

Pender County Planning and Community Development

Planning Division

805 S. Walker Street
PO Box 1519
Burgaw, NC 28425



Phone: 910-259-1202
Fax: 910-259-1295
www.pendercountync.gov

Hoover Road Development Information Master Development Plan

Case Number: SUBMAJ 2023-00100

Application Type: Preliminary Plat

Applicant: Hoover Road Investments, LLC

Owners: Hoover Road Investments, LLC

Location: Located approximately 1.1 miles north of the intersection of US Hwy 17 and Hoover Road across from Tim Moore Drive

Property ID #(s): 3283-93-1673-0000, 3283-94-9377-0000, 3283-83-9765-0000

Description: Application for the approval of a preliminary plat consisting of 156 single-family detached residential dwellings and 129 townhomes

Current Zoning: RP, Residential Performance

Technical Review Committee Meeting

Thursday, October 5, 2023

Board of County Commissioners/Planning Board Meeting

N/A

Application Materials

Application Package

Site Plan

APPLICATION PACKAGE

APPLICATION FOR SUBDIVISION

THIS SECTION FOR OFFICE USE

Application No.	SUB SUBMAJ 2023-100	Date	9.1.23
Application Fee	\$ 2400.00	Invoice Number:	00035603
Master Plan Hearing Date	9.6.23	Preliminary Plat Hearing Date	

SECTION 1: APPLICANT INFORMATION

Applicant's Name:	Hoover Road Investments, LLC	Owner's Name:	Hoover Road Investments, LLC
Applicant's Address:	60 Gregory Road, Suite 1	Owner's Address:	60 Gregory Road, Suite 1
City, State, & Zip	Belville, NC 28451	City, State, & Zip	Belville, NC 28451
Phone Number:	(910) 452-7175	Phone Number:	(910) 452-7175
Email Address:	Tlong@logandevolvers.com	Email Address:	TLong@logandevolvers.com


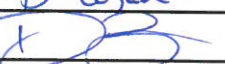
Legal relationship of applicant to landowner: Same entity

SECTION 2: PROJECT INFORMATION

Preliminary Plat	<input checked="" type="checkbox"/> Residential <i>RP, PD, RM, MH District</i>	<input type="checkbox"/> Mixed Use <i>PD</i>
Subdivision Type	<input checked="" type="checkbox"/> Major (11 lots or more)	<input type="checkbox"/> Minor (10 lots or less)
Property Identification Number (PIN):	3283-83-9765-0000; 3283-93-1673-000; 3283-94-9377-0000	
Zoning Classification:	RM - Residential Mixed	Total property acreage: 72.08
Number of Lots:	280 Lots	Acreage to be disturbed: 40.6
Water Provider:	Pender County Utilities	Wastewater Provider: Pluris

Additional Information:

SECTION 3: SIGNATURES

Applicant's Signature		Date:	8/31/23
Applicant's Printed Name:	D Logan	Date:	8/31/23
Owner's Signature		Date:	8/31/23
Owner's Printed Name:	D Logan	Date:	8/31/23

NOTICE TO APPLICANT

1. Applicant or agent authorized in writing must attend the public hearing.
2. Once the public hearing has been advertised, the case will be heard unless the applicant withdraws the application or unless the Planning Board or other authorized person agrees to table or delay the hearing.
3. All fees are non-refundable
4. A complete application packet must be submitted prior to the deadline in order to be placed on the next Planning Board Agenda

Office Use Only

<input type="checkbox"/>	Subdivision Fees: \$500 + \$10/lot-unit for the first 100 lots/units; \$5/lot-unit thereafter (Major Subdivision) \$150 + \$10 per lot (Minor Subdivision)	Total Fee Calculation: \$ <div style="text-align: right; font-size: 1.2em;">2,400.00</div>
Attachments Included with Application: (Please include # of copies)		

CD /other digital version	<input type="checkbox"/> Y <input type="checkbox"/> N	Plan Sets	# of large	# of 11X17	Other documents/Reports	<input type="checkbox"/> Y <input type="checkbox"/> N
Payment Method: Card	Cash : <input type="checkbox"/> \$ _____	Credit Card: <input checked="" type="checkbox"/> Master Card <input checked="" type="checkbox"/> Visa			Check: <input type="checkbox"/> Check # _____	
Application received by:	Taylor Davis				Date: 9.1.23	
Application completeness approved by:	Taylor Davis				Date: 9.1.23	
Date scheduled for public hearing:						



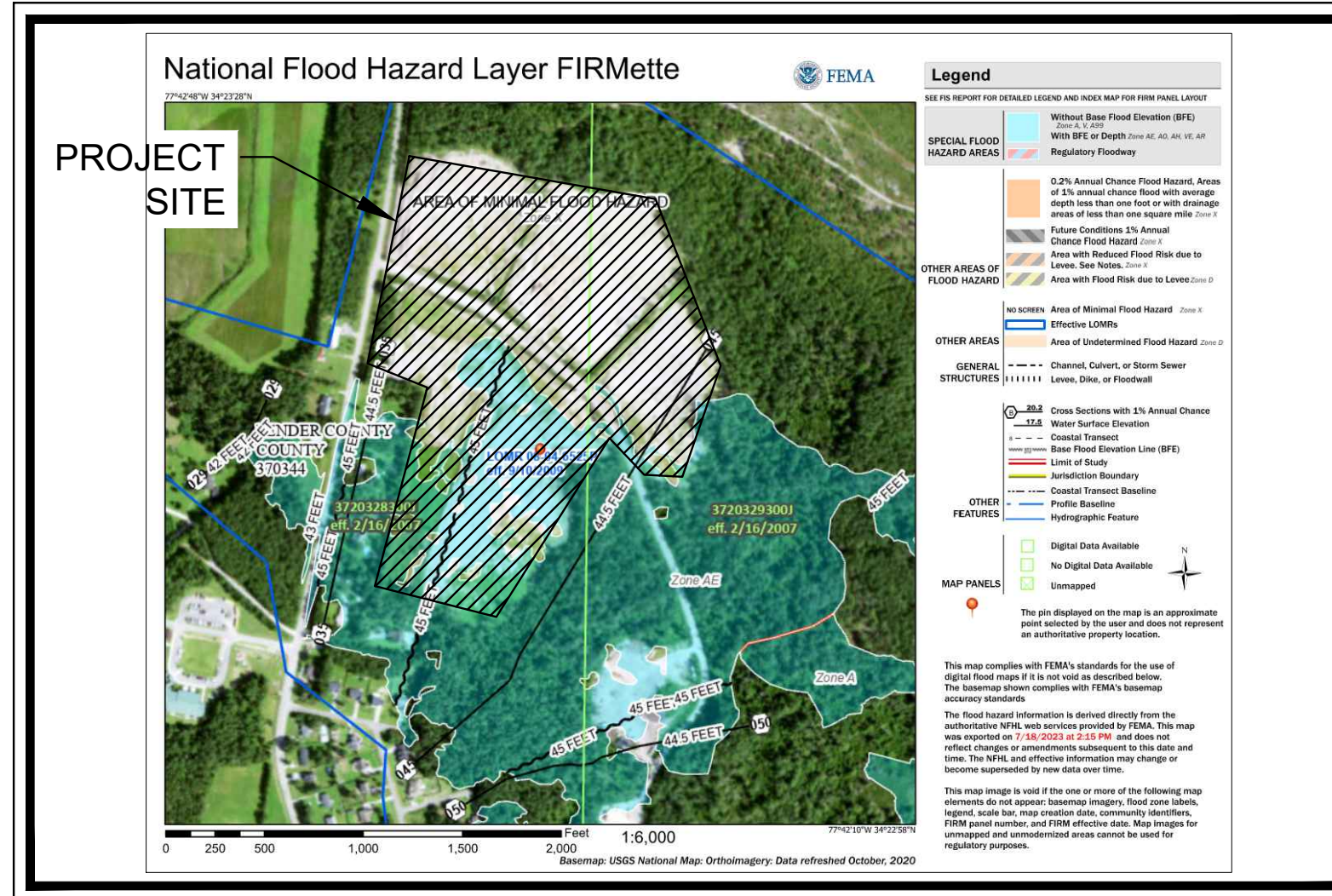
PROJECT NARRATIVE

Hover Road Investments, LLC., is proposing a single family for rent development on a 69.12 acres parcel located at 1038 Hoover Road, Hampstead, Pender County, North Carolina 28443. The property appears to be bound by wetlands to the south & southeast, residential properties to the southwest, Hoover Road to the West, and undeveloped property to the North. The northwest half of the site is agricultural timber, and the southeast half is predominately wetlands. The project will consist of 280 single family attached and detach lots, with a clubhouse, and pool. The project includes the construction of stormwater management facilities, infrastructure, utility connection and access to both Hoover Road and Thrust Trail.

SITE PLAN(S)

CIVIL CONSTRUCTION DRAWINGS FOR BROOKFIELD BRANCH HAMPSTEAD, NORTH CAROLINA

NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY



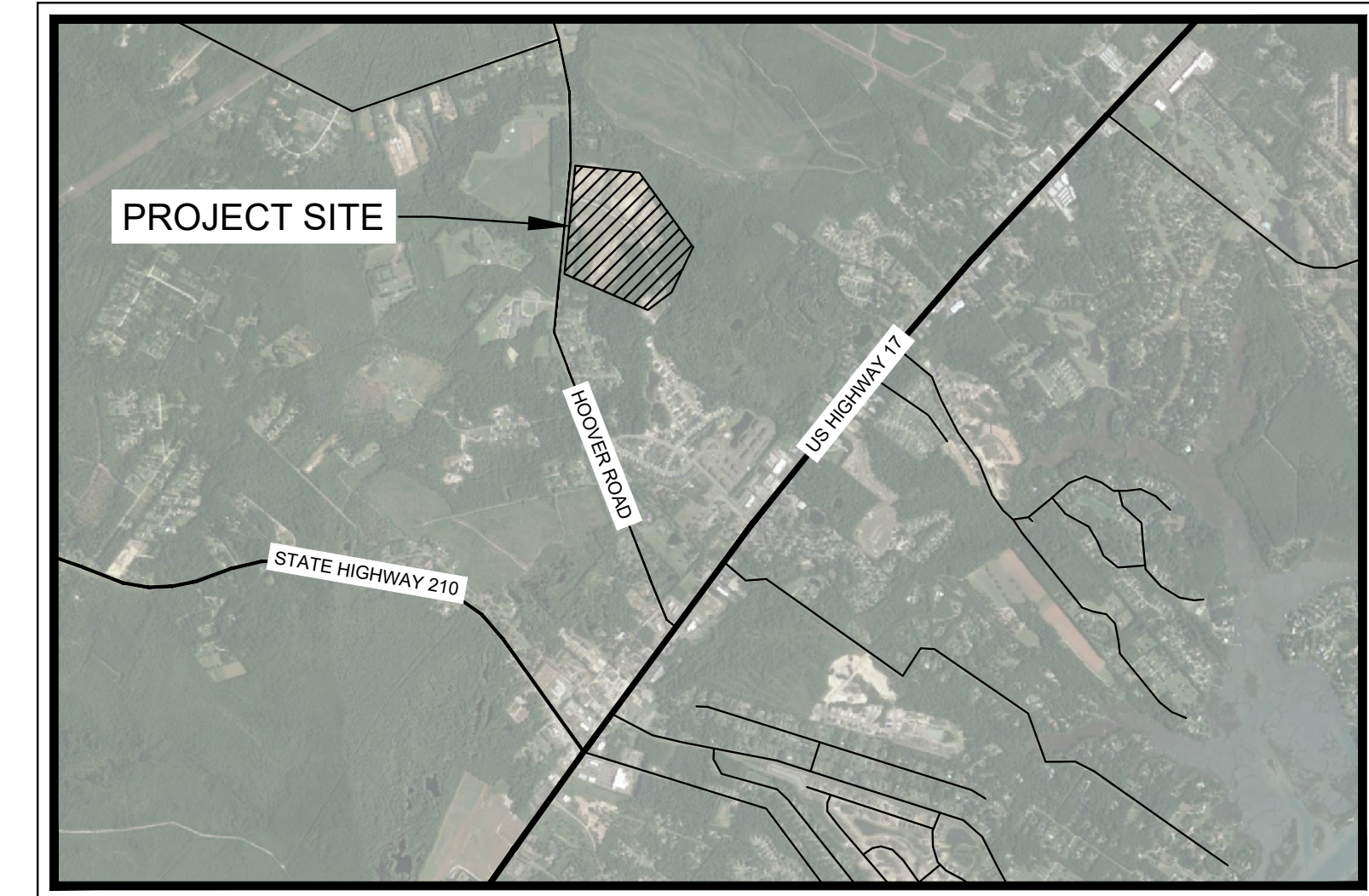
FEMA MAP

THE PROJECT SITE DOES LIE WITHIN A FLOOD HAZARD AREA PER FIRM PANEL 3720329300J DATED 2/16/2007.

LAND LOT ---- - 7TH DISTRICT
PARCEL NO.: 3283-94-9377, 3293-03-2340, 3283-93-1673, 3283-83-9765
EXISTING ZONING: RM (RESIDENTIAL MIX)
PROPOSED ZONING: RM (RESIDENTIAL MIX)
CITY OF HAMPSTEAD, PENDER COUNTY, NORTH CAROLINA
PROPERTY AREA = 79 ACRES
TOTAL DISTURBED AREA = 40.6 ACRES
IMPERVIOUS AREA = 28.7 ACRES (36.3%)
PERVIOUS AREA = 50.30 ACRES (63.7%)

PENDER COUNTY CASE #: TBD
NCDOT PERMIT #: XX-2018-XXX-XXX-XXXXXX

EPD STREAM BUFFER VARIANCE: BV-XXX-XX-XX
USACE NATIONWIDE PERMITS 39: SAS-XXXX-XXXX



VICINITY MAP

PROJECT NARRATIVE:
HOOVER ROAD SFR IS A PROPOSED TOWN HOMES AND SINGLE FAMILY DEVELOPMENT. IT WILL CONTAIN 151 DETACHED SINGLE FAMILY UNITS, AND 129 TOWNHOME UNITS.

THE PROJECT ALSO INCLUDES THE CONSTRUCTION OF SURFACE ROADS, STORMWATER CONVEYANCE AND DETENTION, AND ALL ASSOCIATED UTILITIES. THE DISTURBED AREA ON SITE IS 79 ACRES, AND THE TOTAL DISTURBED AREA IS 40.6 INCLUDING PUBLIC ROW.

NOTES:

- ATTENTION IS DRAWN TO THE FACT THAT THE SCALE OF THESE DRAWINGS MAY HAVE BEEN DISTORTED DURING THE REPRODUCTION PROCESS. THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.
- IF ANY CONFLICTS, DISCREPANCIES, OR ANY OTHER UNSATISFACTORY CONDITIONS ARE DISCOVERED, EITHER ON THE CONSTRUCTION DOCUMENTS OR FIELD CONDITIONS, THE CONTRACTOR MUST NOTIFY THE ENGINEER IMMEDIATELY AND SHALL NOT COMMENCE FURTHER OPERATION UNTIL THE CONFLICTS, DISCREPANCIES, OR OTHER UNSATISFACTORY CONDITIONS ARE RESOLVED.
- THE APPROVAL OF THESE PLANS AND THE ISSUANCE OF THIS LAND DISTURBANCE PERMIT DOES NOT IN ANY WAY SUGGEST THAT ALL OTHER REQUIREMENTS FOR THE LEGAL OR APPROPRIATE OPERATIONS FOR THIS ACTIVITY, WHICH MAY REQUIRE ADDITIONAL PERMITTING HAVE BEEN MET. THE ONUS IS ON THE OWNER/DEVELOPER/ BUILDER TO DISCOVER WHAT ADDITIONAL PERMITTING OR APPROVALS MAY BE NECESSARY TO OPERATE FROM THIS POINT IN AN APPROPRIATE AND LEGAL MANNER. PLAN APPROVAL OR PERMIT ISSUANCE DOES NOT ABSOLVE THE APPLICANT FROM COMPLYING WITH ALL APPLICABLE LAWS, STANDARDS, OR OTHER PERMITS WHICH MAY BE REQUIRED FOR THIS PROJECT.

PROJECT CONTACTS

OWNER: HOOVER ROAD INVESTMENTS, LLC.
60 GREGORY ROAD, SUITE 1
BELVILLE, NORTH CAROLINA 28451
PHONE: 910.507.2115
CONTACT: TIM LONG

CIVIL ENGINEER: KIMLEY-HORN AND ASSOCIATES, INC.
25 BULL STREET, SUITE 400
SAVANNAH, GEORGIA 31401
PHONE: 912.231.4384
CONTACT: RUSTY WINDSOR, P.E.

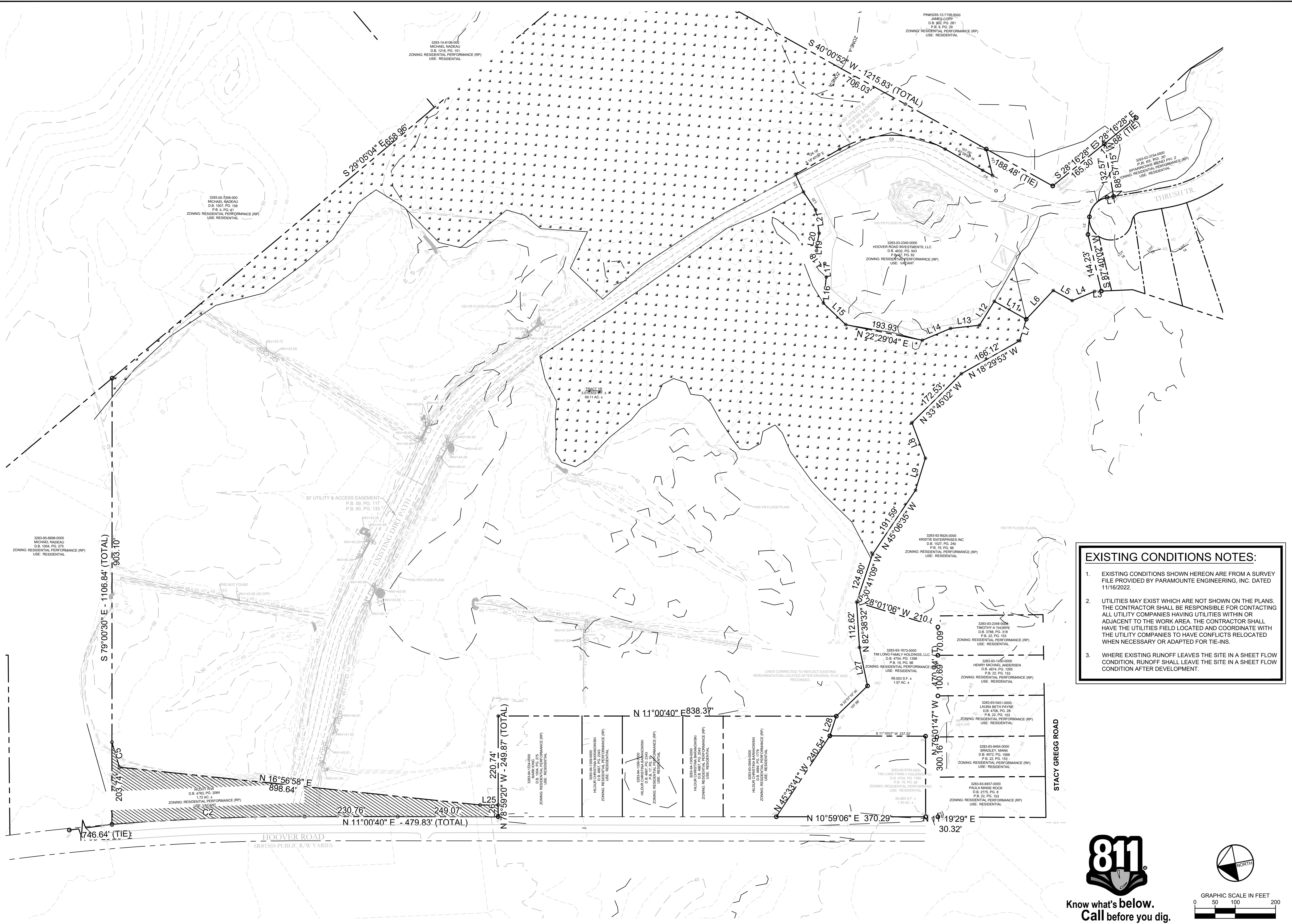
SURVEYOR: PARAMOUNTE ENGINEERING, INC.
122 CINEMA DRIVE
WILMINGTON, NORTH CAROLINA 28403
PHONE: 910.791.6707
CONTACT: JOSHUA W. TAYLOR, PLS

24-HR CONTACT: TIM LONG
LOGAN DEVELOPERS INC.
910-742-6472

CIVIL SHEET INDEX			CIVIL SHEET INDEX		
REV. NO.	SHEET NUMBER	SHEET TITLE	REV. NO.	SHEET NUMBER	SHEET TITLE
	C0-00	COVER SHEET		C5-21	EROSION CONTROL PLAN PHASE 2
	C0-80	EXISTING CONDITIONS PLAN		C5-30	EROSION CONTROL PLAN PHASE 3
	C1-00	DEMOLITION PLAN		C5-31	EROSION CONTROL PLAN PHASE 3
	C2-00	SITE PLAN		C5-80	EROSION CONTROL DETAILS
	C2-30	FIRE PROTECTION PLAN		C5-81	EROSION CONTROL DETAILS
	C3-00	GRADING PLAN		C5-82	EROSION CONTROL DETAILS
	C3-01	GRADING PLAN		C5-83	EROSION CONTROL DETAILS
	C3-02	GRADING PLAN		C5-84	EROSION CONTROL DETAILS
	C3-03	GRADING PLAN		C5-85	EROSION CONTROL DETAILS
	C3-10	DRAINAGE PLAN		C6-00	CONSTRUCTION DETAILS
	C3-11	DRAINAGE PLAN		C6-01	CONSTRUCTION DETAILS
	C3-12	DRAINAGE PLAN		C6-02	CONSTRUCTION DETAILS
	C3-50	STORM SEWER PROFILES		C6-03	CONSTRUCTION DETAILS
	C3-51	STORM SEWER PROFILES		C6-04	CONSTRUCTION DETAILS
	C3-52	STORM SEWER PROFILES		C6-05	CONSTRUCTION DETAILS
	C3-53	STORM SEWER PROFILES		C6-30	STORM STRUCTURE DETAILS
	C3-54	STORM SEWER PROFILES		C6-31	STORM STRUCTURE DETAILS
	C3-55	STORM SEWER PROFILES		C6-32	STORM STRUCTURE DETAILS
	C3-56	STORM SEWER PROFILES		C6-33	STORM STRUCTURE DETAILS
	C3-80	STORMWATER MANAGEMENT PLAN		C6-40	SANITARY SEWER DETAILS
	C3-81	STORMWATER MANAGEMENT PLAN		C6-41	SANITARY SEWER DETAILS
	C4-00	UTILITY PLANS AND PROFILES		C6-50	WATER DETAILS
	C4-01	UTILITY PLANS AND PROFILES		L1-00	TREE PROTECTION PLAN
	C4-02	UTILITY PLANS AND PROFILES		L1-01	TREE REPLACEMENT PLAN
	C4-10	UTILITY PLANS AND PROFILES		L1-02	TREE REPLACEMENT PLAN
	C4-03	UTILITY PLANS AND PROFILES		L1-03	TREE REPLACEMENT PLAN
	C4-04	UTILITY PLANS AND PROFILES		L1-04	TREE REPLACEMENT PLAN
	C4-05	UTILITY PLANS AND PROFILES		L1-05	TREE REPLACEMENT PLAN
	C4-06	UTILITY PLANS AND PROFILES		L1-06	TREE REPLACEMENT PLAN
	C4-07	UTILITY PLANS AND PROFILES		L1-07	TREE REPLACEMENT PLAN
	C4-08	UTILITY PLANS AND PROFILES		L1-08	TREE REPLACEMENT PLAN
	C4-09	UTILITY PLANS AND PROFILES		L1-09	TREE REPLACEMENT PLAN
	C4-11	UTILITY PLANS AND PROFILES		L1-11	TREE REPLACEMENT PLAN
	C4-12	UTILITY PLANS AND PROFILES		L1-10	TREE REPLACEMENT PLAN
	C4-13	UTILITY PLANS AND PROFILES		L1-12	TREE REPLACEMENT PLAN
	C4-14	UTILITY PLANS AND PROFILES		L1-13	TREE REPLACEMENT PLAN
	C5-00	EROSION CONTROL NOTES		L1-14	TREE REPLACEMENT PLAN
	C5-10	EROSION CONTROL PLAN PHASE 1		L1-15	TREE REPLACEMENT PLAN
	C5-11	EROSION CONTROL PLAN PHASE 1		L2-00	LANDSCAPE DETAILS
	C5-20	EROSION CONTROL PLAN PHASE 2			

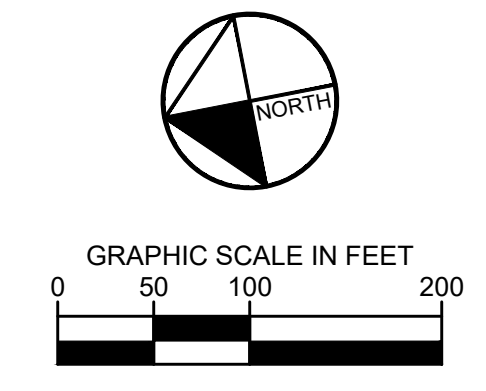


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EXISTING CONDITIONS NOTES:

- EXISTING CONDITIONS SHOWN HEREON ARE FROM A SURVEY FILE PROVIDED BY PARAMOUNT ENGINEERING, INC. DATED 11/16/2022.
- UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES HAVING UTILITIES WITHIN OR ADJACENT TO THE WORK AREA. THE CONTRACTOR SHALL HAVE THE UTILITIES FIELD LOCATED AND COORDINATE WITH THE UTILITY COMPANIES TO HAVE CONFLICTS RELOCATED WHEN NECESSARY OR ADAPTED FOR TIE-INS.
- WHERE EXISTING RUNOFF LEAVES THE SITE IN A SHEET FLOW CONDITION, RUNOFF SHALL LEAVE THE SITE IN A SHEET FLOW CONDITION AFTER DEVELOPMENT.



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25 BULL ST., SUITE 400
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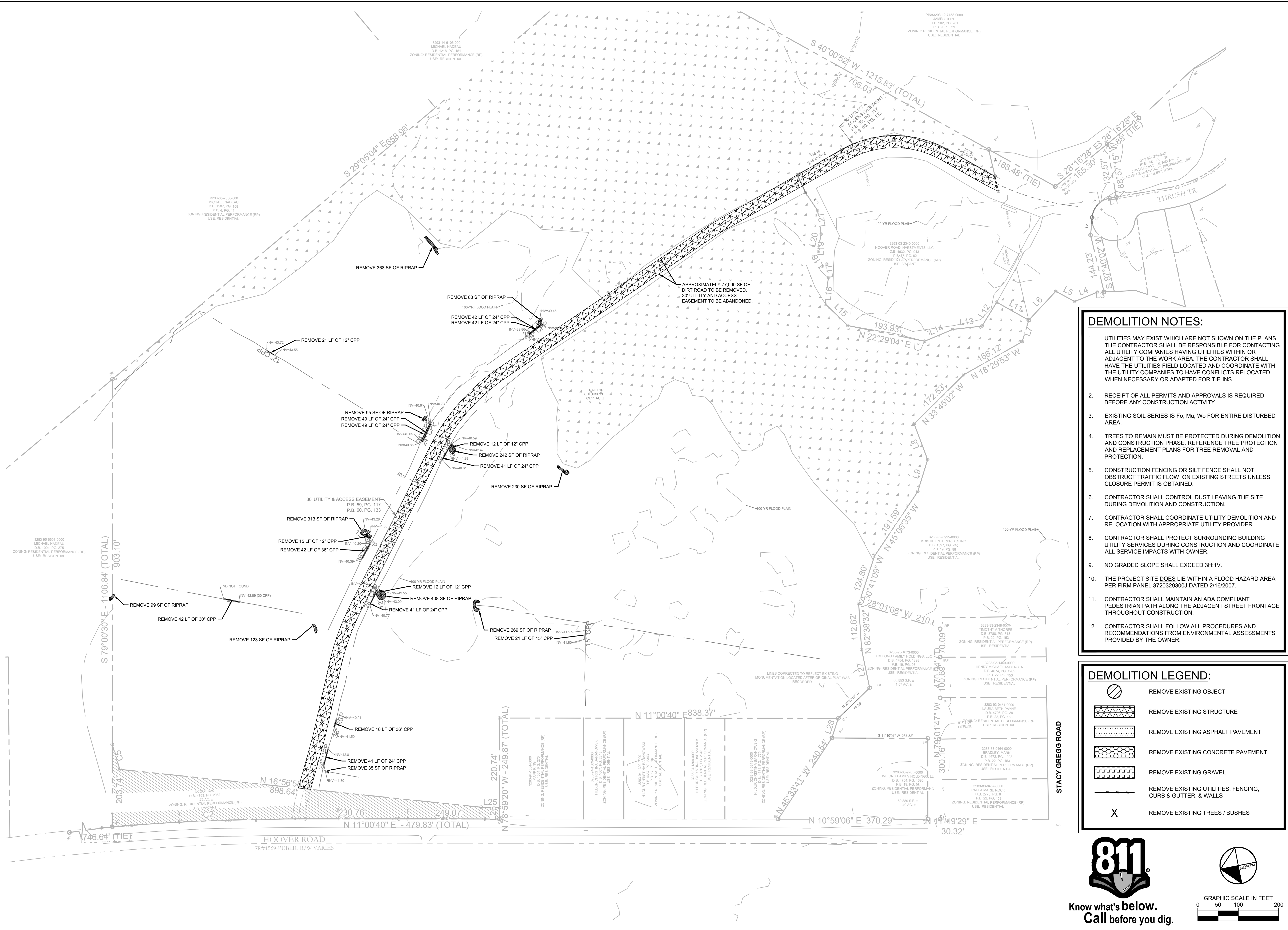
LOGAN DEVELOPERS INC.
60 GREGORY ROAD (SUITE 1)
BELVILLE, NC 28541
PHONE: 910-507-2115

NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

BROOKFIELD BRANCH
1038 HOOVER ROAD,
HAMPSHIRE, NC 28443
3283-85-9765-0000, 3283-85-1673-0000, 3283-94-9377-0000

DRAWN BY	NJ
DESIGNED BY	NJ
REVIEWED BY	RW
DATE	8/31/2023
PROJECT NO.	014793000
TITLE	EXISTING CONDITIONS PLAN
SHEET NUMBER	C0-80

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- ### DEMOLITION NOTES:
- UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES HAVING UTILITIES WITHIN OR ADJACENT TO THE WORK AREA. THE CONTRACTOR SHALL HAVE THE UTILITIES FIELD LOCATED AND COORDINATE WITH THE UTILITY COMPANIES TO HAVE CONFLICTS RELOCATED WHEN NECESSARY OR ADAPTED FOR TIE-INS.
 - RECEIPT OF ALL PERMITS AND APPROVALS IS REQUIRED BEFORE ANY CONSTRUCTION ACTIVITY.
 - EXISTING SOIL SERIES IS F_o, M_u F_o FOR ENTIRE DISTURBED AREA.
 - TREES TO REMAIN MUST BE PROTECTED DURING DEMOLITION AND CONSTRUCTION PHASE. REFERENCE TREE PROTECTION AND REPLACEMENT PLANS FOR TREE REMOVAL AND PROTECTION.
 - CONSTRUCTION FENCING OR SILT FENCE SHALL NOT OBSTRUCT TRAFFIC FLOW ON EXISTING STREETS UNLESS CLOSURE PERMIT IS OBTAINED.
 - CONTRACTOR SHALL CONTROL DUST LEAVING THE SITE DURING DEMOLITION AND CONSTRUCTION.
 - CONTRACTOR SHALL COORDINATE UTILITY DEMOLITION AND RELOCATION WITH APPROPRIATE UTILITY PROVIDER.
 - CONTRACTOR SHALL PROTECT SURROUNDING BUILDING UTILITY SERVICES DURING CONSTRUCTION AND COORDINATE ALL SERVICE IMPACTS WITH OWNER.
 - NO GRADED SLOPE SHALL EXCEED 3H:1V.
 - THE PROJECT SITE DOES LIE WITHIN A FLOOD HAZARD AREA PER FIRM PANEL 3720329300J DATED 2/16/2007.
 - CONTRACTOR SHALL MAINTAIN AN ADA COMPLIANT PEDESTRIAN PATH ALONG THE ADJACENT STREET FRONTAGE THROUGHOUT CONSTRUCTION.
 - CONTRACTOR SHALL FOLLOW ALL PROCEDURES AND RECOMMENDATIONS FROM ENVIRONMENTAL ASSESSMENTS PROVIDED BY THE OWNER.

- ### DEMOLITION LEGEND:
- REMOVE EXISTING OBJECT
 - REMOVE EXISTING STRUCTURE
 - REMOVE EXISTING ASPHALT PAVEMENT
 - REMOVE EXISTING CONCRETE PAVEMENT
 - REMOVE EXISTING GRAVEL
 - REMOVE EXISTING UTILITIES, FENCING, CURB & GUTTER, & WALLS
 - REMOVE EXISTING TREES / BUSHES

GRAPHIC SCALE IN FEET
0 50 100 200

811
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NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

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Drawing name: K:\SAV_Civil\14793000_Hoover Road SFRCAD\PlanSheets\C2-00 - SITE PLAN.dwg C2-00 SITE PLAN Aug 31, 2023 8:32pm by: Joe Cluett



DEVELOPMENT SUMMARY:

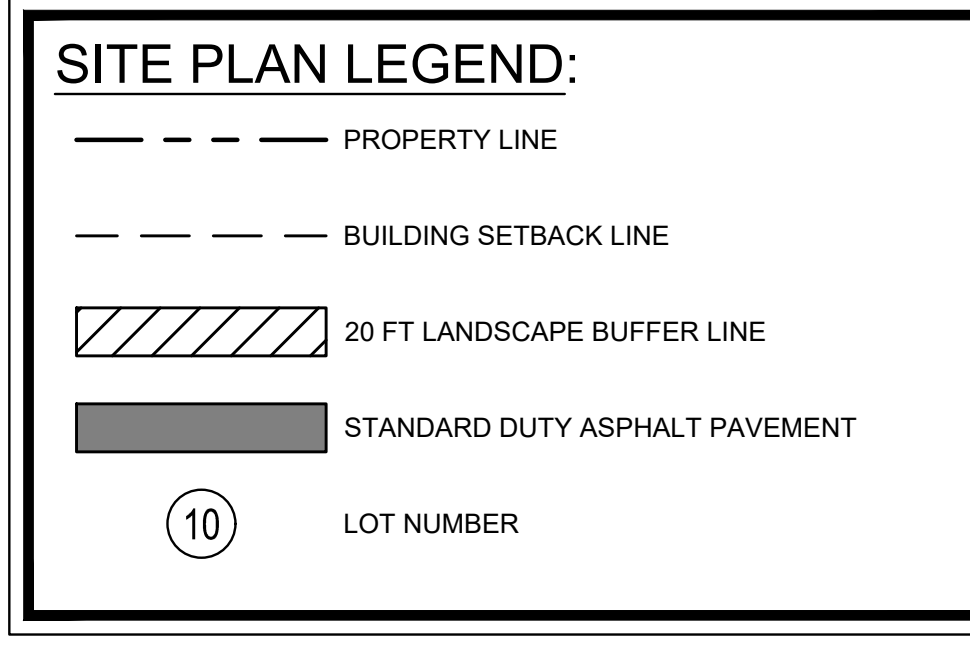
SITE SUMMARY:

CURRENT ZONING:	RM (RESIDENTIAL MIX)
PROPOSED ZONING:	RM (RESIDENTIAL MIX)
SITE AREA:	79 ACRES
ROW DEDICATION:	10.4 ACRES
ADJUSTED SITE AREA:	68.6 ACRES
IMPERVIOUS AREA:	28.7 ACRES (36.3%)
PERVIOUS AREA:	50.30 ACRES (63.7%)
OPEN SPACE:	12.7 ACRES (XX.X%)
GREEN SPACE:	6.2 ACRES (XX.X%)
TOTAL DISTURBED AREA:	40.6 ACRES
BUILDING SETBACK:	
FRONT:	15 FT
SIDE:	5 FT
BACK:	10 FT

PROPOSED LAND USES & DENSITIES:

MULTIFAMILY RESIDENTIAL	129 UNITS
SINGLE FAMILY RESIDENTIAL	151 UNITS

- SITE NOTES:**
1. THE PROPOSED BUILDING INFORMATION SHOWN HEREON IS FROM AN ELECTRONIC FILE PROVIDED BY ARCHITECT, DATED 00/00/0000 AND IS FOR ILLUSTRATIVE PURPOSES ONLY. CONTRACTOR SHALL REFERENCE ARCHITECTURAL PLANS FOR EXACT BUILDING INFORMATION.
 2. EXISTING CONDITIONS SHOWN HEREON ARE FROM A SURVEY FILE PROVIDED BY PARAMOUNT ENGINEERING, INC., DATED 11/16/2022.
 3. ALL DIMENSIONS ARE FROM EDGE OF PAVEMENT TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
 4. SIDEWALK INSTALLED AGAINST BACK OF CURB SHALL BE INSTALLED PER THE PLAN AS MEASURED FROM THE BACK OF CURB.
 5. ALL SIGNAGE AND STRIPING MUST MEET THE LATEST REQUIREMENTS SET FORTH BY MUTCD, NCDOT, AND NORTH CAROLINA STATE CODE.
 6. REFERENCE LANDSCAPE PLANS FOR ALL HARDSCAPE AND LANDSCAPE DETAILS AND SPECIFICATIONS.



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 60 GREGORY ROAD (SUITE 1)
 BELVILLE, NC 28651
 PHONE: 910-507-2115

NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

BROOKFIELD BRANCH
 1038 HOOVER ROAD,
 HAMPSTEAD, NC 28443
 3283-85-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

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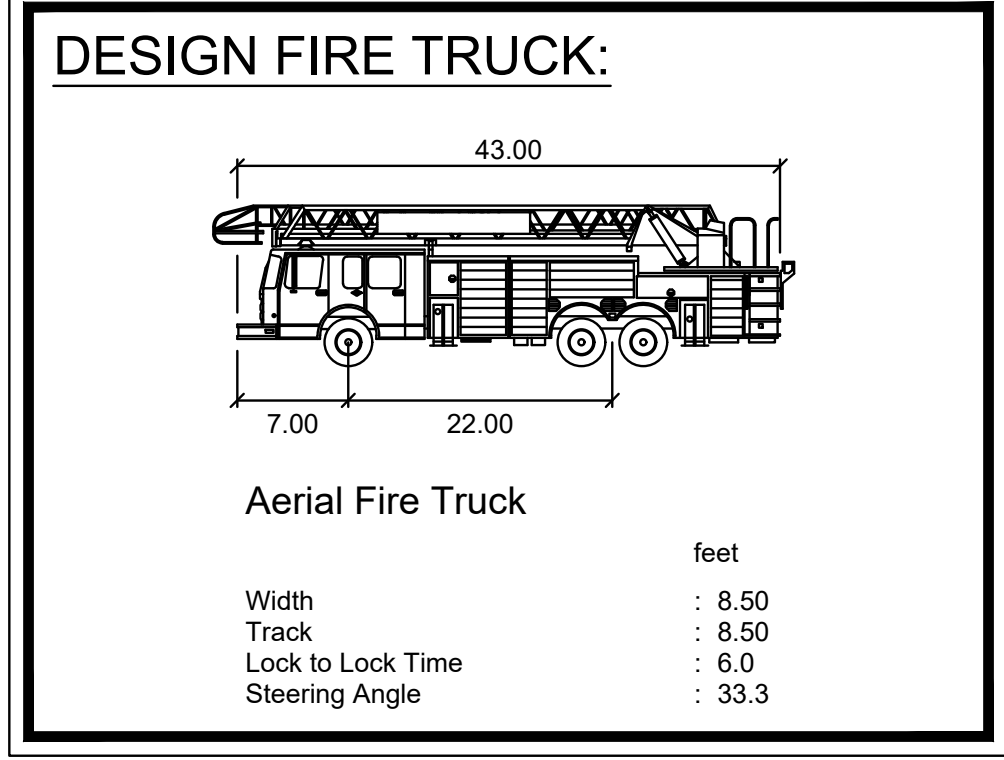
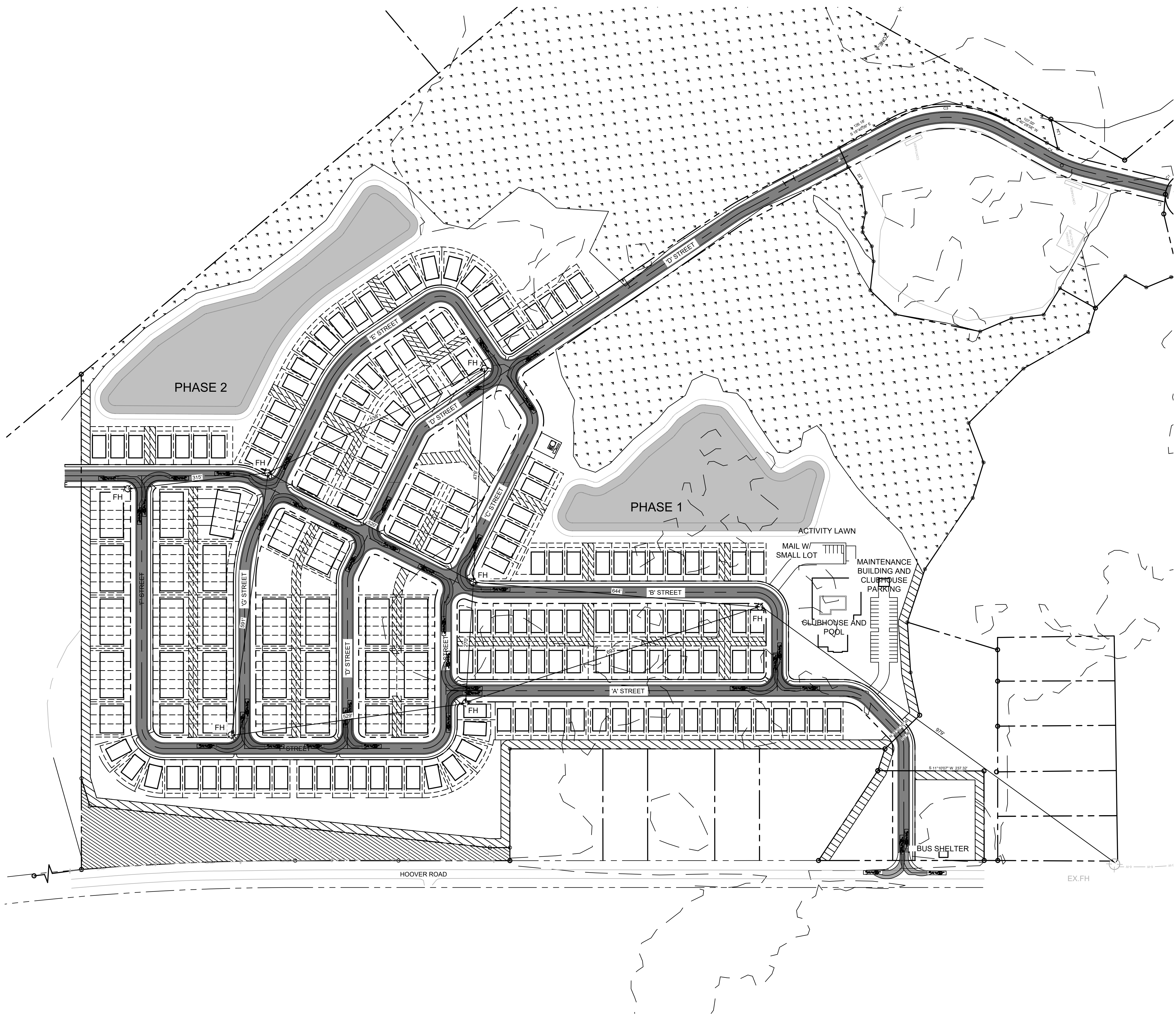
SITE PLAN

SHEET NUMBER
C2-00

DRAWN BY NJ
 DESIGNED BY NJ
 REVIEWED BY RW
 DATE 8/31/2023
 PROJECT NO. 014793000
 TITLE

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Drawing name: K:\SAV_Civil\14793000_Hoover Road SFR\CAD\Plansheets\C2-30 - SITE PLAN.dwg C2-30 FIRE PROTECTION PLAN Aug 31, 2023 9:33pm by Joe Glustri



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LOGAN DEVELOPERS INC.
 60 GREGORY ROAD (SUITE 1)
 BELVILLE, NC 28451
 PHONE: 910-507-2115

NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

BROOKFIELD BRANCH
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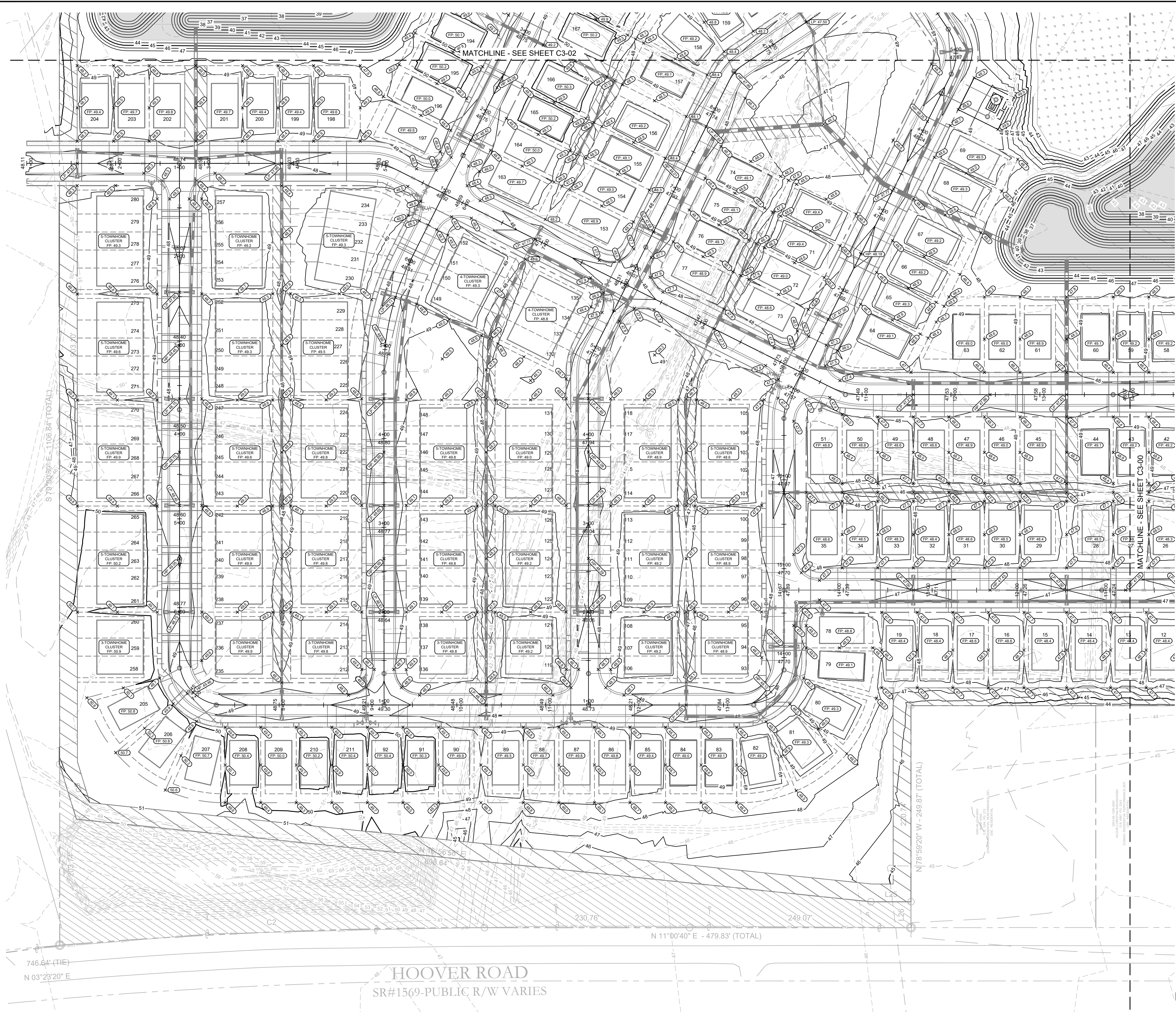
DRAWN BY	NJ
DESIGNED BY	NJ
REVIEWED BY	RW
DATE	8/31/2023
PROJECT NO.	014793000
TITLE	FIRE PROTECTION PLAN
SHEET NUMBER	C2-30

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GRAPHIC SCALE IN FEET
 0 50 100 200

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Drawing name: K:\SAV_Civil\14793000_Hoover Road SFRCAD\PlanSheets\C3-00 - GRADING PLAN.dwg C3-01 GRADING PLAN Aug 31, 2023 9:34pm by Joe Gluski



GRADING & DRAINAGE NOTES:

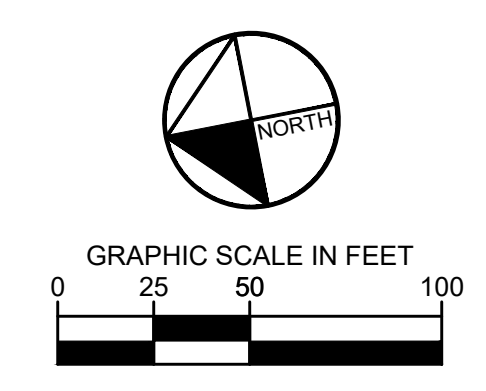
1. SITE AREA: 79 ACRES
DISTURBED AREA: 40.6 ACRES
2. CONTRACTOR SHALL CONSTRUCT ALL SIDEWALKS AND CROSSWALKS WITH A 2.0% MAXIMUM CROSS SLOPE AND A 5.0% MAXIMUM RUNNING SLOPE, UNLESS NOTED AS A RAMP. GRADES WITHIN ADA HANDICAP PARKING AREAS NOT TO EXCEED A 2% MAXIMUM SLOPE IN ANY DIRECTION.
3. THIS PROJECT DOES LIE WITHIN A 100 YEAR FLOOD HAZARD ZONE AS DEFINED BY THE F.E.M.A. "FLOOD HAZARD BOUNDARY MAP" COMMUNITY PANEL NUMBER 3720329300J, DATED 2/16/2007.
4. UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES HAVING UTILITIES WITHIN OR ADJACENT TO THE WORK AREA. THE CONTRACTOR SHALL HAVE THE UTILITIES FIELD LOCATED AND COORDINATE WITH THE UTILITY COMPANIES TO HAVE CONFLICTS RELOCATED WHEN NECESSARY OR ADAPTED FOR TIE-INS.
5. CONTRACTOR TO FIELD VERIFY EXISTING INVERT FOR SANITARY SEWER AND STORM DRAINAGE SERVICE CONNECTIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER OF DISCREPANCY PRIOR TO PROCEEDING.
6. NO GRADED SLOPE SHALL EXCEED 3H:1V
7. ALL WALLS GREATER THAN 30" IN HEIGHT SHALL BE DESIGNED AND PERMITTED BY AN ENGINEER LICENSED IN THE STATE OF NORTH CAROLINA.
8. ALL WALLS GREATER THAN 30" IN HEIGHT SHALL HAVE FALL PROTECTION THROUGH FENCING OR HANDRAIL AT A MINIMUM OF 42" TALL. REFERENCE LANDSCAPE PLANS FOR DETAILS.


GRADING LEGEND:

- 950 --- EXISTING MAJOR CONTOUR
- 948 --- EXISTING MINOR CONTOUR
- 945 --- PROPOSED MAJOR CONTOUR
- 944 --- PROPOSED MINOR CONTOUR
- ⊗ 945.00 --- PROPOSED SPOT GRADE
- --- DRAINAGE FLOW ARROW
- ⊗ FP 945.00 --- PROPOSED BUILDING FOOTPRINT ELEVATION
- ⊗ HP 945.00 --- PROPOSED HIGH POINT
- ⊗ LP 945.00 --- PROPOSED LOW POINT

STORM DRAINAGE LEGEND:

- JB --- JUNCTION BOX (XXXXXXXXXX)
- CI --- ROLLED CURB INLET (XXXXXXXXXX)
- YD --- YARD DRAIN (XXXXXXXXXX)
- OCS --- OUTLET CONTROL STRUCTURE (XXXXXXXXXX)
- --- PROPOSED STORM PIPE




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LOGAN DEVELOPERS INC.
 60 GREGORY ROAD (SUITE 1)
 BEVILLIE, NC 28651
 PHONE: 910-507-2115

NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

BROOKFIELD BRANCH
 1038 HOOVER ROAD,
 HAMPSTEAD, NC 28443
 3283-83-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY	NJ
DESIGNED BY	NJ
REVIEWED BY	RW
DATE	8/31/2023
PROJECT NO.	014793000
TITLE	GRADING PLAN
SHEET NUMBER	C3-01

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Drawing name: K:\SAV_Civil\14793000_Hoover Road SFR\CAD\Plan\sheet\C3-00 - GRADING PLAN.dwg C3-02 GRADING PLAN Aug 31, 2023 9:34pm by Joe Giusti



GRADING & DRAINAGE NOTES:

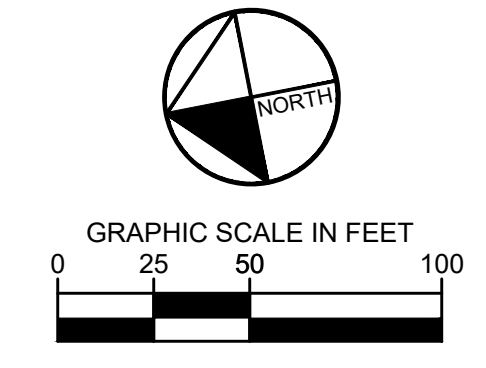
1. SITE AREA: 79 ACRES
DISTURBED AREA: 40.6 ACRES
2. CONTRACTOR SHALL CONSTRUCT ALL SIDEWALKS AND CROSSWALKS WITH A 2.0% MAXIMUM CROSS SLOPE AND A 5.0% MAXIMUM RUNNING SLOPE, UNLESS NOTED AS A RAMP. GRADES WITHIN ADA HANDICAP PARKING AREAS NOT TO EXCEED A 2% MAXIMUM SLOPE IN ANY DIRECTION.
3. THIS PROJECT DOES LIE WITHIN A 100 YEAR FLOOD HAZARD ZONE AS DEFINED BY THE F.E.M.A. "FLOOD HAZARD BOUNDARY MAP" COMMUNITY PANEL NUMBER 3720329300J, DATED 2/16/2007.
4. UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES HAVING UTILITIES WITHIN OR ADJACENT TO THE WORK AREA. THE CONTRACTOR SHALL HAVE THE UTILITIES FIELD LOCATED AND COORDINATE WITH THE UTILITY COMPANIES TO HAVE CONFLICTS RELOCATED WHEN NECESSARY OR ADAPTED FOR TIE-INS.
5. CONTRACTOR TO FIELD VERIFY EXISTING INVERT FOR SANITARY SEWER AND STORM DRAINAGE SERVICE CONNECTIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER OF DISCREPANCY PRIOR TO PROCEEDING.
6. NO GRADED SLOPE SHALL EXCEED 3H:1V
7. ALL WALLS GREATER THAN 30" IN HEIGHT SHALL BE DESIGNED AND PERMITTED BY AN ENGINEER LICENSED IN THE STATE OF NORTH CAROLINA.
8. ALL WALLS GREATER THAN 30" IN HEIGHT SHALL HAVE FALL PROTECTION THROUGH FENCING OR HANDRAIL AT A MINIMUM OF 42" TALL. REFERENCE LANDSCAPE PLANS FOR DETAILS.

GRADING LEGEND:

- 950 — EXISTING MAJOR CONTOUR
- 948 — EXISTING MINOR CONTOUR
- 945 — PROPOSED MAJOR CONTOUR
- 944 — PROPOSED MINOR CONTOUR
- × 945.00 PROPOSED SPOT GRADE
- DRAINAGE FLOW ARROW
- × (FP: 945.00) PROPOSED BUILDING FOOTPRINT ELEVATION
- × (HP: 945.00) PROPOSED HIGH POINT
- × (LP: 945.00) PROPOSED LOW POINT

STORM DRAINAGE LEGEND:

- JB JUNCTION BOX (XXXXXXXXXX)
- CI ROLLED CURB INLET (XXXXXXXXXX)
- YD YARD DRAIN (XXXXXXXXXX)
- OCS OUTLET CONTROL STRUCTURE (XXXXXXXXXX)
- PROPOSED STORM PIPE



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NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

BROOKFIELD BRANCH
 1038 HOOVER ROAD,
 HAMPSHIRE, NC 28443
 3283-83-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY	NJ
DESIGNED BY	NJ
REVIEWED BY	RW
DATE	8/31/2023
PROJECT NO.	014793000
TITLE	GRADING PLAN
SHEET NUMBER	C3-02

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GRADING & DRAINAGE NOTES:

1. SITE AREA: 79 ACRES
DISTURBED AREA: 40.6 ACRES
2. CONTRACTOR SHALL CONSTRUCT ALL SIDEWALKS AND CROSSWALKS WITH A 2.0% MAXIMUM CROSS SLOPE AND A 5.0% MAXIMUM RUNNING SLOPE, UNLESS NOTED AS A RAMP. GRADES WITHIN ADA HANDICAP PARKING AREAS NOT TO EXCEED A 2% MAXIMUM SLOPE IN ANY DIRECTION.
3. THIS PROJECT DOES NOT LIE WITHIN A 100 YEAR FLOOD HAZARD ZONE AS DEFINED BY THE F.E.M.A. "FLOOD HAZARD BOUNDARY MAP" COMMUNITY PANEL NUMBER 3720329300J, DATED 2/16/2007.
4. UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES HAVING UTILITIES WITHIN OR ADJACENT TO THE WORK AREA. THE CONTRACTOR SHALL HAVE THE UTILITIES FIELD LOCATED AND COORDINATE WITH THE UTILITY COMPANIES TO HAVE CONFLICTS RELOCATED WHEN NECESSARY OR ADAPTED FOR TIE-INS.
5. CONTRACTOR TO FIELD VERIFY EXISTING INVERT FOR SANITARY SEWER AND STORM DRAINAGE SERVICE CONNECTIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER OF DISCREPANCY PRIOR TO PROCEEDING.
6. NO GRADED SLOPE SHALL EXCEED 3H:1V
7. ALL WALLS GREATER THAN 30" IN HEIGHT SHALL BE DESIGNED AND PERMITTED BY AN ENGINEER LICENSED IN THE STATE OF NORTH CAROLINA.
8. ALL WALLS GREATER THAN 30" IN HEIGHT SHALL HAVE FALL PROTECTION THROUGH FENCING OR HANDRAIL AT A MINIMUM OF 42" TALL. REFERENCE LANDSCAPE PLANS FOR DETAILS.

GRADING LEGEND:

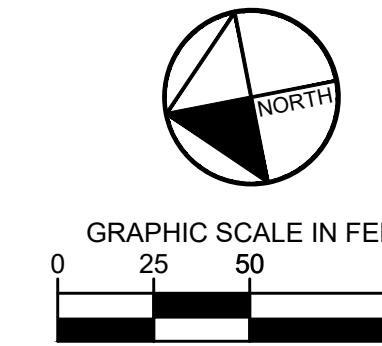
- 950 --- EXISTING MAJOR CONTOUR
- 948 --- EXISTING MINOR CONTOUR
- 945 --- PROPOSED MAJOR CONTOUR
- 944 --- PROPOSED MINOR CONTOUR
- ⊗ 945.00 PROPOSED SPOT GRADE
- ➔ DRAINAGE FLOW ARROW
- ⊗ (FP: 945.00) PROPOSED BUILDING FOOTPRINT ELEVATION
- ⊗ (HP: 945.00) PROPOSED HIGH POINT
- ⊗ (LP: 945.00) PROPOSED LOW POINT

STORM DRAINAGE LEGEND:

- JB JUNCTION BOX (XXXXXXXXXX)
- CI ROLLED CURB INLET (XXXXXXXXXX)
- YD YARD DRAIN (XXXXXXXXXX)
- OCS OUTLET CONTROL STRUCTURE (XXXXXXXXXX)
- PROPOSED STORM PIPE



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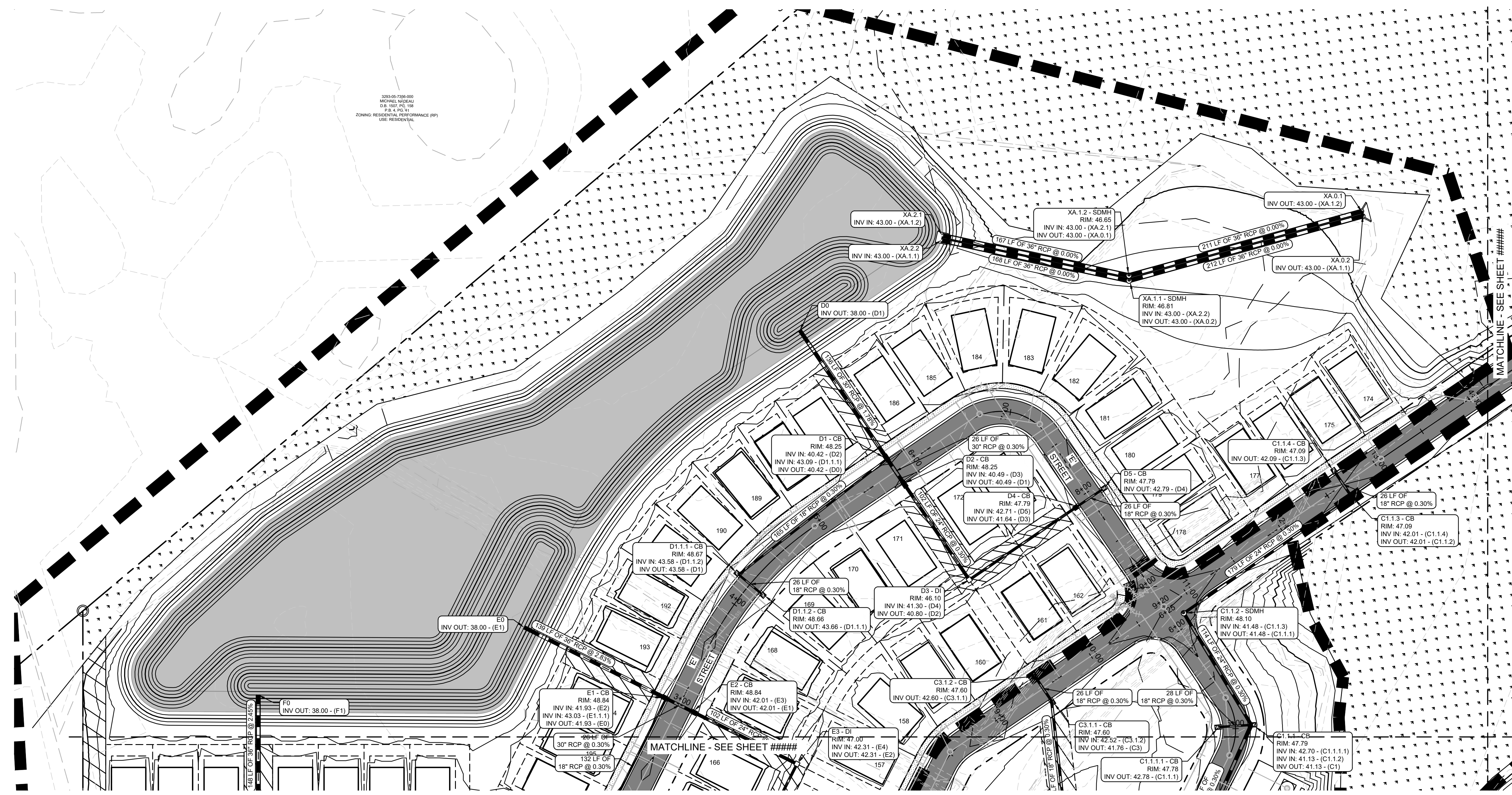
PREPARED FOR
LOGAN DEVELOPERS INC.
60 GREGORY ROAD (SUITE 1)
BELVILLE, NC 28541
PHONE: 910-507-2115

No.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

PROJECT
BROOKFIELD BRANCH
1038 HOOVER ROAD,
HAMPSHIRE, NC 28443
3283-83-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY NJ
DESIGNED BY NJ
REVIEWED BY RW
DATE 8/31/2023
PROJECT NO. 014793000
TITLE
GRADING PLAN
SHEET NUMBER
C3-03

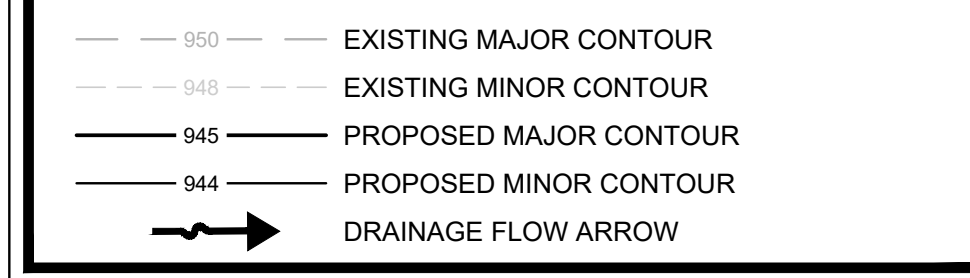
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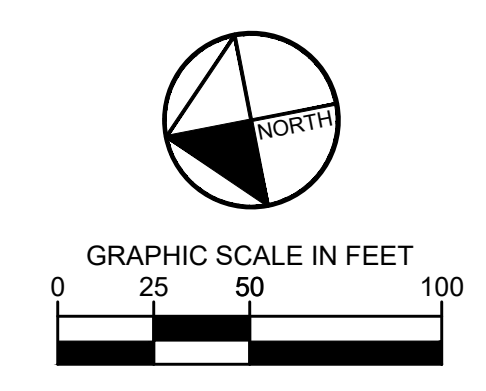
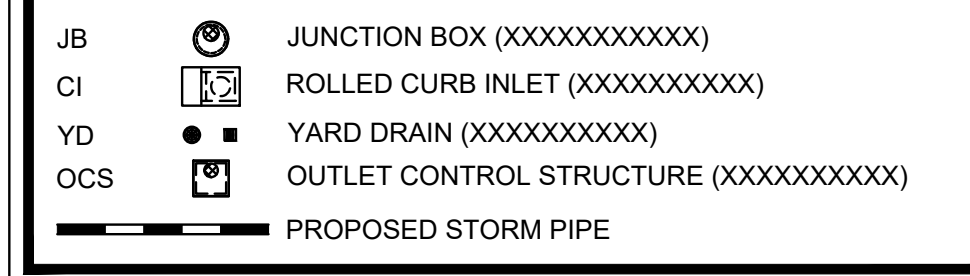
GRADING & DRAINAGE NOTES:

1. SITE AREA: 79 ACRES
DISTURBED AREA: 40.6 ACRES
2. CRITICAL SPOT GRADES ARE TO PAVEMENT GRADE UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL CONSTRUCT ALL SIDEWALKS AND CROSSWALKS WITH A 2.0% MAXIMUM CROSS SLOPE AND A 5.0% MAXIMUM RUNNING SLOPE, UNLESS NOTED AS A RAMP. GRADES WITHIN ADA HANDICAP PARKING AREAS NOT TO EXCEED A 2% MAXIMUM SLOPE IN ANY DIRECTION.
4. ALL ROOF DRAIN PIPING SHALL BE PVC UNLESS OTHERWISE NOTED.
5. ALL ROOF DRAIN CLEANOUTS IN PAVED AREAS SHALL HAVE A BRASS CAP SET FLUSH WITH THE PROPOSED GRADE.
6. ALL PIPE LENGTHS SPECIFIED IN THESE PLANS ARE THE HORIZONTAL DISTANCE AND ARE SHOWN FOR REFERENCE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE ACTUAL LENGTHS BASED ON PROPOSED PIPE SLOPE. PIPE LENGTHS IN PLANS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
7. THIS PROJECT DOES LIE WITHIN A 100 YEAR FLOOD HAZARD ZONE AS DEFINED BY THE F.E.M.A. "FLOOD HAZARD BOUNDARY MAP" COMMUNITY PANEL NUMBER 3720329300J, DATED 2/18/2007.
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9. CONTRACTOR TO FIELD VERIFY EXISTING INVERT FOR SANITARY SEWER AND STORM DRAINAGE SERVICE CONNECTIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER OF DISCREPANCY PRIOR TO PROCEEDING.
10. NO GRADED SLOPE SHALL EXCEED 2H:1V
11. ALL WALLS GREATER THAN 30" IN HEIGHT SHALL BE DESIGNED AND PERMITTED BY AN ENGINEER LICENSED IN THE STATE OF NORTH CAROLINA.
12. ALL WALLS GREATER THAN 30" IN HEIGHT SHALL HAVE FALL PROTECTION THROUGH FENCING OR HANDRAIL AT A MINIMUM OF 42" TALL. REFERENCE LANDSCAPE PLANS FOR DETAILS.

GRADING LEGEND:



STORM DRAINAGE LEGEND:



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PHONE: 910-507-2115

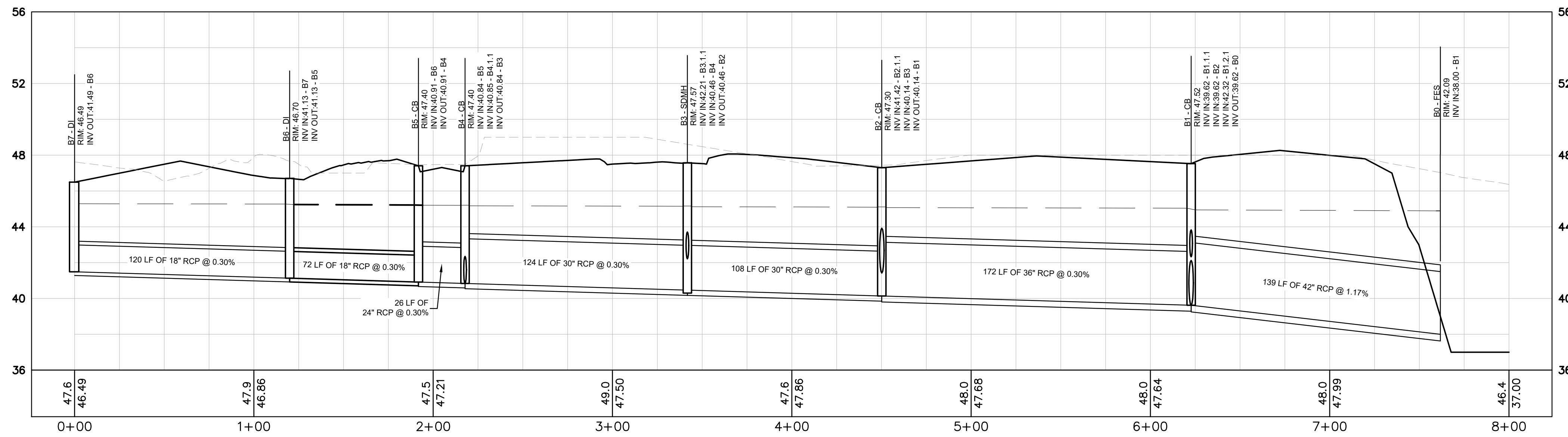
NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

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1038 HOOVER ROAD,
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3283-85-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

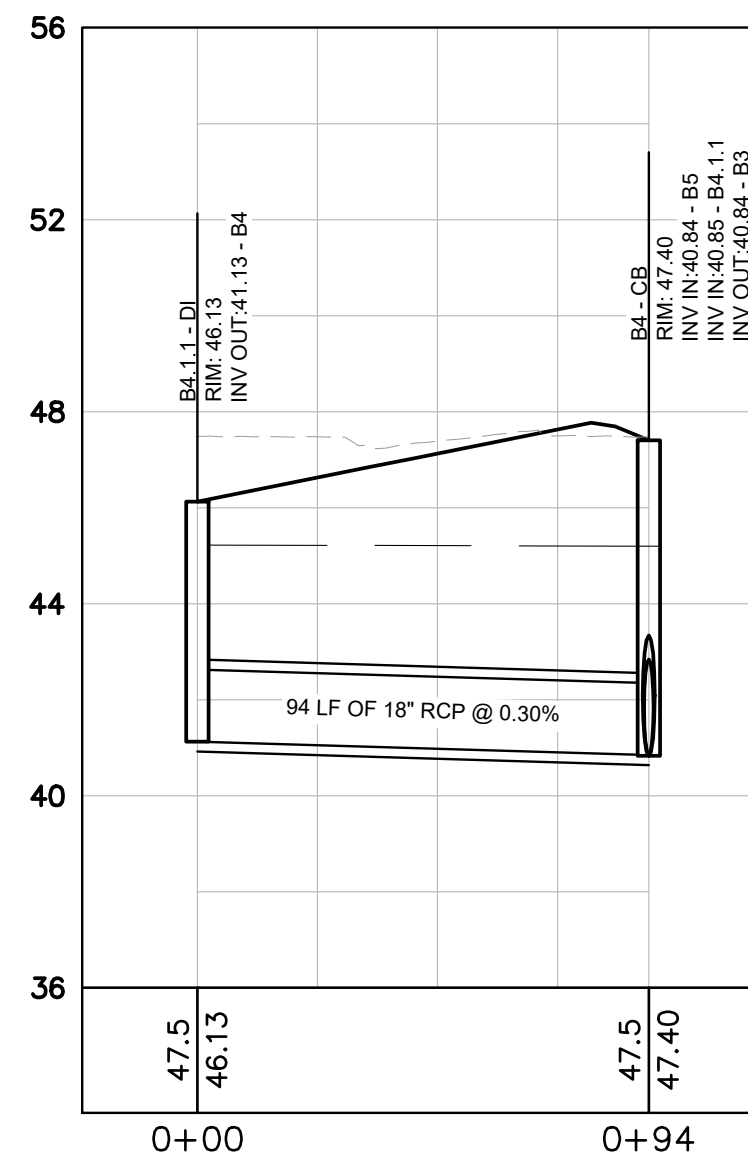
DRAWN BY	NJ
DESIGNED BY	NJ
REVIEWED BY	RW
DATE	8/31/2023
PROJECT NO.	014793000
TITLE	DRAINAGE PLAN
SHEET NUMBER	C3-12

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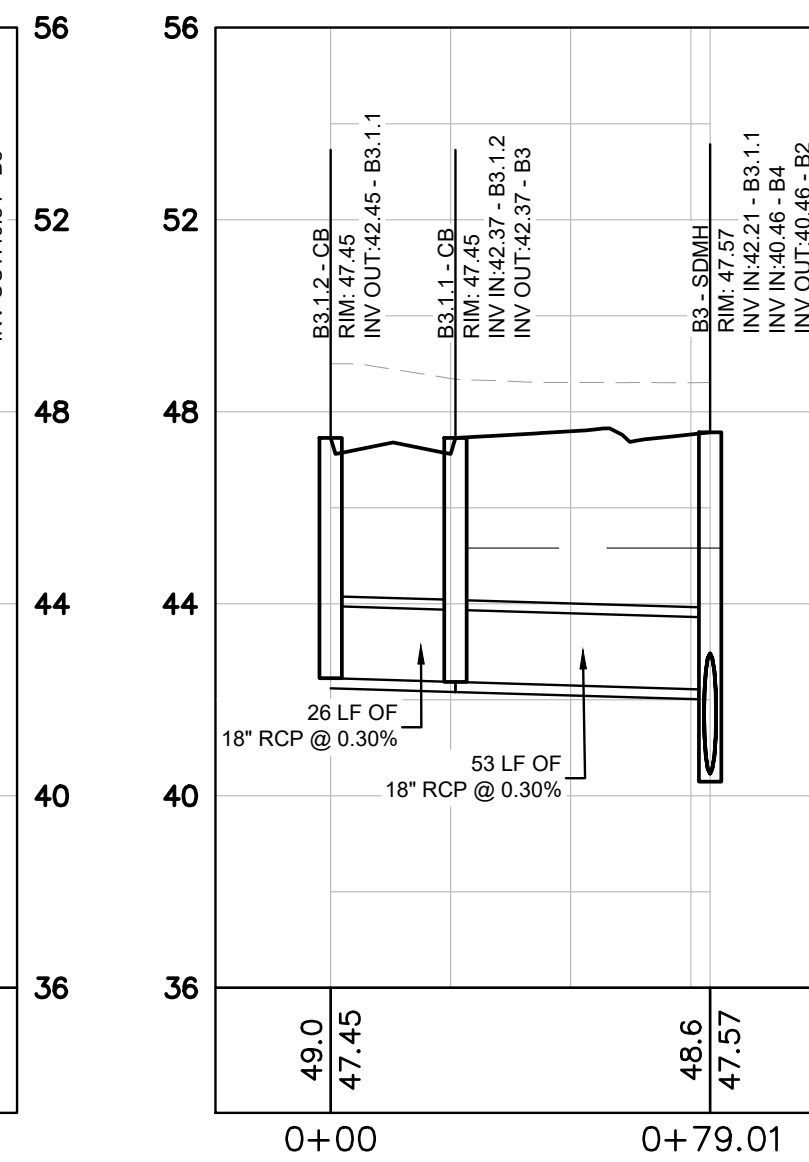
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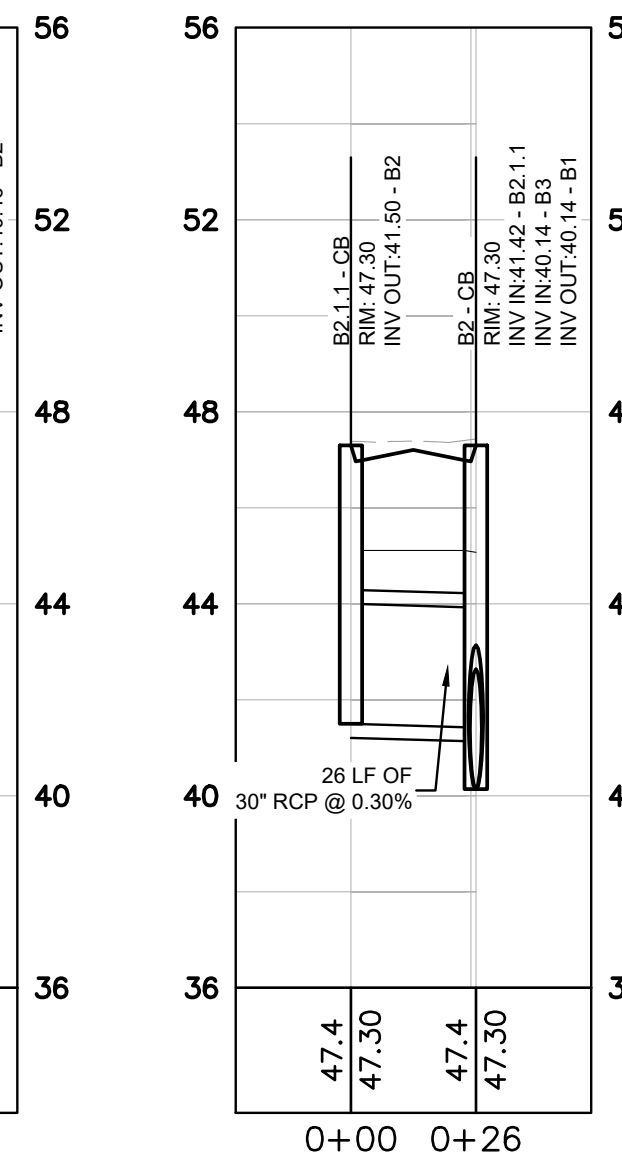
B7 TO B0
HORIZONTAL: 1"=40
VERTICAL: 1"=4



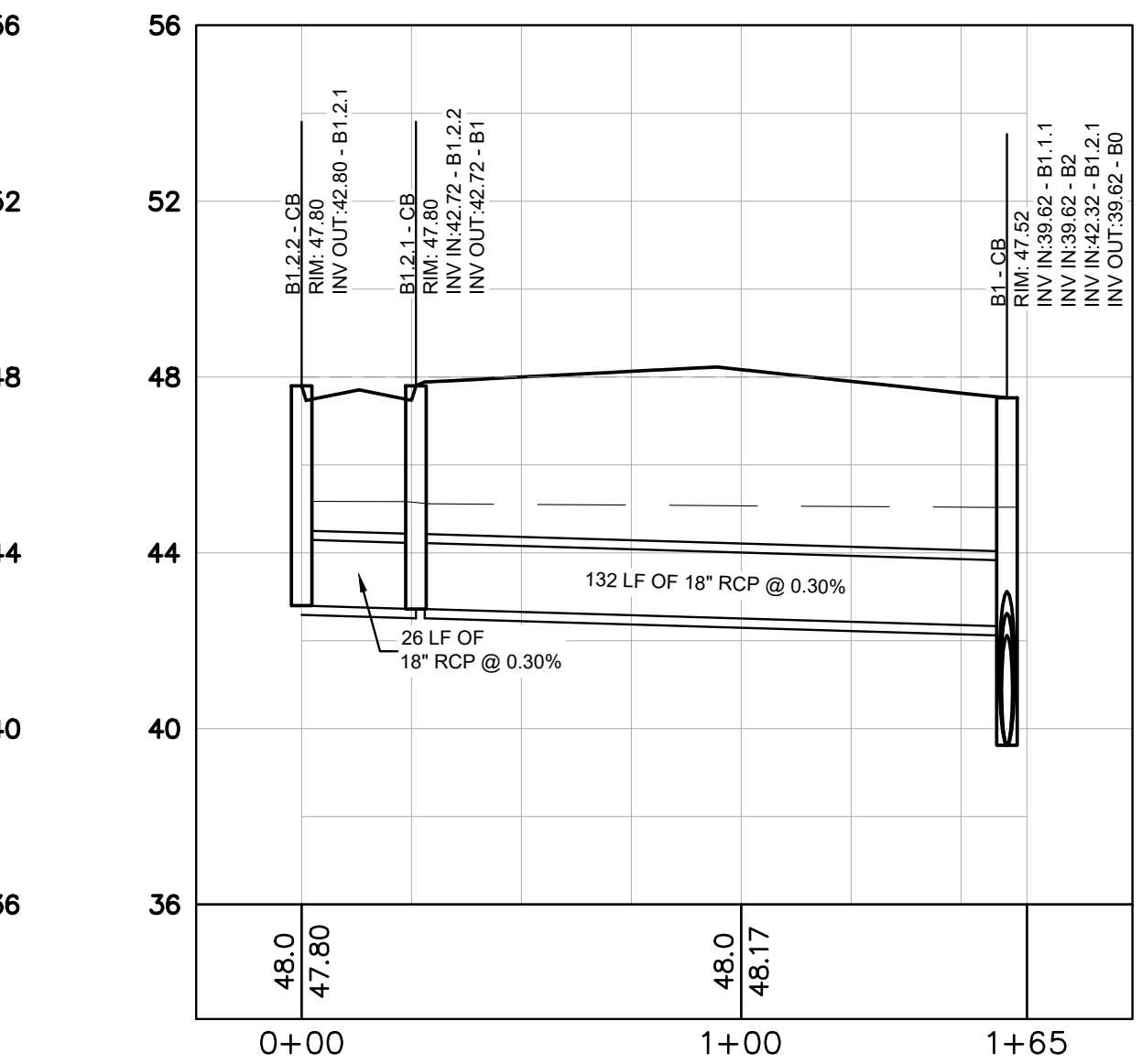
B4.1.1 TO B4
HORIZONTAL: 1"=40
VERTICAL: 1"=4



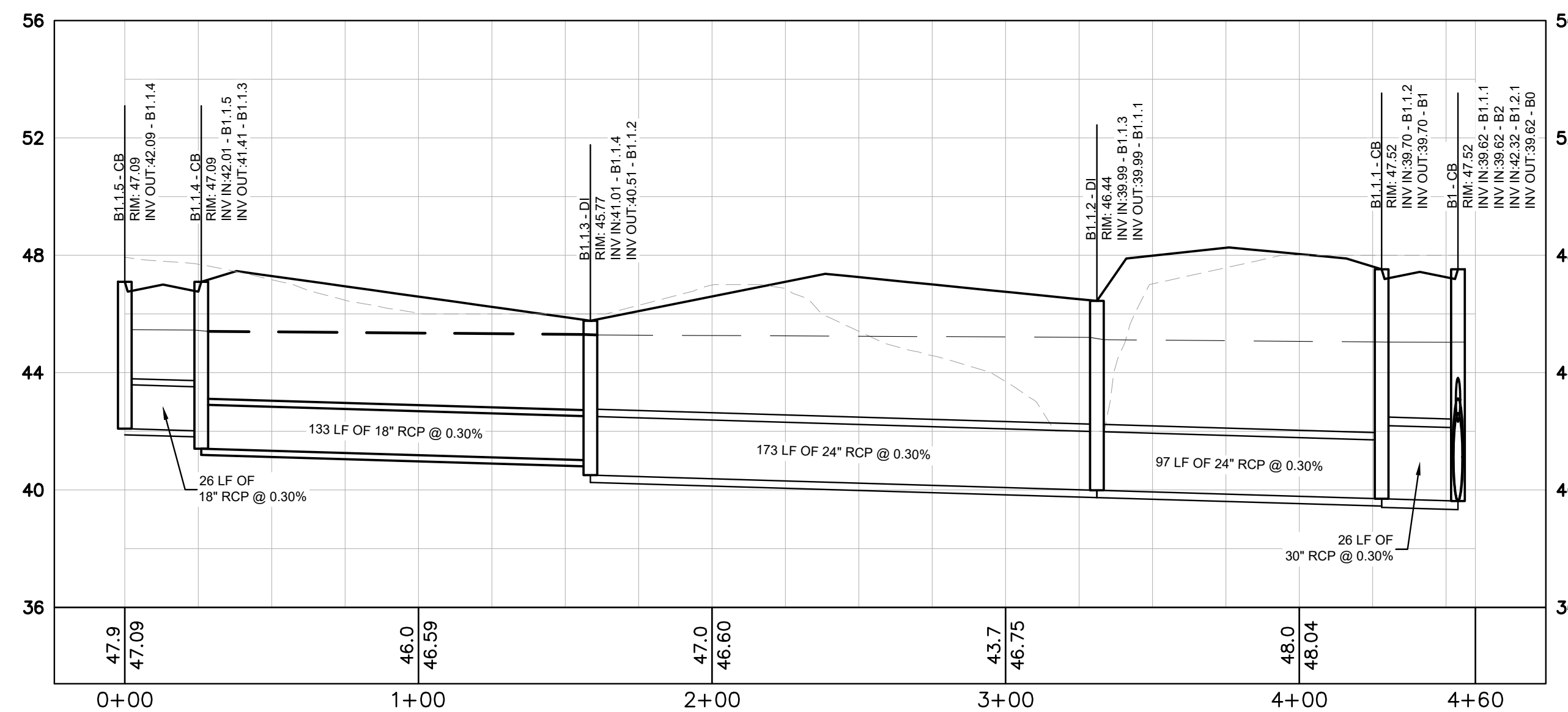
B3.1.2 TO B3
HORIZONTAL: 1"=40
VERTICAL: 1"=4



B2.1.1 TO B2
HORIZONTAL: 1"=40
VERTICAL: 1"=4



B1.2.2 TO B1
HORIZONTAL: 1"=40
VERTICAL: 1"=4



B1.1.5 TO B1
HORIZONTAL: 1"=40
VERTICAL: 1"=4

STORM DRAINAGE PROFILE NOTES:

1. ALL PIPE LENGTHS SPECIFIED IN THESE PLANS ARE THE HORIZONTAL DISTANCE AND ARE SHOWN FOR REFERENCE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE ACTUAL LENGTHS BASED ON PROPOSED PIPE SLOPE. PIPE LENGTHS IN PLANS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
2. CONTRACTOR TO FIELD VERIFY EXISTING INVERT FOR STORM DRAINAGE SERVICE CONNECTIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER OF DISCREPANCY PRIOR TO PROCEEDING.
3. ALL STORM PIPE SHALL HAVE BEDDING PER BEDDING DETAILS IN CONSTRUCTION DETAIL SHEETS.
4. ALL STORM PIPING TO BE RCP UNLESS OTHERWISE NOTED. SEE CHART FOR PIPE CLASS.
5. RIM ELEVATIONS GIVEN ARE APPROXIMATE. CONTRACTOR SHALL REFERENCE GRADING PLAN FOR STRUCTURE THROAT / RIM ELEVATIONS.
6. IF ANY CONFLICTS, DISCREPANCIES, OR ANY OTHER UNSATISFACTORY CONDITIONS ARE DISCOVERED, EITHER ON THE CONSTRUCTION DOCUMENTS OR FIELD CONDITIONS, THE CONTRACTOR MUST NOTIFY THE ENGINEER IMMEDIATELY AND SHALL NOT COMMENCE FURTHER OPERATION UNTIL THE CONFLICTS, DISCREPANCIES, OR OTHER UNSATISFACTORY CONDITIONS ARE RESOLVED.
7. ALL STORM JOINTS TO BE WATER TIGHT.

PROFILE LINE LEGEND:

- PROPOSED GRADE LINE
- - - EXISTING GRADE LINE
- 25-YR HYDRAULIC GRADE LINE
- - - 100-YR HYDRAULIC GRADE LINE

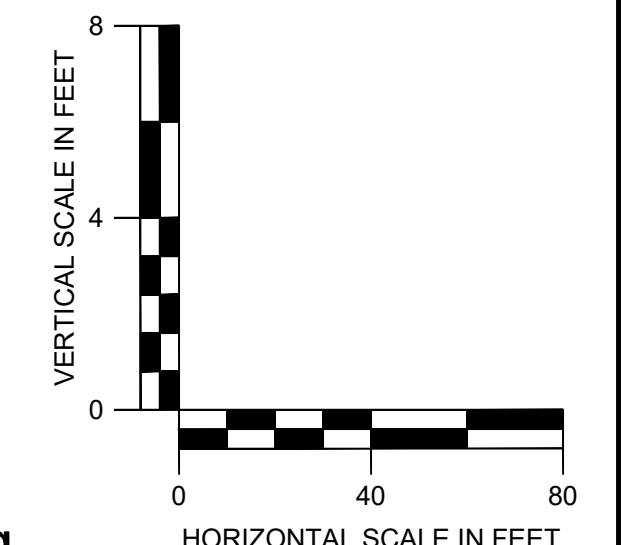
RCP PIPE CLASSIFICATION CHART:

1-15' CLASS III
15'-20' CLASS IV
20'-30' CLASS V

ALL CONCRETE PIPE SHALL BE A MINIMUM CLASS III WITH 12" MINIMUM COVER. REFERENCE GDOT DETAIL 1030D FOR ADDITIONAL GUIDANCE.



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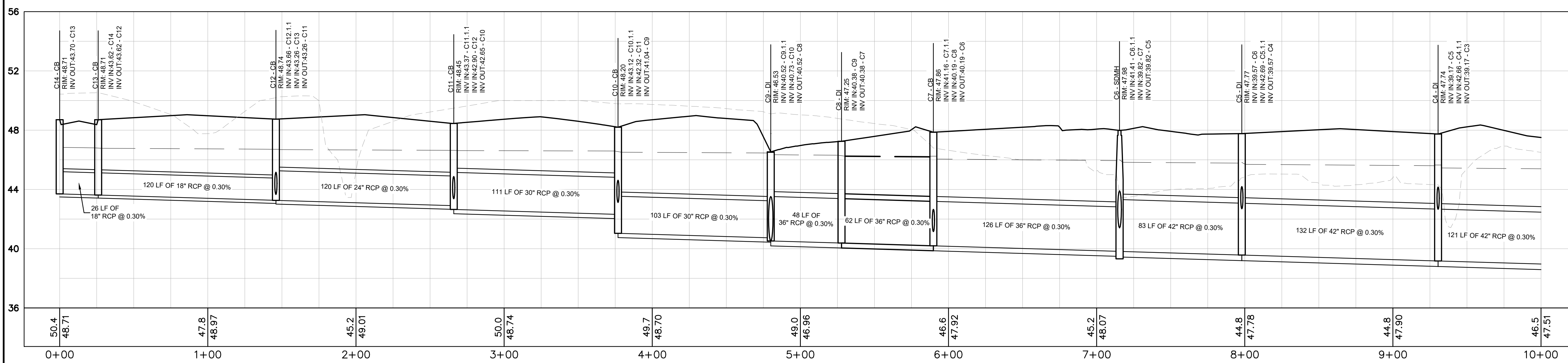


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PHONE: 910-507-2115

BROOKFIELD BRANCH
1038 HOOVER ROAD,
HAMPSHIRE, NC 28443
3283-85-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY	NJ
DESIGNED BY	NJ
REVIEWED BY	RW
DATE	8/31/2023
PROJECT NO.	014793000
TITLE	STORM SEWER PROFILES
SHEET NUMBER	C3-51

Drawing name: K:\S\A\CH\1014793000_Hoover Road SFR\ROAD\PlanSheets\C3-52-STORM SEWER PROFILES.dwg C3-52-STORM SEWER PROFILES - Aug 31, 2023 9:38pm by Joe Gliest



C14 TO C0
HORIZONTAL: 1"=40
VERTICAL: 1"=4

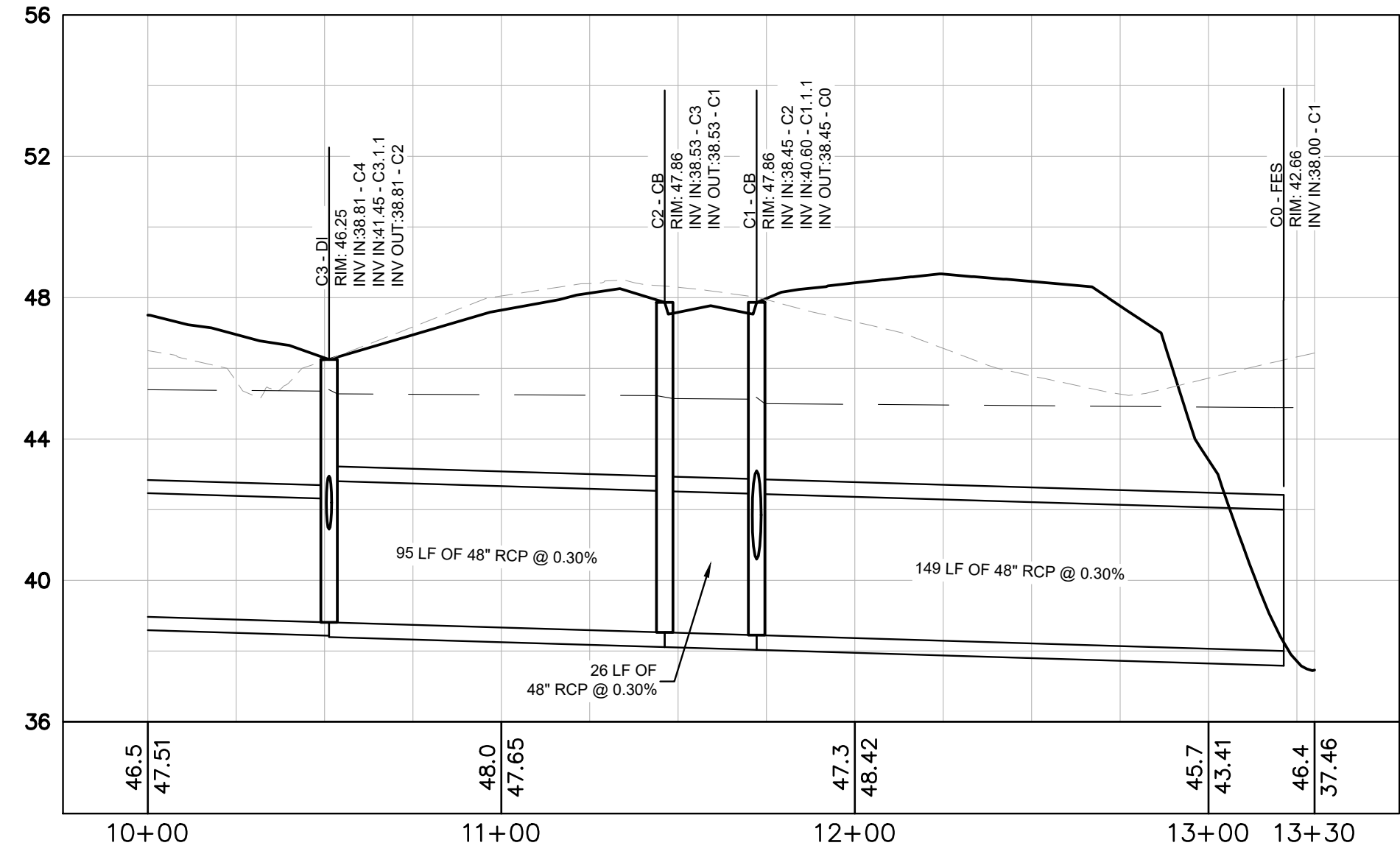
- STORM DRAINAGE PROFILE NOTES:**
1. ALL PIPE LENGTHS SPECIFIED IN THESE PLANS ARE THE HORIZONTAL DISTANCE AND ARE SHOWN FOR REFERENCE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE ACTUAL LENGTHS BASED ON PROPOSED PIPE SLOPE. PIPE LENGTHS IN PLANS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
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 3. ALL STORM PIPE SHALL HAVE BEDDING PER BEDDING DETAILS IN CONSTRUCTION DETAIL SHEETS.
 4. ALL STORM PIPING TO BE RCP UNLESS OTHERWISE NOTED. SEE CHART FOR PIPE CLASS.
 5. RIM ELEVATIONS GIVEN ARE APPROXIMATE. CONTRACTOR SHALL REFERENCE GRADING PLAN FOR STRUCTURE THROAT / RIM ELEVATIONS.
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 7. ALL STORM JOINTS TO BE WATER TIGHT.

- PROFILE LINE LEGEND:**
- PROPOSED GRADE LINE
 - - - EXISTING GRADE LINE
 - 25-YR HYDRAULIC GRADE LINE
 - - - 100-YR HYDRAULIC GRADE LINE

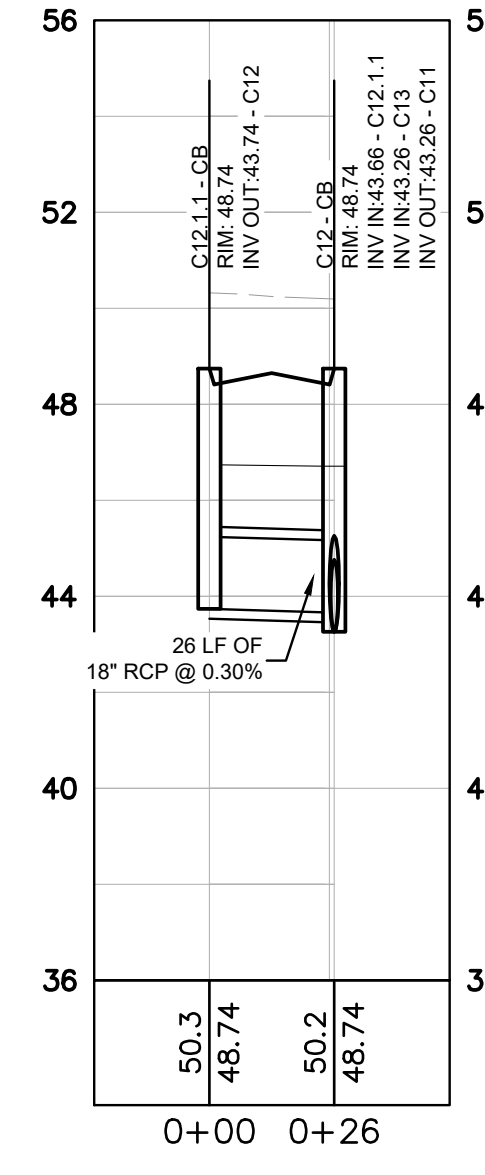
RCP PIPE CLASSIFICATION CHART:

1-15' CLASS III
15'-20' CLASS IV
20'-30' CLASS V

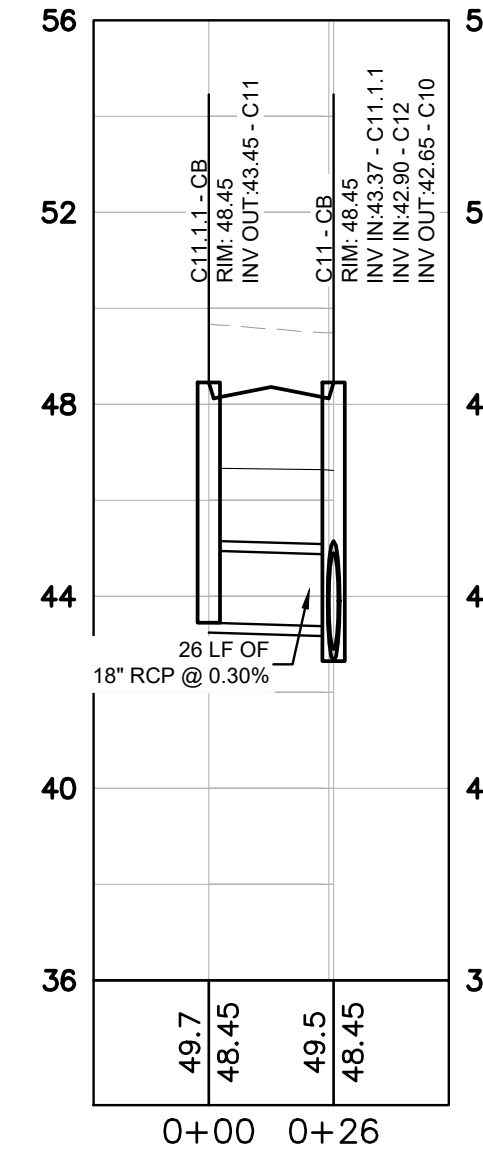
ALL CONCRETE PIPE SHALL BE A MINIMUM CLASS III WITH 12" MINIMUM COVER. REFERENCE GDOT DETAIL 1030D FOR ADDITIONAL GUIDANCE.



