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

East Village Hawksbill Cove Application Information
Major Subdivision- Preliminary Plat

Case Number: SUBMAJ 2025-141

Application Type: Preliminary Plat

Applicant: Ryan Homes

Owners: Hampstead Properties LLC

Location: The property is located off Highway 17. This development is located off Country Club Road between Avila Avenue and Velinza Plantation Road.

Property ID #(s): 4203-74-3682-0000, 4203-64-1002-0000, 4203-45-2426-0000, 4203-54-0458-0000, 4203-43-7857-0000, 4203-64-4531-0000, 4203-53-9769-0000, 4203-45-4049-0000, and 4203-53-8553-0000.

Description: 485-Single family lot subdivision on approximately 147 acres of a larger parcel containing 376 acres.

Total Area of Project: Approximately 147 acres

Current Zoning: Planned Development (PD)

Application Materials:
Application Package
Site Plan

APPLICATION

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Planned Development & Residential Mixed Zoning Districts
Preliminary Plat Submission

Applications will be considered for the Technical Review Committee hearing and reviewed by Staff only when deemed complete. The application will be regarded as incomplete until the following items are received by the Planning and Community Development Staff.

1. ___X___ **Signed Application**
2. ___X___ **Payment**
   Application fee and initial stormwater review fee invoices will be generated upon receipt of application for online payment. ***Do not include check with application.*** $500 plus $10 per lot for the first 100 lots/units, $5 per lot thereafter. Stormwater review fee $400, plus $200 per subsequent stormwater review invoiced at time of resubmission
3. ___X___ **Paper Plan Sets**
   One (1) 24 x 36, Two (2) 11 x 17
4. ___X___ **Digital Submission**
   For all documents submitted in paper copy, please provide a digital copy. These may be emailed or uploaded to a share folder. ***Physical media such as CD or USB drives will not be accepted.***
5. ___X___ **List of Property Owners Within 500'**
   A numbered list of names and addresses, as obtained from the county tax listings and tax abstract***, including the applicant, the owner, and owners*** of all properties located within 500-feet of the of the perimeter of the project bounds as obtained from the county tax listings and tax abstract. Directions to obtain list of addresses available on Pender County's website on the Planning and Community Development page.
6. ___X___ **500' Buffer Property Envelopes**
   The applicant shall provide a set of business envelopes addressed to the applicant, the owner, and each of the owners of all properties located within 500-feet of the perimeter of the project bounds and accompanied with first class postage adhered. Do not include return address or company branding on envelopes.
7. ___X___ **Permits**
   Please include any permits issued on the project including but not limited to: environmental, traffic analysis, utility, or site specific conditions.
8. ___X___ **Site Plan Requirements**
   A prepared site plan in accordance with the Unified Development Ordinance standards Section 6.4, Pender County Collector Street Plan, Pender County Transportation Plan, other approved State of Federal Transportation Improvement Plan, or any other adopted plan in Pender County.

I certify that all information presented in this application is accurate to the best of my knowledge.

Signature of Applicant Michael Groseclose Date 10/1/2025

Printed Name Michael Groseclose,
Regional Land Development Manager

APPLICATION FOR SUBDIVISION

SECTION 1: APPLICANT INFORMATION

Applicant's Name:	Ryan Homes Attention: Michael Groseclose	**Owner's Name:**	Hampstead Properties, LLC
Applicant's Address:	1105 Military Cutoff Road, Suite 201	**Owner's Address:**	4721 Emperor Blvd., Suite 300
City, State, & Zip	Wilmington, NC 28411	**City, State, & Zip**	Durham, NC 27703
Phone Number:	843-534-0594	**Phone Number:**	919-233-9901
Email Address:	mgrosecl@nvrinc.com	**Email Address:**	carl.hellman@pharmabio.com

Legal relationship of applicant to landowner: Developer

SECTION 2: PROJECT INFORMATION

Preliminary Plat	☒ **Residential** *RP, PD, RM, MH District*	☐ **Mixed Use** *PD*	
Subdivision Type	☒ Major (11 lots or more)	☐ Minor (10 lots or less)	

Property Identification Number (PIN):	4203-74-3682; 4203-64-1002; 4203-45-2426; 4203-54-0458; 4203-43-7857; 4203-64-4531; 4203-53-9769; 4203-45-4049; 4203-53-8553	**Township:**	Topsail
Zoning Classification:	Planned Development (PD)	**Total property acreage:**	376.2 Acres 164.5 Acres (East Village Only)
Number of Lots:	485 (East Village Only)	**Acreage to be disturbed:**	147 Acres
Water Provider:	Pender County Utilities	**Wastewater Provider:**	Pluris
Additional Information: The PD Master Development Plan Revision for the Hawksbill Cove		**Road Type:**	**Public / Private / Both**
project was approved by Pender County on August 18, 2025.		**NAICS (if mixed use):**	N/A

The Hawksbill Cove - East Village phase proposes 485 residential lots and associated infrastructure, including a pump station.

SECTION 3: SIGNATURES

Applicant's Signature	Michael Groseclose	**Date:**	10/1/2025
Applicant's Printed Name:	Michael Groseclose, Regional Land Development Manager	**Date:**	10/1/2025
Owner's Signature	Carl L. Hellman III	**Date:**	1-Oct-25
Owner's Printed Name:	Carl Hellman, Manager	**Date:**	1-Oct-25

SITE PLAN

SURVEY BENCHMARK

BENCHMARK IS LOCAL TO SITE.
SEE SHEET C0.01 FOR BENCHMARK INFORMATION.
VERTICAL DATUM BASED ON NAVD 88.

PARCEL DATA

PIN:	4203-74-3682	PIN:	4203-64-4531
OWNER:	HAMPSTEAD PROPERTIES, LLC	OWNER:	HAMPSTEAD PROPERTIES, LLC
ADDRESS:	4721 EMPEROR BLVD STE 300 DURHAM, NC 27703	ADDRESS:	4721 EMPEROR BLVD STE 300 DURHAM, NC 27703
ZONING:	PD	ZONING:	PD
AREA:	97.8 AC	AREA:	132.24 AC
PIN:	4203-64-1002	PIN:	4203-53-9769
OWNER:	HAMPSTEAD PROPERTIES, LLC	OWNER:	HAMSTEAD PROPERTIES, LLC
ADDRESS:	4721 EMPEROR BLVD STE 300 DURHAM, NC 27703	ADDRESS:	4721 EMPEROR BLVD STE 300 DURHAM, NC 27703
ZONING:	PD	ZONING:	PD
AREA:	30.52 AC	AREA:	36.13 AC
PIN:	4203-45-2426	PIN:	4203-45-4049
OWNER:	HAMSTEAD PROPERTIES, LLC	OWNER:	HAMSTEAD PROPERTIES, LLC
ADDRESS:	4721 EMPEROR BLVD STE 300 DURHAM, NC 27703	ADDRESS:	4721 EMPEROR BLVD STE 300 DURHAM, NC 27703
ZONING:	PD	ZONING:	PD
AREA:	2.0 AC	AREA:	0.99 AC
PIN:	4203-54-0458	PIN:	4203-53-8553
OWNER:	HAMPSTEAD PROPERTIES, LLC	OWNER:	HAMPSTEAD PROPERTIES, LLC
ADDRESS:	4721 EMPEROR BLVD STE 300 DURHAM, NC 27703	ADDRESS:	4721 EMPEROR BLVD STE 300 DURHAM, NC 27703
ZONING:	PD	ZONING:	PD
AREA:	11.17 AC	AREA:	3.15 AC
PIN:	4203-43-7857		
OWNER:	HAMPSTEAD PROPERTIES, LLC		
ADDRESS:	4721 EMPEROR BLVD STE 300 DURHAM, NC 27703		
ZONING:	PD		
AREA:	54.85		

SITE DATA TABLE

PENDER COUNTY PROJECT NO.	TBD
PARCEL PIN NO.	4203-74-3682, 4203-64-4531, 4203-64-1002, 4203-53-9769, 4203-45-2426, 4203-45-4049,4203-54-0458,4203-53-8553, 4203-43-7857
TOTAL PROJECT AREA (ACRES)	±376.20 AC.
EAST VILLAGE AREA (ACRES)	±164.47 AC
	PHASE EAST - A - ±72.57 AC
	PHASE EAST - B - ±66.58 AC
	PHASE EAST - C - ±25.32 AC
WATERSHED	WHITE OAK RIVER BASIN
EXISTING ZONING & LAND USE	PD - PLANNED DEVELOPMENT
PROPOSED USE	RESIDENTIAL
PROPOSED DENSITY (UNITS/ACRE)	2.95
PROPOSED NUMBER OF UNITS	PHASE EAST - A - 197
	PHASE EAST - B - 170
	PHASE EAST - C - 118
MINIMUM LOT SIZE PROPOSED	2,310 SF
AVERAGE LOT SIZE PROPOSED	6,975 SF
SETBACKS:	
FRONT	25'
SIDE	10'
REAR	15'
CORNER	20'
OPEN SPACE:	
MINIMUM OPEN SPACE REQUIRED	33.15 AC. (0.03 AC./DWELLING UNIT)
MINIMUM ACTIVE OPEN SPACE REQUIRED:	16.575 AC. (50% OF OPEN SPACE)
PROPOSED OPEN SPACE (ACTIVE)	4.41 AC.
PROPOSED OPEN SPACE (PASSIVE)	7.40 AC.
PROPOSED OPEN SPACE (COMMON)	5.50 AC

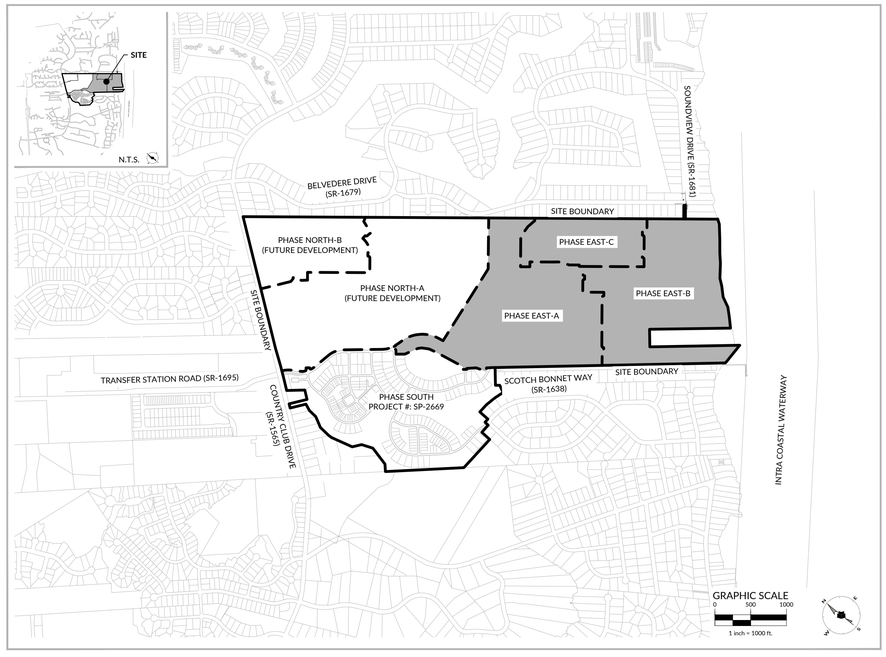
CONSTRUCTION PLANS

HAWKSBILL COVE

EAST VILLAGE

COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

OCTOBER 3, 2025



INDEX OF SHEETS

NUMBER	TITLE
C0.00	COVER
C0.01	GENERAL NOTES & LEGENDS
C0.02	GENERAL NOTES & LEGENDS
C0.03	PHASING PLAN
C1.00	OVERALL EXISTING CONDITIONS & DEMOLITION PLAN
C1.01	EXISTING CONDITIONS & DEMOLITION PLAN
C1.02	EXISTING CONDITIONS & DEMOLITION PLAN
C1.03	EXISTING CONDITIONS & DEMOLITION PLAN
C1.04	EXISTING CONDITIONS & DEMOLITION PLAN
C1.05	EXISTING CONDITIONS & DEMOLITION PLAN
C1.06	EXISTING CONDITIONS & DEMOLITION PLAN
C1.07	EXISTING CONDITIONS & DEMOLITION PLAN
C2.00	OVERALL SITE PLAN
C2.01	SITE PLAN
C2.02	SITE PLAN
C2.03	SITE PLAN
C2.04	SITE PLAN
C2.05	SITE PLAN
C2.06	SITE PLAN
C2.07	SITE PLAN
C3.00	OVERALL UTILITY PLAN
C3.01	UTILITY PLAN
C3.02	UTILITY PLAN
C3.03	UTILITY PLAN
C3.04	UTILITY PLAN
C3.05	UTILITY PLAN
C3.06	UTILITY PLAN
C3.07	UTILITY PLAN
C4.00	OVERALL STORM DRAINAGE & GRADING PLAN
C4.01	STORM DRAINAGE PLAN
C4.02	STORM DRAINAGE PLAN
C4.03	STORM DRAINAGE PLAN
C4.04	STORM DRAINAGE PLAN
C4.05	STORM DRAINAGE PLAN
C4.06	STORM DRAINAGE PLAN
C4.07	STORM DRAINAGE PLAN
C5.01	GRADING PLAN
C5.02	GRADING PLAN
C5.03	GRADING PLAN
C5.04	GRADING PLAN
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C5.06	GRADING PLAN
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C6.00	OVERALL EROSION CONTROL PLAN - STAGE 1
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C6.07	EROSION CONTROL PLAN STAGE 1
C6.10	OVERALL EROSION CONTROL PLAN - STAGE 2
C6.11	EROSION CONTROL PLAN STAGE 2
C6.12	EROSION CONTROL PLAN STAGE 2
C6.13	EROSION CONTROL PLAN STAGE 2
C6.14	EROSION CONTROL PLAN STAGE 2
C6.15	EROSION CONTROL PLAN STAGE 2
C6.16	EROSION CONTROL PLAN STAGE 2
C6.17	EROSION CONTROL PLAN STAGE 2
C6.18	EROSION CONTROL NOTES
C6.19	TEMPORARY RESIDENTIAL ACCESS PLAN
C6.20	EROSION CONTROL DETAILS
C6.21	NCG01
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C7.02	LEATHERBACK LANE (41+50 - 54+50) PLAN & PROFILE

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C7.05	BAYVIEW DRIVE (9+50 - 25+00) PLAN & PROFILE
C7.06	BAYVIEW DRIVE (24+50 - 34+00) PLAN & PROFILE
C7.07	BAYVIEW DRIVE (32+50 -38+00) PLAN & PROFILE
C7.08	BAYVIEW DRIVE (37+00 - 45+00) PLAN & PROFILE
C7.09	DEEPWATER DRIVE (9+50 - 17+50) PLAN & PROFILE
C7.10	DEEPWATER DRIVE (17+00 - 26+50) PLAN & PROFILE
C7.11	FINE LINES LANDING PLAN & PROFILE
C7.12	CATAMARAN LANE & CUTTY SARK DR. PLAN & PROFILE
C7.13	LOWER MAST LANE (9+50 - 25+00) PLAN & PROFILE
C7.14	LOWER MAST LANE (25+00 36+00) PLAN & PROFILE
C7.15	FIDDLER DRIVE (9+50 - 20+00) PLAN & PROFILE
C7.16	FIDDLER DRIVE (20+00 - 27+50) PLAN & PROFILE
C7.17	RIDDLEY DRIVE PLAN & PROFILE
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C7.20	A003 & A004 PLAN & PROFILE
C7.21	UPPER MAST LANE & MERRIMAN WAY(9+50 - 19+50) PLAN & PROFILE
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C9.08	STORMWATER DETAILS
C9.09	STORMWATER DETAILS
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L1.03	LANDSCAPE PLAN
L1.04	LANDSCAPE PLAN
L1.05	LANDSCAPE PLAN
L1.06	LANDSCAPE PLAN
L1.07	LANDSCAPE PLAN
L1.08	LANDSCAPE DETAILS
L1.09	SCM 3 & 4 PLANTING PLAN
L1.10	SCM 5 & 6 PLANTING PLAN

CONTACT LIST:

Project Manager
Ashley Mendenhall, P.E.
WithersRavenel
167 E. Chatham St, Suite 210
Cary, NC 27511
919-469-3340
amendenhall@withersravenel.com

Stormwater Engineer
Dori Sabeh, P.E., GISP
WithersRavenel
167 E. Chatham St, Suite 210
Cary, NC 27511
919-469-3340
dsabeh@withersravenel.com

Landscape Architect
Mitchell Mansell, P.L.A.
WithersRavenel
137 S. Wilmington Street, Suite 200
Raleigh, NC 27601
919-469-3340
mmansell@withersravenel.com

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

NORTH CAROLINA PRELIMINARY NOT APPROVED FOR CONSTRUCTION ASHLEY MENDENHALL

PREPARED BY:

WithersRavenel
167 E. Chatham St. | Suite 210 | Cary, NC 27511
License #: F-1479 | t: 919.238.0330 | www.withersravenel.com

DEVELOPER:

RYAN HOMES
1105 MILITARY CUTOFF RD, STE 201
WILMINGTON, NC 28411
PHONE #: 843-534-0594
ATTENTION: MICHAEL GROSECLOSE

Ryan Homes

CONSTRUCTION PLANS
HAWKSBILL COVE
EAST VILLAGE
WR PROJECT NO. 25-0329-A
PENDER COUNTY:
MUNI PRO NO: Muni Proj. No.

INITIAL PLAN DATE: 10/3/2025

our people • your success
EST 1993

J:\25\0329-a-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C0.00 COVER.dwg, Wednesday, October 1, 2025 3:23:39 PM, AMENDENHALL

SURVEY NOTES:

1. THE FOLLOWING INFORMATION WAS USED FOR THE EXISTING SURVEY:
   a. COORDINATE SYSTEM: NORTH CAROLINA STATE PLANE FOOT
   b. PROJECT HORIZONTAL DATUM: NAD 83/2011
   c. VERTICAL DATUM: NAVD 88
   d. COORDINATE UNITS: US SURVEY FEET
   e. VERTICAL UNITS: US SURVEY FEET
2. PROPERTY BOUNDARY SHOWN PER CONSTRUCTION DRAWINGS FOR THE HAWKSBILL COVE - SOUTH VILLAGE BY URBAN, LTD, DATED 05/08/24.
3. TOPOGRAPHIC SURVEY SHOWN IS A COMBINATION OF TOPOGRAPHIC SURVEY PROVIDED BY SOUTHWIND ENGINEERING AND SOUNDVIEW DRIVE SURVEY PROVIDED BY WITHERSRAVENEL DATED 8/6/25.
4. WETLANDS, STREAMS, AND RIPARIAN BUFFERS SHOWN AS PROVIDED BY SOUTH VILLAGE BY URBAN, LTD, DATED 05/08/24, AND FIELD VERIFIED PER ROBERT SESSOMS & ASSOCIATES, PLLC.
5. PROPERTY DOES FALL WITHIN FEMA FLOODPLAIN PER FEMA FIRM 3720420300K, EFFECTIVE DATE 1/17/2025. LIMIT OF MODERATE WAVE ACTION IS PRESENT WITHIN THE PROPERTY.
6. NO DETERMINATION HAS BEEN MADE BY THE SURVEYOR AS TO THE FOLLOWING: UNDERGROUND STORAGE FACILITIES, UNDERGROUND UTILITIES, HAZARDOUS WASTE DEPOSITS OR MATERIALS. SURVEYOR HAS IDENTIFIED EXISTING GRAVES, BURIAL GROUNDS, AND A CEMETERY ON SITE OUTSIDE OF PHASE LIMITS.
7. SURVEY CONTROL POINTS PROVIDED IN NC STATE PLANE COORDINATES. THE PROPOSED COORDINATES ARE GROUND COORDINATES. THE CONTRACTOR'S SURVEYOR IS RESPONSIBLE FOR ANY CONVERSIONS NEEDED FOR THE STAKEOUT OF THE PROPOSED GROUND COORDINATES SHOWN.
8. THE CONTRACTOR SHALL ESTABLISH ADDITIONAL CONTROLS THAT MAY BE NEEDED THROUGHOUT THE PROJECT.

GENERAL NOTES:

1. WORK ON THIS PROJECT MUST CONFORM TO THE LATEST NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES, THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, PENDER STANDARDS AND SPECIFICATIONS, GEOTECHNICAL REPORTS, AND ANY OTHER APPLICABLE DESIGN STANDARDS AT THE TIME OF PLAN APPROVAL. IN THE EVENT OF CONFLICT BETWEEN ANY OF THESE STANDARDS, SPECIFICATIONS OR PLANS, THE MOST STRINGENT WILL GOVERN, UNLESS OTHERWISE NOTED IN THESE PLANS.
2. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR HAVING VISITED THE SITE AND HAVING FAMILIARIZED THEMSELVES WITH THE EXISTING CONDITIONS PRIOR TO SUBMITTING A BID AND/OR COMMENCING WORK.
3. ANY DISCREPANCIES, INCONSISTENCIES OR AMBIGUITIES FOUND BETWEEN THE DRAWINGS, SPECIFICATIONS, AND SITE CONDITIONS MUST BE IMMEDIATELY REPORTED TO THE ENGINEER IN WRITING AND PRIOR TO BIDDING IF APPLICABLE>. WORK DONE BY THE CONTRACTOR AFTER THE DISCOVERY OF SUCH DISCREPANCIES, INCONSISTENCIES, OR AMBIGUITIES WITHOUT WRITTEN CLARIFICATION FROM THE ENGINEER AND APPROVAL BY OWNER WILL BE DONE AT THE CONTRACTOR'S RISK AND EXPENSE.
4. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR JOBSITE SAFETY DURING CONSTRUCTION. WORK MUST COMPLY WITH MUNICIPAL, COUNTY AND STATE REGULATIONS, AND OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS. CONTRACTOR MUST COMPLY WITH THE LATEST REVISIONS AND INTERPRETATIONS OF THE DEPARTMENT OF LABOR SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION PROMULGATED UNDER THE OSHA ACT.
5. THE CONTRACTOR MUST CALL “811” FOR PROPER IDENTIFICATION OF EXISTING UTILITIES AT LEAST 72 HOURS PRIOR TO ANY DEMOLITION, GRADING, OR CONSTRUCTION ACTIVITY.
6. THE CONTRACTOR IS RESPONSIBLE FOR HORIZONTALLY AND VERTICALLY LOCATING, AND SUBSEQUENTLY PROTECTING, PUBLIC AND PRIVATE UTILITIES (SHOWN OR NOT SHOWN) THAT LIE IN OR ADJACENT TO THE PROJECT SITE. THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION OF EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY DAMAGES WHICH MIGHT BE OCCASIONED BY THE UNDERGROUND UTILITIES. NOT ALL UTILITIES AND FACILITIES ARE NECESSARILY SHOWN. HAND DIGGING TO PROTECT UTILITIES FROM DAMAGE MAY BE REQUIRED.
7. ANY UTILITIES AND EXISTING SITE ELEMENTS (I.E. SIGNS, ROADWAYS, PATHS, STRUCTURES, NATURAL VEGETATION, OTHER EXISTING PROPERTY ITEMS, ETC.) DAMAGED DURING THE PROJECT BY THE CONTRACTOR'S WORKERS OR EQUIPMENT MUST BE PROMPTLY REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER, UTILITY OWNER, REGULATORY AGENCY, AND ENGINEER.
8. THE CONTRACTOR MUST MAKE EVERY EFFORT TO PRESERVE PROPERTY IRONS, MONUMENTS, OTHER PERMANENT POINTS AND LINES OF REFERENCE AND CONSTRUCTION STAKES. A NORTH CAROLINA LICENSED LAND SURVEYOR MUST REPLACE, AT THE CONTRACTOR'S EXPENSE, PROPERTY IRONS, MONUMENTS, OTHER PERMANENT POINTS AND LINES OF REFERENCE AND CONSTRUCTION STAKES DESTROYED BY THE CONTRACTOR.
9. THE CONTRACTOR MUST PLAN AND CONSTRUCT WORK IN ORDER TO CAUSE MINIMUM DISTURBANCE TO THE OWNER, ADJACENT PROPERTIES AND THE PUBLIC. CONTRACTOR MUST COORDINATE WITH AND OBTAIN APPROVAL FROM STATE AND LOCAL REGULATORY AGENCIES ON TRAFFIC CONTROL PLANS.
10. ADJACENT STREETS AND SIDEWALKS MUST BE MAINTAINED IN AN UNOBSTRUCTED, CLEAN CONDITION, MUD AND DUST-FREE.
11. THE CONTRACTOR MUST REPLACE WITH NEW, DRIVEWAY PIPES AND OTHER DRAINAGE PIPES/CULVERTS THAT ARE DISTURBED WHILE INSTALLING THE UTILITIES. NEW PIPE/CULVERTS MUST MEET THE REQUIREMENTS OF NCDOT.
12. ROADWAY DITCHES DISTURBED DURING CONSTRUCTION MUST BE RESTORED TO PRE-CONSTRUCTION CONDITION OR BETTER AND CONFORM TO NCDOT REQUIREMENTS OR AUTHORITIES HAVING JURISDICTION. DITCHES MUST BE LINED WITH EROSION CONTROL MATTING UNLESS OTHERWISE NOTED.
13. EXCAVATED MATERIAL MUST BE PLACED WITHIN THE LIMITS OF DISTURBANCE DURING UTILITY INSTALLATION. THE CONTRACTOR MUST PROVIDE THE NECESSARY SEDIMENT AND EROSION CONTROL MEASURES TO CONTROL RUN-OFF. EXCESS EXCAVATED MATERIAL MUST BE REMOVED FROM THE CONSTRUCTION SITE AND DISPOSED OF LEGALLY.
14. THE CONTRACTOR MUST HAVE A COMPLETE SET OF CONTRACT DOCUMENTS AS WELL AS THE REQUIRED PERMIT APPROVALS AND EXECUTED EASEMENTS ON THE JOB SITE DURING CONSTRUCTION ACTIVITIES.
15. CONSTRUCTION STAKEOUT FOR THIS PROJECT MAY BE PERFORMED BY THE CONTRACTOR, USING A DIGITAL (CADD) FILE PROVIDED BY THE ENGINEER. THE CONTRACTOR MUST NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES FOUND BETWEEN THE DIGITAL FILE AND THE CRITICAL STAKING DIMENSIONS SHOWN ON THIS PLAN (I.E. PAVEMENT WIDTHS, CURB RADII, BUILDING SETBACKS, BUILDING FOOTPRINTS, ETC.). ANY MODIFICATIONS MADE BY OTHERS TO THE DIGITAL FILE PROVIDED BY THE ENGINEER WILL RENDER IT VOID.
16. WETLANDS SHOWN WILL HAVE DEED RESTRICTION AND MUST NOT BE CLEARED, DRAINED, OR OTHERWISE DISTURBED UNLESS SPECIFICALLY PERMITTED BY THE UNITED STATES ARMY CORPS OF ENGINEERS (USACE) OR NC DIVISION OF COASTAL MANAGEMENT (DCM) OR NC DIVISION OF WATER RESOURCES (DWR), AS APPLICABLE.
17. ANY WETLANDS THAT ARE TEMPORARILY IMPACTED DUE TO CONSTRUCTION ACTIVITIES MUST BE RETURNED TO PRE-CONSTRUCTION GRADE AND SEEDED WITH A WETLAND SEED MIX IN ACCORDANCE WITH THE SEDIMENT & EROSION CONTROL PLAN.
18. THE CONTRACTOR MUST FURNISH AND INSTALL PAVEMENT MARKINGS FOR FIRE LANES, PARKING STALLS, ACCESSIBLE PARKING SYMBOLS, AND MISCELLANEOUS STRIPING WITHIN PARKING LOT AND AROUND BUILDINGS AS SHOWN ON THE PLANS. THE PAVEMENT MARKING MATERIALS MUST ADHERE TO NCDOT STANDARDS, UNLESS NOTED OTHERWISE.
19. ACCESSIBLE ROUTES AND PARKING AREAS MUST BE PROVIDED IN ACCORDANCE WITH THE CURRENT NORTH CAROLINA BUILDING CODE AND ADA STANDARDS FOR ACCESSIBLE DESIGN.
20. WHERE THE PROPOSED CURB AND GUTTER TIES TO THE EXISTING CURB OR CURB AND GUTTER, A TRANSITION OF 10' MUST BE MADE TO CONFORM TO THE EXISTING HEIGHTS AND SHAPES, UNLESS OTHERWISE SHOWN ON THE PLANS.
21. EXPANSION CURB JOINTS MUST EXTEND THROUGH THE CURB. THE MINIMUM LENGTH OFFSET JOINTS AT RADIUS POINTS IS 1.5', UNLESS OTHERWISE SHOWN ON PLANS. JOINTS MUST BE SEALED WITH JOINT SEALANT.
22. THE CONTRACTOR MUST COMPLY WITH MUTCD, PENDER COUNTY, AND NCDOT REQUIREMENTS, AS APPLICABLE RELATED TO TRAFFIC CONTROL DEVICES AND STREET SIGNS.
23. THE CONTRACTOR MUST INSTALL A SEALED EXPANSION JOINT WHERE CONCRETE PAVEMENT ABUTS BACK OF CURB OR BUILDING FOUNDATION.
24. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AS-BUILT DRAWINGS OF THE WATER, SANITARY SEWER, STORM SEWER, AND STORMWATER CONTROL MEASURE(S), AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION IN BOTH PDF AND CAD FORMATS PREPARED BY A PROFESSIONAL LAND SURVEYOR BEING LICENSED IN THE STATE OF THE PROJECT.

DEMOLITION NOTES:

1. THE CONTRACTOR MUST COORDINATE WITH THE OWNER AND UTILITY OWNER TO PROPERLY MAINTAIN, REMOVE OR RELOCATE EXISTING SERVICE CONNECTIONS WHEN NECESSARY.
2. THE CONTRACTOR MUST NOTIFY SURROUNDING NEIGHBORS ABOUT ANY POTENTIAL INTERRUPTION TO SERVICE OF ANY KIND.
3. EXISTING UTILITIES NOT INTENDED FOR DEMOLITION MUST BE MAINTAINED, PROTECTED AND UNDISTURBED DURING CONSTRUCTION ACTIVITIES.
4. THE CONTRACTOR MUST PROTECT ADJACENT PROPERTY, STRUCTURES AND UTILITIES. DAMAGE TO PROPERTIES OF OTHERS DUE TO THE CONTRACTOR'S ACTIVITIES WILL BE AT THE CONTRACTOR'S EXPENSE AND MUST BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER.
5. MATERIAL CLEARED OR DEMOLISHED BY THE CONTRACTOR IN ORDER TO CONSTRUCT THE WORK WILL BECOME THE PROPERTY OF THE CONTRACTOR, UNLESS OTHERWISE NOTED AND MUST BE PROPERLY DISPOSED OF OFF-SITE.
6. SAW CUTS OF EXISTING PAVEMENTS, CURBS, GUTTERS AND SIDEWALKS MUST PRODUCE A NEAT VERTICAL EDGE.
7. DEMOLITION WORK MUST BE DONE IN STRICT ACCORDANCE WITH AUTHORITIES HAVING JURISDICTION.
8. APPLICABLE PERMITS REQUIRED FOR THE DEMOLITION WORK WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN PRIOR TO THE START OF DEMOLITION ACTIVITIES.

STORM DRAINAGE NOTES:

1. CONSTRUCTION MUST BE IN ACCORDANCE WITH CURRENT PENDER COUNTY STANDARDS AND NCDOT STANDARD SPECIFICATIONS AND DETAILS.
2. PUBLIC STORM DRAINAGE FRAMES, GRATES, AND HOODS MUST BE STAMPED WITH “DRAINS TO RIVER” IN ACCORDANCE WITH PENDER COUNTY AND NCDOT STANDARDS.
3. RIM ELEVATION GIVEN FOR CATCH BASIN (CB) IS TOP OF CURB, YARD INLET (YI) IS OPENING INVERT FOR SLAB TOP, DROP INLET (DI) IS TOP OF GRATE AND JUNCTION BOX (JB) IS TOP OF RIM.
4. CONTRACTOR MUST VERIFY AND COORDINATE DIMENSIONS SHOWN, INCLUDING, BUT NOT LIMITED TO THE HORIZONTAL AND VERTICAL LOCATION OF STRUCTURES AND UTILITIES CROSSING THE STORM SEWER PIPE.
5. THE CONTRACTOR MUST PROVIDE MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE STORM SEWER DRAINAGE SYSTEM.
6. STORM SEWER PIPE MUST BE MINIMUM CLASS III REINFORCED CONCRETE PIPE (RCP), UNLESS OTHERWISE NOTED.
7. IF THERE ARE DISCREPANCIES BETWEEN THE PLAN AND FIELD CONDITIONS RELATED TO WHERE THE PROPOSED STORM SEWER PIPING TIES TO EXISTING STRUCTURES, PIPES, SWALES, ETC., THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER AND OWNER. AFTER NOTIFICATION TO THE ENGINEER AND OWNER, THE CONTRACTOR WILL PERFORM THE AGREED UPON FIELD ADJUSTMENTS TO MATCH THE LOCATIONS OF THESE EXISTING FEATURES.
8. STORM SEWER PIPE MUST HAVE A MINIMUM COVER OF 2 FEET FROM FINISHED SUBGRADE TO THE PIPE CROWN IN TRAFFIC BEARING AREAS, UNLESS APPROVED BY AUTHORITIES HAVING JURISDICTION.
9. STORM SEWER PIPE MUST HAVE A MINIMUM COVER OF 1 FOOT TO THE PIPE CROWN IN NON-TRAFFIC BEARING AREAS.
10. THE STORM PIPE LENGTHS AS SHOWN ON THE DRAWINGS REPRESENTS THE DISTANCE FROM CENTER TO CENTER OF THE RESPECTIVE STRUCTURES.
11. STORM SEWER UTILITY STRUCTURE TABLES ARE AVAILABLE UPON REQUEST.

GRADING NOTES:

1. AREAS MUST BE GRADED FOR POSITIVE DRAINAGE, AND AS SHOWN ON THESE PLANS. THE CONTRACTOR MUST MAINTAIN ADEQUATE SITE DRAINAGE THROUGHOUT CONSTRUCTION. IN ADDITION TO THE MEASURES SHOWN IN THESE PLANS, THE CONTRACTOR MUST USE INTERIM DIVERSION DITCHES, BERMS, OR OTHER METHODS AS REQUIRED TO DIRECT DRAINAGE AS SHOWN ON THESE PLANS AND TO PREVENT SILT AND CONSTRUCTION DEBRIS FROM FLOWING ONTO ADJACENT PROPERTIES, ROADWAYS, AND ENVIRONMENTALLY SENSITIVE AREAS SUCH AS BUFFERS AND WETLANDS. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER AND OWNER IN WRITING OF ANY DISCREPANCIES OR CONCERNS.
2. SOILS USED FOR BACKFILL MUST BE FREE OF UNSATISFACTORY MATERIALS INCLUDING ROCK OR GRAVEL LARGER THAN 3 INCHES IN ANY DIMENSION, DEBRIS, WASTE, FROZEN MATERIALS, VEGETATION AND OTHER DELETERIOUS MATTER. ROCK OR GRAVEL LARGER THAN 2 INCHES IN ANY DIMENSION MUST NOT BE PLACED IN THE IN THE FINAL LIFT (MINIMUM OF 6 INCHES). UNSATISFACTORY MATERIALS ALSO INCLUDE MAN-MADE FILLS AND REFUSE DEBRIS DERIVED FROM ANY SOURCE. REFER TO THE FINAL GEOTECHNICAL REPORT FOR ANY SPECIAL FILL MATERIAL REQUIRED FOR THIS PROJECT, IF ANY. THE CONTRACTOR MUST CONSULT WITH THE SITE GEOTECHNICAL ENGINEER PRIOR TO BACKFILL PLACEMENT TO VERIFY BACKFILL MEETS PROJECT REQUIREMENTS.
3. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING APPLICABLE SOIL TESTING IS PERFORMED AND THE RESULTS FORWARDED TO THE ENGINEER AND OWNER.
4. MATERIALS USED TO CONSTRUCT EMBANKMENTS FOR ANY PURPOSE, BACKFILL AROUND DRAINAGE STRUCTURES, OR IN UTILITY TRENCHES FOR ANY OTHER DEPRESSION REQUIRING FILL OR BACKFILL MUST MEET THE REQUIREMENTS OF THE PROJECT GEOTECHNICAL ENGINEER RECOMMENDATIONS.
5. THE CONTRACTOR WILL, PRIOR TO ANY OPERATIONS INVOLVING FILLING OR BACKFILLING, SUBMIT TO THE OWNER AND PROJECT GEOTECHNICAL ENGINEER THE RESULTS OF THE PROCTOR TEST TOGETHER WITH A CERTIFICATION THAT THE SOIL TESTED IS REPRESENTATIVE OF THE MATERIALS TO BE USED ON THE PROJECT. TESTS MUST BE CONDUCTED BY A NORTH CAROLINA CERTIFIED MATERIALS TESTING LABORATORY AND CERTIFICATIONS MADE BY A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NORTH CAROLINA REPRESENTING THE LABORATORY.
6. PAVEMENT SUBGRADES MUST BE SCARIFIED TO A DEPTH OF 8 INCHES AND COMPACTED TO A MINIMUM DENSITY OF 100 PERCENT OF ASTM D1557 DENSITY AT OPTIMUM MOISTURE CONTENT UNLESS OTHERWISE SHOWN ON THE CONSTRUCTION PLANS OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
7. CONTOURS AND GUTTER GRADIENTS ARE APPROXIMATE. SPOT ELEVATIONS ARE TO BE USED IN CASE OF DISCREPANCY.
8. THE CONTRACTOR WILL OBTAIN APPLICABLE PERMITS AS REQUIRED FOR BLASTING ROCK IF BLASTING ROCK IS REQUIRED. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR COMPLYING WITH THE REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION RELATED TO BLASTING AND SAFETY.
9. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DEWATERING NECESSARY TO CONSTRUCT THE PROJECT AS SHOWN ON THE PLANS. DEWATERING WILL BE INCIDENTAL TO GRADING OPERATIONS. THERE WILL BE NO SEPARATE MEASUREMENT OR PAYMENT RELATED TO DEWATERING EFFORTS.
10. MASS GRADING OPERATIONS MUST BE PHASED TO LIMIT EXPOSED AREAS. PRIOR TO PROCEEDING TO ANOTHER PHASE, THE PRESENT PHASE MUST BE STABILIZED WITH ADEQUATE GROUND COVER SUFFICIENT TO RESTRAIN EROSION AND HAVE THE APPROPRIATE INFRASTRUCTURE INSTALLED. SEE GROUND COVER REQUIREMENTS WITHIN THESE PLANS OR CONSULT THE MUNICIPAL EROSION CONTROL SPECIALIST.
11. THE FRAMES AND COVERS OF EXISTING AND PROPOSED DRAINAGE, SANITARY SEWER, WATER MAIN, GAS AND ELECTRIC UTILITY STRUCTURES MUST BE ADJUSTED TO MATCH PROPOSED FINISHED ELEVATIONS AND SLOPES UNLESS OTHERWISE SHOWN ON THE PLANS.
12. BEFORE ANY EARTHWORK COMMENCES, THE CONTRACTOR WILL STAKE OUT AND MARK THE LIMITS OF CONSTRUCTION AND OTHER ITEMS ESTABLISHED IN THE PLANS. THE CONTRACTOR MUST PROVIDE APPROPRIATE SURVEYING FOR LINE AND GRADE CONTROL POINTS RELATED TO EARTHWORK.
13. THE PLACEMENT OF ANY FILL MATERIAL MUST BE CONDUCTED UNDER THE OBSERVATION OF A QUALIFIED LICENSED GEOTECHNICAL ENGINEER AND UPON COMPLETION OF THE EARTHWORK ACTIVITIES THE OWNER AND JURISDICTION MUST BE PROVIDED WITH A FINAL GRADING REPORT THAT INCLUDES THE CORRESPONDING COMPACTION TEST RESULTS AND CERTIFIES THE TYPE OF FILL MATERIAL AND ITS PROPER PLACEMENT.
14. REFERENCE STRUCTURAL DRAWINGS, SPECIFICATIONS, GEOTECHNICAL REPORT, AND/OR DIRECTIVES PROVIDED BY THE PROJECT GEOTECHNICAL ENGINEER FOR BUILDING PAD AND PAVING SUBGRADE INFORMATION.

GENERAL LANDSCAPE NOTES:

1. THE CONTRACTOR MUST TAKE PROPER PRECAUTIONS NOT TO DAMAGE EXISTING PLANTS, FACILITIES AND STRUCTURES THAT ARE TO REMAIN. THE CONTRACTOR WILL RESTORE DISTURBED AREAS TO THEIR ORIGINAL CONDITION TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT AND OWNER.
2. UTILITIES SHOWN ON THE LANDSCAPE DRAWINGS ARE FOR REFERENCE ONLY. SEE UTILITY DRAWINGS FOR EXISTING AND PROPOSED UTILITY LOCATIONS. SEE UTILITY NOTES FOR ADDITIONAL INFORMATION.
3. NO CHANGES TO ANY ASPECT OF THE APPROVED PLAN, INCLUDING BUT NOT LIMITED TO LANDSCAPING, GRADING, BUILDING ELEVATIONS, LIGHTING, OR UTILITIES WILL BE MADE WITHOUT THE APPROVAL OF THE GOVERNING MUNICIPALITY, ENGINEER, LANDSCAPE ARCHITECT AND OWNER.
4. PLANTS PROVIDED BY THE CONTRACTOR MUST MEET OR SURPASS THE SPECIFICATIONS GIVEN IN THE PLANT TABLE AND CONFORM TO THE AMERICAN STANDARD OF NURSERY STOCK, ANSI Z601-1973 IN REGARD TO SIZING, GROWING AND BALLED AND BURLAPPED (B&B) SPECIFICATIONS. PLANTS MUST BE FULL AND HEAVY, AND IN HEALTHY CONDITION AT THE TIME OF PLANTING. LANDSCAPE ARCHITECT WILL REJECT ANY PLANT NOT MEETING THESE GUIDELINES. REJECTED PLANTS WILL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
5. THE CONTRACTOR MUST PROVIDE A ONE-YEAR MINIMUM WARRANTY FOR PLANTS, INCLUDING LABOR AND MATERIALS. THE WARRANTY PERIOD WILL BEGIN UPON FINAL ACCEPTANCE.
6. PLANTING MUST FOLLOW NCDOT STANDARD SPECIFICATIONS AS OUTLINED IN SECTION 1670. PLANTING SEASON IS OCTOBER 15 - MARCH 15, UNLESS OTHERWISE NOTED OR APPROVED BY NCDOT ENGINEER.
7. PLANTING MUST BE INSTALLED DURING THE IDEAL SEASON BASED ON THE TYPE OF PLANT.
8. PLANTS THAT ARE UNABLE TO BE IMMEDIATELY PLANTED MUST BE STORED IN A PROTECTED AREA OUT OF DIRECT SUN AND WIND. PLANTS MUST BE EVENLY AND CONSISTENTLY WATERED, AS NEEDED, TO PREVENT DRYING OF ROOTS. ROOT BALLS OF B&B STOCK MUST BE COVERED WITH AT LEAST 4 INCHES OF HARDWOOD MULCH TO MAINTAIN MOISTURE IN ROOTS.
9. THE CONTRACTOR WILL VERIFY PLANT QUANTITIES SHOWN ON PLANS AND CLARIFY ANY DISCREPANCIES WITH LANDSCAPE ARCHITECT PRIOR TO PURCHASING PLANTS. THE CONTRACTOR MUST TAG APPLICABLE TREES (AS DESIGNATED IN THE MASTER PLANT LIST) AT THE NURSERY FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO PURCHASING PLANTS.
10. THE LANDSCAPE ARCHITECT MUST BE NOTIFIED IN WRITING OF ANY PROPOSED PLANT SUBSTITUTIONS BY THE CONTRACTOR. NO SUBSTITUTIONS WILL BE MADE UNDER ANY CIRCUMSTANCES WITHOUT PRIOR APPROVAL BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
11. PLANTS AND PLANTING BEDS ARE TO BE LOCATED BY SCALED DIMENSIONS FROM BUILDINGS, CURBS, PAVEMENTS, ETC. SPECIFIC ATTENTION MUST BE GIVEN TO ENSURE THAT PLANTS INDIVIDUALLY SHOWN ON THE PLAN ARE ACCURATELY LOCATED. LOCATION OF PLANTS WILL BE REVIEWED IN THE FIELD BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. CONTRACTOR MUST PROVIDE 48 HOURS NOTICE FOR REVIEW.
12. NO PLANTINGS WILL BE REQUIRED WHEN A PRESERVED WETLAND OR REQUIRED RIPARIAN BUFFER EXISTS WITHIN A REQUIRED BUFFER YARD.
13. EXISTING SIGNIFICANT VEGETATION THAT IS PRESERVED WITHIN ANY REQUIRED BUFFER YARD WILL BE CREDITED TOWARD STANDARDS FOR THE TYPE OF BUFFER REQUIRED AT THE TIME OF MUNICIPAL APPROVALS. IF EXISTING VEGETATION DOES NOT FULLY MEET THE STANDARDS FOR THE TYPE OF BUFFER REQUIRED, SUPPLEMENTAL VEGETATION AND/OR SITE FEATURES (INCLUDING FENCES) WILL BE PLANTED OR INSTALLED WITHIN THE REQUIRED BUFFER AREA TO MEET MINIMUM STANDARDS.
14. A PRE-EMERGENT HERBICIDE MUST BE APPLIED TO NEW PLANTING BEDS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND ALLOWED TO DISSIPATE PRIOR TO INSTALLATION OF ANY PLANT MATERIAL.
15. LANDSCAPE AREAS ARE TO BE GRADED FOR POSITIVE DRAINAGE AND TO ENSURE NO STANDING WATER. SEE GRADING PLAN FOR SPECIFIC GRADING INFORMATION. CONTRACTOR MUST NOTIFY LANDSCAPE ARCHITECT AND/OR ENGINEER OF ANY GRADING DISCREPANCIES OR CONCERNS.
16. ESTABLISH AND MAINTAIN TOP OF GRADE BELOW ADJACENT CURBS, WALKWAYS AND OTHER HARDSCAPE AREAS TO ALLOW FOR THE INSTALLATION OF MULCH.
17. PLANTING BEDS ARE TO BE COVERED WITH MULCH TO A MINIMUM DEPTH OF 2-3 INCHES, UNLESS INDICATED OTHERWISE. MULCH MUST BE AS SELECTED BY THE LANDSCAPE ARCHITECT. THE CONTRACTOR MUST SUBMIT A SAMPLE FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO PURCHASE AND DELIVERY TO PROJECT SITE.
18. FINISH OFF 2-4 FOOT CLEAR ZONE AROUND TREES WITH A 2-3-INCH LAYER OF MULCH, BUT DO NOT PLACE UP AGAINST OR MOUND AROUND THE ROOT FLARE.
19. MIXED GROUNDCOVER AND PLANTS SPECIFIED FOR MASS PLANTINGS MUST BE PLANTED IN ODD GROUPINGS AND LOCATED AS REQUIRED TO PROVIDE A GENERAL MIXING OF SPECIES. DO NOT PLANT IN ROWS OR REPETITIVE PATTERNS UNLESS OTHERWISE DIRECTED.
20. TREES ADJACENT TO PEDESTRIAN WALKWAYS AND IN SIGHT TRIANGLES MUST BE UNDER-TRIMMED SUFFICIENTLY TO ALLOW CLEAR SIGHT AND PEDESTRIAN ACCESS UP TO 6 FEET ABOVE SIDEWALK ELEVATION. PRUNING MUST BE PERFORMED BY A CERTIFIED ARBORIST AND ADHERE TO THE ANSI A300 PRUNING STANDARD. PRUNING CUTS ARE TO BE DELIBERATE AND TARGETED ONLY TO THE NECESSARY BRANCHES IN ORDER TO SATISFY SIGHT AND CLEARANCE REQUIREMENTS WHILE MAINTAINING THE INTEGRITY OF THE TREES.
21. THE SITE MUST BE STABILIZED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY (CO).
22. THE CONTRACTOR IS RESPONSIBLE FOR FULLY MAINTAINING PLANTING (INCLUDING, BUT NOT LIMITED TO WATERING, MULCHING, SPRAYING, FERTILIZING, ETC.) OF THE PLANTING AREAS UNTIL FINAL ACCEPTANCE.
23. ANY PLANT WHICH DIES, TURNS BROWN OR DEFOLIATES PRIOR TO FINAL ACCEPTANCE OF THE WORK MUST BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, IN ACCORDANCE WITH THE APPROPRIATE PLANTING SEASON; QUANTITY AND SIZE TO MEET PLAN SPECIFICATIONS.

TREE PROTECTION NOTES:

1. TREES THAT ARE TO REMAIN, WITHIN OR DIRECTLY ADJACENT TO THE LIMITS OF WORK, MUST BE PROTECTED WITH TREE PROTECTION FENCE AS INDICATED ON THE PLANS TO THE EXTENT OF THE TREE BOX OR THE DRIP LINE IN A PLANTING STRIP. THE DRIP LINE IS DEFINED AS THE GROUND AREA UNDER THE CANOPY OF THE TREE. FENCING IS TO BE INSTALLED PRIOR TO CONSTRUCTION, MAINTAINED THROUGHOUT, AND REMOVED ONLY AT THE END OF THE PROJECT.
2. NONE OF THE FOLLOWING WILL OCCUR WITHIN THE ROOT ZONE OF A TREE WITHOUT PERMISSION OF LANDSCAPE ARCHITECT OR PROJECT ARBORIST: ALTERATION OR DISTURBANCE TO EXISTING GRADE; STAGING OR STORAGE OF CONSTRUCTION MATERIALS, EQUIPMENT USE, SOIL OR DEBRIS REMOVAL OR STOCKPILING; TRENCHING; OR DISPOSAL OF ANY LIQUIDS.
3. APPROVED EXCAVATIONS WITHIN THE DRIP LINE MUST PROCEED WITH CARE BY USE OF HAND TOOLS OR EQUIPMENT THAT WILL NOT CAUSE INJURY TO TREE TRUNKS, BRANCHES AND ROOTS.
4. NO ROOTS GREATER THAN 2 INCHES IN DIAMETER WILL BE CUT WITHOUT PERMISSION OF LANDSCAPE ARCHITECT OR PROJECT ARBORIST. EXPOSED ROOTS 2 INCHES AND LARGER IN DIAMETER MUST BE WRAPPED IN BURLAP OR OTHER APPROVED MATERIAL AND KEPT MOIST.
5. IF THERE ARE ANY TREE CONFLICTS ON THIS JOB SITE, PERMIT HOLDER MUST SUSPEND WORK THAT CONTRIBUTES TO THE CONFLICT AND IMMEDIATELY CONTACT LANDSCAPE ARCHITECT OR PROJECT ARBORIST FOR DIRECTION AND CLEARANCE TO CONTINUE THE CONFLICTING WORK.
6. TREES THAT ARE PROTECTED MUST BE THOROUGHLY WATERED AS REQUIRED TO KEEP ROOT BALLS FROM DRYING OUT, ESPECIALLY BETWEEN APRIL THROUGH SEPTEMBER.

UTILITY NOTES:

1. FOR THE PURPOSES OF THESE DOCUMENTS, THE TERMS *WATERLINE* AND *WATER MAIN* SHALL BE CONSIDERED SYNONYMOUS AND USED INTERCHANGEABLY.
2. PROPOSED MH INVERT ELEVATIONS BASED ON DESIGN INFORMATION PROVIDED BY URBAN ENGINEERING. CONTRACTOR TO VERIFY AS-BUILT INFORMATION AND NOTIFY ENGINEER PRIOR TO CONSTRUCTION.
3. GENERALLY, FILL MATERIAL MUST BE IN PLACE AND COMPACTED BEFORE THE INSTALLATION OF THE PROPOSED UTILITIES.
4. APPLICABLE INSPECTIONS, CERTIFICATIONS, AND TESTING REQUIRED BY CODES AND UTILITY SERVICE COMPANIES MUST BE PERFORMED PRIOR TO MUNICIPAL APPROVAL FOR THE FINAL CONNECTION OF SERVICE. THE CONTRACTOR WILL BE RESPONSIBLE FOR PAYMENT OF TESTING SERVICES AND COORDINATION WITH UTILITY OWNER.
5. THE CONTRACTOR MUST PROVIDE THE MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE IMPROVEMENTS SHOWN.
6. THE CONTRACTOR MUST REPORT IN WRITING ANY UTILITY CONFLICTS TO THE ENGINEER IMMEDIATELY UPON DISCOVERING CONFLICTS.
7. THE SANITARY SEWER PIPE LENGTHS AS SHOWN ON THE DRAWINGS REPRESENTS THE DISTANCE FROM CENTER TO CENTER OF THE RESPECTIVE STRUCTURES.
8. PRIOR TO UTILITY RELOCATION, REMOVAL OR ABANDONMENT, THE CONTRACTOR MUST COORDINATE WITH THE LOCAL UTILITY PROVIDERS, LOCAL MUNICIPALITY, AND NCDOT. KNOWN UTILITY PROVIDER INFORMATION IS CONTAINED ON THIS PLAN SHEET.
9. THE CONTRACTOR MUST NOTIFY SURROUNDING NEIGHBORS ABOUT ANY POTENTIAL INTERRUPTION TO SERVICE OF ANY KIND.
10. THE CONTRACTOR MUST MAINTAIN A MINIMUM COVER OF 3 FEET ON PROPOSED WATER LINES. THREE FEET WILL BE MEASURED TO THE BOTTOM OF THE PROPOSED SUBGRADE WITHIN PAVED AREAS.
11. THE CONTRACTOR MUST MAINTAIN A MINIMUM COVER OF 3 FEET ON PROPOSED SANITARY LINES. THREE FEET WILL BE MEASURED TO THE BOTTOM OF THE PROPOSED SUBGRADE WITHIN PAVED AREAS.
12. THE CONTRACTOR MUST MAINTAIN SEPARATION OF WATER MAIN FROM SANITARY SEWER PIPING IN ACCORDANCE WITH THOSE DISTANCES SPECIFIED BY STATE AND/OR LOCAL CODE OR A MINIMUM OF 10 FEET HORIZONTAL OR 18 INCHES VERTICAL DISTANCE.
13. THE CONTRACTOR MUST COORDINATE WITH UTILITY COMPANIES FOR THE INSTALLATION OF PROPOSED POWER AND COMMUNICATION LINES AND ASSOCIATED APPURTENANCES. THERE WILL BE NO SEPARATE MEASUREMENT OR PAYMENT FOR COORDINATION WITH UTILITY COMPANIES.

EROSION & SEDIMENT CONTROL NOTES:

1. THE CONTRACTOR MUST INSTALL EROSION CONTROLS IN ORDER WITH THE SEQUENCE PROVIDED.
2. THE CONTRACTOR MUST ENSURE GRADING OPERATIONS ARE CONDUCTED IN A MANNER THAT DOES NOT ALLOW ANY SEDIMENT TO DRAIN OFFSITE OR INTO WATERCOURSES.
3. A GRAVEL CONSTRUCTION ENTRANCE MUST BE CONSTRUCTED AT THE LOCATIONS SHOWN ON THE DRAWINGS AND AT EACH POINT OF CONSTRUCTION ACCESS.
4. THE CONTRACTOR MUST CONSTRUCT DIVERSION DITCHES AS NECESSARY TO ENSURE SEDIMENT IS DIRECTED INTO EROSION CONTROL MEASURES.
5. IF STORM CROSS DRAINAGE CANNOT BE INSTALLED PRIOR TO GRADING, TEMPORARY HDPE STORM DRAINAGE PIPE MUST BE USED TO CROSS WET WEATHER CHANNELS, EXCLUDING ANY PROTECTED WETLANDS OR STREAMS.
6. STORM DRAINAGE PIPE MUST BE PROTECTED AS SHOWN ON THE PLANS DURING CONSTRUCTION.
7. THE CONTRACTOR MUST PROVIDE RIPRAP LINED DISSIPATOR PADS AT THE STORM DRAINAGE PIPE DISCHARGE POINTS AS REQUIRED TO ENSURE POSITIVE DRAINAGE. SEE PLANS FOR DIMENSIONS AND DETAILS.
8. TO AVOID SLOPE EROSION, THE CONTRACTOR MUST INSTALL TEMPORARY SLOPE DRAINS PER DETAIL AT LOCATIONS INDICATED AND WHERE TEMPORARY DIVERSION DITCHES DISCHARGE INTO A SKIMMER BASIN.
9. PERMANENT GROUND COVER MUST BE ESTABLISHED PER APPROVED NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT.
10. TREE PROTECTION FENCING MUST BE INSTALLED AND INSPECTED PRIOR TO THE ISSUANCE OF A GRADING PERMIT. FENCING WILL NOT BE REQUIRED ADJACENT TO AREAS WITHOUT WOODED VEGETATION. FENCING MUST BE MAINTAINED ON THE SITE UNTIL THE SITE WORK IS COMPLETED AND THE FINAL SITE INSPECTION SCHEDULED FOR CERTIFICATE OF OCCUPANCY (CO). THE FENCING MUST BE REMOVED PRIOR TO THE FINAL SITE INSPECTION FOR THE CO.
11. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT AN EROSION CONTROL PERMIT AND ANY OTHER RELATED PERMITS ARE SECURED FOR ANY OFF-SITE WASTE OR BORROW AREAS. UNLESS OTHERWISE STATED IN THE PROJECT DOCUMENTS, THE CONTRACTOR IS RESPONSIBLE FOR SECURING APPLICABLE AGREEMENTS WITH LANDOWNERS FOR THE PLACEMENT OF WASTE SOIL OR REMOVAL OF BORROW. OFF-SITE PERMITS AND AGREEMENTS MUST EXIST PRIOR TO CONSTRUCTION ACTIVITIES ON WASTE OR BORROW AREAS. COPIES OF PERMITS AND AGREEMENTS MUST BE PROVIDED TO THE OWNER AND ENGINEER.
12. SOILS CONTAMINATED WITH ANY CHEMICAL, METAL OR PETROLEUM CONTAMINATION MUST NOT BE TRANSPORTED ONTO THE PROPERTY AS BORROW / FILL SOILS. CONTAMINATED SOILS, IF DISCOVERED ON THE PROPERTY MUST NOT BE TRANSPORTED OFFSITE WITHOUT TESTING, PERMITTING AND/OR OTHER REGULATORY APPROVALS COMMENSURATE WITH THE TYPE OF CONTAMINATION AND LOCATION.
13. TEMPORARY DIVERSIONS ARE TO REMAIN IN PLACE UNTIL THE STORM DRAINAGE SYSTEM IS IN PLACE, THE UPSTREAM AREA IS STABILIZED AND/OR APPROVAL FROM THE MUNICIPAL EROSION CONTROL INSPECTOR IS RECEIVED.
14. THE CONTRACTOR MUST REPLACE WITH NEW, DRIVEWAY PIPES AND OTHER DRAINAGE PIPES/CULVERTS THAT ARE DISTURBED WHILE INSTALLING THE UTILITIES. NEW PIPES/CULVERTS MUST MEET THE REQUIREMENTS OF NCDOT.
15. ROADWAY DITCHES DISTURBED DURING CONSTRUCTION MUST BE RESTORED TO PRE-CONSTRUCTION CONDITION OR BETTER AND CONFORM TO NCDOT REQUIREMENTS OR AUTHORITIES HAVING JURISDICTION. DITCHES MUST BE LINED WITH EROSION CONTROL MATTING UNLESS OTHERWISE NOTED.
16. EXCAVATED MATERIAL MUST BE PLACED WITHIN THE LIMITS OF DISTURBANCE DURING UTILITY INSTALLATION. THE CONTRACTOR MUST PROVIDE THE NECESSARY SEDIMENT AND EROSION CONTROL RUN-OFF, EXCESS EXCAVATED MATERIAL MUST BE REMOVED FROM THE CONSTRUCTION SITE AND DISPOSED OF LEGALLY.

EXISTING CONDITIONS LEGEND

SYMBOL	DESCRIPTION
	ADJOINER
	BOUNDARY
	BUILDING
	BUFFER
	CONCRETE
	CURB LINE
	EASEMENT
	EDGE OF PAVEMENT
X X X	FENCE
FO FO	FIBER OPTIC LINE
	FLOOD WAY
	100 YR FLOOD LINE
	500 YR FLOOD LINE
FM FM	FORCEMAIN
	GRAVEL
OHE OHE	OVERHEAD ELECTRIC
	PAVEMENT STRIPING
	RIGHT OF WAY
SS SS	SANITARY SEWER PIPE
	STORM PIPE
	STREAM
	TREELINE
	TOP OF BANK
E E	ELECTRIC
W W	WATER MAIN
	WETLAND
BO	BLOW OFF
	CATCH BASIN
	CLEAN OUT
	CONTROL POINT
	DROP INLET
FO	FIBER OPTIC BOX
	FIRE HYDRANT
	FLARED END SECTION
	GUY WIRE
	LIGHT POLE
	POWER POLE
S	SEWER MANHOLE
D	STORM DRAINAGE MANHOLE
	TV PEDESTAL
THH	UNDERGROUND TELEPHONE BOX
	TREE
	WATER METER
	WATER VALVE

PROPOSED UTILITIES LEGEND

SYMBOL	DESCRIPTION
FM	FORCE MAIN
SS	SANITARY SEWER PIPE
W	WATER MAIN
	BLOW OFF
	FIRE HYDRANT ASSEMBLY
	SEWER CLEANOUT
	SEWER MANHOLE
	WATER METER
	WATER VALVE

PROPOSED STORM DRAINAGE LEGEND

SYMBOL	DESCRIPTION
	STORM PIPE
	CATCH BASIN (CB)
	FLARED END SECTION (FES)
	HEAD WALL (HW)
	JUNCTION BOX (JB)
	RIP RAP DISSIPATER
	YARD INLET (YI)/DROP INLET (DI)

EROSION CONTROL LEGEND

SYMBOL	DESCRIPTION
	BAFFLE
LOD	LIMITS OF DISTURBANCE
	CONSTRUCTION STAGE LINE
SF	SILT FENCE
SF/TP	SILT/TREE PROTECTION FENCE
>TD	TEMPORARY DIVERSION DITCH
TP	TREE PROTECTION FENCE
	TEMPORARY CONSTRUCTION ENTRANCE
	CHECK DAM
	TEMPORARY CONCRETE WASHOUT
	INLET PROTECTION
	ROCK INLET PROTECTION
	SILT FENCE OUTLET
	SKIMMER

SITE LEGEND

SYMBOL	DESCRIPTION
	BOUNDARY
	BUFFER
	CENTER LINE
	CURB & GUTTER
	EASEMENT
LOD	LIMIT OF DISTURBANCE
	LOT LINE
	PHASE LINE
	RIGHT OF WAY
	SETBACK

ABBREVIATIONS

AE	ACCESS EASEMENT (PUBLIC)
AEC	AREA OF ENVIRONMENTAL CONCERN
B-B	BACK OF CURB TO BACK OF CURB
PAE	ACCESS EASEMENT (PRIVATE)
CORUE	CITY OF RALEIGH UTILITY EASEMENT
CORSSE	CITY OF RALEIGH SANITARY SEWER EASEMENT
DHMAE	DRAINAGE HEADWALL MAINTENANCE & ACCESS EASEMENT
DE	DRAINAGE EASEMENT (PUBLIC)
PDE	DRAINAGE EASEMENT (PRIVATE)
GE	GREENWAY EASEMENT (PUBLIC)
PGE	GREENWAY EASEMENT (PRIVATE)
MUPE	MULTI-USE PATH EASEMENT (PUBLIC)
PMUPE	MULTI-USE PATH EASEMENT (PRIVATE)
PSMAE	PUMP STATION MAINTENANCE & ACCESS EASEMENT
TCE	TEMPORARY CONSTRUCTION EASEMENT
SSE	SANITARY SEWER EASEMENT (PUBLIC)
PSSE	SANITARY SEWER EASEMENT (PRIVATE)
SDTE	SIGHT DISTANCE EASEMENT (PUBLIC)
STE	STREET TREE EASEMENT (PUBLIC)
UDE	UTILITY/DRAINAGE EASEMENT (PUBLIC)
PUDE	UTILITY/DRAINAGE EASEMENT (PRIVATE)
SCMMAE	SCM MAINTENANCE AND ACCESS EASEMENT
UE	UTILITY EASEMENT (PUBLIC)
PUSTE	PRIVATE UTILITY & STREET TREE EASEMENT
PUE	UTILITY EASEMENT (PRIVATE)
VWDE	VARIABLE WIDTH DRAINAGE EASEMENT (PUBLIC)
PVWDE	VARIABLE WIDTH DRAINAGE EASEMENT (PRIVATE)

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1105 MILITARY CUTOFF RD, STE 201
WILMINGTON, NC 28411

CONSTRUCTION PLANS
HAWKSBILL COVE EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA ... HALEY MENDENHALL
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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

WR JOB NUMBER	25-0329-A
DRN: WR DGN: WR	CKD: WR

GENERAL NOTES & LEGENDS

C0.01

j:\25\0329-a-ryan homes_pender county_hawksbill cove\CAD\drawing sets\construction\C0.01-0.02 GENERAL NOTES & LEGENDS.dwg- Wednesday, October 1, 2025 1:09:09 PM - SLOWE

INFRASTRUCTURE DATA TABLE

INFRASTRUCTURE		EAST-A	EAST-B	EAST-C	OFFSITE	TOTAL
	PAVEMENT [SY]	25,510	21,997	10,483	3,858	**61,848**
	COLLECTOR	11,156	1,987	0	0	**13,143**
	LOCAL	11,571	16,129	9,915	554	**38,169**
	ALLEYS & PARKING	2,783	3,881	568	0	**7,232**
	OFFSITE WIDENING: OVERLAY	0	0	0	1,759	**1,759**
	OFFSITE WIDENING: FULL DEPTH	0	0	0	1,545	**1,545**
	24" CURB [LF]	16,395	10,118	7,803	0	**34,316**
	5' SIDEWALK - LOT FRONTAGE [SF]	53,946	53,017	345,013	0	**451,976**
	5' SIDEWALK - OPEN SPACE [SF]	4,770	13,081	3,163	0	**21,014**
	8' SIDEWALK [SF]	32,320	7,460	0	0	**39,780**
	CURB RAMPS	52	30	13	0	**95**
WATER MAIN QUANTITIES						
	8" C900 PVC WATER MAIN [LF]	4,695	6,147	3,631	0	**14,473**
	8" DIP WATER MAIN [LF]	1,056	732	460	0	**2,248**
	12" C900 PVC WATER MAIN [LF]	3,086	550	0	1,930	**5,566**
	12" DIP WATER MAIN [LF]	335	52	0	345	**732**
	FIRE HYDRANT ASSEMBLIES	24	15	7	2	**48**
	GATE VALVES	39	22	10	3	**74**
	BLOW-OFF ASSEMBLIES	2	1	0	1	**4**
SEWER QUANTITIES						
	8" C900 PVC SEWER MAIN [LF] <12' DEPTH	4,057	5214	1,351	0	**10,622**
	8" C900 PVC SEWER MAIN [LF] 12' - 16' DEPTH	485	318	391	0	**1,194**
	8" C900 PVC SEWER MAIN [LF] 16' - 20' DEPTH	2260	858	1,579	0	**4,697**
	8" DIP SEWER MAIN [LF] > 20' DEPTH	0	0	106	0	**106**
	4' MANHOLES <12' DEPTH	19	22	7	0	**48**
	4' MANHOLES 12' - 16'	4	3	6	0	**13**
	4' MANHOLES 16' - 20'	5	0	2	0	**7**
	5' MANHOLES 16'-20'	3	1	0	0	**4**
	PUMP STATION	0	0	1	0	**1**
	6" SEWER FORCEMAIN [LF]	1,310	0	286	0	**1,596**
STORM DRAINAGE QUANTITIES						
	15" HP STORM [LF]	263	516	475	0	**1,254**
	18" HP STORM [LF]	305	509	455	0	**1,269**
	24" HP STORM [LF]	0	601	505	0	**1,106**
	30" HP STORM [LF]	131	0	0	0	**131**
	36" HP STORM [LF]	312	0	0	0	**312**
	42" HP STORM [LF]	0	0	0	0	**0**
	15" RCP STORM [LF]	3,887	2,192	2440	0	**8,519**
	18" RCP STORM [LF]	1,487	2,354	1,490	0	**5,331**
	24" RCP STORM [LF]	2,146	3,458	948	0	**6,552**
	30" RCP STORM [LF]	2141	592	186	0	**2,919**
	36" RCP STORM [LF]	918	738	245	0	**1,901**
	42" RCP STORM [LF]	713	635	293	0	**1,641**
	48" RCP STORM [LF]	777	137	0	0	**914**
	54" RCP STORM [LF]	244	0	68	0	**312**
	60" RCP STORM [LF]	0	0	203	0	**203**
	15" FLARED END SECTION	0	1	0	0	**1**
	18" FLARED END SECTION	0	0	1	0	**1**
	24" FLARED END SECTION	0	0	1	0	**1**
	30" FLARED END SECTION	0	1	1	0	**2**
	36" FLARED END SECTION	0	2	1	0	**3**
	42" FLARED END SECTION	1	3	1	0	**5**
	48" FLARED END SECTION	2	0	1	0	**3**
	42" CONCRETE ENDWALLS	0	0	0	0	**0**
	CATCH BASINS	110	63	85	0	**258**
	DROP INLETS (YARDS)	38	15	0	0	**53**
	DROP INLETS (ALLEYS)	8	13	40	0	**61**
STORMWATER MANAGEMENT SYSTEMS						
	SCM [WET POND]	2	0	2	0	**4**

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CONSTRUCTION PLANS
HAWKSBILL COVE
EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED
FOR CONSTRUCTION
JEREMY MENDENHALL

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

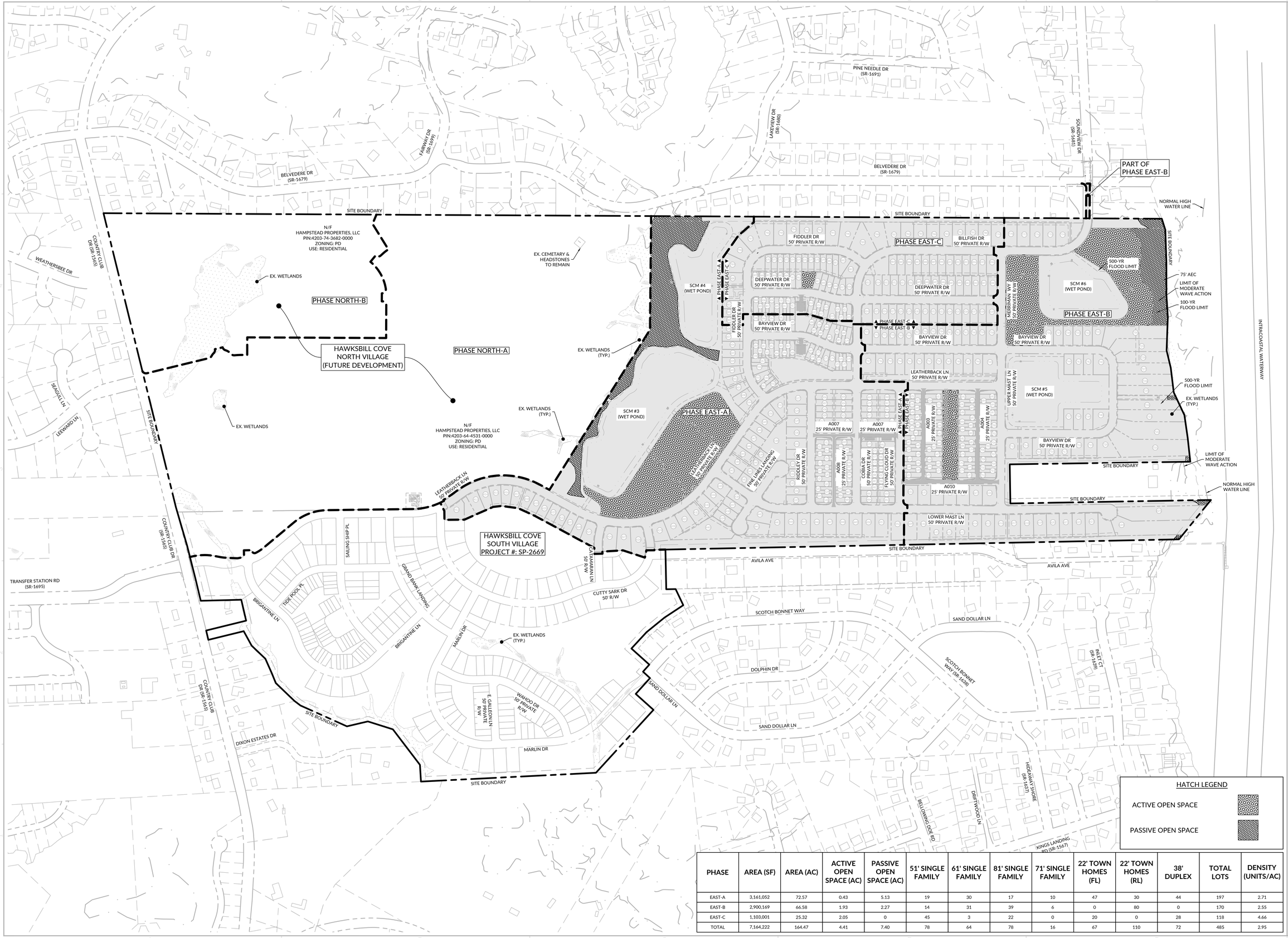
Know what's **below.**
Call before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

GENERAL NOTES & LEGENDS

C0.02

J:\25\0329-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C0.01-0.03 GENERAL NOTES & LEGENDS.dwg, Wednesday, October 1, 2025 3:21:45 PM, BBRAUX



PHASE	AREA (SF)	AREA (AC)	ACTIVE OPEN SPACE (AC)	PASSIVE OPEN SPACE (AC)	51' SINGLE FAMILY	61' SINGLE FAMILY	81' SINGLE FAMILY	71' SINGLE FAMILY	22' TOWN HOMES (FL)	22' TOWN HOMES (RL)	38' DUPLEX	TOTAL LOTS	DENSITY (UNITS/AC)
EAST-A	3,161,052	72.57	0.43	5.13	19	30	17	10	47	30	44	197	2.71
EAST-B	2,900,169	66.58	1.93	2.27	14	31	39	6	0	80	0	170	2.55
EAST-C	1,103,001	25.32	2.05	0	45	3	22	0	20	0	28	118	4.66
TOTAL	7,164,222	164.47	4.41	7.40	78	64	78	16	67	110	72	485	2.95

HATCH LEGEND

ACTIVE OPEN SPACE

PASSIVE OPEN SPACE

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COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
10/3/2025
KEY MENDENHALL

0 125 250
SCALE: 1 inch = 250 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

PHASING PLAN

C0.03

EST 1983

J:\25\0329-a-ryan home_pender county_hawksbill cove\CAD\planning sets\construction\C0.03 PHASING PLAN.dwg - Wednesday, October 1, 2025 1:09:36 PM - RSANTOS

ADJACENT PARCEL DATA TABLES

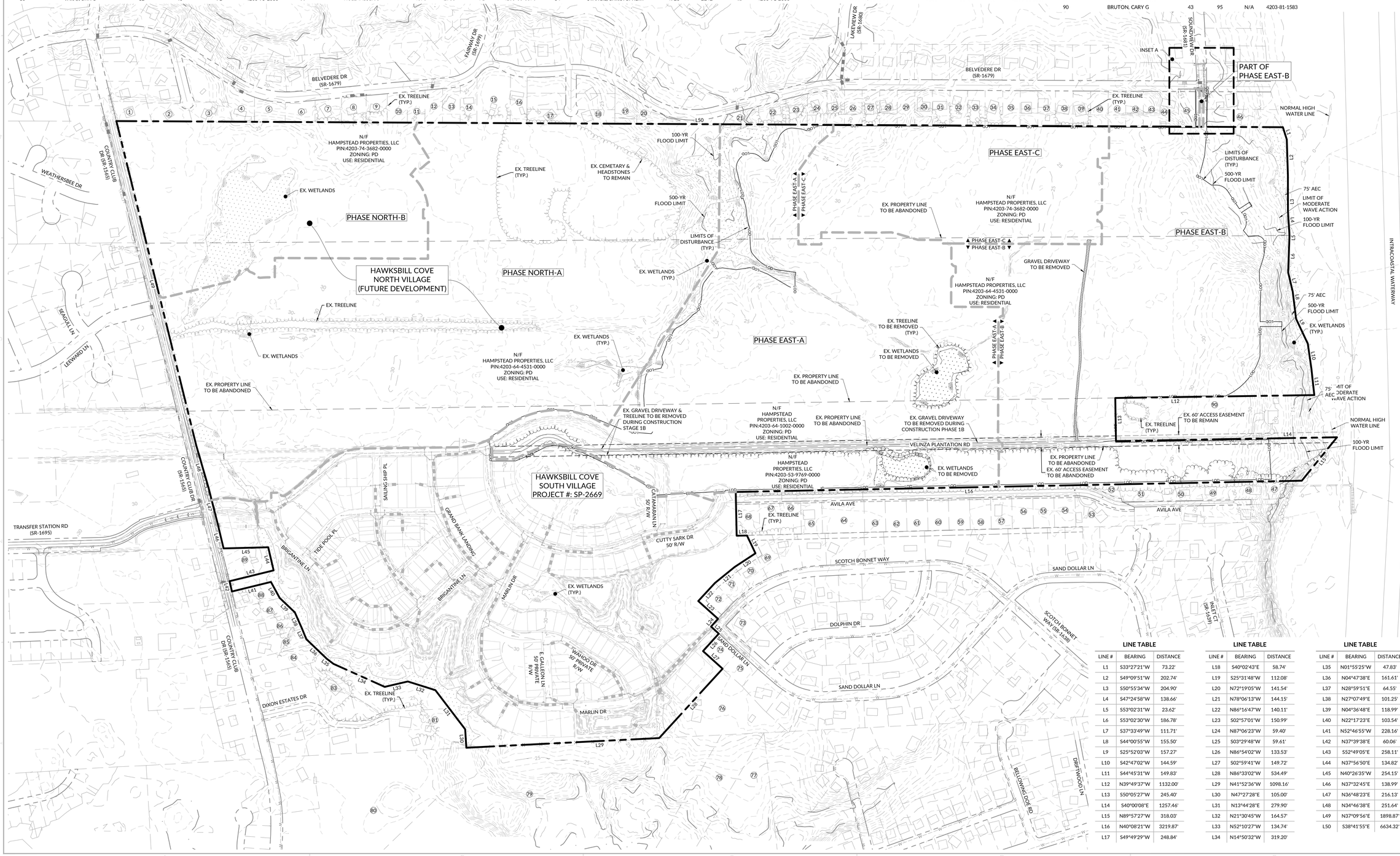
PARCEL #	N/F	BM.	PG.	ZONING	PIN #
1	KADALA, AMANDA	4689	1295-1297 (3)	PD	4203-57-6445
2	LEMASTER, CARL JR	12	43	PD	4203-57-7268
3	POOL, MARK DAVID	4445	232	PD	4203-57-9029
4	ACER, BRYCE ANDREW	4669	2238-2241 (4)	PD	4203-67-0071
5	ACER, BRYCE ANDREW	4757	1989	PD	4203-66-1835
6	ACER, BRYCE	4766	2439	PD	4203-66-2721
7	EARP, JAMES M	16	20	PD	4203-66-3538
8	LONGO, DUANE F	16	20	PD	42023-66-4456
9	WHITLEY, ASHLEY M	4763	1691	PD	4203-66-5336
10	KELLY, ERIN M	2765	262	PD	4203-66-6218
11	CHUNG, KENNETH K C TRUSTEE	3502	336	PD	4203-66-6290
12	JONES, ISREAL	3135	001	PD	4203-66-7153
13	O'CONNOR, KEVIN R	4644	1458	PD	4203-66-8026
14	WILLIAMS, EARL W JR	16	20	PD	4203-65-8998
15	BELVEDERE UTILITY CO	N/A	N/A	PD	4203-65-9990
16	FOWLER, WALTER D LIFE ESTATE	4797	993	PD	4203-75-1707
17	HAMBERGER, TERRY	4643	2202	PD	4203-75-0691
18	VARA, JOHN C	12	43	PD	4203-75-2388

PARCEL #	N/F	BM.	PG.	ZONING	PIN #
19	PENSAK, JEFFERY THEODORE	4785	2740	PD	4203-75-4227
20	PENDER LAND HOLDINGS INC	843	257	PD	4203-75-4176
21	PENDER LAND HOLDINGS INC	843	257	N/A	4203-74-7820
22	SLUSHER, DAVID M	4330	055	PD	4203-74-9621
23	VAN MARION, ELLIOT	4863	2139	PD	4203-84-0532
24	HILL, BROADUS EDWARD JR	633	44	PD	4203-84-1422
25	UTLEY, BETTY H L/E	4508	110	PD	4203-84-2305
26	GIACOBBE, SUSAN	4777	639	PD	4203-84-2257
27	BARNES, GARY	4665	1805	PD	4203-84-3221
28	MURRAY, RICHARD G	4662	0314	PD	4203-84-3173
29	INVESTMENTS, GRAND VISIONS LLC	4840	1938	PD	4203-84-4045
30	HECKERT, RICK W	4724	1154	PD	4203-83-5916
31	PEREIRA, JOHN E	3981	268	PD	4203-83-5869
32	EVANS, CHARLES RANDALL	4663	0005	PD	4203-86-6821
33	LEBO, TERRENCE RICHARD JR	4810	413	PD	4203-83-6784
34	WILSON, ERIK W	3067	125	PD	4203-83-7656
35	HALFAST, MARVIN L	16	20	PD	4203-83-8518
36	HOLLAND, ERIC	4670	2966	PD	4203-83-8570

PARCEL #	N/F	BM.	PG.	ZONING	PIN #
37	WILCOX, KRISTOPHER L	4823	2875	PD	4203-83-9422
38	ERPELDING, CHAD ALAN TRUSTEE	4785	207	PD	4203-83-9393
39	SHOLTS, STEVEN A	4644	2951	PD	4203-93-0256
40	BUDD, JAMES	2034	68	PD	4203-93-1129
41	LIVERMAN, VICKI K	4811	399	PD	4203-93-1181
42	CORCORAN, KELLY L	4785	1176	PD	4203-93-2043
43	CLEMMONS, TIMOTHY A SR	4615	1745	PD	4203-92-3905
44	STOOPS, JEREMIAH ROBERT	4611	2393	PD	4203-92-3867
45	ALEXANDER, TY A	4442	211	PD	4203-92-4739
46	MASTROMICHALIS, ZINA L	2004	305	PD	4203-92-5568
47	AVILA YACHT BASIN OWNERS ASSN	3090	189	RP	4203-81-0051
48	BIRNBACH, LESLIE NEAL	1965	336	RP	4203-71-9163
49	WOOLARD, DEREK A	3484	076	RP	4203-71-8267
50	COLVIN, ROBIN GENE	4342	124	RP	4203-71-7359
51	BRYANT, ALVIN JR	4793	796	RP	4203-71-6580
52	AVILA HOMEOWNERS ASSN INC	3090	192	RP	4203-71-5629
53	YAN, JESSICA	4866	59	RP	4203-71-3740
54	STANCIL, CHRISTOPHER P	4728	2242	RP	4203-71-2833

PARCEL #	N/F	BM.	PG.	ZONING	PIN #
55	WHITE, SCOTT	4802	2799	RP	4203-71-1963
56	WHITE, SCOTT	4802	2799	RP	4203-72-0083
57	VREULS, JON	4638	1123	RP	4203-62-9193
58	VREULS, JON	4703	2348	RP	4203-62-9222
59	FRANCIS, WILLIAM JR	4770	446	RP	4203-62-8350
60	RIVERBANK, LAWRENCE D	4728	2065	RP	4203-62-7369
61	PENDER, JARAMIE LEE	4707	94	RP	4203-62-7409
62	PAPRITAN, JULIE MARIE-NELSON	4661	1059	RP	4203-62-6518
63	HARTMAN, RICHARD	4710	2925	RP	4203-62-5656
64	BARTHOLDSON, OLIVER	4721	2732	RP	4203-62-4804
65	PERRIN, ROBERT TRUSTEES	4738	684	RP	4203-62-3941
66	MUTED TOOT INVESTMENTS LLC	4730	226	RP	4203-63-2041
67	AVILA HOMEOWNERS ASSN INC	3163	231	RP	4203-63-1171
68	AVILA HOMEOWNERS ASSN INC	3163	231	RP	4203-63-1200
69	JACKSON, ROBIN K	4623	2389	RP	4203-53-9075
70	RIDLEBAUGH, EDWARD CAMERON II	4858	1958	RP	4203-53-8036
71	VAN NESTE, KENNETH J	3079	194	RP	4203-53-7009
72	MOORE, JEREMY	4663	1294	RP	4203-53-5180

PARCEL #	N/F	BM.	PG.	ZONING	PIN #
73	MARTIN, JOHN JUNIOR	1212	45	RP	4203-52-5869
74	HALL, JODIE B	4496	150	RP	4203-52-3971
75	HALL, JODIE B	4445	302	RP	4203-52-3766
76	FISHER, CHERI	2327	159	RP	4203-52-1567
77	BLAUVELT, EDWARD ALBERT TRUSTEE	4828	2438	RP	4203-42-4027
78	CHLUDZINSKI, MARGUERITE AYERS	4559	212	RP	4203-42-5421
79	KERMON, MARY G	3120	78	RP	4203-33-7034
80	PIVER, RUTH B	2145	328	RP	4203-34-3002
81	DIXON, BARBARA F L/E	31	65	RP	4203-33-9970
82	N/A	N/A	N/A	N/A	N/A
83	COLLINS, KEITH M CO TRUSTEES	32	138	RP	4203-34-8409
84	DELFS, CAROLYN B HEIRS	1149	80	RP	4203-34-6876
85	GRAHAM, SHARON L ET AL	4425	118	RP	4203-34-7944
86	TODD, BRENDA CURTN	N/A	N/A	RP	4203-34-8986
87	KNOTT, NANCY PARHAM	N/A	N/A	RP	4203-35-8099
88	RENER, LAUREN MELISSA	4847	2966	RP	4203-35-9147
89	FRANCIS, WILLIAM F JR	N/A	N/A	PD	4203-45-0372
90	BRUTON, CARY G	43	95	N/A	4203-81-1583



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NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
ALEX MENDENHALL

KEY MAP
N.T.S.

0 125 250
SCALE: 1 inch = 250 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

OVERALL EXISTING CONDITIONS & DEMOLITION PLAN

C1.00

LINE TABLE		
LINE #	BEARING	DISTANCE
L1	S33°27'21"W	73.22'
L2	S49°09'51"W	202.74'
L3	S50°55'34"W	204.90'
L4	S47°24'58"W	138.66'
L5	S53°02'31"W	23.62'
L6	S53°02'30"W	186.78'
L7	S37°33'49"W	111.71'
L8	S44°00'55"W	155.50'
L9	S25°52'03"W	157.27'
L10	S42°47'02"W	144.59'
L11	S44°45'31"W	149.83'
L12	N39°49'37"W	1132.00'
L13	S50°05'27"W	245.40'
L14	S40°00'08"E	1257.46'
L15	N89°57'27"W	318.03'
L16	N40°08'21"W	3219.87'
L17	S49°49'29"W	248.84'

LINE TABLE		
LINE #	BEARING	DISTANCE
L18	S40°02'43"E	58.74'
L19	S25°31'48"W	112.08'
L20	N72°19'05"W	141.54'
L21	N78°06'13"W	144.15'
L22	N86°16'47"W	140.11'
L23	S02°57'01"W	150.99'
L24	N87°06'23"W	59.40'
L25	S03°29'48"W	59.61'
L26	N86°54'02"W	133.53'
L27	S02°59'41"W	149.72'
L28	N86°33'02"W	534.49'
L29	N41°52'36"W	1098.16'
L30	N47°27'28"E	105.00'
L31	N13°44'28"E	279.90'
L32	N21°30'45"W	164.57'
L33	N52°10'27"W	134.74'
L34	N14°50'32"W	319.20'

LINE TABLE		
LINE #	BEARING	DISTANCE
L35	N01°55'25"W	47.83'
L36	N04°47'38"E	161.61'
L37	N28°59'51"E	64.55'
L38	N27°07'49"E	101.25'
L39	N04°36'48"E	118.99'
L40	N22°17'23"E	103.54'
L41	N52°46'55"W	228.16'
L42	N37°39'38"E	60.06'
L43	S52°49'05"E	258.11'
L44	N37°56'50"E	134.82'
L45	N40°26'35"W	254.15'
L46	N37°32'45"E	138.99'
L47	N36°48'23"E	216.13'
L48	N34°46'38"E	251.64'
L49	N37°09'56"E	1898.87'
L50	S38°41'55"E	6634.32'

EST. 1983

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N/F
JAMES BUDD ET AL
PIN:4203-93-1129-0000
ZONING: PD
USE: VACANT

N/F
LIVERMAN, VICKI K.
PIN:4203-93-1181-0000
ZONING: PD
USE: RESIDENTIAL

N/F
CORCORAN, KELLY L.
PIN:4203-93-2043-0000
ZONING: PD
USE: VACANT

N/F
CLEMMONS,
TIMOTHY A. SR.
PIN:4203-92-3905-0000
ZONING: PD
USE: VACANT

N/F
STOOPS, JEREMIAH
ROBERT PIN:
4203-92-3867-0000
ZONING: PD
USE: RESIDENTIAL

500-YR FLOOD LIMIT

SOUTHWATER WAY
50' PUBLIC R/W
(SR-1681)

N/F
ALEXANDER, TY A
PIN:4203-92-4739-0000
ZONING: PD
USE: VACANT

EX. WATER VALVE (TYP.)

N/F
ZINA L.
MASTROMICHALIS
PIN:4203-92-5568-0000
ZONING: PD
USE: VACANT

MATCHLINE INSET A

MATCHLINE INSET A

SITE BOUNDARY

NORMAL HIGH WATER LINE

EX. COASTAL WETLAND

100-YR FLOOD LIMIT

500-YR FLOOD LIMIT

LIMIT OF MODERATE WAVE ACTION

LIMITS OF DISTURBANCE (TYP.)

