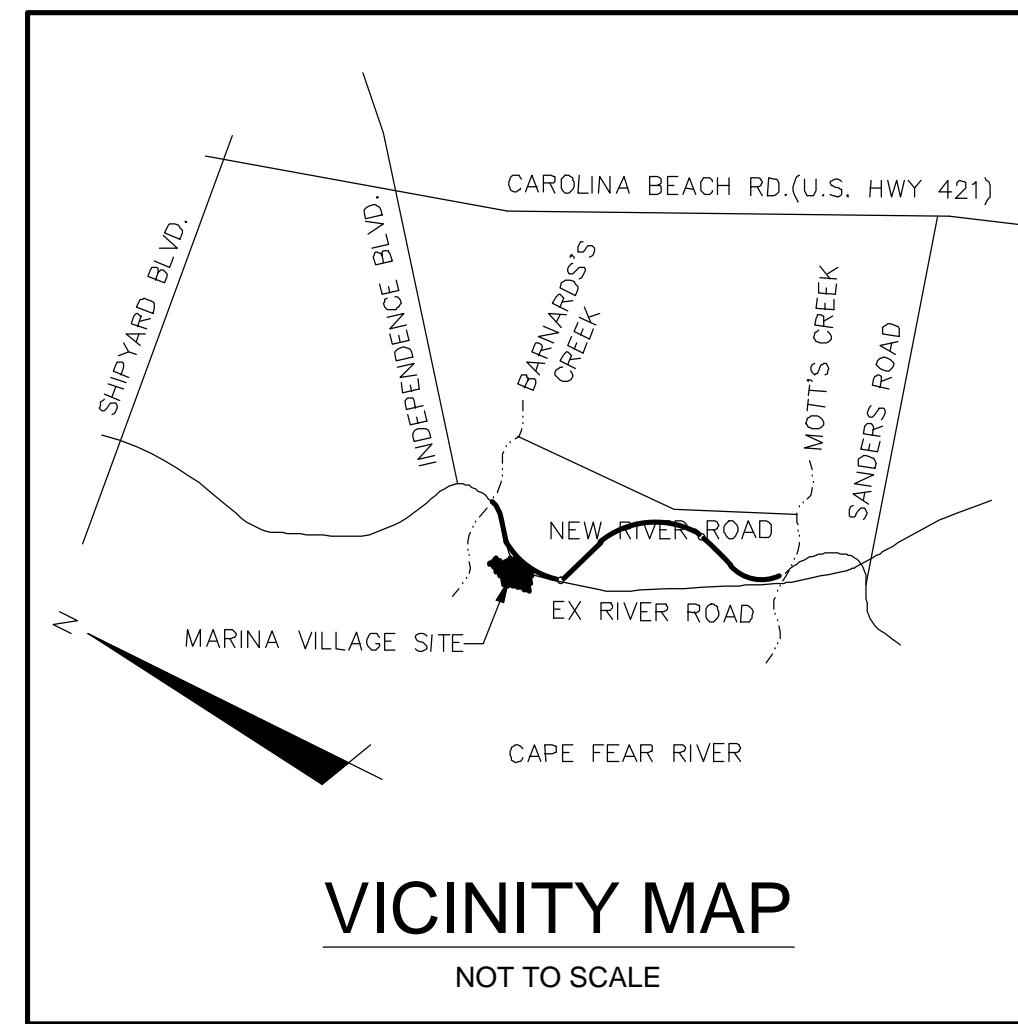


RIVERLIGHTS MARINA VILLAGE - PHASE 1

CITY OF WILMINGTON, NC

JULY 10, 2015

TRC SUBMITTAL



For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

1 inch

Approved Construction Plan

Name: _____ Date: _____

Planning _____

Traffic _____

Fire _____



Public Services • Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

Date: _____ Permit # _____

Signed: _____

CITY AND AGENCY CONTACTS

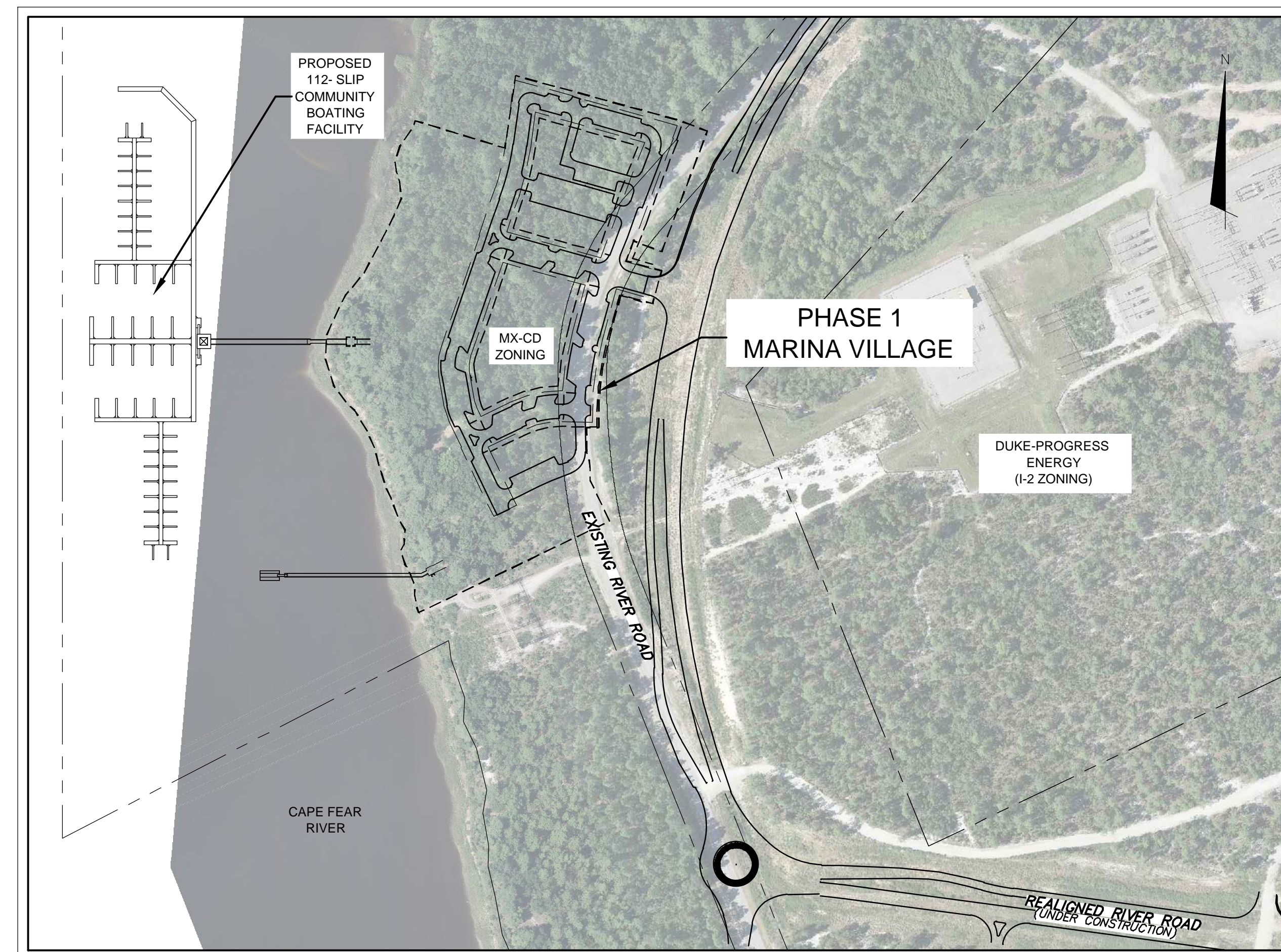
A. City of Wilmington
Planning Department
 102 North Third Street
 PO BOX 1810
 Wilmington, NC 28402-1810
 (910)341-7800
 Contact: Ron Satterfield
 Email: Ron.Satterfield@wilmingtonnc.gov

B. City of Wilmington
Engineering
 212 Operations Center Drive
 PO BOX 1810
 Wilmington, NC 28402-1810
 (910) 341-7807
 Contact: Rob Gordon
 Email: Rob.Gordon@wilmingtonnc.gov

C. New Hanover County
Sediment and Erosion Control
 230 Government Center Drive, Suite 160
 Wilmington, NC 28403
 (910) 798-7432
 Contact: Beth Wetherill
 Email: BWetherill@nhcgov.com

D. Cape Fear Public Utility Authority
 235 Government Center Drive
 Wilmington, NC 28403
 (910) 332-6626
 Contact: David Dailey
 Email: David.Dailey@cfpua.org

E. NCDENR
Division of Environmental Health
Public Water Supply Section
 1634 Mail Service Center
 Raleigh, NC 27699-1634
 (919) 715-3226
 Contact: Henri Ou
 Email: heinrich.ou@ncdenr.gov



VICINITY MAP
1"=200'

ISSUED FOR PERMITTING
NOT FOR CONSTRUCTION

PROJECT DATA

NAME OF PROJECT:
 RIVERLIGHTS - MARINA VILLAGE PHASE 1
 WILMINGTON, NORTH CAROLINA

OWNER/DEVELOPER:
 NNP IV-CAPE FEAR RIVER, LLC
 3410 RIVER ROAD, SUITE 103
 WILMINGTON, NC 28412

PREPARED BY:
 MCKIM & CREED, INC
 243 NORTH FRONT ST
 WILMINGTON, NC 28401
 PHONE: (910)343-1048
 FAX: (910)251-8282
 CONTACT: NICK LAURETTA, PE, LEED AP
 EMAIL: NLAURETTA@MCKIMCREED.COM



243 North Front Street
 Wilmington, North Carolina 28401
 Phone: (910)343-1048 , Fax: (910)251-8282
 License: F-1222

www.mckimcreed.com



SHEET INDEX		
SHEET NUMBER	SHEET TITLE	SHEET DESCRIPTION
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3	G-003	GENERAL NOTES
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5	CX-102	TREE REMOVAL PLAN
6	CX-103	TREE REMOVAL PLAN
7	CE-101	PHASE 1 SEDIMENT & EROSION CONTROL PLAN
8	CE-102	PHASE 1 SEDIMENT & EROSION CONTROL PLAN
9	CE-103	PHASE 2 SEDIMENT & EROSION CONTROL PLAN
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15	CG-102	STORM DRAINAGE PLAN
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18	CU-701	MARINA VILLAGE SANITARY SEWER OUTFALL PLAN & PROFILE
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21	CU-704	UTILITY PLAN & PROFILE
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24	CN-502	STORMWATER MANAGEMENT DETAILS
25	CN-503	STORMWATER MANAGEMENT DETAILS
26	CE-501	SEDIMENT & EROSION CONTROL DETAILS
27	CE-502	SEDIMENT & EROSION CONTROL DETAILS
28	CS-501	SITE DETAILS
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31	CG-502	STORM DRAINAGE DETAILS
32	CG-503	STORM DRAINAGE DETAILS
33	CU-501	UTILITY DETAILS
34	CU-502	UTILITY DETAILS
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39	L-110	OVERALL CONTEXT PLAN
40	L-131	LAYOUT AND MATERIALS PLAN
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42	L-152	VILLAGE GREEN GRADING PLAN
43	L-161	PLANTING PLAN
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47	L-504	LANDSCAPE DETAILS

CONSTRUCTION NOTES

- 1. CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH NEW HANOVER COUNTY AND THE CITY OF WILMINGTON STANDARDS AND SPECIFICATIONS.
2. CONTRACTOR IS FULLY RESPONSIBLE FOR ACQUIRING THE LOCATION OF EXISTING UTILITIES FROM THE APPROPRIATE PARTIES PRIOR TO CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES, USING FLAGMEN, ETC. AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
4. THESE DRAWINGS SHOW INFORMATION OBTAINED FROM THE AVAILABLE RECORDS REGARDING PIPES, CONDUITS, TELEPHONE LINES, AND OTHER STRUCTURES AND CONDITIONS WHICH EXIST ALONG THE LINES OF WORK AND BELOW THE SURFACE OF THE GROUND...

DEMOLITION NOTES

- 1. THE CONTRACTOR SHALL VISIT THE SITE TO BECOME FAMILIARIZED WITH FIELD DEMOLITION CONDITIONS.
2. THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL DEMOLISHED DEBRIS ASSOCIATED WITH THE PROJECT IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
3. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST GENERATED BY THE WORK, INCLUDING BUT NOT LIMITED TO DEMOLITION AND CONSTRUCTION ACTIVITIES, SITE VEHICULAR TRAFFIC AND RELATED OPERATIONS.
4. THE CONTRACTOR IS RESPONSIBLE FOR HAVING ALL EXISTING UTILITIES LOCATED PRIOR TO BEGINNING ANY DEMOLITION...

EXCAVATION, GRADING, AND BACKFILLING NOTES

- 1. ANY UNDERCUTTING IN GOOD SOIL SHALL BE REPLACED AND THE REPLACEMENT MATERIAL SHALL BE COMPACTED TO NINETY-FIVE (95) PERCENT OF MAXIMUM DENSITY OBTAINED AT OPTIMUM MOISTURE CONTENT, AS DETERMINED BY THE ASTM D 698 STANDARD PROCTOR TEST METHOD.
2. BEFORE BACKFILLING IS COMMENCED OVER PIPES AND OTHER INSTALLATIONS, EARTH FILL SHALL BE SOLIDLY TAMPED AROUND AND ABOVE THE PIPE TO A DEPTH OF ONE (1) FOOT ABOVE THE TOP OF THE PIPE...
3. THE MATERIAL FOR BACKFILLING SHALL BE FREE FROM ALL PERISHABLE AND OBJECTIONABLE MATERIALS. BEFORE PLACING ANY BACKFILL, ALL RUBBISH, FORM, BLOCKS, WIRES OR OTHER UNSUITABLE MATERIAL SHALL BE REMOVED FROM EXCAVATION...

STORM DRAINAGE AND GRADING NOTES

- 1. IN ACCORDANCE WITH NC GENERAL STATUTES, NPDES REGULATIONS, AND NCDENR REQUIREMENTS, STORMWATER DISCHARGE OUTFALLS SHALL BE INSPECTED BY THE CONTRACTOR. INSPECTIONS SHALL BE PERFORMED BY THE CONTRACTOR ONCE A WEEK AND WITHIN 24 HOURS OF EACH STORM EVENT OF 1/2 INCH OR GREATER.
2. INLET PROTECTION SHALL BE INSTALLED AROUND OUTFALL. DEVICES SHALL BE CONSTRUCTED TO FINAL PROPOSED CONDITION UPON STABILIZATION OF CONTRIBUTING GROUND SURFACES AND REMOVAL OF SEDIMENT FROM STORM PIPES.
3. ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION...

UTILITY NOTES

- 1. SCHEDULE A PRECONSTRUCTION MEETING WITH CAPE FEAR PUBLIC UTILITY AUTHORITY 48 HOURS PRIOR TO CONSTRUCTION OF WATER AND SEWER LINES.
2. WATER AND SANITARY SEWER UTILITY MAINS ARE CONTAINED WITH PUBLIC DRAINAGE EASEMENTS. MAINS ARE PRIVATE BEYOND THE PUBLIC UTILITY EASEMENT.
3. THIS PROJECT SHALL COMPLY WITH THE CPFLUA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METER(S) CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND NCDENR HAS ISSUED THE "FINAL APPROVAL".
4. ALL COMMERCIAL WATER SERVICES AND ANY IRRIGATION SYSTEMS SUPPLIED BY CPFLUA WATER SHALL HAVE A BACKFLOW PREVENTION DEVICE ACCEPTABLE TO CPFLUA AND APPROVED BY USGFCOCHOR OR ASSE.
5. BACKFLOW PREVENTION WILL BE PROVIDED FOR BOTH FIRE LINES (RPDA) AND COMMERCIAL DOMESTIC SERVICE (RPZ). FIRE LINE BACKFLOW PREVENTER AND DOMESTIC SERVICE BACKFLOW PREVENTER WILL BE LOCATED AS SHOWN ON THE UTILITY PLANS...

MATERIALS AND EASEMENT NOTES:

- ALL CATCH BASINS ARE NCDOT STD 840.01
• ALL DROP INLETS IN TRAFFIC AREAS ARE NCDOT STD 840.35, ALL DROP INLETS IN LANDSCAPE AREAS ARE CITY OF WILMINGTON STD 2-02 & 14-04.
• ALL STORM DRAINAGE PIPING TO BE CLASS III RCP, UNLESS OTHERWISE NOTED
• ALL STORM DRAINAGE PIPING CONVEYING DISCHARGE FROM THE PUBLIC RIGHT-OF-WAY SHALL BE CONTAINED WITHIN A PUBLIC DRAINAGE EASEMENT WHOSE WIDTH IS DETERMINED BY THE DEPTH OF BURY
• A PUBLIC UTILITY EASEMENT SHALL BE RESERVED WITHIN THE STREET RIGHT-OF-WAY. A 10' NON-MUNICIPAL EASEMENT SHALL BE RESERVED ALONG BOTH SIDES OF ALL STREETS
• WATER AND SANITARY SEWER UTILITIES ARE PUBLIC - CAPE FEAR PUBLIC UTILITY AUTHORITY

EROSION CONTROL NOTES

- 1. ANY GRADING BEYOND THE DENUDED LIMITS SHOWN ON THE PLAN IS A VIOLATION OF THE COUNTY EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE.
2. GRADING MORE THAN ONE ACRE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A VIOLATION OF STATE LAW AND IS SUBJECT TO A FINE.
3. GROUND COVER MUST BE PROVIDED ON EXPOSED SLOPES WITHIN 21 CALENDAR DAYS FOLLOWING COMPLETION OF ANY PHASE OF GRADING; AND, A PERMANENT GROUND COVER FOR ALL DISTURBED AREAS WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS (WHICHEVER IS SHORTER) FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT.
4. ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A REPRESENTATIVE OF NEW HANOVER COUNTY.
5. SLOPES SHALL BE GRADED NO STEEPER THAN 3:1.
6. ADDITIONAL DEVICES MAY BE REQUIRED AS AGREED UPON BY THE FIELD INSPECTOR, ENGINEER, AND OWNER.
7. IF ACTIVE CONSTRUCTION CEASES IN ANY AREA FOR MORE THAN 15 WORKING DAYS OR 90 CALENDAR DAYS (WHICHEVER IS SHORTER), ALL DISTURBED AREAS MUST BE SEEDED, MULCHED, AND TACKED.
8. WITHIN 24 HOURS FOLLOWING ANY RAIN EVENT, THE CONTRACTOR SHALL INSPECT AND REPAIR, AS NECESSARY, ALL DAMAGED EROSION CONTROL MEASURES.
9. ALL ACTIVITY AND INSTALLATION OF EROSION CONTROL MATTING WILL BE COMPLETE PRIOR TO ANY RAIN EVENT.

EROSION CONTROL MAINTENANCE PLAN:

- 1. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED AND REPAIRED, AS NECESSARY, EVERY SEVEN (7) DAYS AND WITHIN 24 HOURS OF EVERY ONE-HALF (0.5) INCH OR GREATER RAINFALL OCCURRENCE.
2. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.
3. SEDIMENT SHALL BE REMOVED FROM BEHIND THE SILT FENCE WHEN IT BECOMES ABOUT 0.5 FEET DEEP. THE SEDIMENT FENCE WILL BE REPAIRED OR REPLACED AS NECESSARY TO MAINTAIN A BARRIER.
4. ALL AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
5. STONE CONSTRUCTION ENTRANCE TO BE CLEANED WHEN SEDIMENT ACCUMULATIONS ARE VISIBLE OR SEDIMENT IS TRACKED ON TO THE PAVEMENT. STONE WILL BE PERIODICALLY TOP DRESSED WITH 2 INCHES OF #4 STONE TO MAINTAIN 6 INCH DEPTH. THE CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT, AS REQUIRED.
6. INSPECT TEMPORARY DIVERSIONS AND CHECK DAMS ONCE A WEEK AND AFTER EVERY RAINFALL. IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE AND CHECK DAM. CAREFULLY CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED. WHEN THE AREA PROTECTED IS PERMANENTLY STABILIZED, REMOVE THE RIDGE AND THE CHANNEL TO BLEND WITH THE NATURAL GROUND LEVEL AND APPROPRIATELY STABILIZE IT.
7. INSPECT TEMPORARY SEDIMENT BASINS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2" OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN IT ACCUMULATES TO ONE-HALF THE DESIGN DEPTH. PLACE REMOVED SEDIMENT IN AN AREA WITH SEDIMENT CONTROLS.
8. CHECK THE SEDIMENT BASIN EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE RISER AND POOL AREA.
9. INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (0.5" OR GREATER) RAINFALL EVENT. CLEAR THE MESH WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED. INLET PROTECTION SHOULD BE CLEANED OUT WHEN IT IS HALF FULL.
10. INSPECT TEMPORARY SEDIMENT TRAPS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2" OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE TRAP TO ITS ORIGINAL DIMENSIONS WHEN IT ACCUMULATES TO ONE-HALF THE DESIGN DEPTH. PLACE REMOVED SEDIMENT IN AN AREA WITH SEDIMENT CONTROLS.
11. REPAIR THE BAFFLES IF THEY ARE DAMAGED. RE-ANCHOR THE BAFFLES IF WATER IS FLOWING UNDERNEATH OR AROUND THEM.
12. INSPECT THE SKIMMER FOR CLOGGING. PULL THE SKIMMER TO THE SIDE OF THE BASIN AND REMOVE ANY DEBRIS. ALSO CHECK THE ORIFICE INSIDE THE SKIMMER AND THE ARM OR BARREL PIPE FOR CLOGGING; IF CLOGGED, REMOVE THE DEBRIS.

NOTE (G.S. 113A-57 (2))

THE ANGLE FOR GRADED SLOPES AND FILLS SHALL BE NO GREATER THAN THE ANGLE THAT CAN BE RETAINED BY VEGETATIVE COVER OR OTHER ADEQUATE EROSION CONTROL DEVICES OR STRUCTURES. IN ANY EVENT, SLOPES LEFT EXPOSED WILL, WITHIN 21 CALENDAR DAYS OF COMPLETION OF ANY GRADING, BE PLANTED OR OTHERWISE PROVIDED WITH TEMPORARY OR PERMANENT GROUND COVER, DEVICES, OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION.

CITY OF WILMINGTON STANDARD NOTES

- 1. CONTACT THE NORTH CAROLINA ONE CALL CENTER PRIOR TO DOING ANY DIGGING AT 1-800-632-4949.
2. PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING SHALL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AND NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
3. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
4. ONCE STREETS ARE OPEN TO TRAFFIC, THE DEVELOPER SHALL CONTACT TRAFFIC ENGINEERING TO REQUEST INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. PROPOSED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.
5. TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.
6. ANY BROKEN OR MISSING SIDEWALK PANELS AND CURBING SHALL BE REPLACED BY THE CONTRACTOR.
7. CONTACT CITY OF WILMINGTON AT 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
8. IF THE CONTRACTOR DESIRES WATER FOR CONSTRUCTION HE SHALL APPLY WITH THE CAPE FEAR PUBLIC UTILITY AUTHORITY IN ADVANCE FOR THIS SERVICE AND MUST PROVIDE A REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION DEVICE ON THE DEVELOPER'S SIDE OF THE WATER METER BOX.
9. THE NUMBER AND SPACING OF DRIVEWAYS FOR ALL INTERCONNECTED SITES WILL BE DETERMINED BY THE COMBINED FRONTAGE OF THE INTERCONNECTED PROPERTIES.
10. CONTACT TRAFFIC ENGINEERING TO ENSURE THAT ALL TRAFFIC SIGNAL FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN. CALL TRAFFIC ENGINEERING FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
11. TACTILE WARNING MATS ARE TO BE INSTALLED ON ALL WHEELCHAIR RAMPS.
12. NO LAND DISTURBANCE INCLUDING TREE REMOVAL IS TO OCCUR OUTSIDE THE LIMITS OF DISTURBANCE SHOWN ON THE PLANS.

NOTE COW(18-458)

NO EQUIPMENT IS ALLOWED ONSITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING HAS BEEN INSTALLED AND APPROVED BY THE ENGINEER.

FIRE PROTECTION NOTES

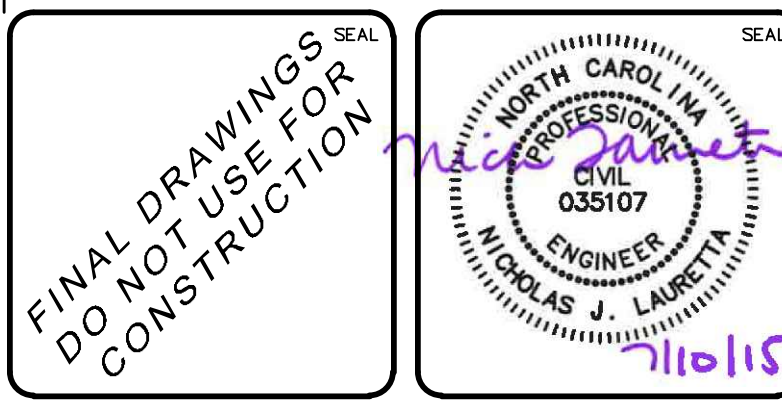
- 1. HYDRANT MUST BE WITHIN 150' OF THE FDC.
2. THE FDC MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT.
3. LANDSCAPING OR PARKING CANNOT BLOCK OR IMPEDE THE FDC OR FIRE HYDRANTS. A 3-FOOT CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE HYDRANT AND FDC.
4. HYDRANTS MUST BE LOCATED WITHIN 8' OF THE CURB PER CITY OF WILMINGTON STANDARDS. HYDRANTS WILL BE LOCATED WITHIN 6' OF THE CURB PER CPFLUA STANDARDS.
5. COMBUSTIBLE MATERIALS MAY NOT BE STORED OR RECEIVED ONSITE WITHOUT CITY FIRE INSPECTOR APPROVAL.
6. NEW HYDRANTS MUST BE AVAILABLE FOR USE PRIOR TO CONSTRUCTION OF THE BUILDING(S).
7. UNDERGROUND FIRE LINE AND PRIVATE WATER MAINS MUST BE PERMITTED AND INSPECTED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC RIGHT-OF-WAY TO THE BUILDING. CONTACT THE WILMINGTON FIRE DEPARTMENT DIVISION OF FIRE AND LIFE SAFETY AT 910-343-0696 FOR ADDITIONAL INFORMATION.
8. A MINIMUM OF 5' SHALL SEPARATE UNDERGROUND FIRE LINES OR PRIVATE WATER MAINS FROM UNDERGROUND UTILITIES
9. CONTRACTOR SHALL MAINTAIN AN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
10. TEMPORARY STREET SIGNS SHALL BE INSTALLED AT EACH STREET INTERSECTION WHEN CONSTRUCTION OF NEW ROADWAYS ALLOWS PASSAGE BY VEHICLES.