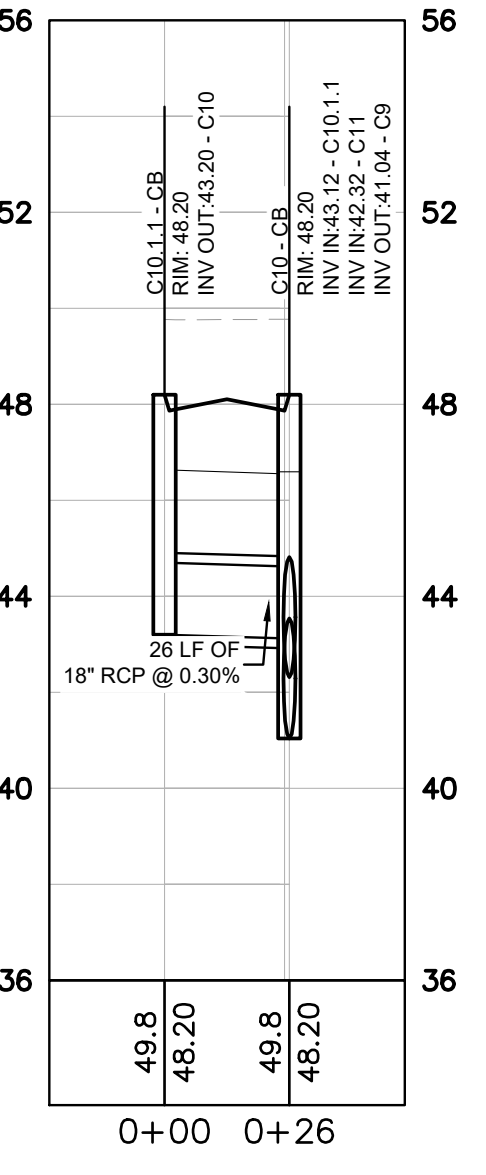
C14 TO C0
HORIZONTAL: 1"=40
VERTICAL: 1"=4



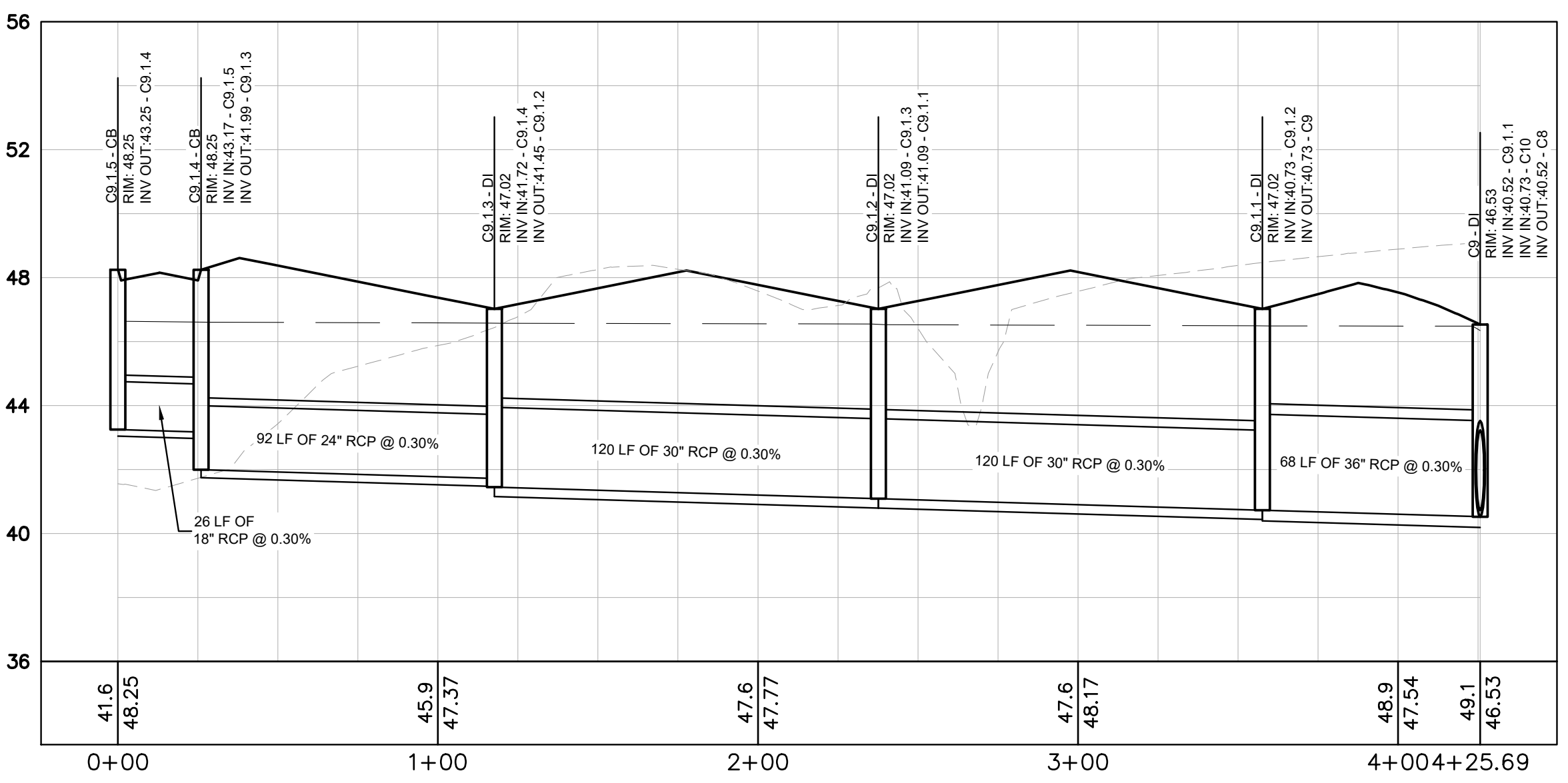
C12.1 TO C12
HORIZONTAL: 1"=40
VERTICAL: 1"=4



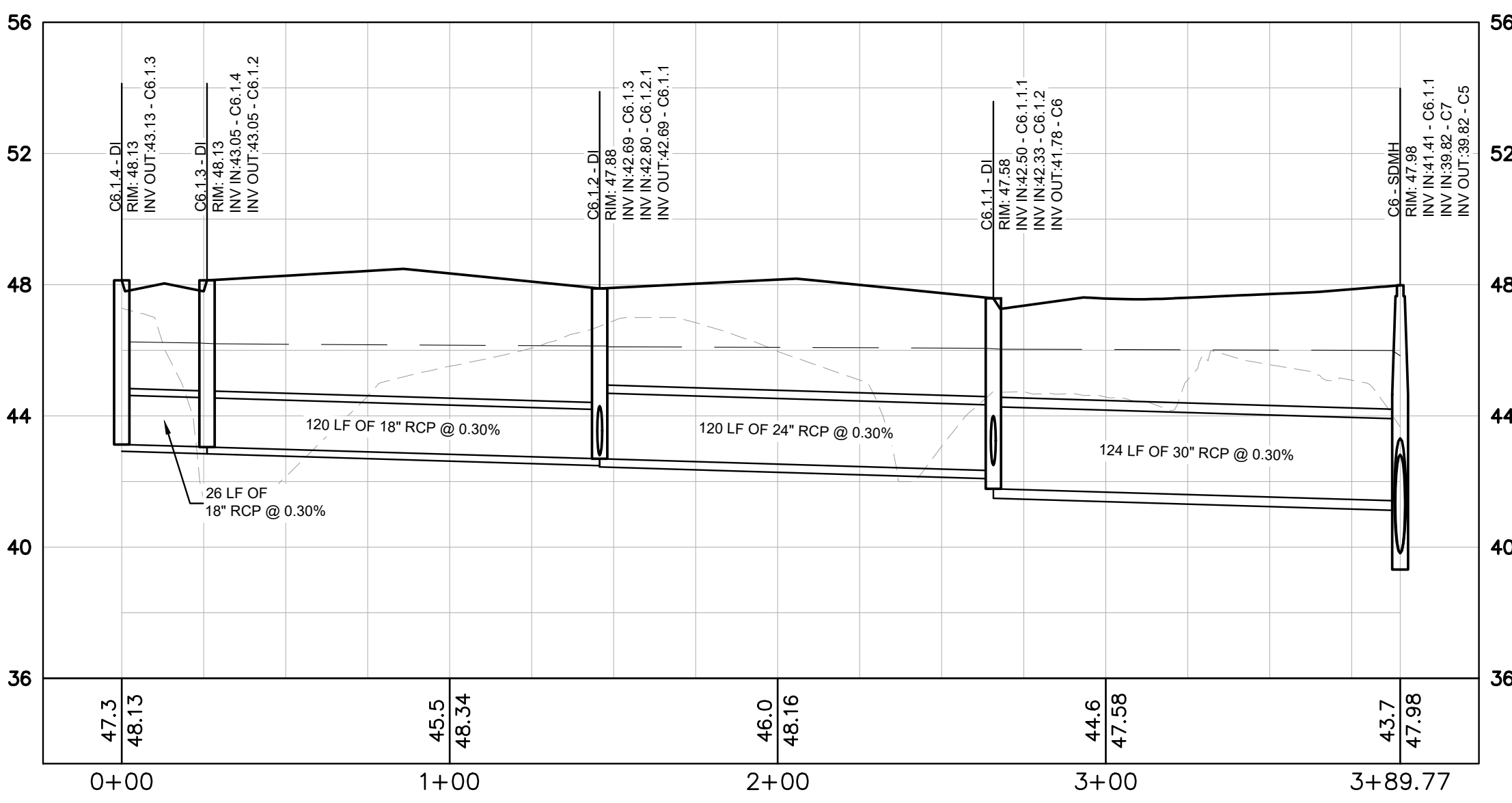
C11.1 TO C11
HORIZONTAL: 1"=40
VERTICAL: 1"=4



C10.1 TO C10
HORIZONTAL: 1"=40
VERTICAL: 1"=4



C9.1.5 TO C9
HORIZONTAL: 1"=40
VERTICAL: 1"=4



C6.1.4 TO C6
HORIZONTAL: 1"=40
VERTICAL: 1"=4

VERTICAL SCALE IN FEET

HORIZONTAL SCALE IN FEET

PREPARED BY: **Kimley-Horn**
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BELVILLE, NC 28651
PHONE: 910-507-2115

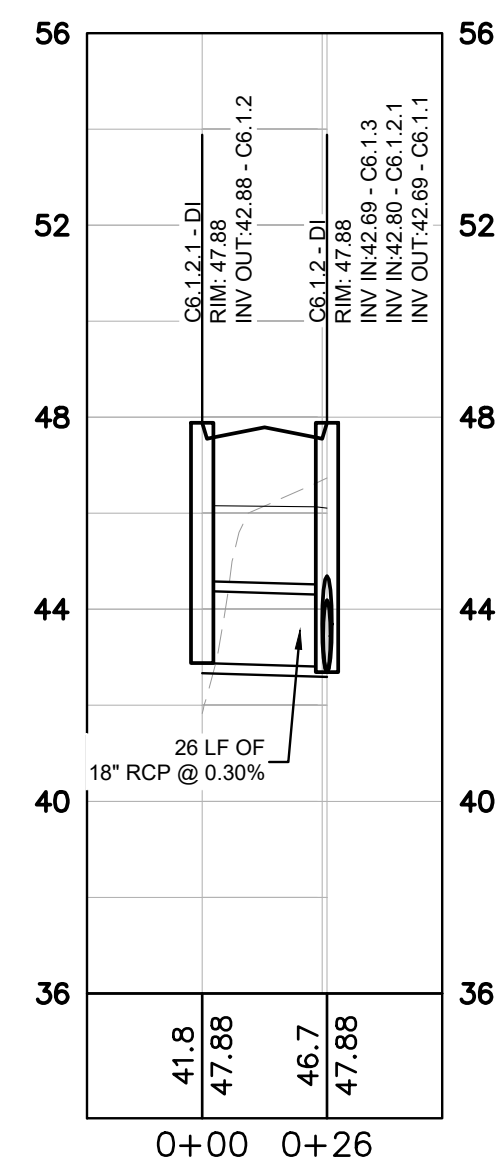
NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

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1038 HOOVER ROAD,
HAMPSHIRE, NC 28443
3283-853-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

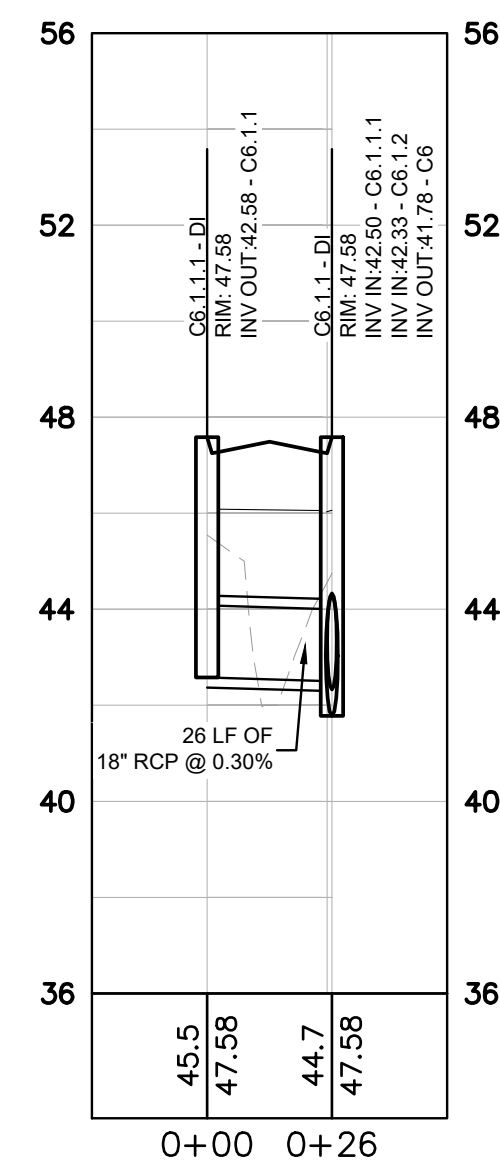
DRAWN BY: NJ
DESIGNED BY: NJ
REVIEWED BY: RW
DATE: 8/31/2023
PROJECT NO.: 014793000
TITLE: STORM SEWER PROFILES
SHEET NUMBER: C3-52

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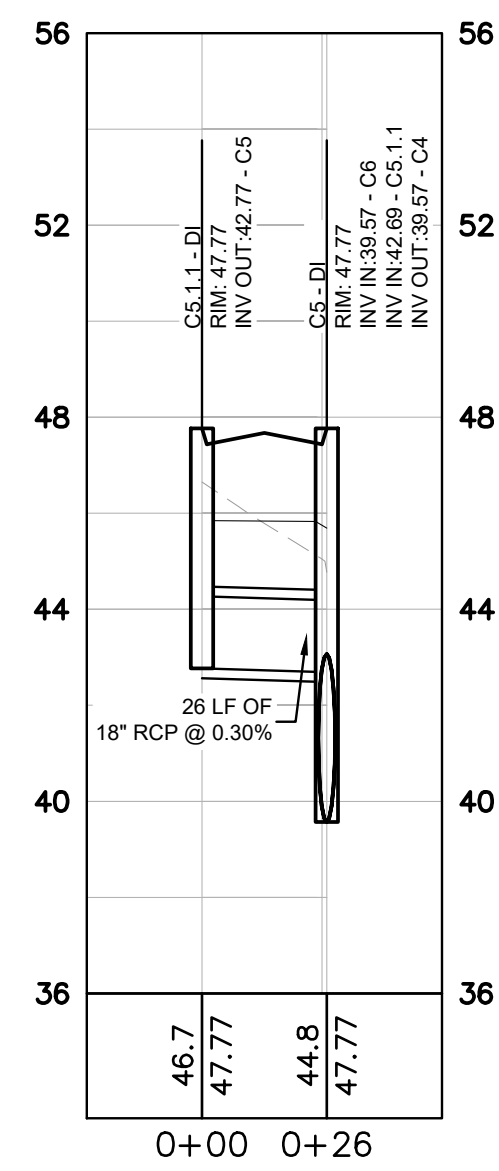
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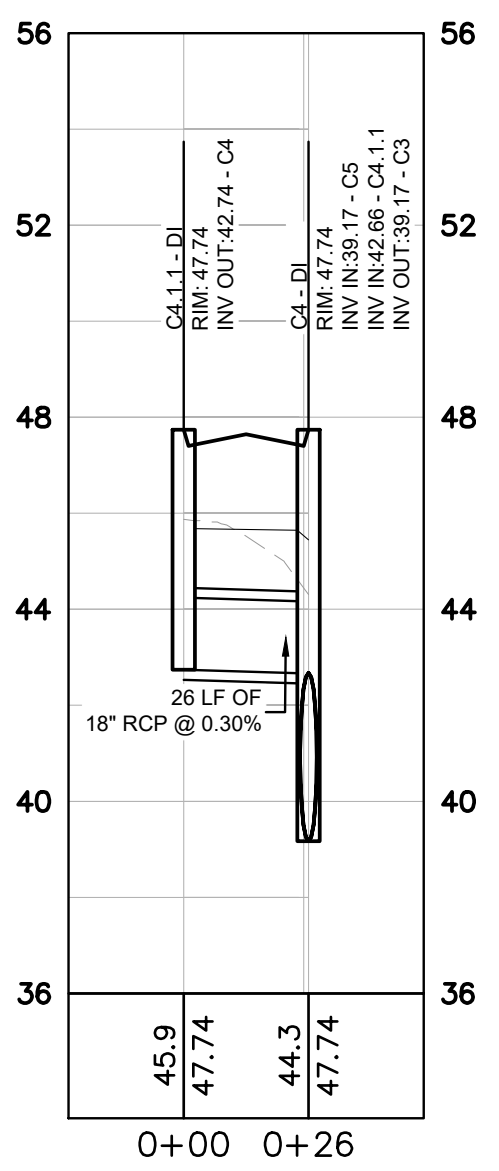
C6.1.2.1 TO C6.1.2
HORIZONTAL: 1"=40
VERTICAL: 1"=4



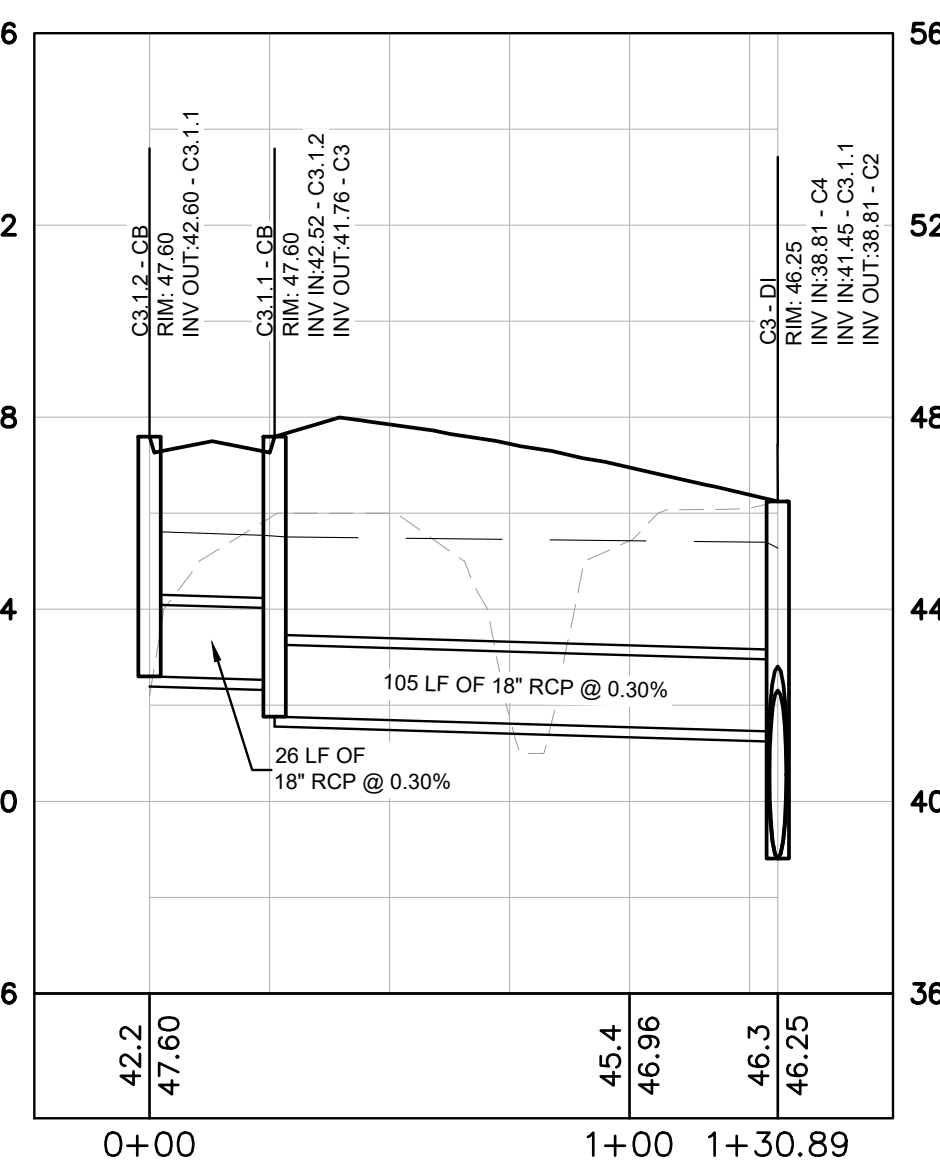
C6.1.1.1 TO C6.1.1
HORIZONTAL: 1"=40
VERTICAL: 1"=4



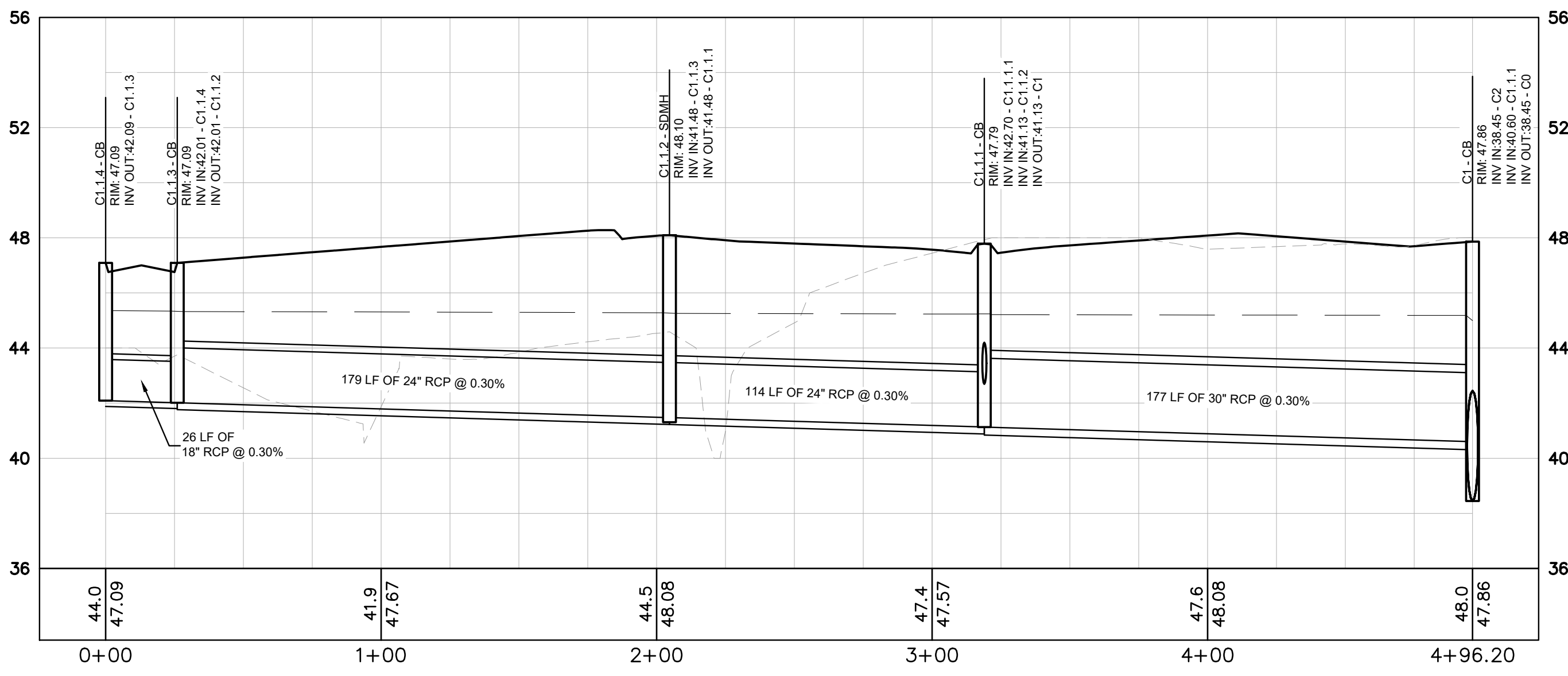
C5.1.1 TO C5
HORIZONTAL: 1"=40
VERTICAL: 1"=4



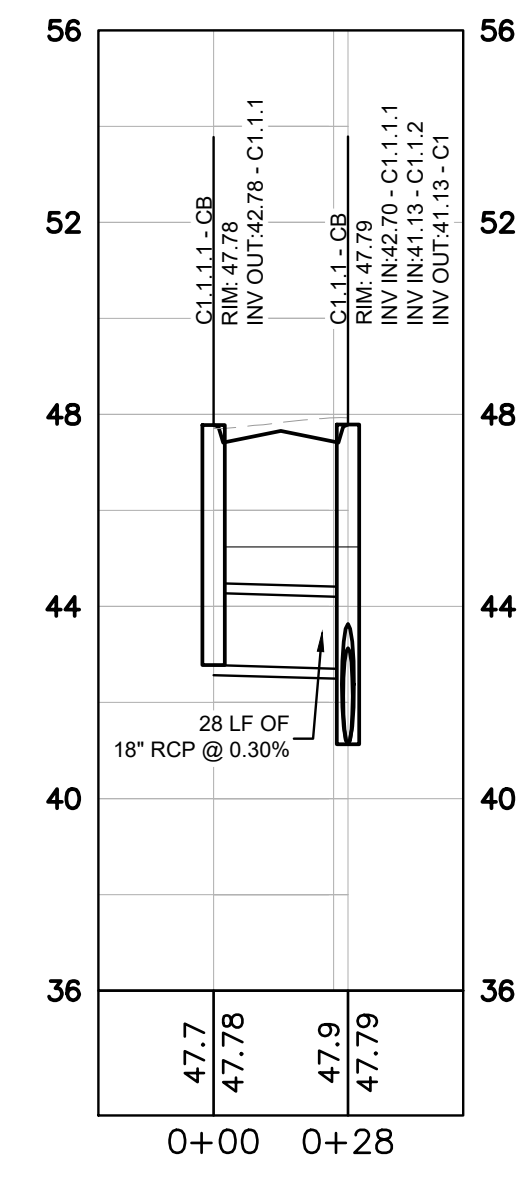
C4.1.1 TO C4
HORIZONTAL: 1"=40
VERTICAL: 1"=4



C3.1.2 TO C3
HORIZONTAL: 1"=40
VERTICAL: 1"=4



C1.1.4 TO C1
HORIZONTAL: 1"=40
VERTICAL: 1"=4



C1.1.1.1 TO C1.1.1
HORIZONTAL: 1"=40
VERTICAL: 1"=4

STORM DRAINAGE PROFILE NOTES:

1. ALL PIPE LENGTHS SPECIFIED IN THESE PLANS ARE THE HORIZONTAL DISTANCE AND ARE SHOWN FOR REFERENCE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE ACTUAL LENGTHS BASED ON PROPOSED PIPE SLOPE. PIPE LENGTHS IN PLANS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
2. CONTRACTOR TO FIELD VERIFY EXISTING INVERT FOR STORM DRAINAGE SERVICE CONNECTIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER OF DISCREPANCY PRIOR TO PROCEEDING.
3. ALL STORM PIPE SHALL HAVE BEDDING PER BEDDING DETAILS IN CONSTRUCTION DETAIL SHEETS.
4. ALL STORM PIPING TO BE RCP UNLESS OTHERWISE NOTED. SEE CHART FOR PIPE CLASS.
5. RIM ELEVATIONS GIVEN ARE APPROXIMATE. CONTRACTOR SHALL REFERENCE GRADING PLAN FOR STRUCTURE THROAT / RIM ELEVATIONS.
6. IF ANY CONFLICTS, DISCREPANCIES, OR ANY OTHER UNSATISFACTORY CONDITIONS ARE DISCOVERED, EITHER ON THE CONSTRUCTION DOCUMENTS OR FIELD CONDITIONS, THE CONTRACTOR MUST NOTIFY THE ENGINEER IMMEDIATELY AND SHALL NOT COMMENCE FURTHER OPERATION UNTIL THE CONFLICTS, DISCREPANCIES, OR OTHER UNSATISFACTORY CONDITIONS ARE RESOLVED.
7. ALL STORM JOINTS TO BE WATER TIGHT.

PROFILE LINE LEGEND:

- PROPOSED GRADE LINE
- - - EXISTING GRADE LINE
- 25-YR HYDRAULIC GRADE LINE
- - - 100-YR HYDRAULIC GRADE LINE

RCP PIPE CLASSIFICATION CHART:

1-15' CLASS III
15'-20' CLASS IV
20'-30' CLASS V

ALL CONCRETE PIPE SHALL BE A MINIMUM CLASS III WITH 12" MINIMUM COVER. REFERENCE GDOT DETAIL 1030D FOR ADDITIONAL GUIDANCE.

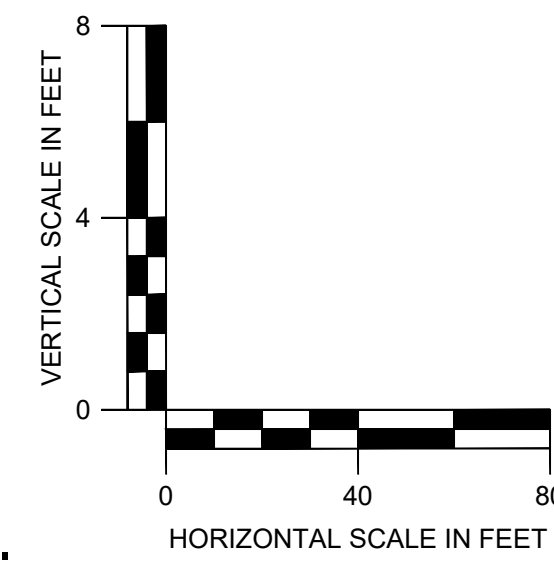
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BELLEVILLE, NC 28651
PHONE: (912) 231-4394
WWW.KIMLEY-HORN.COM

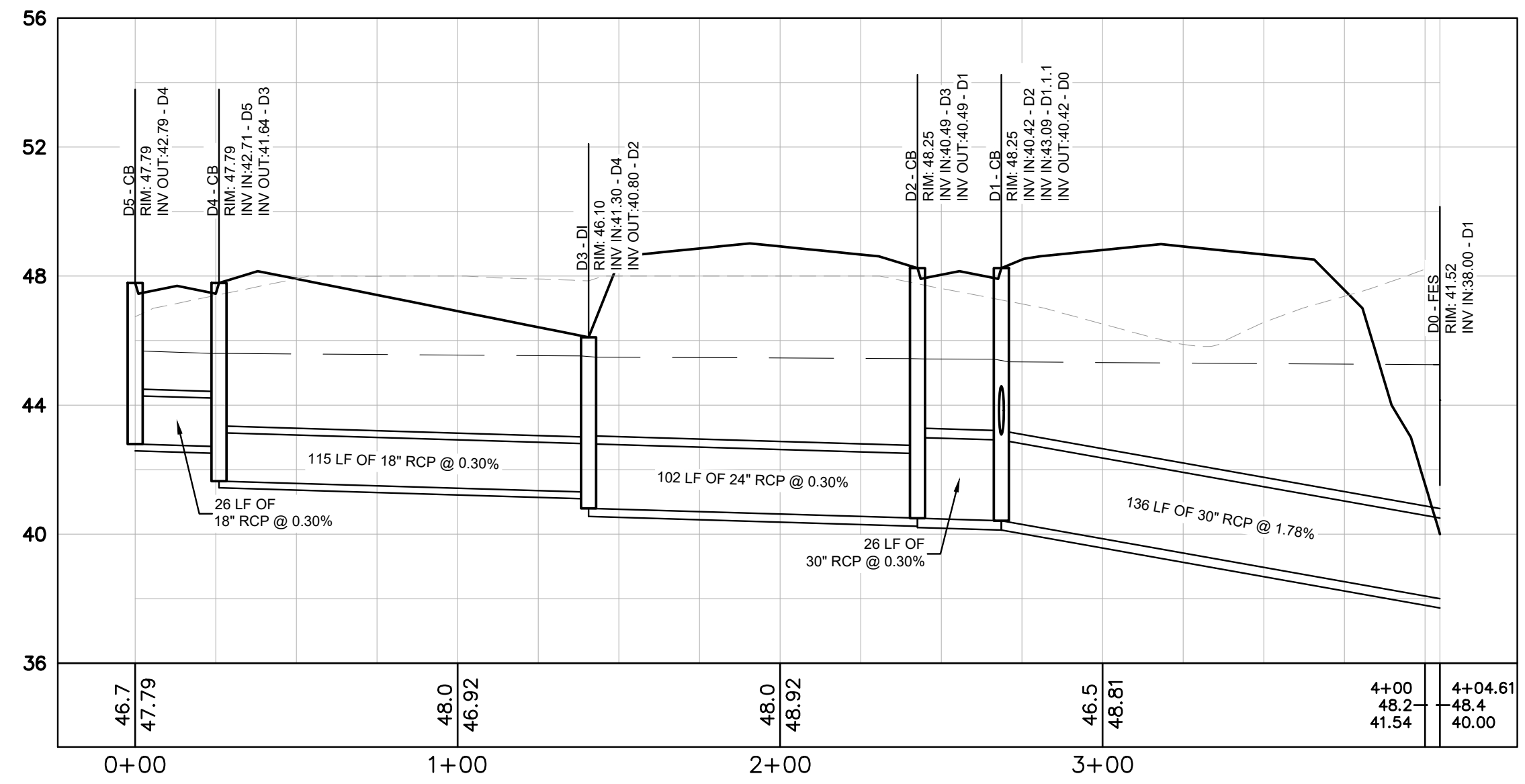
LOGAN DEVELOPERS INC.
60 GREGORY ROAD (SUITE 1)
BELVILLE, NC 28651
PHONE: 910-507-2115

NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

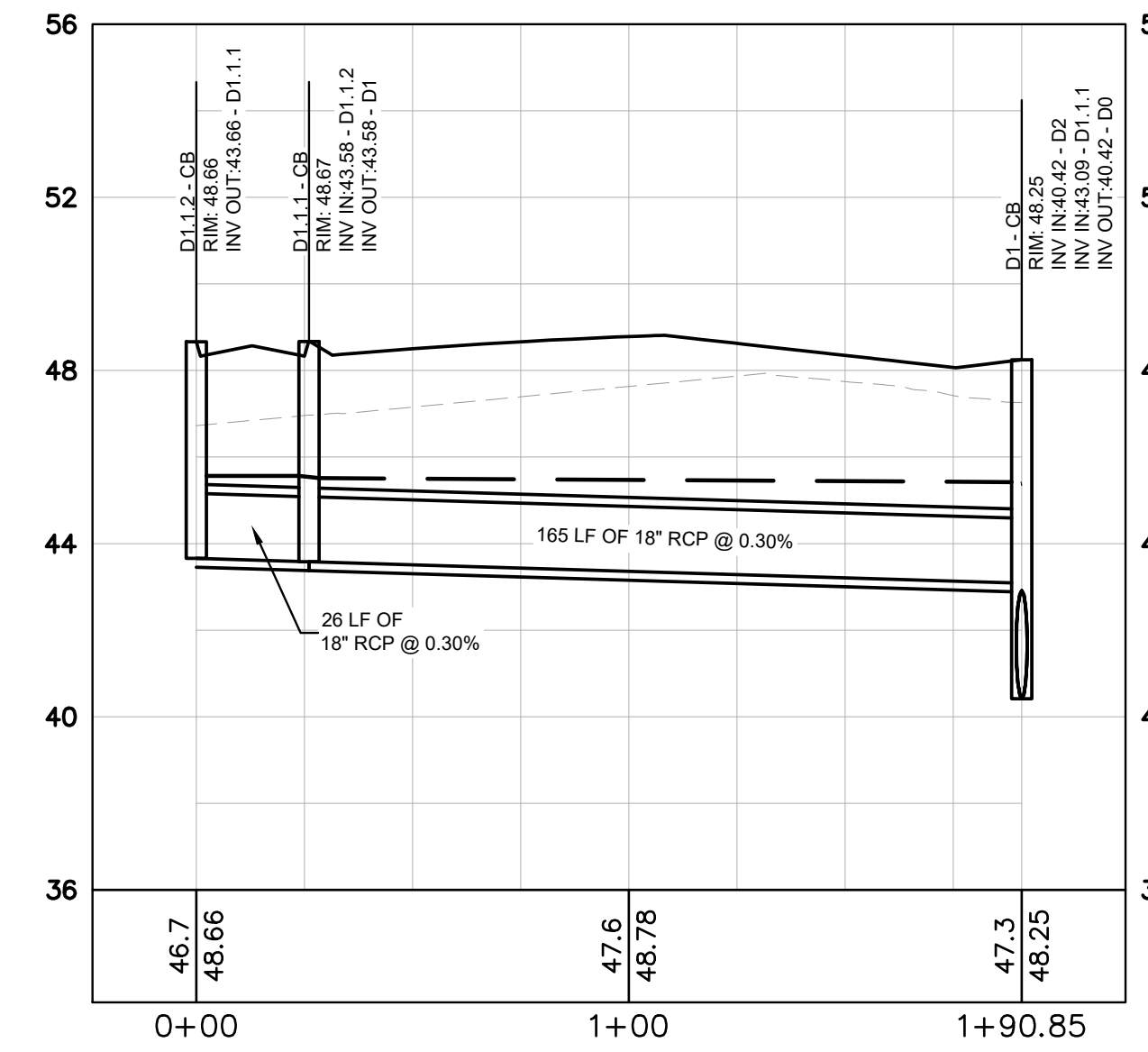
BROOKFIELD BRANCH
1038 HOOVER ROAD,
HAMPSHIRE, NC 28443
3283-85-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY	NJ
DESIGNED BY	NJ
REVIEWED BY	RW
DATE	8/31/2023
PROJECT NO.	014793000
TITLE	STORM SEWER PROFILES
SHEET NUMBER	C3-53

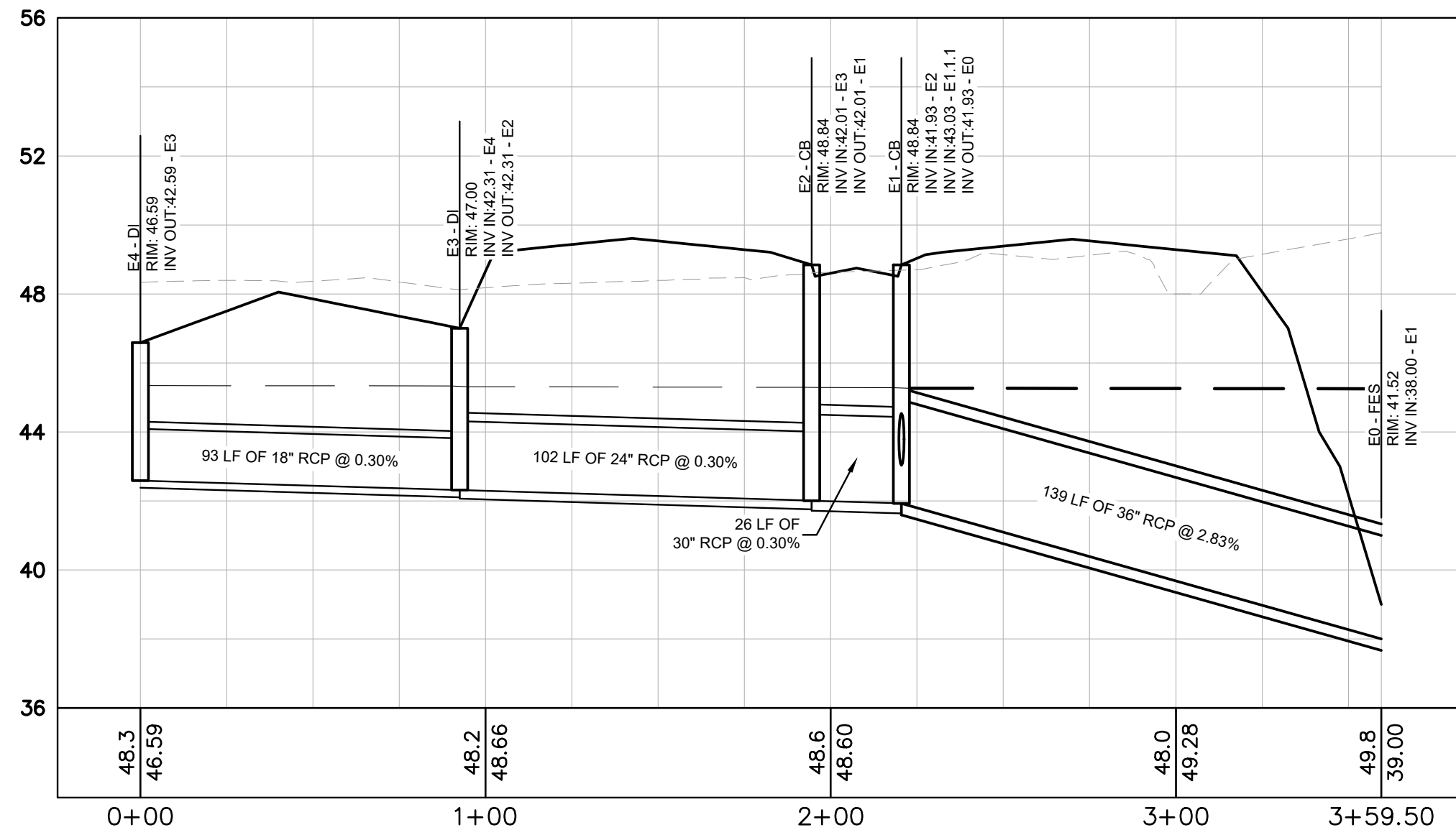




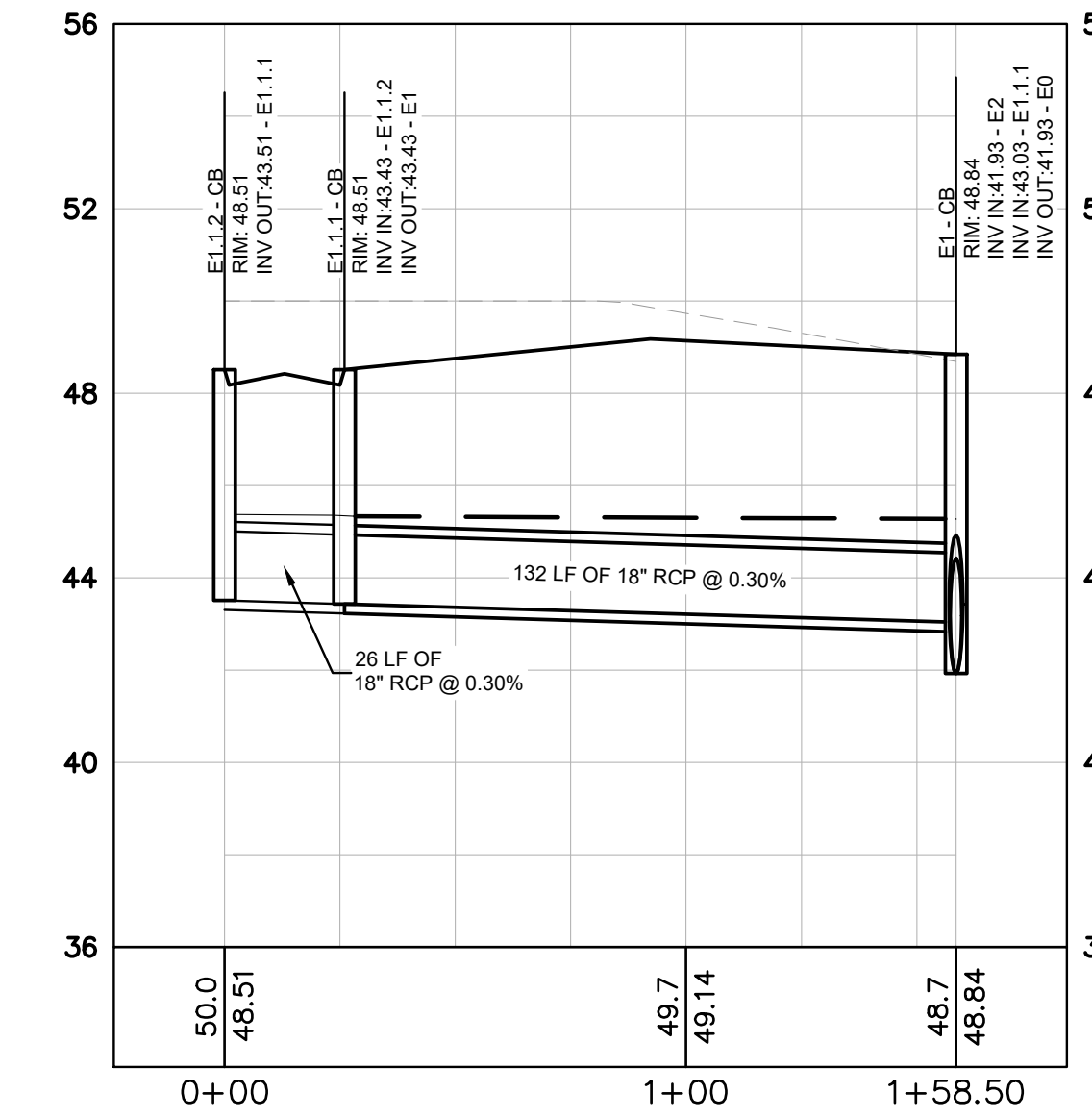
D5 TO D0
HORIZONTAL: 1"=40
VERTICAL: 1"=4



D1.1.2 TO D1
HORIZONTAL: 1"=40
VERTICAL: 1"=4



E4 TO E0
HORIZONTAL: 1"=40
VERTICAL: 1"=4



E1.1.2 TO E1
HORIZONTAL: 1"=40
VERTICAL: 1"=4

STORM DRAINAGE PROFILE NOTES:

1. ALL PIPE LENGTHS SPECIFIED IN THESE PLANS ARE THE HORIZONTAL DISTANCE AND ARE SHOWN FOR REFERENCE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE ACTUAL LENGTHS BASED ON PROPOSED PIPE SLOPE. PIPE LENGTHS IN PLANS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
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3. ALL STORM PIPE SHALL HAVE BEDDING PER BEDDING DETAILS IN CONSTRUCTION DETAIL SHEETS.
4. ALL STORM PIPING TO BE RCP UNLESS OTHERWISE NOTED. SEE CHART FOR PIPE CLASS.
5. RIM ELEVATIONS GIVEN ARE APPROXIMATE. CONTRACTOR SHALL REFERENCE GRADING PLAN FOR STRUCTURE THROAT / RIM ELEVATIONS.
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7. ALL STORM JOINTS TO BE WATER TIGHT.

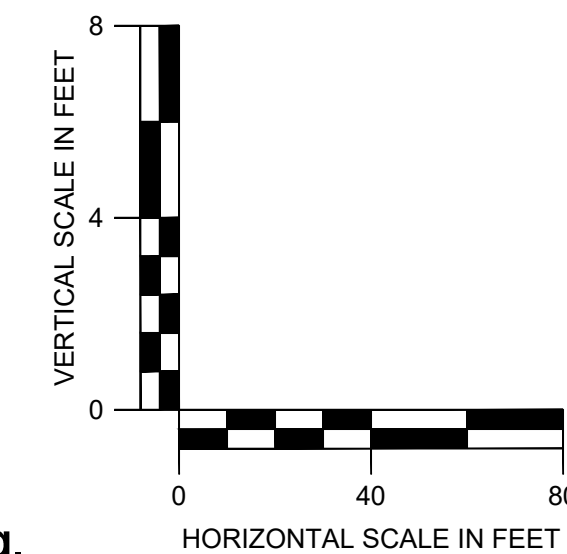
PROFILE LINE LEGEND:

- PROPOSED GRADE LINE
- - - EXISTING GRADE LINE
- 25-YR HYDRAULIC GRADE LINE
- - - 100-YR HYDRAULIC GRADE LINE

RCP PIPE CLASSIFICATION CHART:

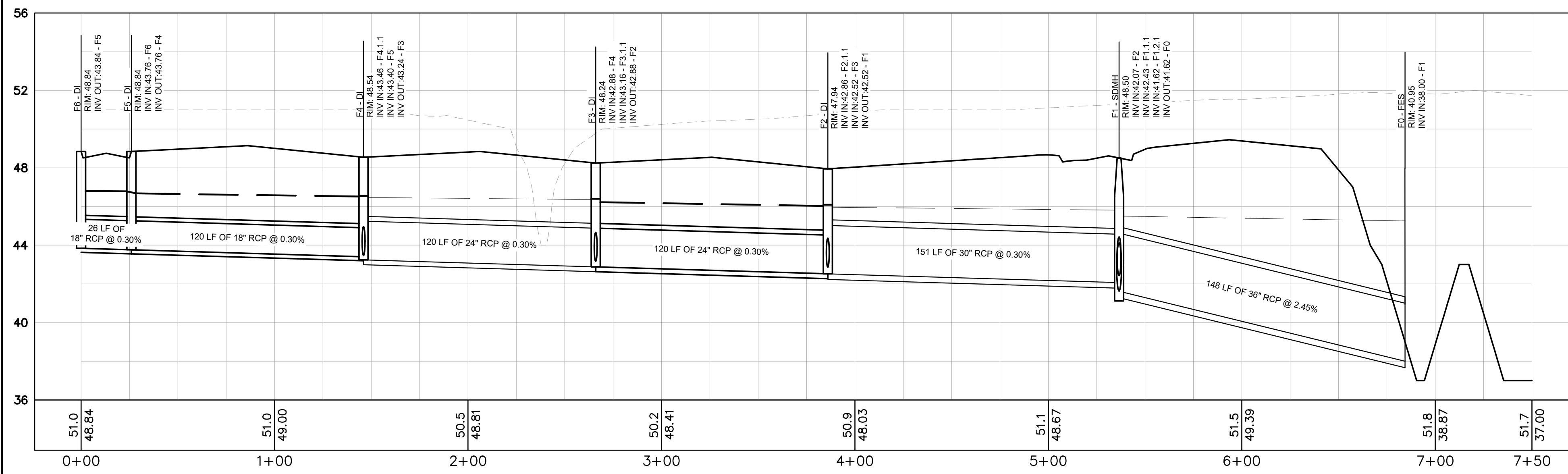
1-15' CLASS III
15'-20' CLASS IV
20'-30' CLASS V

ALL CONCRETE PIPE SHALL BE A MINIMUM CLASS III WITH 12" MINIMUM COVER. REFERENCE GDOT DETAIL 1030D FOR ADDITIONAL GUIDANCE.

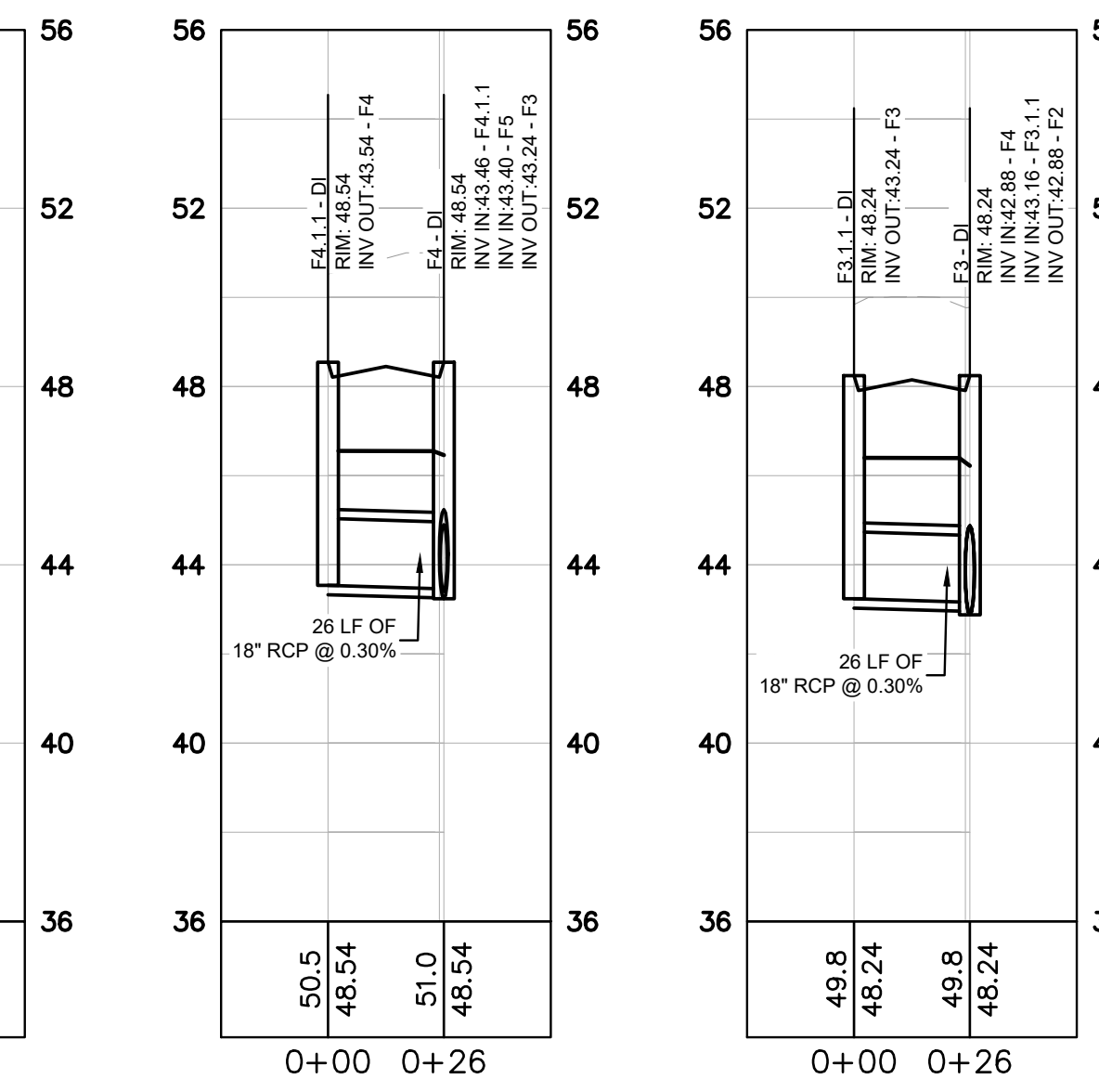


NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

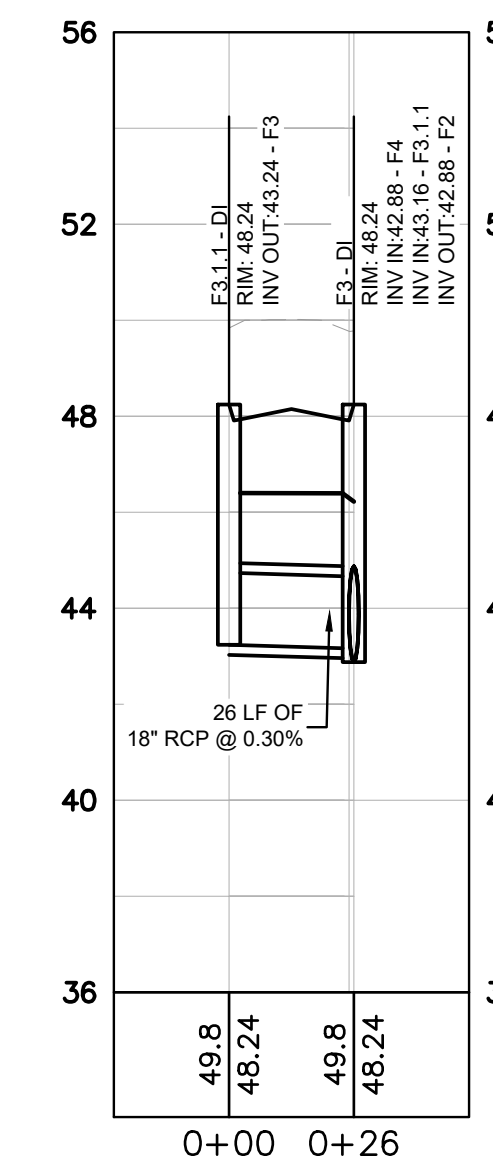
DRAWN BY	NJ
DESIGNED BY	NJ
REVIEWED BY	RW
DATE	8/31/2023
PROJECT NO.	014793000
TITLE	STORM SEWER PROFILES
SHEET NUMBER	C3-54



F6 TO F0
HORIZONTAL: 1"=40
VERTICAL: 1"=4



F4.1.1 TO F4
HORIZONTAL: 1"=40
VERTICAL: 1"=4



F3.1.1 TO F3
HORIZONTAL: 1"=40
VERTICAL: 1"=4

STORM DRAINAGE PROFILE NOTES:

1. ALL PIPE LENGTHS SPECIFIED IN THESE PLANS ARE THE HORIZONTAL DISTANCE AND ARE SHOWN FOR REFERENCE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE ACTUAL LENGTHS BASED ON PROPOSED PIPE SLOPE. PIPE LENGTHS IN PLANS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
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7. ALL STORM JOINTS TO BE WATER TIGHT.

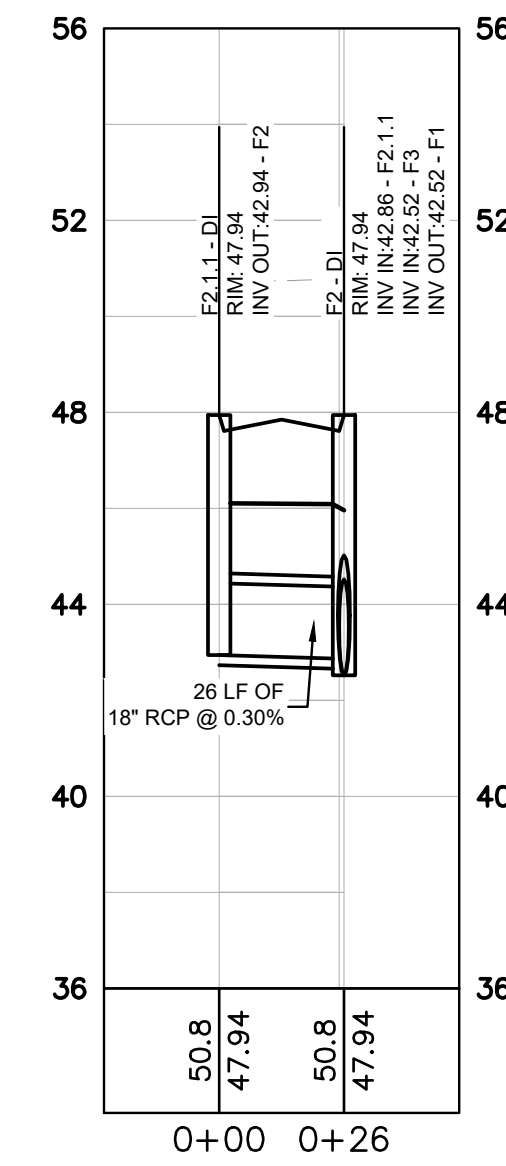
PROFILE LINE LEGEND:

- PROPOSED GRADE LINE
- - - EXISTING GRADE LINE
- · - 25-YR HYDRAULIC GRADE LINE
- · · - 100-YR HYDRAULIC GRADE LINE

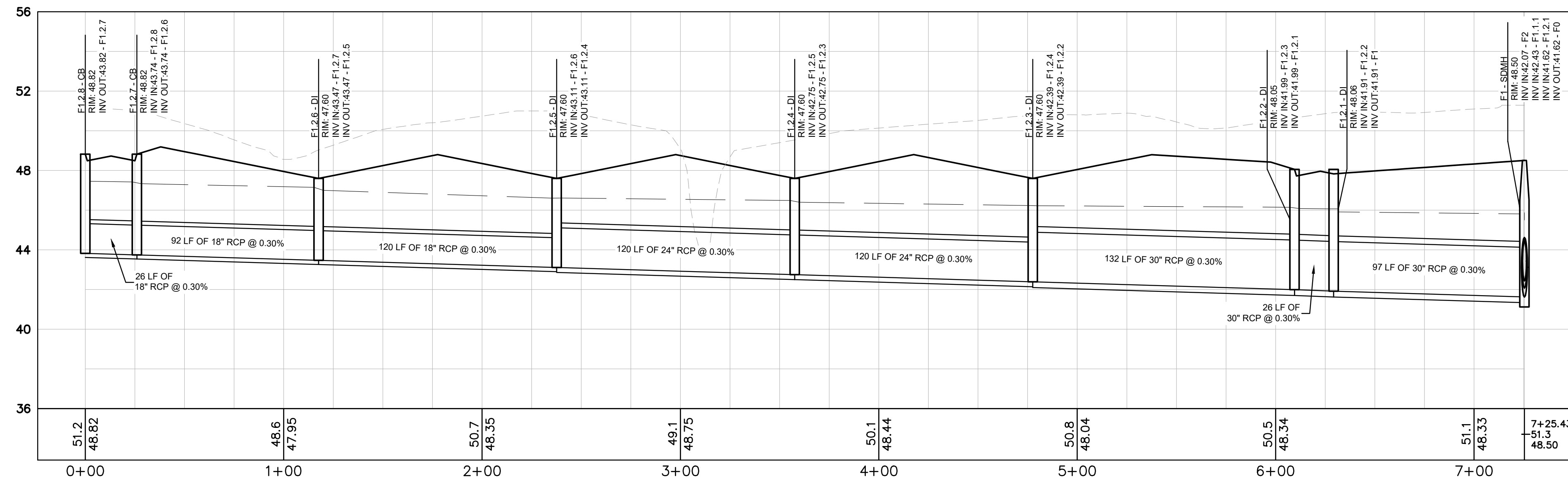
RCP PIPE CLASSIFICATION CHART:

1'-15' CLASS III
15'-20' CLASS IV
20'-30' CLASS V

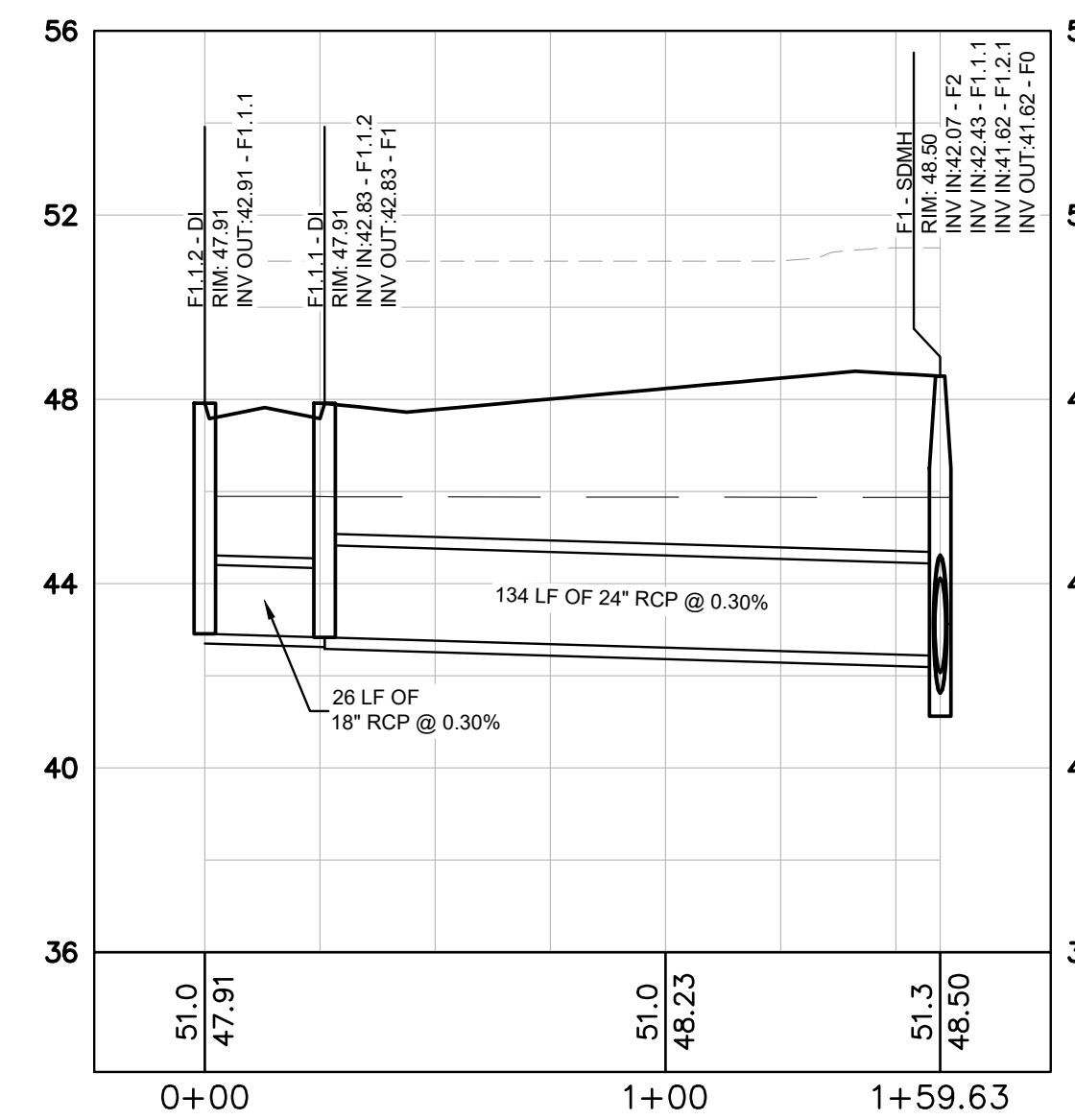
ALL CONCRETE PIPE SHALL BE A MINIMUM CLASS III WITH 12" MINIMUM COVER. REFERENCE GDOT DETAIL 1030D FOR ADDITIONAL GUIDANCE.



F2.1.1 TO F2
HORIZONTAL: 1"=40
VERTICAL: 1"=4



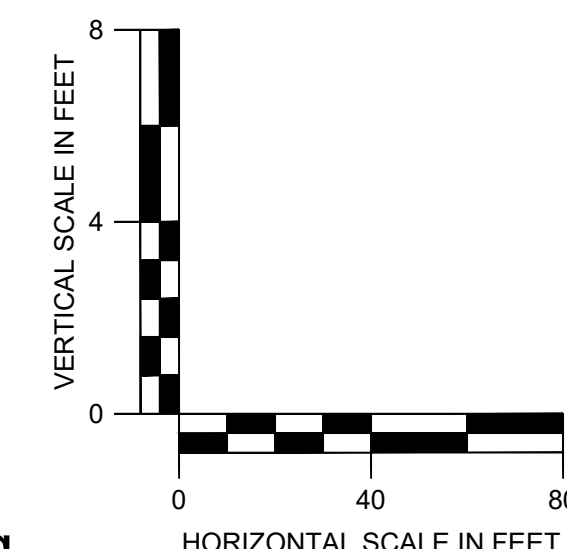
F1.2.8 TO F1
HORIZONTAL: 1"=40
VERTICAL: 1"=4



F1.1.2 TO F1
HORIZONTAL: 1"=40
VERTICAL: 1"=4



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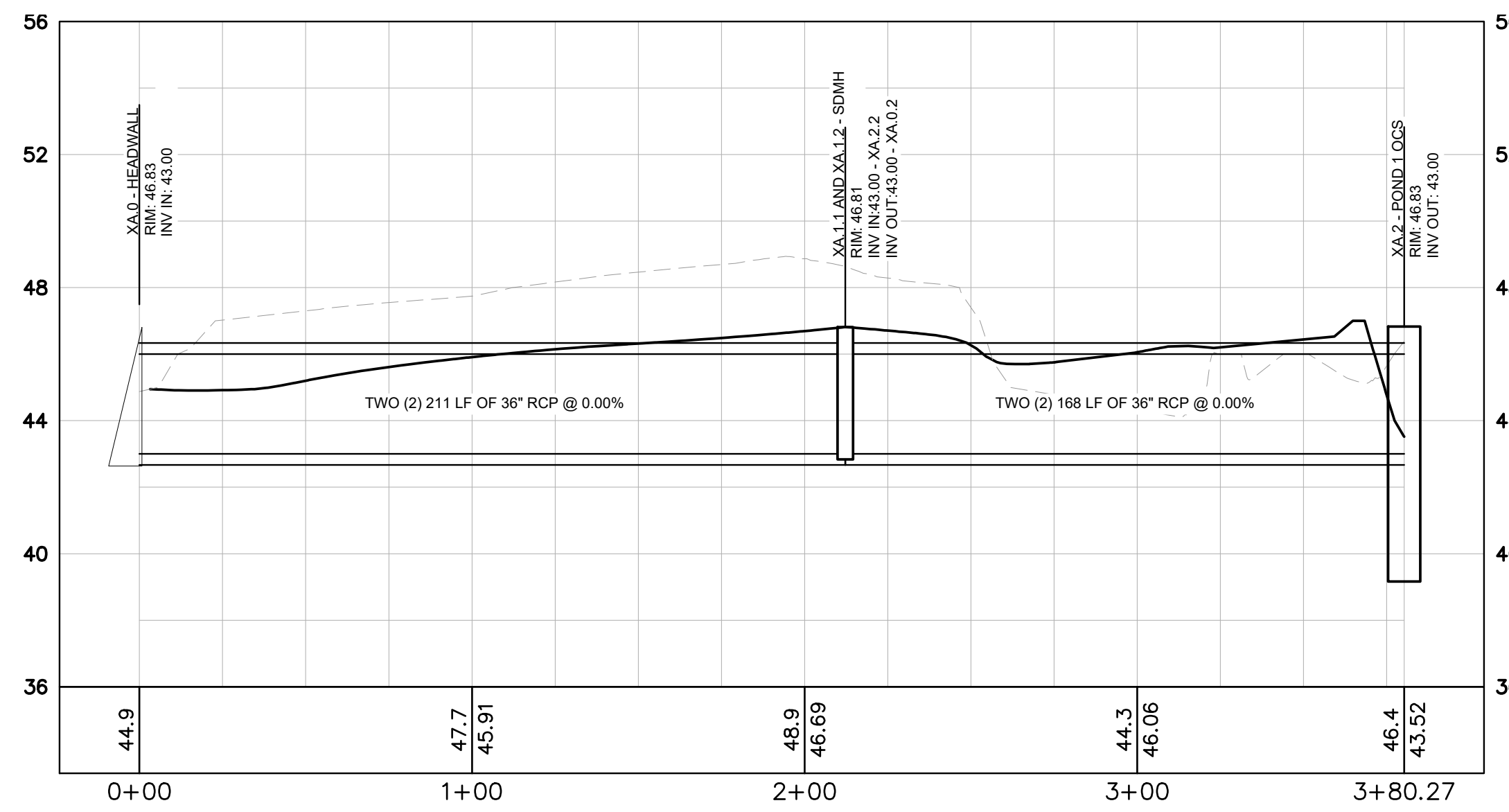
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60 GREGORY ROAD (SUITE 1)
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PHONE: 910-507-2115

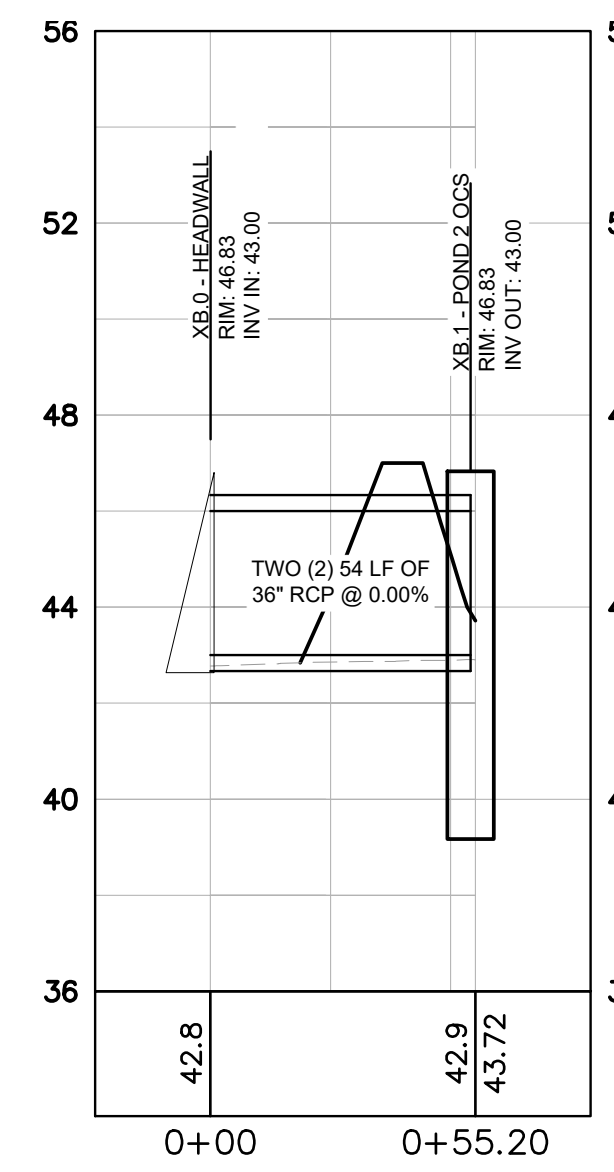
NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

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1038 HOOVER ROAD,
HAMPSHIRE, NC 28443
3283-85-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

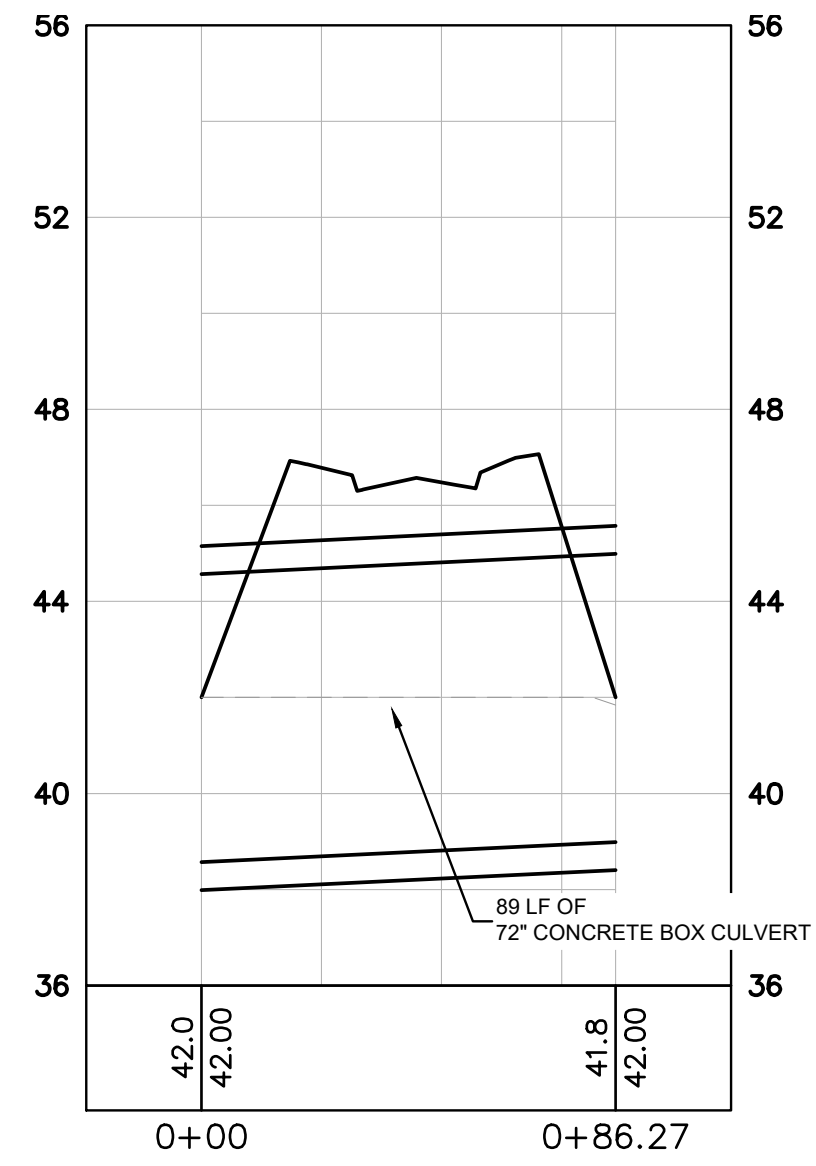
DRAWN BY: NJ
DESIGNED BY: NJ
REVIEWED BY: RW
DATE: 8/31/2023
PROJECT NO.: 014793000
TITLE: STORM SEWER PROFILES
SHEET NUMBER: C3-55



XA.0 TO XA.2 - POND 1 OCS
HORIZONTAL: 1"=40
VERTICAL: 1"=4



XB.0 TO XB.1
HORIZONTAL: 1"=40
VERTICAL: 1"=4



XC1 TO XC0
HORIZONTAL: 1"=40
VERTICAL: 1"=4

STORM DRAINAGE PROFILE NOTES:

1. ALL PIPE LENGTHS SPECIFIED IN THESE PLANS ARE THE HORIZONTAL DISTANCE AND ARE SHOWN FOR REFERENCE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE ACTUAL LENGTHS BASED ON PROPOSED PIPE SLOPE. PIPE LENGTHS IN PLANS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
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7. ALL STORM JOINTS TO BE WATER TIGHT.

PROFILE LINE LEGEND:

- PROPOSED GRADE LINE
- - - EXISTING GRADE LINE
- 25-YR HYDRAULIC GRADE LINE
- - - 100-YR HYDRAULIC GRADE LINE

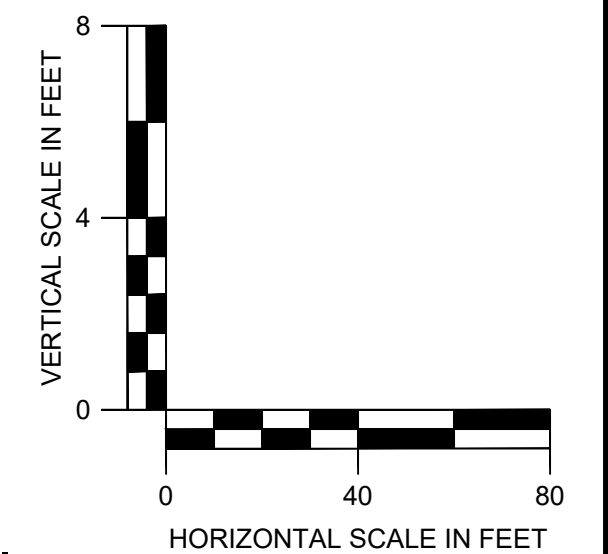
RCP PIPE CLASSIFICATION CHART:

1-15' CLASS III
15'-20' CLASS IV
20'-30' CLASS V

ALL CONCRETE PIPE SHALL BE A MINIMUM CLASS III WITH 12" MINIMUM COVER. REFERENCE GDOT DETAIL 1030D FOR ADDITIONAL GUIDANCE.



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BELVILLE, NC 28651
PHONE: 910-507-2115

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1038 HOOVER ROAD,
HAMPSSTEAD, NC 28443
3283-85-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

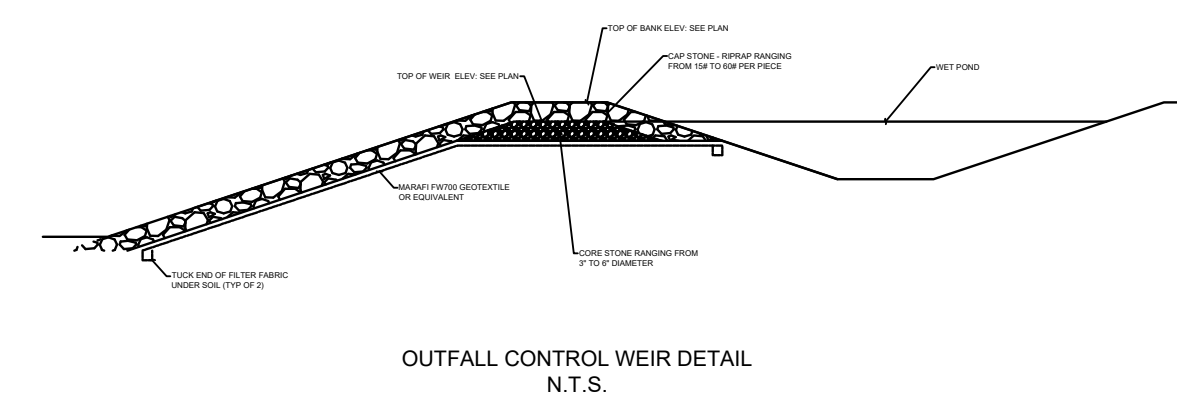
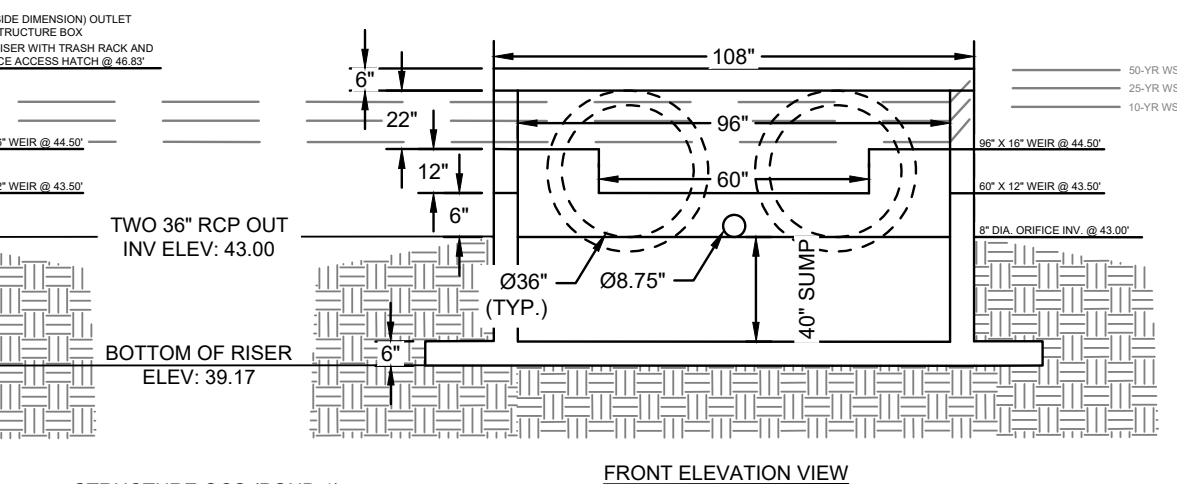
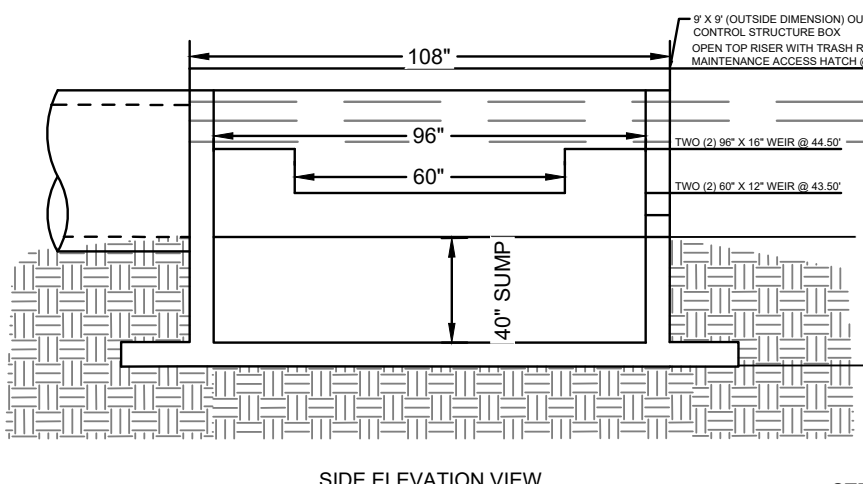
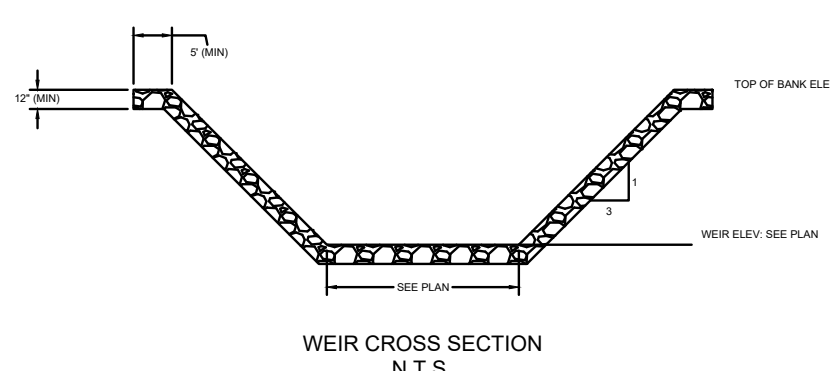
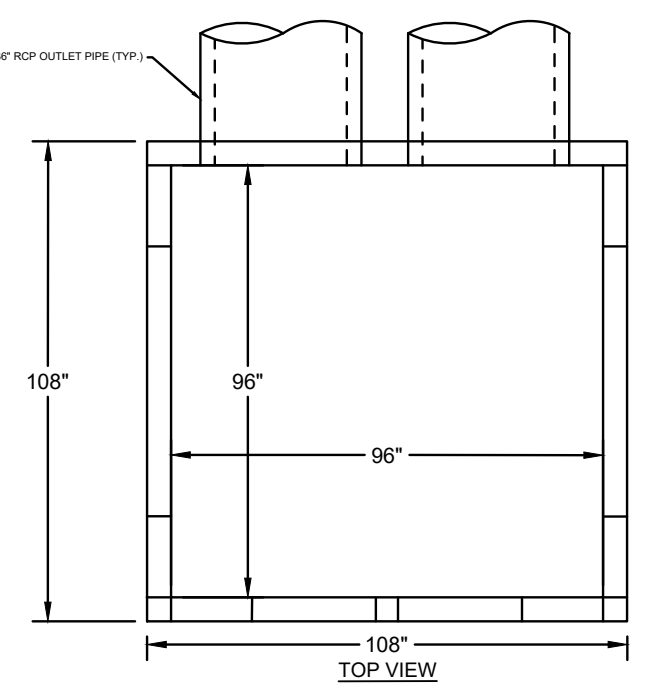
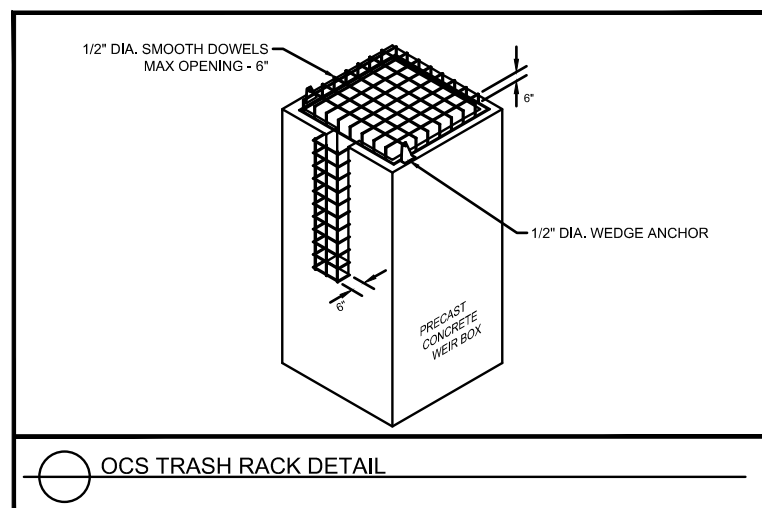
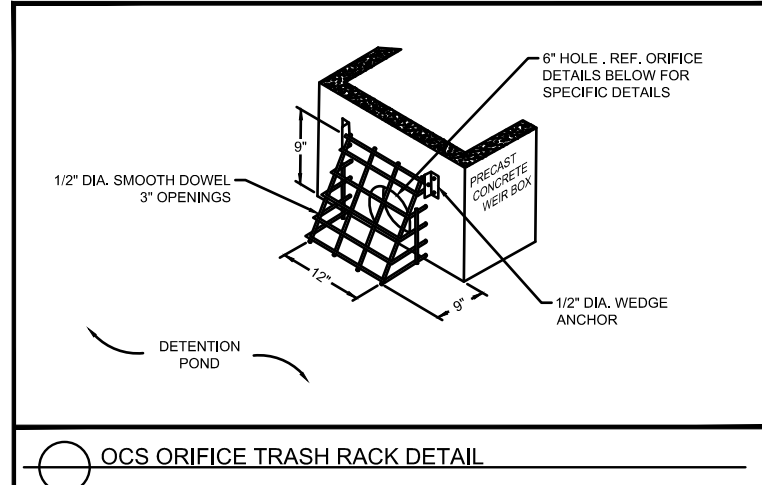
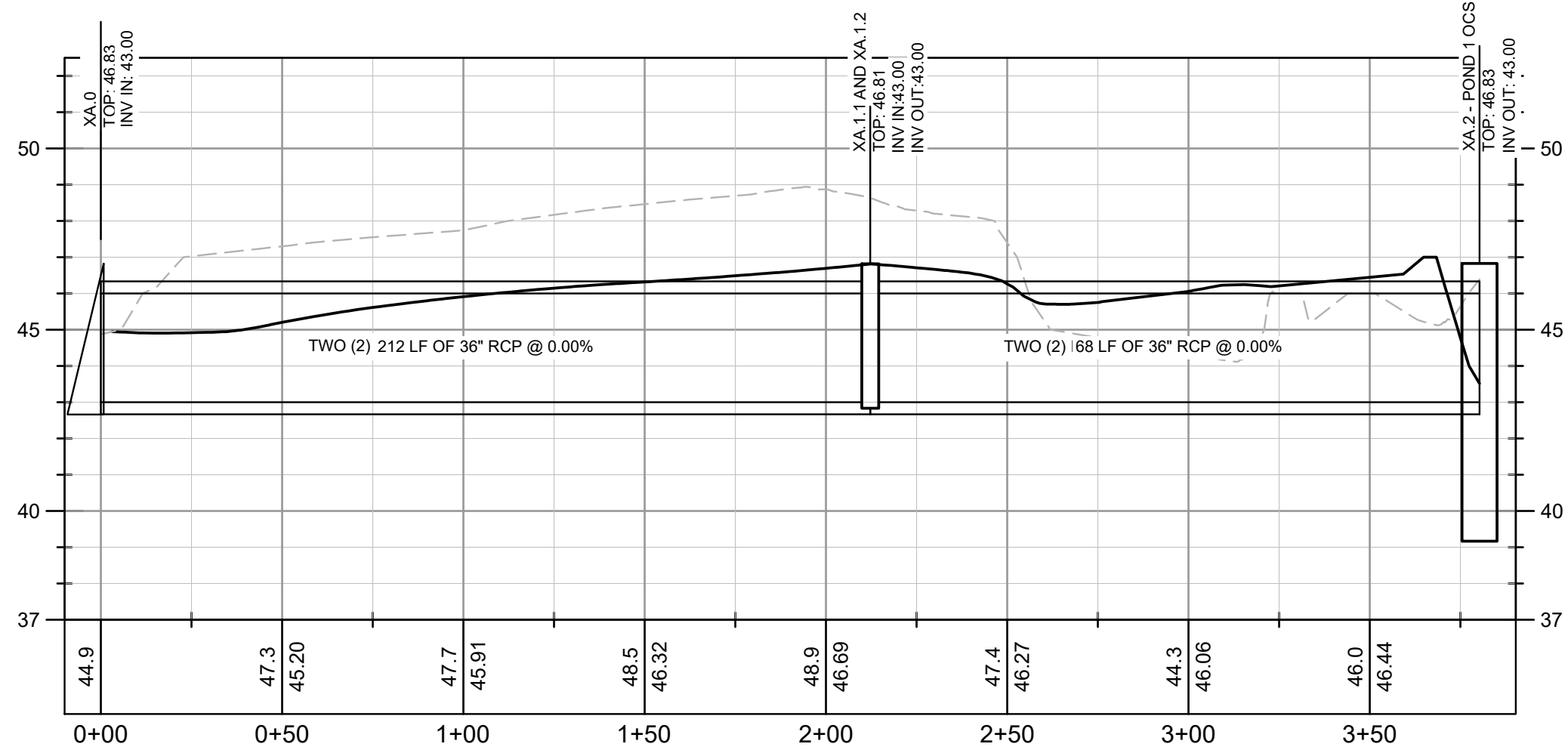
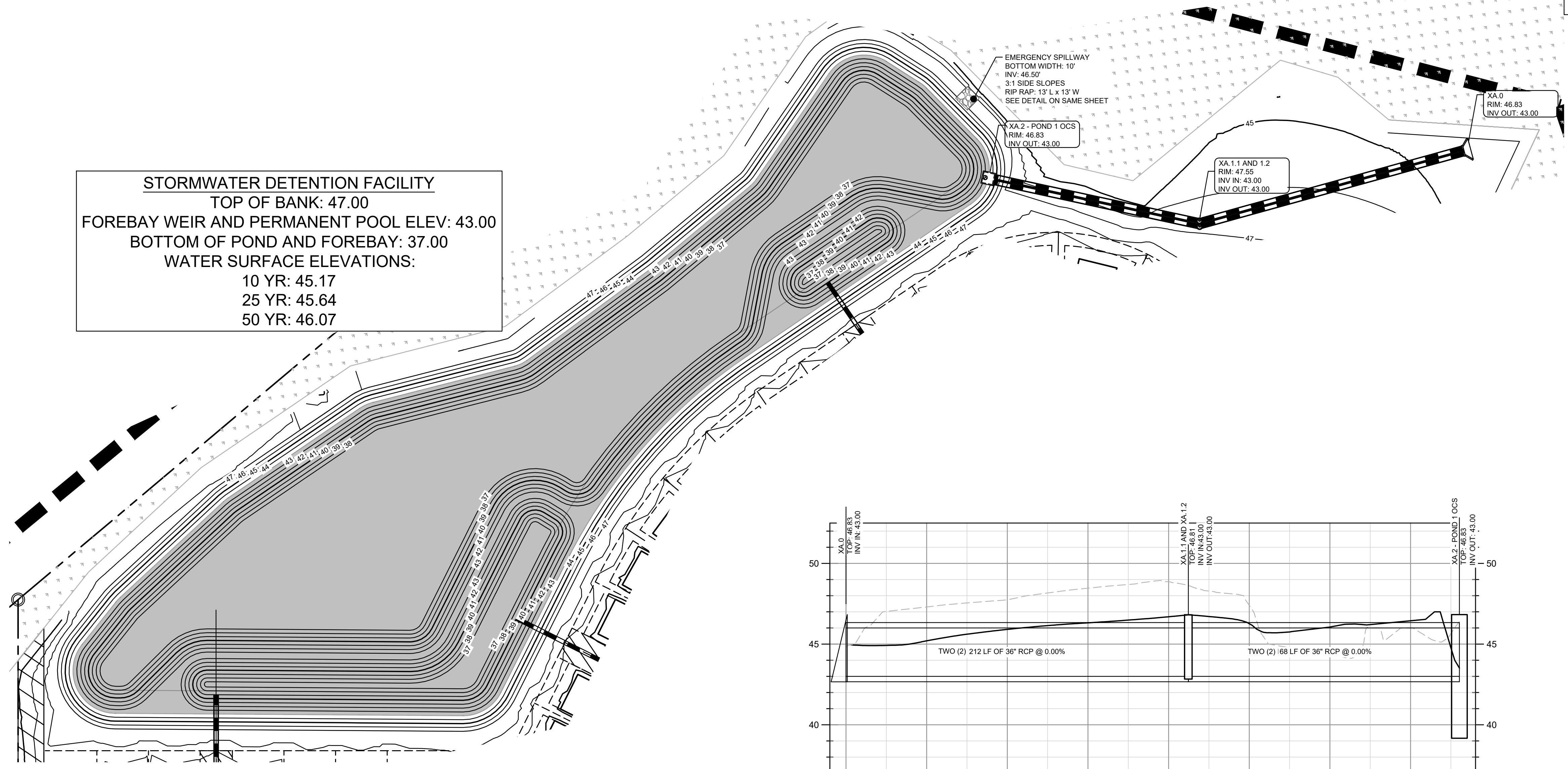
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DESIGNED BY	NJ
REVIEWED BY	RW
DATE	8/31/2023
PROJECT NO.	014793000
TITLE	STORM SEWER PROFILES
SHEET NUMBER	C3-56

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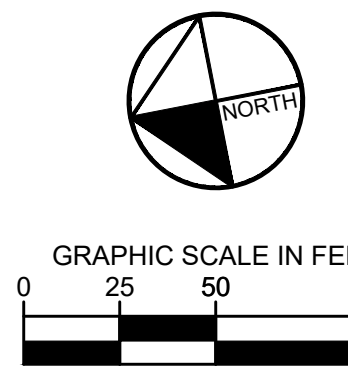
STORMWATER DETENTION FACILITY
 TOP OF BANK: 47.00
 FOREBAY WEIR AND PERMANENT POOL ELEV: 43.00
 BOTTOM OF POND AND FOREBAY: 37.00
 WATER SURFACE ELEVATIONS:
 10 YR: 45.17
 25 YR: 45.64
 50 YR: 46.07

GRADING LEGEND:

---	EXISTING MAJOR CONTOUR
---	EXISTING MINOR CONTOUR
---	PROPOSED MAJOR CONTOUR
---	PROPOSED MINOR CONTOUR



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 60 GREGORY ROAD (SUITE 1)
 BELVILLE, NC 28511
 PHONE: 910-507-2115

NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

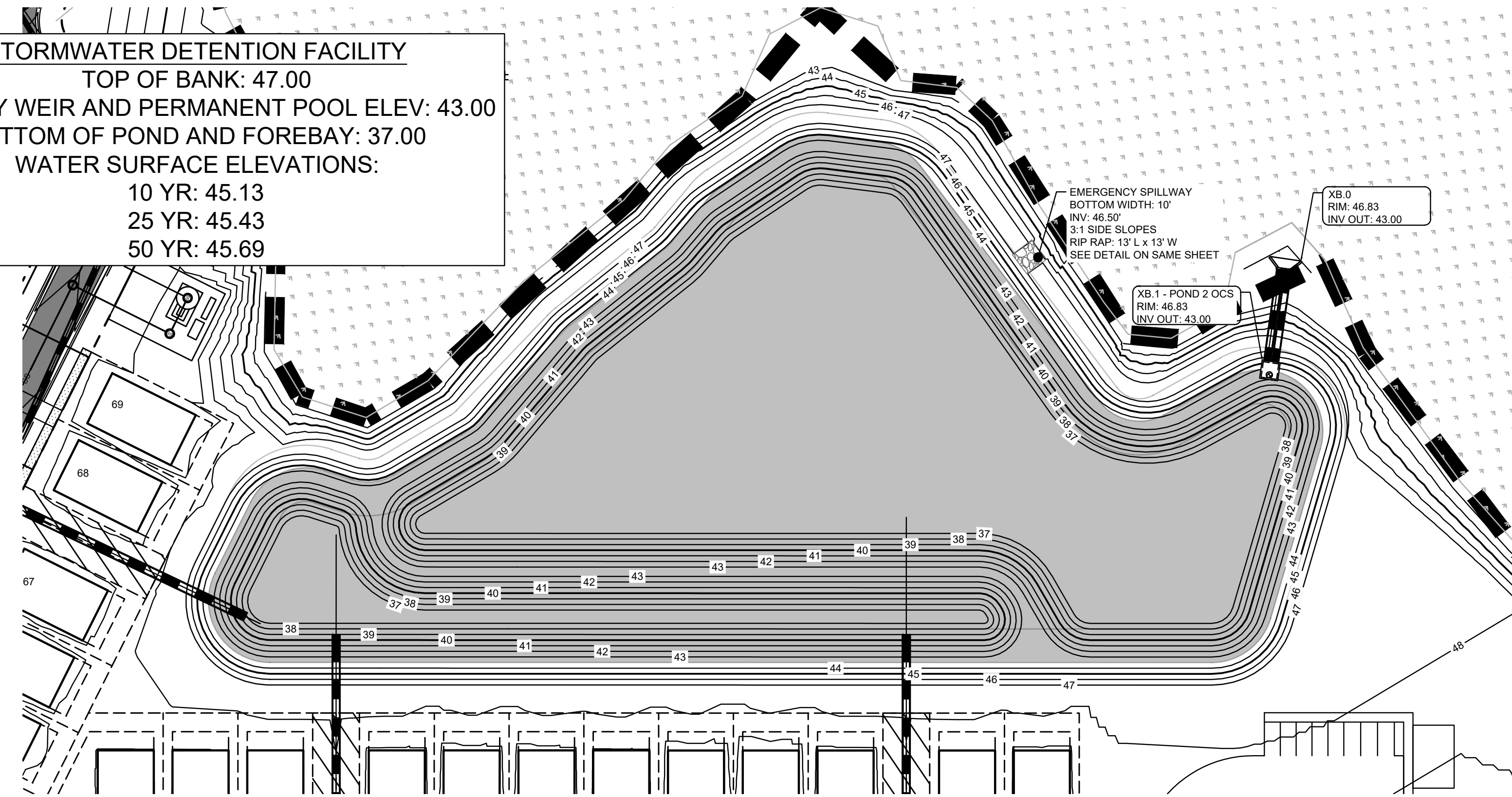
BROOKFIELD BRANCH
 1038 HOOVER ROAD,
 HAMPSSTEAD, NC 28443
 3283-83-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY NJ
 DESIGNED BY NJ
 REVIEWED BY RW
 DATE 8/31/2023
 PROJECT NO. 014793000
 TITLE **STORMWATER MANAGEMENT PLAN - POND 1**
 SHEET NUMBER **C3-80**

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Drawing name: K:\SAV_Civil\14793000_Hoover Road SFR\CAD\Plan\Sheets\C3-80 - STORMWATER MANAGEMENT PLAN.dwg Aug 31, 2023 9:42pm by Joe Giusti

STORMWATER DETENTION FACILITY
 TOP OF BANK: 47.00
 FOREBAY WEIR AND PERMANENT POOL ELEV: 43.00
 BOTTOM OF POND AND FOREBAY: 37.00
 WATER SURFACE ELEVATIONS:
 10 YR: 45.13
 25 YR: 45.43
 50 YR: 45.69



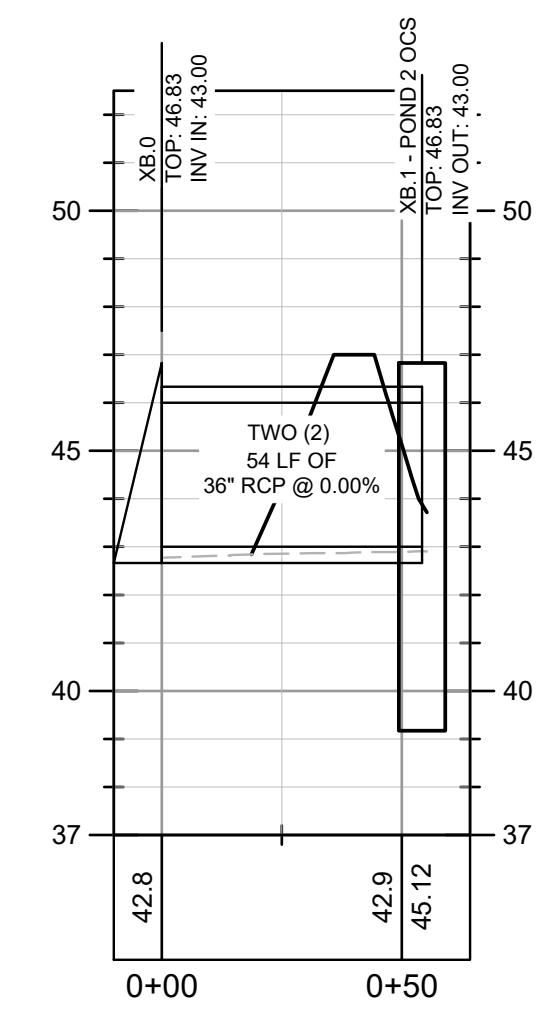
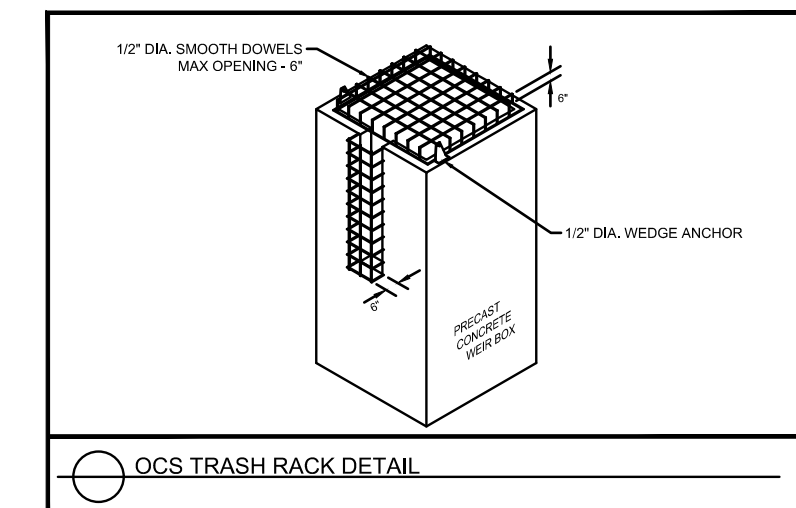
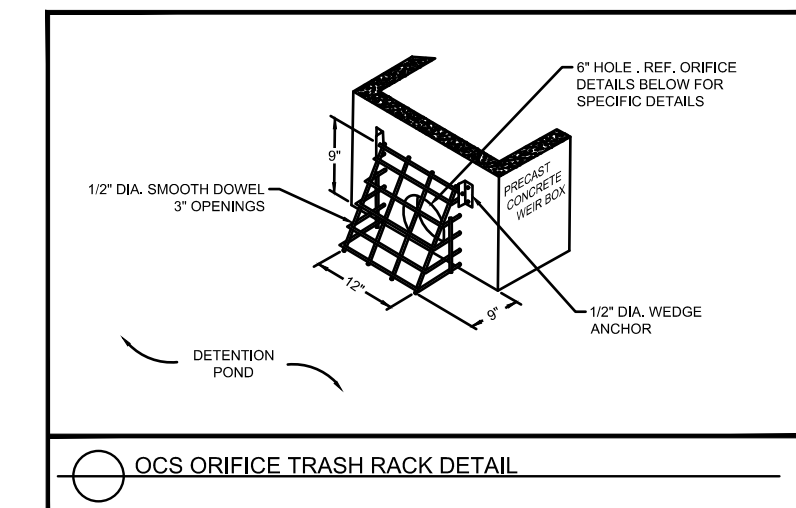
GRADING LEGEND:

950	EXISTING MAJOR CONTOUR
948	EXISTING MINOR CONTOUR
945	PROPOSED MAJOR CONTOUR
944	PROPOSED MINOR CONTOUR

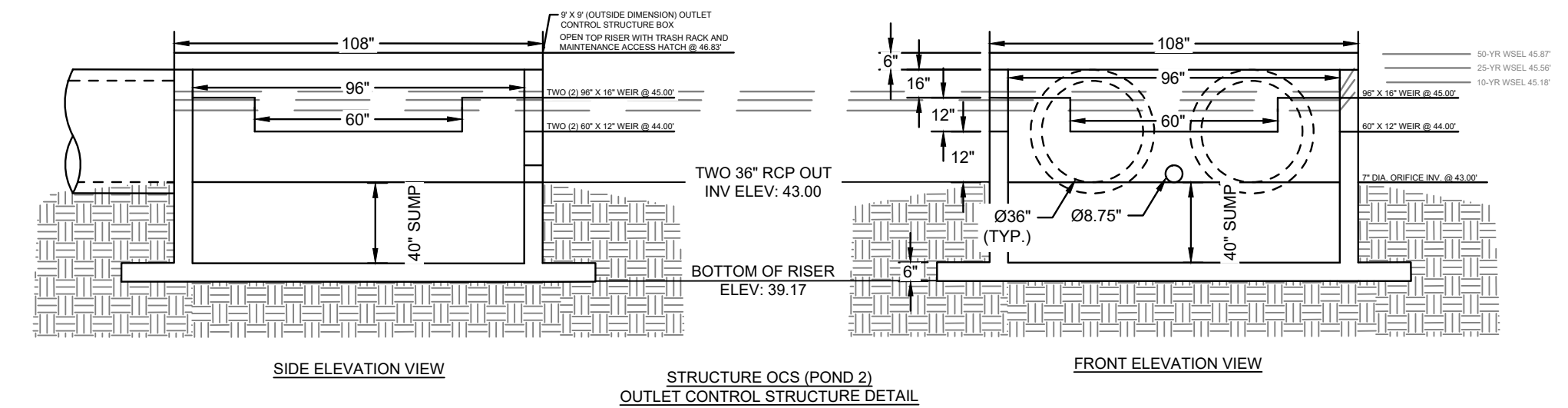
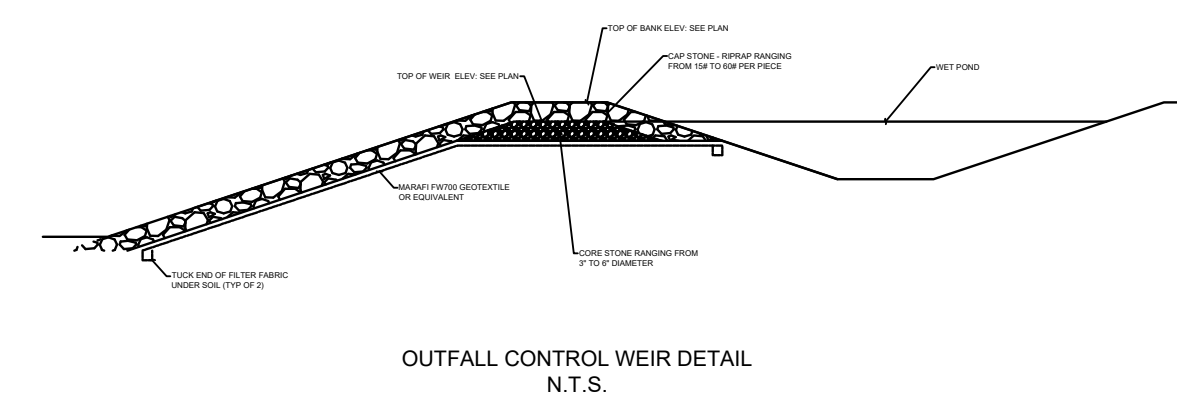
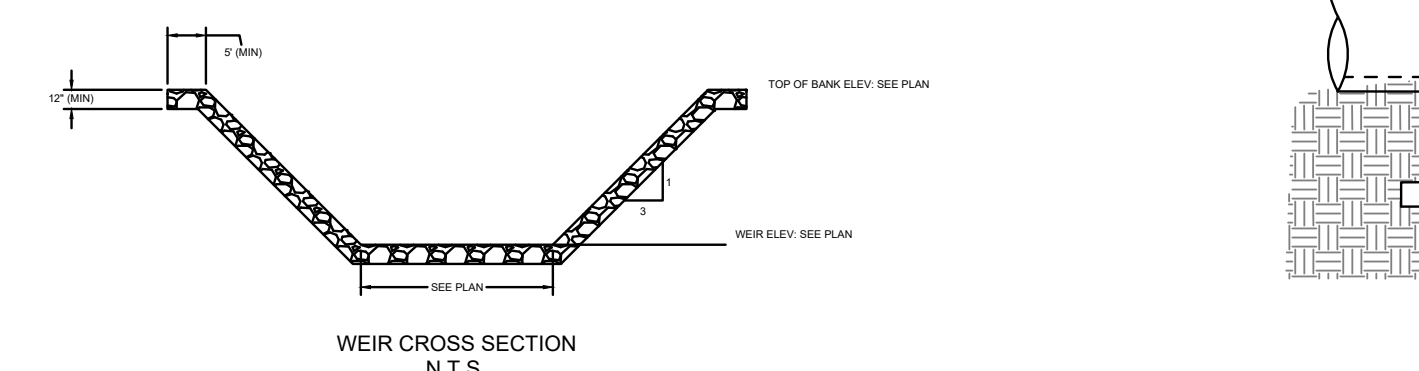
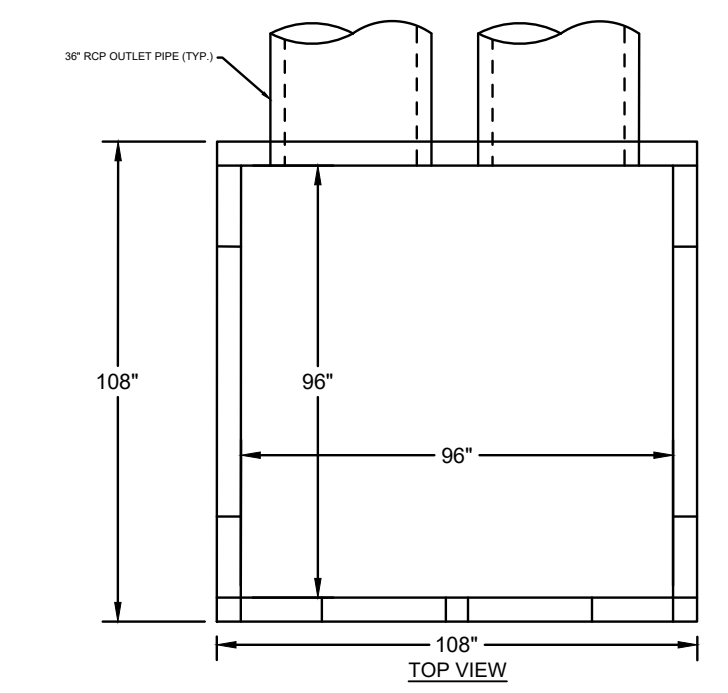
EMERGENCY SPILLWAY
 BOTTOM WIDTH: 10'
 INV: 46.50'
 3:1 SIDE SLOPES
 RIP RAP: 12" L x 12" W
 SEE DETAIL ON SAME SHEET

XB 0
 RIM: 46.83
 INV OUT: 43.00

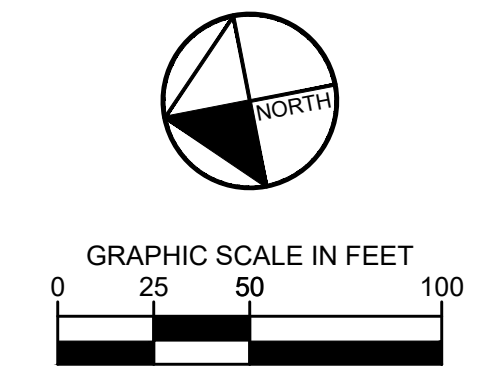
XB 1 - POND 2 OCS
 RIM: 46.83
 INV OUT: 43.00



PROFILE VIEW
 XB.0 TO XB.1
 1" = 40' HORZ.
 1" = 4' VERT.