SITE BOUNDARY

75' AEC

N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-74-3682-0000
ZONING: PD
USE: RESIDENTIAL

EX. PROPERTY LINE TO BE ABANDONED

100-YR FLOOD LIMIT

500-YR FLOOD LIMIT

N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-64-4531-0000
ZONING: PD
USE: RESIDENTIAL

INTRACOASTAL WATERWAY

INSET A

MATCHLINE INSET A

MATCHLINE INSET A

EX. ELECTRIC STRUCTURE (TYP.)
EX. TELECOM STRUCTURE (TYP.)
EX. WATER VALVE (TYP.)
EX. PRIVATE WATER MAIN (TYP.)
EX. TELECOM LINE (TYP.)
EX. 12" RCP
INV: 12.81'
EX. FHA
EX. SUBSURFACE ELECTRIC (TYP.)
EX. 24" CMP
INV: 12.13'
INV: 12.89'
INV: 12.18'
SOUTHWATER WAY
50' PUBLIC R/W
(SR-1681)
BELVEDERE DR
50' PUBLIC R/W
(SR-1679)
EX. DRIVEWAY TO BE REMOVED
INV 24" CMP: 9.47'
INV 18" CMP: 10.39'
100-YR FLOOD LIMIT
EX. EOP
INV: 10.32'
EX. 24" CMP
EX. 24" CMP
EX. DRIVEWAY TO REMAIN
EX. HEADWALL
INV: 11.42'
EX. WATER VALVE (TYP.)
N/F
ZINA L.
MASTROMICHALIS
PIN:4203-92-5568-0000
ZONING: PD
USE: VACANT
500-YR FLOOD LIMIT
N/F
ALEXANDER, TY A
PIN:4203-92-4739-0000
ZONING: PD
USE: VACANT
SOUTHWATER WAY
50' PUBLIC R/W
(SR-1681)
MATCHLINE INSET A
MATCHLINE INSET A

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WILMINGTON, NC 28411

CONSTRUCTION PLANS
HAWKSBILL COVE
EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED
FOR CONSTRUCTION
KEVIN MENDENHALL

KEY MAP
N.T.S.

0 25 50
SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

EXISTING CONDITIONS & DEMOLITION PLAN

C1.01

j:\25\0329-a ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C1.01 1.07 EXISTING CONDITIONS & DEMOLITION PLAN.dwg - Wednesday, October 1, 2025 1:11:44 PM - RSANTOS

N/F
MURRAY,
RICHARD G.
PIN:4203-84-3173-0000
ZONING: PD
USE: RESIDENTIAL

N/F
DENNIS PETER
MESSINA
PIN:4203-84-4045-0000
ZONING: PD
USE: VACANT

N/F
HECKERT, RICK W.
PIN:4203-83-5916-0000
ZONING: PD
USE: RESIDENTIAL

N/F
PEREIRA, JOHN E.
PIN:4203-83-5869-0000
ZONING: PD
USE: RESIDENTIAL

N/F
EVANS, CHARLES
RANDALL
PIN:4203-83-6821-0000
ZONING: PD
USE:RESIDENTIAL

N/F
LEBO, TERRENCE
RICHARD JR.
PIN:4203-83-6784-0000
ZONING: PD
USE: RESIDENTIAL

N/F
ERIK W. WILSON ET AL
PIN:4203-83-7656-0000
ZONING: PD
USE: RESIDENTIAL

N/F
MARVIN L. HALFAST
PIN:4203-83-8518-0000
ZONING: PD
USE: VACANT

N/F
HOLLAND, ERIC
PIN:4203-83-8570-0000
ZONING: PD
USE: RESIDENTIAL

N/F
WILCOX,
CHRISTOPHER L.
PIN:4203-83-9422-0000
ZONING: PD
USE:RESIDENTIAL

N/F
ERPELDING, CHAD
ALAN TRUSTEE
PIN:4203-83-9393-0000
ZONING: PD
USE: RESIDENTIAL

N/F
SHOLTIS, STEVEN A.
PIN:4203-93-0256-0000
ZONING: PD
USE: RESIDENTIAL

N/F
JAMES BUDD ET AL
PIN:4203-93-1129-0000
ZONING: PD
USE: VACANT

N/F
LIVERMAN, VICKI K.
PIN:4203-93-1181-0000
ZONING: PD
USE: RESIDENTIAL

SITE BOUNDARY

LIMITS OF
DISTURBANCE
(TYP.)

EX. TREELINE
(TYP.)

N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-74-3682-0000
ZONING: PD
USE: RESIDENTIAL

EX. PROPERTY LINE
TO BE ABANDONED

GRAVEL DRIVEWAY
TO BE REMOVED

N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-64-4531-0000
ZONING: PD
USE: RESIDENTIAL

J:\25\0329-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C1.01-1.07 EXISTING CONDITIONS & DEMOLITION PLAN.dwg, Wednesday, October 1, 2025 1:11:46 PM, RBANTOS

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HAWKSBILL COVE
EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED
FOR CONSTRUCTION
KEY MENDENHALL

KEY MAP
N.T.S.

SCALE: 1 inch = 50 ft.
0 25 50

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

Know what's below.
Call before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

EXISTING CONDITIONS & DEMOLITION PLAN

C1.02

EX. 60' R/W

BELVEDERE DR (SR-1679)

N/F
PENDER LANDING HOLDINGS, INC.
PIN:4203-74-7820-0000
ZONING: PD
USE: VACANT

N/F
SLUSHER, DAVID M.
PIN:4203-74-9621-0000
ZONING: PD
USE: RESIDENTIAL

N/F
LYMAN A. THORNTON
PIN:4203-84-0532-0000
ZONING: PD
USE: RESIDENTIAL

N/F
BROADUS EDWARD HILL, JR. ET AL
PIN:4203-84-1422-0000
ZONING: PD
USE: RESIDENTIAL

N/F
UTLEY, BETTY H L/E
PIN:4203-84-2305-0000
ZONING: PD
USE: RESIDENTIAL

N/F
GIACOBBE, SUSAN
PIN:4203-84-2257-0000
ZONING: PD
USE: VACANT

N/F
BARNES, GARY
PIN:4203-84-3221-0000
ZONING: PD
USE: RESIDENTIAL

N/F
MURRAY, RICHARD G.
PIN:4203-84-3173-0000
ZONING: PD
USE: RESIDENTIAL

SITE BOUNDARY

N/F
PENDER LANDING HOLDINGS, INC.
PIN:4203-75-4098-0000
ZONING: PD
USE: VACANT

100-YR FLOOD LIMIT

500-YR FLOOD LIMIT

EX. WETLANDS (TYP.)

N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-74-3682-0000
ZONING: PD
USE: RESIDENTIAL

LIMITS OF DISTURBANCE (TYP.)

N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-64-4531-0000
ZONING: PD
USE: RESIDENTIAL

EX. TREE LINE TO BE REMOVED

EX. PROPERTY LINE TO BE ABANDONED

EX. WETLANDS (TYP.)

N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-64-4531-0000
ZONING: PD
USE: RESIDENTIAL

N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-64-4531-0000
ZONING: PD
USE: RESIDENTIAL

J:\25\0329-a-ryan homes_pender county_hawksbill cove\CAD\drawing sets\construction\C1.03-1.07 EXISTING CONDITIONS & DEMOLITION PLAN.dwg, Wednesday, October 1, 2025 1:11:54 PM, RBANTOS

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COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
KEY MENDENHALL

KEY MAP
N.T.S.

0 25 50
SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

Know what's below.
Call before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

EXISTING CONDITIONS & DEMOLITION PLAN

C1.03

EX. TREE LINE
TO BE REMOVED

N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-64-4531-0000
ZONING: PD
USE: RESIDENTIAL

N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-64-4531-0000
ZONING: PD
USE: RESIDENTIAL

EX. WETLANDS
(TYP.)

LIMITS OF
DISTURBANCE
(TYP.)

EX. WETLANDS
(TYP.)

LIMITS OF
DISTURBANCE
(TYP.)

EX. PROPERTY LINE
TO BE ABANDONED

N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-64-1002-0000
ZONING: PD
USE: RESIDENTIAL

LIMITS OF
DISTURBANCE
(TYP.)

EX. 8" PVC SEWER MAIN
HAWKSBILL COVE
SOUTH VILLAGE

EX. PUMP
STATION

EX. SEWER
EASEMENT

EX. 8" PVC SEWER MAIN
HAWKSBILL COVE
SOUTH VILLAGE

EX. TREE LINE
TO BE REMOVED

EX. 12" WATER MAIN
HAWKSBILL COVE
SOUTH VILLAGE

EX. 8" PVC SEWER MAIN
HAWKSBILL COVE
SOUTH VILLAGE

GRAVEL DRIVEWAY
TO BE REMOVED DURING
CONSTRUCTION STAGE 1B

60' EX. ACCESS EASEMENT
TO BE ABANDONED

EX. 2" TEMP. BOA
TO BE REMOVED

VELINZA PLANTATION RD

EX. PROPERTY LINE
TO BE ABANDONED

EX. EOP (TYP.)

EX. STORM
DRAINAGE
(TYP.)

EX. EOP (TYP.)

SAILING SHIP PL.

N/F
HAMPSTEAD PROPERTIES,
LLC PIN:4203-53-9769-0000
ZONING: PD
USE: RESIDENTIAL

CATAMARAN LN
50' ROW

HAWKSBILL COVE
SOUTH VILLAGE
PROJECT #: SP-2669

J:\25\0329-a-ryan homes_pender county_hawksbill cove\CAD\drawing sets\construction\C1.01-1.07 EXISTING CONDITIONS & DEMOLITION PLAN.dwg, Wednesday, October 1, 2025 1:12:01 PM, RBANTOS

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CONSTRUCTION PLANS
HAWKSBILL COVE
EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

RICHARD HENRY CARROLL
PRELIMINARY
NOT APPROVED
FOR CONSTRUCTION
KEVIN MENDENHALL

KEY MAP
N.T.S.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

EXISTING CONDITIONS & DEMOLITION PLAN

C1.04

N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-64-4531-0000
ZONING: PD
USE: RESIDENTIAL

EX. WETLANDS
(TYP.)

LIMITS OF
DISTURBANCE
(TYP.)

N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-64-4531-0000
ZONING: PD
USE: RESIDENTIAL

EX. PROPERTY LINE
TO BE ABANDONED

N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-64-1002-0000
ZONING: PD
USE: RESIDENTIAL

60' EX. ACCESS EASEMENT
TO BE ABANDONED

GRAVEL DRIVEWAY
TO BE REMOVED

EX. PROPERTY LINE
TO BE ABANDONED

VELINZA PLANTATION RD

N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-53-9769-0000
ZONING: PD
USE: RESIDENTIAL

EX. WETLANDS
TO BE REMOVED

LIMITS OF
DISTURBANCE
(TYP.)

EX. 2" TEMP. BOA
TO BE REMOVED

EX. 60' R/W

SITE BOUNDARY

EX. EOP (TYP.)

EX. 24" CULVERT

EX. 24" CULVERT

CATAMARAN LN
50' R/W

CUTTY SARK DR
50' R/W

AVILA AVE

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HAWKSBILL COVE
EAST VILLAGE

COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED
FOR CONSTRUCTION
JEFFREY MENDENHALL

KEY MAP
N.T.S.

0 25 50
SCALE: 1 Inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

EXISTING CONDITIONS & DEMOLITION PLAN

C1.05

811 1983

EX. TREE LINE
TO BE REMOVED

EX. WETLANDS
TO BE REMOVED

N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-64-4531-0000
ZONING: PD
USE: RESIDENTIAL

GRAVEL DRIVE
TO BE REMOVED

EX. PROPERTY LINE
TO BE ABANDONED

EX. PROPERTY LINE
TO BE ABANDONED

EX. FENCE

SITE BOUNDARY

N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-64-1002-0000
ZONING: PD
USE: RESIDENTIAL

EX. 60' ACCESS EASEMENT
TO BE ABANDONED

GRAVEL DRIVEWAY
TO BE REMOVED

EX. GRAVEL
DRIVEWAY TO
REMAIN

GRAVEL DRIVE
TO BE REMOVED

EX. PROPERTY LINE
TO BE ABANDONED

EX. PROPERTY LINE
TO BE ABANDONED

VELINZA PLANTATION RD

EX. TREE LINE
TO BE REMOVED

EX. WETLANDS
TO BE REMOVED

N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-53-9769-0000
ZONING: PD
USE: RESIDENTIAL

LIMITS OF
DISTURBANCE
(TYP.)

EX. 60' R/W

SITE BOUNDARY

SITE BOUNDARY

N/F
AVILA HOMEOWNERS
ASSOC., INC.
PIN:4203-71-5629-0000
ZONING: RP
USE: VACANT

AVILA DRIVE

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CONSTRUCTION PLANS

HAWKSBILL COVE
EAST VILLAGE

COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED
FOR CONSTRUCTION
JEFFREY MENDENHALL

KEY MAP
N.T.S.

0 25 50
SCALE: 1 Inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

EXISTING
CONDITIONS &
DEMOLITION PLAN

C1.06

EST. 1983

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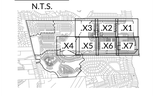
EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
KEY MENDENHALL

KEY MAP
N.T.S.



INITIAL PLAN DATE: 10/3/2025
REVISIONS:

Know what's below. Call before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

EXISTING CONDITIONS & DEMOLITION PLAN

C1.07

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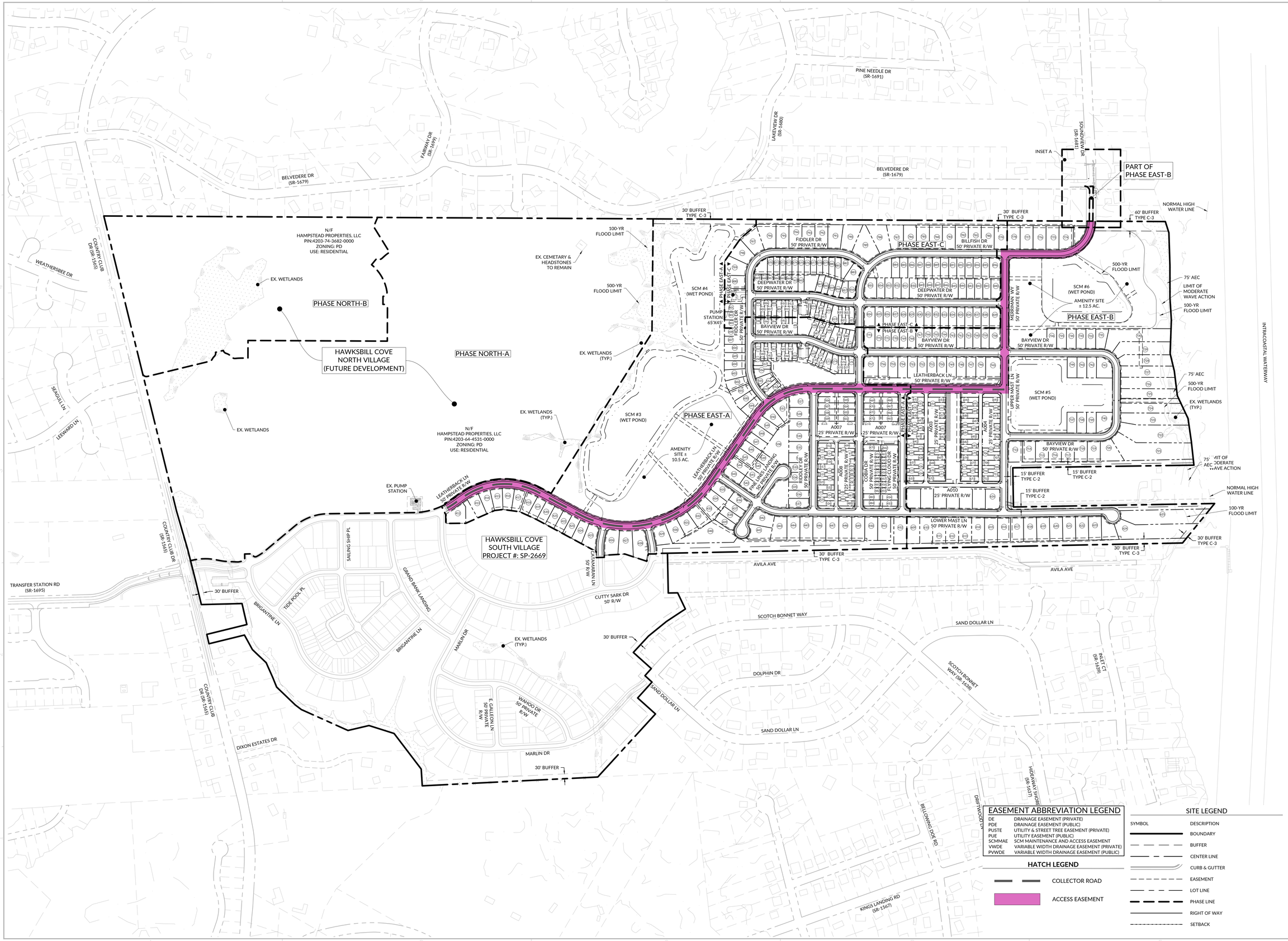

EASEMENT ABBREVIATION LEGEND

DE	DRAINAGE EASEMENT (PRIVATE)
PDE	DRAINAGE EASEMENT (PUBLIC)
PUSTE	UTILITY & STREET TREE EASEMENT (PRIVATE)
PUE	UTILITY EASEMENT (PUBLIC)
SCMMAE	SCM MAINTENANCE AND ACCESS EASEMENT
VWDE	VARIABLE WIDTH DRAINAGE EASEMENT (PRIVATE)
PVWDE	VARIABLE WIDTH DRAINAGE EASEMENT (PUBLIC)

HATCH LEGEND

- COLLECTOR ROAD
- ACCESS EASEMENT

SITE LEGEND

SYMBOL	DESCRIPTION
	BOUNDARY
	BUFFER
	CENTER LINE
	CURB & GUTTER
	EASEMENT
	LOT LINE
	PHASE LINE
	RIGHT OF WAY
	SETBACK

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CONSTRUCTION PLANS
HAWKSBILL COVE EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
KEY: MENDENHALL

KEY MAP
N.T.S.

0 125 250
SCALE: 1 inch = 250 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

OVERALL SITE PLAN

C2.00

EST 1993

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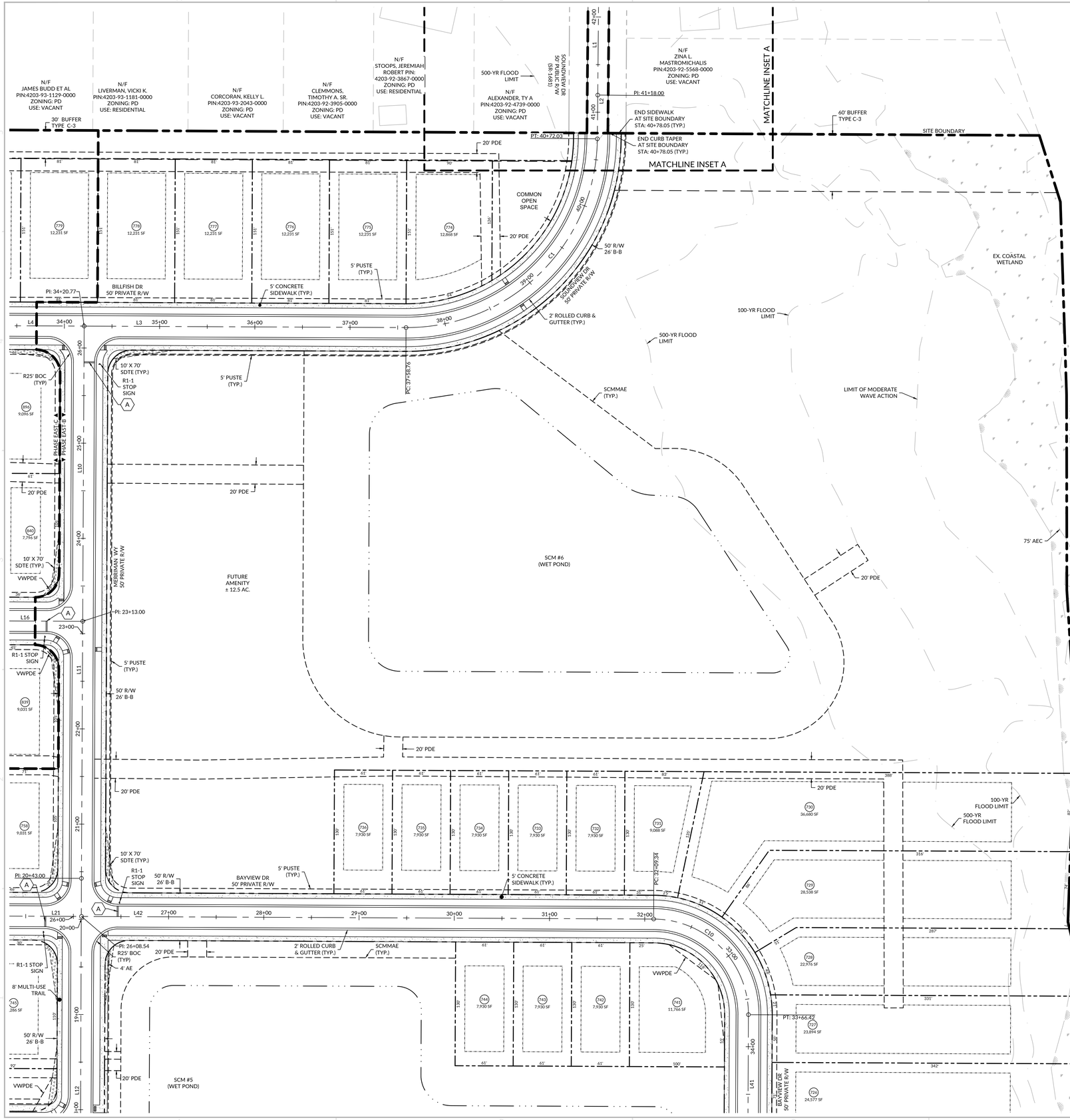


LINE TABLE

LINE #	LENGTH	DIRECTION
L1	178.00	N51° 31' 00"E
L2	45.98	N51° 31' 00"E
L3	337.99	S38° 44' 27"E
L4	655.07	S38° 44' 27"E
L5	60.00	N51° 15' 33"E
L6	310.00	N51° 14' 44"E
L7	230.00	N51° 16' 39"E
L8	773.00	N51° 15' 14"E
L9	773.00	N51° 15' 14"E
L10	310.00	N51° 16' 55"E
L11	270.00	N51° 16' 55"E
L12	270.00	N51° 12' 38"E
L13	147.50	N51° 15' 33"E
L14	147.50	N51° 15' 33"E
L15	333.46	N51° 15' 33"E
L16	905.07	S38° 44' 27"E
L16	905.07	S38° 44' 27"E
L17	85.69	S38° 44' 27"E
L18	76.62	S23° 48' 34"E
L19	36.89	S38° 44' 27"E
L20	339.00	S38° 44' 27"E
L21	905.07	S38° 44' 27"E
L21	905.07	S38° 44' 27"E

LINE TABLE

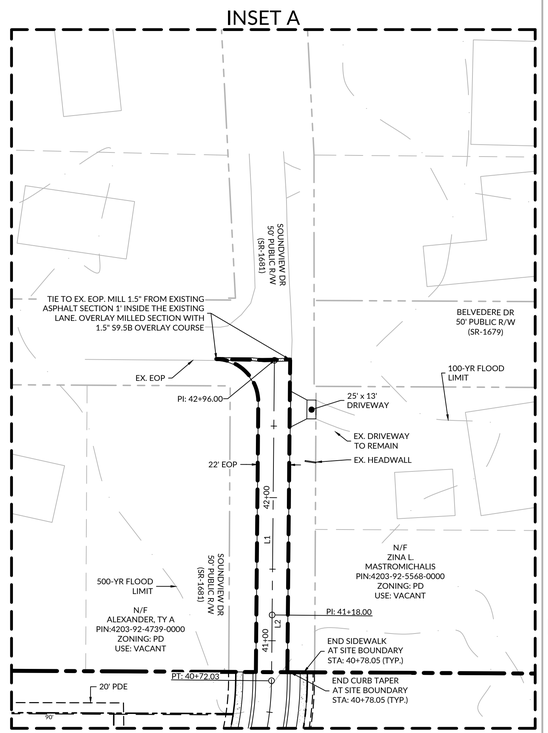
LINE #	LENGTH	DIRECTION
L22	80.71	S38° 44' 27"E
L23	126.82	S16° 56' 22"E
L24	320.91	S38° 44' 27"E
L25	71.52	S00° 52' 26"E
L26	382.92	S38° 44' 27"E
L27	160.00	N51° 15' 33"E
L28	310.00	N51° 15' 33"E
L29	89.19	N51° 15' 33"E
L30	96.72	N11° 04' 54"E
L31	56.23	S74° 56' 36"E
L32	287.96	S10° 42' 33"E
L33	38.71	S49° 21' 01"W
L34	137.82	S64° 03' 15"W
L35	173.49	S39° 16' 05"W
L36	515.02	N85° 58' 21"E
L37	540.00	S38° 44' 27"E
L38	540.00	S38° 44' 27"E
L39	635.07	S38° 44' 27"E
L39	635.07	S38° 44' 27"E
L40	600.79	N38° 44' 27"W
L41	325.00	S51° 15' 33"W
L42	600.79	S38° 44' 27"E
L43	310.00	S04° 01' 39"E

LINE TABLE

LINE #	LENGTH	DIRECTION
L44	32.75	S04° 01' 39"E
L45	194.54	S38° 44' 27"E
L46	284.93	S38° 44' 27"E
L47	582.32	S38° 44' 27"E
L50	605.56	S39° 58' 44"E
L51	298.10	N85° 58' 21"E
L52	248.60	N85° 58' 21"E
L53	773.00	N51° 15' 14"E
L53	773.00	N51° 15' 14"E
L54	284.96	S38° 44' 27"E
L55	460.00	N51° 15' 00"E
L56	270.04	S38° 44' 27"E
L57	147.50	N51° 15' 33"E
L58	176.62	N51° 15' 33"E
L59	118.37	N51° 15' 33"E
L60	330.50	N51° 14' 47"E
L61	735.00	S38° 44' 27"E
L61	735.00	S38° 44' 27"E
L62	600.50	S51° 15' 33"W
L63	600.50	S51° 15' 33"W

CURVE TABLE

CURVE #	RADIUS	LENGTH	CHORD LENGTH	CHORD DIRECTION
C1	200.00	313.26	282.21	S83° 36' 43"E
C2	250.00	392.70	353.55	S83° 44' 27"E
C3	250.00	165.23	162.24	S19° 48' 26"E
C4	150.00	235.62	212.13	S83° 44' 27"E
C5	250.00	175.31	171.74	N31° 10' 13"E
C6	300.00	78.18	77.96	S31° 16' 30"E
C7	300.00	78.18	77.96	S31° 16' 30"E
C8	230.00	87.52	86.99	S27° 50' 24"E
C9	230.00	87.52	86.99	S27° 50' 24"E
C10	100.00	157.08	141.42	S06° 15' 33"W
C11	100.00	157.08	141.42	N83° 44' 27"W
C12	450.00	276.64	272.31	S57° 19' 55"E
C13	450.00	504.49	478.49	S42° 49' 35"E
C14	630.00	916.13	837.52	S52° 22' 06"E
C15	300.00	76.99	76.78	S56° 42' 08"W
C16	230.00	47.25	47.16	S45° 09' 11"W
C17	400.00	385.97	371.17	S66° 23' 03"E
C18	230.00	139.35	137.23	S21° 23' 03"E



GENERAL NOTES

1. REFER TO GRADING & STORM GRADING PLAN SHEETS C4.00-C5.07 FOR CURB TRANSITION AT PROPOSED CATCH BASINS LOCATIONS.

PAVEMENT MARKING LEGEND

PAVEMENT MARKING SYMBOLS
A 24" WHITE STOP BAR (MIN 4' BEHIND CROSSWALK)
B 4" WHITE PARKING SPACE LINE

STRIPING NOTES

1. ALL MARKINGS AND SIGNAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH MUTCD STANDARDS, INCLUDING COLOR, LETTER HEIGHT, AND LETTER CASE OF THE STREET NAME SIGNS.
2. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.
3. ANY EXISTING PAVEMENT STRIPING THAT IS IN CONFLICT WITH THE PROPOSED STRIPING SHOWN ON THIS PLAN SHALL BE REMOVED.

SITE LEGEND

SYMBOL	DESCRIPTION
	BOUNDARY
	BUFFER
	CENTER LINE
	CURB & GUTTER
	EASEMENT
	LOT LINE
	PHASE LINE
	RIGHT OF WAY
	SETBACK
	BUILDING
	CONCRETE PAVING
	LIGHT DUTY ASPHALT PAVING

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License #: F-1479 | t: 919.238.0330 | www.withersravenel.com

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WILMINGTON, NC 28411

CONSTRUCTION PLANS
HAWKSBILL COVE EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
KEY MENDENHALL

KEY MAP
N.T.S.
X1 X2 X3 X4 X5 X6 X7

SCALE: 1 Inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

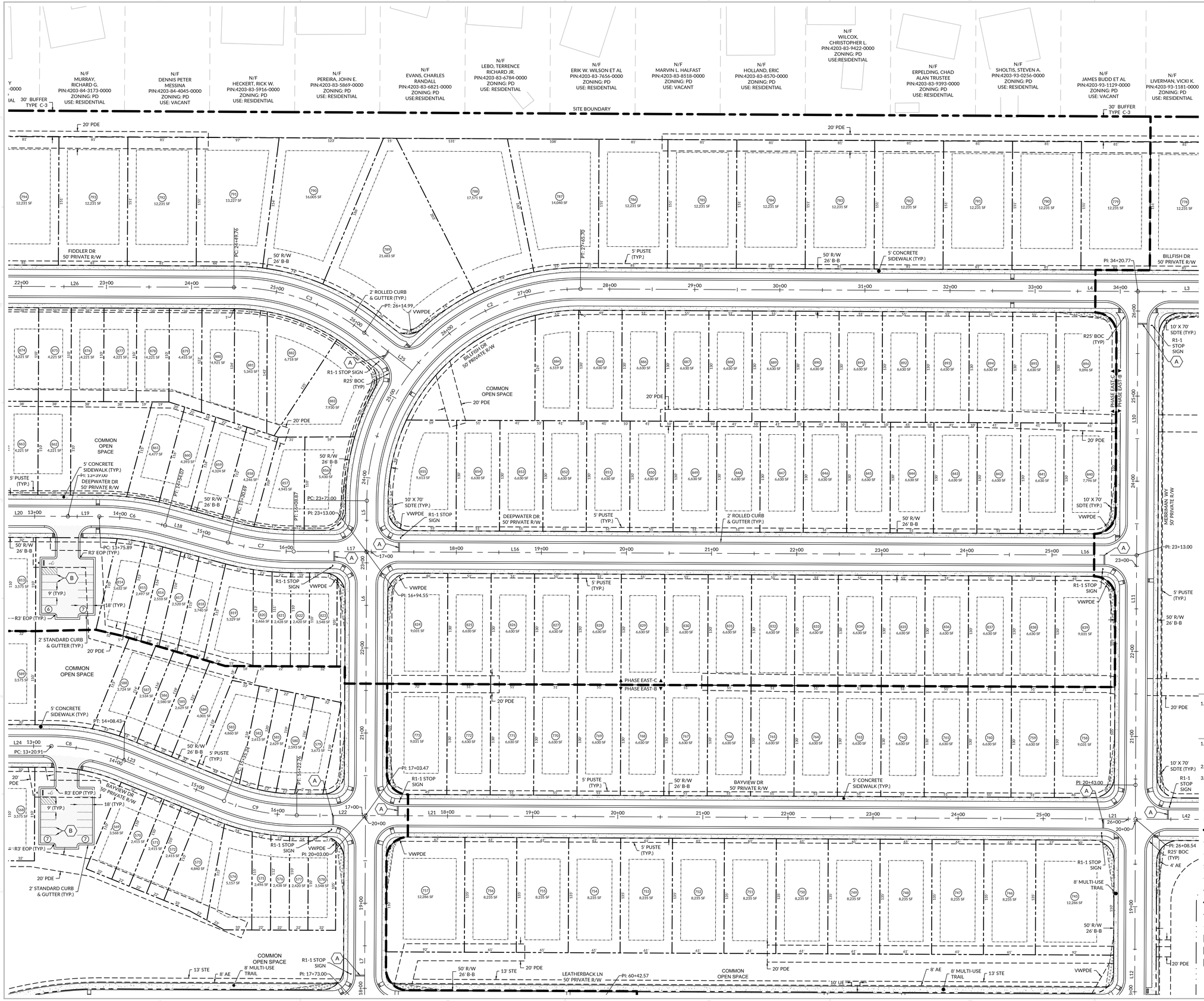
Know what's below. Call 811 before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

SITE PLAN

C2.01

J:\25\0329-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C2.01 SITE PLAN.dwg Wednesday, October 1, 2025 1:13:53 PM AMENDENHALL



PAVEMENT MARKING LEGEND

- PAVEMENT MARKING SYMBOLS
- (A) 24" WHITE STOP BAR (MIN 4' BEHIND CROSSWALK)
- (B) 4" WHITE PARKING SPACE LINE

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SYMBOL	DESCRIPTION
	BOUNDARY
	BUFFER
	CENTER LINE
	CURB & GUTTER
	EASEMENT
	LOT LINE
	PHASE LINE
	RIGHT OF WAY
	SETBACK
	BUILDING
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	LIGHT DUTY ASPHALT PAVING

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COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
KELEY MENDENHALL

KEY MAP
N.T.S.
X1 X2 X3 X4 X5 X6 X7

SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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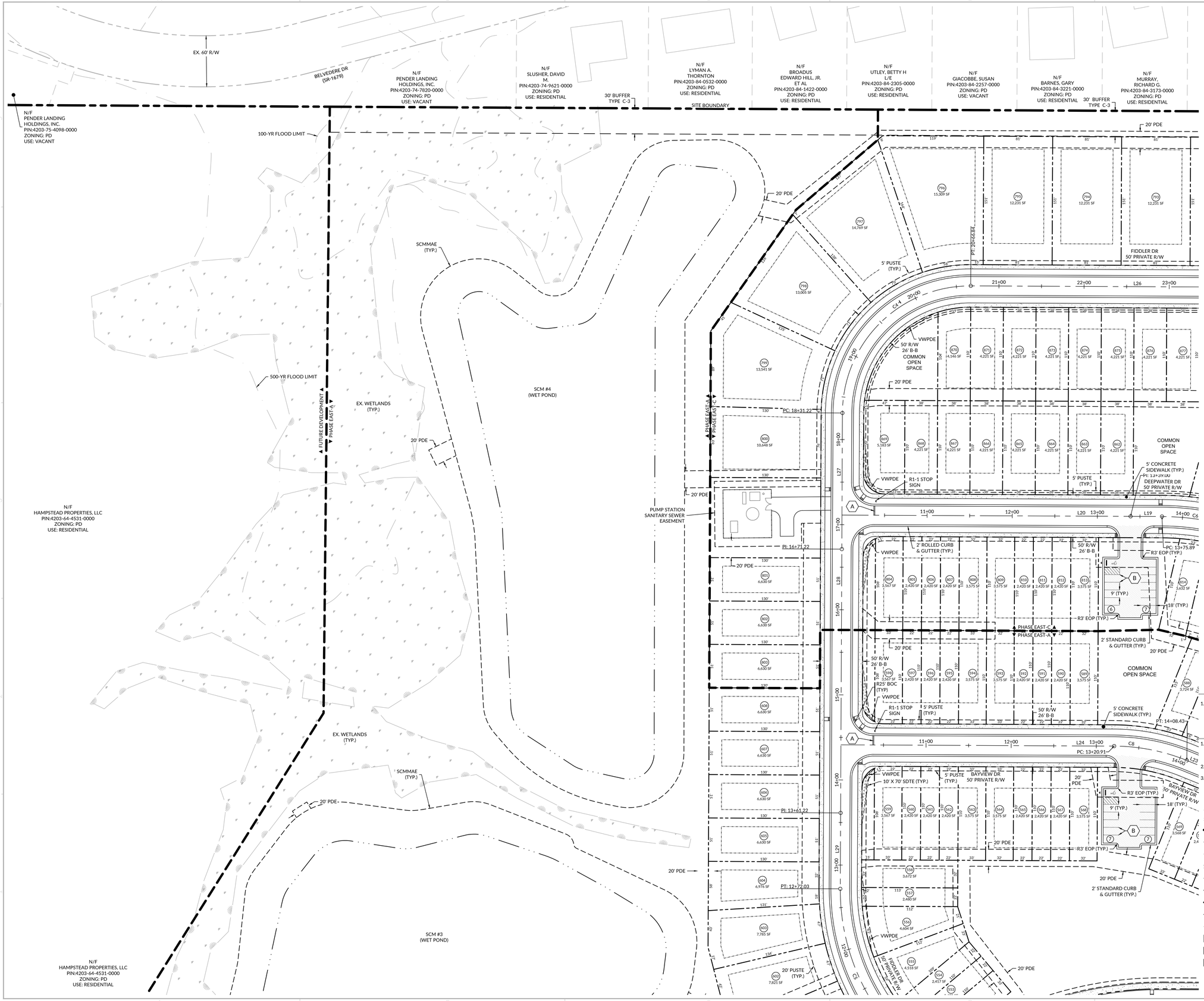
WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

SITE PLAN

C2.02

J:\25\0329-a ryan homes, pender county, hawksbill cove\CAD\drawing set\construction\C2.01 2.07 SITE PLAN.dwg - Wednesday, October 1, 2025 1:13:58 PM - AMENDENHALL



PAVEMENT MARKING LEGEND

- PAVEMENT MARKING SYMBOLS
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	BOUNDARY
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NORTH CAROLINA
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KEY MENDEHALL

KEY MAP
N.T.S.
X1 X2 X3 X4 X5 X6 X7

SCALE: 1 inch = 50 ft.

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WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

SITE PLAN

C2.03

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PAVEMENT MARKING LEGEND

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KEY MENDENHALL

KEY MAP
N.T.S.

SCALE: 1 inch = 50 ft.

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WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

SITE PLAN

C2.04

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N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-64-4531-0000
ZONING: PD
USE: RESIDENTIAL

EX. WETLANDS (TYP.)

FUTURE DEVELOPMENT PHASE EAST-A

SCM #3
(WET POND)

FUTURE AMENITY SITE ± 10.5 AC.

20' PDE

SCMMAE (TYP.)

8' AE

8' MULTI-USE TRAIL

VWDE

VARIABLE WIDTH PUE

2' ROLLED CURB & GUTTER (TYP.)

5' PUSTE (TYP.)

50' R/W 26' B-B

R1-1 STOP SIGN

10' X 70' SDTE (TYP.)

TIE TO EX. CURB & GUTTER

EX. EOP (TYP.)

PCC: 11+70.74

PC: 10+87.32

PC: 11+23.49

PC: 50+75.85

PI: 11+98.10

PI: 13+10.00

PI: 16+76.64

PT: 14+62.10

PT: 45+60.32

PT: 54+61.82

PI: 55+02.57

R25' BOC (TYP)

5' CONCRETE SIDEWALK (TYP.)

R50' R/W R36' EOP

PI: 14+46.60

VWPDE

R1-1 STOP SIGN

30' BUFFER TYPE C-3

SITE BOUNDARY

EX. 60' R/W

AVILA AVE

PHASE EAST-A
SOUTH VILLAGE

CATAMARAN LN
50' R/W

CUTTY SARK DR
50' R/W

LEATHERBACK LN
50' PRIVATE R/W

FIDDLER DR
50' PRIVATE R/W

RIDDLEY DR
50' PRIVATE R/W

LOWER MAST LANE
50' PRIVATE R/W

FINE LINE LANDING
50' PRIVATE R/W

COMMON OPEN SPACE

PAVEMENT MARKING LEGEND

- PAVEMENT MARKING SYMBOLS
- (A) 24" WHITE STOP BAR (MIN 4' BEHIND CROSSWALK)
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EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
KEY MENDENHALL

KEY MAP
N.T.S.

SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
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WR JOB NUMBER	25-0329-A
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SITE PLAN

C2.05

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NORTH CAROLINA
PRELIMINARY
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JEFFREY MENDEHALL

KEY MAP
N.T.S.

SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR
CKD: WR	

SITE PLAN

C2.06

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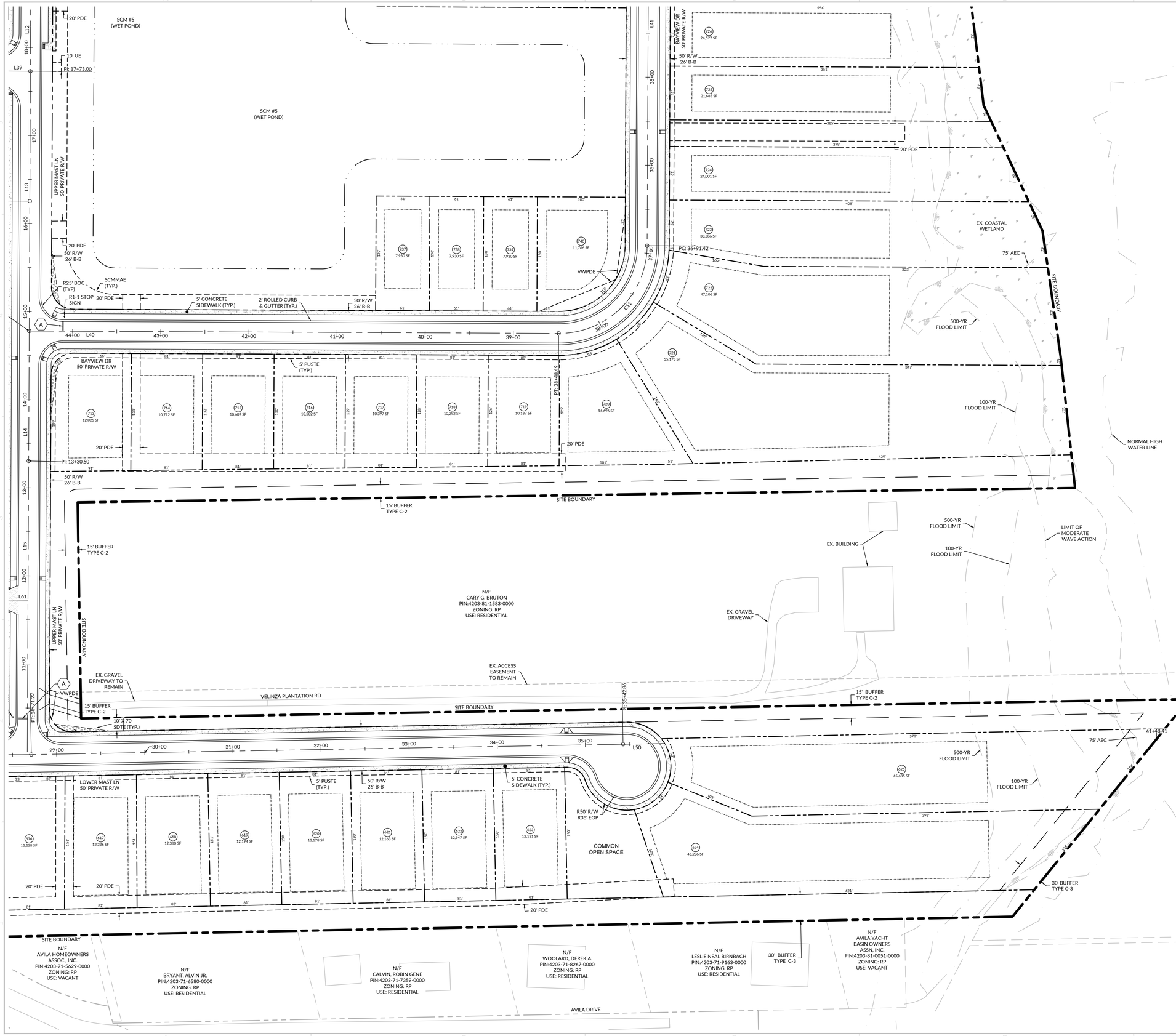

PAVEMENT MARKING LEGEND

- PAVEMENT MARKING SYMBOLS
- (A) 24" WHITE STOP BAR (MIN 4' BEHIND CROSSWALK)
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	CURB & GUTTER
	EASEMENT
	LOT LINE
	PHASE LINE
	RIGHT OF WAY
	SETBACK
	BUILDING
	CONCRETE PAVING
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NORTH CAROLINA
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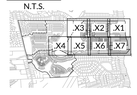
KEY MENDENHALL

KEY MAP
N.T.S.



0 25 50
SCALE: 1 inch = 50 ft.

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Call before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

SITE PLAN

C2.07

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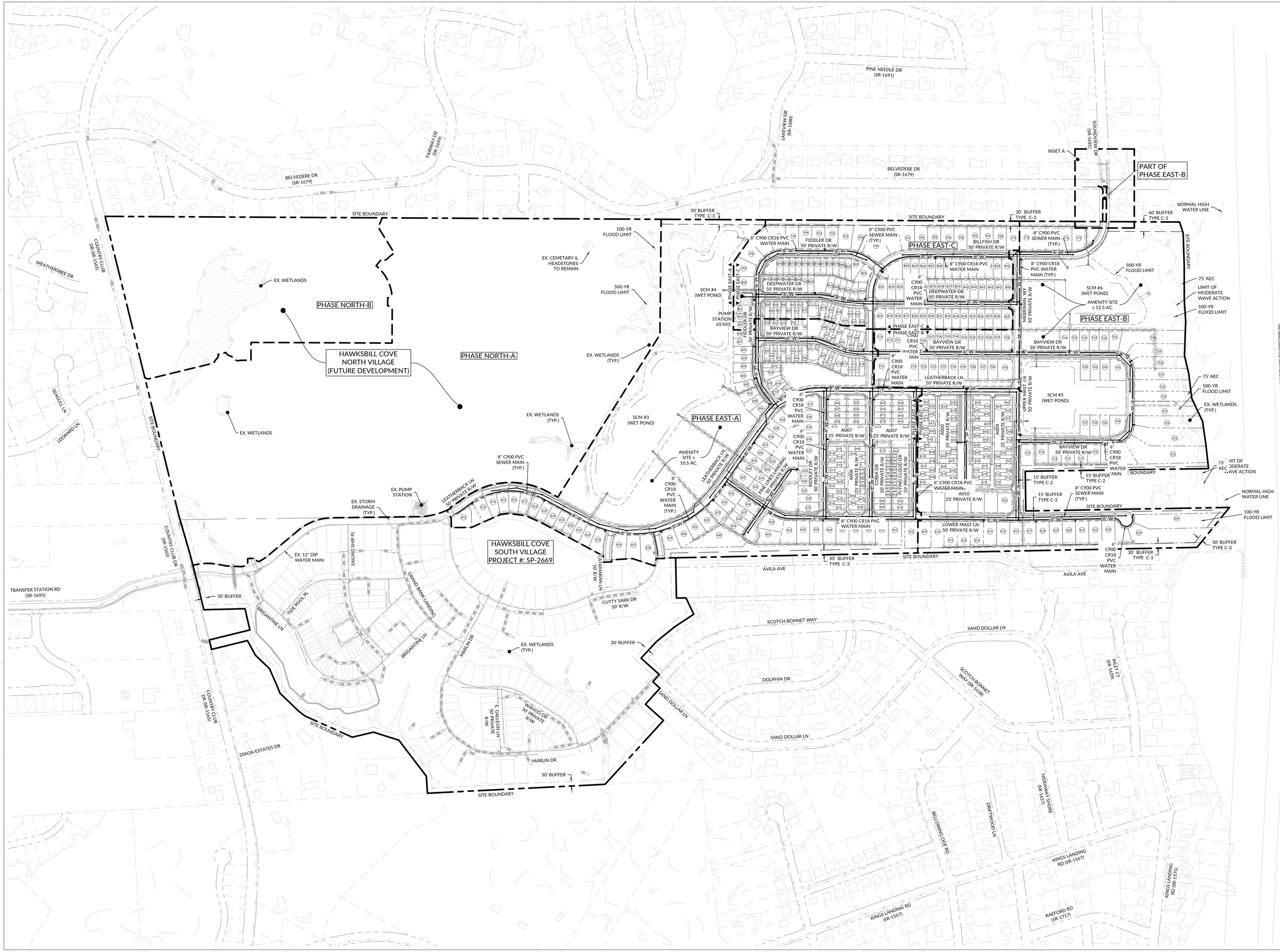

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FOR CONSTRUCTION
KEY MENDENHALL

KEY MAP
N.T.S.

0 125 250
SCALE: 1 Inch = 250 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

OVERALL UTILITY PLAN

C3.00

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CONSTRUCTION PLANS

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EAST VILLAGE

COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
JEFFREY MENDENHALL

KEY MAP
N.T.S.

0 25 50
SCALE: 1 Inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
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WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

UTILITY PLAN

C3.01

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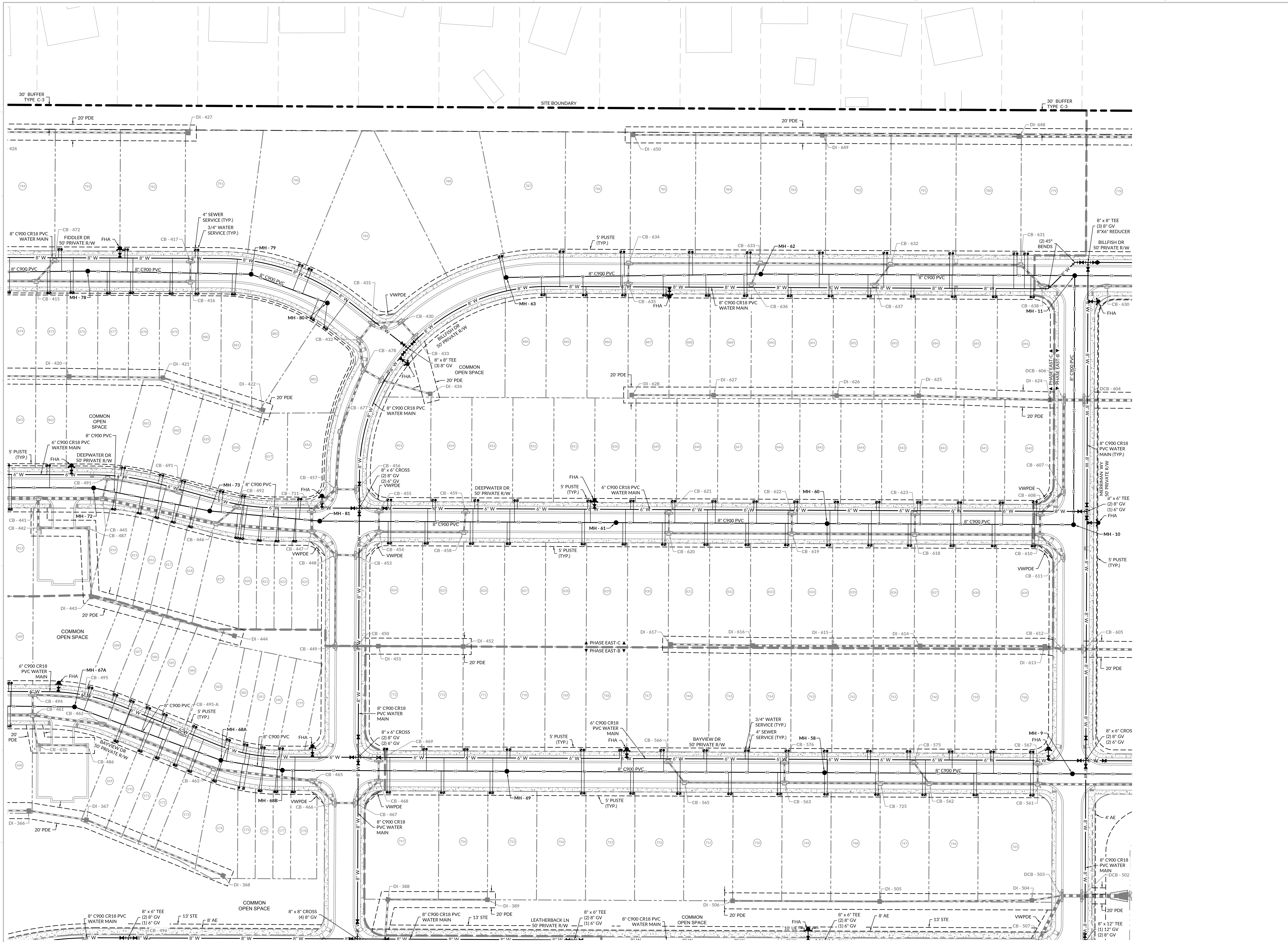

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COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

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KEY MAP
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UTILITY PLAN

C3.02

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EX. 60' R/W

BELVEDERE DR (SR-1679)

30' BUFFER TYPE C-3

SITE BOUNDARY

30' BUFFER TYPE C-3

100-YR FLOOD LIMIT

500-YR FLOOD LIMIT

SCMMAE (TYP.)

EX. WETLANDS (TYP.)

SCM #4 (WET POND)

FUTURE DEVELOPMENT

PHASE EAST-A

PHASE EAST-C

20' PDE

HW - 423

DI - 424

DI - 425

DI - 426

20' PDE

MH - 77

(2) 11.25° BENDS

5' PUSTE (TYP.)

8" C900 CR18 PVC WATER MAIN

CB - 472

FIDDLER DR 50' PRIVATE R/W

FHA

CB - 471

8" W

8" C900 PVC

MH - 76

CB - 474

CB - 413

CB - 414

CB - 415

MH - 78

VWPDE

CB - 412

COMMON OPEN SPACE

MH - 75

DI - 418

20' PDE

DI - 419

DI - 420

CB - 688

CB - 411

CB - 473

CB - 410

VWPDE

CB - 409

CB - 490

HW - 592

DI - 593

MH - 2

8" DIP

PUMP STATION SANITARY SEWER EASEMENT

WET WELL

MH - 71

8" x 6" TEE (2) 8" GV (1) 6" GV

6" W

8" C900 PVC

CB - 491

CB - 440

CB - 441

CB - 442

MH - 72

CB - 445

CB - 487

FHA

CB - 408

VWPDE

CB - 403

20' PDE

X" [MATERIAL] FORCEMAIN

CB - 402

PUMP STATION 65'X45' SEE SHEET PS-01 - PS-06 FOR DESIGN DETAILS

DCB - 404

DCB - 405

DI - 407

PHASE EAST-C

PHASE EAST-A

20' PDE

DI - 406

DI - 443

20' PDE

8" C900 CR18 PVC WATER MAIN

COMMON OPEN SPACE

CB - 435

VWPDE

CB - 436

8" x 6" TEE (2) 8" GV (1) 6" GV

5' PUSTE (TYP.)

8" C900 PVC

CB - 493

6" C900 CR18 PVC WATER MAIN

MH - 67A

FHA

CB - 495

MH - 66

CB - 494

CB - 461

CB - 462

FHA

CB - 437E

CB - 438

CB - 439

5' PUSTE (TYP.)

BAYVIEW DR 50' PRIVATE R/W

CB - 460

20' PDE

CB - 470

CB - 486

DI - 498

DI - 365

20' PDE

DI - 367

8" C900 CR18 PVC WATER MAIN

CB - 591

CB - 364

DI - 366

20' PDE

MH - 65

DI - 369

VWPDE

CB - 363

FHA

20' PUSTE (TYP.)

CB - 362

FIDDLER DR 50' PRIVATE R/W

20' PDE

DI - 370

8" C900 CR18 PVC WATER MAIN

FES - 360

SCM #3 (WET POND)

EX. WETLANDS (TYP.)

SCMMAE (TYP.)

20' PDE

20' PDE

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NORTH CAROLINA

PRELIMINARY

NOT APPROVED FOR CONSTRUCTION

KEY MENDENHALL

KEY MAP

N.T.S.

0 35 50

SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025

REVISIONS:

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

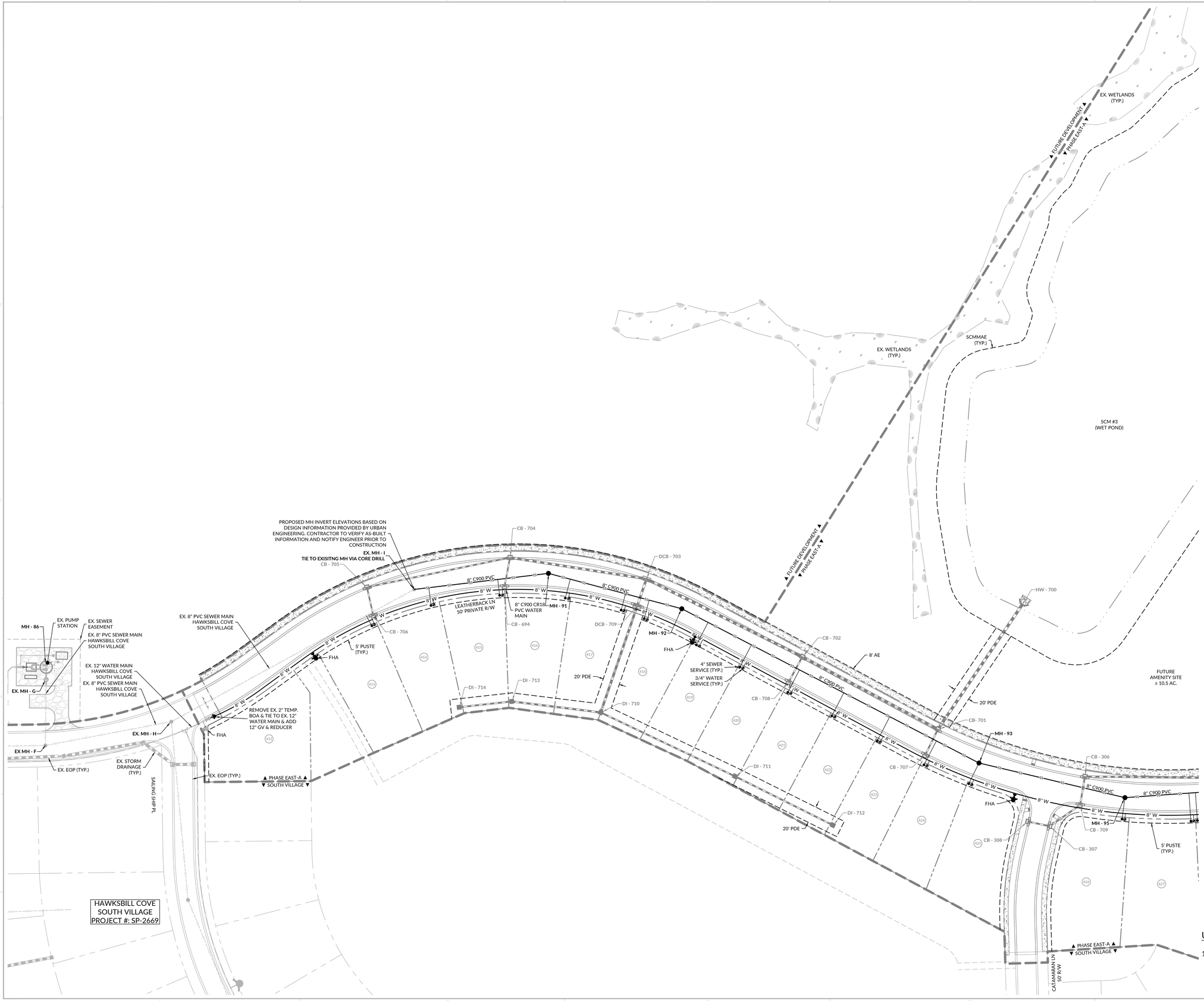
WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR
CKD: WR	

UTILITY PLAN

C3.03

EST 1993

J:\25\0329-a-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C3.03-UTILITY PLAN.dwg Wednesday, October 1, 2025 2:29:43 PM - AMENDENHALL



UTILITY NOTES:

1. PROPOSED MH INVERT ELEVATIONS BASED ON DESIGN INFORMATION PROVIDED BY URBAN ENGINEERING. CONTRACTOR TO VERIFY AS-BUILT INFORMATION AND NOTIFY ENGINEER PRIOR TO CONSTRUCTION.

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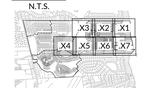
CONSTRUCTION PLANS
HAWKSBILL COVE EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
KEY MENDENHALL

KEY MAP
N.T.S.



SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

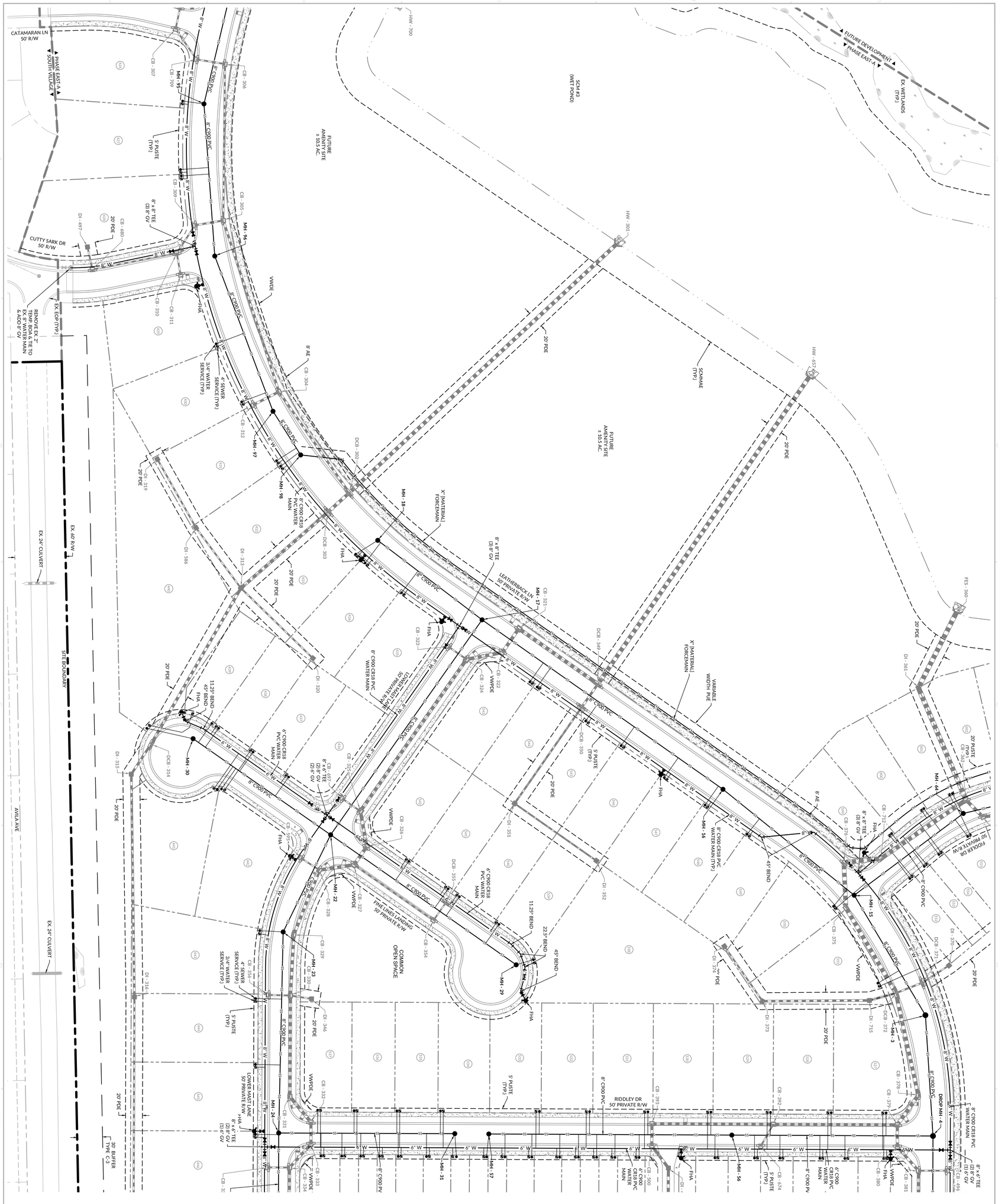
Know what's below.
Call before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

UTILITY PLAN

C3.04

J:\25\0329-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C3.03-3.07 UTILITY PLAN.dwg Wednesday, October 1, 2025 11:54:5 PM - AMENDENHALL



C3.05

UTILITY PLAN

INITIAL PLAN DATE: 10/2/2025
REVISIONS:

Know what's below.
Call 811 before you dig.
WR JOB NUMBER 25-0329.A
DRWN BY: DCH/LWR CHK'D BY: KCD/WG

SCALE: 1 inch = 90 ft.

KEY MAP
N.T.S.

PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
P.E. MENDENHALL
NORTH CAROLINA

CONSTRUCTION PLANS
HAWKSBILL COVE
EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

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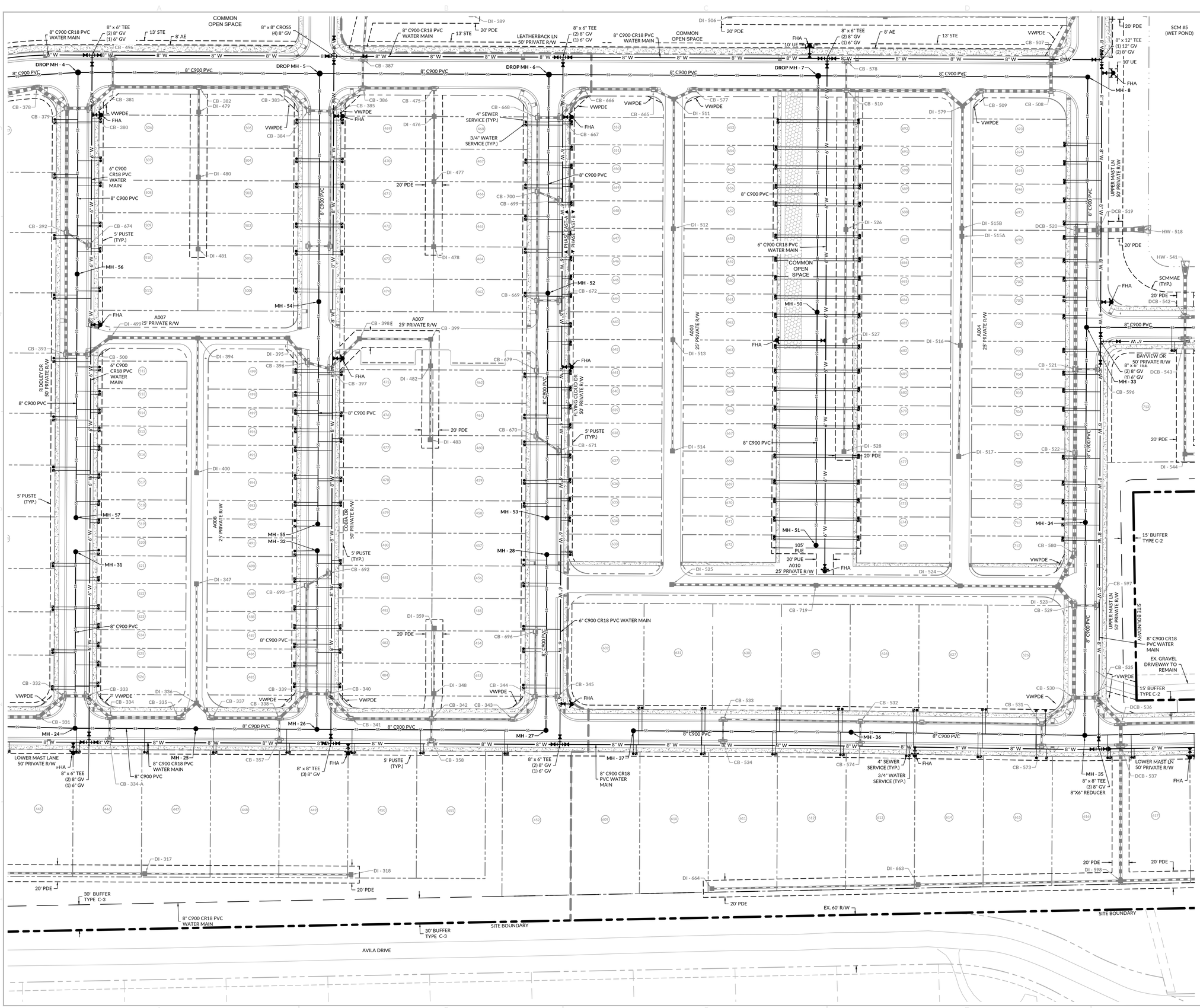

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CONSTRUCTION PLANS
HAWKSBILL COVE
EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
JEFFREY MENDENHALL

KEY MAP
N.T.S.
X3 X2 X1
X4 X5 X6 X7

0 25 50
SCALE: 1 Inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

UTILITY PLAN

C3.06

J:\25\0329-A-Ryan Homes_Pender County_Hawksbill Cove\CAD\Drawing Sets\Construction\C3.01-3.07 UTILITY PLAN.dwg Wednesday, October 1, 2025 3:38:47 PM - AMENDENHALL

SCM #5
(WET POND)

SCM #5
(WET POND)

20' PDE

8" x 12" TEE
(1) 12" GV
(2) 8" GV

10' UE

FHA

MH - 8

UPPER MAST LN
50' PRIVATE R/W

8" C900 PVC

DCB - 519

HW - 518

20' PDE

HW - 541

SCMMAE
(TYP.)

FHA

20' PDE

DCB - 542

8" C900 PVC

BAYVIEW DR
50' PRIVATE R/W
8" x 6" TEE
(2) 8" GV
(1) 6" GV

MH - 33

DCB - 543

CB - 596

6" C900 CR18
PVC WATER
MAIN

MH - 40

5' PUSTE
(TYP.)

FHA

CB - 571

4" SEWER
SERVICE (TYP.)

3/4" WATER
SERVICE (TYP.)

CB - 547

CB - 548

CB - 570

8" C900 PVC

MH - 41

(2) 11.25°
BENDS

(2) 22.5°
BENDS

VWPDE

MH - 43

FHA
11.25°
BEND

RISER (SCM 5)

FES (SCM 5)

20' PDE

BAYVIEW DR
50' PRIVATE R/W

MH - 49

MH - 44

CB - 581

CB - 582

8" C900 PVC

EX. COASTAL
WETLAND

75' AEC

MEANDER SETS

500-YR
FLOOD LIMIT

100-YR
FLOOD LIMIT

NORMAL HIGH
WATER LINE

20' PDE

DI - 545

DI - 544

20' PDE

DI - 546

SITE BOUNDARY

15' BUFFER
TYPE C-2

15' BUFFER
TYPE C-2

EX. BUILDING

500-YR
FLOOD LIMIT

100-YR
FLOOD LIMIT

LIMIT OF
MODERATE
WAVE ACTION

EX. GRAVEL
DRIVEWAY

INTRACOASTAL WATERWAY

CB - 597

UPPER MAST LN
50' PRIVATE R/W

SITE BOUNDARY

8" C900 PVC

8" C900 CR18
PVC WATER
MAIN

EX. GRAVEL
DRIVEWAY TO
REMAIN

CB - 535

VWPDE

EX. ACCESS
EASEMENT
TO REMAIN

VELINZA PLANTATION RD

15' BUFFER
TYPE C-2

SITE BOUNDARY

DCB - 536

CB - 538

MH - 38

CB - 539

MH - 102

MH - 39

8" C900 PVC

8" W

6" W

LOWER MAST LN
50' PRIVATE R/W

DCB - 537

MH - 35
8" x 8" TEE
(3) 8" GV
8"X6" REDUCER

FHA

6" C900 CR18 PVC WATER MAIN

CB - 572

5' PUSTE
(TYP.)

FHA

4" SEWER
SERVICE (TYP.)

3/4" WATER
SERVICE (TYP.)

CB - 540

22.5°
BEND

(2) 11.25°
BENDS

22.5°
BEND

45°
BEND

FHA
45°
BEND
11.25°
BEND

(2) 22.5°
BENDS

11.25°
BEND

COMMON
OPEN SPACE

DI - 661

20' PDE

DI - 598

20' PDE

DI - 599

DI - 600

20' PDE

SITE BOUNDARY

30' BUFFER
TYPE C-3

30' BUFFER
TYPE C-3

AVILA DRIVE

J:\2510\29-ryan homes_pender county_hawksbill cove\CAD\drawing sets\construction\C3.00-3.07 UTILITY PLAN.dwg Wednesday, October 1, 2025 1:18:33 PM - AMENDENHALL

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CONSTRUCTION PLANS
HAWKSBILL COVE
EAST VILLAGE

COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED
FOR CONSTRUCTION
KEY MENDENHALL

KEY MAP
N.T.S.

0 25 50
SCALE: 1 inch = 50 ft.

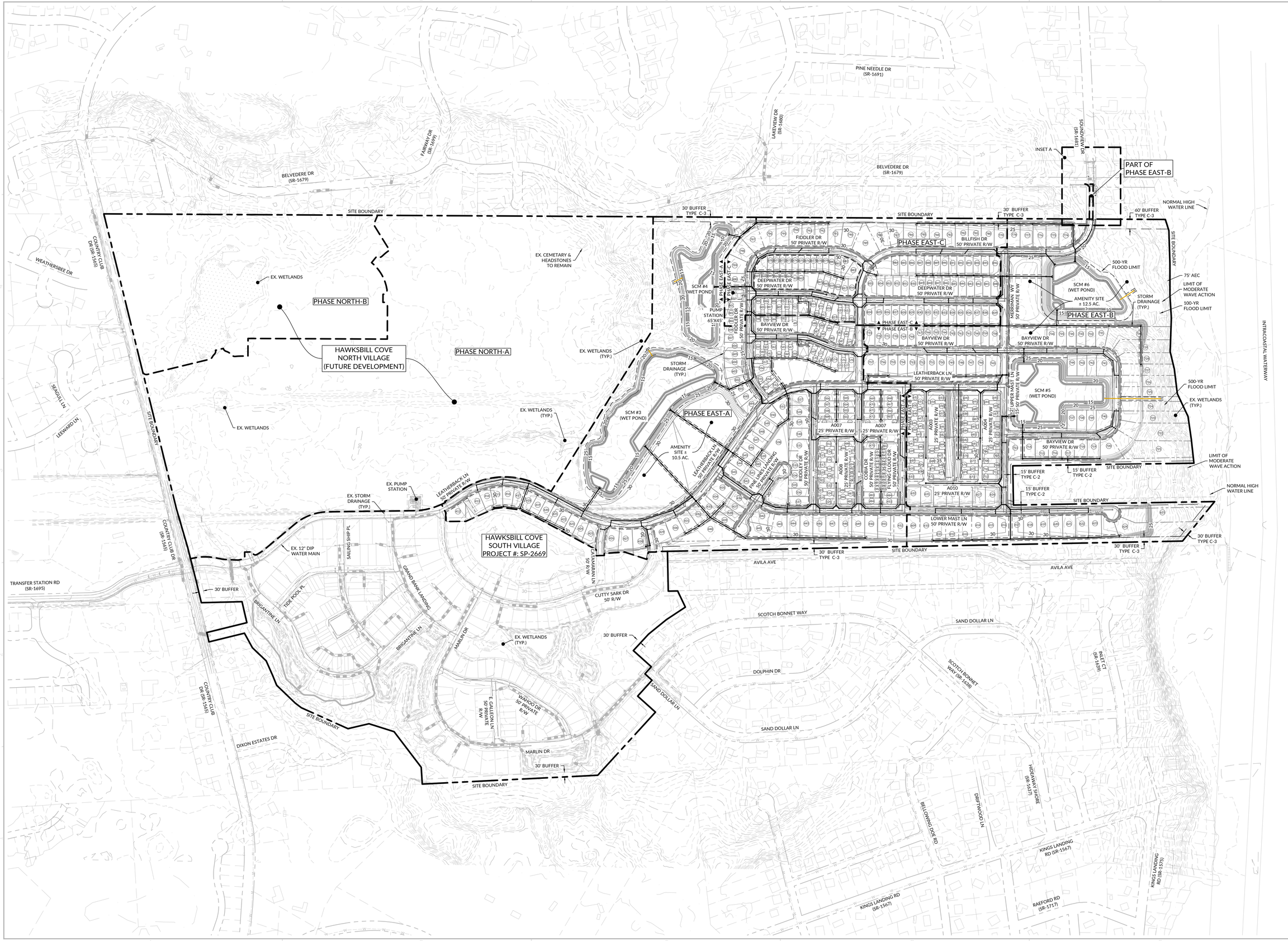
INITIAL PLAN DATE: 10/3/2025
REVISIONS:

Know what's below.
Call before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

UTILITY PLAN

C3.07



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CONSTRUCTION PLANS
HAWKSBILL COVE EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
JEFFREY MENDENHALL

KEY MAP
N.T.S.

SCALE: 1 inch = 250 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

Know what's below. Call before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

OVERALL STORM DRAINAGE & GRADING PLAN

C4.00

J:\25\0329-a-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\CAD\OVERALL STORM DRAINAGE & GRADING PLAN.dwg Wednesday, October 1, 2025 1:20:08 PM - AMENDEWALL

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CONSTRUCTION PLANS
HAWKSBILL COVE
EAST VILLAGE

COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
KEY MENDENHALL

KEY MAP
N.T.S.

0 25 50
SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

Know what's below. Call before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

STORM DRAINAGE PLAN

C4.01

EST 1983

J:\25\0329-a-ryan homes_pender county_hawksbill cove\CAD\drawing sets\construction\C4.01-4.07 STORM DRAINAGE PLAN.dwg, Wednesday, October 1, 2025 1:23:51 PM, AMENDENHALL

N/F
MURRAY,
RICHARD G.
PIN:4203-84-3173-0000
ZONING: PD
USE: RESIDENTIAL

N/F
DENNIS PETER
MESSINA
PIN:4203-84-4045-0000
ZONING: PD
USE: VACANT

N/F
HECKERT, RICK W.
PIN:4203-83-5916-0000
ZONING: PD
USE: RESIDENTIAL

N/F
PEREIRA, JOHN E.
PIN:4203-83-5869-0000
ZONING: PD
USE: RESIDENTIAL

N/F
EVANS, CHARLES
RANDALL
PIN:4203-83-6821-0000
ZONING: PD
USE:RESIDENTIAL

N/F
LEBO, TERRENCE
RICHARD JR.
PIN:4203-83-6784-0000
ZONING: PD
USE: RESIDENTIAL

N/F
ERIK W. WILSON ET AL
PIN:4203-83-7656-0000
ZONING: PD
USE: RESIDENTIAL

N/F
MARVIN L. HALFAST
PIN:4203-83-8518-0000
ZONING: PD
USE: VACANT

N/F
HOLLAND, ERIC
PIN:4203-83-8570-0000
ZONING: PD
USE: RESIDENTIAL

N/F
WILCOX,
CHRISTOPHER L.
PIN:4203-83-9422-0000
ZONING: PD
USE:RESIDENTIAL

N/F
ERPELDING, CHAD
ALAN TRUSTEE
PIN:4203-83-9393-0000
ZONING: PD
USE: RESIDENTIAL

N/F
SHOLTIS, STEVEN A.
PIN:4203-93-0256-0000
ZONING: PD
USE: RESIDENTIAL

N/F
JAMES BUDD ET AL
PIN:4203-93-1129-0000
ZONING: PD
USE: VACANT

N/F
LIVERMAN, VICKI K.
PIN:4203-93-1181-0000
ZONING: PD
USE: RESIDENTIAL

30' BUFFER
TYPE C-3

20' PDE

242.71 LF 15" RCP @ 0.97%

DI - 427
RIM: 26.78'
INV. OUT: 23.90' (DI - 426)

191.76 LF 15" RCP @ 0.57%

CB - 472
RIM: 27.71'
INV. OUT: 23.45' (CB - 415)

CB - 417
RIM: 28.97'
INV. OUT: 24.72' (CB - 416)

26.00 LF 15" RCP @ 1.04%

FIDDLER DR
50' PRIVATE R/W

MH - 79

26.00 LF 18" RCP @ 1.15%

CB - 431
RIM: 28.20'
INV. IN: 23.45' (CB - 430)
INV. OUT: 23.20' (CB - 432)

36.10 LF 15" RCP @ 0.83%

VWPDE

CB - 415
RIM: 27.54'
INV. IN: 23.25' (CB - 472)
INV. IN: 23.25' (CB - 416)
INV. OUT: 23.00' (CB - 414)

CB - 416
RIM: 28.97'
INV. IN: 24.45' (CB - 417)
INV. OUT: 24.35' (CB - 415)

MH - 78

MH - 80

CB - 432
RIM: 28.21'
INV. IN: 22.90' (CB - 431)
INV. OUT: 22.40' (CB - 678)

37.41 LF 24" RCP @ 1.20%

CB - 678
RIM: 27.91'
INV. IN: 21.95' (CB - 432)
INV. IN: 22.35' (CB - 736)
INV. OUT: 21.85' (CB - 677)

CB - 430
RIM: 28.55'
INV. IN: 23.85' (CB - 433)
INV. OUT: 23.75' (CB - 431)

26.00 LF 15" HPPP @ 0.58%

CB - 635
RIM: 28.58'
INV. OUT: 24.85' (CB - 634)

BILLFISH DR
50' PRIVATE R/W

26.01 LF 15" RCP @ 0.96%

CB - 433
RIM: 28.45'
INV. OUT: 24.10' (CB - 430)

20' PDE

DI - 434
RIM: 25.82'
INV. OUT: 23.17' (CB - 736)

62.97 LF 15" RCP @ 0.67%

DI - 420
RIM: 25.90'
INV. IN: 21.95' (DI - 421)
INV. OUT: 21.85' (DI - 419)

152.70 LF 15" RCP @ 0.59%

DI - 421
RIM: 26.48'
INV. IN: 22.80' (DI - 422)
INV. OUT: 22.70' (DI - 420)

116.54 LF 15" RCP @ 0.64%

130.76 LF 15" RCP @ 0.61%

82.32 LF 24" RCP @ 0.43%

20' PDE

DI - 422
RIM: 26.52'
INV. OUT: 23.60' (DI - 421)

33.26 LF 15" RCP @ 3.01%

CB - 491
RIM: 25.39'
INV. IN: 21.80' (CB - 691)
INV. OUT: 21.70' (CB - 445)

CB - 441
RIM: 24.96'
INV. IN: 18.15' (CB - 445)
INV. IN: 19.10' (CB - 442)
INV. OUT: 17.65' (CB - 440)

CB - 446
RIM: 26.10'
INV. IN: 19.35' (CB - 447)
INV. IN: 20.90' (CB - 492)
INV. OUT: 18.85' (CB - 445)

CB - 492
RIM: 26.20'
INV. OUT: 21.90' (CB - 446)

CB - 457
RIM: 26.79'
INV. IN: 21.10' (CB - 677)
INV. IN: 21.85' (CB - 456)
INV. OUT: 20.60' (CB - 711)

40.26 LF 30" RCP @ 0.62%

CB - 711
RIM: 26.68'
INV. IN: 20.35' (CB - 457)
INV. OUT: 20.25' (CB - 447)

79.80 LF 36" RCP @ 0.25%

90.43 LF 15" HPPP @ 0.50%

CB - 691
RIM: 25.82'
INV. OUT: 22.25' (CB - 491)

DEEPWATER DR
50' PRIVATE R/W

5' PUSTE
(TYP.)

MH - 73

CB - 456
RIM: 26.79'
INV. OUT: 22.50' (CB - 457)

26.00 LF 15" RCP @ 2.50%

VWPDE

CB - 455
RIM: 26.95'
INV. OUT: 22.70' (CB - 454)

105.55 LF 15" RCP @ 0.52%

CB - 459
RIM: 27.63'
INV. OUT: 23.30' (CB - 458)

DEEPWATER DR
50' PRIVATE R/W

CB - 621
RIM: 27.28'
INV. OUT: 23.60' (CB - 620)

26.00 LF 15" HPPP @ 0.50%

CB - 622
RIM: 26.43'
INV. OUT: 22.83' (CB - 619)

26.00 LF 15" RCP @ 0.50%

CB - 623
RIM: 25.59'
INV. OUT: 21.93' (CB - 618)

26.00 LF 15" RCP @ 0.50%

CB - 608
RIM: 24.73'
INV. IN: 19.90' (CB - 610)
INV. OUT: 19.40' (CB - 607)

26.00 LF 24" HPPP @ 0.58%

VWPDE

5' PUSTE
(TYP.)

MH - 61

MH - 60

MH - 10

ABERNAN WY
50' PRIVATE R/W

37.00 LF 24" RCP @ 0.41%

CB - 442
M: 24.99'
CB - 487)
CB - 441)

62.85 LF 18" RCP @ 0.56%

DI - 443
RIM: 23.42'
INV. IN: 20.90' (DI - 444)
INV. OUT: 20.90' (CB - 487)

26.41 LF 15" HPPP @ 4.92%

CB - 445
RIM: 25.36'
INV. IN: 18.45' (CB - 446)
INV. IN: 20.40' (CB - 491)
INV. OUT: 18.35' (CB - 441)

CB - 487
RIM: 24.99'
INV. IN: 20.35' (DI - 443)
INV. OUT: 20.10' (CB - 442)

85.48 LF 15" RCP @ 0.64%

144.71 LF 36" RCP @ 0.28%

119.51 LF 30" RCP @ 0.59%

26.01 LF 30" RCP @ 0.38%

VWPDE

CB - 447
RIM: 26.60'
INV. IN: 20.15' (CB - 711)
INV. IN: 20.65' (CB - 448)
INV. OUT: 20.05' (CB - 444)

CB - 454
RIM: 26.93'
INV. IN: 22.50' (CB - 458)
INV. IN: 22.50' (CB - 455)
INV. OUT: 22.25' (CB - 453)

26.00 LF 15" RCP @ 0.77%

VWPDE

26.10 LF 15" RCP @ 0.57%

CB - 458
RIM: 27.62'
INV. IN: 23.15' (CB - 459)
INV. OUT: 23.05' (CB - 454)

5' PUSTE
(TYP.)

CB - 620
RIM: 27.28'
INV. IN: 23.47' (CB - 621)
INV. OUT: 23.22' (CB - 619)

153.00 LF 18" HPPP @ 0.50%

CB - 619
RIM: 26.43'
INV. IN: 22.45' (CB - 620)
INV. IN: 22.70' (CB - 622)
INV. OUT: 21.95' (CB - 618)

153.00 LF 24" HPPP @ 0.59%

CB - 618
RIM: 25.59'
INV. IN: 21.05' (CB - 619)
INV. IN: 21.80' (CB - 623)
INV. OUT: 20.95' (CB - 610)

155.74 LF 24" HPPP @ 0.51%

CB - 610
RIM: 24.73'
INV. IN: 20.15' (CB - 618)
INV. IN: 20.55' (CB - 611)
INV. OUT: 20.05' (CB - 608)

VWPDE

40.16 LF 15" RCP @ 0.50%

CB - 611
RIM: 24.84'
INV. OUT: 20.75' (CB - 610)

CB - 612
RIM: 25.56'
INV. IN: 19.
INV. OUT: 1

CB - 605
RIM: 25.56'
INV. IN: 19.
INV. OUT: 1

40.36 LF 18" RCP @ 0.67%

CB - 453
RIM: 26.39'
INV. IN: 21.98' (CB - 454)
INV. OUT: 21.88' (CB - 448)

26.00 LF 18" RCP @ 1.65%

113.67 LF 18" HPPP @ 0.53%

DI - 451
RIM: 25.64'
INV. IN: 22.82' (DI - 452)
INV. OUT: 22.82' (CB - 450)

DI - 452
RIM: 26.27'
INV. OUT: 23.35' (DI - 451)

102.09 LF 18" RCP @ 0.50%

DI - 617
RIM: 26.00'
INV. OUT: 22.23' (DI - 616)

DI - 616
RIM: 25.59'
INV. IN: 21.72' (DI - 617)
INV. OUT: 21.22' (DI - 615)

101.88 LF 24" RCP @ 0.56%

DI - 614
RIM: 24.42'
INV. IN: 20.02' (DI - 615)
INV. OUT: 20.02' (DI - 613)

155.38 LF 24" RCP @ 0.50%

41.04 LF 24" RCP @ 0.85%

CB - 448
RIM: 26.29'
INV. IN: 21.45' (CB - 453)
INV. IN: 21.50' (CB - 449)
INV. OUT: 21.00' (CB - 447)

184.62 LF 15" RCP @ 0.54%

CB - 494
M: 25.63'
CB - 495)
CB - 461)

20' PDE

26.00 LF 18" RCP @ 0.77%

CB - 461
RIM: 25.63'
INV. IN: 20.15' (CB - 462)
INV. IN: 20.85' (CB - 494)
INV. IN: 21.10' (CB - 470)
INV. OUT: 19.65' (CB - 460)

63.93 LF 15" RCP @ 0.70%

CB - 495
RIM: 26.06'
INV. IN: 21.75' (CB - 495-A)
INV. OUT: 21.75' (CB - 494)

CB - 462
RIM: 26.26'
INV. IN: 20.75' (CB - 463)
INV. OUT: 20.65' (CB - 461)

DI - 444
RIM: 24.30'
INV. OUT: 21.90' (DI - 443)

CB - 449
RIM: 25.91'
INV. IN: 22.20' (CB - 450)
INV. OUT: 22.10' (CB - 448)

26.00 LF 18" HPPP @ 0.50%

130.15 LF 15" RCP @ 0.65%

5' PUSTE
(TYP.)

CB - 495-A
RIM: 26.94'
INV. OUT: 22.60' (CB - 495)

MH - 68A

87.17 LF 24" RCP @ 0.57%

20' PDE

1.07%

BAYVIEW DR
50' PRIVATE R/W

CB - 486
RIM: 26.18'
INV. OUT: 21.85' (CB - 470)

62.34 LF 15" RCP @ 0.56%

149.53 LF 24" RCP @ 0.60%

CB - 470
RIM: 26.16'
INV. IN: 21.50' (CB - 486)
INV. OUT: 21.50' (CB - 461)

CB - 463
RIM: 27.31'
INV. IN: 21.75' (CB - 465)
INV. OUT: 21.65' (CB - 462)

123.43 LF 24" RCP @ 0.49%

CB - 465
RIM: 28.13'
INV. IN: 22.85' (CB - 466)
INV. OUT: 22.35' (CB - 463)

VWPDE

DI - 367
RIM: 26.95'
INV. IN: 24.15' (DI - 368)
INV. OUT: 24.05' (DI - 366)

20' PDE

38.90 LF 18" RCP @ 1.03%

CB - 466
RIM: 28.42'
INV. IN: 23.35' (CB - 467)
INV. OUT: 23.25' (CB - 465)

DI - 368
RIM: 28.79'
INV. OUT: 26.07' (DI - 367)

72.44 LF 15" RCP @ 0.76%

DI - 366
RIM: 26.23'
INV. IN: 23.50' (DI - 367)
INV. OUT: 23.40' (DI - 365)

183.65 LF 15" RCP @ 1.05%

CB - 378
RIM: 27.62'
20.65' (CB - 379)
0.55' (DCB - 372)

26.00 LF 30" RCP @ 0.31%

CB - 496
RIM: 28.58'
INV. OUT: 24.25' (CB - 381)

8' AE

CB - 383
RIM: 29.53'
INV. IN: 23.90' (CB - 384)
INV. OUT: 23.30' (CB - 382)

CB - 468
RIM: 28.62'
INV. IN: 24.30' (CB - 469)
INV. OUT: 23.95' (CB - 467)

39.92 LF 18" RCP @ 0.63%

CB - 467
RIM: 28.32'
INV. IN: 23.70' (CB - 468)
INV. OUT: 23.60' (CB - 466)

26.00 LF 18" RCP @ 0.96%

DI - 388
RIM: 29.61'
INV. IN: 25.90' (DI - 389)
INV. OUT: 25.65' (CB - 387)

52.81 LF 18" RCP @ 0.57%

123.78 LF 15" RCP @ 0.57%

DI - 389
RIM: 28.93'
INV. OUT: 26.60' (DI - 388)

CB - 387
RIM: 30.21'
INV. IN: 25.35' (DI - 388)
INV. OUT: 25.25' (CB - 386)

13' STE

20' PDE

LEATHERBACK LN
50' PRIVATE R/W

82.33 LF 24" RCP @ 0.49%

CB - 665
RIM: 30.74'
INV. IN: 25.05' (CB - 666)
INV. OUT: 24.95' (DI - 511)

CB - 565
RIM: 29.16'
INV. IN: 25.22' (CB - 566)
INV. OUT: 25.22' (CB - 563)

5' PUSTE
(TYP.)