UTILITY COMPANY CONTACTS

- DUKE/PROGRESS ENERGY: SID LIVINGSTON/MARK HATFIELD (910) 452-2777
DUKE ENERGY (TRANSMISSION): BILL WILDER (910) 772-4903
AT&T (BELLSOUTH): JAMES BATSON (910) 452-5300
TIME WARNER CABLE: ROBERT JOHN (910) 216-4494
PIEDMONT NATURAL GAS: PAUL GONKA (910) 512-2841
DJ MEDEIROS (910) 431-3233
CAPE FEAR PUBLIC UTILITY AUTHORITY (910) 332-6550

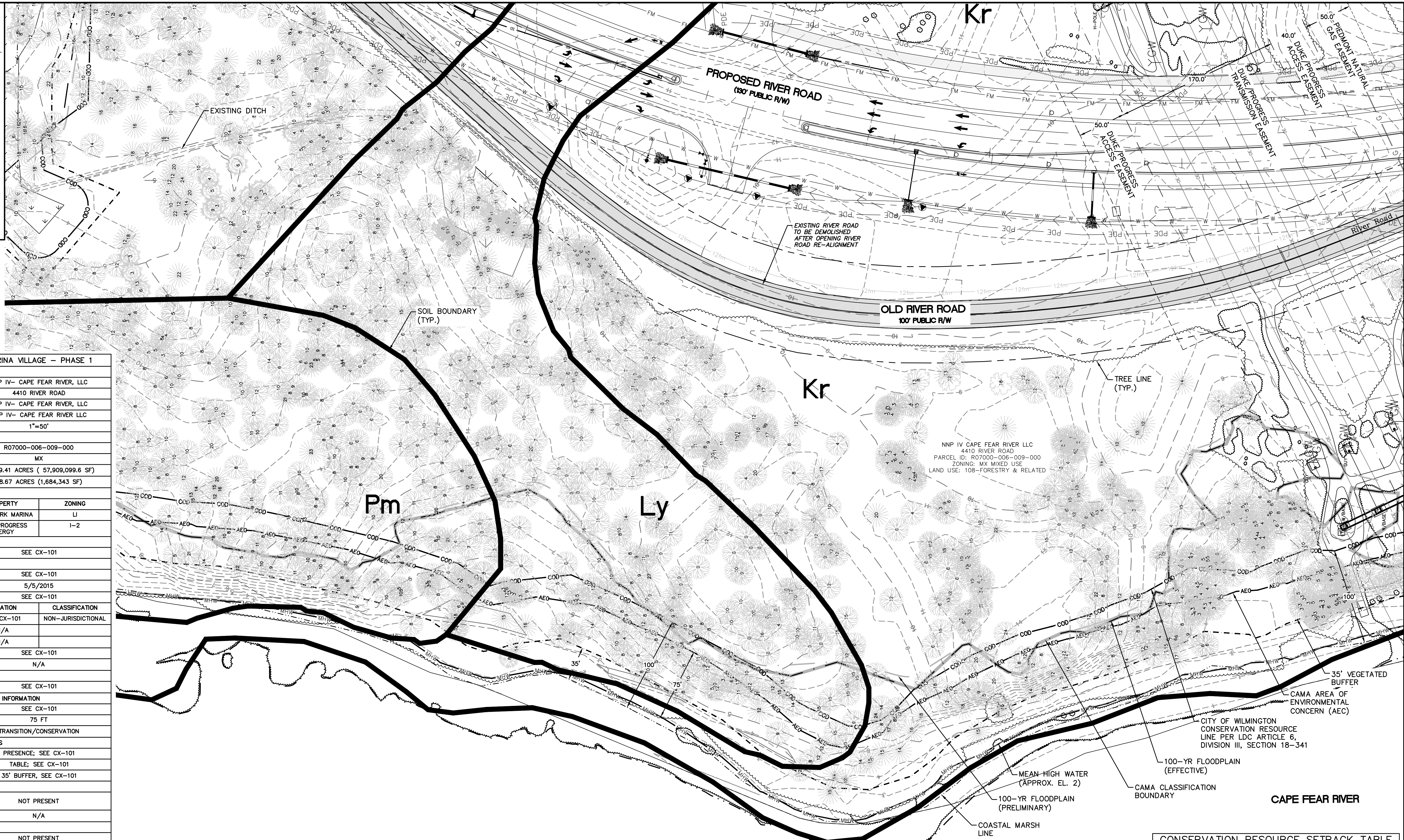
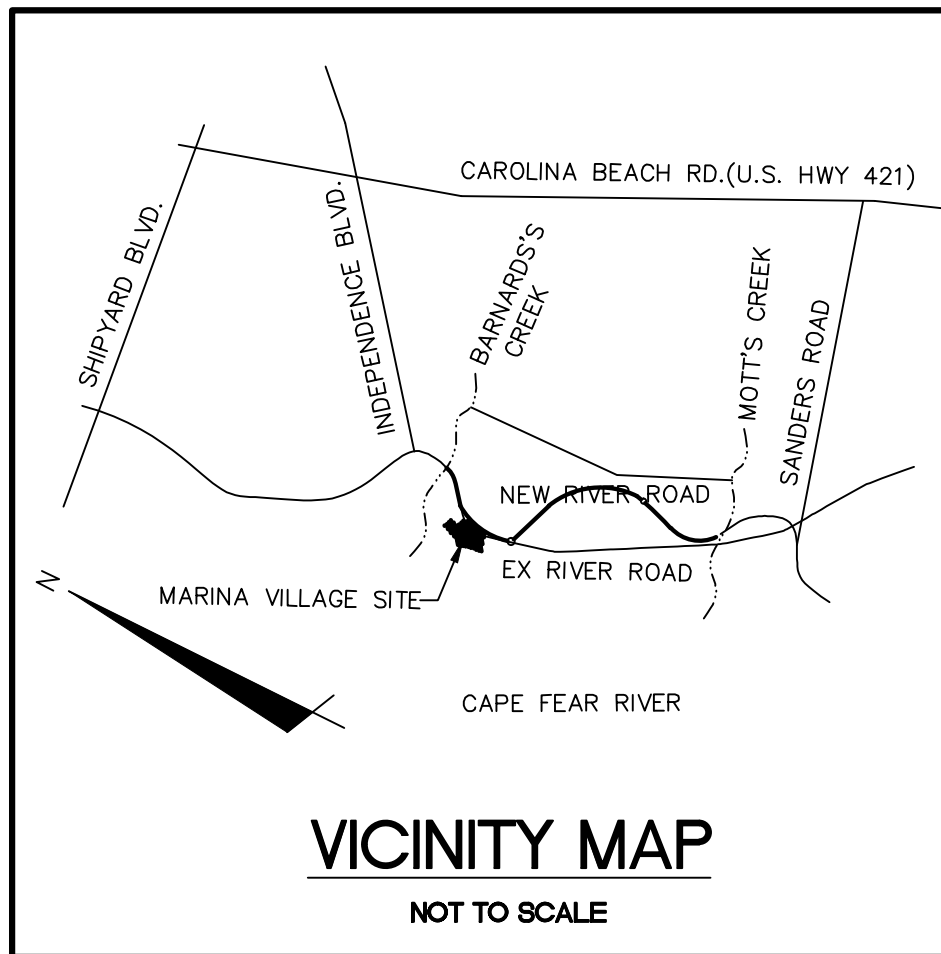
Table with 3 columns: SITE AREA DESCRIPTION, STABILIZATION TIMEFRAME, and STABILIZATION TIMEFRAME EXCEPTIONS. Rows include PERIMETER DITCHES, SHOALS, DITCHES AND SLOPES (7 DAYS), HIGH QUALITY WATER ZONES (7 DAYS), SLOPES STEEPER THAN 3:1 (7 DAYS), SLOPES 3:1 OR FLATTER (14 DAYS), and ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1 (14 DAYS).

Table with 2 columns: REVISION, DESCRIPTIONS/REVISIONS, and DATE. Rows include H, G, F, E, D, C, B, A, and REVISION.



RIVERLIGHTS MARINA VILLAGE GENERAL NOTES. Includes project details like DATE (08APR15), MCE PROJ. # (2735-0124), DRAWN (EEM), DESIGNED (EEM), CHECKED (RMC), PROJ. MGR. (NLL), SCALE, HORIZONTAL, VERTICAL, and DRAWING NUMBER (3 of 47).

STATUS: FINAL DESIGN. NOT FOR CONSTRUCTION. Includes drawing number 3 of 47 and revision H.



SITE DATA TABLE		MARINA VILLAGE - PHASE 1	
GENERAL INFORMATION			
APPLICANT NAME	NNP IV- CAPE FEAR RIVER, LLC		
SITE ADDRESS	4410 RIVER ROAD		
PROPERTY OWNER	NNP IV- CAPE FEAR RIVER, LLC		
DEVELOPER	NNP IV- CAPE FEAR RIVER LLC		
MAP SCALE	1"=50'		
PROPERTY BOUNDARY			
TAX PARCEL IDENTIFICATION NUMBER	R07000-006-009-000		
ZONING DISTRICT	MX		
TOTAL ACREAGE WITHIN THE RIVER ROAD BOUNDARY	1,329.41 ACRES (57,909,099.6 SF)		
TOTAL ACREAGE WITHIN THE MARINA VILLAGE BOUNDARY	38.67 ACRES (1,684,343 SF)		
ADJACENT PROPERTY			
ADJACENT PROPERTY	PROPERTY	ZONING	
	WATERMARK MARINA	U	
	DUKE PROGRESS ENERGY	I-2	
VICINITY			
VICINITY MAP	SEE CX-101		
TOPOGRAPHY AND DRAINAGE			
2-FT TOPOGRAPHY MINIMUM INTERVAL	SEE CX-101		
DATE OF TOPOGRAPHY DATA	5/5/2015		
100-YR FLOODPLAIN LINE	SEE CX-101		
LOCATION OF NATURAL WATER FEATURES	LOCATION	CLASSIFICATION	
DITCHES	SEE CX-101	NON-JURISDICTIONAL	
STREAMS	N/A		
CREEKS	N/A		
FLOOD PRONE AREAS	SEE CX-101		
AREAS OF NATURALLY CONCENTRATED SURFACE DRAINAGE	N/A		
SOIL			
SOIL TYPE(S) AND BOUNDARIES	SEE CX-101		
NORTH CAROLINA COASTAL AREA MANAGEMENT AD INFORMATION			
CAMA AREA OF ENVIRONMENTAL CONCERN	SEE CX-101		
SETBACKS	75 FT		
CAMA LAND USE CLASSIFICATION(S)	TRANSITION/CONSERVATION		
CONSERVATION RESOURCE REGULATIONS			
PRESENCE OF CONSERVATION RESOURCE	PRESENCE; SEE CX-101		
SETBACKS	TABLE; SEE CX-101		
VEGETATED BUFFER	35' BUFFER, SEE CX-101		
HISTORIC AND ARCHEOLOGICAL SITES			
LOCAL, STATE, OR FEDERALLY RECOGNIZED HISTORIC STRUCTURE(S) OR ARCHEOLOGICAL RESOURCES	NOT PRESENT		
LOCATION	N/A		
CEMETERIES			
CEMETERIES, BURIAL SITES, OR BURIAL GROUNDS?	NOT PRESENT		
FORESTED AREAS			
BOUNDARIES OF FORESTED AREAS	SEE CX-101		
FOREST AREA	10.24 ACRES (446,075 SF)		
HABITAT	FORESTED WETLAND/TIDAL MARSH		
DOMINANT SPECIES	OAK, PINE		
WETLANDS			
404/SECTION 10 WETLAND LOCATION	PRESENCE; SEE CX-101		
METHOD OF DETERMINATION	N/A		
IMPACTED WETLANDS	0.25 ACRES OF NON-404; DWQ PERMIT #07-1335		
ENDANGERED SPECIES OR HABITAT			
ENDANGERED SPECIES OR HABITAT IN PROJECT AREA	NOT PRESENT		
AUTOMOBILE, BICYCLE, PEDESTRIAN, OR TRANSIT FACILITIES	NOT PRESENT		
EXISTING OR PROPOSED THOROUGHFARES, BIKE ROUTES, PEDESTRIAN SIDEWALKS OR TRAILS, AND TRANSIT FACILITIES	NOT PRESENT		

- GENERAL NOTES:**
- FLOODPLAIN INFORMATION WAS OBTAINED FROM NC FLOODPLAIN MAPPING FLOOD RISK INFORMATION SYSTEM PROGRAM. RIVERLIGHTS IS LOCATED WITHIN FIRM MAP 3720312400K, PANEL 3124 AS REVISED JUNE 02, 2006.
 - ITEMS DESIGNATED AS "PROPOSED" ARE PART OF THE RIVER ROAD REALIGNMENT PROJECT THAT IS CURRENTLY UNDER CONSTRUCTION. RIVER ROAD CONSTRUCTION TO BE COMPLETE SPRING 2016.
 - WETLANDS SHOWN IN THIS PORTION OF RIVERLIGHTS WERE DESCRIBED AS BRACKISH/SALT MARSH AND POCOSIN WETLANDS AND CONSERVATION RESOURCE SETBACK LINES WERE GENERATED AS 100' AND 25', RESPECTIVELY, MINIMUM OUTSIDE OF THE RESOURCE.
 - FINISHED FLOOR ELEVATIONS OFF ALL INHABITABLE STRUCTURES WILL BE MIN. 2- FEET ABOVE BASE FLOOD ELEVATION

TREE LEGEND

- CEDAR
- GUM
- HOLLY
- OAK
- MAPLE
- PINE

LEGEND

- POWER POLE
- GUY WIRE
- WETLAND
- MEAN HIGH WATER
- AREA OF ENVIRONMENTAL CONCERN
- CITY OF WILMINGTON CONSERVATION RESOURCE
- 100-YEAR FLOODPLAIN (PRELIMINARY)
- 100-YEAR FLOODPLAIN (EFFECTIVE)

CONSERVATION RESOURCE SETBACK TABLE

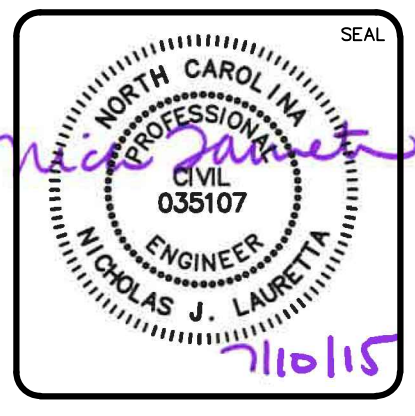
CONSERVATION RESOURCE	RES	COMM
POCOSIN	25'	50'
SAVANNAH	25'	50'
BRACKISH/SALT MARSH	75'	100'

REFERENCE: LDC 18-341 (d) 5h

SCALE: 1"=50' (Horiz.)

REVNO.	DESCRIPTIONS/REVISIONS	DATE
H	CITY OF WILMINGTON TRC SUBMITTAL 3	07/10/2015
G	NEW HANOVER COUNTY EROSION CONTROL SUBMITTAL 2	06/11/2015
F	CAPE FEAR PUBLIC UTILITY AUTHORITY SUBMITTAL	06/11/2015
E	CITY OF WILMINGTON TREE REMOVAL	06/25/2015
D	CITY OF WILMINGTON TRC SUBMITTAL 2	05/29/2015
C	CITY OF WILMINGTON STORMWATER SUBMITTAL	05/20/2015
B	NEW HANOVER COUNTY EROSION CONTROL SUBMITTAL	05/13/2015
A	CITY OF WILMINGTON TRC SUBMITTAL	04/08/2015

FINAL DRAWINGS SEAL
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RIVERLIGHTS
by Newland COMMUNITIES
NORTH AMERICA SEKISUI HOUSE, LLC

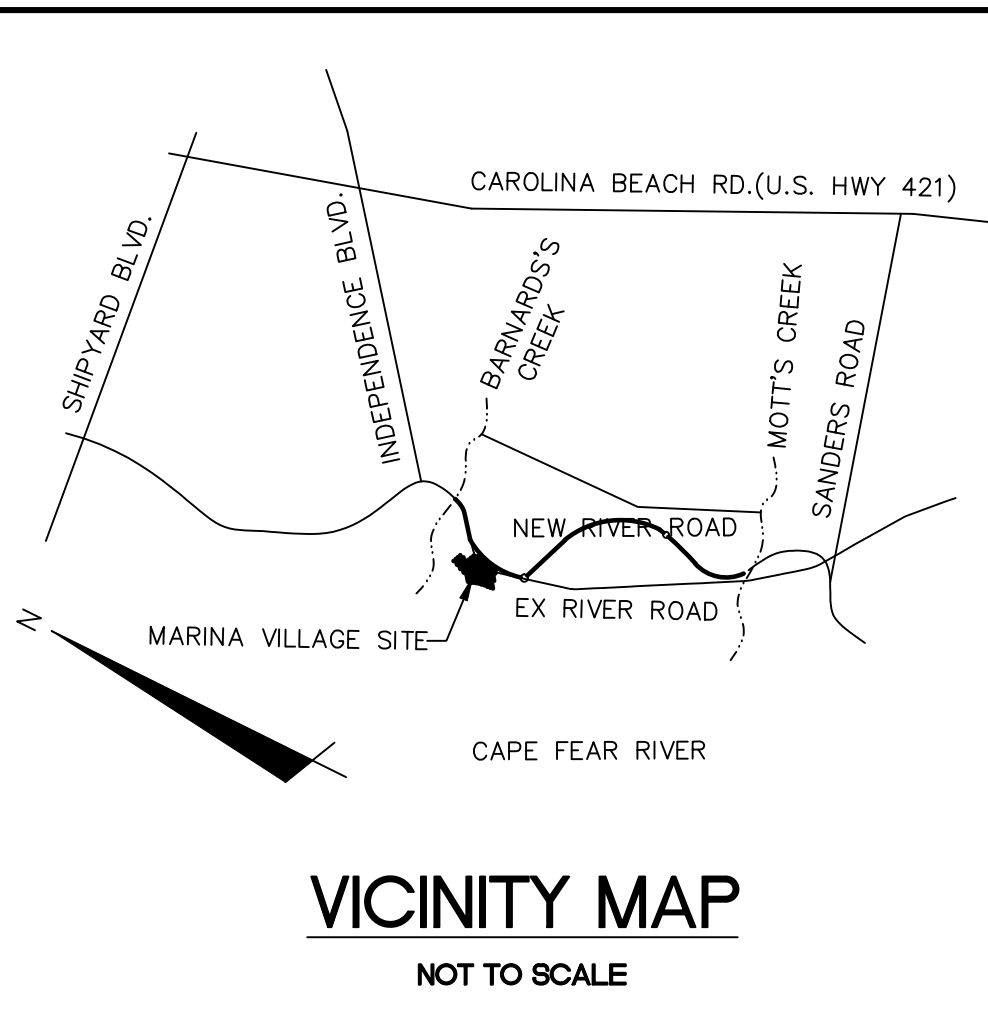
RIVERLIGHTS MARINA VILLAGE
EXISTING CONDITIONS SITE INVENTORY MAP

DATE: 08APR15
MCE PROJ. # 2735-0124
DRAWN: EEM
DESIGNED: EEM
CHECKED: RMC
PROJ. MGR.: NJL

SCALE: HORIZONTAL: 1"=50'
VERTICAL: ---

MFC FILE NUMBER: CX-101
DRAWING NUMBER: 4
REVISION: H
4 OF 47

STATUS: FINAL DESIGN
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TREE LEGEND

- CEDAR
- GUM
- HOLLY
- OAK
- MAPLE
- PINE
- TREE TO BE REMOVED

LEGEND

- POWER POLE
- GUY WIRE
- WETLAND
- MHW MHW MHW MHW = MEAN HIGH WATER
- AEG AEG AEG AEG = AREA OF ENVIRONMENTAL CONCERN
- — — — = CITY OF WILMINGTON CONSERVATION RESOURCE
- — — — = 100-YEAR FLOODPLAIN (PRELIMINARY)
- — — — = 100-YEAR FLOODPLAIN (EFFECTIVE)
- — — — = TREE PROTECTION FENCE
- LOD LOD LOD = LIMITS OF DISTURBANCE
- SS = GRAVITY SANITARY SEWER MAIN

CONSERVATION RESOURCE SETBACK TABLE		
CONSERVATION RESOURCE	RES	COMM
POCOSIN	25'	50'
SAVANNAH	25'	50'
BRACKISH/SALT MARSH	75'	100'

REFERENCE: LDC 18-341 (d) 5h

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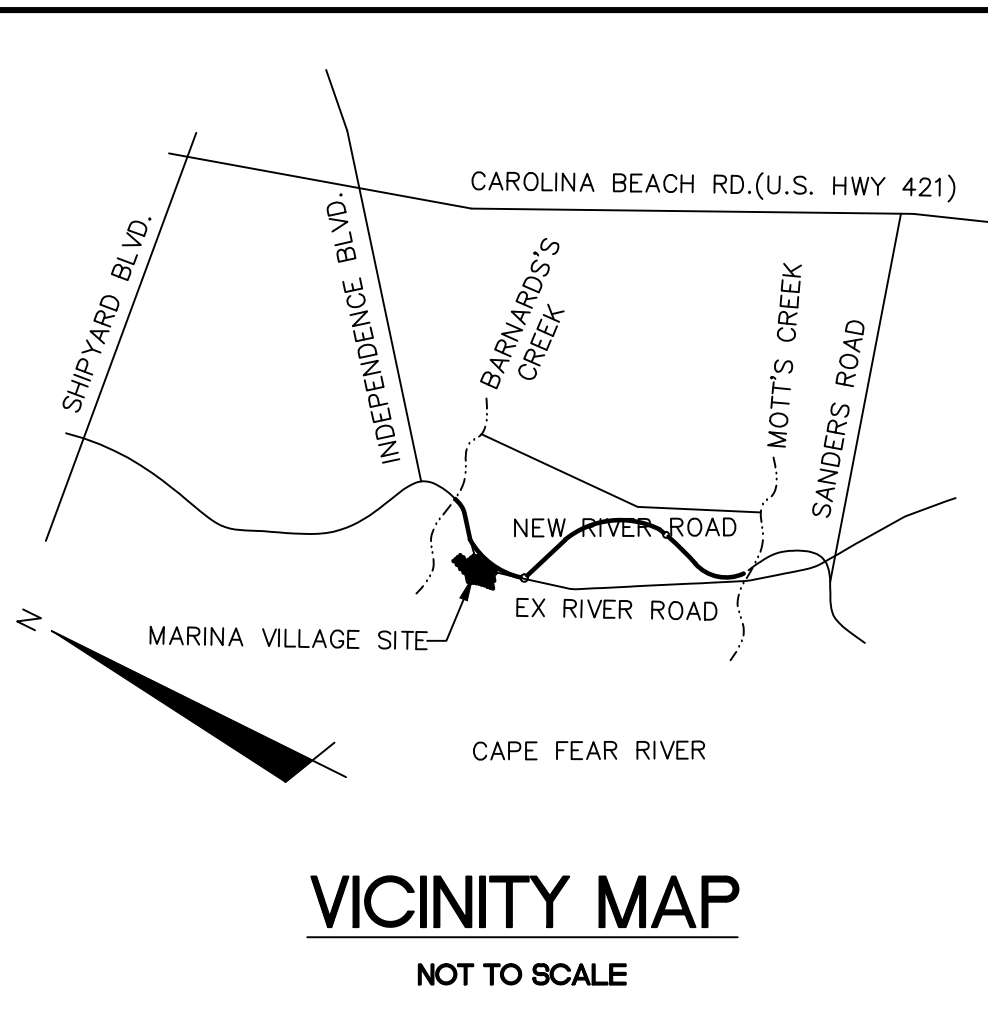
RIVERLIGHTS MARINA VILLAGE
TREE REMOVAL PLAN

DATE: 08APR15
MCE PROJ. # 2735-0124
DRAWN: EEM
DESIGNED: EEM
CHECKED: RMC
PROJ. MGR.: NJL

SCALE: HORIZONTAL: ---
VERTICAL: ---

MAC FILE NUMBER: CX-102
DRAWING NUMBER: 5
REVISION: H
STATUS: FINAL DESIGN
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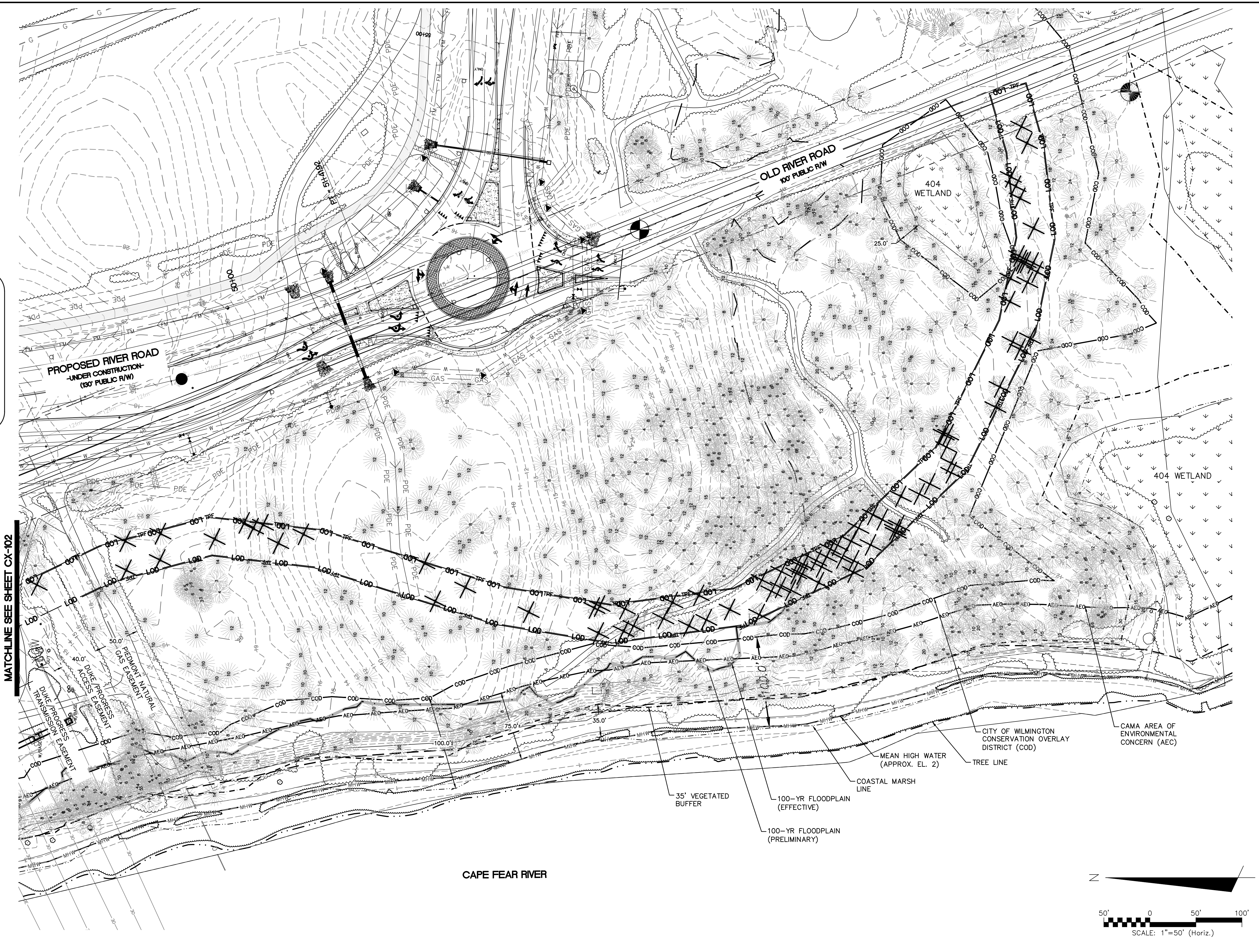


LEGEND

- ☉ = POWER POLE
- GW — = GUY WIRE
- ▭ = WETLAND
- MHW — MHW — MHW = MEAN HIGH WATER
- AEG — AEG — AEG = AREA OF ENVIRONMENTAL CONCERN
- COD — COD — COD = CITY OF WILMINGTON CONSERVATION RESOURCE
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- — — = 100-YEAR FLOODPLAIN (EFFECTIVE)
- TPF — = TREE PROTECTION FENCE
- LOD — LOD — LOD = LIMITS OF DISTURBANCE
- SS — = GRAVITY SANITARY SEWER MAIN

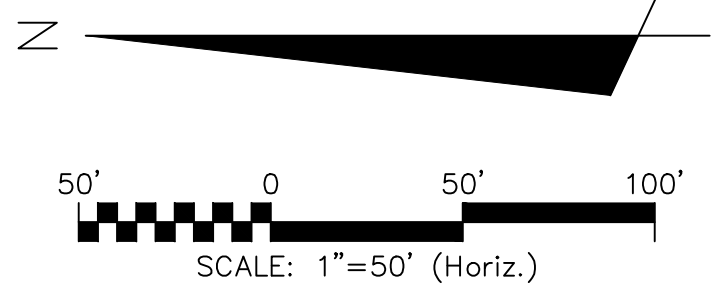
TREE LEGEND

- ☉ = CEDAR
- ☉ = GUM
- ☉ = HOLLY
- ☉ = OAK
- ☉ = MAPLE
- ☉ = PINE
- ✕ = TREE TO BE REMOVED



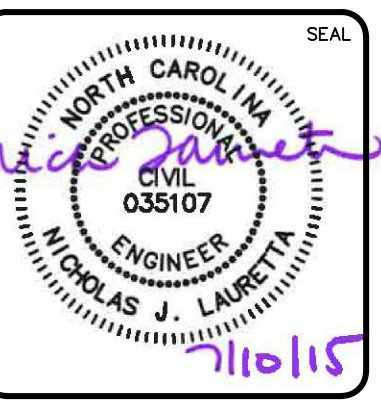
MATCHLINE SEE SHEET CX-102

CAPE FEAR RIVER



REVNO.	DESCRIPTIONS	DATE
H	CITY OF WILMINGTON TRC SUBMITTAL 3	07/10/2015
G	NEW HANOVER COUNTY EROSION CONTROL SUBMITTAL 2	06/11/2015
F	CAPE FEAR PUBLIC UTILITY AUTHORITY SUBMITTAL	06/11/2015
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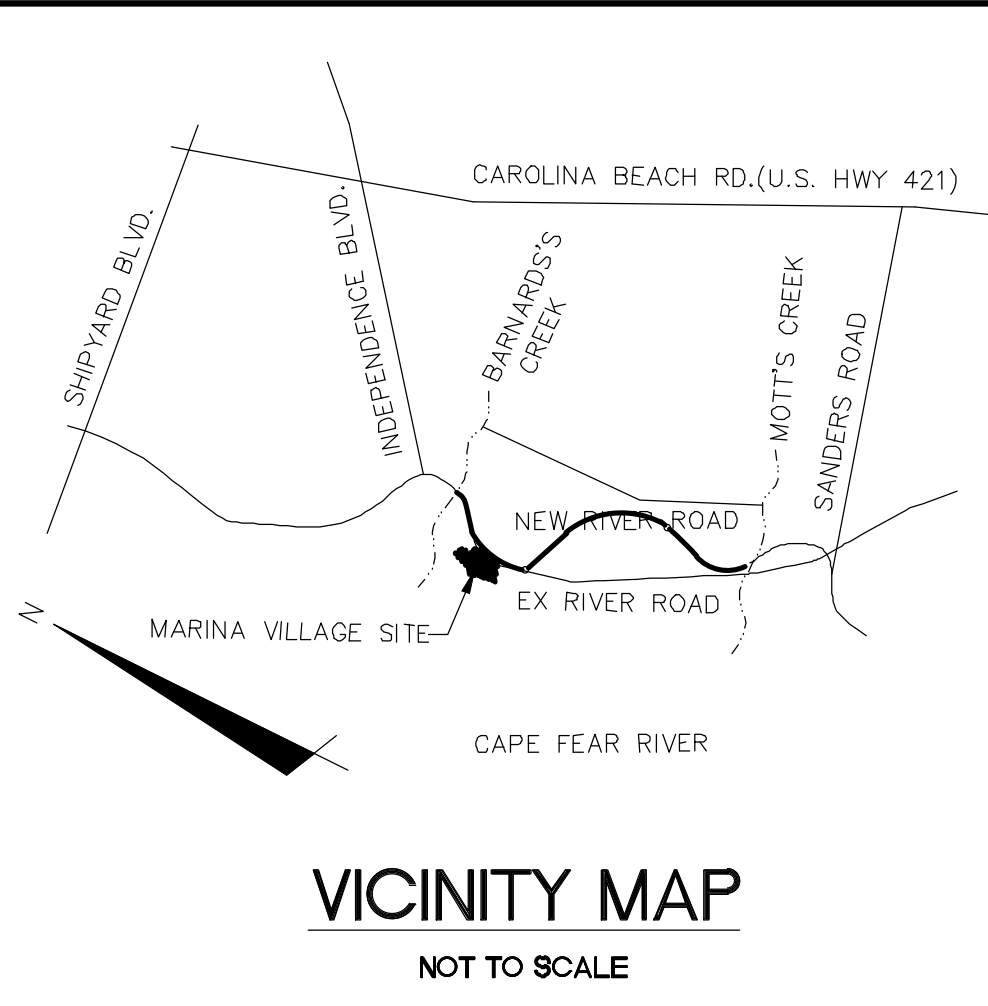
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RIVERLIGHTS MARINA VILLAGE

TREE REMOVAL PLAN

DATE: 08APR15	SCALE: ---	MAC FILE NUMBER: CX-103
MCE PROJ. # 2735-0124	HORIZONTAL: ---	DRAWING NUMBER: 6
DRAWN: EEM	VERTICAL: ---	6 OF 47
DESIGNED: EEM		
CHECKED: RMC		
PROJ. MGR.: NIL		
STATUS: FINAL DESIGN		REVISION: H
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PHASE 1 CONSTRUCTION SEQUENCE

- ESTABLISH LIMITS OF DISTURBANCE AS SHOWN.
- A PRE-CONSTRUCTION CONFERENCE MUST BE HELD 48 HOURS PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES. THE EROSION CONTROL INSPECTOR, ENGINEER, AND CONTRACTOR SHALL MEET AT THE NEW HANOVER COUNTY EROSION CONTROL INSPECTOR'S OFFICE.
- INSTALL TEMPORARY GRAVEL CONSTRUCTION ENTRANCES AS SHOWN. CONTRACTOR SHALL MAINTAIN A SUFFICIENT GRAVEL ENTRANCE UNTIL FINAL SUB-GRADE IS ESTABLISHED. IF DIRT/MUD GETS ON THE STREET, THEN A WASH RACK WILL NEED TO BE INSTALLED.
- INSTALL TREE PROTECTION FENCING AND SILT FENCING AS NOTED ON PLANS BEFORE COMMENCING ANY LAND DISTURBANCE ACTIVITY. ADDITIONAL TREE PROTECTION FENCING AND SILT FENCE MAY BE REQUIRED.
- INSTALL TEMPORARY SKIMMER BASINS WITHIN THE LIMITS OF CONSTRUCTION AS SHOWN ON THE PLANS IN ORDER TO TREAT SEDIMENT LADEN WATER. BASINS SHALL BE CONSTRUCTED PRIOR TO CONSTRUCTION OF ANY DIVERSION DITCHES THAT CONVEY WATER TO THE BASINS. CONTRACTOR TO FIELD ADJUST TEMPORARY DIVERSION DITCHES AS REQUIRED TO MAINTAIN THE DIVERSION TO THE BASINS.
- COMMENCE GRUBBING AND ROUGH GRADING WITHIN THE LIMITS OF CONSTRUCTION.
- COMMENCE DEMOLITION OF EXISTING BUILDINGS, DRIVES, FENCES, GATES, WELLS, GARDENS AND EXISTING UTILITY SERVICES. ALL DEMOLITION MATERIAL SHALL BE DISPOSED OF, SALVAGED, OR RECYCLED PER THE PROJECT SPECIFICATIONS.
- COORDINATE DISCONNECTION OF EXISTING UTILITIES:
 - ELECTRICAL SERVICES AND POLES WITH PROGRESS ENERGY
 - TELEPHONE SERVICES AND POLES WITH BELL SOUTH
 - CABLE WITH TIME WARNER CABLE
 - SEWER AND WATER SERVICES WITH CAPE FEAR PUBLIC UTILITY AUTHORITY
 - STORM DRAINAGE SYSTEM WITH CITY OF WILMINGTON
- PROVIDE TEMPORARY STABILIZATION AND SEEDING AS NECESSARY TO PREVENT EROSION. REFER TO SHEET CE-501 FOR GROUND STABILIZATION CRITERIA AND SEEDING SCHEDULE.