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LOGAN DEVELOPERS INC.
 60 GREGORY ROAD (SUITE 1)
 BELVILLE, NC 28451
 PHONE: 910-507-2115

NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

BROOKFIELD BRANCH
 1038 HOOVER ROAD,
 HAMPSSTEAD, NC 28443
 3283-83-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

PROJECT NO. 014793000

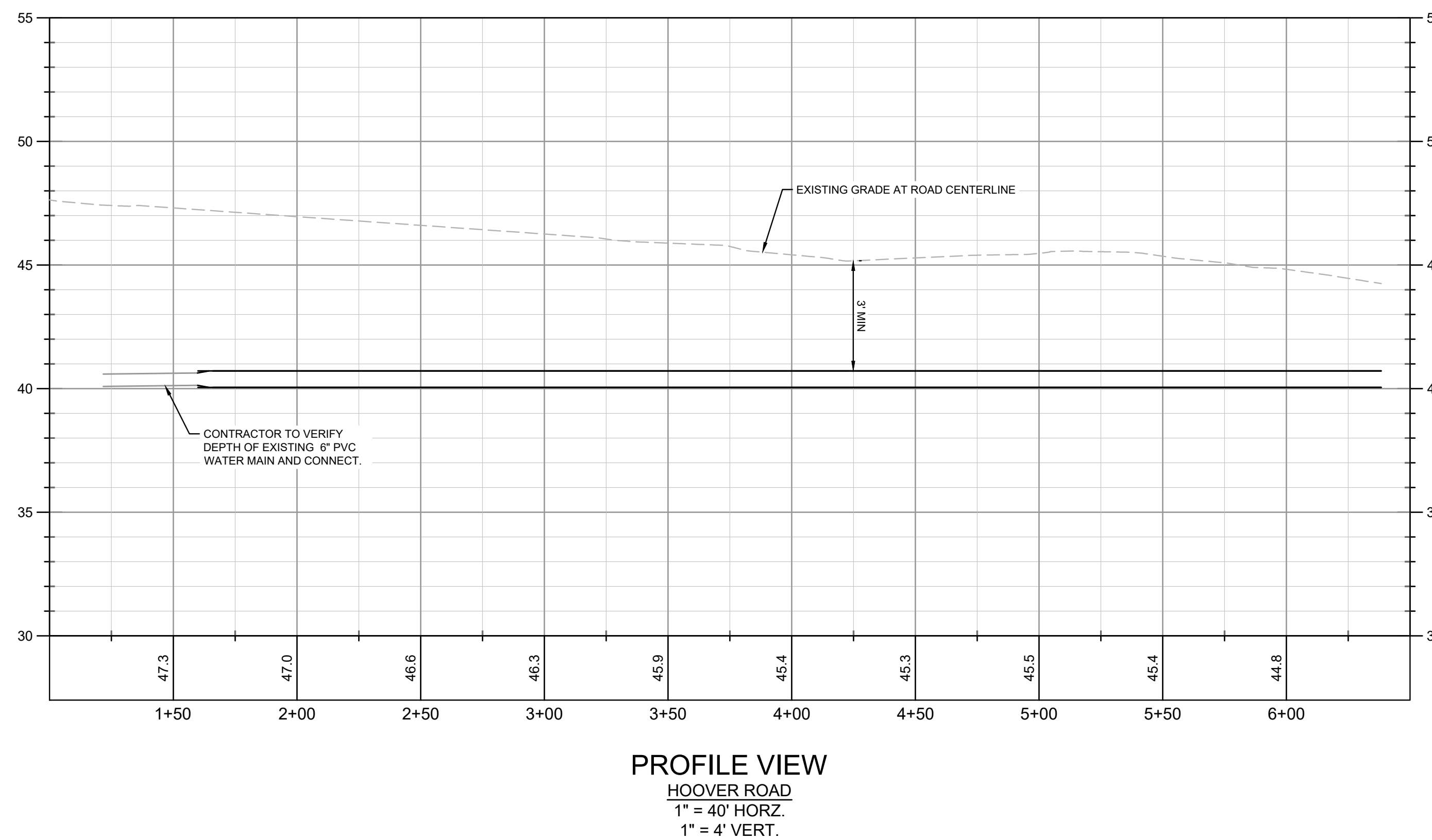
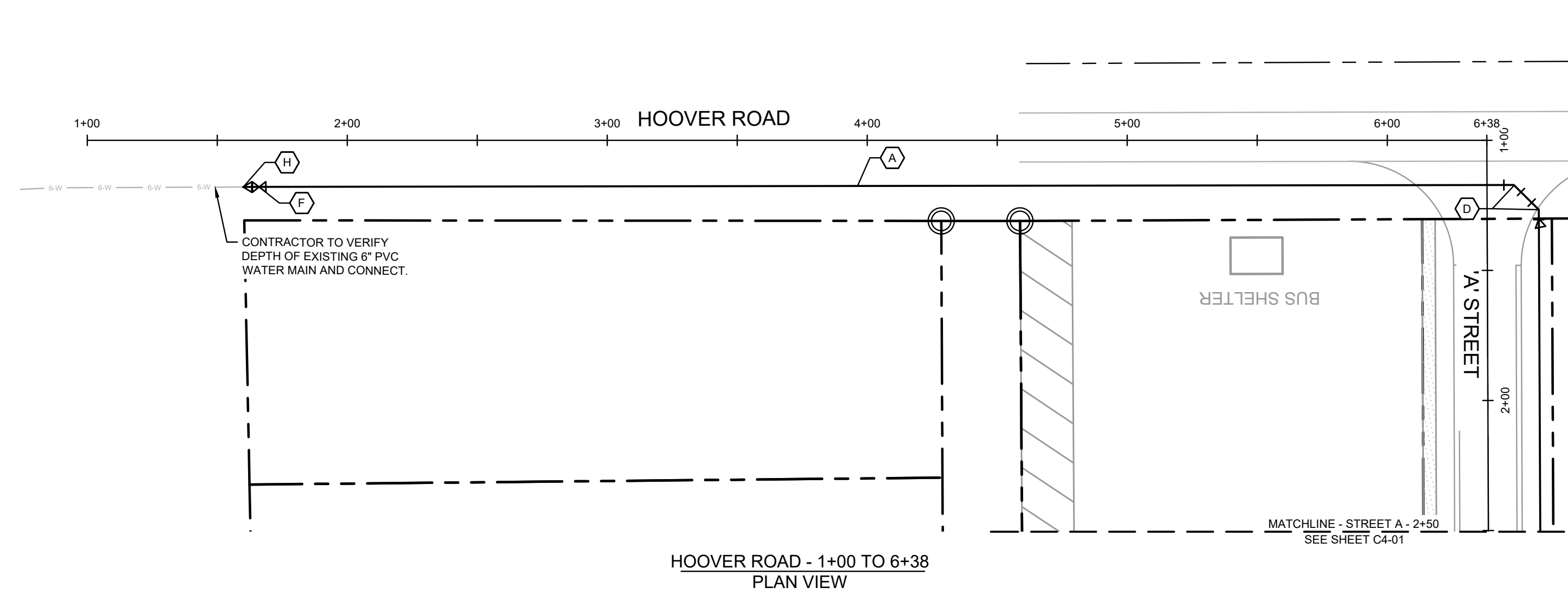
STORMWATER MANAGEMENT PLAN - POND 2

SHEET NUMBER
C3-81

DRAWN BY NJ
 DESIGNED BY NJ
 REVIEWED BY RW
 DATE 8/31/2023
 PROJECT NO. 014793000

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Drawing name: K:\SAV_Civil\14793000_Hoover Road SFR\CAD\PlanSheets\C4-50 - SANITARY SEWER PROFILES.dwg C4-50 UTILITY PLANS AND PROFILES Aug 31, 2023 10:11pm by Joe Giest



UTILITY PLAN AND PROFILE NOTES:

1. ALL PIPE LENGTHS SPECIFIED IN THESE PLANS ARE THE HORIZONTAL DISTANCE AND ARE SHOWN FOR REFERENCE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE ACTUAL LENGTHS BASED ON PROPOSED PIPE SLOPE. PIPE LENGTHS IN PLANS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
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3. ALL SANITARY SEWER PIPE SHALL BE INSTALLED PER PLURIS, LLC STANDARDS AND SPECIFICATIONS.
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PROFILE LINE LEGEND:

- PROPOSED GRADE LINE
- - - EXISTING GRADE LINE

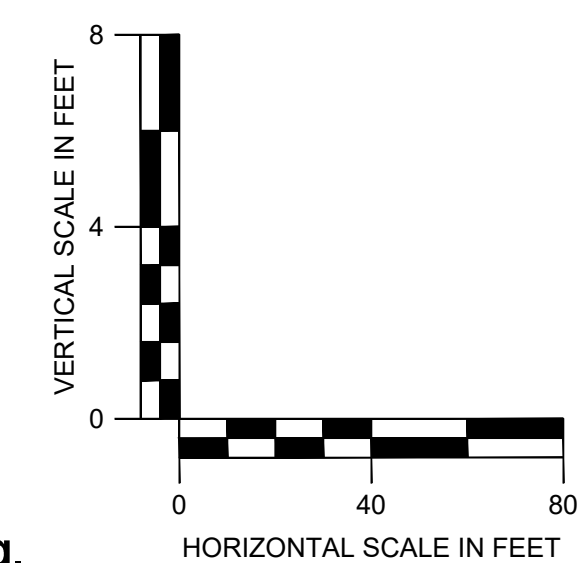
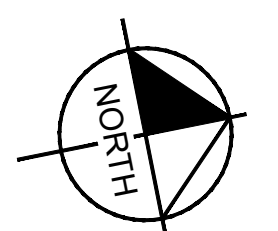
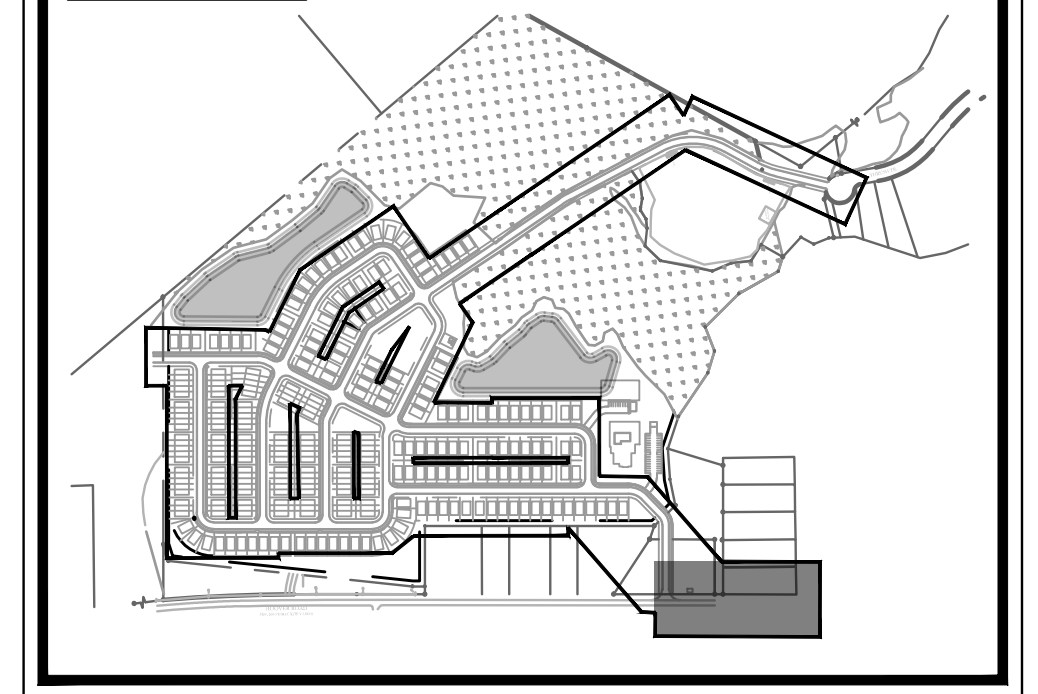
UTILITY LEGEND:

- w — PROPOSED WATER LINE
- ss — PROPOSED SANITARY SEWER PIPE
- PROPOSED SANITARY SEWER CLEANOUT
- ⊙ SANITARY SEWER MANHOLE
- ⊕ WATER VALVE
- ⊕ FDC FIRE DEPARTMENT CONNECTION (FDC)
- ⊕ FIRE HYDRANT
- ⊕ WATER MAIN TAPPING SLEEVE
- ⊕ WATER CONNECTIONS AND BENDS

WATER KEYNOTE LEGEND:

- (A) 8" C-900 (DR-18) PVC WATER MAIN
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- (C) 22.5° BEND
- (D) 45° BEND
- (E) 8" X 8" X 8" MJ TEE
- (F) 8" MJ GATE VALVE
- (G) FIRE HYDRANT ASSEMBLY
- (H) 8" X 6" REDUCER
- (I) 8" PLUG

KEYMAP:



Kimley»Horn
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25 BULL ST., SUITE 400
BELLEVILLE, NJ 07003
PHONE: (912) 231-4394
WWW.KIMLEY-HORN.COM

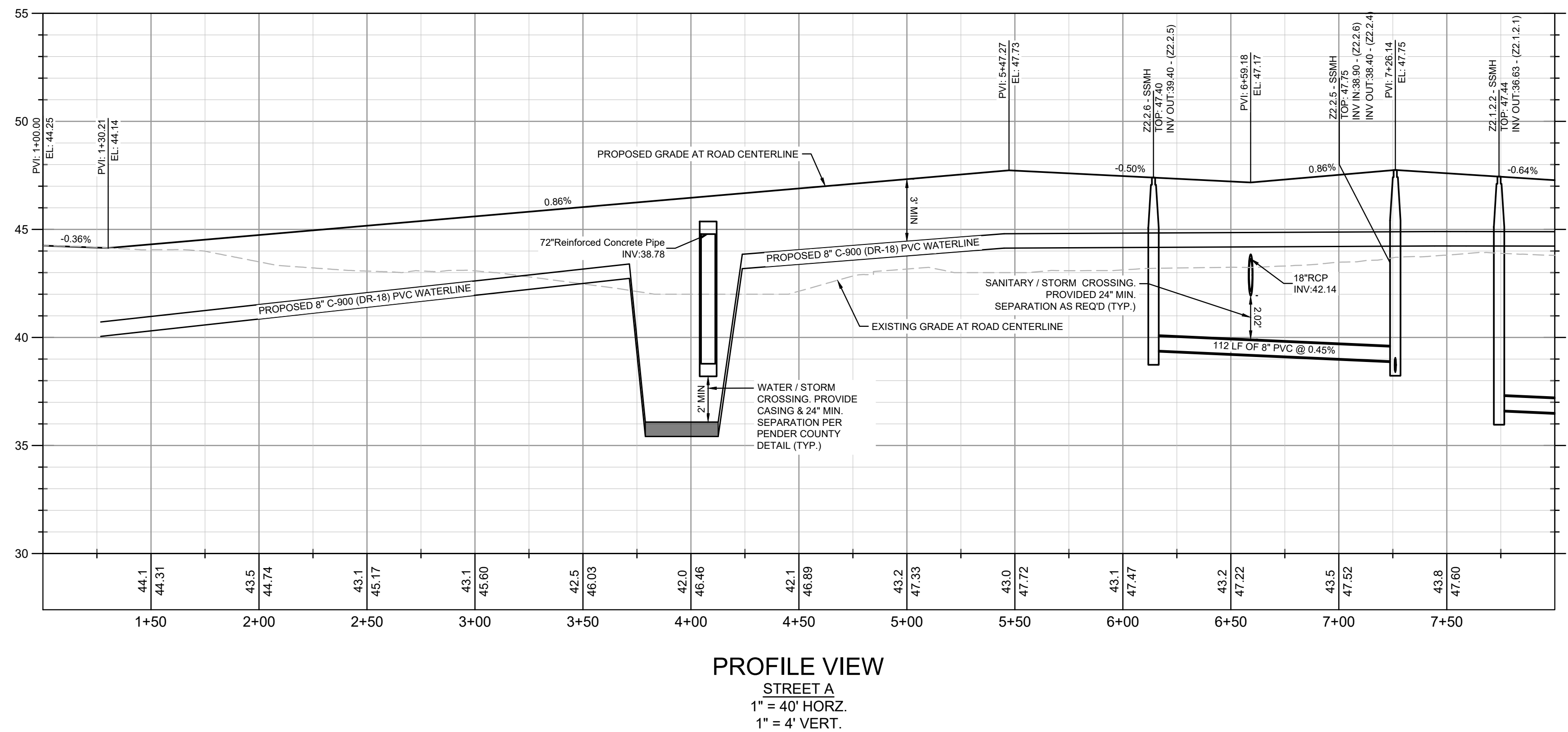
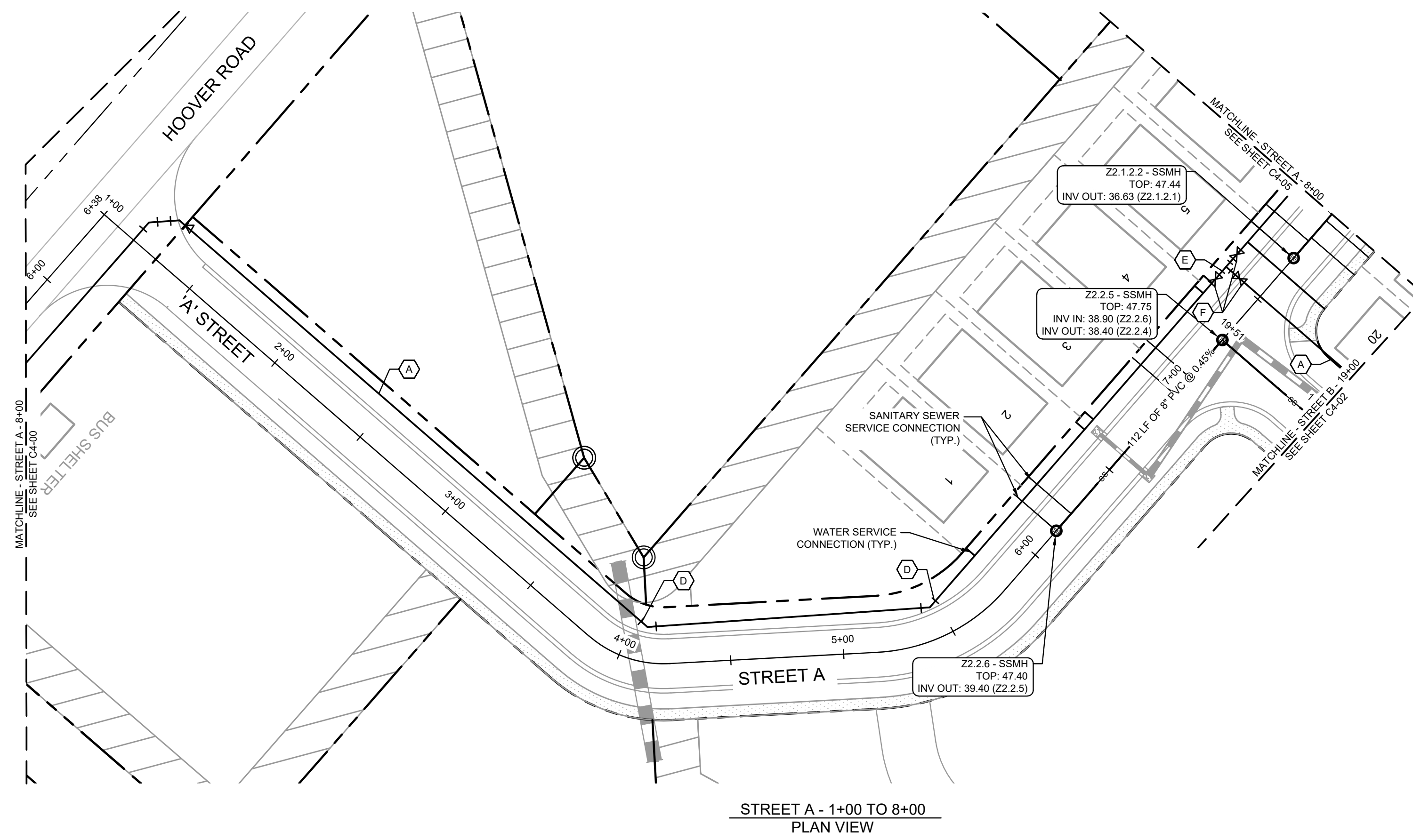
LOGAN DEVELOPERS INC.
60 GREGORY ROAD (SUITE 1)
BELVILLE, NC 28541
PHONE: 910-507-2115

NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

BROOKFIELD BRANCH
1038 HOOVER ROAD,
HAMPSHIRE, NC 28443
3283-85-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY: NJ
DESIGNED BY: NJ
REVIEWED BY: RW
DATE: 8/31/2023
PROJECT NO.: 014793000
TITLE: UTILITY PLANS AND PROFILES
SHEET NUMBER: C4-00

Drawing name: K:\SAV_Civil\14793000_Hoover Road SFRCAD\PlanSheets\C4-50 - SANITARY SEWER PROFILES.dwg C4-01 UTILITY PLANS AND PROFILES Aug 31, 2023 10:11pm by Joe Giest



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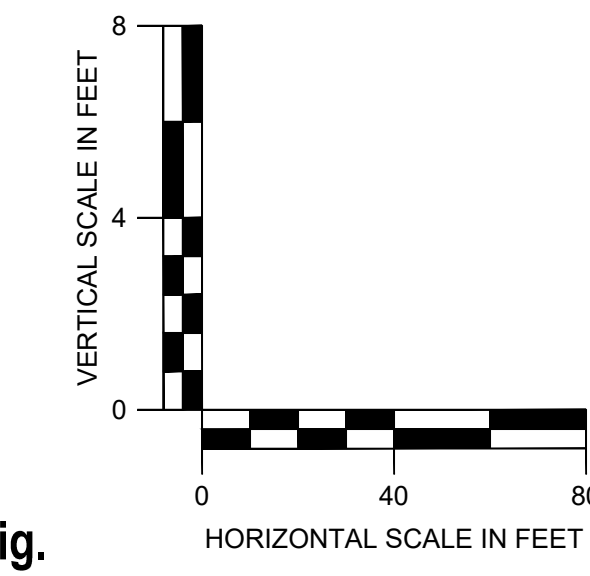
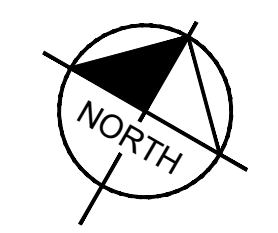
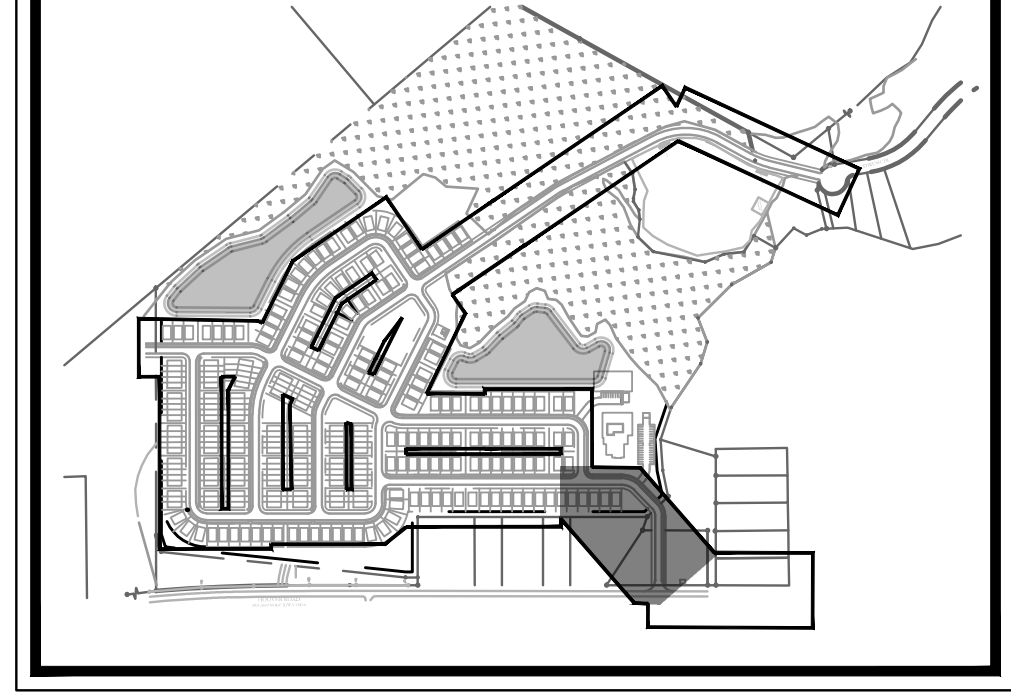
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KEYMAP:



Kimley Horn
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 25 BULL ST., SUITE 400
 BELLEVILLE, NC 28651
 PHONE: (912) 231-4384
 WWW.KIMLEY-HORN.COM

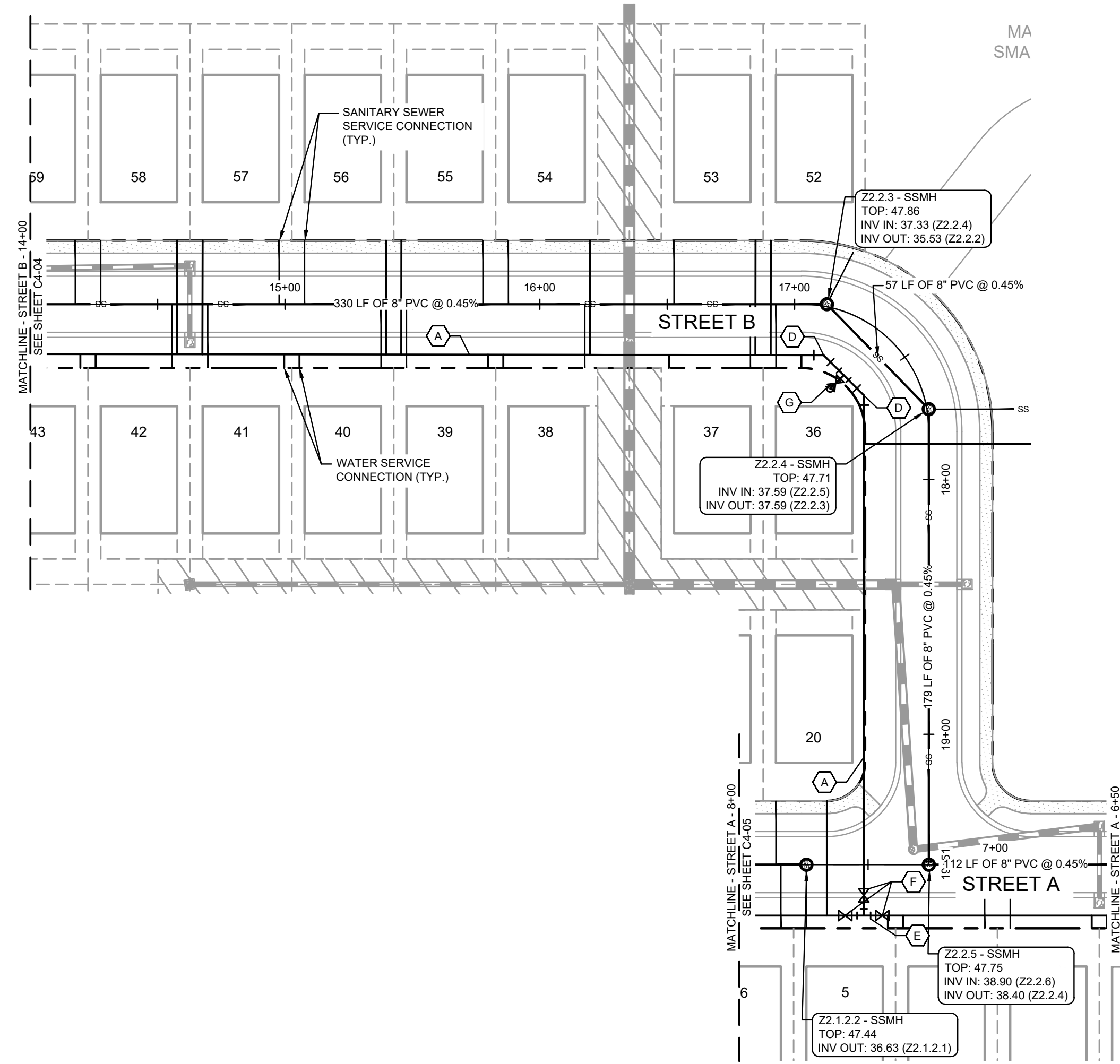
LOGAN DEVELOPERS INC.
 60 GREGORY ROAD (SUITE 1)
 BELVILLE, NC 28651
 PHONE: 910-507-2115

NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

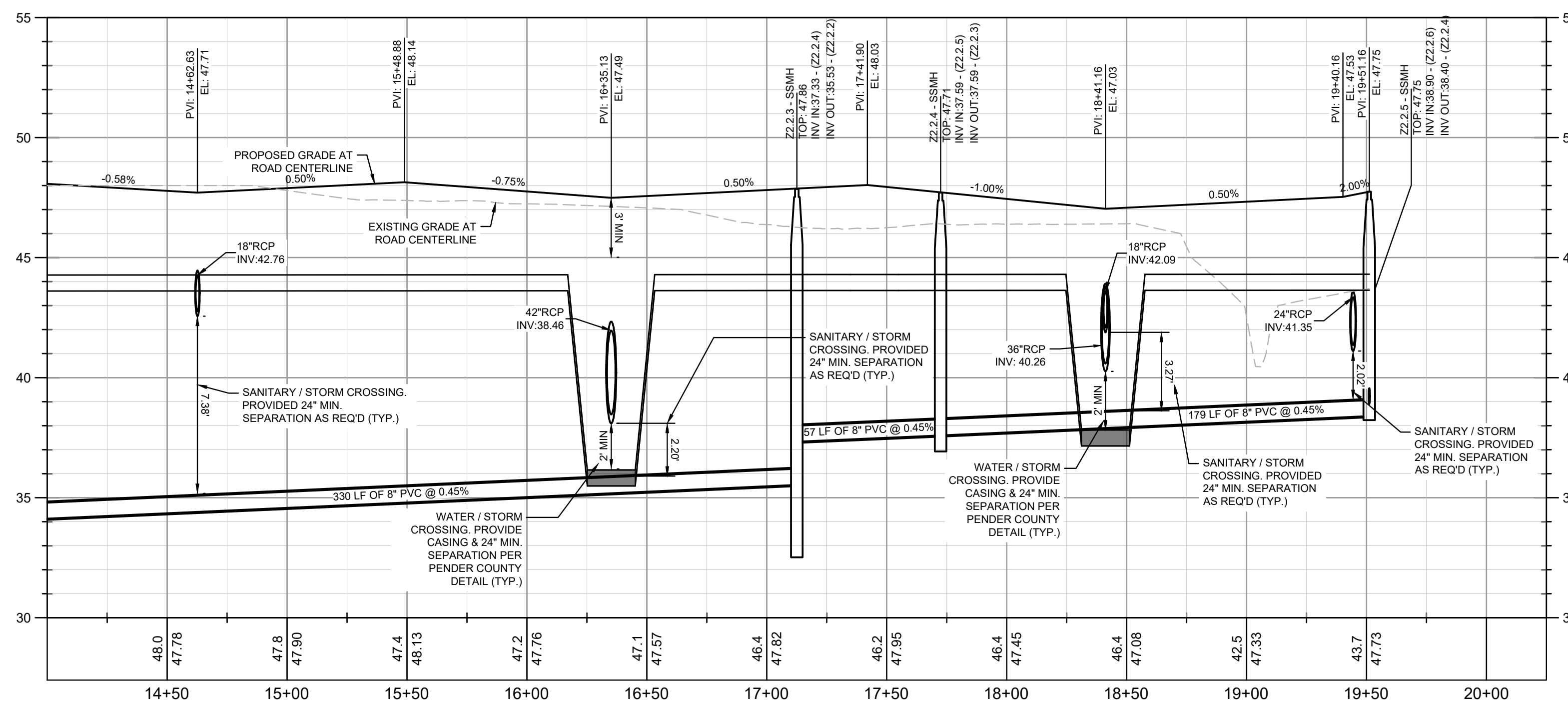
BROOKFIELD BRANCH
 1038 HOOVER ROAD,
 HAMPSHIRE, NC 28643
 3283-83-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY NJ
 DESIGNED BY NJ
 REVIEWED BY RW
 DATE 8/31/2023
 PROJECT NO. 014793000
 TITLE
UTILITY PLANS AND PROFILES
 SHEET NUMBER
C4-01

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STREET B - 14+00 TO 19+51
PLAN VIEW



PROFILE VIEW
STREET B
1" = 40' HORZ.
1" = 4' VERT.

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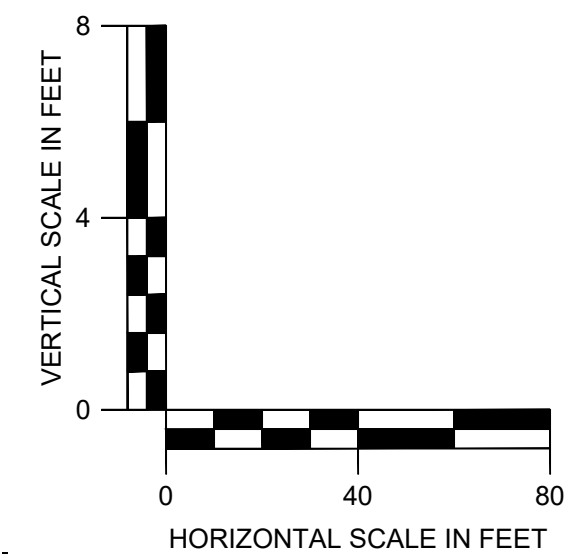
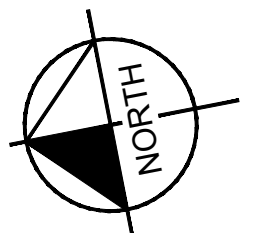
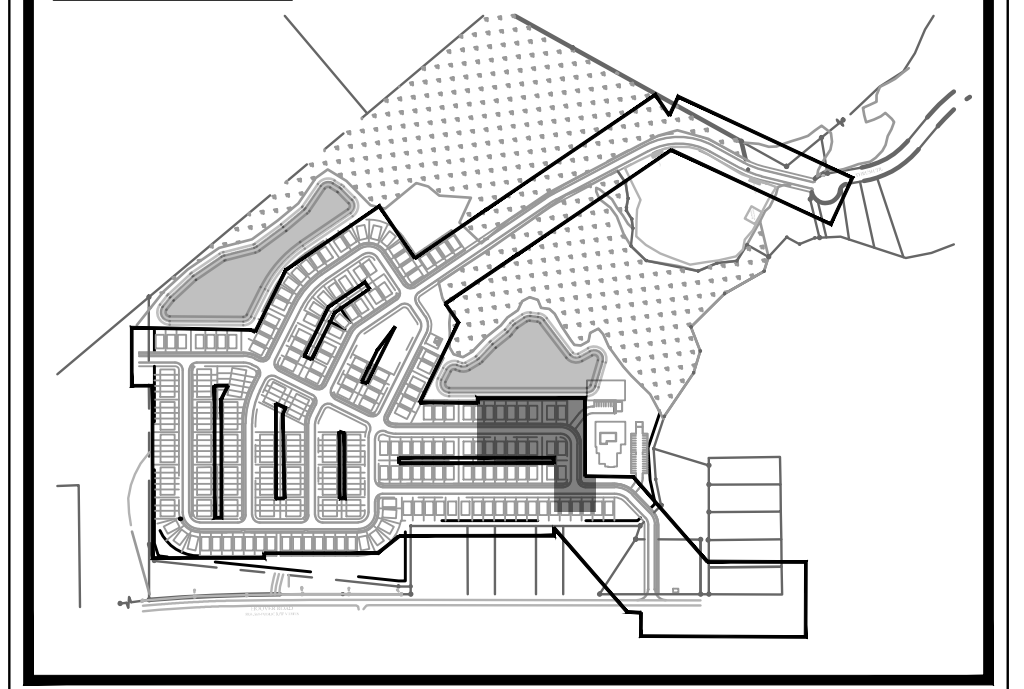
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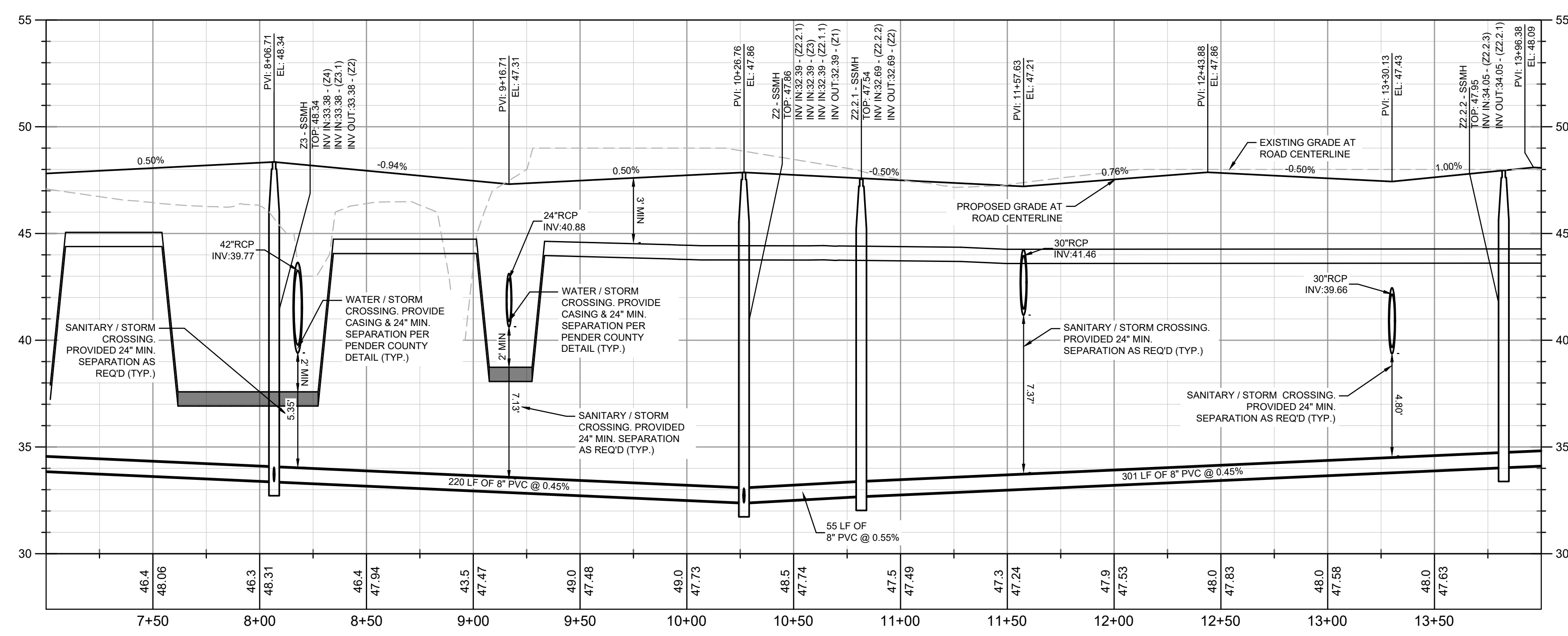
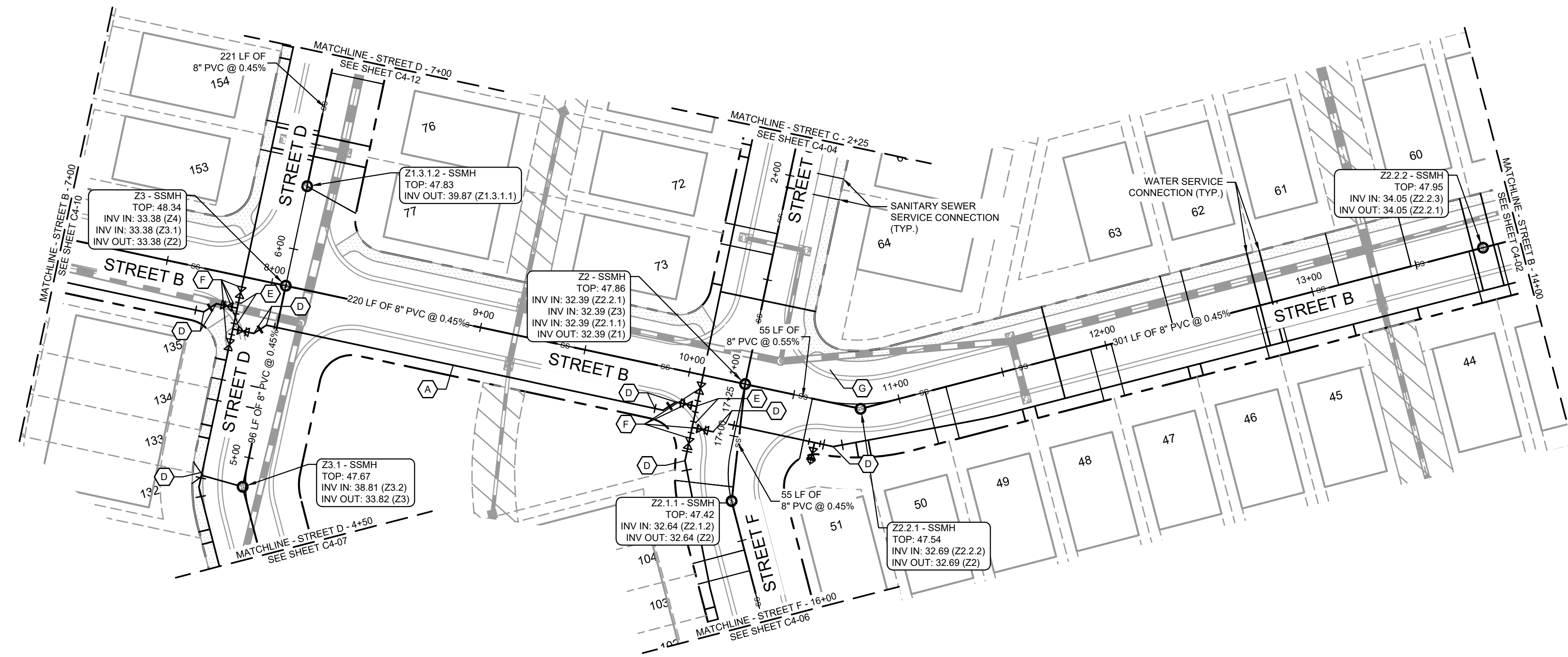
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KEYMAP:



NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY



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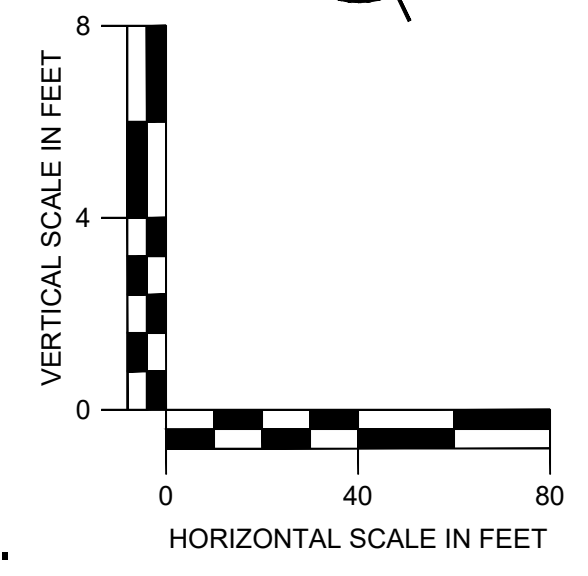
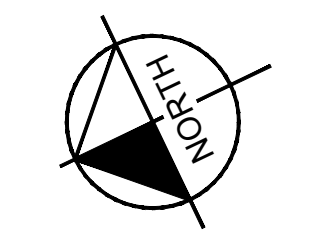
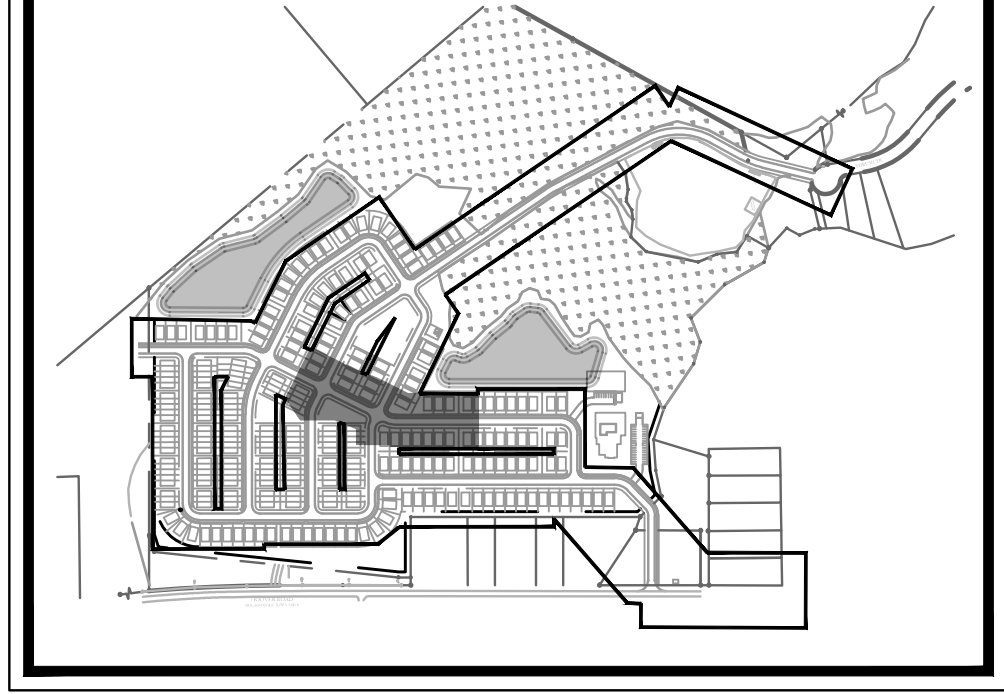
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KEYMAP:



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

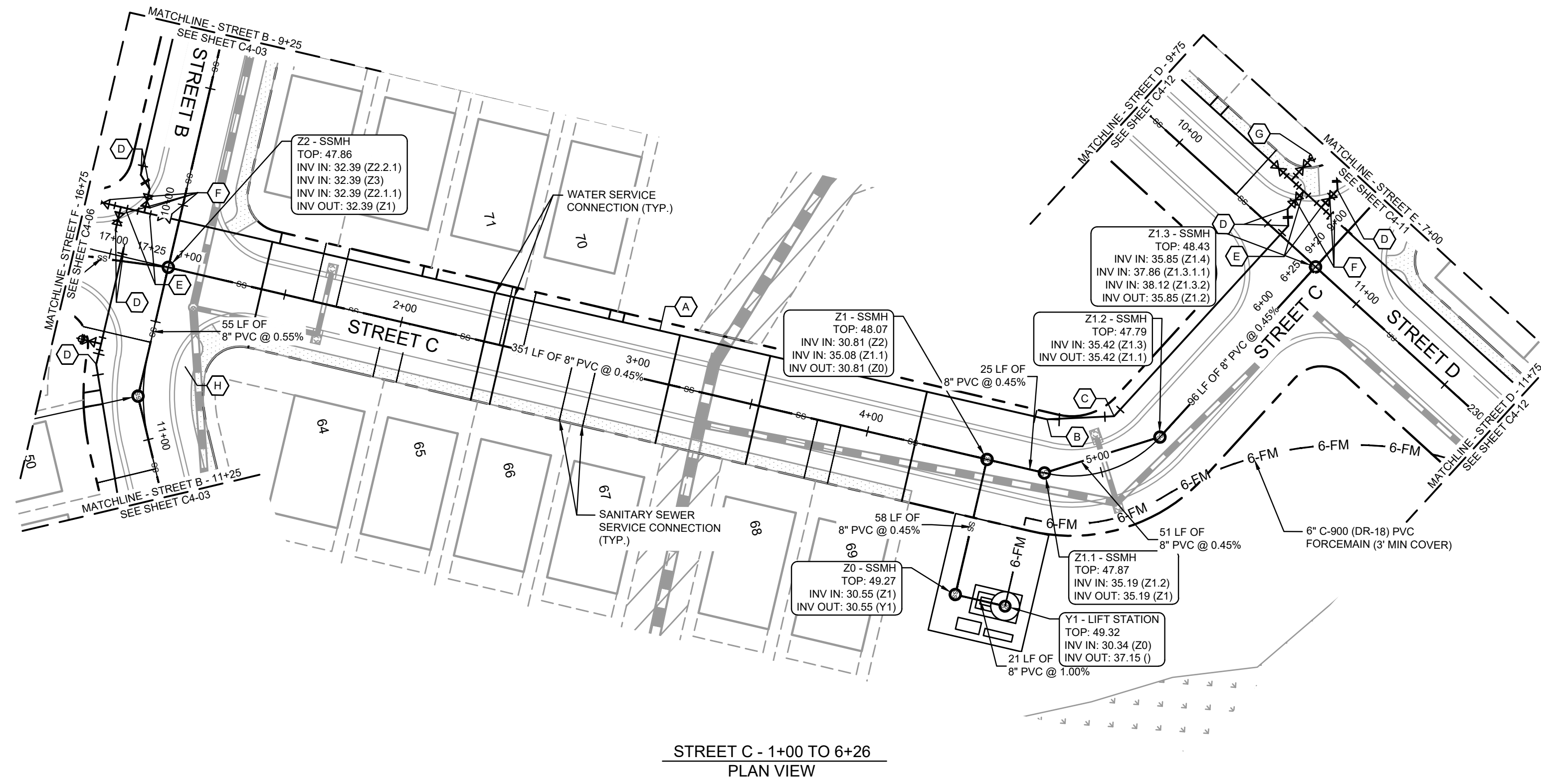
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HAMPSTEAD, NC 28443
PHONE: (912) 231-4384
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60 GREGORY ROAD (SUITE 1)
BELVILLE, NC 28451
PHONE: 910-507-2115

NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

BROOKFIELD BRANCH
1038 HOOVER ROAD,
HAMPSTEAD, NC 28443
3283-85-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

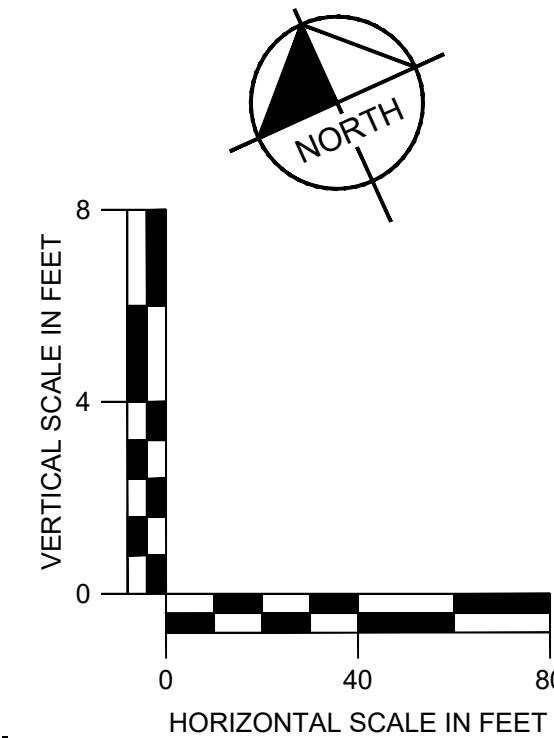
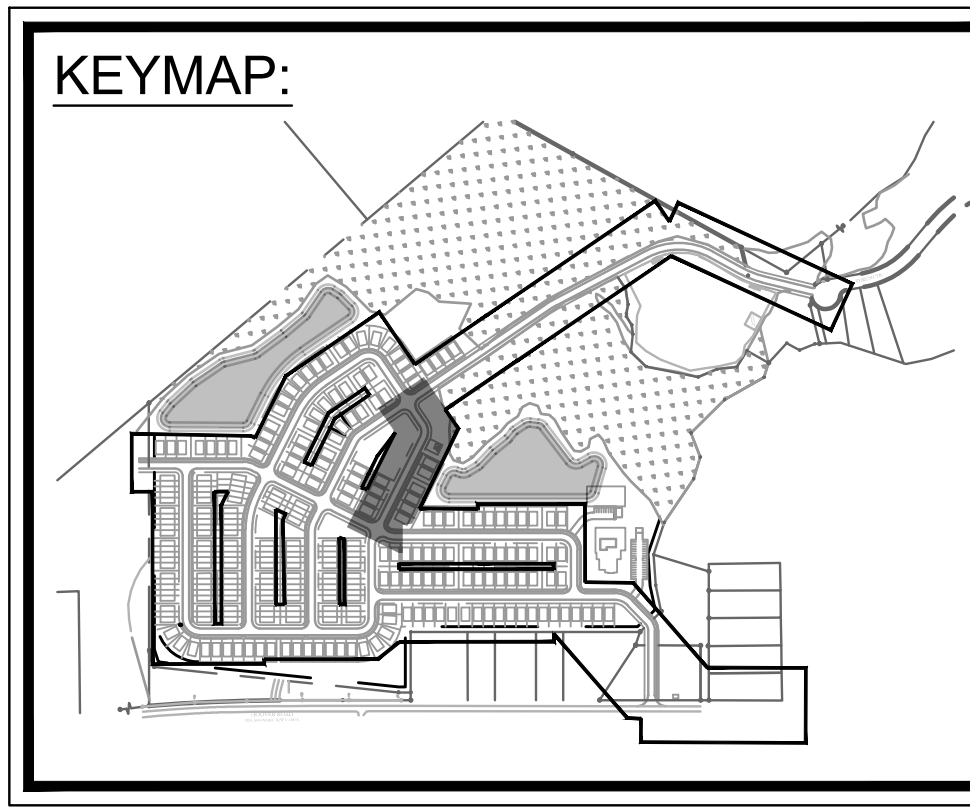
DRAWN BY: NJ
DESIGNED BY: NJ
REVIEWED BY: RW
DATE: 8/31/2023
PROJECT NO.: 014793000
TITLE: UTILITY PLANS AND PROFILES
SHEET NUMBER: C4-03



- ### PROFILE LINE LEGEND:
- PROPOSED GRADE LINE
 - - - EXISTING GRADE LINE

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 - ⊙ — SANITARY SEWER MANHOLE
 - ⊕ — WATER VALVE
 - ⊕ — FIRE DEPARTMENT CONNECTION (FDC)
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811
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PHONE: (912) 231-4384
WWW.KIMLEY-HORN.COM

PREPARED FOR

LOGAN DEVELOPERS INC.
60 GREGORY ROAD (SUITE 1)
BEHAVIOR, NC 28641
PHONE: 910-507-2115

PROJECT

BROOKFIELD BRANCH
1038 HOOVER ROAD,
HAMPSHIRE, NC 28443
3283-85-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY

NJ

DESIGNED BY

NJ

REVIEWED BY

RW

DATE

8/31/2023

PROJECT NO.

014793000

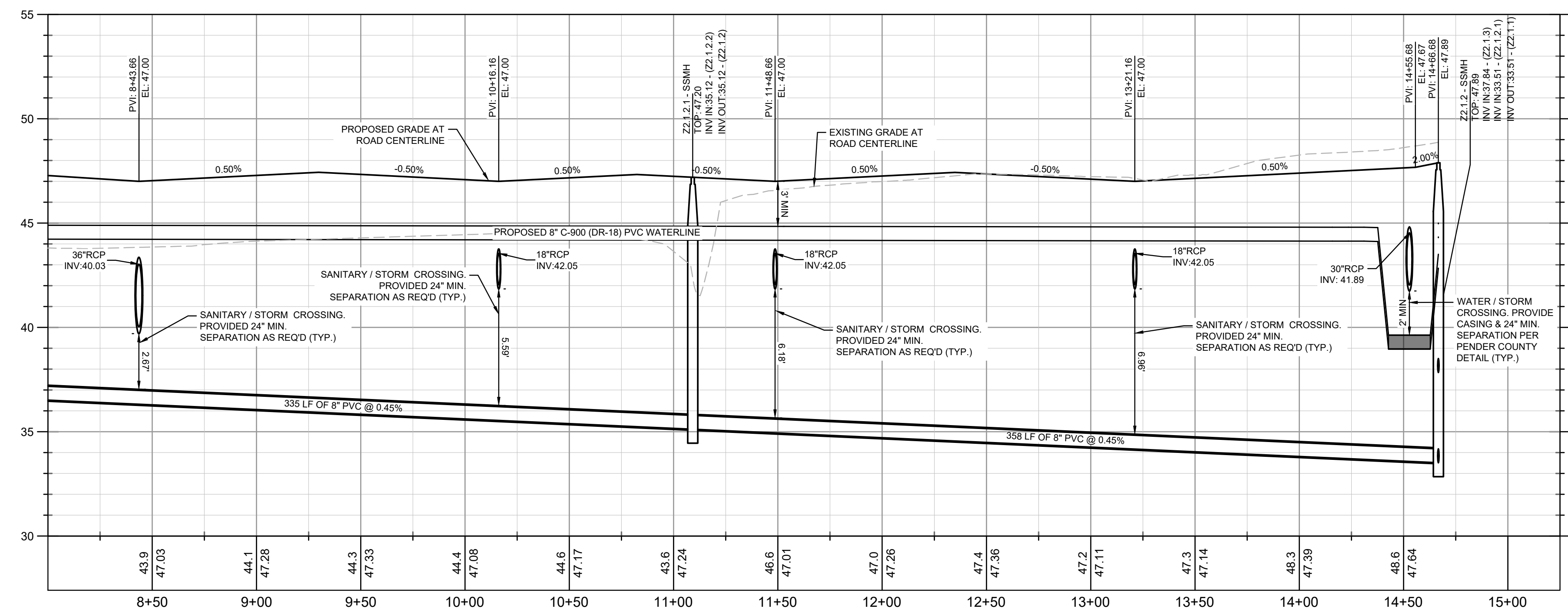
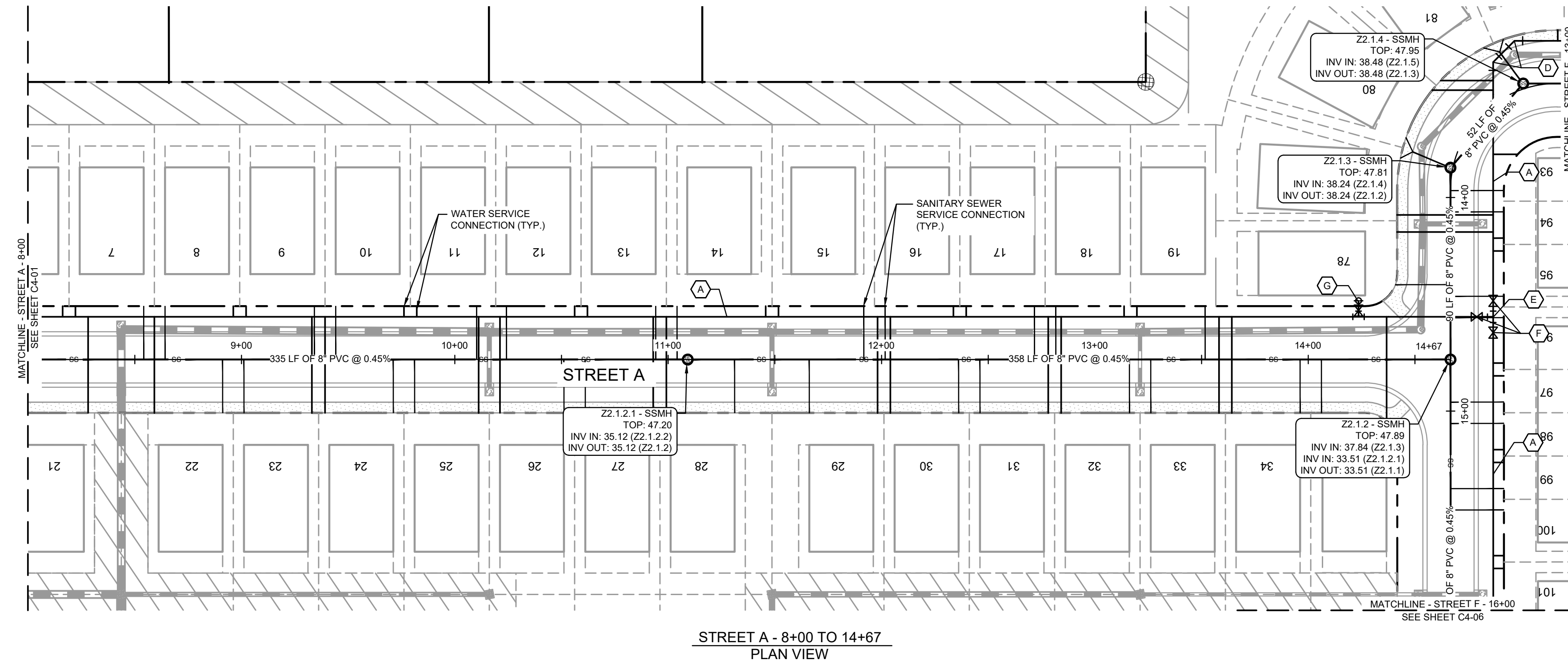
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UTILITY PLANS AND PROFILES

SHEET NUMBER

C4-04

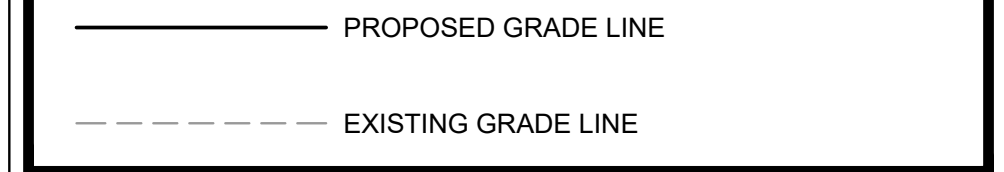
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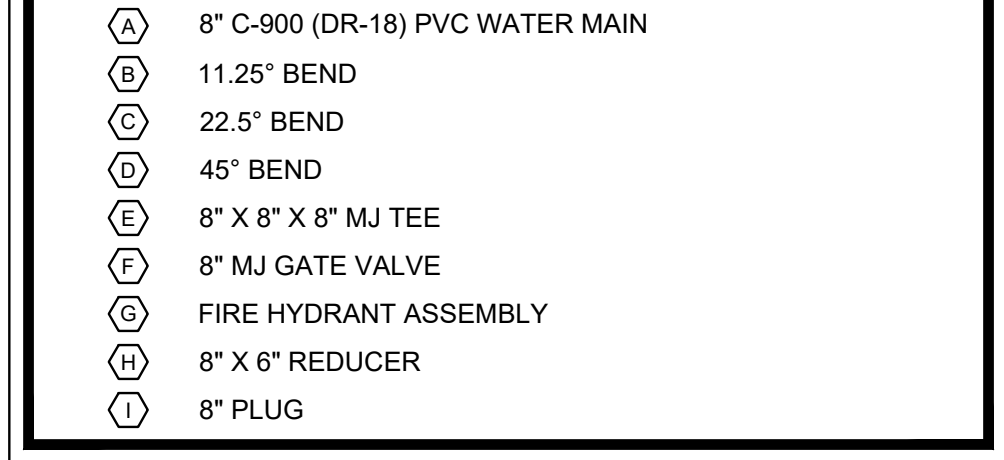
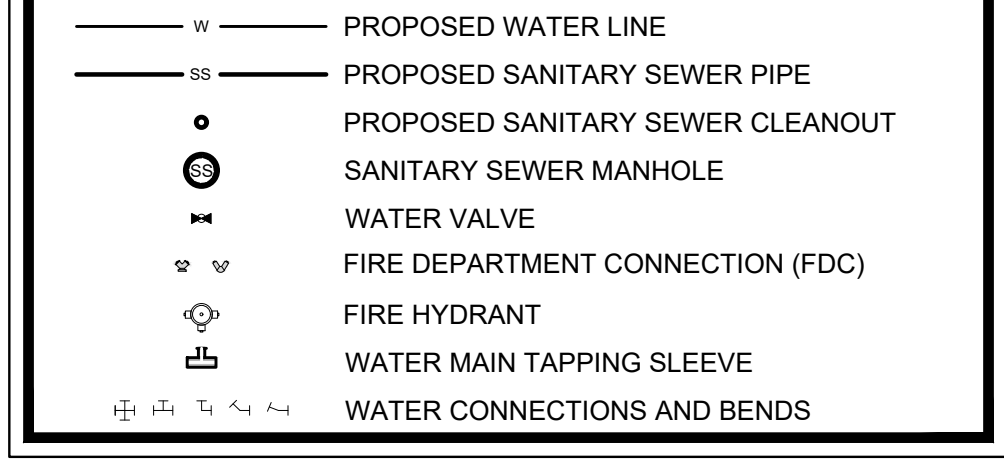
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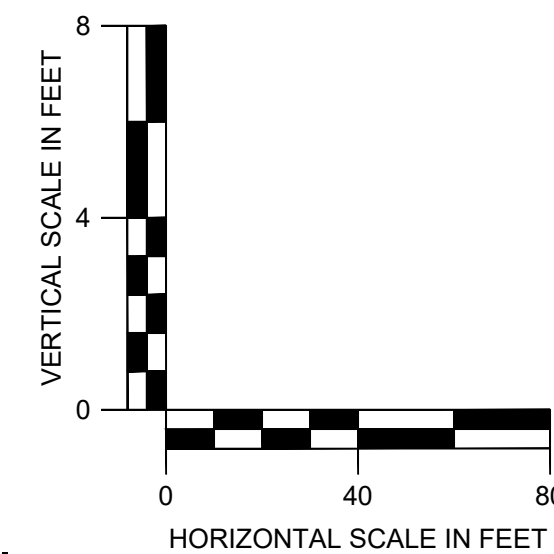
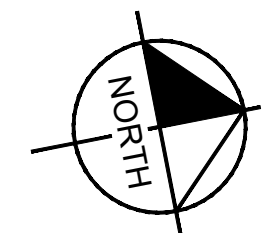
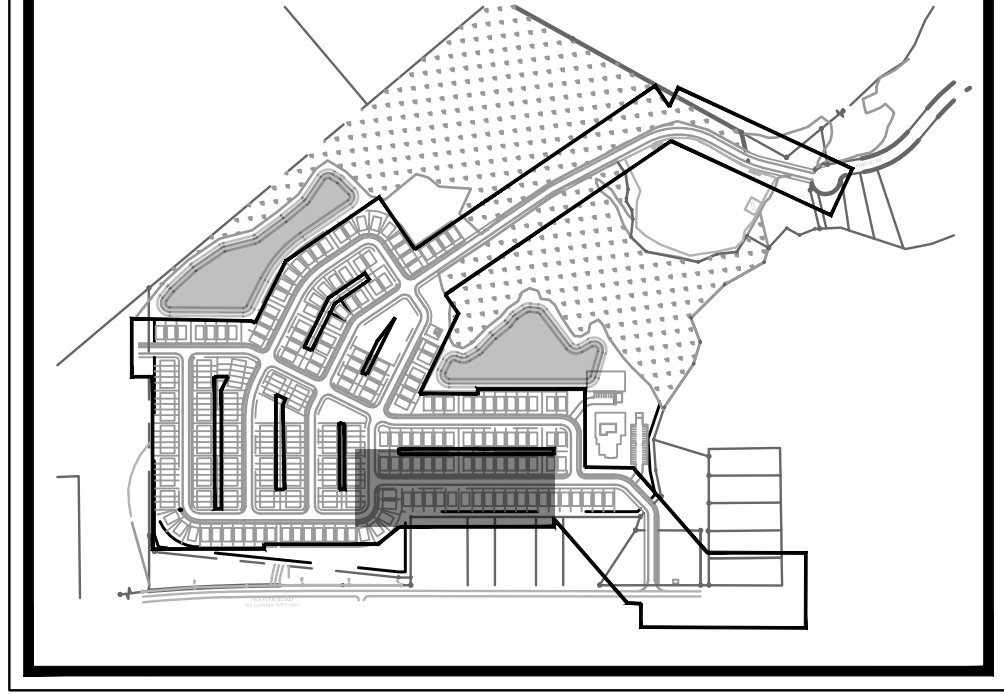
PROFILE LINE LEGEND:



UTILITY LEGEND:



KEYMAP:



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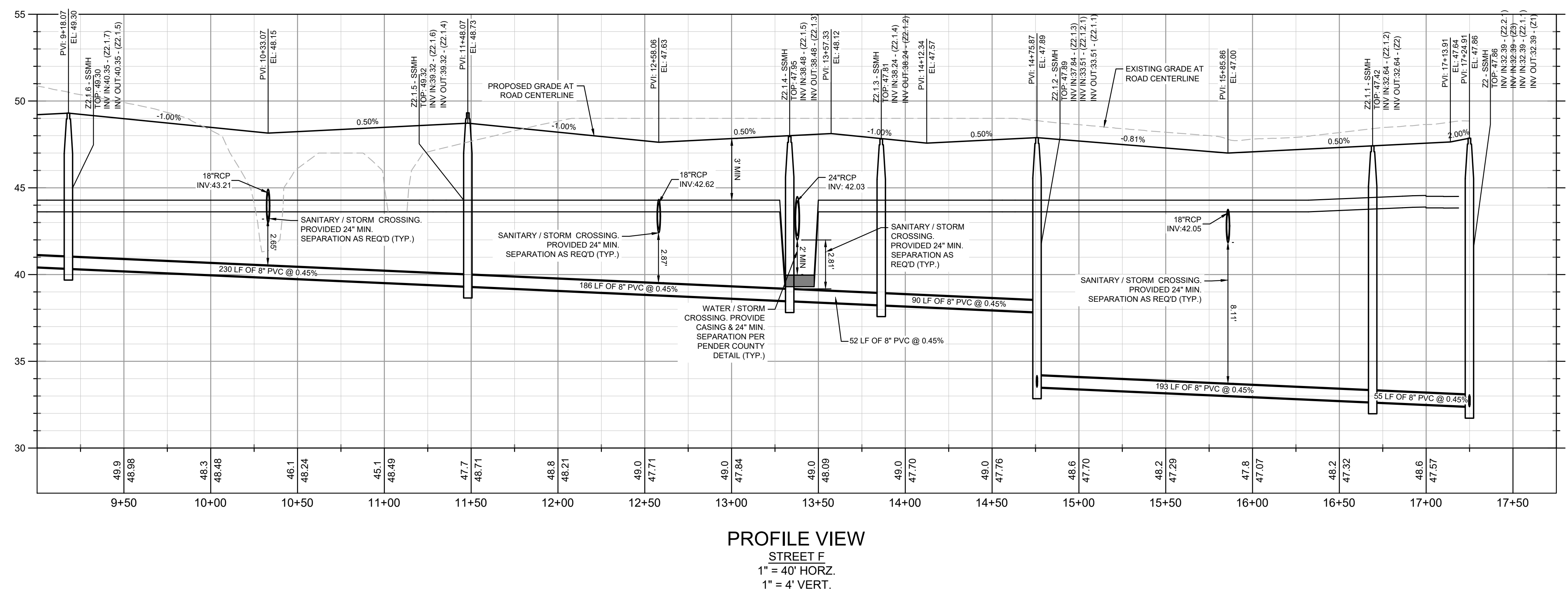
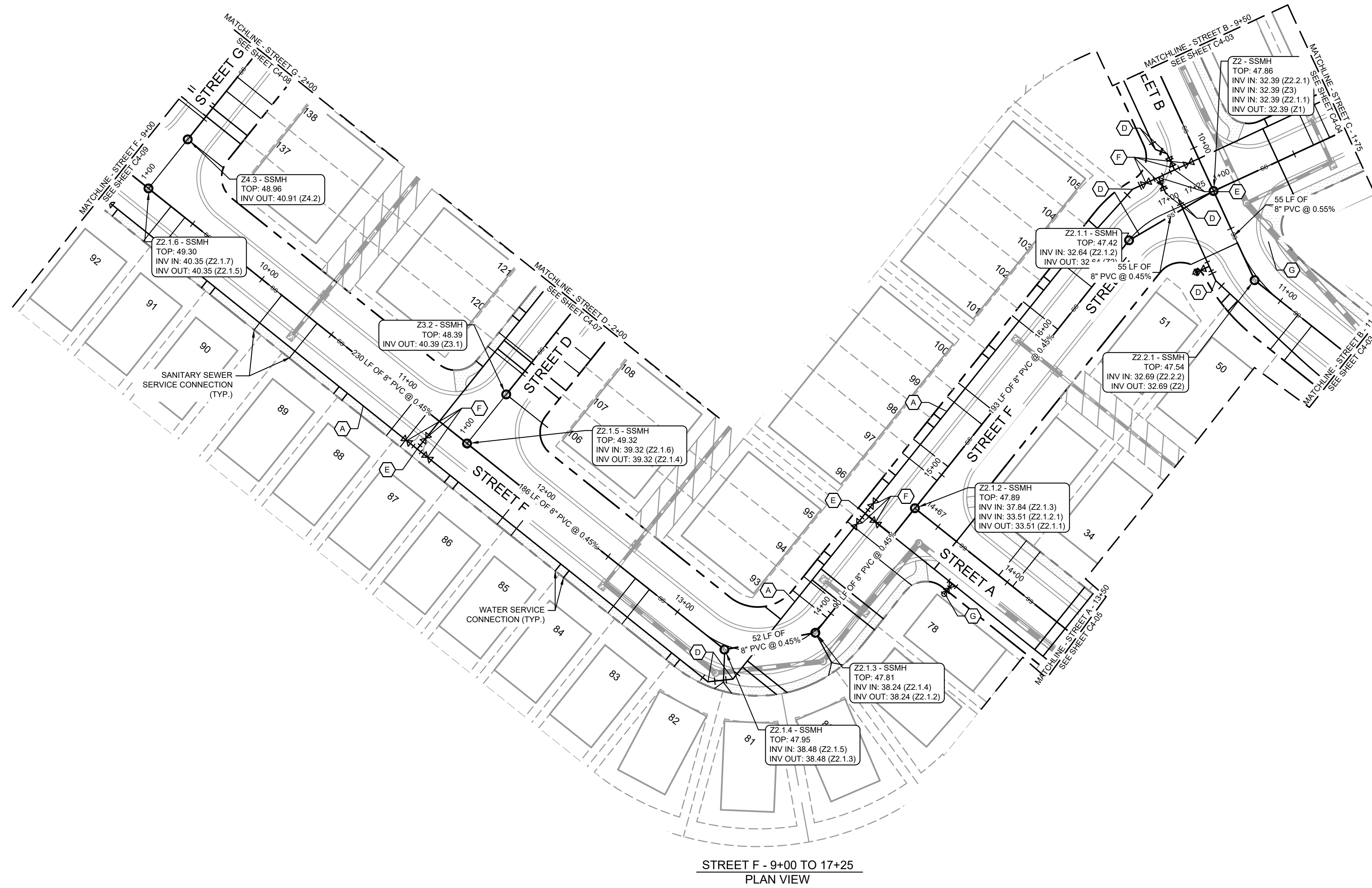
NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

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TITLE: UTILITY PLANS AND PROFILES
SHEET NUMBER: **C4-05**

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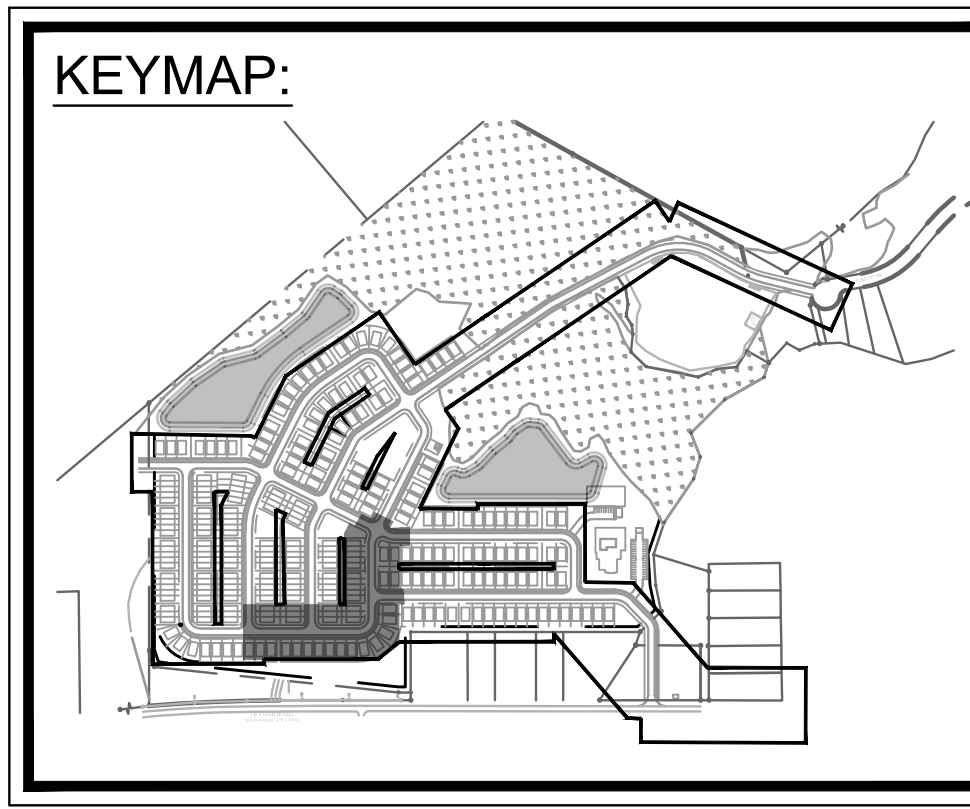


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- ### PROFILE LINE LEGEND:
- PROPOSED GRADE LINE
 - - - EXISTING GRADE LINE

- ### UTILITY LEGEND:
- w — PROPOSED WATER LINE
 - ss — PROPOSED SANITARY SEWER PIPE
 - — PROPOSED SANITARY SEWER CLEANOUT
 - ⊙ SANITARY SEWER MANHOLE
 - ⊕ WATER VALVE
 - ⊕ FIRE DEPARTMENT CONNECTION (FDC)
 - ⊕ FIRE HYDRANT
 - ⊕ WATER MAIN TAPPING SLEEVE
 - ⊕ WATER CONNECTIONS AND BENDS

- ### WATER KEYNOTE LEGEND:
- (A) 8" C-900 (DR-18) PVC WATER MAIN
 - (B) 11.25° BEND
 - (C) 22.5° BEND
 - (D) 45° BEND
 - (E) 8" X 8" X 8" MJ TEE
 - (F) 8" MJ GATE VALVE
 - (G) FIRE HYDRANT ASSEMBLY
 - (H) 8" X 6" REDUCER
 - (I) 8" PLUG



VERTICAL SCALE IN FEET

HORIZONTAL SCALE IN FEET

811
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BELLEVILLE, NC 28451
PHONE: (912) 231-4341
WWW.KIMLEY-HORN.COM

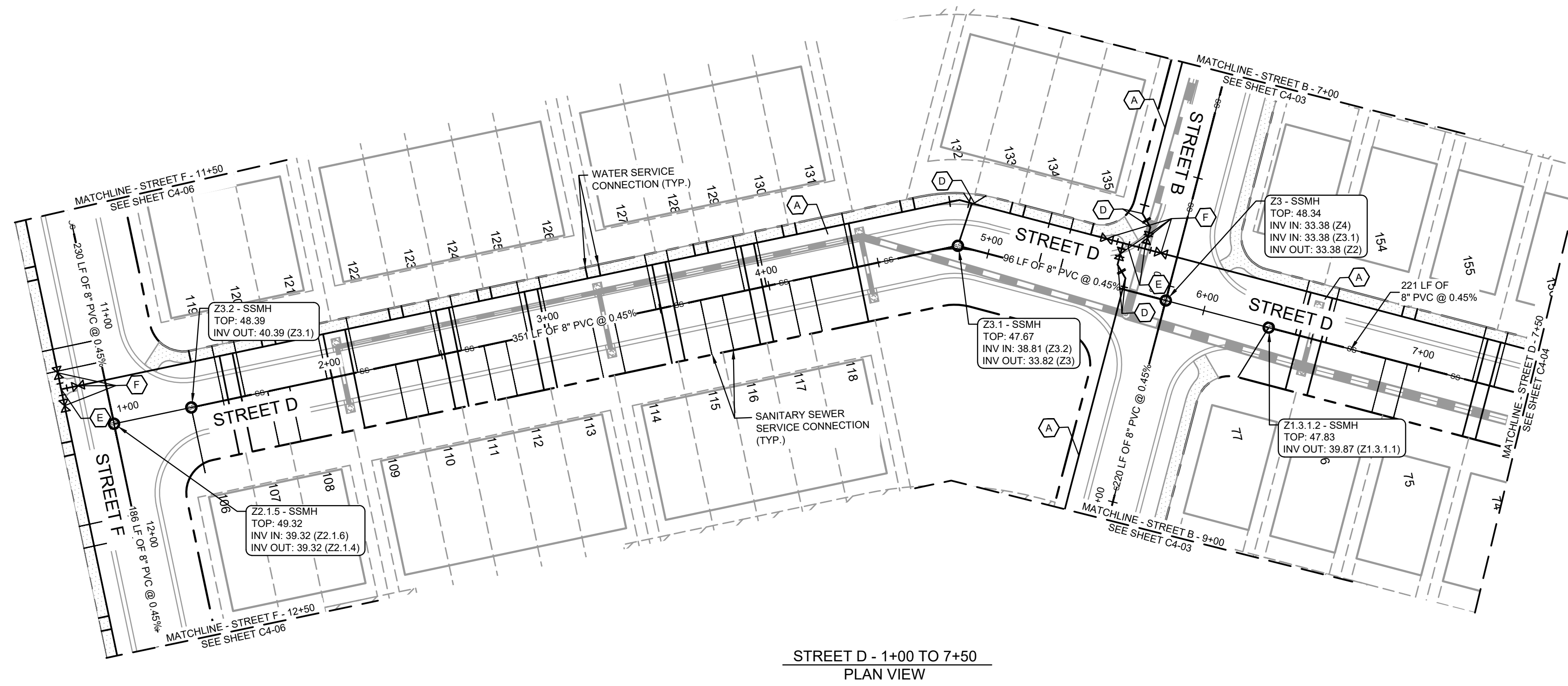
PROJECT: **LOGAN DEVELOPERS INC.**
60 GREGORY ROAD (SUITE 1)
BELVILLE, NC 28451
PHONE: 910-507-2115

NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

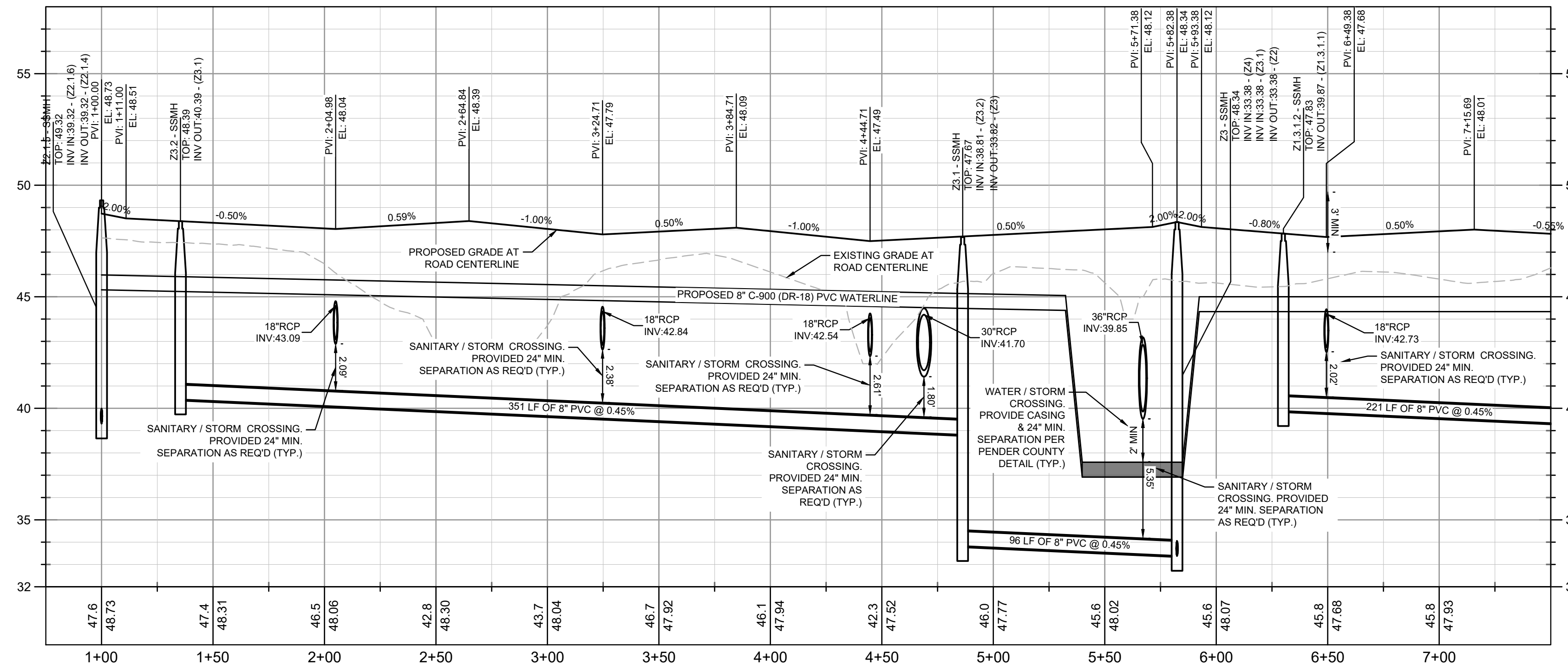
PROJECT: **BROOKFIELD BRANCH**
1038 HOOVER ROAD,
HAMPSHIRE, NC 28443
3283-85-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY: NJ
DESIGNED BY: NJ
REVIEWED BY: RW
DATE: 8/31/2023
PROJECT NO.: 014793000
TITLE: **UTILITY PLANS AND PROFILES**
SHEET NUMBER: **C4-06**

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STREET D - 1+00 TO 7+50
PLAN VIEW



PROFILE VIEW
STREET D
1" = 40' HORZ.
1" = 4' VERT.

UTILITY PLAN AND PROFILE NOTES:

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PROFILE LINE LEGEND:

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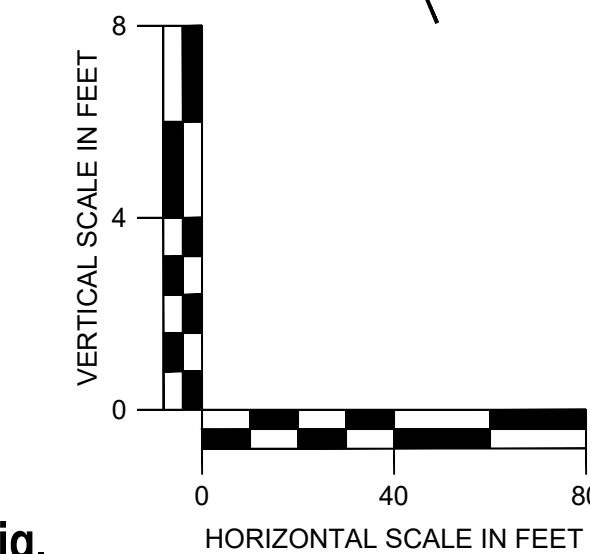
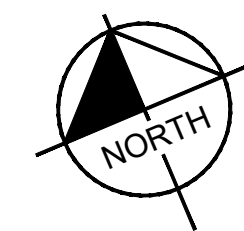
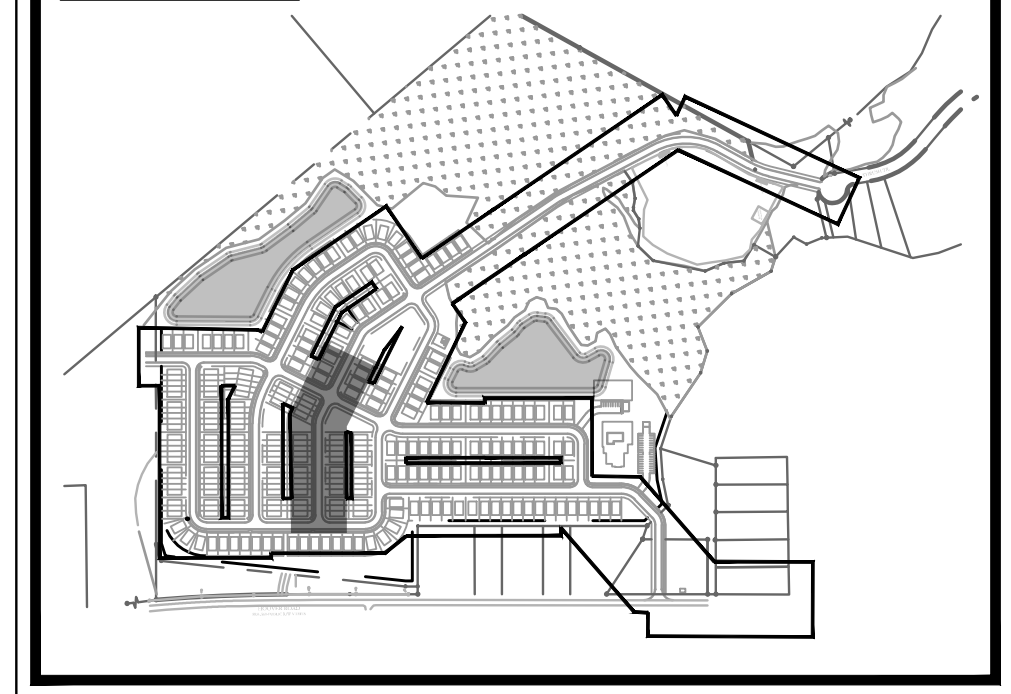
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- ⊙ — SANITARY SEWER MANHOLE
- ⊕ — WATER VALVE
- ⊕ — FIRE DEPARTMENT CONNECTION (FDC)
- ⊕ — FIRE HYDRANT
- ⊕ — WATER MAIN TAPPING SLEEVE
- ⊕ — WATER CONNECTIONS AND BENDS

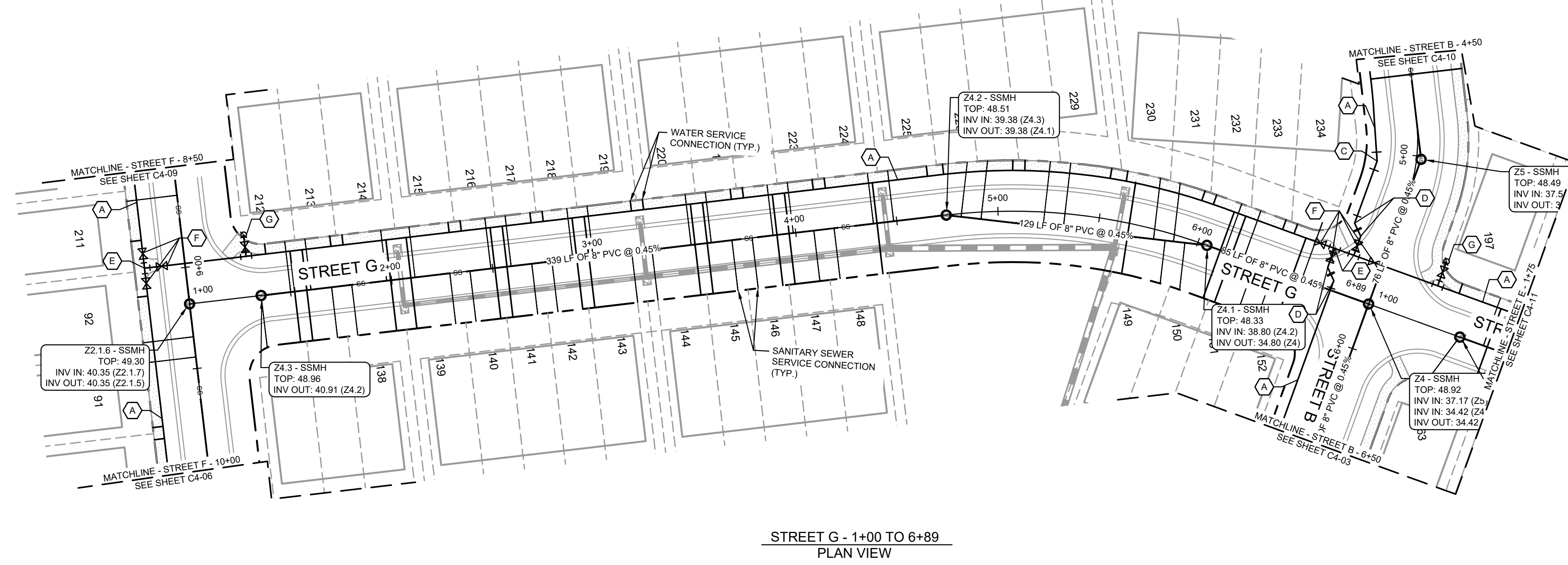
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- (I) 8" PLUG

KEYMAP:



NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY



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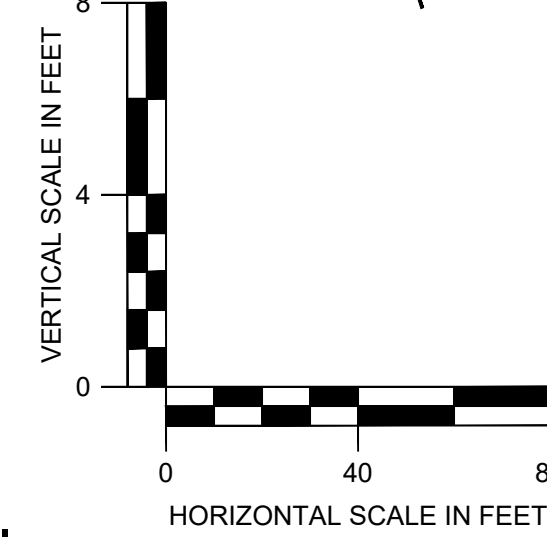
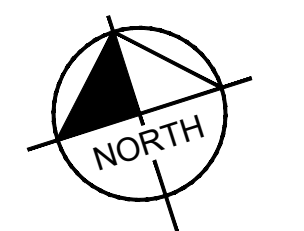
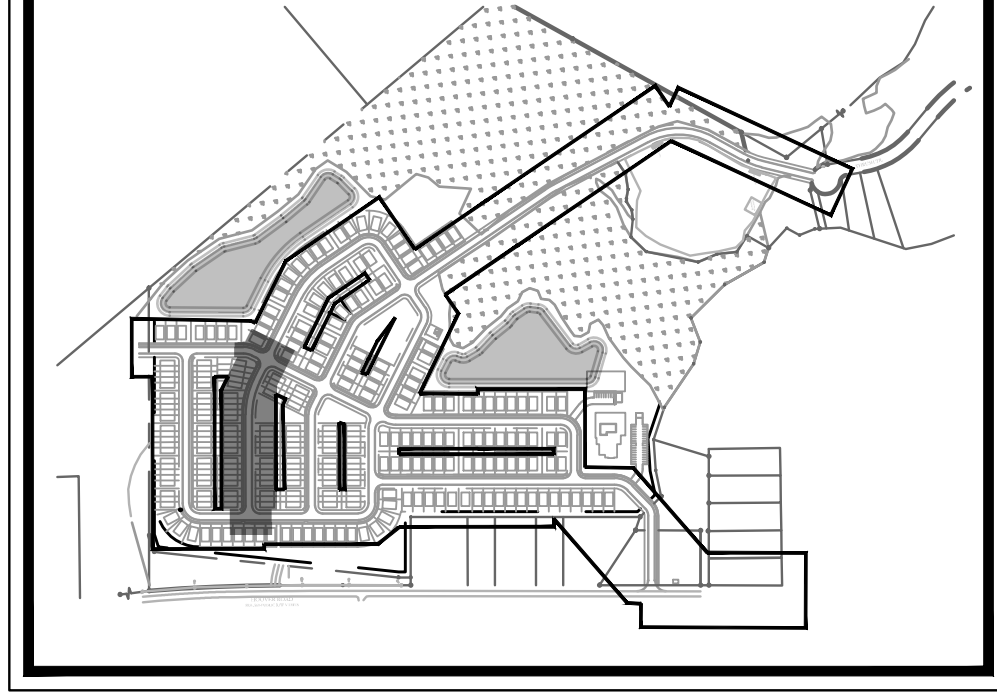
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WATER KEYNOTE LEGEND:

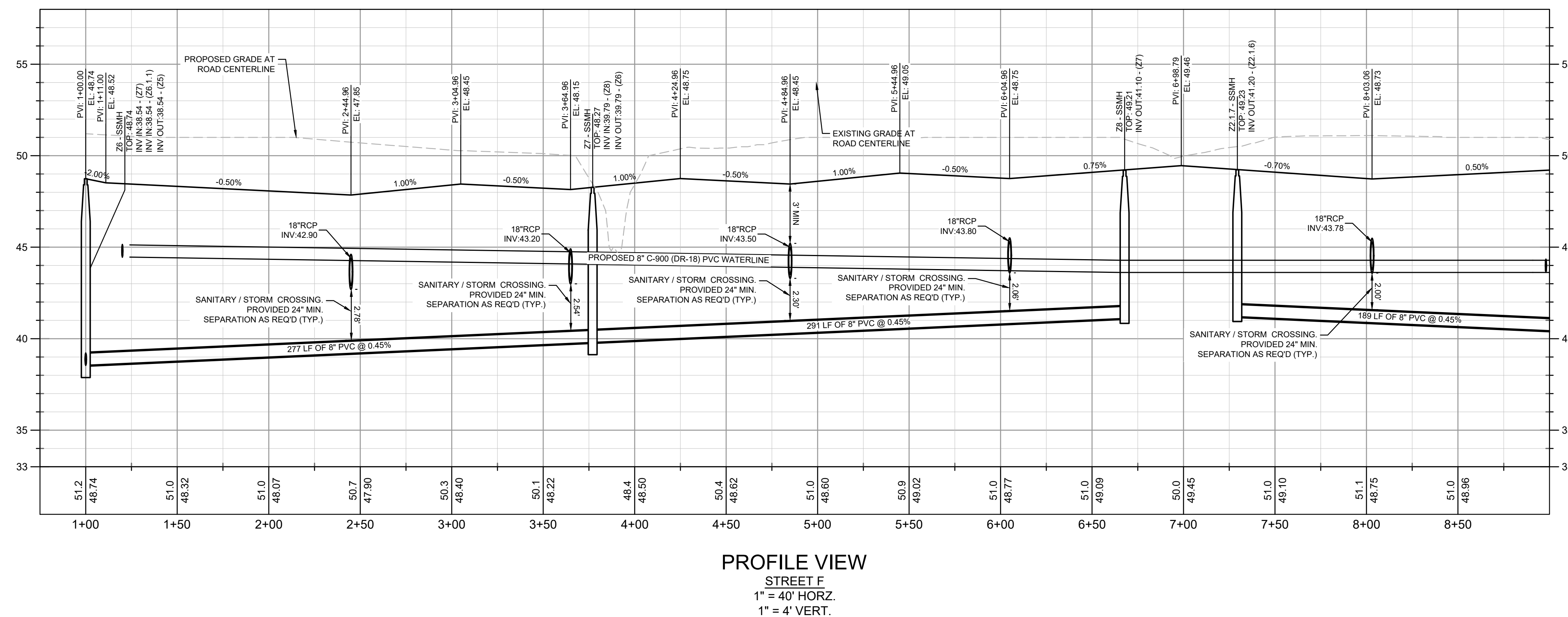
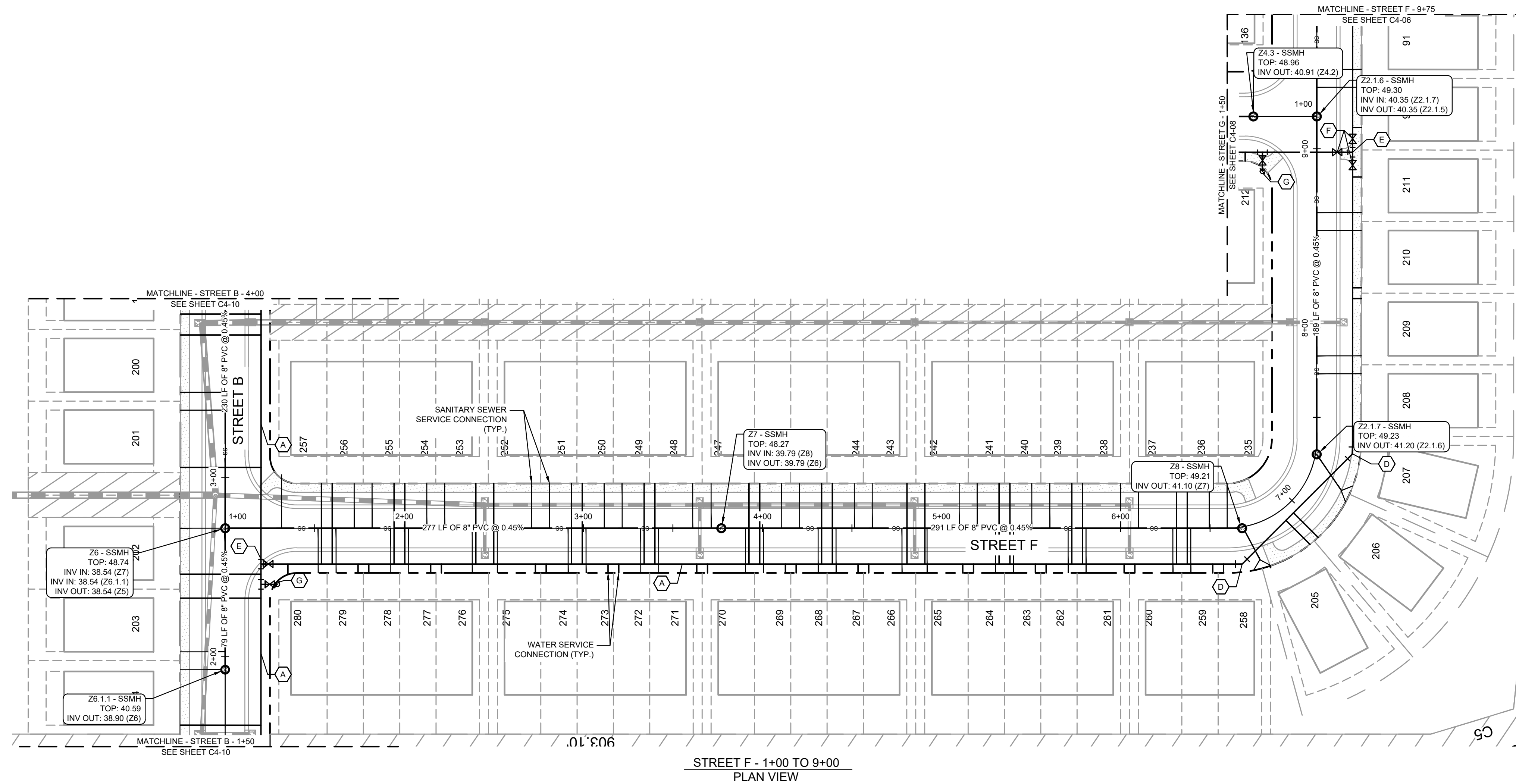
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KEYMAP:



NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

Drawing name: K:\S\A_V_Civil\14793000_Hoover Road SFRCAD\PlanSheets\C4-50 - SANITARY SEWER PROFILES.dwg C4-50 UTILITY PLANS AND PROFILES Aug 31, 2023 10:14pm by Joe Giest



PROFILE VIEW
STREET F
1" = 40' HORZ.
1" = 4' VERT.

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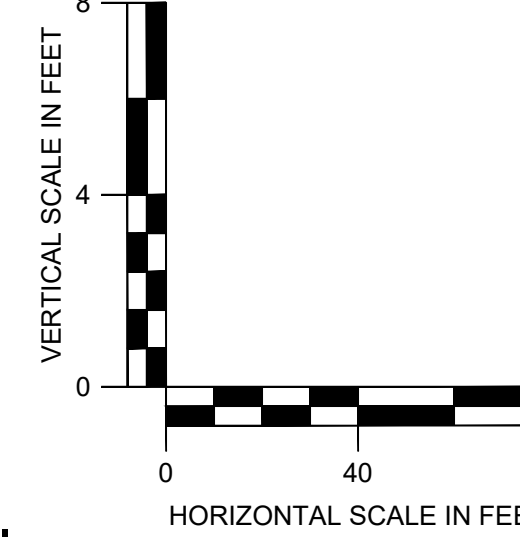
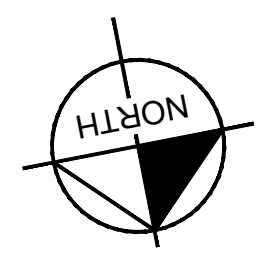
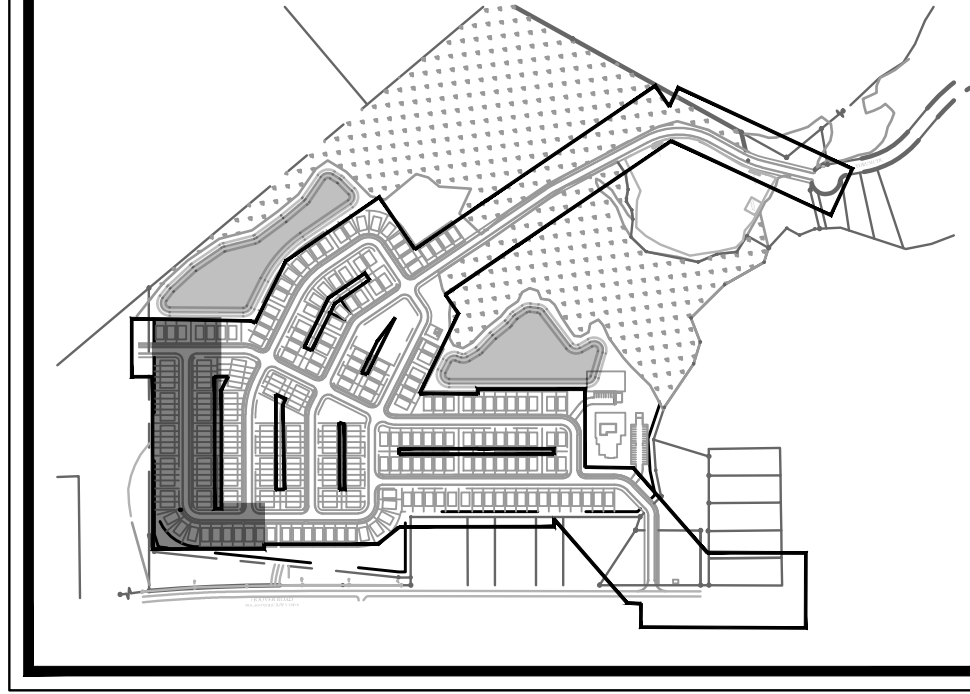
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KEYMAP:



811
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LOGAN DEVELOPERS INC.
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BELVILLE, NC 28541
PHONE: 910-507-2115

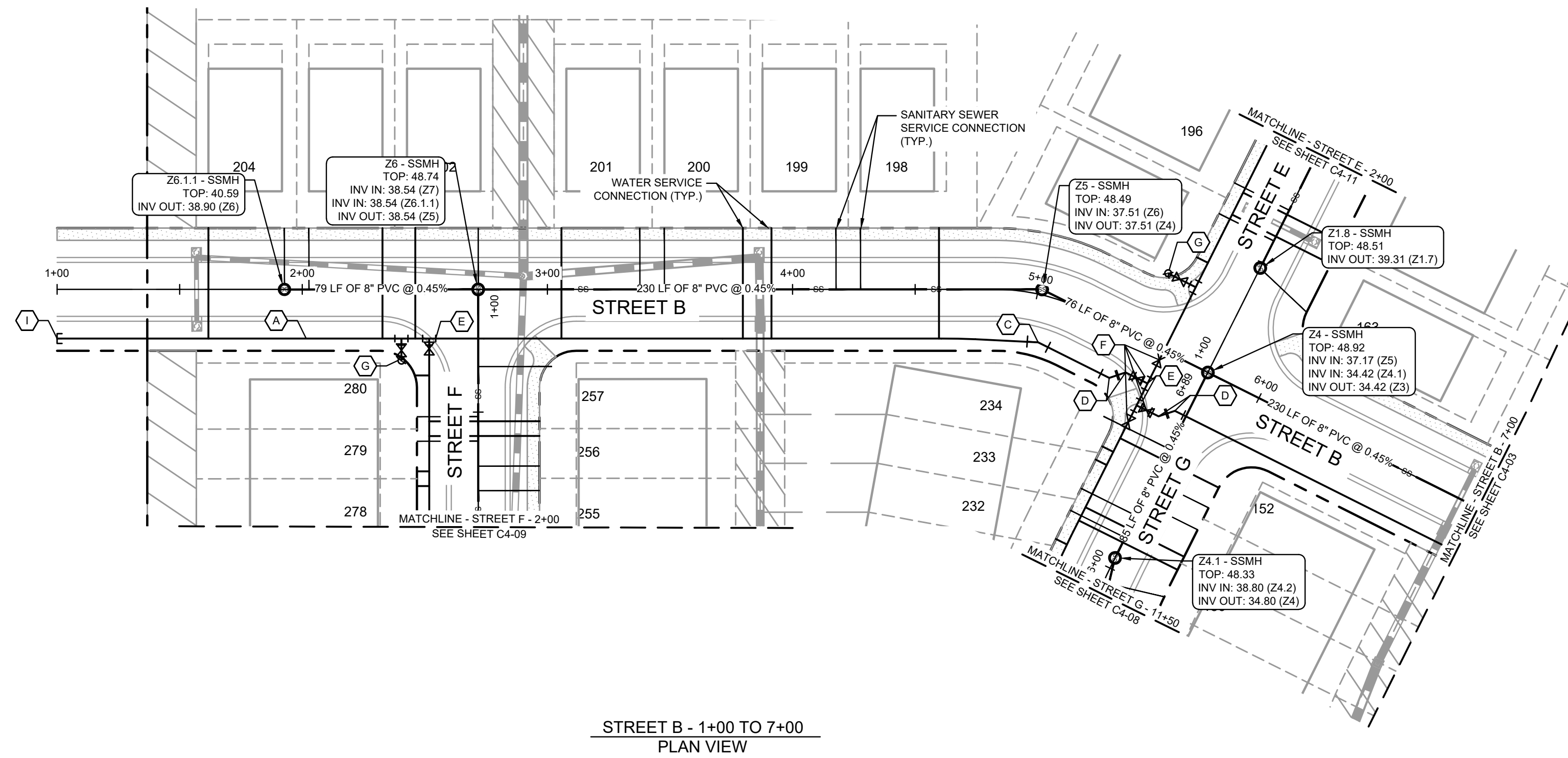
NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

BROOKFIELD BRANCH
1038 HOOVER ROAD,
HAMPSTEAD, NC 28451
3283-85-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

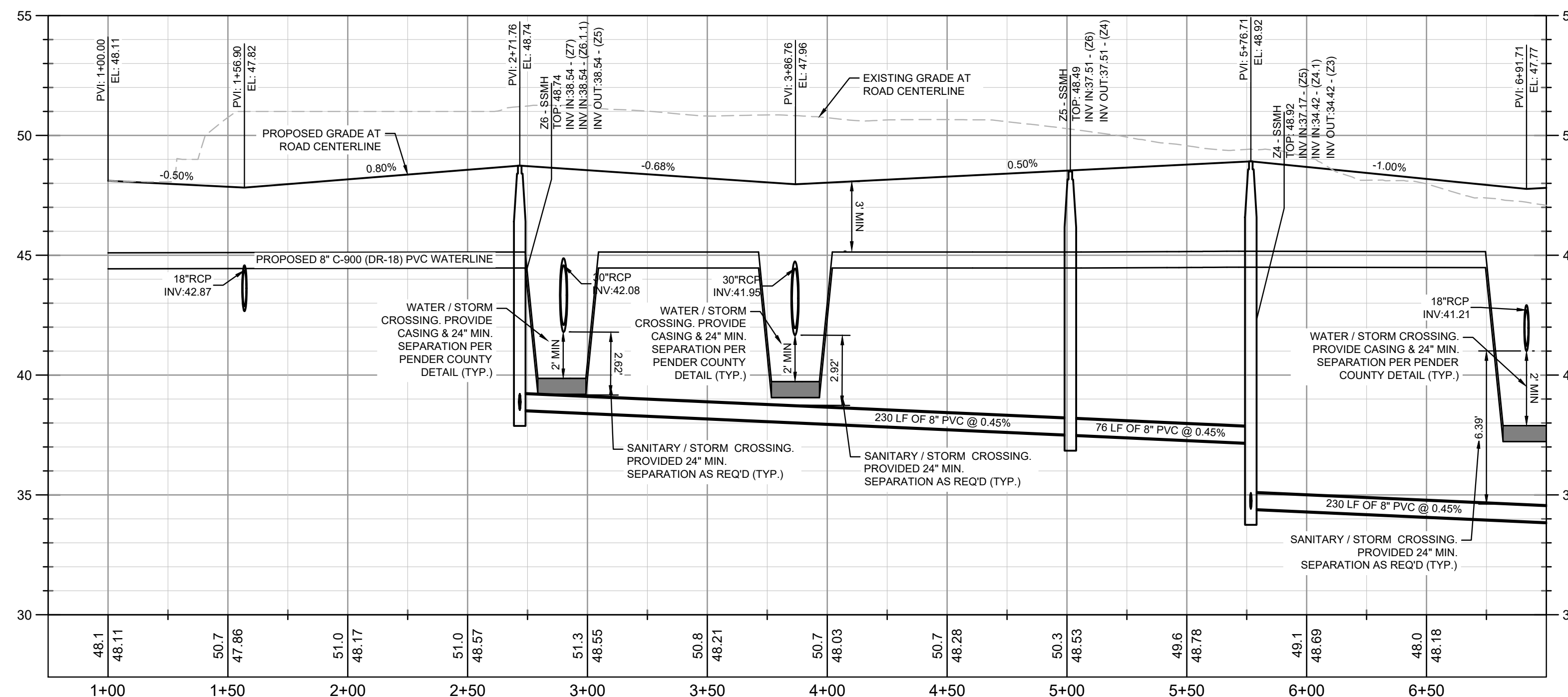
DRAWN BY NJ
DESIGNED BY NJ
REVIEWED BY RW
DATE 8/31/2023
PROJECT NO. 014793000
TITLE
UTILITY PLANS AND PROFILES
SHEET NUMBER
C4-09

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Drawing name: K:\S\A_V_Civil\14793000_Hoover Road SFR\CAD\PlanSheets\C4-50 - SANITARY SEWER PROFILES.dwg C4-10 UTILITY PLANS AND PROFILES Aug 31, 2023 10:12pm by Joe Giest



STREET B - 1+00 TO 7+00
PLAN VIEW



PROFILE VIEW
STREET B
1" = 40' HORZ.
1" = 4' VERT.