CB - 566
RIM: 29.27'
INV. OUT: 25.55' (CB - 565)

CB - 576
RIM: 28.16'
INV. OUT: 24.42' (CB - 563)

33.07 LF 15" HPPP @ 1.00%

BAYVIEW DR
50' PRIVATE R/W

CB - 725
RIM: 27.76'
INV. IN: 22.41' (CB - 563)
INV. OUT: 22.41' (CB - 562)

25.92 LF 15" RCP @ 0.50%

CB - 575
RIM: 27.60'
INV. OUT: 23.85' (CB - 562)

32.32 LF 15" HPPP @ 0.50%

CB - 567
RIM: 26.76'
INV. OUT: 23.0

26.00 LF 15

164.92 L

DI - 627
RIM: 25.43'
INV. IN: 21.90' (DI - 628)
INV. OUT: 21.80' (DI - 626)

153.07 LF 15" RCP @ 0.52%

101.86 LF 15" RCP @ 0.52%

20' PDE

DI - 628
RIM: 26.00'
INV. OUT: 22.43' (DI - 627)

DI - 626
RIM: 24.59'
INV. IN: 21.00' (DI - 627)
INV. OUT: 20.75' (DI - 625)

102.08 LF 18" RCP @ 0.54%

DI - 625
RIM: 24.02'
INV. IN: 20.20' (DI - 626)
INV. OUT: 20.10' (DI - 624)

DCB - 606
RIM: 24.10'
INV. IN: 17.90' (CB - 607)
INV. IN: 18.30' (DI - 624)
INV. OUT: 17.80' (DCB - 604)

17.00 LF 24" RCP @ 0.59%

DI - 624
RIM: 22.46'
INV. IN: 18.90' (DI - 625)
INV. OUT: 18.40' (DCB - 606)

163.41 LF 18" RCP @ 0.73%

DCB - 604
RIM: 24.10'
INV. IN: 17.65' (D
INV. OUT: 17.55

26.00 LF 30" R

114.23 LF 30"

20' PDE

CB - 506
RIM: 28.37'
INV. OUT: 24.10' (DI - 505)

183.00 LF 15" RCP @ 0.52%

DI - 505
RIM: 27.61'
INV. IN: 23.15' (DI - 506)
INV. OUT: 23.05' (DI - 504)

189.38 LF 15" RCP @ 0.50%

CB - 562
RIM: 27.49'
INV. IN: 21.92' (CB - 725)
INV. IN: 23.69' (CB - 575)
INV. OUT: 21.42' (CB - 561)

60.82 LF 18" RCP @ 0.81%

124.55 LF 15" HPPP @ 1.47%

119.04 LF 18" RCP @ 0.61%

134.91 LF 24" RCP @ 0.42%

CB - 561
RIM: 26.76'
INV. IN: 20.85' (CB - 562)
INV. IN: 22.89' (CB - 567)
INV. OUT: 20.75' (DCB - 550)

DI - 504
RIM: 26.37'
INV. IN: 22.10' (
INV. OUT: 22.00

37.12 LF 15" RC

DCB - 503
RIM: 25.30'
INV. IN: 18.70' (
INV. IN: 20.95' (
INV. OUT: 18.60

4' AE

20' PDE

26.00 LF 36" RCP

68.32 LF 36" RC

CB - 578
RIM: 29.50'
INV. OUT: 25.16' (CB - 510)

26.58 LF 24" RCP @ 0.56%

179.49 LF 30" RCP @ 1.45%

20' PDE

10' UE

34.00 LF 15" RCP @ 1.06%

8' AE

13' STE

CB - 507
RIM: 26.60'
INV. IN: 19.25' (CB - 508)
INV. OUT: 19.15' (DCB - 503)

VWPDE

PHASE EAST-C
PHASE EAST-B

MH - 62
MH - 63
MH - 69
MH - 58
MH - 11
MH - 9

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CONSTRUCTION PLANS
HAWKSBILL COVE
EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED
FOR CONSTRUCTION
KEY MENDEHALL

KEY MAP
N.T.S.

0 25 50
SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

STORM DRAINAGE PLAN

C4.02

J:\25\0329-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C4.01-4.07 STORM DRAINAGE PLAN.dwg Wednesday, October 1, 2025 1:23:43 PM - AABERNATHALL

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CONSTRUCTION PLANS
HAWKSBILL COVE
EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
JEFFREY MENDENHALL

KEY MAP
N.T.S.

SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

STORM DRAINAGE PLAN

C4.03

J:\25\0329-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C4.03-(-07 STORM DRAINAGE PLAN.dwg Wednesday, October 1, 2025 2:26:16 PM - AMENDENHALL

N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-64-4531-0000
ZONING: PD
USE: RESIDENTIAL

N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-64-4531-0000
ZONING: PD
USE: RESIDENTIAL

EX. WETLANDS (TYP.)

EX. WETLANDS (TYP.)

FUTURE DEVELOPMENT PHASE EAST-A

SCMMAE (TYP.)

SCM #3
(WET POND)

HW - 700

FUTURE AMENITY SITE
± 10.5 AC.

20' PDE

20' PDE

20' PDE

171.62 LF 18" HPPP @ 0.55%

34.39 LF 15" HPPP @ 1.02%

CB - 705
RIM: 29.73'
INV. IN: 25.90' (CB - 706)
INV. OUT: 25.65' (CB - 704)

CB - 704
RIM: 28.81'
INV. IN: 24.70' (CB - 705)
INV. IN: 24.85' (CB - 694)
INV. OUT: 24.20' (DCB - 703)

162.27 LF 24" RCP @ 0.71%

DCB - 703
RIM: 28.01'
INV. IN: 23.05' (CB - 704)
INV. IN: 23.05' (DCB - 709)
INV. OUT: 22.55' (CB - 702)

MH - 92

MH - 91

34.92 LF 15" HPPP @ 0.57%

CB - 694
RIM: 28.85'
INV. OUT: 25.05' (CB - 704)

132.02 LF 24" RCP @ 0.45%

33.83 LF 24" RCP @ 0.44%

DCB - 709
RIM: 28.01'
INV. IN: 23.30' (DI - 710)
INV. OUT: 23.20' (DCB - 703)

34.00 LF 15" RCP @ 2.06%

CB - 708
RIM: 29.05'
INV. OUT: 24.35' (CB - 702)

CB - 702
RIM: 29.05'
INV. IN: 21.70' (DCB - 703)
INV. IN: 23.65' (CB - 708)
INV. OUT: 21.50' (CB- 701)

8' AE

177.72 LF 30" RCP @ 0.96%

180.69 LF 30" RCP @ 0.39%

184.76 LF 18" RCP @ 0.88%

CB - 306
RIM: 30.59'
INV. IN: 25.60' (CB - 709)
INV. OUT: 25.25' (CB - 305)

INV. IN: 23
INV. IN: 23
INV. OUT: 23

CB - 706
RIM: 29.76'
INV. OUT: 26.25' (CB - 705)

5' PUSTE (TYP.)

105.29 LF 18" RCP @ 0.52%

DI - 713
RIM: 28.43'
INV. IN: 25.50' (DI - 714)
INV. OUT: 25.25' (DI - 710)

DI - 710
RIM: 27.78'
INV. IN: 24.65' (DI - 711)
INV. IN: 24.70' (DI - 713)
INV. OUT: 23.90' (DCB - 709)

62.07 LF 15" RCP @ 0.81%

174.58 LF 15" RCP @ 0.52%

DI - 714
RIM: 28.80'
INV. OUT: 26.00' (DI - 713)

DI - 711
RIM: 28.76'
INV. IN: 25.80' (DI - 712)
INV. OUT: 25.55' (DI - 710)

128.61 LF 15" RCP @ 0.51%

DI - 712
RIM: 29.45'
INV. OUT: 26.45' (DI - 711)

CB - 701
RIM: 30.05'
INV. IN: 24.20' (CB - 707)
INV. IN: 20.80' (CB - 702)
INV. OUT: 20.70' (OUTFALL - 4)

34.00 LF 15" RCP @ 3.53%

CB - 707
RIM: 30.05'
INV. OUT: 25.40' (CB- 701)

26.00 LF 15" RCP @ 0.77%

CB - 308
RIM: 30.98'
INV. OUT: 26.35' (CB - 307)

CB - 709
RIM: 30.60'
INV. IN: 25.90' (CB - 307)
INV. OUT: 25.80' (CB - 306)

34.00 LF 15" RCP @ 0.59%

43.56 LF 15" RCP @ 0.57%

CB - 307
RIM: 30.98'
INV. IN: 26.15' (CB - 308)
INV. OUT: 26.15' (CB - 709)

5' PUSTE (TYP.)

LEATHERBACK LN
50' PRIVATE R/W

CATAMARAN LN
50' R/W

SAILING SHIP PL

EX. PUMP STATION

EX. SEWER EASEMENT

EX. 8" PVC SEWER MAIN
HAWKSBILL COVE
SOUTH VILLAGE

EX. 8" PVC SEWER MAIN
HAWKSBILL COVE
SOUTH VILLAGE

EX. 8" PVC SEWER MAIN
HAWKSBILL COVE
SOUTH VILLAGE

MH - 86

EX. MH - G

EX. MH - H

EX. MH - I

EX. EOP (TYP.)

EX. EOP (TYP.)

EX MH - F

PHASE EAST-A
SOUTH VILLAGE

PHASE EAST-A
SOUTH VILLAGE

HAWKSBILL COVE
SOUTH VILLAGE
PROJECT #: SP-2669

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CONSTRUCTION PLANS
HAWKSBILL COVE EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
JEY MENDENHALL

KEY MAP
N.T.S.

SCALE: 1 Inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

STORM DRAINAGE PLAN

C4.04

GRT 3783

N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-64-4531-0000
ZONING: PD
USE: RESIDENTIAL

EX. WETLANDS (TYP.)

FUTURE DEVELOPMENT
PHASE EAST-A

FES - 360

99.76 LF 54" RCP @ 0.15%
20' PDE

CB - 362
RIM: 25.47' TE
INV. IN: 18.00' (CB - 712)
INV. IN: 18.95' (CB - 363)
INV. OUT: 17.50' (DI - 361)

DI - 361
RIM: 23.27'
INV. IN: 17.25' (CB - 362)
INV. OUT: 17.15' (OUTFALL - 2)

HW - 657

20' PDE

439.97 LF 48" RCP @ 0.30%

SCMMAE (TYP.)

VARIABLE WIDTH PUE

FUTURE AMENITY SITE ± 10.5 AC.

SCM #3
(WET POND)

HW - 301

20' PDE

431.65 LF 42" RCP @ 0.21%

HW - 700

FUTURE AMENITY SITE ± 10.5 AC.

212.69 LF 24" RCP @ 0.50%

34.01 LF 18" RCP @ 0.59%

CB - 309
RIM: 29.45'
INV. IN: 24.20' (CB - 310)
INV. OUT: 23.95' (CB - 305)

VWDE

184.76 LF 18" RCP @ 0.88%

CB - 306
RIM: 30.59'
INV. IN: 25.60' (CB - 709)
INV. OUT: 25.25' (CB - 305)

CB - 305
RIM: 29.45'
INV. IN: 23.63' (CB - 306)
INV. IN: 23.75' (CB - 309)
INV. OUT: 23.13' (CB - 304)

CB - 312
RIM: 27.35'
INV. OUT: 22.82' (CB - 304)

34.00 LF 24" RCP @ 0.50%

34.00 LF 15" RCP @ 0.59%

5' PUSTE (TYP.)

CB - 709
RIM: 30.60'
INV. IN: 25.90' (CB - 307)
INV. OUT: 25.80' (CB - 306)

40.56 LF 15" RCP @ 0.57%

CB - 307
RIM: 30.98'
INV. IN: 26.15' (CB - 308)
INV. OUT: 26.15' (CB - 709)

39.18 LF 15" RCP @ 0.51%

CB - 310
RIM: 29.53'
INV. IN: 25.10' (CB - 311)
INV. IN: 24.50' (CB - 680)
INV. OUT: 24.40' (CB - 309)

20' PDE

DI - 497
RIM: 28.60'
INV. OUT: 25.40' (CB - 680)

26.01 LF 15" RCP @ 0.58%

101.54 LF 15" RCP @ 0.54%

CB - 680
RIM: 31.42'
INV. IN: 25.15' (DI - 497)
INV. OUT: 25.05' (CB - 310)

27.20 LF 15" RCP @ 0.92%

CB - 311
RIM: 29.54'
INV. OUT: 25.25' (CB - 310)

92.93 LF 15" RCP @ 1.02%

DCB - 349
RIM: 26.33'
INV. IN: 19.30' (CB - 321)
INV. IN: 20.60' (DCB - 350)
INV. OUT: 18.80' (OUTFALL - 1)

114.10 LF 42" RCP @ 0.26%

CB - 321
RIM: 26.89'
INV. IN: 20.10' (CB - 322)
INV. OUT: 19.60' (DCB - 349)

LEATHERBACK LN
50' PRIVATE R/W

34.16 LF 36" RCP @ 0.44%

CB - 322
RIM: 26.67'
INV. IN: 20.25' (CB - 324)
INV. OUT: 20.25' (CB - 321)

43.03 LF 36" RCP @ 0.46%

VWPDE

CB - 324
RIM: 27.03'
INV. IN: 20.65' (CB - 325)
INV. IN: 22.40' (CB - 323)
INV. OUT: 20.45' (CB - 322)

MH - 17

DCB - 302
RIM: 25.97'
INV. IN: 21.34' (CB - 304)
INV. IN: 19.40' (DCB - 303)
INV. OUT: 18.90' (OUTFALL - 3)

145.46 LF 24" RCP @ 0.42%

CB - 304
RIM: 27.35'
INV. IN: 22.07' (CB - 305)
INV. IN: 22.65' (CB - 312)
INV. OUT: 21.95' (DCB - 302)

8' AE

MH - 98

MH - 96

MH - 97

MH - 95

8" W

34.00 LF 36" RCP @ 0.59%

DCB - 303
RIM: 25.97'
INV. IN: 19.70' (DI - 313)
INV. OUT: 19.60' (DCB - 302)

136.42 LF 36" RCP @ 0.26%

20' PDE

DI - 313
RIM: 24.75'
INV. IN: 20.55' (DCB - 314)
INV. IN: 21.85' (DI - 586)
INV. IN: 21.85' (DI - 320)
INV. OUT: 20.05' (DCB - 303)

88.87 LF 15" RCP @ 0.68%

DI - 586
RIM: 25.45'
INV. IN: 22.55' (DI - 319)
INV. OUT: 22.45' (DI - 313)

DI - 319
RIM: 26.41'
INV. OUT: 23.50' (DI - 586)

212.22 LF 30" RCP @ 0.47%

DCB - 314
RIM: 26.53'
INV. IN: 22.05' (DI - 315)
INV. OUT: 21.55' (DI - 313)

42.91 LF 24" RCP @ 0.58%

DI - 315
RIM: 26.62'
INV. IN: 22.40' (DI - 316)
INV. OUT: 22.30' (DCB - 314)

263.13 LF 24" RCP @ 0.63%

DI - 320
RIM: 25.23'
INV. OUT: 22.45' (DI - 313)

118.75 LF 15" RCP @ 0.51%

CB - 323
RIM: 26.93'
INV. OUT: 22.88' (CB - 324)

26.00 LF 15" RCP @ 1.85%

LOWER MAST LANE
50' PRIVATE R/W

CB - 325
RIM: 28.59'
INV. IN: 21.60' (CB - 326)
INV. IN: 24.25' (CB - 697)
INV. OUT: 21.50' (CB - 324)

42.55 LF 36" RCP @ 0.47%

CB - 327
RIM: 28.62'
INV. IN: 22.15' (CB - 328)
INV. IN: 23.65' (CB - 354)
INV. OUT: 22.05' (CB - 326)

DI - 352
RIM: 25.70'
INV. OUT: 23.10' (DI - 351)

34.00 LF 24" RCP @ 0.44%

DCB - 350
RIM: 26.33'
INV. IN: 21.25' (DI - 351)
INV. OUT: 20.75' (DCB - 349)

138.00 LF 18" RCP @ 0.72%

DI - 351
RIM: 25.07'
INV. IN: 22.50' (DI - 352)
INV. OUT: 22.25' (DCB - 350)

118.00 LF 15" RCP @ 0.51%

MH - 29

26.00 LF 15" HPPP @ 0.58%

DCB - 355
RIM: 28.04'
INV. OUT: 24.75' (CB - 354)

218.90 LF 36" RCP @ 0.39%

26.00 LF 36" RCP @ 0.58%

CB - 326
RIM: 28.62'
INV. IN: 21.90' (CB - 327)
INV. OUT: 21.80' (CB - 325)

CB - 354
RIM: 28.04'
INV. IN: 24.60' (DCB - 355)
INV. OUT: 24.25' (CB - 327)

5' PUSTE (TYP.)

MH - 57

MH - 31

CB - 333
RIM: 30.98'
INV. IN: 24.40' (CB - 334)
INV. OUT: 24.30' (CB - 332)

26.00 LF 30" RCP @ 0.38%

CB - 332
RIM: 30.99'
INV. IN: 24.20' (CB - 333)
INV. OUT: 23.60' (CB - 331)

39.09 LF 36" RCP @ 0.26%

CB - 331
RIM: 30.81'
INV. IN: 23.50' (CB - 332)
INV. OUT: 23.40' (CB - 330)

25.36 LF 15" RCP @ 1.77%

119.36 LF 36" RCP @ 0.25%

20' PDE

VWPDE

81.64 LF 30" RCP @ 0.31%

MH - 24

MH - 114

LOWER MAST LANE
50' PRIVATE R/W

26.01 LF 15" RCP @ 3.08%

5' PUSTE (TYP.)

37.39 LF 30" RCP @ 0.40%

CB - 334-A
RIM: 31.28'
INV. OUT: 26.95' (CB - 334)

242.85 LF 18" RCP @ 0.54%

30' BUFFER
TYPE C-3

TIME UNDER LANDING
50' PRIVATE R/W

41.37 LF 36" RCP @ 0.36%

DI - 346
RIM: 29.42'
INV. OUT: 25.80' (CB - 330)

CB - 328
RIM: 29.18'
INV. IN: 22.40' (CB - 329)
INV. IN: 24.05' (CB - 595)
INV. OUT: 22.30' (CB - 327)

82.15 LF 36" RCP @ 0.30%

71.99 LF 36" RCP @ 0.35%

CB - 329
RIM: 29.75'
INV. IN: 22.75' (CB - 330)
INV. OUT: 22.65' (CB - 328)

25.80 LF 15" RCP @ 4.46%

CB - 595
RIM: 29.18'
INV. OUT: 25.20' (CB - 328)

CB - 330
RIM: 30.16'
INV. IN: 23.10' (CB - 331)
INV. IN: 25.05' (CB - 356)
INV. IN: 25.35' (DI - 346)
INV. OUT: 23.00' (CB - 329)

CB - 356
RIM: 30.16'
INV. OUT: 25.85' (CB - 330)

DI - 316
RIM: 27.94'
INV. IN: 24.55' (DI - 317)
INV. OUT: 24.05' (DI - 315)

MH - 30

MH - 22

MH - 23

8" W

DI - 373
RIM: 24.94'
INV. IN: 22.69' (DI - 374)
INV. OUT: 21.94' (DI - 715)

78.97 LF 15" RCP @ 0.53%

DI - 374
RIM: 25.66'
INV. OUT: 23.11' (DI - 373)

MH - 16

53.41 LF 48" RCP @ 0.21%

CB - 375
RIM: 26.61'
INV. IN: 18.81' (DCB - 372)
INV. OUT: 18.71' (CB - 376)

DCB - 372
RIM: 26.02'
INV. IN: 19.85' (CB - 378)
INV. IN: 21.25' (DI - 715)
INV. IN: 22.30' (DCB - 371)
INV. OUT: 19.05' (CB - 375)

VWPDE

MH - 15

116.77 LF 48" RCP @ 0.21%

CB - 376
RIM: 26.65'
INV. IN: 18.60' (CB - 375)
INV. OUT: 18.50' (CB - 712)

DCB - 371
RIM: 26.02'
INV. IN: 22.96' (DI - 370)
INV. OUT: 22.50' (DCB - 372)

37.08 LF 15" RCP @ 1.05%

DI - 370
RIM: 26.50'
INV. OUT: 23.35' (DCB - 371)

MH - 64

143.96 LF 54" RCP @ 0.17%

FIDDLER DR
50' PRIVATE R/W

INV. OUT: 19.10' (CB - 362)

CB - 378
RIM: 27.62'
INV. IN: 20.65' (CB - 379)
INV. OUT: 20.55' (DCB - 372)

20' PDE

26.00 LF 30" RCP @ 0.31%

DROP MH - 4

MH - 3

116.77 LF 48" RCP @ 0.21%

123.56 LF 42" RCP @ 0.57%

34.00 LF 18" RCP @ 0.59%

32.50 LF 24" RCP @ 0.49%

42.72 LF 42" RCP @ 0.70%

DI - 715
RIM: 25.96'
INV. IN: 21.41' (DI - 373)
INV. OUT: 21.41' (DCB - 372)

CB - 379
RIM: 28.06'
INV. IN: 22.55' (CB - 392)
INV. IN: 21.95' (CB - 380)
INV. OUT: 20.95' (CB - 378)

CB - 392
RIM: 29.29'
INV. IN: 23.70' (CB - 393)
INV. IN: 24.90' (CB - 674)
INV. OUT: 23.60' (CB - 379)

126.25 LF 24" RCP @ 0.42%

143.50 LF 30" RCP @ 0.35%

25.99 LF 30" RCP @ 0.38%

CB - 393
RIM: 30.30'
INV. IN: 24.30' (CB - 500)
INV. OUT: 24.20' (CB - 392)

RIDDLEY DR
50' PRIVATE R/W

DI - 352
RIM: 25.70'
INV. OUT: 23.10' (DI - 351)

CB - 674
RIM: 29.39'
INV. OUT: ...

DI - 499
RIM: 30.52
INV. IN: 24
INV. OUT:
103.29

CB - 500
RIM: 30.3
INV. IN: 2
INV. OUT

32.82 LF 3

5' PUSTE (TYP.)

29.90 LF

146.47

84.75 L

101.3

VWPDE

37.62 L

76.75 L

CB - 38
RIM: 28
INV. IN:
INV. OU

CB - 49
RIM: 28.
INV. OU

34.0

INV.
INV. O

140.51

27.00 LI

INV. IN
INV. OUT:

VWPDE

FUTURE AMENITY SITE ± 10.5 AC.

LEATHERBACK LN
50' PRIVATE R/W

LOWER MAST LANE
50' PRIVATE R/W

RIDDLEY DR
50' PRIVATE R/W

CATAMARAN LN
50' R/W

CUTTY SARK DR
50' R/W

PHASE EAST-A
SOUTH VILLAGE

EX. 60' R/W

EX. EOP (TYP.)

AVILA AVE

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CONSTRUCTION PLANS

HAWKSBILL COVE
EAST VILLAGE

COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
KELLEY MENDENHALL

KEY MAP
N.T.S.

0 25 50
SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

Know what's below.
Call before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

STORM DRAINAGE PLAN

C4.05

EST 1993

J:\25\0329-a-ryan-homes_pender-county_hawksbill-cove\CAD\drawing sets\construction\CA\01-ltr\ STORM DRAINAGE PLAN.dwg, Wednesday, October 1, 2025 2:03:20 PM, AMENDENHALL

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CONSTRUCTION PLANS
HAWKSBILL COVE
EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED
FOR CONSTRUCTION
KEY MENDENHALL

KEY MAP
N.T.S.

SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

Know what's below.
Call before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR
CKD: WR	

STORM DRAINAGE PLAN

C4.06

J:\25\0329-A-Ryan Homes_Pender County_Hawksbill Cove\CAD\Drawing Set\Construction\C4.01-STORM DRAINAGE PLAN.dwg, Wednesday, October 1, 2025 3:44:17 PM, AMENDENHALL

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CONSTRUCTION PLANS

HAWKSBILL COVE
EAST VILLAGE

COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED
FOR CONSTRUCTION
KEY MENDENHALL

KEY MAP
N.T.S.

SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

Know what's below.
Call before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

STORM DRAINAGE PLAN

C4.07

811 SAVE TIME

J:\25\0329-a-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C4.01-4.07 STORM DRAINAGE PLAN.dwg, Wednesday, October 1, 2025 1:19:41 PM, AMENDENHALL

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CONSTRUCTION PLANS

HAWKSBILL COVE
EAST VILLAGE

COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
KEY MENDENHALL

KEY MAP
N.T.S.

X3 X2 X1
X4 X5 X6 X7

0 25 50
SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

Know what's below. Call before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

GRADING PLAN

C5.01

J:\25\0329-ryan homes_pender county_hawksbill cove\CAD\drawing sets\construction\C5.01-5.07 GRADING PLAN.dwg - Wednesday, October 1, 2025 1:26:03 PM - AMENDENHALL

N/F
MURRAY, RICHARD G.
PIN:4203-84-3173-0000
ZONING: PD
USE: RESIDENTIAL

N/F
DENNIS PETER MESSINA
PIN:4203-84-4045-0000
ZONING: PD
USE: VACANT

N/F
HECKERT, RICK W.
PIN:4203-83-5916-0000
ZONING: PD
USE: RESIDENTIAL

N/F
PEREIRA, JOHN E.
PIN:4203-83-5869-0000
ZONING: PD
USE: RESIDENTIAL

N/F
EVANS, CHARLES RANDALL
PIN:4203-83-6821-0000
ZONING: PD
USE:RESIDENTIAL

N/F
LEBO, TERRENCE RICHARD JR.
PIN:4203-83-6784-0000
ZONING: PD
USE: RESIDENTIAL

N/F
ERIK W. WILSON ET AL
PIN:4203-83-7656-0000
ZONING: PD
USE: RESIDENTIAL

N/F
MARVIN L. HALFAST
PIN:4203-83-8518-0000
ZONING: PD
USE: VACANT

N/F
HOLLAND, ERIC
PIN:4203-83-8570-0000
ZONING: PD
USE: RESIDENTIAL

N/F
WILCOX, CHRISTOPHER L.
PIN:4203-83-9422-0000
ZONING: PD
USE:RESIDENTIAL

N/F
ERPELDING, CHAD
ALAN TRUSTEE
PIN:4203-83-9393-0000
ZONING: PD
USE: RESIDENTIAL

N/F
SHOLTIS, STEVEN A.
PIN:4203-93-0256-0000
ZONING: PD
USE: RESIDENTIAL

N/F
JAMES BUDD ET AL
PIN:4203-93-1129-0000
ZONING: PD
USE: VACANT

N/F
LIVERMAN, VICKI K.
PIN:4203-93-1181-0000
ZONING: PD
USE: RESIDENTIAL

30' BUFFER TYPE C-3

SITE BOUNDARY

20' PDE

FIDDLER DR 50' PRIVATE R/W

BILLFISH DR 50' PRIVATE R/W

DEEPWATER DR 50' PRIVATE R/W

BAYVIEW DR 50' PRIVATE R/W

MERRIMAN WAY 50' PRIVATE R/W

LEATHERBACK LN 50' PRIVATE R/W

5' PUSTE (TYP.)

VWPDE

PHASE EAST-C

PHASE EAST-B

MATCHLINE INSET B

MATCHLINE INSET C

INSET B
SCALE: 1" = 40'

INSET C
SCALE: 1" = 40'

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CONSTRUCTION PLANS

HAWKSBILL COVE
EAST VILLAGE

COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
KEY MENDENHALL

KEY MAP
N.T.S.

X3 X2 X1
X4 X5 X6 X7

0 25 50
SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

Know what's below. Call before you dig.

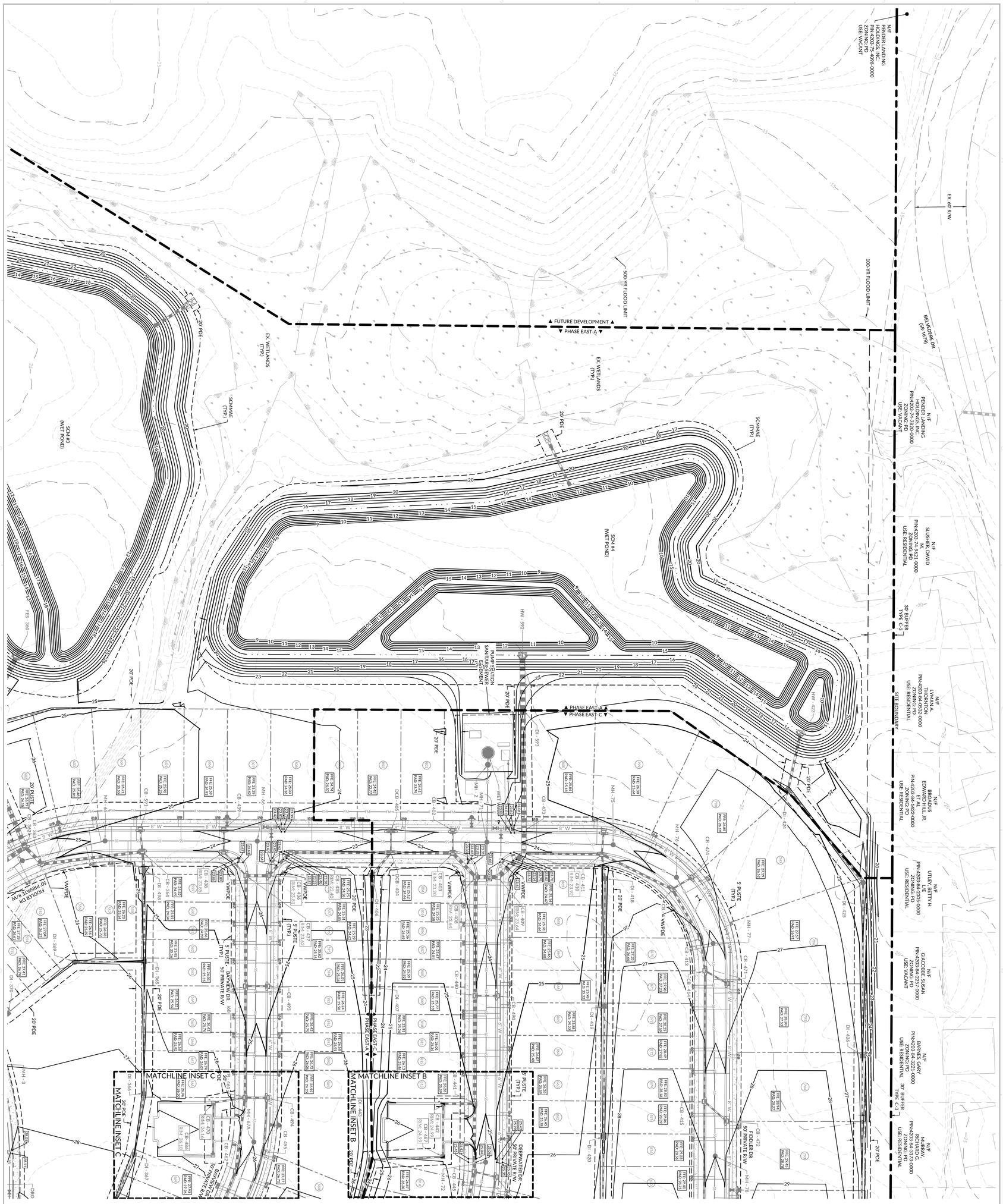
WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

GRADING PLAN

C5.02

EST 1985

J:\25\0329-ryan homes_pender county_hawksbill cove\CAD\drawing sets\construction\C5.01-5.07 GRADING PLAN.dwg, Wednesday, October 1, 2025 1:26:54 PM, AMENDENHALL



CONSTRUCTION PLANS

HAWKSBILL COVE
EAST VILLAGE

COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

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NORTH CAROLINA
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FOR CONSTRUCTION
PERMITTING
MEMENDMENT

KEY MAP
N.T.S.

SCALE: 1 inch = 30 ft.

INITIAL PLAN DATE: 10/2/2025
REVISIONS:

C5.03

GRADING PLAN

Know what's below.
Call before you dig.
WR JOB NUMBER 25-0329.A
DRN BY: DCH CHK BY: ACH/WR

J:\25\0329-x-ryan homes_pender county_hawksbill cove\CAD\drawing sets\construction\C5.01-5.07 GRADING PLAN.dwg Wednesday, October 1, 2025 12:07:08 PM - AMENDENHALL

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CONSTRUCTION PLANS
HAWKSBILL COVE EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
KEY MENDENHALL

KEY MAP
N.T.S.

SCALE: 1 Inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

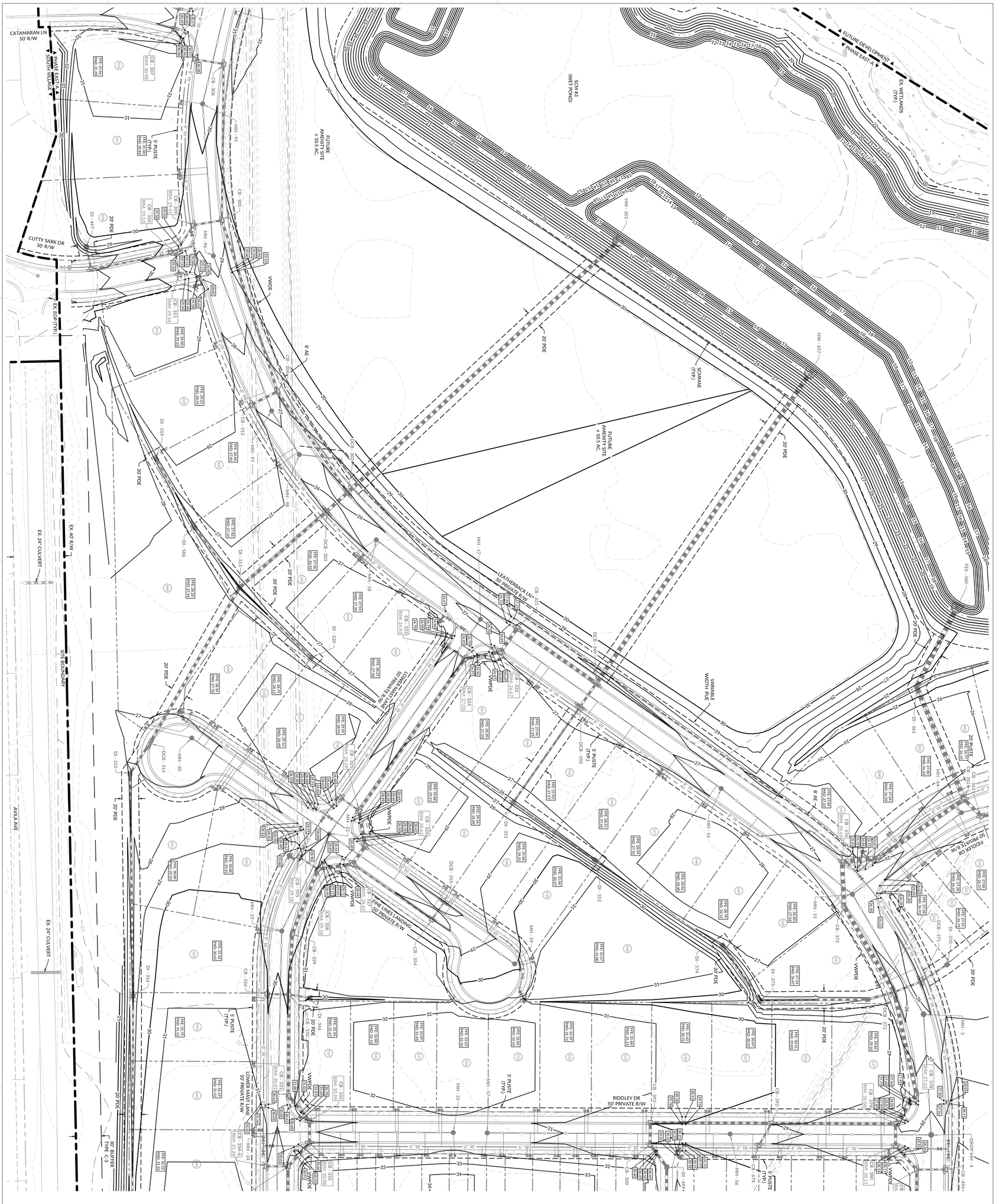
Know what's **below.**
Call 811 before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

GRADING PLAN

C5.04

DET 13983



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T.W.D. AMENDENHALL
NORTH CAROLINA

CONSTRUCTION PLANS

HAWKSBILL COVE
EAST VILLAGE

COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

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C5.05

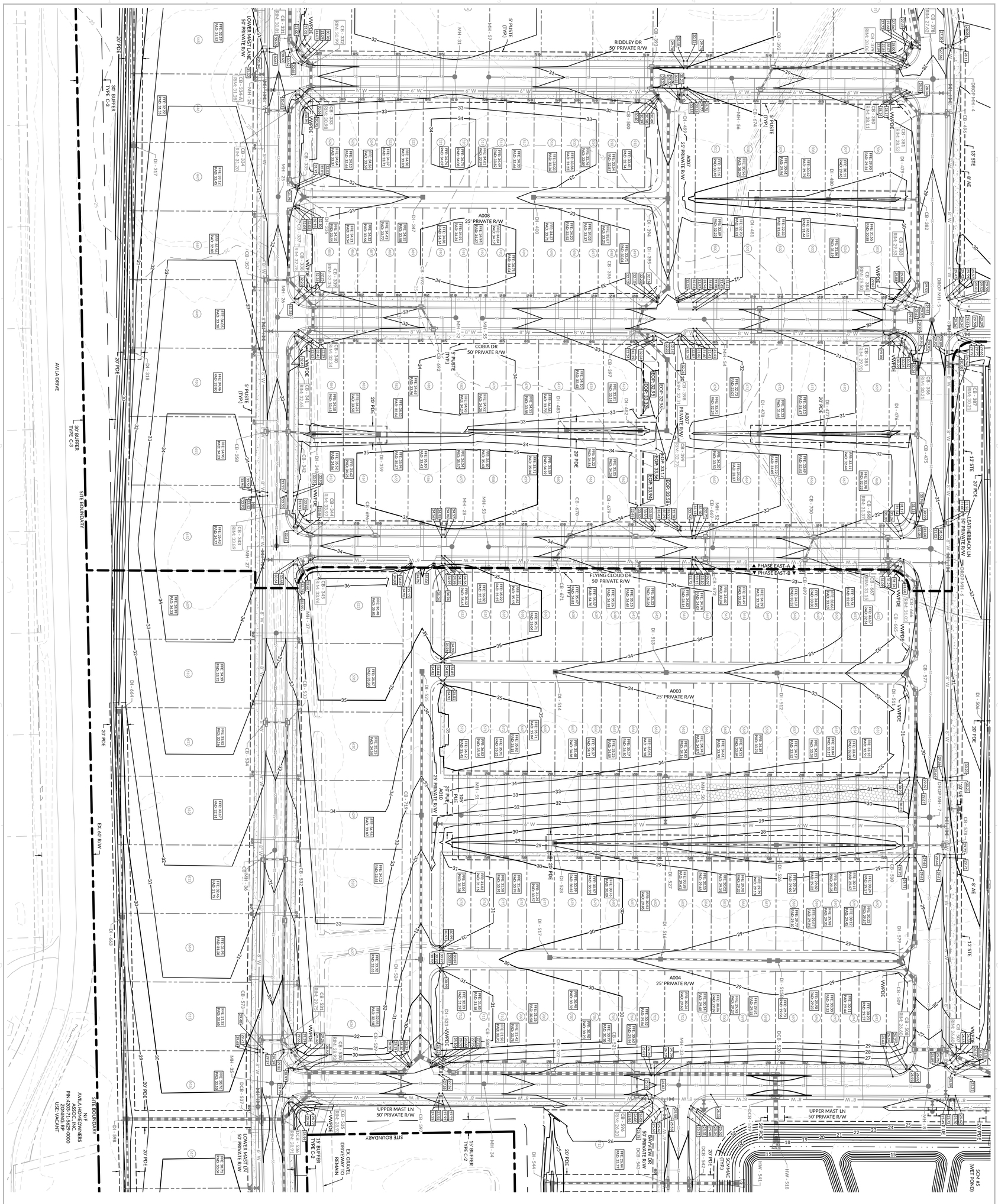
GRADING PLAN

Know what's below.
Call 811 before you dig.
WWR JOB NUMBER 25-007.A
DRWN BY: DSCH. BY: CKD. BY:

INITIAL PLAN DATE: 10/2/2025
REVISIONS:

SCALE: 1 inch = 60 ft.

J:\25\0529-A-Ryan Homes_Pender County_Hawksbill Cove\CAD\Drawing Sets\Construction\C5.01-5.07 GRADING PLAN.dwg- Wednesday, October 1, 2025 3:49:27 PM - AMENDENHALL



CONSTRUCTION PLANS

HAWKSBILL COVE
EAST VILLAGE

COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

C5.06

GRADING PLAN

Know what's below.
Call 811 before you dig.
WR JOB NUMBER 25-0529
DRN: VR DSN: VR CKD: WR

INITIAL PLAN DATE: 10/2/2025
REVISIONS:

SCALE: 1 inch = 80 ft.

KEY MAP
N.T.S.

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NOT APPROVED FOR CONSTRUCTION
NORTH CAROLINA
SEAL
DOCUMENT

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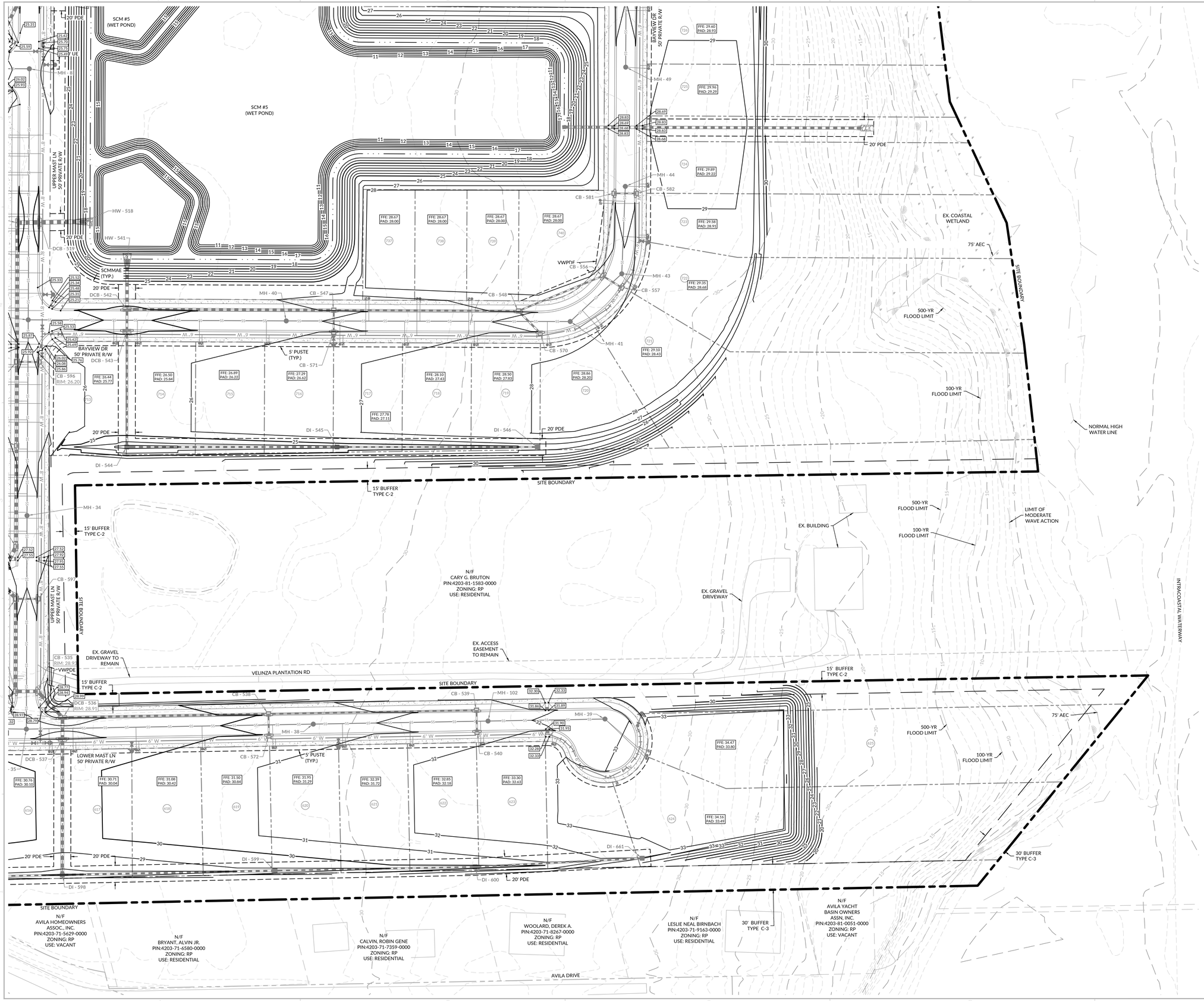

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CONSTRUCTION PLANS
HAWKSBILL COVE
EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
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FOR CONSTRUCTION
KEY MENDENHALL

KEY MAP
N.T.S.

0 ## ###
SCALE: 1 inch = ### ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

Know what's below.
Call before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

GRADING PLAN

C5.07

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HAWKSBILL COVE
NORTH VILLAGE
(FUTURE DEVELOPMENT)

HAWKSBILL COVE
SOUTH VILLAGE
PROJECT #: SP-2669

100-YR
FLOOD LIMIT

500-YR
FLOOD LIMIT

RSB #1
(FUTURE SCM #3)

RSB #2
(FUTURE SCM #4)

RSB #3
(FUTURE SCM #5)

RSB #4
(FUTURE SCM #6)

SSB # 1

SITE BOUNDARY

NORMAL HIGH
WATER LINE

LIMIT OF
MODERATE
WAVE ACTION

75' AEC

EX. WETLANDS
(TYP.)

EXIST WETLAND,
TO BE REMOVED

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CONSTRUCTION PLANS
HAWKSBILL COVE
EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
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FOR CONSTRUCTION
JEREMY MENDENHALL

KEY MAP
N.T.S.

0 125 250
SCALE: 1 inch = 250 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

OVERALL EROSION CONTROL PLAN - STAGE 1

C6.00

J:\25\0329-x-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C6.00 OVERALL EROSION CONTROL PLAN.dwg Wednesday, October 1, 2025 1:29:56 PM JBIBEAUX

N/F
JAMES BUDD ET AL
PIN:4203-93-1129-0000
ZONING: PD
USE: VACANT

N/F
LIVERMAN, VICKI K.
PIN:4203-93-1181-0000
ZONING: PD
USE: RESIDENTIAL

N/F
CORCORAN, KELLY L.
PIN:4203-93-2043-0000
ZONING: PD
USE: VACANT

N/F
CLEMMONS, TIMOTHY A. SR.
PIN:4203-92-3905-0000
ZONING: PD
USE: VACANT

N/F
STOOPS, JEREMIAH
ROBERT PIN:
4203-92-3867-0000
ZONING: PD
USE: RESIDENTIAL

LIMITS OF DISTURBANCE (TYP)

SILT FENCE W/ TREE PROTECTION FENCE (TYP)

END SILT FENCE W/ TREE PROTECTION FENCE (TYP)

SILT FENCE (TYP)

500-YR FLOOD LIMIT

EX. WATER VALVE (TYP.)

END DOUBLE SILT FENCE/TREE PROTECTION FENCE (TYP)

N/F
ZINA L. MASTROMICHALIS
PIN:4203-92-5568-0000
ZONING: PD
USE: VACANT

N/F
ALEXANDER, TY A
PIN:4203-92-4739-0000
ZONING: PD
USE: VACANT

MATCHLINE INSET A

DOUBLE SILT FENCE/TREE PROTECTION FENCE (TYP)

MATCHLINE INSET A

SITE BOUNDARY

BEGIN DOUBLE SILT FENCE/ TREE PROTECTION FENCE

CHECK DAM (TYP)

TEMPORARY DIVERSION TD 403
SEE SHEET C6.20 FOR SIZE & LINING REQUIREMENTS

100-YR FLOOD LIMIT

500-YR FLOOD LIMIT

EX. COASTAL WETLAND

SITE BOUNDARY

SITE BOUNDARY

LIMIT OF MODERATE WAVE ACTION

NORMAL HIGH WATER LINE

SLOPE DRAIN 4C
24" SLOPE DRAIN
WITH HORSESHOE
INLET PROTECTION

12" THICK
CLASS A RIPRAP

LIMITS OF DISTURBANCE (TYP.)

RCL 4B
SEE SHEET C6.20 FOR SIZE & LINING REQUIREMENTS

TEMPORARY DIVERSION TD 402C
SEE SHEET C6.20 FOR SIZE & LINING REQUIREMENTS

FUTURE AMENITY
± 12.5 AC

HW (SCM 6)

RISER (SCM 6)

SKIMMER (TYP)

ATTACH SKIMMER TO PERMANENT SCM RISER STRUCTURE

BAFFLES (TYP)

RSB #4
(FUTURE SCM #6)
BOTTOM: 11'
TOP OF BERM: 16'
BERM WIDTH: 10'

12" THICK
CLASS A RIPRAP

SLOPE DRAIN 4A
24" SLOPE DRAIN
WITH HORSESHOE
INLET PROTECTION

100-YR FLOOD LIMIT

500-YR FLOOD LIMIT

INTRACOASTAL WATERWAY

CHECK DAM (TYP)

SLOPE DRAIN 3B
24" SLOPE DRAIN
WITH HORSESHOE
INLET PROTECTION

12" THICK
CLASS A RIPRAP

TEMPORARY DIVERSION TD 304
SEE SHEET C6.20 FOR SIZE & LINING REQUIREMENTS

TEMPORARY DIVERSION TD 401
SEE SHEET C6.20 FOR SIZE & LINING REQUIREMENTS

END DOUBLE SILT FENCE/ TREE PROTECTION FENCE (TYP)

SILT FENCE OUTLET (TYP)

SILT FENCE (TYP)

INSET A

MATCHLINE INSET A

MATCHLINE INSET A

EX. ELECTRIC STRUCTURE (TYP.)

EX. TELECOM STRUCTURE (TYP.)

EX. WATER VALVE (TYP.)

EX. PRIVATE WATER MAIN (TYP.)

EX. TELECOM LINE (TYP.)

EX. 12" RCP
INV: 12.81'

EX. SUBSURFACE ELECTRIC (TYP.)

EX. FHA

EX. 24" CMP
INV: 12.13'

INV: 12.89'

INV: 12.18'

END SILT FENCE (TYP)

BELVEDERE DR
50' PUBLIC R/W
(SR-1679)

END DOUBLE SILT FENCE (TYP)

INV 24" CMP: 9.47'

INV

EX. EOP

DOUBLE SILT FENCE (TYP)

100-YR FLOOD LIMIT

INV: 10.32'

EX. 24" CMP

EX. 24" CMP

EX. DRIVEWAY TO REMAIN

EX. HEADWALL

INV: 11.42'

EX. WATER VALVE (TYP.)

END DOUBLE SILT FENCE/TREE PROTECTION FENCE (TYP)

N/F
ZINA L. MASTROMICHALIS
PIN:4203-92-5568-0000
ZONING: PD
USE: VACANT

500-YR FLOOD LIMIT

N/F
ALEXANDER, TY A
PIN:4203-92-4739-0000
ZONING: PD
USE: VACANT

SILT FENCE (TYP)

DOUBLE SILT FENCE/TREE PROTECTION FENCE (TYP)

MATCHLINE INSET A

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CONSTRUCTION PLANS

HAWKSBILL COVE
EAST VILLAGE

COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
KEY MENDENHALL

KEY MAP
N.T.S.

0 25 50
SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

EROSION CONTROL PLAN STAGE 1

C6.01

J:\25\0329-ryan homes_pender county_hawksbill cove\CAD\drawing sets\construction\C6.01-07 EROSION CONTROL PLAN STAGE 1.dwg Wednesday, October 1, 2025 1:31:38 PM BBIBEAUX

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1105 MILITARY CUTOFF RD. STE 201
WILMINGTON, NC 28411

CONSTRUCTION PLANS

HAWKSBILL COVE
EAST VILLAGE

COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED
FOR CONSTRUCTION
KEY MENDENHALL

KEY MAP
N.T.S.

0 25 50
SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

EROSION CONTROL PLAN STAGE 1

C6.02

J:\25\0329-a-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C6.01-6.07 EROSION CONTROL PLAN STAGE 1.dwg Wednesday, October 1, 2025 11:46 PM - BBIBAUX

EST. 1993

EX. 60' R/W

BELVEDERE DR (SR-1679)

N/F
PENDER LANDING HOLDINGS, INC.
PIN:4203-74-7820-0000
ZONING: PD
USE: VACANT

N/F
SLUSHER, DAVID M.
PIN:4203-74-9621-0000
ZONING: PD
USE: RESIDENTIAL

N/F
LYMAN A. THORNTON
PIN:4203-84-0532-0000
ZONING: PD
USE: RESIDENTIAL

N/F
BROADUS EDWARD HILL, JR. ET AL
PIN:4203-84-1422-0000
ZONING: PD
USE: RESIDENTIAL

N/F
UTLEY, BETTY H L/E
PIN:4203-84-2305-0000
ZONING: PD
USE: RESIDENTIAL

N/F
GIACOBBE, SUSAN
PIN:4203-84-2257-0000
ZONING: PD
USE: VACANT

N/F
BARNES, GARY
PIN:4203-84-3221-0000
ZONING: PD
USE: RESIDENTIAL

N/F
MURRAY, RICHARD G.
PIN:4203-84-3173-0000
ZONING: PD
USE: RESIDENTIAL

N/F
PENDER LANDING HOLDINGS, INC.
PIN:4203-75-4098-0000
ZONING: PD
USE: VACANT

SITE BOUNDARY

100-YR FLOOD LIMIT

6" L x 8" W x 12" THICK CLASS A RIPRAP

SILT FENCE W/ TREE PROTECTION FENCE (TYP)

CHECK DAM (TYP)

LIMITS OF DISTURBANCE (TYP)

SILT FENCE OUTLET (TYP)

36" SLOPE DRAIN WITH HORSESHOE INLET PROTECTION

TEMPORARY DIVERSION TD 202 SEE SHEET C6.20 FOR SIZE & LINING REQUIREMENTS

SLOPE DRAIN 2B 30" SLOPE DRAIN WITH HORSESHOE INLET PROTECTION

SLOPE DRAIN 2B 24" SLOPE DRAIN WITH HORSESHOE INLET PROTECTION

7.5' L x 10' W x 12" THICK CLASS A RIPRAP

105' SPILLWAY ELEV.=18.5' LINED WITH NAG C350 OR EQUIVALENT

TEMPORARY STOCKPILE EASEMENT

SILT FENCE

STOCKPILE AREA

500-YR FLOOD LIMIT

500-YR FLOOD LIMIT

EX. WETLANDS (TYP.)

ATTACH SKIMMER TO PERMANENT SCM RISER STRUCTURE

SKIMMER (TYP)

FES (SCM 4)

RISER (SCM 4)

HAWKSBILL COVE
NORTH VILLAGE
(FUTURE DEVELOPMENT)

RSB #2
(FUTURE SCM #4)
BOTTOM: 16'
TOP OF BERM: 23'
BERM WIDTH: 10'

LIMITS OF DISTURBANCE (TYP.)

BAFFLES (TYP)

N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-64-4531-0000
ZONING: PD
USE: RESIDENTIAL

EX. TREE LINE TO BE REMOVED

EX. WETLANDS (TYP.)

RCL 2A
SEE SHEET C6.20 FOR SIZE & LINING REQUIREMENTS

10' SPILLWAY ELEV.= LINED WITH NAG C350 OR EQUIVALENT

10.5'L X 10.5'W X 14' W X 18"D DISSIPATOR PAD CLASS A RIPRAP

TEMPORARY DIVERSION TD 201 SEE SHEET C6.20 FOR SIZE & LINING REQUIREMENTS

CHECK DAM (TYP)

FES (SCM 3)

RISER (SCM 3)

ATTACH SKIMMER TO PERMANENT SCM RISER STRUCTURE

SKIMMER (TYP)

RSB #1
(FUTURE SCM #3)
BOTTOM: 19'
TOP OF BERM: 23'
BERM WIDTH: 10'

RCL 1B
SEE SHEET C6.20 FOR SIZE & LINING REQUIREMENTS

N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-64-4531-0000
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CONSTRUCTION PLANS
HAWKSBILL COVE EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
KEVIN MENDENHALL

KEY MAP
N.T.S.

0 25 50
SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

EROSION CONTROL PLAN STAGE 1

C6.03

J:\25\0329-a ryan homes_pender county_hawksbill cove\CAD\Drawing set\construction\C6.03 EROSION CONTROL PLAN STAGE 1.dwg Wednesday, October 1, 2025 1:15:54 PM BBEBAUX

N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-64-4531-0000
ZONING: PD
USE: RESIDENTIAL

N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-64-4531-0000
ZONING: PD
USE: RESIDENTIAL

HAWKSBILL COVE
NORTH VILLAGE
(FUTURE DEVELOPMENT)

EX. WETLANDS (TYP.)

EX. WETLANDS (TYP.)

BAFFLES (TYP)

LIMITS OF DISTURBANCE (TYP.)

RSB #1
(FUTURE SCM #3)
BOTTOM: 19'
TOP OF BERM: 23'
BERM WIDTH: 10'

LIMITS OF DISTURBANCE (TYP.)

9' L x 12' W x 12" THICK CLASS A RIPRAP SLOPE DRAIN 1A
36" SLOPE DRAIN WITH HORSESHOE INLET PROTECTION

SILT FENCE WITH TREE PROTECTION FENCE

LIMITS OF DISTURBANCE (TYP)

FUTURE AMENITY SITE ± 10.5 AC.

LIMITS OF DISTURBANCE (TYP.)

EX. PUMP STATION

EX. SEWER EASEMENT

EX. 8" PVC SEWER MAIN HAWKSBILL COVE SOUTH VILLAGE

EX. 8" PVC SEWER MAIN HAWKSBILL COVE SOUTH VILLAGE

SILT FENCE WITH TREE PROTECTION FENCE (TYP)

CONSTRUCTION ENTRANCE (TYP)

EX. 12" WATER MAIN HAWKSBILL COVE SOUTH VILLAGE

EX. 8" PVC SEWER MAIN HAWKSBILL COVE SOUTH VILLAGE

SILT FENCE TO REMAIN UNTIL STAGE 1-B, SEE DETAINS ON SHEET C6.18

SILT FENCE OUTLET (TYP)

CONCRETE WASHOUT (TYP)

VELINZA PLANTATION RD

EXIST GRAVEL VELINZA PLANTATION RD TO REMAIN ACCESSIBLE UNTIL TEMPORARY EMERGENCY ACCESS ROAD 1 IS INSTALLED, SEE NOTES ON SHEET C6.18

LEATHERBACK LN

EX. EOP (TYP.)

EX. STORM DRAINAGE (TYP.)

SAILING SHIP PL

EX. EOP (TYP.)

END DOUBLE SILT FENCE/ TREE PROTECTION FENCE

SILT FENCE (TYP)

CATAMARAN LN
50' ROW

HAWKSBILL COVE
SOUTH VILLAGE
PROJECT #: SP-2669

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NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
KEY MENDENHALL

KEY MAP
N.T.S.

0 25 50
SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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Call before you dig.

WR JOB NUMBER	25-0329-A
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EROSION CONTROL PLAN STAGE 1

C6.04

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N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-64-4531-0000
ZONING: PD
USE: RESIDENTIAL

EX. WETLANDS (TYP.)

BAFFLES (TYP)

LIMITS OF DISTURBANCE (TYP.)

RCL 1B
SEE SHEET C6.20 FOR SIZE & LINING REQUIREMENTS

RSB #1
(FUTURE SCM #3)
BOTTOM: 19'
TOP OF BERM: 23'
BERM WIDTH: 10'

TEMPORARY DIVERSION TD 102
SEE SHEET C6.20 FOR SIZE & LINING REQUIREMENTS

CHECK DAM (TYP)

TEMPORARY DIVERSION TD 201
SEE SHEET C6.20 FOR SIZE & LINING REQUIREMENTS

SILT FENCE

TEMPORARY STOCKPILE EASEMENT

STOCKPILE AREA

FUTURE AMENITY SITE ± 10.5 AC.

9' L x 12' W x 12" THICK CLASS A RIPRAP
SLOPE DRAIN 1A
36" SLOPE DRAIN WITH HORSESHOE INLET PROTECTION

TEMPORARY DIVERSION TD 101
SEE SHEET C6.20 FOR SIZE & LINING REQUIREMENTS

CHECK DAM (TYP)

SILT FENCE WITH TREE PROTECTION FENCE

LIMITS OF DISTURBANCE (TYP)

FUTURE AMENITY SITE ± 10.5 AC.

SILT FENCE TO REMAIN UNTIL STAGE2 PHASE B, SEE NOTES ON SHEET C6.18

CONSTRUCTION CROSSING
REF CONSTRUCTION SEQUENCING ON SHEET C6.18

SLOPE DRAIN 7B
12" SLOPE DRAIN WITH HORSESHOE INLET PROTECTION

3' L x 4' W x 12" THICK CLASS A RIPRAP

6' L x 8' W x 12" THICK CLASS A RIPRAP

VELINZA PLANTATION RD

EXIST GRAVEL VELINZA PLANTATION RD TO REMAIN ACCESSIBLE UNTIL TEMPORARY EMERGENCY ACCESS ROAD 1 IS INSTALLED, SEE NOTES ON SHEET C6.18

SLOPE DRAIN 7A
18" SLOPE DRAIN WITH HORSESHOE INLET PROTECTION

4.5' L x 6' W x 12" THICK CLASS A RIPRAP

CONSTRUCTION CROSSING
REF CONSTRUCTION SEQUENCING ON SHEET C6.18

SLOPE DRAIN 6A
2 24" SLOPE DRAINS WITH HORSESHOE INLET PROTECTION

EXIST WETLAND B,
TO BE FILLED IN TO ENSURE POSITIVE DRAINAGE TO RSB 1/SCM 3
SEE C6.20 FOR SEQUENCING

END DOUBLE SILT FENCE (TYP)

LIMITS OF DISTURBANCE (TYP.)

SILT FENCE (TYP)

SILT FENCE OUTLET (TYP)

EX. 60' R/W

SITE BOUNDARY

EX. EOP (TYP.)

EX. 24" CULVERT

EX. 24" CULVERT

CATAMARAN LN
50' R/W

CUTTY SARK DR
50' R/W

AVILA AVE

J:\25\10229-ryan home_pender county_hawksbill cove\CAD\drawing set\construction\C6.05 EROSION CONTROL PLAN STAGE 1.dwg Wednesday, October 1, 2025 1:23:11 PM BBRAUX

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NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
KEY MENDENHALL

KEY MAP
N.T.S.

0 25 50
SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

Know what's below.
Call before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

EROSION CONTROL PLAN STAGE 1

C6.05

TEMPORARY DIVERSION TD 201
SEE SHEET C6.20 FOR SIZE &
LINING REQUIREMENTS

TEMPORARY DIVERSION TD 102
SEE SHEET C6.20 FOR SIZE &
LINING REQUIREMENTS

CHECK DAM (TYP)

EXIST WETLAND A,
TO BE FILLED IN TO ENSURE
POSITIVE DRAINAGE TO RSB 1/SCM 3
SEE C6.20 FOR SEQUENCING

TEMPORARY STOCKPILE
EASEMENT

SILT FENCE

STOCKPILE AREA

TEMPORARY DIVERSION TD 301
SEE SHEET C6.20 FOR SIZE &
LINING REQUIREMENTS

7.5' L x 10' W
x 12" THICK
CLASS A RIPRAP

SLOPE DRAIN 3A
30" SLOPE DRAIN
WITH HORSESHOE
INLET PROTECTION

TEMPORARY DIVERSION
TD 302B
SEE SHEET C6.20 FOR SIZE
& LINING REQUIREMENTS

CHECK DAM (TYP)

EX. FENCE

SITE BOUNDARY

EX. GRAVEL
DRIVEWAY TO
REMAIN

TEMPORARY DIVERSION
TD 302A
SEE SHEET C6.20 FOR SIZE
& LINING REQUIREMENTS

EXIST GRAVEL VELINZA PLANTATION RD
TO REMAIN ACCESSIBLE UNTIL
TEMPORARY EMERGENCY ACCESS
ROAD 1 IS INSTALLED,
SEE NOTES ON SHEET C6.18

x 8' W x 12" THICK
SS A RIPRAP

SILT FENCE TO REMAIN UNTIL STAGE 1-B,
SEE DETAINS ON SHEET C6.18

VELINZA PLANTATION RD

EXIST WETLAND B,
TO BE FILLED IN TO ENSURE
POSITIVE DRAINAGE TO RSB 1/SCM 3
SEE C6.20 FOR SEQUENCING

LIMITS OF
DISTURBANCE (TYP)

SILT FENCE (TYP)

SILT FENCE
OUTLET (TYP)

EX. 60' R/W

LIMITS OF
DISTURBANCE
(TYP.)

SITE BOUNDARY

SITE BOUNDARY

N/F
AVILA HOMEOWNERS
ASSOC., INC
PIN:4200-71-5629-0000
ZONING: RP
USE: VACANT

AVILA DRIVE

J:\25\0029-A-Ryan Homes_Pender County_Hawksbill Cove\CAD\Drawing Set\Construction\C6.01-607 EROSION CONTROL PLAN STAGE 1.dwg, Wednesday, October 1, 2025 3:52:33 PM, RBREAUX

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WILMINGTON, NC 28411

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HAWKSBILL COVE
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COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED
FOR CONSTRUCTION
KEY MENDEHL

KEY MAP
N.T.S.

0 25 50
SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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Call 811 before you dig.

WR JOB NUMBER		25-0329-A
DRN: WR	DGN: WR	CKD: WR

EROSION CONTROL
PLAN STAGE 1

C6.06

811 | 1-1-1993

RSB #3
(FUTURE SCM #5)
BOTTOM: 18'
TOP OF BERM: 23'
BERM WIDTH: 10'

BAFFLES (TYP)

ATTACH SKIMMER
TO PERMANENT SCM
RISER STRUCTURE

SKIMMER (TYP)

RISER (SCM 5)

RSB #3
(FUTURE SCM #5)
BOTTOM: 18'
TOP OF BERM: 23'
BERM WIDTH: 10'

END DOUBLE SILT FENCE/
TREE PROTECTION FENCE (TYP)

SILT FENCE OUTLET (TYP)

SILT FENCE (TYP)

FES (SCM 5)

7.5' L x 10' W
x 12" THICK
CLASS A RIPRAP

SLOPE DRAIN 3A
30" SLOPE DRAIN
WITH HORSESHOE
INLET PROTECTION

TEMPORARY DIVERSION
TD 302B
SEE SHEET C6.20 FOR SIZE
& LINING REQUIREMENTS

CHECK DAM (TYP)

TEMPORARY DIVERSION TD 303
SEE SHEET C6.20 FOR SIZE &
LINING REQUIREMENTS

CHECK DAM (TYP)

SITE BOUNDARY

BEGIN DOUBLE SILT FENCE/
TREE PROTECTION FENCE (TYP)

LIMITS OF
DISTURBANCE
(TYP.)

SILT FENCE WITH TREE
PROTECTION FENCE (TYP)

EX. FENCE

EX. TREE LINE

EX. FENCE

SITE BOUNDARY

N/F
CARY G. BRUTON
PIN:4203-81-1583-0000
ZONING: RP
USE: RESIDENTIAL

EX. GRAVEL
DRIVEWAY

EX. ACCESS
EASEMENT
TO REMAIN

EX. GRAVEL
DRIVEWAY TO
REMAIN

VELINZA PLANTATION RD

SITE BOUNDARY

EX. COASTAL
WETLAND

75' AEC

SITE BOUNDARY

500-YR
FLOOD LIMIT

100-YR
FLOOD LIMIT

NORMAL HIGH
WATER LINE

500-YR
FLOOD LIMIT

100-YR
FLOOD LIMIT

LIMIT OF
MODERATE
WAVE ACTION

EX. BUILDING

EX. GRAVEL
DRIVEWAY

INTRACOASTAL WATERWAY

EX. FENCE

500-YR
FLOOD LIMIT

100-YR
FLOOD LIMIT

75' AEC

CHECK DAM (TYP)

TEMPORARY DIVERSION TD 502
SEE SHEET C6.20 FOR SIZE &
LINING REQUIREMENTS

CHECK DAM (TYP)

LIMITS OF
DISTURBANCE
(TYP.)

SLOPE DRAIN 5A
15" SLOPE DRAIN
WITH HORSESHOE
INLET PROTECTION

12" THICK
CLASS A RIPRAP

BAFFLES (TYP)

SSB #1
BOTTOM: 20'
TOP OF BERM: 25'
BERM WIDTH: 5'

SKIMMER (TYP)

CHECK DAM (TYP)

BEGIN SILT FENCE/TREE
PROTECTION FENCE

EXIST GRAVEL VELINZA PLANTATION RD
TO REMAIN ACCESSIBLE UNTIL
TEMPORARY EMERGENCY ACCESS
ROAD 1 IS INSTALLED.
SEE NOTES ON SHEET C6.18

TEMPORARY DIVERSION
TD 302A
SEE SHEET C6.20 FOR SIZE
& LINING REQUIREMENTS

SITE BOUNDARY

LIMITS OF
DISTURBANCE (TYP)

SILT FENCE (TYP)

SILT FENCE
OUTLET (TYP)

TEMPORARY DIVERSION TD 501
SEE SHEET C6.20 FOR SIZE &
LINING REQUIREMENTS

10' SPILLWAY
ELEV.= 22.50'
LINED WITH NAG C350
OR EQUIVALENT

N/F
AVILA HOMEOWNERS
ASSOC., INC.
PIN:4203-71-5629-0000
ZONING: RP
USE: VACANT

N/F
BRYANT, ALVIN JR.
PIN:4203-71-6580-0000
ZONING: RP
USE: RESIDENTIAL

N/F
CALVIN, ROBIN GENE
PIN:4203-71-7359-0000
ZONING: RP
USE: RESIDENTIAL

N/F
WOOLARD, DEREK A.
PIN:4203-71-8267-0000
ZONING: RP
USE: RESIDENTIAL

N/F
LESLIE NEAL BIRNBACH
PIN:4203-71-9163-0000
ZONING: RP
USE: RESIDENTIAL

N/F
AVILA YACHT
BASIN OWNERS
ASSN, INC.
PIN:4203-81-0051-0000
ZONING: RP
USE: VACANT

AVILA DRIVE

J:\2510\29-a-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C6.03-07 EROSION CONTROL PLAN STAGE 1.dwg Wednesday, October 1, 2025 1:23:16 PM - BBRAUN

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NORTH CAROLINA
PRELIMINARY
NOT APPROVED
FOR CONSTRUCTION
KEY MENDENHALL

KEY MAP
N.T.S.

0 25 50
SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

Know what's below.
Call before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

EROSION CONTROL PLAN STAGE 1

C6.07

EST 1993

HAWKSBILL COVE
NORTH VILLAGE
(FUTURE DEVELOPMENT)

HAWKSBILL COVE
SOUTH VILLAGE
PROJECT #: SP-2669

RSB #1
(FUTURE SCM #3)

RSB #2
(FUTURE SCM #4)

RSB #3
(FUTURE SCM #5)

RSB #4
(FUTURE SCM #6)

100-YR
FLOOD LIMIT

500-YR
FLOOD LIMIT

SITE BOUNDARY

NORMAL HIGH
WATER LINE

LIMIT OF
MODERATE
WAVE ACTION

75' AEC

EX. WETLANDS
(TYP.)

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EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED
FOR CONSTRUCTION
KEY MENDENHALL

KEY MAP
N.T.S.

0 125 250
SCALE: 1 inch = 250 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

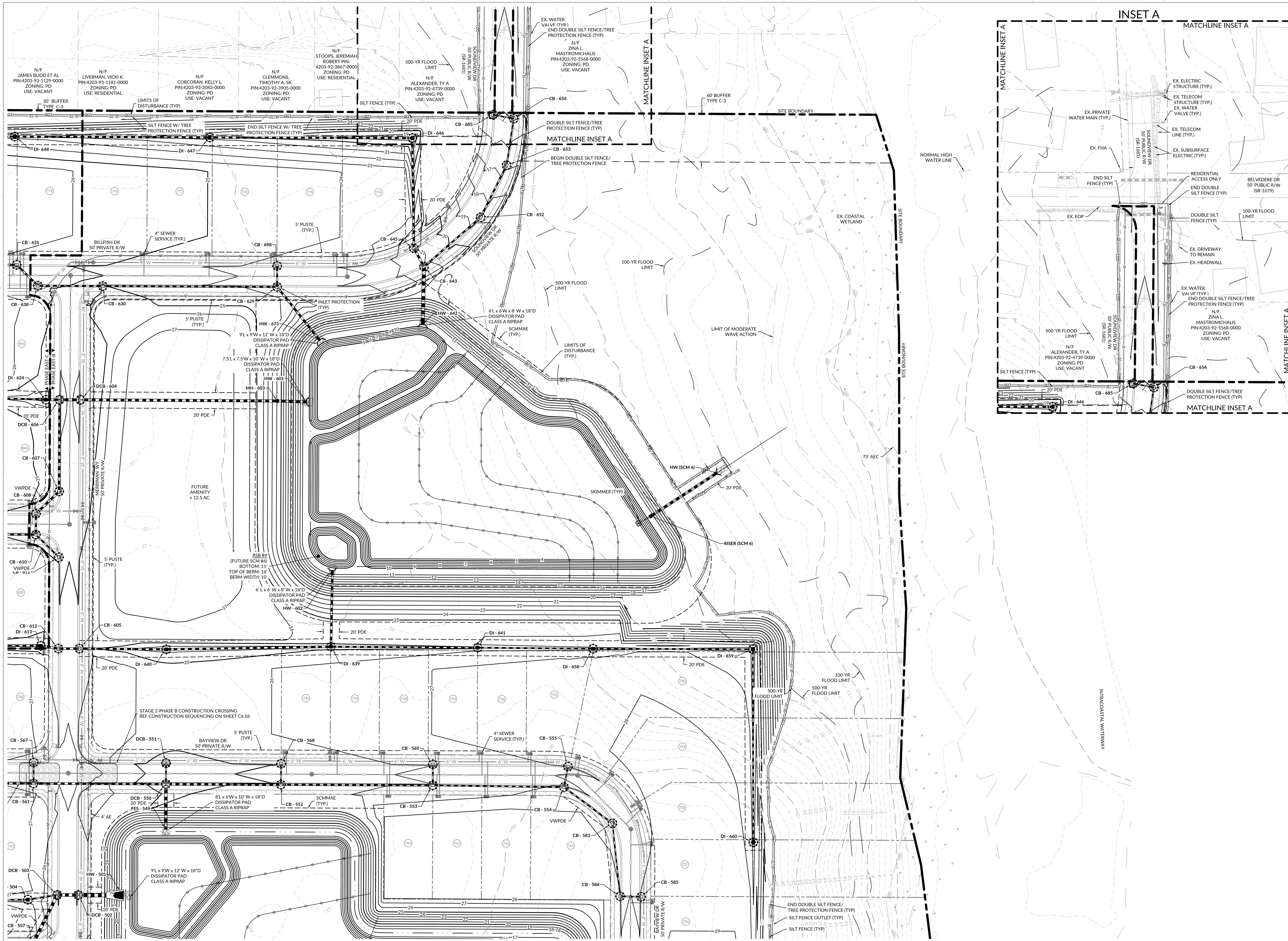
Know what's **below.**
Call 811 before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

OVERALL EROSION CONTROL PLAN - STAGE 2

C6.10

J:\25\0329-a-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C6.20 OVERALL EROSION CONTROL PLAN STAGE 2.dwg - Wednesday, October 1, 2025 1:54:03 PM - BBEAUX



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CONSTRUCTION PLANS
HAWKSBILL COVE EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

PRELIMINARY
NOT APPROVED FOR CONSTRUCTION

KEY MAP
N.T.S.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

Know what's below. Call before you dig.

WR JOB NUMBER 25-0329-A
DRN: WR DGN: WR CKD: WR

EROSION CONTROL PLAN STAGE 2

C6.11

N/F
MURRAY,
RICHARD G.
PIN:4203-84-3173-0000
ZONING: PD
USE: RESIDENTIAL

N/F
DENNIS PETER
MESSINA
PIN:4203-84-4045-0000
ZONING: PD
USE: VACANT

N/F
HECKERT, RICK W.
PIN:4203-83-5916-0000
ZONING: PD
USE: RESIDENTIAL

N/F
PEREIRA, JOHN E.
PIN:4203-83-5869-0000
ZONING: PD
USE: RESIDENTIAL

N/F
EVANS, CHARLES
RANDALL
PIN:4203-83-6821-0000
ZONING: PD
USE:RESIDENTIAL

N/F
LEBO, TERRENCE
RICHARD JR.
PIN:4203-83-6784-0000
ZONING: PD
USE: RESIDENTIAL

N/F
ERIK W. WILSON ET AL
PIN:4203-83-7656-0000
ZONING: PD
USE: RESIDENTIAL

N/F
MARVIN L. HALFAST
PIN:4203-83-8518-0000
ZONING: PD
USE: VACANT

N/F
HOLLAND, ERIC
PIN:4203-83-8570-0000
ZONING: PD
USE: RESIDENTIAL

N/F
WILCOX,
CHRISTOPHER L.
PIN:4203-83-9422-0000
ZONING: PD
USE:RESIDENTIAL

N/F
ERPELDING, CHAD
ALAN TRUSTEE
PIN:4203-83-9393-0000
ZONING: PD
USE: RESIDENTIAL

N/F
SHOLTIS, STEVEN A.
PIN:4203-93-0256-0000
ZONING: PD
USE: RESIDENTIAL

N/F
JAMES BUDD ET AL
PIN:4203-93-1129-0000
ZONING: PD
USE: VACANT

N/F
LIVERMAN, VICKI K.
PIN:4203-93-1181-0000
ZONING: PD
USE: RESIDENTIAL

30' BUFFER
TYPE C-3

SILT FENCE W/ TREE
PROTECTION FENCE (TYP)

SITE BOUNDARY

LIMITS OF
DISTURBANCE (TYP.)

EX. TREELINE (TYP.)

20' PDE

DI - 427 · DI - 650 · DI - 649 · DI- 648

CB - 417
4" SEWER
SERVICE (TYP.)

FIDDLER DR
50' PRIVATE R/W

CB - 472 · CB - 415 · CB - 416

TEMPORARY STOCKPILE
EASEMENT

SILT FENCE

STOCKPILE AREA

DI - 420 · DI - 421 · DI - 422

5' PUSTE
(TYP.)

CB - 634 · CB - 633 · CB - 632 · CB - 631

CB - 635 · CB - 636 · CB - 637 · CB - 638

BILLFISH DR
50' PRIVATE R/W

CB - 630

VWPDE

CB - 430

BILLFISH DR
50' PRIVATE R/W

CB - 431 · CB - 432 · CB - 678 · CB - 433

INLET PROTECTION
(TYP)

CB - 736 · CB - 677 · DI - 434

DI - 628 · DI - 627 · DI - 626 · DI - 625 · DI - 624

PHASE EAST-C
PHASE EAST-B

DCB - 604 · DCB - 606

DEEPWATER DR
50' PRIVATE R/W

CB - 491 · CB - 691 · CB - 492 · CB - 711 · CB - 457 · CB - 456 · CB - 455 · CB - 459 · CB - 621 · CB - 622 · CB - 623 · CB - 607 · CB - 608

CB - 441 · CB - 445 · CB - 487 · CB - 442 · CB - 446 · CB - 447 · CB - 448 · CB - 454 · CB - 453 · CB - 458 · CB - 620 · CB - 619 · CB - 618 · CB - 610 · CB - 611

MERRIMAN WAY
50' PRIVATE R/W

DI - 443 · DI - 444 · DI - 451 · DI - 450 · DI - 452 · DI - 617 · DI - 615 · DI - 616 · DI - 614 · CB - 612 · DI - 613 · CB - 605

CB - 494 · CB - 495 · CB - 495-A · CB - 461 · CB - 462 · CB - 470 · CB - 486 · CB - 463 · CB - 469 · CB - 468 · CB - 467 · CB - 465 · CB - 466

BAYVIEW DR
50' PRIVATE R/W

CB - 576 · CB - 575 · CB - 567 · CB - 565 · CB - 563 · CB - 562 · CB - 561

STAGE 2 PHASE B CONSTRUCTION CROSSING
REF CONSTRUCTION SEQUENCING ON SHEET C6.18

DI - 366 · DI - 367 · DI - 368 · DI - 388 · DI - 389 · DI - 506 · DI - 505 · DI - 504 · DCB - 503 · HW - 501 · DCB - 502 · CB - 507

LEATHERBACK LN
50' PRIVATE R/W

CB - 496 · CB - 387 · CB - 578

13' STE · 8' AE · 20' PDE · 10' UE · 4' AE

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CONSTRUCTION PLANS
HAWKSBILL COVE
EAST VILLAGE

COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED
FOR CONSTRUCTION
KELLEY MENDENHALL

KEY MAP
N.T.S.

X3 X2 X1
X4 X5 X6 X7

0 25 50
SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

EROSION CONTROL
PLAN STAGE 2

C6.12

I:\25\0329-a-ryan homes_pender county_hawksbill cove\CAD\drawing sets\construction\C6.09-6.14 EROSION CONTROL PLAN STAGE 2.dwg, Wednesday, October 1, 2025 2:45:55 PM, AMENDENHALL

HAWKSBILL COVE
NORTH VILLAGE
(FUTURE DEVELOPMENT)

EX. 60' R/W

BELVEDERE DR (SR-1679)

N/F PENDER LANDING HOLDINGS, INC. PIN:4203-74-7820-0000 ZONING: PD USE: VACANT

N/F SLUSHER, DAVID M. PIN:4203-74-9621-0000 ZONING: PD USE: RESIDENTIAL

30' BUFFER TYPE C-3

N/F LYMAN A. THORNTON PIN:4203-84-0532-0000 ZONING: PD USE: RESIDENTIAL

N/F BROADUS EDWARD HILL, JR. ET AL PIN:4203-84-1422-0000 ZONING: PD USE: RESIDENTIAL

N/F UTLEY, BETTY H L/E PIN:4203-84-2305-0000 ZONING: PD USE: RESIDENTIAL

N/F GIACOBBE, SUSAN PIN:4203-84-2257-0000 ZONING: PD USE: VACANT

N/F BARNES, GARY PIN:4203-84-3221-0000 ZONING: PD USE: RESIDENTIAL

30' BUFFER TYPE C-3

N/F MURRAY, RICHARD G. PIN:4203-84-3173-0000 ZONING: PD USE: RESIDENTIAL

SITE BOUNDARY

N/F PENDER LANDING HOLDINGS, INC. PIN:4203-75-4098-0000 ZONING: PD USE: VACANT

100-YR FLOOD LIMIT

500-YR FLOOD LIMIT

500-YR FLOOD LIMIT

SILT FENCE W/ TREE PROTECTION FENCE (TYP)

LIMITS OF DISTURBANCE (TYP)

SILT FENCE OUTLET (TYP)

SCMMAE (TYP.)

EX. WETLANDS (TYP.)

FUTURE DEVELOPMENT ▲ PHASE EAST-A

SKIMMER (TYP)

FES (SCM 4) 20' PDE

RISER (SCM 4)

RSB #2 (FUTURE SCM #4) BOTTOM: 16' TOP OF BERM: 23' BERM WIDTH: 10'

LIMITS OF DISTURBANCE (TYP.)

EX. TREE LINE TO BE REMOVED

EX. WETLANDS (TYP.)

SCMMAE (TYP.)

10.5'L X 10.5'W X 14' W X 18"D DISSIPATOR PAD CLASS A RIPRAP

20' PDE

RISER (SCM 3)

SKIMMER (TYP)

RSB #1 (FUTURE SCM #3) BOTTOM: 19' TOP OF BERM: 23' BERM WIDTH: 10'

10.5'L x 10.5'W x 14' W x 18"D DISSIPATOR PAD CLASS A RIPRAP

FES - 360

6'L x 6'W x 8' W x 18"D DISSIPATOR PAD CLASS A RIPRAP

HW - 423

20' PDE

DI - 424

DI - 425

DI - 426

7.5'L x 7.5'W x 10' W x 18"D DISSIPATOR PAD CLASS A RIPRAP

HW - 592

DI - 593

20' PDE

PUM 9'L x 9'W x 12' W x 18"D SANITA DISSIPATOR PAD CLASS A RIPRAP

PUMP STATION 653445' SEE SHEET PS-01 - PS-06 FOR DESIGN DETAILS

20' PDE

X" [MATERIAL] FORCEMAIN

PHASE EAST-A ▼ PHASE EAST-C ▲

FIDDLER DR 50' PRIVATE R/W

5' PUSTE (TYP.)

CB - 471

CB - 472

TEMPORARY STOCKPILE EASEMENT

CB - 474

CB - 414

CB - 413

CB - 415

SILT FENCE

STOCKPILE AREA

VWPDE

CB - 412

DI - 418

20' PDE

DI - 420

CB - 688

DI - 419

CB - 411

CB - 410

VWPDE

CB - 409

CB - 473

CB - 490

5' PUSTE (TYP.)

DEEPWATER DR 50' PRIVATE R/W

CB - 602

CB - 408

VWPDE

CB - 403

CB - 440

CB - 441

CB - 442

CB - 487

INLET PROTECTION (TYP)

DCB - 404

DCB - 405

DI - 407

20' PDE

DI - 406

DI - 443

CB - 435

VWPDE

CB - 436

5' PUSTE (TYP.)

CB - 493

CB - 494

CB - 495

CB - 437

CB - 439

VWPDE

CB - 438

5' PUSTE (TYP.)

BAYVIEW DR 50' PRIVATE R/W

CB - 461

CB - 462

CB - 470

CB - 486

CB - 364

CB - 591

DI - 365

20' PDE

DI - 366

DI - 367

DI - 498

20' PDE

DI - 369

VWPDE

CB - 363

CB - 362

FIDDLER DR 50' PRIVATE R/W

20' PUSTE (TYP.)

20' PDE

DI - 370

CB

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CONSTRUCTION PLANS

HAWKSBILL COVE EAST VILLAGE

COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
KEY MENDENHALL

KEY MAP
N.T.S.

0 25 50
SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

EROSION CONTROL PLAN STAGE 2

C6.13

J:\25\0329-a-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C6.08-14 EROSION CONTROL PLAN STAGE 2.dwg - Wednesday, October 1, 2025 3:49:11 PM - AMENDENHALL

HAWKSBILL COVE
NORTH VILLAGE
(FUTURE DEVELOPMENT)

EX. WETLANDS (TYP.)

FUTURE DEVELOPMENT
PHASE EAST-A

LIMITS OF DISTURBANCE (TYP.)

SCMMAE (TYP.)

EX. WETLANDS (TYP.)

RSB #1
(FUTURE SCM #3)
BOTTOM: 19'
TOP OF BERM: 23'
BERM WIDTH: 10'

LIMITS OF DISTURBANCE (TYP.)

FUTURE DEVELOPMENT
PHASE EAST-A

9'L x 9'W x 12' W x 18"D
DISSIPATOR PAD
CLASS A RIPRAP

HW - 700

PROPOSED MH INVERT ELEVATIONS BASED ON DESIGN INFORMATION PROVIDED BY URBAN ENGINEERING. CONTRACTOR TO VERIFY AS-BUILT INFORMATION AND NOTIFY ENGINEER PRIOR TO CONSTRUCTION

CB - 704

CB - 705

DCB - 703

LIMITS OF DISTURBANCE (TYP.)

LEATHERBACK LN
50' PRIVATE R/W

CB - 694

DCB - 709

CB - 706

5' PUSTE (TYP.)

EX. PUMP STATION

EX. SEWER EASEMENT

EX. 8" PVC SEWER MAIN HAWKSBILL COVE SOUTH VILLAGE

SILT FENCE WITH TREE PROTECTION FENCE (TYP)

CONSTRUCTION ENTRANCE (TYP)

EX. 12" WATER MAIN HAWKSBILL COVE SOUTH VILLAGE

EX. 8" PVC SEWER MAIN HAWKSBILL COVE SOUTH VILLAGE

4" SEWER SERVICE (TYP.)

20' PDE

DI - 713

DI - 714

DI - 710

CB - 708

INLET PROTECTION (TYP)

CB - 702

8' AE

SILT FENCE WITH TREE PROTECTION FENCE

LIMITS OF DISTURBANCE (TYP)

FUTURE AMENITY SITE
± 10.5 AC.

20' PDE

CB- 701

SILT FENCE OUTLET (TYP)

CONCRETE WASHOUT (TYP)

EX. EOP (TYP.)

EX. STORM DRAINAGE (TYP.)

LEATHERBACK LN

SAILING SHIP PL

PHASE EAST-A
SOUTH VILLAGE

END DOUBLE SILT FENCE/
TREE PROTECTION FENCE

CB - 707

CB - 306

CB - 307

CB - 308

CB - 709

5' PUSTE (TYP.)

DI - 711

DI - 712

SILT FENCE (TYP)

20' PDE

PHASE EAST-A
SOUTH VILLAGE

CATAMARAN LN
50' R/W

HAWKSBILL COVE
SOUTH VILLAGE
PROJECT #: SP-2669

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CONSTRUCTION PLANS
HAWKSBILL COVE EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
KEY MENDENHALL

KEY MAP
N.T.S.