- GENERAL NOTES**
- ALL TREES WILL BE PRESERVED AND PROTECTED DURING BOARDWALK CONSTRUCTION

TREE LEGEND

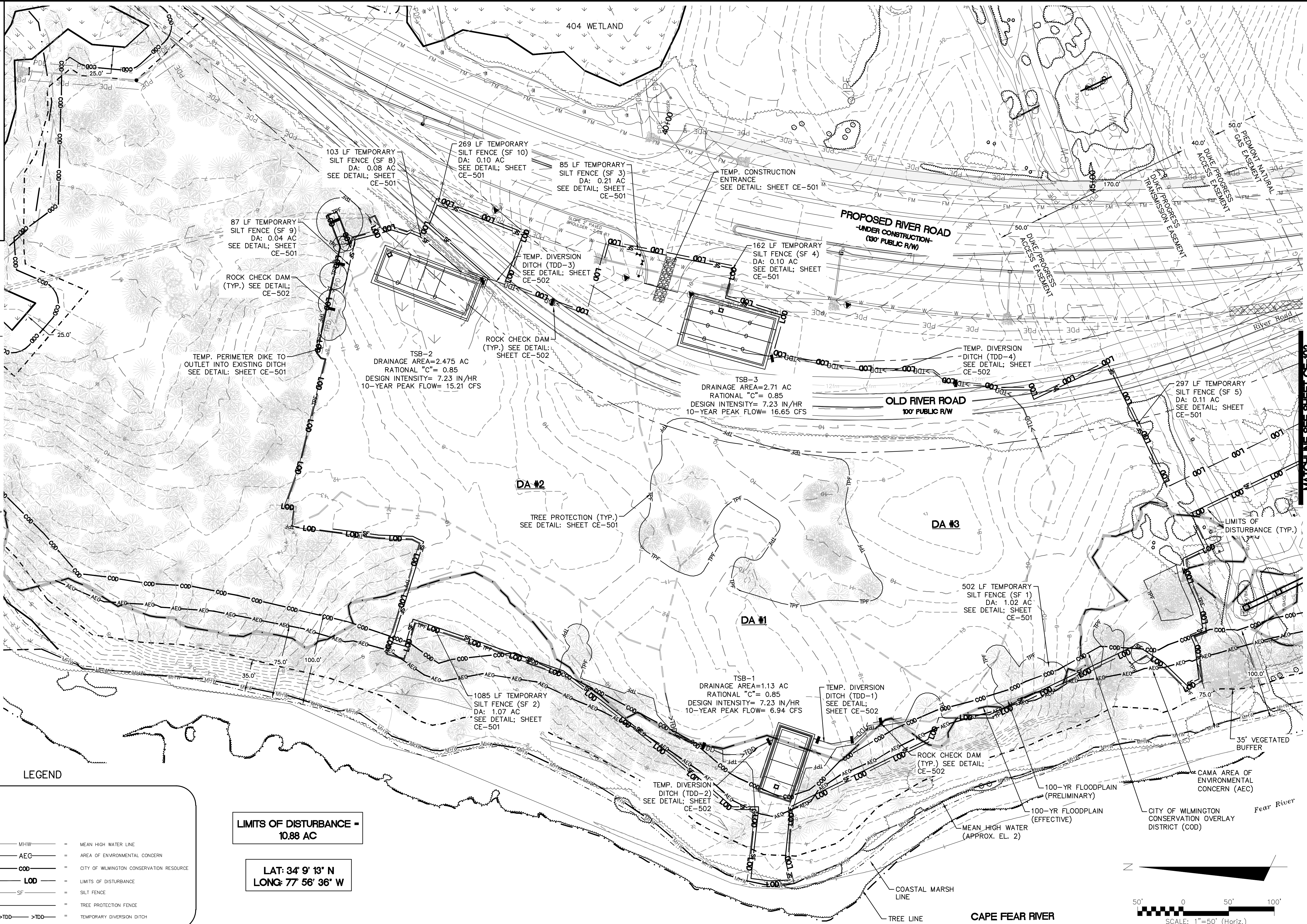
- CEDAR
- GUM
- HOLLY
- OAK
- MAPLE
- PINE

LEGEND

- POWER POLE
- GUY WIRE
- WETLAND
- MHW — MHW — MHW = MEAN HIGH WATER LINE
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- COD — COD — COD = CITY OF WILMINGTON CONSERVATION RESOURCE
- LOD — LOD — LOD = LIMITS OF DISTURBANCE
- SF — SF — SF = SILT FENCE
- TPF — TPF — TPF = TREE PROTECTION FENCE
- >TDD — >TDD — >TDD = TEMPORARY DIVERSION DITCH

LIMITS OF DISTURBANCE = 10.88 AC

**LAT: 34° 9' 13" N
LONG: 77° 56' 36" W**



REVNO.	DESCRIPTIONS	DATE
H	QTY OF WILMINGTON TRC SUBMITTAL 3	07/10/2015
G	NEW HANOVER COUNTY EROSION CONTROL SUBMITTAL 2	06/11/2015
F	CAPE FEAR PUBLIC UTILITY AUTHORITY SUBMITTAL	06/11/2015
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D	QTY OF WILMINGTON TRC SUBMITTAL 2	05/29/2015
C	QTY OF WILMINGTON STORMWATER SUBMITTAL	05/20/2015
B	NEW HANOVER COUNTY EROSION CONTROL SUBMITTAL	05/13/2015
A	QTY OF WILMINGTON TRC SUBMITTAL	04/28/2015

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RIVERLIGHTS MARINA VILLAGE

PHASE 1 SEDIMENT & EROSION CONTROL PLAN

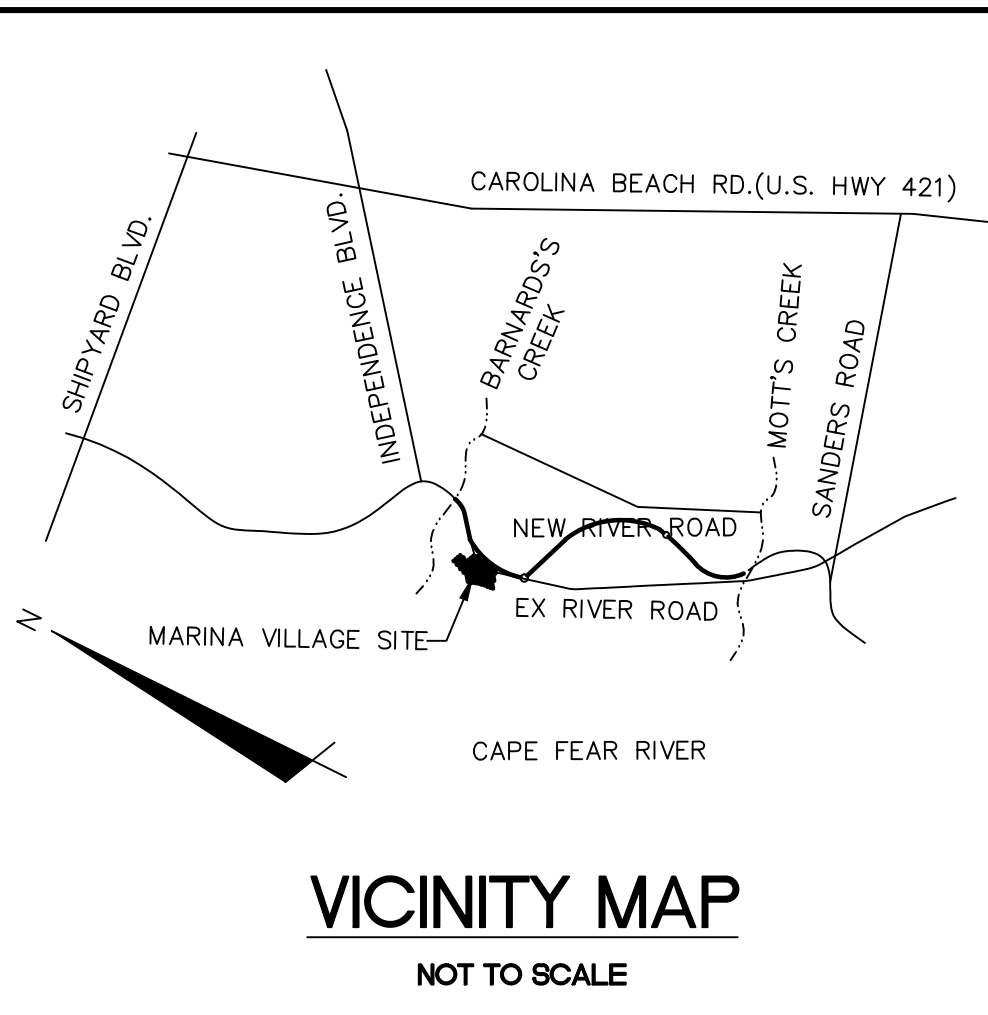
DATE: 08APR15
MCE PROJ. #: 2735-0124
DRAWN: EEM
DESIGNED: EEM
CHECKED: RMC
PROJ. MGR.: NJL

SCALE: HORIZONTAL: ---
VERTICAL: ---

STATUS: FINAL DESIGN
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MFC FILE NUMBER: CE-101
DRAWING NUMBER: 7
7 OF 47
REVISION: H

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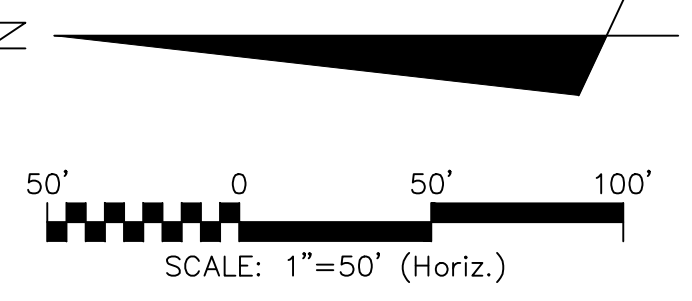
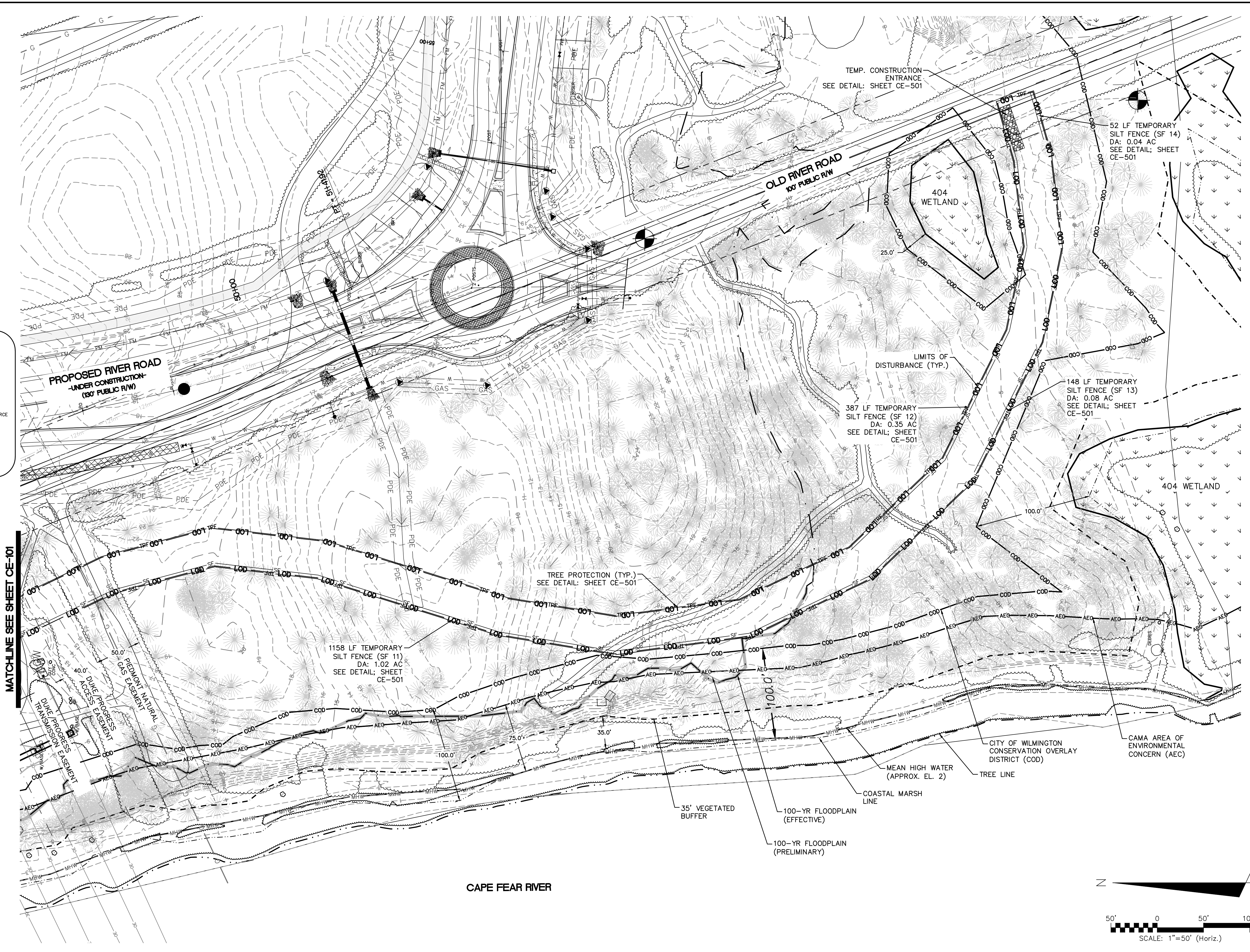
**PHASE 1 LIMITS OF DISTURBANCE
AREA- 10.88 ACRES**

LEGEND

- ☉ = POWER POLE
- GW — = GUY WIRE
- ▭ = WETLAND
- MHW — MHW — MHW — = MEAN HIGH WATER LINE
- AEG — AEG — AEG — = AREA OF ENVIRONMENTAL CONCERN
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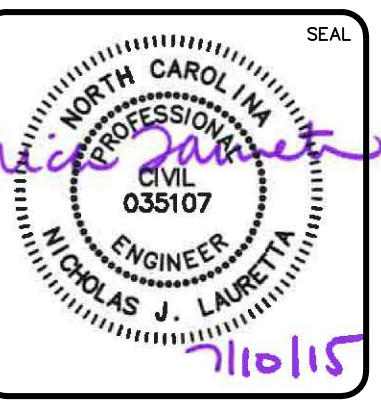
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REVNO.	DESCRIPTIONS	DATE
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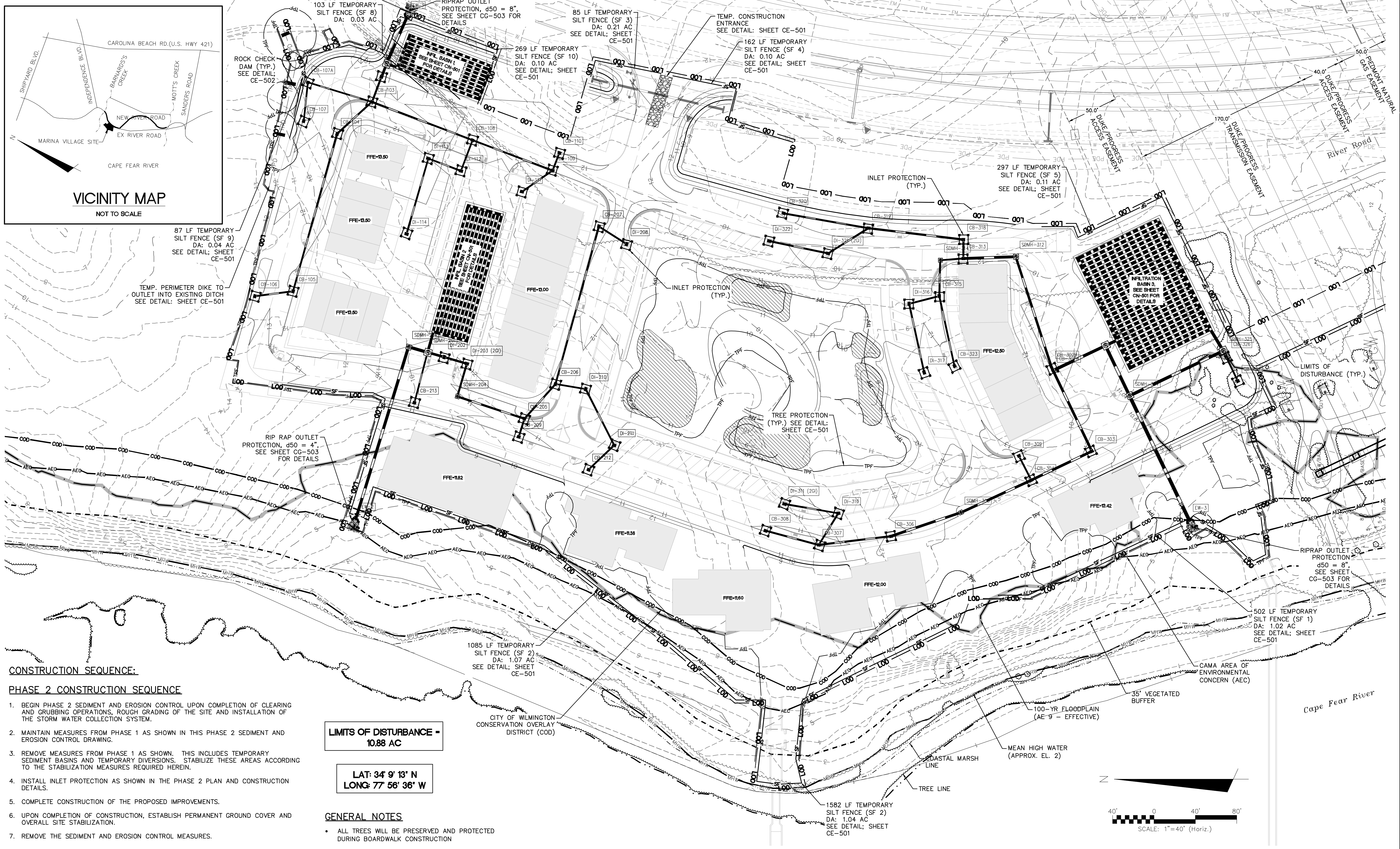
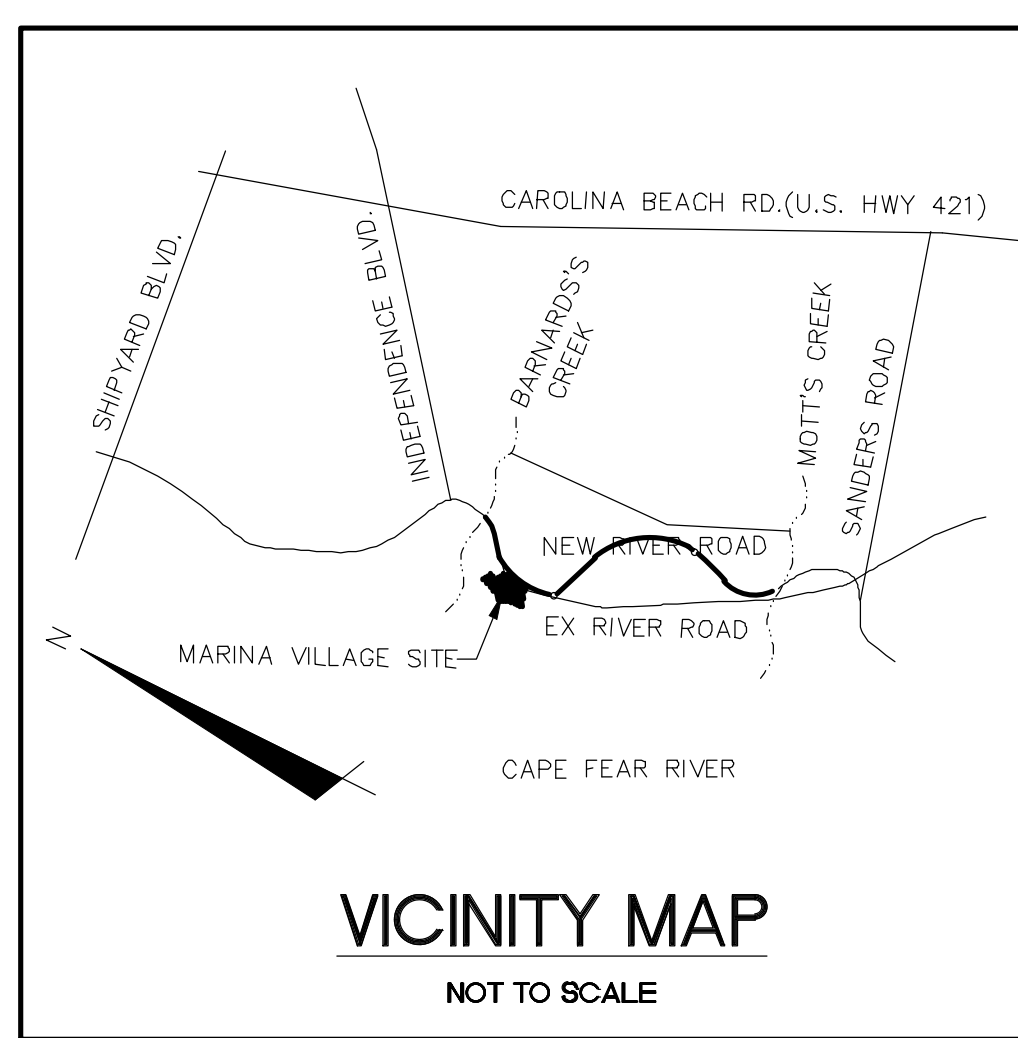
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 NORTH AMERICA SEKISUI HOUSE, LLC

RIVERLIGHTS MARINA VILLAGE
PHASE 1 SEDIMENT & EROSION CONTROL PLAN

DATE: 08APR15	SCALE: ---	MAC FILE NUMBER: CE-102
MCE PROJ. # 2735-0124	HORIZONTAL: ---	DRAWING NUMBER: 8
DRAWN: EEM	VERTICAL: ---	8 OF 47
DESIGNED: EEM		
CHECKED: RMC		
PROJ. MGR.: NJL		
STATUS: FINAL DESIGN		REVISION: H
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CONSTRUCTION SEQUENCE:

- PHASE 2 CONSTRUCTION SEQUENCE**
- BEGIN PHASE 2 SEDIMENT AND EROSION CONTROL UPON COMPLETION OF CLEARING AND GRUBBING OPERATIONS, ROUGH GRADING OF THE SITE AND INSTALLATION OF THE STORM WATER COLLECTION SYSTEM.
 - MAINTAIN MEASURES FROM PHASE 1 AS SHOWN IN THIS PHASE 2 SEDIMENT AND EROSION CONTROL DRAWING.
 - REMOVE MEASURES FROM PHASE 1 AS SHOWN. THIS INCLUDES TEMPORARY SEDIMENT BASINS AND TEMPORARY DIVERSIONS. STABILIZE THESE AREAS ACCORDING TO THE STABILIZATION MEASURES REQUIRED HEREIN.
 - INSTALL INLET PROTECTION AS SHOWN IN THE PHASE 2 PLAN AND CONSTRUCTION DETAILS.
 - COMPLETE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.
 - UPON COMPLETION OF CONSTRUCTION, ESTABLISH PERMANENT GROUND COVER AND OVERALL SITE STABILIZATION.
 - REMOVE THE SEDIMENT AND EROSION CONTROL MEASURES.

