MOISTURE CONTENT.
   E. USE OF NATIVE MATERIAL: NATIVE MATERIAL MAY BE USED IN FINAL BACKFILL ONLY WHEN APPROVED BY THE ENGINEER.

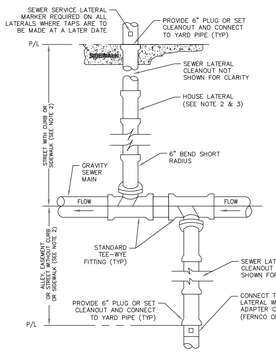
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Columbia Water

CITY OF COLUMBIA	SCALE: N.T.S.
DEPARTMENT OF ENGINEERING P.O. BOX 147 COLUMBIA SOUTH CAROLINA 29217	DATE:02/17/2020
MINIMUM BEDDING FOR GRAVITY SEWER MAIN DETAIL	REVISED: 05/22/2025
	DRAWING NO: 19

DATE:XXX XX, 20XX

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 19071 DIANA R. HIGGINS



SEWER SERVICE LATERAL PLAN VIEW DETAIL

NOT TO SCALE

NOTES:

1. FOR SEPTIC TANK PHASE-OUT PROJECTS, A SEWER SERVICE LATERAL MARKER IS REQUIRED FOR ALL LATERALS WHICH ARE "NOT IN USE". SEWER SERVICE LATERAL MARKER SHALL BE, A LANDSCAPE TIMBER OR 3x3 MIN. P.T. POST (TOP PAINTED GREEN) SHALL BE INSTALLED TO MARK THE LOCATION OF THE 6" PLUG.
2. THE MINIMUM SIZE OF ALL HOUSE LATERALS SHALL BE 6 INCHES. THE MAXIMUM LENGTH OF A HOUSE LATERAL SHALL BE 60 FEET (LENGTH BETWEEN SEWER MAIN TO CUSTOMERS PROPERTY LINE).
3. ALL SEWER SERVICE LATERAL PIPE AND FITTINGS (INCLUDING THE TEE-WYE FITTING) WITH A "DEPTH OF CUT" EQUAL OR GREATER THAN 12 FEET, SHALL BE DIP, PRESSURE CLASS 350, LINED IN ACCORDANCE WITH THE SPECIFICATIONS.

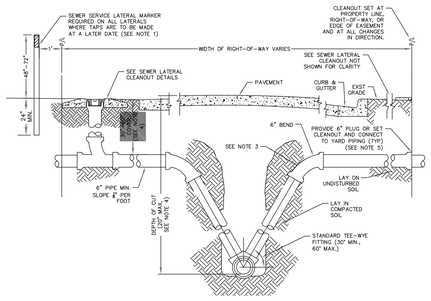
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Columbia Water

CITY OF COLUMBIA	SCALE: N.T.S.
DEPARTMENT OF ENGINEERING P.O. BOX 147 COLUMBIA SOUTH CAROLINA 29217	DATE:02/17/2020
SEWER SERVICE LATERAL SECTION VIEW DETAIL	REVISED: XX/XX/XXXX
	DRAWING NO: 23

DATE:XXX XX, 20XX

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 19071 DIANA R. HIGGINS



SEWER SERVICE LATERAL SECTION VIEW DETAIL

NOT TO SCALE

NOTES:

1. FOR SEPTIC TANK PHASE-OUT PROJECTS, A SEWER SERVICE LATERAL MARKER IS REQUIRED FOR ALL LATERALS WHICH ARE "NOT IN USE". SEWER SERVICE LATERAL MARKER SHALL BE, A LANDSCAPE TIMBER OR 3x3 MIN. P.T. POST (TOP PAINTED GREEN) SHALL BE INSTALLED TO MARK THE LOCATION OF THE 6" PLUG.
2. THE MINIMUM SIZE OF ALL HOUSE LATERALS SHALL BE 6 INCHES. THE MAXIMUM LENGTH OF A HOUSE LATERAL SHALL BE 60 FEET (LENGTH BETWEEN SEWER MAIN TO CUSTOMERS PROPERTY LINE).
3. ALL SEWER SERVICE LATERAL PIPE AND FITTINGS (INCLUDING THE TEE-WYE FITTING) WITH A "DEPTH OF CUT" EQUAL OR GREATER THAN 12 FEET, SHALL BE DIP, PRESSURE CLASS 350, LINED IN ACCORDANCE WITH THE SPECIFICATIONS.
4. THE SEWER SERVICE LATERAL SHALL BE CONSTRUCTED AT A DEPTH TO ALLOW A GRAVITY CONNECTION BY THE CUSTOMER, WHERE POSSIBLE (CONTINGENT UPON MEETING THE CUSTOMER'S ON-SITE CONDITIONS AND LOCAL CONSTRUCTION STANDARDS). A LATERAL REQUIRING MORE THAN 60" OF COVER MUST BE APPROVED, PRIOR TO CONSTRUCTION, BY THE ENGINEER.
5. CONNECTION TO EXISTING YARD PIPING (TO BE LOCATED PRIOR TO INSTALLING THE TEE BRANCH) SHALL BE MADE WITH A FLEXIBLE ADAPTER COUPLING (FERNCO OR EQUAL).

CITY OF COLUMBIA RESERVES THE RIGHT TO CHANGE SPECIFICATIONS AS NEEDED IN THE FUTURE. ENGINEERS ARE RESPONSIBLE FOR SPECIFYING A HIGHER PRESSURE RATED PIPE IF FIELD CONDITIONS WARRANT.

Columbia Water

CITY OF COLUMBIA	SCALE: N.T.S.
DEPARTMENT OF ENGINEERING P.O. BOX 147 COLUMBIA SOUTH CAROLINA 29217	DATE:02/17/2020
SEWER SERVICE LATERAL SECTION VIEW DETAIL	REVISED: 01/05/2022
	DRAWING NO: 21

DATE:XXX XX, 20XX

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 19071 DIANA R. HIGGINS

NO.	DATE	DESCRIPTION	REVISION	BY

SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION CIVIL ENGINEERING OF COLUMBIA, INC. NO. 000256