	X3	X2	X1
X4	X5	X6	X7

0 25 50
SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

EROSION CONTROL PLAN STAGE 2

C6.14

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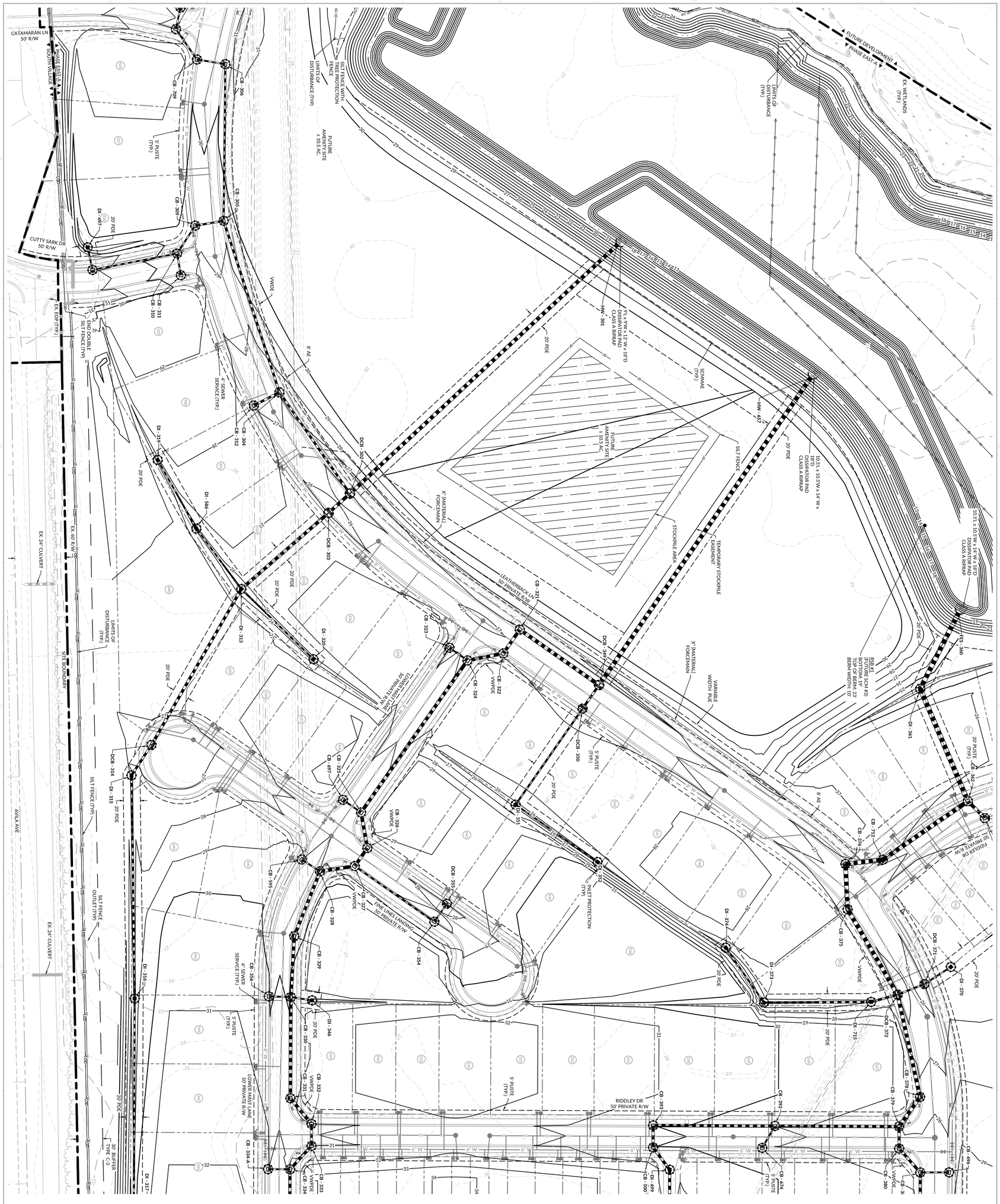

C6.15

EROSION CONTROL
PLAN STAGE 2

Know what's below.
Call before you dig.
WR JOB NUMBER 25-0329.A
DRN: VR DSN: VR 4/10/25

INITIAL PLAN DATE: 10/2/2025
REVISIONS:

SCALE: 1 inch = 50 ft.

KEY MAP
N.T.S.

PRELIMINARY
NOT APPROVED
FOR CONSTRUCTION
OR RECORDATION

CONSTRUCTION PLANS
HAWKSBILL COVE
EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

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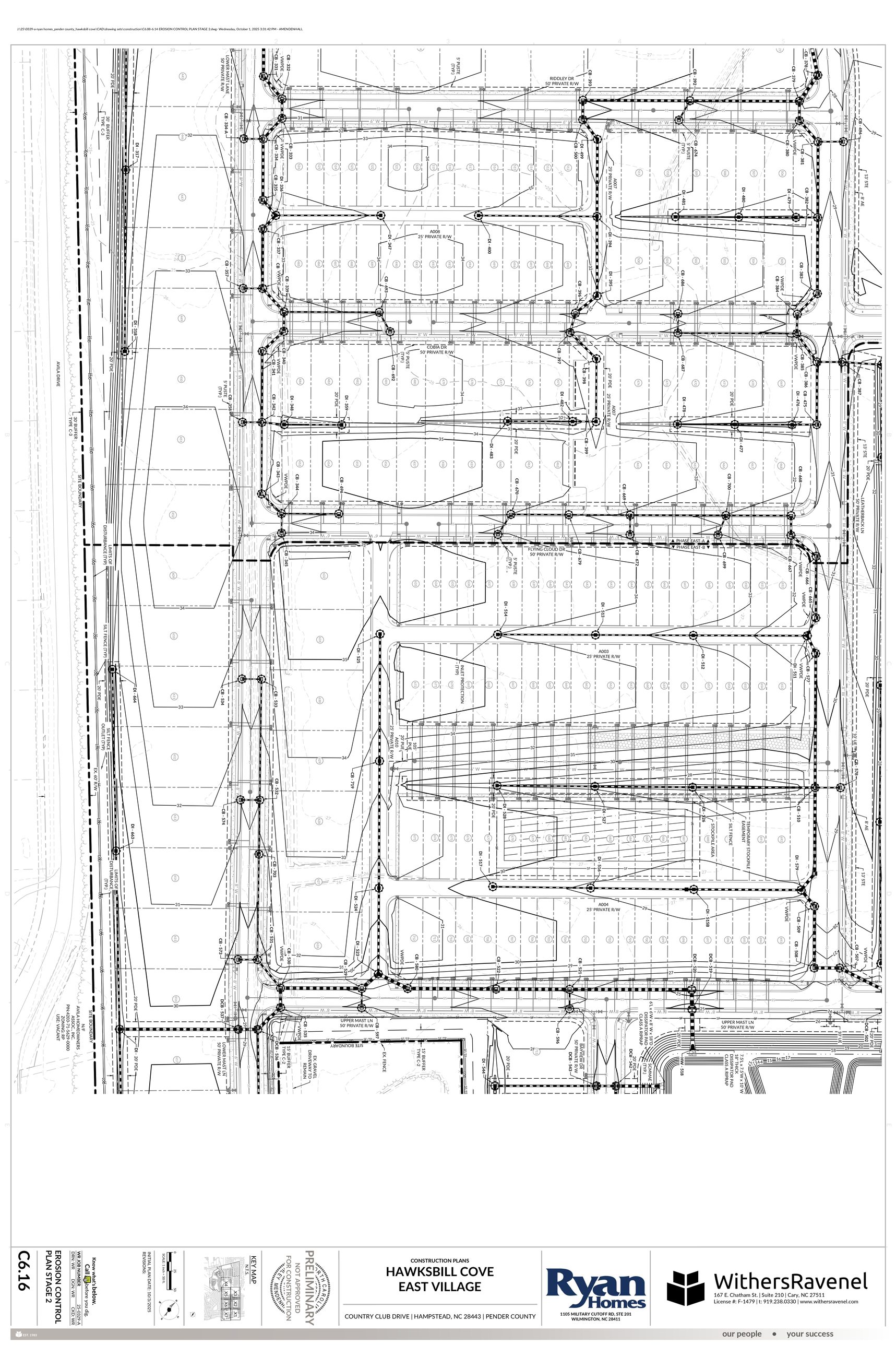

CONSTRUCTION PLANS

HAWKSBILL COVE
EAST VILLAGE

COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

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PRELIMINARY
NOT APPROVED
FOR CONSTRUCTION
NORTH CAROLINA
P.E. MENDENHALL

KEY MAP
N.T.S.

SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/2/2025
REVISIONS:

Know what's below.
Call before you dig.
DESIGN MGR: JWR | JOB NUMBER: 25-0329A
DRAWN BY: DCH/LWR | CHECKED BY: AGD/LWR

EROSION CONTROL
PLAN STAGE 2

C6.16

RSB #3
(FUTURE SCM #5)
BOTTOM: 18'
TOP OF BERM: 23'
BERM WIDTH: 10'

RISER (SCM 5)

SKIMMER (TYP)

BAYVIEW DR
50' PRIVATE R/W

END DOUBLE SILT FENCE/
TREE PROTECTION FENCE (TYP)

SILT FENCE OUTLET (TYP)

SILT FENCE (TYP)

FES (SCM 5)

20' PDE

DCB - 502

10' UE

UPPER MAST LN
50' PRIVATE R/W

7.5'L x 7.5'W x 10' W
18" THICK
DISSIPATOR PAD
CLASS A RIPRAP

HW - 518

RSB #3
(FUTURE SCM #5)
BOTTOM: 18'
TOP OF BERM: 23'
BERM WIDTH: 10'

CB - 581

CB - 582

EX. COASTAL
WETLAND

75' AEC

SITE BOUNDARY

6'L x 6'W x 8' W x 18"D
DISSIPATOR PAD
CLASS A RIPRAP

SCMMAE
(TYP.)

20' PDE

DCB - 542

HW - 541

VWPDE
CB - 556

CB - 548

CB - 547

CB - 557

500-YR
FLOOD LIMIT

BAYVIEW DR
50' PRIVATE R/W

DCB - 543

5' PUSTE
(TYP.)

4" SEWER
SERVICE (TYP.)

CB - 570

INLET PROTECTION
(TYP)

CB - 596

100-YR
FLOOD LIMIT

LIMITS OF
DISTURBANCE
(TYP.)

NORMAL HIGH
WATER LINE

20' PDE

DI - 545

DI - 546

DI - 544

SITE BOUNDARY

BEGIN DOUBLE SILT FENCE/
TREE PROTECTION FENCE (TYP)

EX. FENCE

15' BUFFER
TYPE C-2

SILT FENCE WITH TREE
PROTECTION FENCE (TYP)

500-YR
FLOOD LIMIT

LIMIT OF
MODERATE
WAVE ACTION

EX. BUILDING

100-YR
FLOOD LIMIT

15' BUFFER
TYPE C-2

EX. TREE LINE

EX. FENCE

N/F
CARY G. BRUTON
PIN:4203-81-1583-0000
ZONING: RP
USE: RESIDENTIAL

CB - 597

UPPER MAST LN
50' PRIVATE R/W

SITE BOUNDARY

EX. GRAVEL
DRIVEWAY

INTRACOASTAL WATERWAY

EX. GRAVEL
DRIVEWAY TO
REMAIN

EX. ACCESS
EASEMENT
TO REMAIN

CB - 535

VWPDE

VELINZA PLANTATION RD

15' BUFFER
TYPE C-2

CB - 538

SITE BOUNDARY

CB - 539

EX. FENCE

DCB - 536

▼ STAGE 1-B ▼

75' AEC

500-YR
FLOOD LIMIT

LIMITS OF
DISTURBANCE
(TYP.)

DCB - 537

LOWER MAST LN
50' PRIVATE R/W

CB - 572

5' PUSTE
(TYP.)

4" SEWER
SERVICE (TYP.)

CB - 540

100-YR
FLOOD LIMIT

SSB #1 TO BE REMOVED AS SITE
IS BROUGHT TO GRADE AND
DRAINAGE AREA IS STABILIZED
(SEE CONSTRUCTION SEQUENCE)

DI - 661

BEGIN SILT FENCE/TREE
PROTECTION FENCE

30' BUFFER
TYPE C-3

20' PDE

DI - 20' PDE

DI - 599

DI - 600

20' PDE

SITE BOUNDARY

LIMITS OF
DISTURBANCE (TYP)

SILT FENCE (TYP)

SILT FENCE
OUTLET (TYP)

N/F
AVILA HOMEOWNERS
ASSOC, INC.
PIN:4203-71-5629-0000
ZONING: RP
USE: VACANT

N/F
BRYANT, ALVIN JR.
PIN:4203-71-6580-0000
ZONING: RP
USE: RESIDENTIAL

N/F
CALVIN, ROBIN GENE
PIN:4203-71-7359-0000
ZONING: RP
USE: RESIDENTIAL

N/F
WOOLARD, DEREK A.
PIN:4203-71-8267-0000
ZONING: RP
USE: RESIDENTIAL

N/F
LESLIE NEAL BIRNBACH
PIN:4203-71-9163-0000
ZONING: RP
USE: RESIDENTIAL

30' BUFFER
TYPE C-3

N/F
AVILA YACHT
BASIN OWNERS
ASSN, INC.
PIN:4203-81-0051-0000
ZONING: RP
USE: VACANT

AVILA DRIVE

J:\2510029-a-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C6.08-14 EROSION CONTROL PLAN STAGE 2.dwg, Wednesday, October 1, 2025 2:03:27 PM, AMENDENHALL

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CONSTRUCTION PLANS
HAWKSBILL COVE
EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED
FOR CONSTRUCTION
KEY MENDENHALL

KEY MAP
N.T.S.

X4	X5	X6	X7
		X3	X2	X1

0 25 50
SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

Know what's below.
Call before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

EROSION CONTROL PLAN STAGE 2

C6.17

EROSION CONTROL & SEQUENCE OF CONSTRUCTION NOTES

EROSION & SEDIMENT CONTROL NOTES:

1. EROSION AND SEDIMENT CONTROL (E&SC) PERMIT AND A CERTIFICATE OF COVERAGE (COC) MUST BE OBTAINED BEFORE ANY LAND DISTURBING ACTIVITIES OCCUR.
2. CONTRACTOR SHALL INSTALL EROSION CONTROLS IN ORDER WITH THE SEQUENCE PROVIDED.
3. CONTRACTOR SHALL ENSURE GRADING OPERATIONS ARE CONDUCTED IN A MANNER THAT DOES NOT ALLOW ANY SEDIMENT TO DRAIN OFFSITE OR INTO WATERCOURSES.
4. A GRAVEL CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT THE LOCATIONS SHOWN ON THE DRAWINGS AND AT EACH POINT OF CONSTRUCTION ACCESS.
5. CONTRACTOR SHALL CONSTRUCT DIVERSION DITCHES AS NECESSARY TO ENSURE ALL SEDIMENT IS DIRECTED INTO EROSION CONTROL MEASURES. TEMPORARY DIVERSIONS ARE TO REMAIN IN PLACE UNTIL THE STORM DRAINAGE SYSTEM IS IN PLACE, THE UPSTREAM AREA IS STABILIZED AND/OR APPROVAL FROM MUNICIPAL EROSION CONTROL INSPECTOR IS RECEIVED.
6. IF STORM CROSS DRAINAGE CANNOT BE INSTALLED PRIOR TO GRADING, TEMPORARY HDPE STORM DRAINAGE PIPE SHALL BE USED TO CROSS WET WEATHER CHANNELS, EXCLUDING ANY PROTECTED WETLANDS OR STREAMS.
7. ALL STORM DRAINAGE PIPE SHALL BE PROTECTED AS SHOWN ON THE PLANS DURING CONSTRUCTION.
8. CONTRACTOR SHALL PROVIDE RIPRAP LINED DISSIPATOR PADS AT THE STORM DRAINAGE PIPE DISCHARGE POINTS AS REQUIRED TO ENSURE POSITIVE DRAINAGE. SEE PLANS FOR DIMENSIONS AND DETAILS.
9. TO AVOID SLOPE EROSION, CONTRACTOR SHALL INSTALL TEMPORARY SLOPE DRAINS PER DETAIL AT LOCATIONS INDICATED AND WHERE TEMPORARY DIVERSION DITCHES DISCHARGE INTO A SKIMMER BASIN.
10. PERMANENT GROUND COVER SHALL BE ESTABLISHED PER APPROVED NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT.
11. TREE PROTECTION FENCING SHALL BE INSTALLED AND INSPECTED PRIOR TO ISSUANCE OF A GRADING PERMIT. FENCING SHALL NOT BE REQUIRED ADJACENT TO AREAS WITHOUT WOODED VEGETATION. FENCING SHALL BE MAINTAINED ON THE SITE UNTIL ALL SITE WORK IS COMPLETED AND THE FINAL SITE INSPECTION PRIOR TO THE CERTIFICATE OF OCCUPANCY (CO) IS SCHEDULED. THE FENCING SHALL BE REMOVED PRIOR TO FINAL SITE INSPECTION.
12. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT AN EROSION CONTROL PERMIT AND ANY OTHER RELATED PERMITS ARE SECURED FOR ANY OFF-SITE WASTE OR BORROW AREAS.
13. UNLESS OTHERWISE STATED IN THE PROJECT DOCUMENTS, THE CONTRACTOR IS RESPONSIBLE FOR SECURING ALL AGREEMENTS WITH LANDOWNERS FOR PLACEMENT OF WASTE SOIL OR REMOVAL OF BORROW. OFF-SITE PERMITS AND AGREEMENTS SHALL EXIST PRIOR TO CONSTRUCTION ACTIVITIES ON WASTE OR BORROW AREAS. COPIES OF PERMITS AND AGREEMENTS SHALL BE PROVIDED TO THE OWNER AND ENGINEER.
14. SOILS CONTAMINATED WITH ANY CHEMICAL, METAL OR PETROLEUM CONTAMINATION SHALL NOT BE TRANSPORTED ONTO THE PROPERTY AS BORROW / FILL SOILS. CONTAMINATED SOILS, IF DISCOVERED ON THE PROPERTY SHALL NOT BE TRANSPORTED OFFSITE WITHOUT TESTING, PERMITTING AND/OR OTHER REGULATORY APPROVALS COMMENSURATE WITH THE TYPE OF CONTAMINATION AND LOCATION.
15. PER NPDES REQUIREMENTS, A RAIN GAUGE, SELF-INSPECTIONS RECORDS, PERMIT, CERTIFICATE OF COVERAGE, AND S&E PLAN ARE REQUIRED TO BE MAINTAINED ON SITE AND ACCESSIBLE DURING INSPECTION. IT IS RECOMMENDED THAT THESE ITEMS BE PLACED IN A PERMITS BOX AT THE BEGINNING OR ENTRANCE OF PROJECT.
16. THE CONTRACTOR SHALL CONDUCT SELF-INSPECTIONS OF THE EROSION AND SEDIMENTATION CONTROL MEASURES AND COMPETE THE FOLLOWING COMBINED SELF-INSPECTION FORM FOUND ON THE DEMLR WEBSITE: HTTPS://DEQ.NC.GOV/ABOUT/DIVISIONS/ENERGY-MINERAL-LAND-RESOURCES/EROSION-SEDIMENT- CONTROL/FORMS. TWELVE MONTHS OF COMPLETE INSPECTION FORMS SHALL BE KEPT ON-SITE AND AVAILABLE FOR INSPECTION AT ALL TIMES. IT IS RECOMMENDED A COPY BE KEPT IN A PERMITS BOX.
17. SELF-INSPECTIONS FOR EROSION AND SEDIMENTATION CONTROL MEASURES ARE TO BE PERFORMED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF EVERY RAIN EVENT OF GREATER THAN 1 INCH. ANY NEEDED REPAIRS SHALL BE MADE IMMEDIATELY TO MAINTAIN MEASURES AS DESIGNED. ALL E&SC MEASURES SHALL BE MAINTAINED AS SPECIFIED IN THE CONSTRUCTION DETAILS ON THIS PLAN. A RAIN GAUGE SHALL BE INSTALLED AT THE PROJECT SITE FOR MONITORING.
18. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING AND RESTORING TO PRE-CONSTRUCTION CONDITIONS ANY AREAS OUTSIDE THE PROJECT LIMITS THAT MAY INADVERTENTLY BE DAMAGED DUE TO THE FAILURE OF THE EROSION MEASURES

STAGE 1, PHASE 1 CONSTRUCTION SEQUENCE:

1. NOTIFY THE STATE OF NORTH CAROLINA DEPARTMENT OF ENVIRONMENT QUALITY WILMINGTON REGIONAL OFFICE LAND QUALITY SECTION AT (910) 796-7326 OF CONSTRUCTION COMMENCEMENT AND SCHEDULE PRE-CONSTRUCTION CONFERENCE AT LEAST ONE WEEK IN ADVANCE OF PLANNED CONSTRUCTION ACTIVITIES.
2. CONTRACTOR TO COORDINATE PROPOSED EC MEASURES WITH MEASURES INSTALLED AS PART OF HAWKSBILL COVE SOUTH VILLAGE AND ENSURE MEASURES ARE IN WORKING ORDER. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES OR IMPACTS TO EROSION CONTROL MEASURES PROPOSED AS PART OF HAWKSBILL COVE EAST VILLAGE.
3. THE CONTRACTOR SHALL FLAG THE LIMITS OF DISTURBANCE AND TREE PROTECTION LIMITS.
4. CONTRACTOR SHALL MAINTAIN EXISTING RESIDENTIAL ACCESS TO PROPERTY ID 4203-81-1583-0000 VIA VELINZA PLANTATION ROAD. VELINZA PLANTATION ROAD SHALL REMAIN ACCESSIBLE AND TRAVERSABLE VIA PEDESTRIAN AND EMERGENCY VEHICLES UNTIL TEMPORARY RESIDENTIAL ACCESS 2 IS CONSTRUCTED AND OPEN FOR ACCESS TO PROPERTY ID 4203-81-1583-0000 (SEE SHEET C6.19 FOR ACCESS PLAN). PRIVATE RESIDENTIAL AND EMERGENCY ACCESS TO PROPERTY ID 4203-81-1583-0000 SHALL REMAIN OPEN THROUGHOUT THE ENTIRETY OF CONSTRUCTION.
5. INSTALL INITIAL STAGE 1 EROSION CONTROL MEASURES. DEMOLISH EXISTING STRUCTURES AND CLEAR AND DISTURB ONLY AS NECESSARY TO INSTALL THESE MEASURES AS SHOWN PER SHEETS C6.00 - C6.07.
   a. INSTALL THE TEMPORARY ROCK CONSTRUCTION ENTRANCES ALONG VELINZA PLANTATION ROAD., PER SHEETS C6.00 - C6.07.
   b. INSTALL PERIMETER EROSION CONTROL MEASURES (SILT FENCE, TREE PROTECTION FENCING, ROCK FILTER OUTLETS, ETC.) INCLUDING SILT FENCE ALONG VELINZA PLANTATION RD, AS INDICATED ON THE APPROVED EROSION CONTROL PLAN. CLEAR AREAS ONLY AS REQUIRED TO INSTALL PERIMETER EROSION CONTROL MEASURES. UPON COMPLETION OF PERIMETER INSTALLATION, COORDINATE WITH NCDEQ INSPECTION OF PERIMETER MEASURES BY AN ENVIRONMENTAL INSPECTOR.
   c. INSTALL RISER SEDIMENT BASINS RSB #1, RSB #2, RSB #3, AND RSB #4 AND SKIMMER SEDIMENT BASIN SSB #1 WITH BAFFLES AND SLOPE DRAINS, AND MAT SKIMMER BASIN SLOPES WITH JUTE MATTING OR EQUIVALENT ONCE GRADING OF BASIN IS COMPLETE. AS SHOWN PER SHEETS C6.00 - C6.07. ALL SEDIMENT BASIN BAFFLES SHALL BE INSTALLED SUCH THAT THE TOP OF THE BAFFLE IS 6" HIGHER THAN THE BOTTOM OF THE RISER CREST ELEVATION IN RISER BASINS. UPON COMPLETION COORDINATE WITH NCDEQ FOR INSPECTION OF BASINS BY AN ENVIRONMENTAL INSPECTOR.
   d. INSTALL TEMPORARY DIVERSIONS AND INTERMEDIATE GRADING TO DIRECT RUNOFF INTO RISER SEDIMENT BASINS. EXISTING WETLANDS TO BE DEMUCKED AND DEWATERED VIA PUMP AND FILTER BAG AND BACKFILLED WITH SUITABLE SOILS. INSTALL CHECK DAMS AND DITCH LINERS AT THE TIME OF DITCH INSTALLATION. SEED TEMPORARY DIVERSIONS, BERMS AND BASINS IMMEDIATELY AFTER CONSTRUCTION.
   e. EXISTING WETLANDS TO BE DEMUCKED AND DEWATERED VIA PUMP AND FILTER BAG AND BACKFILLED WITH SUITABLE SOILS.
   f. CLEAR & GRUB AREAS NECESSARY TO COMPLETE INTERMEDIATE GRADING WITHIN THE PHASE 1 LIMITS OF THE SITE AS SHOWN ON SHEETS C6.00 - C6.07 AND C6.18.
   g. VELOCITY DISSIPATORS TO BE INSTALLED AS SOON AS PIPES OR DITCHES ARE OPERATIONAL.
   h. UPON COMPLETION, COORDINATE WITH NCDEQ FOR INSPECTION OF EROSION SEDIMENTATION CONTROL MEASURES.
   i. WITH NCDEQ INSPECTOR'S APPROVAL OF ALL EROSION AND SEDIMENT CONTROL MEASURES, BEGIN STRIPPING TOPSOIL AND MASS GRADING OPERATIONS.
6. STOCKPILE SOILS. INSTALL SILT FENCE AROUND STOCKPILE AREAS. ANY UNSUITABLE SOILS THAT CANNOT BE DISPOSED OF ONSITE AND ALL OTHER WASTE MATERIALS SHALL BE TAKEN OFFSITE TO A SUITABLE FACILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATIONS OF ALL STOCKPILES AND ANY ADDITIONAL SEDIMENT AND EROSION CONTROLS MEASURES THAT MAY BE REQUIRED BY NCDEQ INSPECTOR.

STAGE 2, PHASE A CONSTRUCTION SEQUENCE:

1. CONTRACTOR SHALL MAINTAIN EXISTING RESIDENTIAL ACCESS TO PROPERTY ID 4203-81-1583-0000 VIA VELINZA PLANTATION ROAD. VELINZA PLANTATION ROAD SHALL REMAIN ACCESSIBLE AND TRAVERSABLE VIA PEDESTRIAN AND EMERGENCY VEHICLES UNTIL TEMPORARY RESIDENTIAL ACCESS 2 IS CONSTRUCTED AND OPEN FOR ACCESS TO PROPERTY ID 4203-81-1583-0000 (SEE SHEET C6.19 FOR ACCESS PLAN). PRIVATE RESIDENTIAL AND EMERGENCY ACCESS TO PROPERTY ID 4203-81-1583-0000 SHALL REMAIN OPEN THROUGHOUT THE ENTIRETY OF CONSTRUCTION.
2. CONTRACTOR TO CONDUCT A WEEKLY SITE INSPECTION AND AFTER EACH RAINFALL EVENT TO DETERMINE WHICH AREAS CAN BE TEMPORARILY OR PERMANENTLY SEEDED, WHICH DEVICES NEED MAINTENANCE, REPAIR, ETC., AND TO ENSURE THAT THE EROSION CONTROL MEASURES ARE PERFORMING ADEQUATELY. PERFORM ANY NECESSARY MAINTENANCE.
3. SEDIMENT BASINS ARE TO REMAIN ONLINE AND MAINTAINED ACCORDINGLY UNTIL ALL DRAINAGE AREA TO THE SEDIMENT BASIN IS STABILIZED AND TREATED BY PERMANENT MEANS. SEED, MULCH, AND TACK ANY BARE SOILS BETWEEN THE DOWNSTREAM TOE OF THE BASIN AND DIVERSIONS TO THE PERIMETER EROSION AND SEDIMENT CONTROL MEASURES.
4. BEGIN CONSTRUCTION AND INSTALLATION OF UTILITY LINES NORTH OF VELINZA PLANTATION ROAD. UTILITY INSTALLATION MAY HAPPEN CONCURRENTLY WITH MASS GRADING OPERATIONS. BACKFILL AND ESTABLISH FINISHED GRADE IMMEDIATELY AFTER UTILITIES HAVE BEEN INSTALLED AND INSPECTED.
5. TEMPORARY DIVERSION DITCHES INSTALLED IN STAGE 1 SHALL REMAIN UNTIL APPROPRIATE STORM DRAINAGE INFRASTRUCTURE HAS BEEN INSTALLED AND OPERATIONAL IN DIRECTING STORMWATER TO APPROPRIATE SEDIMENT BASINS AND/OR RISER SEDIMENT BASINS. DITCHES SHALL BE DIRECTED TO STORM DRAINAGE INLETS AS NEEDED DURING CONSTRUCTION SO AS TO DIRECT RUNOFF TO THE APPROPRIATE SEDIMENT BASIN. DITCHES SHALL NOT BE FULLY REMOVED WITHOUT APPROVAL FROM NCDEQ INSPECTOR.
6. STABILIZE SITE AS AREAS ARE BROUGHT TO FINISHED GRADE WITH VEGETATION OR STONE BASE. ALL AREAS INDICATED TO BE PAVED SHALL BE STABILIZED WITH STONE AS SOON AS THEY ARE BROUGHT TO FINAL GRADE. MAINTAIN DIVERSIONS, INLET PROTECTION, AND SEDIMENT BASINS UNTIL SITE IS COMPLETELY STABILIZED.
7. SEED, FERTILIZE, AND MULCH ALL DISTURBED AREAS, INCLUDING ALL STORAGE, STAGING, AND OFF-SITE STAGING, IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH ON THE PLANS.
8. ONCE THE DISTURBED AREAS ARE STABILIZED, THE CONTRACTOR SHALL NOTIFY THE INSPECTOR FROM NCDEQ.
9. OBTAIN APPROVAL NCDEQ EROSION CONTROL INSPECTOR PRIOR TO REMOVAL OF ANY EROSION CONTROL MEASURE.
10. CONTRACTOR TO CONVERT PONDS ONLY WITH WRITTEN APPROVAL FROM NCDEQ. FOR CONVERSION, SEE WET POND NOTES ON SHEETS C8.02, C8.04, C8.06, AND C8.08.

STAGE 2, PHASE B CONSTRUCTION SEQUENCE:

1. ONCE RESIDENTAL ACCESS 2 HAS BEEN FULLY STABALIZED WITH GRAVEL, CONTRACTOR SHAL INSTALL SILT FENCE AND CONSTRUCTION ACCESS ALONG RESIDENTIAL ACCESS 2, AS SHOWN ON SHEET C6.19. CONTRACTOR TO ENSURE RESIDENTIAL ACCESS 2 TO REMAIN ACCESSIBLE AND TRAVERSABLE TO PROPERTY ID 4203-81-1583-0000, FOR THE REMAINDER OF CONSTRUCTION.
2. CONTRACTOR TO REMOVE EXISTING VELINZA PLANTATION ROAD AND ASSOCIATED SILT FENCE.
   a. UPON COMPLETION OF CLEARING AND GRUBBING ACTIVITIES, BEGIN STRIPPING TOPSOIL AND MASS GRADING OPERATIONS ALONG THE REMAINDER OF THE SITE.
3. CONTRACTOR TO CONDUCT A WEEKLY SITE INSPECTION AND AFTER EACH RAINFALL EVENT TO DETERMINE WHICH AREAS CAN BE TEMPORARILY OR PERMANENTLY SEEDED, WHICH DEVICES NEED MAINTENANCE, REPAIR, ETC., AND TO ENSURE THAT THE EROSION CONTROL MEASURES ARE PERFORMING ADEQUATELY. PERFORM ANY NECESSARY MAINTENANCE.
4. SEDIMENT BASINS ARE TO REMAIN ONLINE UNTIL THE DRAINAGE AREA TO THE SEDIMENT BASIN IS STABILIZED AND TREATED BY PERMANENT MEANS. SEED, MULCH, AND TACK ANY BARE SOILS BETWEEN THE DOWNSTREAM TOE OF THE BASIN AND DIVERSIONS TO THE PERIMETER EROSION AND SEDIMENT CONTROL MEASURES.
5. TEMPORARY DIVERSION DITCHES INSTALLED IN STAGE 1 SHALL REMAIN UNTIL APPROPRIATE STORM DRAINAGE INFRASTRUCTURE HAS BEEN INSTALLED AND OPERATIONAL IN DIRECTING STORM WATER TO APPROPRIATE SEDIMENT BASINS AND/OR RISER SEDIMENT BASINS. DITCHES SHALL BE DIRECTED TO STORM DRAINAGE INLETS AS NEEDED DURING CONSTRUCTION SO AS TO DIRECT RUNOFF TO THE APPROPRIATE SEDIMENT BASIN. DITCHES SHALL NOT BE FULLY REMOVED WITHOUT APPROVAL FROM NCDEQ INSPECTOR.
6. BEGIN CONSTRUCTION AND INSTALLATION OF REMAINING UTILITY LINES. UTILITY INSTALLATION MAY HAPPEN CONCURRENTLY WITH PHASE 2 MASS GRADING OPERATIONS. BACKFILL AND ESTABLISH FINISHED GRADE IMMEDIATELY AFTER UTILITIES HAVE BEEN INSTALLED.
7. STABILIZE SITE AS AREAS ARE BROUGHT TO FINISHED GRADE WITH VEGETATION OR STONE BASE. ALL AREAS INDICATED TO BE PAVED SHALL BE STABILIZED WITH STONE AS SOON AS THEY ARE BROUGHT TO FINAL GRADE. MAINTAIN DIVERSIONS, INLET PROTECTION, AND SEDIMENT BASINS UNTIL SITE IS COMPLETELY STABILIZED.
8. WHEN DEWATERING THE TEMPORARY BASINS, SEDIMENT FILTER BAGS SHALL BE USED AS SHOWN ON THE PLAN. SEDIMENT BAGS TO BE CONTINUOUSLY MONITORED DURING OPERATION.
9. REMOVE STOCKPILES AND MATERIALS AND DECOMMISSION STAGING AND LAYDOWN AREAS.
10. SEED, FERTILIZE, AND MULCH ALL DISTURBED AREAS, INCLUDING ALL STORAGE, STAGING, AND OFF-SITE STAGING, IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH ON THE PLANS. PER THE NPDES PERMIT, GROUND STABILIZATION WILL BE APPLIED WITHIN 14 CALENDAR DAYS FROM THE LAST LAND DISTURBING ACTIVITY. FOR STEEP SLOPES, THAT AREA MUST BE STABILIZED WITHIN 7 CALENDAR DAYS. PERMANENT GROUND COVER SHALL BE ESTABLISHED IN 90 CALENDAR DAYS. HOWEVER, NPDES GROUND COVER REQUIREMENTS TAKE PRECEDENCE.
11. OBTAIN APPROVAL NCDEQ EROSION CONTROL INSPECTOR PRIOR TO REMOVAL OF ANY EROSION CONTROL MEASURE.
12. CONTRACTOR TO CONVERT PONDS ONLY WITH WRITTEN APPROVAL FROM NCDEQ. FOR CONVERSION, SEE WET POND NOTES ON SHEETS C8.02, C8.04, C8.06, AND C8.08.
13. DURING AND AFTER GRADING HAS BEEN COMPLETED, CONTRACTOR SHALL CONTINUE TO MAINTAIN PERMANENT AND TEMPORARY EROSION CONTROL MEASURES UNTIL FINAL INSPECTION AND APPROVAL BY THE NCDEQ INSPECTOR.
14. ONCE THE DISTURBED AREAS ARE STABILIZED, THE CONTRACTOR SHALL NOTIFY THE INSPECTOR FROM NCDEQ AND SCHEDULE A SITE INSPECTION.
15. UPON APPROVAL FROM THE NCDEQ INSPECTOR AND THE ENGINEER, REMOVE TEMPORARY EROSION CONTROL MEASURES (I.E. ROCK CONSTRUCTION ENTRANCE, FILTER FABRIC FENCE, TREE PROTECTION FENCING, CONCRETE WASH PIT, TEMPORARY FIBER CHECK DAMS, TEMPORARY EROSION CONTROL BASIN, ETC.).
16. UPON REMOVAL OF TEMPORARY EROSION CONTROL MEASURES, RE-GRADE DISTURBED AREAS IN ACCORDANCE WITH FINAL GRADING PLAN AND STABILIZE ANY EXPOSED BARE EARTH.

SEEDING SCHEDULE

TEMPORARY SEEDING:

COMPLETE GRADING BEFORE PREPARING SEEDBEDS AND INSTALL ALL NECESSARY EROSION CONTROL PRACTICES SUCH AS DIKES, WATERWAYS, AND BASINS. MINIMIZE STEEP SLOPES BECAUSE THEY MAKE SEEDBED PREPARATION DIFFICULT AND INCREASE THE EROSION HAZARD.

SEEDBED PREPARATION:

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

1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS, WITH STOCKPILED TOPSOIL. CONTRACTOR SHALL RESERVE SUFFICIENT TOPSOIL FOR SEEDBED PREPARATION.
2. RIP THE ENTIRE AREA TO 6-INCH DEPTH.
3. REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
4. APPLY AGRICULTURAL LIME, FERTILIZER, AND SUPER-PHOSPHATE UNIFORMLY AND MIX WITH SOIL (SEE BELOW*).
5. CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED 4 TO 6 INCHES DEEP.
6. SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
8. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF THE STAND IS LESS THAN 60% ESTABLISHED, THE ENTIRE AREA SHALL BE RESEEDED ACCORDING TO SPECIFICATIONS USING THE ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
9. CONSULT A CONSERVATION INSPECTOR ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.

LIME AND FERTILIZER:

BOTH LIME AND FERTILIZER SHOULD BE INCORPORATED INTO THE TOP 4-6 INCHES OF SOIL. IF A HYDRAULIC SEEDER IS USED, DO NOT MIX SEED AND FERTILIZER MORE THAN 30 MINUTES BEFORE APPLICATION.

PLANT SELECTION:

SELECT AN APPROPRIATE SPECIES OR SPECIES MIXTURE FROM THE APPLICABLE SEEDING RECOMMENDATION TABLES DEPENDING ON THE PLANTING SEASON AND WHETHER OR NOT TEMPORARY OR PERMANENT SEEDING. IN THE MOUNTAINS, DECEMBER AND JANUARY SEEDINGS HAVE POOR CHANCES OF SUCCESS. WHEN IT IS NECESSARY TO PLANT AT THESE TIMES, USE RECOMMENDATIONS FOR FALL AND A SECURELY TACKED MULCH.

SEEDING:

EVENLY APPLY SEED USING A CYCLONE SEEDER (BROADCAST), DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. USE SEEDING RATES GIVEN IN TEMPORARY SEEDING RECOMMENDATIONS TABLES. BROADCAST SEEDING AND HYDROSEEDING ARE APPROPRIATE FOR STEEP SLOPES WHERE EQUIPMENT CANNOT BE DRIVEN. HAND BROADCASTING IS NOT RECOMMENDED BECAUSE OF THE DIFFICULTY IN ACHIEVING A UNIFORM DISTRIBUTION. SMALL GRAINS SHOULD BE PLANTED NO MORE THAN 1 INCH DEEP, AND GRASSES AND LEGUMES NO MORE THAN 1/2 INCH. BROADCAST SEED MUST BE COVERED BY RAKING OR CHAIN DRAGGING, AND THEN LIGHTLY FIRMED WITH A ROLLER OR CULTIPACKER. HYDROSEEDED MIXTURES SHOULD INCLUDE A WOOD FIBER (CELLULOSE) MULCH.

MULCHING:

THE USE OF AN APPROPRIATE MULCH WILL HELP ENSURE ESTABLISHMENT UNDER NORMAL CONDITIONS AND IS ESSENTIAL TO SEEDING SUCCESS UNDER HARSH SITE CONDITIONS (NCDEQ PRACTICE 6.14, MULCHING). HARSH SITE CONDITIONS INCLUDE:

- SEEDING IN FALL FOR WINTER COVER (WOOD FIBER MULCHES ARE NOT CONSIDERED ADEQUATE FOR THIS USE),
- SLOPES STEEPER THAN 3:1,
- EXCESSIVELY HOT OR DRY WEATHER,
- ADVERSE SOILS (SHALLOW, ROCKY, OR HIGH IN CLAY OR SAND), AND
- AREAS RECEIVING CONCENTRATED FLOW.

IF THE AREA TO BE MULCHED IS SUBJECT TO CONCENTRATED WATERFLOW, AS IN CHANNELS, ANCHOR MULCH WITH NETTING (NCDEQ PRACTICE 6.14, MULCHING).

TABLE 1 - TEMPORARY SEEDING RECOMMENDATIONS FOR LATER WINTER AND EARLY SPRING

SEEDING MIXTURE	
SPECIES	RATE (LBS/ACRE)
50/50 MIX OF ANNUAL RYE (FESTUCA PERENNIS) AND PERENNIAL RYE (LOLIUM PERENNE)	120
K31 FESCUE SEED	25
SEEDING DATES	
MOUNTAINS ABOVE 2,500 FEET BELOW 2,500 FEET	FEBRUARY 15 - MAY 15 FEBRUARY 1 - MAY 1
PIEDMONT	JANUARY 1 - MAY 1
COASTAL PLAIN	DECEMBER 1 - APRIL 15
SOIL AMENDMENTS: FOLLOW RECOMMENDATIONS OF SOIL TEST OR APPLY 2,000 LBS/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILIZER.	
MULCH: APPLY 4,000 LBS/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.	
MAINTENANCE: REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILZE AND MULCH IMMEDIATELY	

TABLE 2 - TEMPORARY SEEDING RECOMMENDATIONS FOR SUMMER

SEEDING MIXTURE	
SPECIES	RATE (LBS/ACRE)
GERMAN MILLET	40
IN THE PIEDMONT AND MOUNTAINS, A SMALL-STEMMED SUDANGRASS MAY BE SUBSTITUTED	50
SEEDING DATES	
MOUNTAINS	MAY 15 - AUGUST 15
PIEDMONT	MAY 1 - AUGUST 15
COASTAL PLAIN	APRIL 15 - AUGUST 15
SOIL AMENDMENTS: FOLLOW RECOMMENDATIONS OF SOIL TEST OR APPLY 2,000 LBS/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILIZER.	
MULCH: APPLY 4,000 LBS/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.	
MAINTENANCE: REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILZE AND MULCH IMMEDIATELY	

TOTAL DISTURBED AREA =	145.47 AC
PERMITTED DISTURBED AREA=	146 AC

GENERAL NOTES

1. ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH THE GOVERNING JURISDICTIONAL DESIGN STANDARDS, DETAILS, & SPECIFICATIONS.

STOCKPILE NOTES

1. STOCKPILES SHALL NOT EXCEED 35 FEET IN HEIGHT.
2. STOCKPILE SLOPES SHALL NOT EXCEED 2:1.
3. SEEDING OR COVERING STOCKPILES WITH TARPS OR MULCH IS REQUIRED AND WILL
4. REDUCE EROSION PROBLEMS. TARPS SHOULD BE KEYED IN AT THE TOP OF THE SLOPE TO KEEP WATER FROM RUNNING UNDERNEATH THE PLASTIC.
5. THE APPROVED PLAN SHALL PROVIDE FOR THE USE OF STAGED SEEDING AND MULCHING ON A CONTINUAL BASIS WHILE THE STOCKPILE IS IN USE.
6. ESTABLISH AND MAINTAIN A VEGETATIVE BUFFER AT THE TOE OF THE SLOPE (WHERE PRACTICAL).

BUILDING WASTE HANDLING

1. NO LIQUID WASTES OR PARTS THEREOF SHALL BE DISCHARGED INTO STREAM OR STORM DRAINS.
2. DEDICATED AREAS FOR DEMOLITION, CONSTRUCTION AND OTHER WASTES MUST BE LOCATED 50' FROM STORM DRAINS AND STREAMS UNLESS NO REASONABLE ALTERNATIVES AVAILABLE
3. EARTHEN-MATERIALS STOCKPILES MUST BE LOCATED 50' FROM STORM DRAINS AND STREAMS UNLESS NO REASONABLE ALTERNATIVES AVAILABLE.
4. CONCRETE MATERIALS MUST BE CONTROLLED TO AVOID CONTACT WITH SURFACE WATERS, WETLANDS, OR BUFFERS.

RIP-RAP MAINTENANCE NOTE

1. INSPECT RIP RAP DISSIPATERS WEEKLY AND AFTER EACH SIGNIFICANT (½ INCH OR GREATER) RAINFALL EVENT TO SEE IF ANY EROSION AROUND OR BELOW THE RIP RAP HAS TAKEN PLACE, OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.

GROUND COVER STABILIZATION SCHEDULE

SITE AREA DESCRIPTION	STABILIZATION TIME FRAME	STABILIZATION TIME FRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES & SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LES IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7-DAYS FOR SLOPES GREATER THAN 50 FEET IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE (EXCEPT FOR PERIMETERS AND HQW ZONES)

SLOPE DRAIN DESIGN SUMMERY

Slope Drain Summary

Slope Drain ID	Drainage Area (ac)	Pipe Diameter (in)
1A	7.80	36.00
PLC 1B	34.58	SEE RCL PLC 1B UNDER CHANNEL DESIGN
PLC 2A	11.54	SEE RCL PLC 2A UNDER CHANNEL DESIGN
2B	8.93	30 & 24
3A	9.51	30 & 30
3B	1.29	24.00
4A	0.95	18.00
PLC 4B	17.67	SEE RCL PLC 4B UNDER CHANNEL DESIGN
4C	2.42	24.00
5A	1.36	24.00

VELOCITY DISSIPATOR DESIGN SUMMARY

Design Storm: 25-YR | Rainfall Intensity (in/hr): 10.70

OUTLET	PIPE (Do)	Q25	SLOPE	VELOCITY	ZONE	TYPE	LENGTH (La)	WIDTH (W1)	WIDTH (W2)	STONE CLASS	MIN. DEPTH
	(IN)	(CFS)	(%)	(FPS)	(Figure 8.06c)	(Figure 8.06d)	(FT)	(FT)	(FT)		(IN)
SSB #1 OUTLET	15	9.31	2.00	8.46	2	OVERLAND	3.75	3.75	5.0	B	18
FES-301	36	46.28	0.44	6.64	2	OVERLAND	9	9	12.0	B	18
FES-360	42	73.24	0.29	6.30	2	OVERLAND	10.5	10.5	14.0	B	18
FES-401	36	64.57	0.44	6.84	2	OVERLAND	9	9	12.0	B	18
FES-423	24	10.75	1.61	7.11	2	OVERLAND	6	6	8.0	B	18
FES-501	36	51.84	0.91	8.47	2	OVERLAND	9	9	12.0	B	18
FES-518	36	59.12	0.35	6.10	2	OVERLAND	9	9	12.0	B	18
FES-541	24	26.43	2.61	10.94	2	OVERLAND	6	6	8.0	B	18
FES-549	24	25.52	4.30	12.71	3	OVERLAND	8	6	10.0	1	24
FES-592	30	37.13	0.30	5.12	2	OVERLAND	7.5	7.5	10.0	B	18
FES-601	30	29.10	7.87	15.95	2	OVERLAND	7.5	7.5	10.0	B	18
FES-602	24	22.84	3.30	11.13	2	OVERLAND	6	6	8.0	B	18
FES-642	24	18.99	0.30	4.37	1	OVERLAND	6	6	8.0	A	12
FES-657	42	54.62	0.21	5.27	2	OVERLAND	10.5	10.5	14.0	B	18
FES-673	36	18.99	0.50	5.19	2	OVERLAND	9	9	12.0	B	18
FES-700	36	24.02	0.50	6.65	2	OVERLAND	9	9	12.0	B	18

MAINTENANCE PLAN

1. ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING RAIN EVENTS EQUAL TO OR GREATER THAN 0.5" BUT IN NO CASE LESS THAN ONCE PER WEEK. A RAIN GAUGE IS REQUIRED ONSITE AT ALL TIMES DURING CONSTRUCTION.
2. SEDIMENT BASINS SHALL BE CLEANED OUT WHEN THE LEVEL OF SEDIMENT ACCUMULATES TO ONE HALF THE HEIGHT OF THE FIRST BAFFLE.
3. SEDIMENT SHALL BE REMOVED FROM TEMPORARY DIVERSION DITCHES WHEN SEDIMENT ACCUMULATES TO A LEVEL OF 6" ABOVE THE DESIGNED BOTTOM OF DITCH. ANY AREAS THAT ARE DISTURBED AS A RESULT OF THIS MAINTENANCE SHALL BE RE-STABILIZED IMMEDIATELY.
4. SEE SHEETS C6.19-C6.21 FOR EROSION CONTROL DETAILS INCLUDING ADDITIONAL MAINTENANCE REQUIREMENTS FOR SPECIFIC EROSION CONTROL MEASURES USED IN THIS DRAWING.

NOTIFICATION OF LAND RESOURCES SEDIMENT AND EROSION CONTROL SELF-INSPECTION PROGRAM

THE PERSON RESPONSIBLE FOR THE LAND DISTURBING ACTIVITIES IS REQUIRED TO INSPECT THE PROJECT AFTER EACH PHASE OF THE PROJECT AND CONTINUE UNTIL PERMANENT GROUND COVERAGE IS ESTABLISHED IN ACCORDANCE WITH NCGS 113A-54.1 TO MAKE SURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS FOLLOWED. THE SELF-INSPECTION FORM IS AVAILABLE AS AN EXCEL SPREAD SHEET FROM HTTPS://WWW.DLR.ENR.STATE.NC.US/PAGES/SEDIMENTATION_NEW.HTML

POND CONVERSION NOTES

1. ALL PONDS IN PHASE 3 ARE SHOWN AS FINAL CONVERTED SAND FILTERS. HOWEVER, NO POND CONVERSIONS, CLOSURES, OR SAND FILTER INSTALLATIONS MAY TAKE PLACE WITHOUT THE WRITTEN APPROVAL OF NCDEQ.
2. NO POND CONVERSIONS (OR SAND FILTER INSTILLATION) SHALL TAKE PLACE WITHOUT ALL UPSTREAM DRAINAGE AREAS BEING FULLY STABILIZED AND WITHOUT THE WRITTEN APPROVAL OF NCDEQ.
3. CONTRACTOR ASSUMES ALL RESPONSIBILITIES FOR ENSURING UPSTREAM DRAINAGE AREAS ARE FULLY STABILIZED PRIOR TO INSTALLING THE SAND FILTERS.

TEMPORARY CHANNEL DESIGN INFORMATION

STAGE 1 CHANNEL DESIGN INFORMATION

CHANNEL I.D.	DRAINAGE AREA (AC)	WEIGHTED 'C' COEFFICIENT	CHANNEL FLOW (CFS)	CHANNEL SLOPE (%)	CHANNEL FLOW DEPTH (FT)	CHANNEL MINIMUM DEPTH (FT)	CHANNEL BOTTOM WIDTH (FT)	CHANNEL SIDE SLOPES	CHANNEL VELOCITY (FPS)	ALLOWABLE VELOCITY (FPS)	CHANNEL SHEAR STRESS (PSF)	ALLOWABLE SHEAR STRESS (PSF)	DITCH LINING
TD 101	7.80	0.50	41.73	0.64	2.11	2.61	2.00	3 :1	2.37	5.00	0.84	1.55	NAG S75 OR EQUAL
TD 102	34.58	0.50	185.00	0.50	4.11	4.61	2.00	3 :1	3.13	5.00	1.28	1.55	NAG S75 OR EQUAL
TD 201	11.54	0.50	61.74	0.60	2.53	3.03	2.00	3 :1	2.55	5.00	0.94	1.55	NAG S75 OR EQUAL
TD 202	8.93	0.50	47.78	0.50	2.36	2.86	2.00	3 :1	2.23	5.00	0.73	1.55	NAG S75 OR EQUAL
TD 301	5.86	0.50	31.35	0.50	1.97	2.47	2.00	3 :1	2.00	5.00	0.61	1.55	NAG S75 OR EQUAL
TD 302A	0.37	0.50	1.98	0.50	0.55	1.50	2.00	3 :1	0.98	5.00	0.17	1.55	NAG S75 OR EQUAL
TD 302B	2.03	0.50	10.86	0.50	1.24	1.74	2.00	3 :1	1.53	5.00	0.38	1.55	NAG S75 OR EQUAL
TD 303	1.25	0.50	6.69	1.44	0.77	1.50	2.00	3 :1	2.00	5.00	0.69	1.55	NAG S75 OR EQUAL
TD 304	1.29	0.50	6.90	1.38	0.79	1.50	2.00	3 :1	1.98	5.00	0.68	1.55	NAG S75 OR EQUAL
TD 401	0.95	0.50	5.08	2.56	0.59	1.50	2.00	3 :1	2.29	5.00	0.94	1.55	NAG S75 OR EQUAL
TD 402A	8.37	0.50	44.78	0.50	2.29	2.79	2.00	3 :1	2.19	5.00	0.71	1.55	NAG S75 OR EQUAL
TD 402B	6.60	0.50	35.31	0.50	2.07	2.57	2.00	3 :1	2.07	5.00	0.64	1.55	NAG S75 OR EQUAL
TD 402C	17.67	0.08	14.45	0.50	1.41	1.91	2.00	3 :1	1.65	5.00	0.43	1.55	NAG S75 OR EQUAL
TD 403	2.42	0.50	12.95	0.50	1.34	1.84	2.00	3 :1	1.60	5.00	0.41	1.55	NAG S75 OR EQUAL
TD 501	1.10	0.50	5.89	2.69	0.62	1.50	2.00	3 :1	2.43	5.00	1.04	1.55	NAG S75 OR EQUAL
TD 502	0.26	0.50	1.39	1.94	0.32	1.50	2.00	3 :1	1.44	5.00	0.39	1.55	NAG S75 OR EQUAL

STAGE 1 CHANNEL DESIGN INFORMATION

CHANNEL I.D.	DRAINAGE AREA (AC)	WEIGHTED 'C' COEFFICIENT	CHANNEL FLOW (CFS)	CHANNEL SLOPE (%)	CHANNEL FLOW DEPTH (FT)	CHANNEL MINIMUM DEPTH (FT)	CHANNEL BOTTOM WIDTH (FT)	CHANNEL SIDE SLOPES	CHANNEL VELOCITY (FPS)	ALLOWABLE VELOCITY (FPS)	CHANNEL SHEAR STRESS (PSF)	ALLOWABLE SHEAR STRESS (PSF)	DITCH LINING
PLC 1B	34.58	0.50	185.00	33.00	0.40	1.50	40.00	3 :1	11.29	12.00	8.18	20.00	NAG C350 OR EQUAL
PLC 2A	11.54	0.50	61.74	33.00	0.46	1.50	10.00	3 :1	11.72	12.00	9.52	20.00	NAG C350 OR EQUAL
PLC 4B	17.67	0.50	94.53	33.00	0.40	1.50	20.00	3 :1	11.13	12.00	8.24	20.00	NAG C350 OR EQUAL

SKIMMER BASIN & ORIFICE DEIGN SUMMARY

BASIN	TYPE	DRAINAGE AREA	DISTURBED AREA	C VALUE	PEAK FLOW	DEPTH	LENGTH	WIDTH	WEIR LENGTH	VOLUME REQUIRED	VOLUME PROVIDED	SURFACE AREA REQUIRED	SURFACE AREA PROVIDED	SKIMMER SIZE	ORIFICE SIZE	Dewatering Time*
		(AC)	(AC)		(CFS)	(FT)	(FT)	(FT)	(FT)	(CF)	(CF)	(SF)	(SF)	(IN)	(IN)	(DAYS)
SSB #1	SKIMMER	1.60	1.60	0.50	8.56	5.0	SEE EC PLANS		8	2,880	16,410	2,782	5,921	1.5	0.5	3.00
STAGE 1 RSB #1/ SCM #3	RISER	54.99	54.99	0.50	294.20	4.0	SEE EC PLANS		208	98,982	581,598	127,975	298,718	4.0	4.0	4.64
STAGE 1 RSB #2/ SCM #4	RISER	26.67	26.67	0.50	142.68	7.0	SEE EC PLANS		N/A	48,006	841,176	62,068	157,906	3.0	3.0	4.62
STAGE 1 RSB #3/ SCM #5	RISER	18.90	18.90	0.50	101.12	7.0	SEE EC PLANS		N/A	34,020	1,017,340	43,985	186,567	3.0	3.0	3.27
STAGE 1 RSB #4/ SCM #6	RISER	27.67	27.67	0.50	148.03	4.0	SEE EC PLANS		2	49,806	230,497	64,395	119,374	3.0	3.0	4.79
STAGE 2 RSB #1/ SCM #3	RISER	47.22	47.22	0.75	378.94	4.0	SEE EC PLANS		286	84,996	581,598	164,839	298,718	4.0	4.0	3.99
STAGE 2 RSB #2/ SCM #4	RISER	25.02	25.02	0.75	200.79	7.0	SEE EC PLANS		N/A	45,036	841,176	87,342	157,906	3.0	3.0	4.33
STAGE 2 RSB #3/ SCM #5	RISER	37.19	37.19	0.75	298.45	7.0	SEE EC PLANS		139	66,942	1,017,340	129,826	186,567	4.0	3.0	3.14
STAGE 2 RSB #4/ SCM #6	RISER	18.78	18.78	0.95	190.90	4.0	SEE EC PLANS		41	33,804	51,909,756	83,041	1,923,270	3.0	3.0	3.25

NOTES: 1' OF FREEBOARD PROVIDED
SURFACE AREA REQUIREMENT FOR SKIMMER SEDIMENT BASIN: 325 sf/cfs
SURFACE AREA REQUIREMENT FOR RISER SEDIMENT BASIN: 435 sf/cfs
VOLUME REQUIREMENT FOR SKIMMER SEDIMENT BASIN: 1,800 cf/ac
VOLUME REQUIREMENT FOR RISER SEDIMENT BASIN: 1,800 cf/ac
RAINFALL INTENSITY: 10.70 in/hr
*THE DEWATERING TIME IS BASED UPON THE VOLUME REQUIRED, NOT THE VOLUME PROVIDED.
**TEMPORARY SEDIMENT BASINS MEET 2:1 TO 6:1 LENGTH TO WIDTH RATIO REQUIREMENT PER NCDEQ STANDARDS.

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CONSTRUCTION PLANS
HAWKSBILL COVE
EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
NORTH CAROLINA ... HALEY MENDENHALL

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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

WR JOB NUMBER 25-0329-A
DRN: WR DGN: WR CKD: WR

EROSION CONTROL NOTES

C6.18

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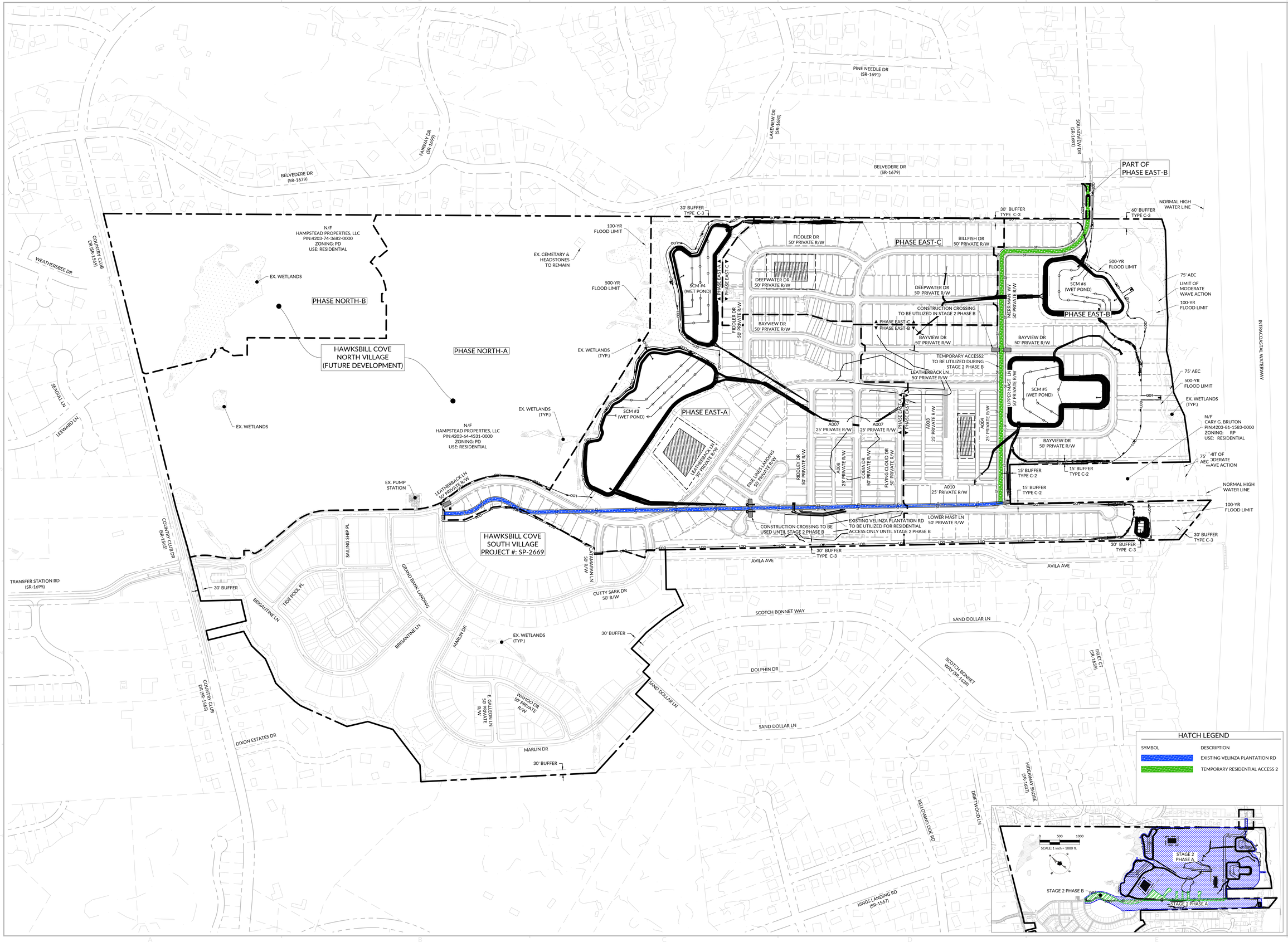

HATCH LEGEND

SYMBOL	DESCRIPTION
	EXISTING VELINZA PLANTATION RD
	TEMPORARY RESIDENTIAL ACCESS 2

SCALE: 1 inch = 250 ft.

SCALE: 1 inch = 1000 ft.

STAGE 2 PHASE A

STAGE 2 PHASE B

STAGE 2 PHASE A

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

Know what's below. Call before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

TEMPORARY RESIDENTIAL ACCESS PLAN

C6.19

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CONSTRUCTION PLANS
HAWKSBILL COVE EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
KEY MENDENHALL

KEY MAP
N.T.S.

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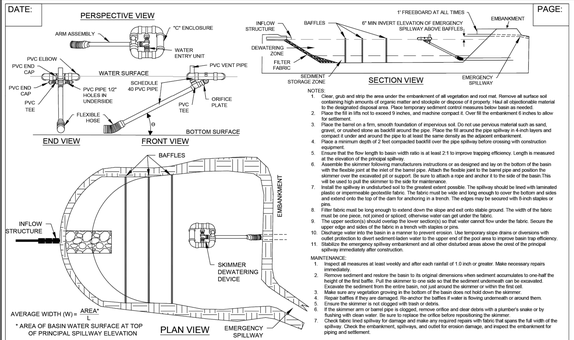

NOTES:
1. Clear, grub and strip the area under the embankment of all vegetation and root mat. Remove all surface soil containing high amounts of organic matter and stockpile or dispose of if properly. Haul all objectionable material to the designated disposal area. Place temporary sediment control measures before basin as needed.
2. Place the fill in lifts not to exceed 9 inches, and machine compact it. Over fill the embankment 6 inches to allow for settlement.
3. Place the barrel on a firm, smooth foundation of impervious soil. Do not use pervious material such as sand, gravel, or crushed stone as backfill around the pipe. Place the fill around the pipe spillway in 4-inch layers and compact it under and around the pipe to at least the same density as the adjacent embankment.
4. Place a minimum depth of 2 feet compacted backfill over the pipe spillway before crossing with construction traffic.
5. Ensure that the flow length to basin width ratio is at least 2:1 to improve trapping efficiency. Length is measured at the elevation of the principal spillway.
6. Assemble the skimmer following manufacturers instructions or as designed and lay on the bottom of the basin with the flexible joint at the inlet of the barrel pipe. Attach the flexible joint to the barrel pipe and position the skimmer so that the orifice plate is vertical. Attach the PVC pipe and elbow and anchor it to the side of the basin.This will be used to pull the skimmer to the side for maintenance.
7. Install the spillway in undisturbed soil to the greatest extent possible. The spillway should be lined with laminated plastic or impermeable geotextile fabric. The fabric must be wide and long enough to cover the bottom and sides and extend onto the top of the dam for anchoring in a trench. The edges may be sealed with 6-inch staples or sand.
8. Fiber fabric must be long enough to extend down the slope and across the bottom of the spillway ditch. The width of the fabric must be one piece, not joined or spliced; otherwise water can get under the fabric.
9. The upper section(s) should overlap the lower section(s) so that water cannot flow under the fabric. Secure the upper edge and sides of the fabric in a trench with staples or pins.
10. Discharge water into the basin in a manner to prevent erosion. Use temporary slope drains or diversions with outlet protection to divert sediment-laden water to the upper end of the pool area to improve basin trap efficiency.
11. Install the emergency spillway in undisturbed soil. Construct basin so that the embankment and all other disturbed area above the crest of the principal spillway immediately after construction.

MAINTENANCE:
1. Inspect all measures at least weekly and after each rainfall of 1.0 inch or greater. Make necessary repairs immediately.
2. Remove sediment and restore the basin to its original dimensions when sediment accumulates to one-half the height of the first baffle. Pull the skimmer to one side so that the sediment underneath can be excavated.
3. Make sure that the skimmer is not clogged with trash or debris. Remove floating debris as needed.
4. Make sure any vegetation growing in the bottom of the basin does not hold down the skimmer.
5. Repair baffles if they are damaged. Re-anchor the baffles if water is flowing underneath or around them.
6. Ensure the skimmer is not clogged with trash or debris.
7. If the skimmer arm or barrel pipe is clogged, remove orifice and clear debris with a plumber's snake or by hand. Do not remove the skimmer. This will release sediment trapped behind the skimmer.
8. Check fabric lined spillway for damage and make any required repairs with fabric that spans the full width of the spillway. Check the embankment, spillways, and outlet for erosion damage, and inspect the embankment for piping and settlement.

DEQ

SKIMMER SEDIMENT BASIN

Effective Date: 9/1/2023
In accordance with the 2013 Design Manual Updates

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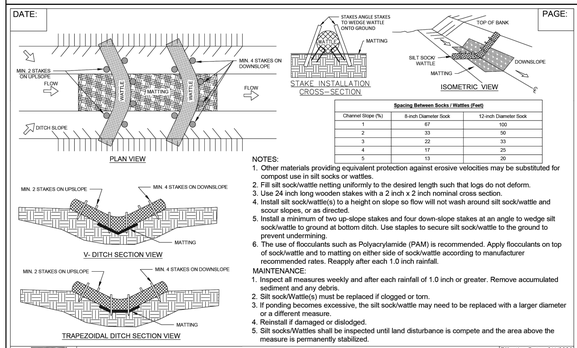

Spacing Between Socks / Wattles (Feet)		
Channel Slope (%)	8-inch Diameter Sock	12-inch Diameter Sock
1	67	100
2	33	50
3	22	33
4	17	25
5	13	20

NOTES:
1. Other materials providing equivalent protection against erosive velocities may be substituted for compost use in silt socks or wattles.
2. Fill silt sock/wattle netting uniformly to the desired length such that logs do not deform.
3. Use 24 inch long wooden stakes with a 2 inch x 2 inch nominal cross section.
4. Install silt sock/wattle(s) to a height on slope so flow will not wash around silt sock/wattle and scour slopes, or as directed.
5. Install a minimum of two up-slope stakes and four down-slope stakes at an angle to wedge silt sock/wattle to ground at bottom ditch. Use staples to secure silt sock/wattle to the ground to prevent undermining.
6. The use of flocculants such as Polyacrylamide (PAM) is recommended. Apply flocculants on top of sock/wattle and to matting on either side of sock/wattle according to manufacturer recommended rates. Reapply after each 1.0 inch rainfall.

MAINTENANCE:
1. Inspect all measures weekly and after each rainfall of 1.0 inch or greater. Remove accumulated sediment and any debris.
2. Silt sock/Wattle(s) must be replaced if clogged or torn.
3. If ponding becomes excessive, the silt sock/wattle may need to be replaced with a larger diameter or a different measure.
4. Reinstall if damaged or dislodged.
5. Silt socks/Wattles shall be inspected until land disturbance is compete and the area above the measure is permanently stabilized.

DEQ

SILT SOCK / WATTLE FOR CHECK DAM

Effective Date: 9/1/2023
In accordance with the 2013 Design Manual Updates

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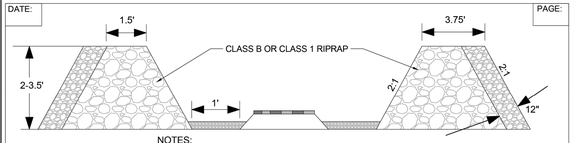

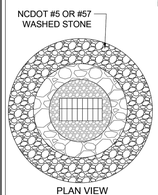

NOTES:
1. Clear the area of all debris that might hinder excavation and disposal of spoil.
2. Grade shallow depression uniformly towards the inlet with side slopes no greater than 2:1. Grade a 1-foot wide level area set 4 inches below the area adjacent to the inlet.
3. Install the Class B or Class 1 riprap in a circle around the inlet. The minimum crest width of the riprap should be 18 inches, with a minimum bottom width of 7.5 feet. The minimum height of the stone is 2 feet.
4. The outside face of the riprap is then lined with 12 inches of NC DOT #5 or #57 washed stone.

MAINTENANCE:
1. Inspect all measures at least weekly and after each rainfall of 1.0 inch or greater; make any repairs immediately.
2. Remove sediment form the sediment pool area when the volume is decreased by half. Stabilize excavated material appropriately.
3. Do not damage or undercut the structure during sediment removal. Remove debris and replace stone as needed. If inlet is covered with wire mesh, clean wire mesh free of debris.

DEQ

ROCK DOUGHNUT INLET PROTECTION

Effective Date: 9/1/2023
In accordance with the 2013 Design Manual Updates

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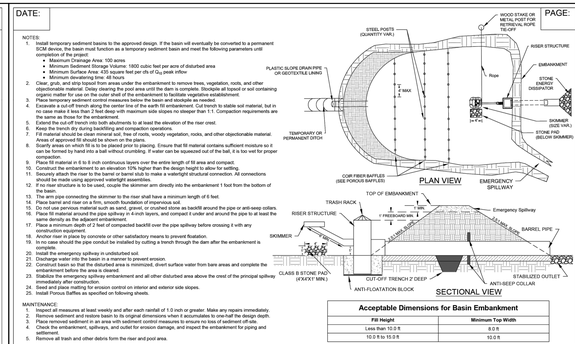

Acceptable Dimensions for Basin Embankment	
Fill Height	Minimum Top Width
Less than 10.0 ft	8.0 ft
10.0 ft to 15.0 ft	10.0 ft

NOTES:
1. Install temporary sediment basins to the approved design. If the basin will eventually be converted to a permanent SCM device, the basin must function as a temporary sediment basin and meet the following parameters until completion of the project:
   - Maximum Drainage Area: 100 acres
   - Minimum Storage Volume: 1800 cubic feet per acre of disturbed area
   - Minimum Surface Area: 435 square feet per cfs of Q_{25} peak inflow
   - Minimum dewatering time: 48 hours
2. Clear, grub, and strip topsoil from areas under the embankment to remove trees, vegetation, roots, and other objectionable material. Delay clearing the pool area until the dam is complete. Stockpile all topsoil or soil containing high amounts of organic matter for use in the pool area or on the embankment during establishment.
3. Place temporary sediment control measures below the basin and stockpile as needed.
4. Excavate a cut-off trench along the center line of the earth fill embankment. Cut trench to stable soil material, but in no case make it less than 2 feet deep with maximum side slopes no steeper than 1:1. Compaction requirements are the same as those for the embankment.
5. Keep the fill material free of roots, woody vegetation, rocks and other objectionable materials to at least the elevation of the riser crest.
6. Remove all trees, brush, stumps, and debris from the embankment and auxiliary spillway.
7. Fill material should be clean mineral soil, free of roots, woody vegetation, rocks, and other objectionable material. Areas of suspected fill should be shown on the plans.
8. Scarify areas on which fill is to be placed prior to placing. Ensure that fill material contains sufficient moisture so it can be formed into a ball by hand into a ball without crumbling. If water can be squeezed out of the ball, it is too wet for proper compaction.
9. Place fill material in 6 to 8 inch continuous layers over the entire length of fill area and compact.
10. Construct the embankment to an elevation 10% higher than the design height to allow for settling.
11. Securely attach the riser to the barrel or barrel stub to make a watertight structural connection. All connections must be watertight. Use a minimum of a concrete collar around the pipe.
12. If a low structure is to be used, couple the skimmer arm directly into the embankment 1 foot from the bottom of the basin.
13. The arm pipe connecting the skimmer to the riser shall have a minimum length of 6 feet.
14. Place barrel and riser on a firm, smooth foundation of impervious soil.
15. Do not use pervious material such as sand, gravel, or crushed stone as backfill around the pipe or anti-seep collars.
16. Place fill material around the pipe spillway in 4-inch layers, and compact it under and around the pipe to at least the same density as the adjacent embankment.
17. Place a minimum depth of 2 feet of compacted backfill over the pipe spillway before crossing it with any construction equipment.
18. Anchor riser in place by concrete or other satisfactory means to prevent flotation.
19. In no case should the pipe conduit be installed by cutting a trench through the dam after the embankment is complete.
20. Install the emergency spillway in undisturbed soil.
21. Discharge water into the basin in a manner to prevent erosion.
22. Construct basin so that the disturbed area is minimized, divert surface water from bare areas and complete the embankment before the area is cleared.
23. Install the emergency spillway, the temporary embankment and all other disturbed area above the crest of the principal spillway immediately after construction.
24. Seed and place matting for erosion control on interior and exterior side slopes.
25. Install Porous Baffles as specified on following sheets.

MAINTENANCE:
1. Inspect all measures at least weekly and after each rainfall of 1.0 inch or greater. Make any repairs immediately.
2. Remove sediment and restore basin to its original dimensions when it accumulates to one-half the design depth.
3. Place removed sediment in an area with sediment control measures to ensure no loss of sediment off-site.
4. Check the embankment, spillways, and outlet for erosion damage, and inspect the embankment for piping and settlement.
5. Remove all trash and other debris form the riser and pool area.

DEQ

SEDIMENT BASIN

Effective Date: 9/1/2023
In accordance with the 2013 Design Manual Updates

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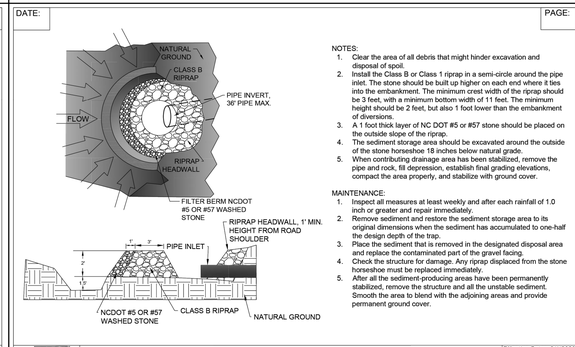


NOTES:
1. Clear the area of all debris that might hinder excavation and disposal of spoil.
2. Install the Class B or Class 1 riprap in a semi-circle around the pipe inlet. The stone should be built up higher on each end where it ties into the embankment. The minimum crest width of the riprap should be 3 feet, with a minimum bottom width of 11 feet. The minimum height should be 2 feet, but also 1 foot lower than the embankment of diversions.
3. A 1 foot thick layer of NC DOT #5 or #57 stone should be placed on the outside slope of the riprap.
4. The sediment storage area should be excavated around the outside of the stone horseshoe 18 inches below natural grade.
5. When contributing drainage area has been stabilized, remove the pipe and rock, fill depression, establish final grading elevations, compact the area properly, and stabilize with ground cover.

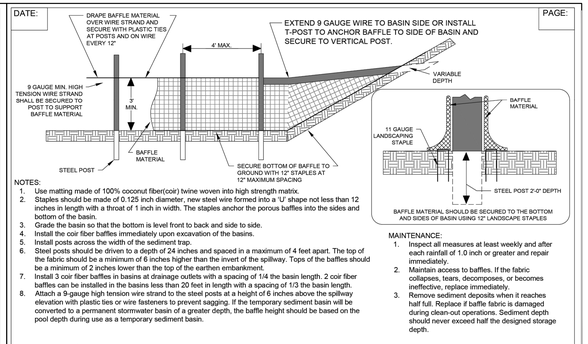
MAINTENANCE:
1. Inspect all measures at least weekly and after each rainfall of 1.0 inch or greater and repair immediately.
2. Remove sediment and restore the sediment storage area to its original dimensions when the sediment has accumulated to one-half the design depth of the trap.
3. Place the sediment that is removed in the designated disposal area and replace the contaminated part of the gravel facing.
4. Check the structure for damage. Any riprap displaced from the stone horseshoe must be replaced immediately.
5. After all the sediment-producing areas have been permanently stabilized, remove the structure and all the unstable sediment. Smooth the area to blend with the adjoining areas and provide permanent ground cover.

DEQ

ROCK PIPE INLET PROTECTION

Effective Date: 9/1/2023
In accordance with the 2013 Design Manual Updates

DATE: PAGE:



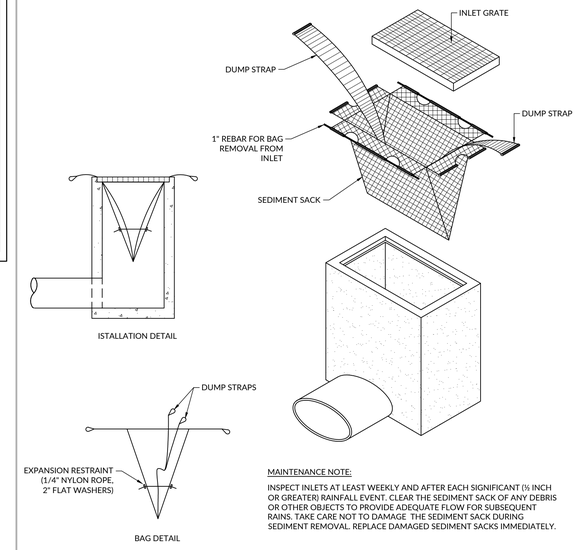
NOTES:
1. Use matting made of 100% coconut fiber(coir) twine woven into high strength matrix.
2. Staples should be made of 0.125 inch diameter, new steel wire formed into a 'U' shape not less than 12 inches in length with a throat of 1 inch in width. The staples anchor the porous baffles into the sides and bottom of the basin.
3. Grade the basin so that the bottom is level front to back and side to side.
4. Install the coir fiber baffles immediately upon excavation of the basins.
5. Install posts across the width of the sediment trap.
6. Steel posts should be driven to a depth of 24 inches and spaced in a maximum of 4 feet apart. The top of the fabric should be a minimum of 6 inches higher than the invert of the spillway. Tops of the baffles should be a minimum of 2 inches lower than the top of the earthen embankment.
7. Install 3 coir fiber baffles in basins at drainage outlets with a spacing of 1/4 the basin length. 2 coir fiber baffles can be installed in the basins less than 20 feet in length with a spacing of 1/3 the basin length.
8. Attach a 9-gauge high tension wire strand to the steel posts at a height of 6 inches above the spillway elevation with plastic ties or wire fasteners to prevent sagging. If the temporary sediment basin will be converted to a permanent stormwater basin of a greater depth, the baffle height should be based on the pool depth during use as a temporary sediment basin.

MAINTENANCE:
1. Inspect all measures at least weekly and after each rainfall of 1.0 inch or greater and repair immediately.
2. Maintain access to baffles. If the fabric collapses, tears, decomposes, or becomes ineffective, replace immediately.
3. Remove sediment deposits when it reaches half full. Replace if baffle fabric is damaged during clean-out operations. Sediment depth should never exceed half the designed storage depth.

DEQ

POROUS BAFFLES

Effective Date: 9/1/2023
In accordance with the 2013 Design Manual Updates



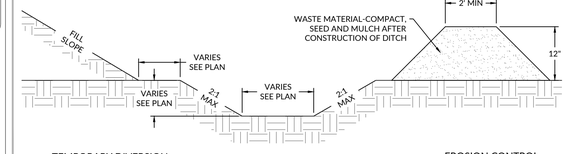
MAINTENANCE NOTE:

INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (½ INCH OR GREATER) RAINFALL EVENT. CLEAR THE SEDIMENT SACK OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE THE SEDIMENT SACK DURING SEDIMENT REMOVAL. REPLACE DAMAGED SEDIMENT SACKS IMMEDIATELY.

INLET SEDIMENT CONTROL DEVICE — EROSION CONTROL
Scale:NTS — C4053

NOTES:
1. TEMPORARY DIVERSION DITCH TO BE USED TO INTERCEPT FLOW AND/OR DIVERT TO A SEDIMENT CONTROL MEASURE OR BMP.
2. SILT SHALL BE REMOVED WHEN DITCH IS ONE-HALF FULL.
3. DITCH SHALL BE RECONSTRUCTED WHEN DAMAGED BY EQUIPMENT OR COVERED BY FILL.
4. STABILIZE TEMPORARY DIVERSION WITH SEEDING, AND EROSION CONTROL MATTING.

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

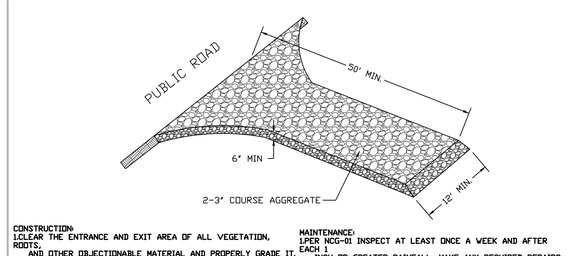


TEMPORARY DIVERSION — EROSION CONTROL
Scale:NTS — C4021

NOTES:
1. PERMANENT DIVERSIONS CAN BE INSTALLED AS TEMPORARY DIVERSIONS UNTIL THE SITE IS STABILIZED AND THEN COMPLETED AS A PERMANENT MEASURE, OR THEY CAN BE INSTALLED IN FINAL FORM DURING THE INITIAL CONSTRUCTION OPERATION, SO LONG AS THEY FUNCTION PROPERLY AND MEET ALL TEMPORARY MEASURE STANDARDS.
2. REMOVE AND PROPERLY DISPOSE OF ALL TREES, BRUSH, STUMPS, OR OTHER OBJECTIONABLE MATERIAL. FILL AND COMPACT ALL DITCHES, SWALES, OR GULLIES THAT WILL BE CROSSED TO NATURAL GROUND LEVEL OR ABOVE.
3. EXCAVATE, SHAPE, AND STABILIZE THE DIVERSION TO LINE, GRADE, AND CROSS SECTION, AS REQUIRED IN THE DESIGN PLAN.
4. STABILIZE THE DIVERSION WITH PERMANENT VEGETATION AFTER INSTALLATION

MAINTENANCE NOTES:
1. INSPECT PERMANENT DIVERSIONS AT LEAST WEEKLY AND AFTER EACH RAINFALL OF 1.0 INCH OR GREATER.
2. IMMEDIATELY REMOVE ANY OBSTRUCTIONS FROM THE FLOW AREA, AND REPAIR THE DIVERSION RIDGE
3. CHECK OUTLETS, AND MAKE TIMELY REPAIRS AS NEEDED.
4. MAINTAIN THE VEGETATION IN A VIGOROUS, HEALTHY CONDITION AT ALL TIMES.

PERMANENT DIVERSION — EROSION CONTROL
Scale:NTS — C4020



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

MAINTENANCE:
1.PER NCG-01 INSPECT AT LEAST ONCE A WEEK AND AFTER EACH 1 INCH OR GREATER RAINFALL; MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
2.MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC TOPDRESSING WITH 2 INCH STONE.
3.IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED OR TRACKED ONTO PUBLIC ROADWAYS.

CONSTRUCTION ENTRANCE / EXIT — EROSION CONTROL
Scale:NTS — C4002

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CONSTRUCTION PLANS
HAWKSBILL COVE
EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
JEFF MENDENHALL

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR — CKD: WR

EROSION CONTROL DETAILS

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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
• 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	• 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

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

EQUIPMENT AND VEHICLE MAINTENANCE

1. Maintain vehicles and equipment to prevent discharge of fluids.
2. Provide drip pans under any stored equipment.
3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
6. 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

1. Never bury or burn waste. Place litter and debris in approved waste containers.
2. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
4. 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.
5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
6. Anchor all lightweight items in waste containers during times of high winds.
7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
8. Dispose waste off-site at an approved disposal facility.
9. On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

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

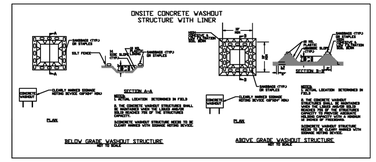
PORTABLE TOILETS

1. 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.
2. Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
3. 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

1. 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.
2. Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
3. Provide stable stone access point when feasible.
4. 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.

NORTH CAROLINA Environmental Quality



CONCRETE WASHOUTS

1. Do not discharge concrete or cement slurry from the site.
2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
3. 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.
4. 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.
5. 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.
6. 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.
7. 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.
8. 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.
9. 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.
10. 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

1. Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
2. 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.
3. 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.
4. Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

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

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

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 un attended days (anc 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 (SDCs)	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.
(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 kept on site and available for inspection at all times during normal business hours.

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 to be Kept on Site

In addition to the E&SC plan documents above, the following items shall be kept on the site and available for 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 twelve months. 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.

3. Documentation to be Retained for Three Years

All data used to complete the e-NOI and all 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).

(c) 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.

(d) Anticipated bypasses and unanticipated bypasses.

(e) 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 Department's Environmental Emergency Center personnel at (800) 858-0368.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	• ***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	• ***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)]	• ***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)]	• ***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)]	• ***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.