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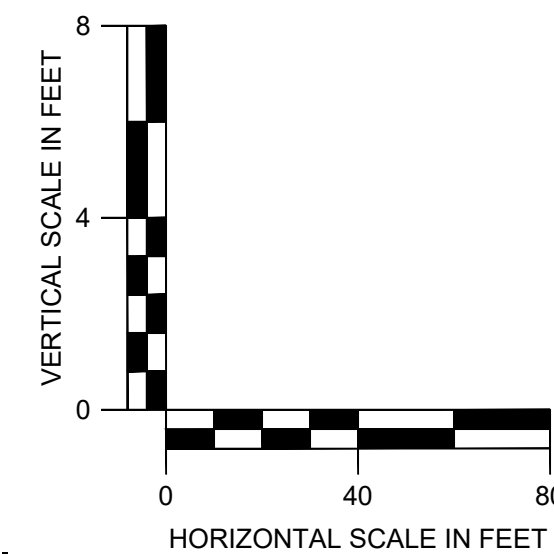
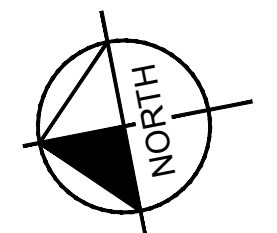
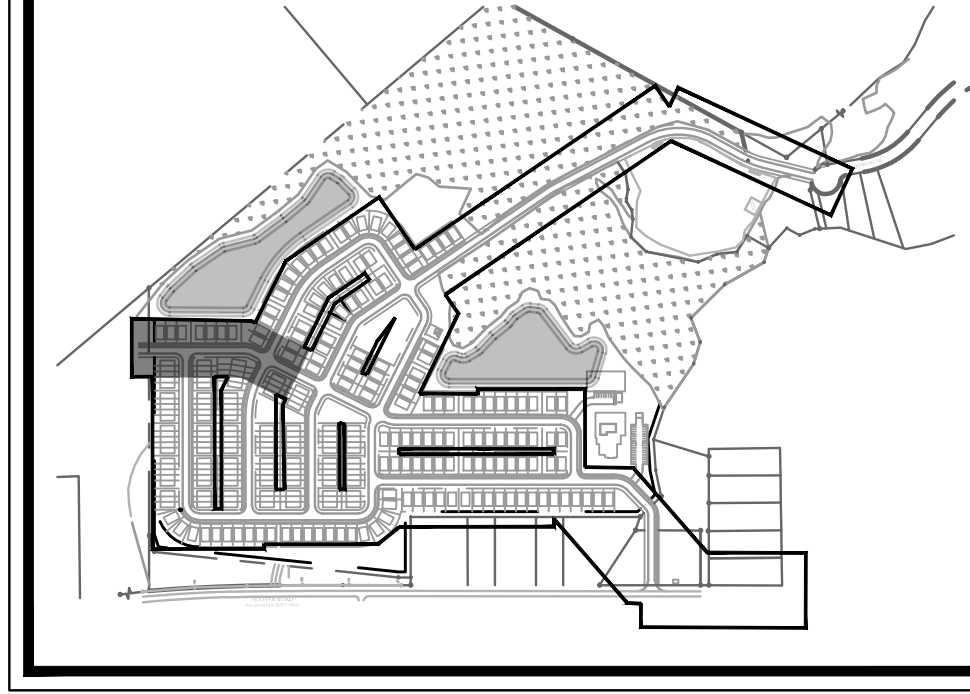
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KEYMAP:



PREPARED BY
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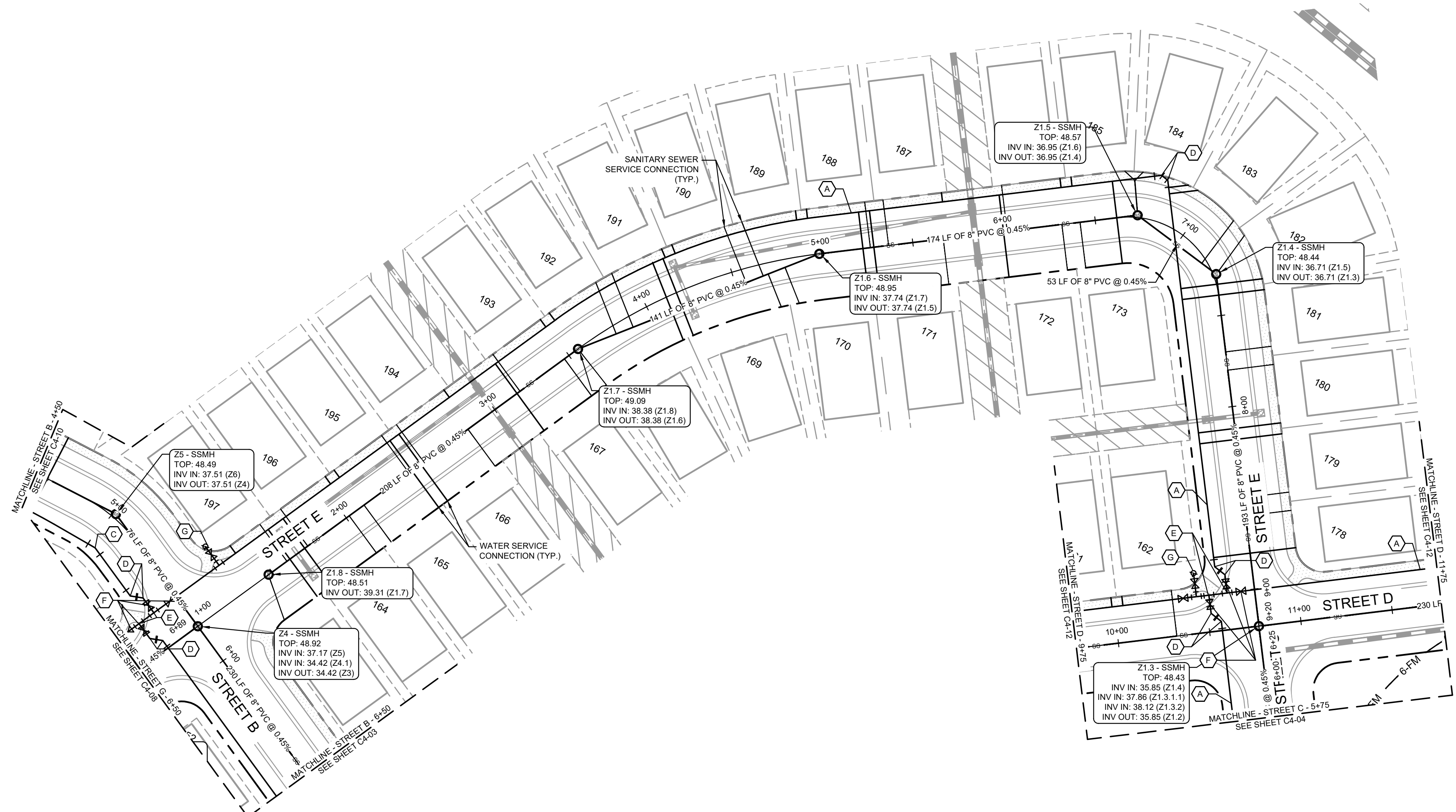
PREPARED FOR
LOGAN DEVELOPERS INC.
60 GREGORY ROAD (SUITE 1)
BELVILLE, NC 28451
PHONE: 910-507-2115

NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

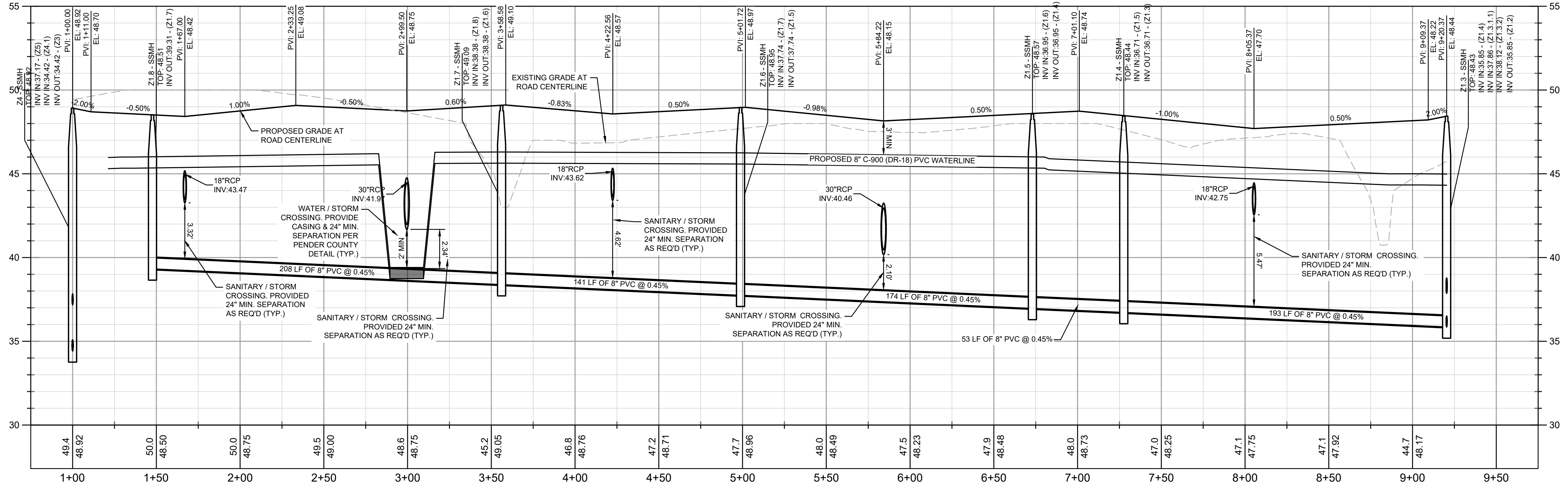
PROJECT
BROOKFIELD BRANCH
1038 HOOVER ROAD,
HAMPSTEAD, NC 28443
3283-85-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY NJ
DESIGNED BY NJ
REVIEWED BY RW
DATE 8/31/2023
PROJECT NO. 014793000
TITLE
UTILITY PLANS AND PROFILES
SHEET NUMBER
C4-10

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STREET E - 1+00 TO 9+25
PLAN VIEW



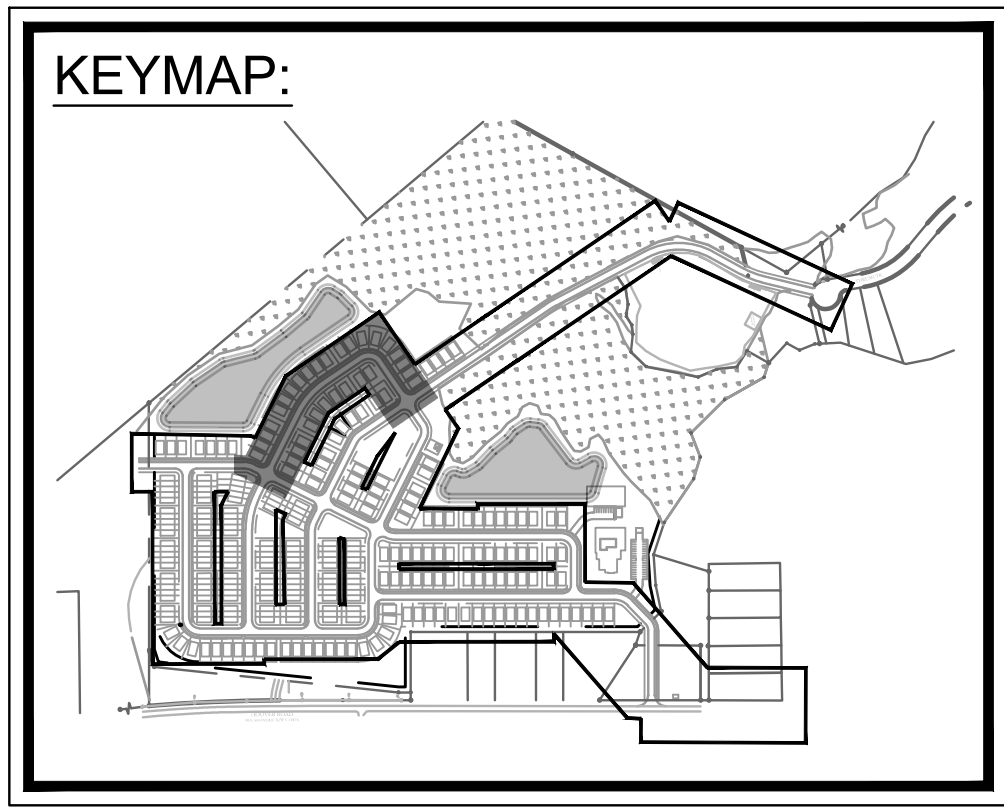
PROFILE VIEW
STREET E
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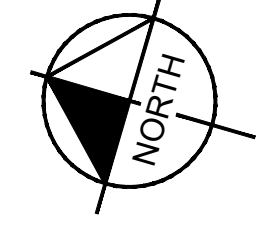
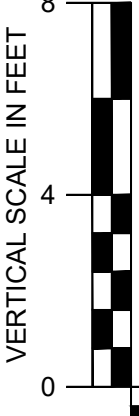
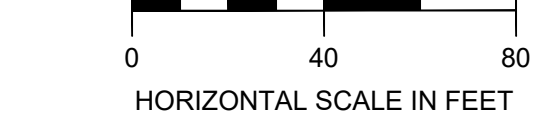
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No.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY



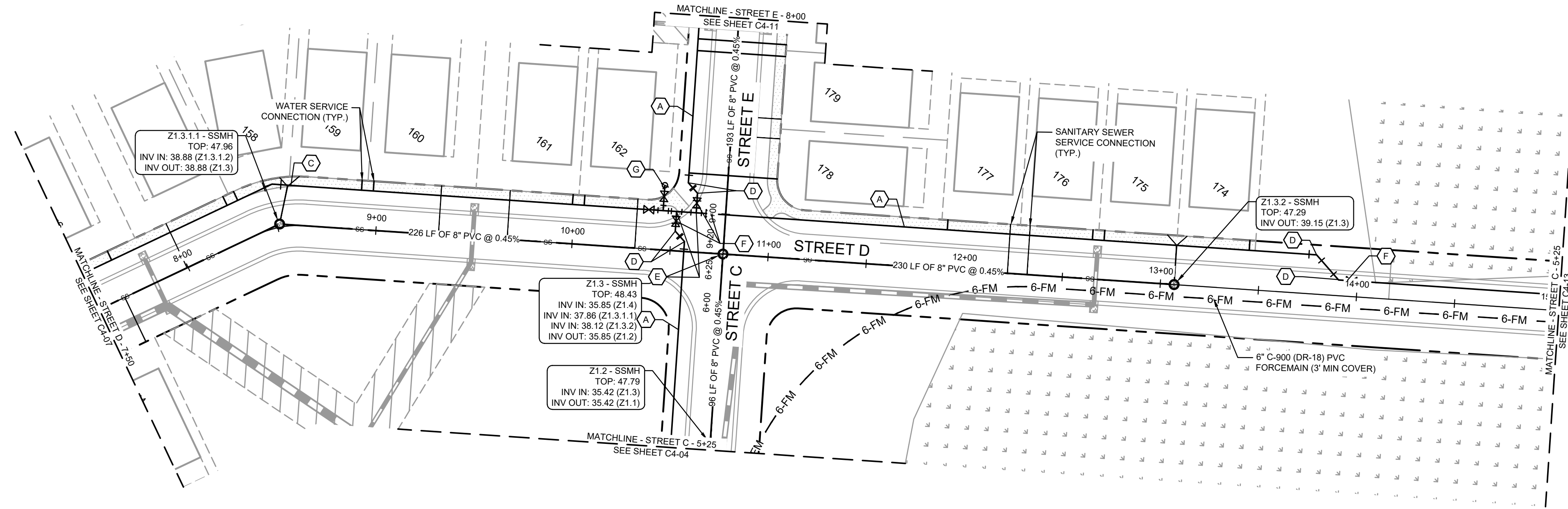
25 BULL ST., SUITE 400
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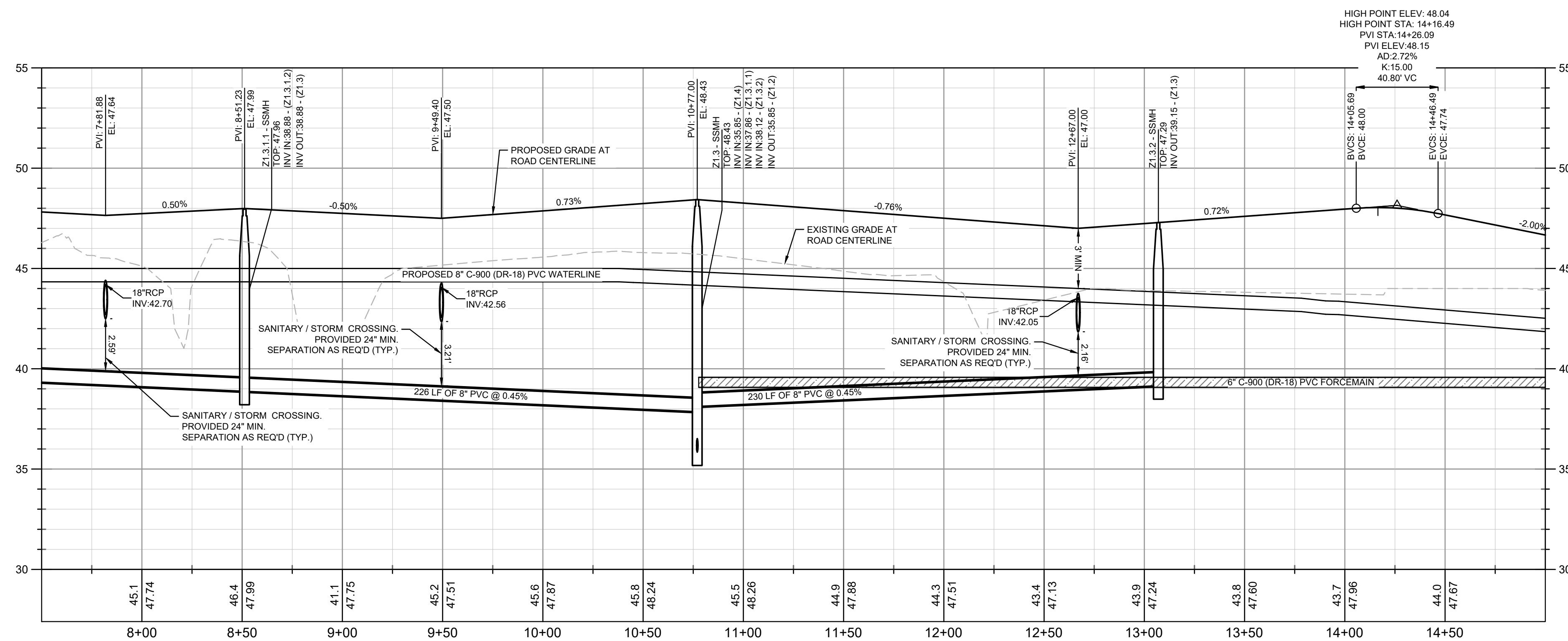
BROOKFIELD BRANCH
1038 HOOVER ROAD,
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3283-85-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY	NJ
DESIGNED BY	NJ
REVIEWED BY	RW
DATE	8/31/2023
PROJECT NO.	014793000
TITLE	UTILITY PLANS AND PROFILES
SHEET NUMBER	C4-11

Drawing name: K:\S\A_V_Civil\14793000_Hoover Road SFRCAD\PlanSheets\C4-50 - SANITARY SEWER PROFILES.dwg C4-12 UTILITY PLANS AND PROFILES Aug 31, 2023 10:14pm by Joe.Glietl



STREET D - 7+50 TO 15+00
PLAN VIEW



PROFILE VIEW
STREET D
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5. IF ANY CONFLICTS, DISCREPANCIES, OR ANY OTHER UNSATISFACTORY CONDITIONS ARE DISCOVERED, EITHER ON THE CONSTRUCTION DOCUMENTS OR FIELD CONDITIONS, THE CONTRACTOR MUST NOTIFY THE ENGINEER IMMEDIATELY AND SHALL NOT COMMENCE FURTHER OPERATION UNTIL THE CONFLICTS, DISCREPANCIES, OR OTHER UNSATISFACTORY CONDITIONS ARE RESOLVED.

PROFILE LINE LEGEND:

- PROPOSED GRADE LINE
- - - EXISTING GRADE LINE

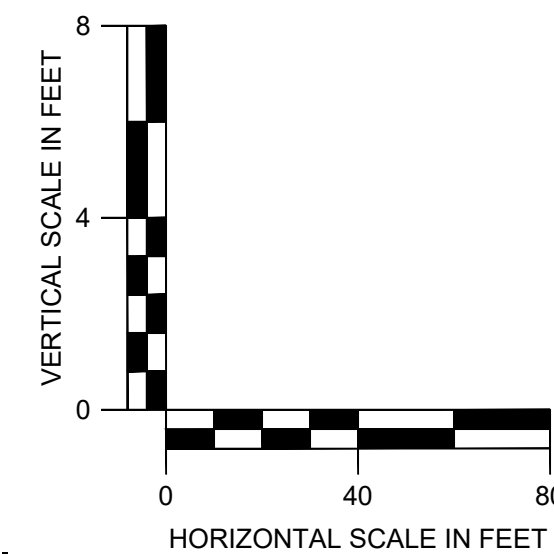
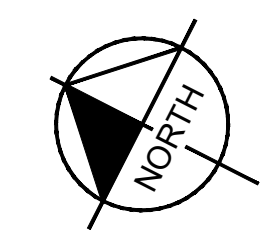
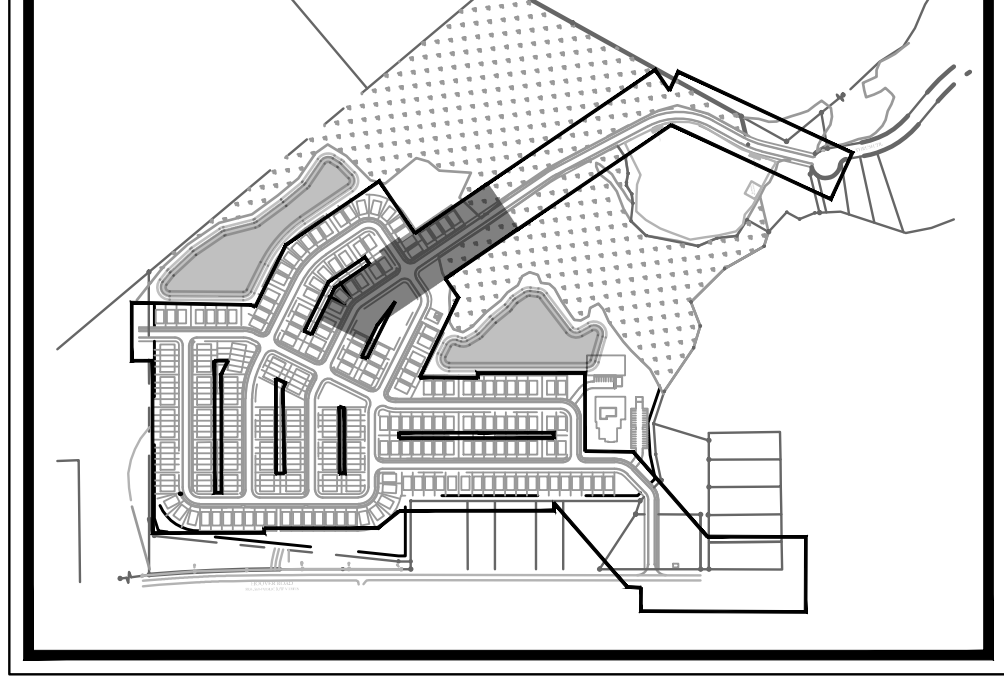
UTILITY LEGEND:

- w — PROPOSED WATER LINE
- ss — PROPOSED SANITARY SEWER PIPE
- PROPOSED SANITARY SEWER CLEANOUT
- ⊙ SANITARY SEWER MANHOLE
- ⊕ WATER VALVE
- ⊕ FIRE DEPARTMENT CONNECTION (FDC)
- ⊕ FIRE HYDRANT
- ⊕ WATER MAIN TAPPING SLEEVE
- ⊕ WATER CONNECTIONS AND BENDS

WATER KEYNOTE LEGEND:

- (A) 8" C-900 (DR-18) PVC WATER MAIN
- (B) 11.25° BEND
- (C) 22.5° BEND
- (D) 45° BEND
- (E) 8" X 8" X 8" MJ TEE
- (F) 8" MJ GATE VALVE
- (G) FIRE HYDRANT ASSEMBLY
- (H) 8" X 6" REDUCER
- (I) 8" PLUG

KEYMAP:



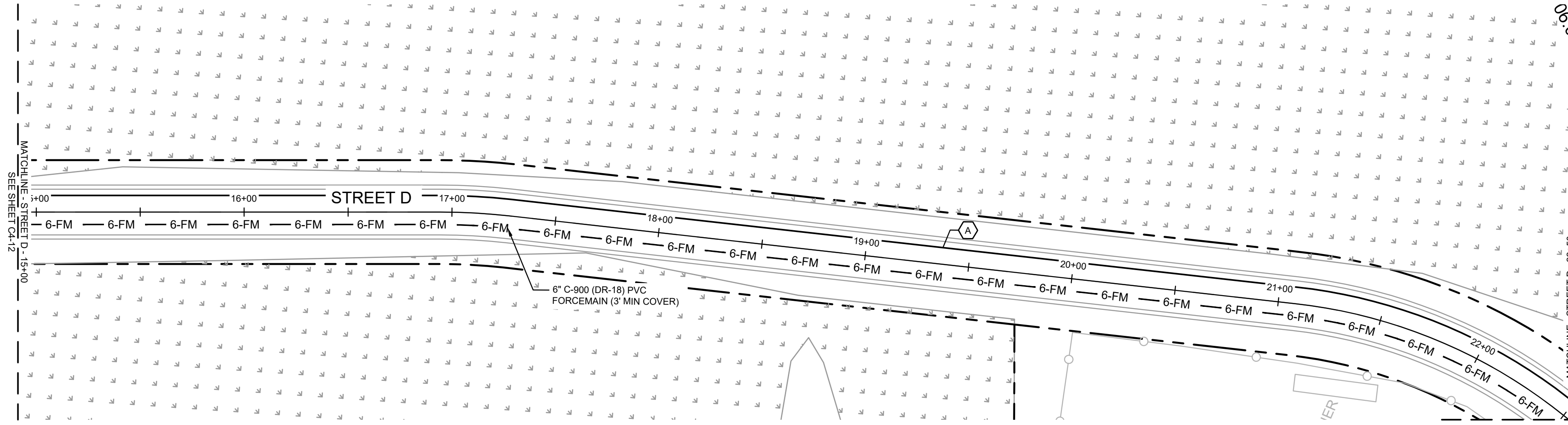
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60 GREGORY ROAD (SUITE 1)
BELVILLE, NC 28451
PHONE: 910-507-2115

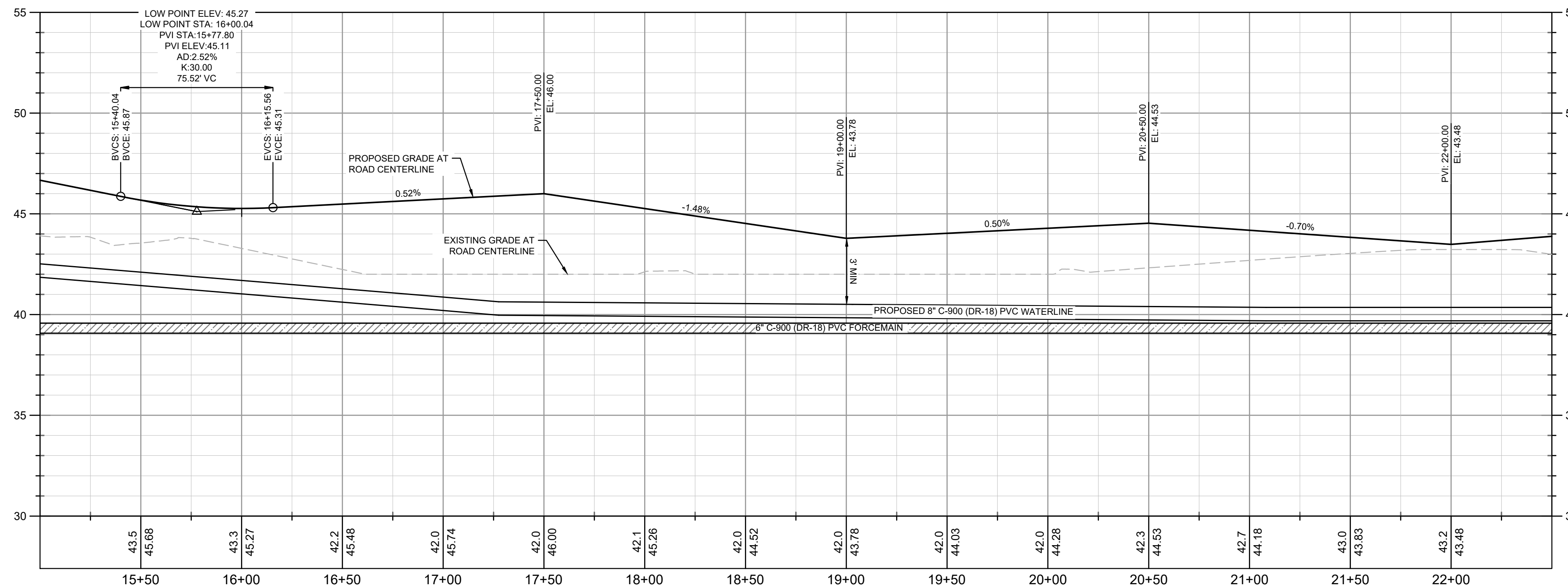
NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

BROOKFIELD BRANCH
1038 HOOVER ROAD,
HAMPSTEAD, NC 28443
3283-85-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY: NJ
DESIGNED BY: NJ
REVIEWED BY: RW
DATE: 8/31/2023
PROJECT NO.: 014793000
TITLE: UTILITY PLANS AND PROFILES
SHEET NUMBER: C4-12



STREET D - 7+50 TO 15+00
PLAN VIEW



PROFILE VIEW
STREET D
1" = 40' HORZ.
1" = 4' VERT.

UTILITY PLAN AND PROFILE NOTES:

1. ALL PIPE LENGTHS SPECIFIED IN THESE PLANS ARE THE HORIZONTAL DISTANCE AND ARE SHOWN FOR REFERENCE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE ACTUAL LENGTHS BASED ON PROPOSED PIPE SLOPE. PIPE LENGTHS IN PLANS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
2. CONTRACTOR TO FIELD VERIFY EXISTING INVERT FOR SANITARY SEWER AND WATER SERVICE CONNECTIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER OF DISCREPANCY PRIOR TO PROCEEDING.
3. ALL SANITARY SEWER PIPE SHALL BE INSTALLED PER PLURIS, LLC STANDARDS AND SPECIFICATIONS.
4. ALL WATER PIPE SHALL BE INSTALLED PER PENDER COUNTY UTILITIES STANDARDS AND SPECIFICATIONS.
5. IF ANY CONFLICTS, DISCREPANCIES, OR ANY OTHER UNSATISFACTORY CONDITIONS ARE DISCOVERED, EITHER ON THE CONSTRUCTION DOCUMENTS OR FIELD CONDITIONS, THE CONTRACTOR MUST NOTIFY THE ENGINEER IMMEDIATELY AND SHALL NOT COMMENCE FURTHER OPERATION UNTIL THE CONFLICTS, DISCREPANCIES, OR OTHER UNSATISFACTORY CONDITIONS ARE RESOLVED.

PROFILE LINE LEGEND:

- PROPOSED GRADE LINE
- - - EXISTING GRADE LINE

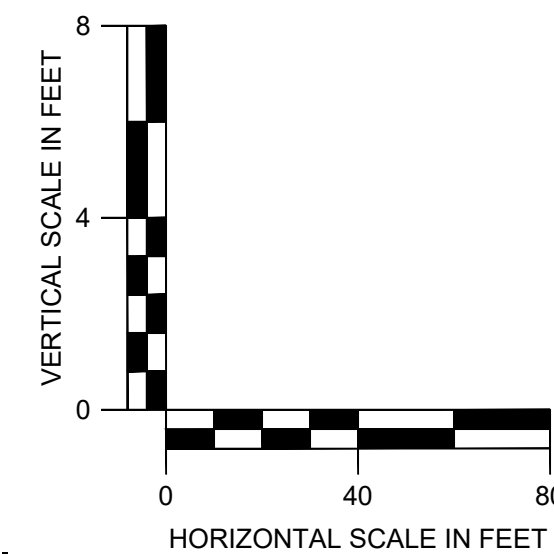
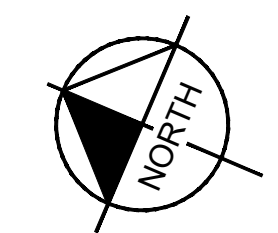
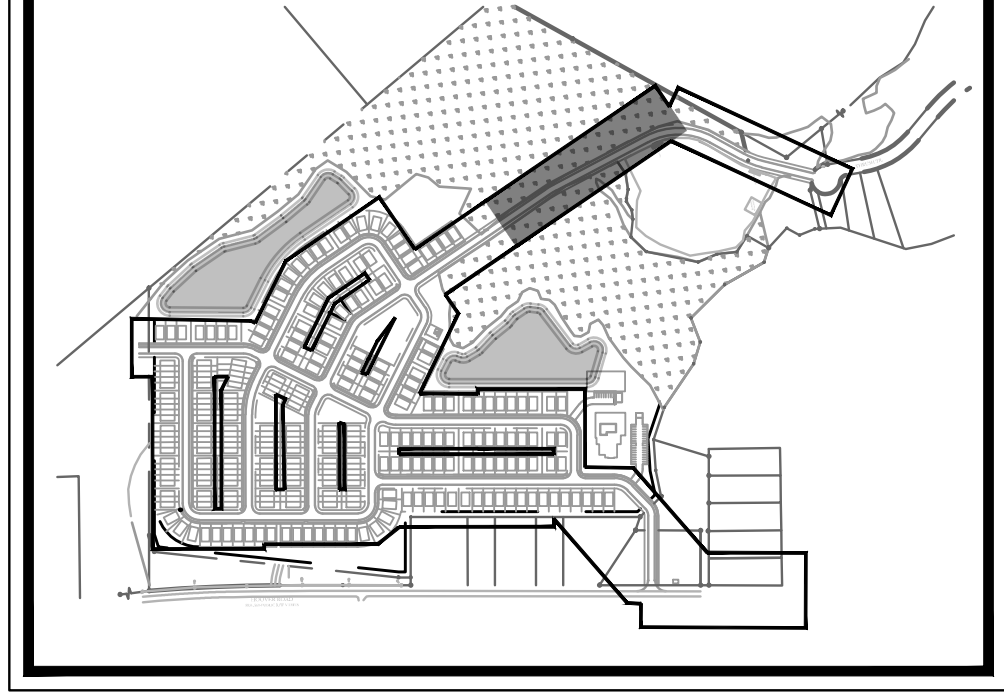
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- — PROPOSED SANITARY SEWER CLEANOUT
- SANITARY SEWER MANHOLE
- ⊕ WATER VALVE
- ⊕ FIRE DEPARTMENT CONNECTION (FDC)
- ⊕ FIRE HYDRANT
- ⊕ WATER MAIN TAPPING SLEEVE
- ⊕ WATER CONNECTIONS AND BENDS

WATER KEYNOTE LEGEND:

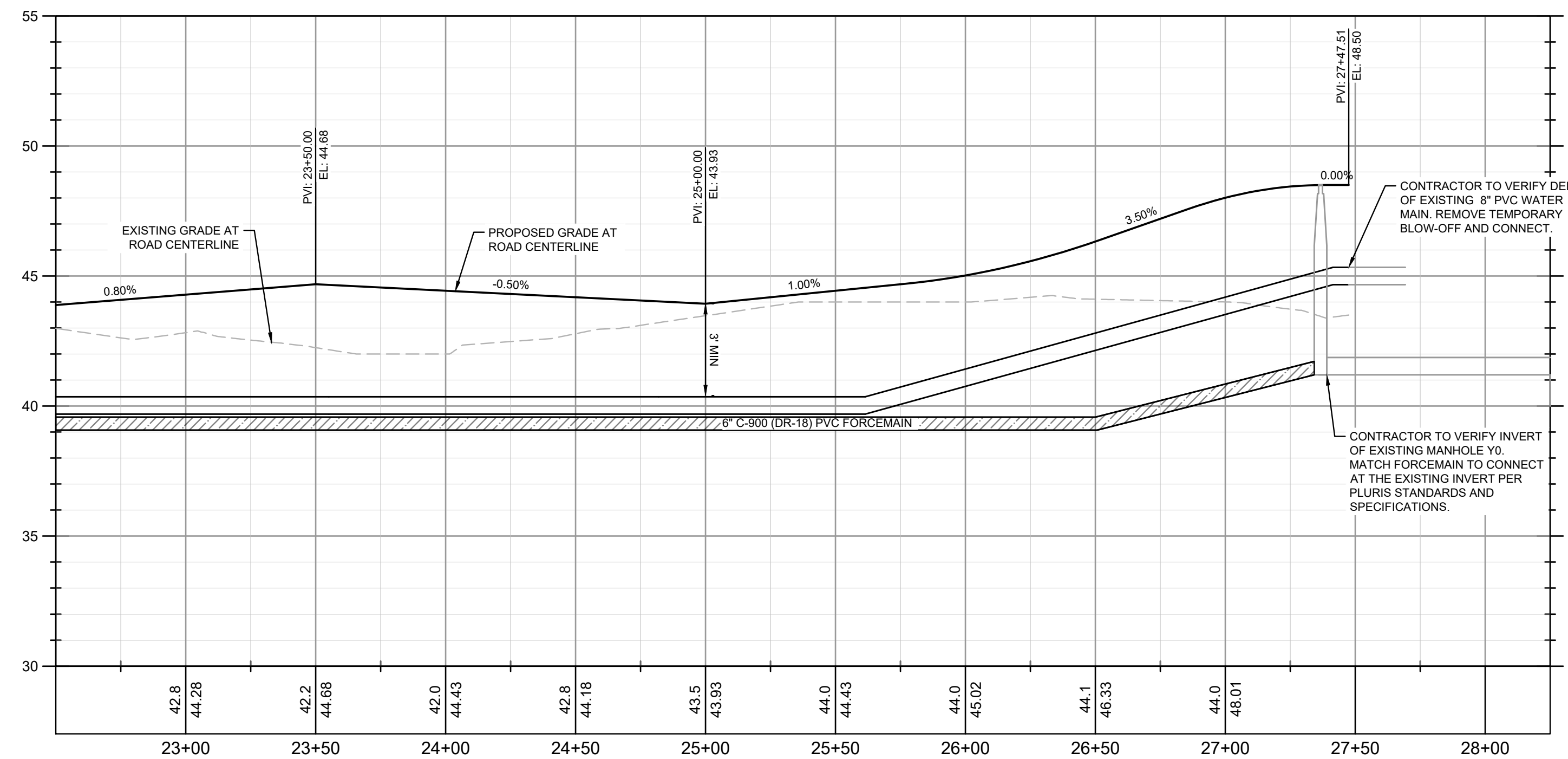
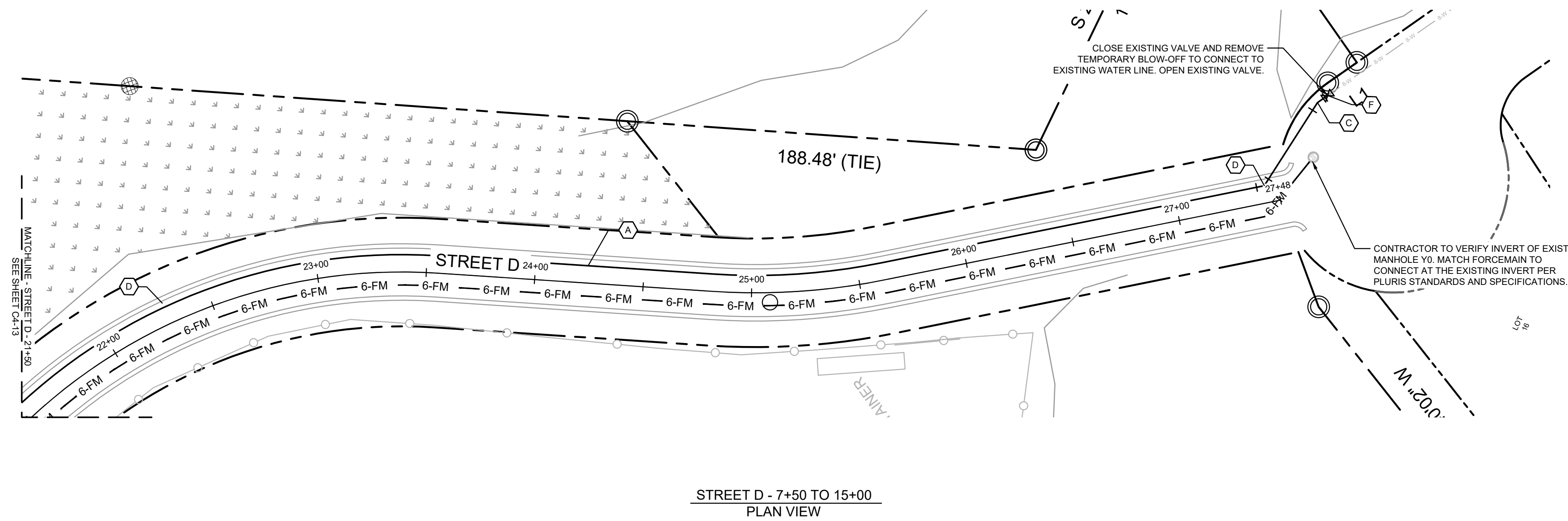
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- (E) 8" X 8" X 8" MJ TEE
- (F) 8" MJ GATE VALVE
- (G) FIRE HYDRANT ASSEMBLY
- (H) 8" X 6" REDUCER
- (I) 8" PLUG

KEYMAP:



NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

Drawing name: K:\SAV_Civil\14793000_Hoover Road SFRCAD\PlanSheets\C4-14 UTILITY PLANS AND PROFILES - Aug 31, 2023 10:14pm by Joe Giest



PROFILE VIEW
STREET D
1" = 40' HORZ.
1" = 4' VERT.

UTILITY PLAN AND PROFILE NOTES:

1. ALL PIPE LENGTHS SPECIFIED IN THESE PLANS ARE THE HORIZONTAL DISTANCE AND ARE SHOWN FOR REFERENCE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE ACTUAL LENGTHS BASED ON PROPOSED PIPE SLOPE. PIPE LENGTHS IN PLANS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
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- - - EXISTING GRADE LINE

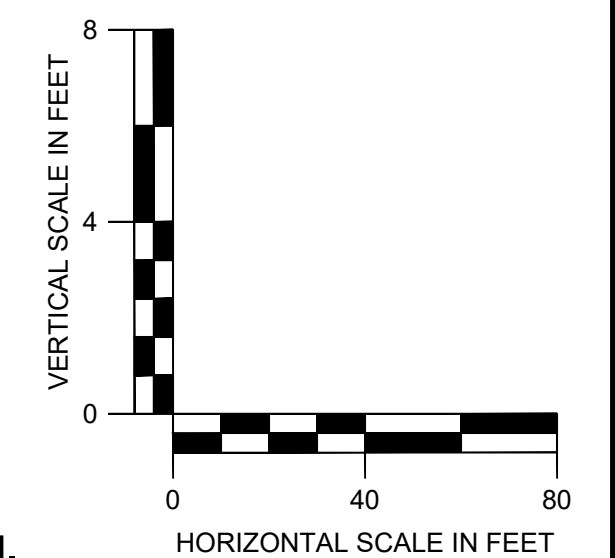
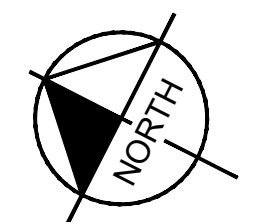
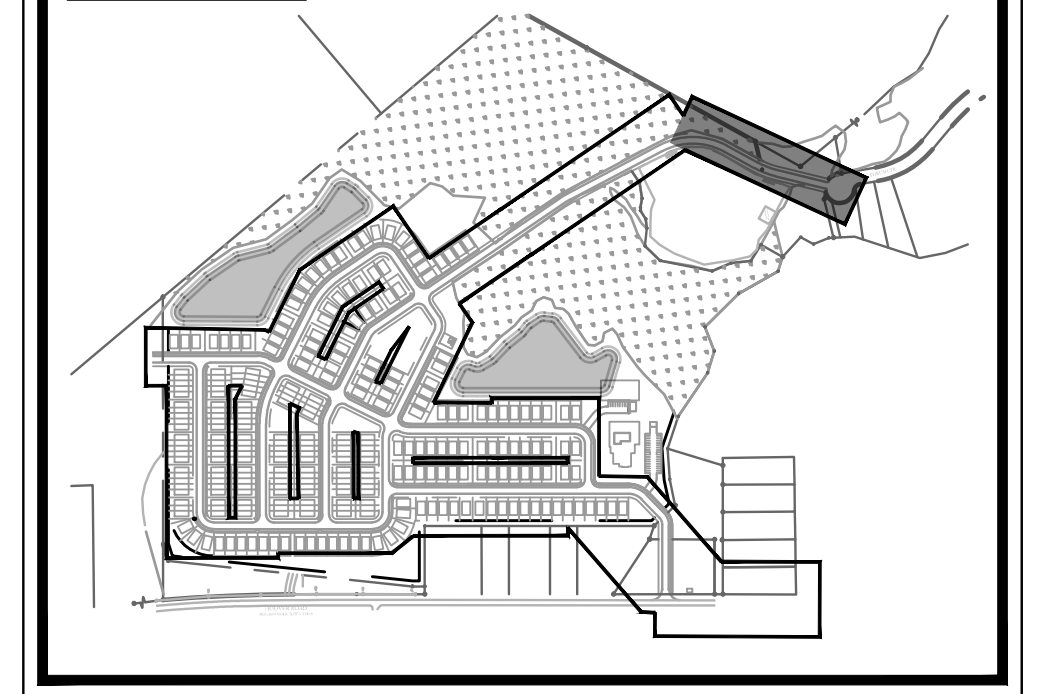
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- (G) FIRE HYDRANT ASSEMBLY
- (H) 8" X 6" REDUCER
- (I) 8" PLUG

KEYMAP:



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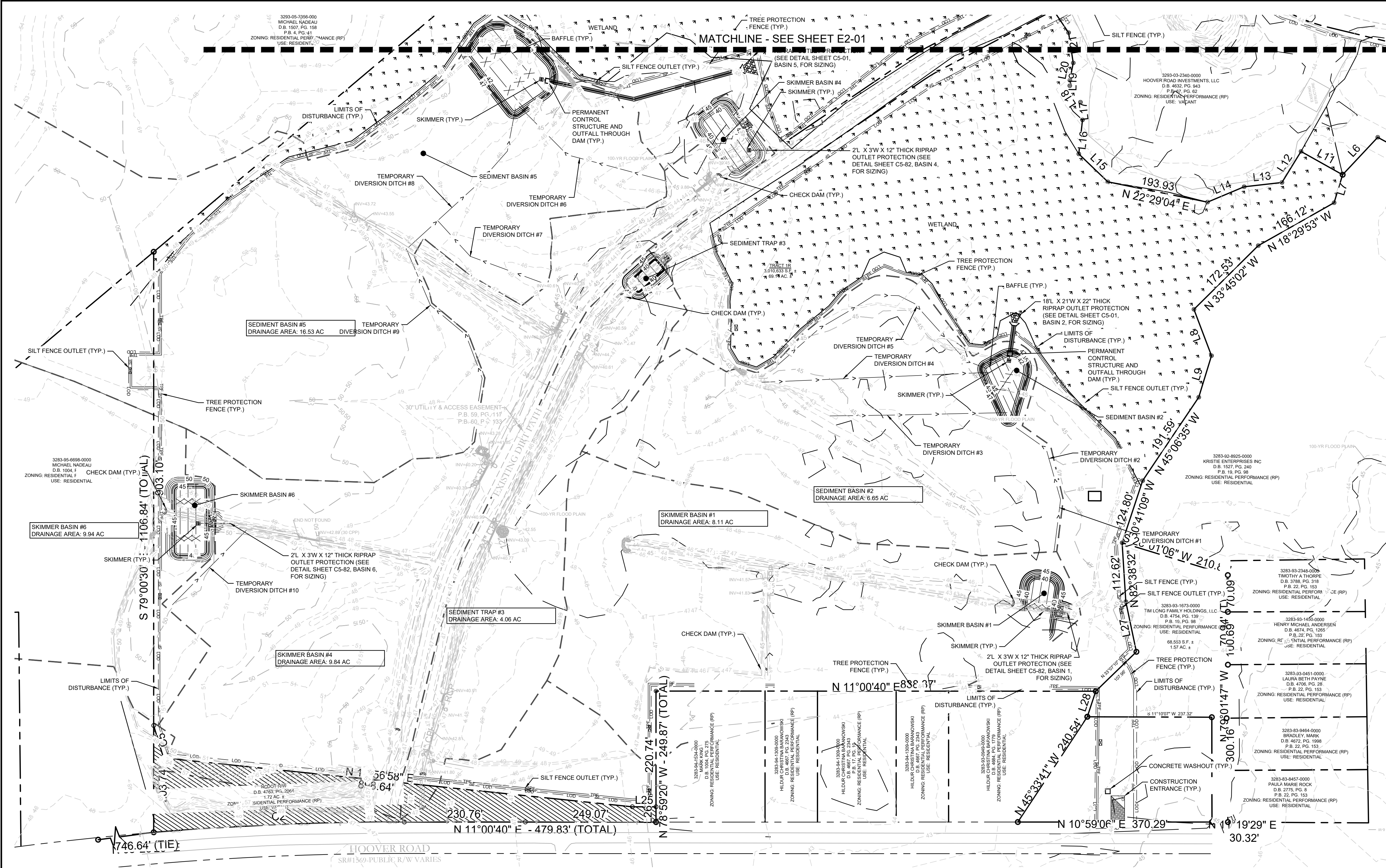
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PHONE: 910-507-2115

NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

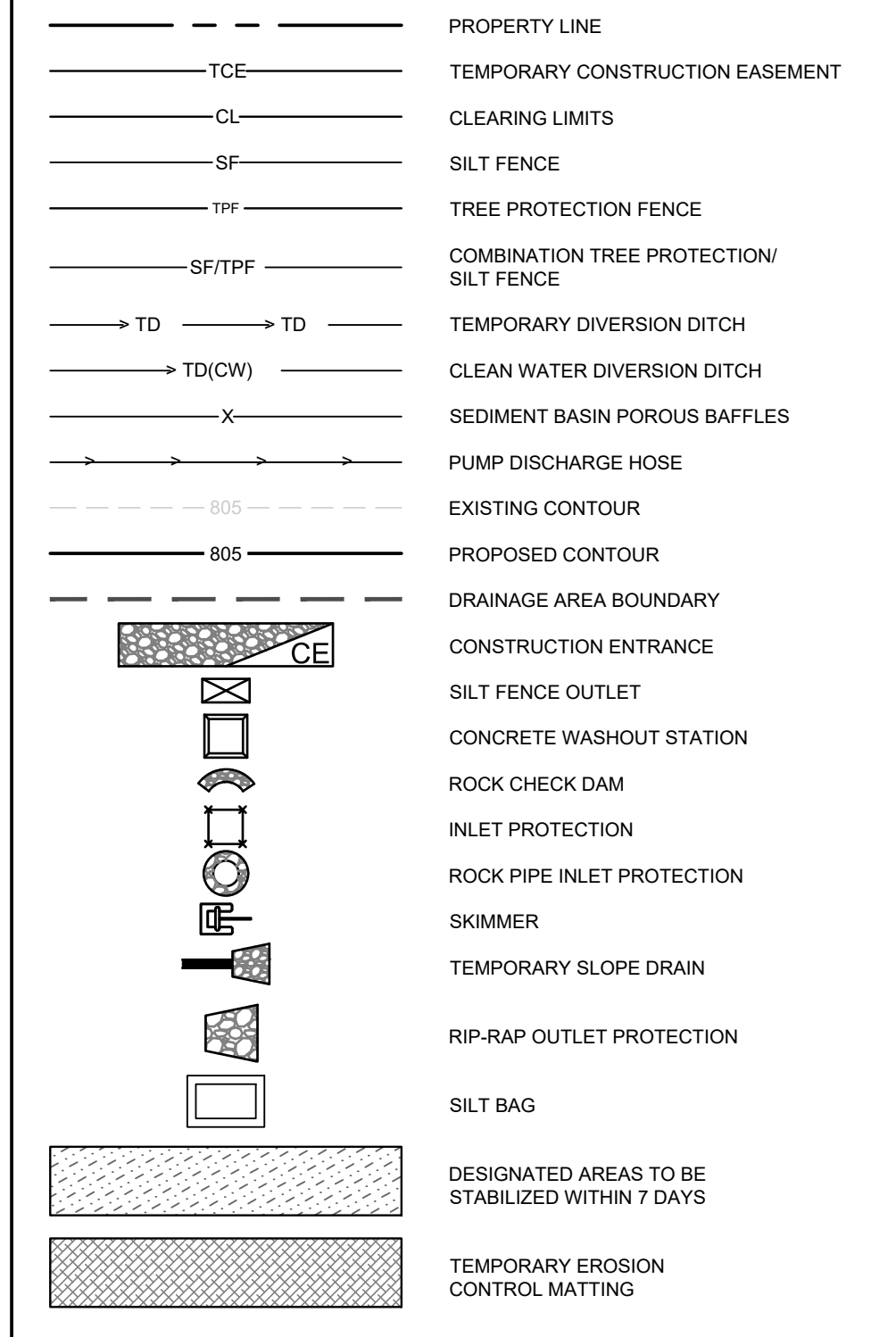
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3283-85-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY NJ
DESIGNED BY NJ
REVIEWED BY RW
DATE 8/31/2023
PROJECT NO. 014793000
TITLE
UTILITY PLANS AND PROFILES
SHEET NUMBER
C4-14

Drawing name: K:\SAV_Civil\14793000_Hoover Road SFRCAD\PlanSheets\C5-10 - EROSION CONTROL PLAN PHASE 1.dwg C5-10 EROSION CONTROL PLAN PHASE 1 - Aug 31, 2023 9:47pm by: Joe Ghusti



EROSION CONTROL LEGEND



PHASE 1 CONSTRUCTION SEQUENCE:

- THE FOLLOWING PHASE 1 CONSTRUCTION SEQUENCE IS FURNISHED AS A GENERAL GUIDE FOR PREPARATION OF A SEQUENCE OF CONSTRUCTION EVENTS.
- SET UP AN ON-SITE PRE-CONSTRUCTION CONFERENCE WITH NCDEQ EROSION CONTROL INSPECTOR TO DISCUSS EROSION CONTROL MEASURES.
- OBTAIN GRADING/EROSION CONTROL PLAN APPROVAL FROM NCDEQ.
- INSTALL TEMPORARY CONSTRUCTION ENTRANCE, SILT FENCE, INLET PROTECTION, SKIMMER SEDIMENT BASIN, TEMPORARY SEDIMENT BASIN, DIVERSION DITCHES, TREE PROTECTION, AND OTHER MEASURES AS SHOWN ON PLANS. CLEARING ONLY AS NECESSARY TO INSTALL THESE DEVICES (SEE LOD FOR INITIAL CLEARING LIMITS). SEED, MULCH, AND ANCHOR DIVERSION DITCHES AND BASIN IMMEDIATELY AFTER CONSTRUCTION AS APPROPRIATE.
- CALL FOR ON-SITE INSPECTION BY INSPECTOR ONCE ALL EROSION CONTROL MEASURES ARE INSTALLED. TREE PROTECTION FENCING MUST BE INSTALLED AND INSPECTED BY THE CITY OF GREENVILLE SITE INSPECTOR PRIOR TO A GRADING PERMIT BEING ISSUED. OBTAIN CERTIFICATE OF COMPLIANCE FROM NCDEQ.
- ONCE CERTIFICATE OF COMPLIANCE HAS BEEN OBTAINED, APPLY FOR NCDEQ #NOI ON NCDEQ WEBSITE.
- UPON APPROVAL, CLEARING AND DEMOLITION MAY BEGIN. MAINTAIN ALL EROSION CONTROL MEASURES AS NECESSARY. EROSION CONTROL MEASURES SHALL BE RESTORED TO ORIGINAL DIMENSIONS WHEN SEDIMENT ACCUMULATES TO 50% OF DESIGN DEPTH.
- INSPECT AND REPAIR EROSION CONTROL MEASURES AFTER EVERY RAINFALL EVENT OF 1/2" OR GREATER OR EVERY SEVEN (7) CALENDAR DAYS.
- SEDIMENT / SKIMMER BASINS SHALL BE CLEANED WHEN ONE-HALF FULL.
- FOR PHASED EROSION CONTROL PLANS, CONTRACTOR SHALL MEET WITH EROSION CONTROL INSPECTOR PRIOR TO COMMENCING EACH PHASE OF EROSION CONTROL MEASURES. SEED AND MULCH DENUEDED AREA WITHIN 15 CALENDAR DAYS AFTER ANY PHASE OF GRADING. MAINTAIN SOIL EROSION CONTROL MEASURES UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
- ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE NCDEQ EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, U.S. DEPARTMENT OF AGRICULTURE, AND TOWN OF CARY EROSION CONTROL ORDINANCE.
- REFER TO SHEET C5-00 - EROSION CONTROL NOTES FOR GENERAL EROSION CONTROL NOTES AND MAINTENANCE.

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BELVILLE, NC 28651
PHONE: 910-507-2115

NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

BROOKFIELD BRANCH
1038 HOOVER ROAD,
HAMPSHIRE, NC 28443
3283-85-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY	NJ
DESIGNED BY	NJ
REVIEWED BY	RW
DATE	8/31/2023
PROJECT NO.	014793000
TITLE	EROSION CONTROL PLAN PHASE 1
SHEET NUMBER	C5-10

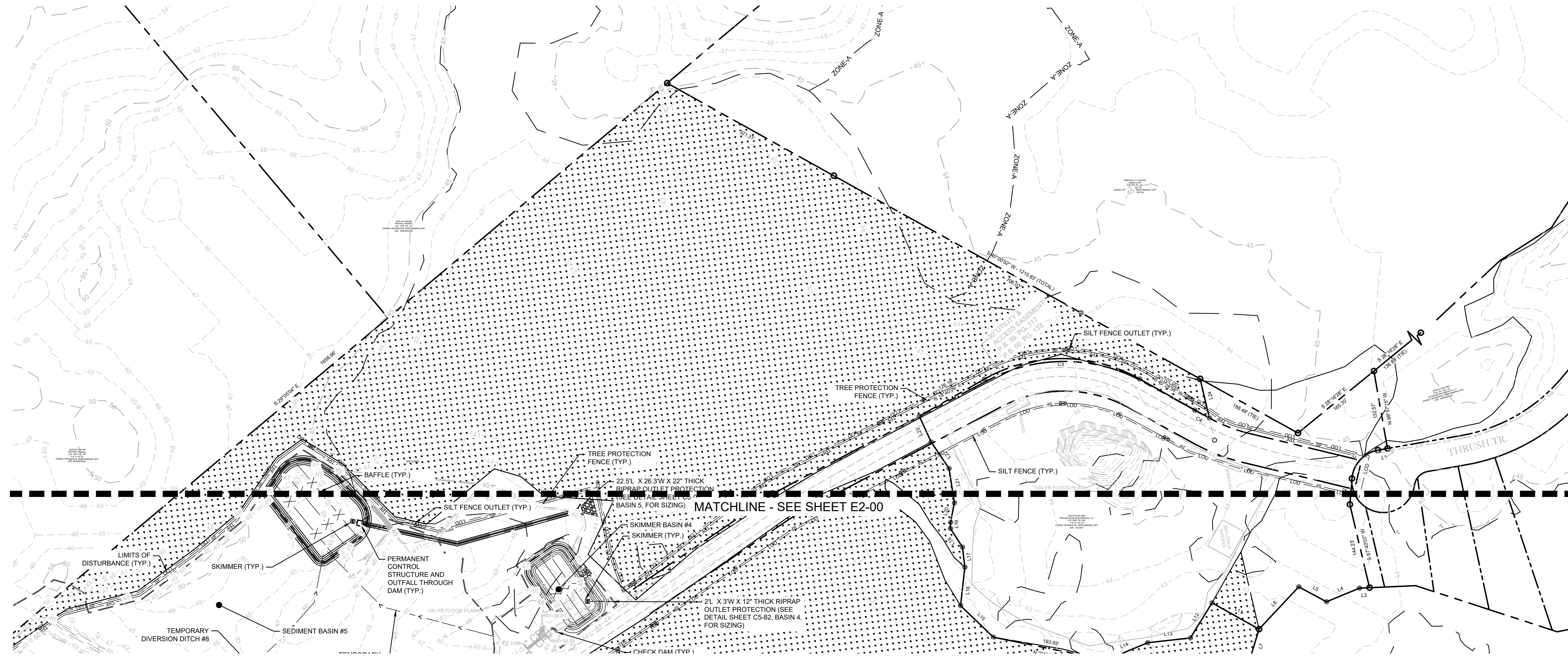
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Drawing name: K:\SAV_Civil\14793000_Hoover Road SFR\CAD\PlanSheets\C5-10 - EROSION CONTROL PLAN.dwg C5-10 - EROSION CONTROL PLAN PHASE 1, Aug 31, 2023 9:47pm by Joe Glust



EROSION CONTROL LEGEND	
	PROPERTY LINE
	TEMPORARY CONSTRUCTION EASEMENT
	CLEARING LIMITS
	SILT FENCE
	TREE PROTECTION FENCE
	COMBINATION TREE PROTECTION/ SILT FENCE
	TEMPORARY DIVERSION DITCH
	CLEAN WATER DIVERSION DITCH
	SEDIMENT BASIN POROUS BAFFLES
	PUMP DISCHARGE HOSE
	EXISTING CONTOUR
	PROPOSED CONTOUR
	DRAINAGE AREA BOUNDARY
	CONSTRUCTION ENTRANCE
	SILT FENCE OUTLET
	CONCRETE WASHOUT STATION
	ROCK CHECK DAM
	INLET PROTECTION
	ROCK PIPE INLET PROTECTION
	SKIMMER
	TEMPORARY SLOPE DRAIN
	RIP-RAP OUTLET PROTECTION
	SILT BAG
	DESIGNATED AREAS TO BE STABILIZED WITHIN 7 DAYS
	TEMPORARY EROSION CONTROL MATTING

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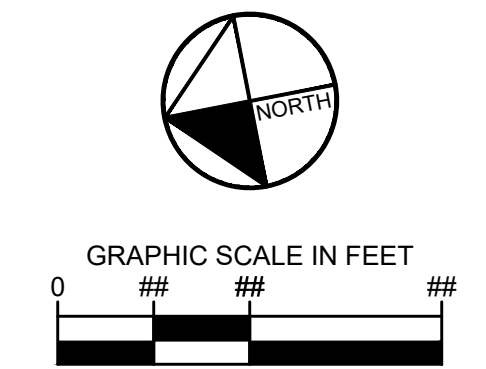
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 PHONE: 910-507-2115

NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

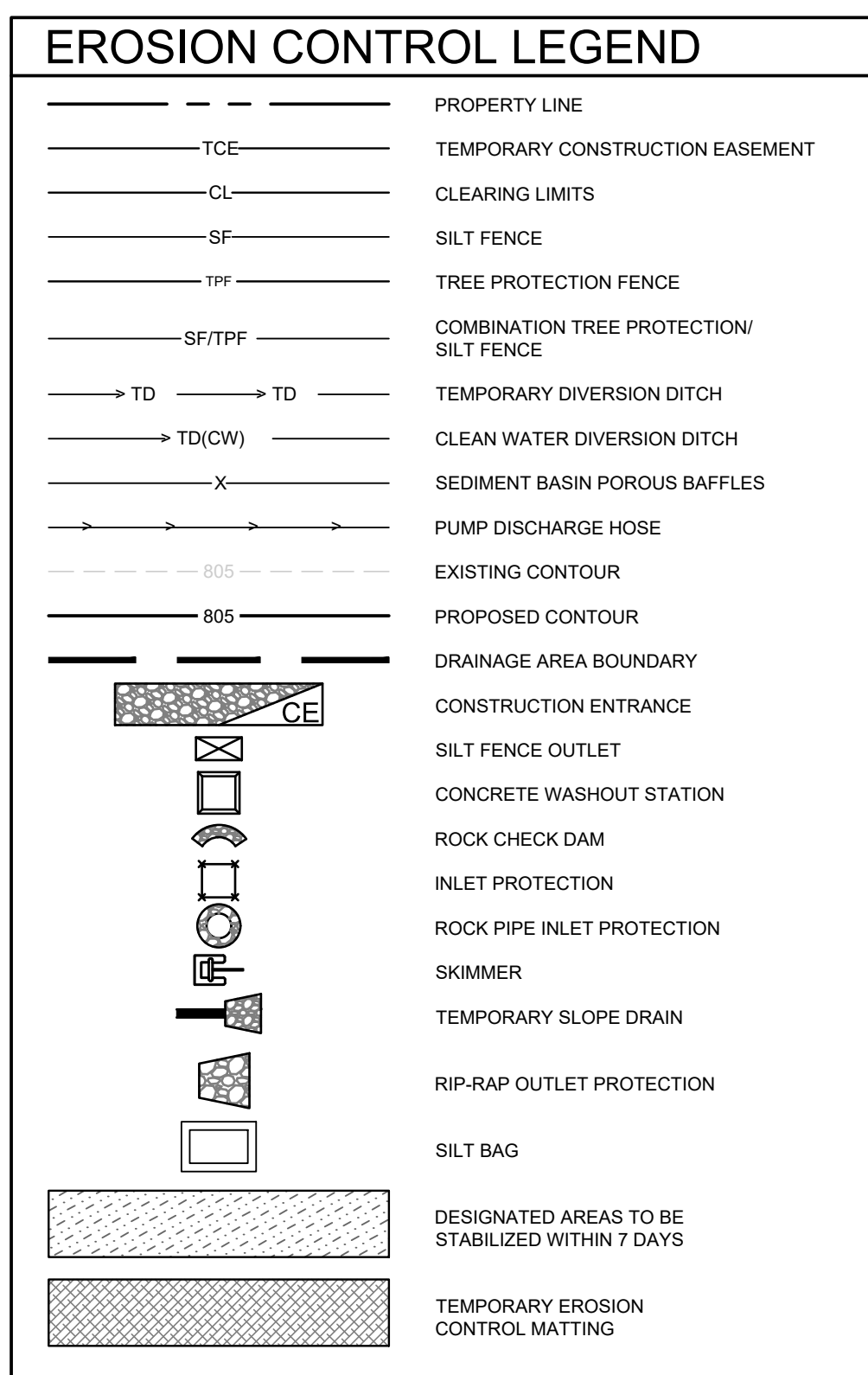
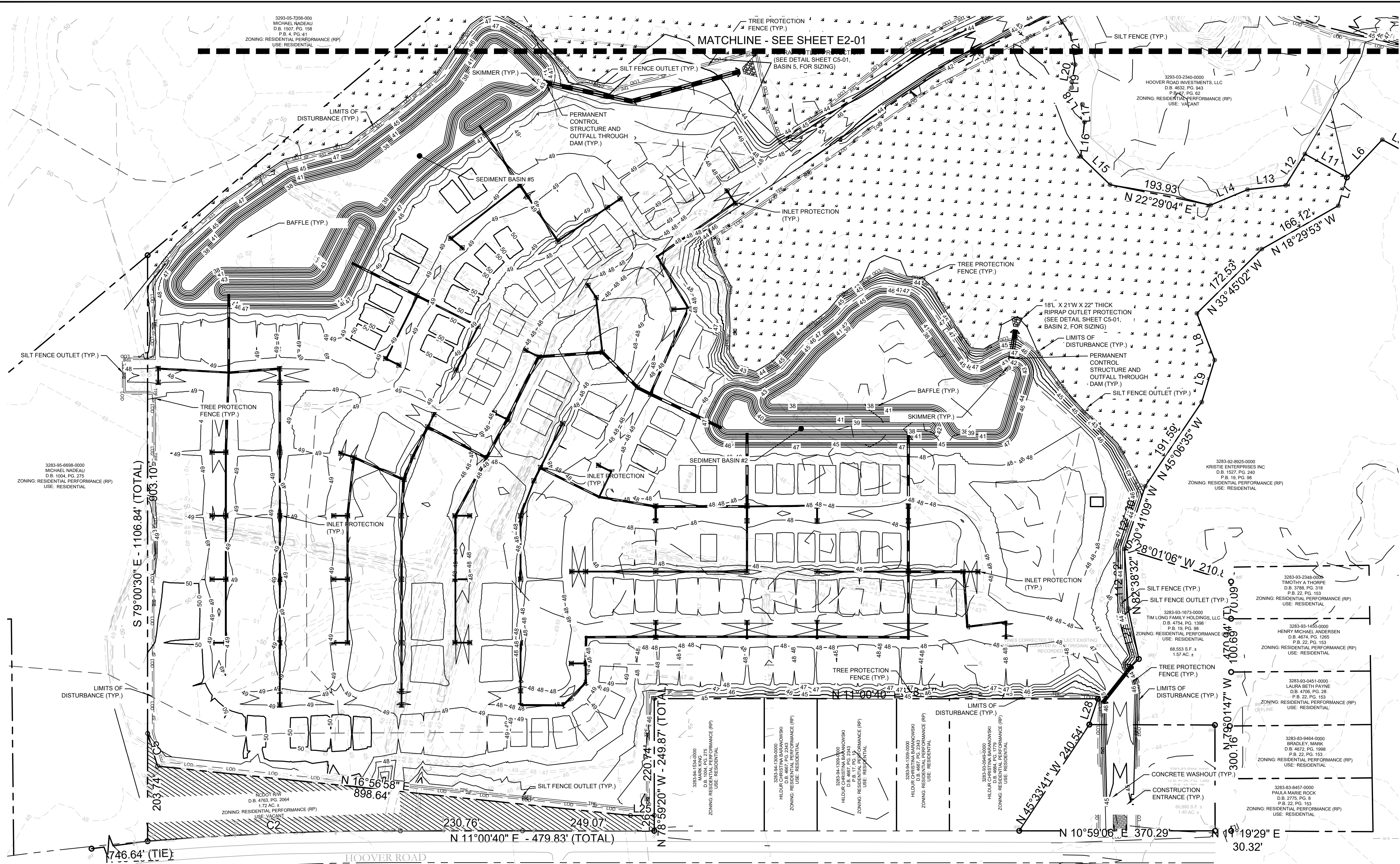
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 HAMPSSTEAD, NC 28443
 3283-83-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY	NJ
DESIGNED BY	NJ
REVIEWED BY	RW
DATE	8/31/2023
PROJECT NO.	014793000
TITLE	EROSION CONTROL PLAN PHASE 1
SHEET NUMBER	C5-11

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- PHASE 2 CONSTRUCTION SEQUENCE:**
- THE FOLLOWING PHASE 2 CONSTRUCTION SEQUENCE IS FURNISHED AS A GENERAL GUIDE FOR PREPARATION OF A SEQUENCE OF CONSTRUCTION EVENTS.
 - MAINTAIN CONSTRUCTION ENTRANCES, SILT FENCE, INLET PROTECTION, DIVERSION DITCHES, AND SEDIMENT BASINS.
 - CALL FOR ON-SITE INSPECTION BY INSPECTOR ONCE ALL PHASE 2 EROSION CONTROL MEASURES ARE INSTALLED. TREE PROTECTION FENCING MUST BE INSTALLED AND INSPECTED BY THE CITY OF GREENVILLE SITE INSPECTOR PRIOR TO A GRADING PERMIT BEING ISSUED. OBTAIN CERTIFICATE OF COMPLIANCE FROM NCOEG.
 - CONTRACTOR IS TO CUT AND/OR FILL AREAS TO BRING THE SITE TO THE PROPOSED GRADES SHOWN ON THE GRADING AND DRAINAGE PLANS. GRADING ACTIVITY SHALL BE LIMITED TO WITHIN THE CLEARING LIMITS. MAINTAIN ALL EROSION CONTROL MEASURES AS NECESSARY.
 - PROVIDE GROUND COVER ON SLOPES GREATER THAN 3:1 WITHIN 7 DAYS FOLLOWING COMPLETION OF ANY PHASE OF GRADING. PROVIDE GROUND COVER TO ALL OTHER AREAS WITHIN 14 DAYS FOLLOWING COMPLETION OF ANY PHASE OF GRADING OR INACTIVITY.
 - INSPECT AND REPAIR EROSION CONTROL MEASURES AFTER EVERY RAINFALL EVENT OF 1/2" OR GREATER OR EVERY SEVEN (7) CALENDAR DAYS.
 - SEDIMENT / SKIMMER BASINS SHALL BE CLEANED WHEN ONE-HALF FULL.
 - ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE NCOEG EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, U.S. DEPARTMENT OF AGRICULTURE, AND PENDER COUNTY EROSION CONTROL ORDINANCES.
 - UPON INSTALLATION OF THE STORM DRAINAGE SYSTEM, WHICH MUST DIVERT FLOW FROM SKIMMER BASINS 1, 4, AND 6 AND TEMPORARY SEDIMENT TRAP 3 AND REDIRECT THE FLOW TO SEDIMENT BASINS 2 AND 5, AND APPROVAL FROM THE INSPECTOR, SKIMMER BASINS 1, 4, AND 6 AND TEMPORARY SEDIMENT TRAP 3 SHALL BE REMOVED.
 - UPON THE DECOMMISSION OF SKIMMER BASINS 1, 4, AND 6, AND TEMPORARY SEDIMENT TRAP 3, TERMINATE THE TEMPORARY DIVERSION DITCHES WHERE RUNOFF CAN FILTER THROUGH SILT FENCE OUTLETS.
 - UPON STABILIZATION OF UPSTREAM AREA AND APPROVAL FROM THE INSPECTOR, SEDIMENT BASINS 2 AND 5 SHALL BE CLEANED OF SEDIMENT AND CONVERTED TO A WET POND, CONTRACTOR TO EXPAND WET POND AS EARTHWORKS PROGRESS, BUT TO MAINTAIN OUTLET STRUCTURE OF SEDIMENT BASINS 2 AND 5 AS EXCAVATION CONTINUES.
 - REFER TO SHEET C5-00 - EROSION CONTROL NOTES FOR GENERAL EROSION CONTROL NOTES AND MAINTENANCE.
 - ALL SEDIMENT SHALL REMAIN OUT OF THE PERMANENT BMP ONCE CONVERTED. SEDIMENT THAT ENTERS THE BMP SHALL BE REMOVED IMMEDIATELY, AND THE BMP INSPECTED TO ENSURE COMPLIANCE HAS BEEN MAINTAINED.
 - ALL EROSION CONTROL MEASURES TO REMAIN IN PLACE UNTIL +/- 80% STABILIZATION IS ACHIEVED.

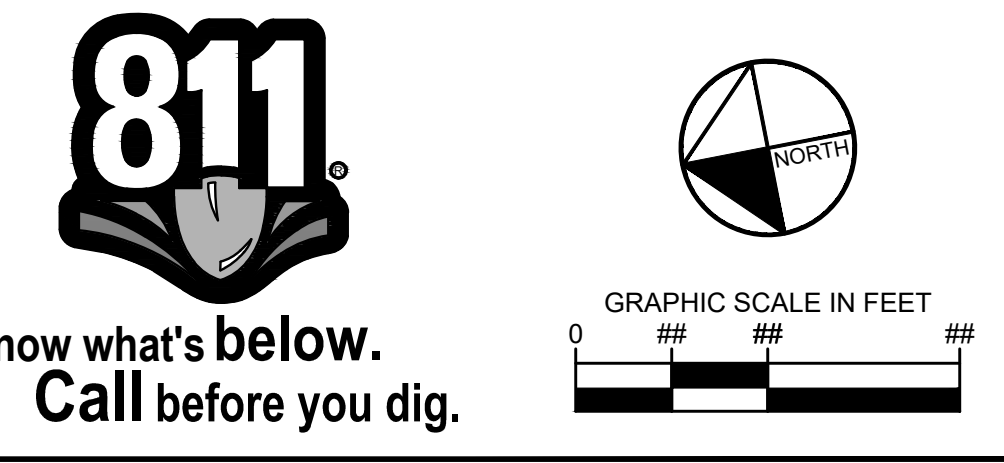
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NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

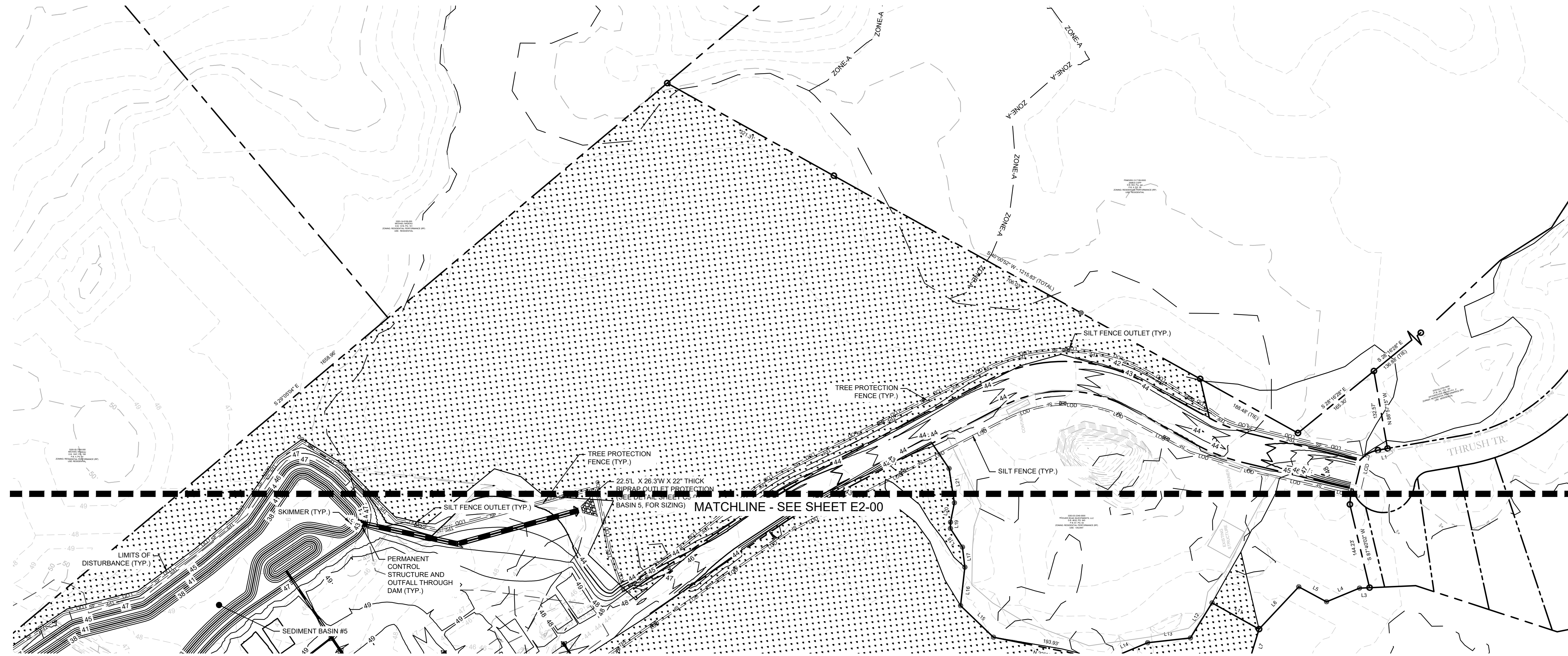
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DRAWN BY: NJ
 DESIGNED BY: NJ
 REVIEWED BY: RW
 DATE: 8/31/2023
 PROJECT NO.: 014793000
 TITLE: EROSION CONTROL PLAN PHASE 2
 SHEET NUMBER: C5-20



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EROSION CONTROL LEGEND	
	PROPERTY LINE
	TEMPORARY CONSTRUCTION EASEMENT
	CLEARING LIMITS
	SILT FENCE
	TREE PROTECTION FENCE
	COMBINATION TREE PROTECTION/SILT FENCE
	TEMPORARY DIVERSION DITCH
	CLEAN WATER DIVERSION DITCH
	SEDIMENT BASIN POROUS BAFFLES
	PUMP DISCHARGE HOSE
	EXISTING CONTOUR
	PROPOSED CONTOUR
	DRAINAGE AREA BOUNDARY
	CONSTRUCTION ENTRANCE
	SILT FENCE OUTLET
	CONCRETE WASHOUT STATION
	ROCK CHECK DAM
	ROCK PIPE INLET PROTECTION
	SKIMMER
	TEMPORARY SLOPE DRAIN
	RIP-RAP OUTLET PROTECTION
	SILT BAG
	DESIGNATED AREAS TO BE STABILIZED WITHIN 7 DAYS
	TEMPORARY EROSION CONTROL MATTING

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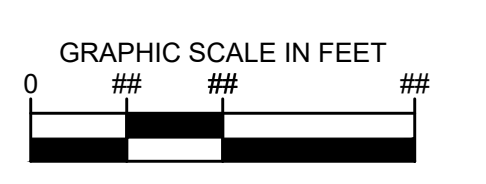
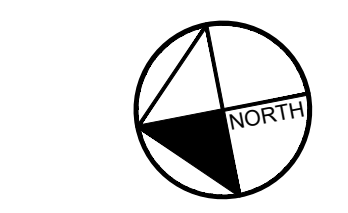
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REVIEWED BY	RW
DATE	8/31/2023
PROJECT NO.	014793000
TITLE	EROSION CONTROL PLAN PHASE 2
SHEET NUMBER	C5-21



Know what's below.
 Call before you dig.



Drawing name: K:\SAV_Civil\14793000_Hoover Road SFR\CAD\PlanSheets\C5-30 - EROSION CONTROL PLAN.dwg C5-31 EROSION CONTROL PLAN PHASE 3 Aug 31, 2023 9:50pm by Joe Glust



EROSION CONTROL LEGEND	
	PROPERTY LINE
	TEMPORARY CONSTRUCTION EASEMENT
	CLEARING LIMITS
	SILT FENCE
	TREE PROTECTION FENCE
	COMBINATION TREE PROTECTION/SILT FENCE
	TEMPORARY DIVERSION DITCH
	CLEAN WATER DIVERSION DITCH
	SEDIMENT BASIN POROUS BAFFLES
	PUMP DISCHARGE HOSE
	EXISTING CONTOUR
	PROPOSED CONTOUR
	DRAINAGE AREA BOUNDARY
	CONSTRUCTION ENTRANCE
	SILT FENCE OUTLET
	CONCRETE WASHOUT STATION
	ROCK CHECK DAM
	INLET PROTECTION
	ROCK PIPE INLET PROTECTION
	SKIMMER
	TEMPORARY SLOPE DRAIN
	RIP-RAP OUTLET PROTECTION
	SILT BAG
	DESIGNATED AREAS TO BE STABILIZED WITHIN 7 DAYS
	TEMPORARY EROSION CONTROL MATTING

Kimley»Horn
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 25 BULL ST., SUITE 400
 BELLEVILLE, NJ 07003
 PHONE: (912) 231-4384
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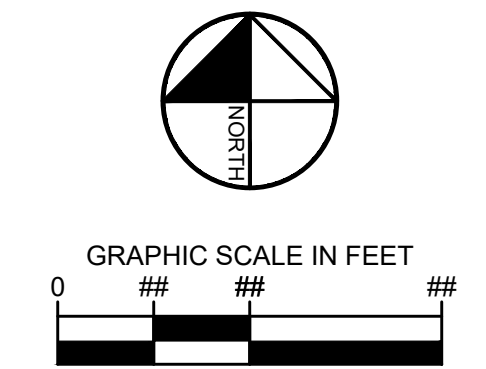
LOGAN DEVELOPERS INC.
 60 GREGORY ROAD (SUITE 1)
 BELVILLE, NC 28451
 PHONE: 910-507-2115

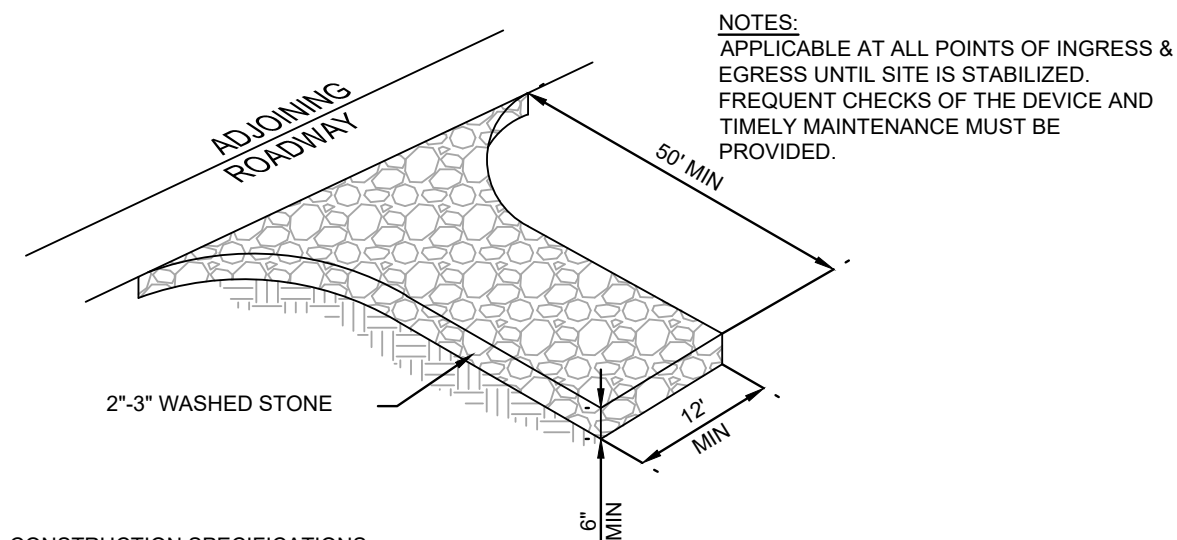
NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

BROOKFIELD BRANCH
 1038 HOOVER ROAD,
 HAMPSSTEAD, NC 28443
 3283-85-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY	NJ
DESIGNED BY	NJ
REVIEWED BY	RW
DATE	8/31/2023
PROJECT NO.	014793000
TITLE	EROSION CONTROL PLAN PHASE 3
SHEET NUMBER	C5-31

811
 Know what's below.
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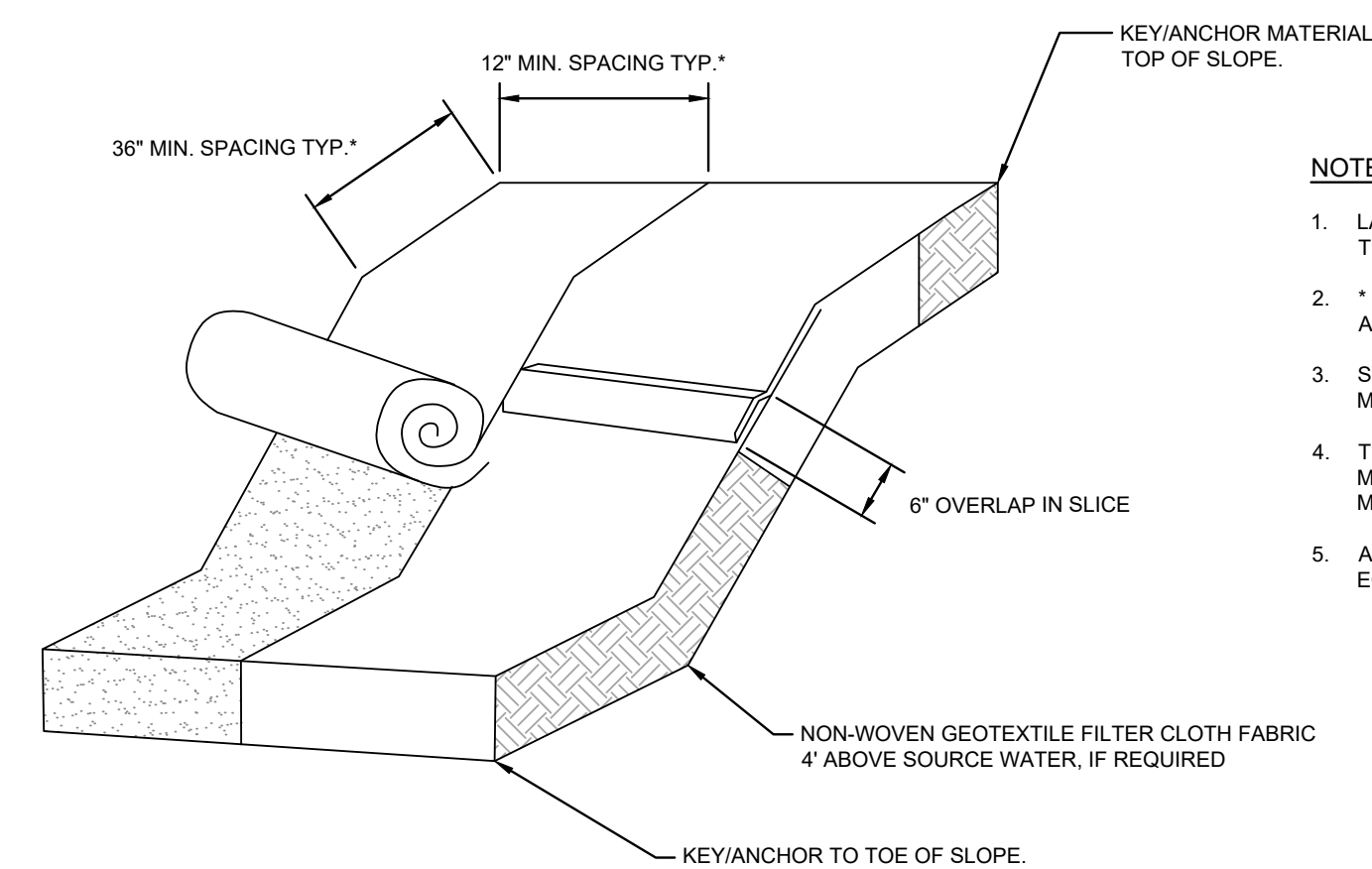
CONSTRUCTION SPECIFICATIONS:

- CLEAR THE ENTRANCE AND EXIT AREA OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL AND PROPERLY GRADE IT.
- PLACE THE GRAVEL TO THE SPECIFIC GRADE AND DIMENSIONS SHOWN ON THE PLANS, AND SMOOTH IT.
- PROVIDE DRAINAGE TO CARRY WATER TO A SEDIMENT TRAP OR OTHER SUITABLE OUTLET.
- USE GEOTEXTILE FABRICS BECAUSE THEY IMPROVE STABILITY OF THE FOUNDATION IN LOCATIONS SUBJECT TO SEEPAGE OR HIGH WATER TABLE.

MAINTENANCE NOTES:

MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 2-INCH STONE. AFTER EACH RAINFALL, INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT AND CLEAN IT OUT AS NECESSARY. IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED, OR TRACKED ONTO PUBLIC ROADWAYS.

TEMPORARY CONSTRUCTION ENTRANCE
N.T.S. KHA DETAIL NO: 01.101.R02 XX



NOTES

- LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
- * DIMENSIONS SHOWN ARE MINIMUM. MANUFACTURED PRODUCTS MAY HAVE ADDITIONAL REQUIREMENTS THAT MUST BE MET.
- SLOPE SURFACE SHALL BE FREE OF ROCKS, SOIL CLOUDS, STICKS, GRASS, MAT/BLANKETS SHALL HAVE GOOD SOIL CONTACT.
- THE DETAIL SHOWN IS FOR SLOPE MATTING. FOR CHANNEL OR PIPE OUTFALL MATTING SPECIFICATIONS, PLEASE REFER TO NCSOPDM STANDARD #6.17 AND MANUFACTURER'S GUIDELINES.
- ALL MATTING TO BE ERONET™ S1508 EROSION CONTROL BLANKET OR APPROVED EQUIVALENT.

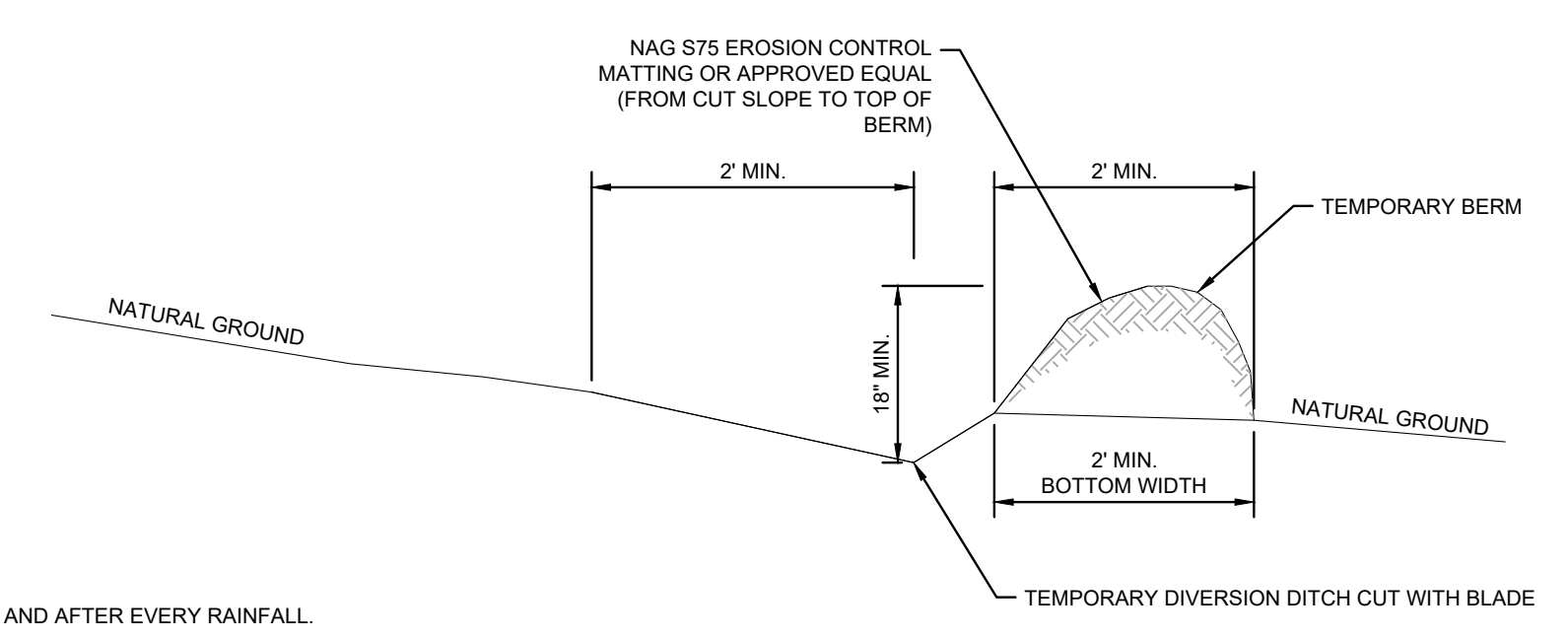
TEMPORARY MATTING
N.T.S. KHA DETAIL NO: 01.105.R01 XX

CONSTRUCTION SPECIFICATIONS:

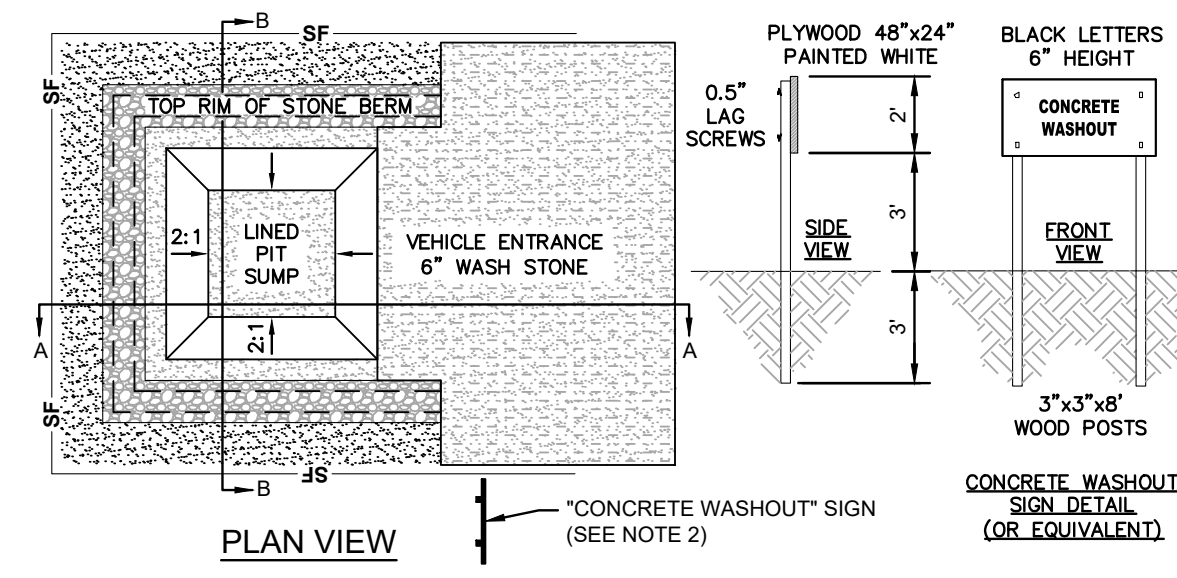
- REMOVE AND PROPERLY DISPOSE OF ALL TREES, BRUSH, STUMPS, AND OTHER OBJECTIONABLE MATERIAL.
- ENSURE THAT THE MINIMUM CONSTRUCTED CROSS SECTION MEETS ALL DESIGN REQUIREMENTS.
- ENSURE THAT THE TOP OF THE DIKE IS NOT LOWER AT ANY POINT THAN THE DESIGN ELEVATION PLUS THE SPECIFIED SETTLEMENT.
- PROVIDE SUFFICIENT ROOM AROUND DIVERSIONS TO PERMIT MACHINE REGRADING AND CLEANOUT.
- VEGETATE THE RIDGE IMMEDIATELY AFTER CONSTRUCTION, UNLESS IT WILL REMAIN IN PLACE LESS THAN 30 WORKING DAYS.

MAINTENANCE NOTES:

- INSPECT TEMPORARY DIVERSIONS ONCE A WEEK AND AFTER EVERY RAINFALL.
- IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE.
- CAREFULLY CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED.
- WHEN THE AREA PROTECTED IS PERMANENTLY STABILIZED, REMOVE THE RIDGE AND THE CHANNEL TO BLEND WITH THE NATURAL GROUND AND APPROPRIATELY STABILIZE IT.



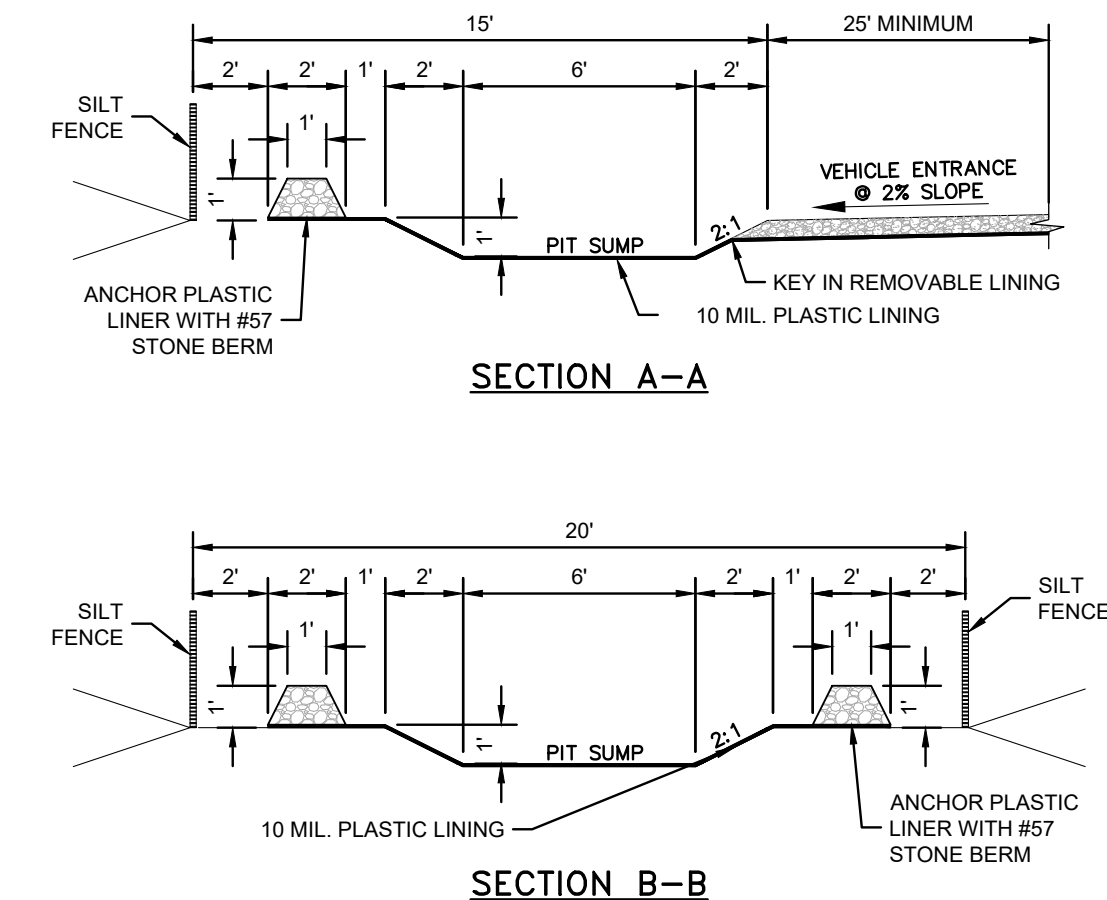
TEMPORARY DIVERSION DITCH
N.T.S. KHA DETAIL NO: 01.106.R02 XX



NOTES

- ACTUAL LAYOUT TO BE DETERMINED IN THE FIELD.
- A CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
- MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE REMOVED FROM THE SITE AND DISPOSED OF OR RECYCLED.
- HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE BACKFILLED, REPAIRED, AND STABILIZED TO PREVENT EROSION.
- PIT CAPACITY IS MINIMUM OF 6 CUBIC FEET PER 10 CUBIC YARDS OF CONCRETE.

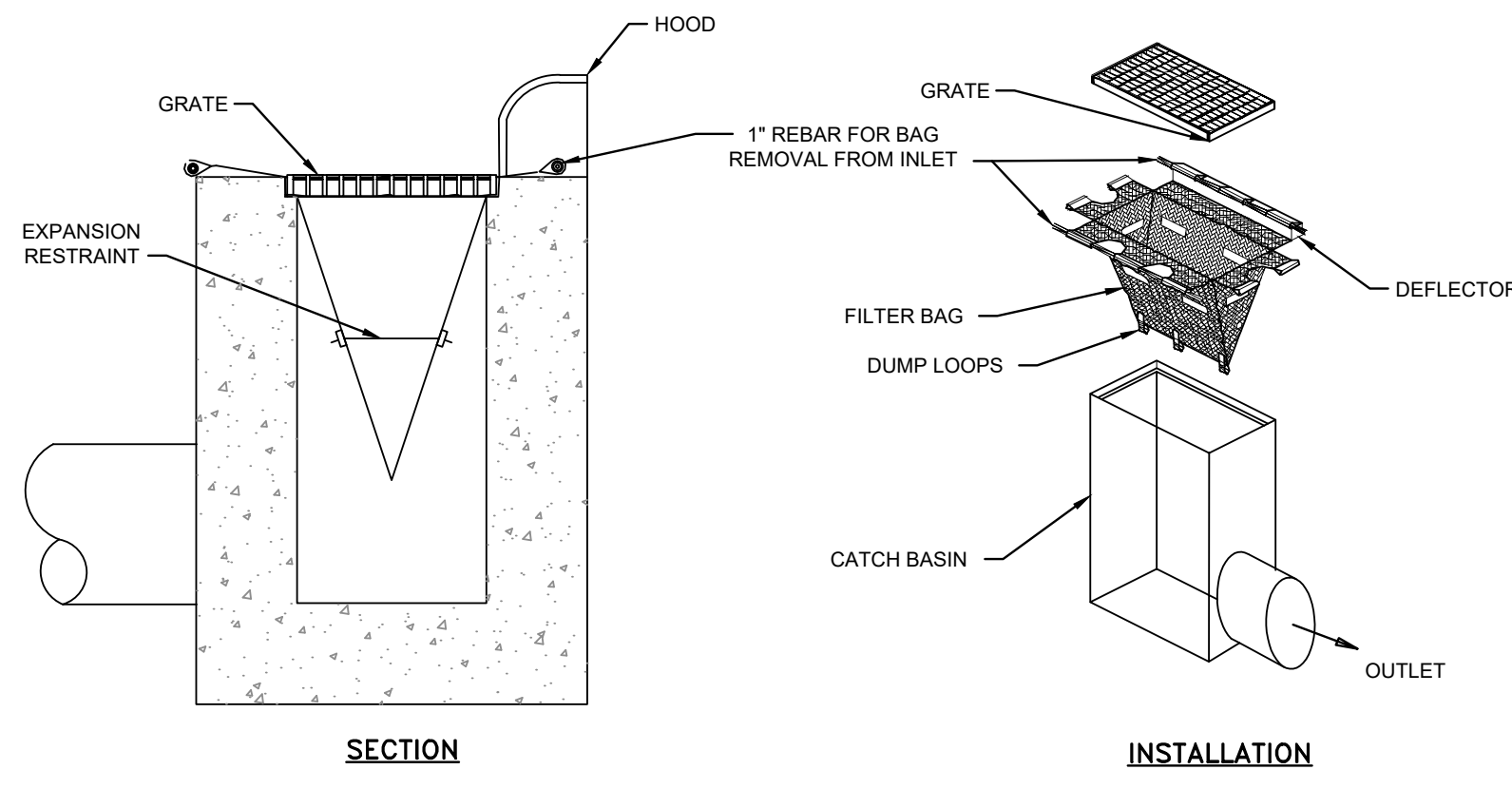
CONCRETE WASHOUT STATION
N.T.S. KHA DETAIL NO: 01.102.R01 XX



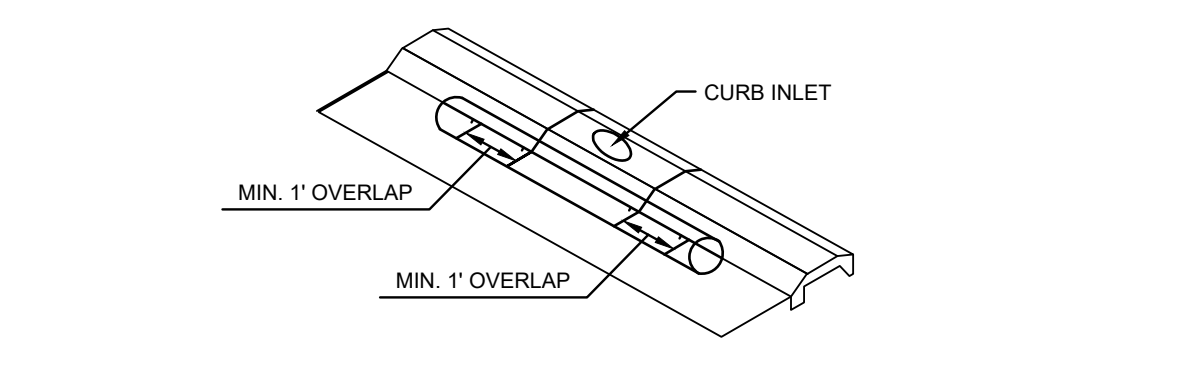
NOTES

- INLET MAINTENANCE SHALL BE DOCUMENTED IN PROJECT LOG BOOK.
- FILTER TYPES SHALL BE APPROVED BY THE CITY INSPECTOR PRIOR TO INSTALLATION.
- FILTER BAGS MAY BE REMOVED WHEN SITE IS STABILIZED AT THE DIRECTION OF THE ENGINEER.
- FILTER BAGS SHALL BE REMOVED PRIOR TO STREET ACCEPTANCE.
- FILTER BAGS SHALL BE CLEANED OR REPLACED ON A REGULAR BASIS (NOT BE MORE THAN HALF FULL AT ANY TIME).
- FILTER BAGS SHALL NOT BE ALLOWED IN EXISTING CITY OR NCDOT ROADS.