LIMITS OF DISTURBANCE - 10.88 AC

**LAT: 34° 9' 13" N
LONG: 77° 56' 36" W**

GENERAL NOTES

- ALL TREES WILL BE PRESERVED AND PROTECTED DURING BOARDWALK CONSTRUCTION

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C	QTY OF WILMINGTON STORMWATER SUBMITTAL	05/20/2015
B	NEW HANOVER COUNTY EROSION CONTROL SUBMITTAL	05/13/2015
A	QTY OF WILMINGTON TRC SUBMITTAL	04/08/2015

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NORTH AMERICA SEKISUI HOUSE, LLC

RIVERLIGHTS MARINA VILLAGE
PHASE 2 SEDIMENT & EROSION CONTROL PLAN

DATE: 08APR15
MCE PROJ. #: 2735-0124
DRAWN: EEM
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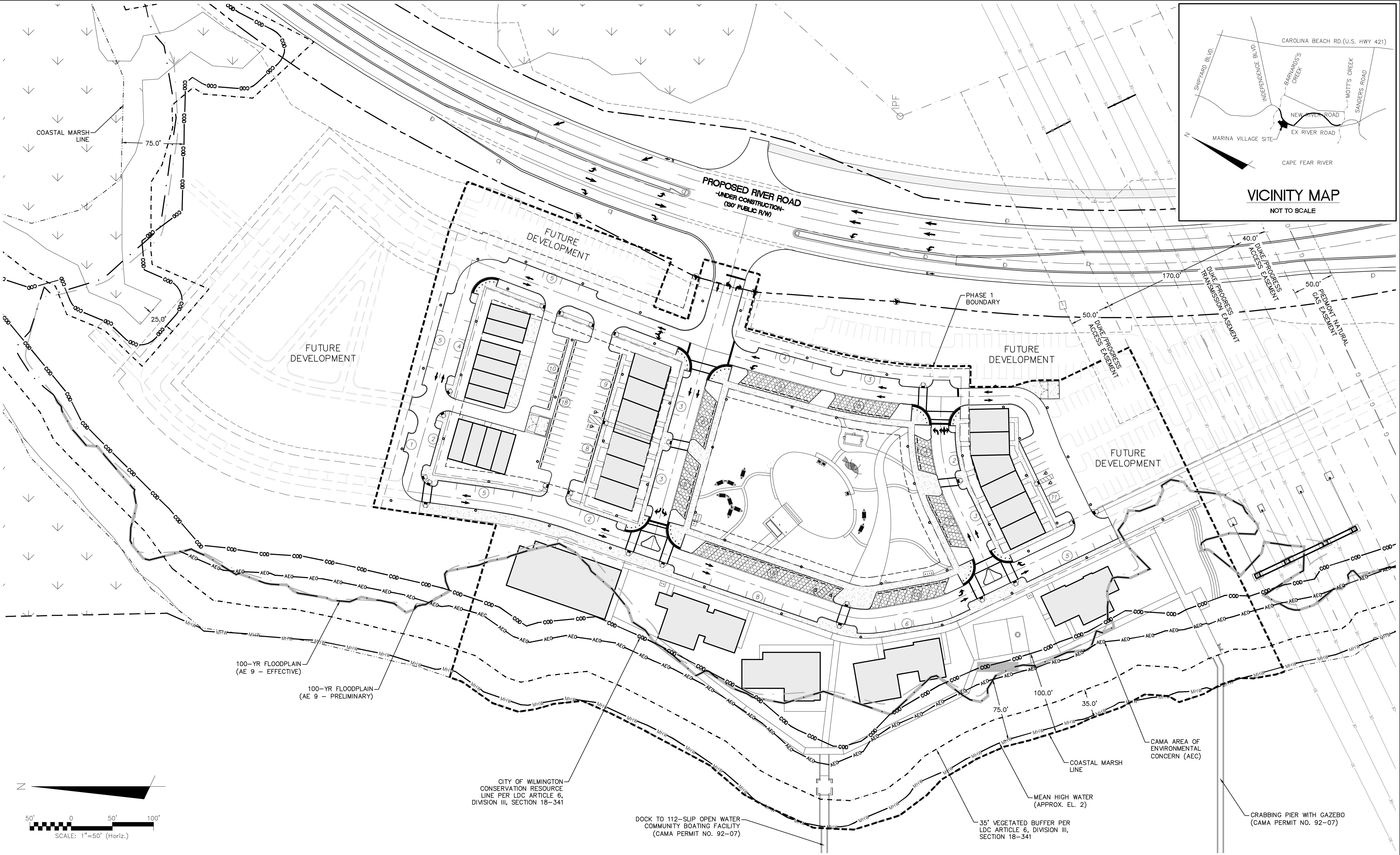
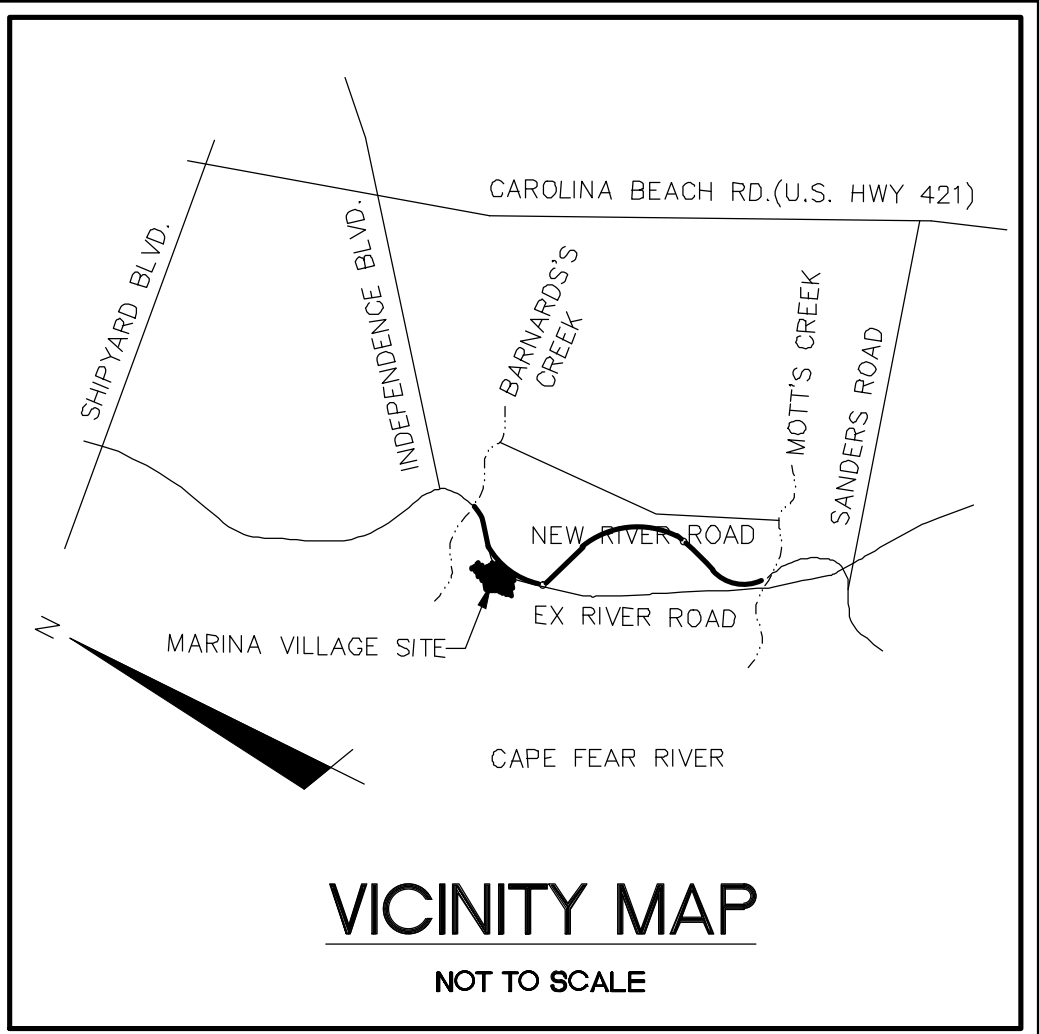
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VERTICAL: ---

MAC FILE NUMBER: **CE-103**
DRAWING NUMBER: **9**
OF 47

STATUS: **FINAL DESIGN**
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REVISION: **H**

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REVNO.	DESCRIPTIONS	DATE
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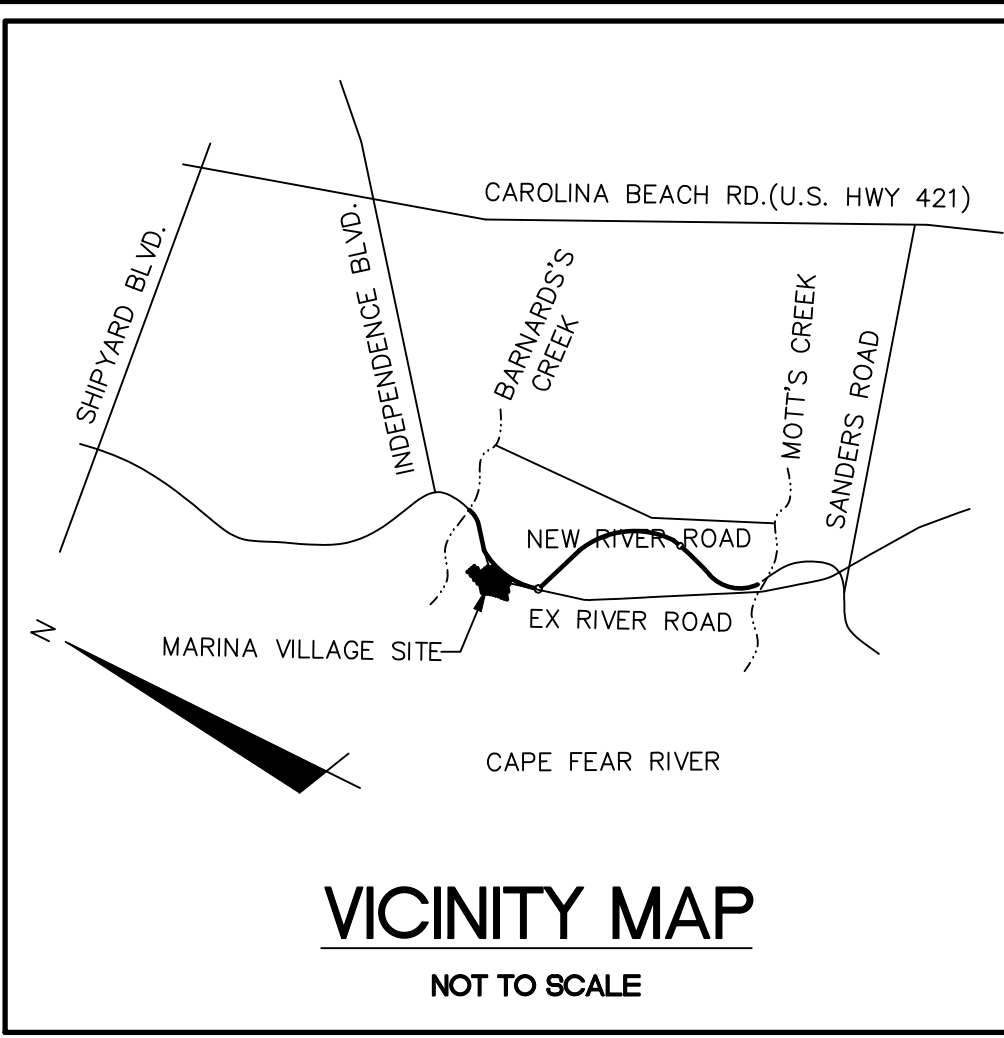
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 NORTH AMERICA SEKISUI HOUSE, LLC

RIVERLIGHTS MARINA VILLAGE
OVERALL SITE PLAN

DATE: 08APR15	SCALE: ---	M&C FILE NUMBER: CS-100
M&C PROJ. # 2735-0124	HORIZONTAL: ---	DRAWING NUMBER: 10
DRAWN: EEM	VERTICAL: ---	10 OF 47
DESIGNED: EEM		
CHECKED: RMC		
PROJ. MGR: NJL		
STATUS: FINAL DESIGN	REVISION: H	
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KEYNOTES:

- ① 60° ANGLED PARKING – PERVIOUS PAVEMENT
- ② LOADING/UNLOADING AREA
- ③ DUMPSTER PAD AND ENCLOSURE

46'x46' STREET CORNER SIGHT DISTANCE TRIANGLE

20'x70' DRIVEWAY SIGHT DISTANCE TRIANGLE

LOADING, UNLOADING AND DELIVERIES TO THE RETAIL/RESTAURANT FACILITIES IS PROVIDED IN THE PARALLEL PARKING SPACES ALONG WATERCRAFT FERRY AVENUE. SIGNS SHALL BE PROVIDED DELINEATING TIMES WHEN THE PARKING SPACES ARE RESERVED FOR DELIVERY VEHICLES.

COMMON SPACE CALCULATIONS

TOTAL COMMON SPACE REQUIRED	18.47 ACRES (804,640 SF)*
TOTAL COMMON SPACE PROPOSED	1.55 ACRES (67,574 SF)

OPEN SPACE CALCULATIONS*

TOTAL OPEN SPACE REQUIRED	46.18 ACRES (2,011,601 SF)*
TOTAL OPEN SPACE PROPOSED	2.18 ACRES (94,909 SF)

TOTAL ACREAGE OF MARINA VILLAGE – PHASE 1 WITHIN COD: 2.47 ACRES (107,630 SF)

TOTAL ACREAGE OF MARINA VILLAGE – PHASE 1 ENCROACHMENT INTO THE COD: 0.28 ACRES (12,286 SF)

TOTAL PERCENTAGE OF COD ENCROACHMENT: 0.28 ACRES/2.47 ACRES = 11.3%

*PROPOSED MX-CD CLUSTER FOR ENTIRE RIVER LIGHTS DEVELOPMENT = 184.7 ACRES
 OPEN SPACE AND COMMON SPACE ACRES REQUIRED FOR ENTIRE RIVERLIGHTS DEVELOPMENT
 ● 25% OPEN SPACE AND 10% COMMON SPACE = 46.18 AC (OPEN) AND 18.47 AC (COMMON)

SITE DATA TABLE

MARINA VILLAGE – PHASE 1	
PARCEL ADDRESS	4410 RIVER ROAD
TAX PARCEL IDENTIFICATION NUMBER	R07000-006-009-000
ZONING DISTRICT	CD-MX
CAMA LAND USE CLASSIFICATION	TRANSITION AND CONSERVATION
TOTAL ACREAGE WITHIN THE RIVERLIGHTS BOUNDARY	1,329.41 ACRES (57,909,100 SF)
TOTAL ACREAGE WITHIN THE MARINA VILLAGE BOUNDARY	38.67 ACRES (1,684,343 SF)
TOTAL ACREAGE OF COASTAL WETLANDS	15.57 ACRES (678,424 SF)
TOTAL PROJECT AREA (STORMWATER PROJECT AREA)	23.09 ACRES (1,005,919 SF)
TOTAL ACREAGE OF NON-COASTAL WETLANDS (ISOLATED/404)	1.12 ACRES (48,725 SF)
TOTAL ACREAGE WITHIN THE MARINA VILLAGE – PHASE 1	11.45 ACRES (498,626 SF)
BUILDING SETBACKS AND SEPARATIONS (MX ZONING)	REQUIRED PROPOSED
FRONT	N/A N/A
REAR	N/A N/A
SIDE (INTERIOR)	N/A N/A
SIDE (CORNER)	N/A N/A
TOTAL BUILDING(S) SIZE (SQUARE FOOTAGE)	46,380 SF
NC BUILDING CODE CONSTRUCTION TYPE	VB
BUILDING LOT COVERAGE	30%
NUMBER OF BUILDINGS	17
TOTAL AMOUNT OF DISTURBED AREA	10.88 AC (439,069 SF)
TOTAL ACRES WITHIN 100-YR FLOODPLAIN/BELOW MHW MARK	3.18 ACRES (138,476 SF)
TOTAL ACRES WITHIN WETLANDS (DWQ PROJECT #07-1335)	0.24 ACRES (10,503 SF)

PARKING CALCULATIONS

MINIMUM NUMBER OF SPACES REQUIRED	N/A
MAXIMUM NUMBER OF SPACES ALLOWED	425
TOWNHOMES (2.5 SPACES/UNIT)	25
OFFICES (1 SPACE / 200 SF GFA)	81
APARTMENTS (2.5 SPACES/UNIT)	30
RESTAURANTS (1 SPACE / 65 SF GFA)	151
ART GALLERY (1 SPACE / 250 SF GFA)	31
RIVER HOUSE (1 SPACE / 65 SF GFA)	31
RETAIL (1 SPACE / 200 SF GFA)	20
MARINA (1 SPACE / 2 WET SLIPS)	56
PARKING SPACES PROVIDED (PHASE 1)	185
ACCESSIBLE SPACES REQUIRED (PHASE 1)	5
ACCESSIBLE SPACES PROVIDED (PHASE 1)	6
BICYCLE PARKING SPACES REQUIRED	7
BICYCLE PARKING SPACES PROVIDED	10

WATER & SEWER DEMAND

WATER DEMAND	21,465 GDP
SANITARY SEWER DEMAND	21,465 GDP

SURFACE MATERIAL LEGEND

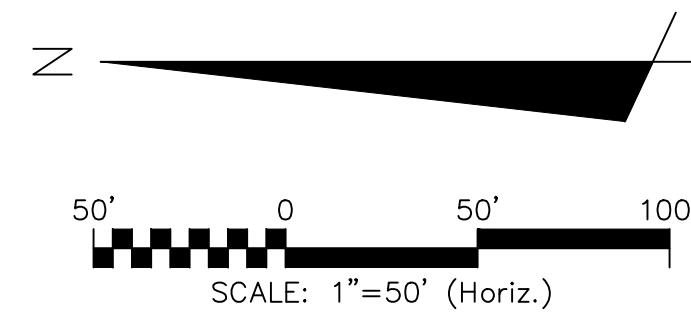
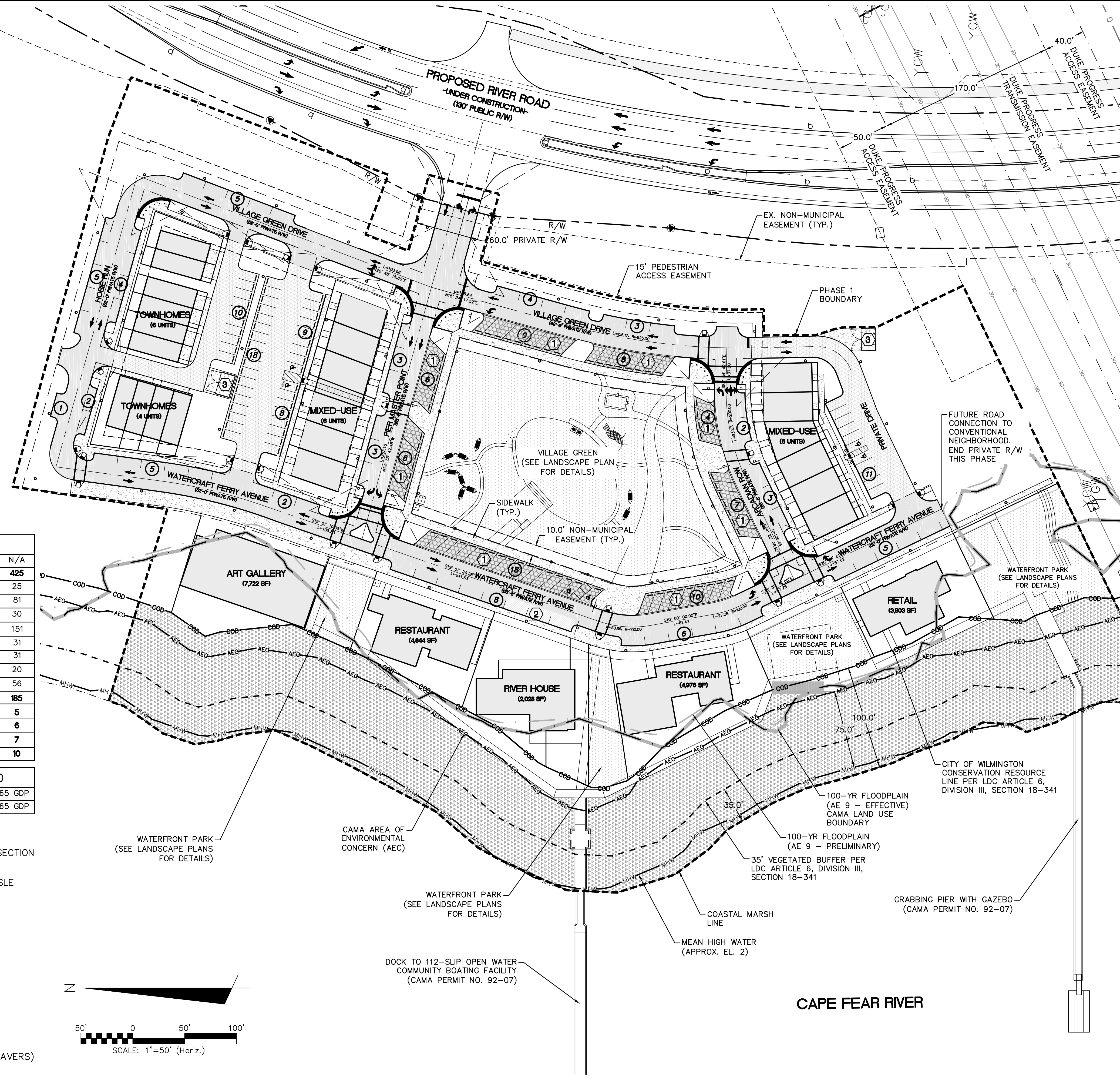
	ASPHALT – STREET SECTION
	ASPHALT – DRIVE AISLE
	ROOFTOP
	PERVIOUS PAVEMENT
	SIDEWALK
	COMMON SPACE
	OPEN SPACE
	CROSSWALK (BRICK PAVERS)

IMPERVIOUS AREA (EXISTING)

ROOF TOPS	0	SF
ROADWAYS	19,549	SF
PARKING	0	SF
SIDEWALKS	0	SF
OTHER	0	SF
TOTAL PRE DEVELOPMENT/%	19,549/3.9	SF/%

IMPERVIOUS AREA (PROPOSED)

ROOF TOPS	52,249	SF
ROADWAYS	72,876	SF
PARKING	16,732	SF
PERVIOUS PARKING	12,734	SF
PERVIOUS PARKING (75% REDUCTION)	3,184	SF
SIDEWALKS	35,408	SF
PERVIOUS SIDEWALK	0	SF
PERVIOUS SIDEWALK (75% REDUCTION)	0	SF
FUTURE ALLOTMENT	75,541	SF
OTHER	0	SF
TOTAL S.F. (ONSITE IMPERVIOUS AREA)	255,990	SF
PERCENTAGE (ONSITE IMPERVIOUS AREA/ONSITE AREA)	51.3	%
PERCENTAGE (EXIST. ONSITE IMPERVIOUS AREA/ONSITE AREA)	3.9	%
TOTAL SQUARE FOOTAGE OF IMPERVIOUS SURFACES SHOWN IN THE STREET YARD	0	SF



REV. NO.	DESCRIPTIONS	DATE
H	CITY OF WILMINGTON TRC SUBMITTAL 3	07/10/2015
G	NEW HANOVER COUNTY EROSION CONTROL SUBMITTAL 2	06/11/2015
F	CAPE FEAR PUBLIC UTILITY AUTHORITY SUBMITTAL	06/11/2015
E	CITY OF WILMINGTON TREE REMOVAL	06/25/2015
D	CITY OF WILMINGTON TRC SUBMITTAL 2	05/29/2015
C	CITY OF WILMINGTON STORMWATER SUBMITTAL	05/20/2015
B	NEW HANOVER COUNTY EROSION CONTROL SUBMITTAL	05/13/2015
A	CITY OF WILMINGTON TRC SUBMITTAL	04/08/2015

FINAL DRAWINGS SEAL
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RIVERLIGHTS
 by Newland COMMUNITIES

NORTH AMERICA SEKISUI HOUSE, LLC

RIVERLIGHTS MARINA VILLAGE

SITE PLAN

DATE: 08APR15	SCALE: 1"=50'	MAC FILE NUMBER: CS-101
MCE PROJ. # 2735-0124	HORIZONTAL: 1"=50'	DRAWING NUMBER: 11
DRAWN: EEM	VERTICAL: ---	11 OF 47
DESIGNED: EEM		
CHECKED: RMC		
PROJ. MGR.: NJL		
STATUS: FINAL DESIGN	NOT FOR CONSTRUCTION	REVISION: H

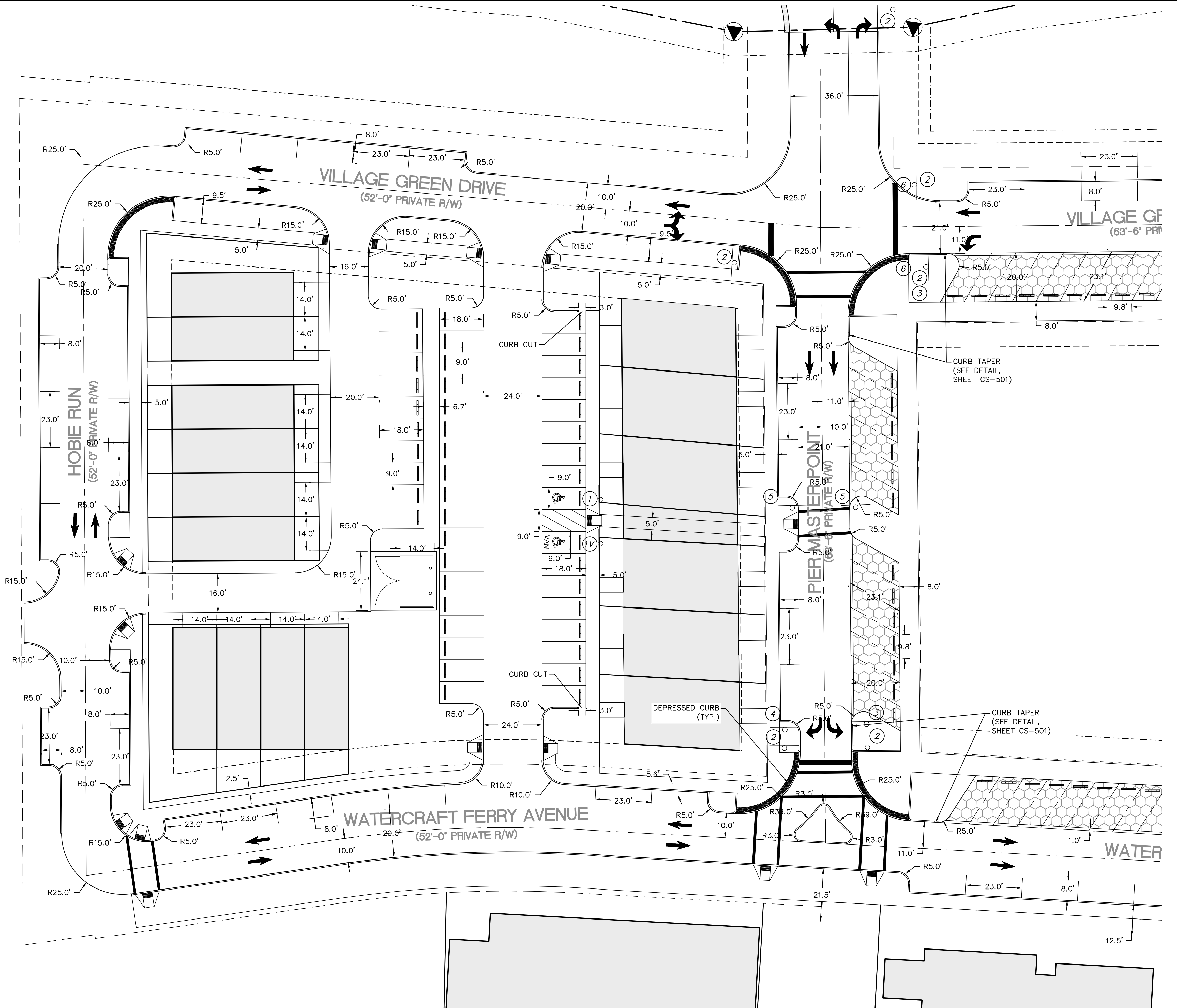
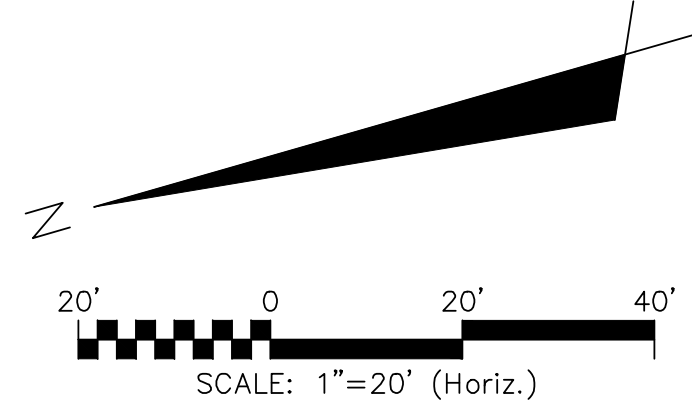
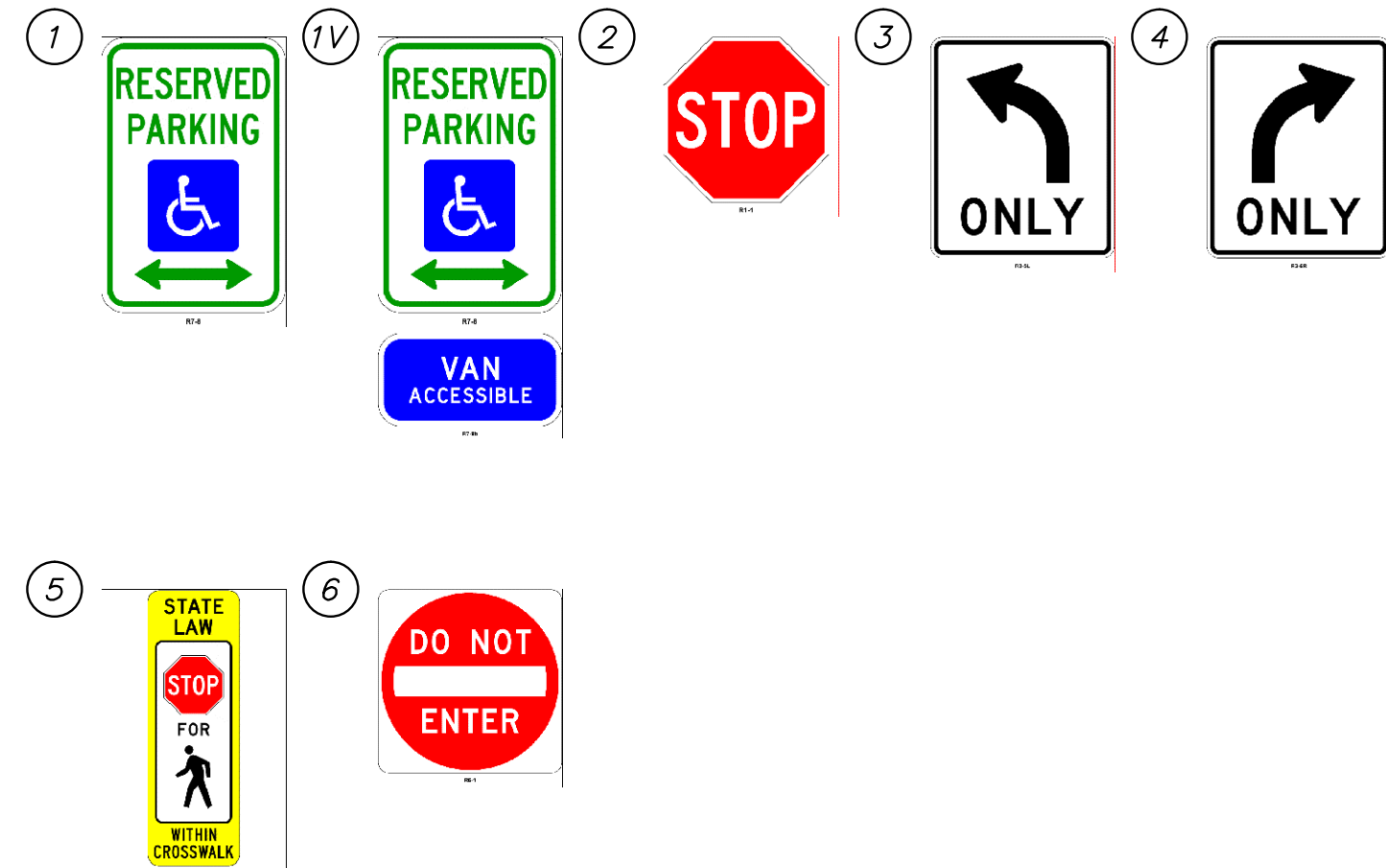
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CITY OF WILMINGTON NOTES:

- ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
- ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
- A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. CONTACT 341-5888 FOR MORE DETAILS. IN CERTAIN CASES AN ENTIRE RESURFACING OF THE AREA BEING OPEN CUT MAY BE REQUIRED.
- A LANDSCAPING PLAN INDICATING THE LOCATION OF REQUIRED STREET TREES SHALL BE SUBMITTED TO THE CITY OF WILMINGTON TRAFFIC ENGINEERING DIVISION AND PARKS AND RECREATION DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO THE RECORDING OF THE FINAL PLAT.
- ZERO LOT LINES ARE PERMITTED.
- BUILDINGS LOCATED ON THE PERIPHERY OF THE MX DISTRICT SHALL BE SET BACK A MINIMUM OF 20 (TWENTY) FEET FROM THE MX DISTRICT BOUNDARY.
- ZONING AND LAND USE OF ADJACENT PROPERTIES IS AS FOLLOWS:
 NORTH - FUTURE MX-CD / TRANSITION
 SOUTH - FUTURE MX-CD / TRANSITION AND CONSERVATION AREA
 WEST - FUTURE MX-CD / TRANSITION
 EAST - I-2 / TRANSITION AND CONSERVATION AREA
- INSTALL REFLECTORS PER CITY AND NCDOT STANDARDS. TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING LAYOUT PRIOR TO ACTUAL STRIPING.
- IT SHALL BE THE RESPONSIBILITY OF THE SUBDIVIDER TO ERECT OFFICIAL STREET NAME SIGNS AT ALL INTERSECTIONS ASSOCIATED WITH THE SUBDIVISION IN ACCORDANCE WITH THE TECHNICAL STANDARDS AND SPECIFICATION MANUAL. THE SUBDIVIDER MAY ACQUIRE AND ERECT OFFICIAL STREET NAME SIGNS OR CHOOSE TO CONTRACT WITH THE CITY TO INSTALL THE STREET SIGNS AND THE SUBDIVIDER SHALL PAY THE COSTS OF SUCH INSTALLATION. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. PROPOSED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.
- CONTACT TRAFFIC ENGINEERING AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT OF WAY.
- IF THESE UNITS ARE SOLD AT ANY POINT, THE BUYER MUST RECEIVE A SUBDIVISION STREET DISCLOSURE STATEMENT.