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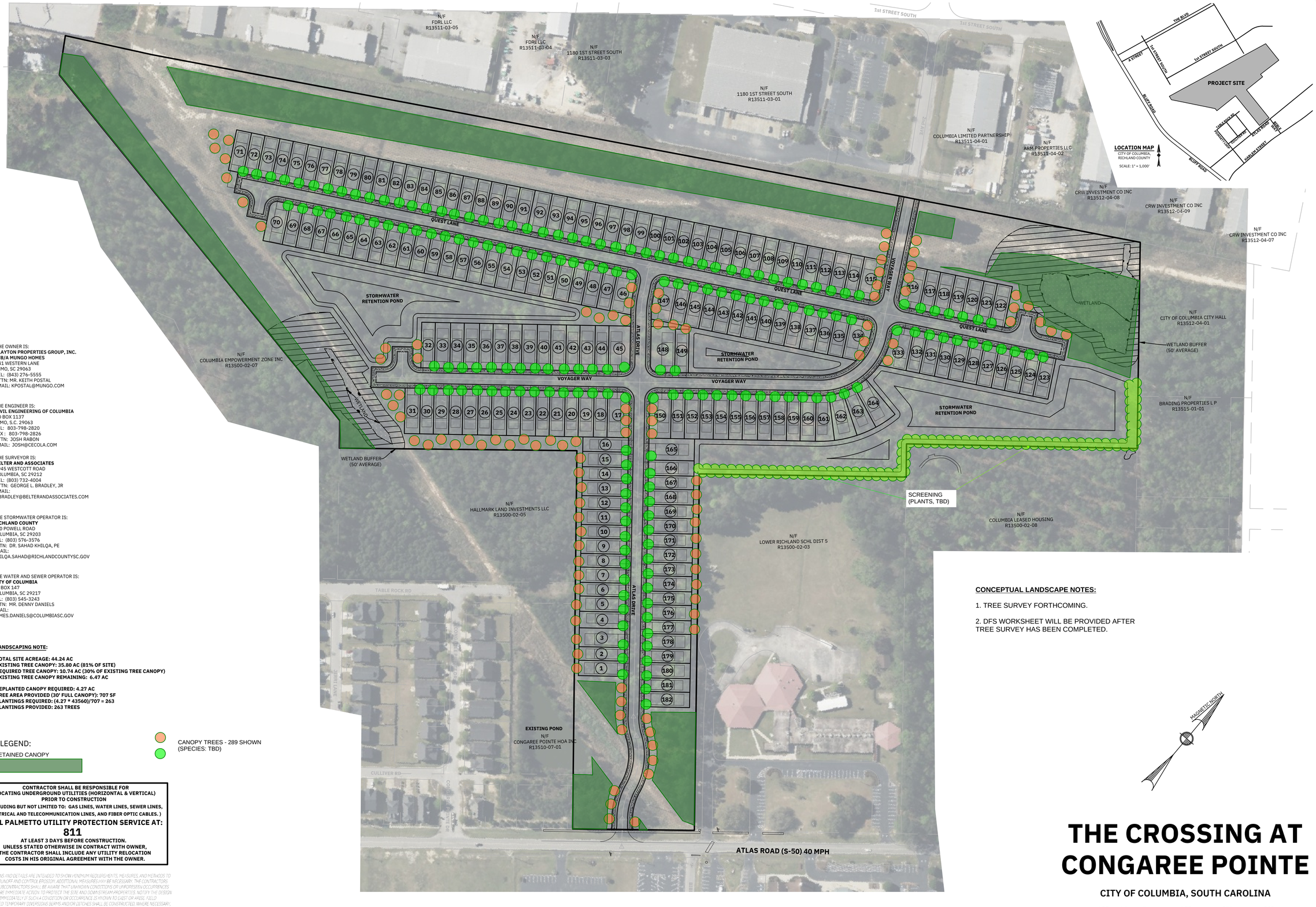
CIVIL ENGINEERING of COLUMBIA
PO BOX 1137 IRMO, SC 29063
TEL (803) 798-2820 FAX (803) 798-2826

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER NO. 31562 JOSHUA ROBERTSON WILSON

MISCELLANEOUS DETAILS (4 OF 4)

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

SCALE	N/A
DATE	----
DRAWN	ARR
DESIGNED	ARR
CHECKED BY:	
JOB NUMBER	25034
DRAWING NUMBER	37 OF



THE OWNER IS:
CLAYTON PROPERTIES GROUP, INC.
D/B/A MUNGO HOMES
441 WESTERN LANE
IRMO, SC 29063
TEL: (843) 276-5555
ATTN: MR. KEITH POSTAL
EMAIL: KPOSTAL@MUNGO.COM

THE ENGINEER IS:
CIVIL ENGINEERING OF COLUMBIA
PO BOX 1137
IRMO, S.C. 29063
TEL: 803-798-2820
FAX : 803-798-2826
ATTN: JOSH RABON
EMAIL: JOSH@CECOLA.COM

THE SURVEYOR IS:
BELTER AND ASSOCIATES
5945 WESTCOTT ROAD
COLUMBIA, SC 29212
TEL: (803) 732-4004
ATTN: GEORGE L. BRADLEY, JR
EMAIL:
GBRADLEY@BELTERANDASSOCIATES.COM

THE STORMWATER OPERATOR IS:
RICHLAND COUNTY
400 POWELL ROAD
COLUMBIA, SC 29203
TEL: (803) 576-3576
ATTN: DR. SAHAD KHILQA, PE
EMAIL:
KHILQA.SAHAD@RICHLANDCOUNTYSC.GOV