CATCH BASIN INLET PROTECTION
N.T.S. KHA DETAIL NO: 01.201.R01 XX



CATCH BASIN INLET PROTECTION
N.T.S. KHA DETAIL NO: 01.201.R01 XX



GUTTERBUDDY® SPECIFICATIONS FOR CURB GUTTER STORM DRAINS

1.0 DESCRIPTION

1.1 THIS WORK SHALL CONSIST OF FURNISHING, PLACING, MAINTAINING AND REMOVING THE GUTTERBUDDY® SEDIMENT CONTROL DEVICE AS DIRECTED BY THE ENGINEER AND AS SHOWN ON THE CONTRACT DRAWINGS. THE GUTTERBUDDY® SEDIMENT CONTROL SYSTEM IS DISTRIBUTED BY THE BMP STORE.

2.0 MATERIALS

2.1 GUTTERBUDDY®
THE GUTTERBUDDY® SHALL BE SYNTHETIC FILTER MANUFACTURED FROM RECYCLED SYNTHETIC FIBERS.

2.1.1 THE GUTTERBUDDY® WILL BE MANUFACTURED TO BE 9" IN DIAMETER AND ARE AVAILABLE IN 4', 6', 8', 10', 12', 14' AND 16' LENGTHS AND A MINIMUM OF TWENTY-FOUR (24) INCHES LONGER THAN THE CURB INLET OPENING. THIS WILL ALLOW FOR SUFFICIENT LENGTH TO COVER THE INLET WITH TWELVE (12) INCHES BEYOND THE INLET ON BOTH ENDS.

3.0 CONSTRUCTION SEQUENCE

3.1 GENERAL

3.1.1 INSTALL THE GUTTERBUDDY® IN FRONT OF THE CURB INLET OPENING. EACH END OF THE GUTTERBUDDY® SHOULD OVERLAP THE CURB INLET APPROXIMATELY 12".

3.1.2 THE GUTTERBUDDY® SHOULD BE CLEANED IF A VISUAL INSPECTION SHOWS SILT AND DEBRIS BUILD UP AROUND THE GUTTERBUDDY®.

3.1.3 TO REMOVE THE GUTTERBUDDY®, LIFT OUT OF THE OPENING.

3.1.4 THE GUTTERBUDDY® IS REUSABLE. ONCE THE CONSTRUCTION PROJECT IS COMPLETE AND IT IS NO LONGER NEEDED FOR SEDIMENT CONTROL, REMOVE, CLEAN AND STORE OUT OF THE SUNLIGHT UNTIL NEEDED ON THE NEXT PROJECT.

3.1.5 PONDING IS LIKELY IF SEDIMENT IS NOT REMOVED REGULARLY. INSPECTION OF GUTTERBUDDY® SHOULD BE ON A REGULAR BASIS AND IMMEDIATELY AFTER MAJOR RAIN EVENTS.

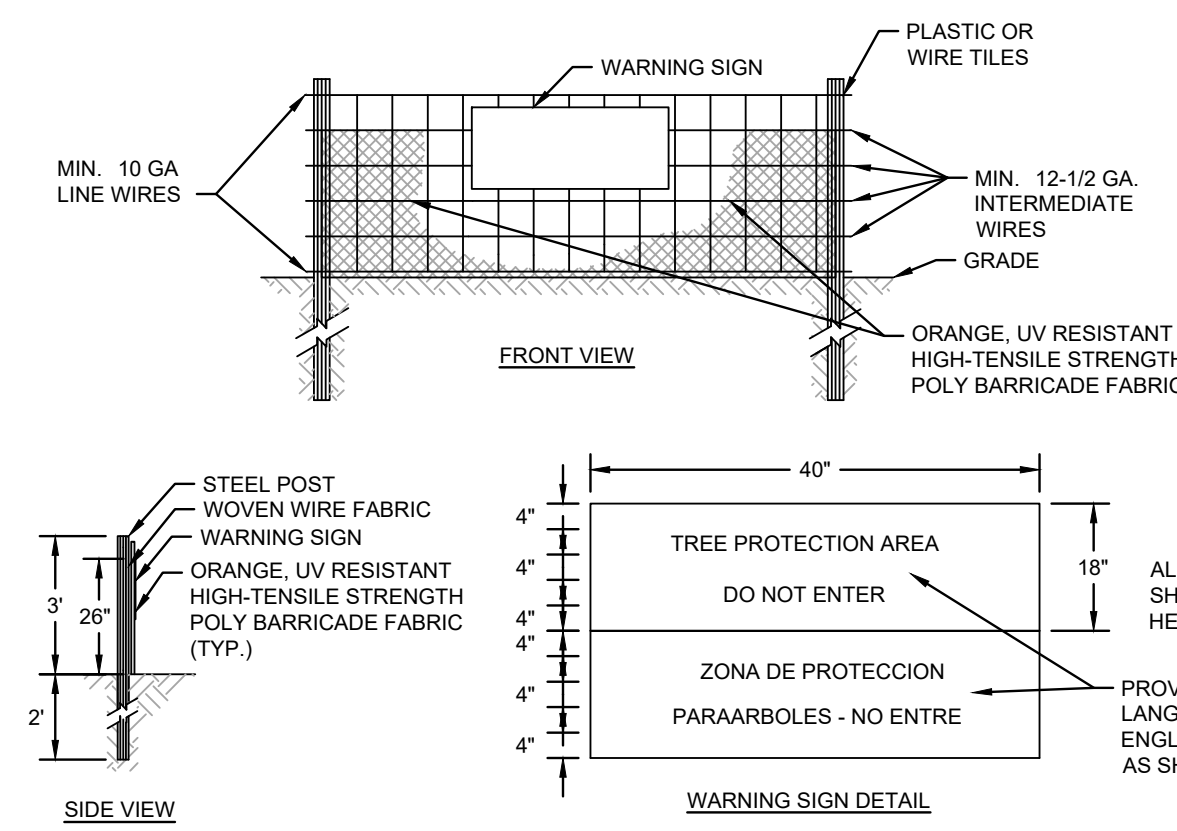
4.0 BASIS OF PAYMENT

4.1 THE PAYMENT FOR ANY GUTTERBUDDY® USED DURING THE CONSTRUCTION IS TO BE INCLUDED IN THE BID OF THE OVERALL EROSION AND SEDIMENT CONTROL PLAN AND PRICED BY THE LINEAR FOOT.

NOTE

INSTALL ROCK AND GRAVEL AROUND GUTTER BUDDY TO PRECLUDE SEDIMENT LADEN RUNOFF FROM FLOWING UNDERNEATH INLET PROTECTION.

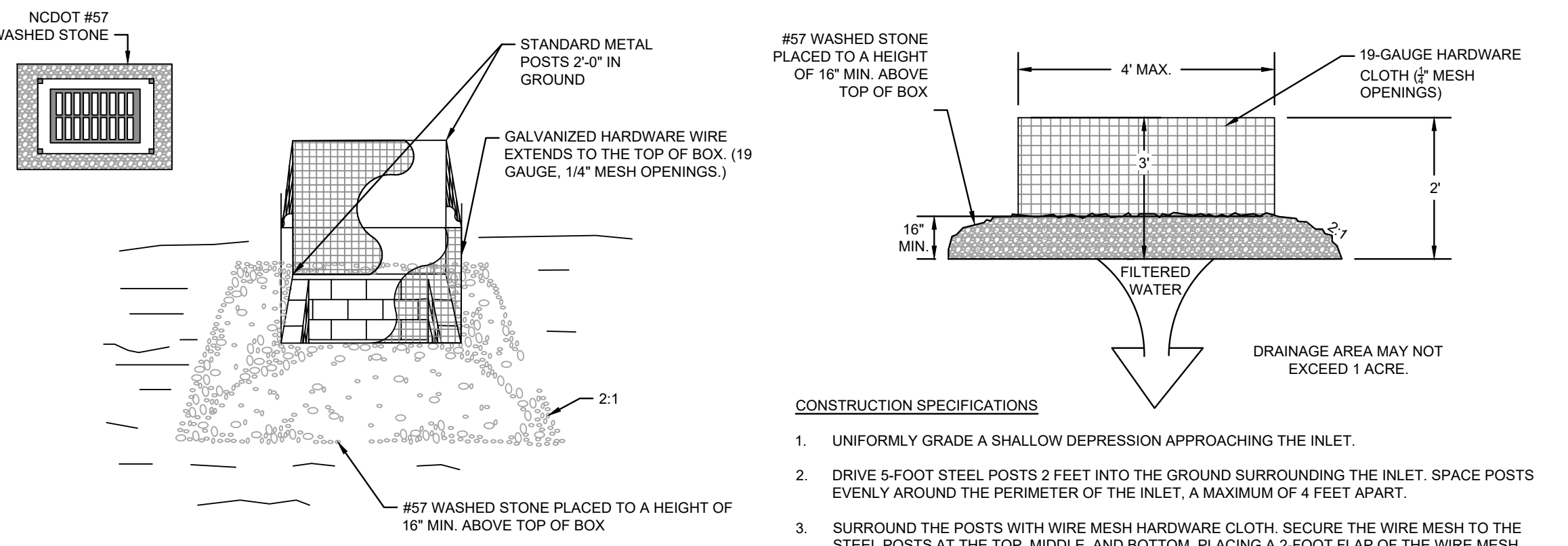
CURB INLET SILT PROTECTION
N.T.S. KHA DETAIL NO: 01.204.R01 XX



NOTES

- TREE PROTECTION FENCING MUST BE INSTALLED AT A MINIMUM RADIUS OF THE CRITICAL ROOT ZONE (CRZ) OF TREES. (CRZ DEFINED AS RADIUS x 1.25' (FT) PER INCH AT DBH FROM TRUNK OF TREE).
- IF CONSTRUCTION OCCURS WITHIN THE CRZ AT LEAST 12" OF MULCH AND/OR LOGGING MATS SHALL BE PLACED WHERE MACHINERY MANEUVERS TO REDUCE SOIL COMPACTION IN THIS ZONE.
- THE TREE PROTECTION FENCING MUST NOT BE VIOLATED FOR THE ENTIRE DURATION OF THE PROJECT.
- THERE WILL BE ZERO TOLERANCE FOR STORING OR PARKING VEHICLES, SUPPLIES, OR EQUIPMENT UNDER PROTECTED TREES.
- IMPACT PROTECTION DEVICES MUST BE REMOVED AFTER CONSTRUCTION.
- WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL. LETTERS TO BE 3" HIGH MINIMUM, CLEARLY LEGIBLE AND SPACED AS SHOWN.
- SIGNS SHALL BE PLACED AT 50' MAXIMUM INTERVALS. PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND 50' ON CENTER THEREAFTER. FOR TREE PROTECTION AREAS LESS THAN 200' IN PERIMETER, PROVIDE NO LESS THAN ONE SIGN PER PROTECTION AREA.
- ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC. MAINTAIN TREE PROTECTION FENCE THROUGHOUT DURATION OF PROJECT.
- SHOULD THE FABRIC OF A PROTECTION FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE, CONTRACTOR SHALL REPLACE IT PROMPTLY.

TREE PROTECTION FENCE
N.T.S. KHA DETAIL NO: 01.304.R01 XX



CONSTRUCTION SPECIFICATIONS

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

MAINTENANCE

INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/4 INCH OR GREATER) RAINFALL EVENT. CLEAR THE MESH WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED.

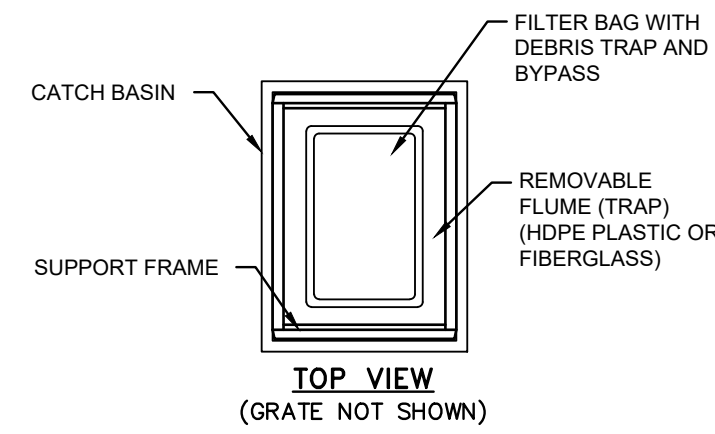
CATCH BASIN AND YARD INLET PROTECTION
N.T.S. KHA DETAIL NO: 01.202.R01 XX

Drawing name: K:\SAV_Civil\14793000_Hoover Road SFR\CADD\PlanSheets\C5-80-EROSION CONTROL DETAILS.DWG C5-80 EROSION CONTROL DETAILS.DWG Aug 31, 2023 9:50pm by: Joe Guast

NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

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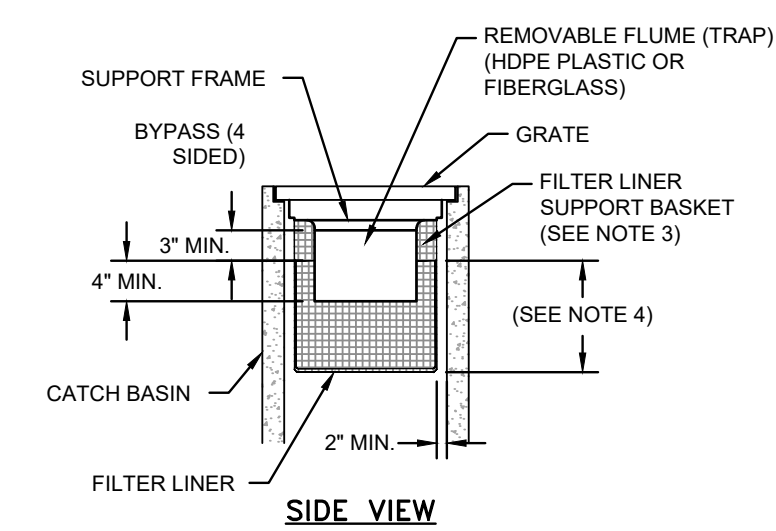
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CAPACITY CHART				
MODEL NO.	INLET SIZE	LINER DEPTH	STORAGE CAPACITY*	CLEAN FLOW RATE**
FF-2424HC	24" X 24"	12"	1.87 CU. FT.	470 GPM
*	24" X 24"	24"	4.18 CU. FT.	914 GPM
*	24" X 24"	36"	6.69 CU. FT.	1,357 GPM
FF-2436HC	24" X 36"	12"	2.55 CU. FT.	641 GPM
*	24" X 36"	24"	6.38 CU. FT.	1,201 GPM
*	24" X 36"	36"	10.20 CU. FT.	1,761 GPM
FF-3636HC-GO	36" X 36"	12"	3.36 CU. FT.	772 GPM
*	36" X 36"	24"	8.39 CU. FT.	1,402 GPM
*	36" X 36"	36"	13.43 CU. FT.	2,032 GPM

* STORAGE CAPACITY REFLECTS MAXIMUM SOLIDS COLLECTION PRIOR TO IMPEDING BYPASS.
 ** FLOW RATES ARE "CALCULATED CLEAN FLOW RATES" BASED ON LINER MATERIAL FLOW RATE OF 70 GPM/SQ. FT. (RECOMMEND APPLYING FACTOR OF .25 TO .50 TO FLOW RATES TO ALLOW FOR SEDIMENT AND DEBRIS)

CATCH BASIN SILT PROTECTION INSERT
N.T.S.



- NOTES**
- CATCH BASIN INSERTS ARE AVAILABLE IN SIZES TO FIT MOST INDUSTRY-STANDARD CATCH BASINS (SEE CAPACITY CHART). CUSTOM SIZES ARE AVAILABLE.
 - FILTER SUPPORT FLANGES SHALL BE CONSTRUCTED FROM STAINLESS STEEL (TYPE 304) DEBRIS TRAP (FLUME) SHALL BE CONSTRUCTED FROM EITHER PETROLEUM RESISTANT FIBERGLASS OR HDPE PLASTIC.
 - FILTER LINER SUPPORT BASKET SHALL BE CONSTRUCTED FROM A BIAXIAL GEOGRID WITH A MINIMUM ULTIMATE TENSILE STRENGTH OF 900 X 1400, AS TESTED IN ACCORDANCE WITH ASTM D-4595.
 - INSERT LINERS ARE AVAILABLE IN STANDARD DEPTHS OF 12", 24" OR 36" (REFER TO CAPACITY CHART). CUSTOM LINER DEPTHS MAY BE SPECIFIED.

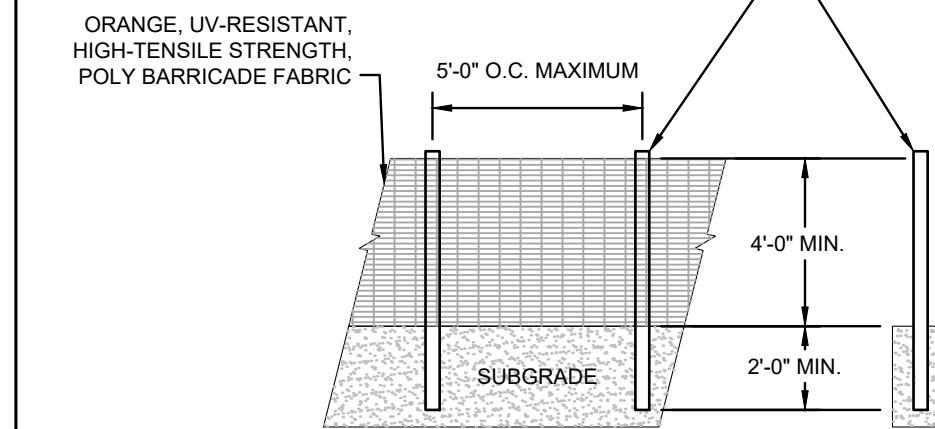
MAINTENANCE SPECIFICATIONS
INSPECT THE PROTECTION INSERT AND REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM VICINITY OF UNIT AFTER EACH STORM EVENT. IF THE CONTAINMENT IS MORE THAN 1/3 FULL OF SEDIMENT, EMPTY THE PROTECTION INSERT BY LIFTING THE UNIT OUT OF THE INLET AND REPLACING.

KHA DETAIL NO: 01.203.R01

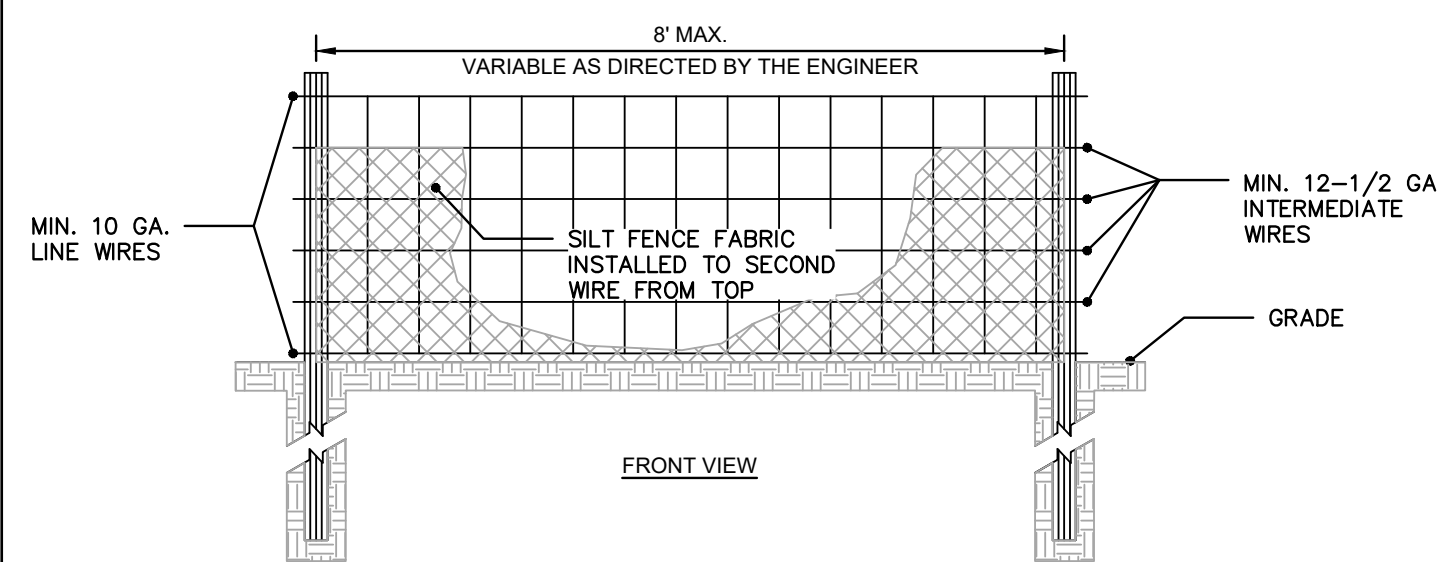


ORANGE SAFETY FENCE
N.T.S.

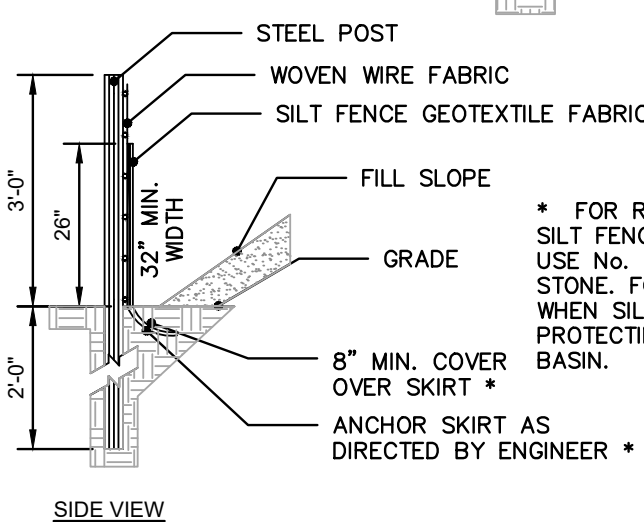
KHA DETAIL NO: 01.301.R01



MAINTENANCE SPECIFICATIONS
SHOULD THE FABRIC OF A PROTECTION FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.



- NOTES**
- USE SILT FENCE ONLY WHEN DRAINAGE AREA DOES NOT EXCEED 1/4 ACRE AND NEVER IN AREAS OF CONCENTRATED FLOW.
 - END OF SILT FENCE NEEDS TO BE TURNED UPHILL.



CONSTRUCTION SPECIFICATIONS

MATERIALS

- USE A SYNTHETIC FILTER FABRIC OF AT LEAST 95% BY WEIGHT OF POLYOLEFINS OR POLYESTER, WHICH IS CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS IN ASTM D 6461. SYNTHETIC FILTER FABRIC SHOULD CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF 6 MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0 TO 120° F.
- ENSURE THAT POSTS FOR SEDIMENT FENCES ARE 1.25 LBL/LINER FT MINIMUM STEEL WITH A MINIMUM LENGTH OF 5 FEET. MAKE SURE THAT STEEL POSTS HAVE PROJECTIONS TO FACILITATE FASTENING THE FABRIC.
- FOR REINFORCEMENT OF STANDARD STRENGTH FILTER FABRIC, USE WIRE FENCE WITH A MINIMUM 14 GAUGE AND A MAXIMUM MESH SPACING OF 6 INCHES.

CONSTRUCTION

- CONSTRUCT THE SEDIMENT BARRIER OF STANDARD STRENGTH OR EXTRA STRENGTH SYNTHETIC FILTER FABRICS.
- ENSURE THAT THE HEIGHT OF THE SEDIMENT FENCE DOES NOT EXCEED 24 INCHES ABOVE THE GROUND SURFACE. (HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE.)
- CONSTRUCT THE FILTER FABRIC FROM A CONTINUOUS ROLL OUT TO LENGTH OF THE BARRIER TO AVOID JOINTS. WHEN JOINTS ARE NECESSARY, SECURELY FASTEN THE FILTER CLOTH ONLY AT A SUPPORT POST WITH A FEET MINIMUM OVERLAP TO THE NEXT POST.
- SUPPORT STANDARD STRENGTH FILTER FABRIC BY WIRE MESH SUPPORT TO THE BOTTOM OF THE TRENCH. FASTEN THE WIRE REINFORCEMENT, THEN FABRIC ON THE UPSLOPE SIDE OF THE FENCE POST. WIRE OR PLASTIC ZIP TIES SHOULD HAVE MINIMUM 50 POUND TENSILE STRENGTH.
- WHEN A WIRE MESH SUPPORT FENCE IS USED, SPACE POSTS A MAXIMUM OF 8 FEET APART. SUPPORT POSTS SHOULD BE DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 24 INCHES.
- EXTRA STRENGTH FILTER FABRIC WITH 6 FEET POST SPACING DOES NOT REQUIRE WIRE MESH SUPPORT FENCE. SECURELY FASTEN THE FILTER FABRIC DIRECTLY TO POSTS. WIRE OR PLASTIC ZIP TIES SHOULD HAVE MINIMUM 50 POUND TENSILE STRENGTH.
- EXCAVATE A TRENCH APPROXIMATELY 4 INCHES WIDE AND 8 INCHES DEEP ALONG THE PROPOSED LINE OF POSTS AND UPSLOPE FROM THE BARRIER.
- PLACE 12 INCHES OF THE FABRIC ALONG THE BOTTOM AND SIDE OF THE TRENCH.
- BACKFILL THE TRENCH WITH SOIL PLACED OVER THE FILTER FABRIC AND COMPACT. THOROUGH COMPACTION OF THE BACKFILL IS CRITICAL TO SILT FENCE PERFORMANCE.
- DO NOT ATTACH FILTER FABRIC TO EXISTING TREES.

MAINTENANCE

INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

TEMPORARY SILT FENCE
N.T.S.

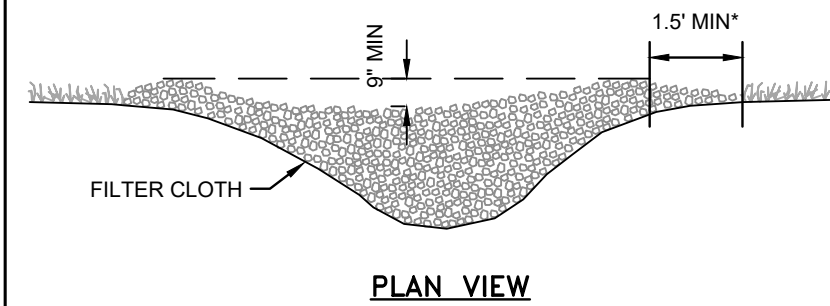
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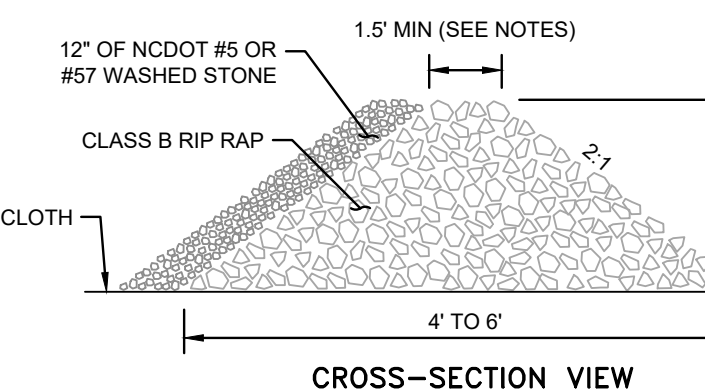
CONSTRUCTION SPECIFICATIONS

- PLACE STONE TO THE LINES AND DIMENSIONS SHOWN IN THE PLAN ON A FILTER FABRIC FOUNDATION.
- KEEP THE CENTER STONE SECTION AT LEAST 1 FOOT BELOW NATURAL GROUND LEVEL WHERE THE DAM ABUTS THE CHANNEL BANKS.
- EXTEND STONE AT LEAST 1.5 FEET BEYOND THE DITCH BANK TO KEEP WATER FROM CUTTING AROUND THE ENDS OF THE CHECK DAM.
- SET SPACING BETWEEN DAMS TO ASSURE THAT THE ELEVATION AT THE TOP OF THE LOWER DAM IS THE SAME AS THE TOE ELEVATION OF THE UPPER DAM.
- PROTECT THE CHANNEL AFTER THE LOWEST CHECK DAM FROM HEAVY FLOW THAT COULD CAUSE EROSION.
- MAKE SURE THAT THE CHANNEL REACH ABOVE THE MOST UPSTREAM DAM IS STABLE.
- ENSURE THAT OTHER AREAS OF THE CHANNEL, SUCH AS CULVERT ENTRANCES BELOW THE CHECK DAMS, ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.

MAINTENANCE NOTES:



PLAN VIEW



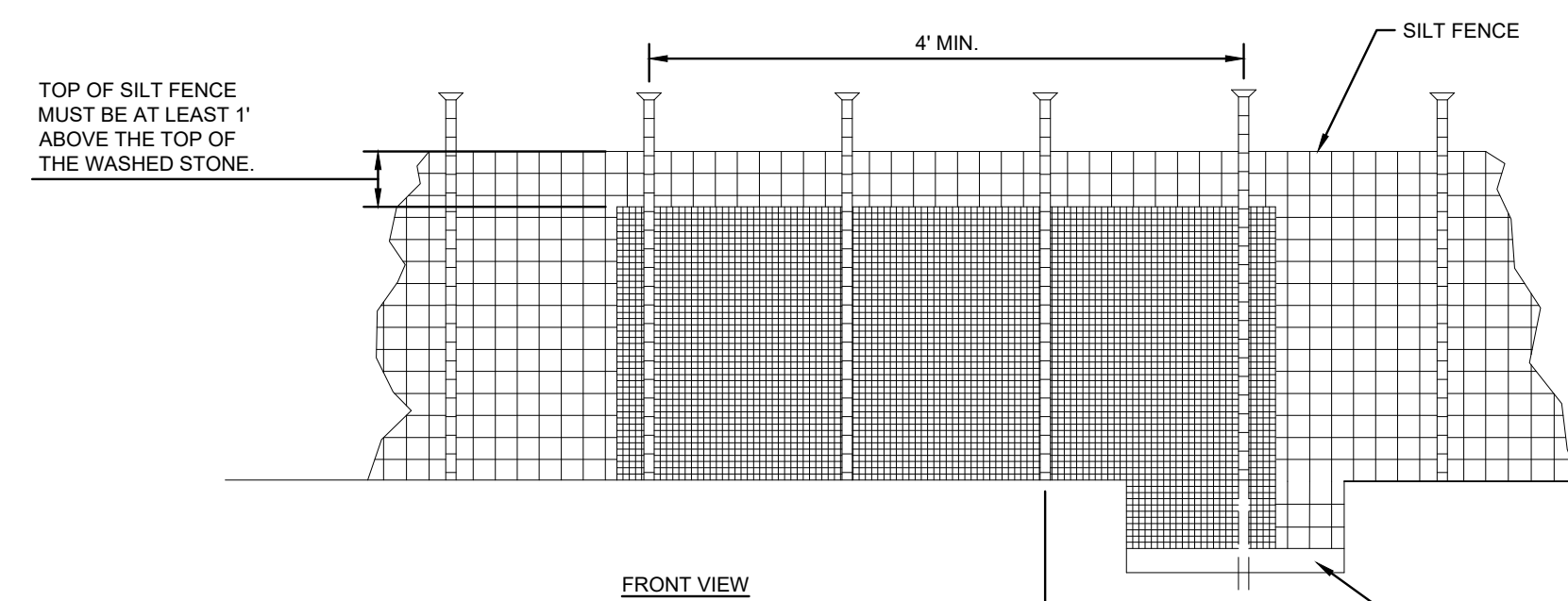
CROSS-SECTION VIEW

L = THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION

- NOTES:**
- KEY THE STONE INTO THE DITCH BANKS AND EXTEND IT BEYOND THE ABUTMENTS A MINIMUM OF 1.5 FEET TO AVOID WHOUTH FROM OVERFLOW AROUND THE DAM.
 - SEE NCDOT STANDARDS AND SPECS FOR COMPLETE DESIGN CRITERIA AND MAINTENANCE.

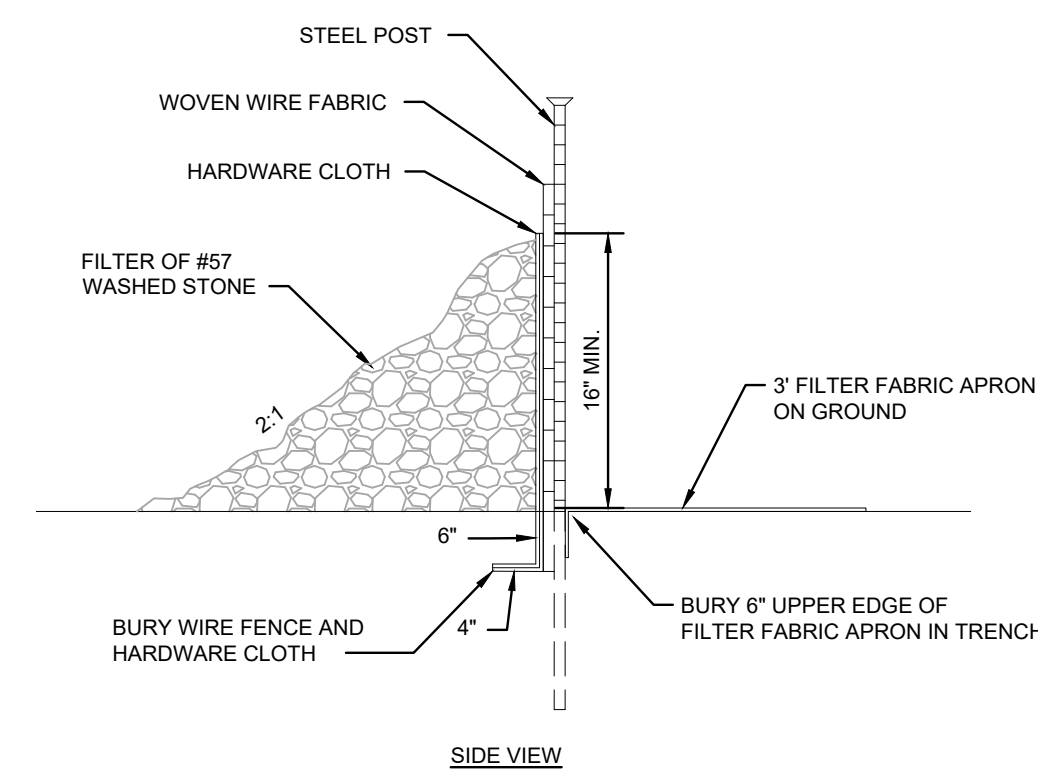
ROCK CHECK DAM
N.T.S.

KHA DETAIL NO: 01.403.R02



MAINTENANCE/SPECIFICATION NOTES

- REMOVE SEDIMENT WHEN HALF OF STONE OUTLET IS COVERED.
- REPLACE STONE AS NEEDED TO ENSURE DEWATERING.
- SILT FENCE OUTLETS SHOULD NOT BE LOCATED WHERE THE OUTFLOW WILL ERODE THE SOIL BELOW.



SIDE VIEW

SILT FENCE OUTLET
N.T.S.

KHA DETAIL NO: 01.303.R02



LOGAN DEVELOPERS INC.
60 GREGORY ROAD (SUITE 1)
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NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

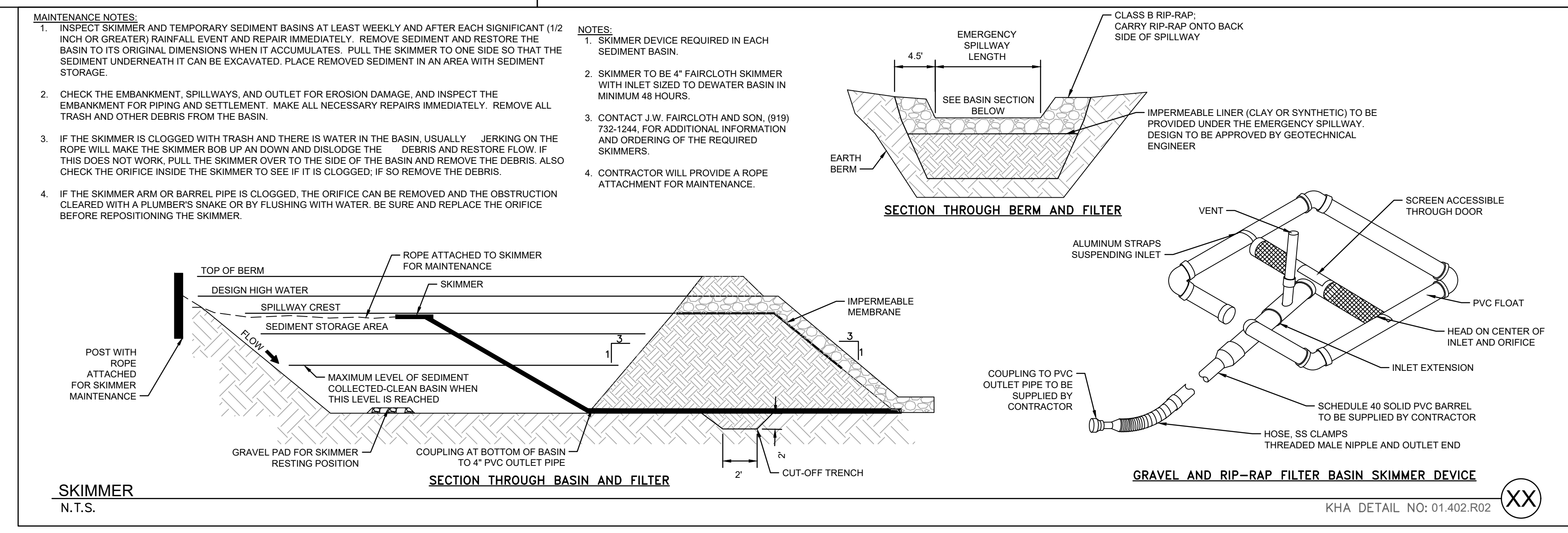
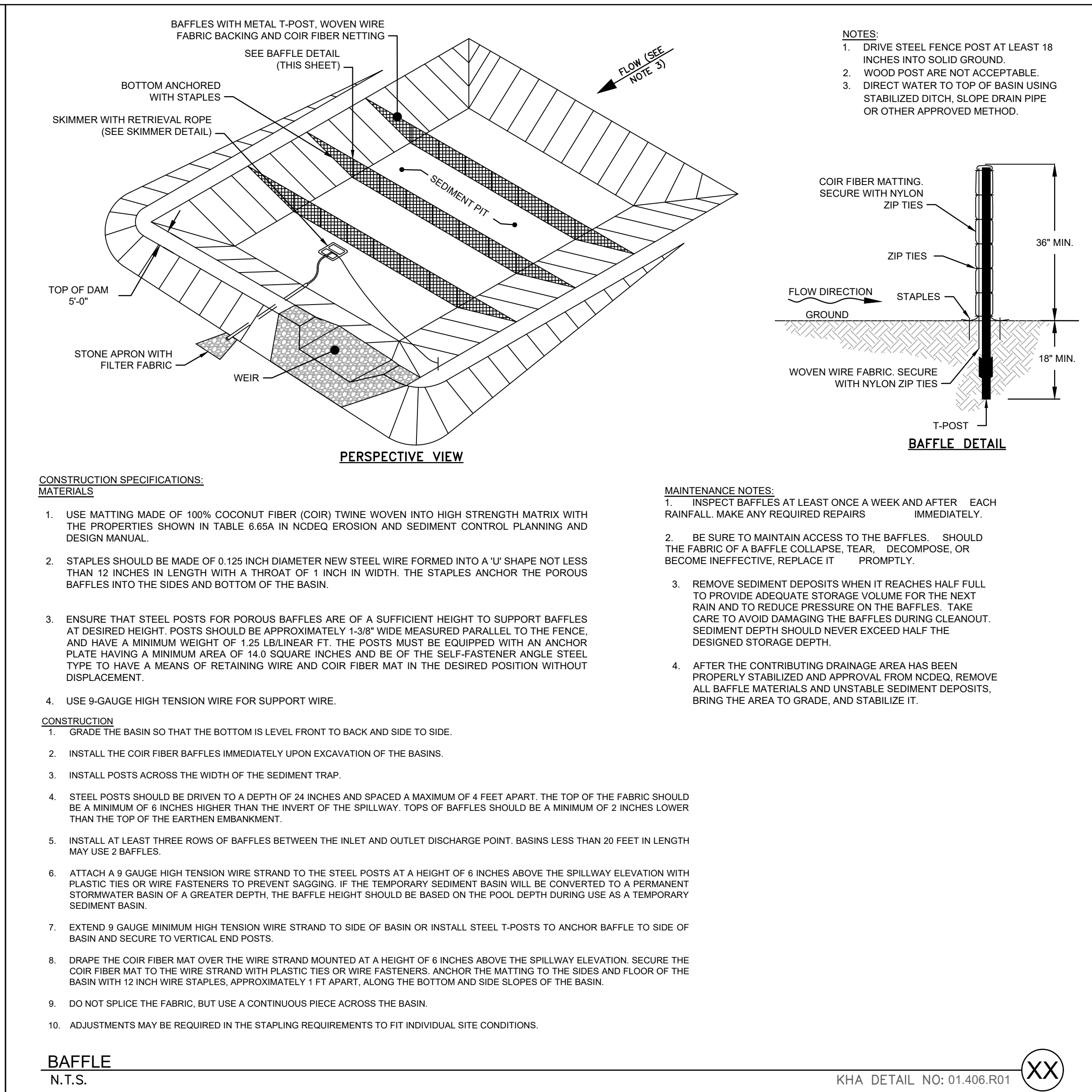
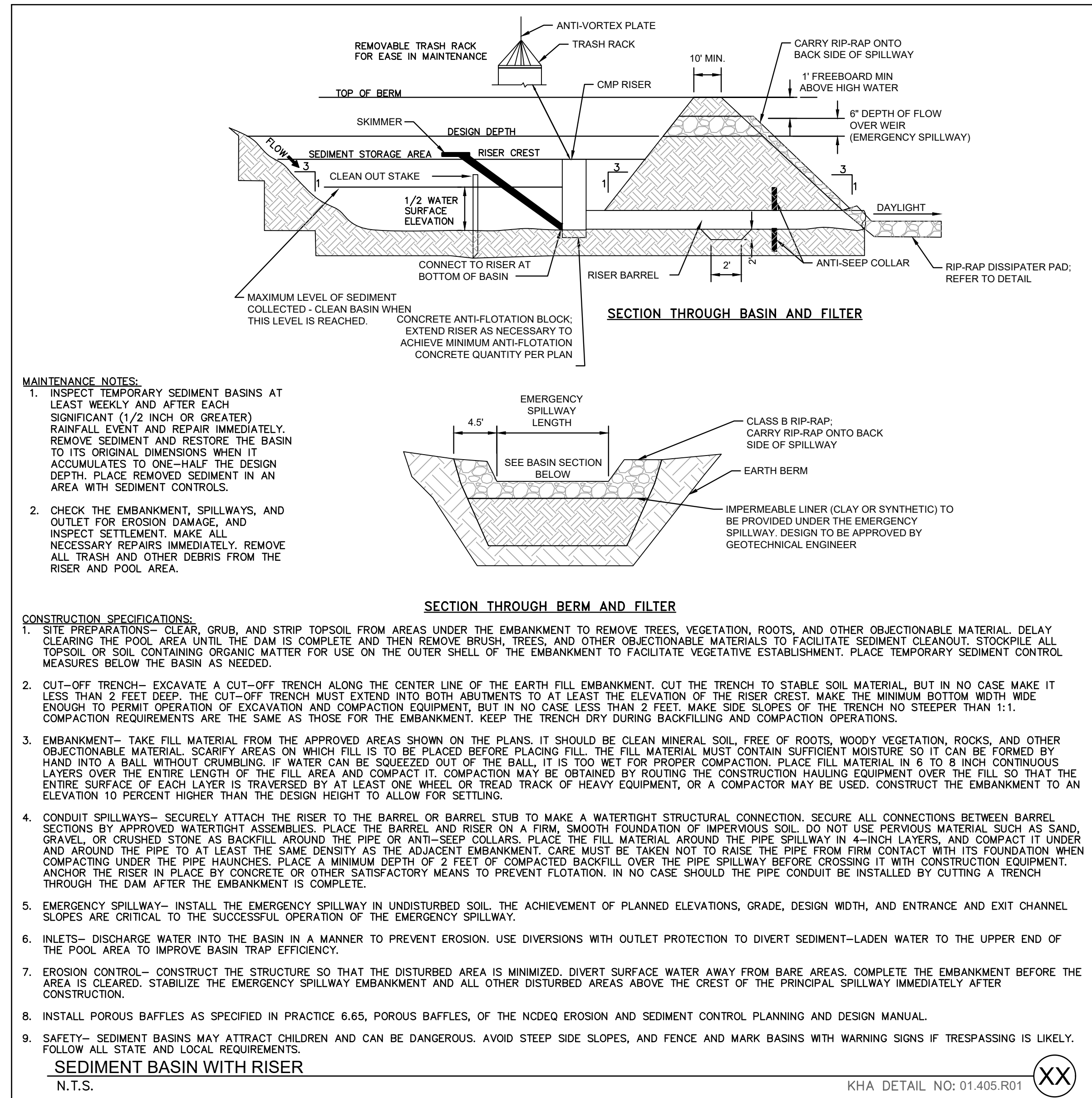
BROOKFIELD BRANCH
1038 HOOVER ROAD,
HAMPSHIRE, NC 28443
3283-85-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY NJ
DESIGNED BY NJ
REVIEWED BY RW
DATE 8/31/2023
PROJECT NO. 014793000

TITLE
EROSION CONTROL DETAILS

SHEET NUMBER
C5-81

Drawing name: K:\SAV_Civil\14793000_Hoover Road SFRCAD\PlanSheets\C5-80 - EROSION CONTROL DETAILS.DWG C5-83 EROSION CONTROL DETAILS Aug 31, 2023 9:50pm by: Joe.Giulietti



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TITLE	EROSION CONTROL DETAILS
SHEET NUMBER	C5-83

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GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION

Required Ground Stabilization Timeframes

Site Area Description	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
(d) Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(e) Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
<ul style="list-style-type: none"> Temporary grass seed covered with straw or other mulches and tackifiers Hydroseeding Rolled erosion control products with or without temporary grass seed Appropriately applied straw or other mulch Plastic sheeting 	<ul style="list-style-type: none"> Permanent grass seed covered with straw or other mulches and tackifiers Geotextile fabrics such as permanent soil reinforcement matting Hydroseeding Shrubs or other permanent plantings covered with mulch Uniform and evenly distributed ground cover sufficient to restrain erosion Structural methods such as concrete, asphalt or retaining walls Rolled erosion control products with grass seed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

- Select flocculants that are appropriate for the soils being exposed during construction, selecting from the *NC DWR List of Approved PAMS/Flocculants*.
- Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
- Apply flocculants at the concentrations specified in the *NC DWR List of Approved PAMS/Flocculants* and in accordance with the manufacturer's instructions.
- Provide ponding area for containment of treated Stormwater before discharging offsite.
- Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

- Maintain vehicles and equipment to prevent discharge of fluids.
- Provide drip pans under any stored equipment.
- Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
- Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
- Remove leaking vehicles and construction equipment from service until the problem has been corrected.
- Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

- Never bury or burn waste. Place litter and debris in approved waste containers.
- Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
- Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
- Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
- Anchor all lightweight items in waste containers during times of high winds.
- Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
- Dispose waste off-site at an approved disposal facility.
- On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

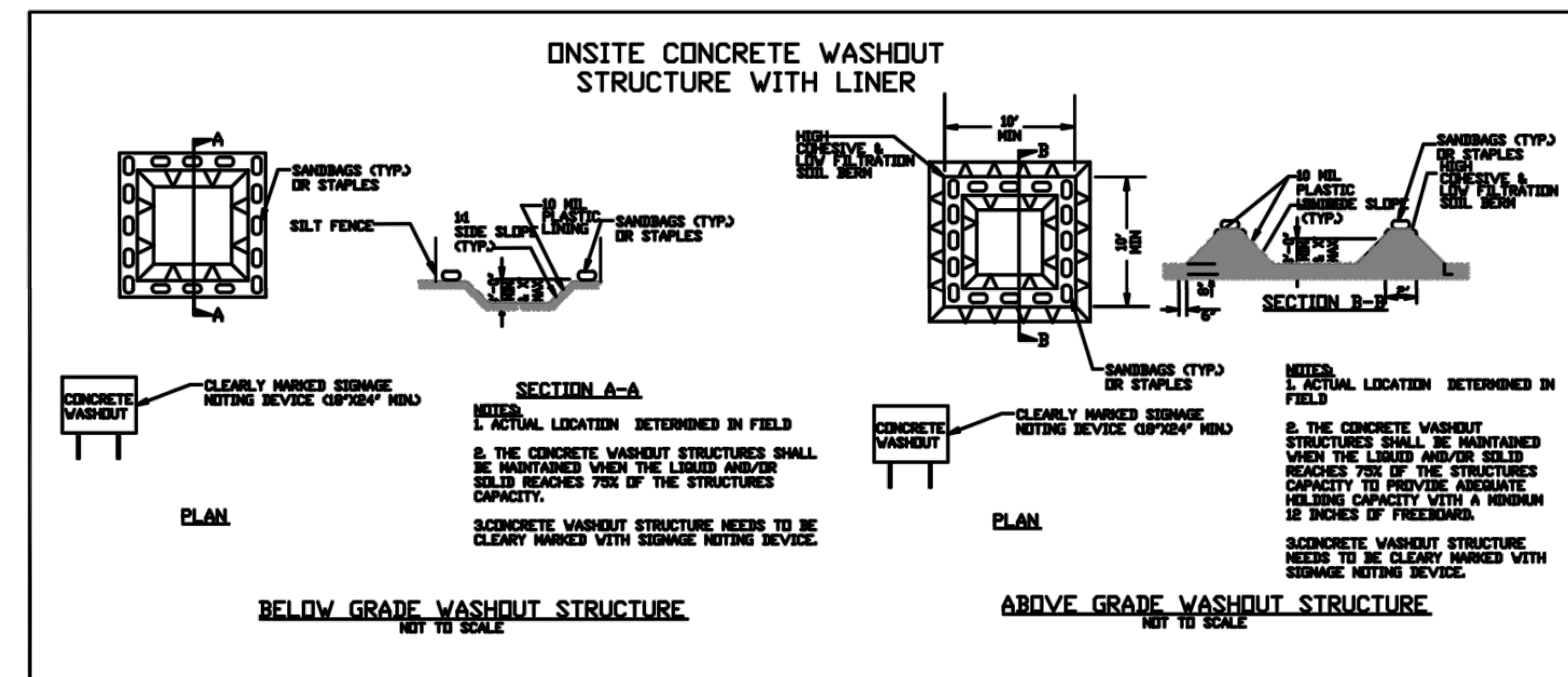
- Do not dump paint and other liquid waste into storm drains, streams or wetlands.
- Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Contain liquid wastes in a controlled area.
- Containment must be labeled, sized and placed appropriately for the needs of site.
- Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

PORTABLE TOILETS

- Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
- Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
- Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

EARTHEN STOCKPILE MANAGEMENT

- Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
- Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
- Provide stable stone access point when feasible.
- Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.



CONCRETE WASHOUTS

- Do not discharge concrete or cement slurry from the site.
- Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
- Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
- Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
- Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
- Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
- Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
- Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
- Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
- At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

- Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
- Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
- Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
- Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

- Create designated hazardous waste collection areas on-site.
- Place hazardous waste containers under cover or in secondary containment.
- Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

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REVIEWED BY	RW
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TITLE	EROSION CONTROL DETAILS
SHEET NUMBER	C5-84

Drawing name: K:\S\AV_Civil\14793000_Hoover Road SFR\CAD\PlanSheets\C5-80 - EROSION CONTROL DETAILS.DWG C5-85 EROSION CONTROL DETAILS Aug 31, 2023 9:50pm By: Joe.Guati

**PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING**

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those unattended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measure, 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the discharge outfalls inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.



**PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING**

SECTION B: RECORDKEEPING

1. E&SC Plan Documentation

The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be documented in the manner described:

Item to Document	Documentation Requirements
(a) Each E&SC Measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC Plan.	Initial and date each E&SC Measure on a copy of the approved E&SC Plan or complete, date and sign an inspection report that lists each E&SC Measure shown on the approved E&SC Plan. This documentation is required upon the initial installation of the E&SC Measures or if the E&SC Measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC Plan.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC Measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC Measures.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation

In addition to the E&SC Plan documents above, the following items shall be kept on the site and available for agency inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

(a) This general permit as well as the certificate of coverage, after it is received.

(b) Records of inspections made during the previous 30 days. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

(c) All data used to complete the Notice of Intent and older inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

**PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING**

SECTION C: REPORTING

1. Occurrences that must be reported

Permittees shall report the following occurrences:

(a) Visible sediment deposition in a stream or wetland.

(b) Oil spills if:

- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They cause sheen on surface waters (regardless of volume), or
- They are within 100 feet of surface waters (regardless of volume).

(a) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.

(b) Anticipated bypasses and unanticipated bypasses.

(c) Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Division's Emergency Response personnel at (800) 662-7956, (800) 858-0368 or (919) 733-3300.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	<ul style="list-style-type: none"> Within 24 hours, an oral or electronic notification. Within 7 calendar days, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	<ul style="list-style-type: none"> Within 24 hours, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	<ul style="list-style-type: none"> A report at least ten days before the date of the bypass, if possible. The report shall include an evaluation of the anticipated quality and effect of the bypass.
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	<ul style="list-style-type: none"> Within 24 hours, an oral or electronic notification. Within 7 calendar days, a report that includes an evaluation of the quality and effect of the bypass.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment [40 CFR 122.41(l)(7)]	<ul style="list-style-type: none"> Within 24 hours, an oral or electronic notification. Within 7 calendar days, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR 122.41(l)(6). Division staff may waive the requirement for a written report on a case-by-case basis.

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19



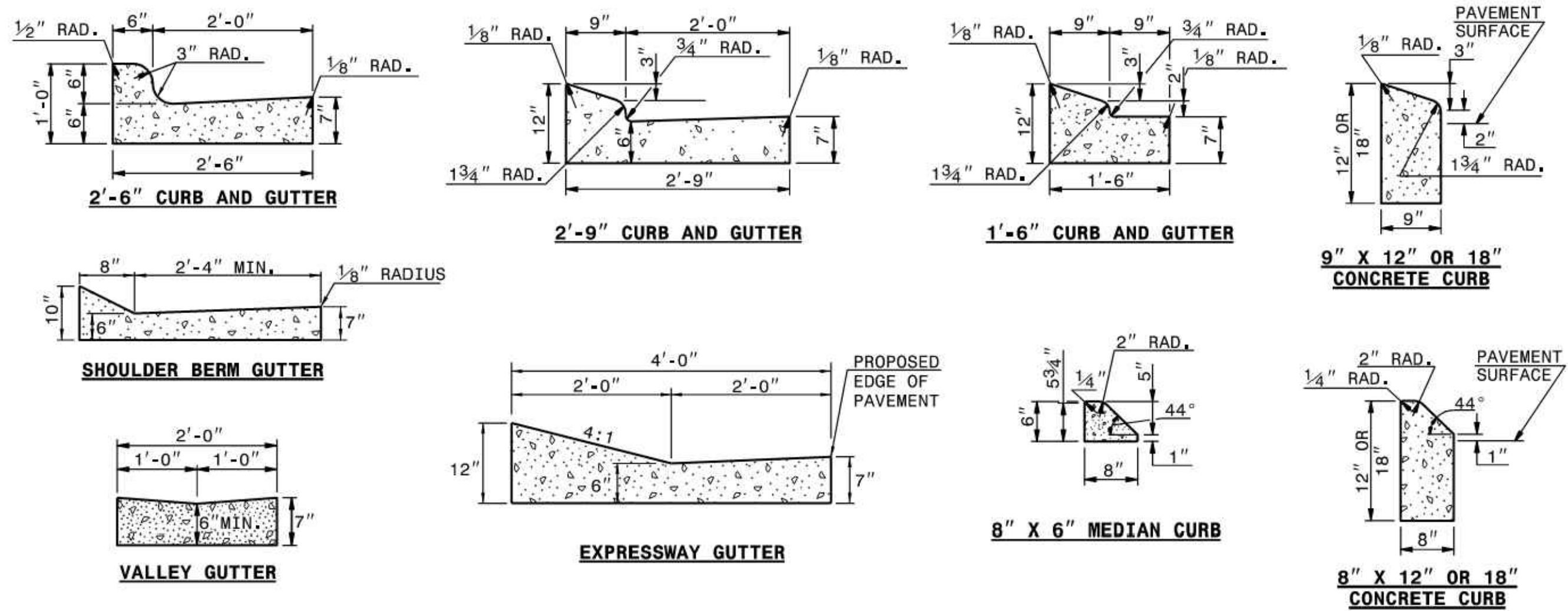
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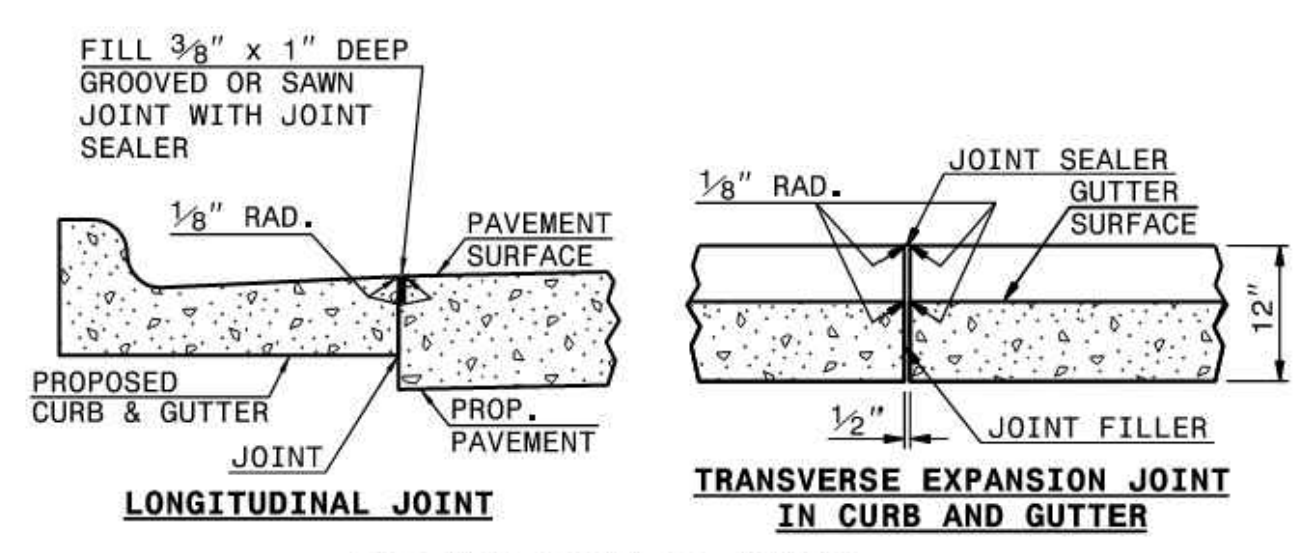
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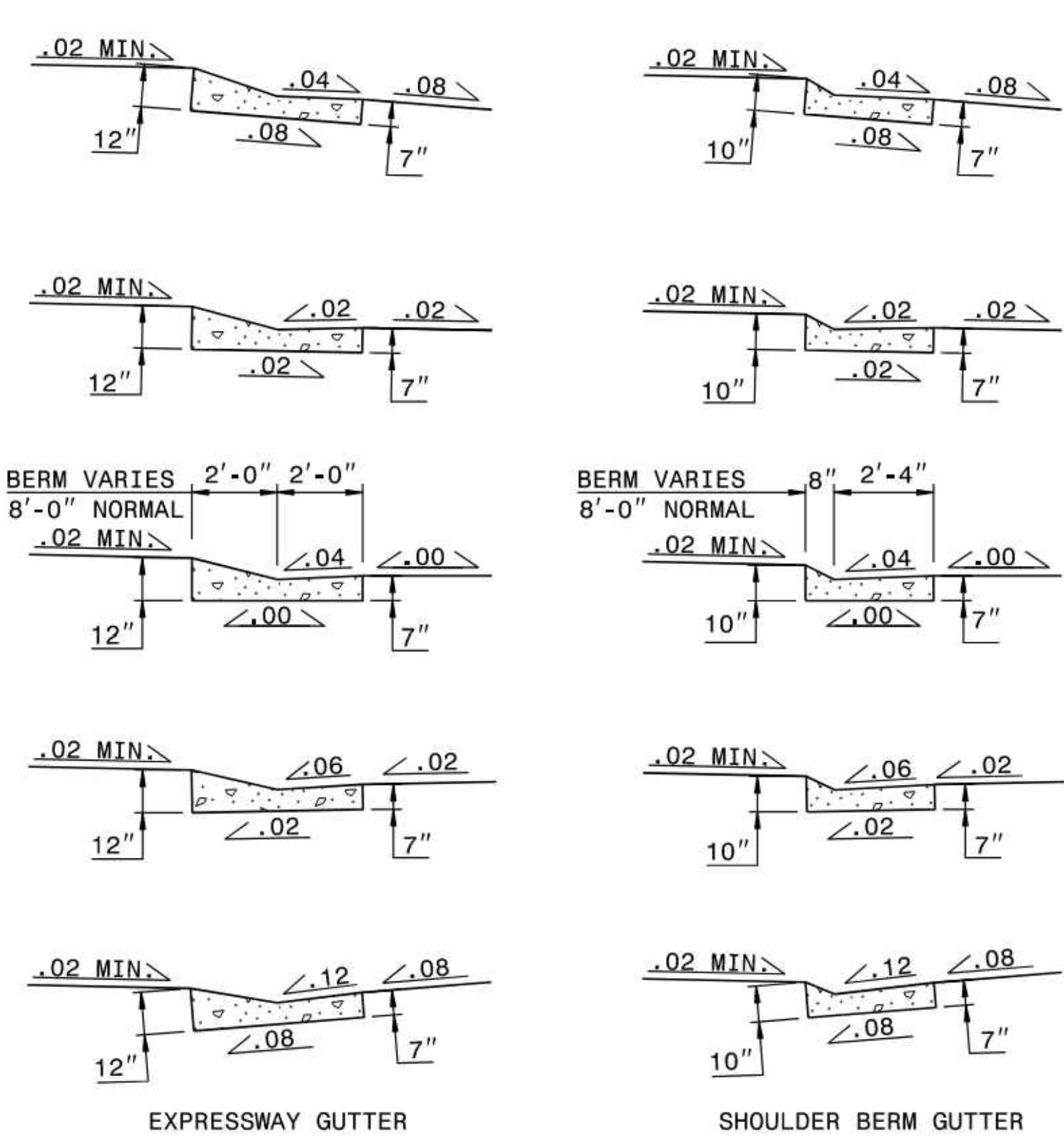
SECTION VIEW OF CURBS OR CURBS AND GUTTERS

GENERAL NOTES:
 -PLACE CONTRACTION JOINTS AT 10' INTERVALS, EXCEPT THAT A 15' SPACING MAY BE USED WHEN A MACHINE IS USED OR WHEN SATISFACTORY SUPPORT FOR THE FACE FORM CAN BE OBTAINED WITHOUT THE USE OF TEMPLATES AT 10' INTERVALS.
 -JOINT SPACING MAY BE ALTERED IF REQUIRED BY THE ENGINEER.
 -CONTRACTION JOINTS MAY BE INSTALLED WITH THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS.
 -CONSTRUCT NON-TEMPLATE FORMED JOINTS A MIN. OF 1 1/2" DEEP.
 -FILL ALL CONTRACTION JOINTS, EXCEPT IN 8"x6" MEDIAN CURB, WITH JOINT FILLER AND SEALER.
 -SPACE EXPANSION JOINTS AT 90' INTERVALS AND ADJACENT TO ALL RIGID OBJECTS.



SECTION VIEW OF JOINTS

1-24 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
 ROADWAY STANDARD DRAWING FOR CONCRETE CURB, GUTTER AND CURB & GUTTER
 SHEET 1 OF 3
 846.01

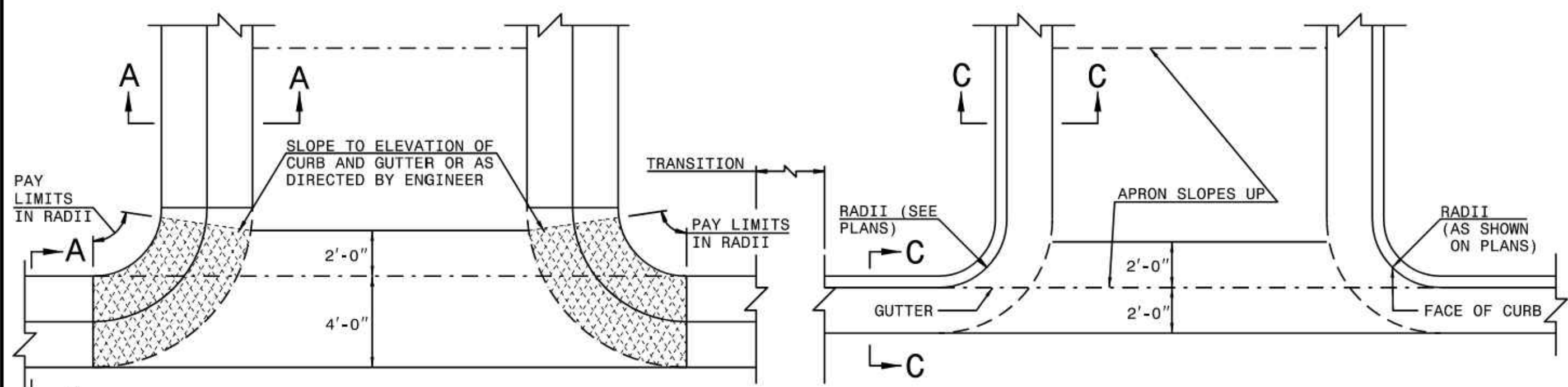


SECTION VIEWS OF EXPRESSWAY GUTTER AND SHOULDER BERM GUTTER SUPERELEVATION RATES

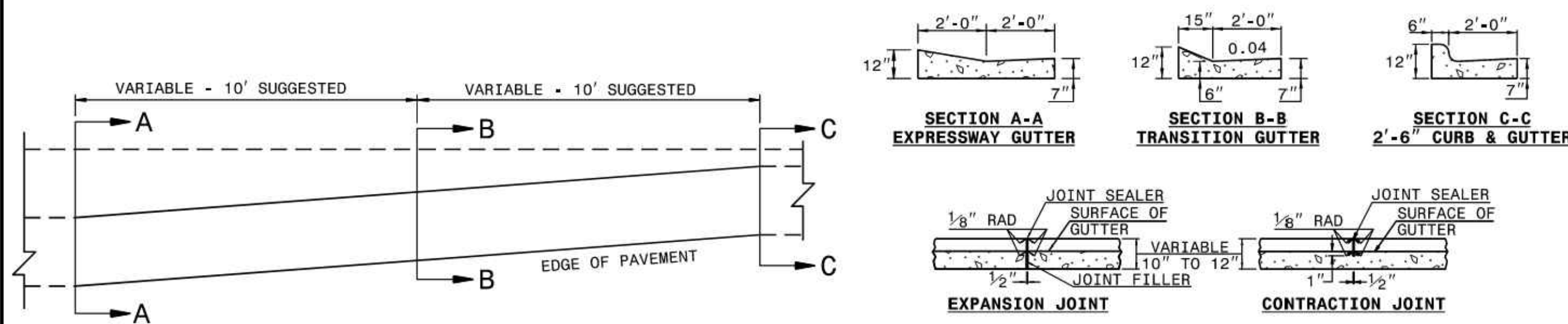
* THE GUTTER SLOPE FOR 1'-6" CURB AND GUTTER SHALL MATCH THE SLOPE OF THE ADJOINING PAVEMENT.

SECTION VIEWS OF 1'-6", 2'-6" (DEPICTED) AND 2'-9" CURB AND GUTTER SUPERELEVATION RATES

1-24 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
 ROADWAY STANDARD DRAWING FOR CONCRETE CURB, GUTTER AND CURB & GUTTER
 SHEET 2 OF 3
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PLAN VIEW OF TYPICAL CURB AND GUTTER OCCURENCES

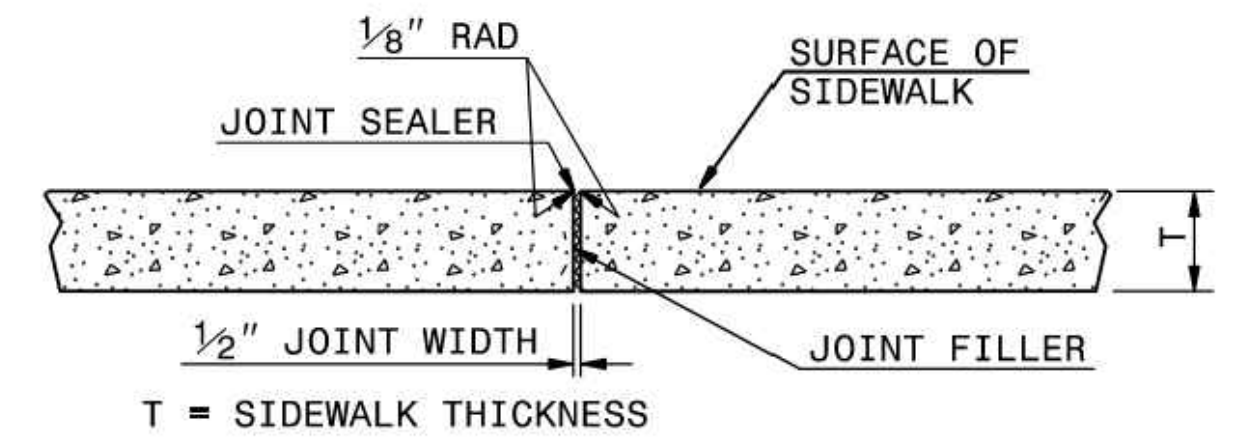


PLAN VIEW OF TRANSITION EXPRESSWAY GUTTER TO 2'-6" CURB AND GUTTER

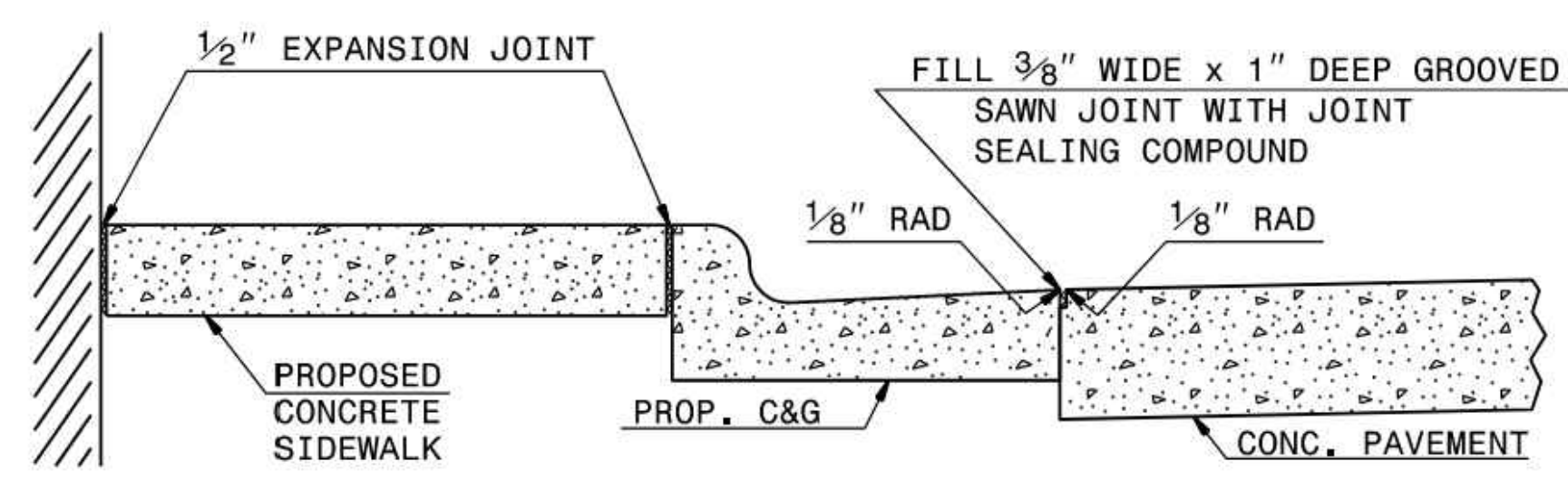
NOTES:
 -IN THE TRANSITION FROM 4'-0" CONCRETE EXPRESSWAY GUTTER TO 2'-6" CONCRETE CURB AND GUTTER, PLACE 1/2" EXPANSION JOINTS AT 25' INTERVALS.
 -PLACE GROOVE JOINTS 1" DEEP AT 12'-6" INTERVALS BETWEEN EXPANSION JOINTS.
 -FILL AND SEAL THE TOP 1/2" OF THE EXPANSION JOINTS AND 1" OF CONTRACTION JOINTS WITH APPROVED JOINT SEALING COMPOUND.

1-24 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
 ROADWAY STANDARD DRAWING FOR CONCRETE CURB, GUTTER AND CURB & GUTTER
 SHEET 3 OF 3
 846.01

NOTES:
 CONSTRUCT STANDARD SIDEWALK 5' WIDE AND 4" THICK UNLESS OTHERWISE DENOTED ON PLANS.
 PLACE A GROOVE JOINT 1" DEEP WITH 1/8" RADII IN THE CONCRETE SIDEWALK AT 5' INTERVALS. ONE 1/2" EXPANSION JOINT WILL BE REQUIRED AT 50' INTERVALS. A 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURE.
 SEE STD. DWG. 848.05 FOR CURB RAMP LOCATION REQUIREMENTS AND CONSTRUCTION GUIDELINES.



TRANSVERSE EXPANSION JOINT IN SIDEWALK



DETAILS SHOWING JOINTS IN CONCRETE SIDEWALK

1-24 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
 ROADWAY STANDARD DRAWING FOR CONCRETE SIDEWALK
 SHEET 1 OF 1
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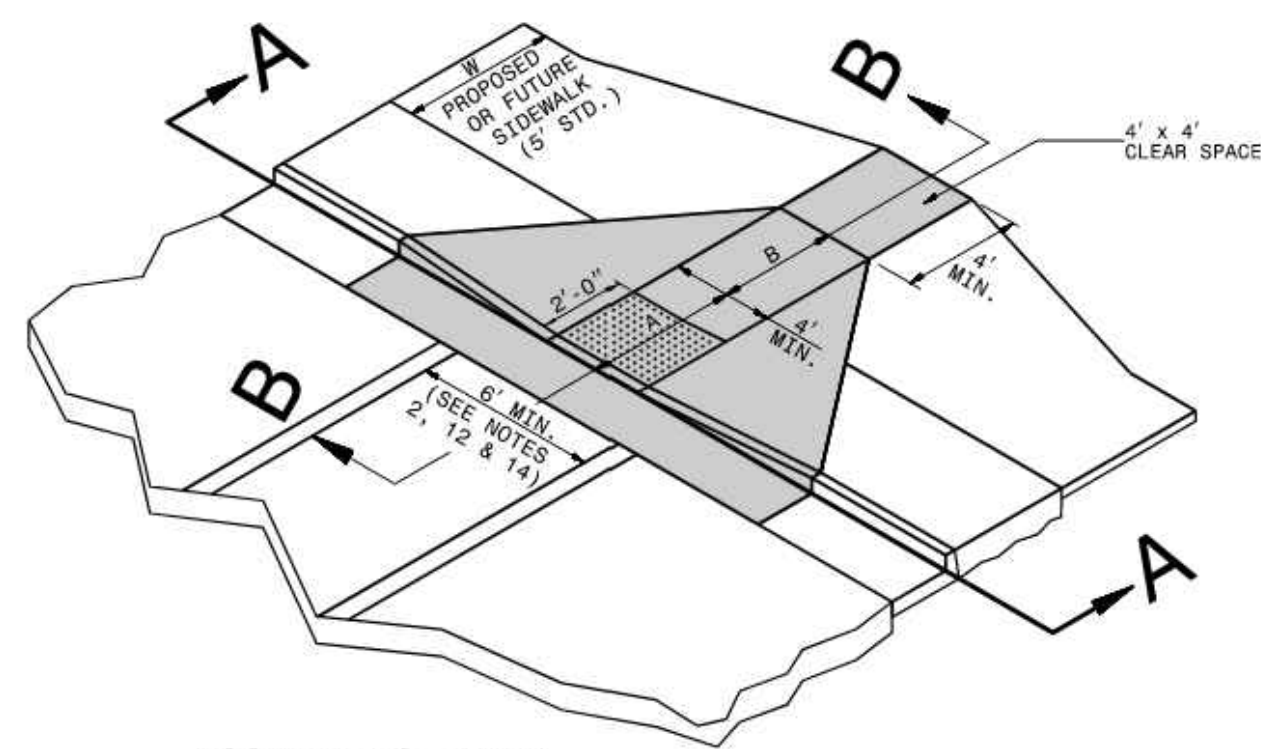
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 Call before you dig.

Drawing name: K:\SAV_Civil\14793000_Hoover Road SFR\Road\Plan\stds\06-00 - CONSTRUCTION DETAILS.dwg C6-01 CONSTRUCTION DETAILS Aug 31, 2023 9:51pm by Joe Cluett

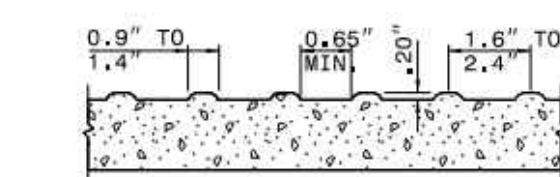
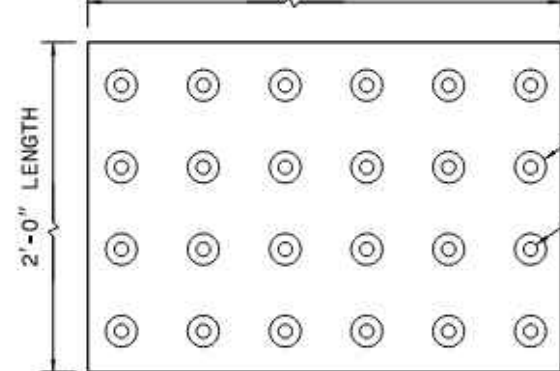


ISOMETRIC VIEW

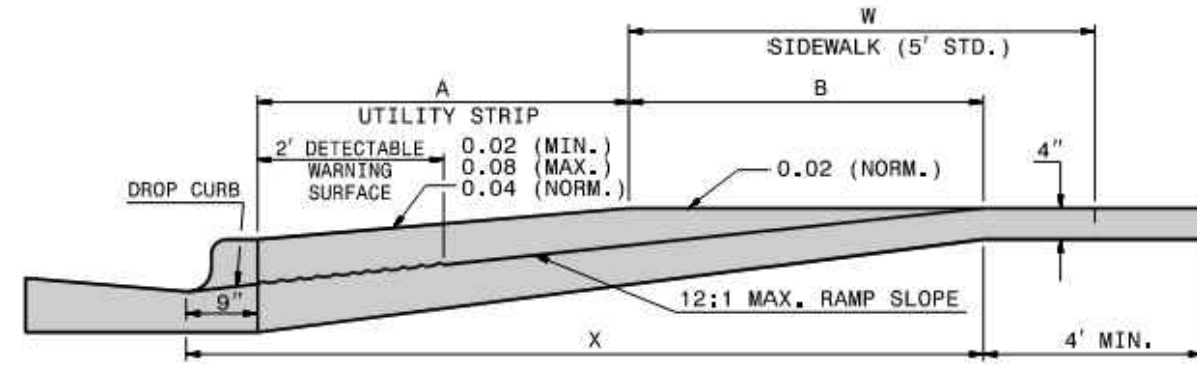
PAY LIMITS FOR CURB RAMP

NOTES:
 DETECTABLE WARNING SURFACE SHALL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.
 DETECTABLE WARNING SURFACE SHALL CONTRAST VISIBLY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.

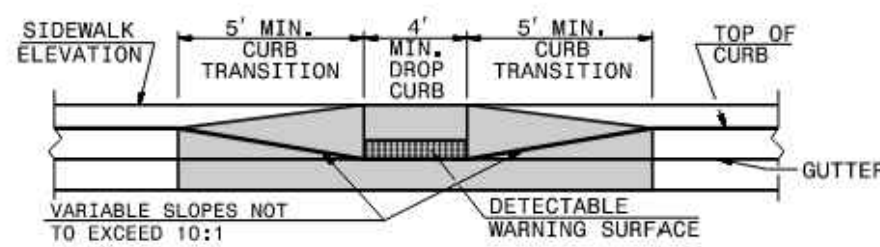
RAMP WIDTH AREA IS VARIABLE



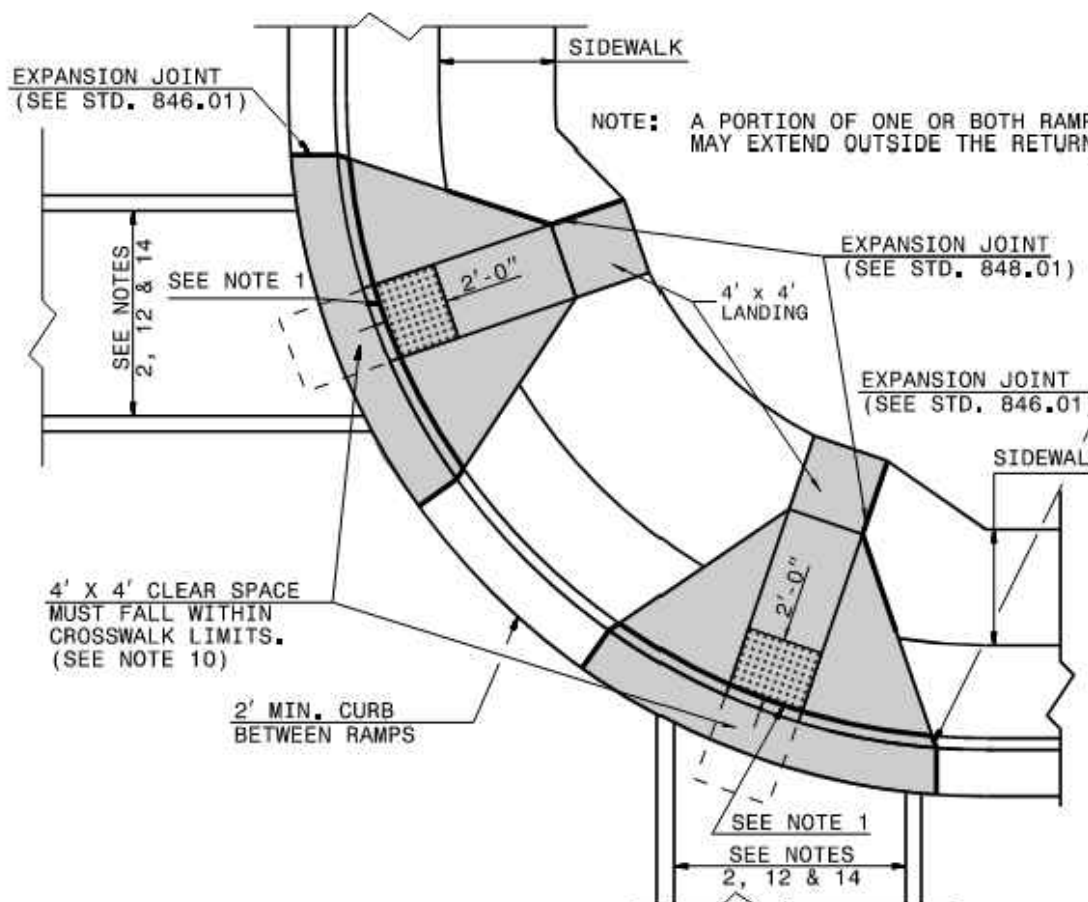
DETECTABLE WARNING SURFACE



SECTION B-B



SECTION A-A



PLAN VIEW

DUAL RAMPS
 ANY RADI
 (40' MIN. FLOOR WIDTH)

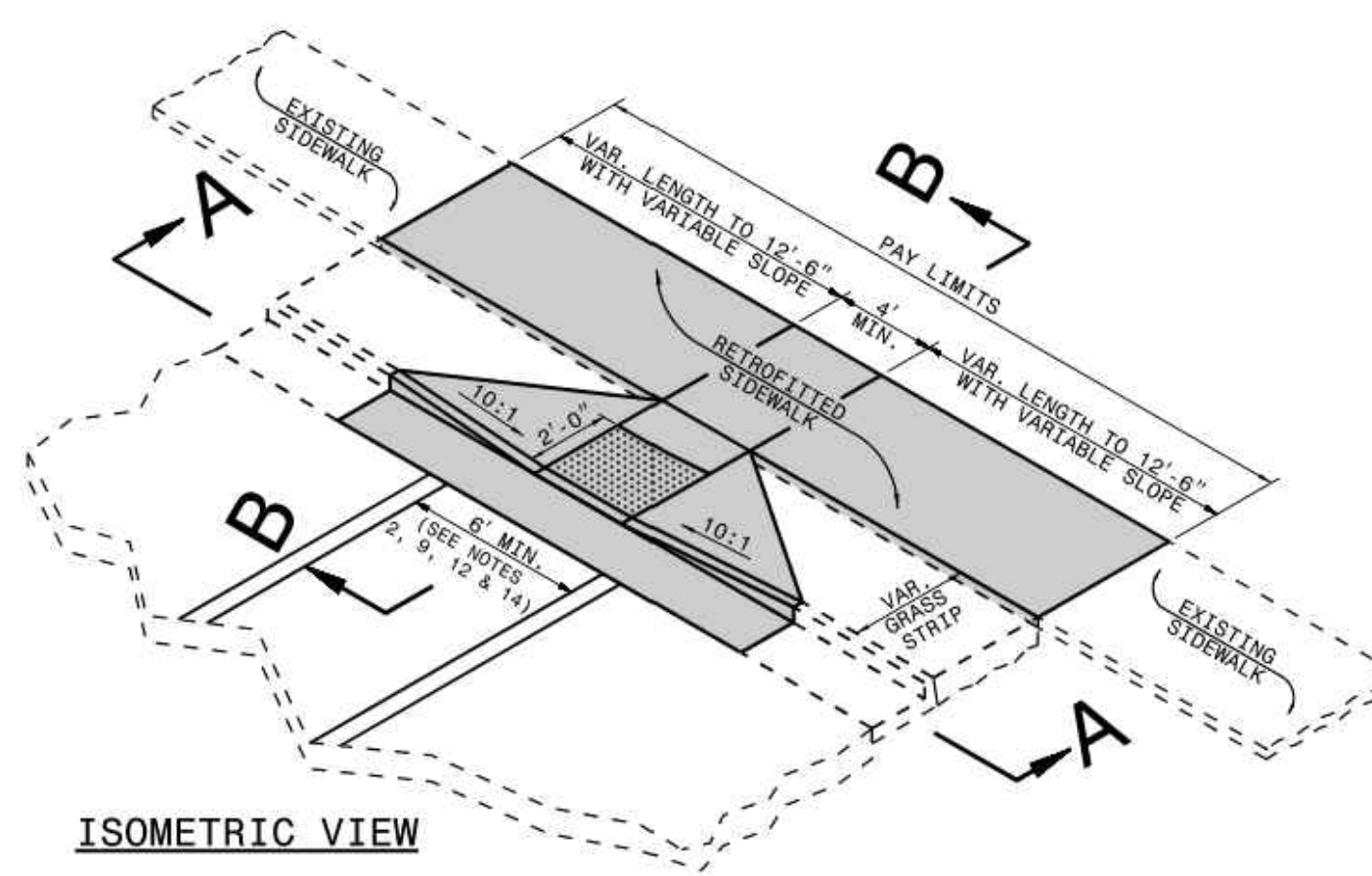
W	A	W+A+9"	X	B
5'	0,0'	5,8'	5,8'	5,0"
6'	0,0'	6,8'	6,8'	6,0"
7'	0,0'	7,8'	7,3'	6,5"
8'	0,0'	8,8'	7,3'	6,5"
5'	2,0'	7,8'	7,8'	5,0"
5'	2,5'	8,3'	8,1'	4,8"
5'	3,0'	8,8'	8,3'	4,4"
5'	3,5'	9,3'	8,4'	4,1"
5'	4,0'	9,8'	8,6'	3,8"
5'	4,5'	10,3'	8,7'	3,4"
5'	5,0'	10,8'	8,9'	3,1"

B = X - (A+9")
 B = DISTANCE FROM FRONT EDGE OF SIDEWALK TO BACK POINT OF 12:1 (8.33%) SLOPE.
 * BACK OF SIDEWALK DROP REQUIRED FOR ALL SIDEWALK SLOPES.
 ** BACK OF SIDEWALK DROP REQUIRED FOR SIDEWALK SLOPES 0,04.

1-24 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

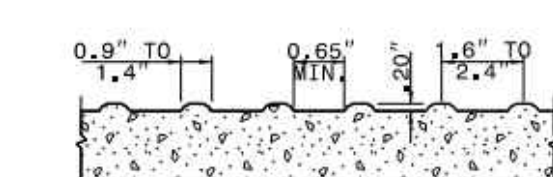
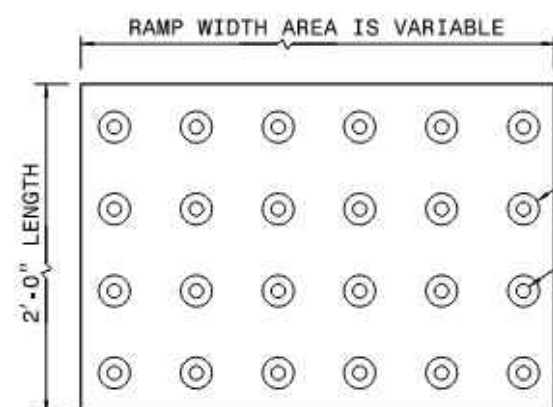
ROADWAY STANDARD DRAWING FOR CURB RAMP PROPOSED CURB AND GUTTER

SHEET 1 OF 13 848.06



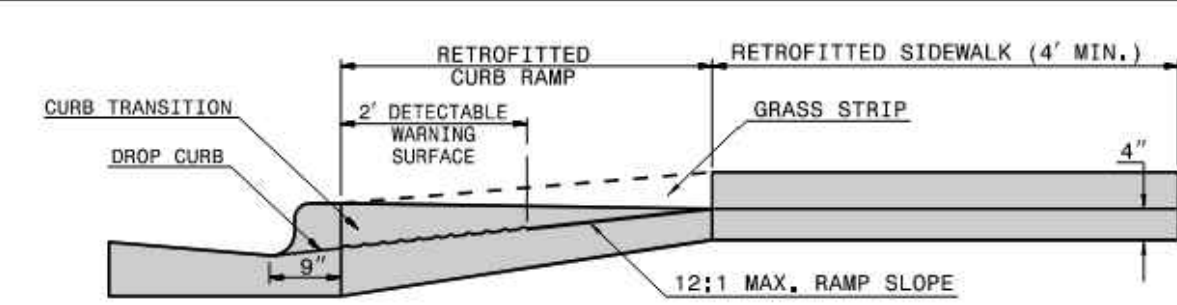
ISOMETRIC VIEW

NOTES:
 DETECTABLE WARNING SURFACE SHALL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.
 DETECTABLE WARNING SURFACE SHALL CONTRAST VISIBLY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.

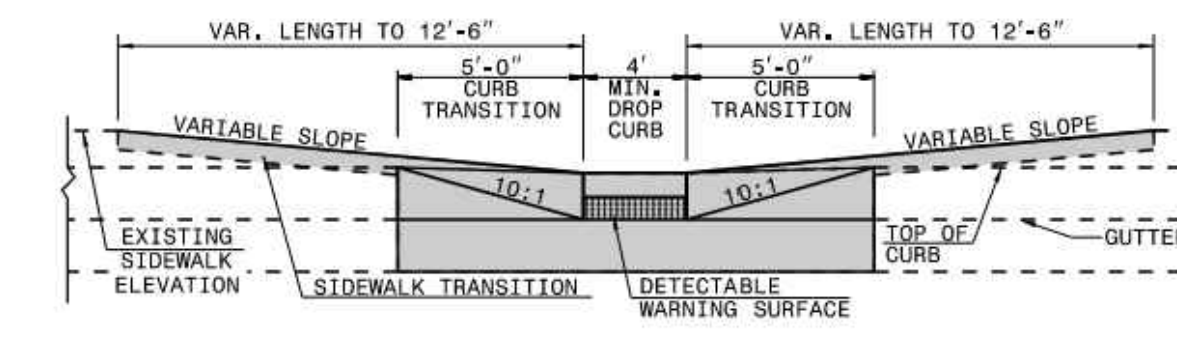


DETECTABLE WARNING SURFACE

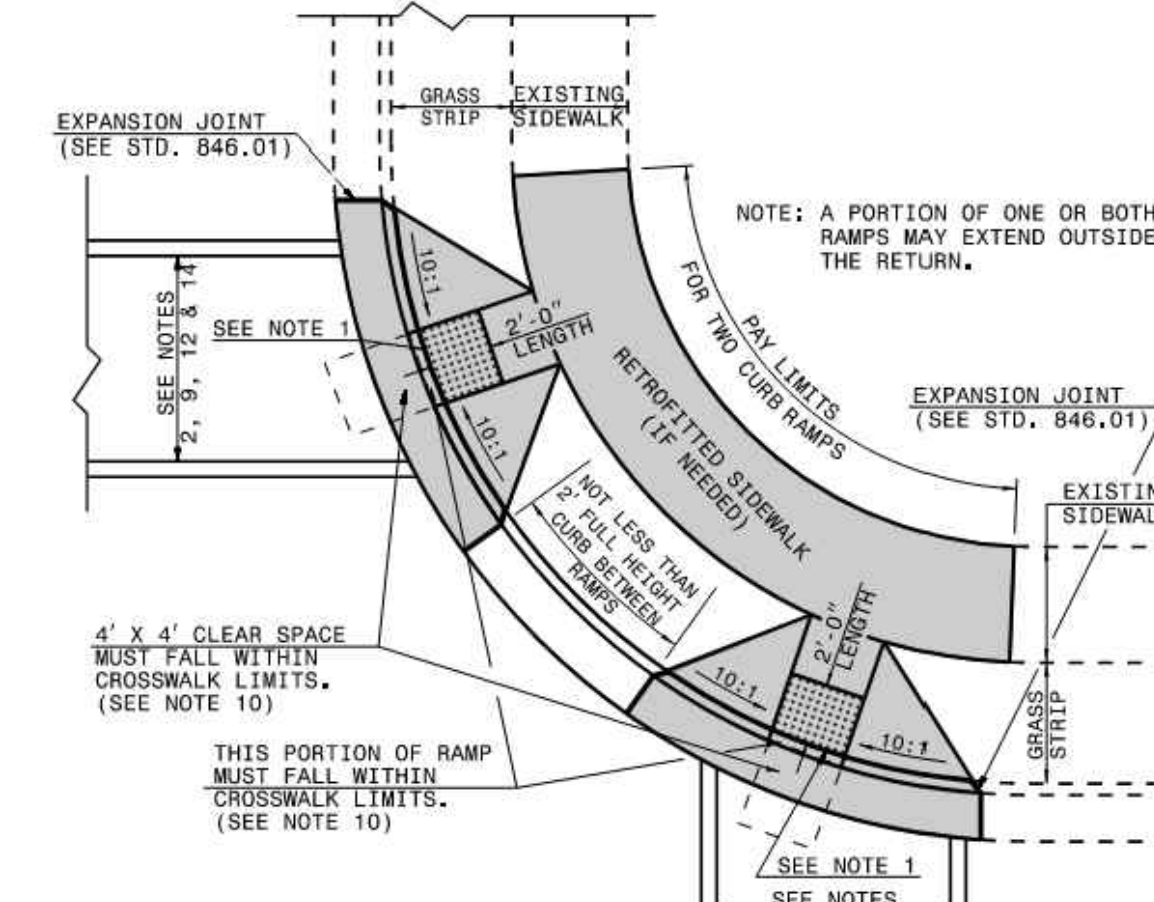
PAY LIMITS OF CURB RAMP



SECTION B-B



SECTION A-A



PLAN VIEW

DUAL RAMPS
 ANY RADI
 (40' MIN. FLOOR WIDTH)

1-24 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR CURB RAMP AND EXISTING SIDEWALK WITH GRASS STRIP

SHEET 2 OF 13 848.06

LOGAN DEVELOPERS INC.
 60 GREGORY ROAD (SUITE 1)
 BELVILLE, NC 28551
 PHONE: 910-507-2115

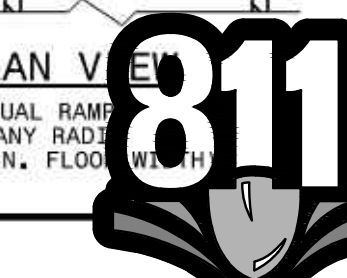
NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

BROOKFIELD BRANCH
 1038 HOOVER ROAD,
 HAMPSTEAD, NC 28443
 3283-85-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY NJ
 DESIGNED BY NJ
 REVIEWED BY RW
 DATE 8/31/2023
 PROJECT NO. 014793000

TITLE CONSTRUCTION DETAILS

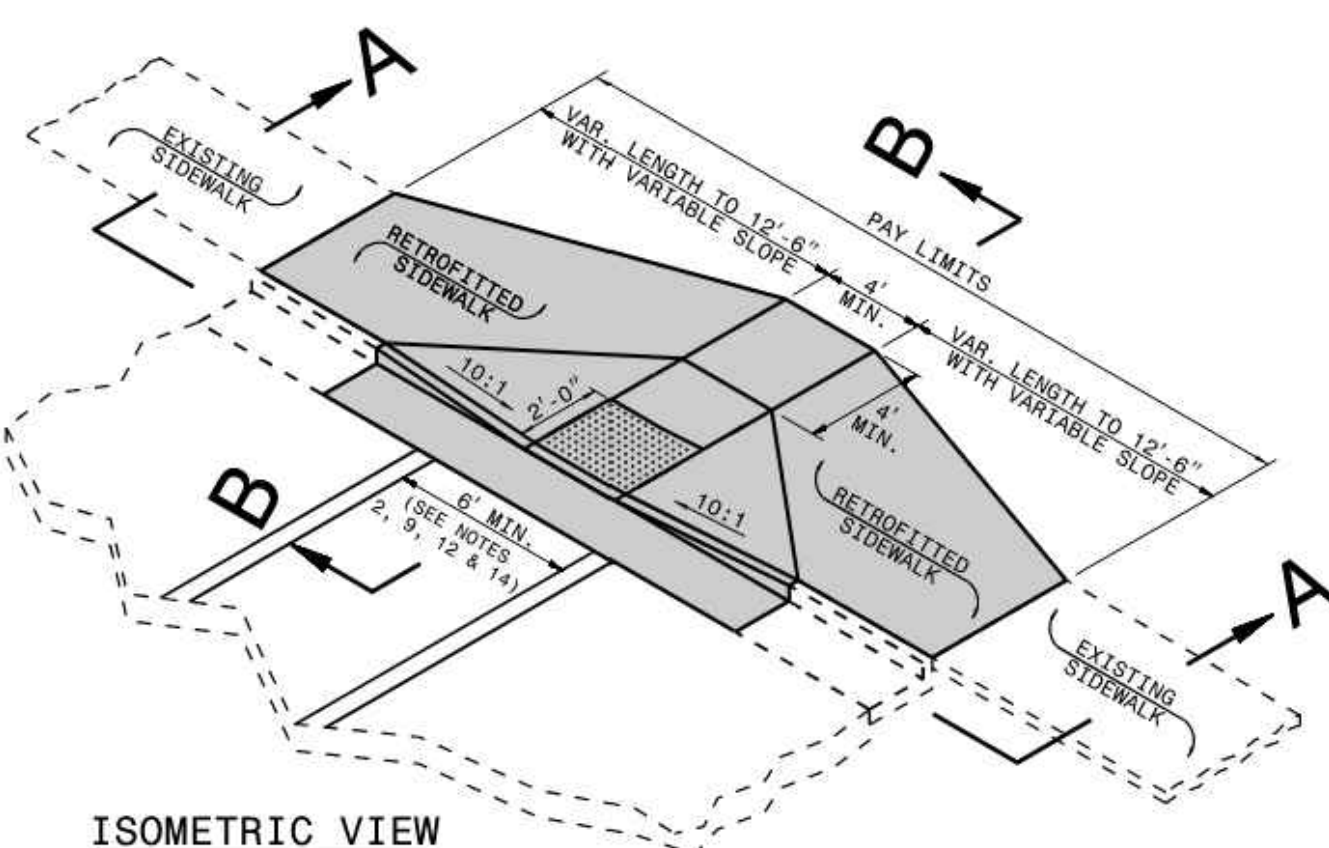
SHEET NUMBER C6-01



1-24 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

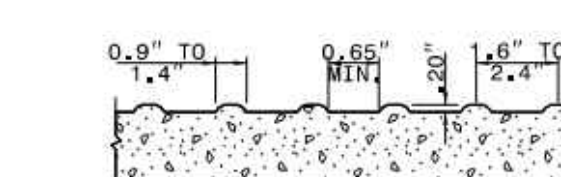
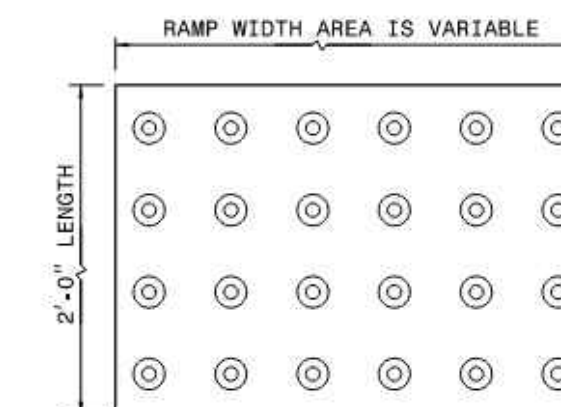
ROADWAY STANDARD DRAWING FOR CURB RAMP AND EXISTING SIDEWALK ADJACENT TO CURB

SHEET 3 OF 13 848.06



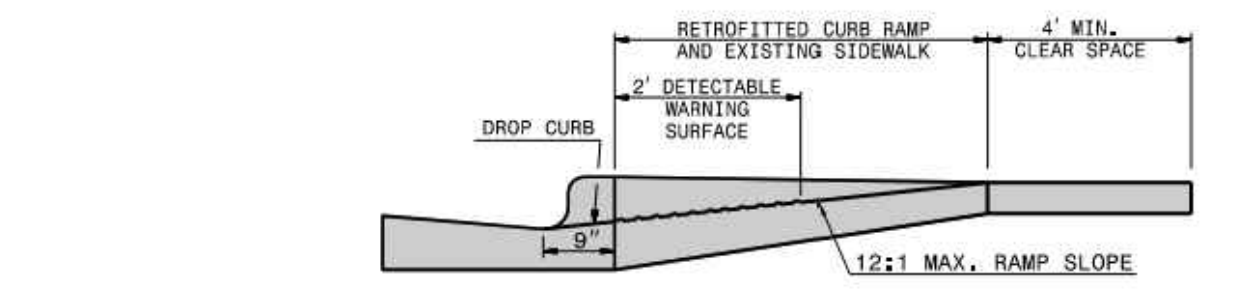
ISOMETRIC VIEW

NOTES:
 DETECTABLE WARNING SURFACE SHALL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.
 DETECTABLE WARNING SURFACE SHALL CONTRAST VISIBLY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.