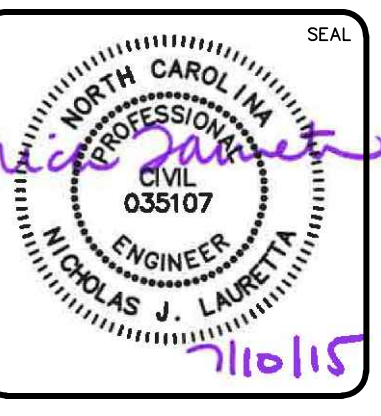
GENERAL NOTES:

- FLOODPLAIN INFORMATION WAS OBTAINED FROM NC FLOODPLAIN MAPPING FLOOD RISK INFORMATION SYSTEM PROGRAM. RIVERLIGHTS IS LOCATED WITHIN FIRM MAP 3720312400K, PANEL 3124 AS REVISED JUNE 02, 2006.
- ITEMS DESIGNATED AS "PROPOSED" ARE PART OF THE RIVER ROAD REALIGNMENT PROJECT THAT IS CURRENTLY UNDER CONSTRUCTION. RIVER ROAD CONSTRUCTION TO BE COMPLETE SPRING 2016.
- WETLANDS SHOWN IN THIS PORTION OF RIVERLIGHTS WERE DESCRIBED AS BRACKISH/SALT MARSH AND POCOSIN WETLANDS AND CONSERVATION RESOURCE SETBACK LINES WERE GENERATED AS 100' AND 25', RESPECTIVELY, MINIMUM OUTSIDE OF THE RESOURCE.
- FINISHED FLOOR ELEVATIONS OFF ALL INHABITABLE STRUCTURES WILL BE MIN. 2'-FEET ABOVE BASE FLOOD ELEVATION.
- RIVERLIGHTS PHASE 1 MARINA VILLAGE COMMUNITY DOES NOT CONTAIN ANY LOCAL, STATE, OR FEDERALLY RECOGNIZED HISTORIC STRUCTURES OR ARCHEOLOGICAL SITES ON SITE. RIVERLIGHTS WAS ISSUED A NOTICE OF NO FURTHER ACTION LETTER DATED JUNE 2, 2008 FOLLOWING COMPLETION OF AN EA/SEPA DOCUMENT.
- EXISTING THOROUGHFARES, BIKE ROUTES, PEDESTRIAN SIDEWALKS OR TRAILS AND TRANSITS FACILITIES DO NOT EXIST ON SITE.



REV. NO.	DESCRIPTIONS	DATE
H	CITY OF WILMINGTON TRC SUBMITTAL 3	07/10/2015
G	NEW HANOVER COUNTY EROSION CONTROL SUBMITTAL 2	06/11/2015
F	CAPE FEAR PUBLIC UTILITY AUTHORITY SUBMITTAL	06/11/2015
E	CITY OF WILMINGTON TREE REMOVAL	06/05/2015
D	CITY OF WILMINGTON TRC SUBMITTAL 2	05/29/2015
C	CITY OF WILMINGTON STORMWATER SUBMITTAL	05/20/2015
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A	CITY OF WILMINGTON TRC SUBMITTAL	04/08/2015

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RIVERLIGHTS
 by Newland COMMUNITIES
 NORTH AMERICA SEKISUI HOUSE, LLC

RIVERLIGHTS MARINA VILLAGE
SITE PLAN

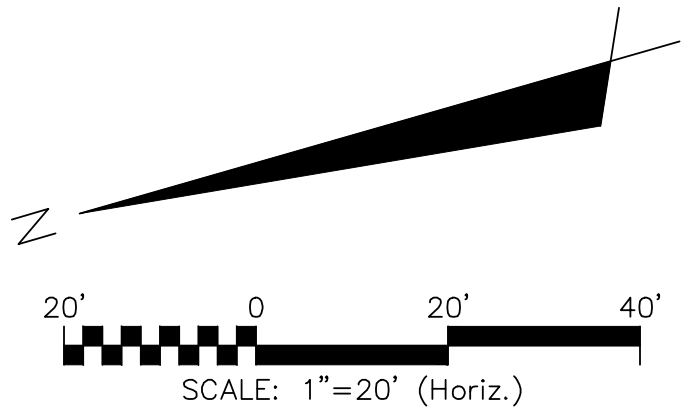
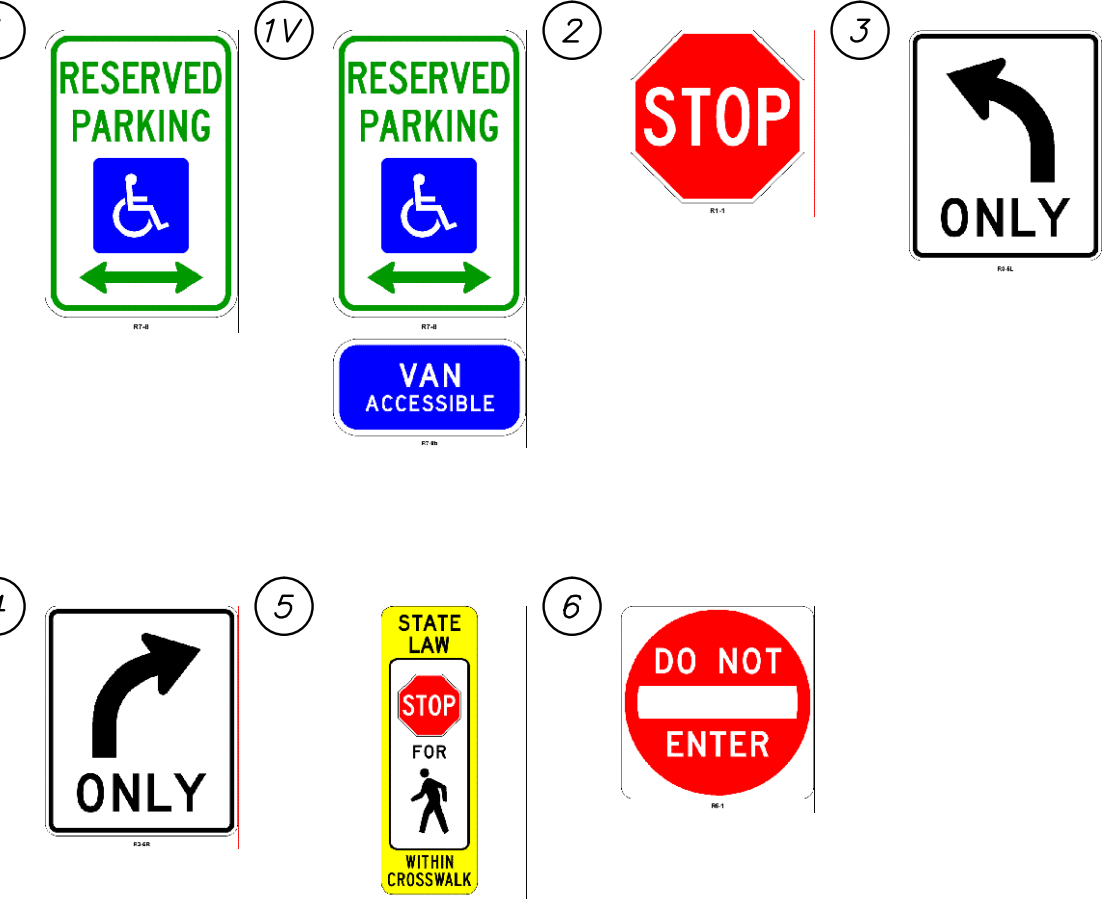
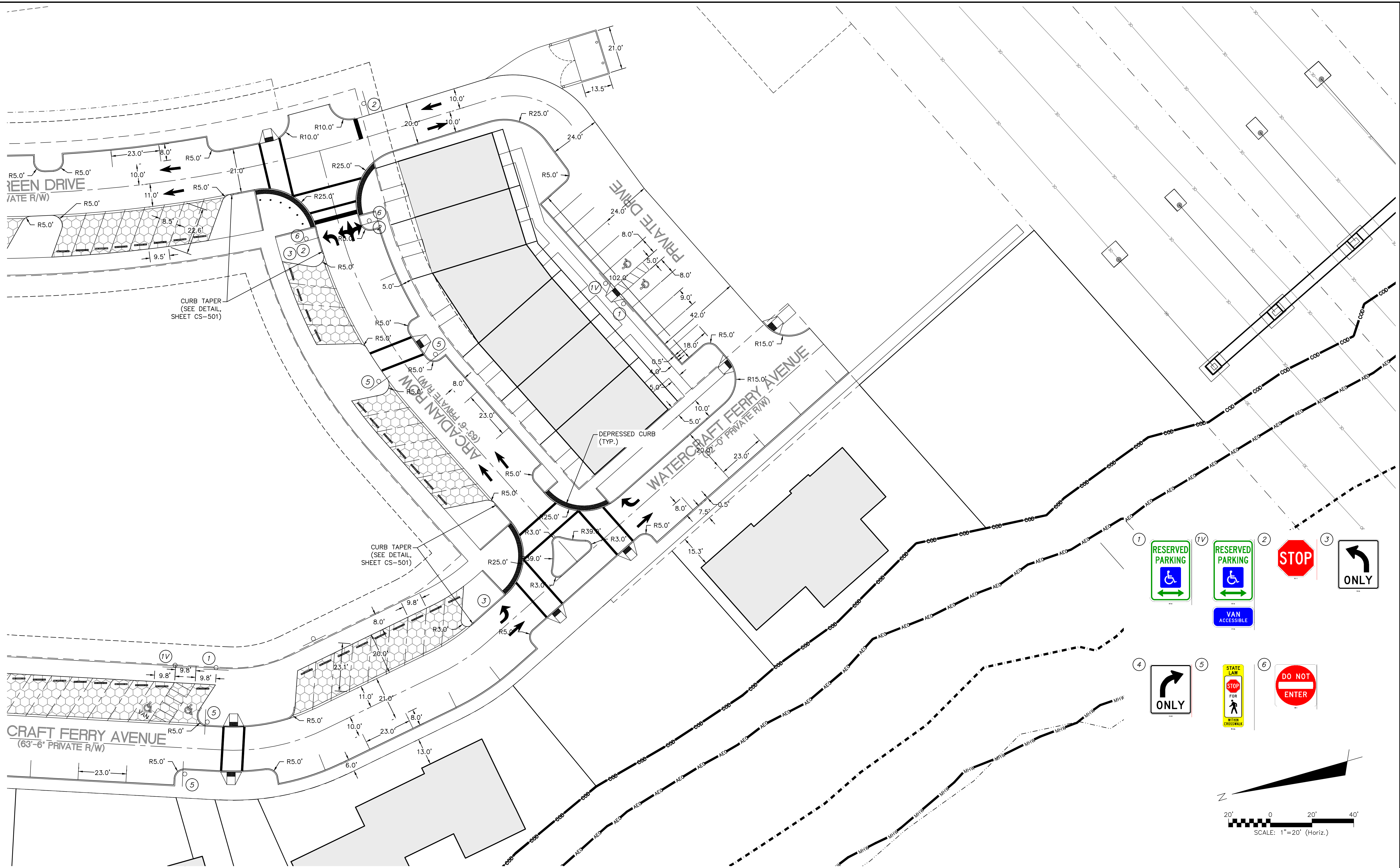
DATE: 08APR15
 MCE PROJ. # 2735-0124
 DRAWN: EEM
 DESIGNED: EEM
 CHECKED: RMC
 PROJ. MGR.: NJL

SCALE: HORIZONTAL: ---
 VERTICAL: ---

MAC FILE NUMBER: CS-102
 DRAWING NUMBER: 12
 12 OF 47

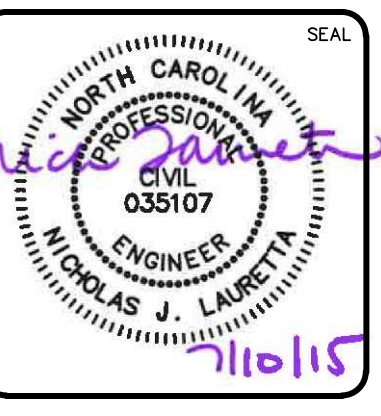
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 NOT FOR CONSTRUCTION
 REVISION: H

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REV. NO.	DESCRIPTIONS	DATE
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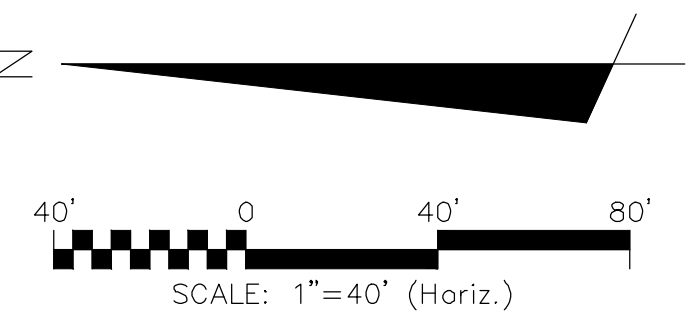
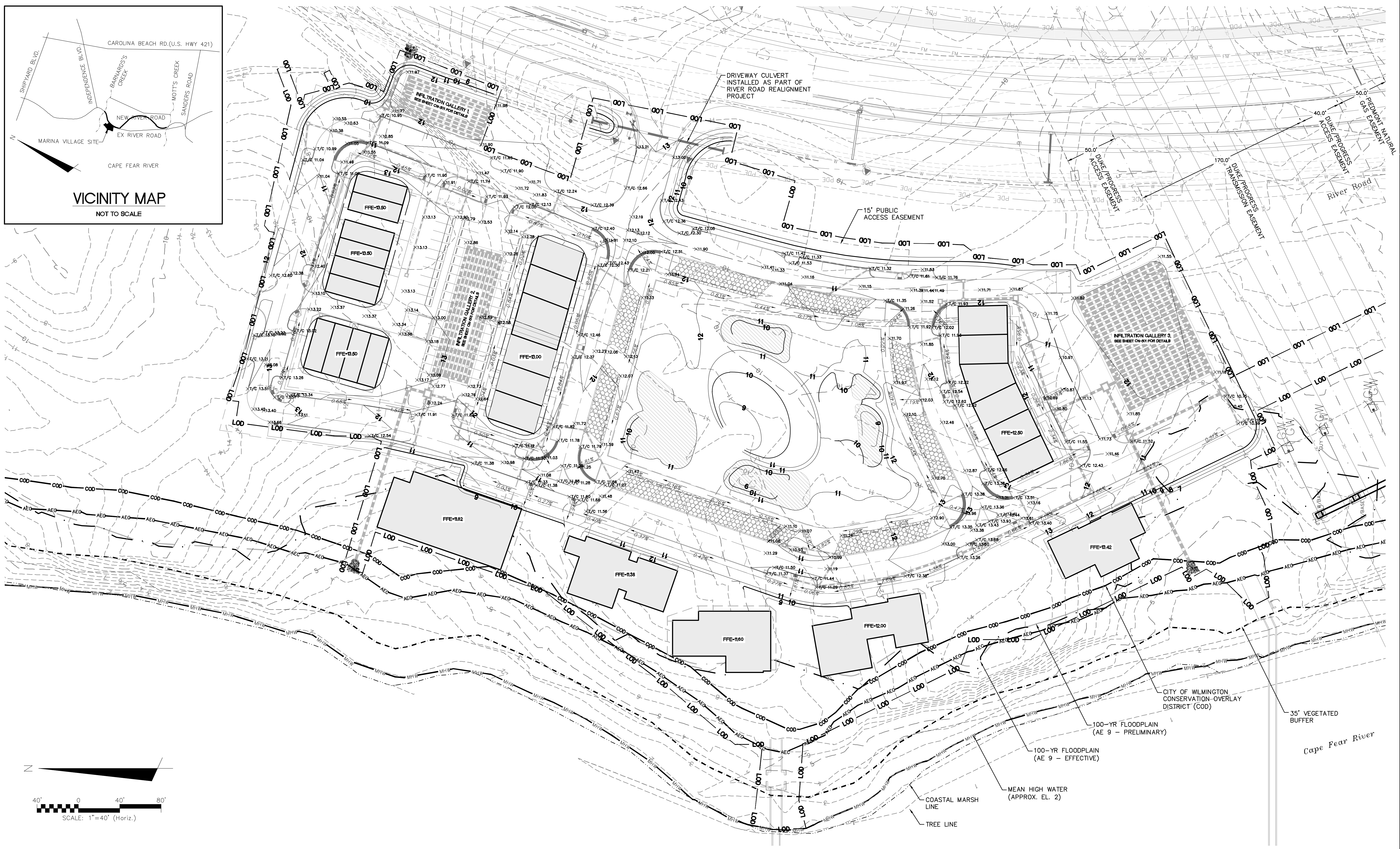
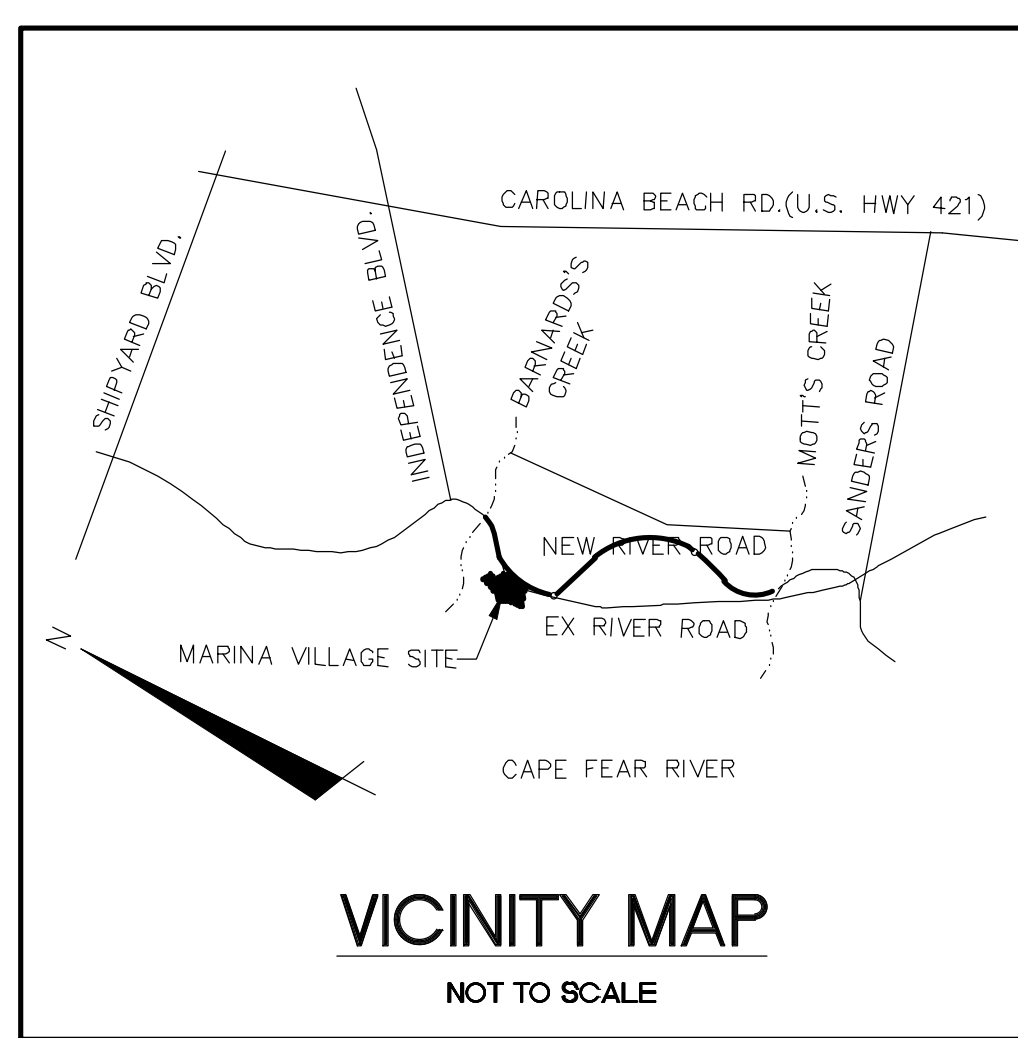
RIVERLIGHTS
 by
 Newland COMMUNITIES

RIVERLIGHTS MARINA VILLAGE

SITE PLAN

DATE: 08/11/2015	SCALE: AS SHOWN	MAC FILE NUMBER: CS-103
MCE PROJ. # 2735-0124	HORIZONTAL: ---	DRAWING NUMBER: 13
DRAWN: EEM	VERTICAL: ---	13 OF 47
DESIGNED: EEM		
CHECKED: RMC		
PROJ. MGR.: NJL		
STATUS: FINAL DESIGN	NOT FOR CONSTRUCTION	REVISION: H

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REVNO.	DESCRIPTIONS	DATE
H	QTY OF WILMINGTON TRC SUBMITTAL 3	07/10/2015
G	NEW HANOVER COUNTY EROSION CONTROL SUBMITTAL 2	06/11/2015
F	CAPE FEAR PUBLIC UTILITY AUTHORITY SUBMITTAL	06/11/2015
E	QTY OF WILMINGTON TREE REMOVAL	06/05/2015
D	QTY OF WILMINGTON TRC SUBMITTAL 2	05/29/2015
C	QTY OF WILMINGTON STORMWATER SUBMITTAL	05/20/2015
B	NEW HANOVER COUNTY EROSION CONTROL SUBMITTAL	05/13/2015
A	QTY OF WILMINGTON TRC SUBMITTAL	04/28/2015

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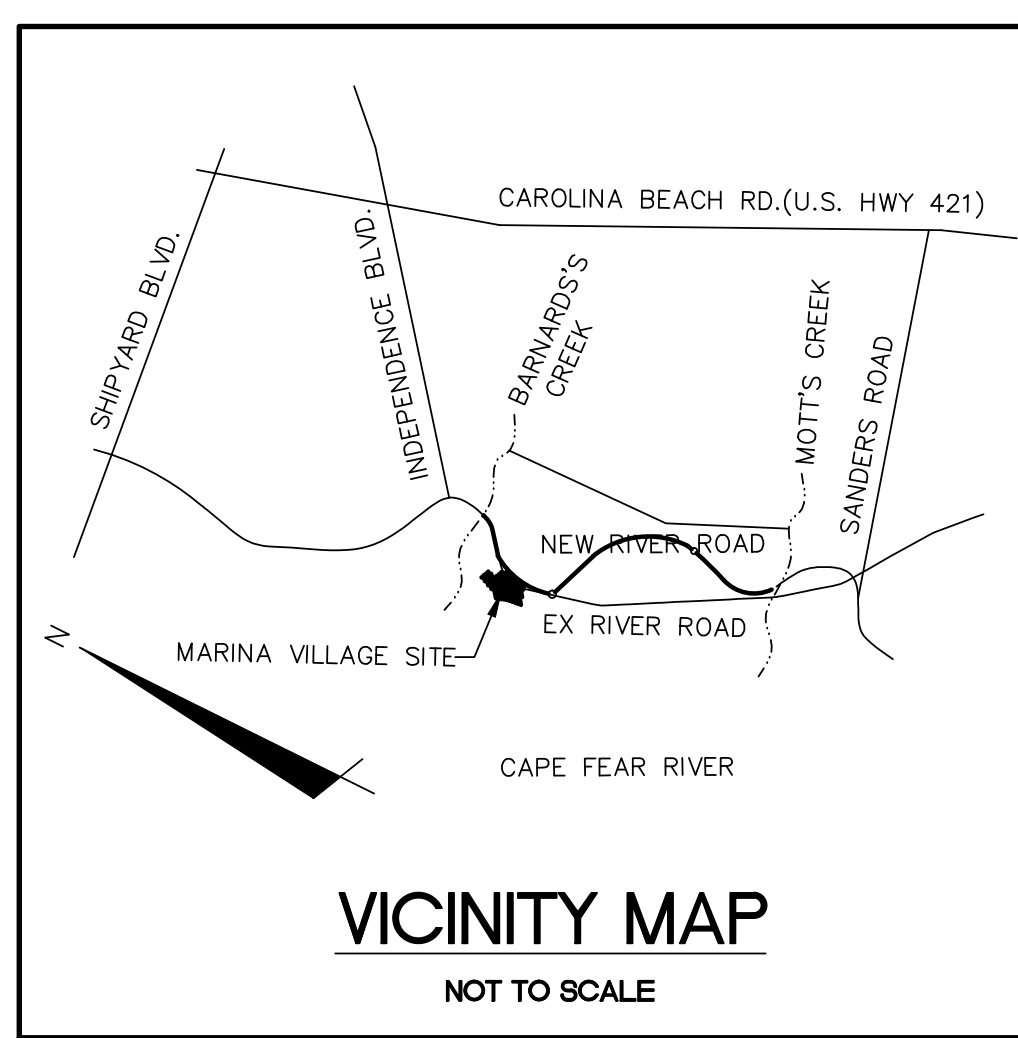
RIVERLIGHTS
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Newland COMMUNITIES

RIVERLIGHTS MARINA VILLAGE

GRADING PLAN

DATE: 08APR15	SCALE: 1"=40'	M/C FILE NUMBER: CG-101
MCE PROJ. # 2735-0124	HORIZONTAL: 1"=40'	DRAWING NUMBER: 14
DRAWN: EEM	VERTICAL: ---	14 OF 47
DESIGNED: EEM		
CHECKED: RMC		
PROJ. MGR: NJL		
STATUS: FINAL DESIGN	REVISION: H	
NOT FOR CONSTRUCTION		