PART II, SECTION G, ITEM (4)
DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather). Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

(a) The E&SC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the E&SC plan authority has approved these items,
(b) The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item (2)(c) and (d) of this permit,
(c) Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems,
(d) Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in Item (c) above,
(e) Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
(f) Sediment removed from the dewatering treatment devices described in Item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

NORTH CAROLINA Environmental Quality

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19

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

WR JOB NUMBER	25-0329-A
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C6.21

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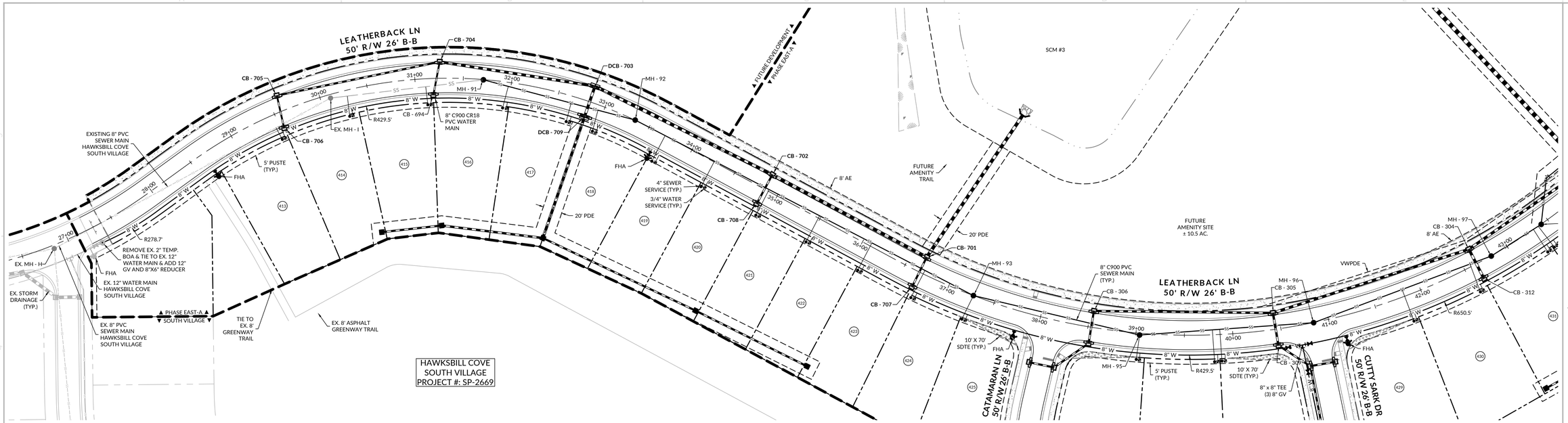
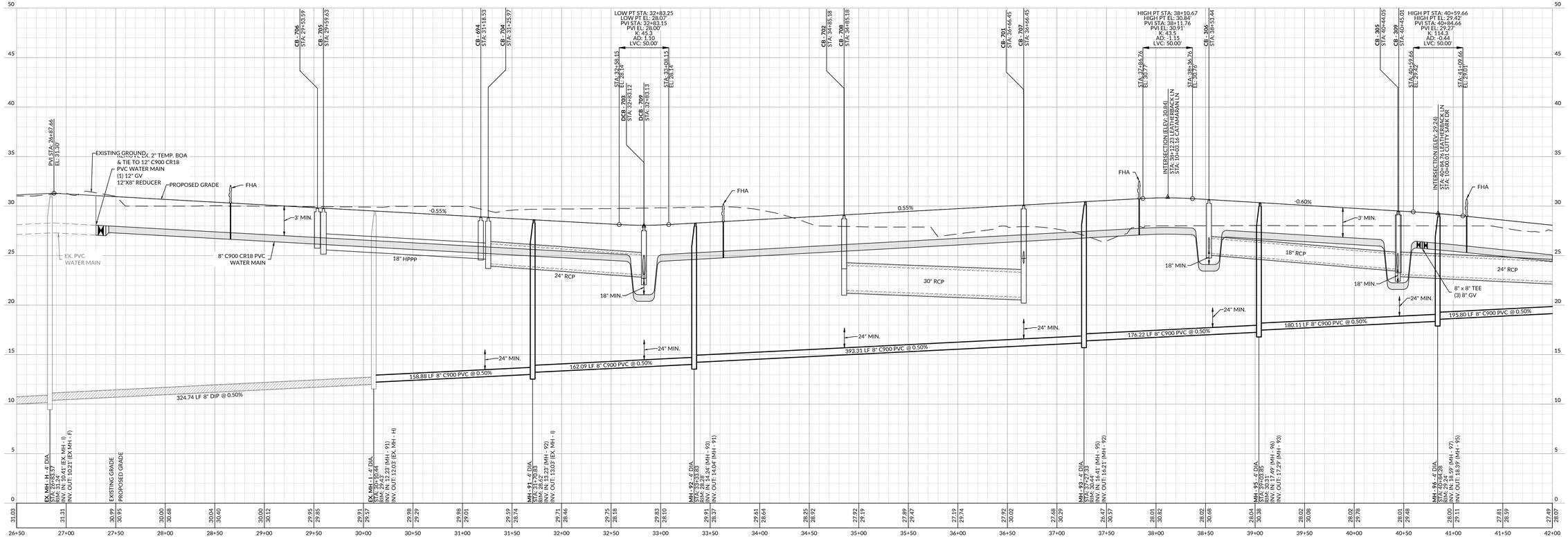


LEATHERBACK LANE (26+50 - 42+00)



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NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
JEFFREY MENDENHALL

SCALE 1 inch = 50 ft. H
1 inch = 5 ft. V

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

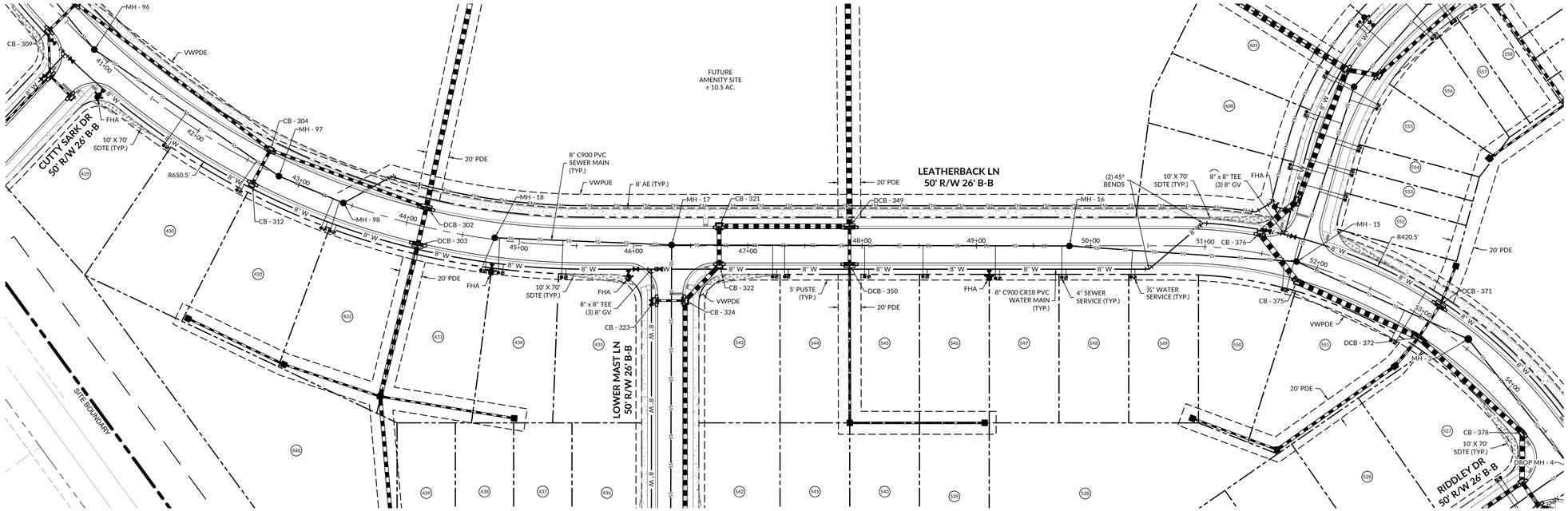
Know what's below. Call 811 before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

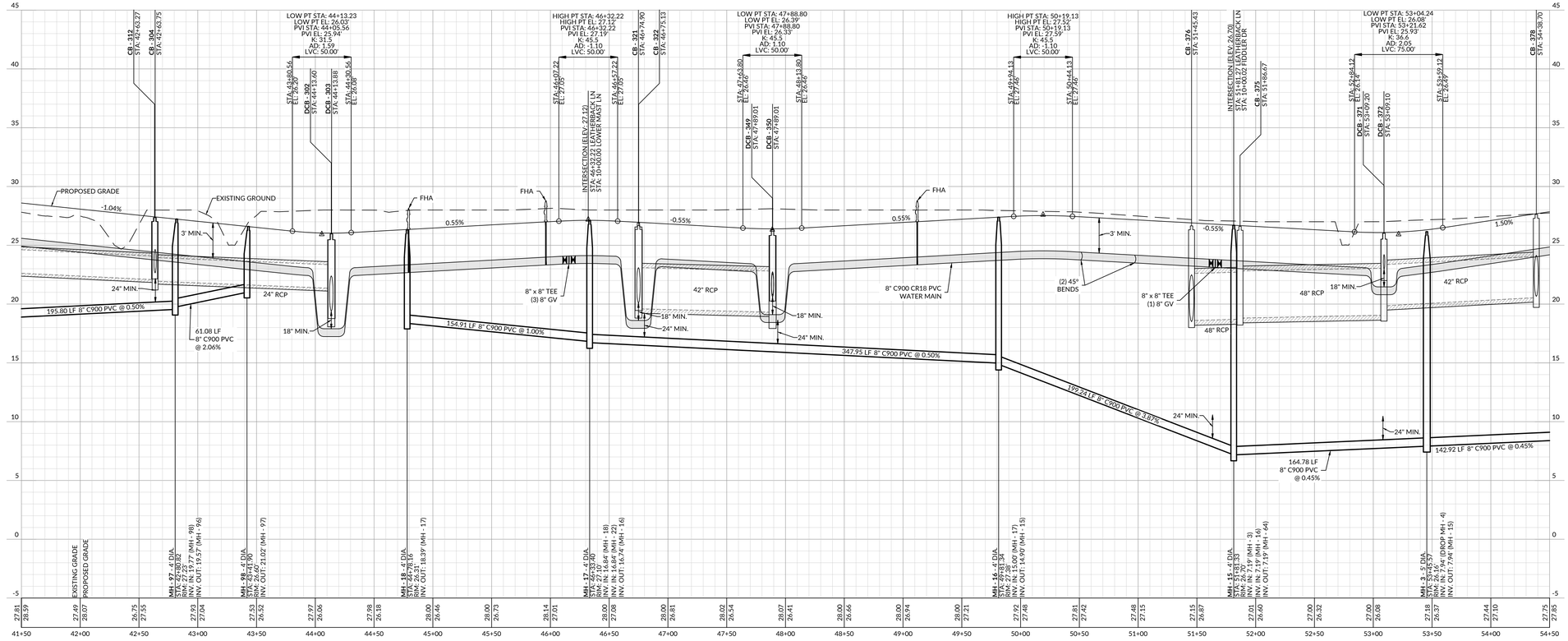
LEATHERBACK LANE (26+50 - 42+00) PLAN & PROFILE

C7.01

J:\25\0329-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C7.01-7.11 ROAD PLAN & PROFILE.dwg Wednesday, October 1, 2025 3:08:38 PM - AMENDENHALL



LEATHERBACK LANE (41+50 - 54+50)



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KELLEY MENDENHALL

SCALE: 1 inch = 50 ft. H
1 inch = 5 ft. V

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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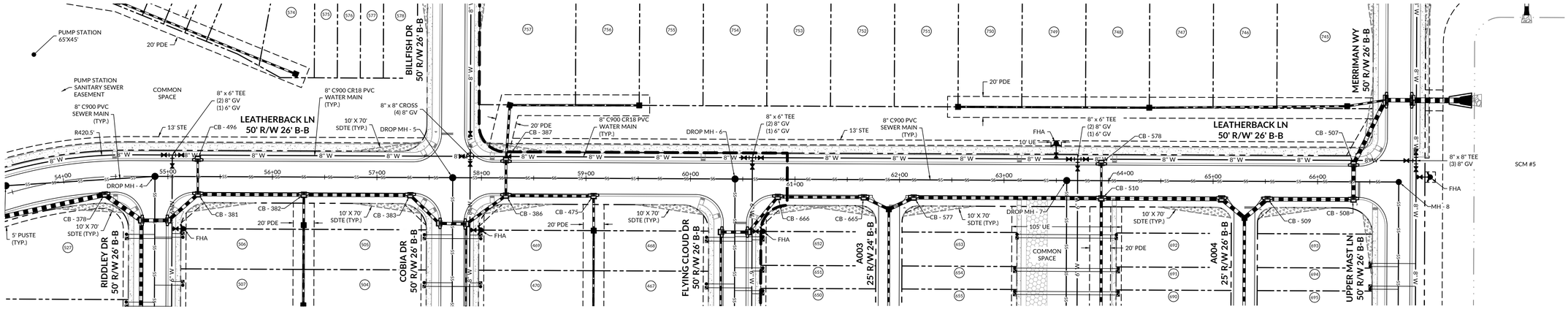
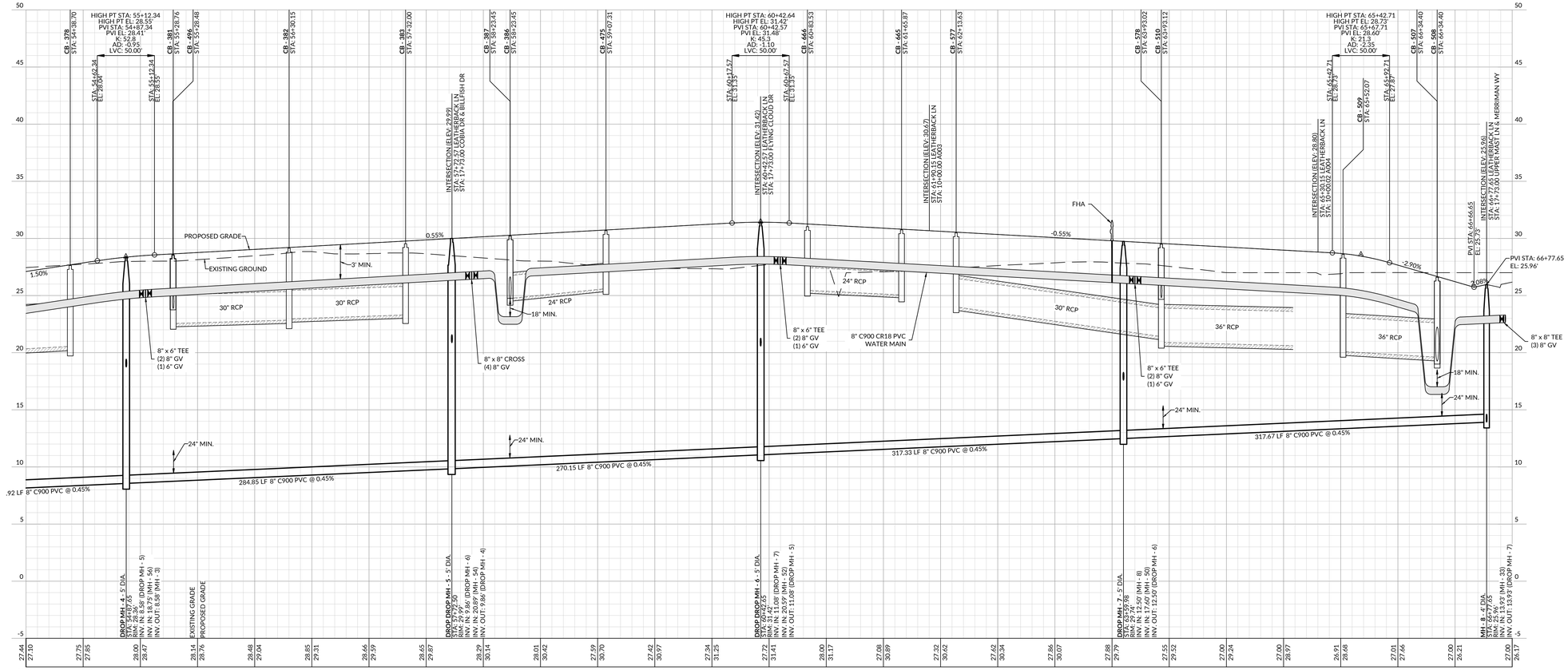
WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

LEATHERBACK LANE (41+50 - 54+50) PLAN & PROFILE

C7.02

j:\25\0329-a ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C7.01-7.11 ROAD PLAN & PROFILE.dwg Wednesday, October 1, 2025 3:08:46 PM AMENDENHALL





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JEFFREY MENDENHALL

SCALE 1 inch = 50 ft. H
1 inch = 5 ft. V

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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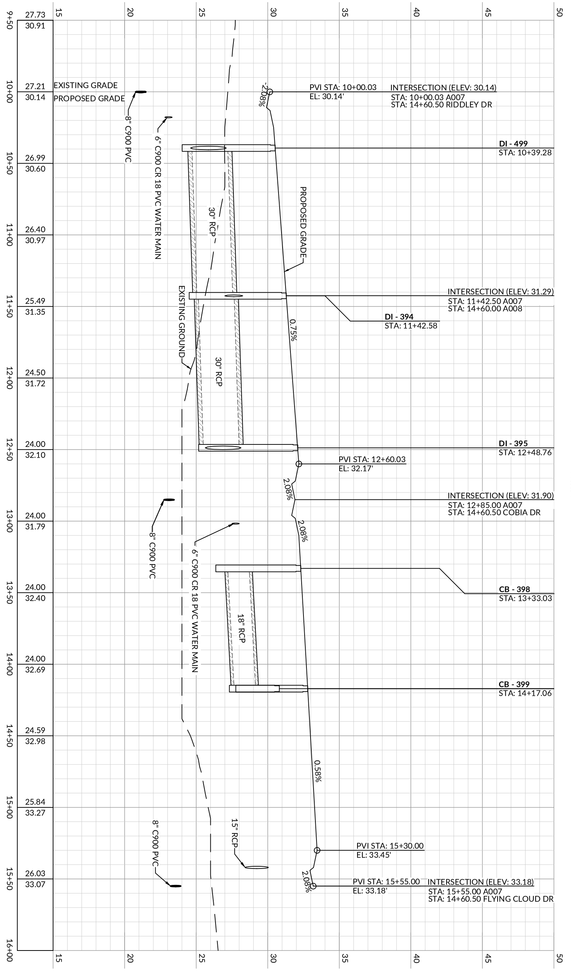
WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

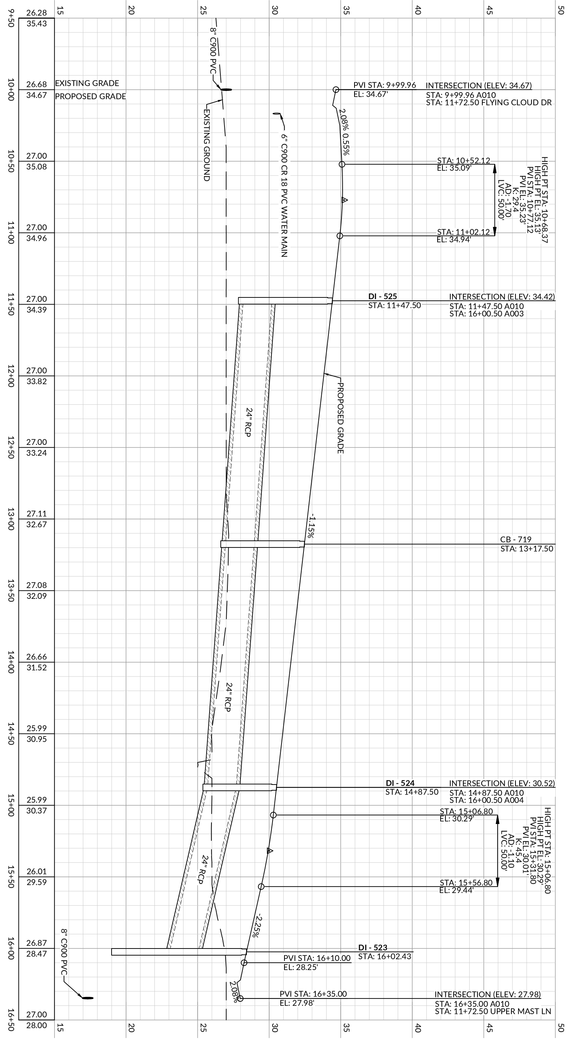
LEATHERBACK LANE (54+00 - 67+00) PLAN & PROFILE

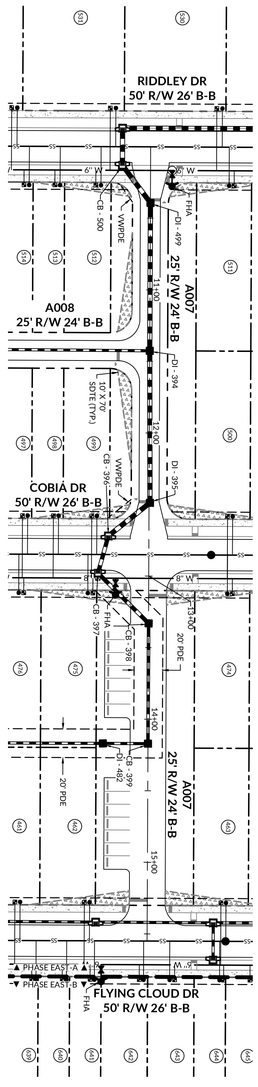
C7.03

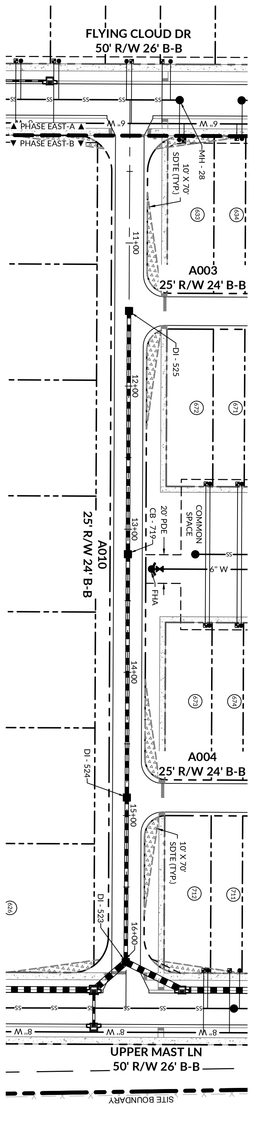
811 1983

J:\25\0329-a ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C7.03-7.11 ROAD PLAN & PROFILE.dwg Wednesday, October 1, 2025 3:08:56 PM - AMENDENHALL









C7.04

A007 & A010 PLAN & PROFILE

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

WR JOB NUMBER	25-0329
DRN. BY	DSN. BY	KCD/ WR

INITIAL PLAN DATE: 10/2/2025
REVISIONS:

SCALE: 1 inch = 50 ft. H
1 inch = 5 ft. V

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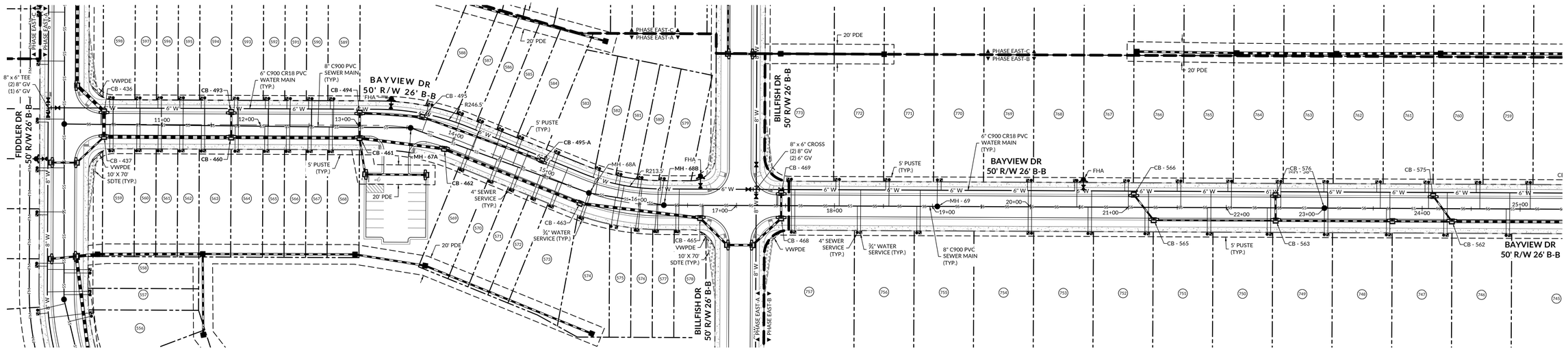
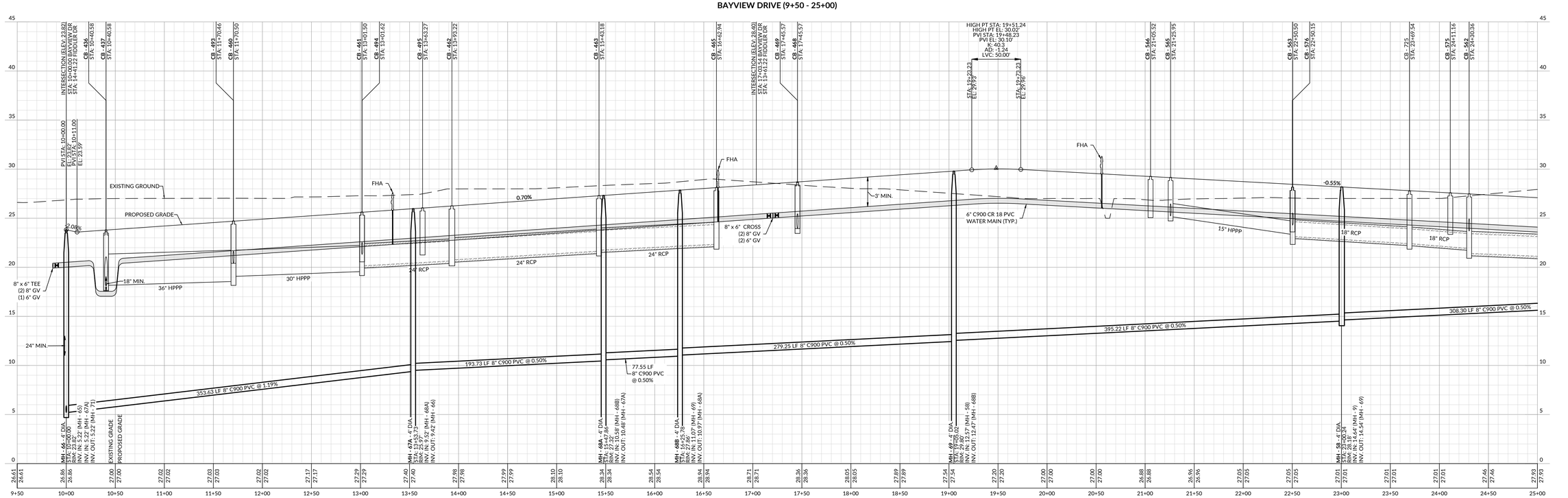


BAYVIEW DRIVE (9+50 - 25+00)



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NORTH CAROLINA
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JEY MENDEHALL

SCALE: 1 Inch = 25 ft. H
1 inch = 5 ft. V

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

Know what's below.
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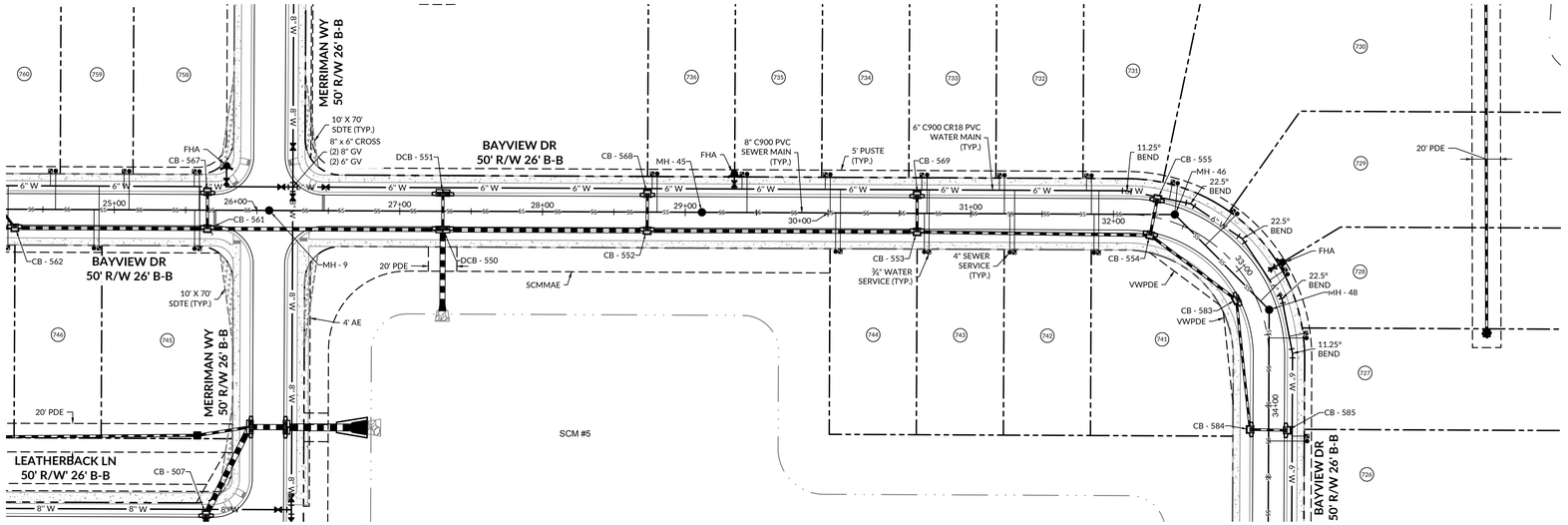
WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

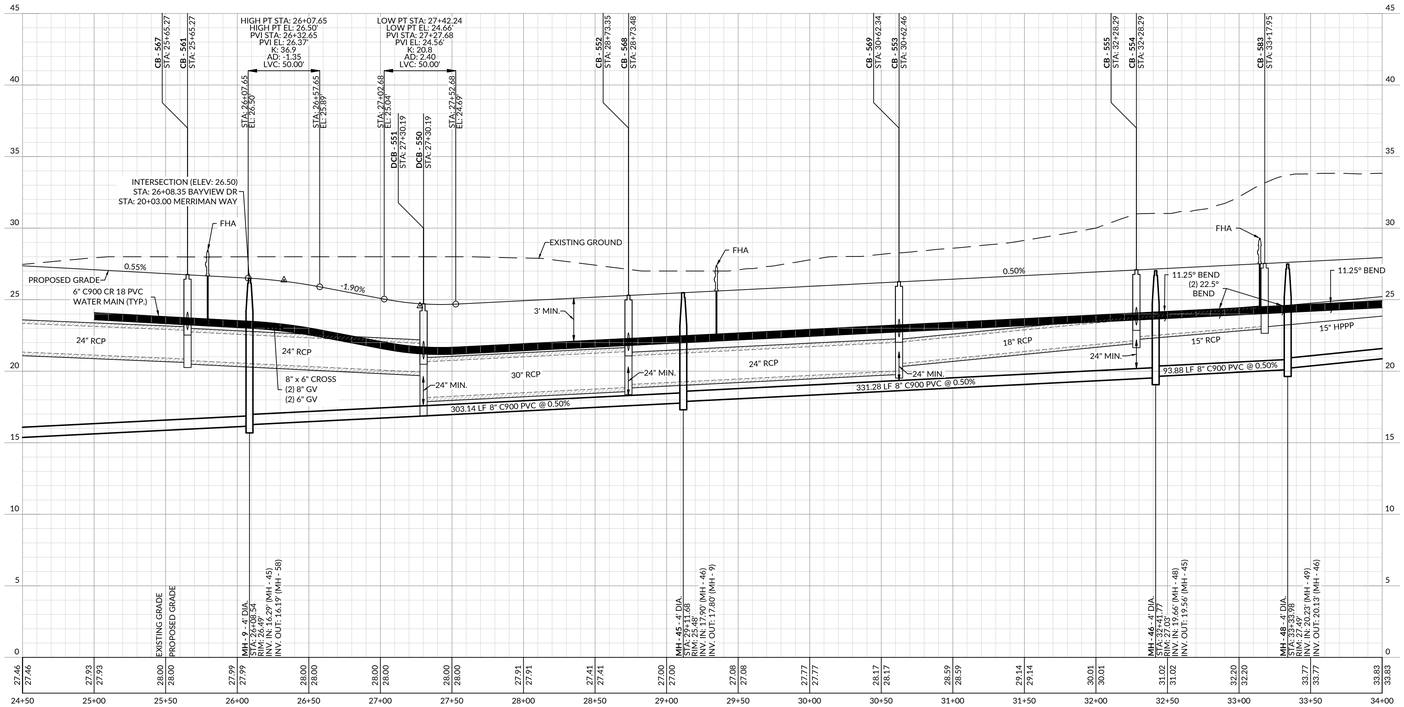
BAYVIEW DRIVE (9+50 - 25+00) PLAN & PROFILE

C7.05

J:\25\0329-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C7.05 7.11 ROAD PLAN & PROFILE.dwg Wednesday, October 1, 2025 3:09:15 PM - AMENDENHALL



BAYVIEW DRIVE (24+50 - 34+00)



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NORTH CAROLINA
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FOR CONSTRUCTION
KEVIN MENDENHALL

SCALE: 1 inch = 50 ft. H
1 inch = 5 ft. V

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

Know what's below.
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WR JOB NUMBER 25-0329-A
DRN: WR DGN: WR CKD: WR

BAYVIEW DRIVE (24+50 - 34+00) PLAN & PROFILE

C7.06

811 1983

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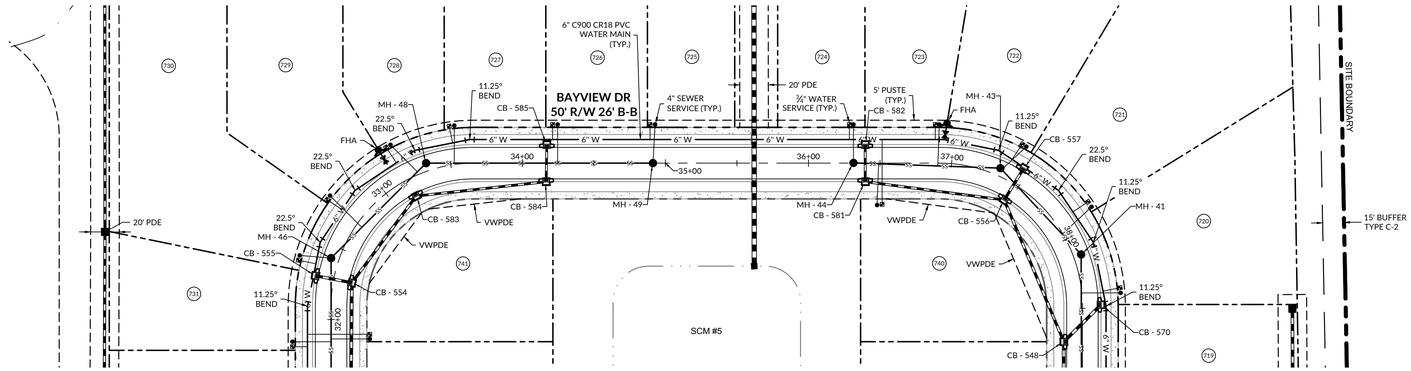
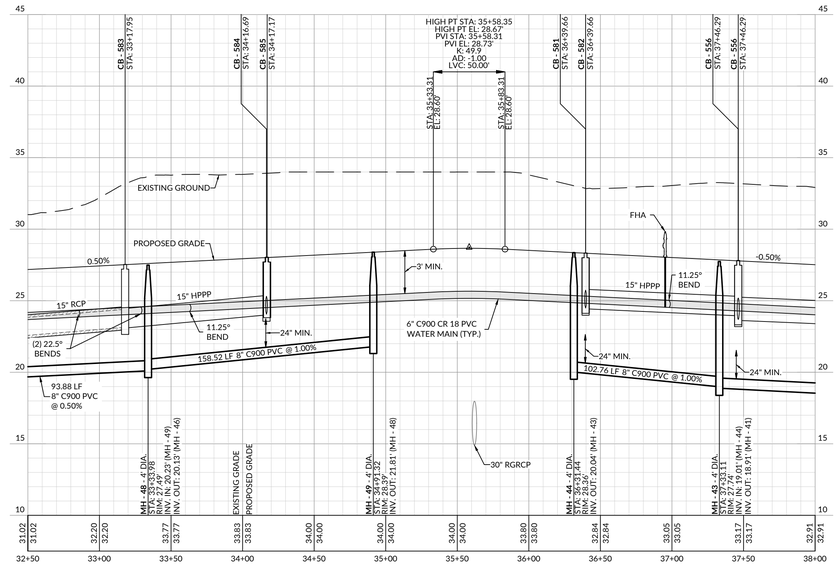


BAYVIEW DRIVE (32+50 - 38+00)



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KEVIN MENDENHALL

SCALE: 1 inch = 50 ft. H
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INITIAL PLAN DATE: 10/3/2025
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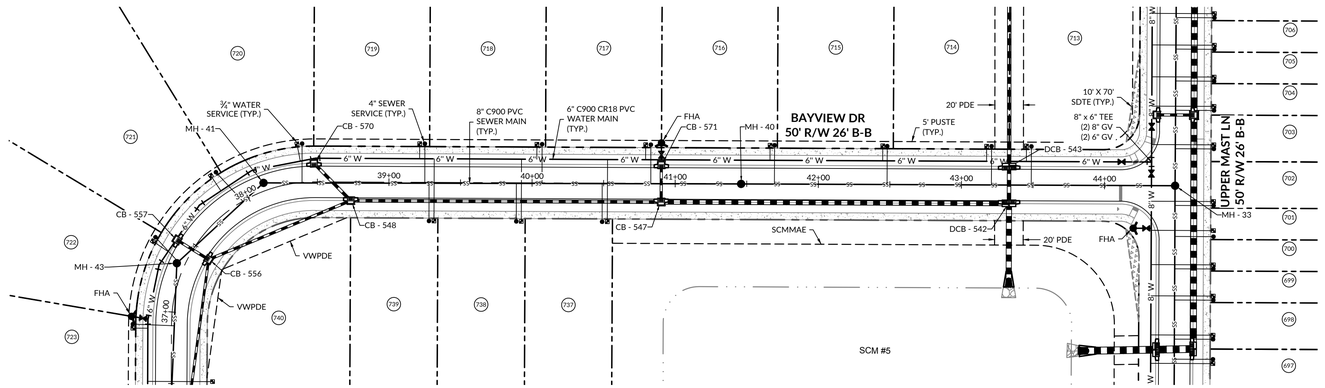
WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

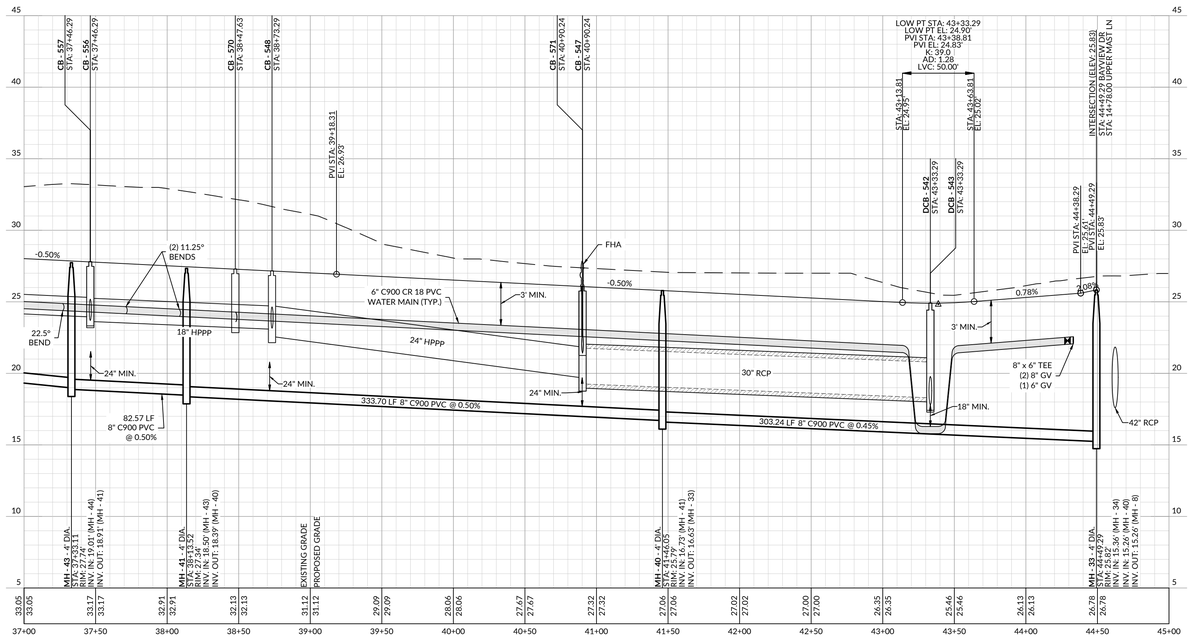
BAYVIEW DRIVE (32+50 -38+00) PLAN & PROFILE

C7.07

811 SAVES

J:\25\0329-a-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C7.01-7.11 ROAD PLAN & PROFILE.dwg Wednesday, October 1, 2025 2:09:29 PM AMENDENHALL





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NORTH CAROLINA
PRELIMINARY
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KEVIN MENDENHALL

SCALE: 1 inch = 50 ft. H
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INITIAL PLAN DATE: 10/3/2025
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Call before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

BAYVIEW DRIVE (37+00 - 45+00) PLAN & PROFILE

C7.08

EST 1993

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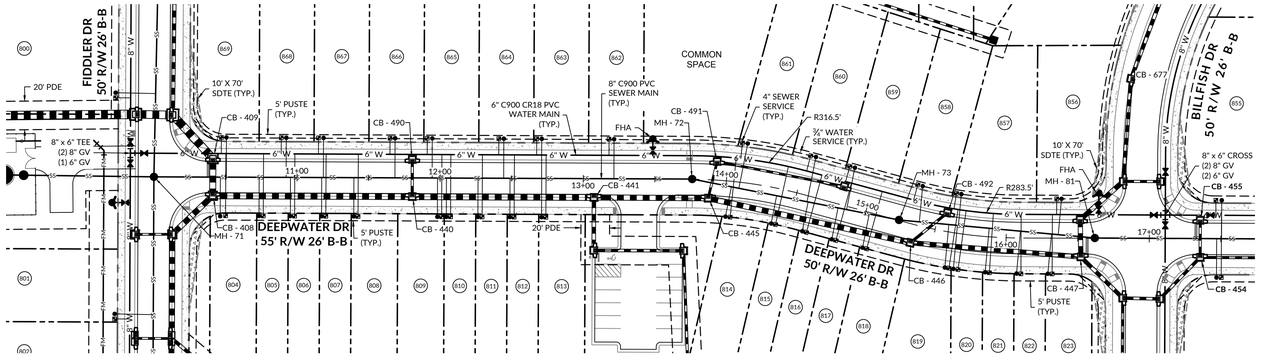
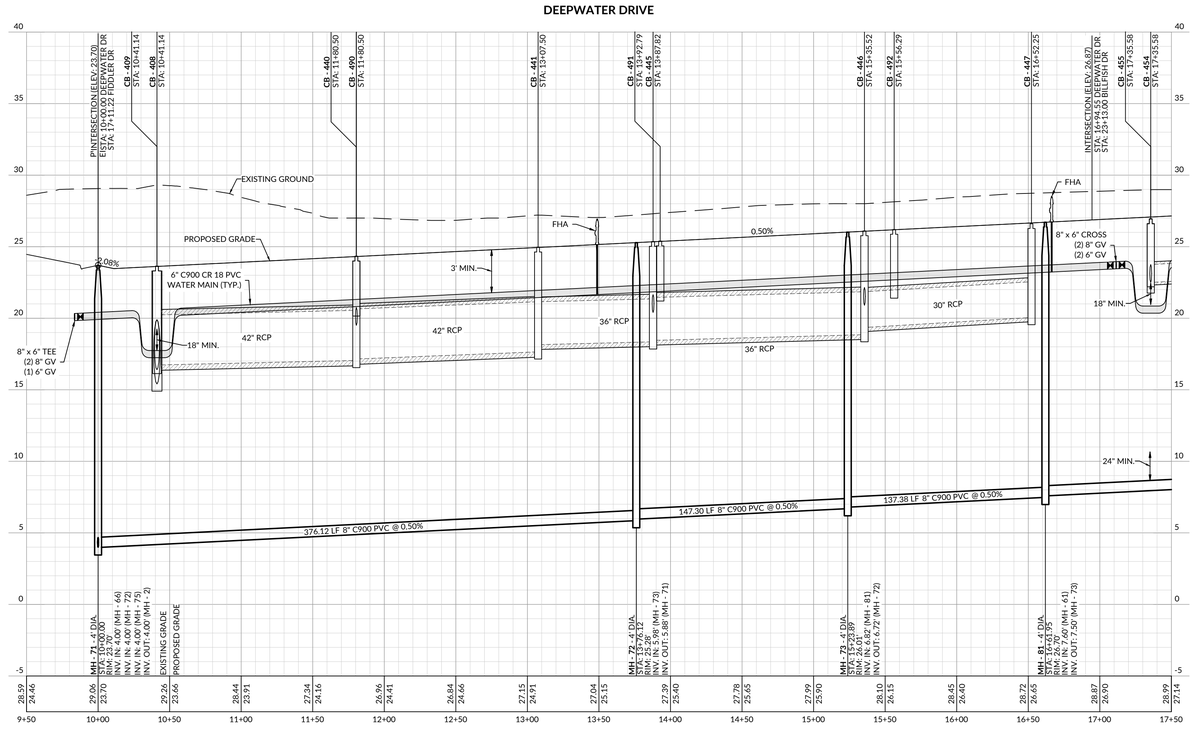


DEEPWATER DRIVE



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KEVIN MENDENHALL

SCALE: 1 inch = 50 ft. H
1 inch = 5 ft. V

INITIAL PLAN DATE: 10/3/2025
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DRN: WR	DGN: WR CKD: WR

DEEPWATER DRIVE (9+50 - 17+50) PLAN & PROFILE

C7.09

811 SINCE 1983

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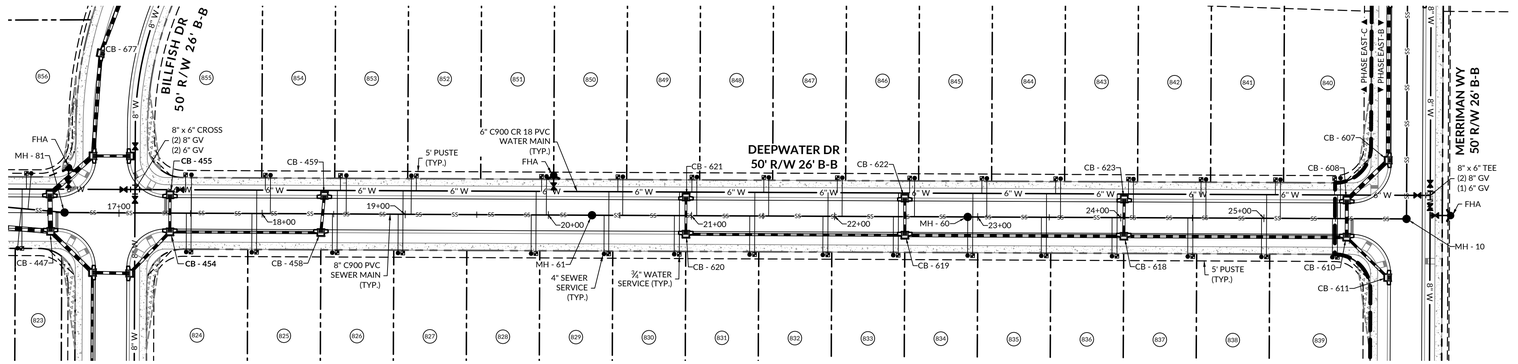
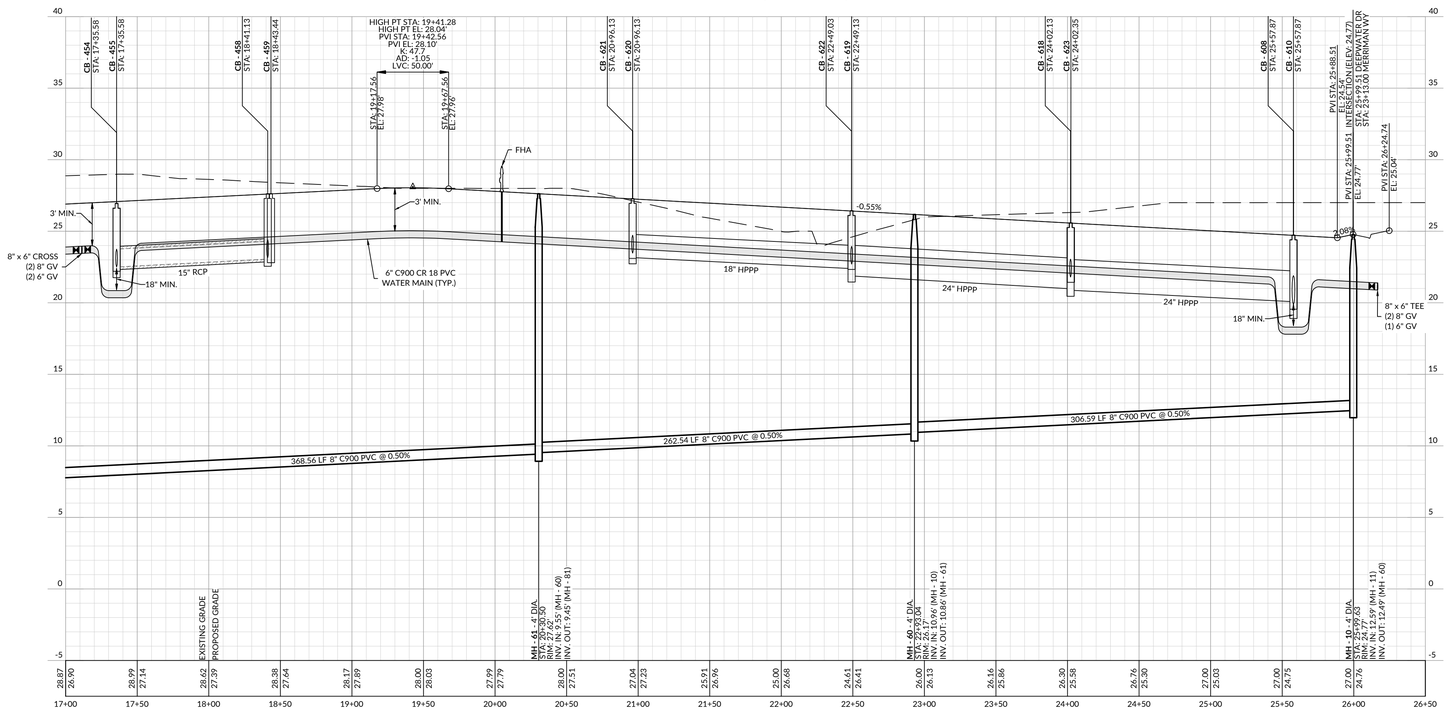


DEEPWATER DRIVE - (17+00 - 26+50)



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NORTH CAROLINA
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FOR CONSTRUCTION
JEFFREY MENDENHALL

SCALE: 1 inch = 50 ft. H
1 inch = 5 ft. V

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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Call 811 before you dig.

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DRN: WR	DGN: WR CKD: WR

DEEPWATER DRIVE (17+00 - 26+50) PLAN & PROFILE

C7.10

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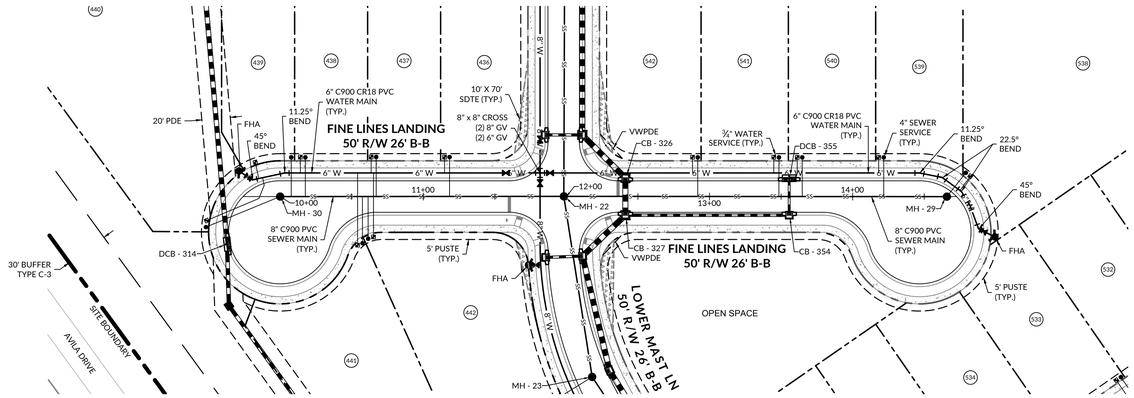

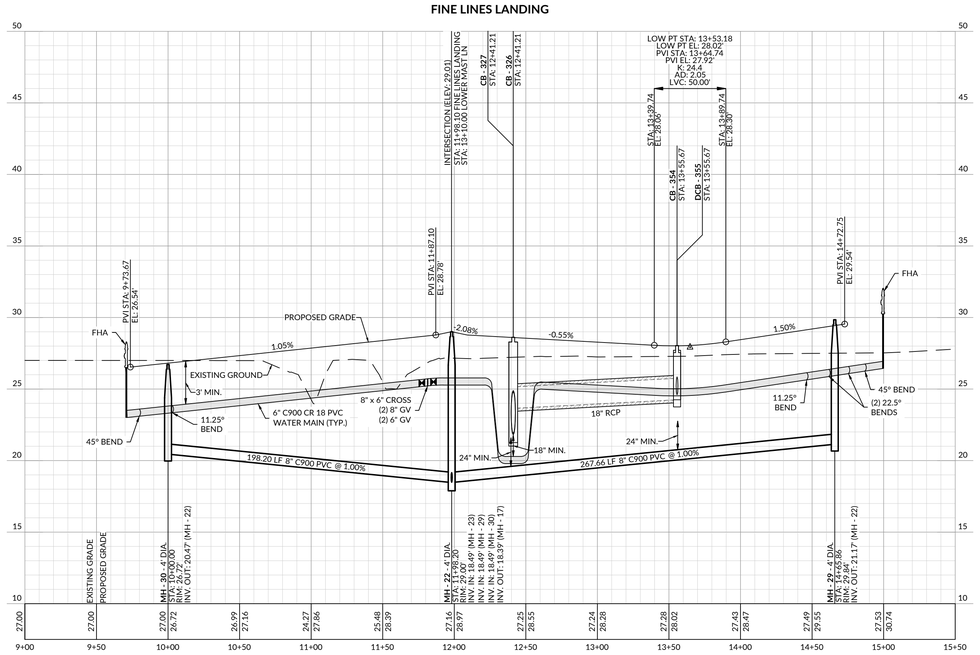

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NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
KEVIN MENDENHALL

SCALE: 1 inch = 50 ft. H
1 inch = 5 ft. V

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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DRN: WR	DGN: WR CKD: WR

FINE LINES LANDING PLAN & PROFILE

C7.11

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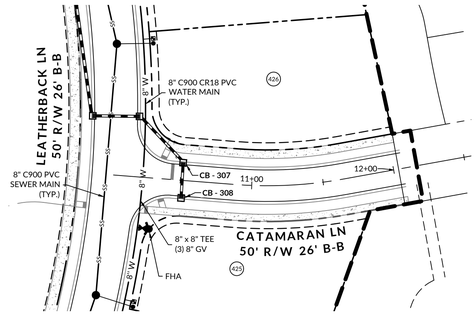
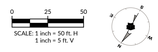
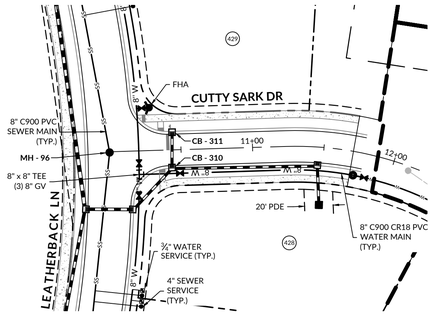
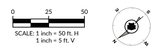
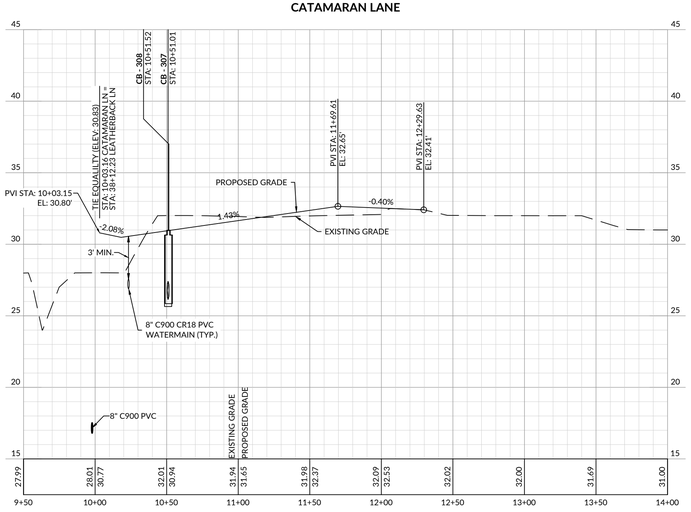




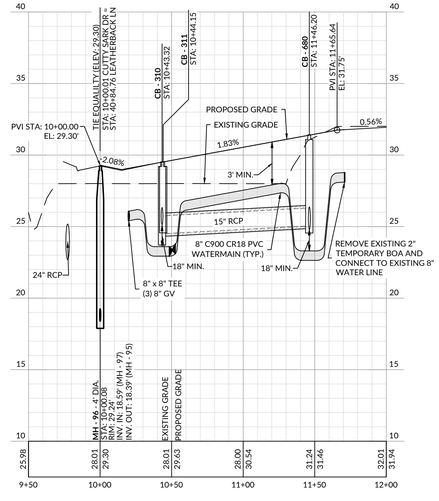




CATAMARAN LANE



CUTTY SARK DR.



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CONSTRUCTION PLANS
HAWKSBILL COVE
EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED
FOR CONSTRUCTION
KEY
MENDENHALL

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

Know what's below.
Call before you dig.

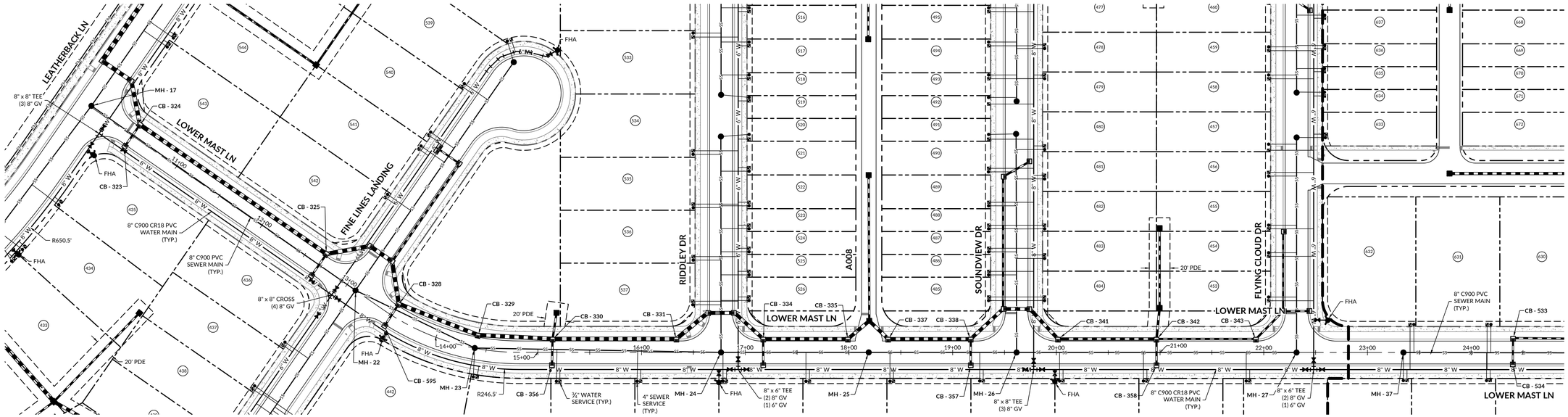
WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

CATAMARAN LANE & CUTTY SARK DR. PLAN & PROFILE

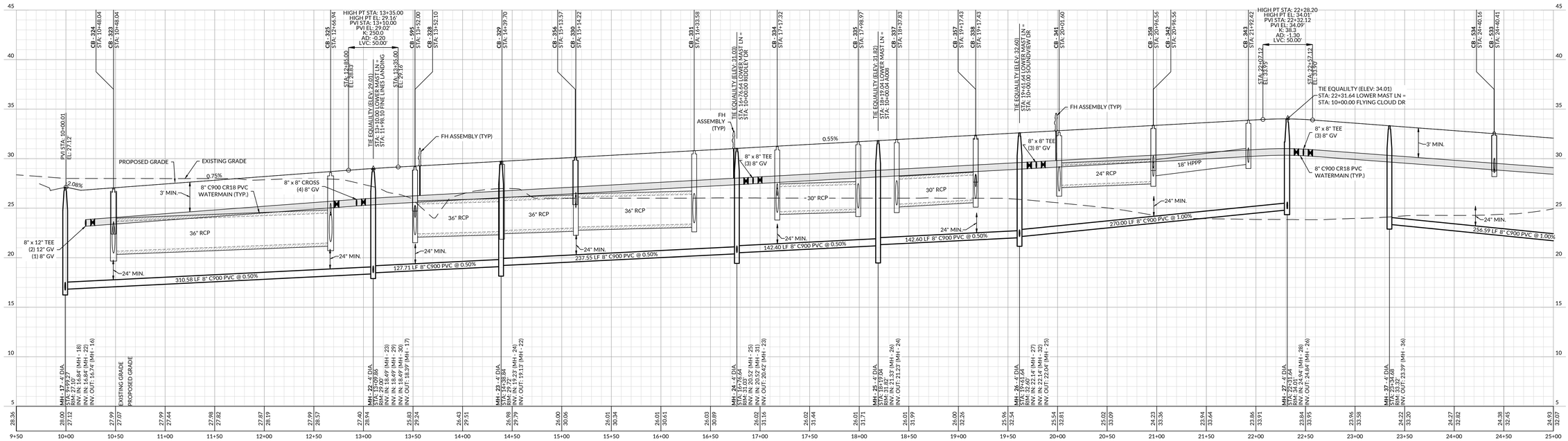
C7.12

811 SINCE 1963

J:\25\0329-a-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C7.12-7.16 ROAD PLAN & PROFILE.dwg Wednesday, October 1, 2025 2:11:56 PM - SLOWE



LOWER MAST LANE



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NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
KEY MENDENHALL

SCALE: 1 inch = ## ft. H
1 inch = # ft. V

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

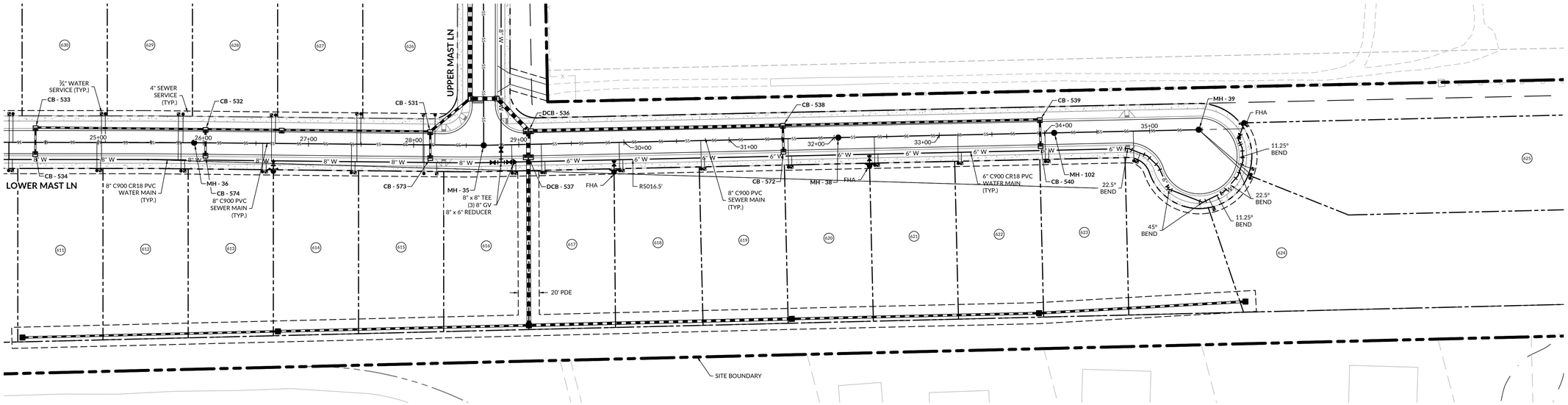
Know what's below. Call before you dig.

WR JOB NUMBER 25-0329-A
DRN: WR DGN: WR CKD: WR

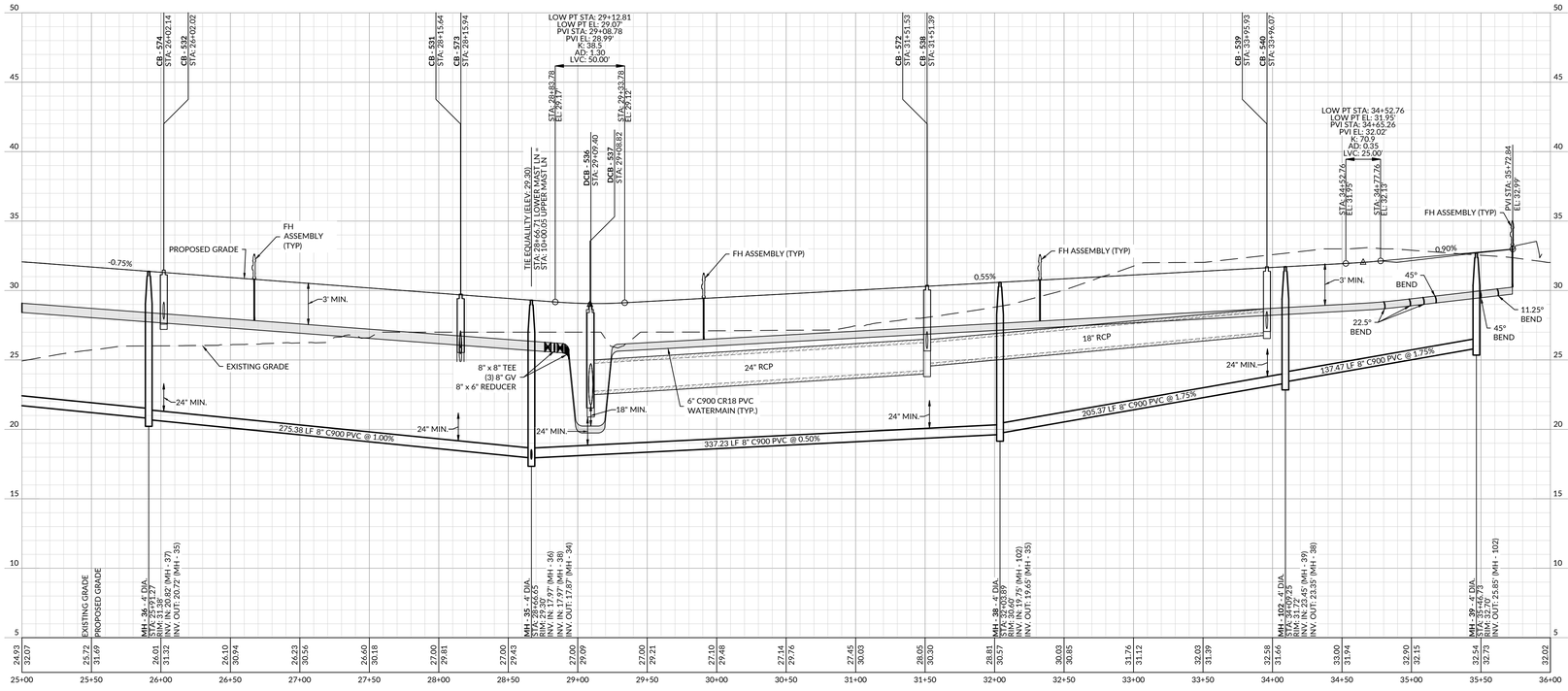
LOWER MAST LANE (9+50 - 25+00) PLAN & PROFILE

C7.13

J:\25\0329-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C7.13-7.16 ROAD PLAN & PROFILE.dwg Wednesday, October 1, 2025 2:12:03 PM - SLOWE



LOWER MAST LANE - CONT.



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COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
KEY MENDENHALL
NORTH CAROLINA

SCALE: 1 inch = 50 ft. H
1 inch = 5 ft. V

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

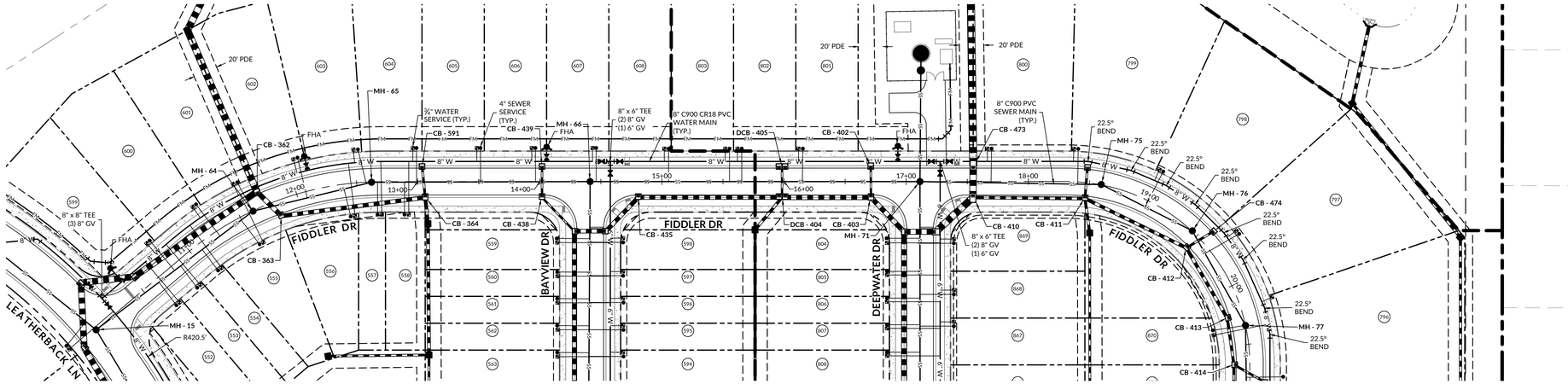
Know what's below.
Call 811 before you dig.

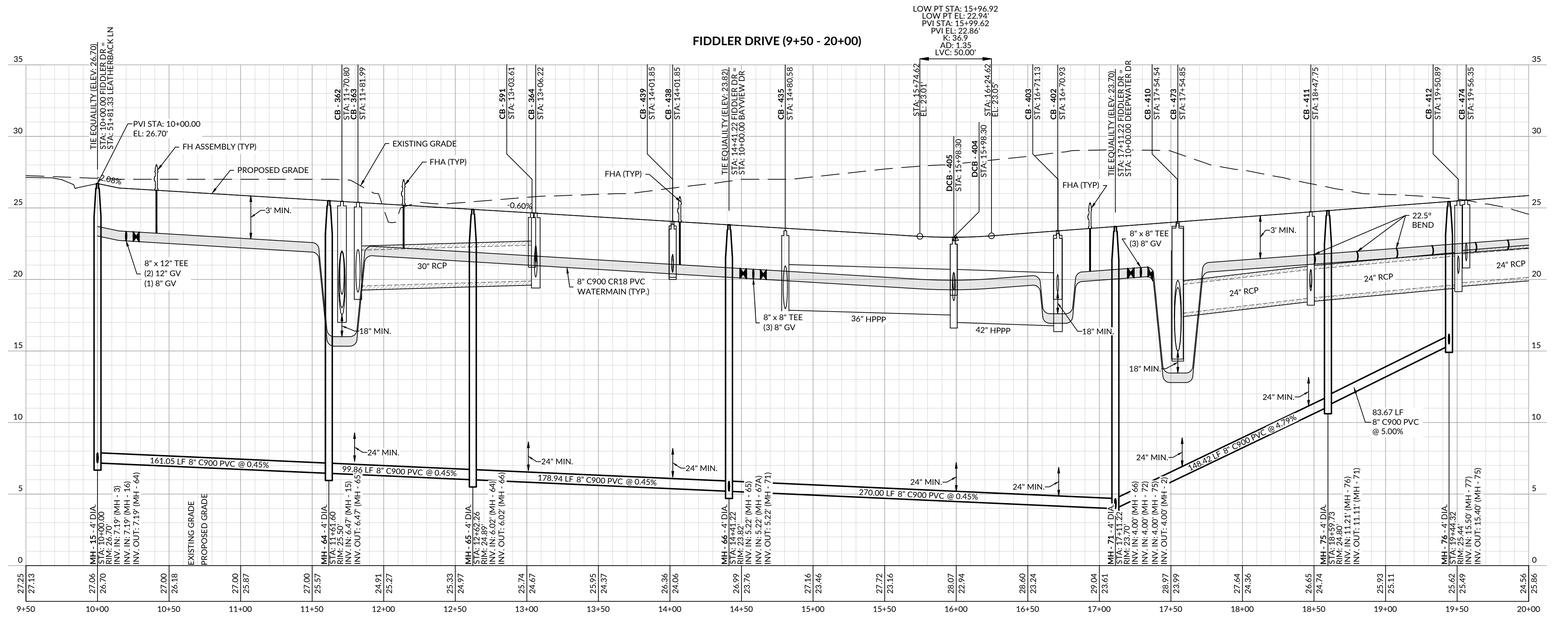
WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

LOWER MAST LANE (25+00 36+00) PLAN & PROFILE

C7.14

J:\25\0329-a ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C7.12-7.16 ROAD PLAN & PROFILE.dwg Wednesday, October 1, 2025 2:12:09 PM - SLOWE





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COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
KEVIN MENDENHALL

SCALE: 1 inch = 50 ft. H
1 inch = 5 ft. V

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

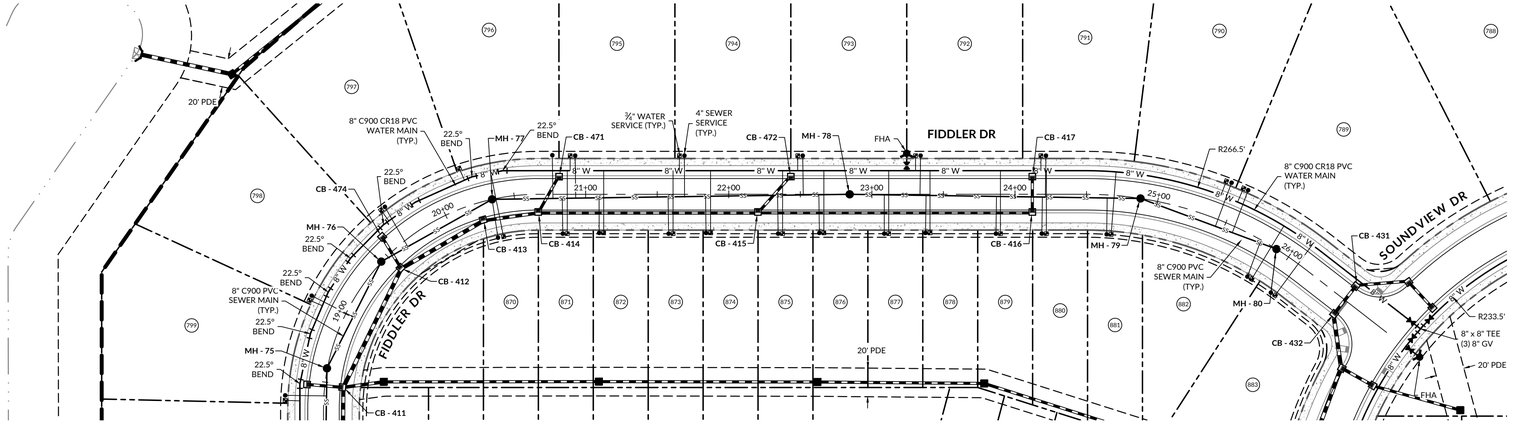
Know what's below.
Call before you dig.

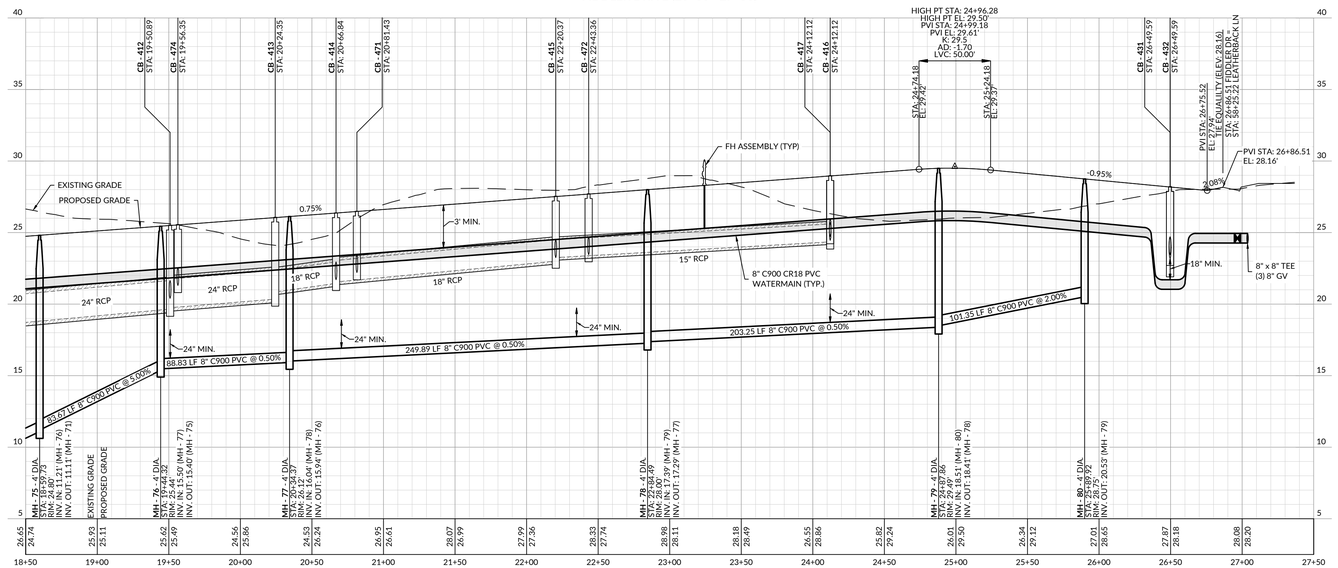
WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

FIDDLER DRIVE (9+50 - 20+00) PLAN & PROFILE

C7.15

J:\25\0329-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C7.15-7.16 ROAD PLAN & PROFILE.dwg Wednesday, October 1, 2025 2:12:14 PM - SLOANE





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NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
JEFFREY MENDENHALL

SCALE: 1 inch = 50 ft. H
1 inch = 5 ft. V

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

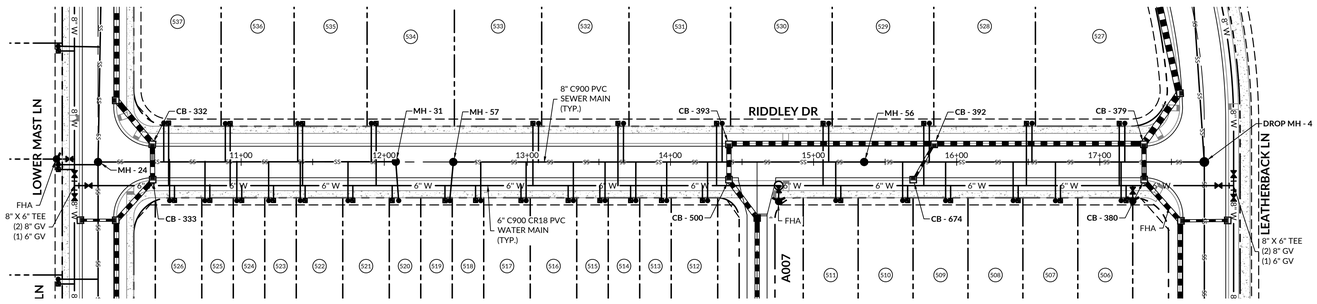
Know what's below.
Call 811 before you dig.

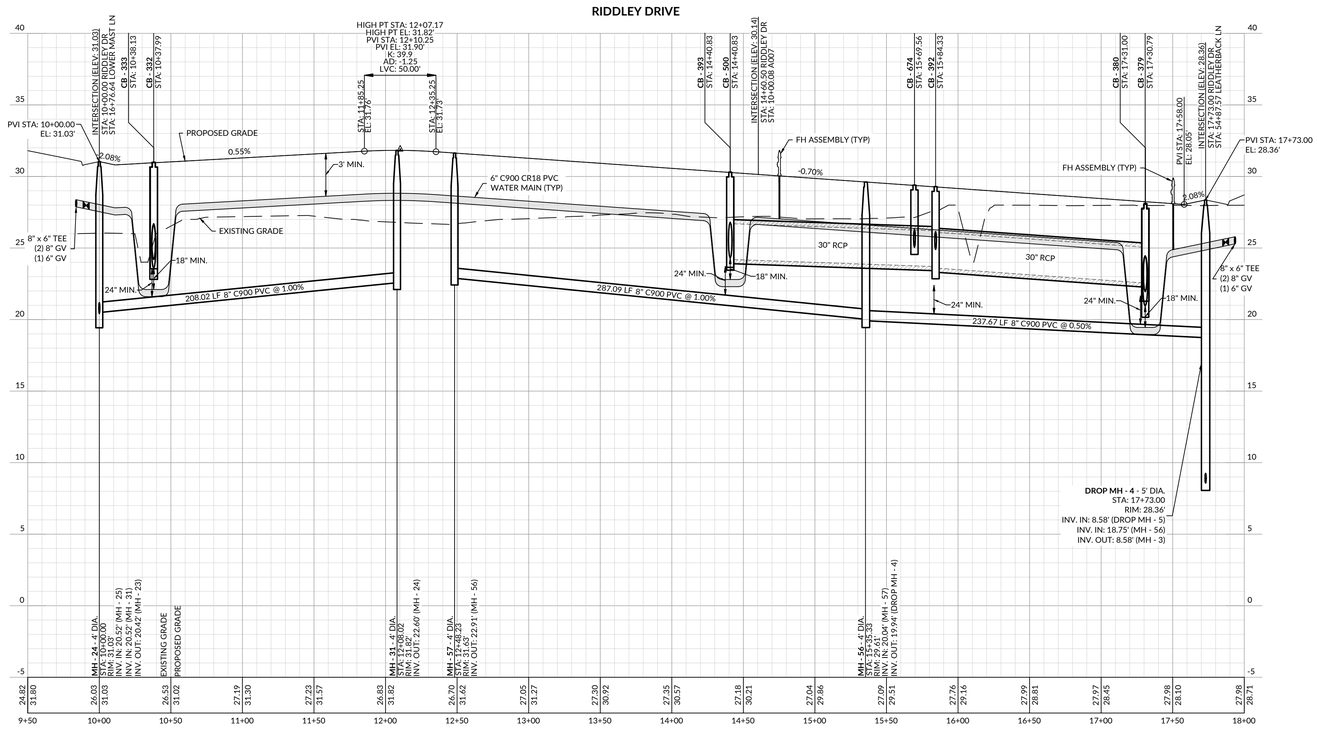
WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

FIDDLER DRIVE (20+00 - 27+50) PLAN & PROFILE

C7.16

J:\25\0329-a-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C7.13-7.16 ROAD PLAN & PROFILE.dwg Wednesday, October 1, 2025 3:12:28 PM by SLOWE





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NORTH CAROLINA
PRELIMINARY
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KEY MENDENHALL

SCALE: 1 inch = 50 ft. H
1 inch = 5 ft. V

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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

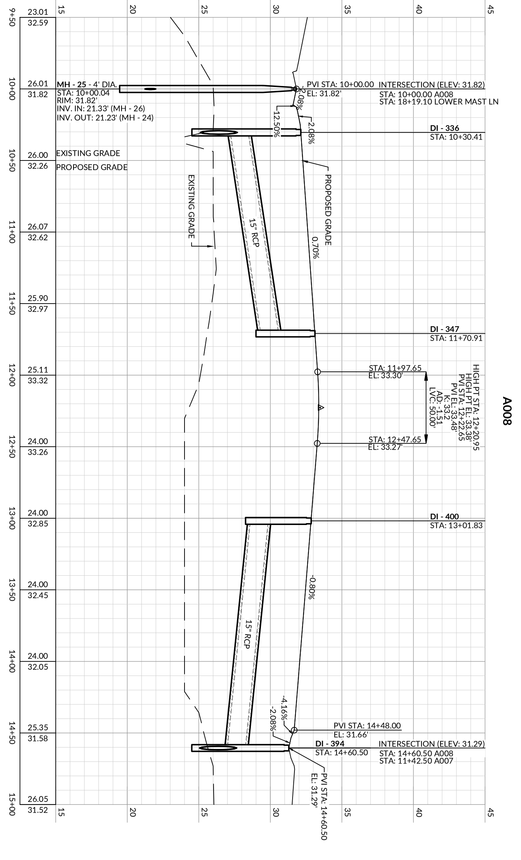
WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

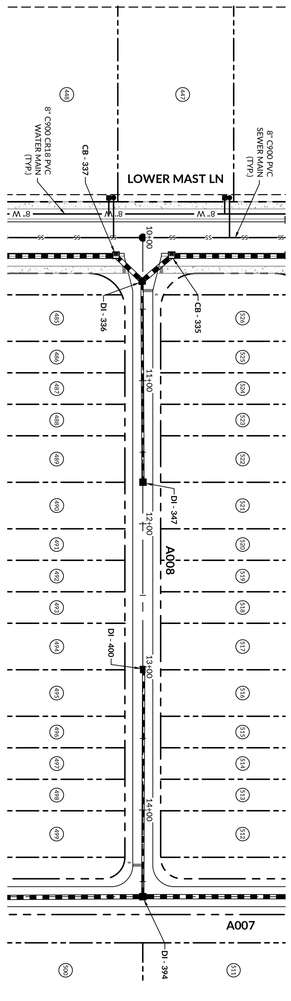
RIDDLEY DRIVE PLAN & PROFILE

C7.17

811 1983

J:\25\0329-a-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C7.17-7.23 ROAD PLAN & PROFILE.dwg, Wednesday, October 1, 2025 3:14:54 PM, ALOWE





C7.18

A008 PLAN & PROFILE

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

WR JOB NUMBER	25-0329
DRN: WR	DES'N: WR

INITIAL PLAN DATE: 10/2/2025
REVISIONS:

SCALE: 1 inch = 30 ft. H
1 inch = 3 ft. V

PRELIMINARY
NOT APPROVED
FOR CONSTRUCTION
NORTH CAROLINA
P.E. MEENENKY

CONSTRUCTION PLANS

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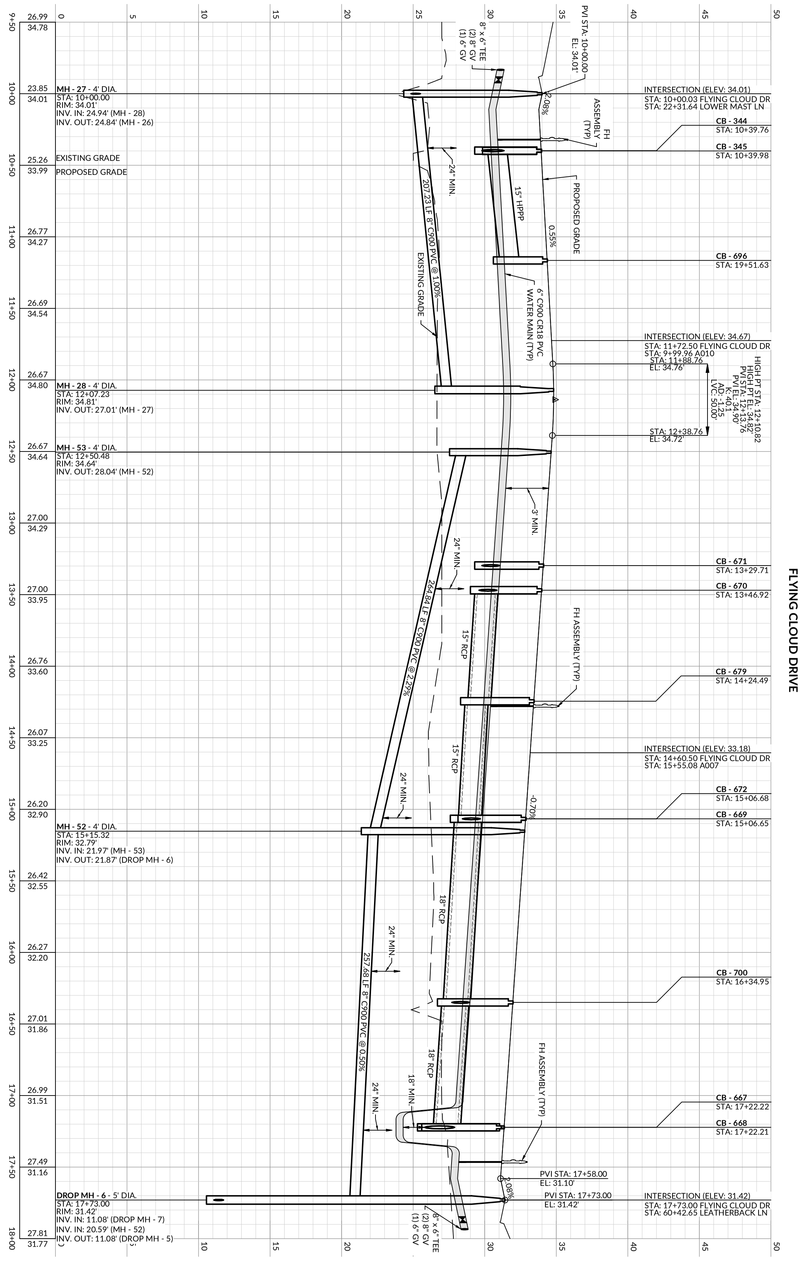

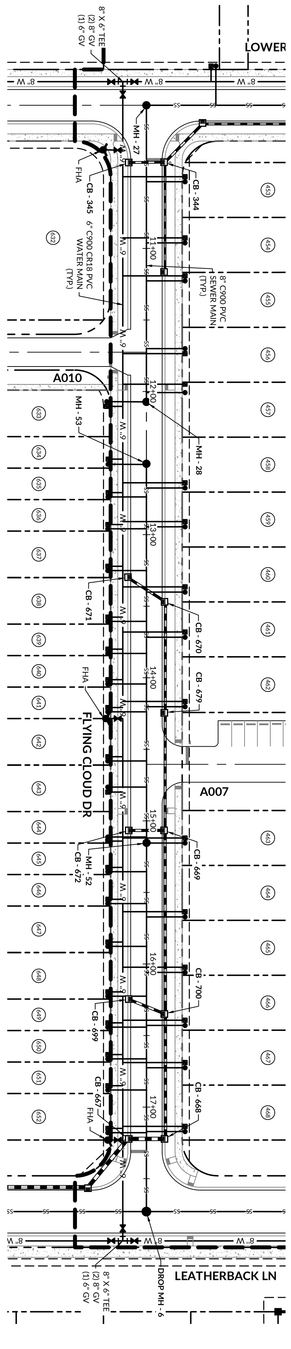

CONSTRUCTION PLANS

HAWKSBILL COVE
EAST VILLAGE

COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

C7.19

FLYING CLOUD DRIVE PLAN & PROFILE

DRN. BY:	CDH
DES. MGR.:	WR
JOB NUMBER:	25-0329A
WR NO.:	4765.WR

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

SCALE: 1 inch = 40 ft. 1 inch = 4 ft.

INITIAL PLAN DATE: 10/2/2025

REVISIONS:

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NOT APPROVED
FOR CONSTRUCTION
NORTH CAROLINA
P.E. MEMBERSHIP

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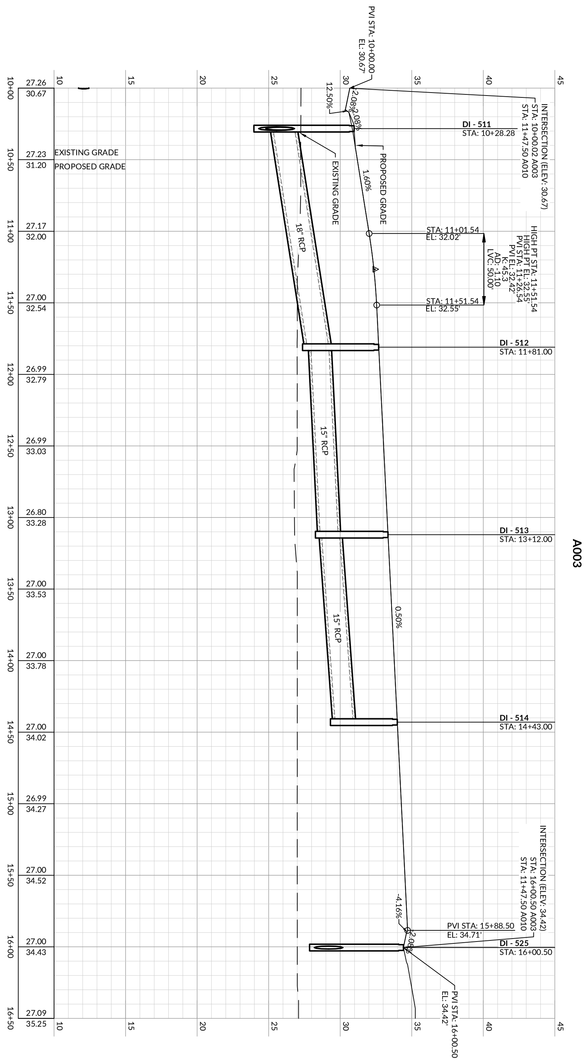

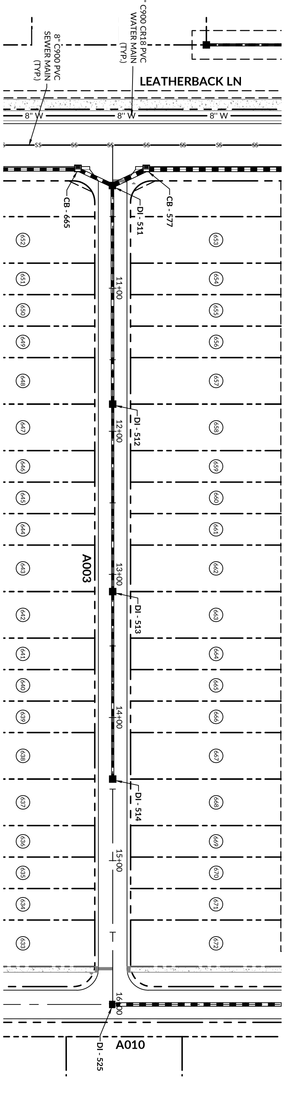

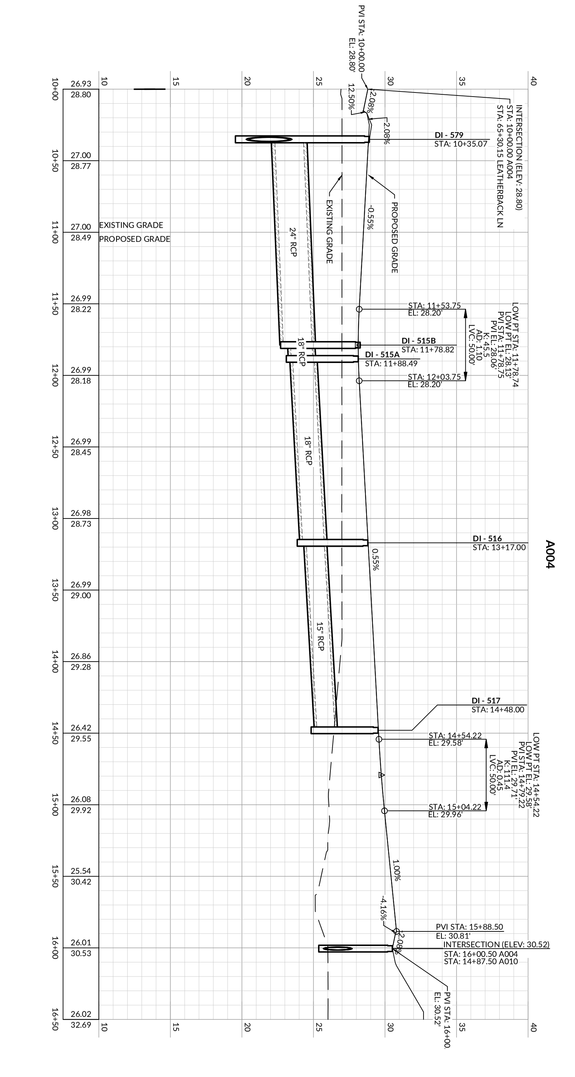

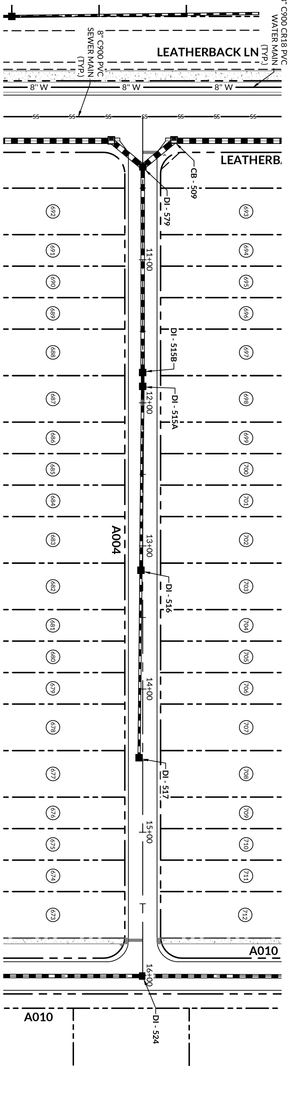

Know what's below. Call before you dig.