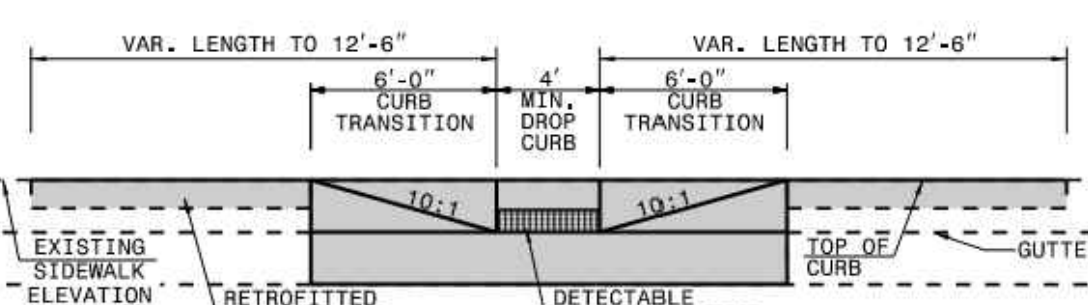


DETECTABLE WARNING SURFACE

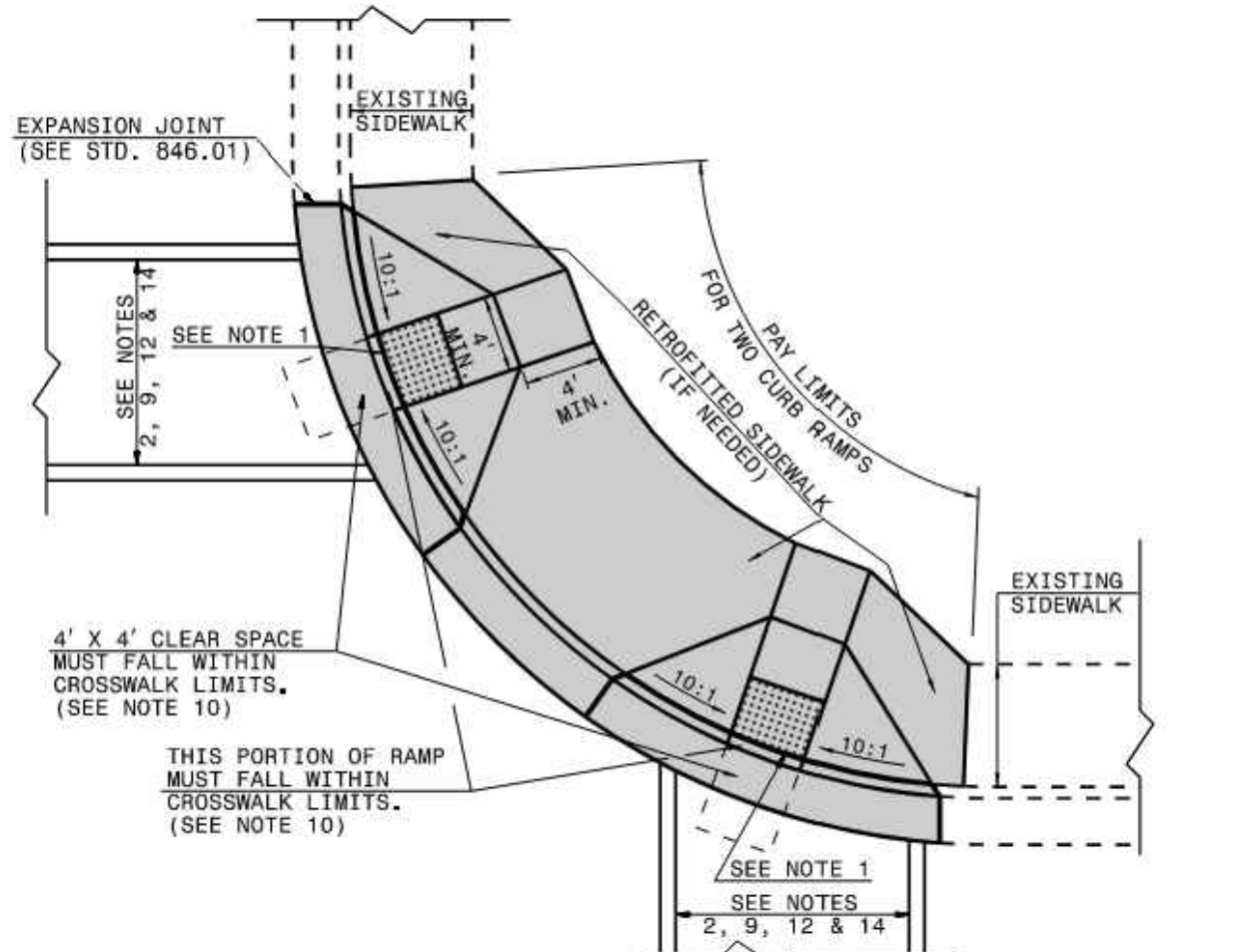
PAY LIMITS OF CURB RAMP



SECTION B-B

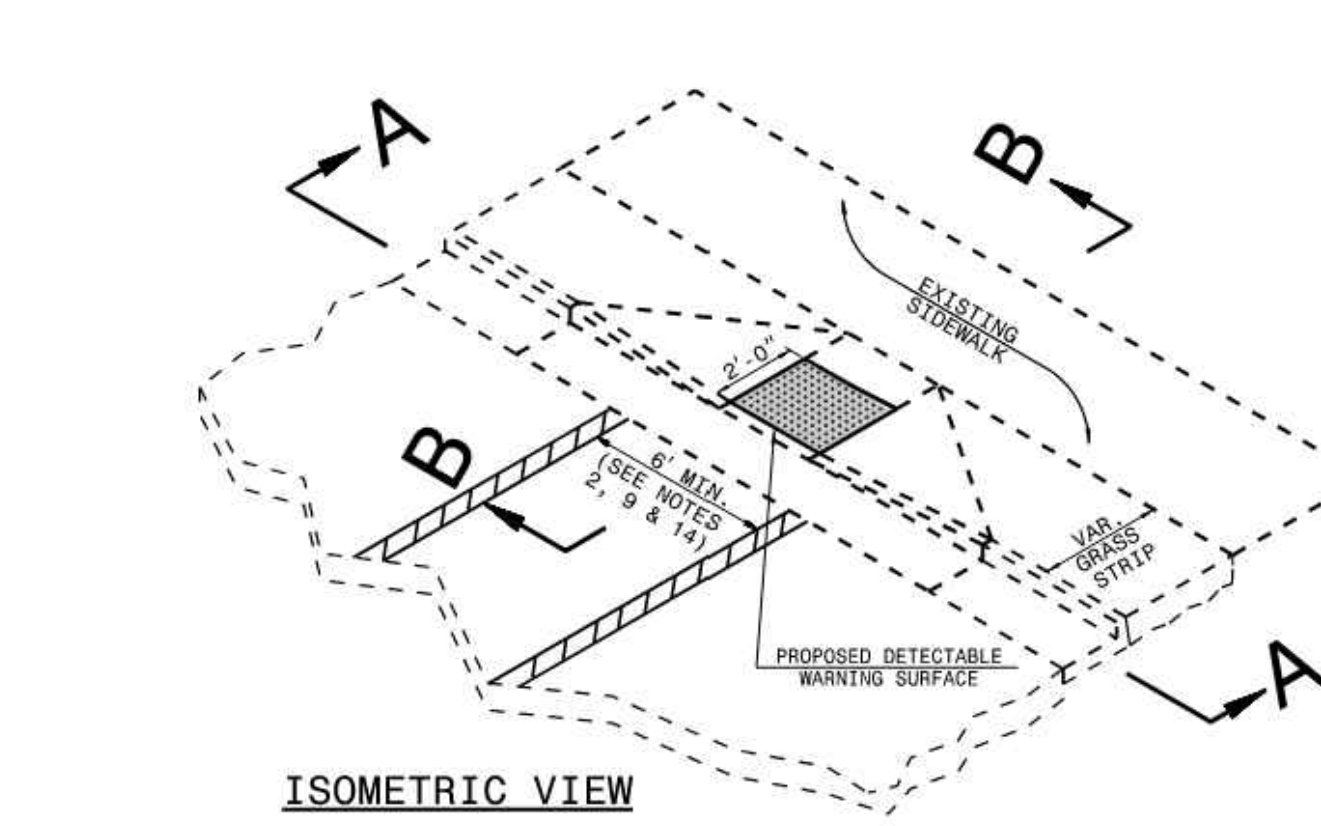


SECTION A-A



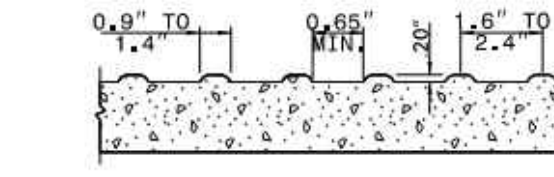
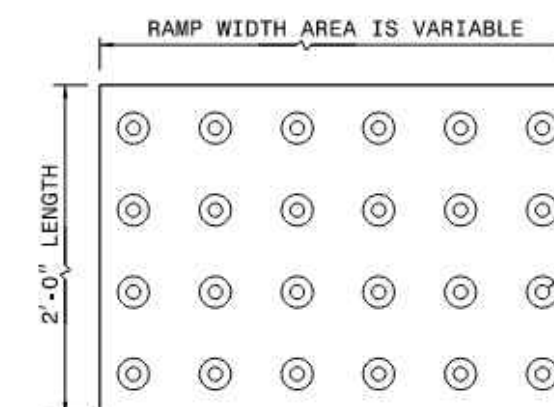
PLAN VIEW

DUAL RAMPS
 ANY RADI
 (40' MIN. FLOOR WIDTH)



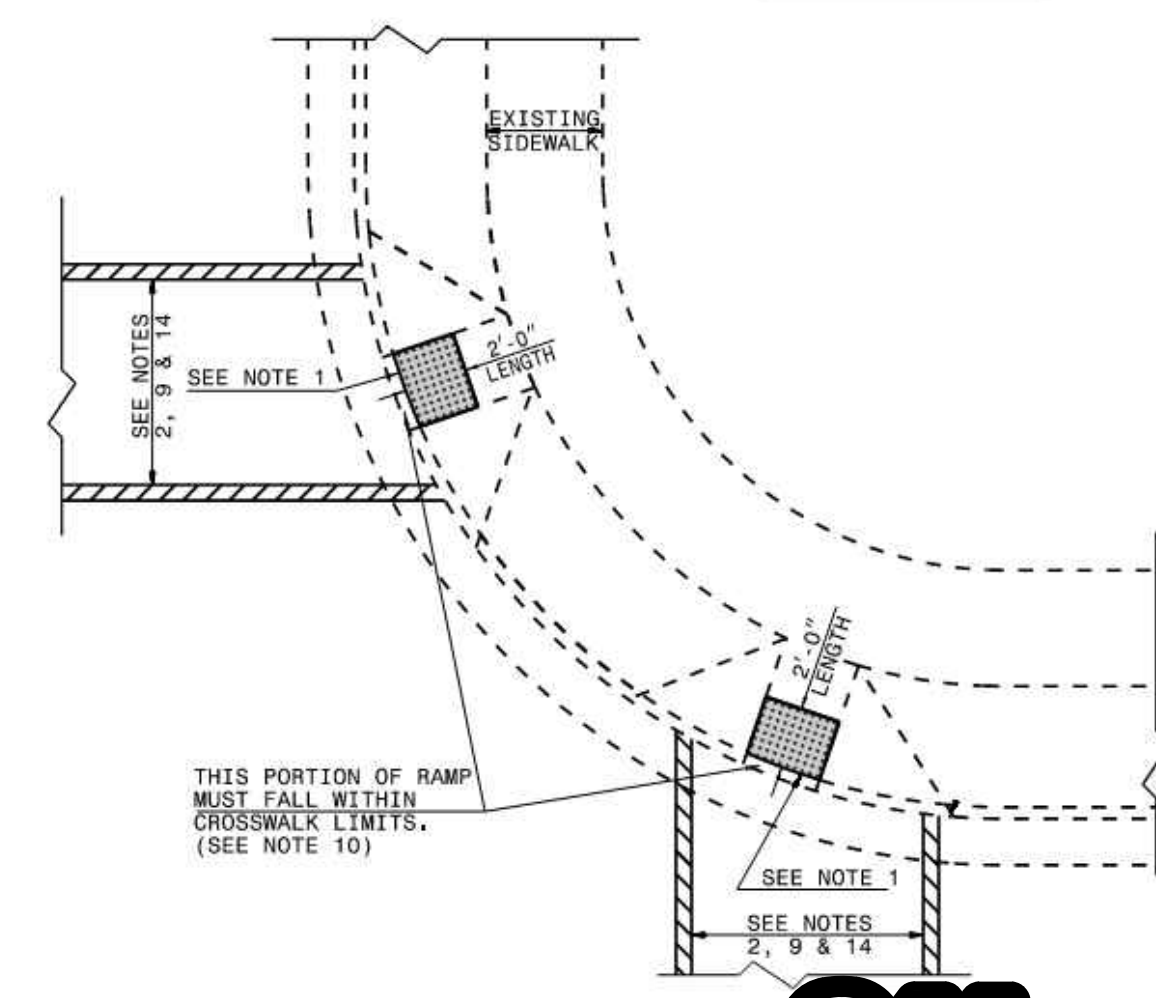
ISOMETRIC VIEW

NOTES:
 DETECTABLE WARNING SURFACE SHALL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.
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DETECTABLE WARNING SURFACE

PAY LIMITS OF RETROFIT CURB RAMP



PLAN VIEW

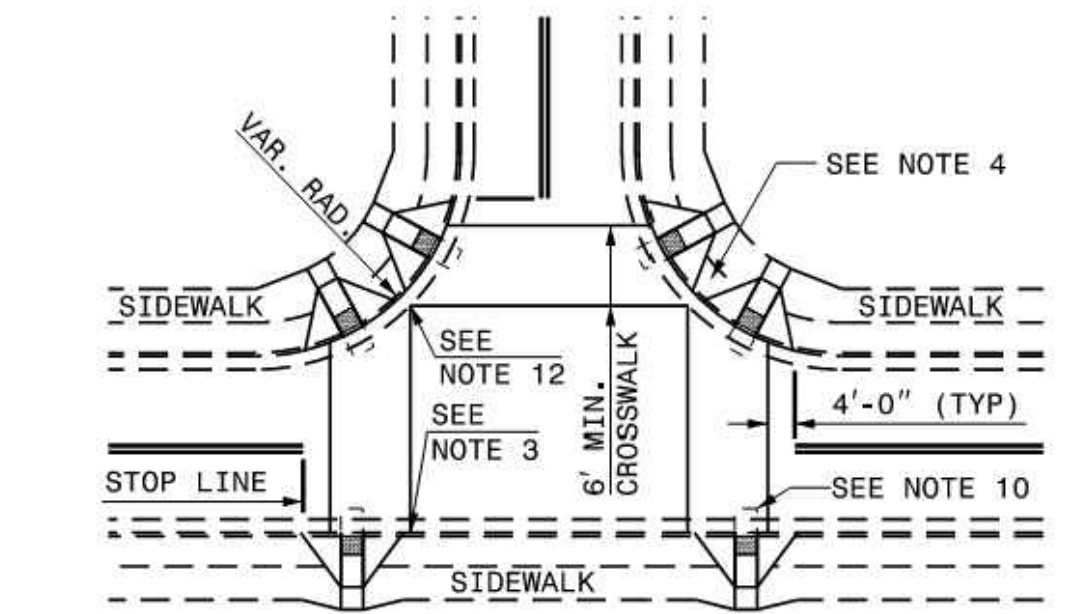
DUAL RAMPS
 ANY RADI
 (40' MIN. FLOOR WIDTH)

1-24 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

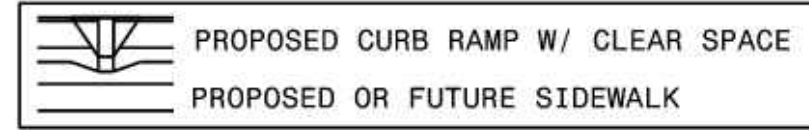
ROADWAY STANDARD DRAWING FOR CURB RAMP RETROFITTING DETECTABLE WARNING SURFACE ONTO EXISTING CURB RAMP

SHEET 4 OF 13 848.06

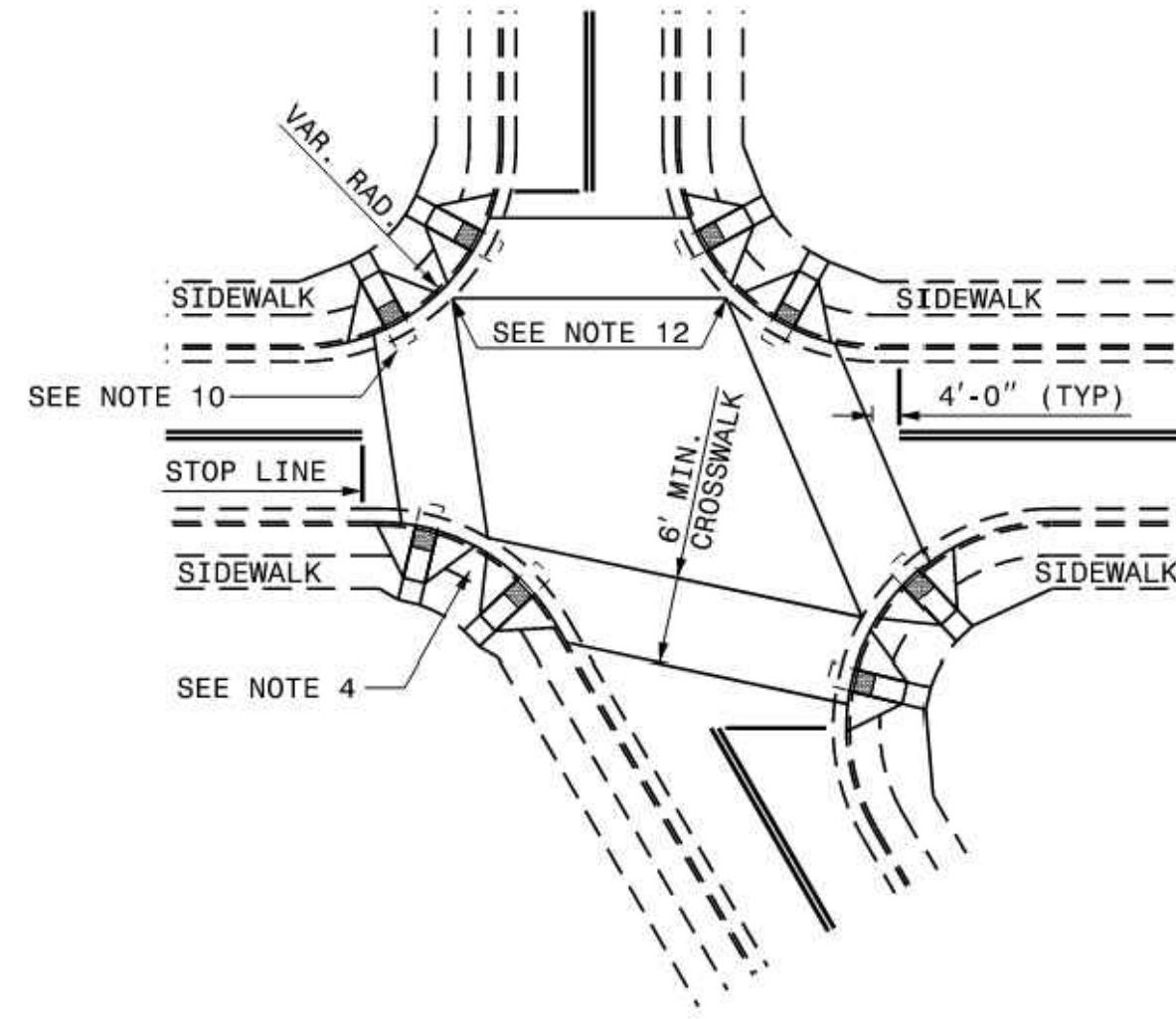
Drawing name: K:\SAV_Civil\14793000_Hoover Road SFR\CAD\Plan\Sheets\C6-00_CONSTRUCTION DETAILS.dwg C6-02 CONSTRUCTION DETAILS Aug 31, 2023 9:51pm by Joe Glust



DETAIL SHOWING TYPICAL LOCATION OF CURB RAMP, PEDESTRIAN CROSSWALKS AND STOP LINES FOR TEE INTERSECTIONS



ALLOWABLE LOCATIONS
DUAL RAMP RADII.....ANY

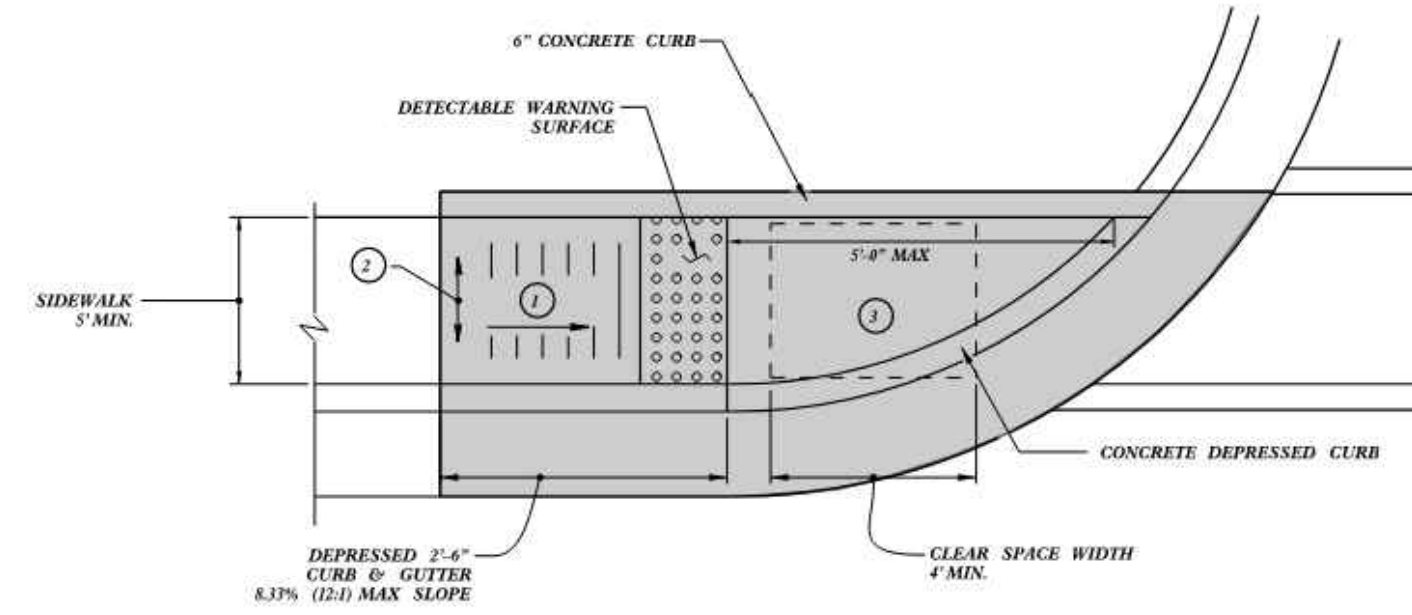


DETAIL SHOWING TYPICAL LOCATION OF CURB RAMP, PEDESTRIAN CROSSWALKS AND STOP LINES

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR
CURB RAMP
CURB RAMP LOCATION

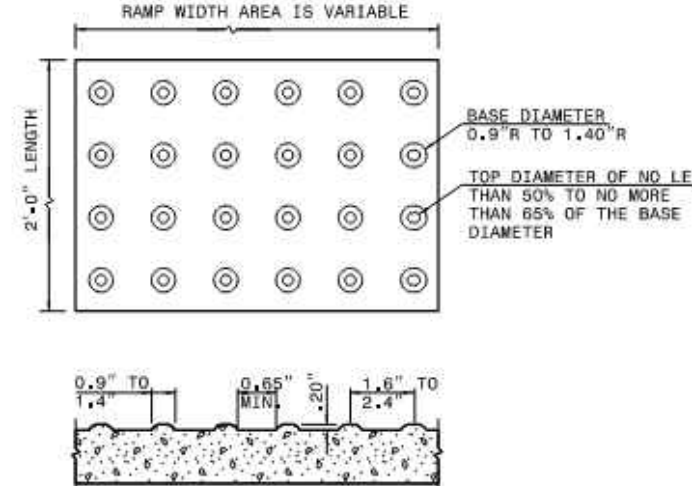
SHEET 5 OF 13
848.06



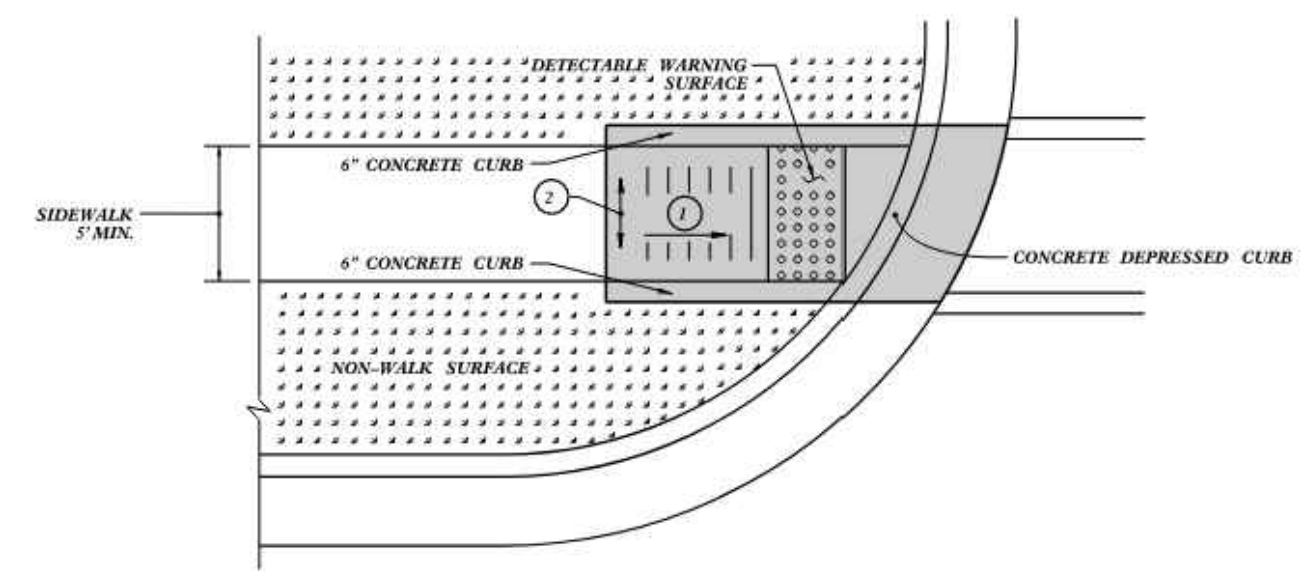
TYPE 1

- 1 8.3% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00%

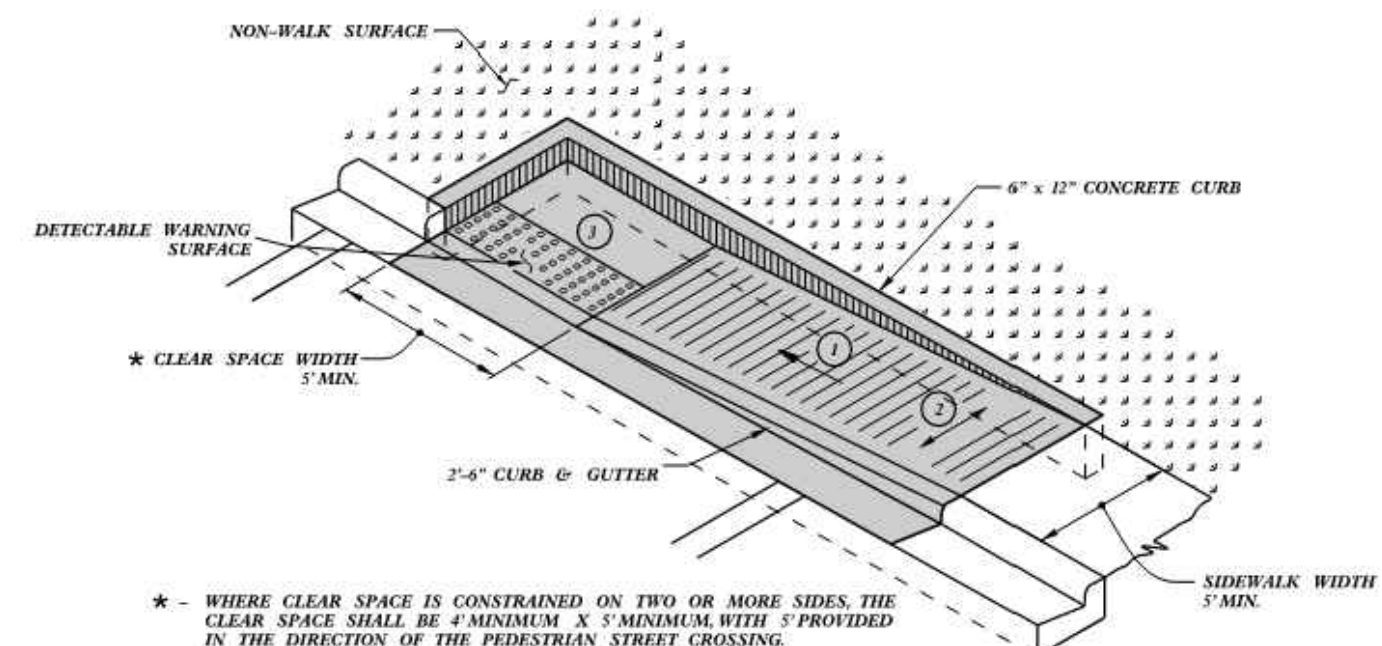
NOTES:
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DETECTABLE WARNING SURFACE



TYPE 1 MODIFIED



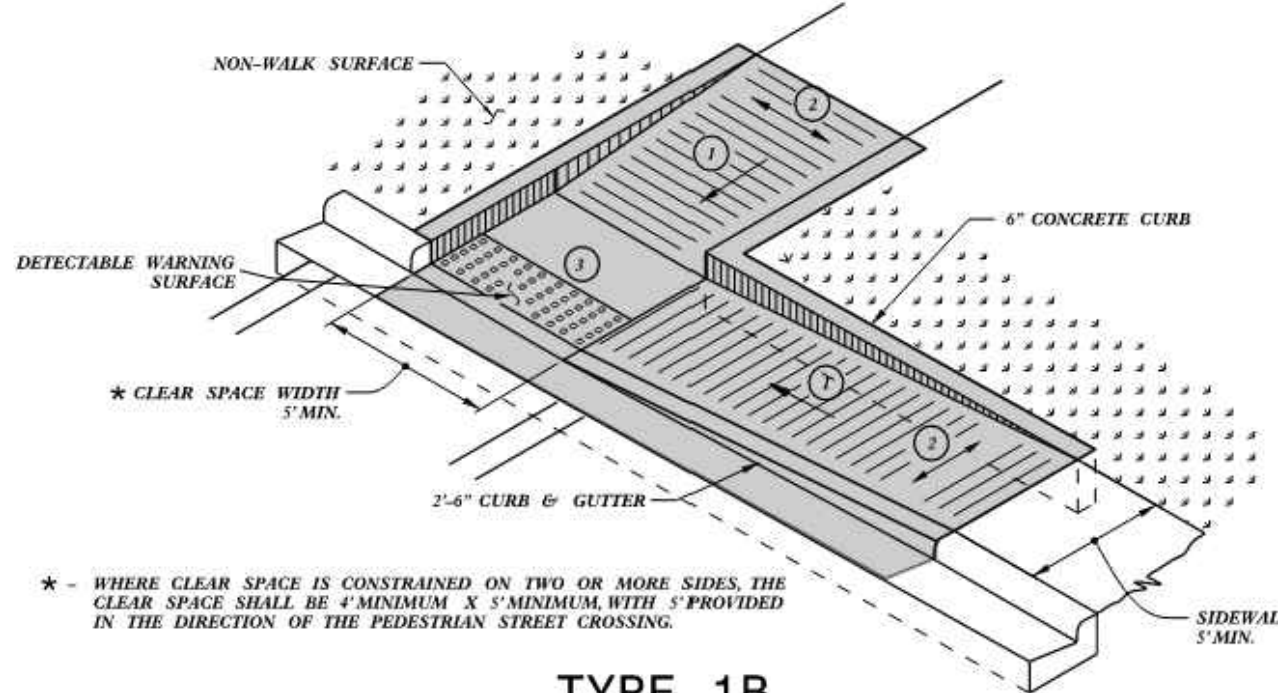
TYPE 1A

PAY LIMITS FOR 1 CURB RAMP

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR
CURB RAMP
DIRECTIONAL RAMP

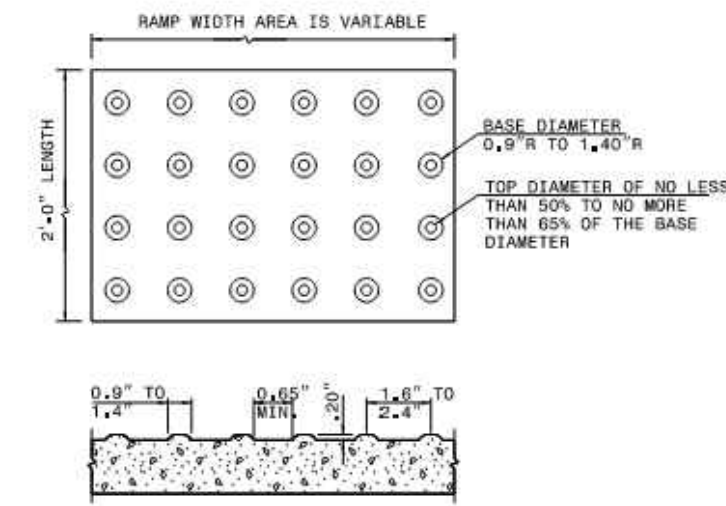
SHEET 6 OF 13
848.06



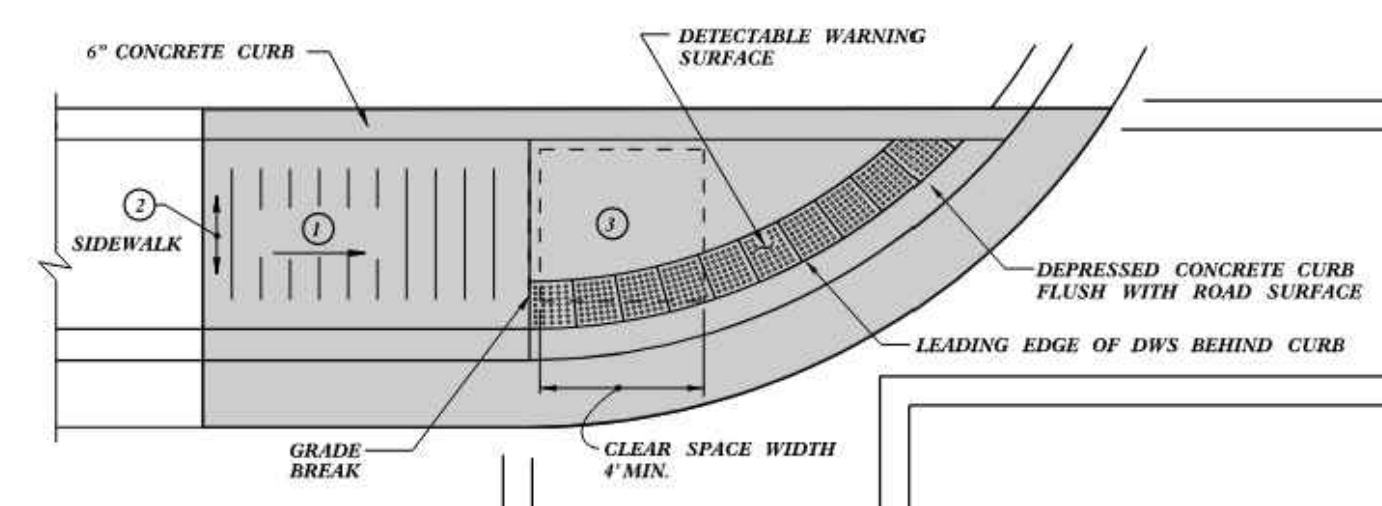
TYPE 1B

- 1 8.3% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00%

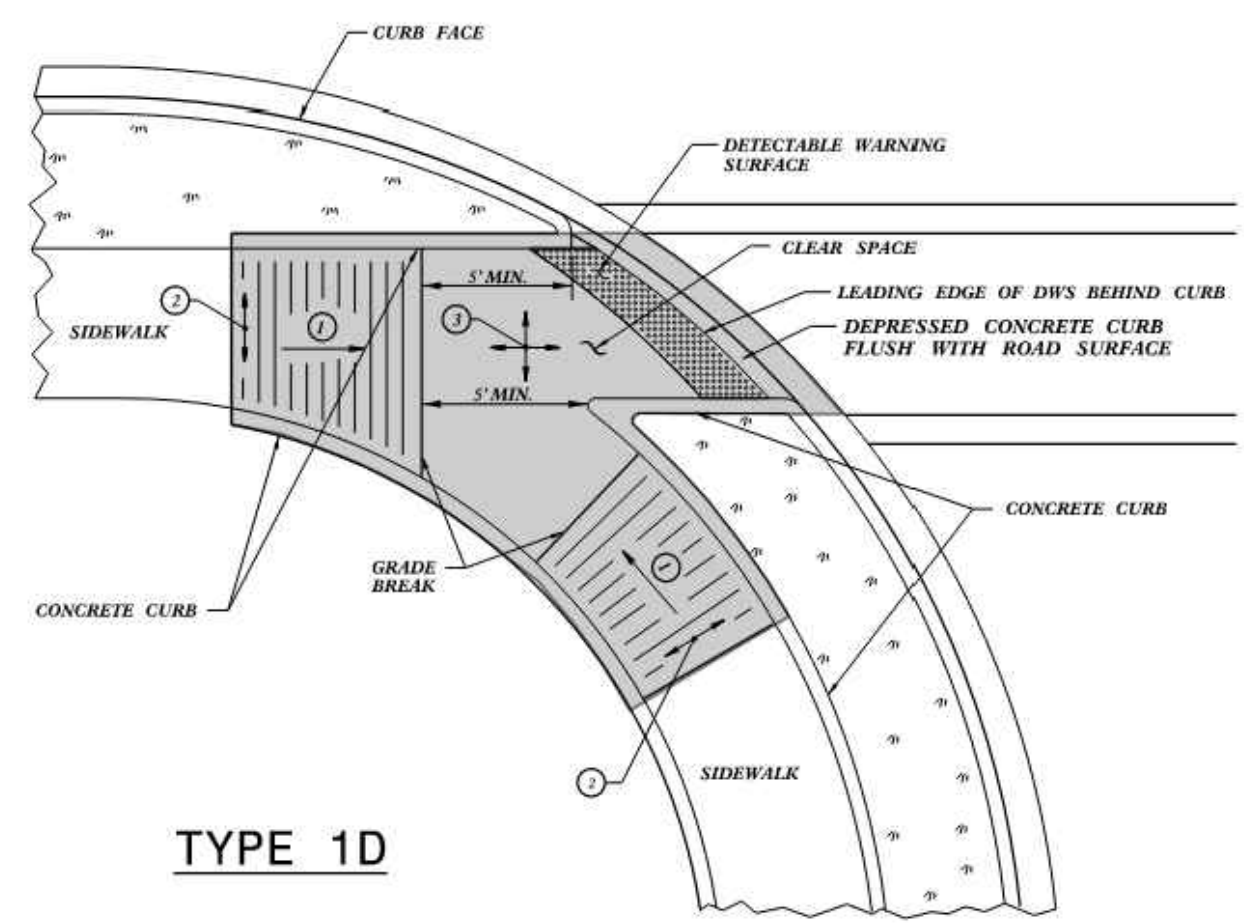
NOTES:
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DETECTABLE WARNING SURFACE



TYPE 1C



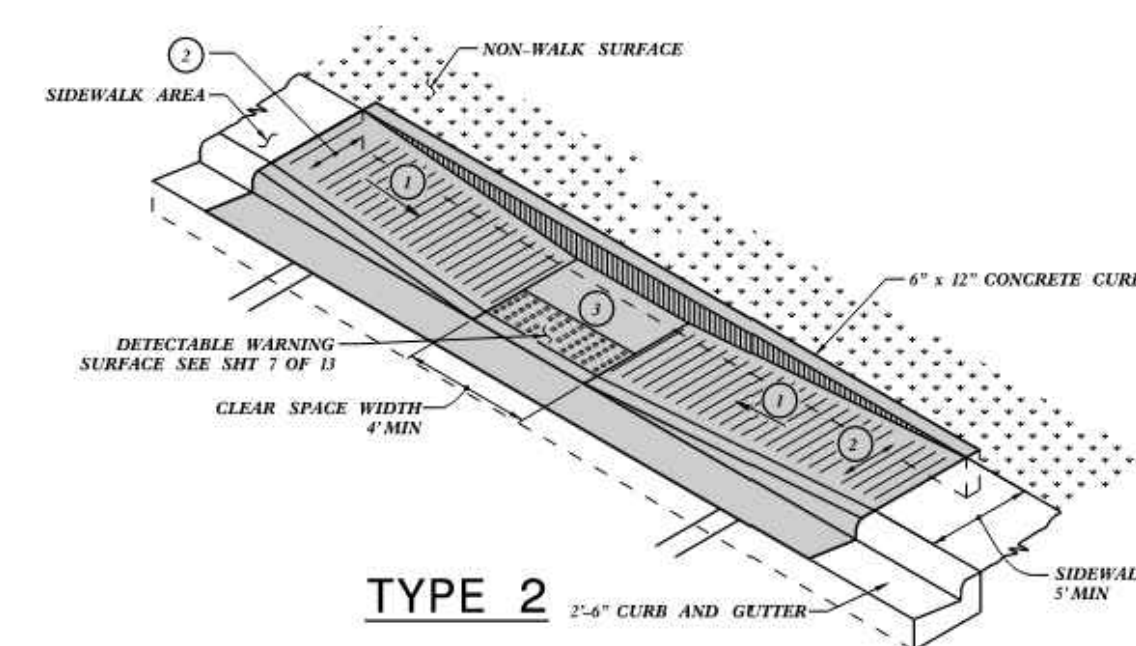
TYPE 1D

PAY LIMITS FOR 1 CURB RAMP

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

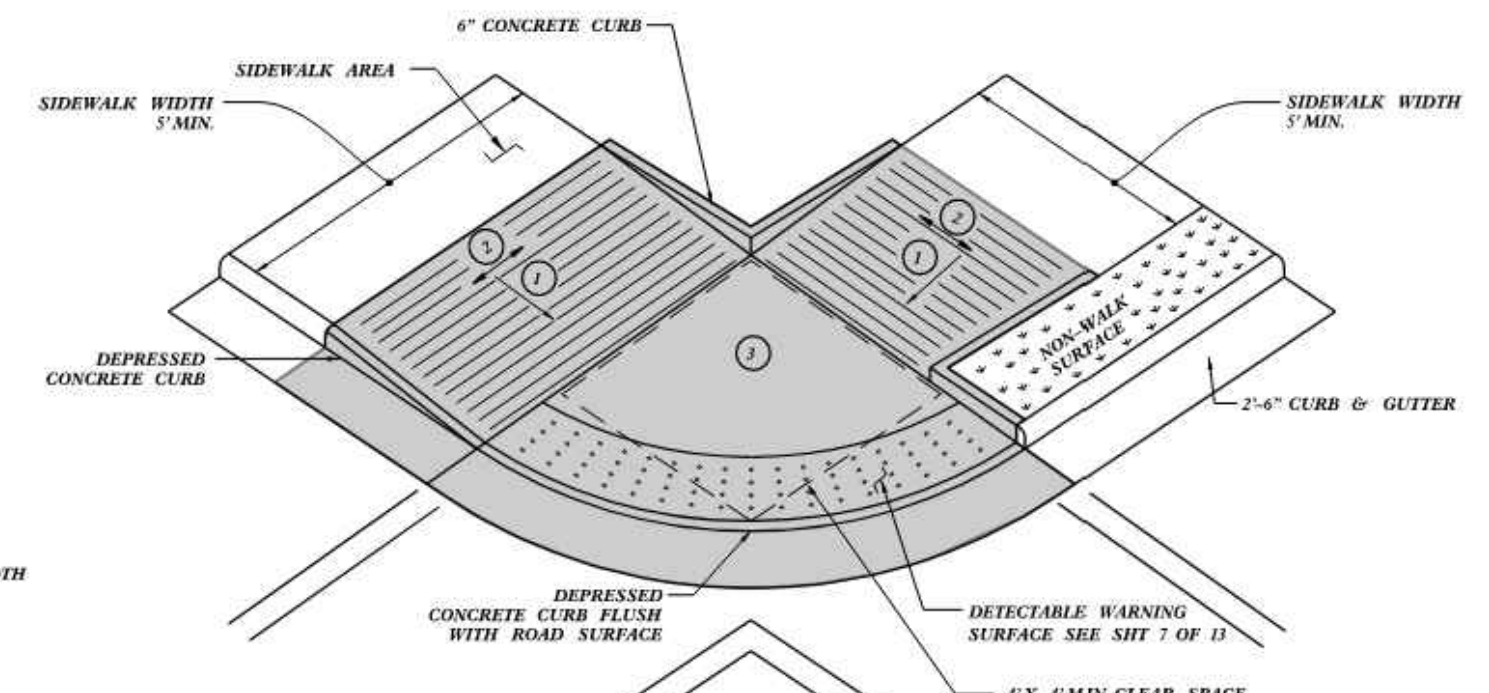
ROADWAY STANDARD DRAWING FOR
CURB RAMP
DIRECTIONAL RAMP

SHEET 7 OF 13
848.06

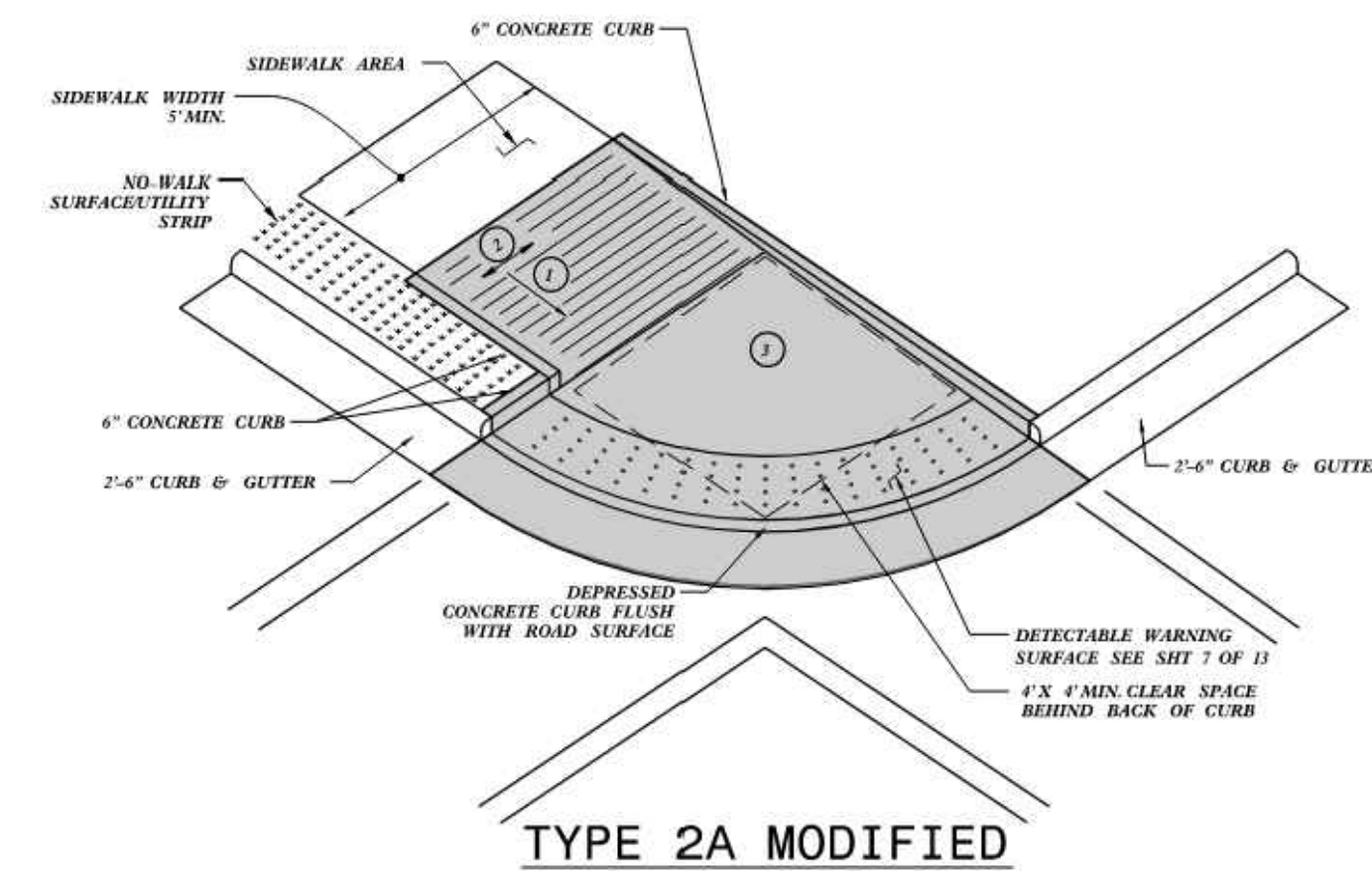


TYPE 2

- 1 8.3% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00%



TYPE 2A



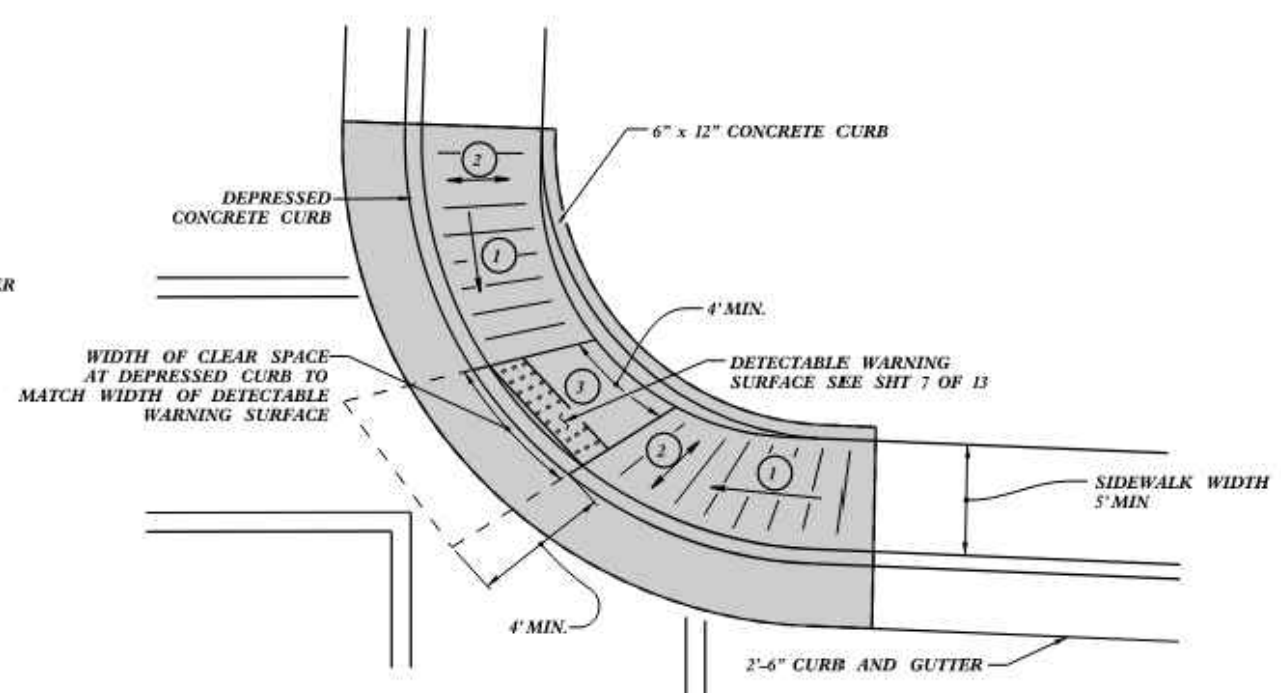
TYPE 2A MODIFIED

PAY LIMITS FOR 1 CURB RAMP

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR
CURB RAMP
PARALLEL RAMP

SHEET 8 OF 13
848.06



TYPE 2B

LOGAN DEVELOPERS INC.
60 GREGORY ROAD (SUITE 1)
BELVILLE, NC 28451
PHONE: 910-507-2115
WWW.KIMLEY-HORN.COM

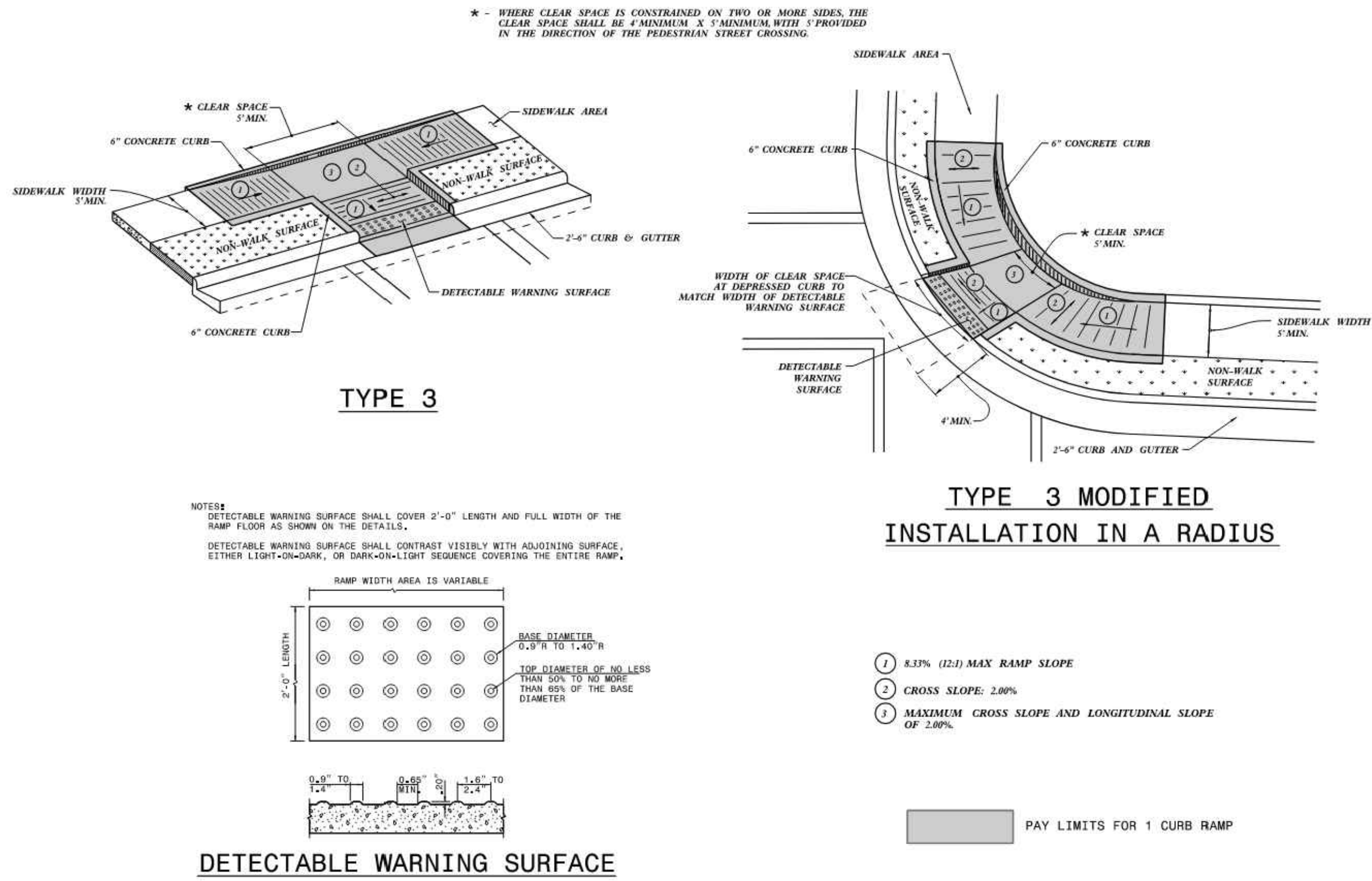
BROOKFIELD BRANCH
1038 HOOVER ROAD,
HAMPSHIRE, NC 28443
3283-85-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY NJ
DESIGNED BY NJ
REVIEWED BY RW
DATE 8/31/2023
PROJECT NO. 014793000
TITLE CONSTRUCTION DETAILS

SHEET NUMBER
C6-02



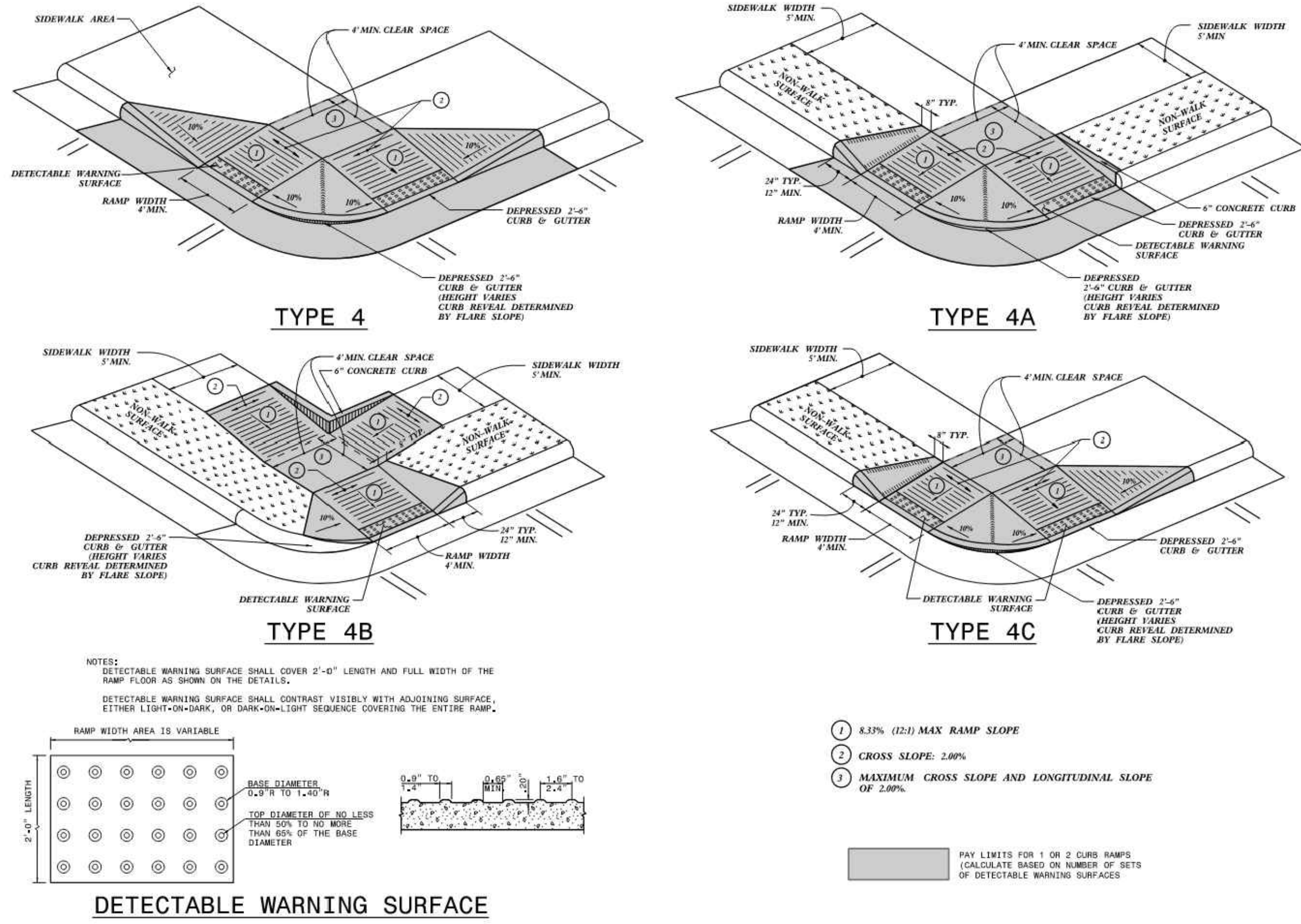
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STATE OF NORTH CAROLINA
 DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR
CURB RAMP
 PARALLEL RAMP

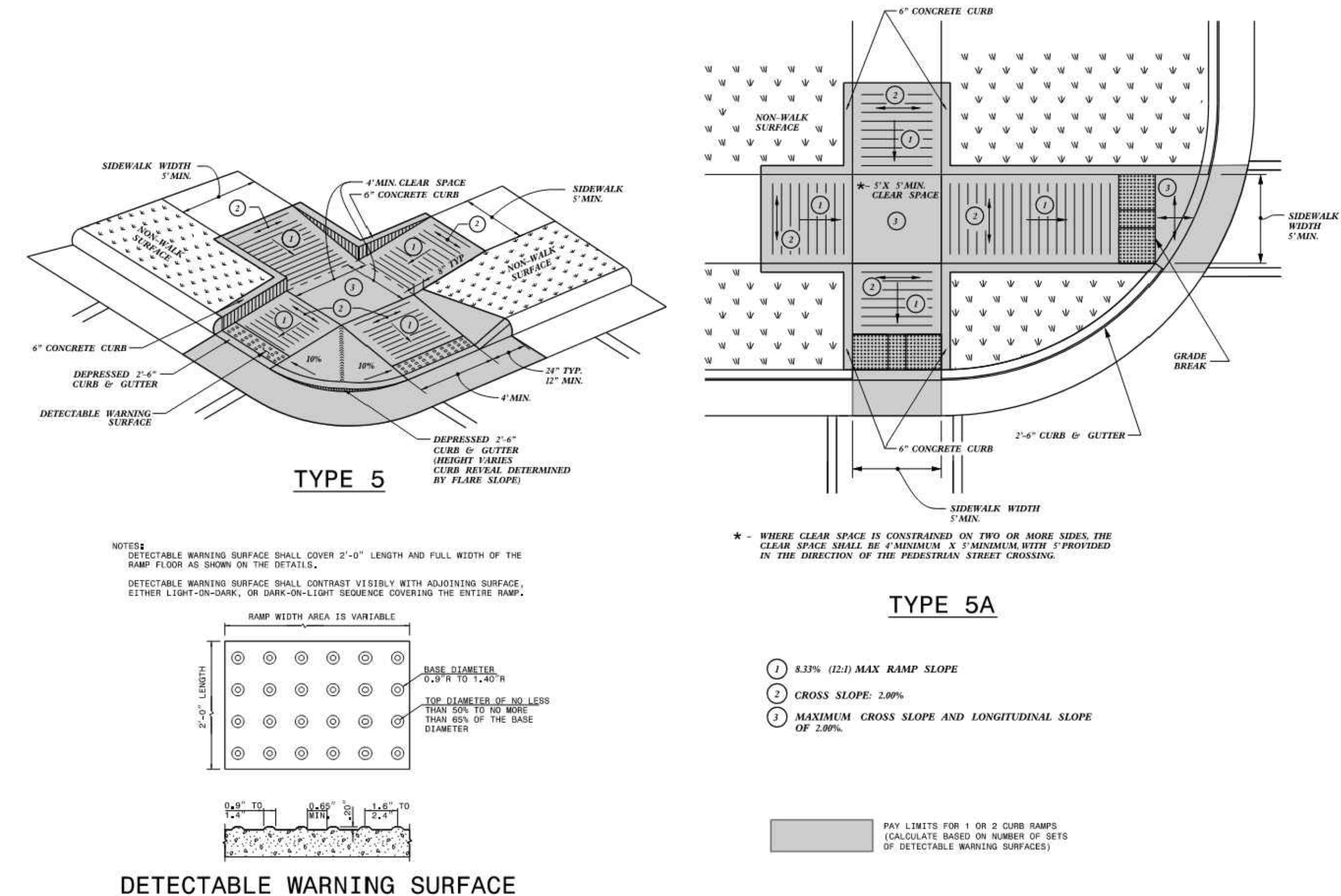
SHEET 9 OF 13
848.06



STATE OF NORTH CAROLINA
 DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR
CURB RAMP
 SHARED LANDING

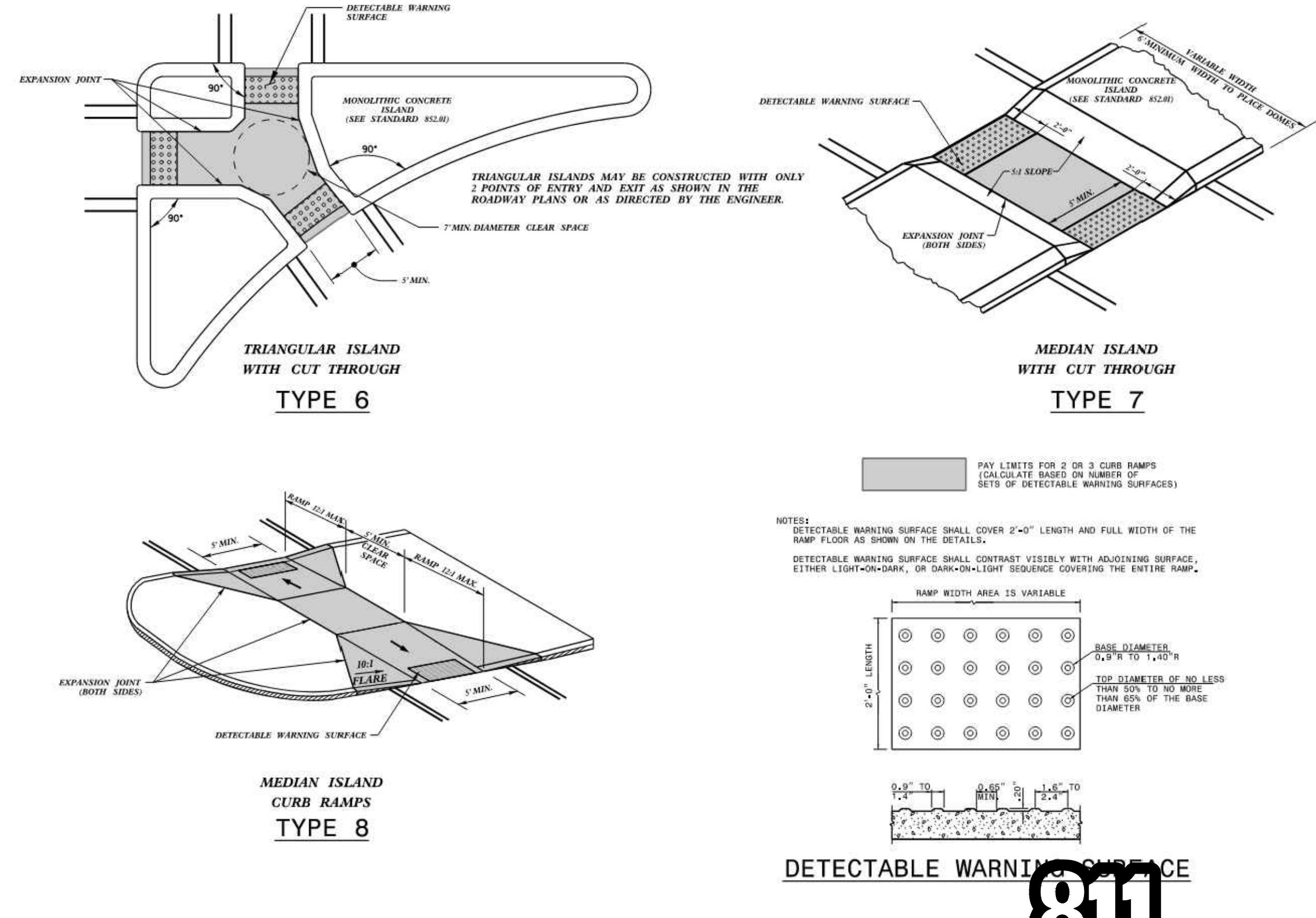
SHEET 10 OF 13
848.06



STATE OF NORTH CAROLINA
 DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR
CURB RAMP
 SHARED LANDING

SHEET 11 OF 13
848.06



STATE OF NORTH CAROLINA
 DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR
CURB RAMP
 ISLAND RAMP

SHEET 12 OF 13
848.06

Kimley-Horn
 © 2023 KIMLEY-HORN AND ASSOCIATES, INC.
 25 BULL ST., SUITE 400
 RALEIGH, NC 27601
 PHONE: (919) 231-4394
 WWW.KIMLEY-HORN.COM

LOGAN DEVELOPERS INC.
 60 GREGORY ROAD (SUITE 1)
 BELVILLE, NC 28645
 PHONE: 910-507-2115

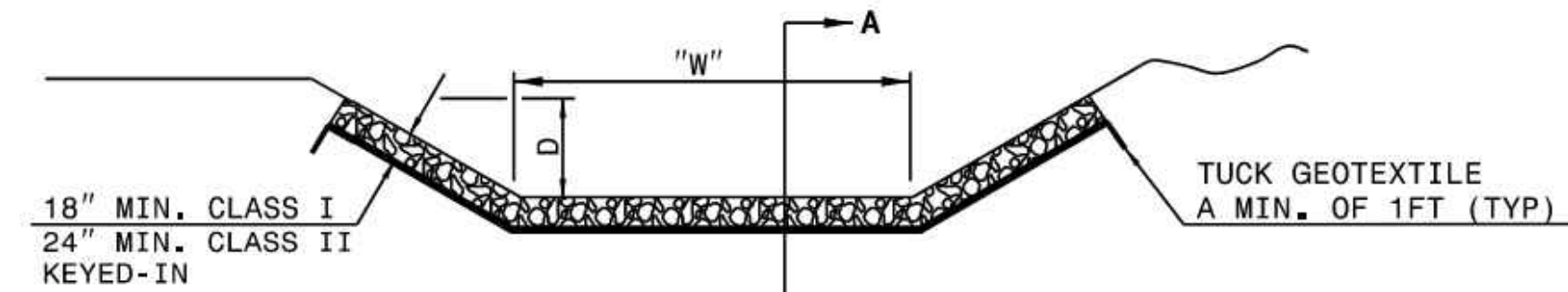
BROOKFIELD BRANCH
 1038 HOOVER ROAD,
 HAMPSHIRE, NC 28443
 3283-93-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY: NJ
 DESIGNED BY: NJ
 REVIEWED BY: RW
 DATE: 8/31/2023
 PROJECT NO.: 014793000

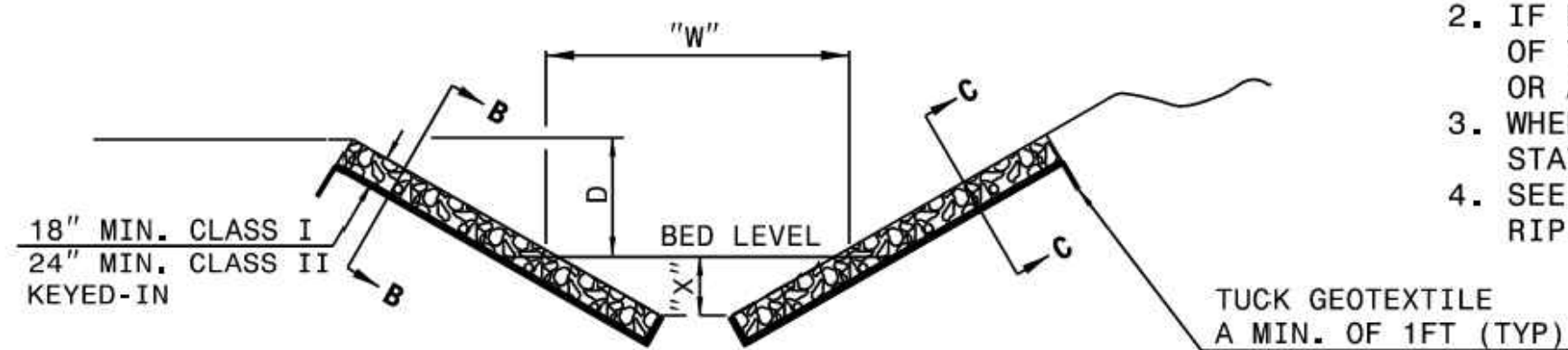
TITLE: **CONSTRUCTION DETAILS**
 SHEET NUMBER: **C6-03**



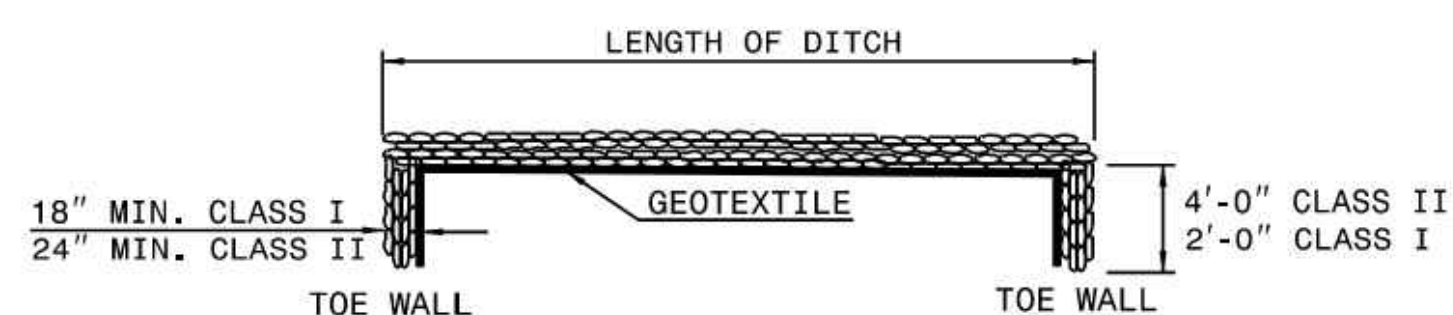
Drawing name: K:\SAV_Civil\14793000_Hoover Road SFR\CAD\PlanSheets\C6-00 - CONSTRUCTION DETAILS.dwg C6-05 CONSTRUCTION DETAILS Aug 31, 2023 9:51pm by Joe Cluett



DITCH OR CHANNEL WITH CLASS I OR CLASS II RIP RAP ("W" < 6.0FT)



DITCH OR CHANNEL WITH CLASS I OR CLASS II RIP RAP*



LONGITUDINAL SECTION A-A, B-B OR C-C

- GENERAL NOTES:**
1. USE RIP-RAP IN CHANNEL BED WHERE SHOWN ON PLANS.
 2. IF BEDROCK IS ENCOUNTERED WITHIN THE LIMITS OF THE TOEWALL, BEGIN TOEWALL ON THE BEDROCK OR AS DIRECTED BY THE ENGINEER.
 3. WHERE ONLY ONE SIDE REQUIRES RIP-RAP, LIST STATION AND SIDE OF SAME.
 4. SEE 876.04 FOR DITCH OR CHANNEL WITH CLASS B RIP-RAP.

CLASS I	
*"W"	"X"
6'-10"	12"
11'-20"	18"

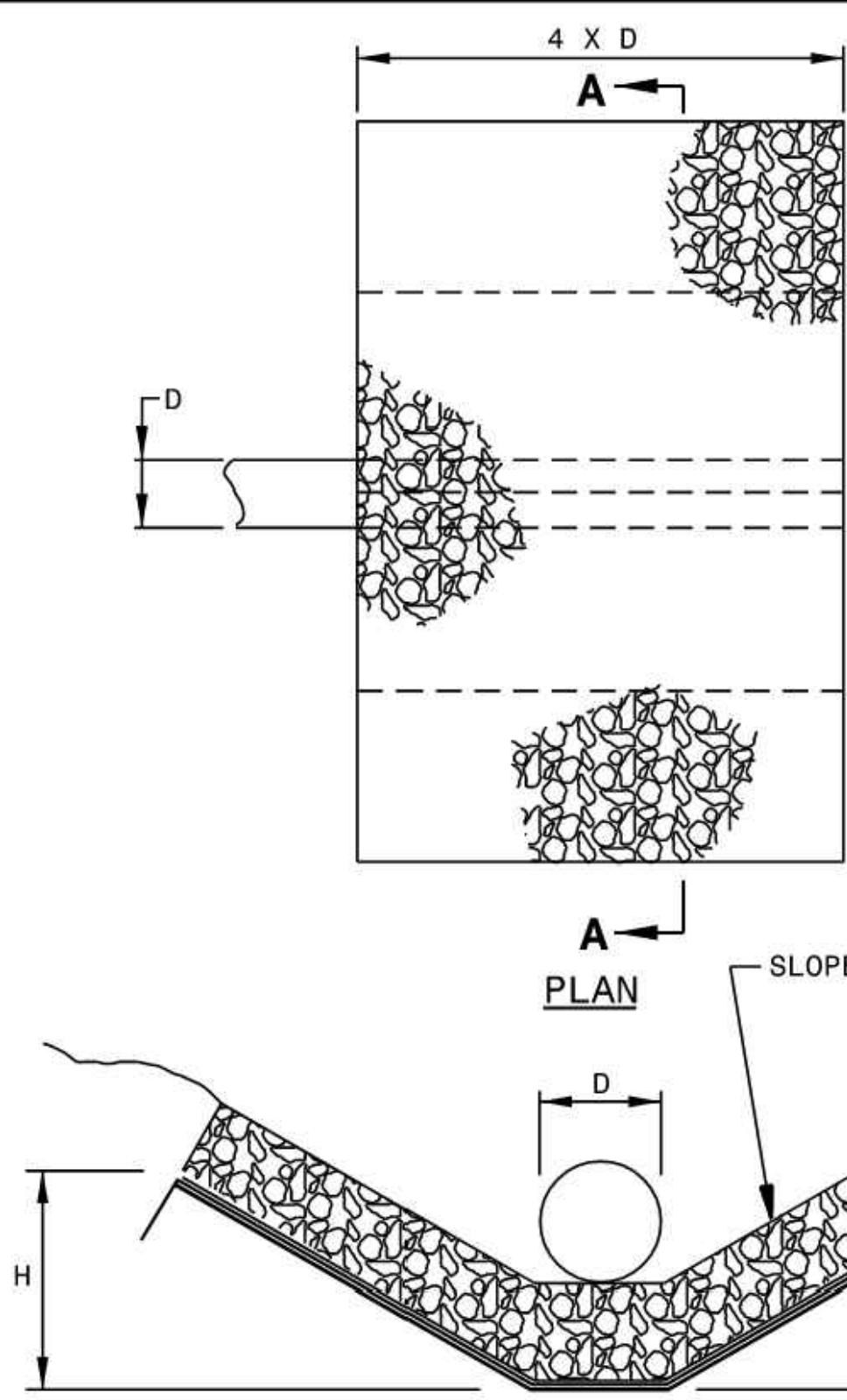
*FOR "V" DITCH "W" IS 0'

CLASS II	
*"W"	"X"
ALL	36"

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR RIP RAP IN CHANNELS AND DITCHES

SHEET 1 OF 1
876.01

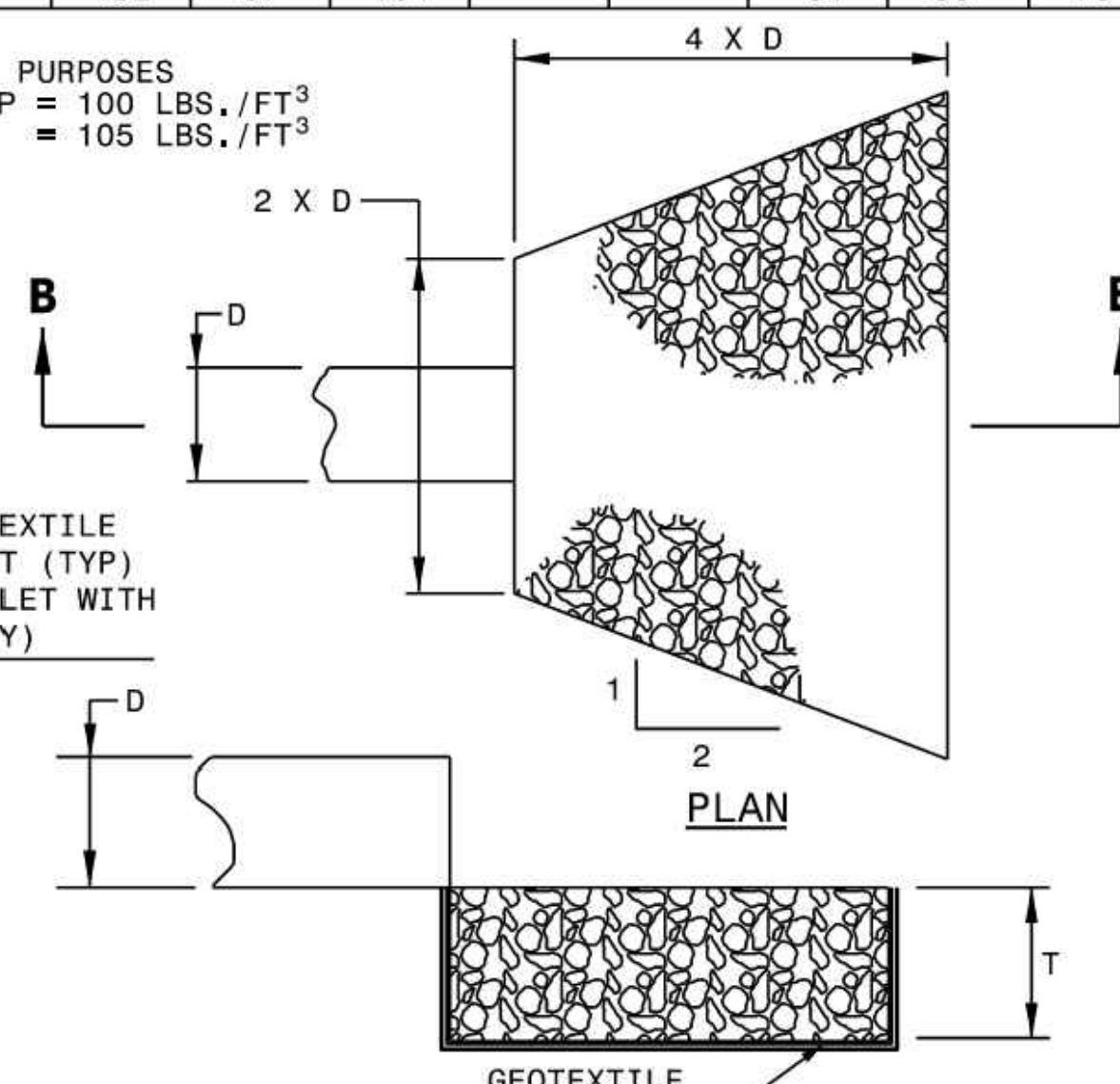


**SECTION A-A
PIPE OUTLET WITH DITCH**

H = RIP RAP TO TOP OF PIPE (MAX. H = D + T)
 T = 18" CLASS I RIP RAP, UNLESS OTHERWISE SHOWN ON PLANS
 T = 12" CLASS 'B' RIP RAP, UNLESS OTHERWISE SHOWN ON PLANS
 KEY-IN RIP-RAP

D	OUTLET W/DITCH				OUTLET W/O DITCH					
	CLASS 'B' RIP RAP TONS	CLASS 'B' RIP RAP S.Y.	CLASS I RIP RAP TONS	CLASS I RIP RAP S.Y.	CLASS 'B' RIP RAP TONS	CLASS 'B' RIP RAP S.Y.	CLASS I RIP RAP TONS	CLASS I RIP RAP S.Y.		
12"	2	5	5	2	5	1	4	2	1	4
15"	2	7	7	3	7	1	5	3	2	6
18"	3	10	9	4	10	2	7	4	2	8
24"	5	14	15	7	15	3	11	7	4	12
30"	8	21	21	11	22	5	16	11	7	17
36"	11	28	29	15	30	7	22	16	10	23
42"	15	37	39	20	39	10	28	22	13	30
48"	-	-	49	26	50	-	-	28	17	38
54"	-	-	60	33	62	-	-	36	21	47
60"	-	-	73	40	75	-	-	44	26	56
66"	-	-	87	48	89	-	-	54	32	67
72"	-	-	102	57	104	-	-	64	38	78

NOTE:
 FOR CALCULATION PURPOSES
 CLASS 'B' RIP RAP = 100 LBS./FT³
 CLASS I RIP RAP = 105 LBS./FT³



**SECTION B-B
PIPE OUTLET WITHOUT DITCH**

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR GUIDE FOR RIP RAP AT PIPE OUTLETS

SHEET 1 OF 1
876.02



Know what's below.
Call before you dig.

PREPARED BY: STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

PREPARED FOR: ROADWAY STANDARD DRAWING FOR GUIDE FOR RIP RAP AT PIPE OUTLETS

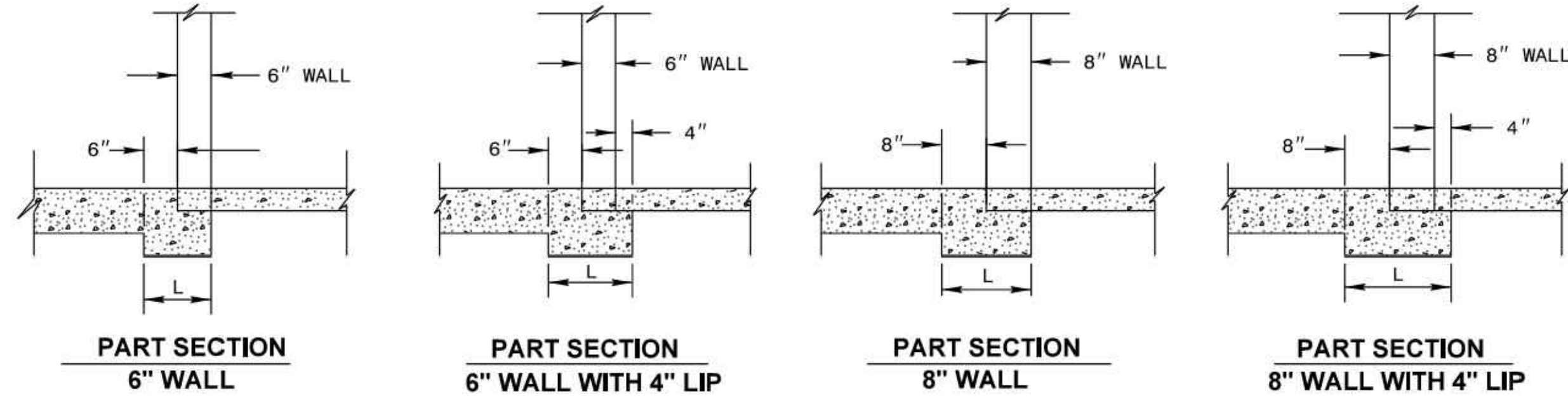
SHEET 1 OF 1
876.02

PROJECT: BROOKFIELD BRANCH
1038 HOOVER ROAD, HAMPSTEAD, NC 28443
3283-85-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY: NJ
DESIGNED BY: NJ
REVIEWED BY: RW
DATE: 8/31/2023
PROJECT NO.: 014793000
TITLE: CONSTRUCTION DETAILS
SHEET NUMBER: C6-05

PREPARED BY: LOGAN DEVELOPERS INC.
60 GREGORY ROAD (SUITE 1)
BELVILLE, NC 28645
PHONE: 910-507-2115

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25 BULL ST., SUITE 400
RALEIGH, NC 27601
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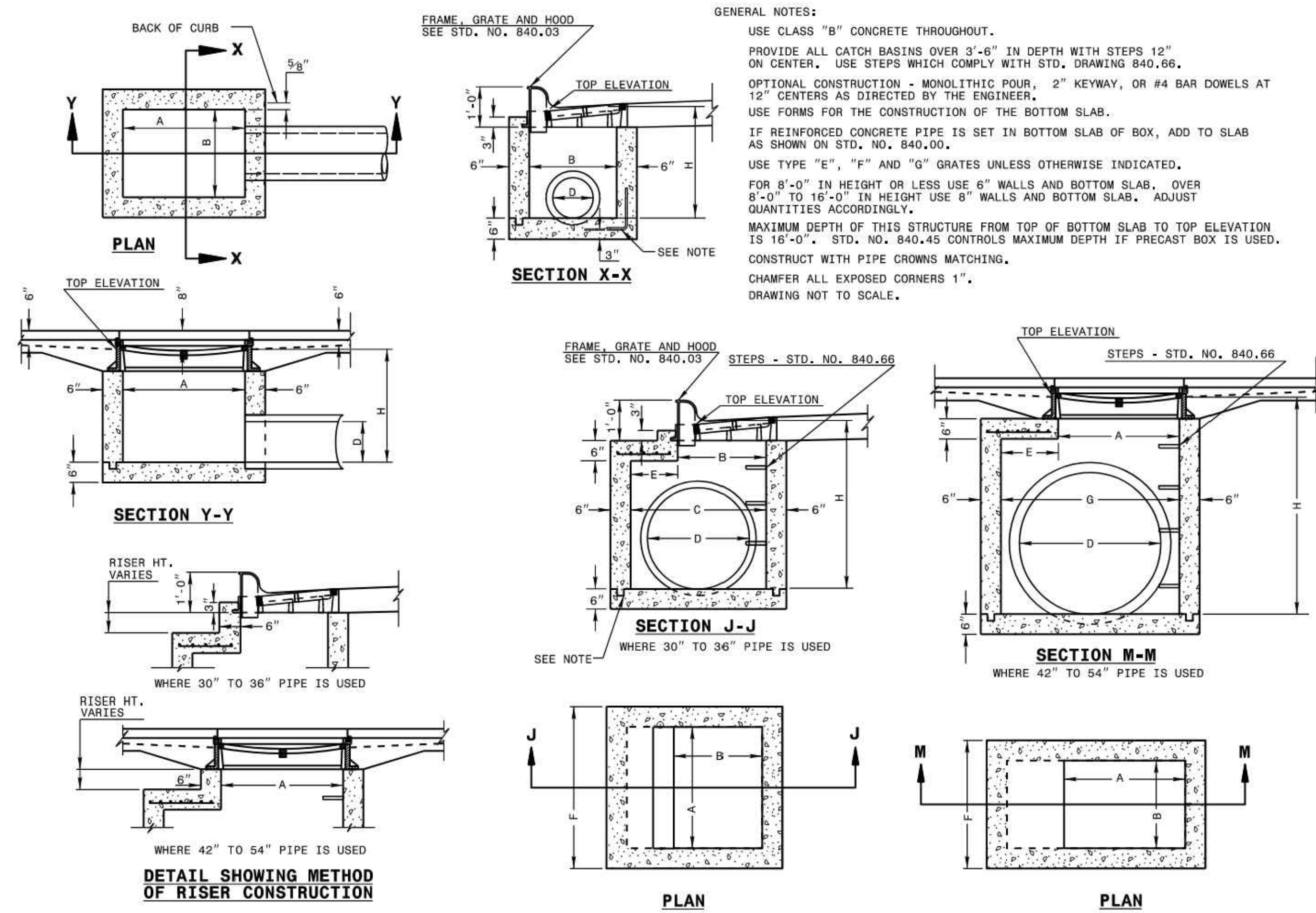


TABLES OF QUANTITIES FOR PIPE SET IN PAD

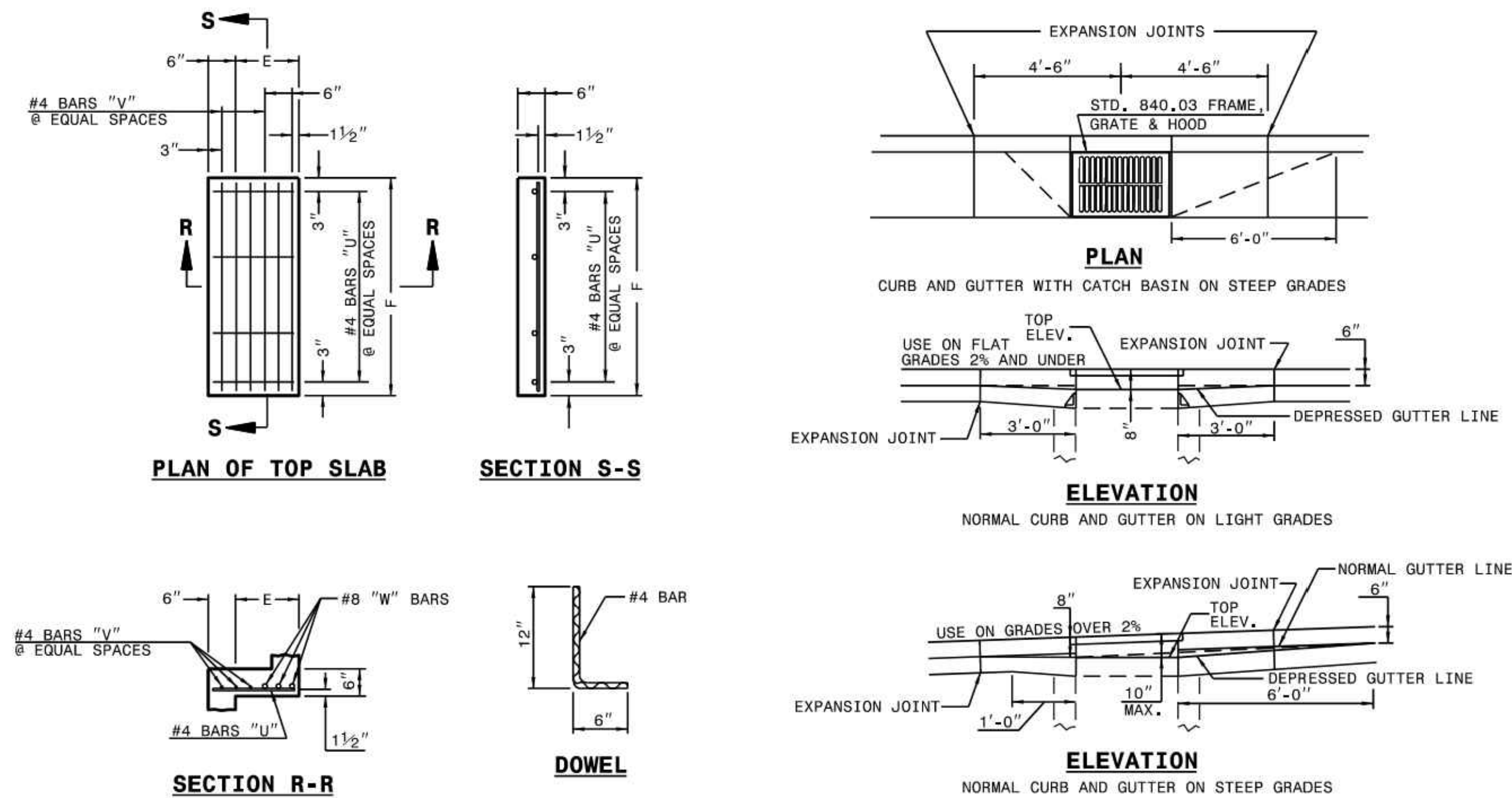
PIPE D	"W" DIM	"W1" DIM	"T" DIM	C.Y. QUANTITIES WHEN L IS		
				12"	16"	20"
12"	1'-1 7/8"	0'-7 7/8"	0'-2"	0.005	0.007	0.008
15"	1'-3 5/8"	0'-9 1/8"	0'-2"	0.006	0.008	0.010
18"	1'-5 1/4"	0'-10 3/8"	0'-2"	0.007	0.010	0.012
24"	1'-8 3/4"	1'-0 1/8"	0'-3"	0.011	0.014	0.018
30"	2'-0 1/4"	1'-2 3/4"	0'-3 1/2"	0.014	0.018	0.023
36"	2'-3 3/4"	1'-5 3/8"	0'-4"	0.017	0.023	0.025
42"	2'-7 1/8"	1'-7"	0'-5 1/4"	0.025	0.030	0.038
48"	2'-10 5/8"	1'-8 3/4"	0'-5 3/4"	0.028	0.038	0.047
54"	3'-2 1/8"	1'-10 1/2"	0'-6 1/4"	0.035	0.047	0.058
60"	3'-5 5/8"	2'-0 1/4"	0'-6 3/4"	0.042	0.056	0.071
66"	3'-9"	2'-2 1/4"	0'-7 1/4"	0.050	0.067	0.084
72"	4'-0 1/2"	2'-3 3/4"	0'-7 3/4"	0.059	0.078	0.098

GENERAL NOTES:
USE THIS STANDARD WITH ALL DRAINAGE STRUCTURES USING REINFORCED CONCRETE PIPE SET IN BASE SLAB.

1-24 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
ROADWAY STANDARD DRAWING FOR CONCRETE BASE PAD FOR DRAINAGE STRUCTURES
SHEET 1 OF 1
840.00



1-24 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
ROADWAY STANDARD DRAWING FOR CONCRETE CATCH BASIN 12" THRU 54" PIPE
SHEET 1 OF 2
840.02

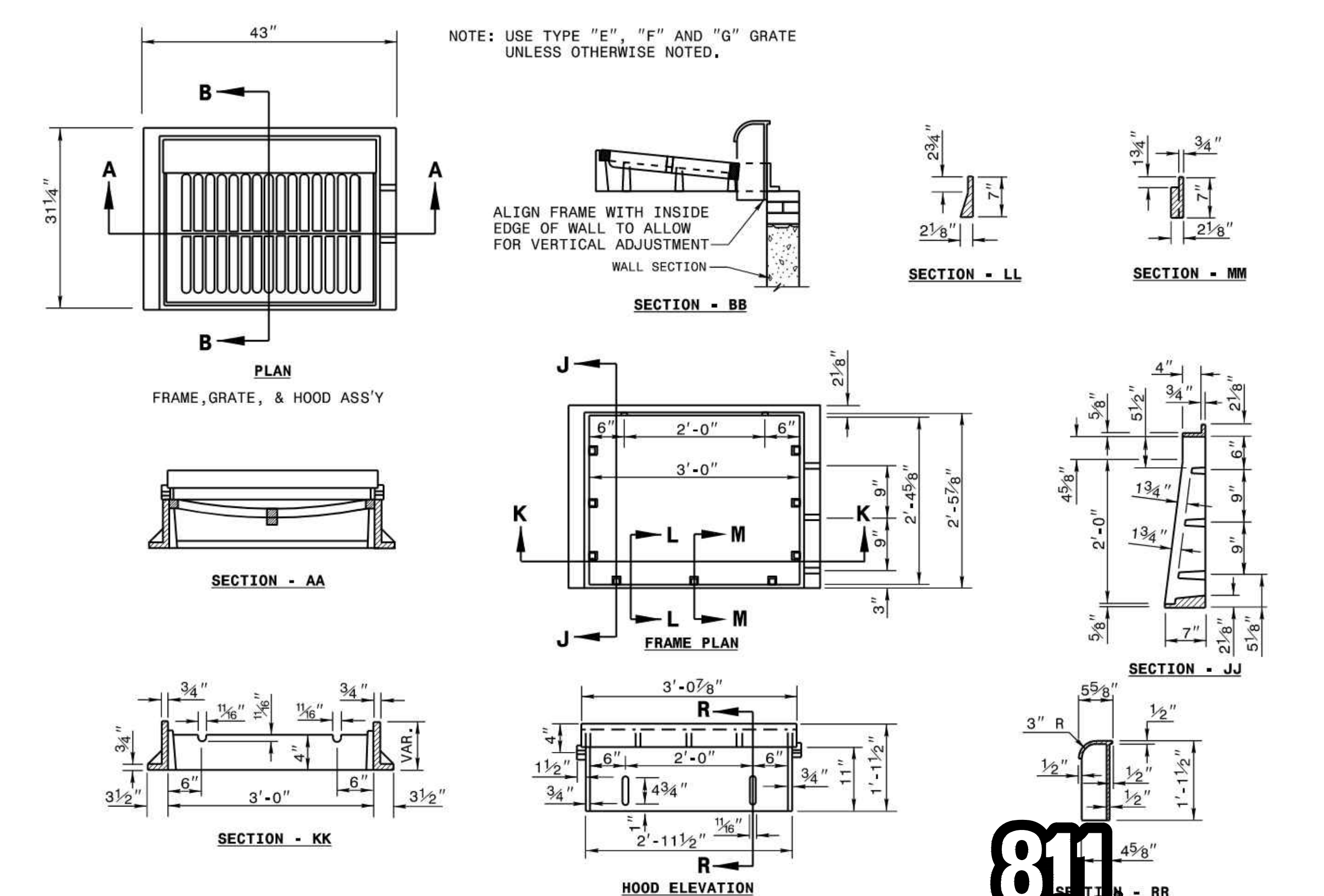


MINIMUM DIMENSIONS AND QUANTITIES FOR CONCRETE CATCH BASIN (BASED ON MIN. HEIGHT, H, WITH NO RISER) *

PIPE D	DIMENSIONS OF BOX AND PIPE				COVER DIMENSION		CU. YDS. CONC. IN BOX			DEDUCTIONS ONE PIPE	
	SPAN A	WIDTH B	WIDTH C	SPAN G	MIN. H	E	F	NO.	LENGTH	NO.	R.C.
12"	3'-0"	2'-2"	--	--	2'-9"	--	--	--	--	--	--
15"	3'-0"	2'-2"	--	--	3'-0"	--	--	--	--	--	--
18"	3'-0"	2'-2"	--	--	3'-3"	--	--	--	--	--	--
24"	3'-0"	2'-2"	--	--	3'-9"	--	--	--	--	--	--
30"	3'-0"	2'-2"	3'-4"	--	4'-3"	1'-2"	4'-0"	4	1'-5"	2	3'-9"
36"	3'-0"	2'-2"	3'-10"	--	4'-9"	1'-8"	4'-0"	4	1'-11"	3	3'-9"
42"	3'-0"	2'-2"	--	4'-5"	5'-3"	1'-5"	3'-2"	4	1'-8"	2	2'-11"
48"	3'-0"	2'-2"	--	5'-0"	5'-9"	2'-0"	3'-2"	4	2'-3"	3	2'-11"
54"	3'-0"	2'-2"	--	5'-7"	6'-3"	2'-7"	3'-2"	4	2'-10"	5	2'-11"

* RISER HAS .228 CUBIC YARDS OF CONCRETE PER FOOT HEIGHT

1-24 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
ROADWAY STANDARD DRAWING FOR CONCRETE CATCH BASIN 12" THRU 54" PIPE
SHEET 2 OF 2
840.02



1-24 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
ROADWAY STANDARD DRAWING FOR FRAME, GRATES, AND HOOD FOR USE ON STANDARD CATCH BASIN
SHEET 1 OF 2
840.03



Know what's below.
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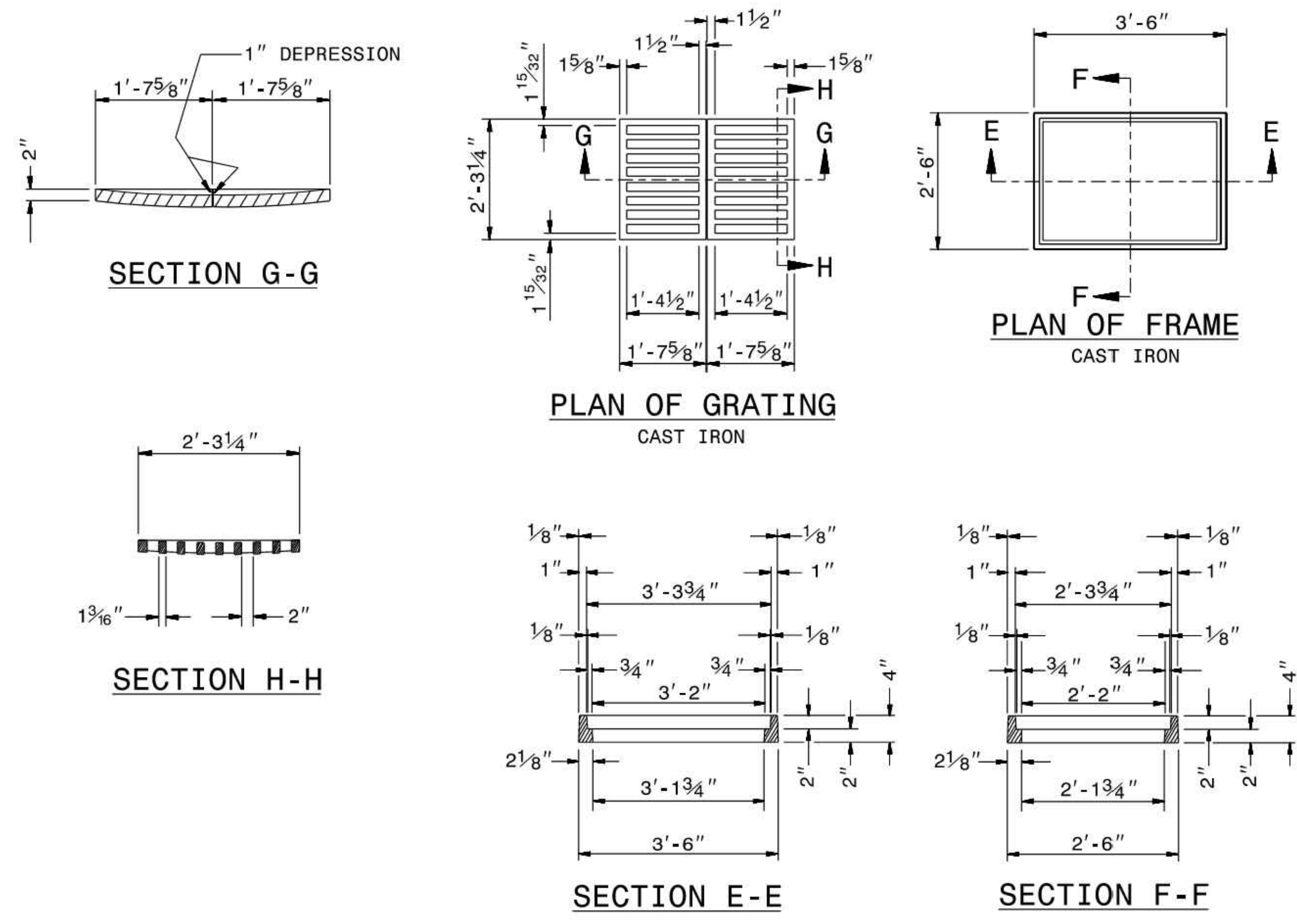
LOGAN DEVELOPERS INC.
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BROOKFIELD BRANCH
1038 HOOVER ROAD,
HAMPSHIRE, NC 28443
3283-85-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

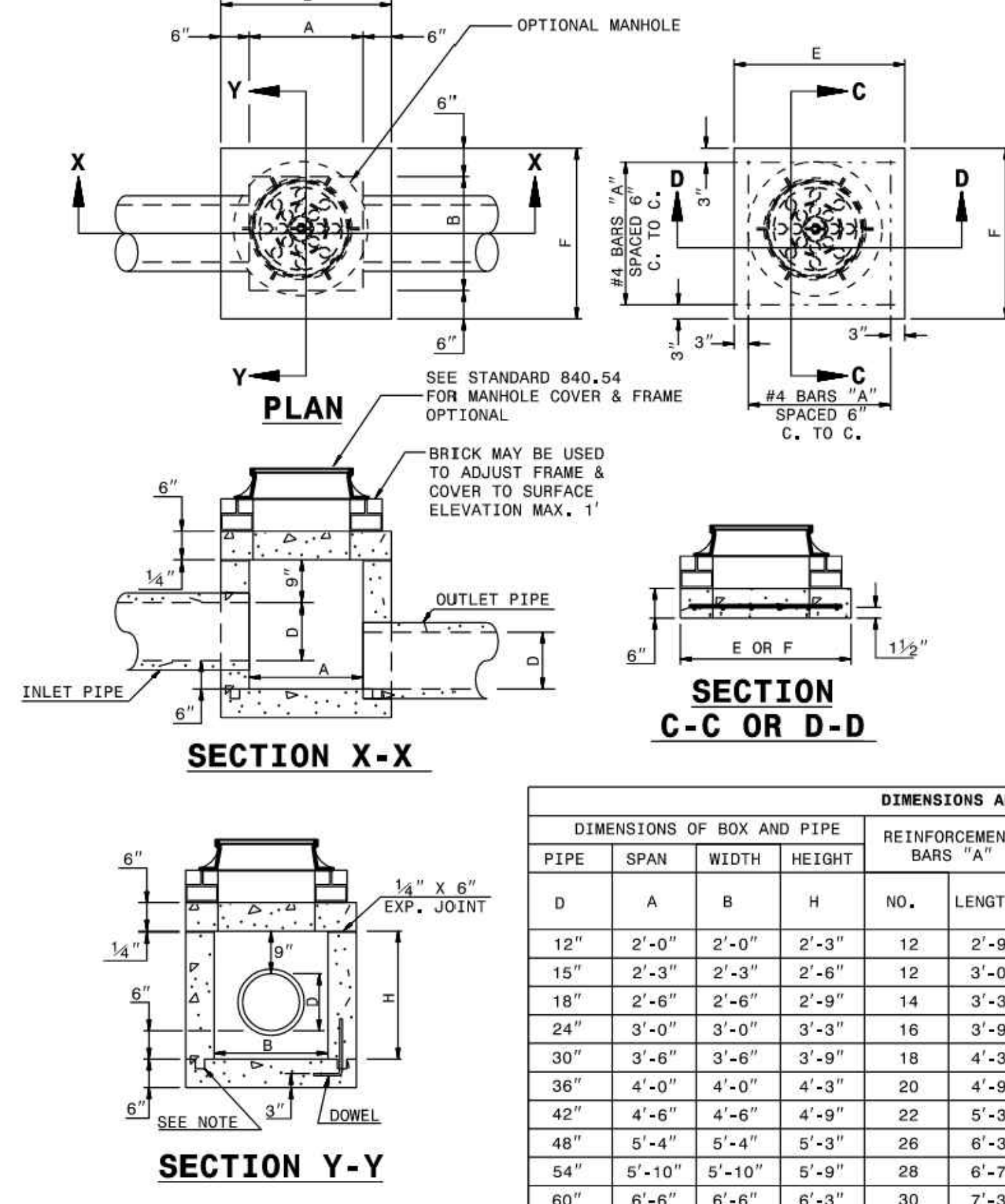
DRAWN BY NJ
DESIGNED BY NJ
REVIEWED BY RW
DATE 8/31/2023
PROJECT NO. 014793000
TITLE STORM STRUCTURE DETAILS
SHEET NUMBER C6-30

Kimley Horn
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Drawing name: K:\SAV_Civil\14793000_Hoover Road SFR(CAD) Plans\Sheet\06-30 - STORM STRUCTURE DETAILS.DWG C6-32 STORM STRUCTURE DETAILS Aug 31, 2023 9:51 pm by Joe.Guest

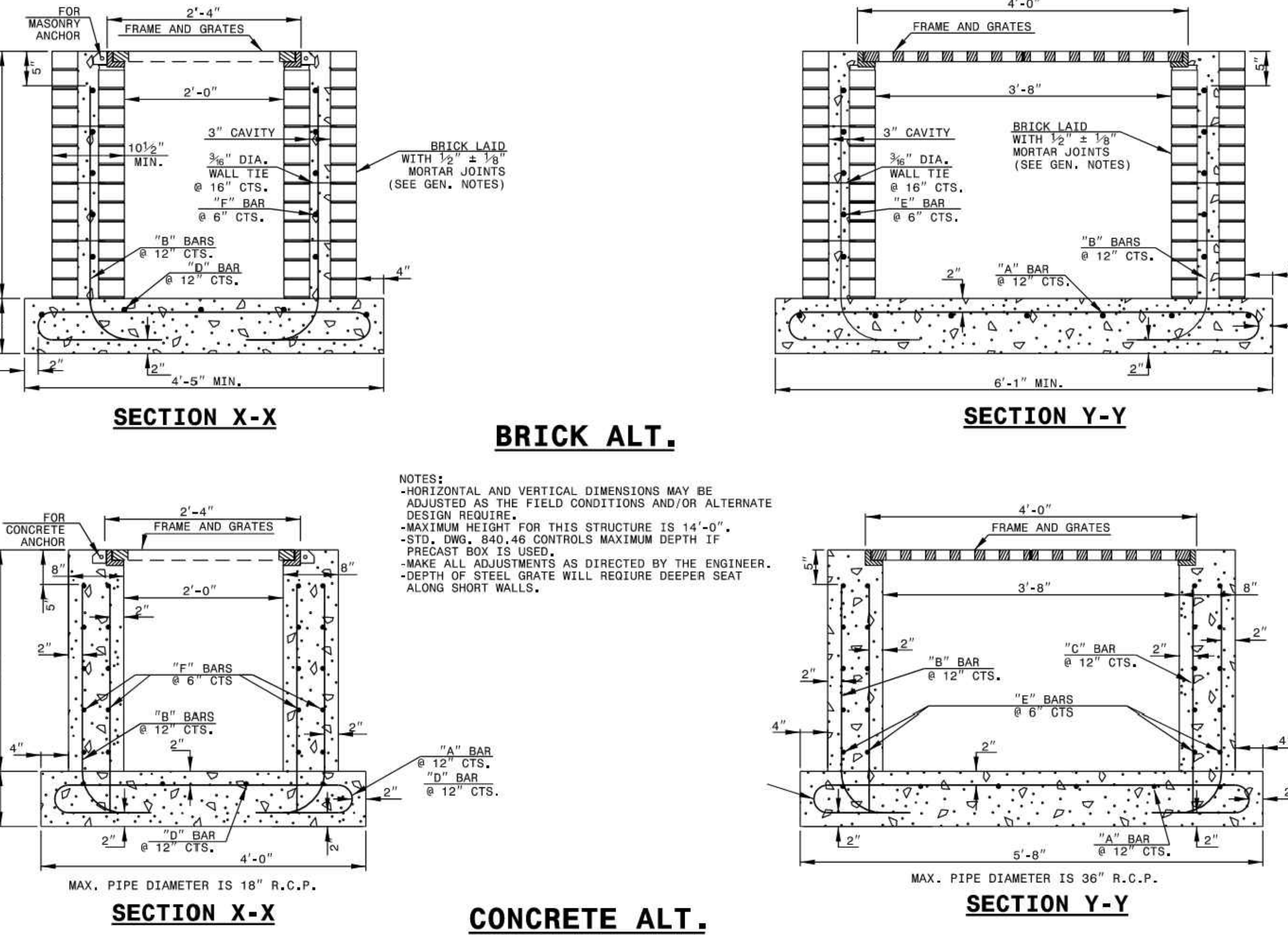


STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
ROADWAY STANDARD DRAWING FOR
DROP INLET FRAME AND GRATES
FOR USE WITH STD. DWG.S 840.14 AND 840.15
SHEET 1 OF 1
840.16

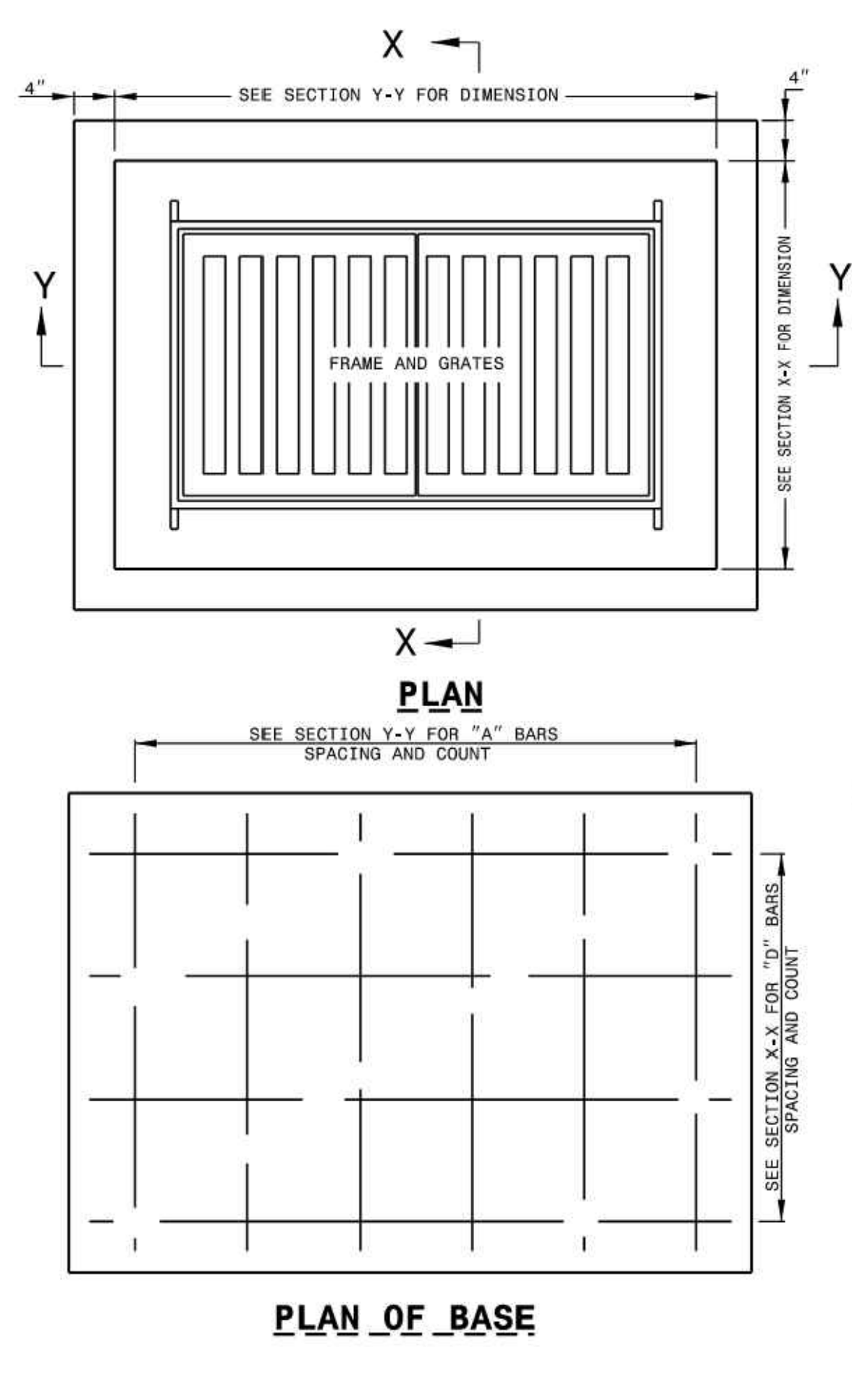


GENERAL NOTES:
 CHAMFER ALL EXPOSED CORNERS 1".
 USE CLASS "B" CONCRETE THROUGHOUT.
 OPTIONAL CONSTRUCTION - MONOLITHIC POUR, 2" KEYWAY, OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.
 USE FORMS TO CONSTRUCT THE BOTTOM SLAB.
 IF REINFORCED CONCRETE PIPE IS SET IN BASE SLAB OF BOX, ADD TO BASE AS SHOWN ON STANDARD NO. 840.00.
 PROVIDE ALL JUNCTION BOXES OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTERS IN ACCORDANCE WITH STD. NO. 840.66.
 ADJUST THE STEEL, CONCRETE AND BRICK MASONRY QUANTITIES TO INCLUDE THE ADDITION OF THE MANHOLE (I.E. DIAGONAL BARS SHORTENED AROUND OPENING IN TOP SLAB, ADDITIONAL VARIABLE HEIGHT BRICK MASONRY, OPENING IN TOP SLAB.)
 MAX. DEPTH OF THIS STRUCTURE FROM TOP OF BOTTOM SLAB TO TOP ELEVATION IS 12'-0". STANDARD DRAWING 840.45 OR 840.46 CONTROLS MAXIMUM DEPTH IF PRECAST BOX IS USED.