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PIPE DATA TABLE - STRM - 12

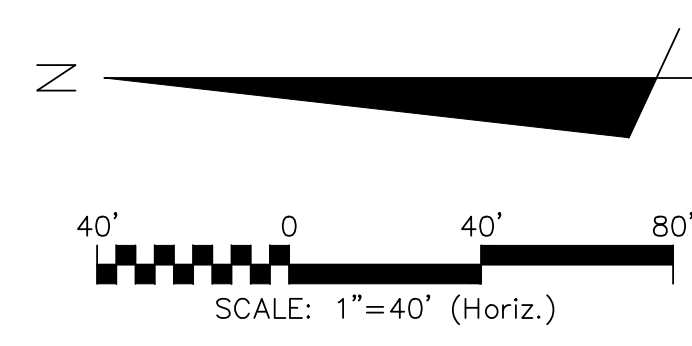
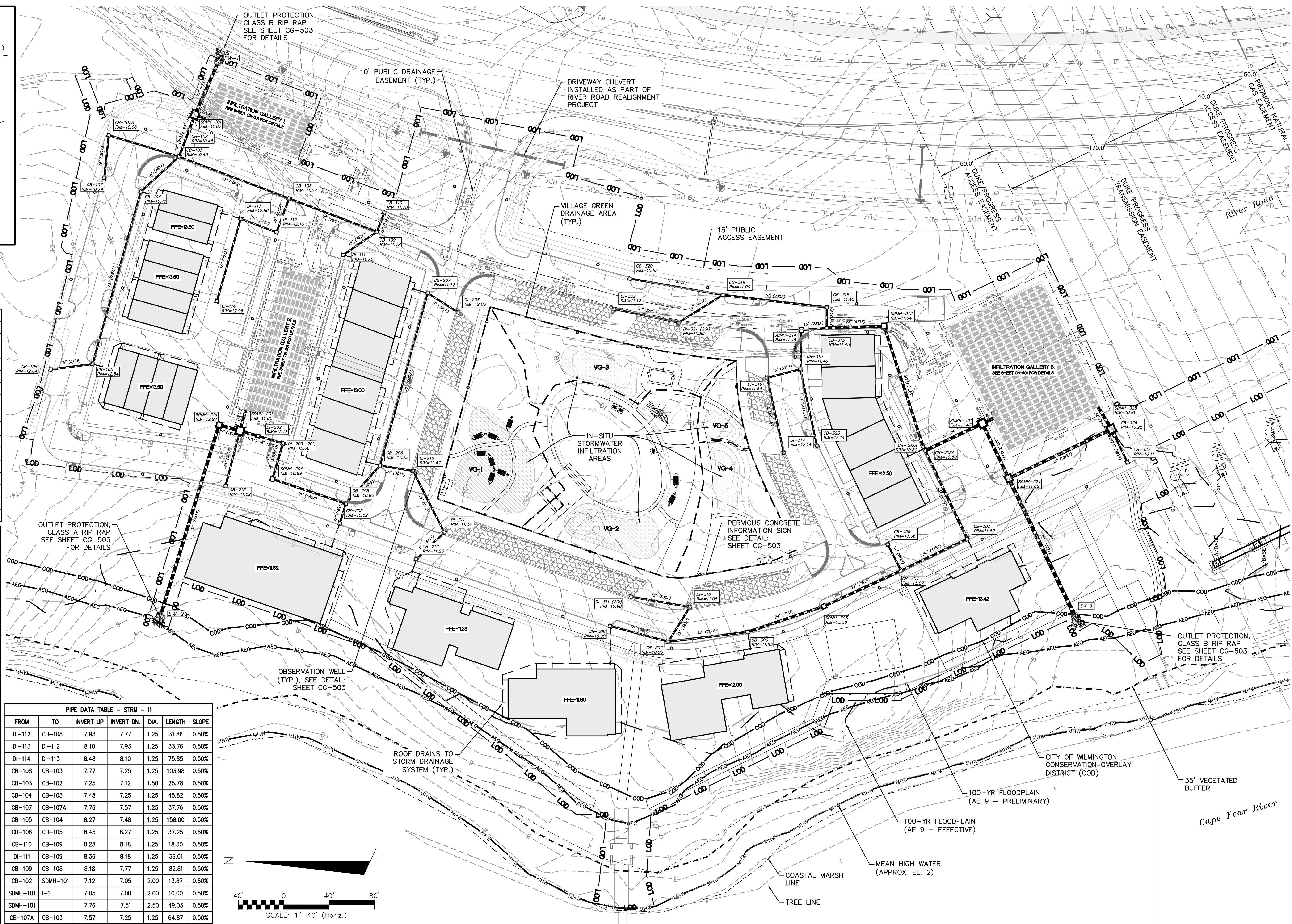
FROM	TO	INVERT UP	INVERT DN	DIA.	LENGTH	SLOPE
CB-207	CB-206	8.38	7.75	1.25	158.01	0.40%
DI-210	CB-206	7.84	7.75	1.25	29.57	0.30%
DI-208	CB-207	8.50	8.38	1.25	31.79	0.40%
CB-206	CB-205	7.75	7.52	1.25	45.06	0.50%
CB-209	CB-205	7.61	7.52	1.25	18.30	0.50%
CB-205	SDMH-204	7.52	7.31	1.50	68.40	0.30%
SDMH-204	DI-203 (2G)	7.31	7.22	1.50	32.94	0.30%
DI-203 (2G)	DI-202	7.22	7.15	1.50	22.78	0.30%
DI-202	SDMH-201	7.15	7.10	2.00	16.76	0.30%
SDMH-201	I-2	7.10	7.00	2.00	19.49	0.50%
CB-213	SDMH-201	8.02	7.52	1.25	50.26	1.00%
SDMH-201	SDMH-214	6.75	6.65	2.50	19.18	0.50%
SDMH-214	EW-2	6.65	5.78	2.50	173.73	0.50%
DI-211	DI-210	8.02	7.84	1.25	60.89	0.30%
CB-212	DI-211	8.12	8.02	1.25	34.20	0.30%

PIPE DATA TABLE - STRM - 13

FROM	TO	INVERT UP	INVERT DN	DIA.	LENGTH	SLOPE
CB-302A	SDMH-301	7.22	7.04	2.50	56.04	0.33%
CB-303	CB-302A	7.49	7.22	2.00	86.39	0.31%
CB-304	CB-303	7.68	7.49	2.00	64.92	0.30%
CB-327	CB-326	7.17	7.09	1.25	26.33	0.30%
SDMH-312	CB-302B	7.56	7.23	2.00	111.83	0.29%
CB-313	SDMH-312	7.71	7.56	2.00	50.65	0.30%
SDMH-314	CB-313	7.78	7.71	1.25	22.39	0.30%
CB-323	CB-315	8.09	7.88	1.25	69.16	0.30%
CB-309	CB-304	9.20	8.94	1.25	26.29	1.00%
CB-315	SDMH-314	7.88	7.78	1.25	34.60	0.30%
SDMH-305	CB-304	7.91	7.68	2.00	75.07	0.30%
CB-307	CB-306	8.33	8.12	1.50	70.51	0.30%
CB-306	SDMH-305	8.12	7.91	2.00	71.03	0.30%
CB-308	CB-307	8.49	8.33	1.25	53.21	0.30%
DI-322	DI-321 (2G)	8.35	8.18	1.25	58.19	0.30%
CB-320	CB-319	8.29	8.04	1.25	83.36	0.30%
CB-319	CB-318	8.04	7.76	1.50	92.57	0.30%
CB-318	CB-313	7.76	7.71	1.50	18.26	0.30%
DI-317	DI-316	8.37	8.04	1.25	67.83	0.50%
DI-316	CB-315	8.04	7.88	1.25	30.20	0.50%
DI-311 (2G)	DI-310	8.60	8.44	1.25	52.85	0.30%
DI-310	CB-307	8.44	8.33	1.25	36.01	0.30%
DI-321 (2G)	CB-319	8.18	8.04	1.25	46.02	0.30%
SDMH-301	SDMH-324	7.04	6.50	2.50	53.81	1.00%
SDMH-301		7.04	7.00	2.50	10.85	0.37%
CB-326	SDMH-325	7.09	7.07	2.00	6.08	0.30%
SDMH-325		7.07	7.00	2.50	22.86	0.30%
SDMH-324		6.50	4.77	3.00	132.96	1.30%
SDMH-325	SDMH-324	7.10	6.50	2.50	100.55	0.60%
CB-302B	CB-302A	7.23	7.22	2.00	4.00	0.30%

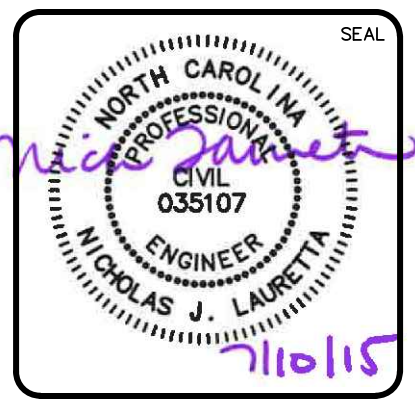
PIPE DATA TABLE - STRM - 11

FROM	TO	INVERT UP	INVERT DN	DIA.	LENGTH	SLOPE
DI-112	CB-108	7.93	7.77	1.25	31.86	0.50%
DI-113	DI-112	8.10	7.93	1.25	33.76	0.50%
DI-114	DI-113	8.48	8.10	1.25	75.85	0.50%
CB-108	CB-103	7.77	7.25	1.25	103.98	0.50%
CB-103	CB-102	7.25	7.12	1.50	25.78	0.50%
CB-104	CB-103	7.48	7.25	1.25	45.82	0.50%
CB-107	CB-107A	7.76	7.57	1.25	37.76	0.50%
CB-105	CB-104	8.27	7.48	1.25	158.00	0.50%
CB-106	CB-105	8.45	8.27	1.25	37.25	0.50%
CB-110	CB-109	8.28	8.18	1.25	18.30	0.50%
DI-111	CB-109	8.36	8.18	1.25	36.01	0.50%
CB-109	CB-108	8.18	7.77	1.25	82.81	0.50%
CB-102	SDMH-101	7.12	7.05	2.00	13.87	0.50%
SDMH-101	I-1	7.05	7.00	2.00	10.00	0.50%
SDMH-101		7.76	7.51	2.50	49.03	0.50%
CB-107A	CB-103	7.57	7.25	1.25	64.87	0.50%



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F	CAPE FEAR PUBLIC UTILITY AUTHORITY SUBMITTAL	06/11/2015
E	CITY OF WILMINGTON TREE REMOVAL	06/03/2015
D	CITY OF WILMINGTON TRC SUBMITTAL 2	05/29/2015
C	CITY OF WILMINGTON STORMWATER SUBMITTAL	05/20/2015
B	NEW HANOVER COUNTY EROSION CONTROL SUBMITTAL	05/13/2015
A	CITY OF WILMINGTON TRC SUBMITTAL	04/08/2015

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RIVERLIGHTS
Newland COMMUNITIES
NORTH AMERICA SEKISUI HOUSE, LLC

RIVERLIGHTS MARINA VILLAGE
STORM DRAINAGE PLAN

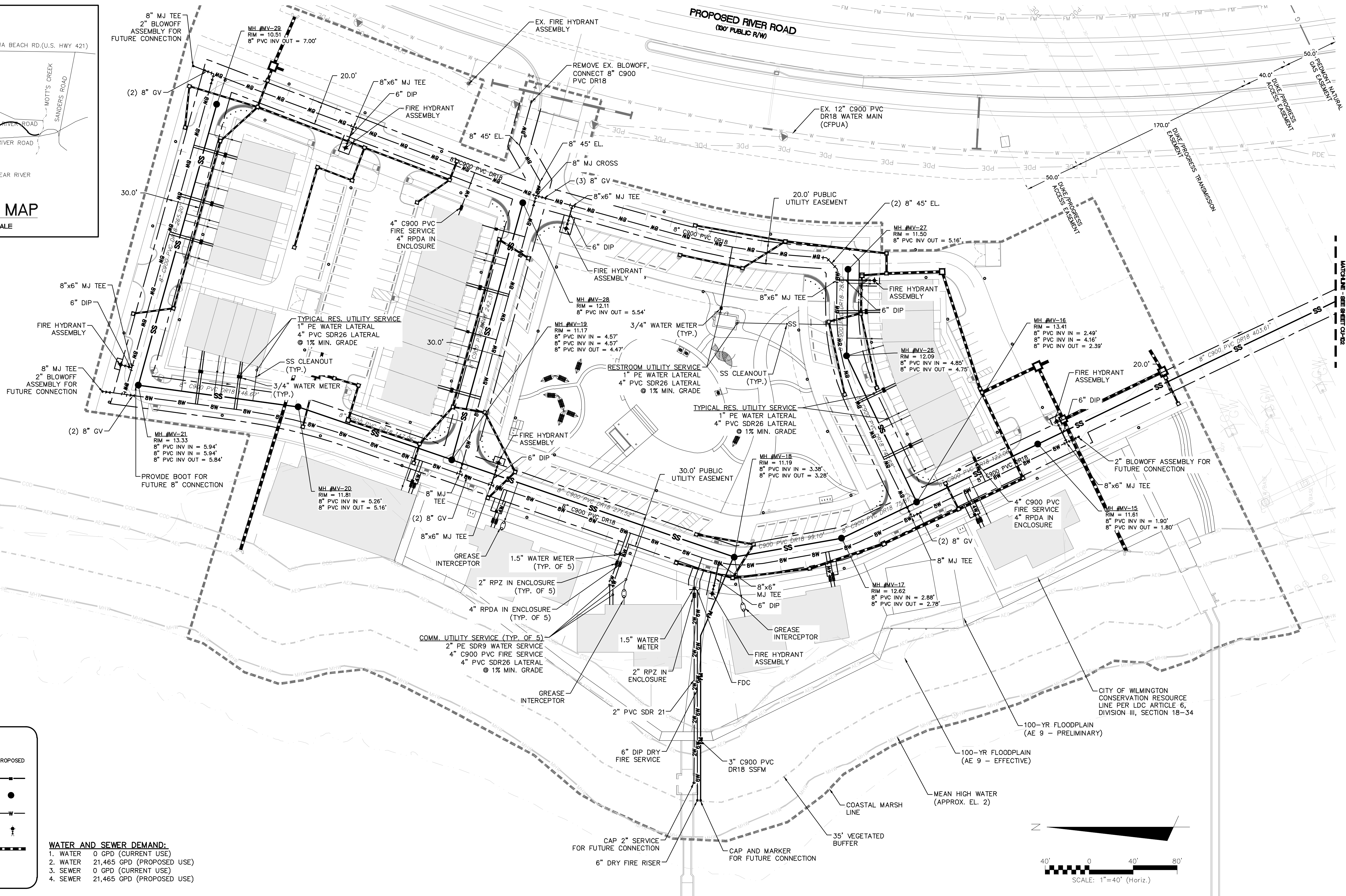
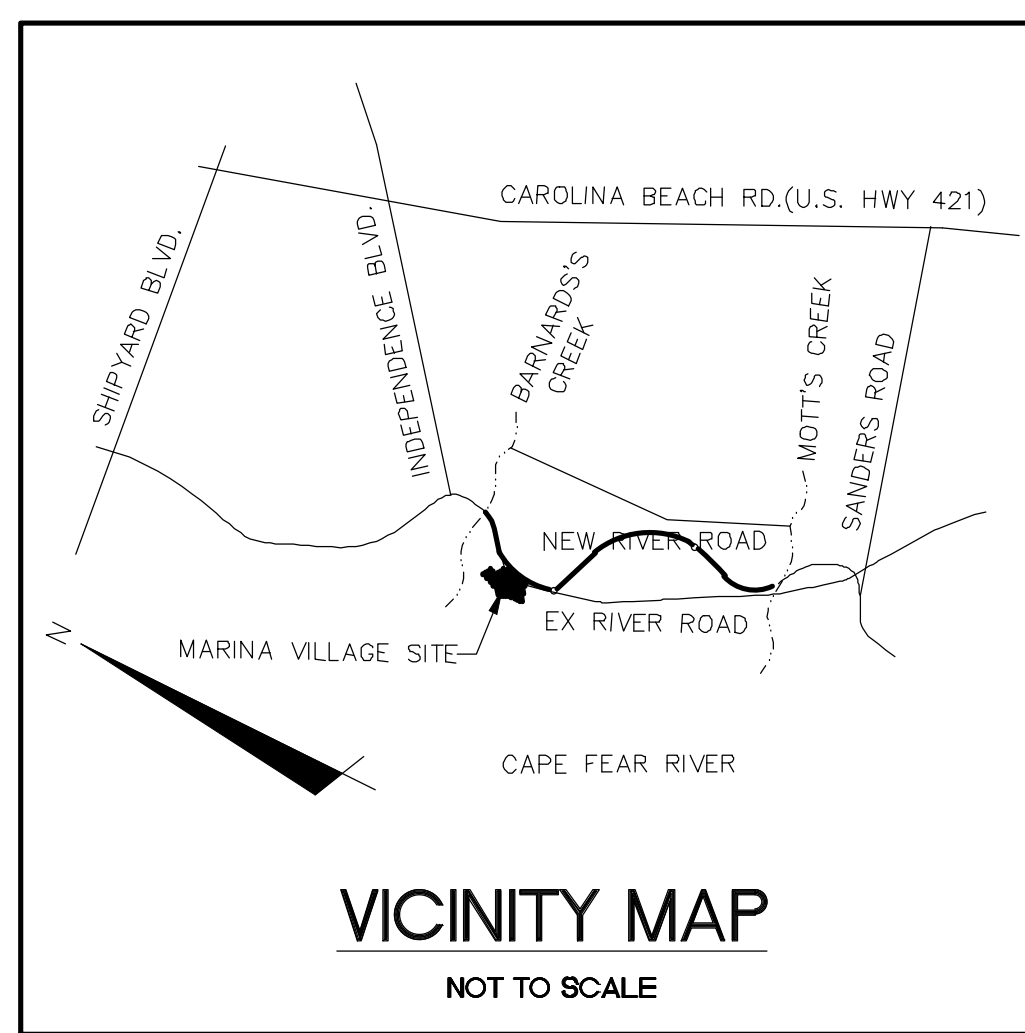
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MCE PROJ. # 2735-0124
DRAWN: EEM
DESIGNED: EEM
CHECKED: RMC
PROJ. MGR: NJL

SCALE: HORIZONTAL: 1"=40'
VERTICAL: ---

MFC FILE NUMBER: CG-102
DRAWING NUMBER: 15
REVISION: H
15 OF 47

STATUS: FINAL DESIGN
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LEGEND

	EXISTING	PROPOSED
SANITARY SEWER LINE	---	---
MANHOLE	●	●
WATER LINE	---	---
FIRE HYDRANT	+	+
STORM DRAIN PIPE	---	---
PROGRESS ENERGY JUNCTION BOX	□	□
AT&T TELEPHONE PEDESTAL	□	□

WATER AND SEWER DEMAND:

1. WATER	0 GPD (CURRENT USE)
2. WATER	21,465 GPD (PROPOSED USE)
3. SEWER	0 GPD (CURRENT USE)
4. SEWER	21,465 GPD (PROPOSED USE)

REVNO.	DESCRIPTIONS	DATE
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G	NEW HANOVER COUNTY EROSION CONTROL SUBMITAL 2	06/11/2015
F	CAPE FEAR PUBLIC UTILITY AUTHORITY SUBMITAL	06/11/2015
E	QTY OF WILMINGTON TREE REMOVAL	06/05/2015
D	QTY OF WILMINGTON TRC SUBMITAL 2	05/29/2015
C	QTY OF WILMINGTON STORMWATER SUBMITAL	05/20/2015
B	NEW HANOVER COUNTY EROSION CONTROL SUBMITAL	05/13/2015
A	QTY OF WILMINGTON TRC SUBMITAL	04/08/2015

FINAL DRAWINGS
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CONSTRUCTION



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243 North Front Street
Wilmington, North Carolina 28401
Phone: (910)343-1048, Fax: (910)251-8282
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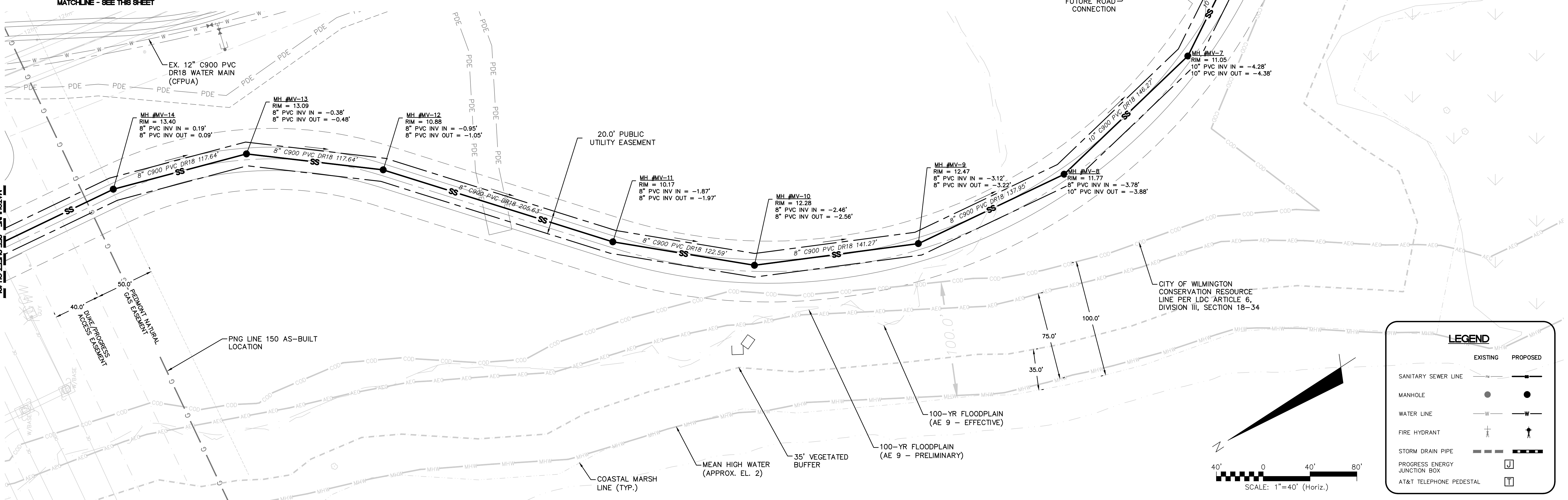
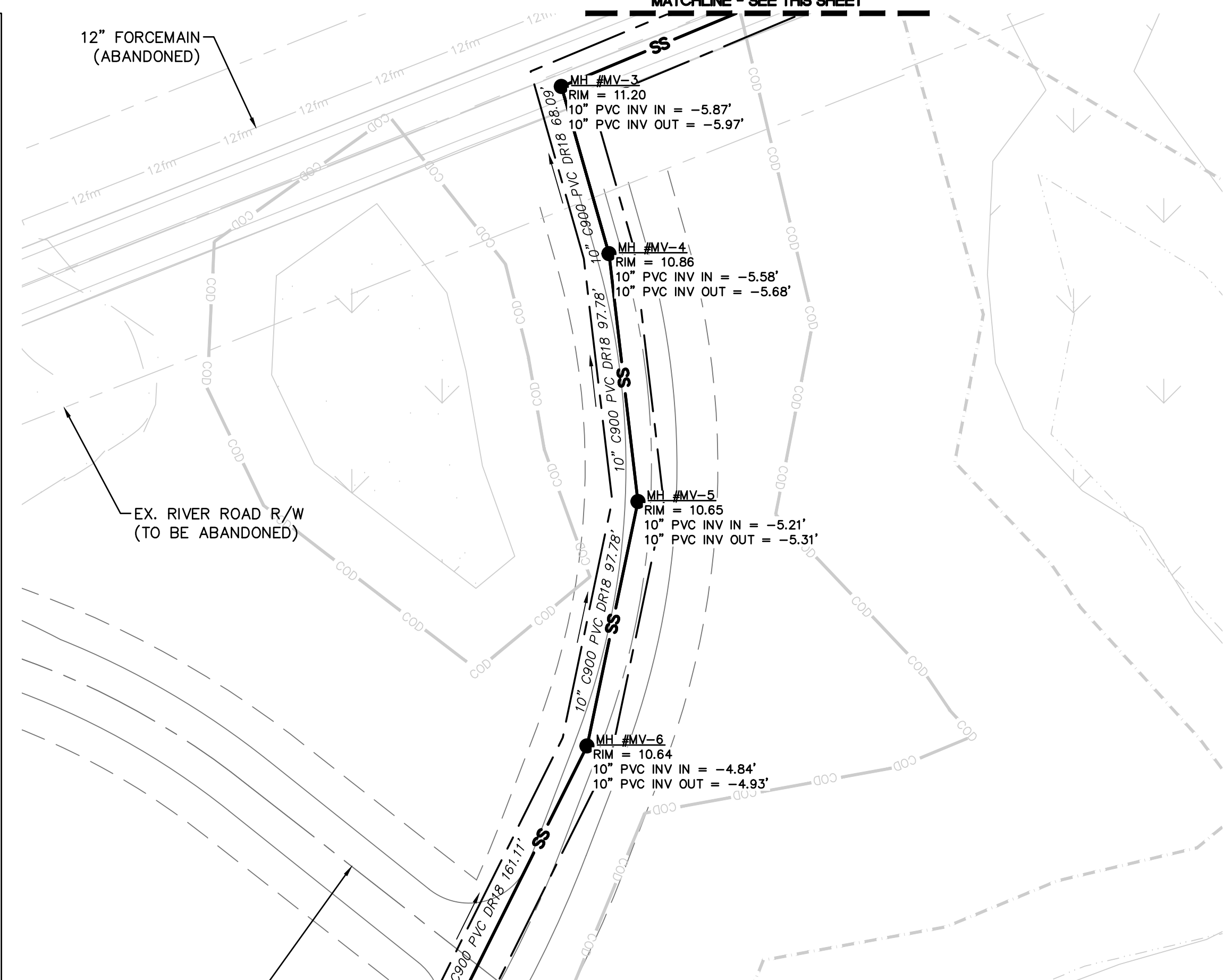
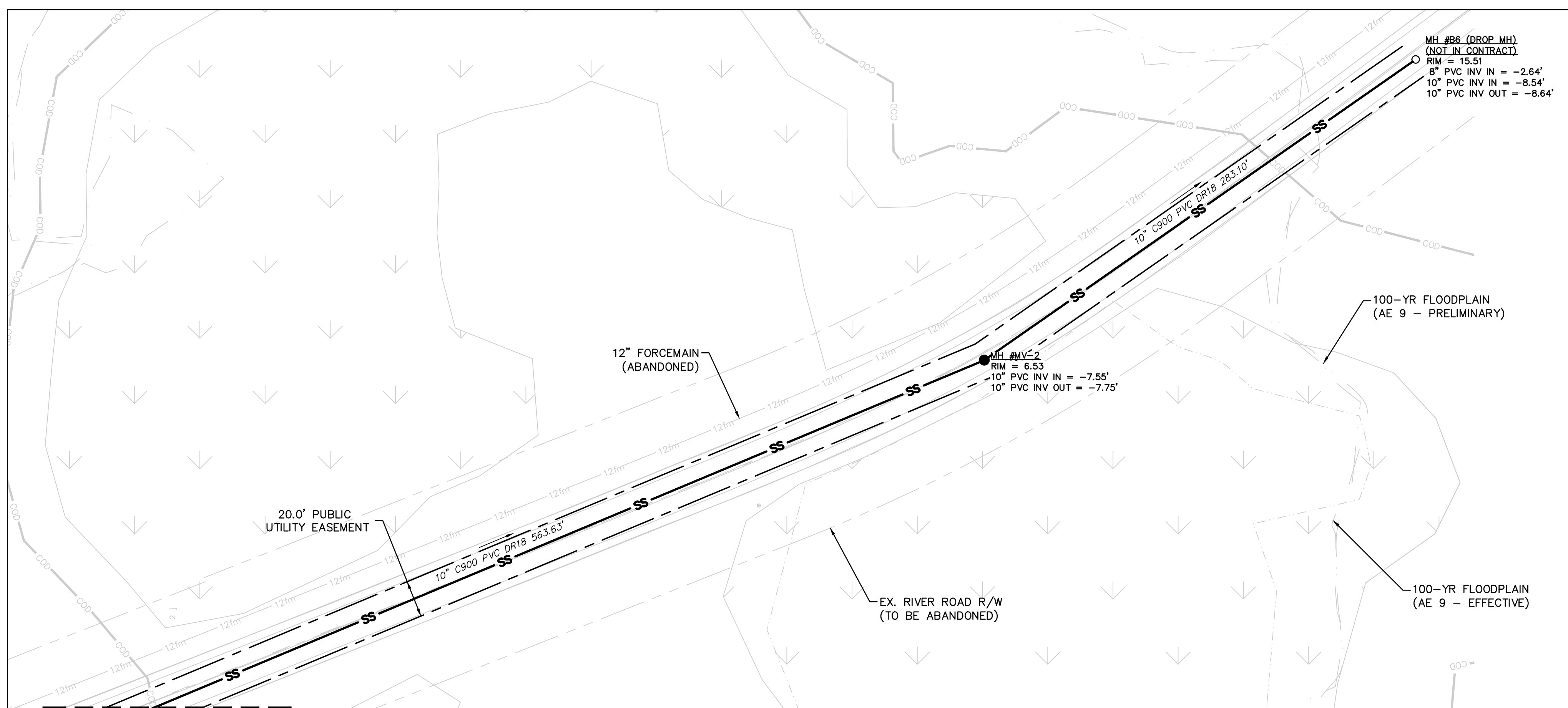
RIVERLIGHTS
by Newland COMMUNITIES

NORTH AMERICA SEKISUI HOUSE, LLC

RIVERLIGHTS MARINA VILLAGE

UTILITY PLAN

DATE:	08APR15	SCALE:	HORIZONTAL: 1"=40'	VERTICAL: ---
MCE PROJ. #:	2735-0124	DESIGNED:	EEM	CHECKED:
PROJ. MGR.:	NJL	STATUS:	FINAL DESIGN	NOT FOR CONSTRUCTION
MFC FILE NUMBER:	CU-101	REVISION:	H	

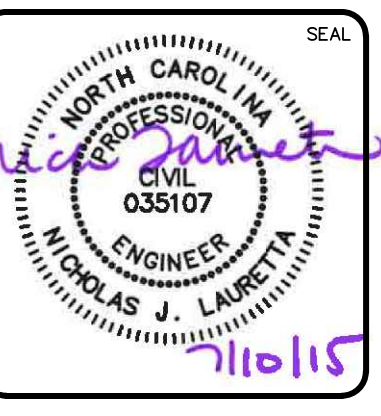


LEGEND

EXISTING	PROPOSED

REVNO.	DESCRIPTIONS	REVISIONS	DATE
H	CITY OF WILMINGTON TRC SUBMITTAL 3		07/10/2015
G	NEW HANOVER COUNTY EROSION CONTROL SUBMITTAL 2		06/11/2015
F	CAPE FEAR PUBLIC UTILITY AUTHORITY SUBMITTAL		06/11/2015
E	CITY OF WILMINGTON TREE REMOVAL		06/05/2015
D	CITY OF WILMINGTON TRC SUBMITTAL 2		05/29/2015
C	CITY OF WILMINGTON STORMWATER SUBMITTAL		05/20/2015
B	NEW HANOVER COUNTY EROSION CONTROL SUBMITTAL		05/13/2015
A	CITY OF WILMINGTON TRC SUBMITTAL		04/08/2015

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RIVERLIGHTS
Newland COMMUNITIES