WR JOB NUMBER	25-0329
DRN. BY	DSN. VR

A003 & A004 PLAN & PROFILE

C7.20

INITIAL PLAN DATE: 10/2/2025
REVISIONS:

SCALE: 1 inch = 50 ft. H
1 inch = 25 ft. V

NORTH CAROLINA PRELIMINARY NOT APPROVED FOR CONSTRUCTION PURPOSES MEMORANDUM

CONSTRUCTION PLANS

HAWKSBILL COVE
EAST VILLAGE

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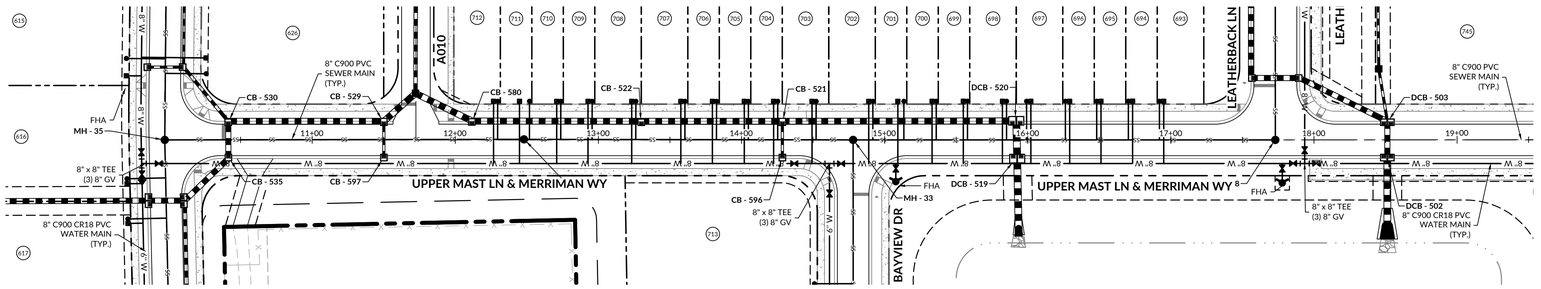
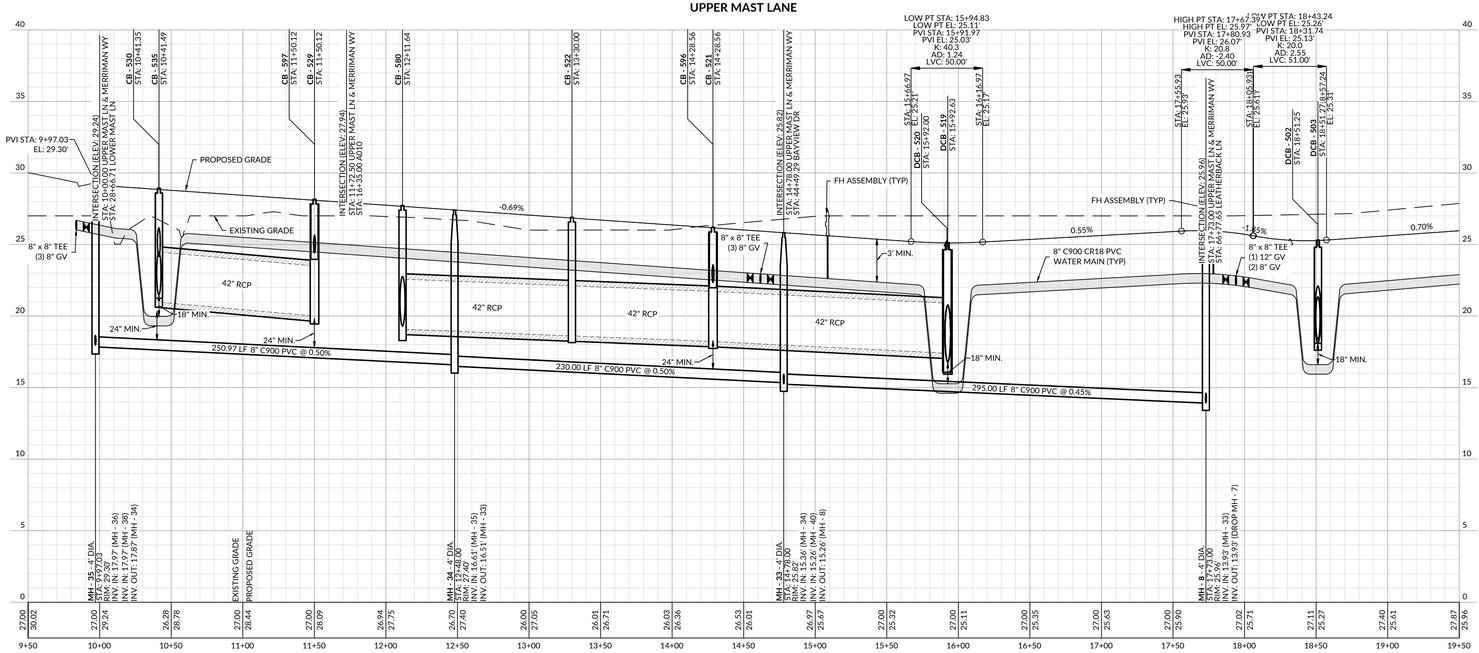


UPPER MAST LANE



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COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
KEVIN MENDENHALL

SCALE: 1 inch = 50 ft. H
1 inch = 5 ft. V

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

Know what's below.
Call before you dig.

WR JOB NUMBER 25-0329-A
DRN: WR DCK: WR CKD: WR

UPPER MAST LANE & MERRIMAN WAY(9+50 - 19+50) PLAN & PROFILE

C7.21

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

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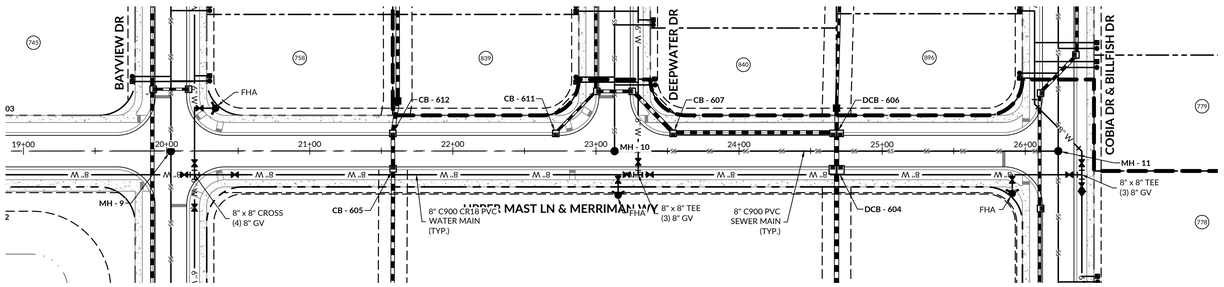

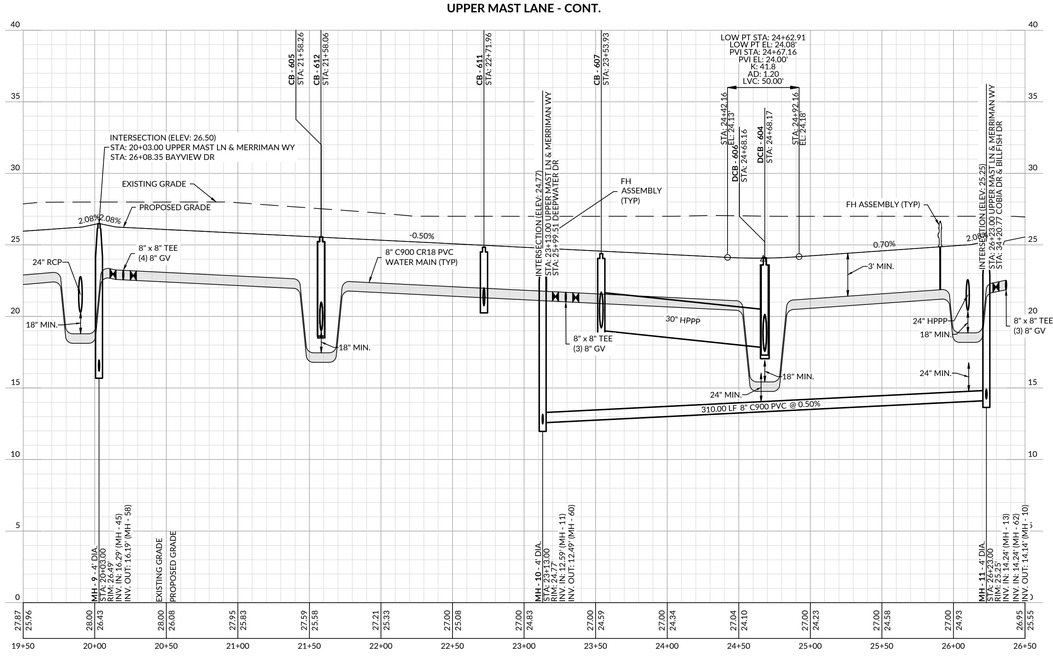

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NORTH CAROLINA
PRELIMINARY
NOT APPROVED
FOR CONSTRUCTION
KEVIN MENDENHALL

SCALE: 1 inch = 50 ft. H
1 inch = 5 ft. V

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

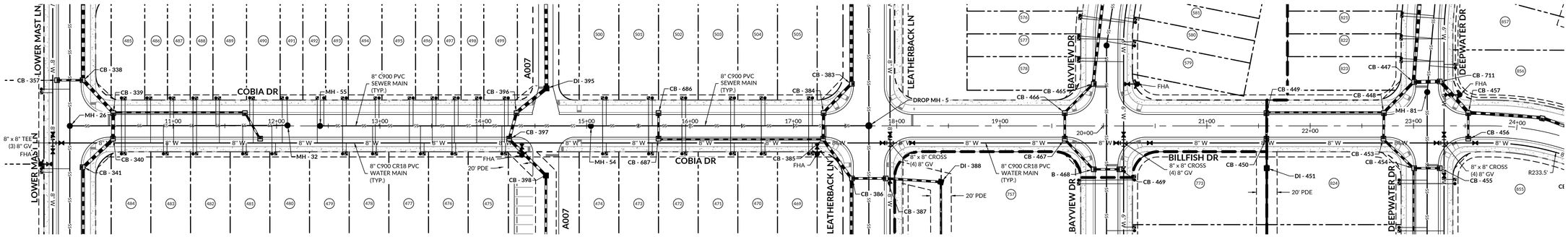
Know what's below.
Call before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

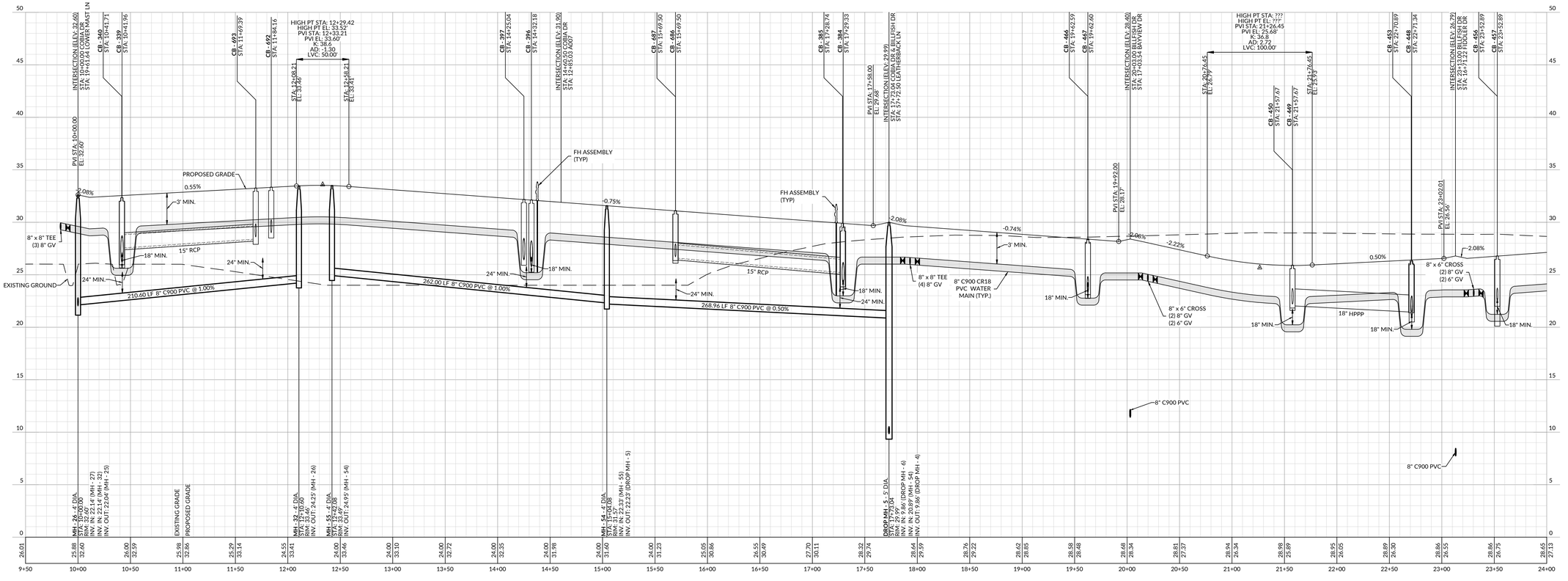
MERRIMAN WAY (19+50 - 26+50) PLAN & PROFILE

C7.22

J:\25\0329-ryan homes_pender county_hawksbill cove\CAD\drawing sets\construction\C7.17-7.23 ROAD PLAN & PROFILE.dwg Wednesday, October 1, 2025 2:16:24 PM SLOVE



R014 (9+50 - 24+00)



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NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
KEVIN MENDENHALL

SCALE: 1 inch = 50 ft. H
1 inch = 5 ft. V

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

Know what's below.
Call before you dig.

WR JOB NUMBER 25-0329-A
DRN: WR DGN: WR CKD: WR

COBIA DR & BILLFISH DR (9+50 - 24+00) PLAN & PROFILE

C7.23

EST 1983

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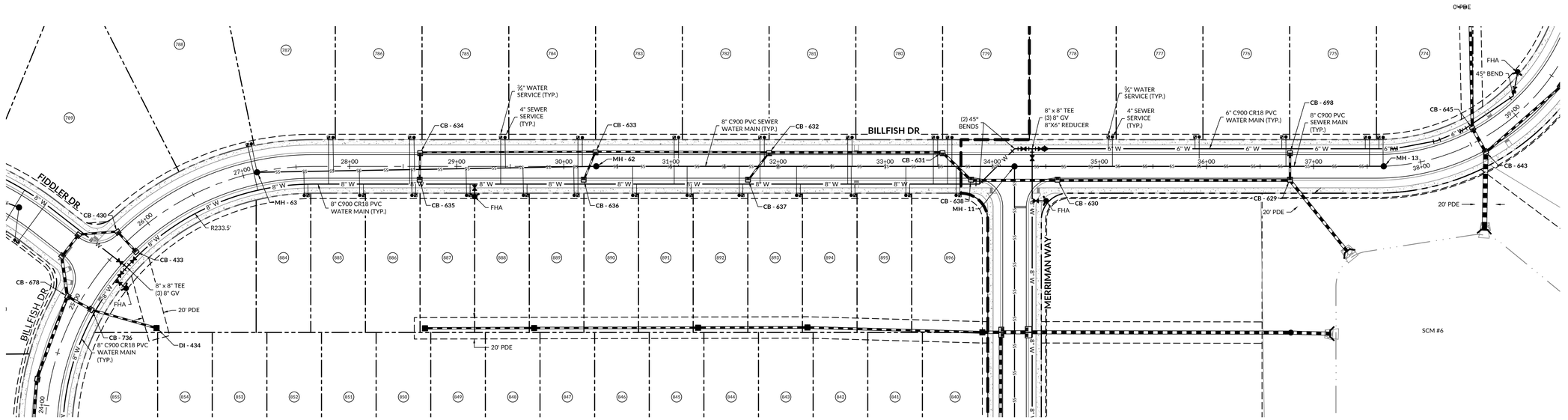

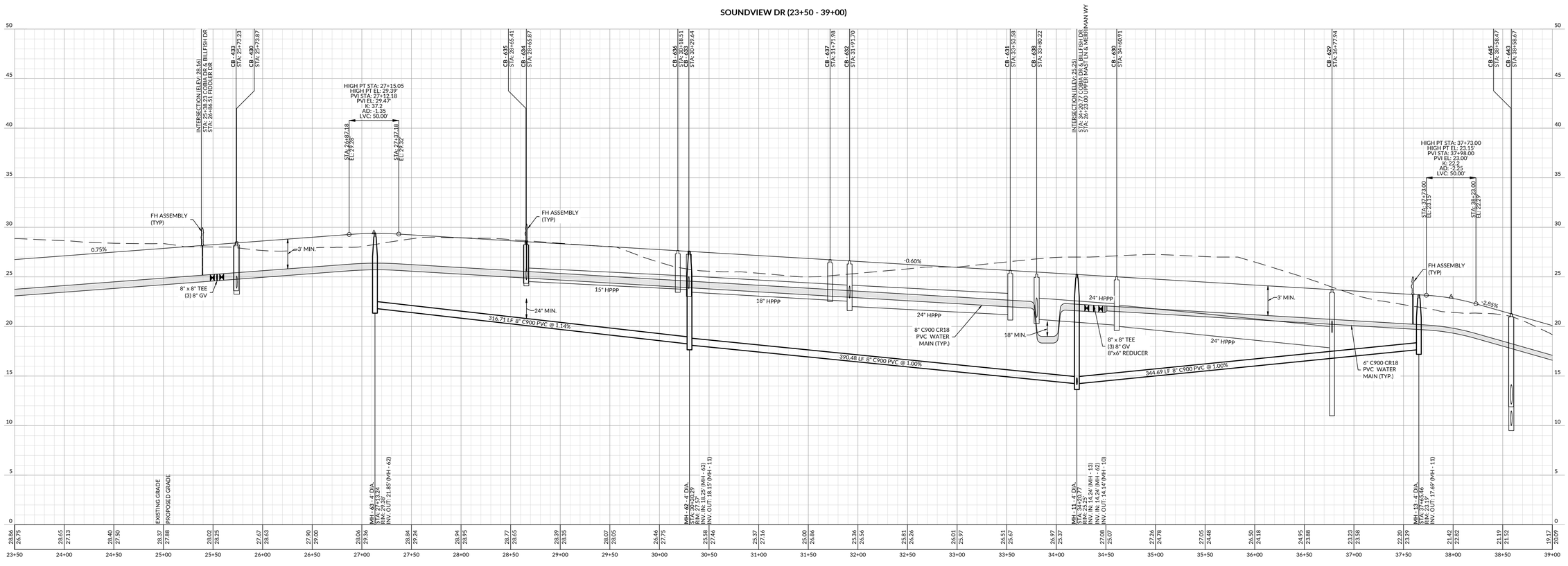

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NORTH CAROLINA
PRELIMINARY
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KEY MENDENHALL

SCALE: 1 inch = 50 ft. H
1 inch = 5 ft. V

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

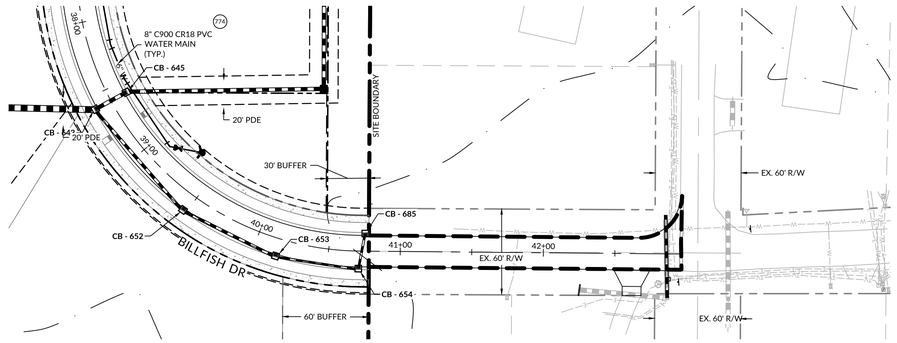
Know what's below.
Call 811 before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

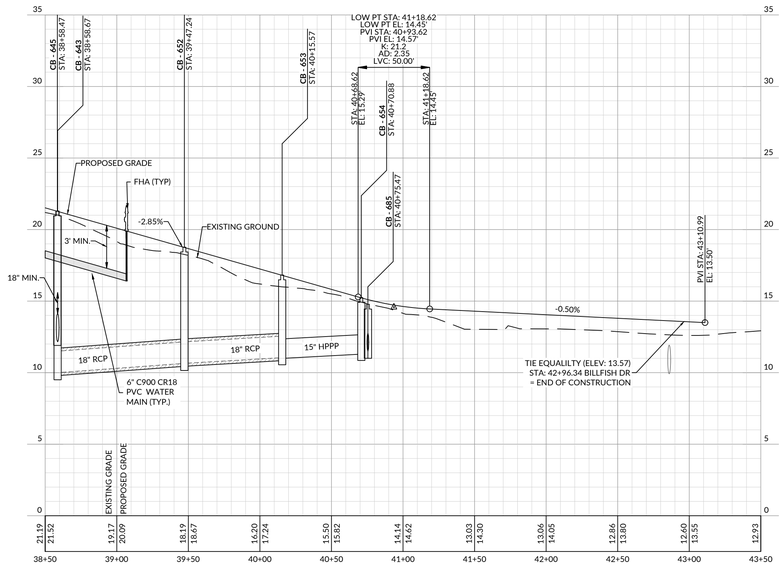
BILLFISH DR (23+50 - 39+00) PLAN & PROFILE

C7.24

J:\25\0329-a ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C7.23-7.25 ROAD PLAN & PROFILE.dwg Wednesday, October 1, 2025 2:16:47 PM AMENDENHALL



SOUNDVIEW DR (38+50 - 43+50)



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CONSTRUCTION PLANS

HAWKSBILL COVE
EAST VILLAGE

COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED
FOR CONSTRUCTION
KEVIN MENDENHALL

SCALE: 1 inch = 50 ft. H
1 inch = 5 ft. V

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

Know what's below.
Call before you dig.

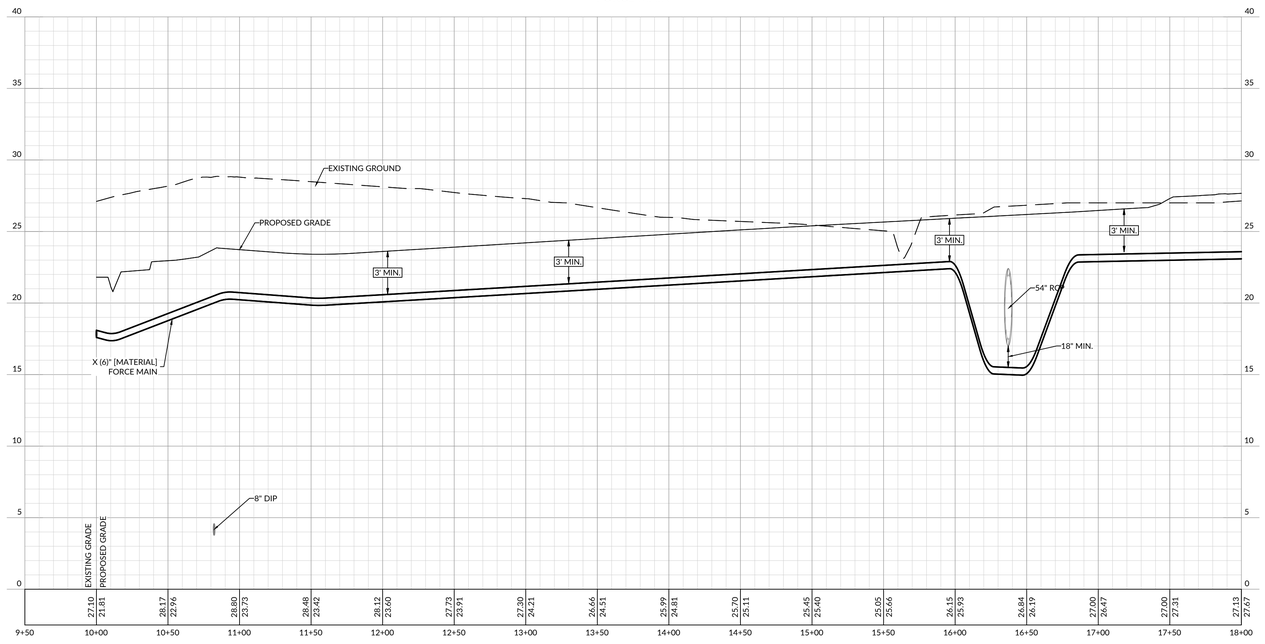
WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

BILLFISH DR (38+50 - 43+50) PLAN & PROFILE

C7.25

J:\25\0329-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C7.23-7.25 ROAD PLAN & PROFILE.dwg Wednesday, October 1, 2025 2:18:59 PM AMENDENHALL

FORCE MAIN



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JEFFREY MENDENHALL

SCALE: 1 inch = 50 ft. H
1 inch = 5 ft. V

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

FORCE MAIN (10+00 - 18+00) PLAN & PROFILE

C7.26

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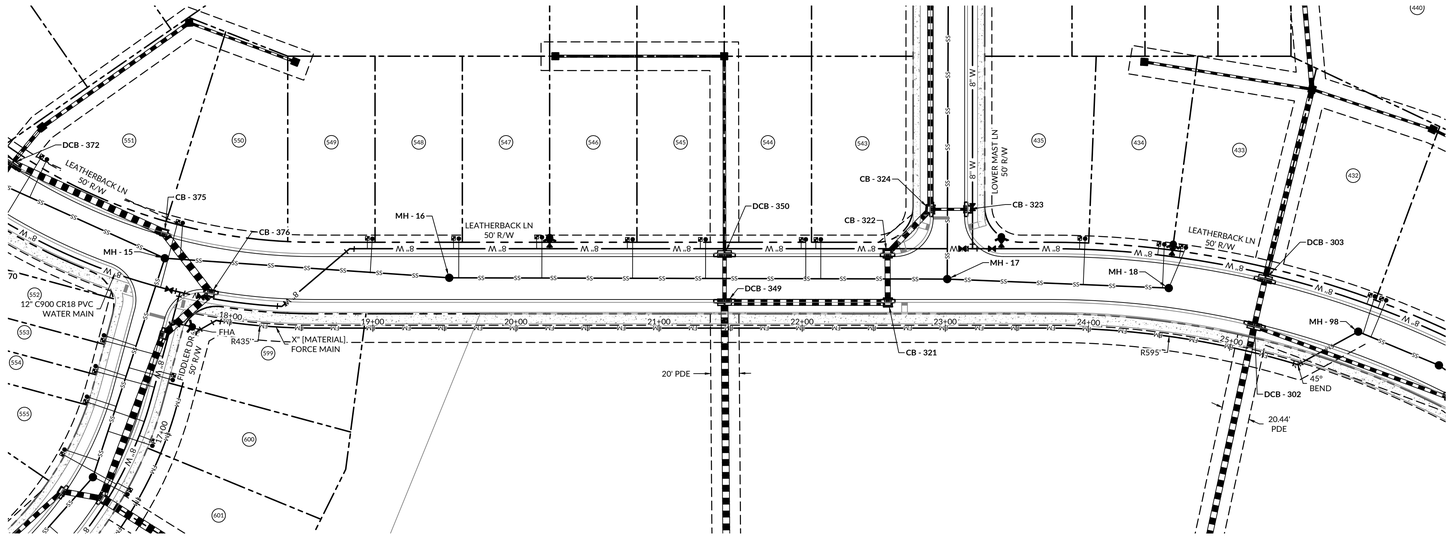

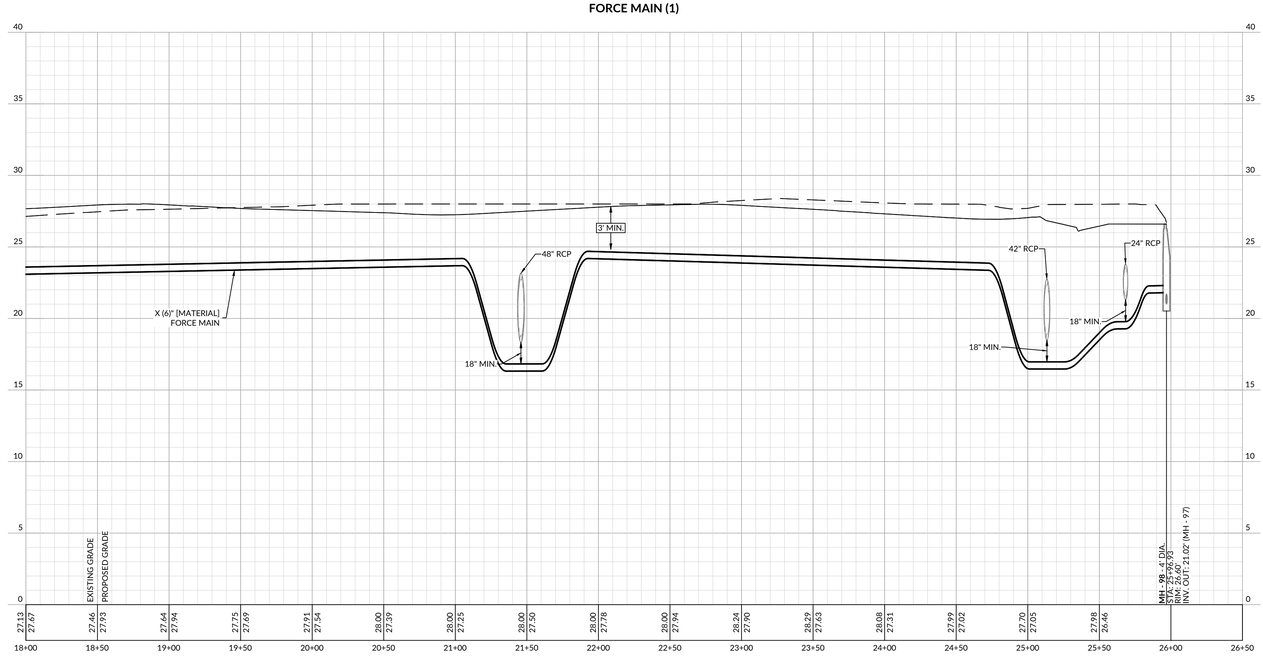

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FOR CONSTRUCTION
KEY MENDENHALL

SCALE: 1 inch = 50 ft. H
1 inch = 5 ft. V

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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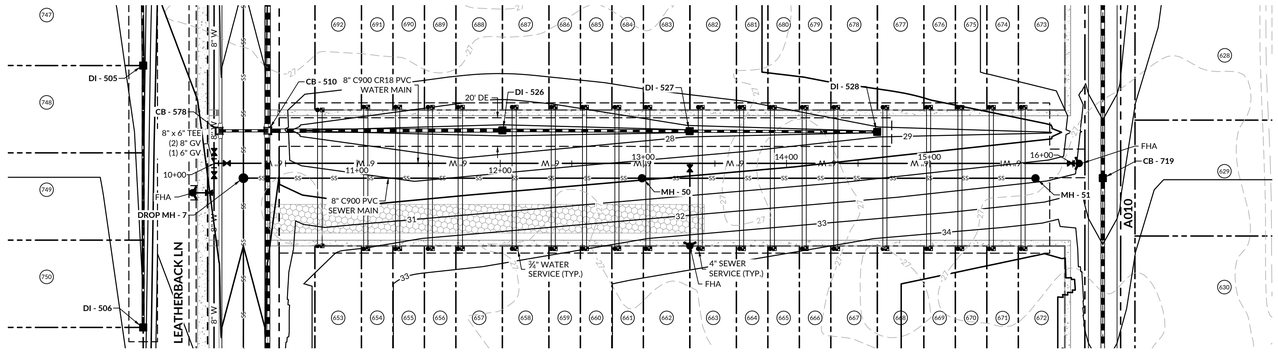
Call before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

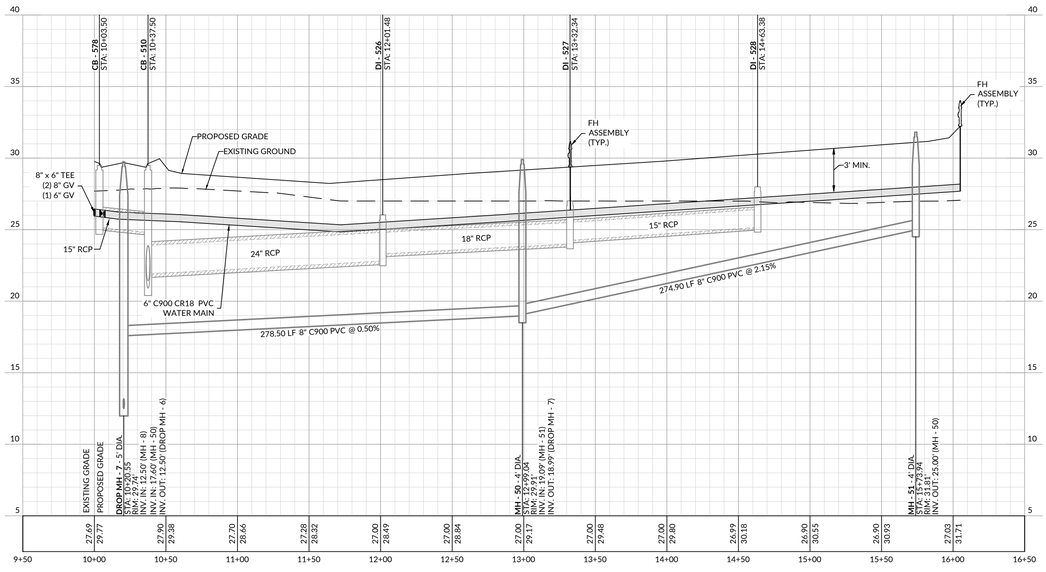
FORCE MAIN (18+00 - 26+00) PLAN & PROFILE

C7.27

J:\25\0329-a-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C7.26 FORCE MAIN PLAN & PROFILE.dwg Wednesday, October 1, 2025 2:41:59 PM BBRASAK



WATER OUTFALL B



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FOR CONSTRUCTION
JEREMY MENDENHALL

SCALE: 1 inch = 50 ft. H
1 inch = 5 ft. V

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

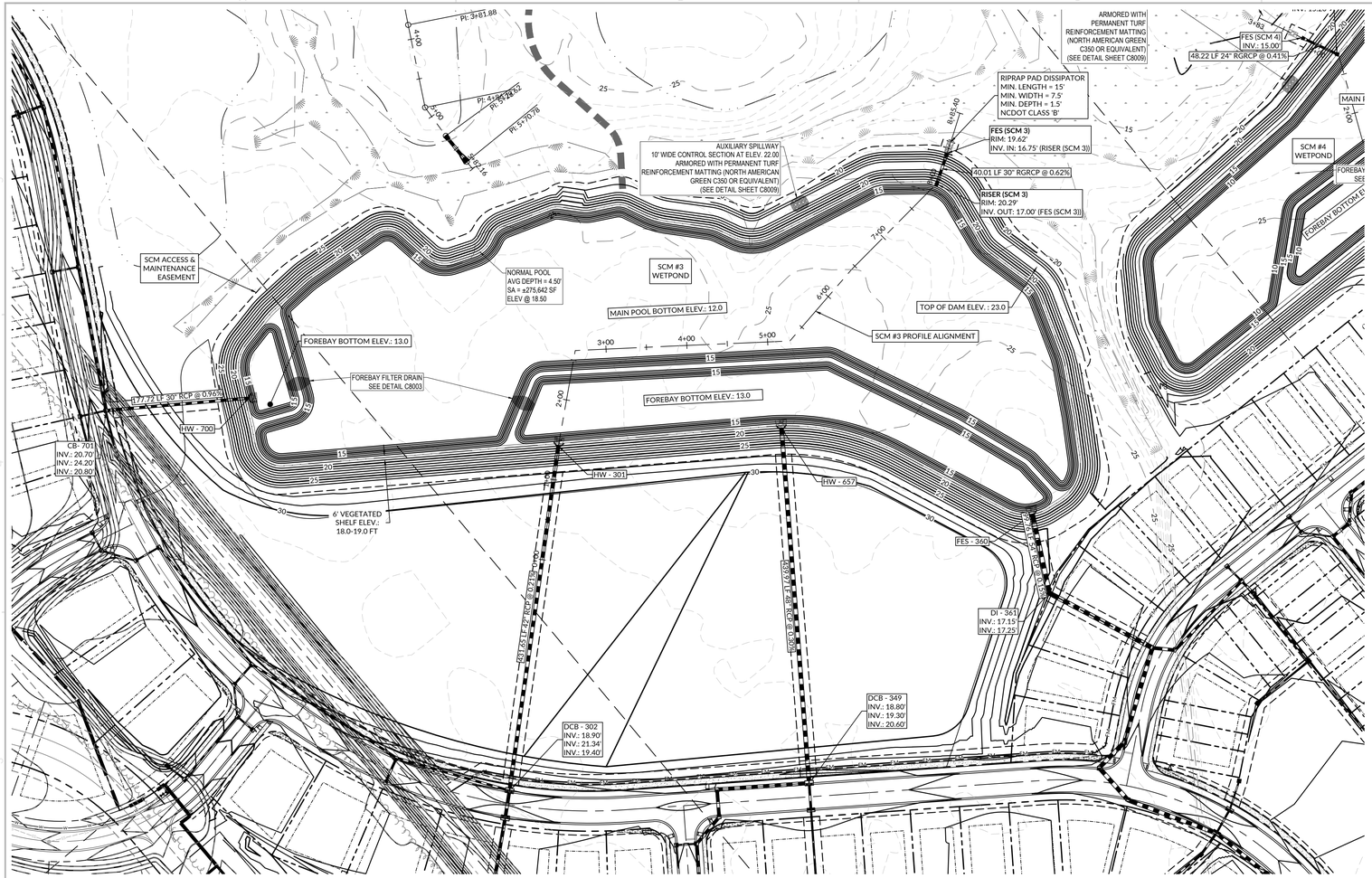
Know what's below.
Call before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

WATER OUTFALL B

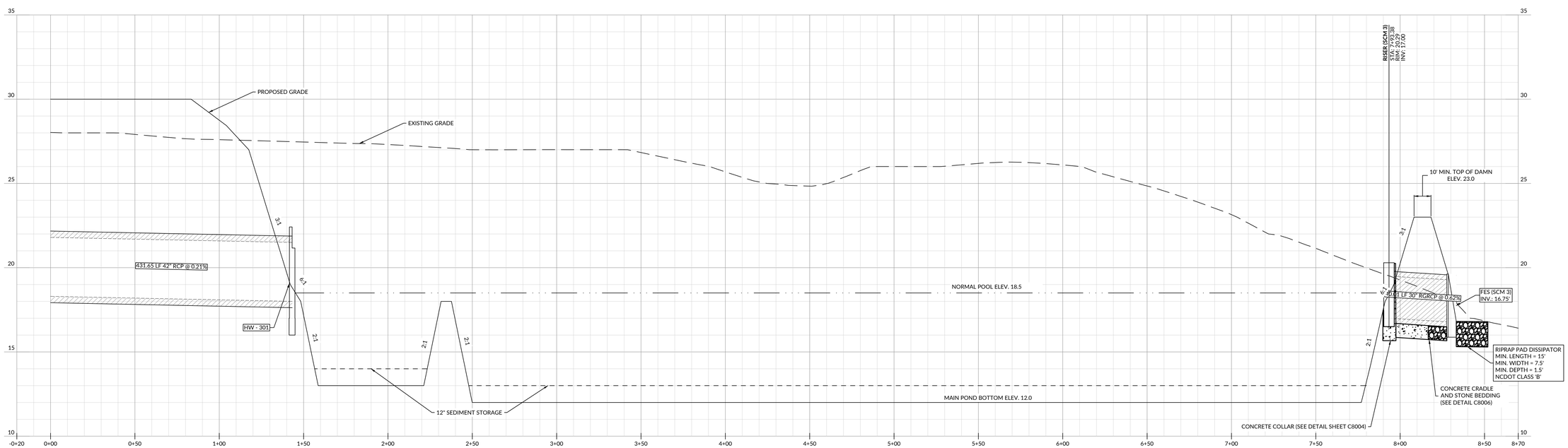
C7.28

J:\25\0329-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C7.28 WATER OUTFALL B PLAN & PROFILE.dwg Wednesday, October 1, 2025 1:21:17 PM - AMENDENHALL



SCM #3 - WET POND PLAN

PROFILE VIEW
GRAPHIC SCALE
1" = 30' HORZ.
1" = 3' VERT.
0 30 60



SCM #3 - WET POND PROFILE

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RHINEHART EL SAID

KEY MAP
N.T.S.

SCALE: 1 inch = 80 ft.

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

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

SCM 3 PLAN & PROFILE

C8.01

811 1983

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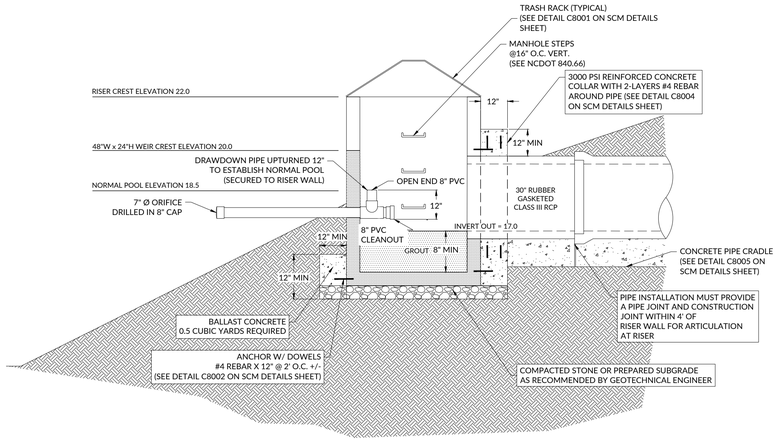
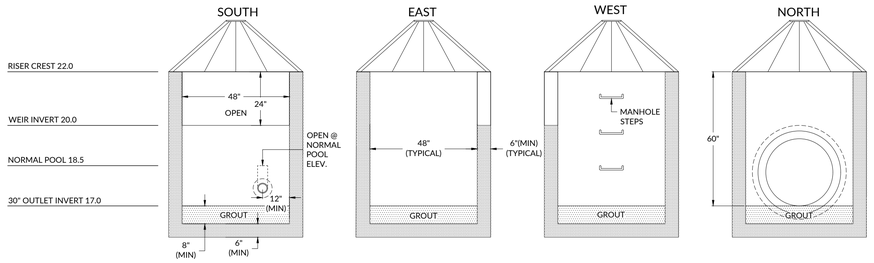


NOTE:
RISER AND BALLAST CONCRETE HAVE BEEN SIZED BASED ON BUOYANCY CALCULATIONS. ADJUSTMENTS TO CONCRETE DIMENSIONS ARE NOT PERMITTED WITHOUT PRIOR WRITTEN APPROVAL. ANY DIMENSIONAL CHANGES TO BALLAST CONCRETE BASE AND RISER MUST BE REQUESTED IN WRITING AND MUST BE ACCOMPANIED BY BUOYANCY CALCULATIONS SIGNED AND SEALED BY A NORTH CAROLINA REGISTERED PROFESSIONAL ENGINEER.

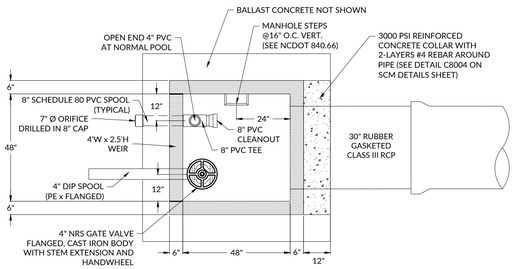
RISER PROFILE - 4X4, 30", RIGHT
Scale:NTS

RISER STRUCTURES
C8300



RISER INSIDE WALLS - 4X4, 30", RIGHT
Scale:NTS

RISER STRUCTURES
C8302



RISER TOP VIEW - 4X4, 30", RIGHT
Scale:NTS

RISER STRUCTURES
C8301

WET POND STORMWATER CONTROL MEASURE (SCM) GENERAL NOTES:

1. PRIOR TO OR DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THE PLANS OR SPECIFICATIONS.
2. ALL CONSTRUCTION AND MINIMUM DESIGN CRITERIA SHALL BE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL STANDARDS AND SPECIFICATIONS, HEREBY INCORPORATED BY REFERENCE.
3. UPON COMPLETION OF CONSTRUCTION, CERTIFICATION OF THE SCM BY THE GEOTECHNICAL ENGINEER WILL BE REQUIRED PRIOR TO FINAL SCM ACCEPTANCE.
4. THE GEOTECHNICAL ENGINEER SHALL EVALUATE SOILS FOR SUITABILITY OF DAM CONSTRUCTION AND SLOPE STABILITY.
5. PRIOR TO PLACEMENT OF EMBANKMENT FILL, THE GEOTECHNICAL ENGINEER SHALL SUPERVISE THE FOUNDATION PREPARATION AND APPROVE THE DEPTH AND EXTENT OF THE CUTOFF TRENCH, A MINIMUM OF 1 FOOT SHALL BE EXCAVATED.
6. THE DAM AND FOREBAY BERMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS UNLESS SUPERCEDED BY THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
   - BORROW MATERIALS FOR USE AS EMBANKMENT FILL SHALL BE FREE OF ORGANICS, ROOTS AND OTHER WOODY VEGETATION OR ORGANIC DEBRIS.
   - FILL MATERIALS SHALL CONSIST OF SOILS WHICH CLASSIFY AS SC, SM, CL, CL-CH AND ML IN ACCORDANCE WITH THE UNIFIED CLASSIFICATION SYSTEM OR AS APPROVED BY THE GEOTECHNICAL ENGINEER.
   - FILL MATERIALS SHALL HAVE A MAXIMUM PARTICLE SIZE OF 3 INCHES IN MEAN DIAMETER.
   - FILL SHALL BE PLACED IN 8 INCH (MAXIMUM) LOOSE LIFTS FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT AND IN 4 INCH (MAXIMUM) LOOSE LIFTS FOR MATERIAL COMPACTED BY HAND OPERATED TAMPERS UNDER THE SUPERVISION OF THE GEOTECHNICAL ENGINEER OR THEIR REPRESENTATIVE. FILL SHALL BE BROUGHT UP BY BENCHING INTO THE EXISTING SLOPE. A MAXIMUM HEIGHT OF 2 FEET SHALL BE USED FOR EACH BENCH LIFT TAKING CARE TO REMOVE ROOT STRUCTURES AS THE FILL PROCEEDS. THE SURFACE OF EACH LIFT SHALL BE SCARIFIED PRIOR TO PLACEMENT OF THE NEXT LIFT IN ORDER TO EFFECTIVELY TIE THE FILL LIFTS TOGETHER.
   - ALL COMPACTION SHALL BE TESTED BY THE NUCLEAR METHOD (ASTM D-6938) OR SAND CONE METHOD (ASTM D-1556) AT A RATE OF AT LEAST ONE TEST PER 5,000 SF PER ONE FOOT OF COMPACTED FILL THICKNESS IN GENERAL AREA FILLS AND ONE TEST PER 50 LINEAL FEET PER LIFT ALONG THE BARREL.
   - THE MINIMUM COMPACTION SHALL BE A MINIMUM OF 95% OF THE MAXIMUM STANDARD PROCTOR DENSITY (ASTM D-698) AT MOISTURE CONTENTS VARYING FROM 2 PERCENT BELOW TO 3 PERCENT ABOVE OPTIMUM MOISTURE CONTENT DETERMINED BY STANDARD PROCTOR TEST.
7. SUBGRADE FOR THE RISER STRUCTURE AND OUTLET PIPE SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT.IF THE GEOTECHNICAL ENGINEER REQUIRES ADDITIONAL SUBGRADE PREPARATION, THE ADDITIONAL COST SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.
8. THE OUTLET PIPE SHALL BE BEDDED IN CONCRETE FOR 2/3 OF THE PIPE LENGTH, BEGINNING AT THE RISER, AND IN #78 STONE FOR 1/3 OF PIPE LENGTH TO THE OUTLET. SEE DETAILS ON SHEET C8.09.
9. EMBANKMENT AND SIDE SLOPES OF THE BASIN SHALL BE STABILIZED PER SEEDING SCHEDULE ON EROSION CONTROL DETAILS SHEET OR SODDED. SEE LANDSCAPE PLANS FOR FURTHER PLANTING DETAILS.
10. IF, DURING CONSTRUCTION, THE SCM IS TO BE USED AS AN EROSION CONTROL MEASURE, THE FOREBAY BERM(S) SHALL NOT BE INSTALLED DURING THE INITIAL CONSTRUCTION OR WHILE THE SCM IS USED AS AN EROSION CONTROL MEASURE.
11. UNLESS OTHERWISE NOTED, ALL PERMANENT STRUCTURES (e.g. RISER/BARREL, WEIR WALLS, ETC.) ARE TO BE INSTALLED WITH THE INITIAL DAM CONSTRUCTION.
12. FOR SITE BUILT FEATURES (e.g. WEIR WALLS, DROP STRUCTURES, BRIDGES, ETC.), THE CONTRACTOR SHALL PROVIDE STRUCTURAL DRAWINGS TO BE SIGNED AND SEALED BY A NC PROFESSIONAL ENGINEER AND TO THE DESIGN ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
13. PRIOR TO FINAL GRADING OF THE SCM, THE CONTRACTOR SHALL PROVIDE SUFFICIENT AS-BUILT SURVEY INFORMATION TO CONFIRM THAT THE FINISHED SCM WILL MEET THE SPECIFIC DIMENSIONAL REQUIREMENTS APPLICABLE TO THE SCM. THOSE REQUIREMENTS INCLUDE:
   - MAIN POOL POND BOTTOM ELEVATION = 12.0 FT
   - DRAWDOWN OVERFLOW ELEVATION (NORMAL POOL) = 18.5 FT
   - MINIMUM SURFACE AREA AT NORMAL POOL ELEVATION = 275,642 SF
   - WEIR CREST ELEVATION= 19.5 FT
   - RISER CREST ELEVATION= 22.0 FT
   - LOW POINT TOP OF EMBANKMENT (AUXILIARY SPILLWAY) = 22.0 FT
   - AVERAGE TOP OF EMBANKMENT = 23.0 FT
15. ELEVATIONS SHALL BE WITHIN 0.1 FEET OF THE ABOVE ELEVATIONS FOR EARTHWORK, AND 0.05 FEET FOR OUTLET STRUCTURE. ALL SURFACE AREAS ARE THE MINIMUM AREAS. REQUEST FOR A REDUCTIONS IN THE MINIMUM VALUES WILL BE CONSIDERED ON A CASE BY CASE BASIS.
16. ONCE THE PROJECT SITE HAS BEEN STABILIZED, CONTRACTOR SHALL OBTAIN APPROVAL BY EROSION CONTROL INSPECTOR IN ORDER TO REMOVE TEMPORARY EROSION CONTROL DEVICES.
   - ONCE ALL SEDIMENT AND EROSION CONTROL DEVICES HAVE BEEN REMOVED, THE SCM SHALL BE CONVERTED TO A PERMANENT SCM.
   - ALL SEDIMENT SHALL BE REMOVED AND DISPOSED OF PROPERLY.
   - FOREBAY AND VEGETATED SHELF SHALL BE CONSTRUCTED AS SHOWN ON THE PLAN.
   - VEGETATED SHELF SHALL BE PLANTED PER PLANT SCHEDULE ON LANDSCAPE PLAN (SEE SHEET LX.X).
17. FINAL CERTIFICATION OF THE SCM BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED IS REQUIRED.

CLAY LINER SPECIFICATIONS:

THE CONTRACTOR SHALL INSTALL A CLAY LINER TO MAINTAIN A PERMANENT POOL AT THE DESIGN ELEVATION. AT A MINIMUM, THE CLAY LINER MATERIAL FOR THE WET POND SHALL MEET THE FOLLOWING SPECIFICATIONS:

- UNIFIED SOIL CLASSIFICATION SYSTEM DESIGNATION OF CL, CH, ML, OR SC
- MINIMUM OF 40% PASSING #200 SIEVE
- MINIMUM PLASTICITY INDEX OF 12
- MAXIMUM PERMEABILITY OF 1 X 10^{-5} cm/sec
- A MINIMUM OF 2 TESTS OF EACH ABOVE PARAMETER SHALL BE PROVIDED FROM AN APPROVED LABORATORY ON THE LINER MATERIAL AND PRESENTED TO THE ENGINEER FOR APPROVAL PRIOR TO PLACEMENT OF THE MATERIAL.
- COMPACTION TO A MINIMUM OF 95% OF THE MAXIMUM STANDARD PROCTOR DENSITY (ASTM D-698), AND WITHIN 3% OF THE OPTIMUM MOISTURE CONTENT (MINIMUM OF 1 COMPACTION DENSITY TEST PER 2500 SQUARE FEET).
- AN IN-PLACE MAXIMUM INFILTRATION RATE OF 0.01 INCHES PER HOUR.
- RECOMMENDATIONS OF THE SITE GEOTECHNICAL ENGINEER MAY SUPERCEDE THE ABOVE SPECIFICATIONS.

THE CLAY LINER SHALL BE PLACED UNDER THE BOTTOM OF THE SCM PERMANENT POOL TO A MINIMUM THICKNESS OF 8 INCHES. A MINIMUM OF 4 INCHES OF TOPSOIL SHALL BE PLACED ABOVE THE CLAY LINER TO THE FINISHED GRADE AS SHOWN ON THE DRAWINGS AND/OR DETAILS. CARE SHALL BE TAKEN WHEN PLACING THE TOPSOIL SO AS NOT TO DAMAGE THE CLAY LINER. A CLAY/SOIL, NO ORGANICS, MIXTURE MAY BE USED IF THE ABOVE SPECIFICATIONS ARE SATISFIED AND WITH WRITTEN APPROVAL BY THE GEOTECHNICAL ENGINEER.

THE REQUIREMENT FOR A CLAY LINER CAN BE WAIVED IF ONE OF THE FOLLOWING IS PROVIDED TO THE ENGINEER FOR REVIEW AND APPROVAL:

1. A SIGNED/SEALED GEOTECHNICAL REPORT INDICATING THAT THE INSITU SOILS MEET THE MINIMUM SPECIFICATIONS DESCRIBED ABOVE FOR THE CLAY LINER OR
2. AN INFILTRATION TEST IS CONDUCTED AT POND BOTTOM FINISHED GRADE ILLUSTRATING THAT INSITU SOILS MEET THE ABOVE PERMEABILITY REQUIREMENT.

IF THE CLAY LINER IS NOT INSTALLED, THE OWNER SHALL RECEIVE A CREDIT FOR THE DELETION OF THE LINER.

PRECAST CONCRETE MATERIALS NOTES:

1. ALL PRECAST CONCRETE STRUCTURES SHALL CONFORM TO ASTM C913 (RECTANGULAR) OR C478 (ROUND).
2. ALL REINFORCED CONCRETE PIPE SHALL CONFORM TO ASTM C76, CLASS III (UNLESS OTHERWISE NOTED),
   2.1. O-RING JOINTS (RGRCP) SHALL CONFORM TO ASTM C443 & ASTM C361.
   2.2. NON O-RING JOINTS (RCP) SHALL CONFORM TO ASTM C990

WET POND NOTES
Scale:NTS

WET POND DETAILS
C8200

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PRELIMINARY
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MICHAEL ELSAS

KEY MAP
N.T.S.

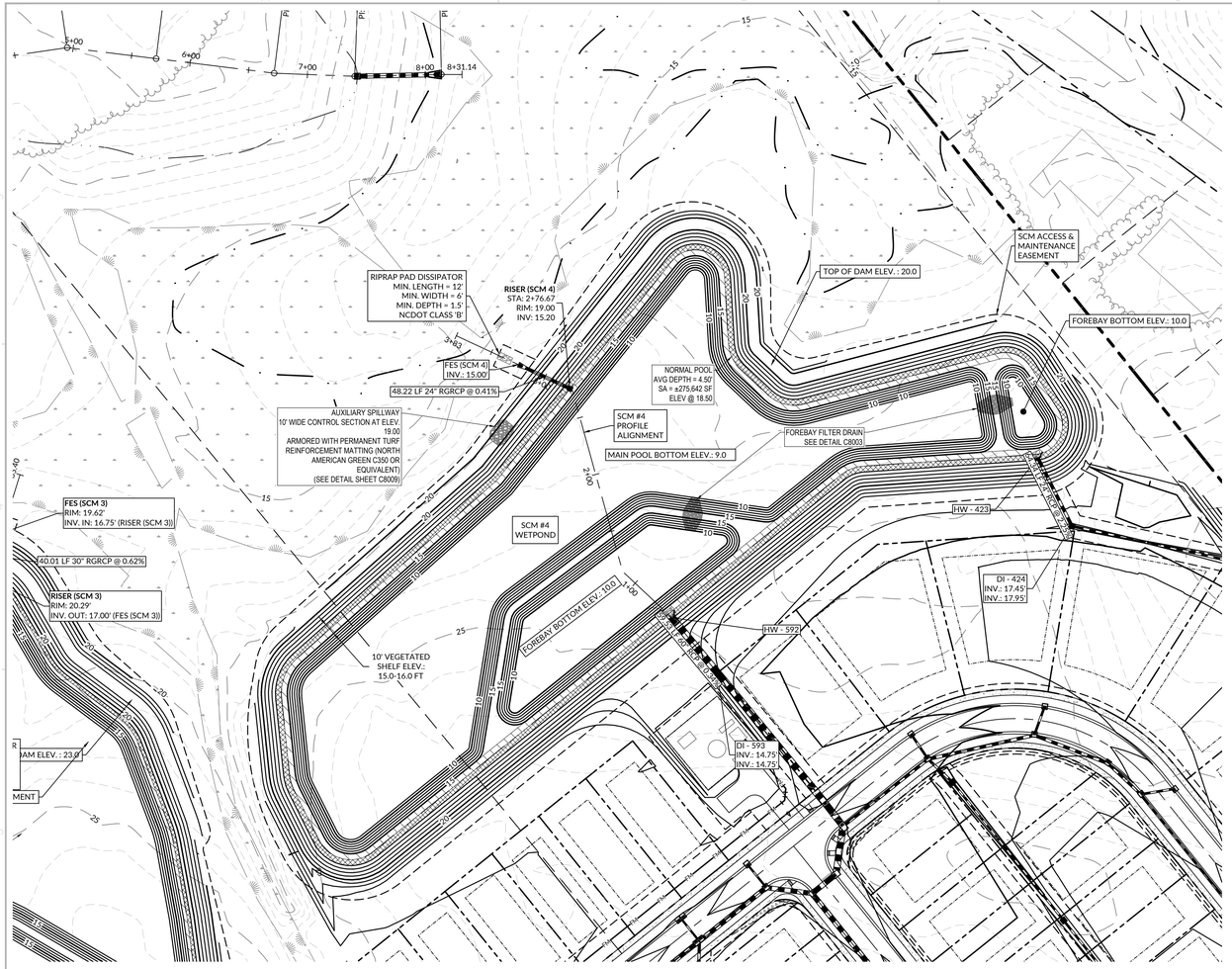
Know what's below. Call 811 before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

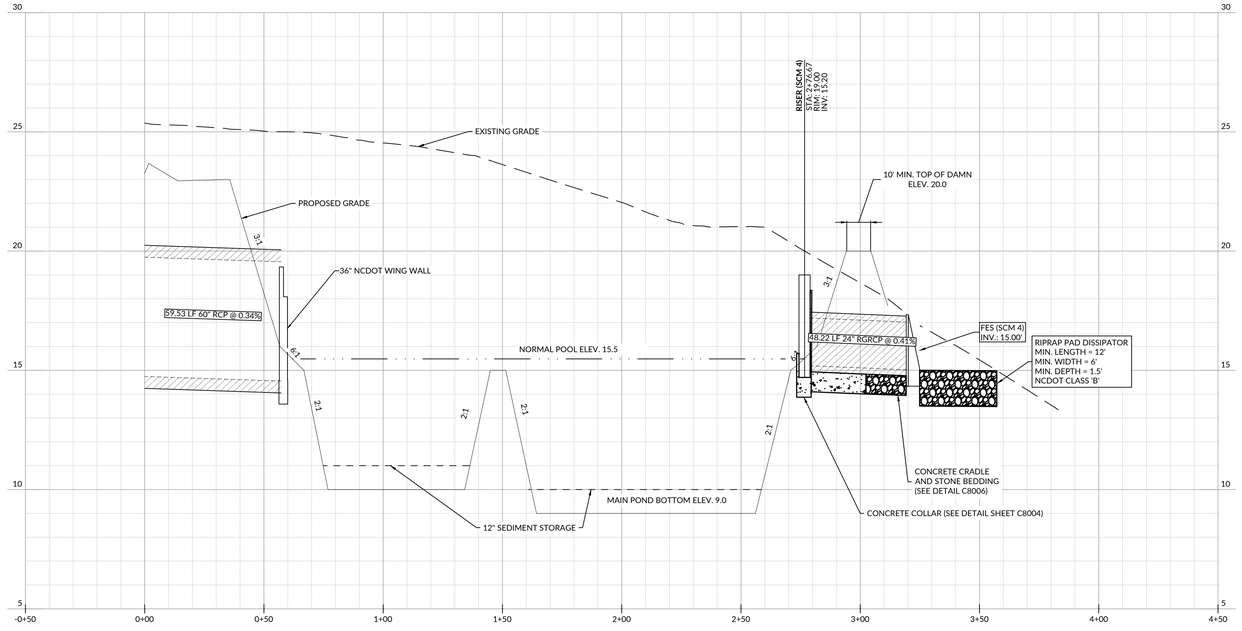
SCM 3 DETAILS

C8.02

J:\25\0329-a-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C8.XX SCM PLAN & DETAILS.dwg Wednesday, October 1, 2025 1:45:03 PM MDYKE



SCM #4 - WET POND PLAN



SCM #4 - WET POND PROFILE

PROFILE VIEW
GRAPHIC SCALE
1" = 30' HORZ.
1" = 3' VERT.
0
3
0
30
60

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NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
KWICHE EL SAID

KEY MAP
N.T.S.

0 30 60
SCALE: 1 inch = 60 ft.

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

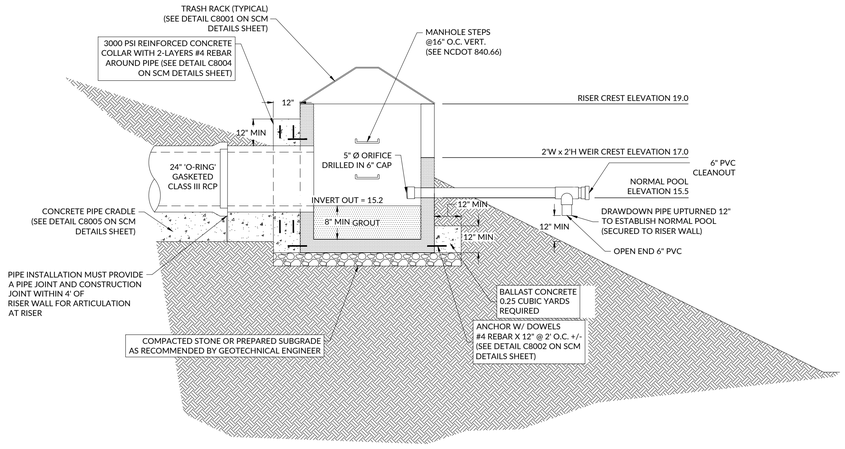
WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

SCM 4 PLAN & PROFILE

C8.03

EST 1983

J:\25\0329-ryan home_pender county_hunkaBill cove\CAD\drawing set\construction\C8.XX SCM PLAN & DETAILS.dwg Wednesday, October 1, 2025 1:45:21 PM - MDYKE



NOTE:
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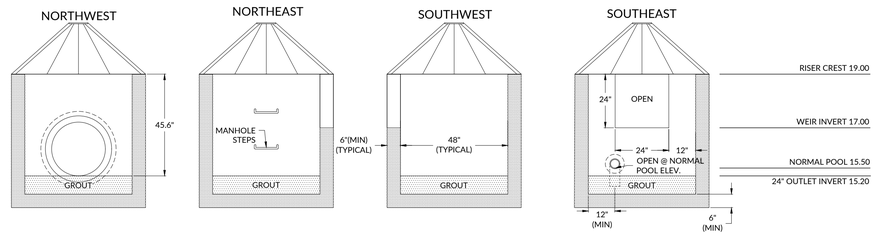
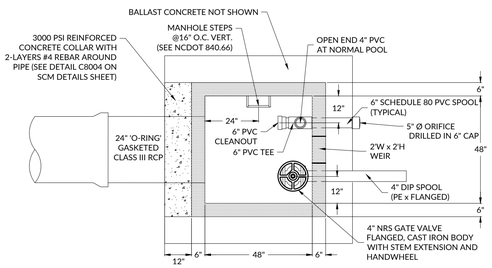
RISER PROFILE - 4X4, 24", LEFT
Scale:NTS

RISER STRUCTURES
C8309



RISER INSIDE WALLS - 4X4, 24", LEFT
Scale:NTS

RISER STRUCTURES
C8311



RISER TOP VIEW - 4X4 - 24 IN - LEFT
Scale:NTS

RISER STRUCTURES
C8310

WET POND STORMWATER CONTROL MEASURE (SCM) GENERAL NOTES:

1. PRIOR TO OR DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THE PLANS OR SPECIFICATIONS.
2. ALL CONSTRUCTION AND MINIMUM DESIGN CRITERIA SHALL BE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL STANDARDS AND SPECIFICATIONS, HEREBY INCORPORATED BY REFERENCE.
3. UPON COMPLETION OF CONSTRUCTION, CERTIFICATION OF THE SCM BY THE GEOTECHNICAL ENGINEER WILL BE REQUIRED PRIOR TO FINAL SCM ACCEPTANCE.
4. THE GEOTECHNICAL ENGINEER SHALL EVALUATE SOILS FOR SUITABILITY OF DAM CONSTRUCTION AND SLOPE STABILITY.
5. PRIOR TO PLACEMENT OF EMBANKMENT FILL, THE GEOTECHNICAL ENGINEER SHALL SUPERVISE THE FOUNDATION PREPARATION AND APPROVE THE DEPTH AND EXTENT OF THE CUTOFF TRENCH, A MINIMUM OF 1 FOOT SHALL BE EXCAVATED.
6. THE DAM AND FOREBAY BERMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS UNLESS SUPERCEDED BY THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
   - BORROW MATERIALS FOR USE AS EMBANKMENT FILL SHALL BE FREE OF ORGANICS, ROOTS AND OTHER WOODY VEGETATION OR ORGANIC DEBRIS.
   - FILL MATERIALS SHALL CONSIST OF SOILS WHICH CLASSIFY AS SC, SM, CL, CL-CH AND ML IN ACCORDANCE WITH THE UNIFIED CLASSIFICATION SYSTEM OR AS APPROVED BY THE GEOTECHNICAL ENGINEER.
   - FILL MATERIALS SHALL HAVE A MAXIMUM PARTICLE SIZE OF 3 INCHES IN MEAN DIAMETER.
   - FILL SHALL BE PLACED IN 8 INCH (MAXIMUM) LOOSE LIFTS FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT AND IN 4 INCH (MAXIMUM) LOOSE LIFTS FOR MATERIAL COMPACTED BY HAND OPERATED TAMPERS UNDER THE SUPERVISION OF THE GEOTECHNICAL ENGINEER OR THEIR REPRESENTATIVE. FILL SHALL BE BROUGHT UP BY BENCHING INTO THE EXISTING SLOPE. A MAXIMUM HEIGHT OF 2 FEET SHALL BE USED FOR EACH BENCH LIFT TAKING CARE TO REMOVE ROOT STRUCTURES AS THE FILL PROCEEDS. THE SURFACE OF EACH LIFT SHALL BE SCARIFIED PRIOR TO PLACEMENT OF THE NEXT LIFT IN ORDER TO EFFECTIVELY TIE THE FILL LIFTS TOGETHER.
   - ALL COMPACTION SHALL BE TESTED BY THE NUCLEAR METHOD (ASTM D-6938) OR SAND CONE METHOD (ASTM D-1556) AT A RATE OF AT LEAST ONE TEST PER 5,000 SF PER ONE FOOT OF COMPACTED FILL THICKNESS IN GENERAL AREA FILLS AND ONE TEST PER 50 LINEAL FEET PER LIFT ALONG THE BARREL.
   - THE MINIMUM COMPACTION SHALL BE A MINIMUM OF 95% OF THE MAXIMUM STANDARD PROCTOR DENSITY (ASTM D-698) AT MOISTURE CONTENTS VARYING FROM 2 PERCENT BELOW TO 3 PERCENT ABOVE OPTIMUM MOISTURE CONTENT DETERMINED BY STANDARD PROCTOR TEST.
7. SUBGRADE FOR THE RISER STRUCTURE AND OUTLET PIPE SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT.IF THE GEOTECHNICAL ENGINEER REQUIRES ADDITIONAL SUBGRADE PREPARATION, THE ADDITIONAL COST SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.
8. THE OUTLET PIPE SHALL BE BEDDED IN CONCRETE FOR 2/3 OF THE PIPE LENGTH, BEGINNING AT THE RISER, AND IN #78 STONE FOR 1/3 OF PIPE LENGTH TO THE OUTLET. SEE DETAILS ON SHEET C8.09.
9. EMBANKMENT AND SIDE SLOPES OF THE BASIN SHALL BE STABILIZED PER SEEDING SCHEDULE ON EROSION CONTROL DETAILS SHEET OR SODDED. SEE LANDSCAPE PLANS FOR FURTHER PLANTING DETAILS.
10. IF, DURING CONSTRUCTION, THE SCM IS TO BE USED AS AN EROSION CONTROL MEASURE, THE FOREBAY BERM(S) SHALL NOT BE INSTALLED DURING THE INITIAL CONSTRUCTION OR WHILE THE SCM IS USED AS AN EROSION CONTROL MEASURE.
11. UNLESS OTHERWISE NOTED, ALL PERMANENT STRUCTURES (e.g. RISER/BARREL, WEIR WALLS, ETC.) ARE TO BE INSTALLED WITH THE INITIAL DAM CONSTRUCTION.
12. FOR SITE BUILT FEATURES (e.g. WEIR WALLS, DROP STRUCTURES, BRIDGES, ETC.), THE CONTRACTOR SHALL PROVIDE STRUCTURAL DRAWINGS TO BE SIGNED AND SEALED BY A NC PROFESSIONAL ENGINEER AND TO THE DESIGN ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
13. PRIOR TO FINAL GRADING OF THE SCM, THE CONTRACTOR SHALL PROVIDE SUFFICIENT AS-BUILT SURVEY INFORMATION TO CONFIRM THAT THE FINISHED SCM WILL MEET THE SPECIFIC DIMENSIONAL REQUIREMENTS APPLICABLE TO THE SCM. THOSE REQUIREMENTS INCLUDE:
   - POND BOTTOM ELEVATION = 9.00 FT
   - DRAWDOWN OVERFLOW ELEVATION (NORMAL POOL) = 15.50 FT
   - MINIMUM SURFACE AREA AT NORMAL POOL ELEVATION = 113,424 SF
   - WEIR CREST ELEVATION= 17.00 FT
   - RISER CREST ELEVATION= 19.00 FT
   - LOW POINT TOP OF EMBANKMENT (AUXILIARY SPILLWAY) = 19.00 FT
   - AVERAGE TOP OF EMBANKMENT = 20.00 FT
15. ELEVATIONS SHALL BE WITHIN 0.1 FEET OF THE ABOVE ELEVATIONS FOR EARTHWORK, AND 0.05 FEET FOR OUTLET STRUCTURE. ALL SURFACE AREAS ARE THE MINIMUM AREAS. REQUEST FOR A REDUCTIONS IN THE MINIMUM VALUES WILL BE CONSIDERED ON A CASE BY CASE BASIS.
16. ONCE THE PROJECT SITE HAS BEEN STABILIZED, CONTRACTOR SHALL OBTAIN APPROVAL BY EROSION CONTROL INSPECTOR IN ORDER TO REMOVE TEMPORARY EROSION CONTROL DEVICES.
   - ONCE ALL SEDIMENT AND EROSION CONTROL DEVICES HAVE BEEN REMOVED, THE SCM SHALL BE CONVERTED TO A PERMANENT SCM.
   - ALL SEDIMENT SHALL BE REMOVED AND DISPOSED OF PROPERLY.
   - FOREBAY AND VEGETATED SHELF SHALL BE CONSTRUCTED AS SHOWN ON THE PLAN.
   - VEGETATED SHELF SHALL BE PLANTED PER PLANT SCHEDULE ON LANDSCAPE PLAN (SEE SHEET LX.X).
17. FINAL CERTIFICATION OF THE SCM BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED IS REQUIRED.

CLAY LINER SPECIFICATIONS:

THE CONTRACTOR SHALL INSTALL A CLAY LINER TO MAINTAIN A PERMANENT POOL AT THE DESIGN ELEVATION. AT A MINIMUM, THE CLAY LINER MATERIAL FOR THE WET POND SHALL MEET THE FOLLOWING SPECIFICATIONS:

- UNIFIED SOIL CLASSIFICATION SYSTEM DESIGNATION OF CL, CH, ML, OR SC
- MINIMUM OF 40% PASSING #200 SIEVE
- MINIMUM PLASTICITY INDEX OF 12
- MAXIMUM PERMEABILITY OF 1 X 10^{-5} cm/sec
- A MINIMUM OF 2 TESTS OF EACH ABOVE PARAMETER SHALL BE PROVIDED FROM AN APPROVED LABORATORY ON THE LINER MATERIAL AND PRESENTED TO THE ENGINEER FOR APPROVAL PRIOR TO PLACEMENT OF THE MATERIAL.
- COMPACTION TO A MINIMUM OF 95% OF THE MAXIMUM STANDARD PROCTOR DENSITY (ASTM D-698), AND WITHIN 3% OF THE OPTIMUM MOISTURE CONTENT (MINIMUM OF 1 COMPACTION DENSITY TEST PER 2500 SQUARE FEET).
- AN IN-PLACE MAXIMUM INFILTRATION RATE OF 0.01 INCHES PER HOUR.
- RECOMMENDATIONS OF THE SITE GEOTECHNICAL ENGINEER MAY SUPERCEDE THE ABOVE SPECIFICATIONS.

THE CLAY LINER SHALL BE PLACED UNDER THE BOTTOM OF THE SCM PERMANENT POOL TO A MINIMUM THICKNESS OF 8 INCHES. A MINIMUM OF 4 INCHES OF TOPSOIL SHALL BE PLACED ABOVE THE CLAY LINER TO THE FINISHED GRADE AS SHOWN ON THE DRAWINGS AND/OR DETAILS. CARE SHALL BE TAKEN WHEN PLACING THE TOPSOIL SO AS NOT TO DAMAGE THE CLAY LINER. A CLAY/SOIL, NO ORGANICS, MIXTURE MAY BE USED IF THE ABOVE SPECIFICATIONS ARE SATISFIED AND WITH WRITTEN APPROVAL BY THE GEOTECHNICAL ENGINEER.

THE REQUIREMENT FOR A CLAY LINER CAN BE WAIVED IF ONE OF THE FOLLOWING IS PROVIDED TO THE ENGINEER FOR REVIEW AND APPROVAL:

1. A SIGNED/SEALED GEOTECHNICAL REPORT INDICATING THAT THE INSITU SOILS MEET THE MINIMUM SPECIFICATIONS DESCRIBED ABOVE FOR THE CLAY LINER OR
2. AN INFILTRATION TEST IS CONDUCTED AT POND BOTTOM FINISHED GRADE ILLUSTRATING THAT INSITU SOILS MEET THE ABOVE PERMEABILITY REQUIREMENT.

IF THE CLAY LINER IS NOT INSTALLED, THE OWNER SHALL RECEIVE A CREDIT FOR THE DELETION OF THE LINER.

PRECAST CONCRETE MATERIALS NOTES:

1. ALL PRECAST CONCRETE STRUCTURES SHALL CONFORM TO ASTM C913 (RECTANGULAR) OR C478 (ROUND).
2. ALL REINFORCED CONCRETE PIPE SHALL CONFORM TO ASTM C76, CLASS III (UNLESS OTHERWISE NOTED),
   - 2.1. O-RING JOINTS (RGRCP) SHALL CONFORM TO ASTM C443 & ASTM C361.
   - 2.2. NON O-RING JOINTS (RCP) SHALL CONFORM TO ASTM C990

WET POND NOTES
Scale:NTS

WET POND DETAILS
C8200

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
NICHE ELSA

KEY MAP
N.T.S.

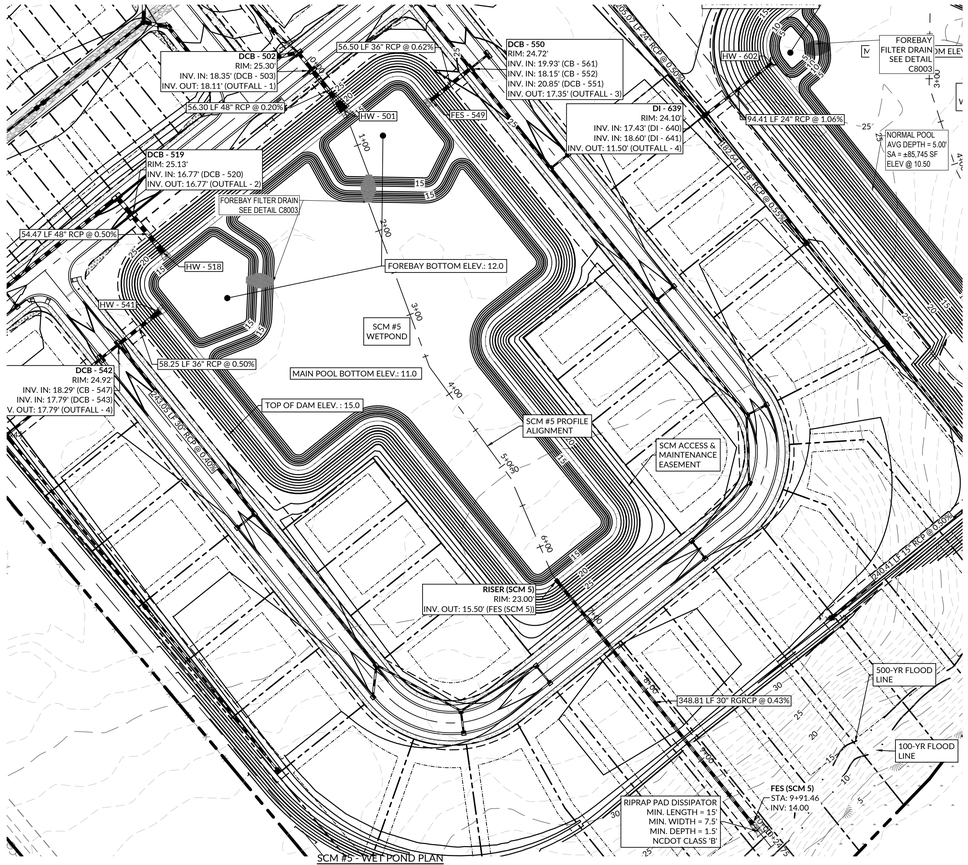
Know what's below. Call 811 before you dig.

WR JOB NUMBER		25-0329-A
DRN: WR	DGN: WR	CKD: WR

SCM 4 DETAILS

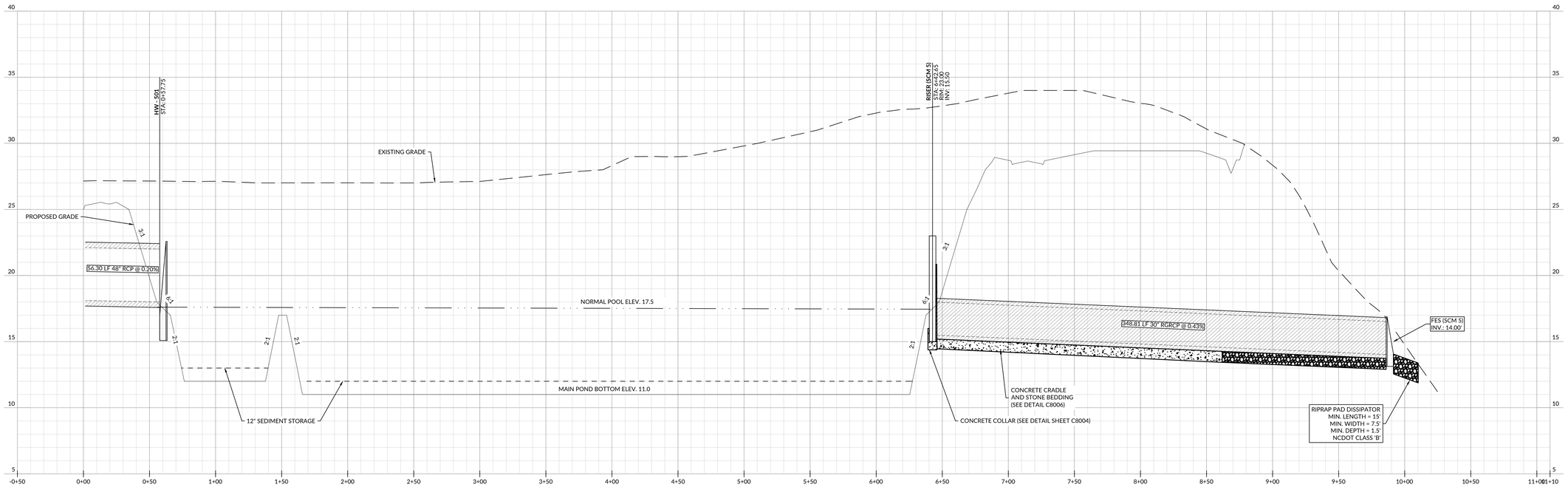
C8.04

j:\25\0329-x ryan homes, pender county, hawksbill cove\CAD\drawing set\construction\C8.XX SCM PLAN & DETAILS.dwg - Wednesday, October 1, 2025 1:45:55 PM - MDYKE



SCM #5 - WETPOND PLAN

PROFILE VIEW
GRAPHIC SCALE
1" = 40' HORZ.
1" = 4' VERT.
0 40 80



SCM #5 - WET POND PROFILE

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MICHELE EL SAID

KEY MAP
N.T.S.

Know what's below.
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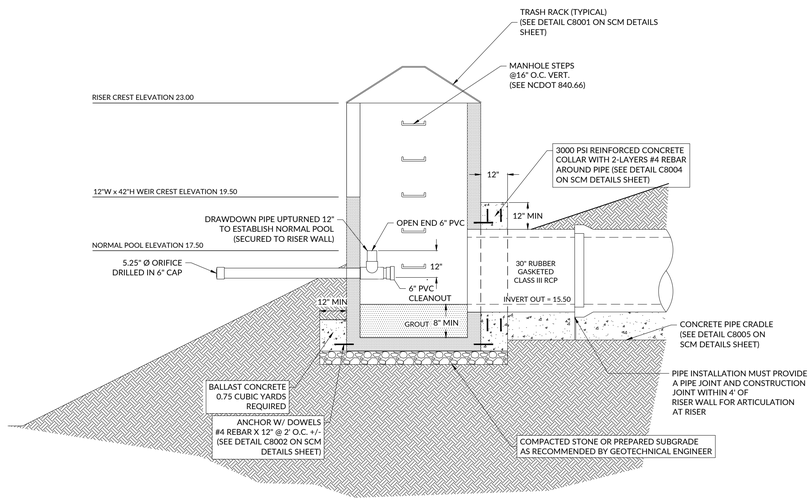
WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

SCM 5 PLAN & PROFILE

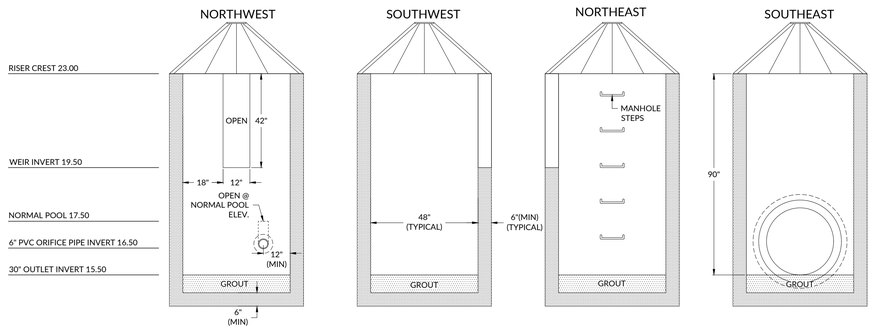
C8.05

J:\25\0329-a-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C8.XX SCM PLAN & DETAILS.dwg Wednesday, October 1, 2025 1:44:14 PM MDYKE

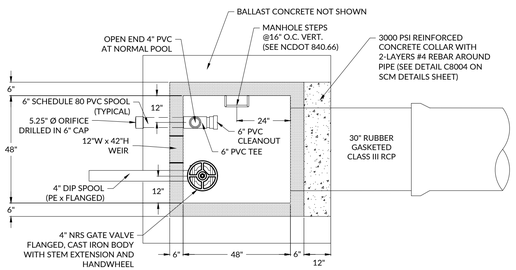


NOTE:
RISER AND BALLAST CONCRETE HAVE BEEN SIZED BASED ON BUOYANCY CALCULATIONS. ADJUSTMENTS TO CONCRETE DIMENSIONS ARE NOT PERMITTED WITHOUT PRIOR WRITTEN APPROVAL. ANY DIMENSIONAL CHANGES TO BALLAST CONCRETE BASE AND RISER MUST BE REQUESTED IN WRITING AND MUST BE ACCOMPANIED BY BUOYANCY CALCULATIONS SIGNED AND SEALED BY A NORTH CAROLINA REGISTERED PROFESSIONAL ENGINEER.

RISER PROFILE - 4X4, 30", RIGHT — RISER STRUCTURES
Scale:NTS — C8300



RISER INSIDE WALLS - 4X4, 30", RIGHT — RISER STRUCTURES
Scale:NTS — C8302



RISER TOP VIEW - 4X4, 30", RIGHT — RISER STRUCTURES
Scale:NTS — C8301

WET POND STORMWATER CONTROL MEASURE (SCM)
GENERAL NOTES:

1. PRIOR TO OR DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THE PLANS OR SPECIFICATIONS.
2. ALL CONSTRUCTION AND MINIMUM DESIGN CRITERIA SHALL BE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL STANDARDS AND SPECIFICATIONS, HEREBY INCORPORATED BY REFERENCE.
3. UPON COMPLETION OF CONSTRUCTION, CERTIFICATION OF THE SCM BY THE GEOTECHNICAL ENGINEER WILL BE REQUIRED PRIOR TO FINAL SCM ACCEPTANCE.
4. THE GEOTECHNICAL ENGINEER SHALL EVALUATE SOILS FOR SUITABILITY OF DAM CONSTRUCTION AND SLOPE STABILITY.
5. PRIOR TO PLACEMENT OF EMBANKMENT FILL, THE GEOTECHNICAL ENGINEER SHALL SUPERVISE THE FOUNDATION PREPARATION AND APPROVE THE DEPTH AND EXTENT OF THE CUTOFF TRENCH, A MINIMUM OF 1 FOOT SHALL BE EXCAVATED.
6. THE DAM AND FOREBAY BERMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS UNLESS SUPERCEDED BY THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
   - BORROW MATERIALS FOR USE AS EMBANKMENT FILL SHALL BE FREE OF ORGANICS, ROOTS AND OTHER WOODY VEGETATION OR ORGANIC DEBRIS.
   - FILL MATERIALS SHALL CONSIST OF SOILS WHICH CLASSIFY AS SC, SM, CL, CL-CH AND ML IN ACCORDANCE WITH THE UNIFIED CLASSIFICATION SYSTEM OR AS APPROVED BY THE GEOTECHNICAL ENGINEER.
   - FILL MATERIALS SHALL HAVE A MAXIMUM PARTICLE SIZE OF 3 INCHES IN MEAN DIAMETER.
   - FILL SHALL BE PLACED IN 8 INCH (MAXIMUM) LOOSE LIFTS FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT AND IN 4 INCH (MAXIMUM) LOOSE LIFTS FOR MATERIAL COMPACTED BY HAND OPERATED TAMPERS UNDER THE SUPERVISION OF THE GEOTECHNICAL ENGINEER OR THEIR REPRESENTATIVE. FILL SHALL BE BROUGHT UP BY BENCHING INTO THE EXISTING SLOPE. A MAXIMUM HEIGHT OF 2 FEET SHALL BE USED FOR EACH BENCH LIFT TAKING CARE TO REMOVE ROOT STRUCTURES AS THE FILL PROCEEDS. THE SURFACE OF EACH LIFT SHALL BE SCARIFIED PRIOR TO PLACEMENT OF THE NEXT LIFT IN ORDER TO EFFECTIVELY TIE THE FILL LIFTS TOGETHER.
   - ALL COMPACTION SHALL BE TESTED BY THE NUCLEAR METHOD (ASTM D-6938) OR SAND CONE METHOD (ASTM D-1556) AT A RATE OF AT LEAST ONE TEST PER 5,000 SF PER ONE FOOT OF COMPACTED FILL THICKNESS IN GENERAL AREA FILLS AND ONE TEST PER 50 LINEAL FEET PER LIFT ALONG THE BARREL.
   - THE MINIMUM COMPACTION SHALL BE A MINIMUM OF 95% OF THE MAXIMUM STANDARD PROCTOR DENSITY (ASTM D-698) AT MOISTURE CONTENTS VARYING FROM 2 PERCENT BELOW TO 3 PERCENT ABOVE OPTIMUM MOISTURE CONTENT DETERMINED BY STANDARD PROCTOR TEST.
7. SUBGRADE FOR THE RISER STRUCTURE AND OUTLET PIPE SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT.IF THE GEOTECHNICAL ENGINEER REQUIRES ADDITIONAL SUBGRADE PREPARATION, THE ADDITIONAL COST SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.
8. THE OUTLET PIPE SHALL BE BEDDED IN CONCRETE FOR 2/3 OF THE PIPE LENGTH, BEGINNING AT THE RISER, AND IN #78 STONE FOR 1/3 OF PIPE LENGTH TO THE OUTLET. SEE DETAILS ON SHEET C8.09.
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10. IF, DURING CONSTRUCTION, THE SCM IS TO BE USED AS AN EROSION CONTROL MEASURE, THE FOREBAY BERM(S) SHALL NOT BE INSTALLED DURING THE INITIAL CONSTRUCTION OR WHILE THE SCM IS USED AS AN EROSION CONTROL MEASURE.
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12. FOR SITE BUILT FEATURES (e.g. WEIR WALLS, DROP STRUCTURES, BRIDGES, ETC.), THE CONTRACTOR SHALL PROVIDE STRUCTURAL DRAWINGS TO BE SIGNED AND SEALED BY A NC PROFESSIONAL ENGINEER AND TO THE DESIGN ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
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   - POND BOTTOM ELEVATION = 11.00 FT
   - DRAWDOWN OVERFLOW ELEVATION (NORMAL POOL) = 17.50 FT
   - MINIMUM SURFACE AREA AT NORMAL POOL ELEVATION = 143,876 SF
   - WEIR CREST ELEVATION= 19.50 FT
   - RISER CREST ELEVATION= 23.00 FT
   - LOW POINT TOP OF EMBANKMENT (AUXILIARY SPILLWAY) = 24.00 FT
   - AVERAGE TOP OF EMBANKMENT = 25.00 FT
15. ELEVATIONS SHALL BE WITHIN 0.1 FEET OF THE ABOVE ELEVATIONS FOR EARTHWORK, AND 0.05 FEET FOR OUTLET STRUCTURE. ALL SURFACE AREAS ARE THE MINIMUM AREAS. REQUEST FOR A REDUCTIONS IN THE MINIMUM VALUES WILL BE CONSIDERED ON A CASE BY CASE BASIS.
16. ONCE THE PROJECT SITE HAS BEEN STABILIZED, CONTRACTOR SHALL OBTAIN APPROVAL BY EROSION CONTROL INSPECTOR IN ORDER TO REMOVE TEMPORARY EROSION CONTROL DEVICES.
   - ONCE ALL SEDIMENT AND EROSION CONTROL DEVICES HAVE BEEN REMOVED, THE SCM SHALL BE CONVERTED TO A PERMANENT SCM.
   - ALL SEDIMENT SHALL BE REMOVED AND DISPOSED OF PROPERLY.
   - FOREBAY AND VEGETATED SHELF SHALL BE CONSTRUCTED AS SHOWN ON THE PLAN.
   - VEGETATED SHELF SHALL BE PLANTED PER PLANT SCHEDULE ON LANDSCAPE PLAN (SEE SHEET LX.X).
17. FINAL CERTIFICATION OF THE SCM BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED IS REQUIRED.