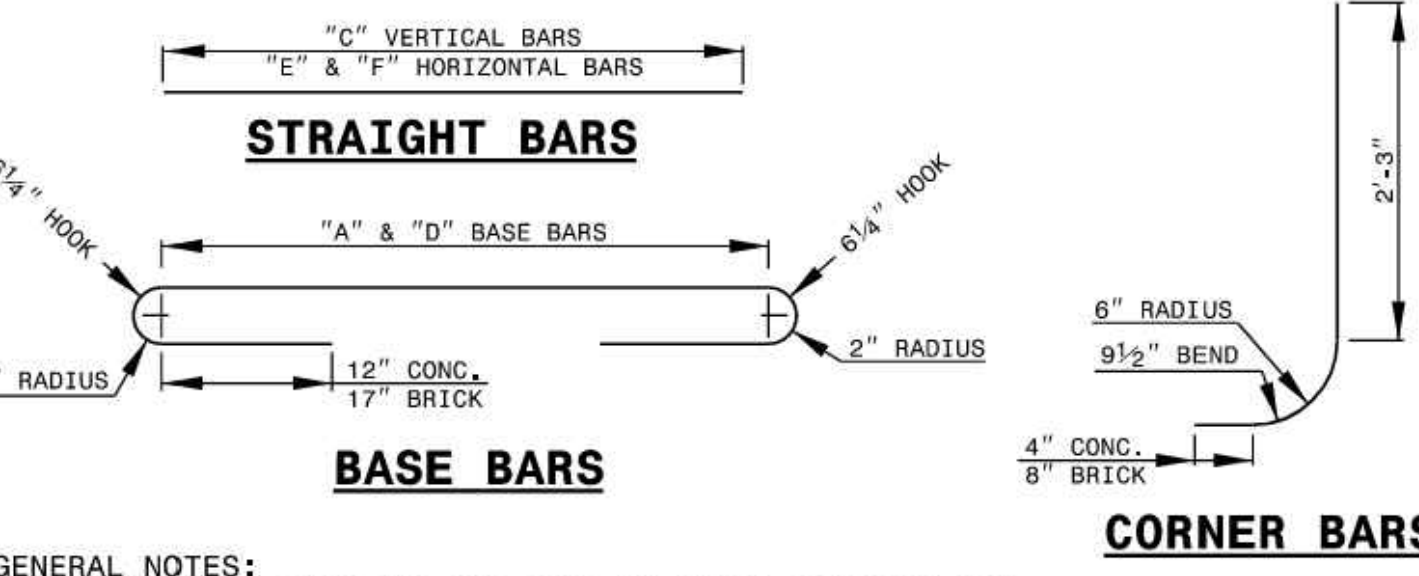
STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
ROADWAY STANDARD DRAWING FOR
CONCRETE JUNCTION BOX
12" THRU 66" PIPE
SHEET 1 OF 1
840.31



STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
ROADWAY STANDARD DRAWING FOR
TRAFFIC BEARING GRATED DROP INLET
FOR DOUBLE FRAME AND GRATES
SHEET 1 OF 2
840.35



COMMON			BILL OF MATERIALS			CONCRETE ALT.		
BAR	SIZE	LENGTH	QUANTITY	WEIGHT	LENGTH	QUANTITY	WEIGHT	LENGTH
A	#5	6'-4 1/2"	6	39.9	7'-7 1/2"	6	47.7	7'-7 1/2"
B	#5	3'-4 1/2"	16	56.3	3'-4 1/2"	16	56.3	3'-4 1/2"
C	#5	2'-8"	14	38.9	-0-	-0-	-0-	-0-
D	#5	8'-0 1/2"	4	33.6	9'-3 1/2"	4	38.8	9'-3 1/2"
E	#5	3'-0"	20	62.6	3'-0"	10	31.3	3'-0"
F	#5	4'-8"	20	97.3	4'-8"	10	48.7	4'-8"
REINF. STEEL (TOTAL WEIGHT LBS.)				328.6			222.8	
CONCRETE IN BASE CLASS "AA" (CUBIC YARDS)				0.56			0.66	
CONCRETE IN WALLS CLASS "AA" (CUBIC YARDS)				0.92			0.92	
CONCRETE IN WALLS CLASS "B" (CUBIC YARDS)				-0-			0.36	
BRICK IN WALLS (CUBIC YARDS)				-0-			0.91	
CONCRETE TOTAL (CUBIC YARDS)				1.48			1.02	
BRICK & CONCRETE TOTAL (CUBIC YARDS)				1.48			1.93	
CONC. CUBIC YARDS IN WALL/FOOT OF HEIGHT				0.35			0.14	
BRICK CUBIC YARDS IN WALL/FOOT OF HEIGHT				-0-			0.34	
LBS. OF REINF. STEEL IN WALL/FOOT OF HEIGHT				94.9			47.6	

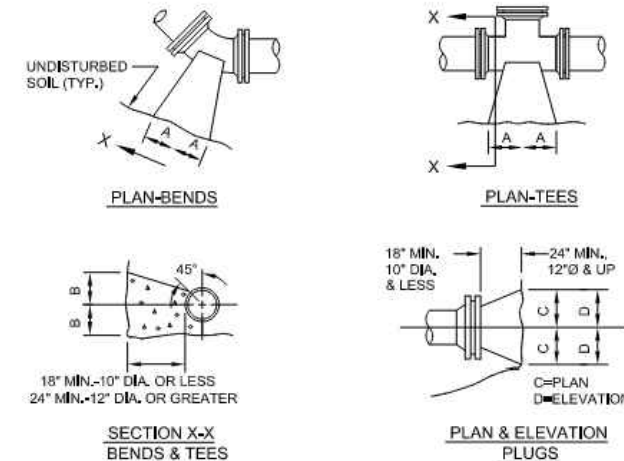


GENERAL NOTES:
 -USE CLASS "AA" CONCRETE FOR CAST IN PLACE CONCRETE BOX.
 -USE CLASS "B" CONCRETE IN THE WALL CAVITY FOR REINFORCED BRICK CONSTRUCTION AND CLASS "AA" FOR THE FOOTING BASE.
 -CHAMFER ALL EXPOSED CONCRETE CORNERS 1".
 -USE FORMS TO CONSTRUCT THE BOTTOM SLAB.
 -IF PIPES ARE SET IN THE BASE FOLLOW CONSTRUCTION PROCEDURES SHOWN BY STD. DWG. 840.00.
 -PRECAST UNITS MADE OF CLASS "AA" CONCRETE MAY BE USED IN LIEU OF BRICK MASONRY CONSTRUCTION.
 -INCLUDE REINFORCING STEEL COST IN THE UNIT OR LINEAR FOOT BID PRICE FOR "MASONRY DRAINAGE STRUCTURE".
 -REFERENCE STD. DWG. 840.25 FOR FRAME ANCHORAGE.
 -CONCRETE BRICK, JUMBO BRICK AND 4" SOLID CONCRETE BLOCK WILL BE PERMITTED.
 -CONCRETE FOR BRICK BOX REFER TO SECTION 840.66 FOR STANDARD SPECIFICATIONS.
 -PROVIDE GRATED DROP INLETS OVER 3'-6" IN DEPTH WITH STEPS SPACED 12" ON CENTER AS DIRECTED BY STD. DWG. 840.66.
 -FRAME AND GRATES ARE SEPARATE CONTRACT ITEMS.

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
ROADWAY STANDARD DRAWING FOR
TRAFFIC BEARING GRATED DROP INLET
FOR DOUBLE FRAME AND GRATES
SHEET 2 OF 2
840.35

PREPARED BY: **Kimley-Horn**
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 3283-85-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000
 DRAWN BY: NJ
 DESIGNED BY: NJ
 REVIEWED BY: RW
 DATE: 8/31/2023
 PROJECT NO.: 014793000
 TITLE: **STORM STRUCTURE DETAILS**
 SHEET NUMBER: **C6-32**

Know what's below.
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PIPE SIZE	90° BEND			22 1/2° BEND			1 1/4° BEND			TEE			PLUG
	A	B	C	A	B	C	A	B	C	A	B	C	
6"	18"	12"	12"	7"	10"	12"	14"	19"	15"	14"	19"	9"	
8"	24"	18"	18"	10"	12"	12"	16"	18"	18"	20"	11"		
10"	28"	22"	15"	12"	15"	20"	22"	31"	14"				
12"	32"	28"	18"	14"	18"	22"	28"	37"	17"				
16"	54"	38"	30"	18"	30"	30"	42"	54"	24"				

- NOTES:**
- BASED ON 200 PSI STATIC PRESSURE PLUS AWWA WATER HAMMER ALLOWANCE.
 - ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED GROUND.
 - THRUST BLOCKS TO BE USED AT ALL LINES OPERATING UNDER PRESSURE.
 - CONCRETE SHALL NOT CONTACT BOLTS OR MECHANICAL FITTINGS.
 - CONCRETE SHALL BE 3000 PSI.
 - TRENCHES SHALL CONFORM WITH STANDARD EMBEDMENT DETAIL.
 - ALL BENDS AND INTERSECTIONS SHALL HAVE CONCRETE THRUST BLOCKING.
 - SEE STD. THRUST BLOCK SHEET 2 OF 4 FOR OTHER SIZES.

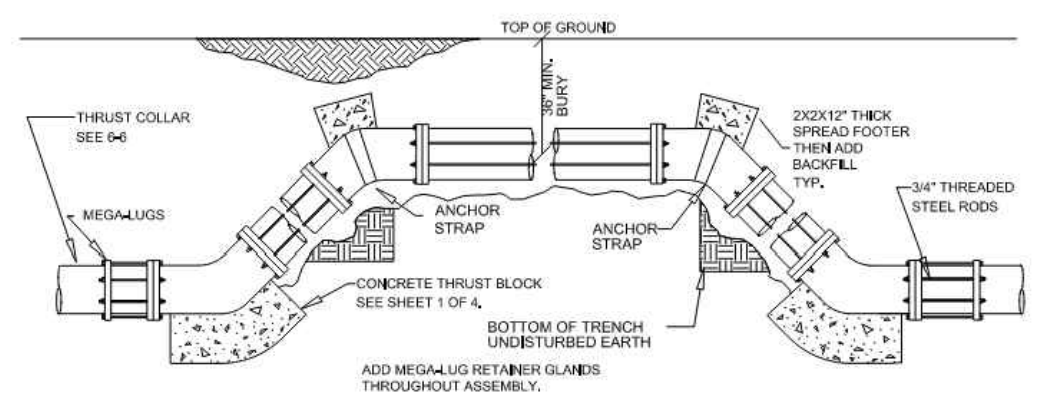
PSD NO. 1 - THRUST BLOCKING DETAIL
NOT TO SCALE

REACTION BEARING AREAS FOR HORIZONTAL WATER/SEWER PIPE BENDS
BASED ON TEST PRESSURE OF 200 P.S.I.

PIPE SIZE	ALL REACTION AREAS TO BE SQUARE FEET											
	90° BEND	22 1/2° BEND	1 1/4° BEND	TEE	PLUG	90° BEND	22 1/2° BEND	1 1/4° BEND	TEE	PLUG	90° BEND	22 1/2° BEND
6"	1,950	1	1	1	1	1	1	1	2	1		
8"	2,070	1	2	2	1	1	1	1	3	1		
10"	4,200	2	3	3	1	1	2	5	1			
12"	7,860	2	4	5	1	1	2	8	1			
16"	9,855	2	3	4	1	1	2	6	1			
20"												
24"												

REACTION BEARING AREAS ARE IN SQUARE FEET
MEASURED IN A VERTICAL PLANE WITH THE TRENCH SIDE AT AN ANGLE OF 90° TO THE THRUST VECTOR.

PSD NO. 2 - THRUST BLOCKING DESIGN QUANTITY TABLE
NOT TO SCALE

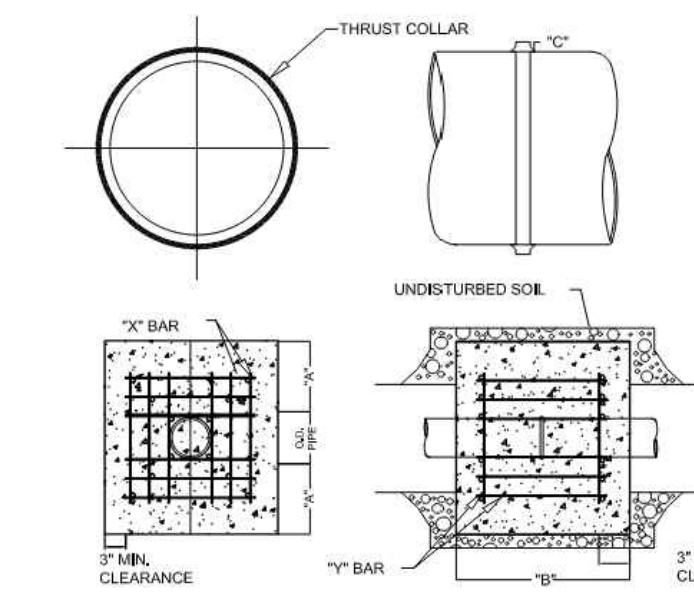


ROD REQUIREMENTS

SIZE OF 45 BEND	5/16" X 18" THRU 1 1/2" X 18"	NO. OF RODS REQUIRED
6"	4/32"	4
8"	7/32"	4
10"	11/32"	4
12"	3/8"	8
16"	3/4"	8
24"	1 1/8"	8

- GENERAL NOTES:**
- STEEL RODS AND BOLTS SHALL BE 304 TP OR COLD-DIPPED GALVANIZED.
 - CONCRETE SHALL NOT CONTACT BOLTS OR END OF MECHANICAL JOINT BOWLS.
 - MEGALUGS TO BE USED AT ALL FITTINGS.
 - MUST USE DUCTILE IRON EYE BOLTS WHERE NECESSARY.

PSD NO. 3 - VERTICAL BEND DETAIL
NOT TO SCALE

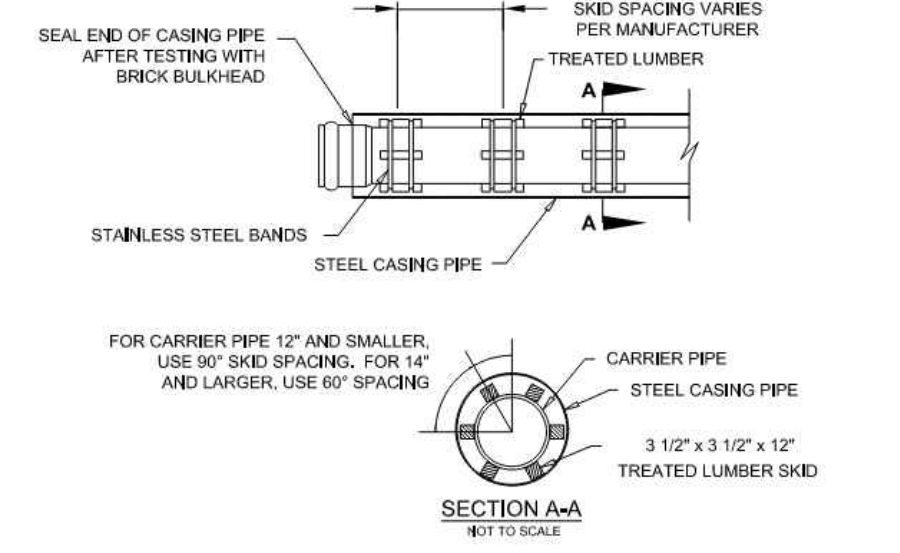


REINFORCING REQUIREMENTS

PIPE SIZE	REBAR SIZE	"X" BAR LENGTH	"Y" BAR WEIGHT	"Y" BAR LENGTH	"Y" BAR WEIGHT	NO. REQUIRED
6" - 30"	#5	2'-0"	1.043 LBS/FT	1'-0"	1.1 LBS, EACH	3x24, 1x12
48" & greater	#6	3'-0"	1.502 LBS/FT	1'-0"	1.9 LBS, EACH	3x24, 1x12

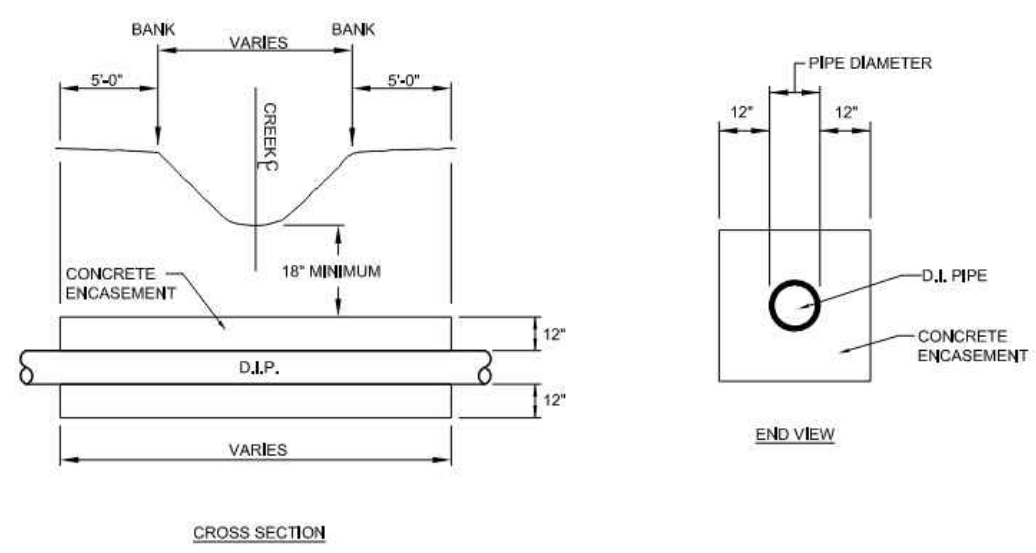
- THRUST COLLAR AND THRUST SCHEDULE**
- | PIPE SIZE | "X" | "Y" | "X" & "Y" BAR WEIGHT | "X" & "Y" BAR LENGTH |
|---------------|-------|-------|----------------------|----------------------|
| 6" - 30" | 1'-0" | 1'-0" | 1.043 LBS/FT | 1'-0" |
| 48" & greater | 1'-0" | 1'-0" | 1.502 LBS/FT | 1'-0" |
- NOTES:**
- CONCRETE SHALL BE 3000 PSI AND TRANSIT MIXED.
 - REINFORCING BARS SHALL BE DEFORMED AND TIED TOGETHER.
 - TRENCH BOTTOM WIDTH IN VICINITY OF THRUST BLOCK INSTALLATION SHALL BE THE MINIMUM WIDTH AS SHOWN ON STANDARD EMBEDMENT DETAIL.
 - BACKFILL TAMPED IN 6" LIFTS PER STANDARD EMBEDMENT DETAIL.
 - THRUST COLLAR MUST BE FACTORY WELDED ON BOTH SIDES ALONG BOTH EDGES OF COLLAR AROUND CIRCUMFERENCE.

PSD NO. 4 - THRUST COLLAR DETAIL
NOT TO SCALE



- NOTES:**
- SKID TO BE PLACED TO PROVIDE PROPER SUPPORT, ALIGNMENT, AND GRADE AS SPECIFIED. CONTINUOUS SKIDS MAY BE USED AS ALTERNATIVE. 2. OIL, GREASE, OR PETROLEUM PRODUCT MAY NOT BE USED AS LUBRICANT.
 - CASING PIPE TO BE OF FERROUS METAL AND HAVE A MINIMUM DIAMETER TWICE THAT OF THE CARRIER PIPE.
 - CASING PIPE TO HAVE A MINIMUM THICKNESS OF .25".
 - FOR ALL BORES UNDER NCDOT RIGHT OF WAYS FOLLOW ALL NCDOT GUIDELINES FOR PIPE SIZE AND THICKNESS.

PSD NO. 5 - PIPE CASING DETAIL
NOT TO SCALE



- NOTES:**
- CONCRETE SHALL BE 3000 P.S.I.
 - CONCRETE ENCASUREMENT NOT REQUIRED WHEN PIPE IS AT LEAST THREE (3) FEET UNDER CENTERLINE OF CREEK BOTTOM.
 - ALL STREAM CROSSINGS TO BE PERMITTED BY NCDOT.
 - ALL WETLAND CROSSINGS AND COASTAL WETLAND CROSSINGS TO BE PERMITTED BY ALL APPROPRIATE AGENCIES.

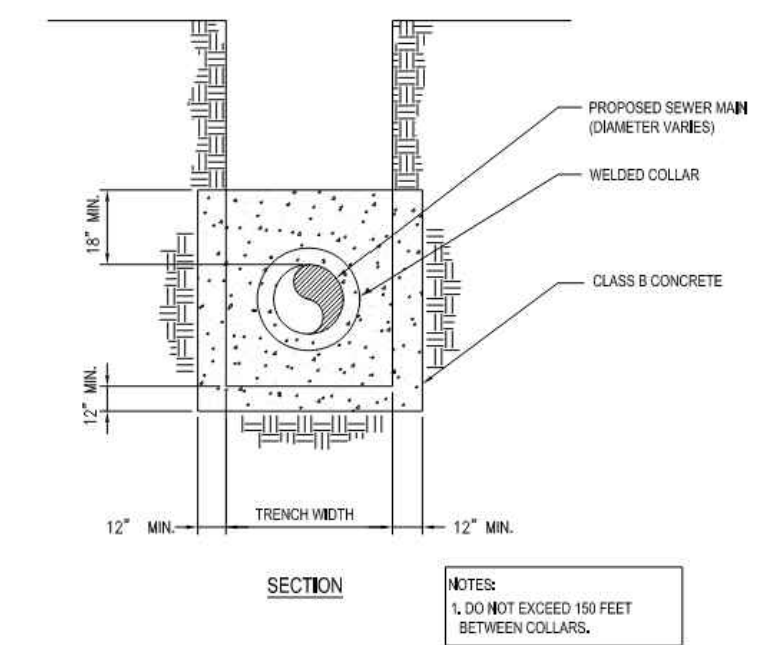
PSD NO. 6 - STREAM/WETLAND CROSSING DETAIL
NOT TO SCALE

CASING PIPE SIZE

OD (IN)	WALL THICKNESS
6" x 12 3/4"	0.250"
16"	0.250"
18"	0.250"
20"	0.250"
24"	0.250"
30"	0.312"
36"	0.375"
48"	0.500"

- ENCASUREMENTS SHALL EXTEND FROM DETCH LINE TO DETCH LINE IN CUT SECTIONS AND TEN (10) FEET BEYOND THE TOE OF SLOPES IN FILL SECTIONS AND TEN (10) FEET BEYOND EDGE OF PAVEMENT IN SECTIONS WITH NO DETCH OR FILL AREA.**
- NOTES:**
- STEEL ENCASUREMENT PIPE SHALL CONFORM TO ASTM A-133 WITH WALL THICKNESS AND GRADE AS DEFINED IN THE SPECIFICATIONS, MINIMUM ALLOWABLE YIELD STRENGTH IS 30,000 PSI.
 - CARRIER PIPE SHALL BE ADEQUATELY SUPPORTED THE ENTIRE LENGTH WITHIN THE CASING BY USING TORSION STEEL SUPPORTS AT A MAXIMUM OF 8 FOOT CENTERS (ONE AT EACH JOINT AND ONE INTERMEDIATE). OTHER METHODS MUST MEET APPROVAL OF THE ENGINEER.
 - NO EXCAVATED MATERIAL SHALL BE PLACED IN ANY STREAM DETCH OR DRAINAGE WAY.
 - THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION.
 - THE CONTRACTOR IS RESPONSIBLE FOR ANY SEDIMENT AND EROSION CONTROL PRACTICES REQUIRED DURING CONSTRUCTION AND THE SUBSEQUENT STABILIZATION OF ALL DISTURBED AREAS AFTER CONSTRUCTION.
 - THE CONTRACTOR IS RESPONSIBLE FOR ALL LAY DOWN AND STOCKPILE AREAS.
 - FOR BORES ON THE NCDOT RIGHT OF WAY, NO WORK WILL BEGIN UNTIL THE CONTRACTOR HAS A COPY OF THE NCDOT ENCROACHMENT PERMIT FOR THE PROJECT.

PSD NO. 7 - BORE DETAIL DETAIL
NOT TO SCALE



- NOTES:**
- STEEL ENCASUREMENT PIPE SHALL CONFORM TO ASTM A-133 WITH WALL THICKNESS AND GRADE AS DEFINED IN THE SPECIFICATIONS, MINIMUM ALLOWABLE YIELD STRENGTH IS 30,000 PSI.
 - CARRIER PIPE SHALL BE ADEQUATELY SUPPORTED THE ENTIRE LENGTH WITHIN THE CASING BY USING TORSION STEEL SUPPORTS AT A MAXIMUM OF 8 FOOT CENTERS (ONE AT EACH JOINT AND ONE INTERMEDIATE). OTHER METHODS MUST MEET APPROVAL OF THE ENGINEER.
 - NO EXCAVATED MATERIAL SHALL BE PLACED IN ANY STREAM DETCH OR DRAINAGE WAY.
 - THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION.
 - THE CONTRACTOR IS RESPONSIBLE FOR ANY SEDIMENT AND EROSION CONTROL PRACTICES REQUIRED DURING CONSTRUCTION AND THE SUBSEQUENT STABILIZATION OF ALL DISTURBED AREAS AFTER CONSTRUCTION.
 - THE CONTRACTOR IS RESPONSIBLE FOR ALL LAY DOWN AND STOCKPILE AREAS.
 - FOR BORES ON THE NCDOT RIGHT OF WAY, NO WORK WILL BEGIN UNTIL THE CONTRACTOR HAS A COPY OF THE NCDOT ENCROACHMENT PERMIT FOR THE PROJECT.

PSD NO. 8 - ANTI SEEP COLLAR DETAIL
NOT TO SCALE

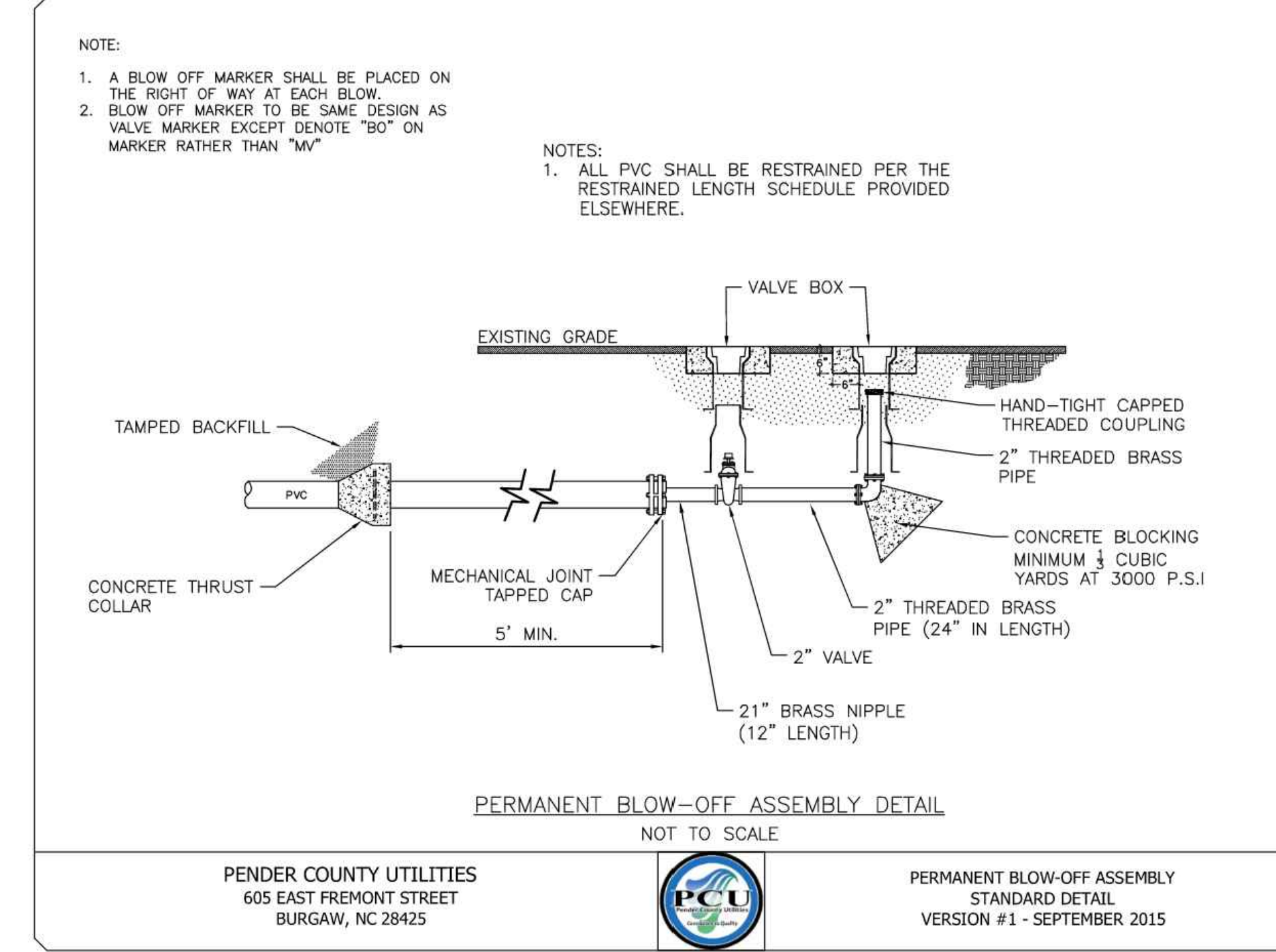
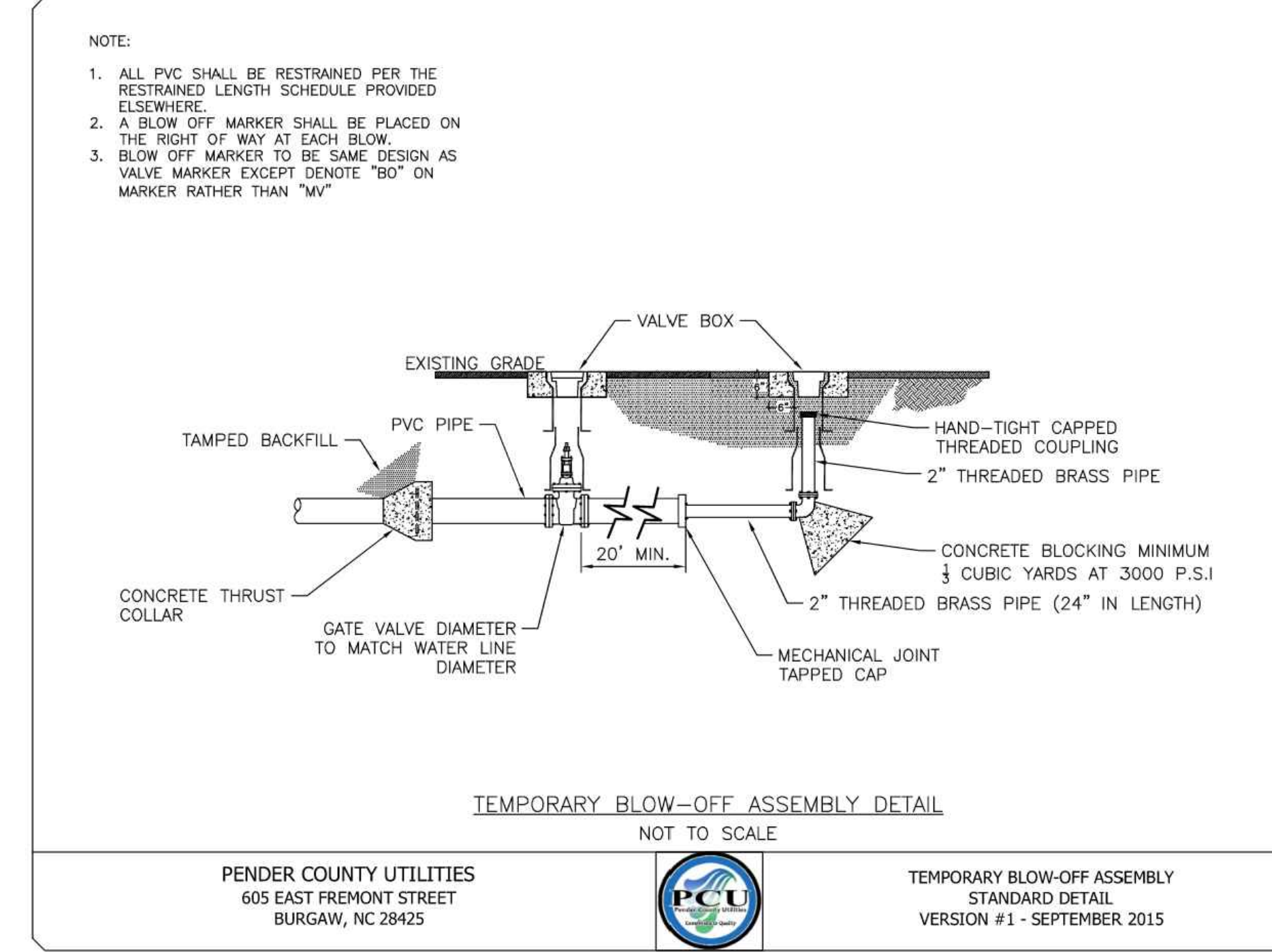
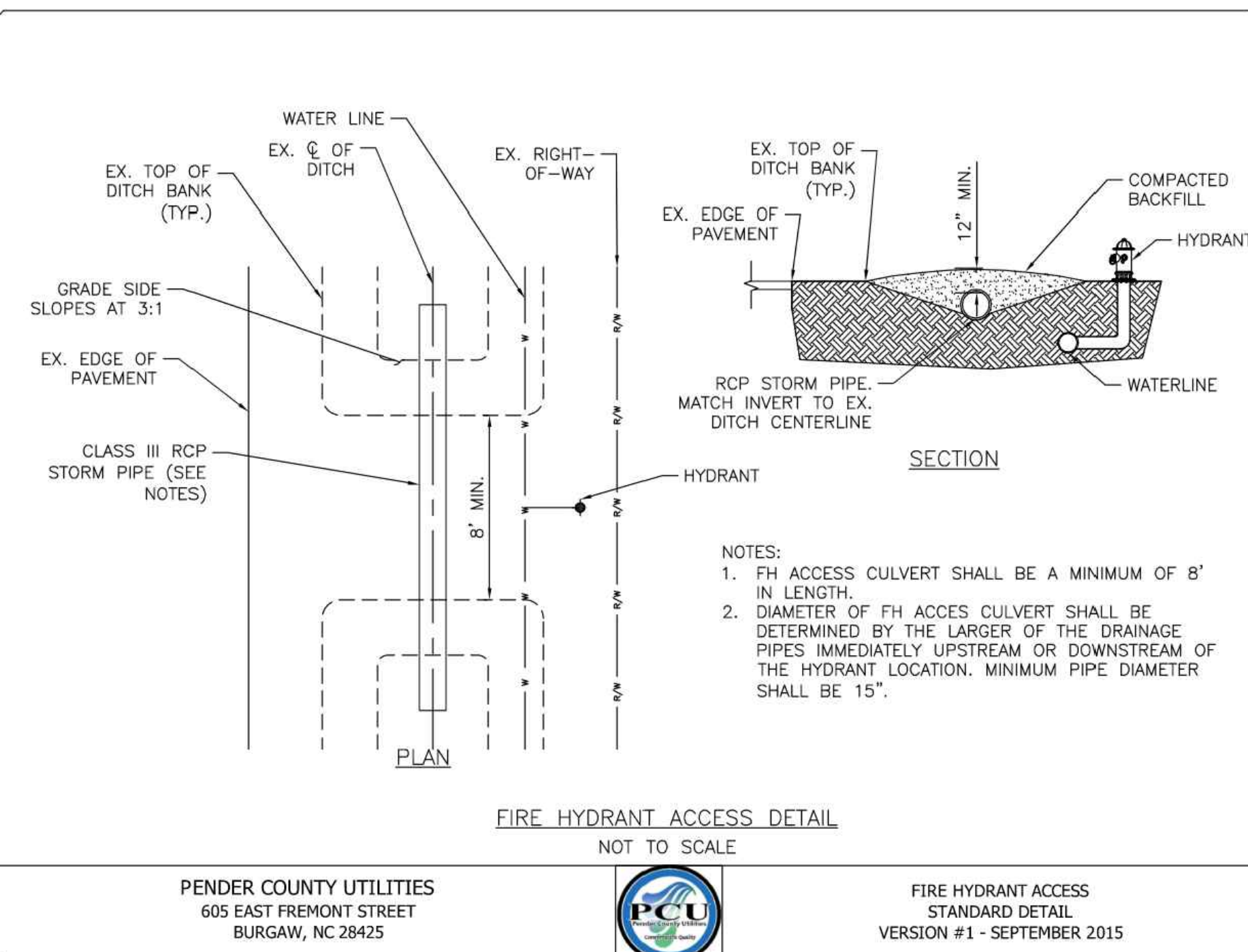
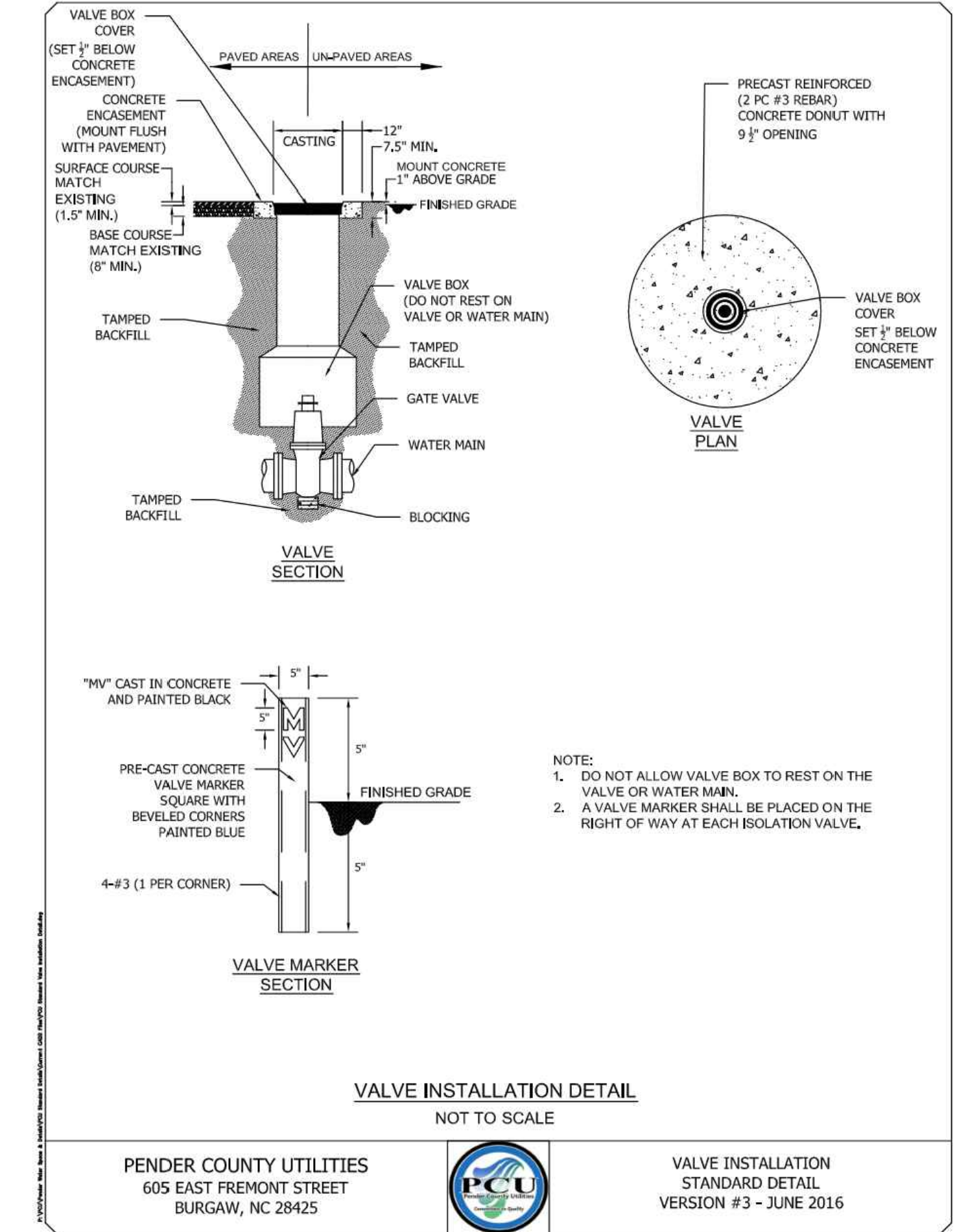
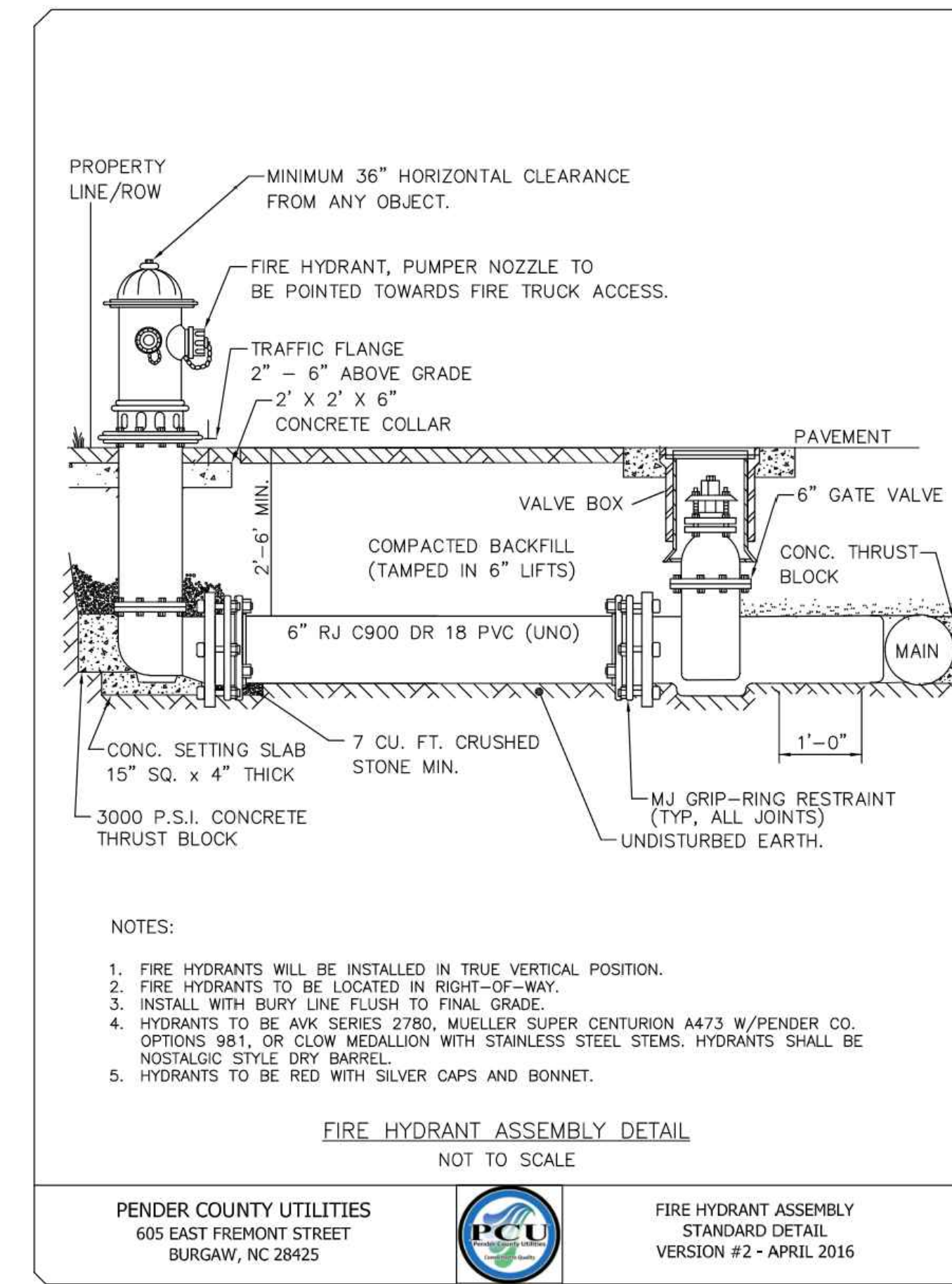
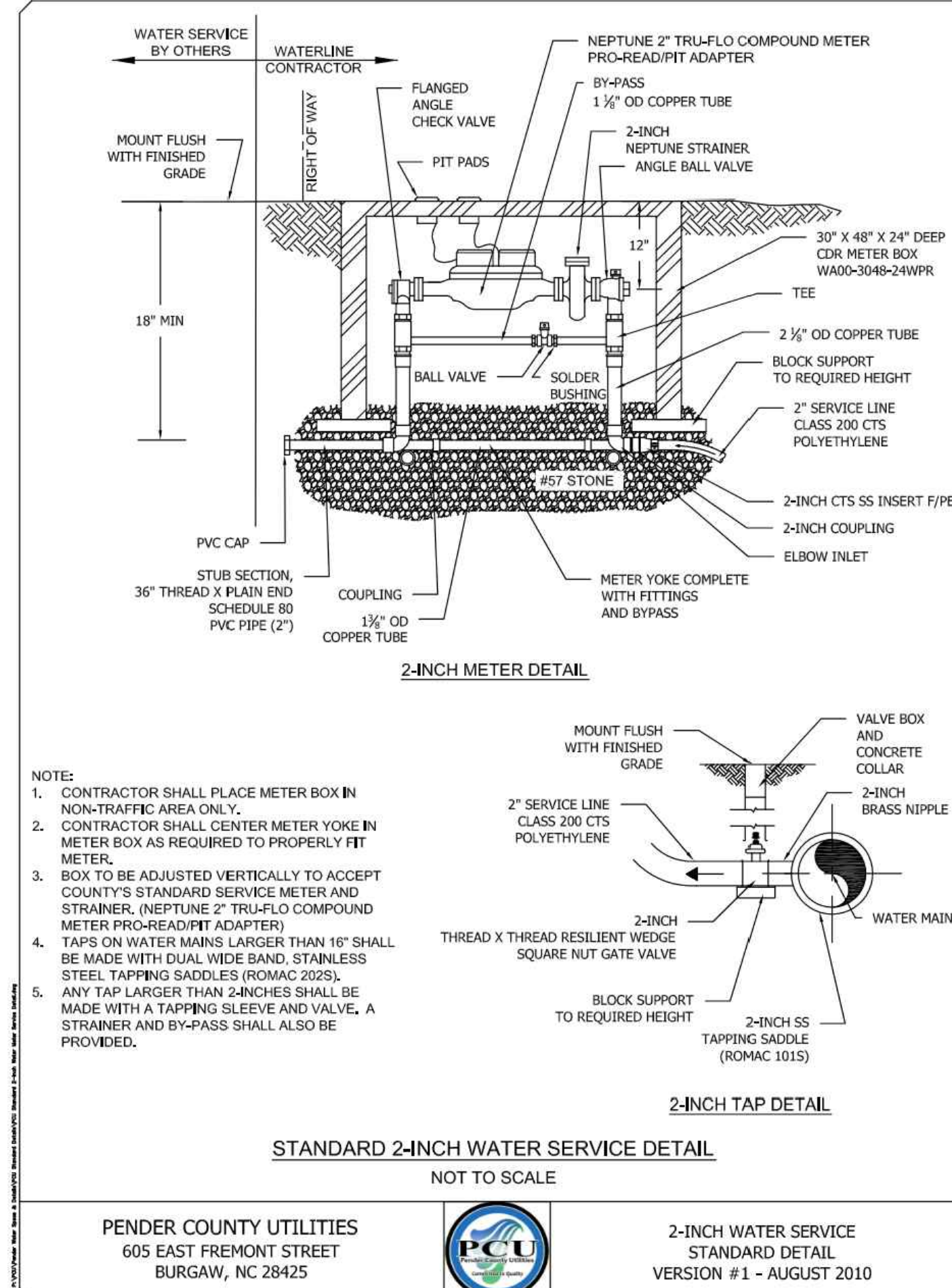
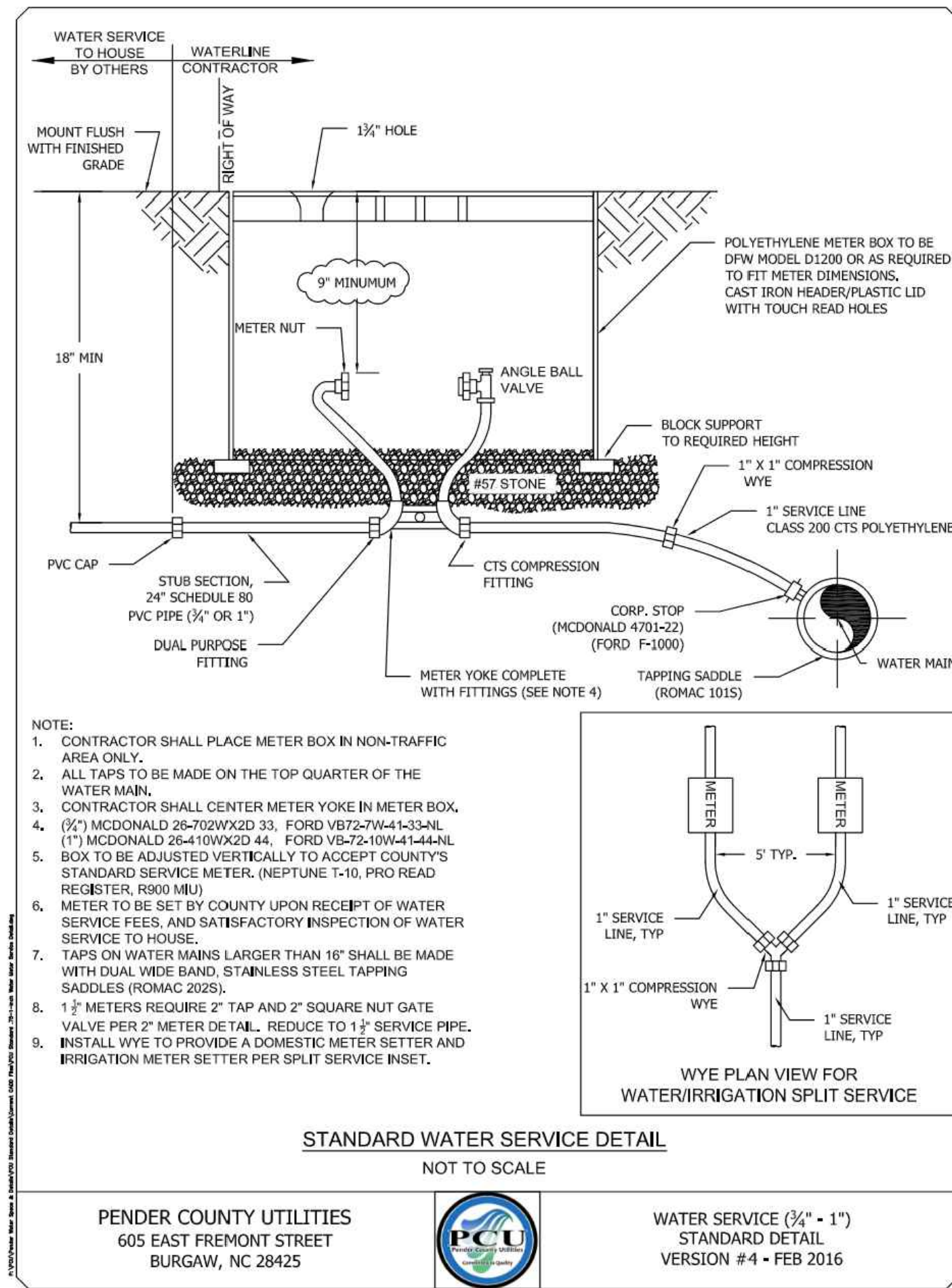
STANDARD DETAILS SHEET A



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DRAWN BY	NJ
DESIGNED BY	NJ
REVIEWED BY	RW
DATE	8/31/2023
PROJECT NO.	014793000
TITLE	SANITARY SEWER DETAILS



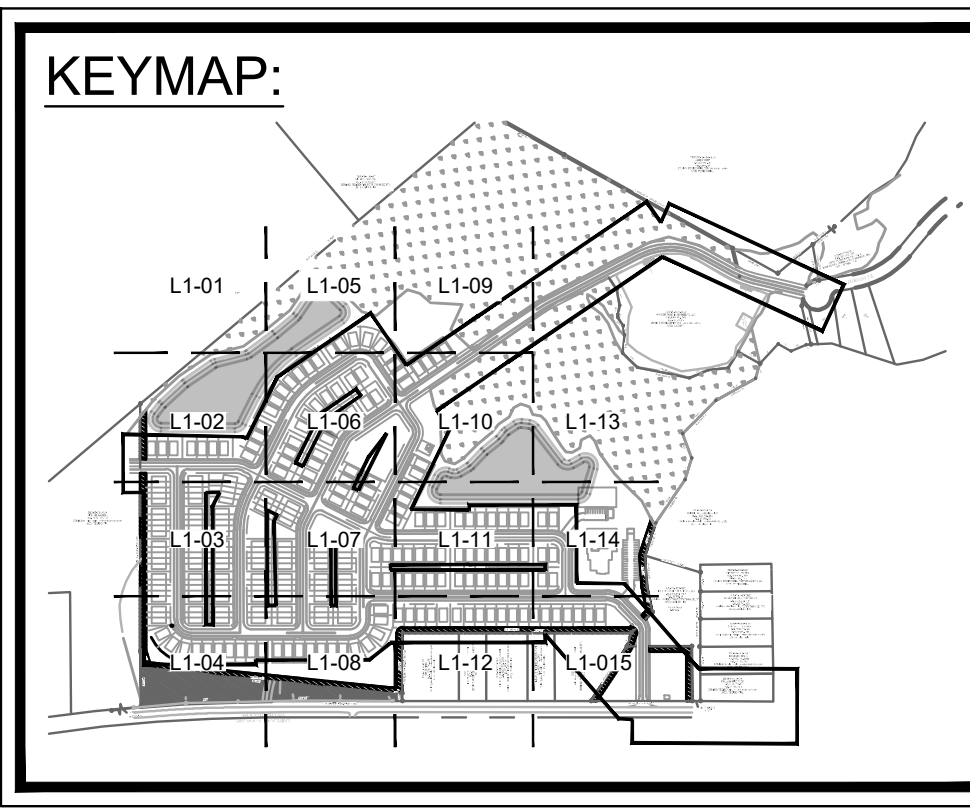
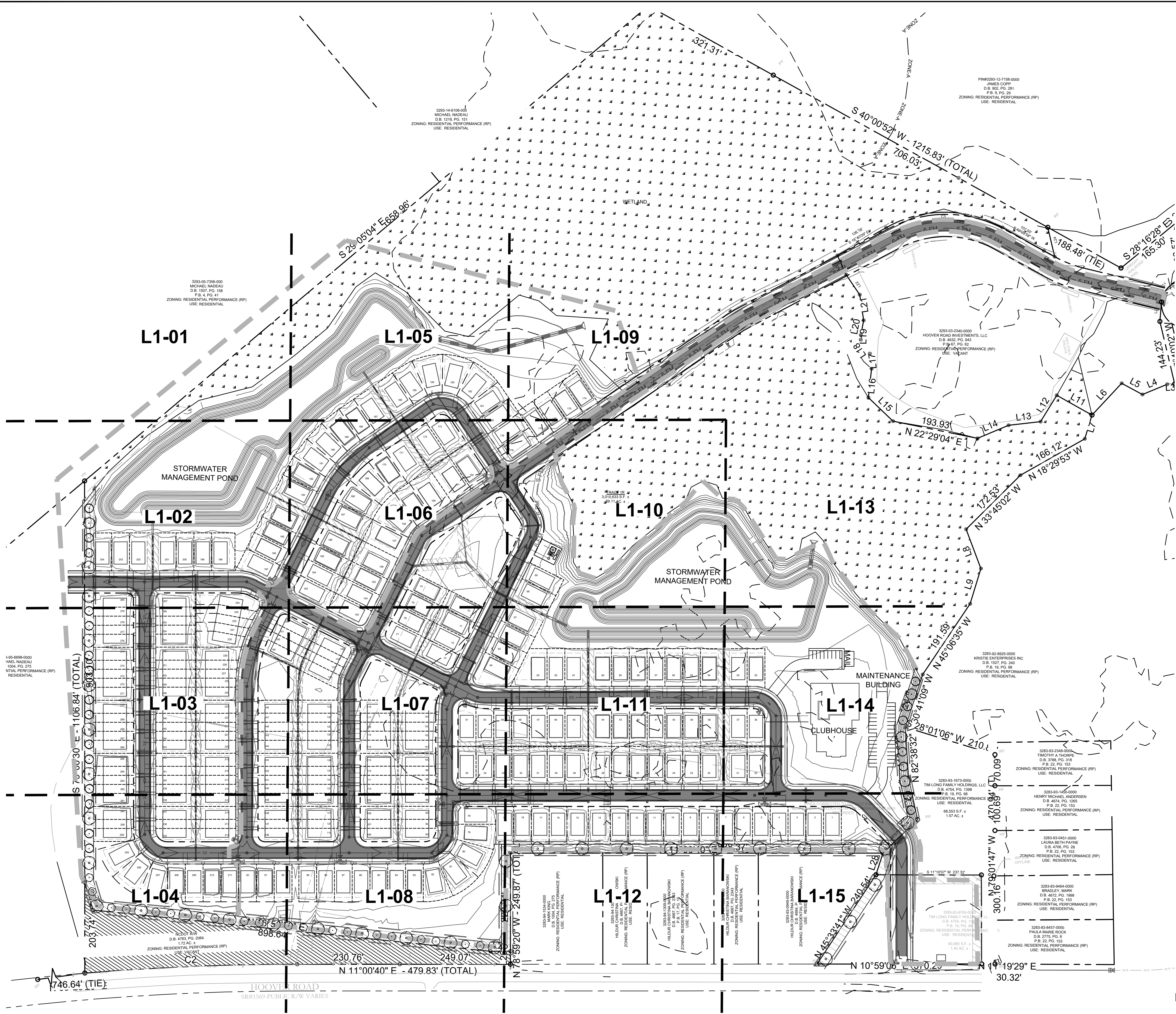
NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY



Drawing name: K:\S\A_V_Civil\14793000_Hoover Road SFR\CAD\PlanSheets\C6-50 - WATER CONSTRUCTION DETAILS.DWG - C6-50 WATER DETAILS - Aug 31, 2023 9:52pm by Joe Guat

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Drawing name: K:\SAV_Civil\14793000_Hoover Road SFR\CAD\Plan\Sheet\1-00_TREE PROTECTION AND REPLACEMENT PLAN.dwg Sep 01, 2023 7:36am by: Jamal Alexander



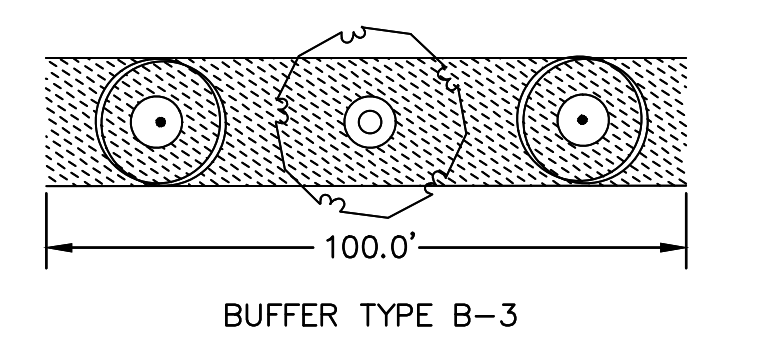
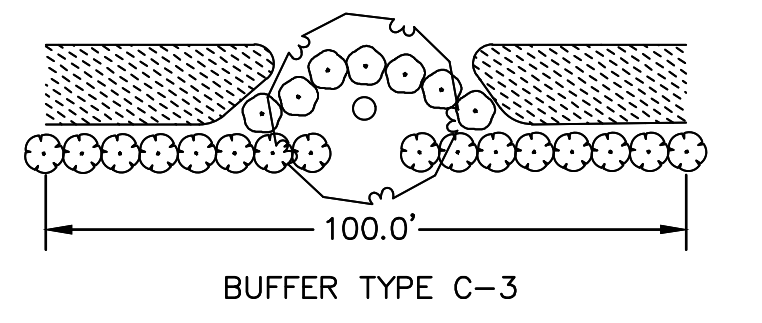
LANDSCAPE REQUIREMENTS

- NO LANDSCAPE REQUIREMENTS SPECIFIED FOR SINGLE-FAMILY DEVELOPMENTS IN ARTICLE 8 OF PENDER COUNTY UDO.
- NO SPECIMEN TREES LOCATED ON EXISTING SITE FOR PRESERVATION.

BUFFER REQUIREMENTS

- WHEN LANDSCAPING AND BUFFER REQUIREMENTS SHALL APPLY PER SECTION 8.1.2 AND WHEN A SITE IS FIVE (5) ACRES OR LARGER, THE REQUIRED BUFFER MAY BE LOCATED WITHIN THE OUTER PERIMETER OF THE LIMIT OF DISTURBANCE OF THE PROJECT AREA ON THE LOT OR PARCEL. IF THE LIMIT OF DISTURBANCE IS EXPANDED, THE BUFFER SHALL BE ADJUSTED ACCORDINGLY.
- A REQUIRED BUFFER IS ENCOURAGED TO RETAIN AREAS OF NATIVE HABITAT AND MAY INCORPORATE WATER RESOURCES INCLUDING STORMWATER DETENTION/RETENTION FACILITIES DESIGNED AS A NATURAL-APPEARING AMENITY. HOWEVER A MINIMUM 10-FOOT CONTIGUOUS WIDTH OF THE BUFFER SHALL BE PRESERVED AS A PLANTING AREA WITHOUT STORMWATER FACILITIES.
- THE BUFFER AREA MAY BE INCLUDED AS PART OF THE CALCULATION OF ANY REQUIRED OPEN SPACE.
- THE REQUIRED CANOPY AND UNDERSTORY TREES SHALL GENERALLY BE SPREAD UNIFORMLY ALONG THE BUFFER. SHRUBS MAY BE CLUSTERED WHEN A 98% GRASS COVER IS PROVIDED IN ALL AREAS OF THE BUFFER OTHER THAN WITHIN 4 FT. OF THE BASE OF ANY TREE OR SHRUB.
- BUFFER TYPES REQUIRED FOR PLANNED DEVELOPMENTS ARE AS FOLLOWS:
 - TYPE A BUFFER ALONG ALL BOUNDARIES ADJACENT TO A STREET.
 - TYPE C BUFFERS ALONG ALL BOUNDARIES ADJACENT TO SINGLE FAMILY RESIDENTIAL USES OR RESIDENTIAL LOTS WITH A PARCEL SIZE OF LESS THAN 1 ACRE AND WHEN A SINGLE FAMILY STRUCTURE IS WITHIN 50' OF THE BOUNDARY OF THE DEVELOPMENT.
 - TYPE B BUFFERS ALONG ALL OTHER BOUNDARIES.
- BUFFER TYPES PROVIDED:
 - BUFFER TYPE B-3: 20-FOOT WIDE BUFFER STRIP WITH (1) CANOPY TREE, (2) UNDERSTORY TREES, AND EITHER A GRASS COVER OF AT LEAST 98% (EXCEPT WITHIN 4- FEET OF ANY TREE OR SHRUB) OR 15 SHRUBS PER 100 LINEAR FEET.
 - BUFFER TYPE C-3: 20-FOOT WIDE BUFFER STRIP WITH AN EVERGREEN HEDGE THAT WILL PROVIDE A CONTINUOUS SCREEN AT LEAST 6' HIGH WITHIN 4 YEARS AND (1) CANOPY TREE OR (3) UNDERSTORY TREES AND A GRASS COVER OF AT LEAST 98% COVERAGE (EXCEPT WITHIN 4 FEET OF THE BASE OF ANY TREE), PER 100 LINEAR FEET.

BUFFER PLANTING EXAMPLES:

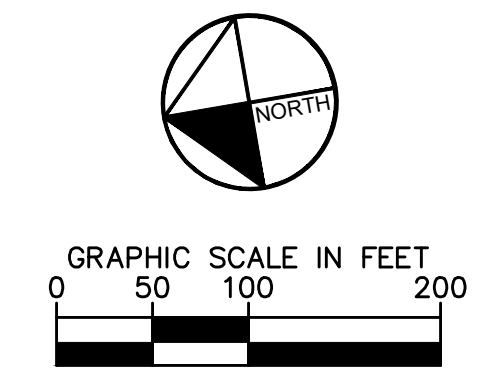


LOGAN DEVELOPERS INC.
60 GREGORY ROAD (SUITE 1)
BELVILLE, NC 28541
PHONE: 910-507-2115

NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

BROOKFIELD BRANCH
1038 HOOVER ROAD,
HAMPSTEAD, NC 28443
3283-83-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY FC
DESIGNED BY FC
REVIEWED BY LB
DATE
PROJECT NO. 014793000
TITLE
TREE PROTECTION PLAN
SHEET NUMBER
L1-00

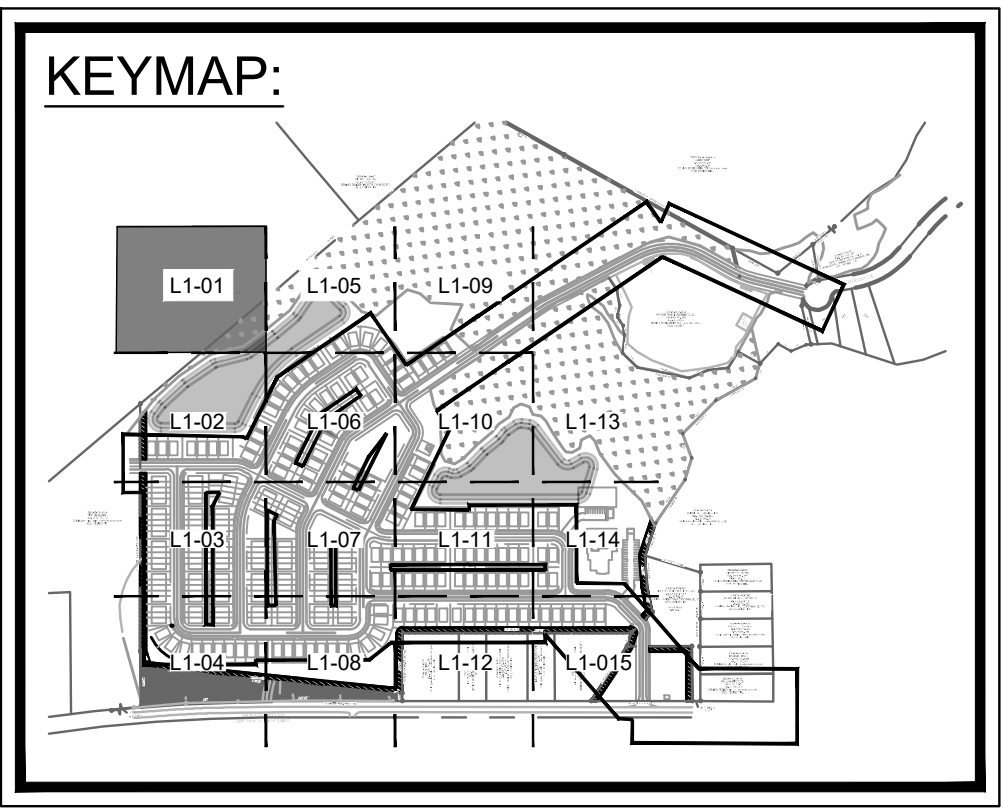


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Drawing name: K:\SAV_Civil\14793000_Hoover Road SFR\CAD\Plan\sheet\1-00_TREE PROTECTION AND REPLACEMENT PLAN.dwg L1-01 TREE REPLACEMENT PLAN Sep 01, 2023 7:36am By: Jamal Alexander

NOTE
 NO TREES OR SHRUBS PROPOSED IN THIS AREA OF THE SITE.
 SEE SITE NOTES FOR ADDITIONAL INFORMATION.

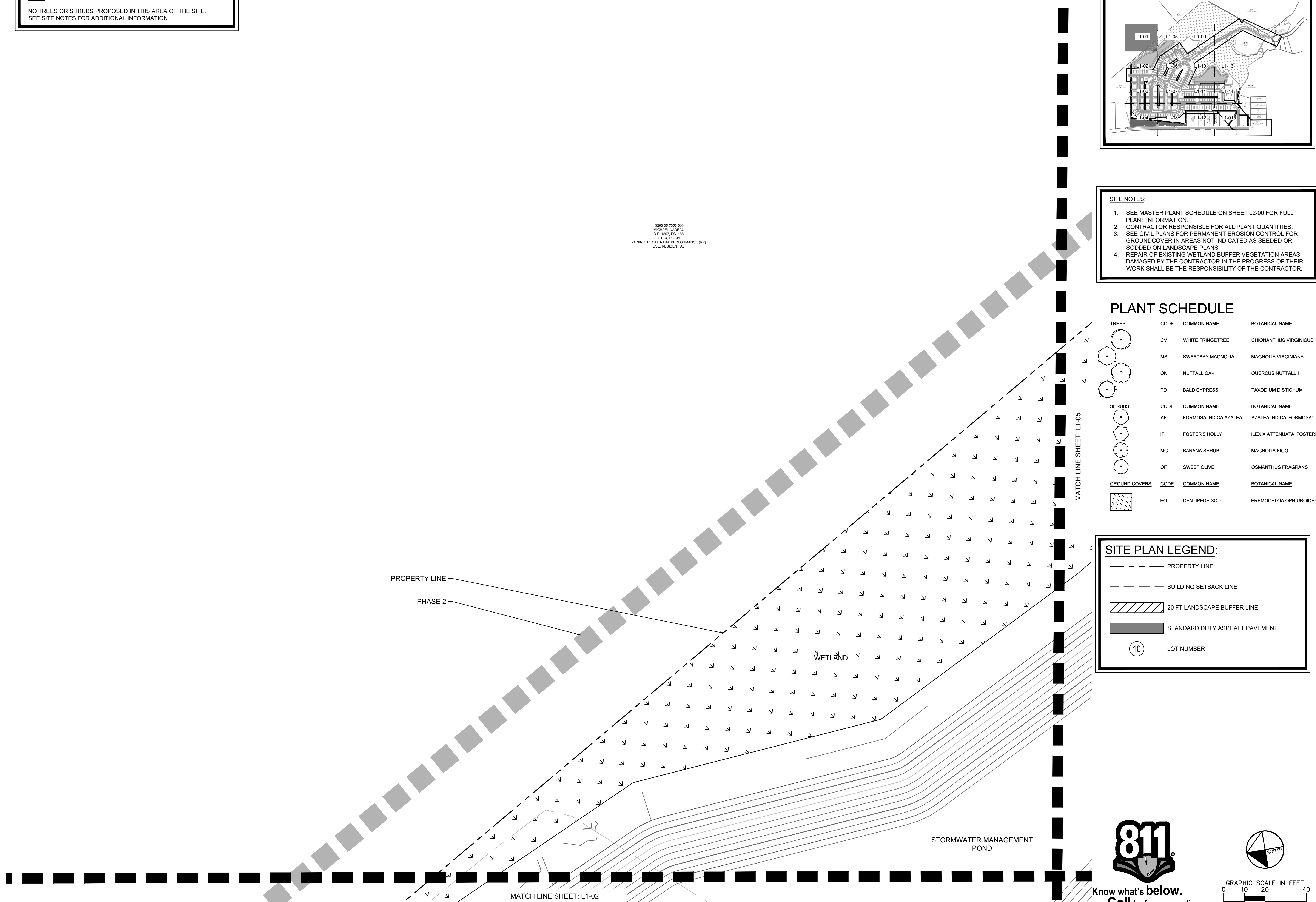
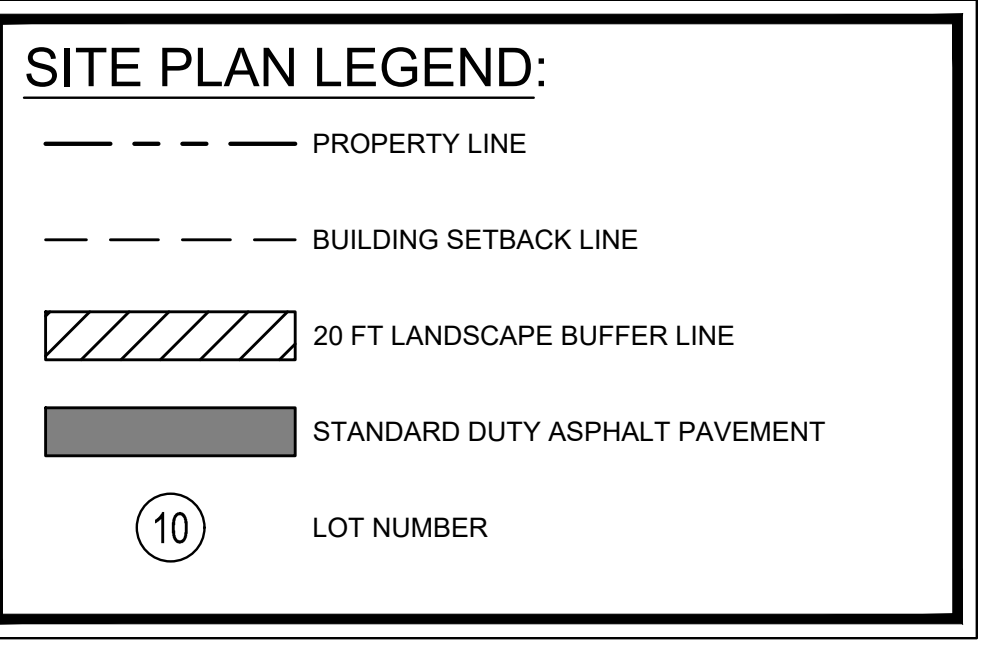
3088-05-7355-001
 MICHAEL NADEAU
 D.B. 1507, PG. 158
 P.B. 4, PG. 41
 ZONING: RESIDENTIAL PERFORMANCE (RP)
 USE: RESIDENTIAL



- SITE NOTES:**
1. SEE MASTER PLANT SCHEDULE ON SHEET L2-00 FOR FULL PLANT INFORMATION.
 2. CONTRACTOR RESPONSIBLE FOR ALL PLANT QUANTITIES.
 3. SEE CIVIL PLANS FOR PERMANENT EROSION CONTROL FOR GROUND COVER IN AREAS NOT INDICATED AS SEEDED OR SODDED ON LANDSCAPE PLANS.
 4. REPAIR OF EXISTING WETLAND BUFFER VEGETATION AREAS DAMAGED BY THE CONTRACTOR IN THE PROGRESS OF THEIR WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

PLANT SCHEDULE

TREES	CODE	COMMON NAME	BOTANICAL NAME
	CV	WHITE FRINGETREE	CHIONANTHUS VIRGINICUS
	MS	SWEETBAY MAGNOLIA	MAGNOLIA VIRGINIANA
	QN	NUTTALL OAK	QUERCUS NUTTALLII
	TD	BALD CYPRESS	TAXODIUM DISTICHUM
SHRUBS	CODE	COMMON NAME	BOTANICAL NAME
	AF	FORMOSA INDICA AZALEA	AZALEA INDICA 'FORMOSA'
	IF	FOSTERS' HOLLY	ILEX X ATTENUATA 'FOSTERI'
	MG	BANANA SHRUB	MAGNOLIA FIGO
	OF	SWEET OLIVE	OSMANTHUS FRAGRANS
GROUND COVERS	CODE	COMMON NAME	BOTANICAL NAME
	EO	CENTPEDE SOD	EREMOCHLOA OPHIUROIDES



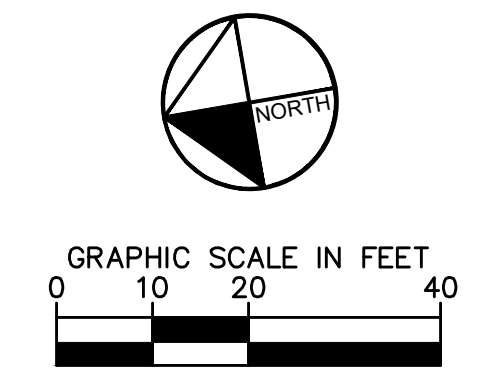
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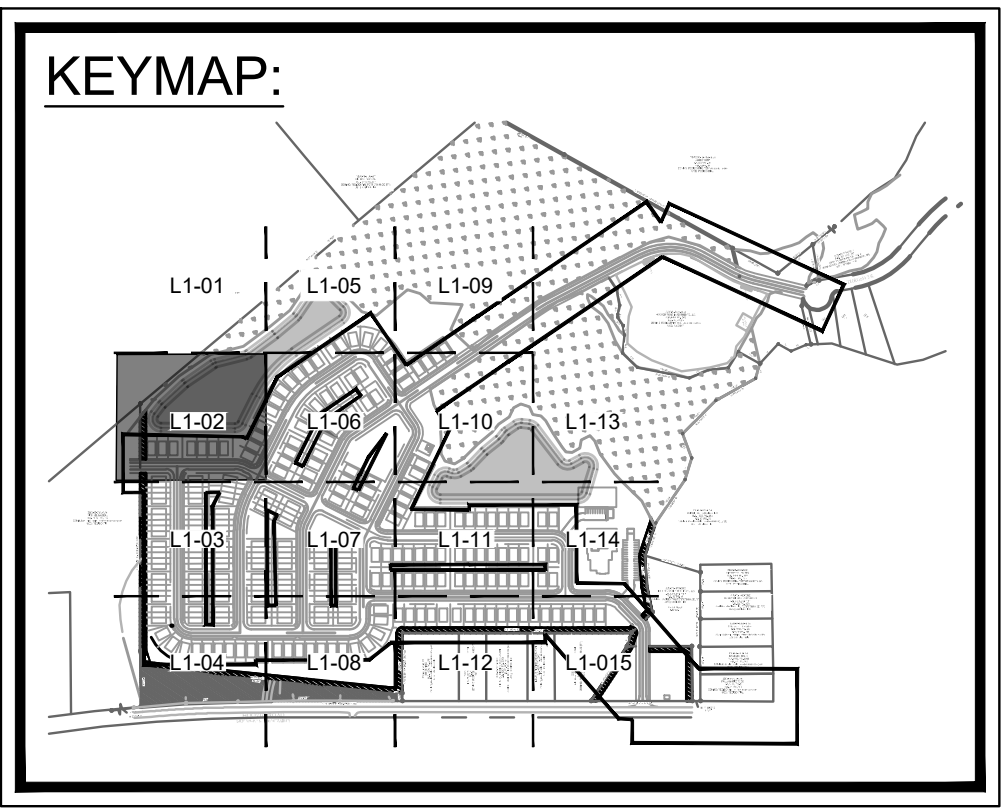
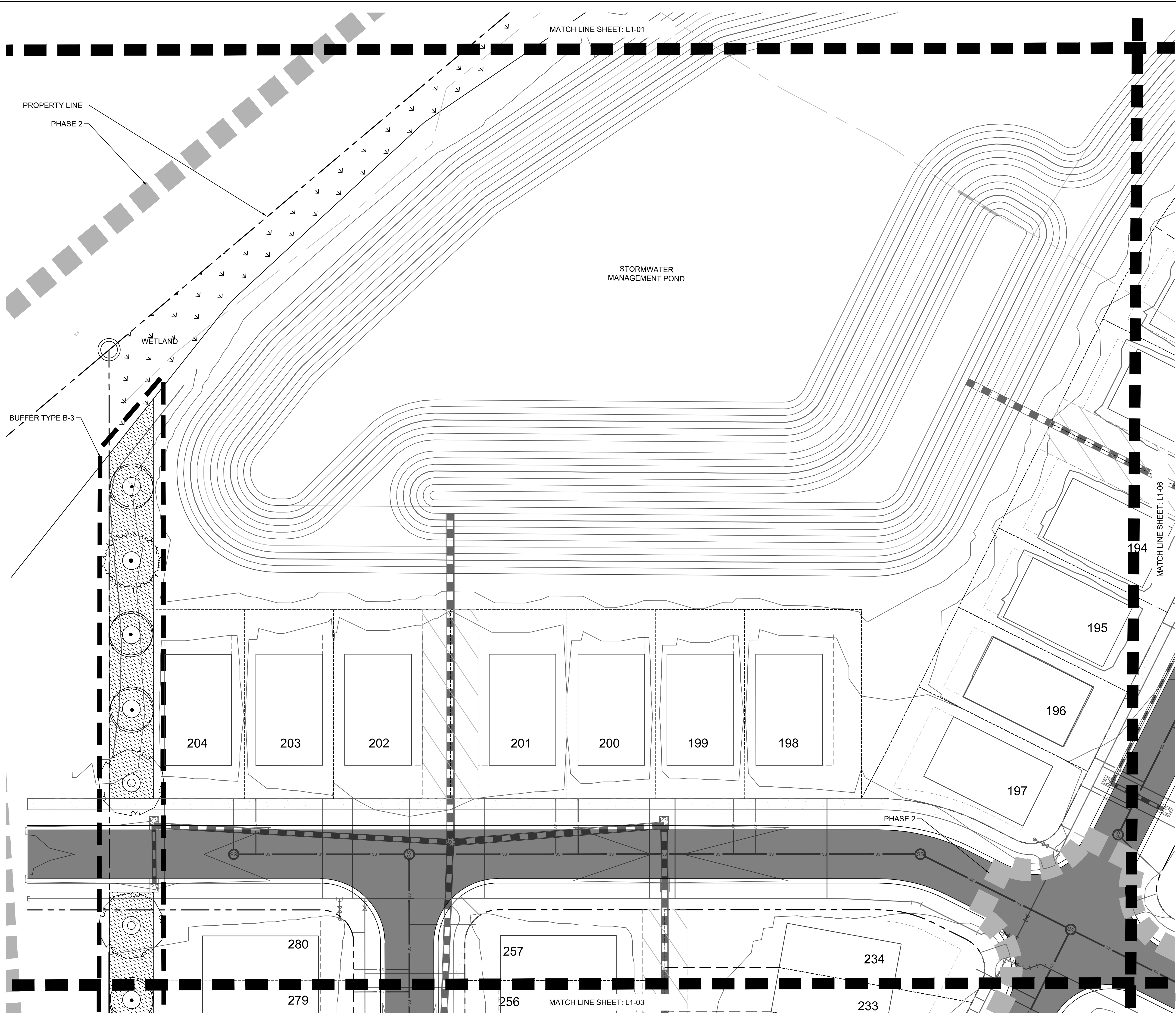
No.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

PROJECT
BROOKFIELD BRANCH
 1038 HOOVER ROAD,
 HAMPSHIRE, NC 28443
 3283-83-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY FC
 DESIGNED BY FC
 REVIEWED BY LB
 DATE
 PROJECT NO. 014793000
 TITLE
TREE REPLACEMENT PLAN
 SHEET NUMBER
L1-01



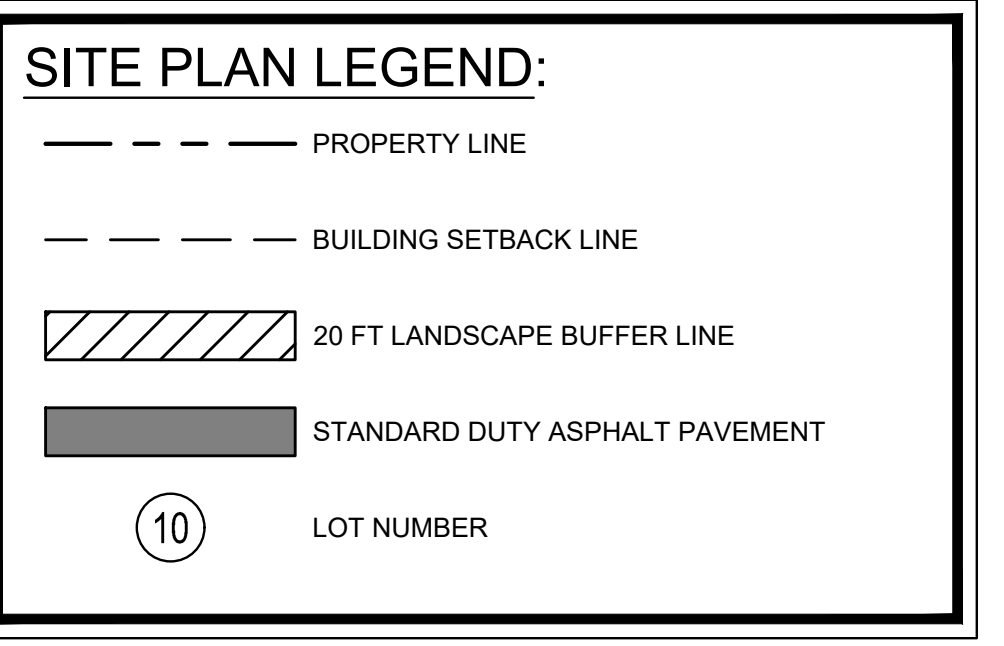
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 - CONTRACTOR RESPONSIBLE FOR ALL PLANT QUANTITIES.
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PLANT SCHEDULE

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	CV	WHITE FRINGETREE	CHIONANTHUS VIRGINICUS
	MS	SWEETBAY MAGNOLIA	MAGNOLIA VIRGINIANA
	QN	NUTTALL OAK	QUERCUS NUTTALLII
	TD	BALD CYPRESS	TAXODIUM DISTICHUM
SHRUBS	CODE	COMMON NAME	BOTANICAL NAME
	AF	FORMOSA INDICA AZALEA	AZALEA INDICA 'FORMOSA'
	IF	FOSTER'S HOLLY	ILEX X ATTENUATA 'FOSTER'
	MG	BANANA SHRUB	MAGNOLIA FIGO
	OF	SWEET OLIVE	OSMANTHUS FRAGRANS
GROUND COVERS	CODE	COMMON NAME	BOTANICAL NAME
	EO	CENTPEDE SOD	EREMOCHLOA OPHIUROIDES



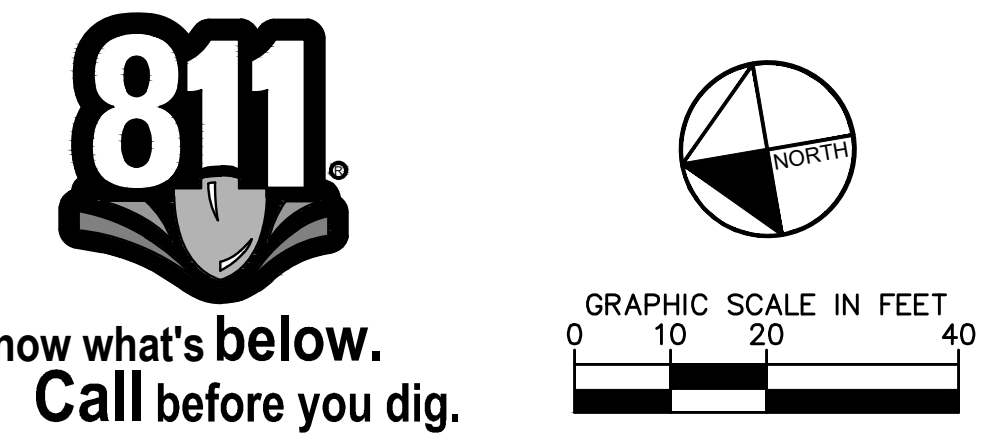
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 PHONE: 910-507-2115

No.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

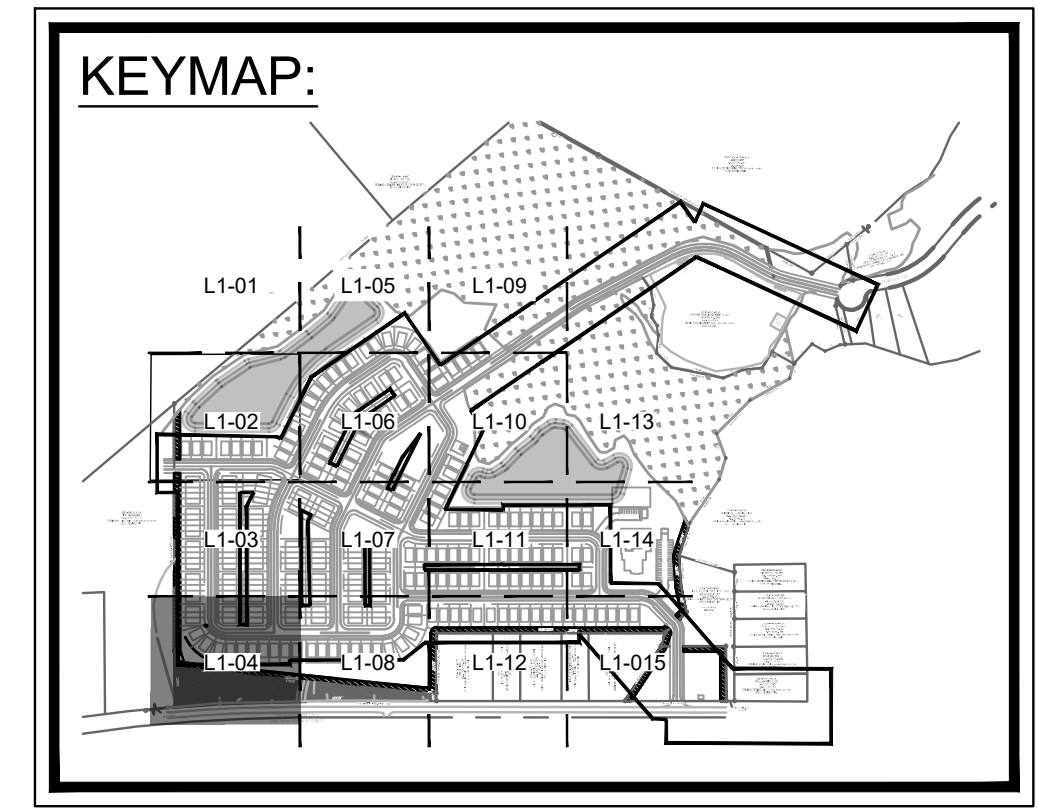
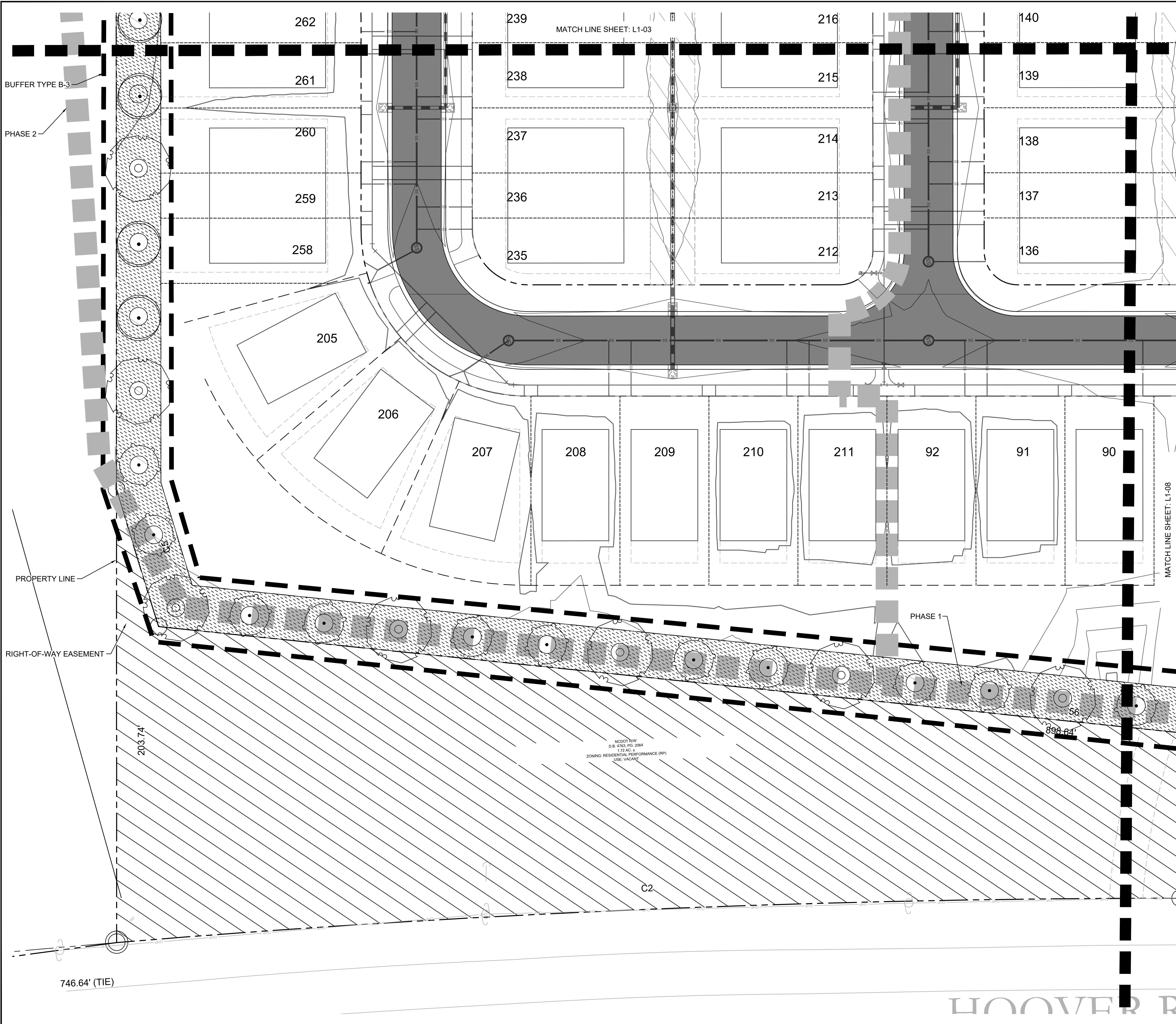
PROJECT
BROOKFIELD BRANCH
 1038 HOOVER ROAD,
 HAMPSSTEAD, NC 28443
 3283-83-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY FC
 DESIGNED BY FC
 REVIEWED BY LB
 DATE
 PROJECT NO. 014793000
 TITLE
TREE REPLACEMENT PLAN
 SHEET NUMBER
L1-02



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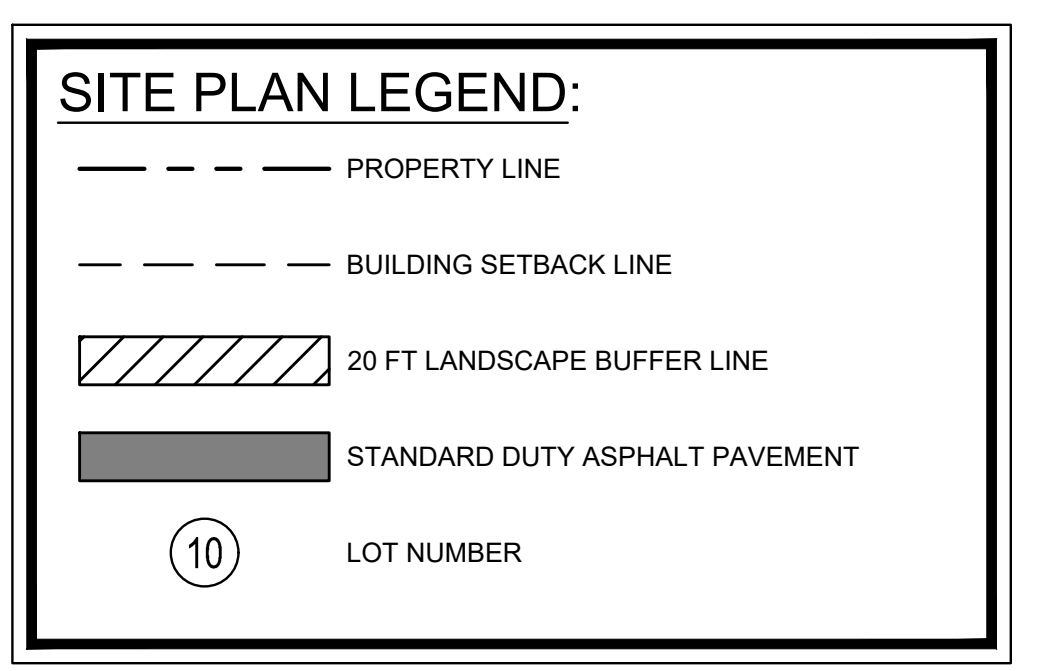
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PLANT SCHEDULE

TREES	CODE	COMMON NAME	BOTANICAL NAME
	CV	WHITE FRINGETREE	CHIONANTHUS VIRGINICUS
	MS	SWEETBAY MAGNOLIA	MAGNOLIA VIRGINIANA
	QN	NUTTALL OAK	QUERCUS NUTTALLII
	TD	BALD CYPRESS	TAXODIUM DISTICHUM
SHRUBS	CODE	COMMON NAME	BOTANICAL NAME
	AF	FORMOSA INDICA AZALEA	AZALEA INDICA 'FORMOSA'
	IF	FOSTER'S HOLLY	ILEX X ATTENUATA 'FOSTERI'
	MG	BANANA SHRUB	MAGNOLIA FIGO
	OF	SWEET OLIVE	OSMANTHUS FRAGRANS
GROUND COVERS	CODE	COMMON NAME	BOTANICAL NAME
	EO	CENTPEDE SOD	EREMOCHLOA OPHIURIODES



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LOGAN DEVELOPERS INC.
60 GREGORY ROAD (SUITE 1)
BELVILLE, NC 28511
PHONE: 910-507-2115

NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

BROOKFIELD BRANCH
1038 HOOVER ROAD,
HAMPSHIRE, NC 28443
3283-83-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY	FC
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DATE	
PROJECT NO.	014793000
TITLE	TREE REPLACEMENT PLAN
SHEET NUMBER	L1-04

811
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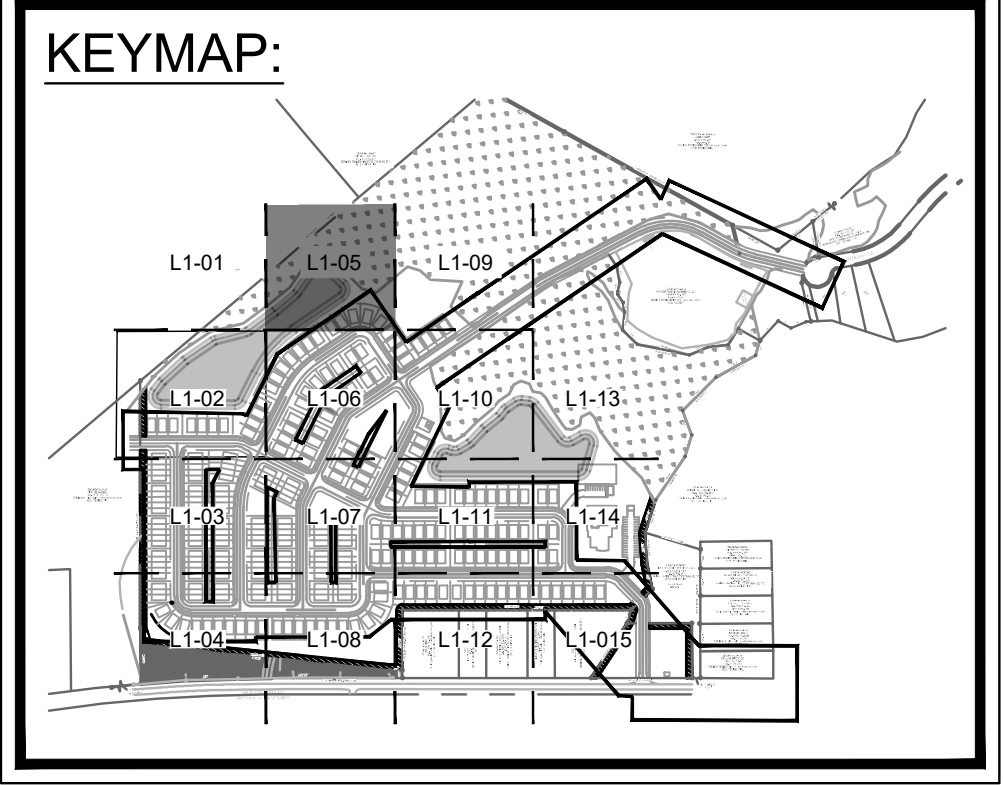
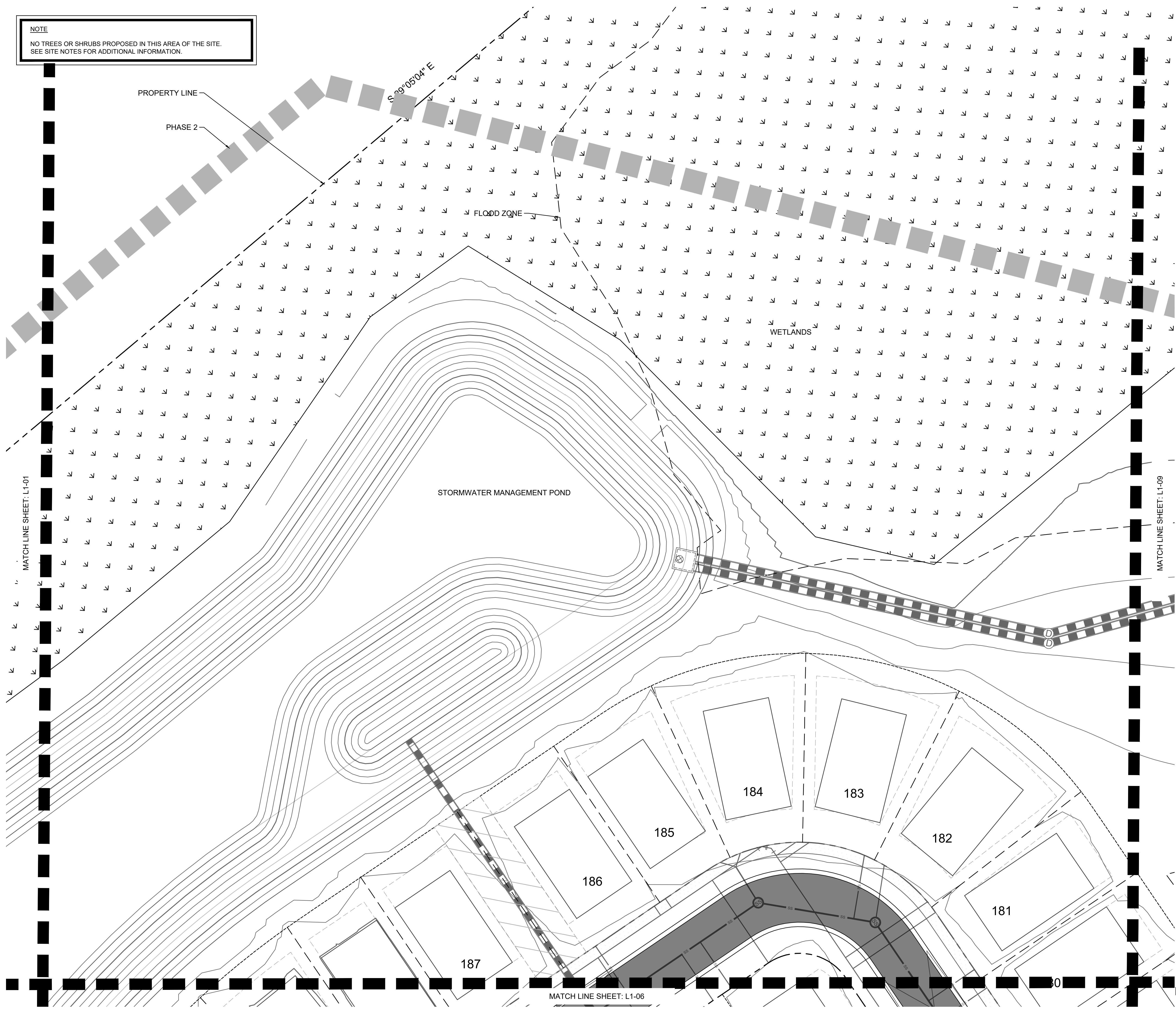
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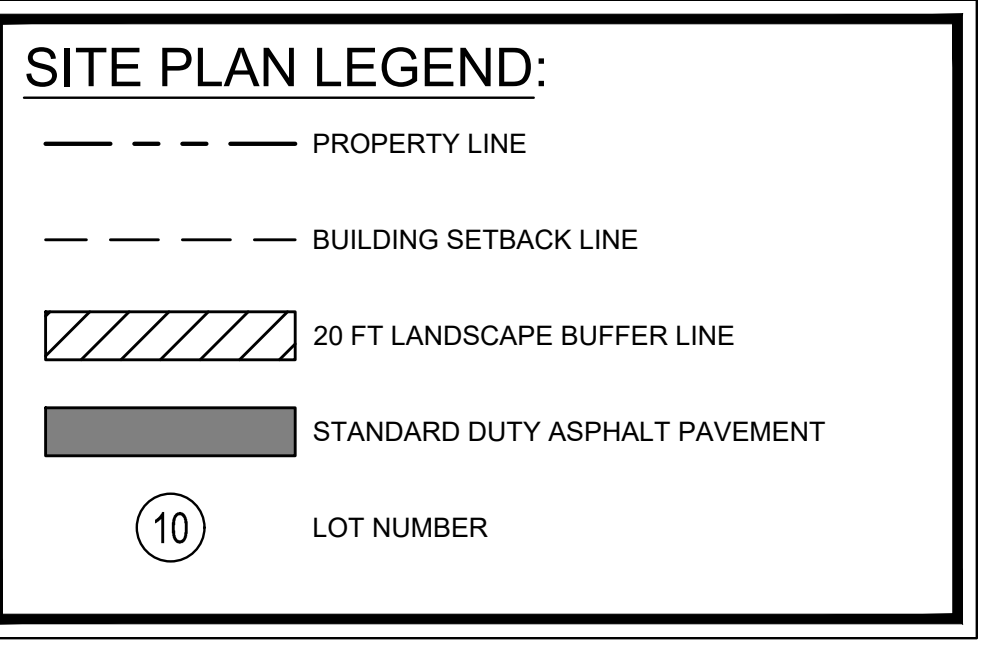
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	MG	BANANA SHRUB	MAGNOLIA FIGO
	OF	SWEET OLIVE	OSMANTHUS FRAGRANS
GROUND COVERS	CODE	COMMON NAME	BOTANICAL NAME
	EO	CENTPEDE SOD	EREMOCHLOA OPHIURIODES