THE WATER AND SEWER OPERATOR IS:
CITY OF COLUMBIA
PO BOX 147
COLUMBIA, SC 29217
TEL: (803) 545-3243
ATTN: MR. DENNY DANIELS
EMAIL:
JAMES.DANIELS@COLUMBIASC.GOV

LANDSCAPING NOTE:

TOTAL SITE ACREAGE: 44.24 AC
EXISTING TREE CANOPY: 35.80 AC (81% OF SITE)
REQUIRED TREE CANOPY: 10.74 AC (30% OF EXISTING TREE CANOPY)
EXISTING TREE CANOPY REMAINING: 6.47 AC

REPLANTED CANOPY REQUIRED: 4.27 AC
TREE AREA PROVIDED (30' FULL CANOPY): 707 SF
PLANTINGS REQUIRED: (4.27 * 43560)/707 = 263
PLANTINGS PROVIDED: 263 TREES

LEGEND:

RETAINED CANOPY

CANOPY TREES - 289 SHOWN (SPECIES: TBD)

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 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. FIELD DETERMINED TEMPORARY DIVERSIONS BERMS AND/OR DITCHES SHALL BE CONSTRUCTED, WHERE NECESSARY, TO PROTECT AREAS FROM UPSLOPE RUNOFF AND/OR TO DIVERT SEDIMENT LADEN 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.

CONCEPTUAL LANDSCAPE NOTES:

1. TREE SURVEY FORTHCOMING.

2. DFS WORKSHEET WILL BE PROVIDED AFTER TREE SURVEY HAS BEEN COMPLETED.

MAGNETIC NORTH

THE CROSSING AT CONGAREE POINTE

CITY OF COLUMBIA, SOUTH CAROLINA

100 50 0 100 200 300
SCALE IN FEET

NO.	DATE	DESCRIPTION	BY
		REVISION	

SOUTH CAROLINA — CIVIL ENGINEERING OF COLUMBIA, INC. NO. 000256 — CERTIFICATE OF AUTHORIZATION

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

SOUTH CAROLINA — PROFESSIONAL ENGINEER — JOSHUA ROBERT RABON — LICENSED — NO. 31562

CONCEPTUAL LANDSCAPE PLAN

PREPARED FOR
CLAYTON PROPERTIES GROUP, INC. D/B/A MUNGO HOMES
IRMO, SC 29063

JOB NUMBER **25034**

CHECKED BY:

SCALE	1" = 100'
DATE	---
DRAWN	ARR
DESIGNED	ARR
DRAWING NUMBER	3 OF N/A

January 12, 2026

VIA EMAIL: Josh@cecola.com
Joshua Rabon, PE
Civil Engineering of Columbia
90 N Royal Tower Drive
Irmo, SC 29063

RE: SKETCH PLAN: ±43.2 ACRES, 2500 BLOCK OF ATLAS ROAD, TMS#13500-02-04, ENERGOV PLAN NUMBER: SPLAT-2025-0066

Dear Mr. Rabon:

This letter is to confirm that in accordance with §17-2.5(j)(5) of the City of Columbia Unified Development Ordinance (UDO), the above referenced sketch plan application for the construction of a 193-lot, detached single-family residential subdivision on ±61.71 acres, 2500 block of Atlas Road, TMS#13500-02-04, was reviewed and approved.

After review of the sketch plan application and plan, we find the following:

1. The property is zoned RM-2 (Residential Mixed District) and detached single-family residential is a permitted use.
2. A 193-lot, detached single-family cluster housing residential subdivision is permitted.

The sketch plan is approved conditioned upon compliance with all reviewing agency comments as outlined in the table below.

CITY AGENCY COMMENTS FOR SKETCH PLAN REVIEW	
Planning and Development Services	Recommend approval with conditions: 1. Typical lot detail for single-family detached dwellings (lots 135-193) show a 37' wide lot, with 27' wide home and 5' side yard setback. This is permitted, but leaves the builder no room for error. 2. Typical lot detail for single-family detached dwellings (lots 1-134) show a 31' wide lot, with 21' wide home and 5' side yard setback. This is permitted, but leaves the builder no room for error. 3. Stormwater management areas treated as amenities may be used for Open Space credit (75% of the area). If not, they must be fully screened. Provide details how retention ponds will become amenities.