NORTH AMERICA SEKISUI HOUSE, LLC

RIVERLIGHTS MARINA VILLAGE

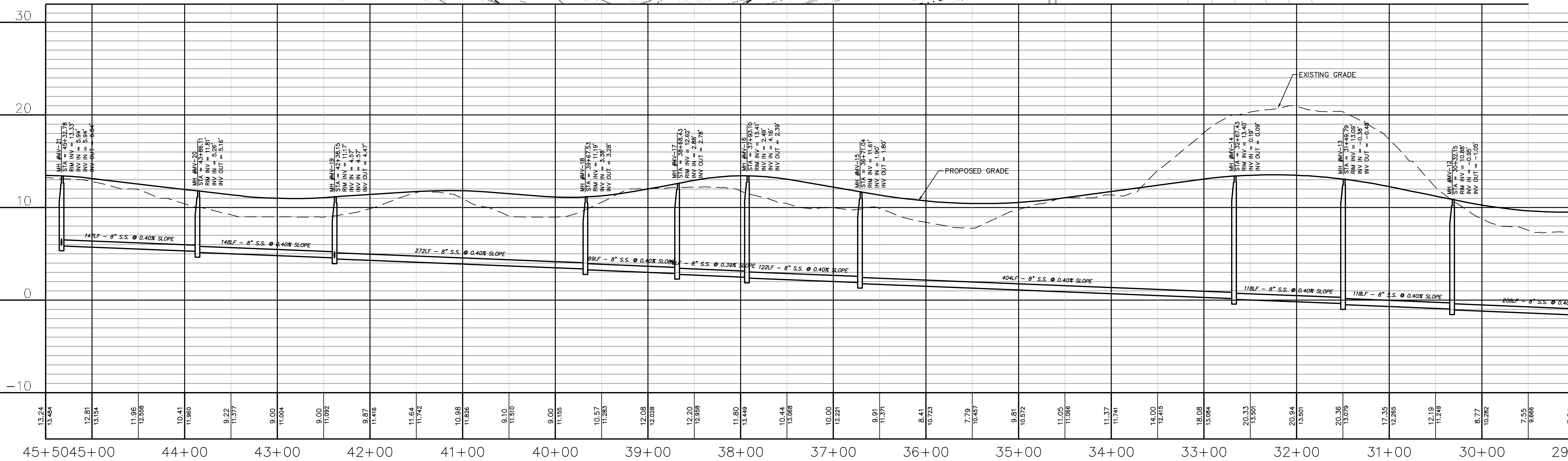
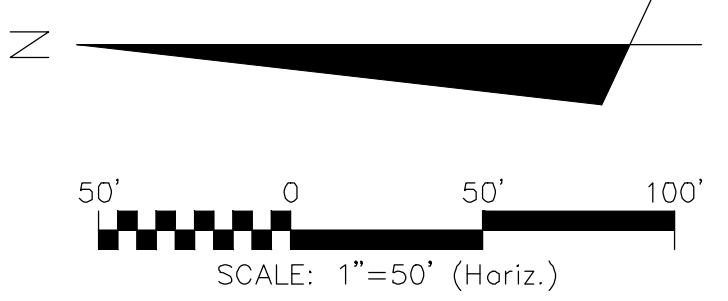
**MARINA VILLAGE SANITARY SEWER
OUTFALL UTILITY PLAN**

DATE: 08APR15	SCALE: 1"=40'	MAC FILE NUMBER: CU-102
MCE PROJ. # 2735-0124	HORIZONTAL: 1"=40'	DRAWING NUMBER: 17
DRAWN: EEM	VERTICAL: ---	REVISION: H
DESIGNED: EEM		
CHECKED: RMC		
PROJ. MGR.: NJL		
STATUS: FINAL DESIGN		NOT FOR CONSTRUCTION

S:\2735\0124 Marina Village\Drawings\CU101-027350124.dwg, 7/10/2015 11:34:01 AM, nrauraha

CFPUA STANDARD SEWER NOTES:

- SEWER GUARDS REQUIRED AT ALL MANHOLES. STAINLESS STEEL SEWER GUARDS REQUIRED AT MANHOLES LOCATED IN TRAFFIC AREAS.
- SERVICES SHALL BE PERPENDICULAR TO MAIN AND TERMINATE AT RIGHT-OF-WAY LINE. SERVICES IN CUL-DE-SACS ARE REQUIRED TO BE PERPENDICULAR, OR MUST ORIGINATE IN MANHOLE AND TERMINATE IN RIGHT-OF-WAY LINE.
- ALL SERVICES TYING INTO DUCTILE IRON MAINS SHALL BE CONSTRUCTED OF CLASS 50, DIP, WITH PROTECTO 401 CERAMIC EPOXY LINING.
- NO FLEXIBLE COUPLINGS SHALL BE USED.
- ALL STAINLESS STEEL FASTENERS SHALL BE 316.



REVNO.	DESCRIPTIONS	DATE
A	QTY OF WILMINGTON TRC SUBMITAL	04/08/2015
B	NEW HANOVER COUNTY EROSION CONTROL SUBMITAL	05/13/2015
C	QTY OF WILMINGTON STORMWATER SUBMITAL	05/20/2015
D	QTY OF WILMINGTON TRC SUBMITAL 2	05/29/2015
E	QTY OF WILMINGTON TREE REMOVAL	06/03/2015
F	CAPE FEAR PUBLIC UTILITY AUTHORITY SUBMITAL	06/11/2015
G	NEW HANOVER COUNTY EROSION CONTROL SUBMITAL 2	06/11/2015
H	QTY OF WILMINGTON TRC SUBMITAL 3	07/10/2015

FINAL DRAWINGS
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 NORTH AMERICA SEKISUI HOUSE, LLC

RIVERLIGHTS MARINA VILLAGE
MARINA VILLAGE SANITARY SEWER
OUTFALL PLAN & PROFILE

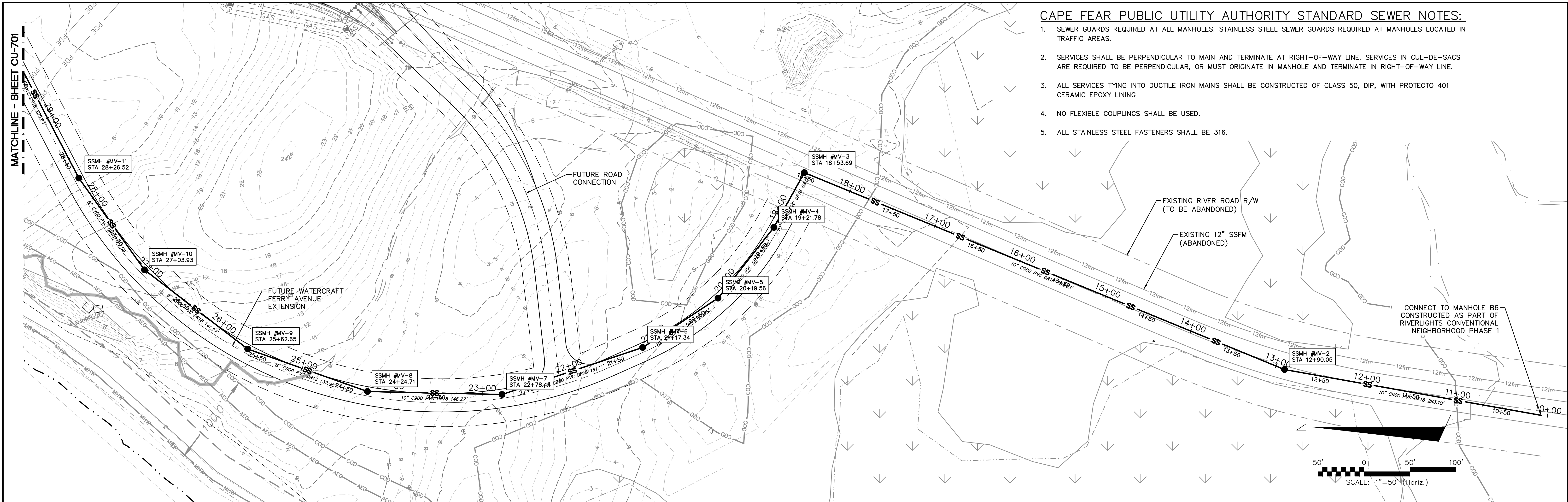
DATE: 08APR15
 MCE PROJ.#: 2735-0124
 DRAWN: EEM
 DESIGNED: EEM
 CHECKED: RMC
 PROJ. MGR.: NJL

SCALE: HORIZONTAL: 1"=50'
 VERTICAL: 1"=5'

STATUS: FINAL DESIGN
 NOT FOR CONSTRUCTION

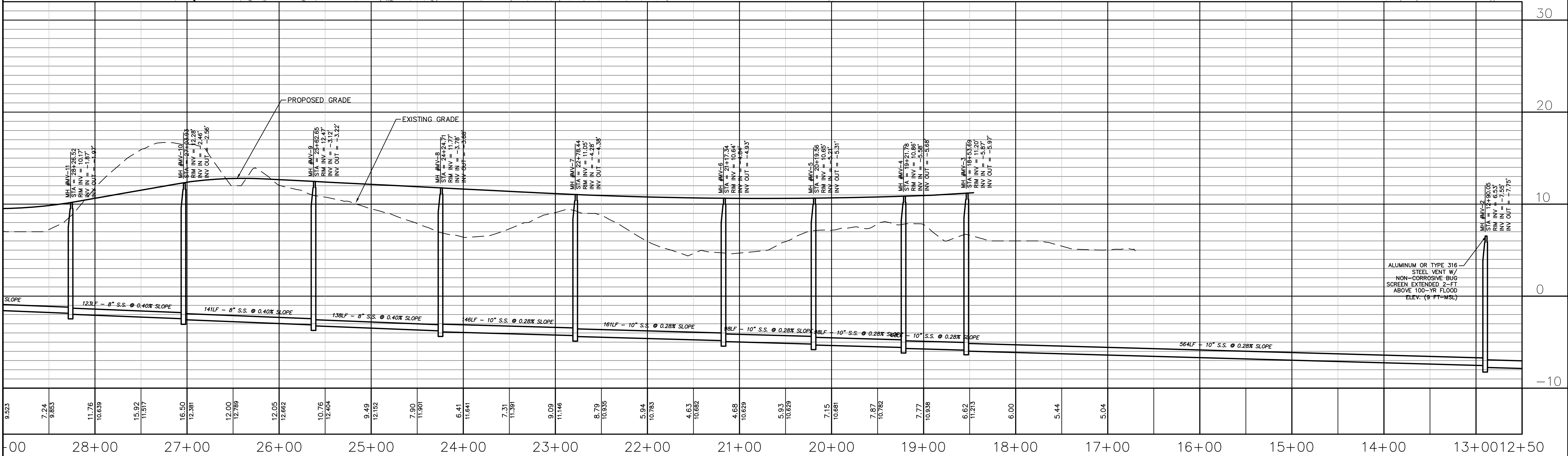
REVISION: H

MFC FILE NUMBER: CU-701
 DRAWING NUMBER: 18
 18 OF 47



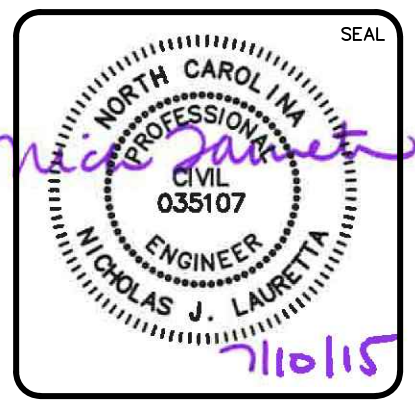
CAPE FEAR PUBLIC UTILITY AUTHORITY STANDARD SEWER NOTES:

1. SEWER GUARDS REQUIRED AT ALL MANHOLES. STAINLESS STEEL SEWER GUARDS REQUIRED AT MANHOLES LOCATED IN TRAFFIC AREAS.
2. SERVICES SHALL BE PERPENDICULAR TO MAIN AND TERMINATE AT RIGHT-OF-WAY LINE. SERVICES IN CUL-DE-SACS ARE REQUIRED TO BE PERPENDICULAR, OR MUST ORIGINATE IN MANHOLE AND TERMINATE IN RIGHT-OF-WAY LINE.
3. ALL SERVICES TYING INTO DUCTILE IRON MAINS SHALL BE CONSTRUCTED OF CLASS 50, DIP, WITH PROTECTO 401 CERAMIC EPOXY LINING
4. NO FLEXIBLE COUPLINGS SHALL BE USED.
5. ALL STAINLESS STEEL FASTENERS SHALL BE 316.



REV.	DESCRIPTIONS	DATE
H	CITY OF WILMINGTON TRC SUBMITTAL 3	07/10/2015
G	NEW HANOVER COUNTY EROSION CONTROL SUBMITTAL 2	06/11/2015
F	CAPE FEAR PUBLIC UTILITY AUTHORITY SUBMITTAL	06/11/2015
E	CITY OF WILMINGTON TREE REMOVAL	06/05/2015
D	CITY OF WILMINGTON TRC SUBMITTAL 2	05/29/2015
C	CITY OF WILMINGTON STORMWATER SUBMITTAL	05/20/2015
B	NEW HANOVER COUNTY EROSION CONTROL SUBMITTAL	05/13/2015
A	CITY OF WILMINGTON TRC SUBMITTAL	04/08/2015

FINAL DRAWINGS
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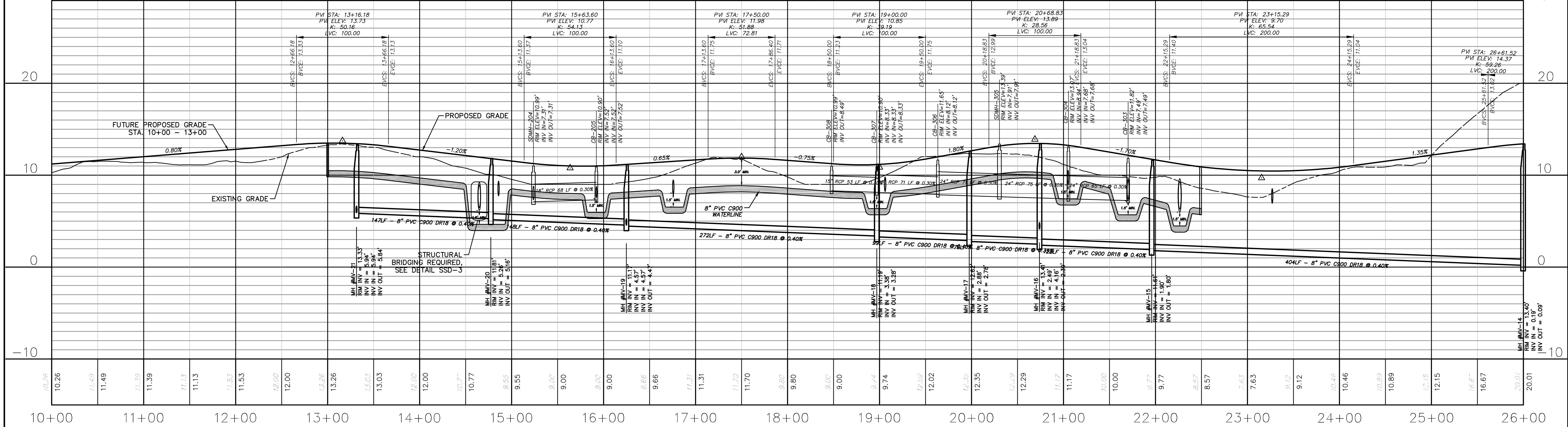
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by Newland COMMUNITIES
NORTH AMERICA SEKISUI HOUSE, LLC

RIVERLIGHTS MARINA VILLAGE
MARINA VILLAGE SANITARY SEWER
OUTFALL PLAN & PROFILE

DATE: 08APR15	SCALE: HORIZONTAL: ---	MFC FILE NUMBER: CU-702
MCE PROJ. # 2735-0124	VERTICAL: ---	DRAWING NUMBER: 19
DRAWN: EEM		REVISION: H
DESIGNED: EEM		
CHECKED: RMC		
PROJ. MGR.: NJL		
STATUS: FINAL DESIGN		
NOT FOR CONSTRUCTION		

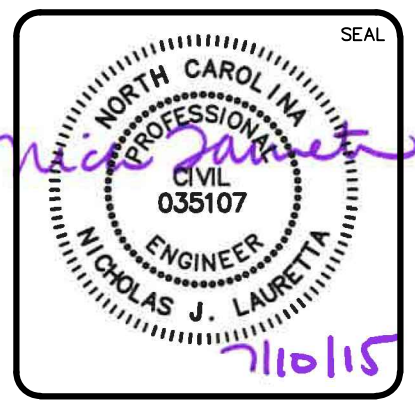
S:\2726\0124 Marina Village\60-Drawings\CU701_702-202750124.dwg, 7/10/2015 11:37:39 AM, rlaurena



WATERCRAFT FERRY AVENUE
SCALE: HOR. 1"=50', VERT. 1"=5'

REV. NO.	DESCRIPTIONS	DATE
H	CITY OF WILMINGTON TRC SUBMITTAL 3	07/10/2015
G	NEW HANOVER COUNTY EROSION CONTROL SUBMITTAL 2	06/11/2015
F	CAPE FEAR PUBLIC UTILITY AUTHORITY SUBMITTAL	06/11/2015
E	CITY OF WILMINGTON TREE REMOVAL	06/05/2015
D	CITY OF WILMINGTON TRC SUBMITTAL 2	05/29/2015
C	CITY OF WILMINGTON STORMWATER SUBMITTAL	05/20/2015
B	NEW HANOVER COUNTY EROSION CONTROL SUBMITTAL	05/13/2015
A	CITY OF WILMINGTON TRC SUBMITTAL	04/08/2015

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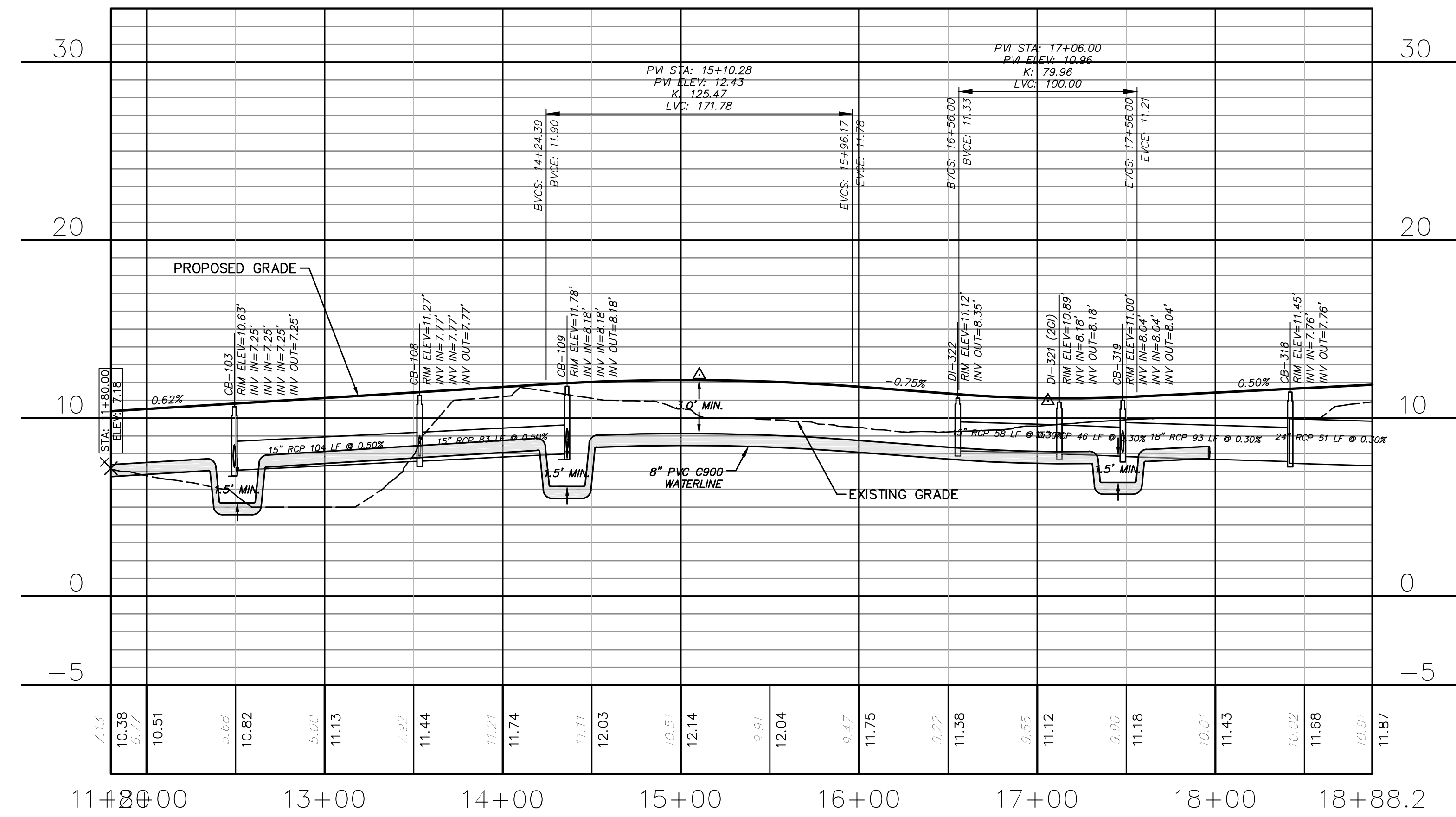
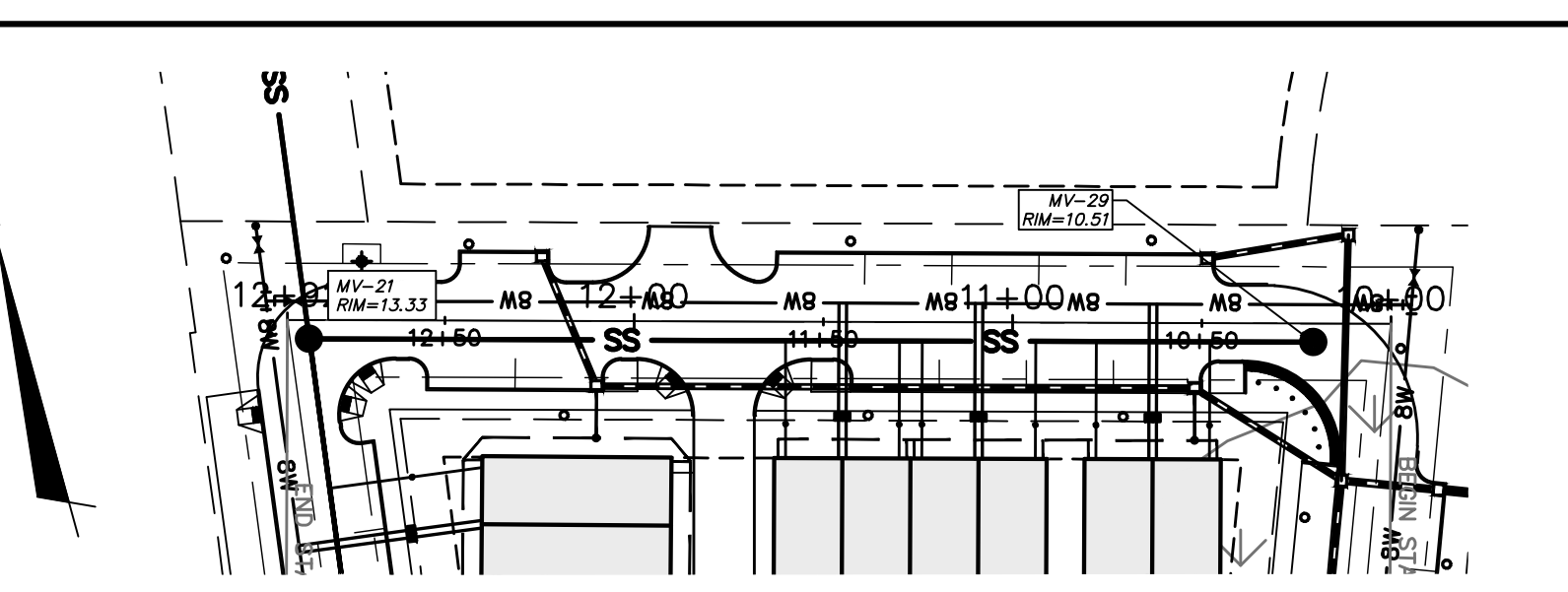
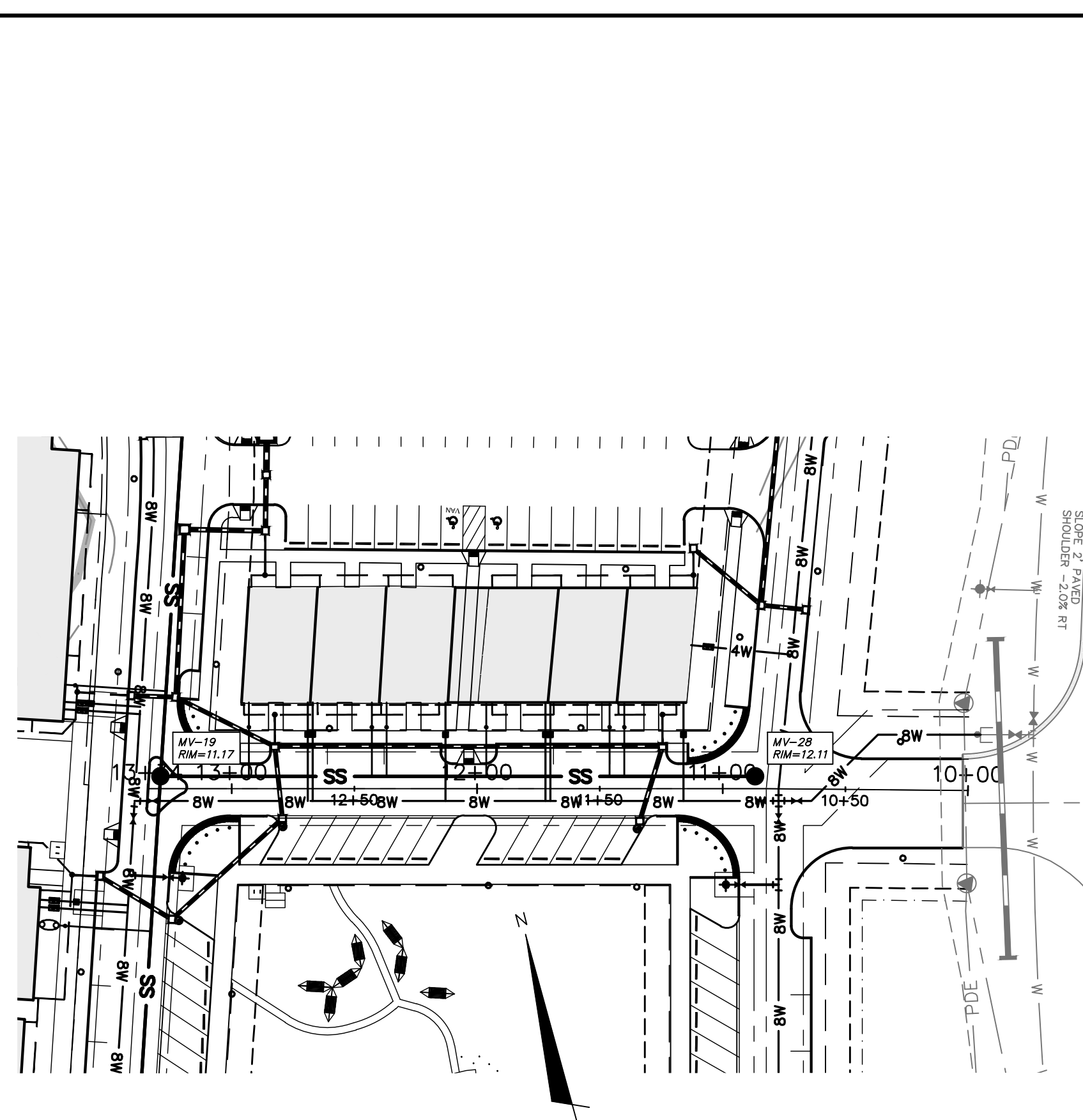
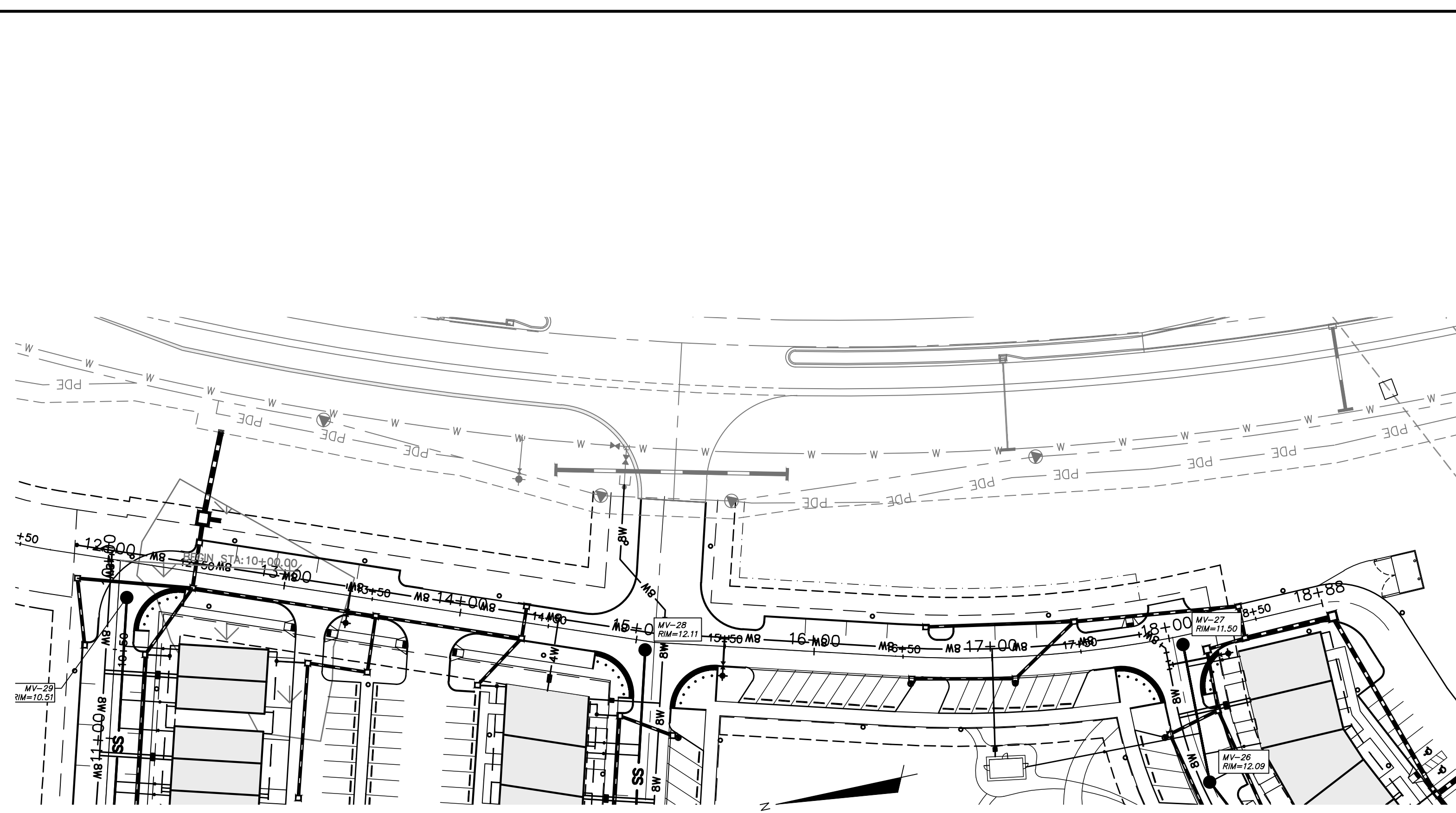
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by
Newland COMMUNITIES