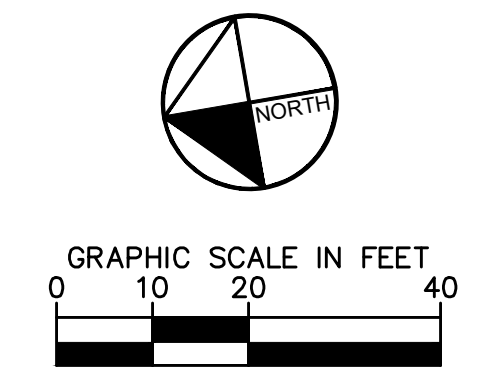
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60 GREGORY ROAD (SUITE 1)
BELVILLE, NC 28541
PHONE: 910-507-2115

No.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

PROJECT
BROOKFIELD BRANCH
1038 HOOVER ROAD,
HAMPSHIRE, NC 28443
3283-83-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

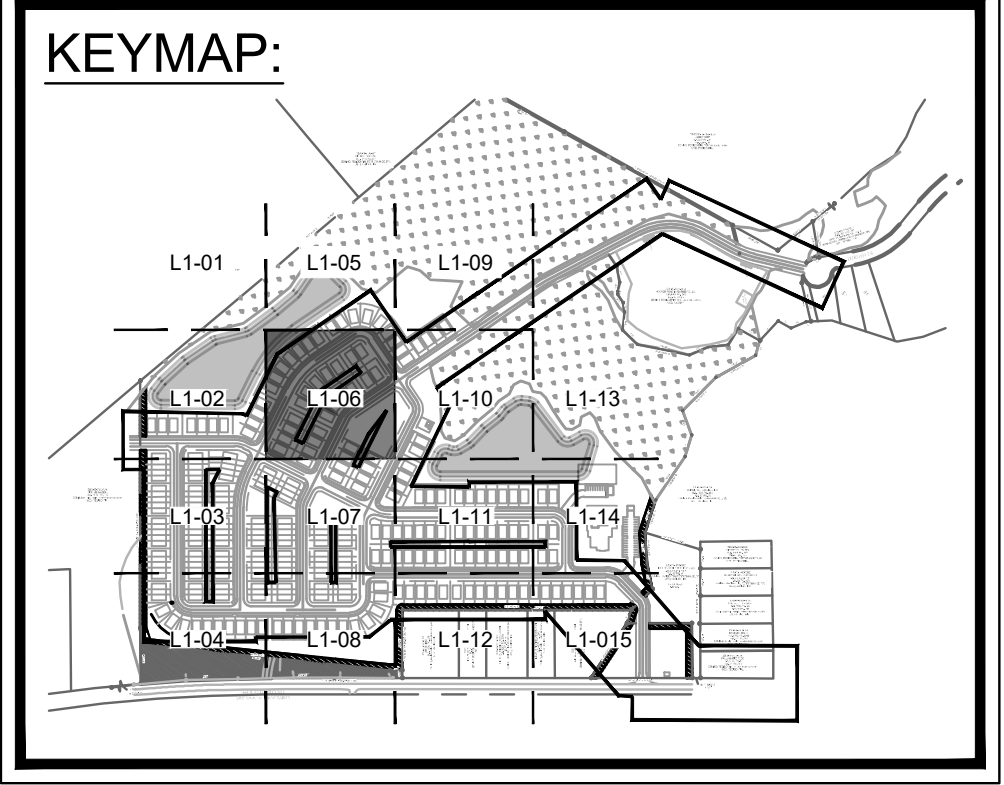
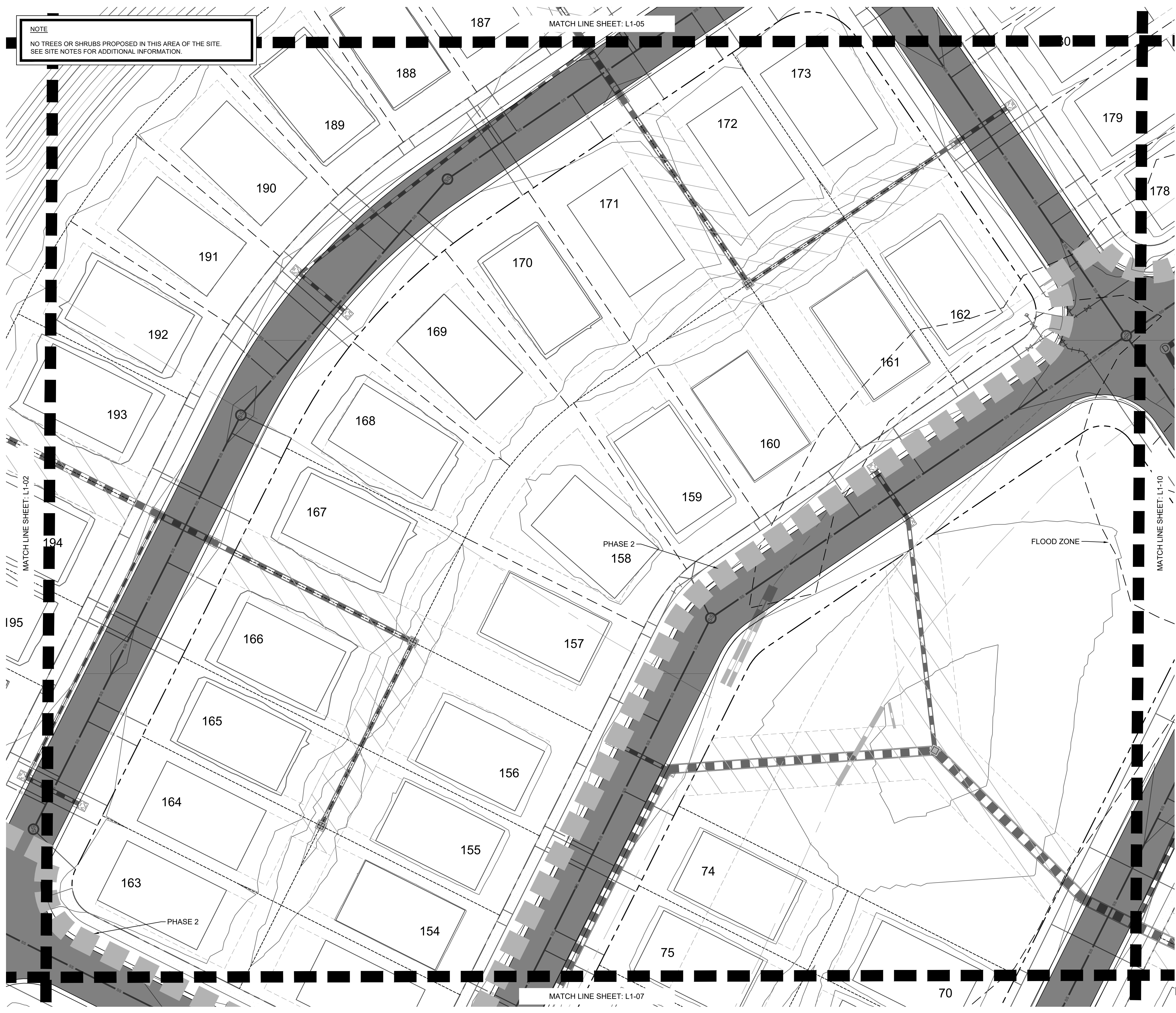
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DESIGNED BY FC
REVIEWED BY LB
DATE
PROJECT NO. 014793000
TITLE
TREE REPLACEMENT PLAN
SHEET NUMBER
L1-05



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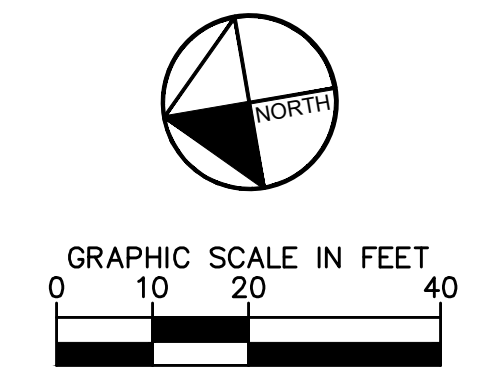
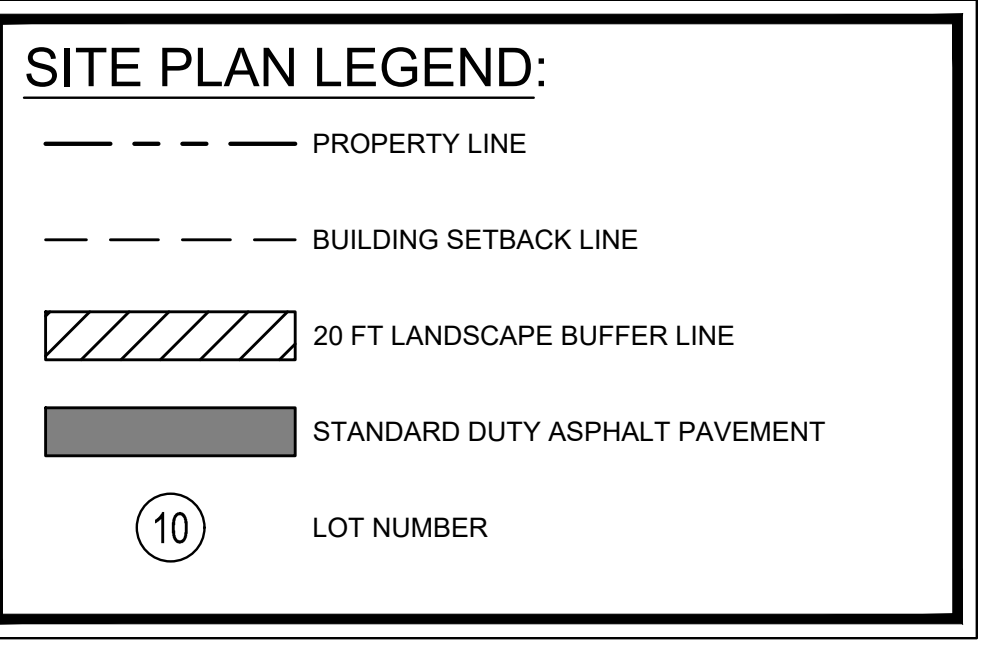
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PLANT SCHEDULE

TREES	CODE	COMMON NAME	BOTANICAL NAME
	CV	WHITE FRINGETREE	CHIONANTHUS VIRGINICUS
	MS	SWEETBAY MAGNOLIA	MAGNOLIA VIRGINIANA
	QN	NUTTALL OAK	QUERCUS NUTTALLII
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SHRUBS	CODE	COMMON NAME	BOTANICAL NAME
	AF	FORMOSA INDICA AZALEA	AZALEA INDICA 'FORMOSA'
	IF	FOSTERS' HOLLY	ILEX X ATTENUATA 'FOSTERI'
	MG	BANANA SHRUB	MAGNOLIA FIGO
	OF	SWEET OLIVE	OSMANTHUS FRAGRANS
GROUND COVERS	CODE	COMMON NAME	BOTANICAL NAME
	EO	CENTPEDE SOD	EREMOCHLOA OPHIROIDES



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BELVILLE, NC 28451
PHONE: 910-507-2115

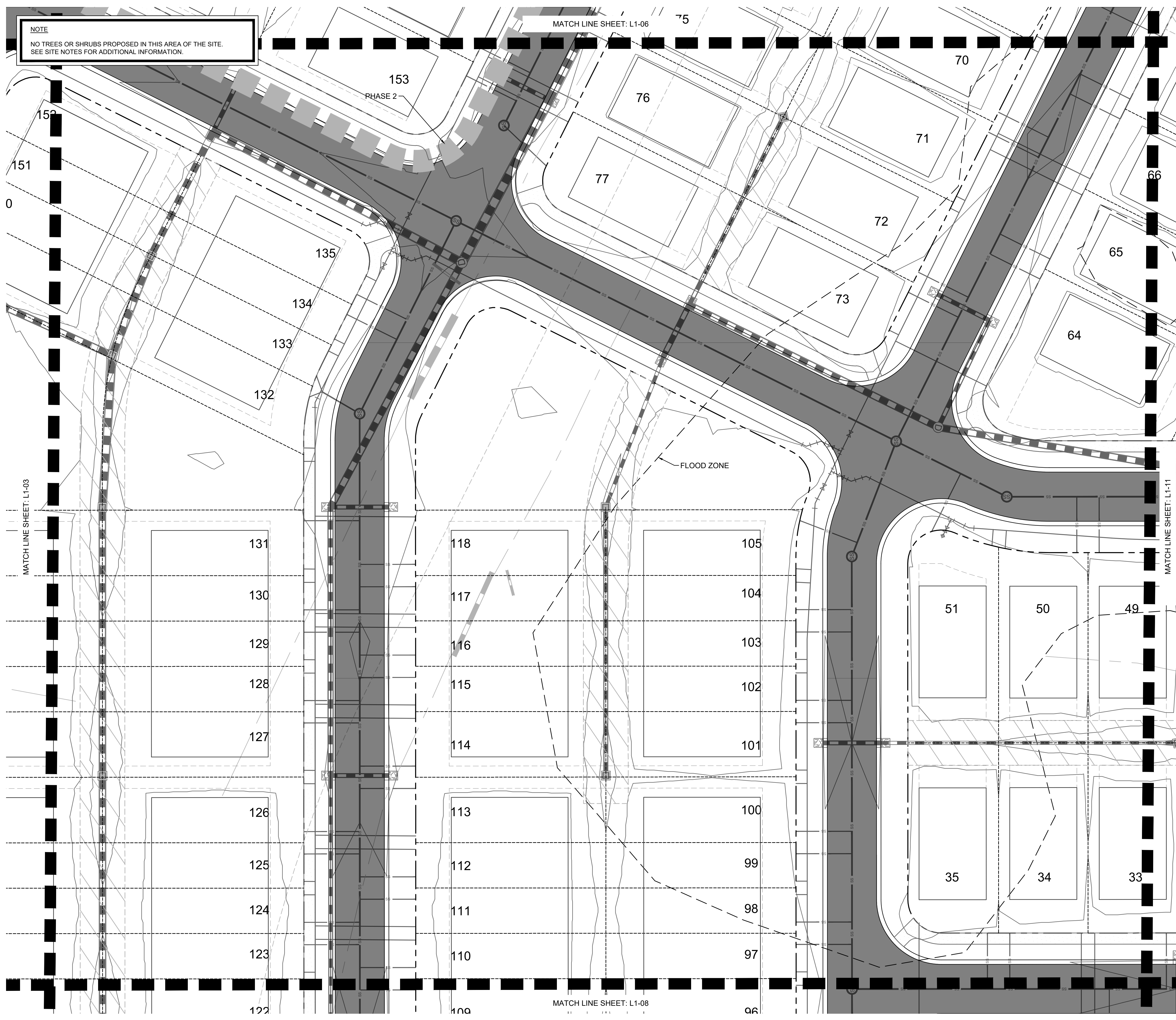
No.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

PROJECT
BROOKFIELD BRANCH
1038 HOOVER ROAD,
HAMPSHIRE, NC 28443
3283-83-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

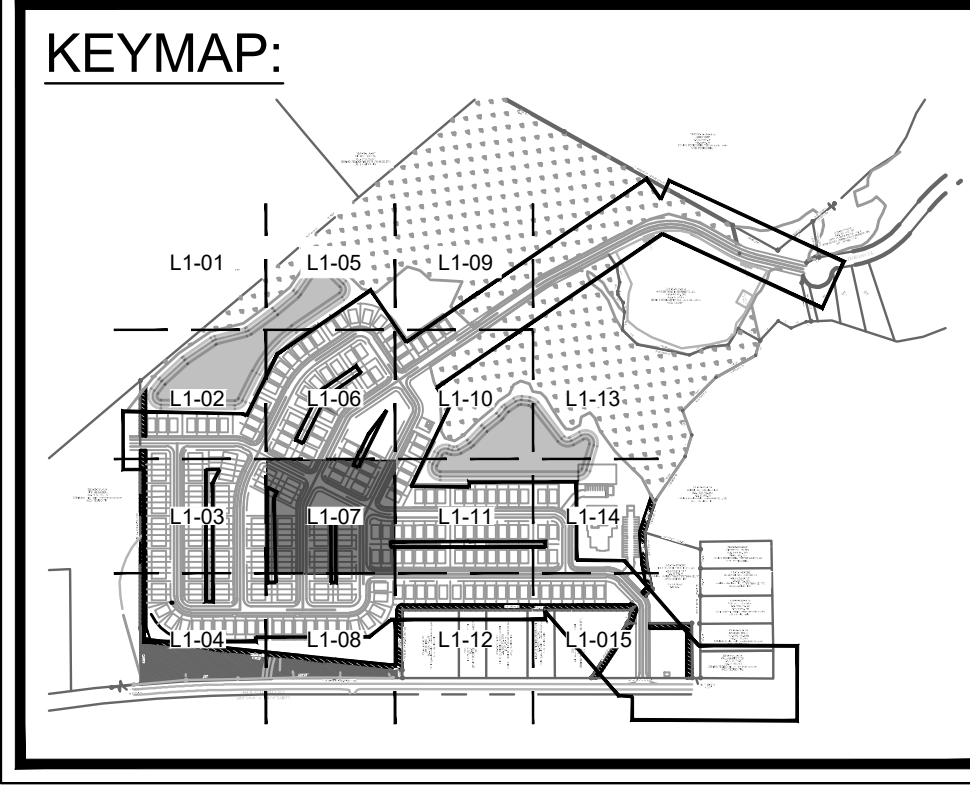
DRAWN BY FC
DESIGNED BY FC
REVIEWED BY LB
DATE
PROJECT NO. 014793000
TITLE
TREE REPLACEMENT PLAN
SHEET NUMBER
L1-06

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Drawing name: K:\SAV_C\1014793000_Hoover Road SFR\ROAD\Replacement\Plan\1-00_TREE PROTECTION AND REPLACEMENT PLAN.dwg L1-07 TREE REPLACEMENT PLAN.dwg Sep 01, 2023 7:37am By: Jamal Alexander



NOTE
NO TREES OR SHRUBS PROPOSED IN THIS AREA OF THE SITE. SEE SITE NOTES FOR ADDITIONAL INFORMATION.



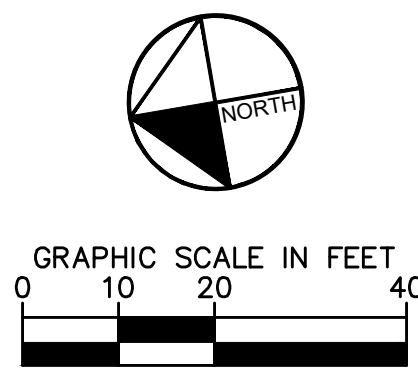
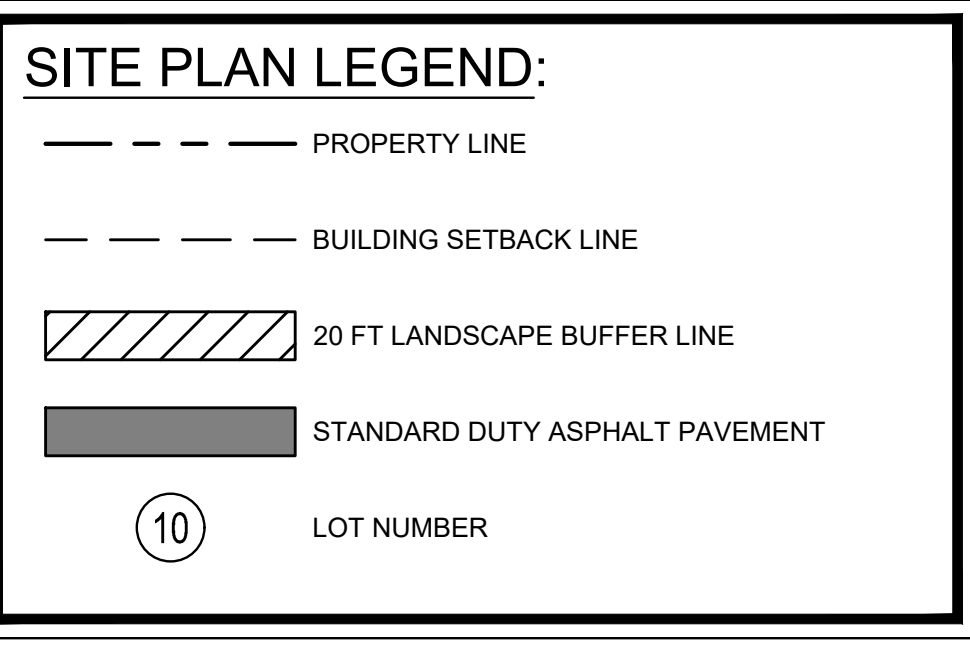
- SITE NOTES:**
- SEE MASTER PLANT SCHEDULE ON SHEET L2-00 FOR FULL PLANT INFORMATION.
 - CONTRACTOR RESPONSIBLE FOR ALL PLANT QUANTITIES.
 - SEE CIVIL PLANS FOR PERMANENT EROSION CONTROL FOR GROUNDCOVER IN AREAS NOT INDICATED AS SEEDING OR SODDED ON LANDSCAPE PLANS.
 - REPAIR OF EXISTING WETLAND BUFFER VEGETATION AREAS DAMAGED BY THE CONTRACTOR IN THE PROCESS OF THEIR WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

PLANT SCHEDULE

TREES	CODE	COMMON NAME	BOTANICAL NAME
	CV	WHITE FRINGETREE	CHIONANTHUS VIRGINICUS
	MS	SWEETBAY MAGNOLIA	MAGNOLIA VIRGINIANA
	QN	NUTTALL OAK	QUERCUS NUTTALLII
	TD	BALD CYPRESS	TAXODIUM DISTICHUM

SHRUBS	CODE	COMMON NAME	BOTANICAL NAME
	AF	FORMOSA INDICA AZALEA	AZALEA INDICA 'FORMOSA'
	IF	FOSTERS' HOLLY	ILEX X ATTENUATA 'FOSTER'
	MG	BANANA SHRUB	MAGNOLIA FIGO
	OF	SWEET OLIVE	OSMANTHUS FRAGRANS

GROUND COVERS	CODE	COMMON NAME	BOTANICAL NAME
	EO	CENTPEDE SOD	EREMOCHLOA OPHIURIODES



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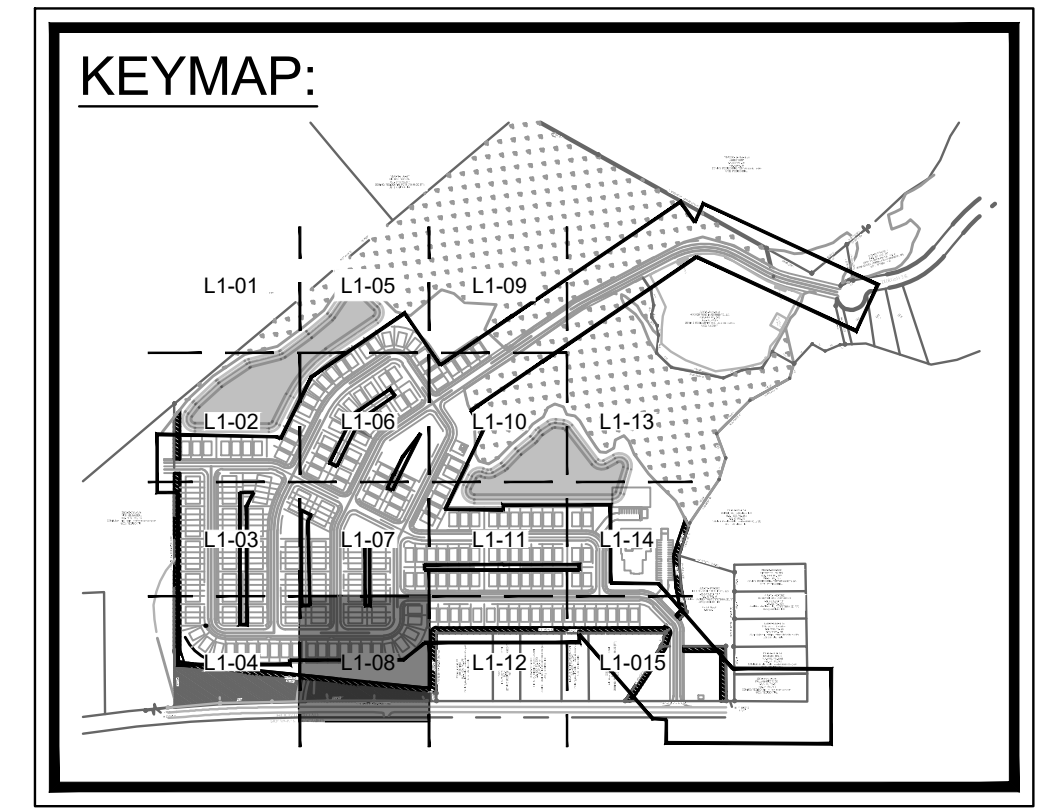
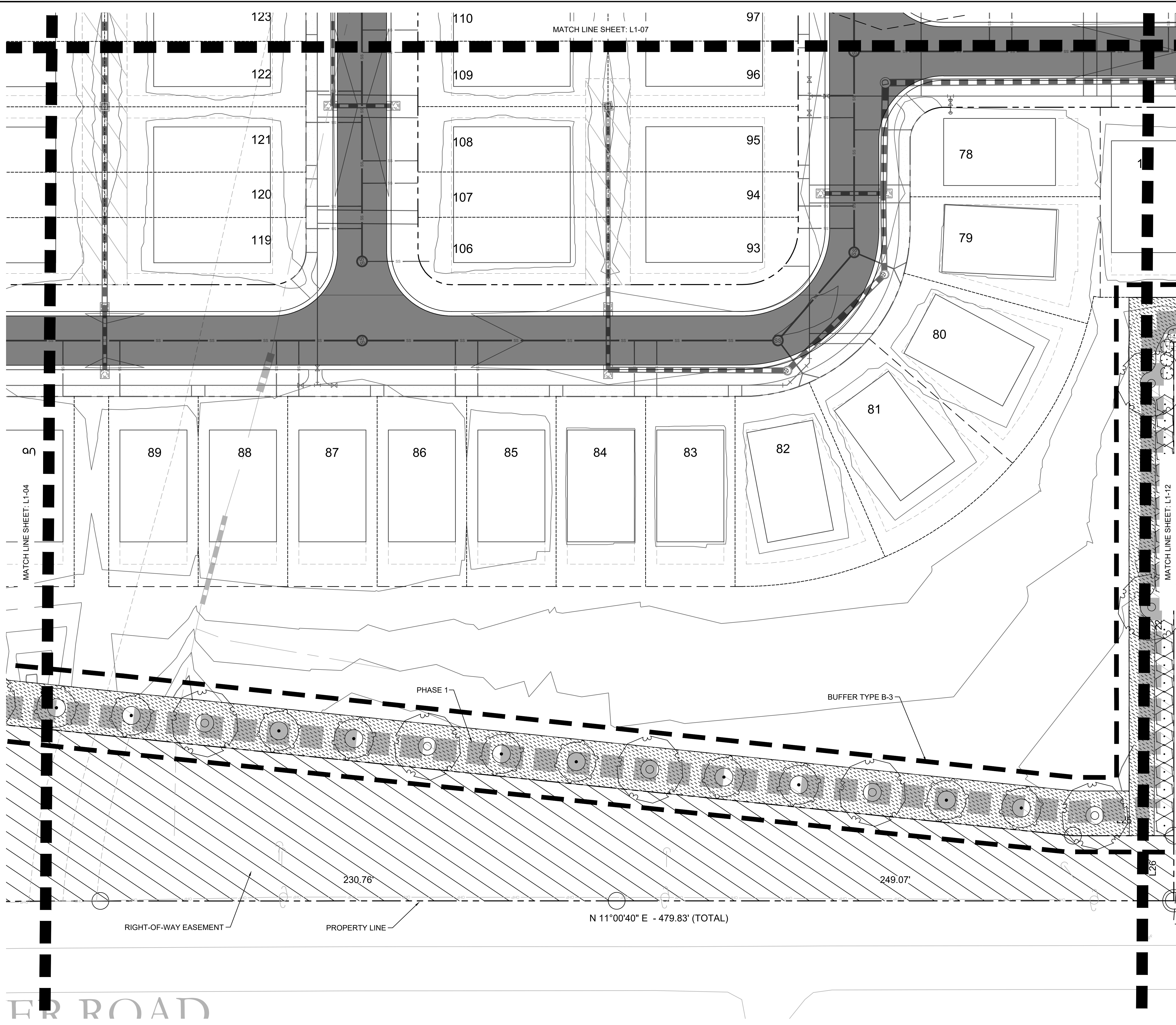
LOGAN DEVELOPERS INC.
60 GREGORY ROAD (SUITE 1)
BELVILLE, NC 28451
PHONE: 910-507-2115

NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

BROOKFIELD BRANCH
1038 HOOVER ROAD,
HAMPSHIRE, NC 28443
3283-83-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY FC
DESIGNED BY FC
REVIEWED BY LB
DATE
PROJECT NO. 014793000
TITLE
TREE REPLACEMENT PLAN
SHEET NUMBER
L1-07

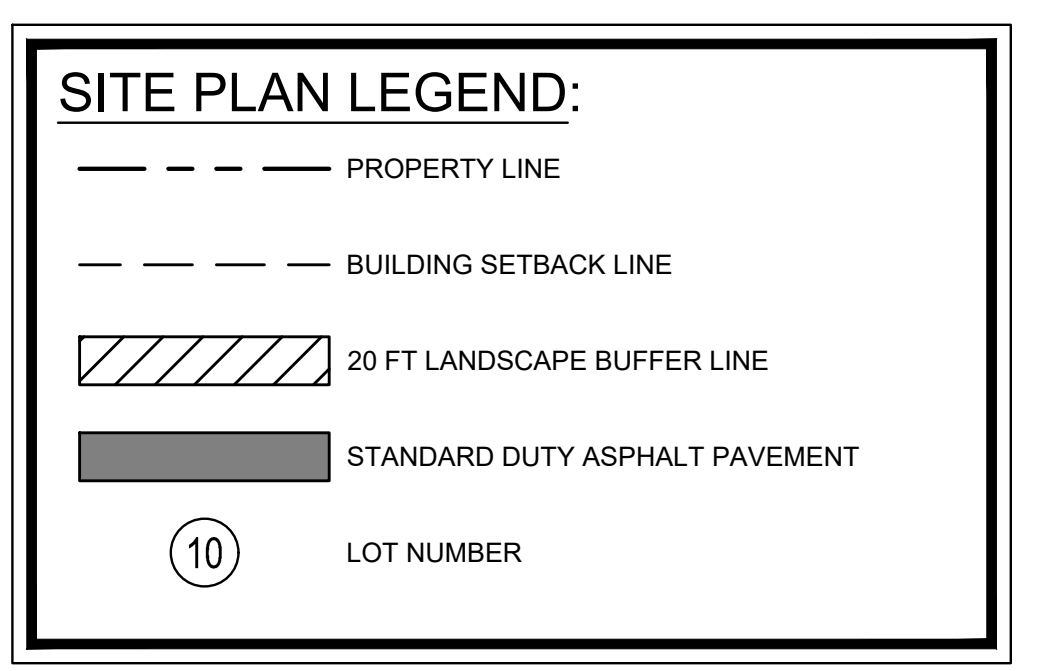
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- SITE NOTES:**
- SEE MASTER PLANT SCHEDULE ON SHEET L2-00 FOR FULL PLANT INFORMATION.
 - CONTRACTOR RESPONSIBLE FOR ALL PLANT QUANTITIES.
 - SEE CIVIL PLANS FOR PERMANENT EROSION CONTROL FOR GROUND COVER IN AREAS NOT INDICATED AS SEEDING OR SODDED ON LANDSCAPE PLANS.
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PLANT SCHEDULE

TREES	CODE	COMMON NAME	BOTANICAL NAME
	CV	WHITE FRINGETREE	CHIONANTHUS VIRGINICUS
	MS	SWEETBAY MAGNOLIA	MAGNOLIA VIRGINIANA
	QN	NUTTALL OAK	QUERCUS NUTTALLII
	TD	BALD CYPRESS	TAXODIUM DISTICHUM
SHRUBS	CODE	COMMON NAME	BOTANICAL NAME
	AF	FORMOSA INDICA AZALEA	AZALEA INDICA 'FORMOSA'
	IF	FOSTERS HOLLY	ILEX X ATTENUATA 'FOSTERI'
	MG	BANANA SHRUB	MAGNOLIA FIGO
	OF	SWEET OLIVE	OSMANTHUS FRAGRANS
GROUND COVERS	CODE	COMMON NAME	BOTANICAL NAME
	EO	CENTPEDE SOD	EREMOCHLOA OPHIUROIDES



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PHONE: 910-507-2115

BROOKFIELD BRANCH

1038 HOOVER ROAD,
HAMPSHIRE, NC 28443
3283-83-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

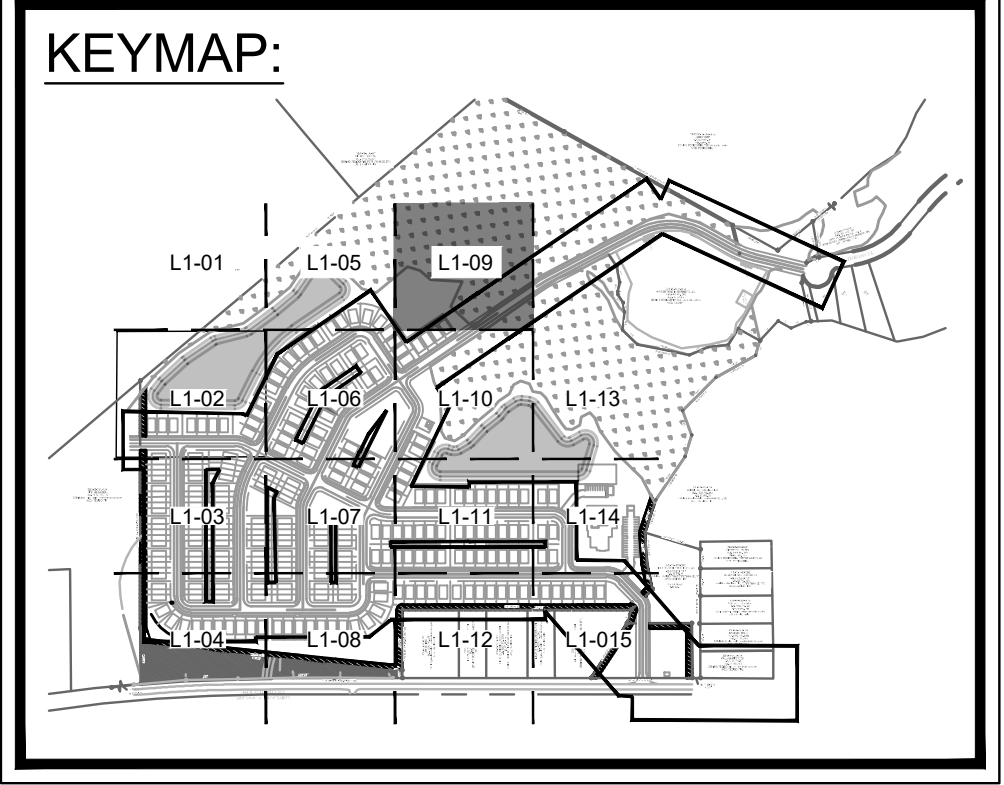
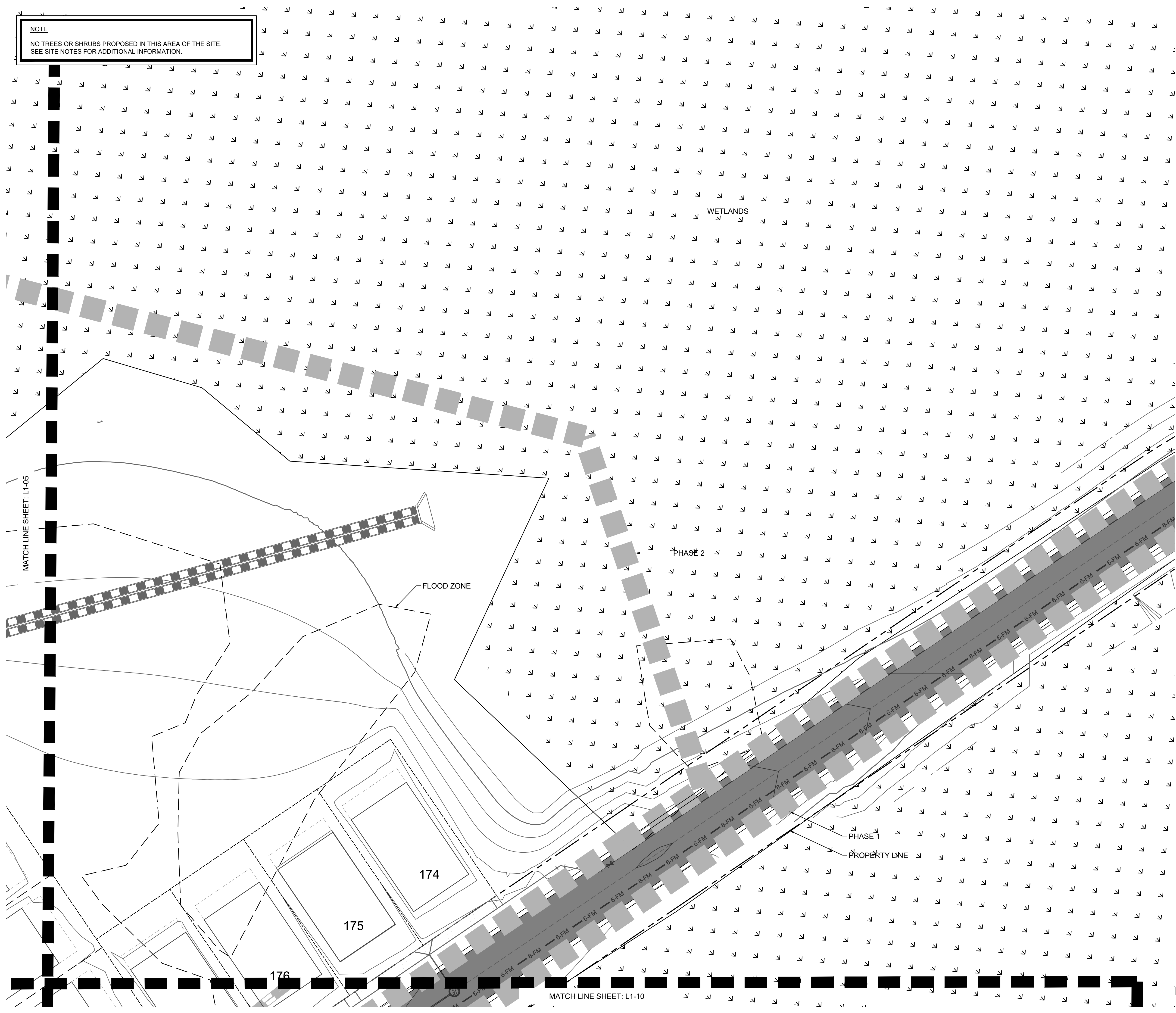
NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

DRAWN BY: FC
DESIGNED BY: FC
REVIEWED BY: LB
DATE:
PROJECT NO. 014793000
TITLE: **TREE REPLACEMENT PLAN**
SHEET NUMBER: **L1-08**

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NOTE
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SEE SITE NOTES FOR ADDITIONAL INFORMATION.



SITE NOTES:

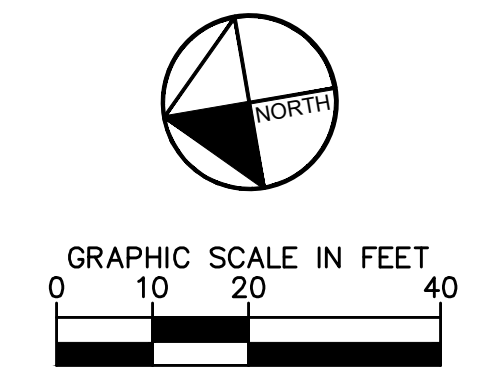
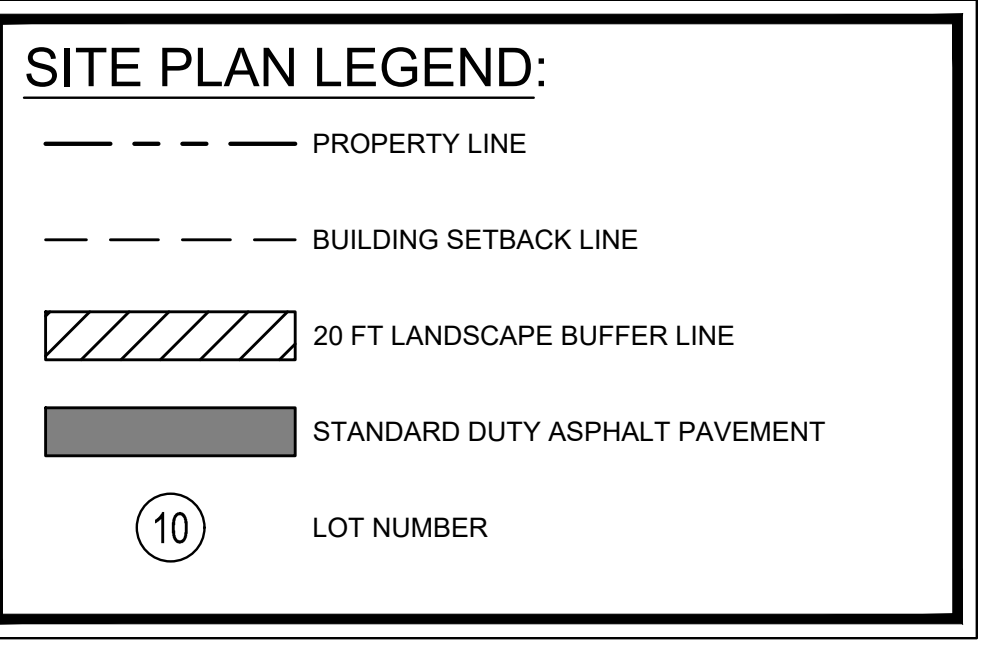
- SEE MASTER PLANT SCHEDULE ON SHEET L2-00 FOR FULL PLANT INFORMATION.
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PLANT SCHEDULE

TREES	CODE	COMMON NAME	BOTANICAL NAME
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	MS	SWEETBAY MAGNOLIA	MAGNOLIA VIRGINIANA
	QN	NUTTALL OAK	QUERCUS NUTTALLII
	TD	BALD CYPRESS	TAXODIUM DISTICHUM

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	IF	FOSTERS HOLLY	ILEX X ATTENUATA 'FOSTERI'
	MG	BANANA SHRUB	MAGNOLIA FIGO
	OF	SWEET OLIVE	OSMANTHUS FRAGRANS

GROUND COVERS	CODE	COMMON NAME	BOTANICAL NAME
	EO	CENTPEDE SOD	EREMOCHLOA OPHIURIODES



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BELVILLE, NC 28451
PHONE: 910-507-2115

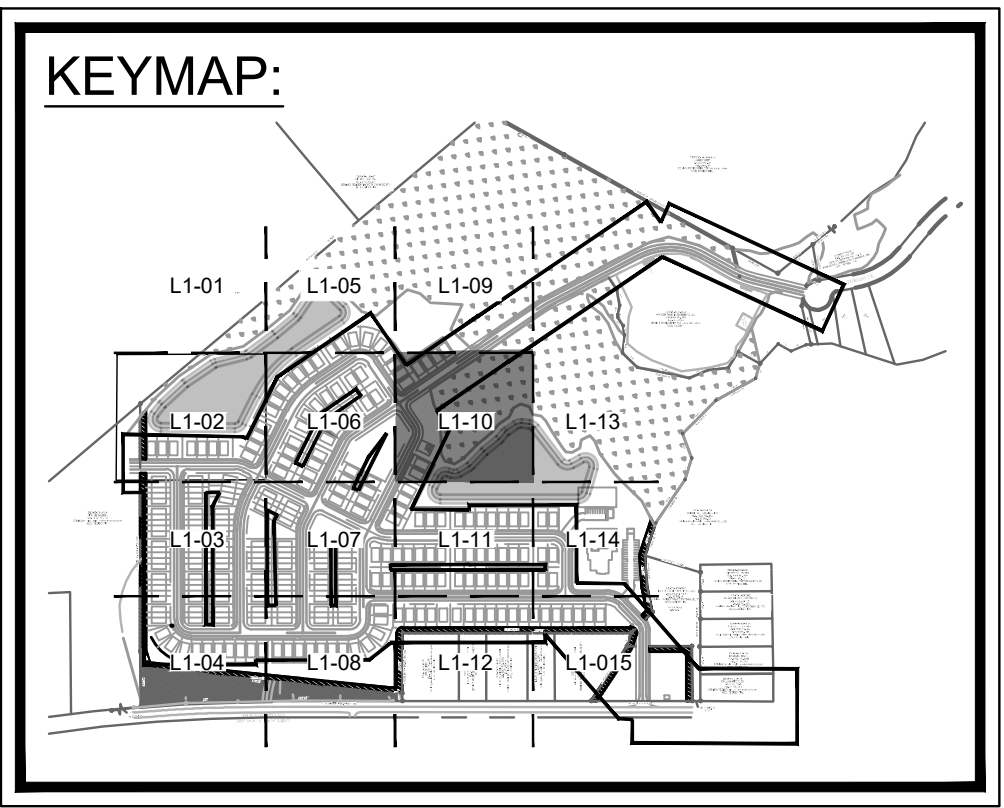
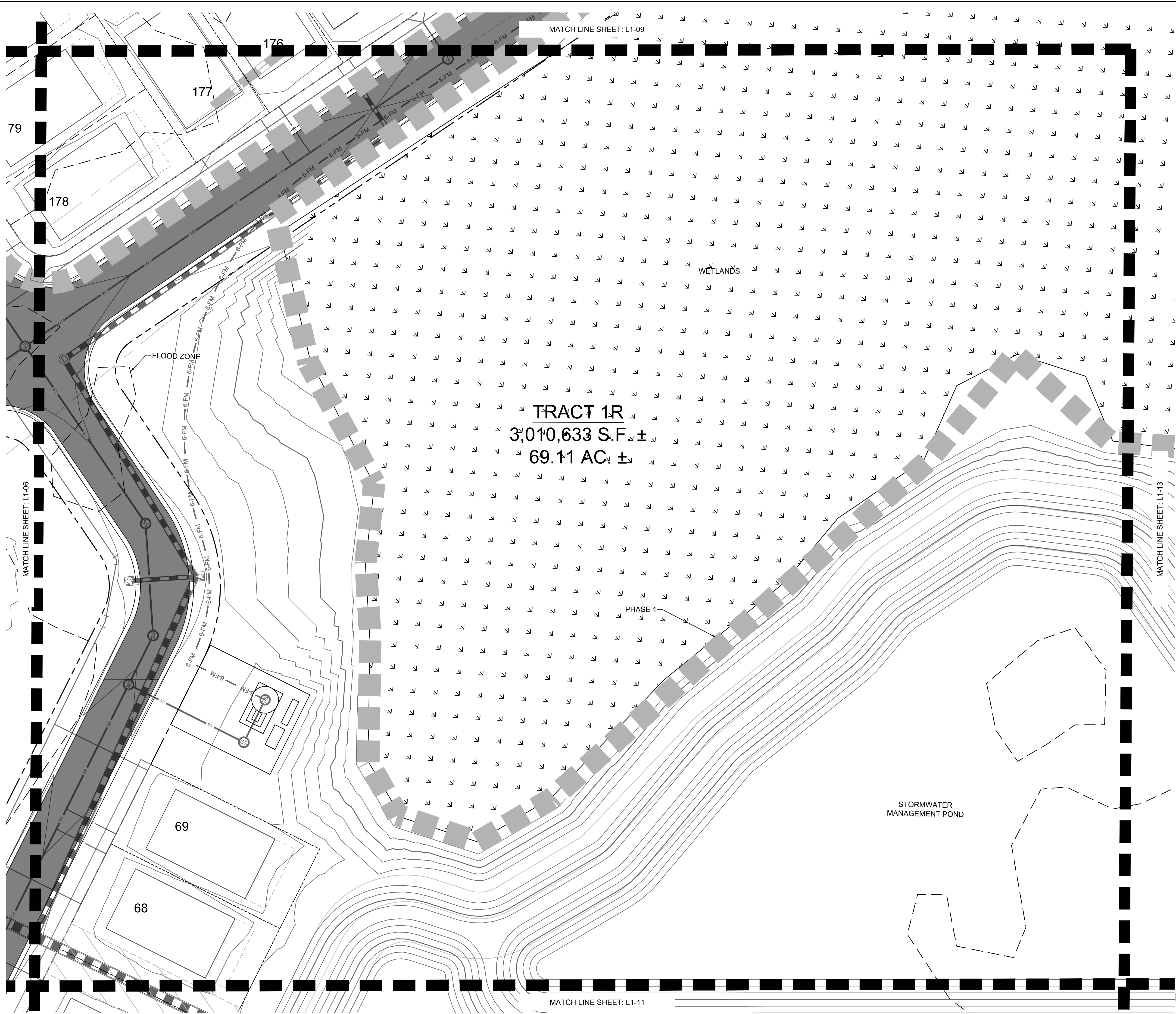
NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

BROOKFIELD BRANCH
1038 HOOVER ROAD,
HAMPSHIRE, NC 28443
3283-83-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY: FC
DESIGNED BY: FC
REVIEWED BY: LB
DATE:
PROJECT NO. 014793000
TITLE **TREE REPLACEMENT PLAN**
SHEET NUMBER **L1-09**

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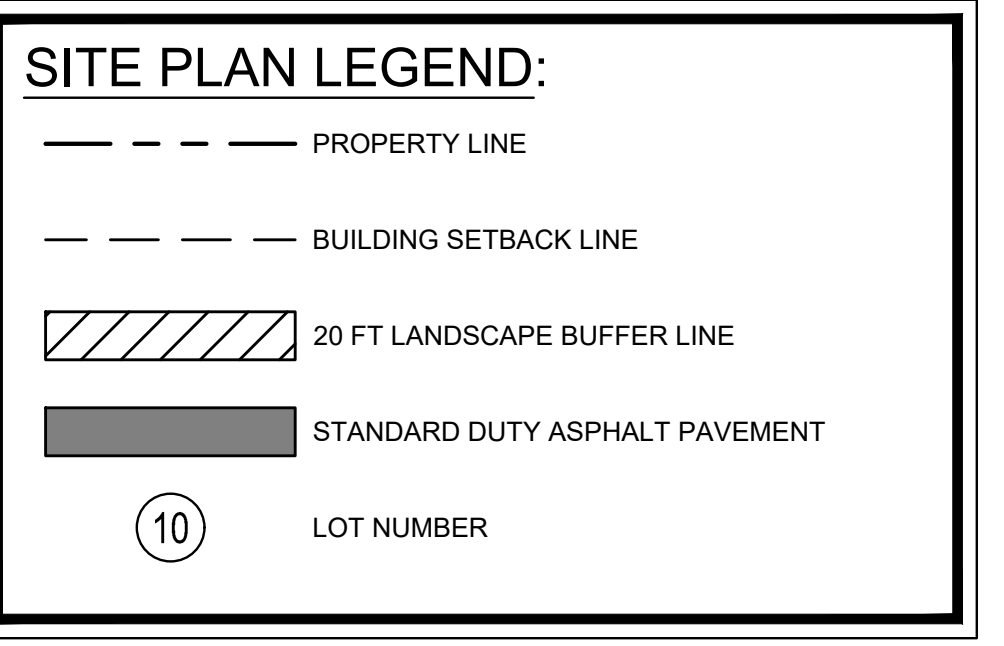
- SITE NOTES:**
- SEE MASTER PLANT SCHEDULE ON SHEET L2-00 FOR FULL PLANT INFORMATION.
 - CONTRACTOR RESPONSIBLE FOR ALL PLANT QUANTITIES.
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PLANT SCHEDULE

TREES	CODE	COMMON NAME	BOTANICAL NAME
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	QN	NUTTALL OAK	QUERCUS NUTTALLII
	TD	BALD CYPRESS	TAXODIUM DISTICHUM

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	IF	FOSTERS HOLLY	ILEX X ATTENUATA 'FOSTERI'
	MG	BANANA SHRUB	MAGNOLIA FIGO
	OF	SWEET OLIVE	OSMANTHUS FRAGRANS

GROUND COVERS	CODE	COMMON NAME	BOTANICAL NAME
	EO	CENTPEDE SOD	EREMOCHLOA OPHIUROIDES



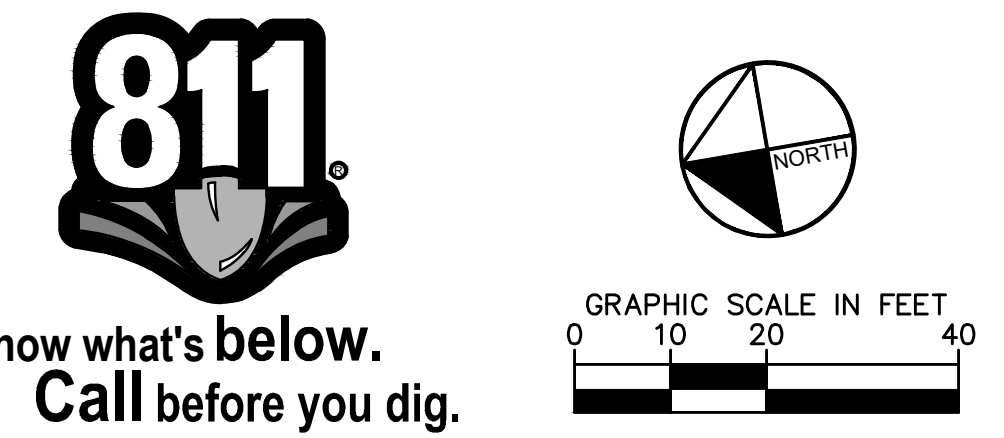
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PHONE: 910-507-2115

NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

BROOKFIELD BRANCH
1038 HOOVER ROAD,
HAMPSHIRE, NC 28443
3283-83-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY	FC
DESIGNED BY	FC
REVIEWED BY	LB
DATE	
PROJECT NO.	014793000
TITLE	TREE REPLACEMENT PLAN
SHEET NUMBER	L1-10

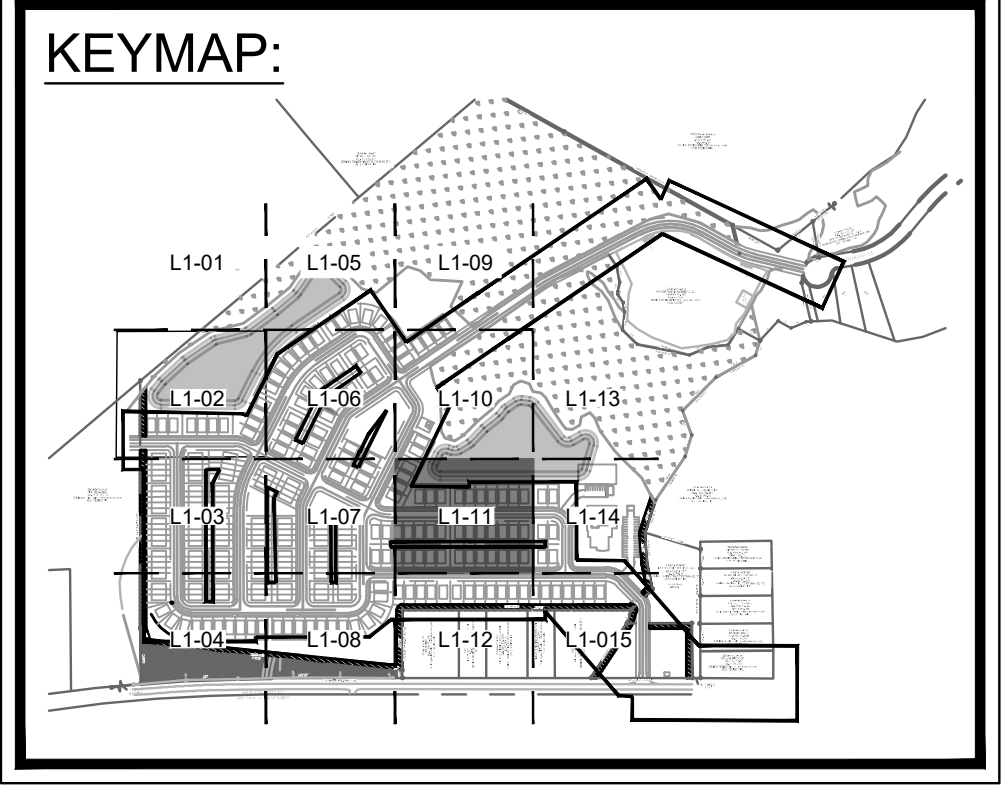


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MATCH LINE SHEET: L1-10

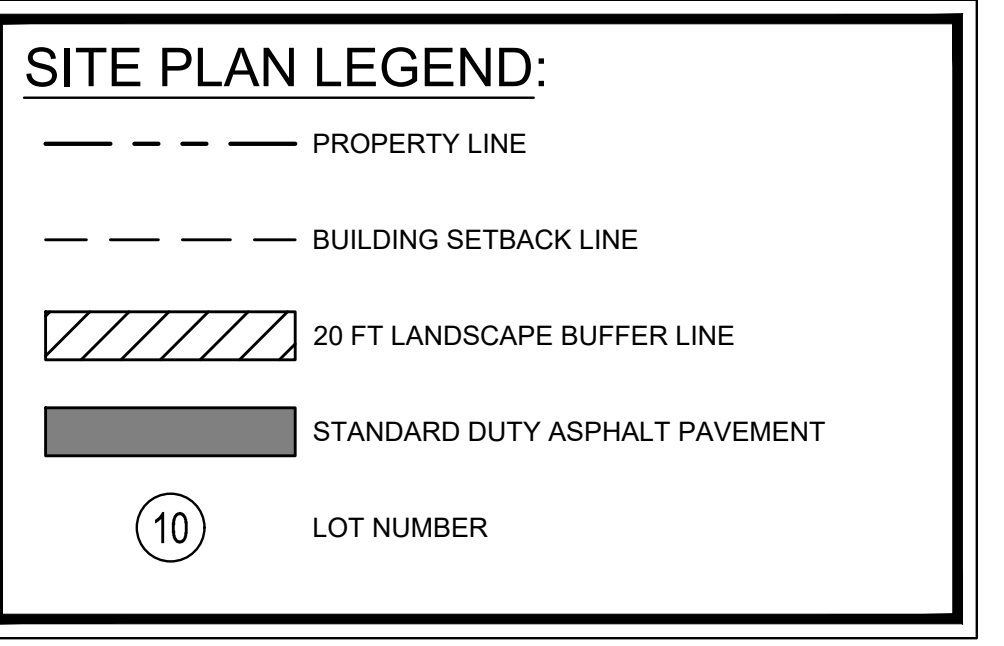
MATCH LINE SHEET: L1-12



- SITE NOTES:**
- SEE MASTER PLANT SCHEDULE ON SHEET L2-00 FOR FULL PLANT INFORMATION.
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	OF	SWEET OLIVE	OSMANTHUS FRAGRANS
GROUND COVERS	CODE	COMMON NAME	BOTANICAL NAME
	EO	CENTPEDE SOD	EREMOCHLOA OPHIUROIDES



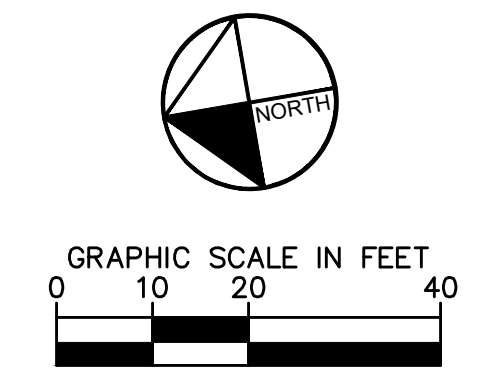
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LOGAN DEVELOPERS INC.
 60 GREGORY ROAD (SUITE 1)
 BELVILLE, NC 28511
 PHONE: 910-507-2115

No.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

PROJECT
BROOKFIELD BRANCH
 1038 HOOVER ROAD,
 HAMPSSTEAD, NC 28443
 3283-83-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

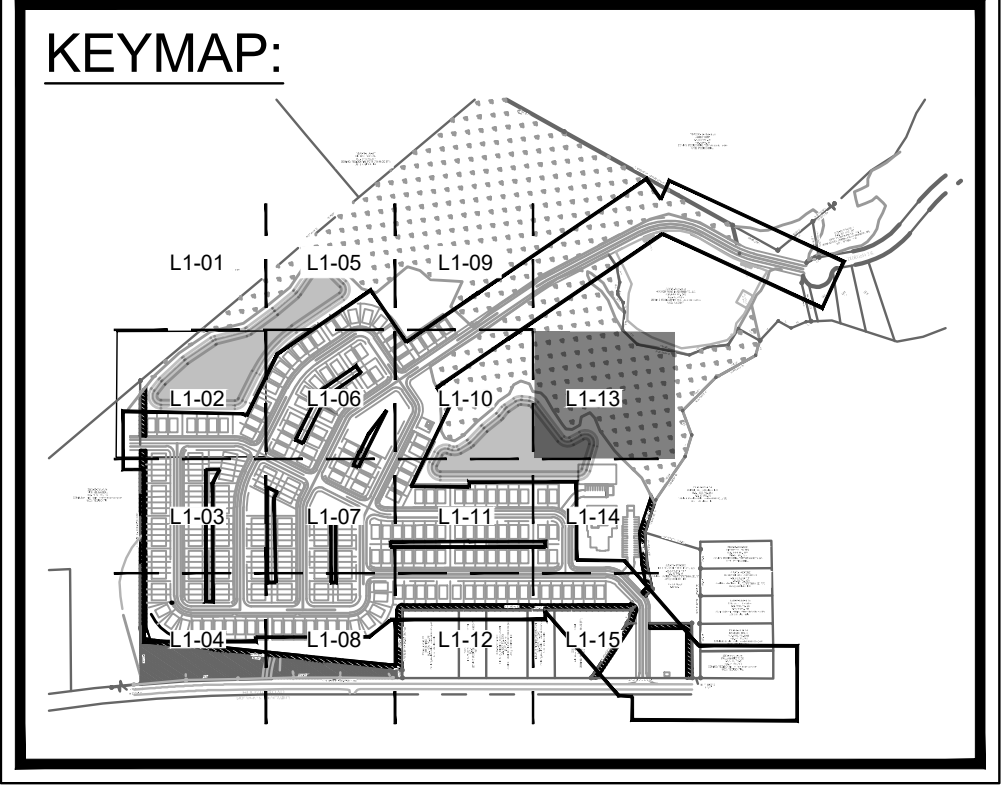
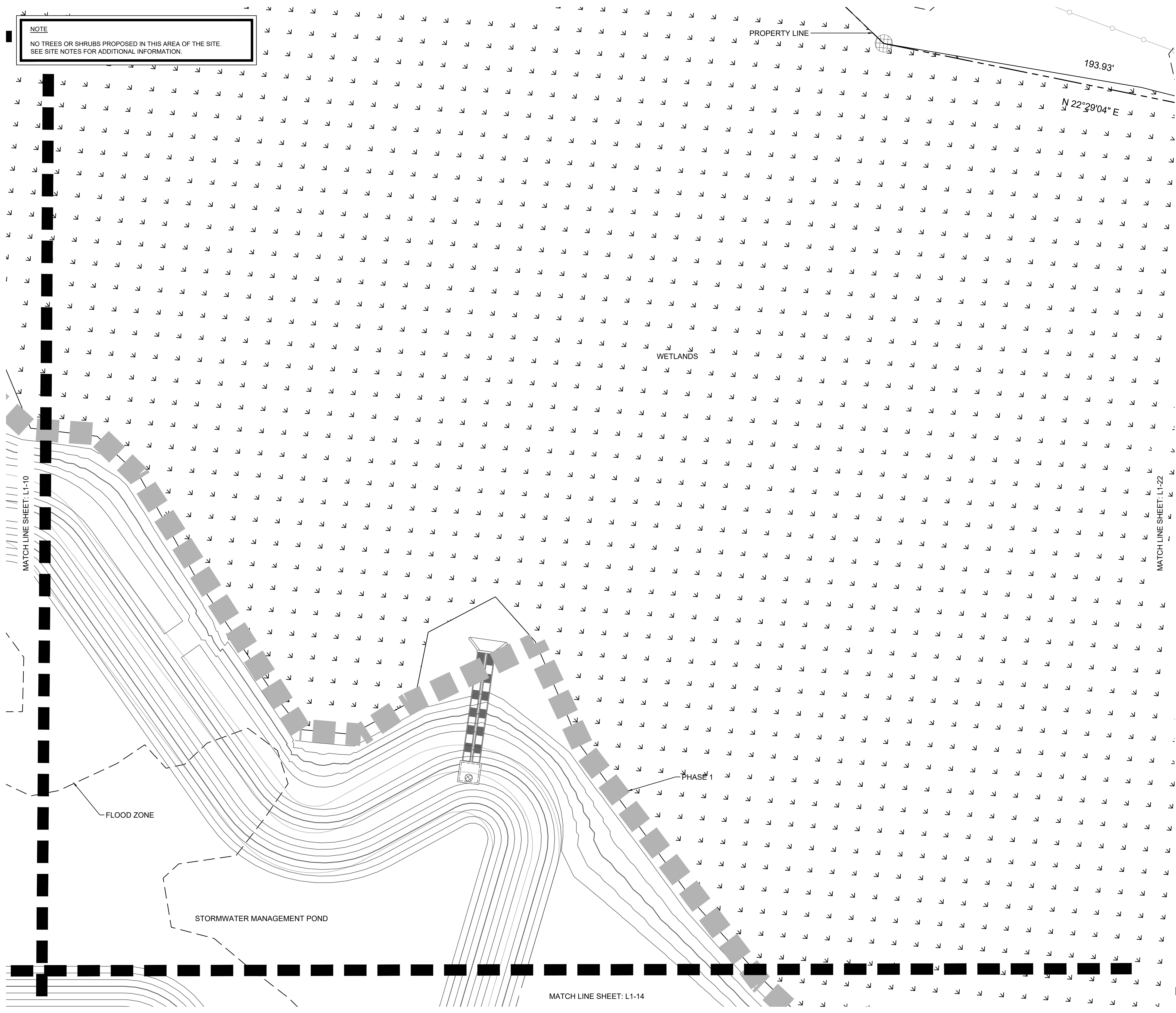
DRAWN BY FC
 DESIGNED BY FC
 REVIEWED BY LB
 DATE
 PROJECT NO. 014793000
 TITLE
TREE REPLACEMENT PLAN
 SHEET NUMBER
L1-11



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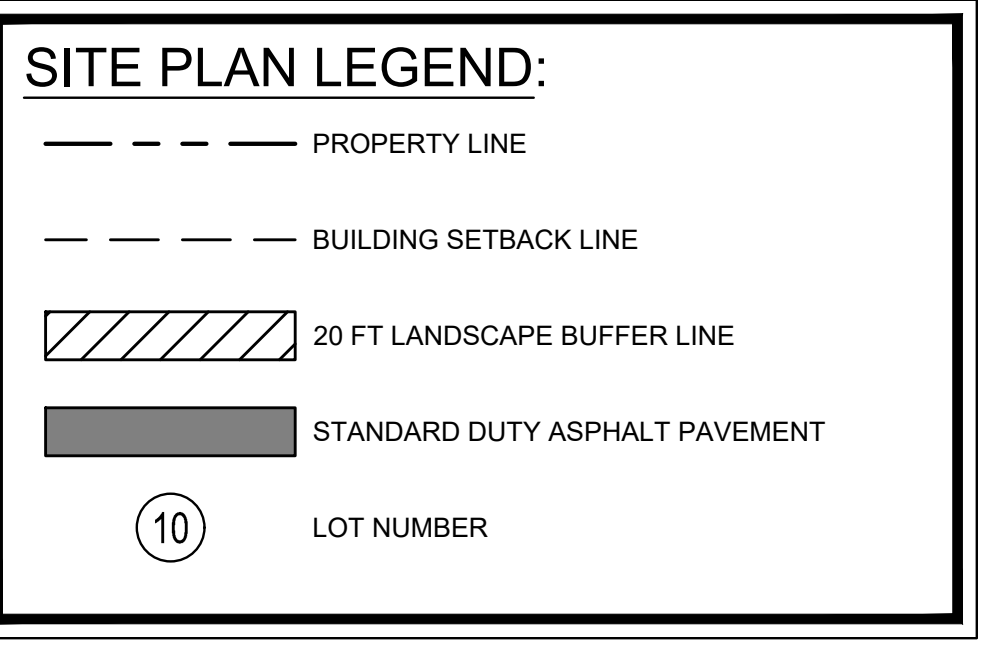
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GROUND COVERS	CODE	COMMON NAME	BOTANICAL NAME
	EO	CENTPEDE SOD	EREMOCHLOA OPHUROIDES



811
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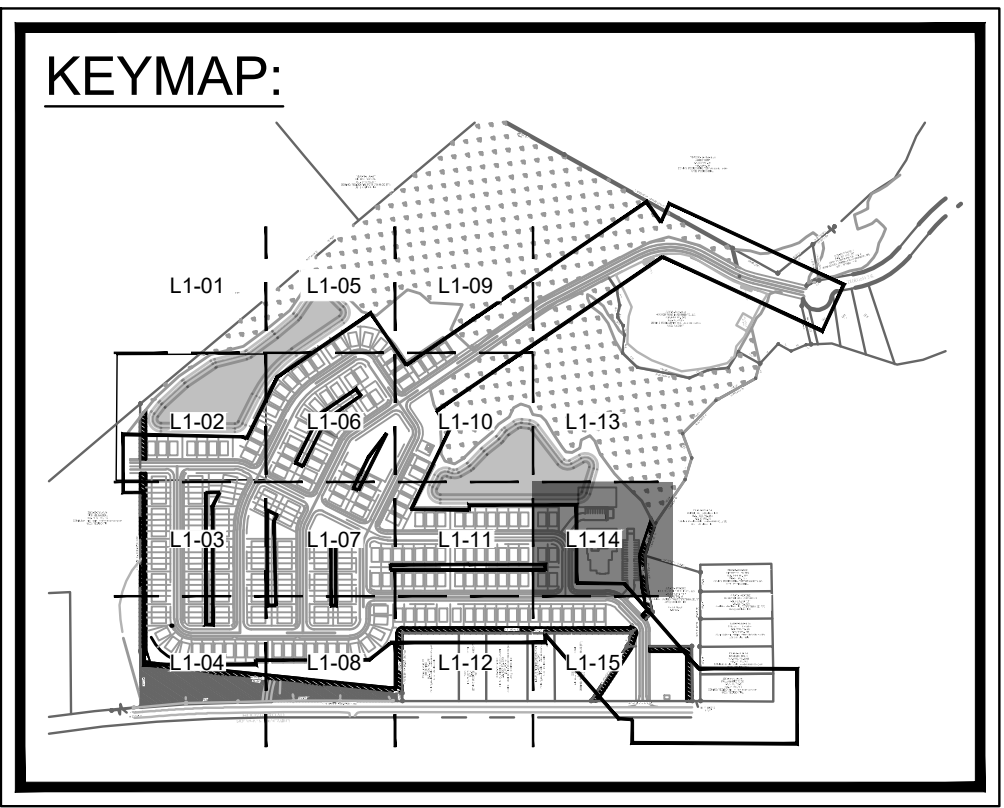
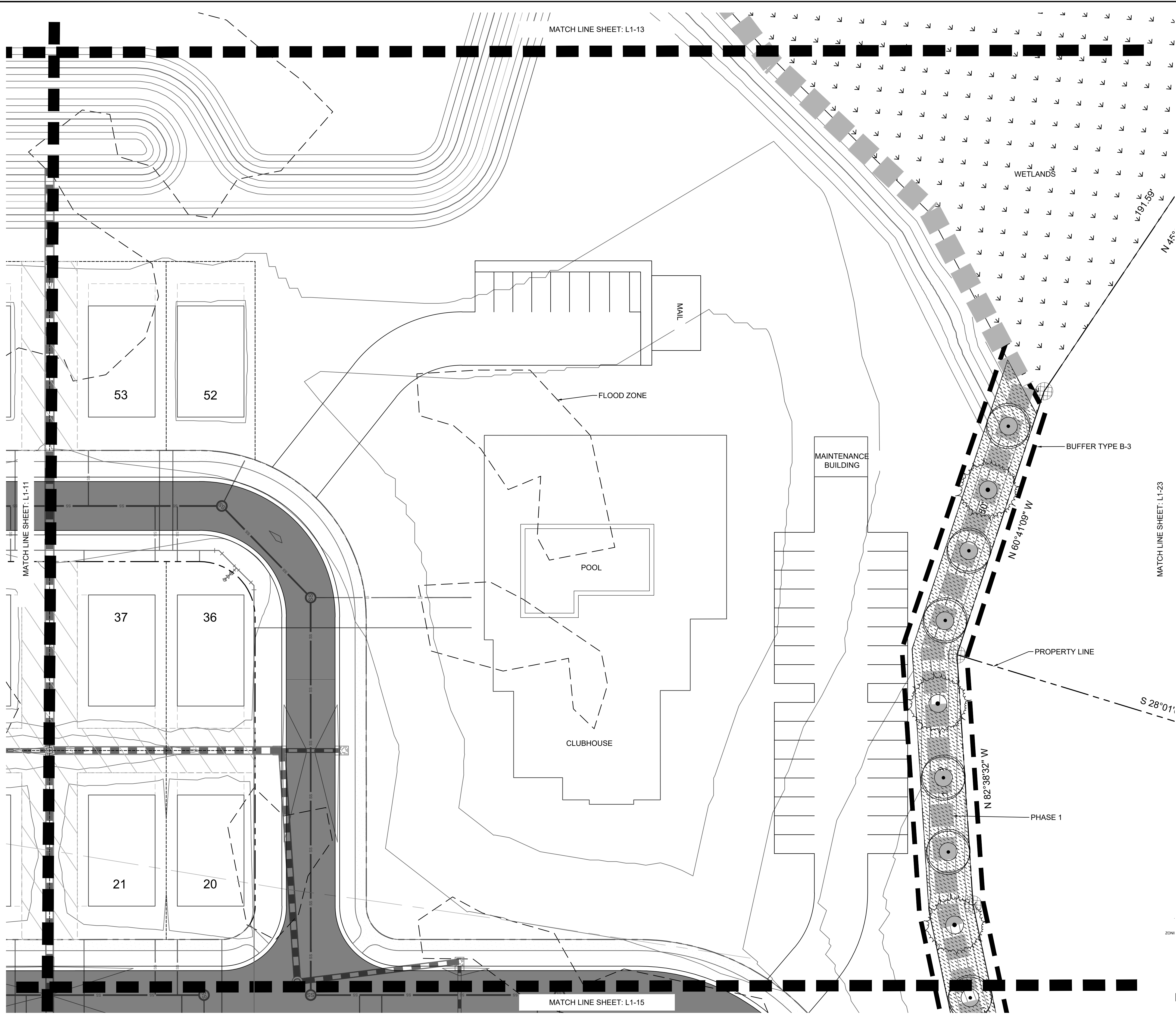
LOGAN DEVELOPERS INC.
60 GREGORY ROAD (SUITE 1)
BELVILLE, NC 28541
PHONE: 910-507-2115

NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

BROOKFIELD BRANCH
1038 HOOVER ROAD,
HAMPSTEAD, NC 28443
3283-83-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY FC
DESIGNED BY FC
REVIEWED BY LB
DATE
PROJECT NO. 014793000
TITLE
TREE REPLACEMENT PLAN
SHEET NUMBER
L1-13

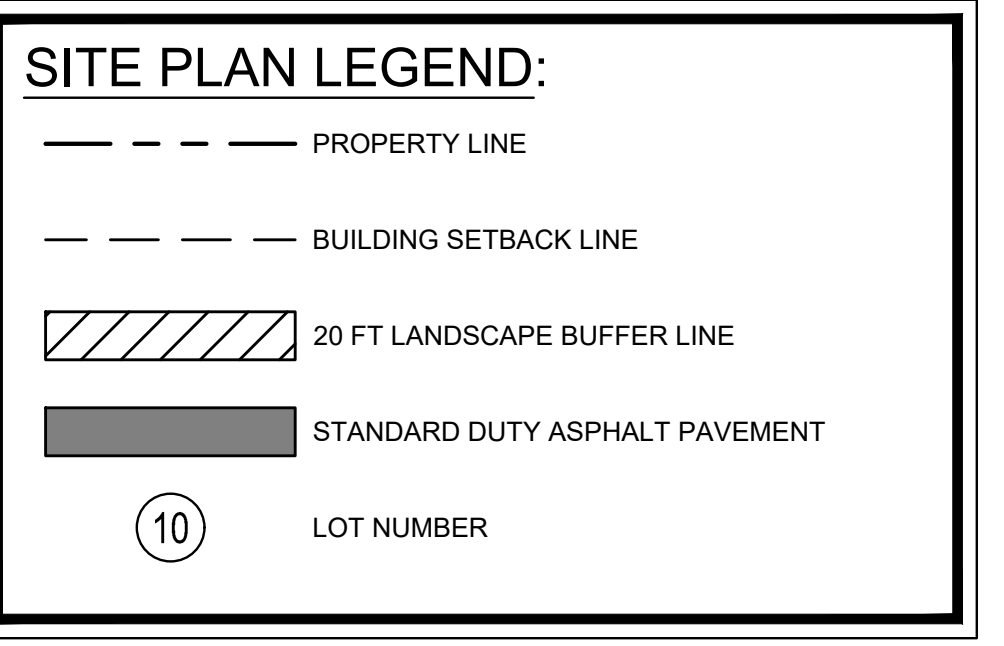
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- SITE NOTES:**
- SEE MASTER PLANT SCHEDULE ON SHEET L2-00 FOR FULL PLANT INFORMATION.
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PLANT SCHEDULE

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GROUND COVERS	CODE	COMMON NAME	BOTANICAL NAME
	EO	CENTPEDE SOD	EREMOCHLOA OPHIUROIDES



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LOGAN DEVELOPERS INC.
 60 GREGORY ROAD (SUITE 1)
 BELVILLE, NC 28451
 PHONE: 910-507-2115

No.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

PROJECT
BROOKFIELD BRANCH
 1038 HOOVER ROAD,
 HAMPSTEAD, NC 28443
 3283-83-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY FC
 DESIGNED BY FC
 REVIEWED BY LB
 DATE
 PROJECT NO. 014793000
 TITLE
TREE REPLACEMENT PLAN
 SHEET NUMBER
L1-14

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ZONE

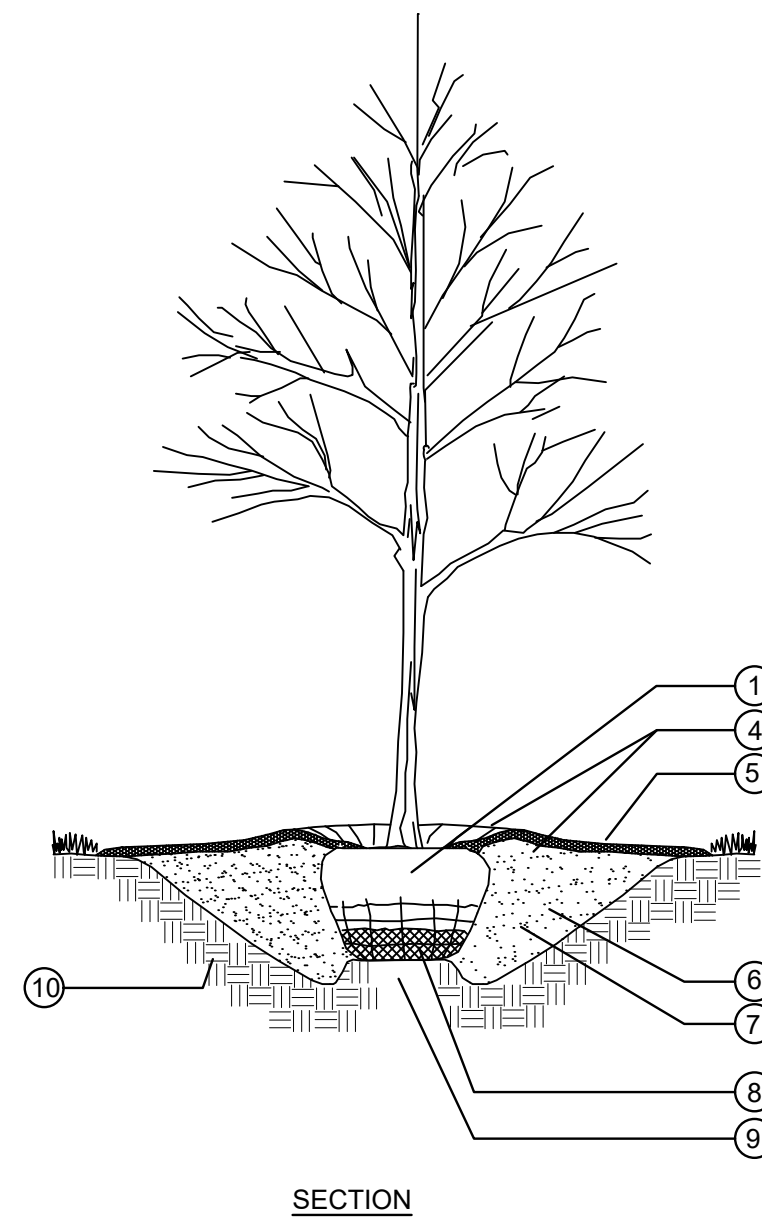
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LANDSCAPE NOTES

- REFER TO CIVIL SHEETS FOR GRADING AND DRAINAGE WITHIN LANDSCAPE AND HARDSCAPE AREAS.
- ALL PLANT MATERIAL MUST MEET THE MINIMUM STANDARDS AS PROVIDED IN THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1) TREES MUST BE FREE OF INJURY, PESTS, DISEASE, NUTRITIONAL DISORDERS OR ROOT DEFECTS AND MUST BE IN GOOD VIGOR TO ASSURE A REASONABLE EXPECTATION OF SURVIVAL. STANDARDS FOR TRANSPLANTING SHALL BE IN KEEPING WITH THOSE ESTABLISHED IN THE INTERNATIONAL SOCIETY OF ARBORICULTURE PUBLICATION TREE AND SHRUB PLANTING MANUAL OR A SIMILAR PUBLICATION.
- ALL PLANTS SHALL BE HEALTHY, VIGOROUS MATERIAL AND FREE OF PESTS AND DISEASE.
- ALL PLANTS MUST BE CONTAINER GROWN OR BALLED AND BURLAPPED AS INDICATED IN THE PLANT LIST.
- ALL PLANT MATERIAL QUANTITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE COVERAGE OF ALL PLANTING BEDS AT SPACING SHOWN.
- ALL PLANTS ARE SUBJECT TO APPROVAL OF THE OWNER BEFORE, DURING AND AFTER INSTALLATION.
- ALL PLANTING BEDS ARE TO BE COMPLETELY COVERED WITH SHREDDED HARDWOOD MULCH AT A MINIMUM OF 3 INCHES. THE MULCH SHALL BE FREE FROM MOLD, STICKS, CONES, WEEDS AND OTHER DEBRIS. COMPACTION OF THE MULCH SHALL OCCUR NATURALLY OVER A TWO WEEK PERIOD DURING WHICH AT LEAST ONE SIGNIFICANT RAINFALL HAS OCCURRED. ADDITIONAL MULCH SHALL BE PLACED IN ORDER TO MAINTAIN THE MINIMUM DEPTH UNTIL DATE OF FINAL ACCEPTANCE.
- THE CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY COMPANIES AND 811 TO HAVE THE LOCATIONS OF THEIR UNDERGROUND UTILITIES MARKED PRIOR TO BEGINNING WORK. CAUTION SHALL BE EXERCISED TO AVOID INTERRUPTION OF SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIR OF ALL EXISTING UTILITIES DAMAGED DURING CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR FULLY MAINTAINING ALL PLANTING UNTIL THE WORK IS ACCEPTED BY THE OWNER. MAINTENANCE INCLUDES BUT IS NOT LIMITED TO: WATERING, SPRAYING, MULCHING, FERTILIZING.
- THE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR BEGINNING AT THE DATE OF FINAL ACCEPTANCE. THE CONTRACTOR SHALL PROMPTLY MAKE ALL REPLACEMENTS BEFORE THE END OF THE GUARANTEE PERIOD (AS PER DIRECTION FROM THE OWNER)
- ANY PLANT MATERIAL THAT DIES, TURNS BROWN, OR DEFOLIATES PRIOR TO FINAL ACCEPTANCE SHALL BE REMOVED AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY AND SIZE AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL SUPPLY ALL PLANTING MIX: 50% ORGANIC SOIL ADDITIVES AND 50% TOPSOIL.
- THE AREA TO BE PLANTED SHALL BE SPRAYED WITH HERBICIDE ONE WEEK PRIOR TO TILLING AND PLANTING. ALL EXISTING TURF AND VEGETATION SHALL BE STRIPPED AND REMOVED PRIOR TO THE INSTALLATION OF ANY TURF OR PLANT MATERIAL.
- CONTRACTOR TO VERIFY THAT PLANTING LOCATIONS DO NOT CONFLICT WITH EXISTING UTILITIES, STRUCTURES, EASEMENTS OR DRAINAGE PATTERNS.
- CONTRACTOR TO REFER TO THE EROSION CONTROL PLANS FOR ALL TEMPORARY AND PERMANENT SEEDING AREAS.
- THE QUANTITIES SHOWN IN THE PLANT SCHEDULE ARE SOLELY FOR THE INFORMATION OF THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY THE QUANTITIES SHOWN IN THE PLANT SCHEDULE WITH THE QUANTITIES SHOWN ON THE PLANTING PLAN. ALL DIFFERENCES IN THE QUANTITIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR CLARIFICATION. CONTRACTOR IS RESPONSIBLE TO INSTALL THE PLANT MATERIAL QUANTITIES THAT ARE SHOWN IN THE LANDSCAPE PLANS.
- THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE SITE (INCLUDING, BUT NOT LIMITED TO WEEDING, WATERING, SPRAYING, MULCHING, FERTILIZING, ETC...) OF PLANTING AREAS AND LAWN AREAS UNTIL THE WORK IS ACCEPTED IN TOTAL BY THE LANDSCAPE ARCHITECT AND THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR THE FULL WARRANTY OF ALL THE PLANT MATERIAL UNTIL FINAL ACCEPTANCE.
- ALL SLOPES THAT ALL GREATER THAN 3:1 SHALL BE STABILIZED WITH EROSION CONTROL FABRIC PRIOR TO PLANTING. EROSION CONTROL FABRIC SHALL BE OF THE TYPE THAT DECOMPOSES AFTER 18 MONTHS TO 2 YEARS.
- THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT, AT ANY TIME UNTIL THE END OF THE GUARANTEE PERIOD, ANY AND/OR ALL PLANT MATERIAL THAT DOES NOT MEET THE SPECIFICATIONS AS SET FORTH HERIN AND IN THE PLANT SCHEDULE.

IRRIGATION PERFORMANCE SPECIFICATION:

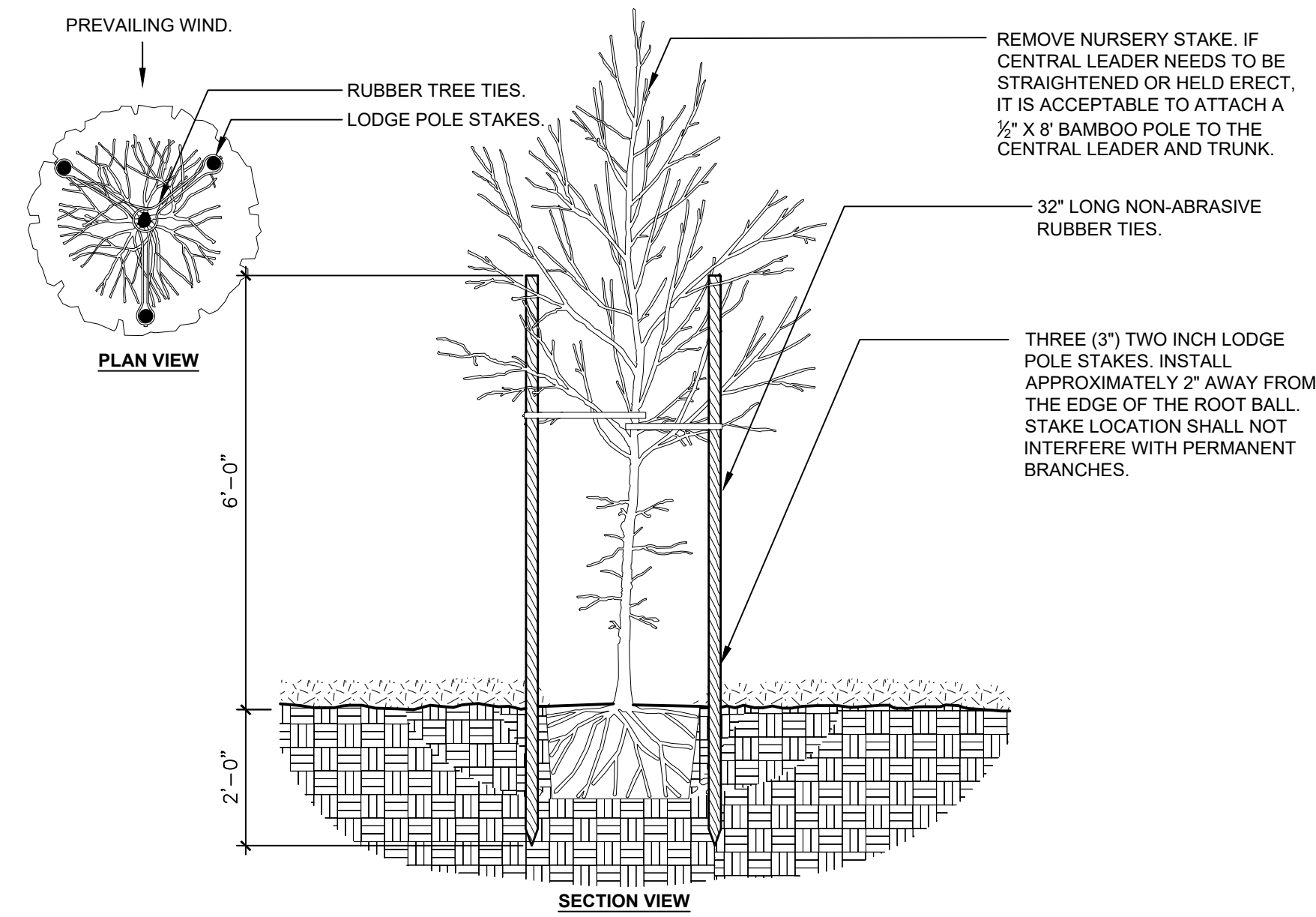
CONTRACTOR SHALL PROVIDE A FULLY AUTOMATED IRRIGATION SYSTEM WHICH SHALL SUPPLY FULL COVERAGE IRRIGATION FOR ALL PLANTING AREAS. TREES, SHRUBS AND GROUNDCOVERS SHALL BE WATERED BY MEANS OF DRIP IRRIGATION LINE ON DESIGNATED ZONES WITH SIMILAR PLANTING MATERIAL SPECIES AND WATERING REQUIREMENTS. ALL POTS SHALL HAVE A FLEX IRRIGATION LINE RUN UP THE BACK SIDE TO PROVIDE A DRIP LINE FOR POTTED PLANTINGS. IRRIGATION SHALL BE PROVIDED TO THE ROOF TERRACE. THE SYSTEM SHALL INCLUDE AN EVAPOTRANSPIRATION (ET) / RAIN-FREEZE SENSOR. FINAL LOCATION OF CONTROLLER AND LOCATION OF SLEEVING AND CONDUIT TO BE DETERMINED PRIOR TO PAVING INSTALLATION AND TO BE APPROVED BY OWNER / OWNER'S REPRESENTATIVE. AS-BUILT PLANS AND OPERATIONS MANUALS TO BE SUPPLIED TO THE OWNER UPON ACCEPTANCE OF THE INSTALLATION. SYSTEM SHALL MEET THE MORE STRINGENT OF EITHER LOCAL JURISDICTIONAL REQUIREMENTS OR ESTABLISHED INDUSTRY STANDARD.



NOTES:
 1. THIS DETAIL IS APPLICABLE FOR SOIL AND ROOTBALL INSTALLATION. SEE TREE GRATE DETAIL L6-02-3/4.

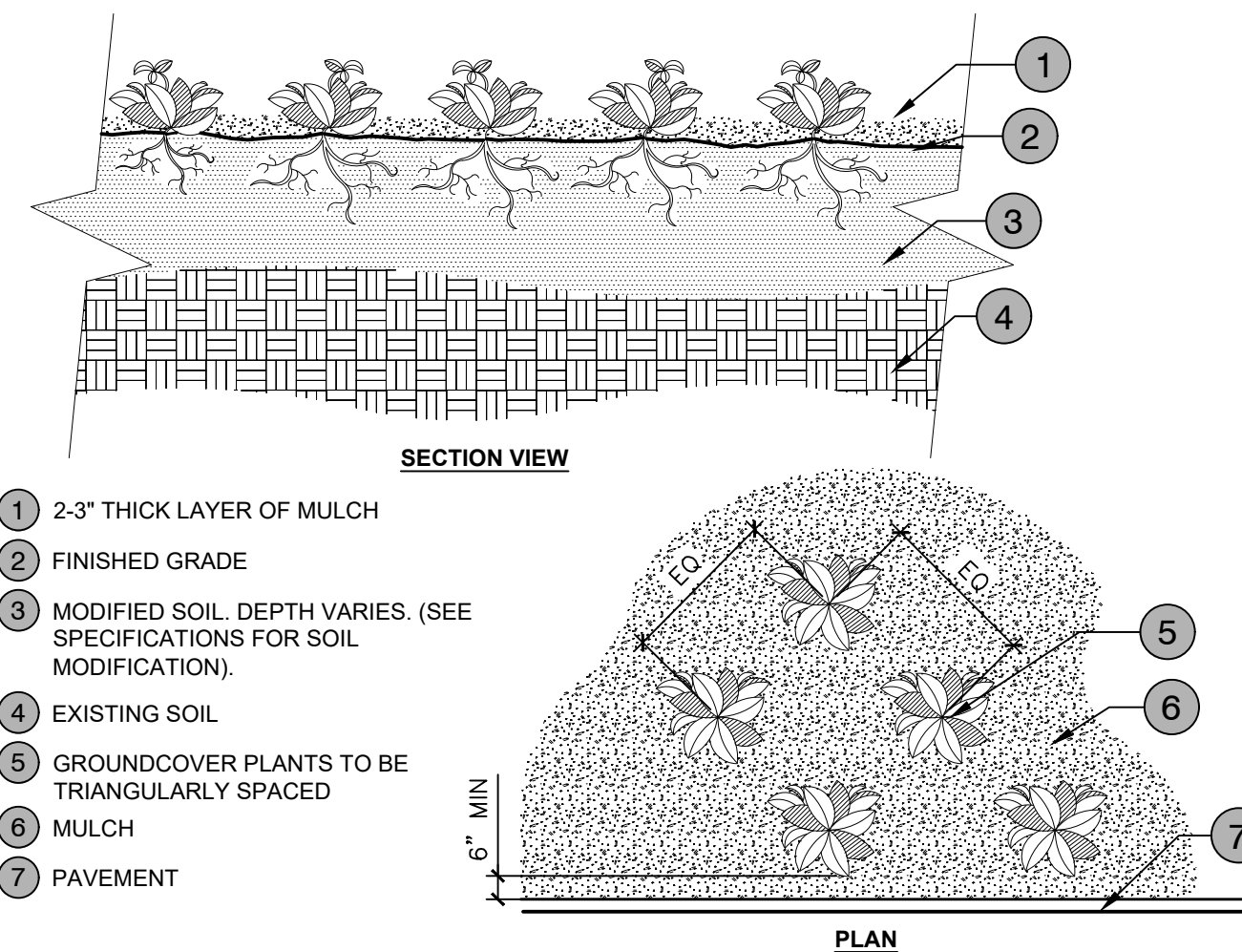
- 1. ROOTBALL:
 - IN ENGINEERED WELL DRAINED SOIL CONDITIONS.
 - SET TOP SURFACE ELEVATION OF ROOTBALL 2" ABOVE FINAL EXISTING GRADE.
- 2. SHRUB PLANTING
- 3. GROUNDCOVER PLANTING
- 4. EARTHEN SAUCER
- 5. 3" MULCH LAYER OR GRAVEL
 - MULCH OR GRAVEL SHALL NOT BE PLACED WITHIN 6" OF TREE TRUNK ROOT FLARE
 - MULCH OR GRAVEL SHALL NOT BE PLACED WITHIN 6" OF SHRUB TRUNK OR STEM FLARE
- 6. TREE:
 EXCAVATE PLANTING PIT TO 3 TIMES THE WIDTH OF ROOTBALL (8" MIN.) FLARING SIDES OF PIT AS SHOWN. SCARIFY SIDES OF PIT SO THAT THE SIDES ARE NOT SMOOTH OR GLAZED.
 SHRUB:
 EXCAVATE PIT TO 2 TIMES THE WIDTH OF ROOTBALL OR CONTAINER SCARIFY SIDES OF PIT SO THAT SIDES ARE NOT SMOOTH/GLAZED
- 7. BACKFILL WITH SOIL MIX PER SPECIFICATIONS
- 8. REMOVE TOP 3/4 OF BURLAP ROOTBALL COVERING. REMOVE ALL SYNTHETIC COVERING FROM ENTIRE ROOTBALL.
- 9. ROOTBALLS GREATER THAN 24" DIAMETER SHALL BE PLACED ON MOUND OF UNDISTURBED SOIL TO PREVENT SETTLING ROOTBALLS SMALLER THAN 24" IN DIA. MAY SIT ON COMPACTED EARTH. NOT LOOSE BACKFILL MATERIAL.
- 10. UNDISTURBED SUBGRADE

1 TYPICAL TREE PLANTING
 NTS



3 TREE STAKING - LODGE POLES (3)
 1/2" = 1'-0"

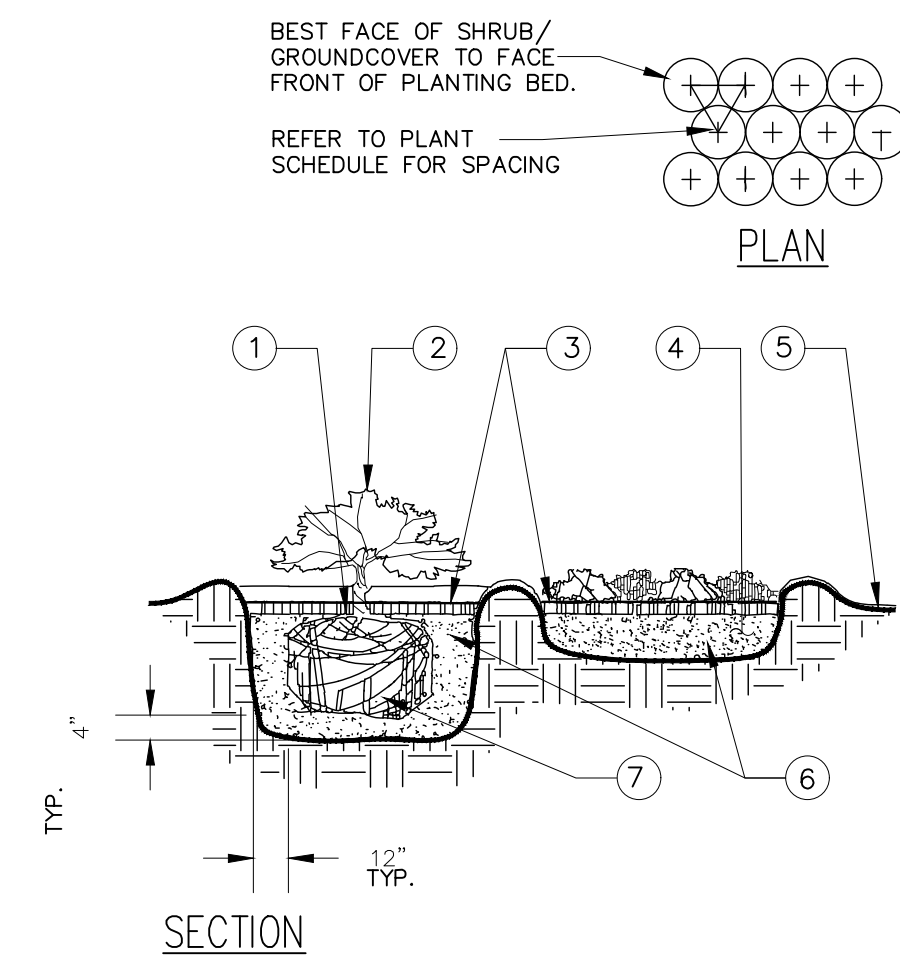
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- 1. 2-3" THICK LAYER OF MULCH
- 2. FINISHED GRADE
- 3. MODIFIED SOIL. DEPTH VARIES. (SEE SPECIFICATIONS FOR SOIL MODIFICATION).
- 4. EXISTING SOIL
- 5. GROUNDCOVER PLANTS TO BE TRIANGULARLY SPACED
- 6. MULCH
- 7. PAVEMENT

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

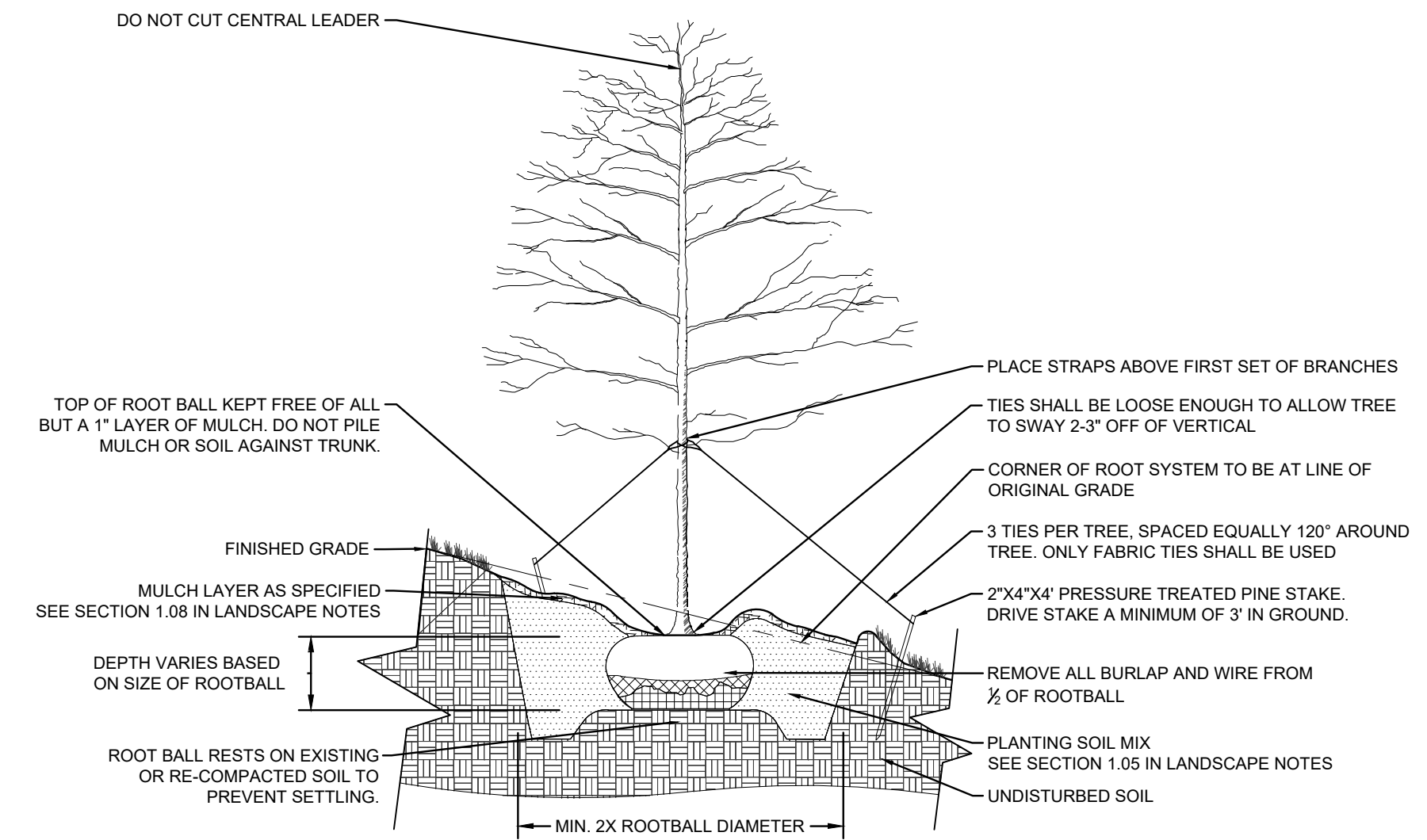
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- 1. TOP OF SHRUB ROOTBALLS TO BE PLANTED 1" - 2" HIGH WITH SOIL MOUNDING UP TO THE TOP OF ROOTBALL.
- 2. WHEN USED IN MASSES- PRUNE ALL SHRUBS TO ACHIEVE A UNIFORM MASS/HEIGHT.
- 3. 3" MINIMUM OF HARDWOOD BARK MULCH COMPACTED OR AS SPECIFIED.
- 4. EXCAVATE ENTIRE BED SPECIFIED FOR GROUNDCOVER BED.
- 5. 5" MINIMUM OF TOPSOIL TO BRING TO FINISHED GRADE (SEE GRADING PLAN).
- 6. PREPARED PLANTING SOIL AS SPECIFIED. NOTE: WHEN GROUND-COVERS AND SHRUBS USED IN MASSES ENTIRE BED TO BE AMENDED WITH PLANTING SOIL MIX AS SPECIFIED.
- 7. SCARIFY ROOTBALL SIDES AND BOTTOM.

- NOTES:**
- B&B MATERIAL**
- 1. REMOVE ALL SYNTHETIC STRAP AND SYNTHETIC BURLAP FROM ROOTBALL
 - 2. REMOVE 1/2 OF BURLAP FROM TOP OF ROOT BALL COVERING
 - 3. REMOVE TOP 1/2 OF WIRE BASKET (IF PRESENT)
 - 4. DO NOT INSTALL MULCH WITHIN 6" OF MAIN TRUNK OF STEM
- CONTAINER MATERIAL**
- 1. REMOVE CONTAINER FROM AROUND PLANT PRIOR TO PLANTING
 - 2. BREAK UP ANY CIRCLING OR BINDING ROOTS
 - 3. SCARIFY SIDE OF ROOTBALL
 - 4. DO NOT INSTALL MULCH WITHIN 6" OF TRUNK FLARE

2 LANDSCAPE BED PLANTING DETAIL
 NTS



5 B&B TREE PLANTING ON SLOPE
 NOT TO SCALE

Drawing name: K:\SAV_Civil\14793000_Hoover Road SFR\CAD\Planting\1-00_TREE PROTECTION AND REPLACEMENT PLAN.dwg L2-00 LANDSCAPE DETAILS Sep 01, 2023 7:38am by: Jamal Alexander

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NO.	ISSUANCE AND REVISION DESCRIPTIONS	DATE	BY

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 HAMPSHIRE, NC 28443
 3283-85-9765-0000, 3283-93-1673-0000, 3283-94-9377-0000

DRAWN BY FC
 DESIGNED BY FC
 REVIEWED BY LB
 DATE
 PROJECT NO. 014793000

LANDSCAPE DETAILS
 SHEET NUMBER
L2-00