CLAY LINER SPECIFICATIONS:

THE CONTRACTOR SHALL INSTALL A CLAY LINER TO MAINTAIN A PERMANENT POOL AT THE DESIGN ELEVATION. AT A MINIMUM, THE CLAY LINER MATERIAL FOR THE WET POND SHALL MEET THE FOLLOWING SPECIFICATIONS:

- UNIFIED SOIL CLASSIFICATION SYSTEM DESIGNATION OF CL, CH, ML, OR SC
- MINIMUM OF 40% PASSING #200 SIEVE
- MINIMUM PLASTICITY INDEX OF 12
- MAXIMUM PERMEABILITY OF 1 X 10^{-5} cm/sec
- A MINIMUM OF 2 TESTS OF EACH ABOVE PARAMETER SHALL BE PROVIDED FROM AN APPROVED LABORATORY ON THE LINER MATERIAL AND PRESENTED TO THE ENGINEER FOR APPROVAL PRIOR TO PLACEMENT OF THE MATERIAL.
- COMPACTION TO A MINIMUM OF 95% OF THE MAXIMUM STANDARD PROCTOR DENSITY (ASTM D-698), AND WITHIN 3% OF THE OPTIMUM MOISTURE CONTENT (MINIMUM OF 1 COMPACTION DENSITY TEST PER 2500 SQUARE FEET).
- AN IN-PLACE MAXIMUM INFILTRATION RATE OF 0.01 INCHES PER HOUR.
- RECOMMENDATIONS OF THE SITE GEOTECHNICAL ENGINEER MAY SUPERCEDE THE ABOVE SPECIFICATIONS.

THE CLAY LINER SHALL BE PLACED UNDER THE BOTTOM OF THE SCM PERMANENT POOL TO A MINIMUM THICKNESS OF 8 INCHES. A MINIMUM OF 4 INCHES OF TOPSOIL SHALL BE PLACED ABOVE THE CLAY LINER TO THE FINISHED GRADE AS SHOWN ON THE DRAWINGS AND/OR DETAILS. CARE SHALL BE TAKEN WHEN PLACING THE TOPSOIL SO AS NOT TO DAMAGE THE CLAY LINER. A CLAY/SOIL, NO ORGANICS, MIXTURE MAY BE USED IF THE ABOVE SPECIFICATIONS ARE SATISFIED AND WITH WRITTEN APPROVAL BY THE GEOTECHNICAL ENGINEER.

THE REQUIREMENT FOR A CLAY LINER CAN BE WAIVED IF ONE OF THE FOLLOWING IS PROVIDED TO THE ENGINEER FOR REVIEW AND APPROVAL:

1. A SIGNED/SEALED GEOTECHNICAL REPORT INDICATING THAT THE INSITU SOILS MEET THE MINIMUM SPECIFICATIONS DESCRIBED ABOVE FOR THE CLAY LINER OR
2. AN INFILTRATION TEST IS CONDUCTED AT POND BOTTOM FINISHED GRADE ILLUSTRATING THAT INSITU SOILS MEET THE ABOVE PERMEABILITY REQUIREMENT.

IF THE CLAY LINER IS NOT INSTALLED, THE OWNER SHALL RECEIVE A CREDIT FOR THE DELETION OF THE LINER.

PRECAST CONCRETE MATERIALS NOTES:

1. ALL PRECAST CONCRETE STRUCTURES SHALL CONFORM TO ASTM C913 (RECTANGULAR) OR C478 (ROUND),
2. ALL REINFORCED CONCRETE PIPE SHALL CONFORM TO ASTM C76, CLASS III (UNLESS OTHERWISE NOTED),
   2.1. O-RING JOINTS (RGRCP) SHALL CONFORM TO ASTM C443 & ASTM C361.
   2.2. NON O-RING JOINTS (RCP) SHALL CONFORM TO ASTM C990

WET POND NOTES — WET POND DETAILS
Scale:NTS — C8200

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NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
MICHELE EL SAID

KEY MAP
N.T.S.

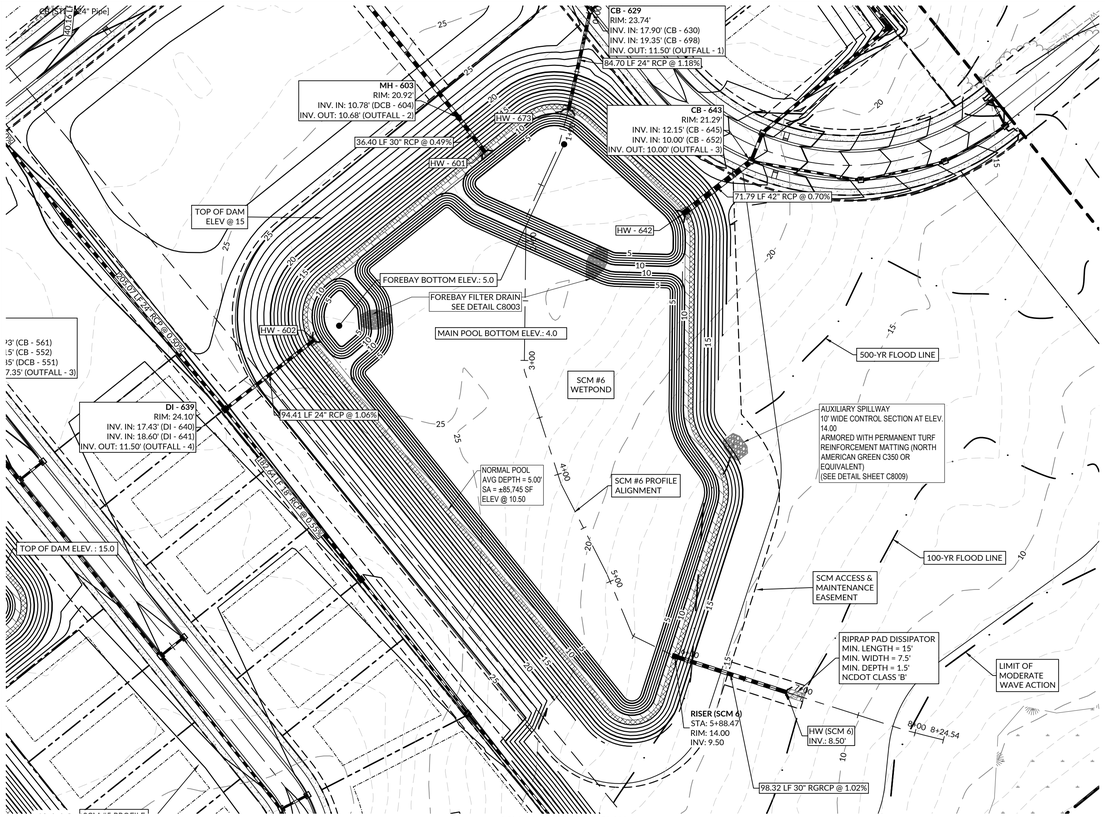
Know what's below. Call 811 before you dig.

WR JOB NUMBER		25-0329-A
DRN: WR	DGN: WR	CKD: WR

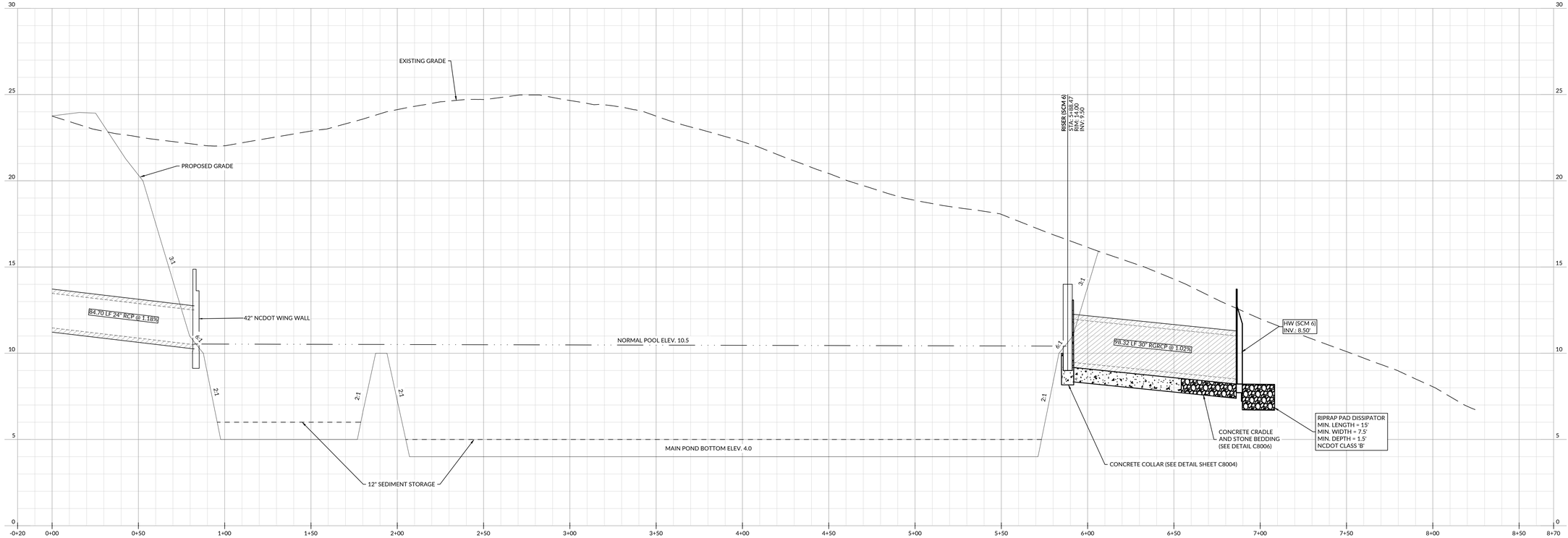
SCM 5 DETAILS

C8.06

J:\25\0329-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C8.XX SCM PLAN & DETAILS.dwg - Wednesday, October 1, 2025 1:44:53 PM - MDYKE



SCM #6 - WET POND PLAN



SCM #6 - WET POND PROFILE

PROFILE VIEW
GRAPHIC SCALE
1" = 30' HORZ.
1" = 3' VERT.
0 30 60
3 0

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NORTH CAROLINA
PRELIMINARY
NOT APPROVED
FOR CONSTRUCTION
KWICHE EL SAID

KEY MAP
N.T.S.

0 30 60
SCALE: 1 inch = 60 ft.

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

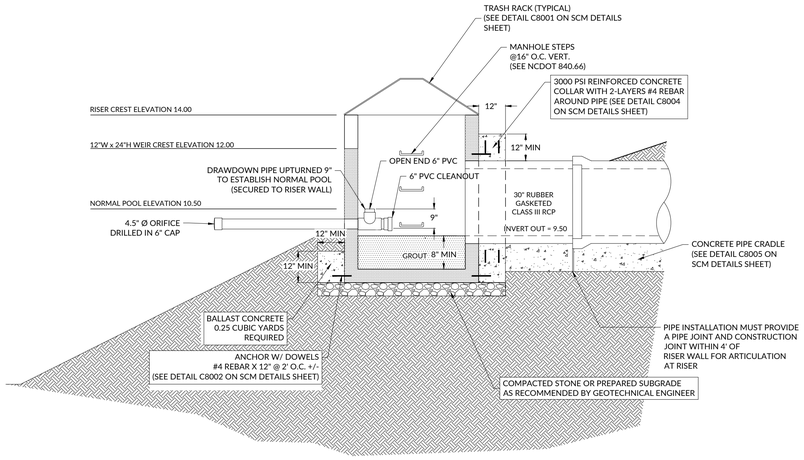
WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

SCM 6 PLAN & PROFILE

C8.07

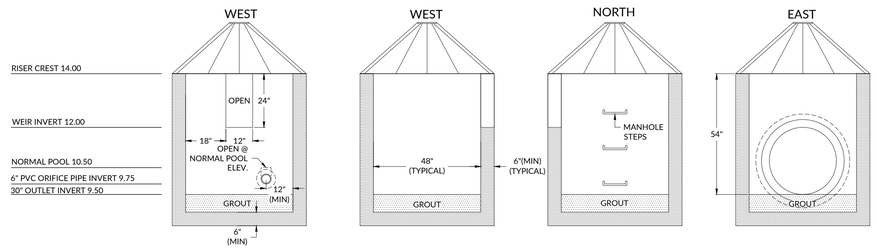
EST 1983

j:\25\0329-a-ryan home_pender county_hawksbill cove\CAD\drawing set\construction\C8.XX SCM PLAN & DETAILS.dwg - Wednesday, October 1, 2025 1:47:02 PM - NDYKE

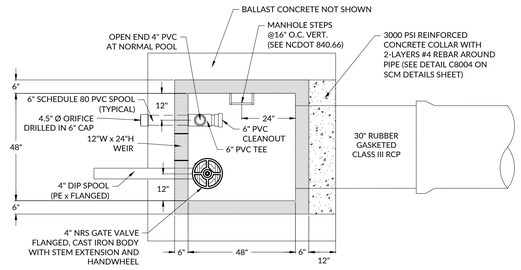


NOTE:
RISER AND BALLAST CONCRETE HAVE BEEN SIZED BASED ON BUOYANCY CALCULATIONS. ADJUSTMENTS TO CONCRETE DIMENSIONS ARE NOT PERMITTED WITHOUT PRIOR WRITTEN APPROVAL. ANY DIMENSIONAL CHANGES TO BALLAST CONCRETE BASE AND RISER MUST BE REQUESTED IN WRITING AND MUST BE ACCOMPANIED BY BUOYANCY CALCULATIONS SIGNED AND SEALED BY A NORTH CAROLINA REGISTERED PROFESSIONAL ENGINEER.

RISER PROFILE - 4X4, 30", RIGHT — RISER STRUCTURES
Scale:NTS — C8300



RISER INSIDE WALLS - 4X4, 30", RIGHT — RISER STRUCTURES
Scale:NTS — C8302



RISER TOP VIEW - 4X4, 30", RIGHT — RISER STRUCTURES
Scale:NTS — C8301

WET POND STORMWATER CONTROL MEASURE (SCM) GENERAL NOTES:

1. PRIOR TO OR DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THE PLANS OR SPECIFICATIONS.
2. ALL CONSTRUCTION AND MINIMUM DESIGN CRITERIA SHALL BE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL STANDARDS AND SPECIFICATIONS, HEREBY INCORPORATED BY REFERENCE.
3. UPON COMPLETION OF CONSTRUCTION, CERTIFICATION OF THE SCM BY THE GEOTECHNICAL ENGINEER WILL BE REQUIRED PRIOR TO FINAL SCM ACCEPTANCE.
4. THE GEOTECHNICAL ENGINEER SHALL EVALUATE SOILS FOR SUITABILITY OF DAM CONSTRUCTION AND SLOPE STABILITY.
5. PRIOR TO PLACEMENT OF EMBANKMENT FILL, THE GEOTECHNICAL ENGINEER SHALL SUPERVISE THE FOUNDATION PREPARATION AND APPROVE THE DEPTH AND EXTENT OF THE CUTOFF TRENCH, A MINIMUM OF 1 FOOT SHALL BE EXCAVATED.
6. THE DAM AND FOREBAY BERMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS UNLESS SUPERCEDED BY THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
   - BORROW MATERIALS FOR USE AS EMBANKMENT FILL SHALL BE FREE OF ORGANICS, ROOTS AND OTHER WOODY VEGETATION OR ORGANIC DEBRIS.
   - FILL MATERIALS SHALL CONSIST OF SOILS WHICH CLASSIFY AS SC, SM, CL, CL-CH AND ML IN ACCORDANCE WITH THE UNIFIED CLASSIFICATION SYSTEM OR AS APPROVED BY THE GEOTECHNICAL ENGINEER.
   - FILL MATERIALS SHALL HAVE A MAXIMUM PARTICLE SIZE OF 3 INCHES IN MEAN DIAMETER.
   - FILL SHALL BE PLACED IN 8 INCH (MAXIMUM) LOOSE LIFTS FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT AND IN 4 INCH (MAXIMUM) LOOSE LIFTS FOR MATERIAL COMPACTED BY HAND OPERATED TAMPERS UNDER THE SUPERVISION OF THE GEOTECHNICAL ENGINEER OR THEIR REPRESENTATIVE. FILL SHALL BE BROUGHT UP BY BENCHING INTO THE EXISTING SLOPE. A MAXIMUM HEIGHT OF 2 FEET SHALL BE USED FOR EACH BENCH LIFT TAKING CARE TO REMOVE ROOT STRUCTURES AS THE FILL PROCEEDS. THE SURFACE OF EACH LIFT SHALL BE SCARIFIED PRIOR TO PLACEMENT OF THE NEXT LIFT IN ORDER TO EFFECTIVELY TIE THE FILL LIFTS TOGETHER.
   - ALL COMPACTION SHALL BE TESTED BY THE NUCLEAR METHOD (ASTM D-6938) OR SAND CONE METHOD (ASTM D-1556) AT A RATE OF AT LEAST ONE TEST PER 5,000 SF PER ONE FOOT OF COMPACTED FILL THICKNESS IN GENERAL AREA FILLS AND ONE TEST PER 50 LINEAL FEET PER LIFT ALONG THE BARREL.
   - THE MINIMUM COMPACTION SHALL BE A MINIMUM OF 95% OF THE MAXIMUM STANDARD PROCTOR DENSITY (ASTM D-698) AT MOISTURE CONTENTS VARYING FROM 2 PERCENT BELOW TO 3 PERCENT ABOVE OPTIMUM MOISTURE CONTENT DETERMINED BY STANDARD PROCTOR TEST.
7. SUBGRADE FOR THE RISER STRUCTURE AND OUTLET PIPE SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT.IF THE GEOTECHNICAL ENGINEER REQUIRES ADDITIONAL SUBGRADE PREPARATION, THE ADDITIONAL COST SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.
8. THE OUTLET PIPE SHALL BE BEDDED IN CONCRETE FOR 2/3 OF THE PIPE LENGTH, BEGINNING AT THE RISER, AND IN #78 STONE FOR 1/3 OF PIPE LENGTH TO THE OUTLET. SEE DETAILS ON SHEET C8.09.
9. EMBANKMENT AND SIDE SLOPES OF THE BASIN SHALL BE STABILIZED PER SEEDING SCHEDULE ON EROSION CONTROL DETAILS SHEET OR SODDED. SEE LANDSCAPE PLANS FOR FURTHER PLANTING DETAILS.
10. IF, DURING CONSTRUCTION, THE SCM IS TO BE USED AS AN EROSION CONTROL MEASURE, THE FOREBAY BERM(S) SHALL NOT BE INSTALLED DURING THE INITIAL CONSTRUCTION OR WHILE THE SCM IS USED AS AN EROSION CONTROL MEASURE.
11. UNLESS OTHERWISE NOTED, ALL PERMANENT STRUCTURES (e.g. RISER/BARREL, WEIR WALLS, ETC.) ARE TO BE INSTALLED WITH THE INITIAL DAM CONSTRUCTION.
12. FOR SITE BUILT FEATURES (e.g. WEIR WALLS, DROP STRUCTURES, BRIDGES, ETC.), THE CONTRACTOR SHALL PROVIDE STRUCTURAL DRAWINGS TO BE SIGNED AND SEALED BY A NC PROFESSIONAL ENGINEER AND TO THE DESIGN ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
13. PRIOR TO FINAL GRADING OF THE SCM, THE CONTRACTOR SHALL PROVIDE SUFFICIENT AS-BUILT SURVEY INFORMATION TO CONFIRM THAT THE FINISHED SCM WILL MEET THE SPECIFIC DIMENSIONAL REQUIREMENTS APPLICABLE TO THE SCM. THOSE REQUIREMENTS INCLUDE:
   - POND BOTTOM ELEVATION = 4.00 FT
   - DRAWDOWN OVERFLOW ELEVATION (NORMAL POOL) = 10.50 FT
   - MINIMUM SURFACE AREA AT NORMAL POOL ELEVATION = 97,936 SF
   - WEIR CREST ELEVATION= 12.00 FT
   - RISER CREST ELEVATION= 14.00 FT
   - LOW POINT TOP OF EMBANKMENT (AUXILIARY SPILLWAY) = 14.00 FT
   - AVERAGE TOP OF EMBANKMENT = 15.00 FT
15. ELEVATIONS SHALL BE WITHIN 0.1 FEET OF THE ABOVE ELEVATIONS FOR EARTHWORK, AND 0.05 FEET FOR OUTLET STRUCTURE. ALL SURFACE AREAS ARE THE MINIMUM AREAS. REQUEST FOR A REDUCTIONS IN THE MINIMUM VALUES WILL BE CONSIDERED ON A CASE BY CASE BASIS.
16. ONCE THE PROJECT SITE HAS BEEN STABILIZED, CONTRACTOR SHALL OBTAIN APPROVAL BY EROSION CONTROL INSPECTOR IN ORDER TO REMOVE TEMPORARY EROSION CONTROL DEVICES.
   - ONCE ALL SEDIMENT AND EROSION CONTROL DEVICES HAVE BEEN REMOVED, THE SCM SHALL BE CONVERTED TO A PERMANENT SCM.
   - ALL SEDIMENT SHALL BE REMOVED AND DISPOSED OF PROPERLY.
   - FOREBAY AND VEGETATED SHELF SHALL BE CONSTRUCTED AS SHOWN ON THE PLAN.
   - VEGETATED SHELF SHALL BE PLANTED PER PLANT SCHEDULE ON LANDSCAPE PLAN (SEE SHEET LX.X).
17. FINAL CERTIFICATION OF THE SCM BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED IS REQUIRED.

CLAY LINER SPECIFICATIONS:

THE CONTRACTOR SHALL INSTALL A CLAY LINER TO MAINTAIN A PERMANENT POOL AT THE DESIGN ELEVATION. AT A MINIMUM, THE CLAY LINER MATERIAL FOR THE WET POND SHALL MEET THE FOLLOWING SPECIFICATIONS:

- UNIFIED SOIL CLASSIFICATION SYSTEM DESIGNATION OF CL, CH, ML, OR SC
- MINIMUM OF 40% PASSING #200 SIEVE
- MINIMUM PLASTICITY INDEX OF 12
- MAXIMUM PERMEABILITY OF 1 X 10^{-5} cm/sec
- A MINIMUM OF 2 TESTS OF EACH ABOVE PARAMETER SHALL BE PROVIDED FROM AN APPROVED LABORATORY ON THE LINER MATERIAL AND PRESENTED TO THE ENGINEER FOR APPROVAL PRIOR TO PLACEMENT OF THE MATERIAL.
- COMPACTION TO A MINIMUM OF 95% OF THE MAXIMUM STANDARD PROCTOR DENSITY (ASTM D-698), AND WITHIN 3% OF THE OPTIMUM MOISTURE CONTENT (MINIMUM OF 1 COMPACTION DENSITY TEST PER 2500 SQUARE FEET).
- AN IN-PLACE MAXIMUM INFILTRATION RATE OF 0.01 INCHES PER HOUR.
- RECOMMENDATIONS OF THE SITE GEOTECHNICAL ENGINEER MAY SUPERCEDE THE ABOVE SPECIFICATIONS.

THE CLAY LINER SHALL BE PLACED UNDER THE BOTTOM OF THE SCM PERMANENT POOL TO A MINIMUM THICKNESS OF 8 INCHES. A MINIMUM OF 4 INCHES OF TOPSOIL SHALL BE PLACED ABOVE THE CLAY LINER TO THE FINISHED GRADE AS SHOWN ON THE DRAWINGS AND/OR DETAILS. CARE SHALL BE TAKEN WHEN PLACING THE TOPSOIL SO AS NOT TO DAMAGE THE CLAY LINER. A CLAY/SOIL, NO ORGANICS, MIXTURE MAY BE USED IF THE ABOVE SPECIFICATIONS ARE SATISFIED AND WITH WRITTEN APPROVAL BY THE GEOTECHNICAL ENGINEER.

THE REQUIREMENT FOR A CLAY LINER CAN BE WAIVED IF ONE OF THE FOLLOWING IS PROVIDED TO THE ENGINEER FOR REVIEW AND APPROVAL:

1. A SIGNED/SEALED GEOTECHNICAL REPORT INDICATING THAT THE INSITU SOILS MEET THE MINIMUM SPECIFICATIONS DESCRIBED ABOVE FOR THE CLAY LINER OR
2. AN INFILTRATION TEST IS CONDUCTED AT POND BOTTOM FINISHED GRADE ILLUSTRATING THAT INSITU SOILS MEET THE ABOVE PERMEABILITY REQUIREMENT.

IF THE CLAY LINER IS NOT INSTALLED, THE OWNER SHALL RECEIVE A CREDIT FOR THE DELETION OF THE LINER.

PRECAST CONCRETE MATERIALS NOTES:

1. ALL PRECAST CONCRETE STRUCTURES SHALL CONFORM TO ASTM C913 (RECTANGULAR) OR C478 (ROUND).
2. ALL REINFORCED CONCRETE PIPE SHALL CONFORM TO ASTM C76, CLASS III (UNLESS OTHERWISE NOTED),
   - 2.1. O-RING JOINTS (RGRCP) SHALL CONFORM TO ASTM C443 & ASTM C361.
   - 2.2. NON O-RING JOINTS (RCP) SHALL CONFORM TO ASTM C990

WET POND NOTES — WET POND DETAILS
Scale:NTS — C8200

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SEAL 049993

KEY MAP
N.T.S.

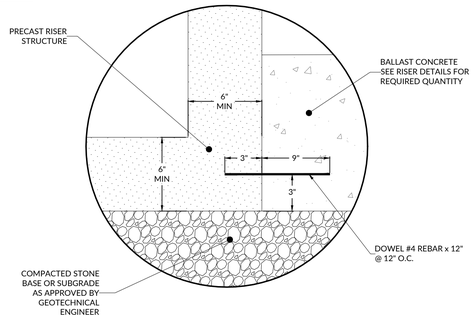
Know what's below. Call before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

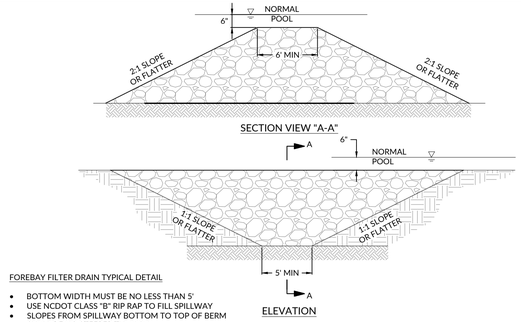
SCM 6 DETAILS

C8.08

J:\25\0329-a-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C8.XX SCM PLAN 6.DETAILS.dwg Wednesday, October 1, 2025 1:47:29 PM by MSOYKE



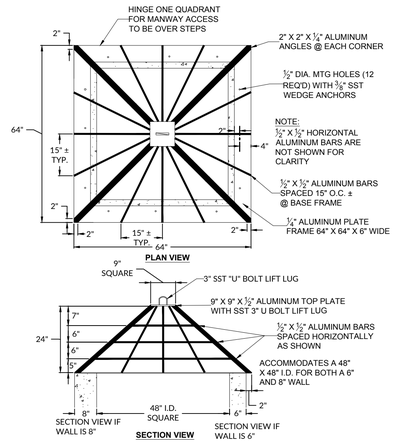
ANCHOR DETAIL — DRAINAGE MISC
Scale:NTS — C8002



FOREBAY FILTER DRAIN TYPICAL DETAIL

- BOTTOM WIDTH MUST BE NO LESS THAN 5'
- USE NCDOT CLASS "B" RIP RAP TO FILL SPILLWAY
- SLOPES FROM SPILLWAY BOTTOM TO TOP OF BERM SHALL BE NO STEEPER THAN 2:1

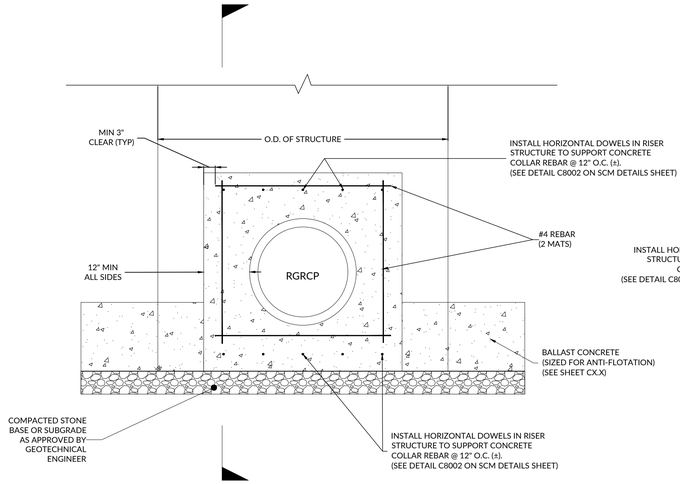
FOREBAY FILTER DRAIN — DRAINAGE MISC
Scale:NTS — C8003



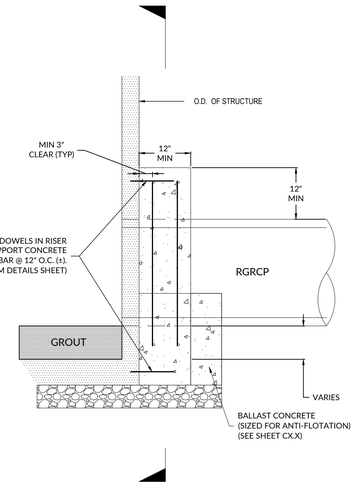
NOTES

1. TRASH RACK DETAIL BASED ON POMONA PIPE PRODUCTS "STANDARD ALUMINUM BAR & ANGLE PEAKED ROOF TRASH RACK WITH ONE QUADRANT HINGED FOR MANWAY ACCESS TO FIT 48"x48" I.D. CONCRETE RISER WITH 6" OR 8" THICK WALLS".
2. TRASH RACK TO BE POWDER-COATED BLACK.
3. REQUIRES SS HARDWARE TO ATTACH TO RISER.

4' TRASH RACK — DRAINAGE MISC
Scale:NTS — C8001

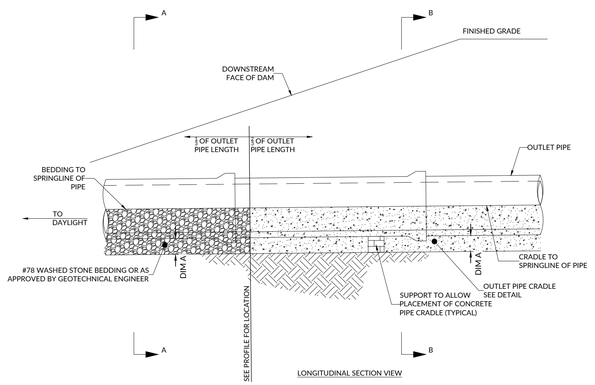


CROSS-SECTION VIEW

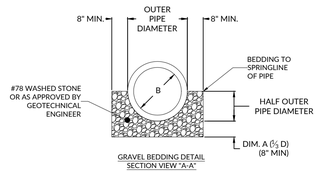


LONGITUDINAL SECTION VIEW

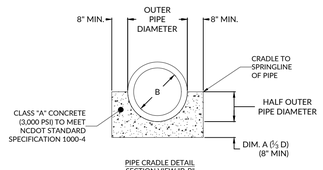
CONCRETE PIPE COLLAR — DRAINAGE MISC
Scale:NTS — C8004



LONGITUDINAL SECTION VIEW



GRAVEL BEDDING DETAIL
SECTION VIEW "A-A"



PIPE CRADLE DETAIL
SECTION VIEW "B-B"

NOTE:
IF PIPE IS INSTALLED IN EXCAVATED TRENCH, THEN SIDE WALLS MAY CONFORM TO TRENCH (TRENCH MAY BE USED AS CRADLE FORM)

NOMINAL PIPE SIZE	DIM A* (½ D)	DIM B (PIPE ID)	DIM C (DIM A + 12")	SCM #
~~18~~	~~9~~	~~18~~	~~20~~	
24	8	24	20	4
30	10	30	22	3, 5, 6
~~36~~	~~12~~	~~36~~	~~24~~	
~~42~~	~~14~~	~~42~~	~~26~~	
~~48~~	~~16~~	~~48~~	~~28~~	

ALL DIMENSIONS IN INCHES
DIM A = 8" MINIMUM
18" MINIMUM PIPE DIAMETER

OUTLET PIPE, CONCRETE CRADLE, AND STONE BEDDING — DRAINAGE MISC
Scale:NTS — C8006

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KEY MAP
N.T.S.

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

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

SCM DETAILS

C8.09

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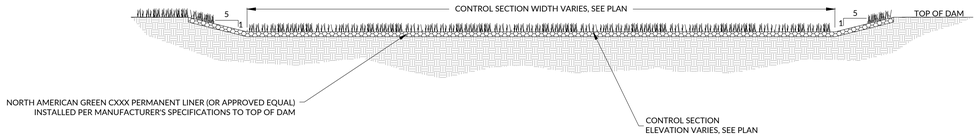
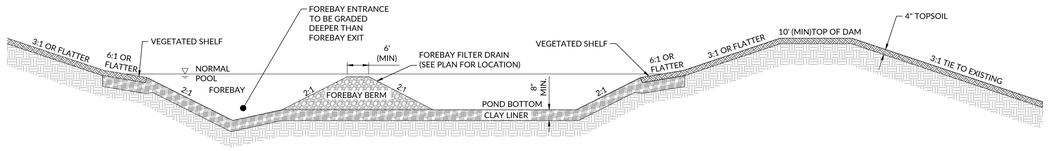


AUXILIARY SPILLWAY CONTROL SECTION

Scale:NTS

DRAINAGE MISC

C8009

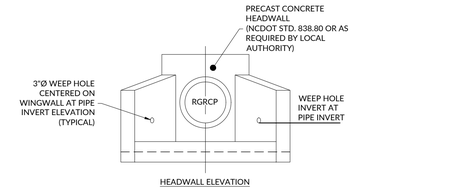


WET POND GRADING

Scale:NTS

WET POND DETAILS

C8201

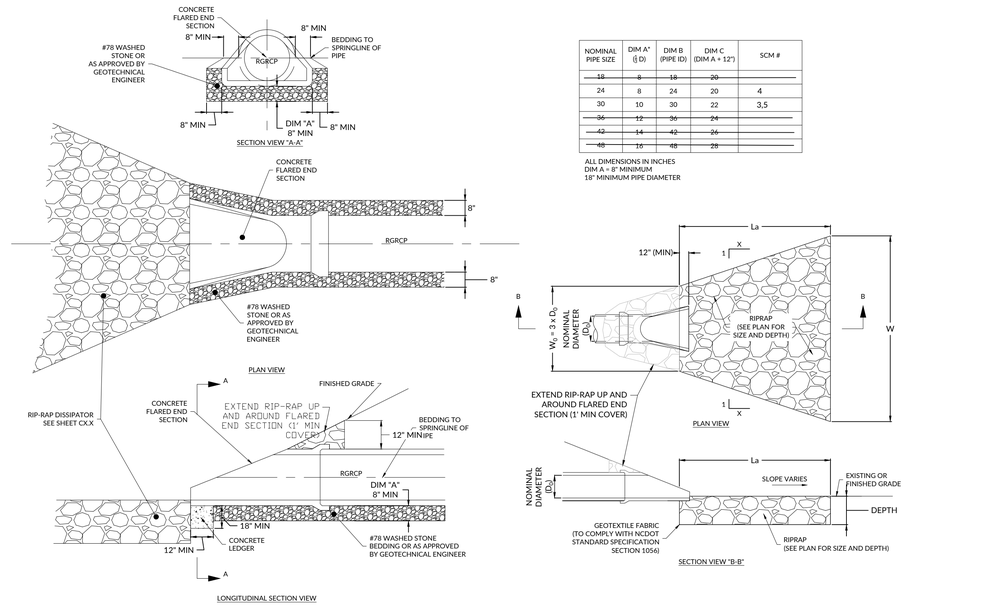


OUTLET DETAIL (PRECAST HEADWALL)

Scale:NTS

DRAINAGE MISC

C8008



NOMINAL PIPE SIZE	DIM A" (ID)	DIM B (PIPE ID)	DIM C (DIM A + 12")	SCM #
~~18~~	~~8~~	~~18~~	~~20~~	
24	8	24	20	4
30	10	30	22	3,5
~~36~~	~~12~~	~~30~~	~~24~~	
~~42~~	~~14~~	~~42~~	~~26~~	
~~48~~	~~16~~	~~48~~	~~28~~	

ALL DIMENSIONS IN INCHES
DIM A = 8" MINIMUM
18" MINIMUM PIPE DIAMETER

OUTLET DETAIL (FLARED END SECTION) & RIPRAP VELOCITY DISSIPATOR (ADAPTED FROM HEC-14 & NYSDOT)

Scale:NTS

DRAINAGE MISC

C8007

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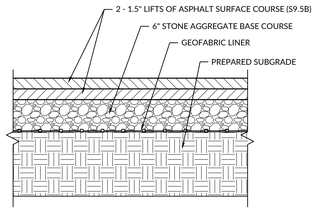
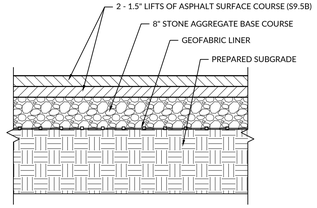


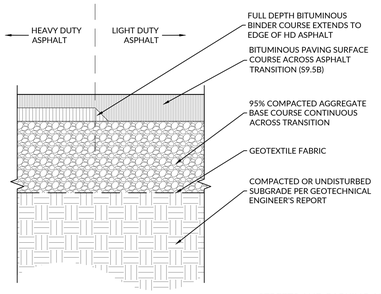
NOTES:
1. SEE GEOTECHNICAL ENGINEER'S REPORT FOR COMPACTION AND PLACEMENT SPECIFICATIONS

TYPICAL LIGHT-DUTY ASPHALT PAVEMENT SECTION — STREET
Scale:NTS — C3023

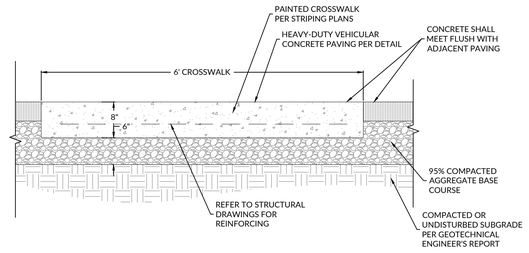


NOTES:
1. SEE GEOTECHNICAL ENGINEER'S REPORT FOR COMPACTION AND PLACEMENT SPECIFICATIONS

TYPICAL HEAVY-DUTY ASPHALT PAVEMENT SECTION — STREET
Scale:NTS — C3024



ASPHALT PAVING TRANSITION — STREETS AND PARKING AREAS
Scale:NTS — C3025



CONCRETE CROSSWALK — STREETS AND PARKING AREAS
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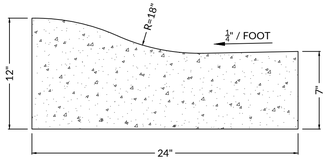
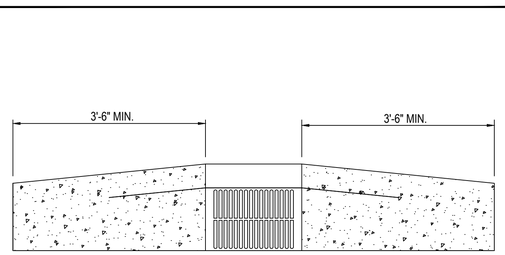
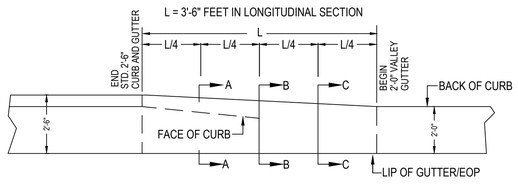
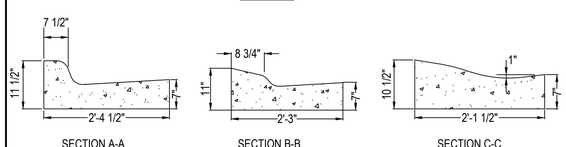


ROLLED CURB AND GUTTER — STREET
Scale:NTS — C3050

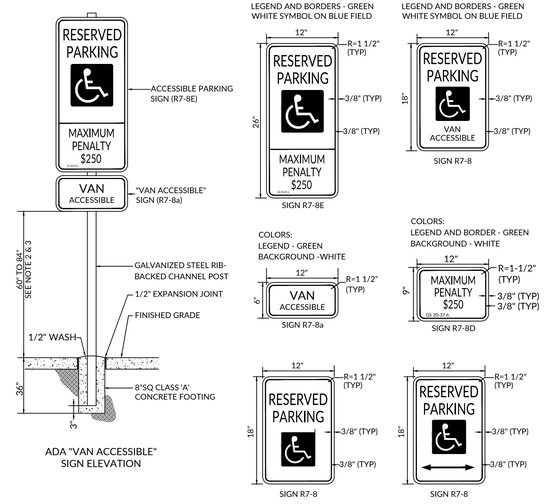






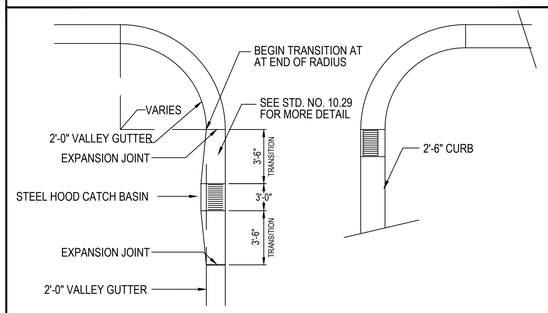
NOTE:
TRANSITION FROM 2'-6" STANDARD CURB TO VALLEY CURB AT A DRAINAGE INLET ONLY.

CATCH BASIN CURB TRANSITION
2'6" CURB AND GUTTER TO 2'-0" ROLL CURB & GUTTER



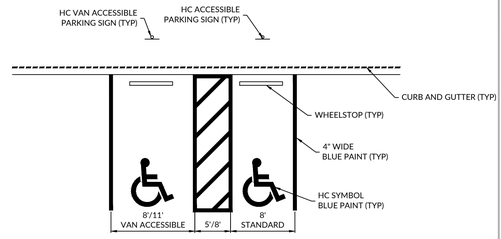
NOTES:
1. HEIGHT OF R-7 RESERVED PARKING SIGNS AS PRESCRIBED BY MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)
2. 60" HEIGHT TO BOTTOM OF SIGN WHEN PEDESTRIAN PATH FROM CAR TO WALK DOES NOT PASS BY OR UNDER THE SIGN
3. 84" HEIGHT TO BOTTOM OF SIGN WHEN PEDESTRIAN PATH FROM CAR TO WALK PASSES BY OR UNDER THE SIGN
4. R-7-8D SIGNS ARE TO ACCOMPANY ALL R7-8 PARKING SIGNS
5. THE SIGN MAY BE MOUNTED ON A POST, THE BUILDING FACE, A COLUMN OR OTHER FIXED MOUNTING SURFACE.

ACCESSIBLE PARKING SIGNS — STREET
Scale:NTS — C3033



NOTE:
1. WHERE 2'-6" CURB AND GUTTER IS USED, CATCH BASINS MAY BE LOCATED AT END OF RADIUS.
2. RADIUS AT INTERSECTION MAY VARY.

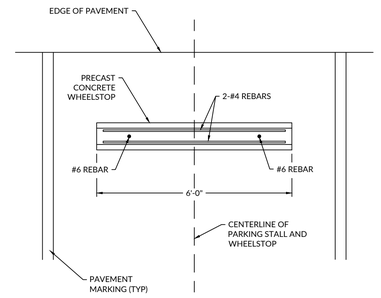
CATCH BASIN PLACEMENT AT INTERSECTIONS

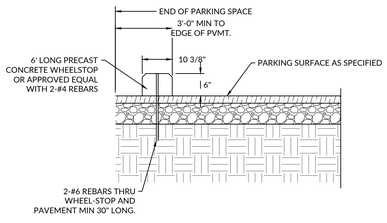


ACCESSIBLE PARKING WITH VAN SPACE

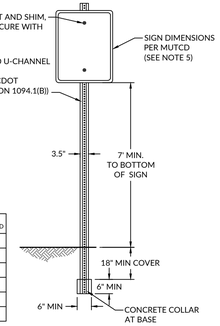
NOTES:
1. SPACE LENGTH AND WIDTH SHALL BE AS SHOWN ON THE PLAN. THE PROVIDED DIMENSIONS ARE MINIMUM REQUIREMENTS.

ACCESSIBLE PARKING SPACE — STREET
Scale:NTS — C3031





CONCRETE WHEELSTOP — STREET
Scale:NTS — C3051



NOTES:
1. CONCRETE MIX SHALL BE 50 LB (APPROX. 0.375 CU FT) SACK OF PRE-BLENDED MIXTURE OF CEMENT AND AGGREGATES DESIGNATED "HIGH STRENGTH" FOR GENERAL STRUCTURAL USE AND REQUIRING ONLY THE ADDITION OF WATER.
2. COMPACT DISTURBED AREAS ABOVE CONCRETE COLLAR IN MAXIMUM 6-INCH LIFTS.
3. U-CHANNEL POSTS THAT ARE MECHANICALLY DRIVEN A MINIMUM OF 24-INCHES INTO UNDISTURBED GROUND MAY OMIT THE CONCRETE COLLAR.
4. SIGN MATERIAL SHALL BE MINIMUM 0.125" ALUMINUM WITH RETROREFLECTIVE SHEETING THAT MEETS ASTM D4956 AND IS LISTED ON THE NCDOT APL.
5. SIGN SIZES SHALL BE IN ACCORDANCE WITH TABLE 2B-1 OF THE MUTCD SHOWN BELOW FOR REFERENCE.

TABLE 2B-1. REGULATORY SIGN SIZES

SIGN	MUTCD CODE	SECTION	CONVENTIONAL ROADS	EXPRESSWAYS	MINIMUM	OVERSIZED
STOP	R1-1	2B.04	30x30	36x36	24x24	48x48
YIELD	R1-2	2B.05	36x36x36	48x48x48	30x30x30	—
SPEED LIMIT	R2-1	2B.21	24x30	36x48	18x24	30x36
KEEP RIGHT	R4-7,7a,7b	2B.39	24x30	36x48	18x24	36x48
KEEP LEFT	R4-8,8a,8b	2B.39	24x30	36x48	18x24	36x48
DO NOT ENTER	R5-1	2B.46	30x30	36x36	—	36x36

SIGN — STREET
Scale:NTS — C3043

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CONSTRUCTION PLANS
HAWKSBILL COVE
EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

PRELIMINARY
NOT APPROVED
FOR CONSTRUCTION

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

Know what's below. Call before you dig.

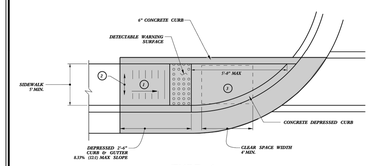
WR JOB NUMBER 25-0329-A
DRN: WR DGN: WR CKD: WR

SITE DETAILS

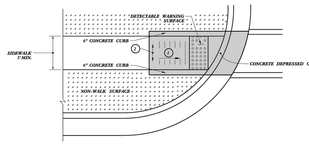
C9.01

811 SAVES

J:\25\0329-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C9 XX DETAILS.dwg - Wednesday, October 1, 2025 1:47:54 PM - AMENDENHALL



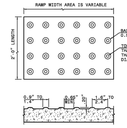
TYPE 1



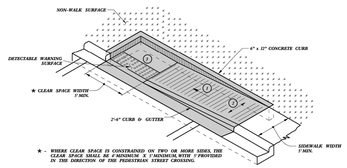
TYPE 1 MODIFIED

1 8.33% (12:1) MAX RAMP SLOPE
2 CROSS SLOPE: 2.00%
3 MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00%.

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



★ - WHERE CLEAR SPACE IS CONSTRAINED ON TWO OR MORE SIDES, THE CLEAR SPACE SHALL BE 4'-0"MINIMUM X 5'-0"MINIMUM, WITH 5'-0"PROVIDED IN THE DIRECTION OF THE PEDESTRIAN STREET CROSSING.

TYPE 1A

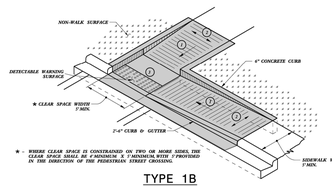
PAY LIMITS FOR 1 CURB RAMP

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

1-24

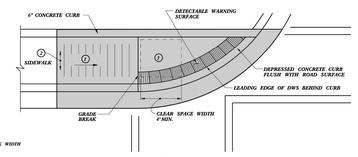
ROADWAY STANDARD DRAWING FOR
CURB RAMP
DIRECTIONAL RAMP

SHEET 6 OF 13
848.06



★ - WHERE CLEAR SPACE IS CONSTRAINED ON TWO OR MORE SIDES, THE CLEAR SPACE SHALL BE 4'-0"MINIMUM X 5'-0"MINIMUM, WITH 5'-0"PROVIDED IN THE DIRECTION OF THE PEDESTRIAN STREET CROSSING.

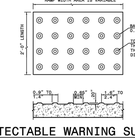
TYPE 1B



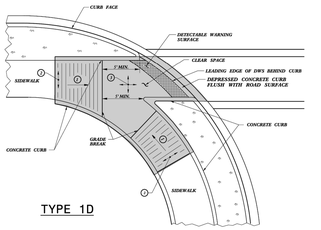
TYPE 1C

1 8.33% (12:1) MAX RAMP SLOPE
2 CROSS SLOPE: 2.00%
3 MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00%.

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



TYPE 1D

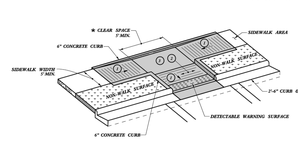
PAY LIMITS FOR 1 CURB RAMP

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

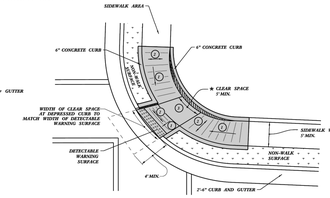
1-24

ROADWAY STANDARD DRAWING FOR
CURB RAMP
DIRECTIONAL RAMP

SHEET 7 OF 13
848.06

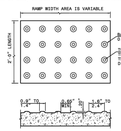


TYPE 3



TYPE 3 MODIFIED
INSTALLATION IN A RADIUS

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

1 8.33% (12:1) MAX RAMP SLOPE
2 CROSS SLOPE: 2.00%
3 MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00%.

PAY LIMITS FOR 1 CURB RAMP

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

1-24

ROADWAY STANDARD DRAWING FOR
CURB RAMP
PARALLEL RAMP

SHEET 9 OF 13
848.06

NOTES:

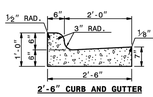
1. CONSTRUCT THE RAMP SURFACE TO BE STABLE, FIRM, AND SLIP RESISTANT. CONSTRUCT THE CURB RAMP TYPE AS SHOWN IN THE PAVEMENT MARKING PLANS OR AS DIRECTED BY THE ENGINEER.
2. LOCATE CURB RAMPS AND PLACE PEDESTRIAN CROSSWALK MARKINGS AS SHOWN IN THE PAVEMENT MARKING PLANS. WHEN FIELD ADJUSTMENTS REQUIRE MOVING CURB RAMPS OR MARKINGS AS SHOWN, CONTACT THE SIGNING AND DELINEATION UNIT OR LOCATE AS DIRECTED BY THE ENGINEER.
3. COORDINATE THE CURB RAMP AND THE PEDESTRIAN CROSSWALK MARKINGS SO A 4'x4' CLEAR SPACE AT THE BASE OF THE CURB RAMP WILL FALL WITHIN THE PEDESTRIAN CROSSWALK LINES.
4. SET BACK DISTANCE FROM INSIDE CROSSWALK MARKING TO NEAREST EDGE OF TRAVEL LANE IS 4' MINIMUM.
5. REFER TO THE PAVEMENT MARKING PLANS FOR STOP BAR LOCATIONS AT SIGNALIZED INTERSECTIONS. IF A PAVEMENT MARKING PLAN IS NOT PROVIDED, CONTACT THE SIGNAL DESIGN SECTION FOR THE STOP BAR LOCATIONS OR LOCATE AS DIRECTED BY THE ENGINEER.
6. TERMINATE PARKING A MINIMUM OF 20' FROM THE BACK OF PEDESTRIAN CROSSWALK.
7. CONSTRUCT CURB RAMPS A MINIMUM OF 4' WIDE.
8. CONSTRUCT THE RUNNING SLOPE OF THE RAMP 8.33% MAXIMUM.
9. ALLOWABLE CROSS SLOPE ON SIDEWALKS AND CURB RAMPS WILL BE 2% MAXIMUM.
10. CONSTRUCT THE SIDE FLARE SLOPE A MAXIMUM OF 10% MEASURED ALONG THE CURB LINE.
11. CONSTRUCT THE COUNTER SLOPE OF THE GUTTER OR STREET AT THE BASE OF THE CURB RAMP A MAXIMUM OF 5% AND MAINTAIN A SMOOTH TRANSITION.
12. CONSTRUCT CLEAR SPACES FOR SIDEWALK A MINIMUM OF 4'x4' WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION. CONSTRUCT CLEAR SPACES FOR MEDIAN ISLANDS A MINIMUM OF 5'x5' WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION. IF CONSTRAINED ON TWO OR MORE SIDES, THE THE CLEAR SPACE SHALL BE 4' MINIMUM X 5' MINIMUM, WITH 5' PROVIDED IN THE DIRECTION OF THE PEDESTRIAN STREET CROSSING.
13. TO USE A MEDIAN ISLAND AS A PEDESTRIAN REFUGE AREA, MEDIAN ISLANDS WILL BE A MINIMUM OF 6' WIDE. CONSTRUCT MEDIAN ISLANDS TO PROVIDE PASSAGE OVER OR THROUGH THE ISLAND.
14. SMALL CHANNELIZATION ISLANDS THAT CAN NOT PROVIDE A 5'X5' CLEAR SPACE AT THE TOP OF RAMPS, WILL BE CUT THROUGH LEVEL WITH THE SURFACE STREET.
15. CURB RAMPS WITH RETURNED CURBS MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP, WHERE THE ADJACENT SURFACE IS PLANTING OR OTHER NON-WALKING SURFACE, OR THE SIDE APPROACH IS SUBSTANTIALLY OBSTRUCTED.
16. PLACE A ½" EXPANSION JOINT WHERE THE CONCRETE CURB RAMP JOINS THE CURB AS SHOWN IN ROADWAY STANDARD DRAWING 848.01.
17. PLACE ALL PEDESTRIAN PUSH BUTTON ACTUATORS AND CROSSING SIGNALS AS SHOWN IN THE PLANS OR AS SHOWN IN THE MUTCD.
18. DETECTABLE WARNING SURFACES WILL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.
19. DETECTABLE WARNING SURFACES WILL CONTRAST VISIBLY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.

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

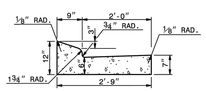
1-24

ROADWAY STANDARD DRAWING FOR
CURB RAMP
NOTES

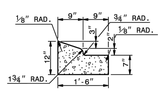
SHEET 13 OF 13
848.06



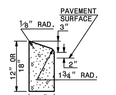
2'-6" CURB AND GUTTER



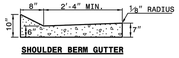
2'-9" CURB AND GUTTER



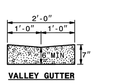
1'-6" CURB AND GUTTER



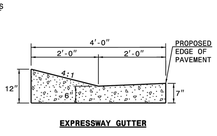
9" X 12" OR 18" CONCRETE CURB



SHOULDER BERM GUTTER

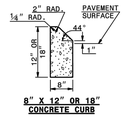


VALLEY GUTTER



EXPRESSWAY GUTTER

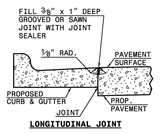
8" X 6" MEDIAN CURB



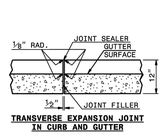
8" X 12" OR 18" CONCRETE CURB

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 1½" DEEP.
-FILL ALL CONSTRUCTION JOINTS, EXCEPT IN 8"x6" MEDIAN CURB, WITH JOINT FILLER AND SEALER.
-SPACE EXPANSION JOINTS AT 90' INTERVALS AND ADJACENT TO ALL RIGID OBJECTS.



LONGITUDINAL JOINT



TRANSVERSE EXPANSION JOINT IN CURB AND GUTTER

SECTION VIEW OF JOINTS

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

1-24

ROADWAY STANDARD DRAWING FOR
CONCRETE CURB, GUTTER, AND CURB & GUTTER

SHEET 1 OF 3
846.01

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CONSTRUCTION PLANS
HAWKSBILL COVE
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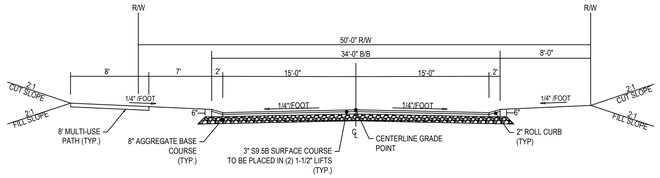
Call before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

SITE DETAILS

C9.02

J:\25\0329-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C9.XX DETAILS.dwg, Wednesday, October 1, 2025 1:47:56 PM, AARENDENHALL

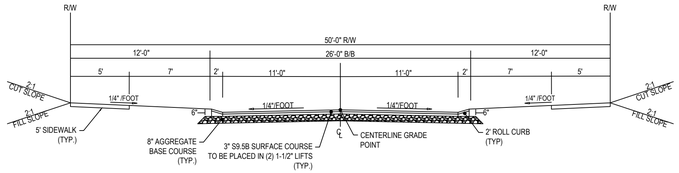


COLLECTOR STREET

NTS

50' PRIVATE R/W, 34' B/B
(LEATHERBACK LANE)

NOTES:
1) DESIGN SPEED IS 25 MPH (LEVEL TERRAIN)
2) NORMAL CROWN OF 1/4" PER FOOT
3) PAVEMENT DESIGN VERIFIED IN GEOTECHNICAL ENGINEERING REPORT CONDUCTED BY ECS SOUTHEAST, LLC ON 7/26/2024.
4) AGGREGATE BASE COURSE TO BE PLACED AND BE COMPACTED IN ACCORDANCE WITH SECTION 520 OF THE 2024 NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES

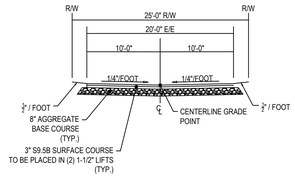


LOCAL STREET

NTS

50' PRIVATE R/W, 26' B/B
(BAYVIEW DRIVE, DEEPWATER DRIVE, FINE LINES LANDING, CATAMARAN LANE, LOWER MAST LANE, FIDDLER DRIVE, RIDDLEY DRIVE, FLYING CLOUD DRIVE, UPPER MAST LANE, SOUNDVIEW DRIVE)

NOTES:
1) DESIGN SPEED IS 25 MPH (LEVEL TERRAIN)
2) NORMAL CROWN OF 1/4" PER FOOT
3) PAVEMENT DESIGN VERIFIED IN GEOTECHNICAL ENGINEERING REPORT CONDUCTED BY ECS SOUTHEAST, LLC ON 7/26/2024.
4) AGGREGATE BASE COURSE TO BE PLACED AND BE COMPACTED IN ACCORDANCE WITH SECTION 520 OF THE 2024 NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES

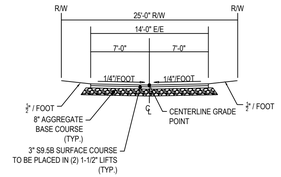


ALLEY

NTS

25' PRIVATE R/W, 20' E/E
(A003, A004, A010)

NOTES:
1) DESIGN SPEED IS 25 MPH (LEVEL TERRAIN)
2) NORMAL CROWN OF 1/4" PER FOOT
3) PAVEMENT DESIGN VERIFIED IN GEOTECHNICAL ENGINEERING REPORT CONDUCTED BY ECS SOUTHEAST, LLC ON 7/26/2024.
4) AGGREGATE BASE COURSE TO BE PLACED AND BE COMPACTED IN ACCORDANCE WITH SECTION 520 OF THE 2024 NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES



ALLEY

NTS

25' PRIVATE R/W, 14' E/E
(A007, A008)

NOTES:
1) DESIGN SPEED IS 25 MPH (LEVEL TERRAIN)
2) NORMAL CROWN OF 1/4" PER FOOT
3) PAVEMENT DESIGN VERIFIED IN GEOTECHNICAL ENGINEERING REPORT CONDUCTED BY ECS SOUTHEAST, LLC ON 7/26/2024.
4) AGGREGATE BASE COURSE TO BE PLACED AND BE COMPACTED IN ACCORDANCE WITH SECTION 520 OF THE 2024 NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES

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Ryan Homes
1105 MILITARY CUTOFF RD. STE 201
WILMINGTON, NC 28411

CONSTRUCTION PLANS

HAWKSBILL COVE
EAST VILLAGE

COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

PRELIMINARY
NOT APPROVED
FOR CONSTRUCTION

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

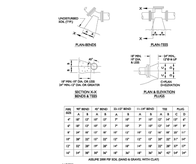
Know what's below.
Call before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

TYPICAL ROADWAY SECTIONS

C9.03

J:\25\0329-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C9.XX DETAILS.dwg - Wednesday, October 1, 2025 1:46:07 PM - AMENDENHALL



SIZE	"A" BEND	"A" TEES	"B" x 9" BEND	"C" x 9" BEND	"D" x 9" BEND	"E" BEND	"F" BEND	"G" BEND
4"	2'-0"	2'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
6"	2'-0"	2'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
8"	2'-0"	2'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
10"	2'-0"	2'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
12"	2'-0"	2'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
14"	2'-0"	2'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
16"	2'-0"	2'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
18"	2'-0"	2'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
20"	2'-0"	2'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"

NOTES:
1. ASSUME 2000 PSF SOIL (MARK-6 BOARD, NOTES CLAY).
2. ALL BENDS ARE FOR STATIC PRESSURE PLUS ANIMAL WATER HAMMER ALLOWANCE.
3. ALL BEARING SURFACES TO BE CLEARED TO UNDISTURBED SOIL(S).
4. THRUST BLOCKS TO BE USED AT ALL LINES OPERATING UNDER PRESSURE.
5. CONCRETE SHALL NOT CONTACT BOLTS OR PIECEWORK, FITTINGS.
6. CONCRETE SHALL BE 3000 PSI.
7. SEE STD. THRUST BLOCK SHEET 2 FOR STANDARD DIMENSIONS' DETAIL.
8. ALL BENDS AND INTERSECTIONS SHALL HAVE CONCRETE THRUST BLOCKING.
9. SEE STD. THRUST BLOCK SHEET 2 OF 4 FOR OTHER SIZES.

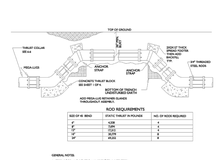
PSD NO. 1 - THRUST BLOCKING DETAIL
NOT TO SCALE

REACTION BEARING AREAS FOR HORIZONTAL WATER/SEWER PIPE BENDS
BASED ON TWO TIMES DESIGN TEST PRESSURE OF 300 PSI

PIPE SIZE	11.25° BEND	22.5° BEND	45° BEND	90° BEND	11.25° BEND	22.5° BEND	45° BEND	90° BEND
	VERTICAL DOWN				HORIZONTAL			
4"	1.08	1	1	1	1	1	1	1
6"	1.67	1	1	1	1	1	1	1
8"	1.08	1	1	1	1	1	1	1
10"	1.67	1	1	1	1	1	1	1
PLUG	0.83	1	1	1	1	1	1	1
4"	1.45	1	1	1	1	1	1	1
6"	2.25	1	1	1	1	1	1	1
8"	1.09	1	1	1	1	1	1	1
10"	1.71	1	1	1	1	1	1	1
PLUG	0.83	1	1	1	1	1	1	1
4"	1.81	1	1	1	1	1	1	1
6"	2.84	1	1	1	1	1	1	1
8"	1.09	1	1	1	1	1	1	1
10"	1.71	1	1	1	1	1	1	1
PLUG	0.83	1	1	1	1	1	1	1
4"	2.17	1	1	1	1	1	1	1
6"	3.42	1	1	1	1	1	1	1
8"	1.09	1	1	1	1	1	1	1
10"	1.71	1	1	1	1	1	1	1
PLUG	0.83	1	1	1	1	1	1	1
4"	2.53	1	1	1	1	1	1	1
6"	3.99	1	1	1	1	1	1	1
8"	1.09	1	1	1	1	1	1	1
10"	1.71	1	1	1	1	1	1	1
PLUG	0.83	1	1	1	1	1	1	1
4"	2.89	1	1	1	1	1	1	1
6"	4.56	1	1	1	1	1	1	1
8"	1.09	1	1	1	1	1	1	1
10"	1.71	1	1	1	1	1	1	1
PLUG	0.83	1	1	1	1	1	1	1
4"	3.25	1	1	1	1	1	1	1
6"	5.13	1	1	1	1	1	1	1
8"	1.09	1	1	1	1	1	1	1
10"	1.71	1	1	1	1	1	1	1
PLUG	0.83	1	1	1	1	1	1	1

REACTION BEARING AREA BASED ON SOIL WITH 2000 PSF ALLOWABLE BEARING PRESSURE.
IF VERTICAL PLANE ON THE TRENCH SIDE OF AN ANGLE OF 45° OR LESS, USE 1.0.
USE 2.5 IF SOIL VALUE FOR HYDRANTS IS FOR HORIZONTAL PLANE. ADDITIONAL SAFETY FACTOR.

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

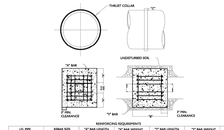


ROD REQUIREMENTS

ROD SIZE OF BEND	STATIC THRUST IN POUNDS	NO. OF RODS REQUIRED
4"	4,248	4
6"	7,242	4
8"	9,656	4
10"	12,070	4

GENERAL NOTES:
1. STEEL RODS AND NUTS TO SHALL BE ASTM A36 OR BTER.
2. ALL RODS SHALL BE COATED WITH TWO (2) COATS OF MECHANICAL JOINT MIXING.
3. RODS LOCATED TO BE USED AT ALL FITTINGS.
4. THRUST LUB ELASTICO IRON PIPE BOLTS WHERE NECESSARY.

PSD NO. 3 - VERTICAL BEND DETAIL
NOT TO SCALE



REINFORCING REQUIREMENTS

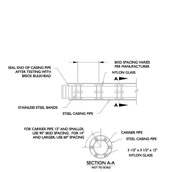
I.D. PIPE	ASMA SIZE	"A" BAR LENGTH	"C" BAR HEIGHT	"A" BAR LENGTH	"C" BAR HEIGHT	NO. REQUIRED
4" - 8"	#5	3'-0"+ O.D. PIPE	1'-6" (MIN)*	3'-0"	1'-1.5" (MIN	SIZE, T=12
10" & greater	#6	3'-0"+ O.D. PIPE	1'-6" (MIN)*	3'-0"	1'-1.5" (MIN	SIZE, T=12

THRUST COLLAR, AND THRUST SCHEDULE

I.D. PIPE	"A"	"B"	"C"	"D"
4" - 8"	1'-6"	1'-0"	1'-0"	6"
10" & greater	1'-6"	1'-0"	1'-0"	6"

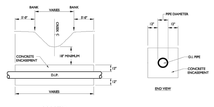
NOTES:
1. CONCRETE SHALL BE 3000 PSI AND TRANSIT MIXED.
2. REINFORCING BARS SHALL BE DEFORMED AND TIED TOGETHER.
3. TRENCH BOTTOM WIDTH IS NECESSITY OF THRUST BLOCK INSTALLATION SHALL BE THE MINIMUM WIDTH REQUIRED FOR PROPER CONSTRUCTION METHOD.
4. BACKFILL TAMPED IN 6" LIFTS OR STANDARD EMBEDMENT DETAIL.
5. THRUST COLLAR AS PER ALTERNATE REINFORCED CONCRETE PROTECTION EDGED OF COLLAR AROUND CIRCUMFERENCE.

PSD NO. 4 - THRUST COLLAR DETAIL
NOT TO SCALE



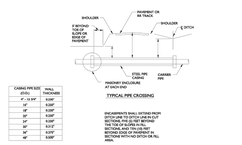
NOTES:
1. SKID TO BE PLACED TO PROVIDE PROPER SUPPORT, ALIGNMENT, AND GRADE AS SPECIFIED.
2. CASING SPACERS SHALL BE RACI, CASCADE, CALTEC, CALGRAD, OR PETERSON'S PRODUCTS THAT MEET OR EXCEED THESE SPECIFICATIONS.
3. CASING SPACERS TO BE STAINLESS STEEL AND HAVE A MINIMUM DIAMETER THREE TIMES THAT OF THE CARRIER PIPE.
4. CASING SPACERS TO HAVE A MINIMUM THICKNESS OF 3/4".
5. FOR ALL BORED UNDER ROCKET RIGHT OF WAYS FOLLOW ALL NCDOT GUIDELINES FOR PIPE SIZE AND THICKNESS.

PSD NO. 5 - PIPE CASING DETAIL
NOT TO SCALE



NOTES:
1. CONCRETE SHALL BE CLASS A(3).
2. CONCRETE ENCASEMENT NOT REQUIRED WHEN PIPE IS BURIED AT LEAST 1 FOOT CENTERLINE OF CROSS SECTION.
3. ALL CONSTRUCTION DIMENSIONS TO BE PERMITTED BY ACTUAL.
4. ALL WETLAND CROSSINGS AND CONSTAL WETLAND CROSSINGS SHALL BE PERMITTED BY ALL APPLICABLE AGENCIES.

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

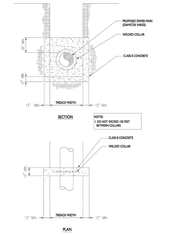


CASING PIPE SIZE	WALL THICKNESS
8" - 10"	0.250"
12" - 16 3/4"	0.312"
18"	0.350"
20"	0.375"
22"	0.438"
24"	0.500"
26"	0.512"
30"	0.570"
36"	0.640"

ENCASEMENTS SHALL EXTEND FROM DITCH LINE TO DITCH LINE IN CUT SECTIONS AND TO A POINT ONE FOOT BEYOND THE TOE OF SLOPE IN FILL SECTIONS AND SHALL EXTEND BEYOND EDGE OF PAVEMENT IN CROSSINGS WITHOUT DITCH OR RR FILL.

NOTES:
1. STEEL ENCASEMENT PIPE SHALL CONFORM TO ASTM A-139 WITH WALL THICKNESS AND GRADE AS DEFINED IN THE SPECIFICATIONS. MINIMUM ALLOWABLE YIELD STRENGTH IS 35,000 PSI.
2. CARRIER PIPE SHALL BE ADEQUATELY SUPPORTED THE ENTIRE LENGTH WITHIN THE CASING BY USING "WOOD" TYPE SUPPORTS AT A MAXIMUM SPACING OF TEN FEET. SUPPORTS SHALL BE OF SUFFICIENT LENGTH TO CRADLE APPROVED PLASTIC PIPE WITHOUT APPLYING UP THE STRAINERS.
3. NO EXCAVATED MATERIAL SHALL BE PLACED IN ANY STREAM, DITCH OR DRAINAGE WAY.
4. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION.
5. THE CONTRACTOR IS RESPONSIBLE FOR ANY SEDIMENT AND EROSION CONTROL PRACTICES REQUIRED DURING CONSTRUCTION AND THE SUBSEQUENT STABILIZATION OF ALL DISTURBED AREAS AFTER CONSTRUCTION.
6. THE CONTRACTOR IS RESPONSIBLE FOR ALL LAY DOWNS AND STOCKPILE AREAS.
7. FOR WORK ON THE NCDOT RIGHT OF WAY, NO WORK WILL BEGIN UNTIL THE CONTRACTOR HAS A COPY OF THE NCDOT ENCROACHMENT PERMIT FOR THE PROJECT.

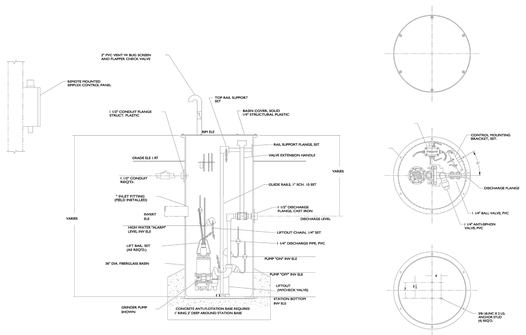
PSD NO. 7 - BORE DETAIL DETAIL
NOT TO SCALE



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

STANDARD DETAILS SHEET A

PLURIS



NOTES:

1. MANUFACTURER MUST BE APPROVED BY PLURIS.
2. GRINDER PUMP MUST BE SIZED BY ENGINEER
3. ALL STATIONS MUST MEET ALL NCDENR REGULATIONS FOR STORAGE.
4. ALL SIMPLEX CONTROL PANELS SHALL BE MOUNTED ON A 4 X 4 PT POST IN CLOSE PROXIMITY TO THE STATION.
5. PLURIS SHALL APPROVE THE LOCATION OF ALL SIMPLEX GRINDER STATIONS.
6. NO ELECTRICAL CONNECTIONS INSIDE OF WET WELL. ALL FLOAT AND PUMP CORDS TO TERMINATE IN THE CONTROL PANEL ONLY.

PSD NO. 27 - TYPICAL SIMPLEX GRINDER STATION DETAIL
NOT TO SCALE

STANDARD DETAILS SHEET F

PLURIS

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CONSTRUCTION PLANS
HAWKSBILL COVE
EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 042822 ENGINEER
PRELIMINARY NOT APPROVED FOR CONSTRUCTION

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

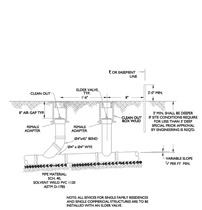
Know what's below.
Call 811 before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

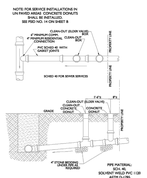
SANITARY SEWER DETAILS

C9.04

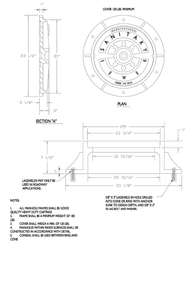
j:\25\0329-a-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C9.XX DETAILS.dwg, Wednesday, October 1, 2025 1:48:10 PM, AMENDENHALL



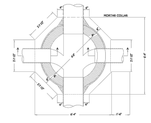
PSD NO. 17A - STANDARD SERVICE CLEAN OUT DETAIL FOR PAVED AREAS/ CONCRETE DRIVES
NOT TO SCALE



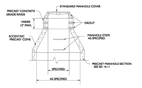
PSD NO. 17 - STANDARD SERVICE DETAIL (UNPAVED AREAS)
NOT TO SCALE



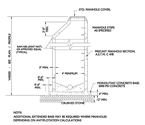
PSD NO. 18 - STANDARD MANHOLE RING AND COVER DETAIL
NOT TO SCALE



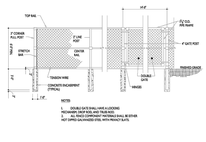
PSD NO. 19 - SANITARY SEWER MANHOLE PLAN VIEW DETAIL
NOT TO SCALE



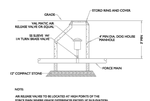
PSD NO. 20 - SANITARY SEWER PRECAST RING EXTENSION DETAIL
NOT TO SCALE



PSD NO. 21 - SANITARY SEWER PRECAST MANHOLE DETAIL
NOT TO SCALE



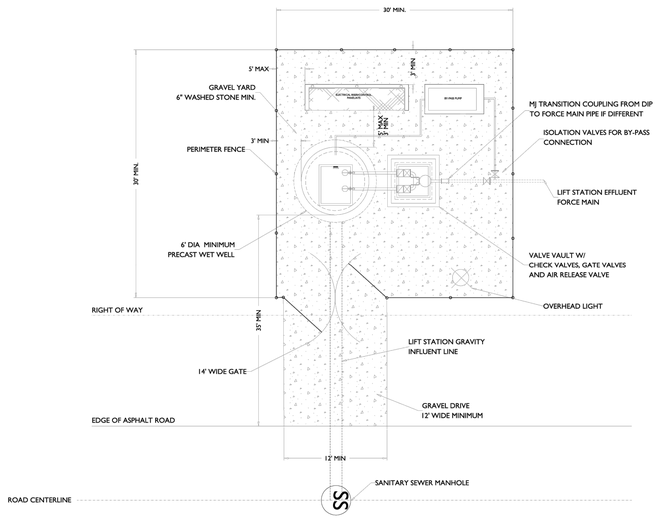
PSD NO. 23 - LIFT STATION FENCING DETAIL
NOT TO SCALE



PSD NO. 24 - AIR RELEASE MANHOLE DETAIL
NOT TO SCALE

STANDARD DETAILS SHEET C

PLURIS



PSD NO. 26 - TYPICAL DUPLEX LIFT STATION PLAN DETAIL
NOT TO SCALE

STANDARD DETAILS SHEET E

PLURIS

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Ryan Homes
1105 MILITARY CUTOFF RD. STE 201
WILMINGTON, NC 28411

CONSTRUCTION PLANS
HAWKSBILL COVE
EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

PRELIMINARY
NOT APPROVED
FOR CONSTRUCTION
SEAL
NORTH CAROLINA
PROFESSIONAL ENGINEER
WILLIAM H. RAVENEL, JR.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

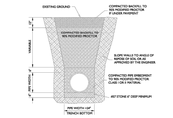
Know what's below.
Call 811 before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

SANITARY SEWER DETAILS

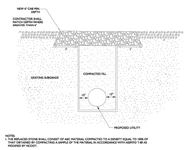
C9.05

j:\25\0329-a-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C9.XX DETAILS.dwg - Wednesday, October 1, 2025 1:48:19 PM - AARONSNOWALL

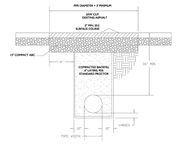


NOTES:
1. MINIMUM BURY DEPTH FOR ALL FORCE MAINS AND GRAVITY LINES IS 36" UNLESS SPECIFICALLY ALLOWED BY THE ENGINEER. ALL LINES SHALLOWER THAN 36" MUST GAIN CONSIDERATION TO PROTECT FROM FREEZING AND SURFACE LOADING.
2. ALL LINES TO BE BEDDED IN #57 OR #67 STONE MINIMUM. PIPE LAND INSTALLED BELOW THE GROUNDWATER TABLE SHALL BE BEDDED IN #57 STONE WRAPPED IN FILTER FABRIC AS DIRECTED.
3. THE USE OF #57 STONE BEDDING AND BACKFILL SHOULD BE COORDINATED WITH THE ENGINEER AND THE LOCAL INSPECTOR. SEE SPECIFICATIONS FOR PROPER BEDDING AND BACKFILLING TO ENABLE PIPE STABILITY AND UNIFORM GRADE.

PSD NO. 9 - PIPE TRENCH AND BEDDING DETAIL
NOT TO SCALE

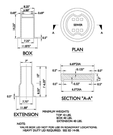


PSD NO. 10 - GRAVEL DRIVEWAY REPAIR DETAIL
NOT TO SCALE

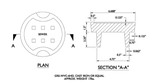


NOTES:
1. THE PAVEMENT SHALL BE DEFINED AT A STRAIGHT EDGE, PREPARED A PACKARD SAW CUT.
2. THE EXISTING PAVEMENT SHALL BE CUT BACK TO A MINIMUM PLUS WITH 6IN WIDE, OR WIDE STONE USED.
3. THE BACK CUTS TO BE FREE OF ALL FRACTURED SURFACE. THE BOTTOM OF THE TRENCH SHALL BE COMPACTED PRIOR TO PLACEMENT OF THE NEW BASE.
4. THE NEW BASE SHALL BE COMPACTED PRIOR TO PLACEMENT OF THE NEW ASPHALT.
5. ASPHALT SHALL BE PLACED IN LIFTS NOT TO EXCEED 2" COMPACTED THICKNESS. (SEE SPECIFICATIONS)
6. ASPHALT SHALL BE COMPACTED IN SECTIONS 12" OUTSIDE EDGES. FINISHED SURFACE SHALL MATCH EXISTING GRADE.
7. THE USE OF #57 STONE BEDDING AND BACKFILL SHOULD BE COORDINATED WITH THE ENGINEER AND THE LOCAL INSPECTOR. SEE SPECIFICATIONS FOR PROPER BEDDING AND BACKFILLING TO ENABLE PIPE STABILITY AND UNIFORM GRADE.
8. ALL LINES SHALLOWER THAN 36" MUST GAIN CONSIDERATION TO PROTECT FROM FREEZING AND SURFACE LOADING.
9. THE ENTIRE TRENCH WIDTH SHALL BE COMPACTED PRIOR TO PLACEMENT OF THE NEW BASE.
10. THE NEW BASE SHALL BE COMPACTED PRIOR TO PLACEMENT OF THE NEW ASPHALT.
11. ASPHALT SHALL BE PLACED IN LIFTS NOT TO EXCEED 2" COMPACTED THICKNESS. (SEE SPECIFICATIONS)
12. FINISHED SURFACE SHALL MATCH EXISTING GRADE.

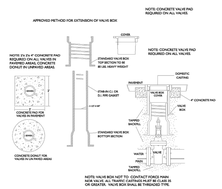
PSD NO. 11 - ASPHALT PAVING REPAIR DETAIL
NOT TO SCALE



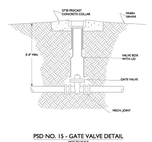
PSD NO. 12 - CAST IRON VALVE BOX DETAIL
NOT TO SCALE



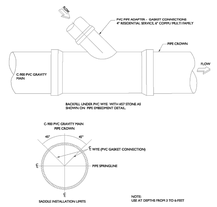
PSD NO. 13 - HEAVY DUTY CAST IRON VALVE BOX LID DETAIL
NOT TO SCALE



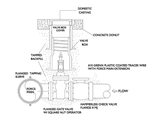
PSD NO. 14 - VALVE BOX INSTALLATION AND EXTENSION DETAIL
NOT TO SCALE



PSD NO. 15 - GATE VALVE DETAIL
NOT TO SCALE



PSD NO. 16 - GRAVITY SERVICE CONNECTION DETAIL
NOT TO SCALE

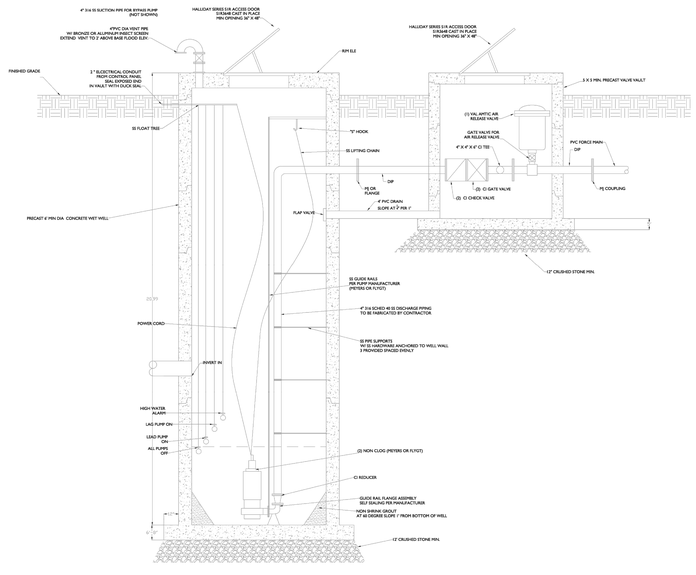


NOTE: VALVE BOX NOT TO CONTACT FORCE MAIN
NOTE: ALL TRAFFIC CASTINGS PLATE BE CLASS 35 OR GREATER. VALVE BOX SHALL BE THREADED TYPE.

PSD NO. 16A - FORCE MAIN TAP AND CONNECTIONN DETAIL
NOT TO SCALE

STANDARD DETAILS SHEET B

PLURIS



PSD NO. 25 - TYPICAL DUPLEX LIFT STATION SECTION DETAIL
NOT TO SCALE

STANDARD DETAILS SHEET D

PLURIS

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SANITARY SEWER DETAILS

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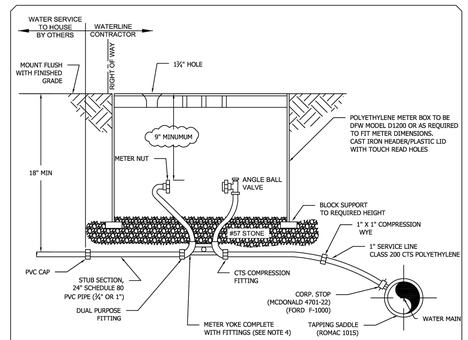
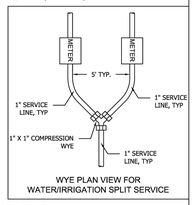
PCU STANDARD NOTES

1. A PRE-CONSTRUCTION MEETING IS REQUIRED BEFORE BEGINNING WORK. THE MEETING MUST BE SCHEDULED WITH PENDER COUNTY UTILITIES (PCU) AT LEAST ONE WEEK IN ADVANCE. ATTENDEES MUST INCLUDE PCU, THE UTILITY CONTRACTOR'S SUPERINTENDENT, THE SUPPLIER, AND THE CONSULTING ENGINEER.
2. ALL MATERIALS USED SHALL CONFORM TO PENDER COUNTY UTILITIES REQUIREMENTS. NON-CONFORMING MATERIAL WILL NOT BE ACCEPTED FOR FINAL CERTIFICATION.
3. ALL PIPE SHALL BE C900 CR18 PVC, UNLESS OTHERWISE NOTED (SEE PCU STANDARD DETAIL). PCU MUST APPROVE THE USE OF DIP IN THE FIELD BEFORE INSTALLATION. PIPE SHOULD NEVER BE UNDER THE ROADWAY, PARKING LOT, OR SIDEWALKS. PENDER COUNTY UTILITIES DOES NOT ALLOW SIZE-ON-SIZE TAPS.
4. PCU STANDARD WATERLINE PIPE RESTRAINING METHOD IS MEGA LUGS. AT A MINIMUM ALL FITTINGS, VALVES, ETC. MUST BE RESTRAINED (SEE PCU STANDARD DETAIL).
5. PCU MUST INSPECT CASING INSTALLATIONS PRIOR TO BACKFILL. PCU MUST WITNESS PRESSURE TESTS, AND WITHDRAWAL OF BACTERIOLOGICAL SMAPLES. CONTACT PENDER COUNTY UTILITIES INSPECTOR TO SCHEDULE.
6. CLOSE-OUT DOCUMENTS WHICH MUST BE RECEIVED PRIOR TO PCU SIGNING THE NCDEQ PWSS APPLICANT CERTIFICATION INCLUDE: BACTERIOLOGICAL TESTS, PRESSURE TESTS, DEED OF DEDICATION, AFFIDAVIT/RELEASE OF LIENS, WARRANTY, AND RECORDS DRAWINGS (PDF & GIO REFERENCED CAD).
7. AN 18-MONTH WARRANTY PERIOD APPLIES TO ALL WATERLINE CONSTRUCTION. THIS WARRANTY PERIOD DOES NOT BEGIN UNTIL FINAL APPROVAL OF THE SYSTEM HAS BEEN RECEIVED FROM NCDEQ PWSS.

PENDER COUNTY UTILITIES 605 E FREMONT STREET PO BOX 995. BURGAW. NC 28425	PCU	STANDARD NOTES PCU WATER SYSTEMS VERSION #4 – OCTOBER 2023



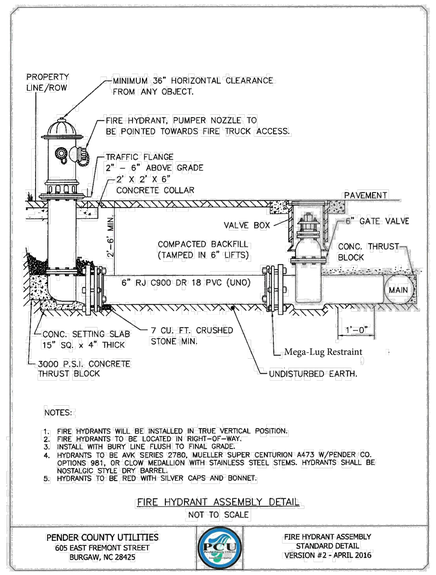
NOTE:
1. CONTRACTOR SHALL PLACE METER BOX IN NON-TRAFFIC AREA ONLY.
2. ALL TAPS TO BE MADE ON THE TOP QUARTER OF THE WATER MAIN.
3. CONTRACTOR SHALL CENTER METER YOKE IN METER BOX.
4. (¾") MCDONALD 26-702WXDD 33, FORD VB72-7W-41-33-NL (1") MCDONALD 26-410WXDD 44, FORD YB-72-10W-41-44-NL
5. BOX TO BE ADJUSTED VERTICALLY TO ACCEPT COUNTY'S STANDARD SERVICE METER. (NEPTUNE T-10, PRO READ REGISTER, R900 MIU)
6. METER TO BE SET BY COUNTY UPON RECEIPT OF WATER SERVICE FEES, AND SATISFACTORY INSPECTION OF WATER SERVICE TO HOUSE.
7. TAPS ON WATER MAINS LARGER THAN 16" SHALL BE MADE WITH DUAL WIDE BAND, STAINLESS STEEL TAPPING SADDLES (ROMAC 202S).
8. 1 ½" METERS REQUIRE 2" TAP AND 2" SQUARE NUT GATE VALVE PER 2" METER DETAIL. REDUCE TO 1 ½" SERVICE PIPE.
9. INSTALL WYE TO PROVIDE A DOMESTIC METER SETTER AND IRRIGATION METER SETTER PER SPLIT SERVICE INSET.