	4. Road names must be approved by Planning Commission during preliminary plat review. 5. Green Building standards must be provided on the preliminary plat. 6. Mailbox kiosk and associated parking (if applicable) must be shown. 7. Second Avenue access shall be a gated emergency access only. 8. Ingress and egress access easement must be obtained from Dominion Energy for permission to cross the power line easement near Second Avenue.
Utilities	Recommend approval with conditions: 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.
Fire Department	Recommend approval with condition: 1. City of Columbia approval required for the emergency access road along Second Avenue.
Forestry	Recommend approval with condition: 1. New landscaping or irrigation installed in the right of way must be maintained by the adjacent property owner in a

	manner to not interfere with vehicular and pedestrian traffic. 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.
Stormwater	Recommend approval with condition: 1. Development must comply with all applicable land disturbance requirements.
Parking	Recommend approval.
Street Division	Recommend approval.
Solid Waste	Recommend approval.

In accordance with §17-2.5(j)(5)a4(ii) of the City of Columbia Unified Development Ordinance (UDO) and §6-29-1540 of the South Carolina Code of Laws this site-specific development plan expires on January 12, 2028.

In accordance with §17-2.4(j) and §17-2.5 of the Unified Development Ordinance, and §6-29-1150 of the South Carolina Code of Laws an appeal of the approval of this sketch plan may be made in accordance with §17-2.5(v) of the Unified Development Ordinance (UDO).

While contacting the neighborhood association and/or adjacent property owners is not required by Unified Development Ordinance, it is strongly encouraged. Doing so can help identify potential issues early, build community support for your project, and foster positive relationships with the residents.

For information regarding commercial building plan review and obtaining land disturbance, building and other permits for this project, please visit our website at www.planninganddevelopment.columbiasc.gov or contact the Development Center at (803) 545-3483.

This letter is neither a building permit, zoning permit, nor any similar authorization to occupy the property or begin construction; rather it confirms that this site specific development plan has been reviewed and approved in accordance with the Unified Development Ordinance (UDO).

For your convenience, I have attached a copy of the documents reviewed and approved. Should you

have any questions or need additional information, please feel free to contact me at (803) 545-3206.

Sincerely,

Johnathan E. Chambers
Land Development Administrator

Attachments

cc: Justin Steinmann, Director of Planning and Development Services

43 Acres Near Congaree Point

This map was prepared using
the City GIS Viewer
City of Columbia - GIS Division
8/22/2025 11:42 PM

CITY OF Columbia

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Address Point
Dwelling Type
- Single Family
- Multi Unit
- Others
- InActive

Tax Parcel

Street & Ownership
CFCC,Ownership
- Interstate
- Highway
- City Maintained
- State Maintained
- Private
- Others

Bailey Bill
Type
- Bailey Bill Property
- National Register of Historic Places

Adopted Area Plans
AreaPlan
- Villages of North Columbia - North Columbia Project Area
- Villages of North Columbia - Study Area
- Eau Claire Historic Resources Survey (2018)
- Capital City Mill District Area & Corridor Master Plan (2017)
- Walkable 29203 Pedestrian Master Plan (2017)
- South Main Capital District Plan (2017)
- A Plan for the Redevelopment of East Central City (2004)
- Five Points Master Plan (2006)
- Columbia Owens Master Plan (2002)
- Innovista Master Plan (2007)
- Lower Waverly Catalyst Redevelopment Plan (2006)
- West Gervais District Plan (2017)
- City Center Master Plan (1999)
- Devine St. / Ft. Jackson Commercial Node Plan (2014)
- Rosewood Corridor & Neighborhood Plan (2012)
- Reaching Riverbanks Community Mobility Plan (2025)
- Downtown Columbia Strategic Plan

0 0.03 0.06 0.11 mi
1:3,538

1:3,538

CITY OF COLUMBIA GIS DATA DISCLAIMER:
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43 Acres Near Congaree Point

This map was prepared using
the City GIS Viewer
City of Columbia - GIS Division
8/22/2025 11:06 PM

CITY OF Columbia

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Street & Ownership

CFCC,Ownership

- Interstate
- Highway
- City Maintained
- State Maintained
- Private
- Others

Bailey Bill

Type

- Bailey Bill Property
- National Register of Historic Places

Adopted Area Plans

AreaPlan

- Villages of North Columbia - North Columbia Project Area
- Villages of North Columbia - Study Area
- Eau Claire Historic Resources Survey (2018)
- Capital City Mill District Area & Corridor Master Plan (2017)
- Walkable 29203 Pedestrian Master Plan (2017)
- South Main Capital District Plan (2017)
- A Plan for the Redevelopment of East Central City (2004)
- Five Points Master Plan (2006)
- Columbia Owens Master Plan (2002)
- Innovista Master Plan (2007)
- Lower Waverly Catalyst Redevelopment Plan (2006)
- West Gervais District Plan (2017)
- City Center Master Plan (1999)
- Devine St. / Ft. Jackson Commercial Node Plan (2014)
- Rosewood Corridor & Neighborhood Plan (2012)
- Reaching Riverbanks Community Mobility Plan (2025)
- Downtown Columbia Strategic Plan

Zoning Districts

ZoningDistrict

- 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

0 0.03 0.06 0.12 mi

1:3,966

1:3,966

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Major Subdivision – Sketch Plan

Application and Checklist

Checklist for All Applications

A complete sketch plan 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.		KP	
A completed and signed Application Form		KP	
Letters of Agency for all applications where the applicant is not the owner of the subject property		KP	
Payment of the required fee (see Unified Development Ordinance Fee Schedule)		KP	
Sketch Plan Please see page 4 below for required content.	1 copy: min. 18 x 24 inches or 1 digital copy (pdf format)	KP	

Major Subdivision – Sketch Plan
Application and Checklist

1. Applicant Information

Name	
Kyle Page	
Company (if applicable)	
Clayton Properties Group, Inc. d/b/a Mungo Homes	
Address (street, city, state, zip)	
441 Western Lane Irmo SC 29063	
Phone	Email
803-553-9636	kpage@mungo.com

2. Property Information

Address		
0 Atlas Rd, Columbia, SC 29209 Across from the intersection of Atlas Road & Bible Way		
Tax Map Reference Number(s)		
R13500-02-04		
Current use	Proposed use	
Undeveloped	Single Family Homes	
Current zoning	Number of lots	Total acreage
RM-2	193	44.2

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.

For staff use only

Date received (M/D/Y): _____/_____/_____ By: _____

Major Subdivision – Sketch Plan
Application and Checklist

5. Project Description
Provide a brief description of the project.

Clayton Properties Group, Inc. d/b/a Mungo Homes is proposing to develop 44.2 acres along Atlas Road. The development will consist of 193 single family residential lots.