WYE PLAN VIEW FOR WATER/IRRIGATION SPLIT SERVICE

STANDARD WATER SERVICE DETAIL
NOT TO SCALE

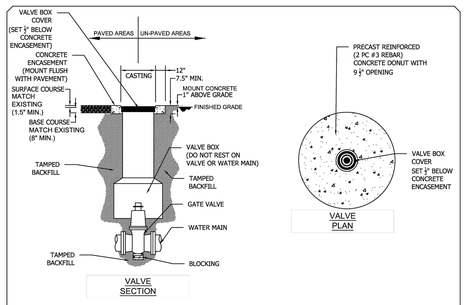
PENDER COUNTY UTILITIES 605 EAST FREMONT STREET BURGAW, NC 28425	PCU	WATER SERVICE (¾" - 1") STANDARD DETAIL VERSION #4 - FEB 2016



NOTES:
1. FIRE HYDRANTS WILL BE INSTALLED IN TRUE VERTICAL POSITION.
2. FIRE HYDRANTS TO BE LOCATED IN RIGHT-OF-WAY.
3. INSTALL WITH BURY LINE FLUSH TO FINAL GRADE.
4. HYDRANTS TO BE AVK SERIES 2780, MUELLER SUPER CENTURION A473 W/PENDER CO. OPTIONS 981, OR CLOW MEDALLION WITH STAINLESS STEEL STEMS. HYDRANTS SHALL BE NOSTALGIC STYLE DRY BARREL.
5. HYDRANTS TO BE RED WITH SILVER CAPS AND BONNET.

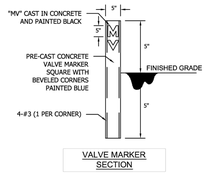
FIRE HYDRANT ASSEMBLY DETAIL
NOT TO SCALE

PENDER COUNTY UTILITIES 605 EAST FREMONT STREET BURGAW, NC 28425	PCU	FIRE HYDRANT ASSEMBLY STANDARD DETAIL VERSION #2 - APRIL 2016



VALVE SECTION

VALVE PLAN



NOTE:
1. DO NOT ALLOW VALVE BOX TO REST ON THE VALVE OR WATER MAIN.
2. A VALVE MARKER SHALL BE PLACED ON THE RIGHT OF WAY AT EACH ISOLATION VALVE.
3. VALVES MAY NOT BE LOCATED IN DITCHES, DITCH OR SWELL, ASPHAULT OR SIDEWALKS.

VALVE MARKER SECTION

VALVE INSTALLATION DETAIL
NOT TO SCALE

PENDER COUNTY UTILITIES 605 EAST FREMONT STREET BURGAW, NC 28425	PCU	VALVE INSTALLATION STANDARD DETAIL VERSION #3 - JUNE 2016

Restrained Length in Feet Each Side of Fitting Joint

PIPE DIAMETER (INCHES)	D.I. P. 90°	D.I. P. 45°	D.I. P. 22 ½°	D.I. P. 11 ¼°	P. V. C. 90°	P. V. C. 45°	P. V. C. 22 ½°	P. V. C. 11 ¼°
3"	30'	15'	10'	5'	40'	20'	10'	5'
4"	35'	15'	10'	5'	55'	25'	15'	10'
6"	55'	25'	10'	5'	80'	35'	20'	10'
8"	60'	30'	15'	10'	90'	40'	20'	10'
10"	80'	35'	20'	10'	110'	60'	25'	15'
12"	95'	40'	20'	10'	130'	65'	30'	15'
16"	135'	60'	30'	15'	185'	70'	35'	20'
20"	150'	65'	30'	15'	200'	85'	40'	20'
24"	180'	70'	35'	20'	210'	90'	45'	25'
30"	190'	80'	40'	20'	255'	105'	50'	25'
36"	220'	95'	45'	25'	0	0	0	0
42"	240'	105'	50'	25'	0	0	0	0
48"	260'	120'	60'	30'	0	0	0	0

Restrained lengths for valves, dead ends and branches from tees shall be the same as for 90° (degree) bends

Restrained Length In Feet For Reducer

PIPE DIAMETER (INCHES)	3"	4"	6"	8"	10"	12"	16"	20"	24"	30"
3"	0	0	0	0	0	0	0	0	0	0
4"	40'	0	0	0	0	0	0	0	0	0
6"	80'	40'	0	0	0	0	0	0	0	0
8"	75'	70'	40'	0	0	0	0	0	0	0
10"	95'	90'	70'	40'	0	0	0	0	0	0
12"	120'	115'	100'	75'	40'	0	0	0	0	0
16"	160'	155'	140'	120'	100'	70'	0	0	0	0
20"	200'	195'	180'	170'	150'	130'	70'	0	0	0
24"	160'	155'	150'	140'	135'	120'	90'	50'	0	0
30"	195'	190'	185'	180'	170'	160'	120'	105'	70'	0
36"	220'	220'	215'	210'	205'	195'	180'	165'	125'	70'
42"	245'	240'	235'	230'	225'	220'	205'	185'	155'	105'
48"	255'	250'	245'	240'	235'	230'	215'	195'	170'	135'

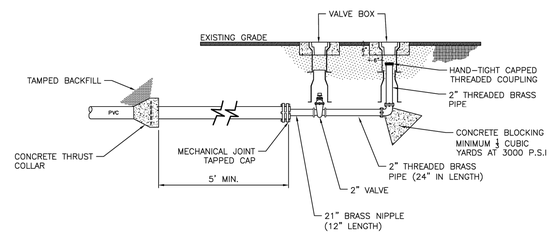
Length of restrained joint for larger diameter pipe

NOTES:
1. PENDER COUNTY STANDARD RESTRAINT METHOD IS MEGA LUGS, UNLESS SPECIFICALLY APPROVED BY PCU IN WIRTING.
2. ALL FITTINGS AND JOINTS SHALL BE RESTRAINED JOINT.
3. "L" ABOVE IS GIVEN IN FEET FROM FITTING JOINT.

PENDER COUNTY UTILITIES 605 E FREMONT STREET PO BOX 995, BURGAW, NC 28425	PCU	RESTRAINED JOINT TABLE STANDARD DETAIL VERSION #2 – OCTOBER 2023

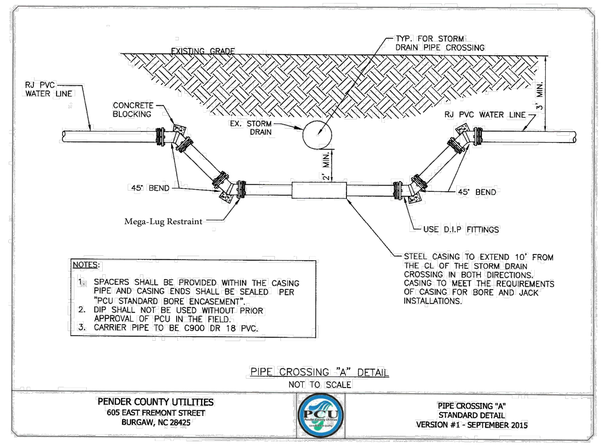
NOTE:
1. A BLOW OFF MARKER SHALL BE PLACED ON THE RIGHT OF WAY AT EACH BLOW.
2. BLOW OFF MARKER TO BE SAME DESIGN AS VALVE MARKER EXCEPT DENOTE "BO" ON MARKER RATHER THAN "W"

NOTES:
1. ALL PVC SHALL BE RESTRAINED PER THE RESTRAINED LENGTH SCHEDULE PROVIDED ELSEWHERE.



PERMANENT BLOW-OFF ASSEMBLY DETAIL
NOT TO SCALE

PENDER COUNTY UTILITIES 605 EAST FREMONT STREET BURGAW, NC 28425	PCU	PERMANENT BLOW-OFF ASSEMBLY STANDARD DETAIL VERSION #1 - SEPTEMBER 2015



NOTES:
1. SPACERS SHALL BE PROVIDED WITHIN THE CASING PIPE AND CASING ENDS SHALL BE SEALED PER "PCU STANDARD BORE ENCASEMENT".
2. DIP SHALL NOT BE USED WITHOUT PRIOR APPROVAL OF PCU IN THE FIELD.
3. CARRIER PIPE TO BE C900 DR 18 PVC.

PIPE CROSSING "A" DETAIL
NOT TO SCALE

PENDER COUNTY UTILITIES 605 EAST FREMONT STREET BURGAW, NC 28425	PCU	PIPE CROSSING "A" STANDARD DETAIL VERSION #1 - SEPTEMBER 2015

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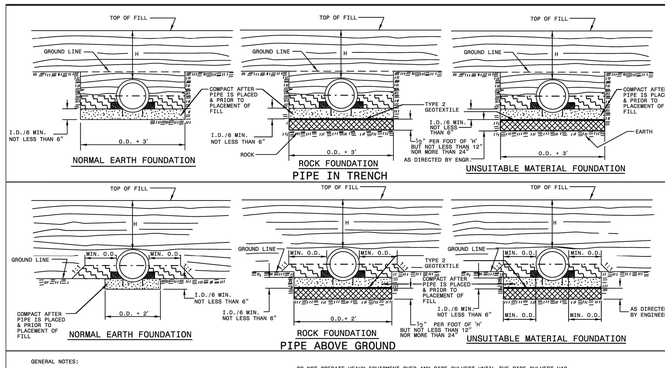
WATER DETAILS

C9.07

J:\25\0329-a-ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\C9.XX DETAILS.dwg - Wednesday, October 1, 2025 1:48:49 PM - AMENDENHALL



GENERAL NOTES:

I.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.

O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.

H = THE FILL HEIGHT MEASURED VERTICALLY AT ANY POINT ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT.

TAKE CARE TO FULLY COMPACT HAUNCH ZONE OF PIPE BACKFILL.

LOOSELY PLACED SELECT MATERIAL CLASS III OR CLASS II; TYPE 1 FOR PIPE BEDDING. LEAVE SECTION DIRECTLY BENEATH PIPE UNCOMPACTED AS PIPE SEATING AND BACKFILL WILL ACCOMPLISH COMPACTION.

DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE CULVERT UNTIL THE PIPE CULVERT HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.

SPRINGLINE OF PIPE

SELECT BACKFILL MATERIAL CLASS III OR CLASS II, BELOW SPRINGLINE.

APPROVED SUITABLE LOCAL MATERIAL ABOVE SPRINGLINE.

UNDISTURBED EARTH MATERIAL.

SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH TYPE 2 GEOTEXTILE AS DIRECTED BY THE ENGINEER.

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

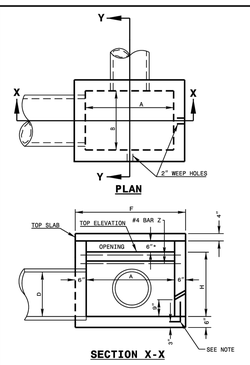
1-18

ROADWAY STANDARD DRAWING FOR

METHOD OF PIPE INSTALLATION RIGID PIPE

SHEET 2 OF 3

300.01



NOTES: USE CLASS "B" CONCRETE THROUGHOUT.

PROVIDE ALL CATCH BASINS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.66.

OPTIONAL CONSTRUCTION - MONOLITHIC POUR, 2" KEYWAY, OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.

USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.

IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.00.

FOR 8'-0" IN HEIGHT OR LESS USE 6" WALLS AND BOTTOM SLAB. OVER 8'-0" TO 16'-0" IN HEIGHT USE 8" WALLS AND BOTTOM SLAB. ADJUST QUANTITIES ACCORDINGLY.

CONSTRUCT WITH PIPE CROWNS MATCHING.

INSTALL 2" WEEPHOLES AS DIRECTED BY THE ENGINEER.

INSTALL STONE DRAINS, OF A MINIMUM OF 1 CUBIC FOOT OF NO. 78M STONE IN A POROUS FABRIC BAG OR WRAP, AT EACH WEEP HOLE OR AS DIRECTED BY THE ENGINEER.

CHAMFER ALL EXPOSED CORNERS 1".

DRAWING NOT TO SCALE.

• INCREASE THE SIZE OF THE 6" OPENING TO 8" MAX., AS DIRECTED BY THE ENGINEER BY ADDING 2" TO THE WALL HIEGHT ABOVE THE TOP ELEVATION. ADJUST QUANTITIES ACCORDINGLY.

MIN. DIMENSIONS AND QUANTITIES FOR CONCRETE CATCH BASIN (BASED ON MIN. HEIGHT, H)

DIMS OF BOX & PIPE				REINFORCING						TOP & BOT. SLAB DIMENSIONS		CU. YDS. CONC. IN BOX	TOTAL QUANTITIES BOX & SLABS		DEDUCTION ONE PIPE		SQ. IN. OF THROAT OPENING
PIPE	SPAN	WIDTH	HEIGHT	BARS "X"		BARS "Y"		BARS "Z"									
D	A	B	H	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	F	G	TOP SLAB	WALLS	BOTTOM SLAB	WALLS, FT.	LBS. REINF.	SQ. FT.
12"	3'-0"	2'-3"	1'-10"	4	3'-0"	6	4'-3"	2	4'-3"	4'-6"	3'-3"	0.181	0.271	0.250	27	1.046	0.015	0.032	0.046
15"	3'-0"	2'-3"	2'-1"	4	3'-0"	6	4'-3"	2	4'-3"	4'-6"	3'-3"	0.181	0.271	0.250	27	1.108	0.023	0.036	0.046
18"	4'-0"	2'-8"	2'-4"	5	3'-5"	7	4'-3"	2	4'-9"	5'-0"	3'-8"	0.226	0.340	0.284	35	1.379	0.033	0.049	0.053
24"	4'-0"	2'-8"	3'-10"	5	3'-5"	7	4'-9"	2	4'-9"	5'-0"	3'-8"	0.226	0.340	0.284	35	1.521	0.059	0.085	0.053
30"	4'-0"	3'-5"	3'-4"	5	4'-3"	9	4'-9"	2	4'-9"	5'-0"	4'-5"	0.278	0.417	0.315	43	1.916	0.092	0.127	0.053
36"	4'-6"	4'-0"	3'-10"	5	4'-9"	10	5'-3"	2	5'-3"	5'-6"	5'-0"	0.340	0.510	0.352	51	2.390	0.132	0.178	0.059
42"	5'-0"	4'-6"	4'-4"	5	5'-3"	12	5'-9"	2	5'-9"	6'-0"	5'-6"	0.407	0.611	0.389	64	2.914	0.180	0.243	0.066
48"	5'-0"	5'-0"	4'-10"	5	5'-9"	13	5'-9"	2	5'-9"	6'-0"	6'-0"	0.444	0.666	0.407	68	3.298	0.235	0.317	0.066

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

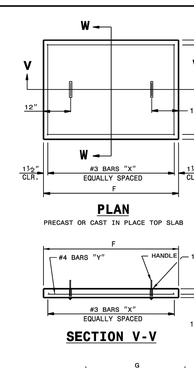
1-18

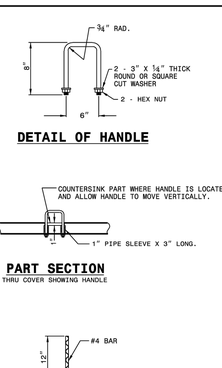
ROADWAY STANDARD DRAWING FOR

CONCRETE OPEN THROAT CATCH BASIN 12" THRU 48" PIPE

SHEET 1 OF 2

840.04





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

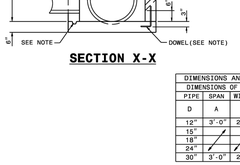
1-18

ROADWAY STANDARD DRAWING FOR

CONCRETE OPEN THROAT CATCH BASIN 12" THRU 48" PIPE

SHEET 2 OF 2

840.04



GENERAL NOTES:

USE CLASS "B" CONCRETE THROUGHOUT.

PROVIDE ALL DROP INLETS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.66.

OPTIONAL CONSTRUCTION - MONOLITHIC POUR 2" KEYWAY ON #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.

USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.

IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.00.

CONSTRUCT WITH PIPE CROWNS MATCHING.

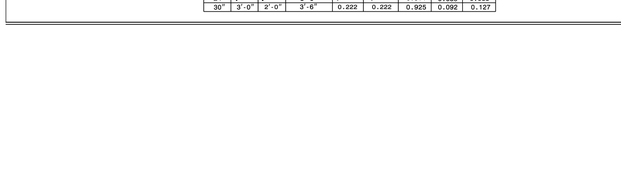
SEE STANDARD DRAWING 840.25 FOR ATTACHMENT OF FRAMES AND GRATES NOT SHOWN.

INSTALL 2" WEEPHOLES AS DIRECTED BY THE ENGINEER.

INSTALL STONE DRAINS, OF A MINIMUM OF 1 CUBIC FOOT OF NO. 78M STONE IN A POROUS FABRIC BAG OR WRAP, AT EACH WEEP HOLE OR AS DIRECTED BY THE ENGINEER.

CHAMFER ALL EXPOSED CORNERS 1".

DRAWING NOT TO SCALE.



DIMENSIONS AND QUANTITIES FOR DROP INLET(BASED ON MIN. HEIGHT, H)								
DIMENSIONS OF BOX & PIPE				CUBIC YARDS CONC. IN BOX			DEDUCTIONS FOR ONE PIPE	
PIPE	SPAN	WIDTH	WIN. HEIGHT	BOTTOM SLAB	WALL PER FT. HT.	TOTAL CONCRETE FOR MINIMUM HEIGHT	C.Y.	R.C.
D	A	B	H					
12"	3'-0"	2'-0"	2'-0"	0.222	0.222	0.592	0.015	0.026
15"	/	/	2'-3"	/	/	0.648	0.023	0.036
18"	/	/	2'-6"	/	/	0.703	0.033	0.049
24"	/	/	3'-0"	/	/	0.814	0.059	0.085
30"	3'-0"	2'-0"	3'-6"	0.222	0.222	0.925	0.092	0.127

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

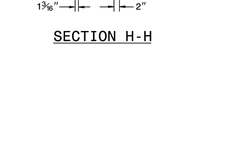
1-18

ROADWAY STANDARD DRAWING FOR

CONCRETE DROP INLET 12" THRU 30" PIPE

SHEET 1 OF 1

840.14



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

1-18

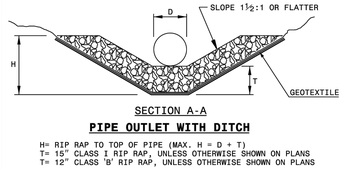
ROADWAY STANDARD DRAWING FOR

DROP INLET FRAME AND GRATES

FOR USE WITH STD. DWG.S 840.14 AND 840.15

SHEET 1 OF 1

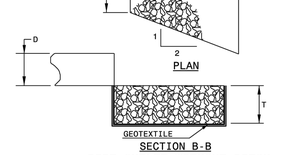
840.16



H= RIP RAP TO TOP OF PIPE (MAX. H = D + T)
T= 15" CLASS I RIP RAP, UNLESS OTHERWISE SHOWN ON PLANS
T= 12" CLASS 'B' RIP RAP, UNLESS OTHERWISE SHOWN ON PLANS

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

NOTE:
FOR CALCULATION PURPOSES
CLASS 'B' RIP RAP = 100 LBS./FT.³
CLASS I RIP RAP = 105 LBS./FT.³



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

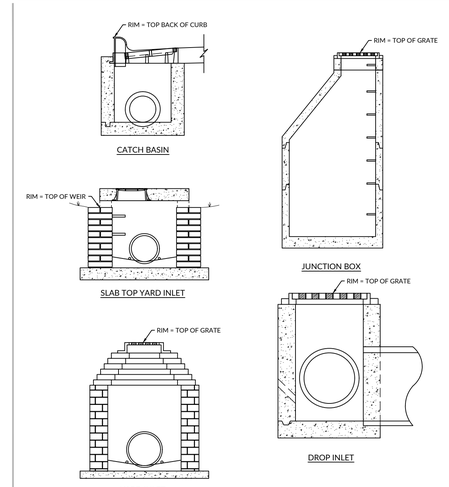
1-18

ROADWAY STANDARD DRAWING FOR

GUIDE FOR RIP RAP AT PIPE OUTLETS

SHEET 1 OF 1

876.02



NOTES:
1. THIS DETAIL IS PROVIDED TO CLARIFY RIM ELEVATIONS ONLY.
2. REFER TO OTHER DETAILS AS APPROPRIATE FOR DETAILED REQUIREMENTS.
3. FOR RETROFIT PROJECTS, A RIM ELEVATION OF THE CATCH BASIN GRATE MAY BE REQUIRED.

STRUCTURE RIM ELEVATIONS — STORM DRAINAGE COLLECTION SYSTEMS

Scale:NTS — C8013

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CONSTRUCTION PLANS
HAWKSBILL COVE
EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

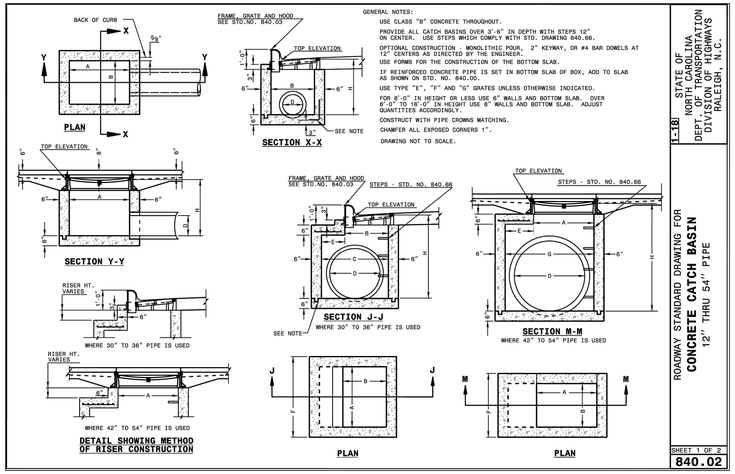
Know what's below. Call before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

STORMWATER DETAILS

C9.08

J:\25\0329-ryan homes_pender county_hawksbill cove\CAD\drawing sets\construction\C9.XX DETAILS.dwg, Wednesday, October 1, 2025 1:49:09 PM, AMENDENHALL



GENERAL NOTES:

USE CLASS "B" CONCRETE THROUGHOUT.

PROVIDE ALL CATCH BASINS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.66.

OPTIONAL CONSTRUCTION - MONOLITHIC POUR. 2" KEYWAY, OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.

USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.

IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.00.

USE TYPE "E", "F" AND "G" GRATES UNLESS OTHERWISE INDICATED.

FOR 6'-0" IN HEIGHT OR LESS USE 6" WALLS AND BOTTOM SLAB. OVER 6'-0" TO 16'-0" IN HEIGHT USE 8" WALLS AND BOTTOM SLAB. ADJUST QUANTITIES ACCORDINGLY.

CONSTRUCT WITH PIPE CROWNS MATCHING.

CHAMFER ALL EXPOSED CORNERS 1".

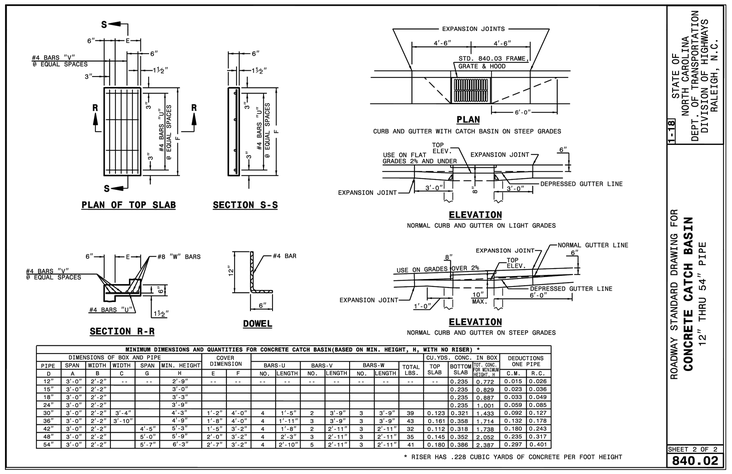
DRAWING NOT TO SCALE.

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

1-18

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) *

DIMENSIONS OF BOX AND PIPE							COVER DIMENSION		BARS-U		BARS-V		BARS-W		CU.YDS. CONC. IN BOX			DEDUCTIONS	
PIPE D	SPAN A	WIDTH B	WIDTH C	SPAN G	MIN. HEIGHT H		E	F	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	TOTAL LBS.	TOP SLAB	BOTTOM SLAB	WT. CONC. OF BOX PER FOOT HEIGHT *	ONE PIPE C.W.	ONE PIPE R.C.
12"	3'-0"	2'-3"	--	--	2'-9"		--	--	--	--	--	--	--	--	--	--	--	0.235	0.272	0.015	0.026
15"	3'-0"	2'-3"			3'-0"													0.235	0.839	0.023	0.036
18"	3'-0"	2'-3"			3'-3"													0.235	0.887	0.033	0.049
24"	3'-0"	2'-3"			3'-9"													0.235	1.001	0.059	0.085
30"	3'-0"	2'-3"	3'-4"		4'-3"		1'-3"	4'-0"	4	1'-5"	2	3'-9"	3	3'-9"	39	0.123	0.321	1.433	0.092	0.127
36"	3'-0"	2'-3"	3'-10"		4'-9"		1'-8"	4'-0"	4	1'-11"	3	3'-9"	3	3'-9"	43	0.161	0.398	1.714	0.132	0.178
42"	3'-0"	2'-3"		4'-5"	5'-3"		1'-5"	3'-2"	4	1'-8"	2	2'-11"	3	2'-11"	32	0.112	0.318	1.738	0.180	0.243
48"	3'-0"	2'-3"		5'-0"	5'-9"		2'-0"	3'-2"	4	2'-3"	3	2'-11"	3	2'-11"	35	0.145	0.352	2.052	0.235	0.317
54"	3'-0"	2'-3"		5'-7"	6'-3"		2'-7"	3'-2"	4	2'-10"	5	2'-11"	3	2'-11"	41	0.180	0.386	2.387	0.297	0.401

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

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

1-18

ROADWAY STANDARD DRAWING FOR
CONCRETE CATCH BASIN
12" THRU 54" PIPE

SHEET 2 OF 2
840.02

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

1-18

ROADWAY STANDARD DRAWING FOR
FRAME, GRATES, AND HOOD
FOR USE ON STANDARD CATCH BASIN

SHEET 1 OF 2
840.03

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

1-18

ROADWAY STANDARD DRAWING FOR
FRAME, GRATES, AND HOOD
FOR USE ON STANDARD CATCH BASIN

SHEET 2 OF 2
840.03

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CONSTRUCTION PLANS
HAWKSBILL COVE
EAST VILLAGE

COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

JOHN H. CARROLL IV
NORTH CAROLINA
SEAL
036282
ENGINEER
PRELIMINARY
NOT APPROVED
FOR CONSTRUCTION

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

STORMWATER DETAILS

C9.09

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LANDSCAPE CALCULATIONS:

PERIMETER BUFFERS

TYPE 'C' - 15' WIDE & 30' WIDE
C-2 REQUIREMENTS: 1 CANOPY TREES PER 100 LF
4 UNDERSTORY TREE PER 100 LF
CONTINUOUS EVERGREEN HEDGE OR FENCE
GRASS COVER OF 98%, EXCEPT FOR 4' AT BASE OF TREE

C-4 REQUIREMENTS: 2 UNDERSTORY TREE PER 100 LF
CONTINUOUS EVERGREEN HEDGE OR FENCE
GRASS COVER OF 98%, EXCEPT FOR 4' AT BASE OF TREE

SEGMENT 'A' 6110 LF
REQUIRED: 30' WIDE C-4 BUFFER
61 UNDERSTORY TREES
CONTINUOUS EVERGREEN HEDGE OR FENCE
GRASS COVER OF 98%, EXCEPT FOR 4' AT BASE OF TREE
PROVIDED: EXISTING VEGETATION TO REMAIN; TO BE SUPPLEMENTED AS NECESSARY TO ACHIEVE BUFFER STANDARDS

SEGMENT 'B' 450 LF
REQUIRED: 60' WIDE C-4 BUFFER
45 UNDERSTORY TREES
CONTINUOUS EVERGREEN HEDGE OR FENCE
GRASS COVER OF 98%, EXCEPT FOR 4' AT BASE OF TREE
PROVIDED: EXISTING VEGETATION TO REMAIN; TO BE SUPPLEMENTED AS NECESSARY TO ACHIEVE BUFFER STANDARDS

SEGMENT 'C' 2658 LF
REQUIRED: 15' WIDE C-2 BUFFER
27 CANOPY TREES
106 UNDERSTORY TREES
CONTINUOUS EVERGREEN HEDGE OR FENCE
GRASS COVER OF 98%, EXCEPT FOR 4' AT BASE OF TREE
PROVIDED: EXISTING VEGETATION TO REMAIN; TO BE SUPPLEMENTED AS NECESSARY TO ACHIEVE BUFFER STANDARDS

SEGMENT 'D' 3522 LF
REQUIRED: 30' WIDE C-4 BUFFER
35 UNDERSTORY TREES
CONTINUOUS EVERGREEN HEDGE OR FENCE
GRASS COVER OF 98%, EXCEPT FOR 4' AT BASE OF TREE
PROVIDED: EXISTING VEGETATION TO REMAIN; TO BE SUPPLEMENTED AS NECESSARY TO ACHIEVE BUFFER STANDARDS

SEGMENT 'E' 1014 LF
REQUIRED: 30' WIDE C-4 BUFFER
21 UNDERSTORY TREES
GRASS COVER OF 98%, EXCEPT FOR 4' AT BASE OF TREE
PROVIDED: EXISTING VEGETATION TO REMAIN; TO BE SUPPLEMENTED AS NECESSARY TO ACHIEVE BUFFER STANDARDS

SEGMENT 'F' 3967 LF
REQUIRED: 30' WIDE C-4 BUFFER
40 UNDERSTORY TREES
CONTINUOUS EVERGREEN HEDGE OR FENCE
GRASS COVER OF 98%, EXCEPT FOR 4' AT BASE OF TREE
PROVIDED: EXISTING VEGETATION TO REMAIN; TO BE SUPPLEMENTED AS NECESSARY TO ACHIEVE BUFFER STANDARDS

STREET YARD TREES

30' TYPE A-4 LANDSCAPE BUFFER
REQUIREMENT: 1 CANOPY TREES PER 100 LF
2 UNDERSTORY TREE PER 100 LF
32 SHRUBS

SEGMENT 'G' 218 LF
REQUIRED: 30' WIDE A-4 BUFFER
22 CANOPY TREES
44 UNDERSTORY TREES
70 SHRUBS
PROVIDED: EXISTING VEGETATION TO REMAIN; TO BE SUPPLEMENTED AS NECESSARY TO ACHIEVE BUFFER STANDARDS

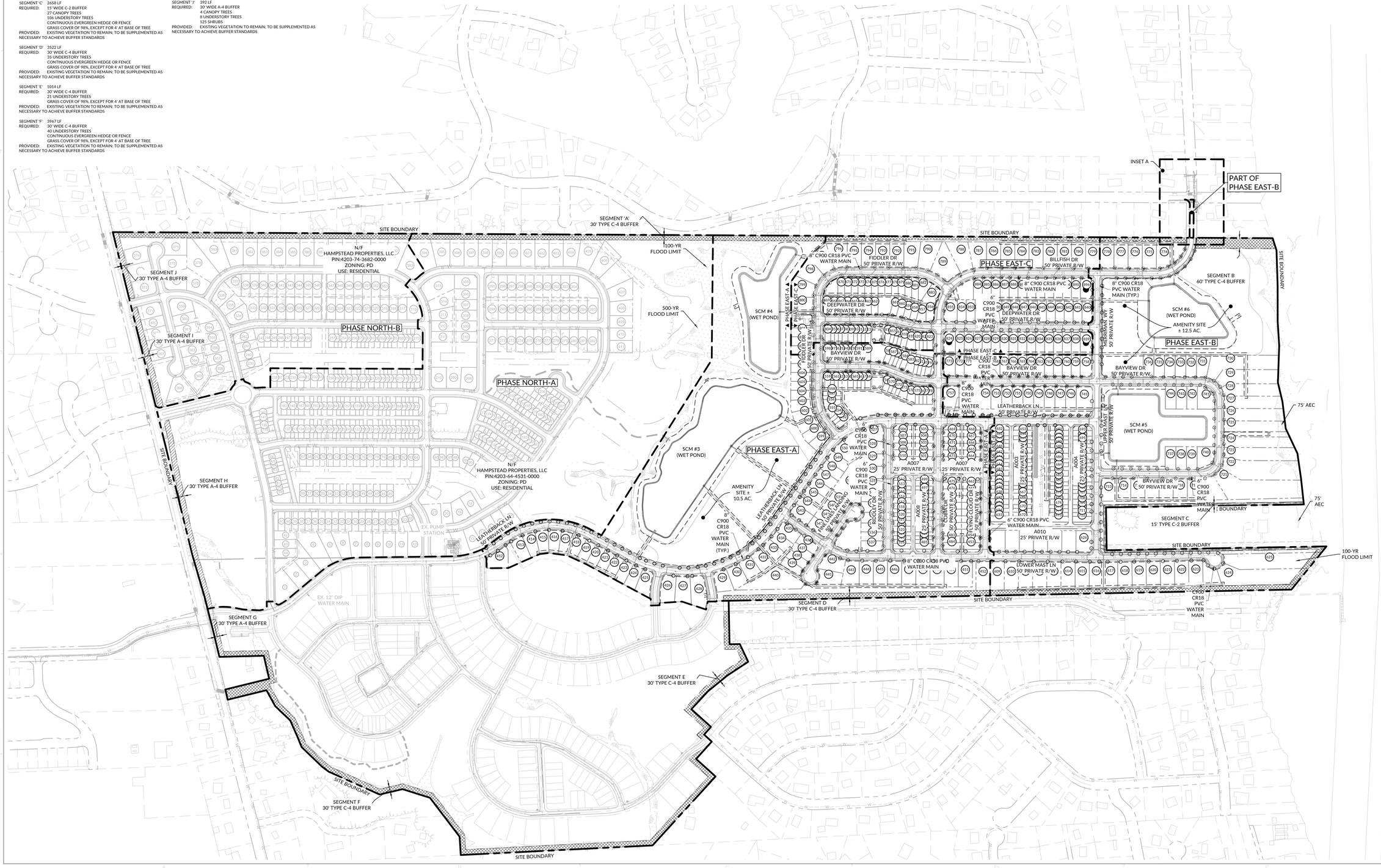
SEGMENT 'H' 1102 LF
REQUIRED: 30' WIDE A-4 BUFFER
11 CANOPY TREES
22 UNDERSTORY TREES
353 SHRUBS
PROVIDED: EXISTING VEGETATION TO REMAIN; TO BE SUPPLEMENTED AS NECESSARY TO ACHIEVE BUFFER STANDARDS

SEGMENT 'I' 588 LF
REQUIRED: 30' WIDE A-4 BUFFER
6 CANOPY TREES
12 UNDERSTORY TREES
188 SHRUBS
PROVIDED: EXISTING VEGETATION TO REMAIN; TO BE SUPPLEMENTED AS NECESSARY TO ACHIEVE BUFFER STANDARDS

SEGMENT 'J' 392 LF
REQUIRED: 30' WIDE A-4 BUFFER
4 CANOPY TREES
8 UNDERSTORY TREES
125 SHRUBS
PROVIDED: EXISTING VEGETATION TO REMAIN; TO BE SUPPLEMENTED AS NECESSARY TO ACHIEVE BUFFER STANDARDS

BUFFER LEGEND

SYMBOL	DESCRIPTION
	LANDSCAPE BUFFER A-4
	LANDSCAPE BUFFER C-2
	LANDSCAPE BUFFER C-4



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CONSTRUCTION PLANS
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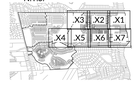
EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
SEAL
KEY WENDEHAKE

KEY MAP
N.T.S.



0 125 250
SCALE: 1 inch = 250 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

Know what's below.
Call before you dig.

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

OVERALL
LANDSCAPE PLAN

L1.00

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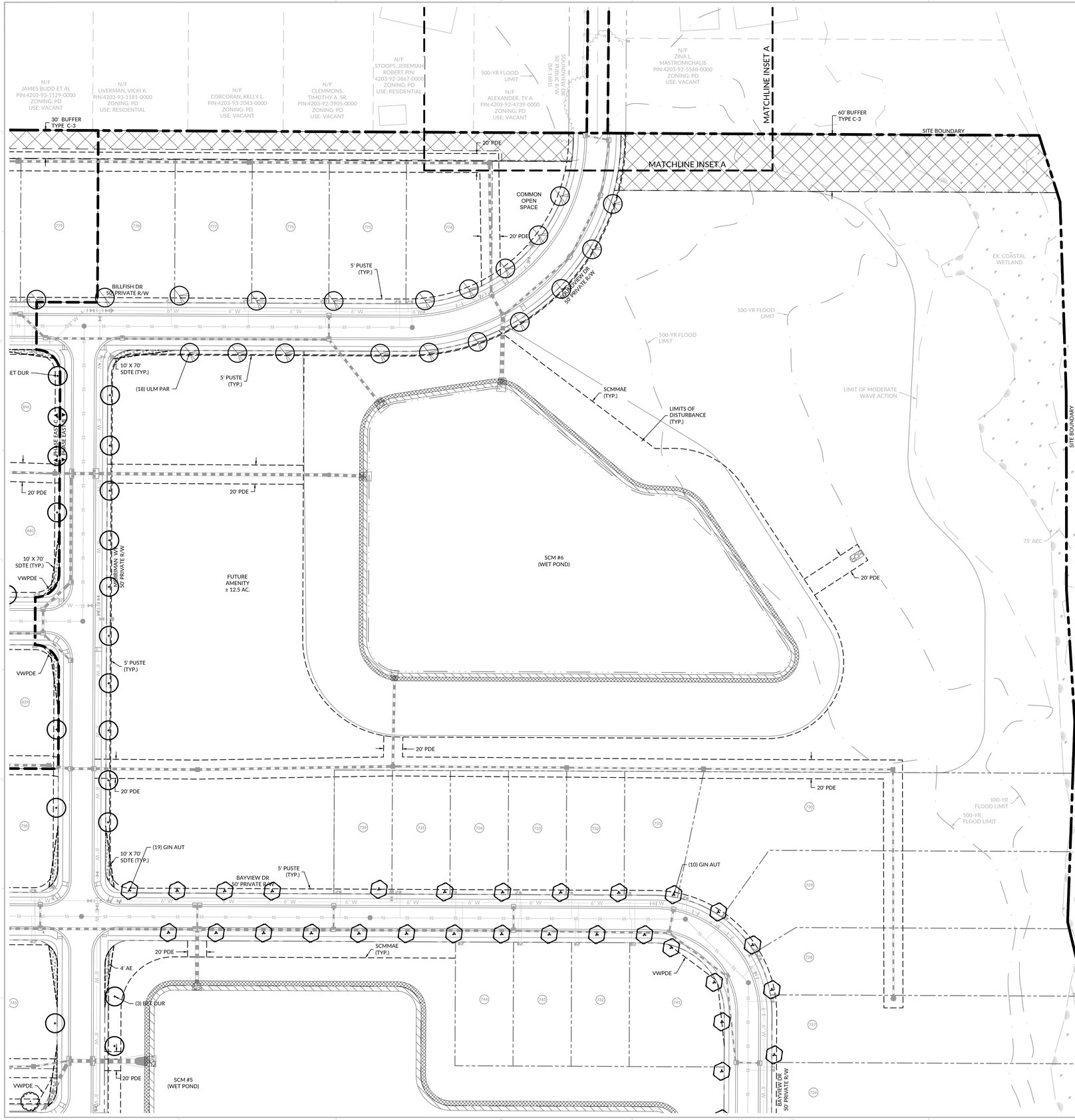

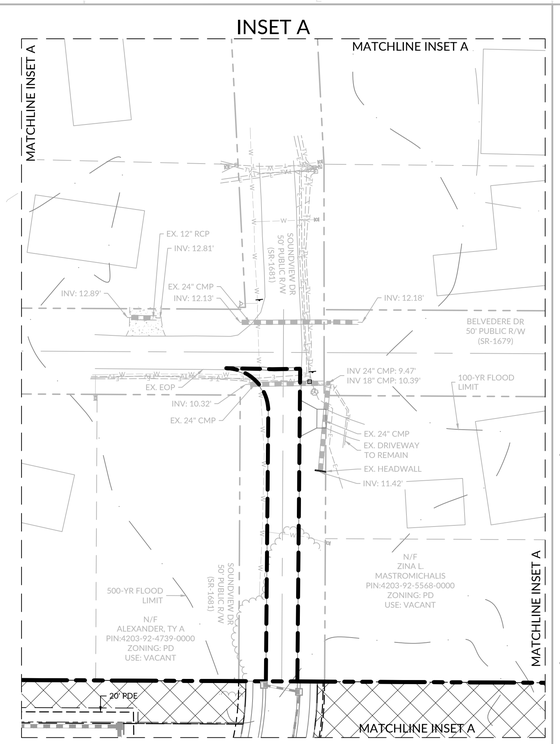

PLANT LEGEND

SYMBOL	CODE	BOTANICAL NAME
TREES		
	ACE OGL	Acer rubrum 'October Glory'
	BET DUR	Betula nigra 'BNMTF'
	GIN AUT	Ginkgo biloba 'Autumn Gold'
	QUE LYR	Quercus lyrata
	QOU NUT	Quercus nuttallii
	TAX DIS	Taxodium distichum
	ULM PAR	Ulmus parvifolia

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CONSTRUCTION PLANS

HAWKSBILL COVE EAST VILLAGE

COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
FEL B WHAT

KEY MAP
N.T.S.

0 25 50
SCALE: 1 Inch = 50 Ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

LANDSCAPE PLAN

L1.01

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PLANT LEGEND

SYMBOL	CODE	BOTANICAL NAME
TREES		
	ACE OGL	Acer rubrum 'October Glory'
	BET DUR	Betula nigra 'BNMTF'
	GIN AUT	Ginkgo biloba 'Autumn Gold'
	QUE LYR	Quercus lyrata
	QOU NUT	Quercus nuttallii
	TAX DIS	Taxodium distichum
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EAST VILLAGE
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NORTH CAROLINA
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JEL B WHAT

KEY MAP
N.T.S.

SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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

WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

LANDSCAPE PLAN

L1.02

I:\25\0329-ryan homes_pender county_hawksbill cove\CAD\drawing sets\construction\L1.02-LANDSCAPE PLAN.dwg Wednesday, October 1, 2025 3:35:03 PM by ABIBSAUX

EX. 60' R/W

BELVEDERE DR (SR-1679)

N/F
PENDER LANDING HOLDINGS, INC.
PIN:4203-74-7820-0000
ZONING: PD
USE: VACANT

N/F
SLUSHER, DAVID M.
PIN:4203-74-9621-0000
ZONING: PD
USE: RESIDENTIAL

30' BUFFER
TYPE C-3

SITE BOUNDARY

N/F
LYMAN A. THORNTON
PIN:4203-84-0532-0000
ZONING: PD
USE: RESIDENTIAL

N/F
BROADUS EDWARD HILL, JR. ET AL
PIN:4203-84-1422-0000
ZONING: PD
USE: RESIDENTIAL

N/F
UTLEY, BETTY H L/E
PIN:4203-84-2305-0000
ZONING: PD
USE: RESIDENTIAL

N/F
GIACOBBE, SUSAN
PIN:4203-84-2257-0000
ZONING: PD
USE: VACANT

N/F
BARNES, GARY
PIN:4203-84-3221-0000
ZONING: PD
USE: RESIDENTIAL

30' BUFFER
TYPE C-3

N/F
MURRAY, RICHARD G.
PIN:4203-84-3173-0000
ZONING: PD
USE: RESIDENTIAL

N/F
PENDER LANDING HOLDINGS, INC.
PIN:4203-74-7820-0000
ZONING: PD
USE: VACANT

100-YR FLOOD LIMIT

500-YR FLOOD LIMIT

SCMMAE (TYP.)

SCM #4
(WET POND)

EX. WETLANDS (TYP.)

FUTURE DEVELOPMENT
PHASE EAST-A

20' PDE

LIMITS OF DISTURBANCE (TYP.)

N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-64-4531-0000
ZONING: PD
USE: RESIDENTIAL

PUMP STATION SANITARY SEWER EASEMENT

PHASE EAST-A
PHASE EAST-C

SCM #3
(WET POND)

N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-64-4531-0000
ZONING: PD
USE: RESIDENTIAL

5' PUSTE (TYP.)

(15) ACE OGL

FIDDLER DR
50' PRIVATE R/W

VWPDE

COMMON OPEN SPACE

(24) GIN AUT

DEEPWATER DR
50' PRIVATE R/W

(4) BET DUR

PHASE EAST-C
PHASE EAST-A

(10) QOU NUT

VWPE

10' X 70' SDTE (TYP.)

(4) ACE OGL

(7) QO

(30) ACE OGL

PLANT LEGEND

SYMBOL	CODE	BOTANICAL NAME
TREES		
	ACE OGL	Acer rubrum 'October Glory'
	BET DUR	Betula nigra 'BNMTF'
	GIN AUT	Ginkgo biloba 'Autumn Gold'
	QUE LYR	Quercus lyrata
	QOU NUT	Quercus nuttallii
	TAX DIS	Taxodium distichum
	ULM PAR	Ulmus parvifolia

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HAWKSBILL COVE
EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
811 KNOW WHAT'S BELOW.

KEY MAP
N.T.S.

X3 X2 X1
X4 X5 X6 X7

0 25 50
SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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DRN: WR	DGN: WR CKD: WR

LANDSCAPE PLAN

L1.03

811 1983

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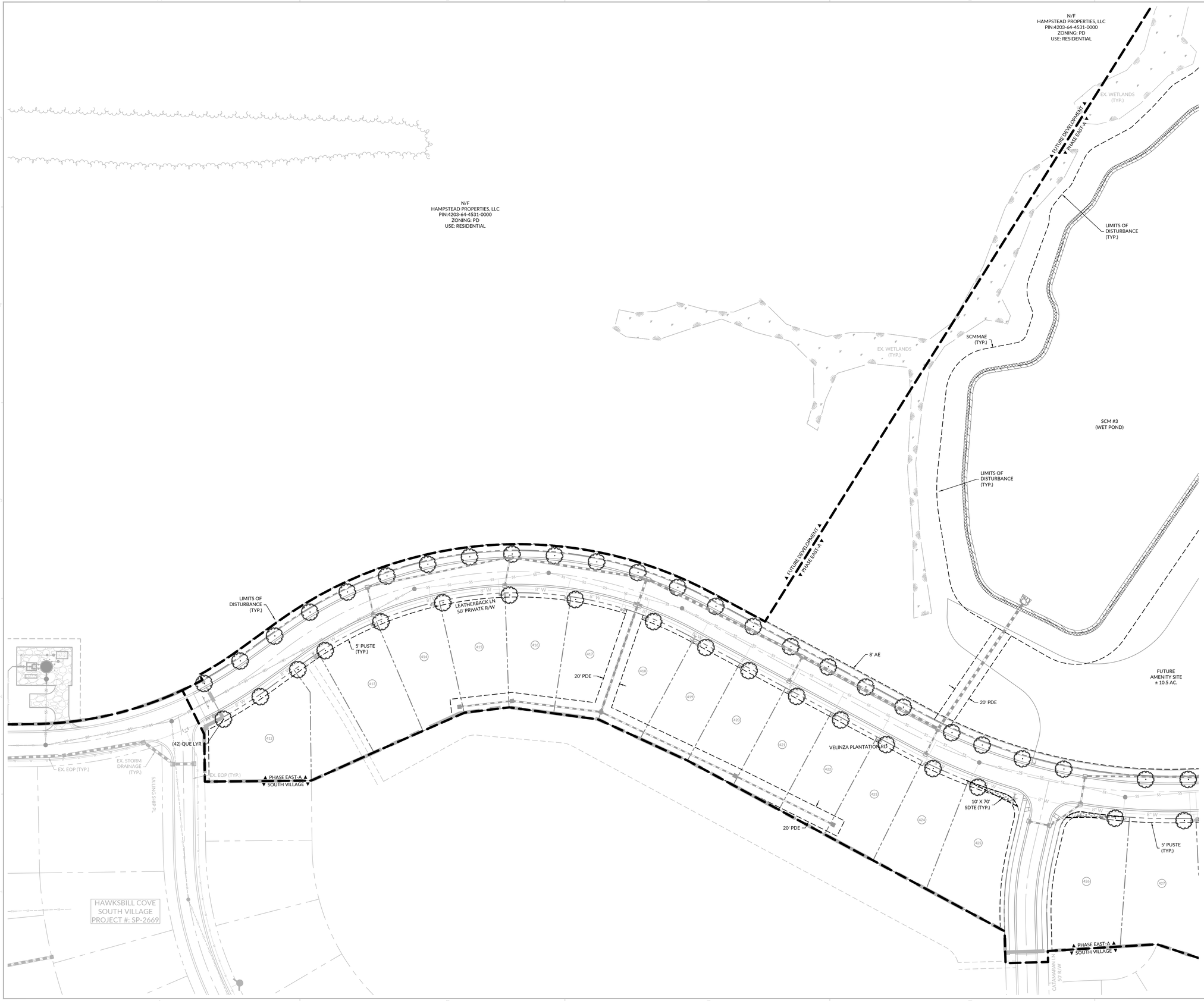

PLANT LEGEND

SYMBOL	CODE	BOTANICAL NAME
TREES		
	ACE OGL	Acer rubrum 'October Glory'
	BET DUR	Betula nigra 'BNMTF'
	GIN AUT	Ginkgo biloba 'Autumn Gold'
	QUE LYR	Quercus lyrata
	QOU NUT	Quercus nuttallii
	TAX DIS	Taxodium distichum
	ULM PAR	Ulmus parvifolia

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EAST VILLAGE

COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
FEL B WHAT

KEY MAP
N.T.S.

0 25 50
SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
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LANDSCAPE PLAN

L1.04

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N/F
HAMPSTEAD PROPERTIES, LLC
PIN:4203-64-4531-0000
ZONING: PD
USE: RESIDENTIAL

EX. WETLANDS (TYP.)

FUTURE DEVELOPMENT PHASE EAST-A

LIMITS OF DISTURBANCE (TYP.)

SCM #3
(WET POND)

SCMMAE (TYP.)

20' PDE

FUTURE AMENITY SITE
± 10.5 AC.

VARIABLE WIDTH PUE

8' AE

5' PUSTE (TYP.)

20' PUSTE (TYP.)

FIDDLER DR
50' PRIVATE R/W

(4) ACE OGL

(9) QUE LYR

VWPDE

(22)

RIDDLEY DR
50' PRIVATE R/W

LEATHERBACK LN
50' PRIVATE R/W

(15) TAX DIS

(10) QOU NUT

LOOP MAST LANE
50' PRIVATE R/W

FIRE LINE LANDING
50' PRIVATE R/W

COMMON OPEN SPACE

10' X 70' SDTE (TYP.)

(7) QOU NUT

(41) QUE LYR

VWDE

VELINZA PLANTATION RD

(12) TAX DIS

30' BUFFER TYPE C-3

LIMITS OF DISTURBANCE (TYP.)

EX. 60' R/W

SITE BOUNDARY

EX. 24" CULVERT

AVILA AVE

CATAMARAN LN
50' R/W

CUTTY SARK DR
50' R/W

EX. EOP (TYP.)

PHASE EAST-A
SOUTH VILLAGE

PLANT LEGEND

SYMBOL	CODE	BOTANICAL NAME
TREES		
	ACE OGL	Acer rubrum 'October Glory'
	BET DUR	Betula nigra 'BNMTF'
	GIN AUT	Ginkgo biloba 'Autumn Gold'
	QUE LYR	Quercus lyrata
	QOU NUT	Quercus nuttallii
	TAX DIS	Taxodium distichum
	ULM PAR	Ulmus parvifolia

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EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
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NEIL B. WHITE

KEY MAP
N.T.S.

0 25 50
SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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LANDSCAPE PLAN

L1.05

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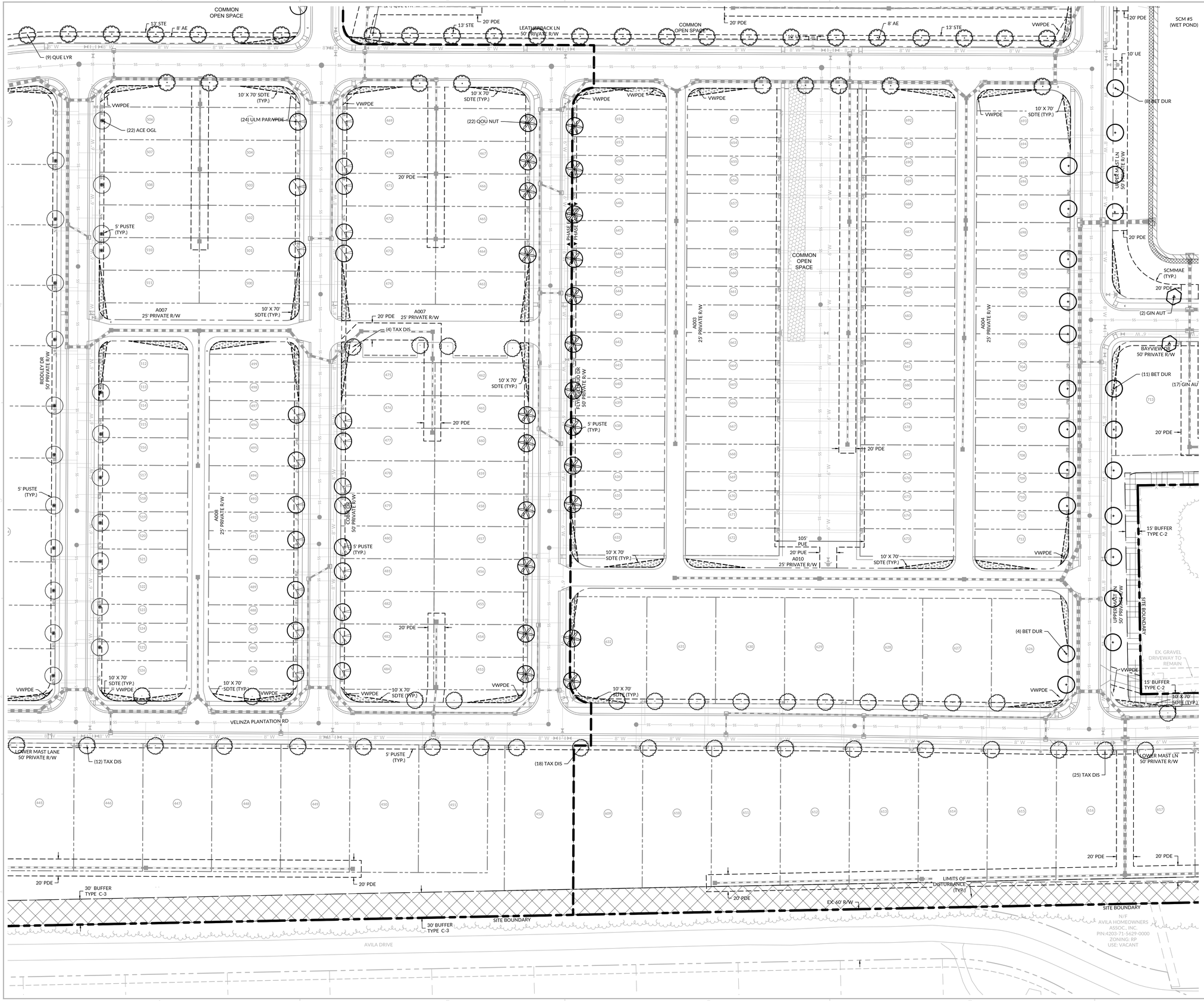

PLANT LEGEND

SYMBOL	CODE	BOTANICAL NAME
TREES		
	ACE OGL	Acer rubrum 'October Glory'
	BET DUR	Betula nigra 'BNMTF'
	GIN AUT	Ginkgo biloba 'Autumn Gold'
	QUE LYR	Quercus lyrata
	QOU NUT	Quercus nuttallii
	TAX DIS	Taxodium distichum
	ULM PAR	Ulmus parvifolia

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COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
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KELLY B. WHITE

KEY MAP
N.T.S.

SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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LANDSCAPE PLAN

L1.06

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PLANT LEGEND

SYMBOL	CODE	BOTANICAL NAME
TREES		
	ACE OGL	Acer rubrum 'October Glory'
	BET DUR	Betula nigra 'BNMTF'
	GIN AUT	Ginkgo biloba 'Autumn Gold'
	QUE LYR	Quercus lyrata
	QOU NUT	Quercus nuttallii
	TAX DIS	Taxodium distichum
	ULM PAR	Ulmus parvifolia

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HAWKSBILL COVE
EAST VILLAGE

COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA
PRELIMINARY
NOT APPROVED
FOR CONSTRUCTION
JEL B. WHAT

KEY MAP
N.T.S.

0 25 50
SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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WR JOB NUMBER	25-0329-A
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LANDSCAPE PLAN

L1.07

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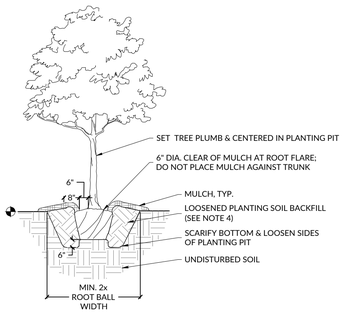
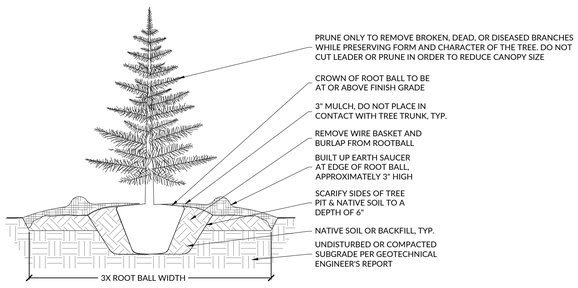


NOTES:

1. FOR CONTAINER PLANTS, REMOVE CONTAINER & SCARIFY ROOT MASS PRIOR TO PLANTING.
2. FOR B&B PLANTS, COMPLETELY REMOVE WIRE BASKET AND BURLAP MATERIAL; REMOVE ALL TWINE, ROPE,BURLAP, AND WIRE FROM ROOT BALL.
3. SET ROOT BALL ON UNDISTURBED STABLE SUBSOIL SO THAT TOP OF ROOT BALL IS 2-3" ABOVE FINISHED GRADE. TAMP SOIL FIRMLY AROUND BOTTOM OF ROOT BALL TO SET TREE PLUMB.
4. DIG & TURN PLANTING SOIL TO REDUCE COMPACTION. LIGHTLY TAMP SOIL AROUND ROOT BALL IN 6" LIFTS TO BRACE THE TREE. DO NOT OVER-COMPACT. MIX COMPOST INTO EACH LIFT OF BACKFILL AS RECOMMENDED IN SOIL REPORT. POUR WATER AROUND ROOT BALL TO SETTLE SOIL, AND BACKFILL AS REQUIRED TO MEET REQUIRED FINISHED GRADE.
5. A 3" HIGH x 8" WIDE BERM SHALL BE MADE AROUND THE ROOT BALL EDGE.
6. PRUNE TREES ONLY AS NEEDED TO REMOVE DEAD OR BROKEN BRANCHES.
7. TREES IN WINDY LOCATIONS OR ON STEEP SLOPES ARE TO BE ANCHORED PER DIRECTION FROM LANDSCAPE ARCHITECT.

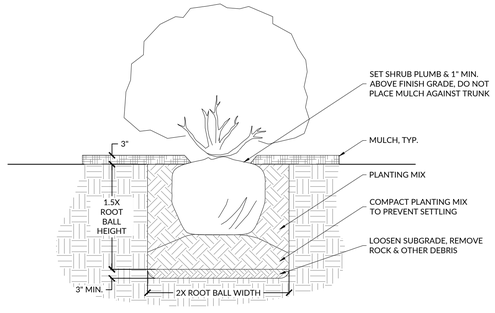
1 TREE PLANTING — SECTION
SCALE: 1/4" = 1'-0"



TREE PLANTING NOTES:

1. IF TREES SETTLE OR ARE BLOWN OUT OF PLUMB POSITION, THEY SHOULD BE STRAIGHTENED BY MAKING ADJUSTMENTS TO THE POSITION OF THE ROOTBALL - NOT BY PUSHING ON THE TRUNK AND/OR TIGHTENING THE GUY WIRE. TREES SHALL BE STRAIGHTENED DURING THE LIFE OF THE PROJECT AS THEY GET OUT OF PLUMB, NOT JUST AT THE END OF THE PROJECT.
2. BALL DEPTHS ON SOME TREES IN A SINGLE GROUP MAY VARY. IF DEPTHS VARY, ALL TREES IN A GROUP SHOULD BE SET SO THAT THE BASE OF THE TRUNKS WILL APPEAR TO BE AT THE SAME RELATIVE ELEVATION ABOVE GRADE.
3. NO EVERGREEN TREES WILL BE ACCEPTED IF THERE IS MORE THAN ONE LEADER.
4. CONTRACTOR TO VERIFY THAT ADEQUATE DRAINAGE EXISTS PRIOR TO PLANTING.
5. STAKING OF EVERGREEN TREES IS TO BE DETERMINED BY THE OWNER. IF STAKING IS DONE, FLEXIBLE STRAPS - NOT HOSE AND WIRE - SHOULD BE USED AND MUST BE REMOVED AT APPROPRIATE TIME. PROPERTY OWNER IS RESPONSIBLE FOR REPLACEMENT OF DESTROYED OR DAMAGED TREES.
6. ALL TREES SHALL CONFORM TO THE STANDARDS SET FORTH IN THE MOST RECENT EDITION (2004 OR LATER) OF AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY A.N.L.A.
7. A ROOT COLLAR EXCAVATION FOR ALL TREES SPECIFIED WILL BE DONE BY THE TOWN ARBORIST TO ENSURE THAT TREES WERE PLANTED/GROWN TOO DEEPLY BY THE SOURCE (NURSERY). LANDSCAPE CONTRACTOR SHALL HAVE SUPPLIER MARK GROUND LEVEL LINE ABOVE ROOTBALL. IF TOWN ARBORIST DETERMINES THAT THERE IS EXCESSIVE SOIL OVER ROOT CROWN, THESE TREES WILL BE REJECTED.

2 EVERGREEN PLANTING — SECTION
SCALE: 3/8" = 1'-0"



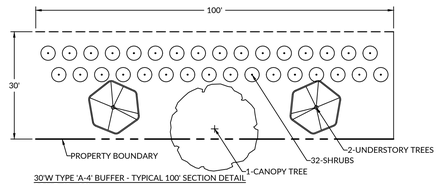
NOTES:

1. FOR CONTAINER PLANTS, SPLIT THE ROOT BALL WITH 4 EQUALLY SPACED VERTICAL CUTS & SCARIFY ROOT MASS PRIOR TO PLANTING.
2. FOR B&B PLANTS, REMOVE ALL TWINE, ROPE, WIRE, AND BURLAP FROM ROOT BALL.
3. A 3" HIGH x 8" WIDE BERM SHALL BE MADE AROUND THE ROOT BALL EDGE.
4. PLANTING AREAS WITH MULTIPLE SHRUBS ARE TO BE SIZED SO THAT THE OUTER EDGE OF PLANTING SOIL IS 8" MIN. FROM THE NEAREST SHRUB.
5. SHRUBS ARE TO BE LOCATED SUCH THAT MATURE CANOPY IS 5' MIN. FROM FIRE HYDRANTS AND 24" MIN. FROM CURB LINE.
6. SHRUBS ARE TO BE LOCATED WITH TRIANGULAR SPACING (SEE DETAIL) UNLESS OTHERWISE SHOWN ON THE PLANS.
7. PRUNE SHRUBS ONLY AS NEEDED TO REMOVE DEAD OR BROKEN BRANCHES.

3 SHRUB PLANTING — SECTION
SCALE: 1/2" = 1'-0"

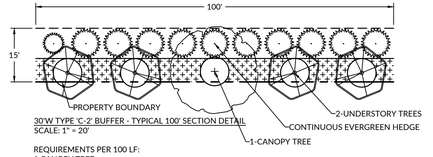
PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL / COMMON NAME	SIZE	QTY
TREES				
	ACE OGL	Acer rubrum 'October Glory' / October Glory Red Maple	10` Ht.	75
	BET DUR	Betula nigra 'BNMTF' / Dura Heat® River Birch	10` Ht.	75
	GIN AUT	Ginkgo biloba 'Autumn Gold' / Autumn Gold Maidenhair Tree	10` Ht.	83
	QUE LYR	Quercus lyrata / Overcup Oak	10` Ht.	116
	QOU NUT	Quercus nuttallii / Nuttall Oak	10` Ht.	85
	TAX DIS	Taxodium distichum / Bald Cypress	10` Ht.	74
	ULM PAR	Ulmus parvifolia / Lacebark Elm	10` Ht.	82



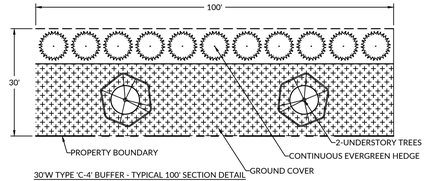
30'W TYPE 'A-4' BUFFER - TYPICAL 100' SECTION DETAIL
SCALE: 1" = 20'

REQUIREMENTS PER 100 LF:
1 CANOPY TREE
2 UNDERSTORY TREES
32 SHRUBS



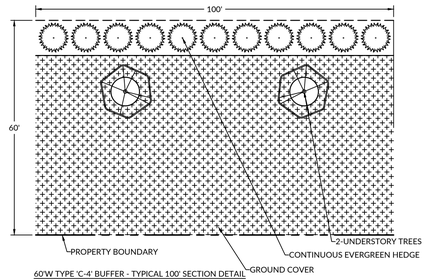
30'W TYPE 'C-2' BUFFER - TYPICAL 100' SECTION DETAIL
SCALE: 1" = 20'

REQUIREMENTS PER 100 LF:
1 CANOPY TREE
4 UNDERSTORY TREES
CONTINUOUS EVERGREEN HEDGE OR FENCE
GROUND COVER OF AT LEAST 98% COVERAGE *(EXCEPT WITHIN 4' OF TREE BASE)*



30'W TYPE 'C-4' BUFFER - TYPICAL 100' SECTION DETAIL
SCALE: 1" = 20'

REQUIREMENTS PER 100 LF:
2 UNDERSTORY TREES
CONTINUOUS EVERGREEN HEDGE OR FENCE
GROUND COVER OF AT LEAST 98% COVERAGE *(EXCEPT WITHIN 4' OF TREE BASE)*



60'W TYPE 'C-4' BUFFER - TYPICAL 100' SECTION DETAIL
SCALE: 1" = 20'

REQUIREMENTS PER 100 LF:
2 UNDERSTORY TREES
CONTINUOUS EVERGREEN HEDGE
GROUND COVER OF AT LEAST 98% COVERAGE *(EXCEPT WITHIN 4' OF TREE BASE)*

BUFFER PLANT LIST:

CANOPY TREES:
ACER RUBRUM 'OCTOBER GLORY'
BETULA NIGRA
PISTACIA CHINENSIS
QUERCUS LYRATA
QUERCUS NUTTALLII
ULMUS PARVIFOLIA

UNDERSTORY TREES:
AMALENCHIER ARBOREA
CERCIS CANADENSIS 'FOREST PANSY'
CHIONANTHUS RETUSUS
PRUNUS X YEDOENESIS
STYRAX JAPONICUS
VITEX AGNUS CASTUS

SHRUBS:
ABELIA X ROSE CREEK
CEPHALOTAXUS HARRINGTONIA 'DUKE GARDENS'
CLETHRA ALNIFOLIA 'HUMMINGBIRD'
ILEX GLABRA'SHAMROCK'
ILEX VERTICILLATA 'WINTER RED'
ILLICIUM PARVIFLORUM
LOROPETALUM CHINENSIS 'BLUSH'

GROUNDCOVERS:
PENNISETUM ALOPECUROIDES 'HAMELN'
MISCANTHUS SINENSIS 'LITTLE KITTEN'
ACORUS GRAMINUS 'VARIEGATUS'

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Ryan Homes
1105 MILITARY CUTOFF RD. STE 201
WILMINGTON, NC 28411

CONSTRUCTION PLANS
HAWKSBILL COVE
EAST VILLAGE
COUNTRY CLUB DRIVE | HAMPSTEAD, NC 28443 | PENDER COUNTY

NORTH CAROLINA INDUSTRIES
PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
NOT FOR BIDDING, PERMITTING, OR WHAT

KEY MAP
N.T.S.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

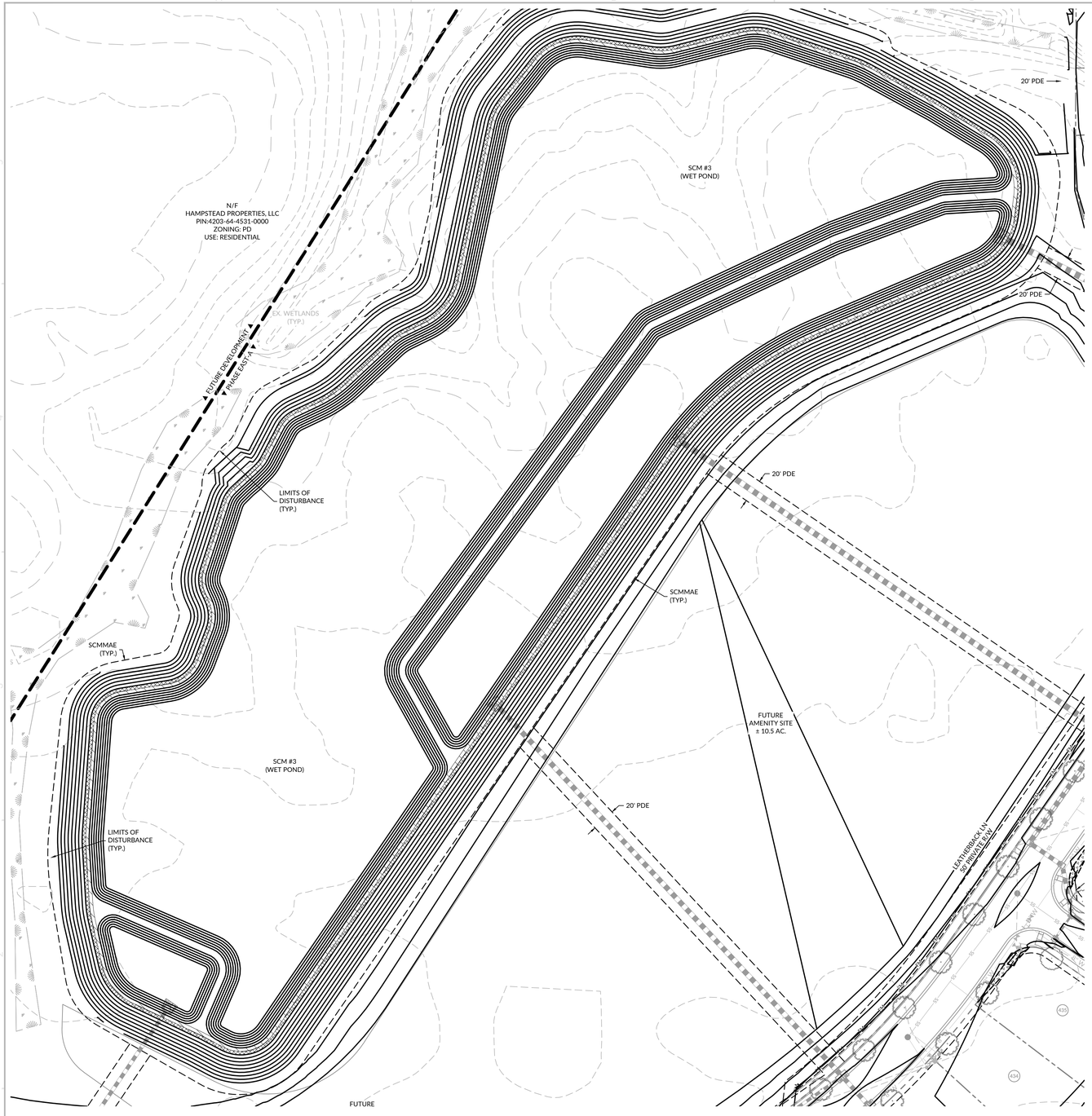
Know what's **below.** Call 811 before you dig.

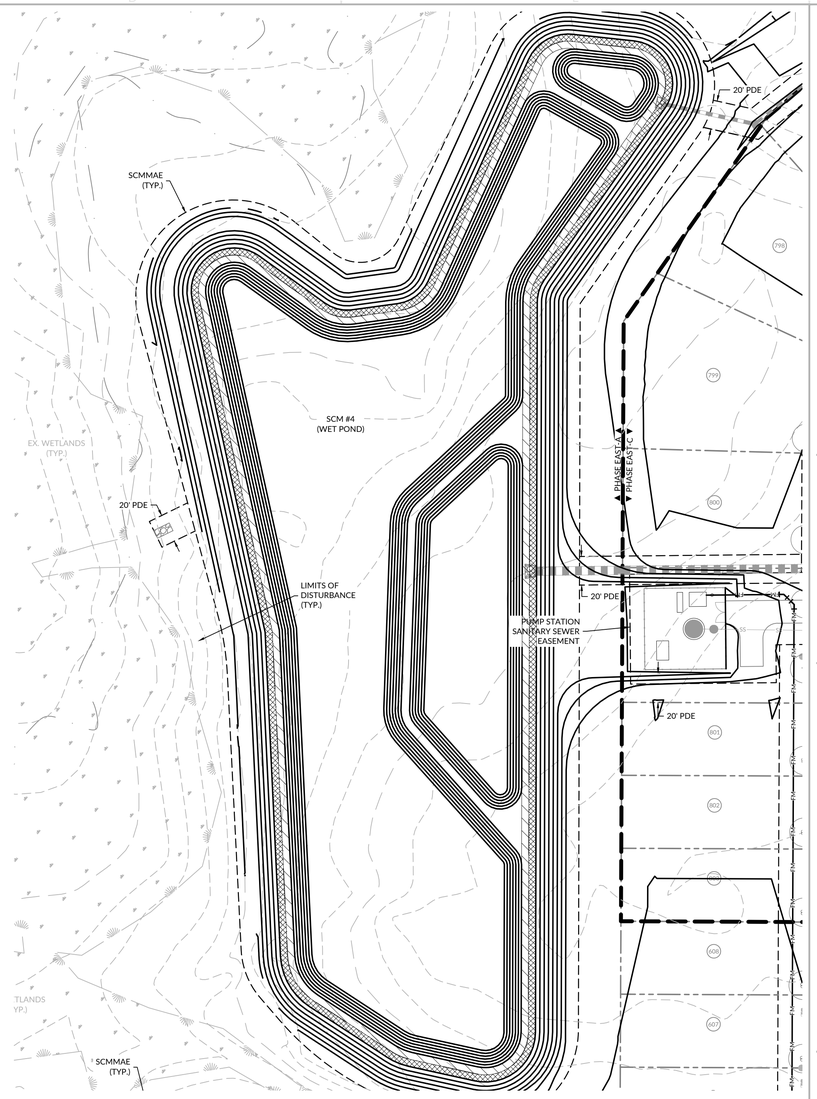
WR JOB NUMBER	25-0329-A
DRN: WR	DGN: WR CKD: WR

LANDSCAPE DETAILS

L1.08

J:\25\0329-a ryan homes_pender county_hawksbill cove\CAD\drawing set\construction\L1.08 LANDSCAPE DETAILS.dwg Wednesday, October 1, 2025 3:26:16 PM - JDECICCO





WET POND - SCM 3						
KEY	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	NOTES
SHALLOW LAND = 7820		SF W/ 50 HERB. PLANTS/200 SF =	1955			
AAM	489	Acorus americanus	Sweetflag	CONT.	4" PLUG	MIN. 24" O.C. 25% SHARED COVERAGE
AIN	489	Asclepias incarnata	Butterfly Milkweed	CONT.	4" PLUG	MIN. 24" O.C. 25% SHARED COVERAGE
JNE	489	Juncus effusus	Soft Rush	CONT.	4" PLUG	MIN. 24" O.C. 25% SHARED COVERAGE
EDU	489	Eupatorium dubius	Dwarf Joe Pye Weed	CONT.	4" PLUG	MIN. 24" O.C. 25% SHARED COVERAGE
SHALLOW WATER 7763		SF W/ 50 HERB. PLANTS/200 SF =	1941			
SGL	485	Sagittaria latifolia	Broadleaf Arrowhead	CONT.	4" PLUG	MIN. 24" O.C. 25% SHARED COVERAGE
PNC	485	Pontederia cordata	Pickerelweed	CONT.	4" PLUG	MIN. 24" O.C. 25% SHARED COVERAGE
SAC	485	Saurunus cernuus	Lizard's Tail	CONT.	4" PLUG	MIN. 24" O.C. 25% SHARED COVERAGE
JNB	485	Juncus effusus 'Blue Arrow'	Soft Rush	CONT.	4" PLUG	MIN. 24" O.C. 25% SHARED COVERAGE
Note: 'Shared coverage' means that the species will be evenly interspersed on their designated shelf across a single 24" OC square grid.						

WET POND - SCM 4						
KEY	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	NOTES
SHALLOW LAND = 9386		SF W/ 50 HERB. PLANTS/200 SF =	2347			
AAM	587	Acorus americanus	Sweetflag	CONT.	2.25" PLUG (32'S)	MIN. 24" O.C. 25% SHARED COVERAGE
AIN	587	Asclepias incarnata	Butterfly Milkweed	CONT.	2.25" PLUG (32'S)	MIN. 24" O.C. 25% SHARED COVERAGE
JNE	587	Juncus effusus	Soft Rush	CONT.	2.25" PLUG (32'S)	MIN. 24" O.C. 25% SHARED COVERAGE
EDU	587	Eupatorium dubius	Dwarf Joe Pye Weed	CONT.	2.25" PLUG (32'S)	MIN. 24" O.C. 25% SHARED COVERAGE
SHALLOW WATER 9229		SF W/ 50 HERB. PLANTS/200 SF =	2307			
SGL	577	Sagittaria latifolia	Broadleaf Arrowhead	CONT.	2.25" PLUG (32'S)	MIN. 24" O.C. 25% SHARED COVERAGE
PNC	577	Pontederia cordata	Pickerelweed	CONT.	2.25" PLUG (32'S)	MIN. 24" O.C. 25% SHARED COVERAGE
SAC	577	Saurunus cernuus	Lizard's Tail	CONT.	2.25" PLUG (32'S)	MIN. 24" O.C. 25% SHARED COVERAGE
JNB	577	Juncus effusus 'Blue Arrow'	Soft Rush	CONT.	2.25" PLUG (32'S)	MIN. 24" O.C. 25% SHARED COVERAGE
Note: 'Shared coverage' means that the species will be evenly interspersed on their designated shelf across a single 24" OC square grid.						

LEGEND:

SHALLOW LAND VEGETATIVE SHELF

SHALLOW WATER VEGETATIVE SHELF

SCM LANDSCAPE NOTES:

1. ON THE DAM AND DAM EMBANKMENT SLOPES, TURF GRASS PROVIDES STABILITY AND ENHANCES ACCESS TO THE FACILITY FOR MAINTENANCE. DEQ RECOMMENDS PERENNIAL GRASSES SUCH AS HYBRID BERMUDA OR CENTIPEDE IN THE COASTAL PLAIN AND PIEDMONT, AND COOL SEASON TURF GRASS SUCH AS FESCUE AND BLUEGRASS IN THE MOUNTAINS. WEEPING LOVE GRASS IS NOT ALLOWED BECAUSE IT DOES NOT PROVIDE LONG TERM SLOPE STABILIZATION.
2. THE DAM STRUCTURE, INCLUDING FRONT AND BACK EMBANKMENT SLOPES, OF THE POND SHALL BE VEGETATED WITH NON-CLUMPING TURF GRASS; TREES AND SHRUBS SHALL NOT BE ALLOWED.
3. THE VEGETATED SHELF SHALL BE PLANTED WITH A MINIMUM OF THREE (3) DIVERSE SPECIES OF HERBACEOUS, NATIVE VEGETATION AT A MINIMUM DENSITY OF 50 PLANTS PER 200 SQUARE FEET OF SHELF AREA.

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NORTH CAROLINA
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JEL B. WHAT

KEY MAP
N.T.S.

SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

Know what's below. Call before you dig.

WR JOB NUMBER 25-0329-A
DRN: WR DGN: WR CKD: WR

SCM 3 & 4
PLANTING PLAN

L1.09

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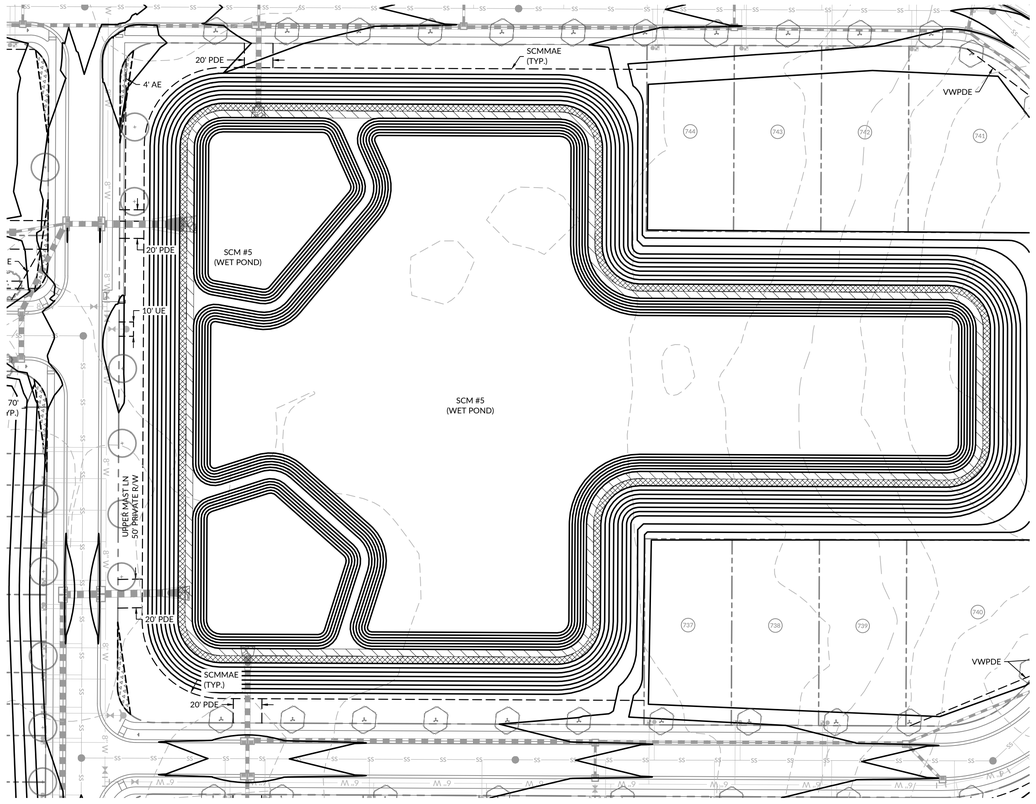

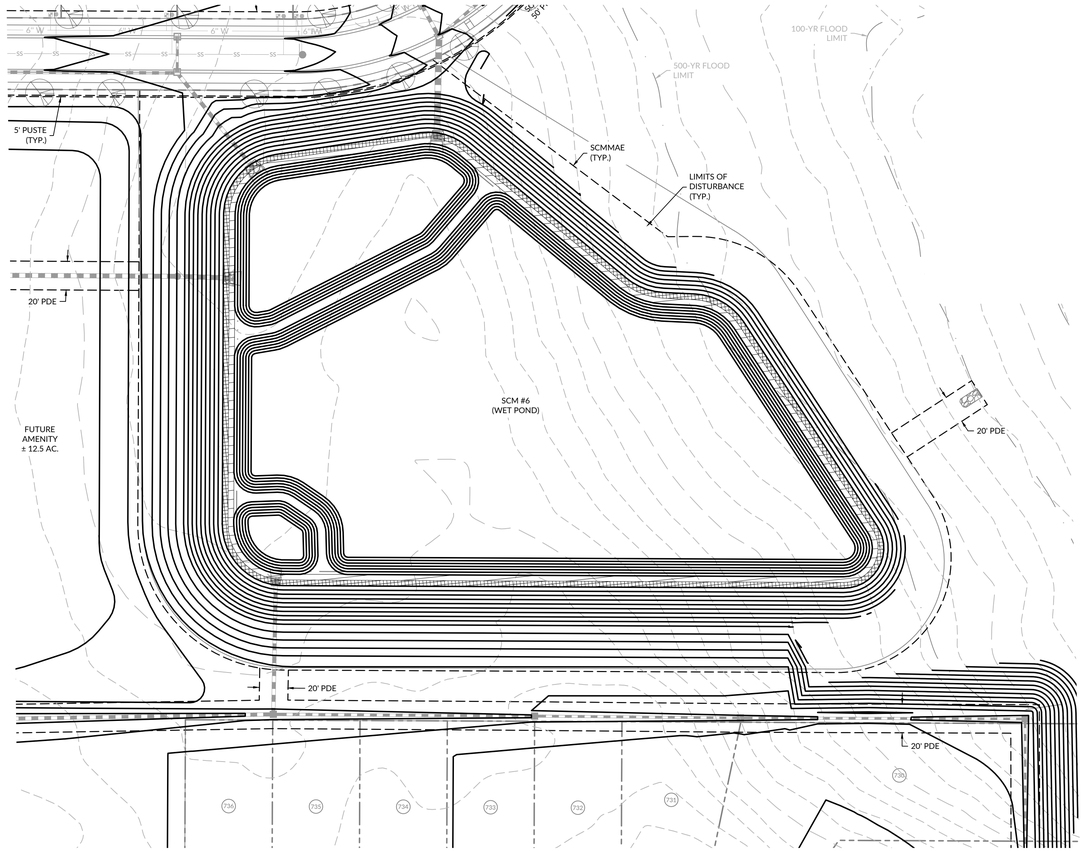

WET POND - SCM 5						
KEY	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	NOTES
SHALLOW LAND = 8997		SF W/ 50 HERB. PLANTS/200 SF = 2249				
AAM	562	Acorus americanus	Sweetflag	CONT.	2.25" PLUG (32'S)	MIN. 24" O.C. 25% SHARED COVERAGE
AIN	562	Asclepias incarnata	Butterfly Milkweed	CONT.	2.25" PLUG (32'S)	MIN. 24" O.C. 25% SHARED COVERAGE
JNE	562	Juncus effusus	Soft Rush	CONT.	2.25" PLUG (32'S)	MIN. 24" O.C. 25% SHARED COVERAGE
EDU	562	Eupatorium dubius	Dwarf Joe Pye Weed	CONT.	2.25" PLUG (32'S)	MIN. 24" O.C. 25% SHARED COVERAGE
SHALLOW WATER 8840		SF W/ 50 HERB. PLANTS/200 SF = 2210				
SGL	553	Sagittaria latifolia	Broadleaf Arrowhead	CONT.	2.25" PLUG (32'S)	MIN. 24" O.C. 25% SHARED COVERAGE
PNC	553	Pontedaria cordata	Pickerelweed	CONT.	2.25" PLUG (32'S)	MIN. 24" O.C. 25% SHARED COVERAGE
SAC	553	Saurunus cernuus	Lizard's Tail	CONT.	2.25" PLUG (32'S)	MIN. 24" O.C. 25% SHARED COVERAGE
JNB	553	Juncus effusus 'Blue Arrow'	Soft Rush	CONT.	2.25" PLUG (32'S)	MIN. 24" O.C. 25% SHARED COVERAGE
Note: 'Shared coverage' means that the species will be evenly interspersed on their designated shelf across a single 24" OC square grid.						

WET POND - SCM 6						
KEY	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	NOTES
SHALLOW LAND = 5305		SF W/ 50 HERB. PLANTS/200 SF = 1326				
AAM	332	Acorus americanus	Sweetflag	CONT.	2.25" PLUG (32'S)	MIN. 24" O.C. 25% SHARED COVERAGE
AIN	332	Asclepias incarnata	Butterfly Milkweed	CONT.	2.25" PLUG (32'S)	MIN. 24" O.C. 25% SHARED COVERAGE
JNE	332	Juncus effusus	Soft Rush	CONT.	2.25" PLUG (32'S)	MIN. 24" O.C. 25% SHARED COVERAGE
EDU	332	Eupatorium dubius	Dwarf Joe Pye Weed	CONT.	2.25" PLUG (32'S)	MIN. 24" O.C. 25% SHARED COVERAGE
SHALLOW WATER 5205		SF W/ 50 HERB. PLANTS/200 SF = 1301				
SGL	325	Sagittaria latifolia	Broadleaf Arrowhead	CONT.	2.25" PLUG (32'S)	MIN. 24" O.C. 25% SHARED COVERAGE
PNC	325	Pontedaria cordata	Pickerelweed	CONT.	2.25" PLUG (32'S)	MIN. 24" O.C. 25% SHARED COVERAGE
SAC	325	Saurunus cernuus	Lizard's Tail	CONT.	2.25" PLUG (32'S)	MIN. 24" O.C. 25% SHARED COVERAGE
JNB	325	Juncus effusus 'Blue Arrow'	Soft Rush	CONT.	2.25" PLUG (32'S)	MIN. 24" O.C. 25% SHARED COVERAGE
Note: 'Shared coverage' means that the species will be evenly interspersed on their designated shelf across a single 24" OC square grid.						

LEGEND:

SHALLOW LAND VEGETATIVE SHELF

SHALLOW WATER VEGETATIVE SHELF

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J. B. WHAT
NORTH CAROLINA

KEY MAP
N.T.S.

0 25 50
SCALE: 1 inch = 50 ft.

INITIAL PLAN DATE: 10/3/2025
REVISIONS:

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WR JOB NUMBER 25-0329-A
DRN: WR DGN: WR CKD: WR

SCM 5 & 6
PLANTING PLAN

L1.10

J:\25\0329-ryan home_pender county_hawksbill cove\CAD\drawing set\construction\L1.09-L1.10 SCM PLANTING PLAN.dwg, Wednesday, October 1, 2025 2:05:56 PM - AARONDEWALL