6. Additional Submission Requirements

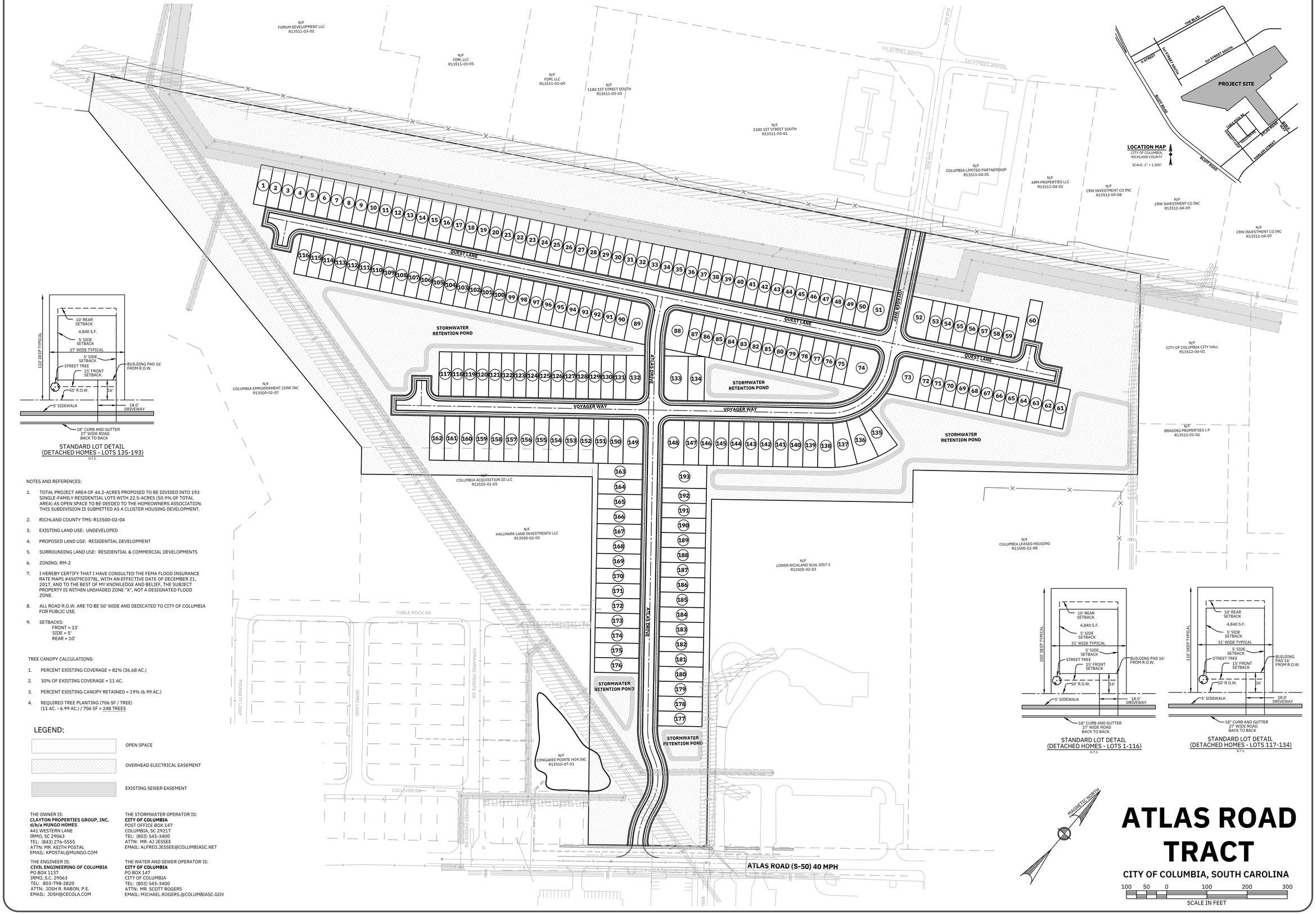
Sketch Plan
The proposed site plan shall be prepared to scale and fully dimensioned, and include the following:

	Applicant	Staff
Total acreage	☑	☐
Tentative phasing plan, including total acreage per phase (if applicable)	☑	☐
Location and arrangement of streets, driveways, and lots (fully dimensioned)	☑	☐
Location of rights-of-way and ingress/egress easements (fully dimensioned)	☑	☐
Lot area and number of lots or dwelling units in multifamily dwellings	☑	☐
Existing and proposed uses of land throughout the subdivision	☑	☐
Existing uses of land surrounding the subdivision, including 1) existing street right-of-way widths abutting the subdivision and 2) locations of intersections within 200 feet of the property	☑	☐
Topography by contours (at vertical intervals of not more than 5 feet)	☑	☐
Proposed name of the subdivision	☑	☐
Percentage of open space	☑	☐

Major Subdivision – Sketch Plan
Application and Checklist

7. Signature

Signature of Applicant	
Print Name Kyle Page	Date 01/06/2026



NOTES AND REFERENCES:

1. TOTAL PROJECT AREA OF 44.2-ACRES PROPOSED TO BE DIVIDED INTO 193 SINGLE-FAMILY RESIDENTIAL LOTS WITH 22.5-ACRES (50.9% OF TOTAL AREA) AS OPEN SPACE TO BE DEEDED TO THE HOMEOWNERS ASSOCIATION. THIS SUBDIVISION IS SUBMITTED AS A CLUSTER HOUSING DEVELOPMENT.
2. RICHLAND COUNTY TMS: R13500-02-04
3. EXISTING LAND USE: UNDEVELOPED
4. PROPOSED LAND USE: RESIDENTIAL DEVELOPMENT
5. SURROUNDING LAND USE: RESIDENTIAL & COMMERCIAL DEVELOPMENTS
6. ZONING: RM-2
7. I HEREBY CERTIFY THAT I HAVE CONSULTED THE FEMA FLOOD INSURANCE RATE MAPS #45079C0378L, WITH AN EFFECTIVE DATE OF DECEMBER 21, 2017, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE SUBJECT PROPERTY IS WITHIN UNSHADED ZONE "X", NOT A DESIGNATED FLOOD ZONE.
8. ALL ROAD R.O.W. ARE TO BE 50' WIDE AND DEDICATED TO CITY OF COLUMBIA FOR PUBLIC USE.
9. SETBACKS:
   FRONT = 15'
   SIDE = 5'
   REAR = 10'

TREE CANOPY CALCULATIONS:

1. PERCENT EXISTING COVERAGE = 82% (36.68 AC.)
2. 30% OF EXISTING COVERAGE = 11 AC.
3. PERCENT EXISTING CANOPY RETAINED = 19% (6.99 AC.)
4. REQUIRED TREE PLANTING (706 SF / TREE)
   (11 AC. - 6.99 AC.) / 706 SF = 248 TREES

LEGEND:

- OPEN SPACE
- OVERHEAD ELECTRICAL EASEMENT
- EXISTING SEWER EASEMENT

THE OWNER IS:
CLAYTON PROPERTIES GROUP, INC.
d/b/a MUNGO HOMES
441 WESTERN LANE
IRMO, SC 29063
TEL: (843) 276-5555
ATTN: MR. KEITH POSTAL
EMAIL: KPOSTAL@MUNGO.COM

THE ENGINEER IS:
CIVIL ENGINEERING OF COLUMBIA
PO BOX 1137
IRMO, S.C. 29063
TEL: 803-798-2820
ATTN: JOSH R. RABON, P.E.
EMAIL: JOSH@CECOLA.COM

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

THE WATER AND SEWER OPERATOR IS:
CITY OF COLUMBIA
PO BOX 147
CITY OF COLUMBIA
TEL: (803) 545-3400
ATTN: MR. SCOTT ROGERS
EMAIL: MICHAEL.ROGERS.@COLUMBIASC.GOV

ATLAS ROAD TRACT

CITY OF COLUMBIA, SOUTH CAROLINA

NO.	DATE	DESCRIPTION	BY
		REVISION	

SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION
CIVIL ENGINEERING OF COLUMBIA, INC.
NO. 000256

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CIVIL ENGINEERING of COLUMBIA

P.O. BOX 1137 IRMO, SC 29063
TEL (803) 798-2820 FAX (803) 798-2826

SOUTH CAROLINA PROFESSIONAL ENGINEER
NO. 31562
LICENSED
JOSHUA ROBERTSON RABON

SKETCH PLAN

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

JOB NUMBER 25034

SCALE	1" = 100'
DATE	DEC 2, 2025
DRAWN	JRR
DESIGNED	JRR
CHECKED BY:	
DRAWING NUMBER	1 OF 1