RIVERLIGHTS MARINA VILLAGE

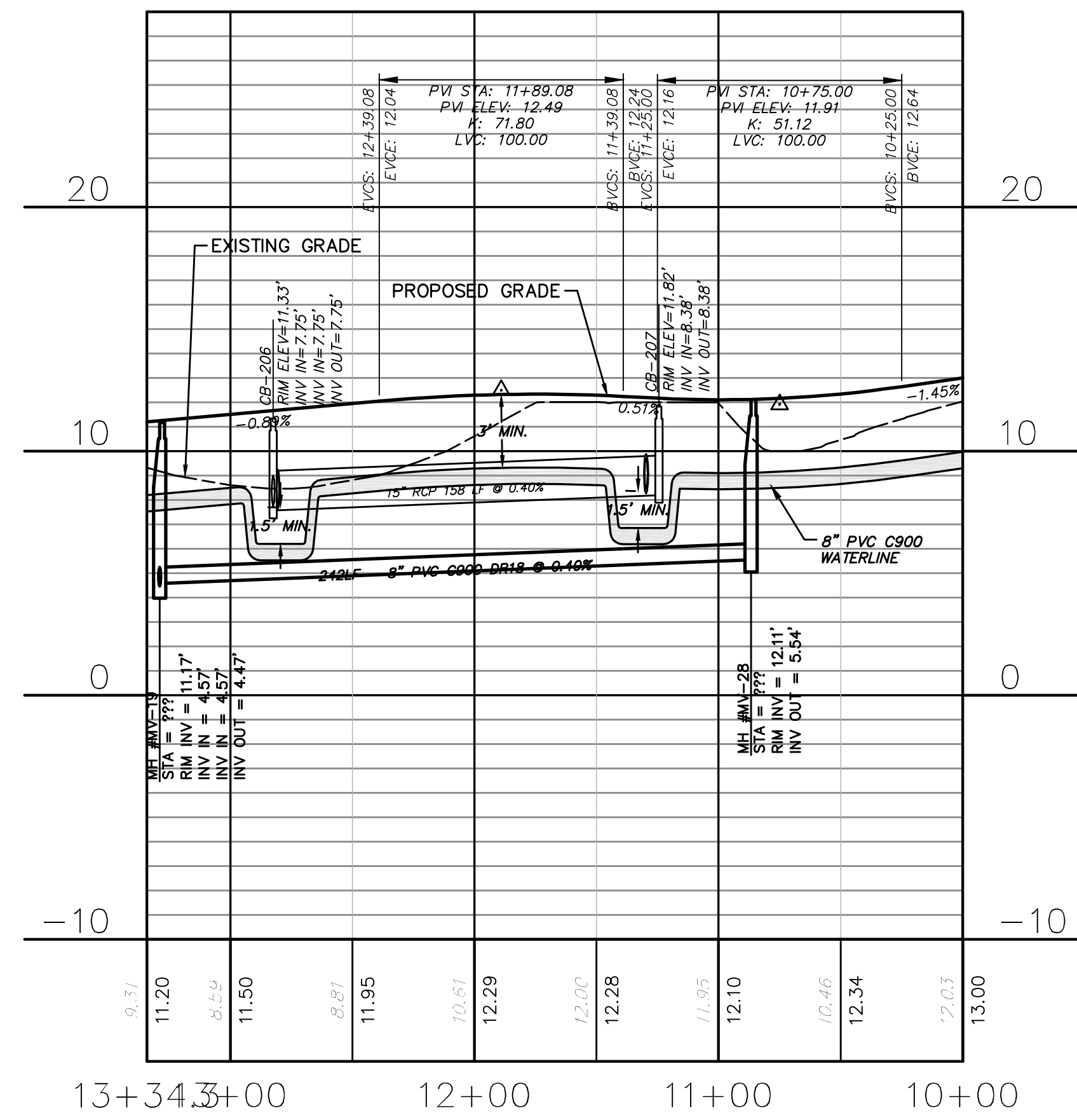
UTILITY PLAN & PROFILE

DATE: 08APR15	SCALE: HORIZONTAL: ---	MAC FILE NUMBER: CU-703
MCE PROJ. # 2735-0124	VERTICAL: ---	DRAWING NUMBER: 20
DRAWN: EEM		REVISION: H
DESIGNED: EEM		
CHECKED: RMC		
PROJ. MGR.: NJL		
STATUS: FINAL DESIGN		
NOT FOR CONSTRUCTION		

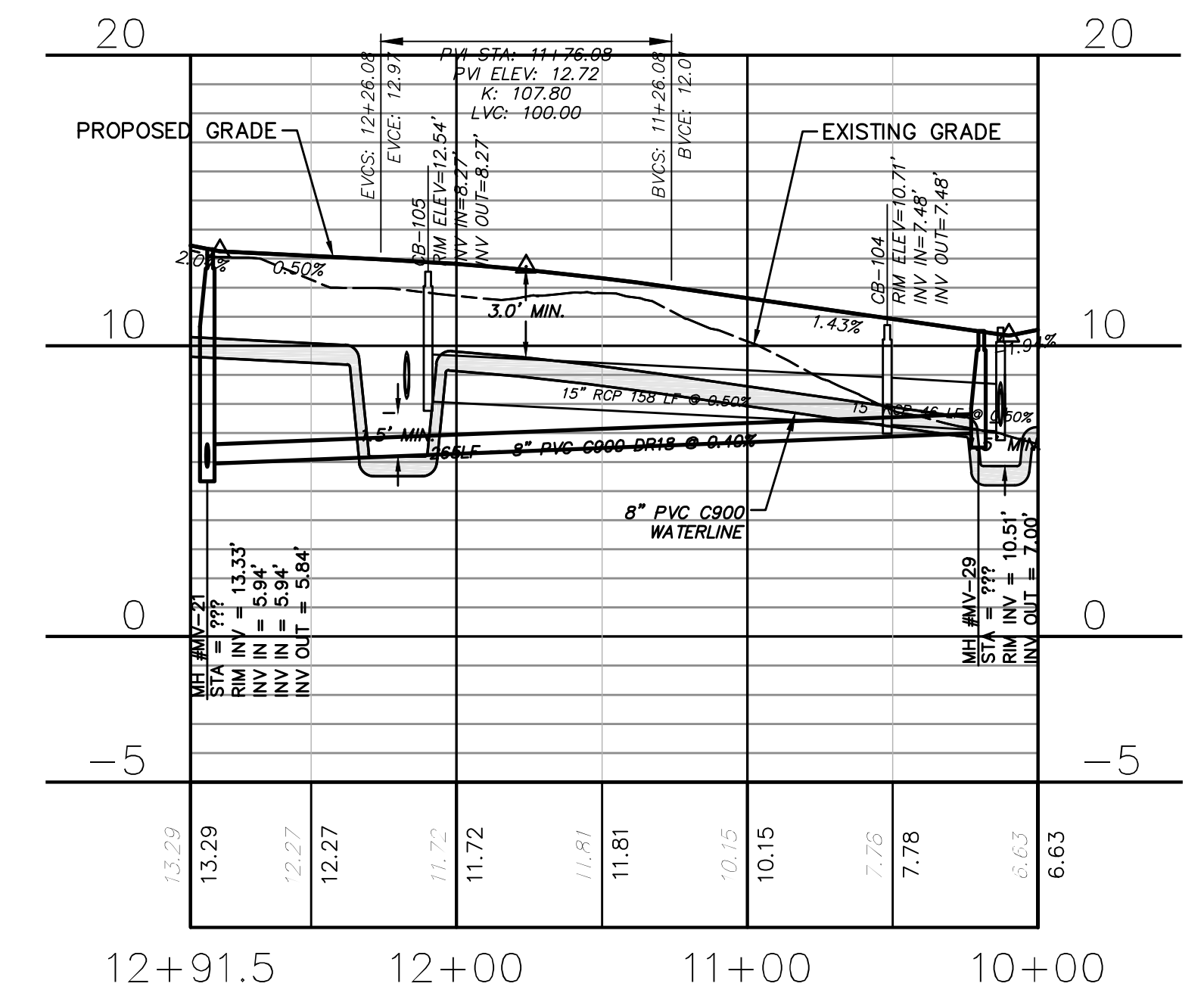
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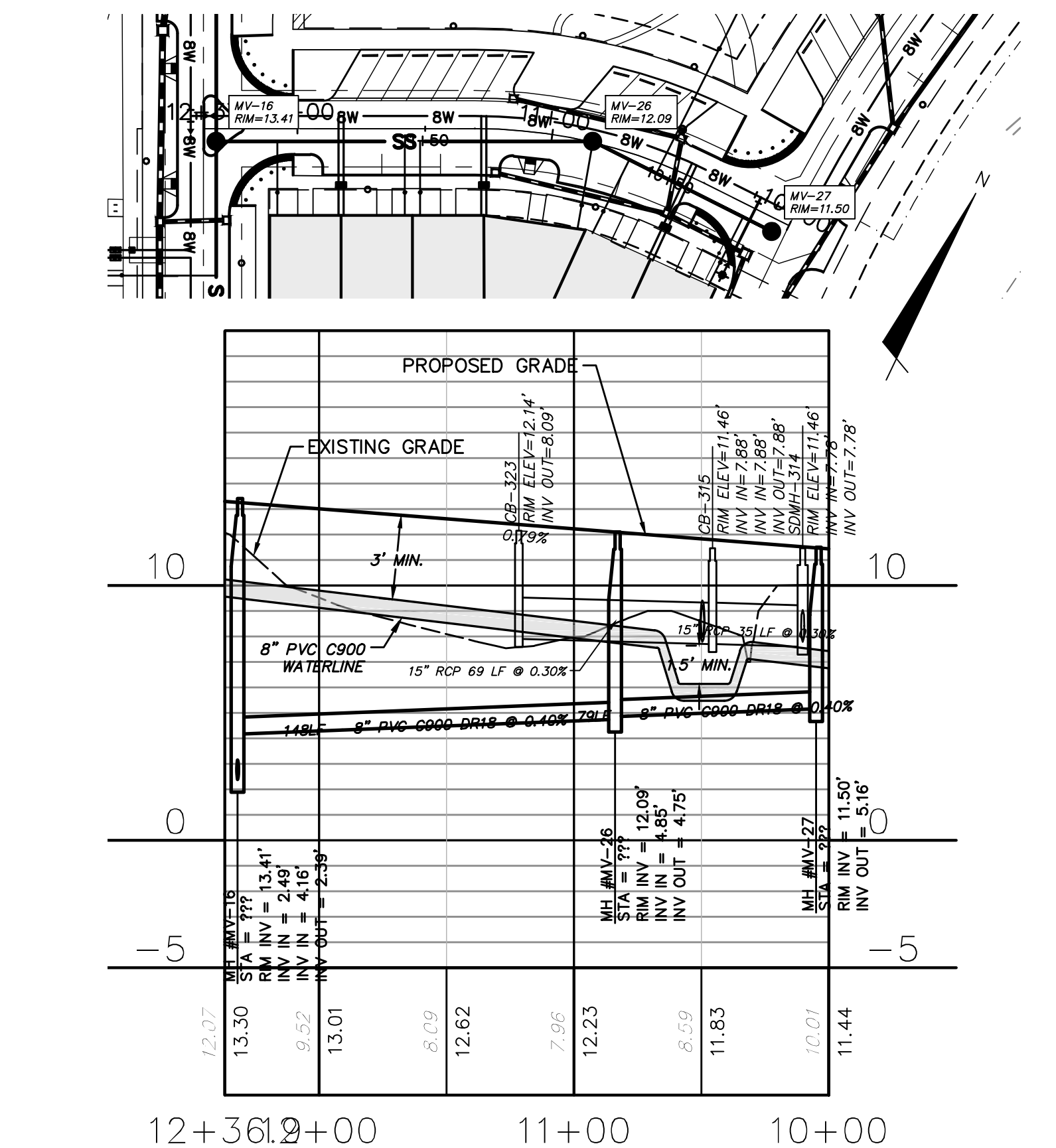
VILLAGE GREEN DRIVE
SCALE: HOR. 1"=50', VERT. 1"=5'



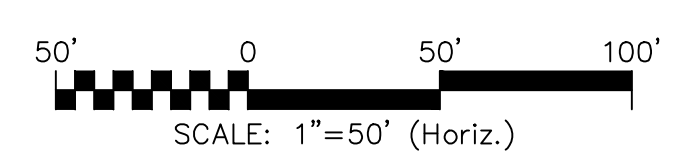
PIER MASTER POINT
SCALE: HOR. 1"=50', VERT. 1"=5'



HOBIE RUN
SCALE: HOR. 1"=50', VERT. 1"=5'

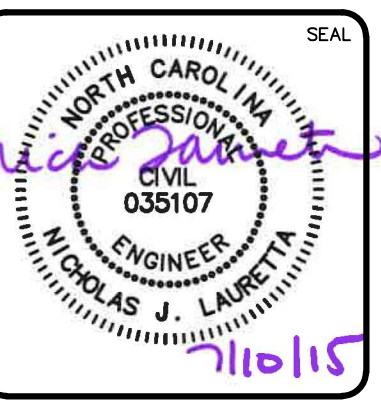


ARCADIAN ROW
SCALE: HOR. 1"=50', VERT. 1"=5'



NO.	DESCRIPTIONS	DATE
H	CITY OF WILMINGTON TRC SUBMITTAL 3	07/10/2015
G	NEW HANOVER COUNTY EROSION CONTROL SUBMITTAL 2	06/11/2015
F	CAPE FEAR PUBLIC UTILITY AUTHORITY SUBMITTAL	06/11/2015
E	CITY OF WILMINGTON TREE REMOVAL	06/05/2015
D	CITY OF WILMINGTON TRC SUBMITTAL 2	05/29/2015
C	CITY OF WILMINGTON STORMWATER SUBMITTAL	05/20/2015
B	NEW HANOVER COUNTY EROSION CONTROL SUBMITTAL	05/13/2015
A	CITY OF WILMINGTON TRC SUBMITTAL	04/08/2015

FINAL DRAWINGS SEAL
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CONSTRUCTION



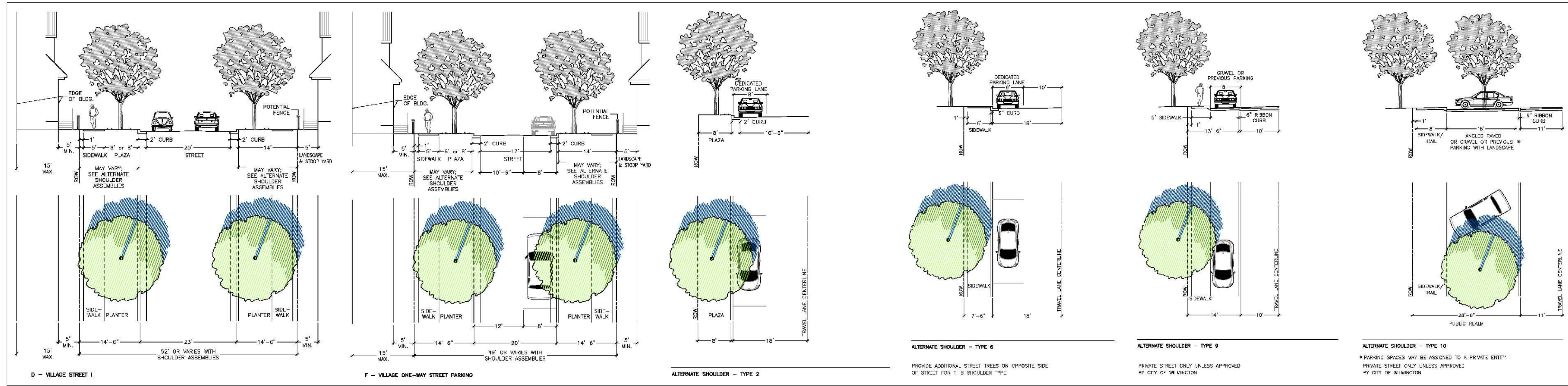
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License: F-1222
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by Newland COMMUNITIES
NORTH AMERICA SEKISUI HOUSE, LLC

RIVERLIGHTS MARINA VILLAGE
UTILITY PLAN & PROFILE

DATE: 08APR15	SCALE: HORIZONTAL: --	MFC FILE NUMBER: CU-704
MCE PROJ. # 2735-0124	VERTICAL: --	DRAWING NUMBER: 21
DRAWN: EEM		21 OF 47
DESIGNED: EEM		
CHECKED: RMC		
PROJ. MGR.: NJL		
STATUS: FINAL DESIGN	REVISION: H	
NOT FOR CONSTRUCTION		

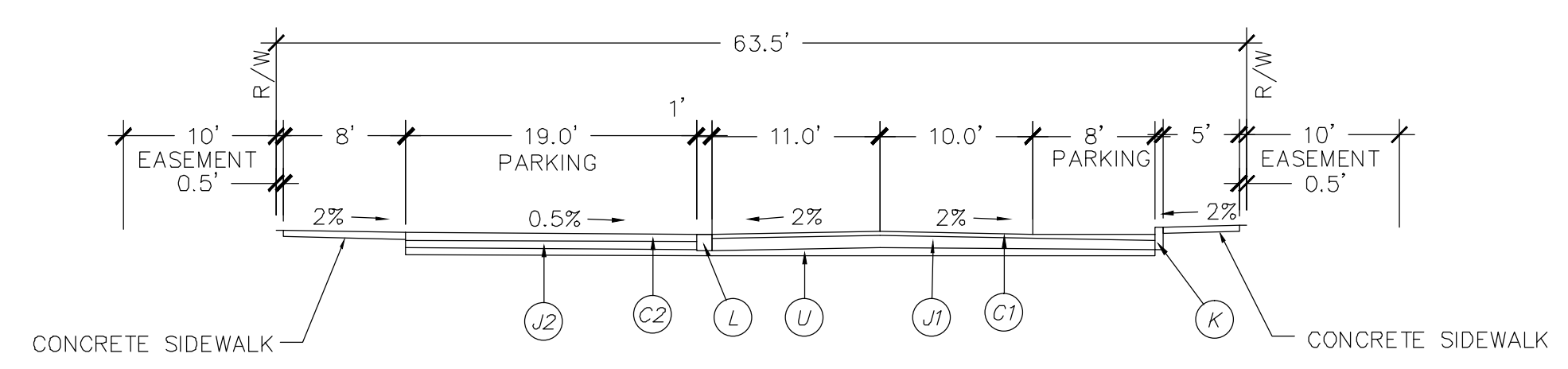
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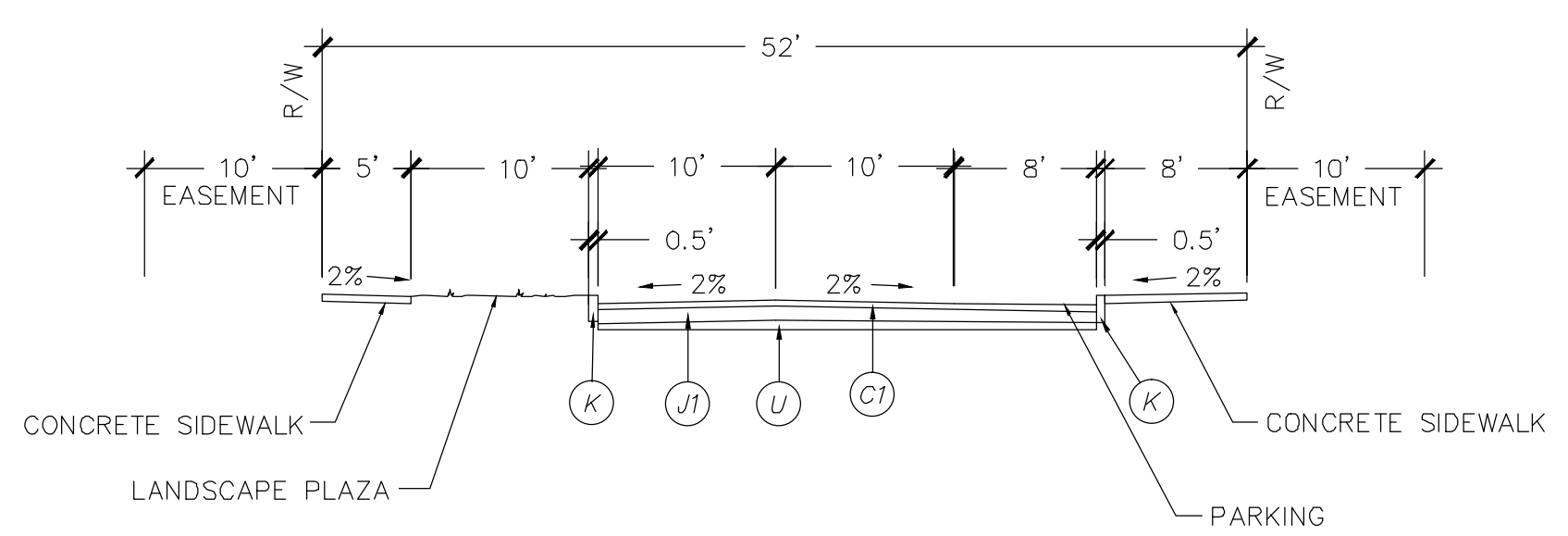
ILLUSTRATIVE STREET SECTIONS FROM DEVELOPMENT AGREEMENT

PAVEMENT SCHEDULE	
C1	3" ASPHALT CONCRETE SURFACE COARSE, TYPE S9.5B AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C2	6" PERVIOUS CONCRETE (1000 PSI = 28 DAY COMPRESSIVE STRENGTH OF FIELD CORES)
J1	8.0" COMPACTED ABC STONE BASE COURSE
J2	6.0" #57 STONE
K	6.0" EXTRUDED CURB
L	12.0" RIBBON CURB
U	COMPACTED SUBGRADE

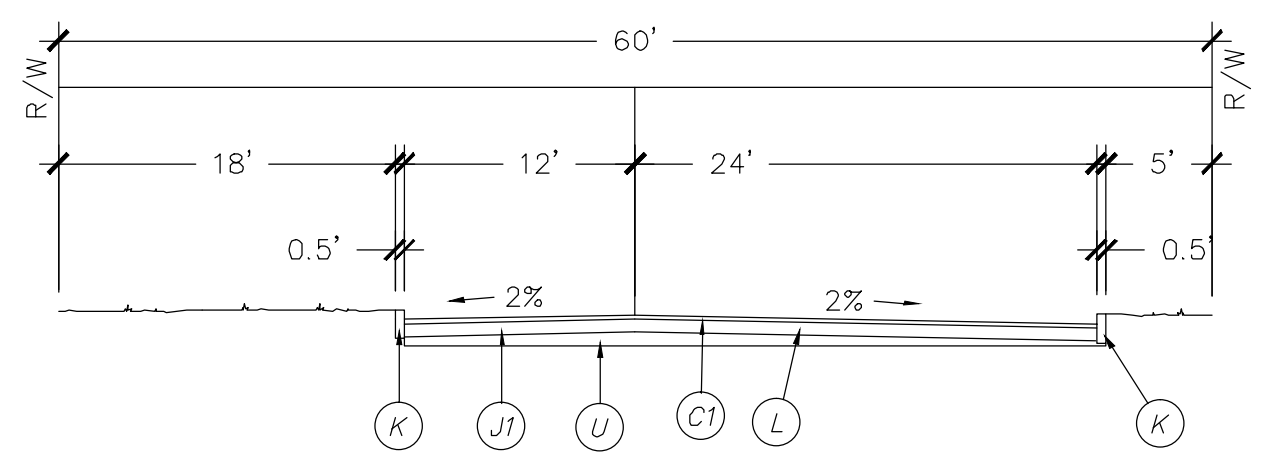
* SEE SHEET CS-501 (14) FOR ADDITIONAL DETAILS AND SECTIONS FOR CURBING, PAVEMENT, STONE, AND SUBGRADE.



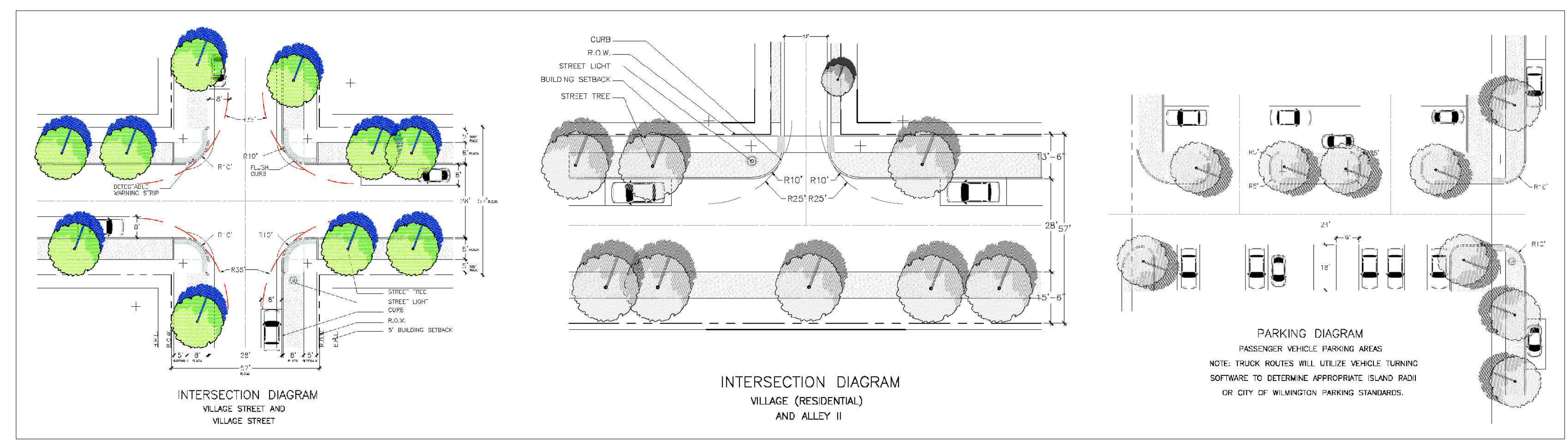
UNDIVIDED TYPICAL SECTION
VILLAGE STREET I W/ALTERNATE SHOULDER 9 + 10
63.5' PRIVATE R/W
NOT TO SCALE



UNDIVIDED TYPICAL SECTION
VILLAGE STREET I W/ALTERNATE SHOULDER 4 + 6
52' PRIVATE R/W
NOT TO SCALE



UNDIVIDED TYPICAL SECTION
ENTRANCE FROM RIVER ROAD
60.0' PRIVATE R/W
NOT TO SCALE



ILLUSTRATIVE INTERSECTION DIAGRAMS FROM DEVELOPMENT AGREEMENT

REVNO.	DESCRIPTIONS	DATE
H	QTY OF WILMINGTON TRC SUBMITTAL 3	07/10/2015
G	NEW HANOVER COUNTY EROSION CONTROL SUBMITTAL 2	06/11/2015
F	CAPE FEAR PUBLIC UTILITY AUTHORITY SUBMITTAL	06/11/2015
E	QTY OF WILMINGTON TREE REMOVAL	06/09/2015
D	QTY OF WILMINGTON TRC SUBMITTAL 2	05/29/2015
C	QTY OF WILMINGTON STORMWATER SUBMITTAL	05/20/2015
B	NEW HANOVER COUNTY EROSION CONTROL SUBMITTAL	05/13/2015
A	QTY OF WILMINGTON TRC SUBMITTAL	04/08/2015

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RIVERLIGHTS
by Newland COMMUNITIES
NORTH AMERICA SEKISUI HOUSE, LLC

RIVERLIGHTS MARINA VILLAGE
ROADWAY SECTIONS

DATE: 08APR15
MCE PROJ. # 2735-0124
DRAWN: EEM
DESIGNED: EEM
CHECKED: RMC
PROJ. MGR: NJL

SCALE: HORIZONTAL: ---
VERTICAL: ---

M&C FILE NUMBER: CT-301
DRAWING NUMBER: 22
REVISION: H

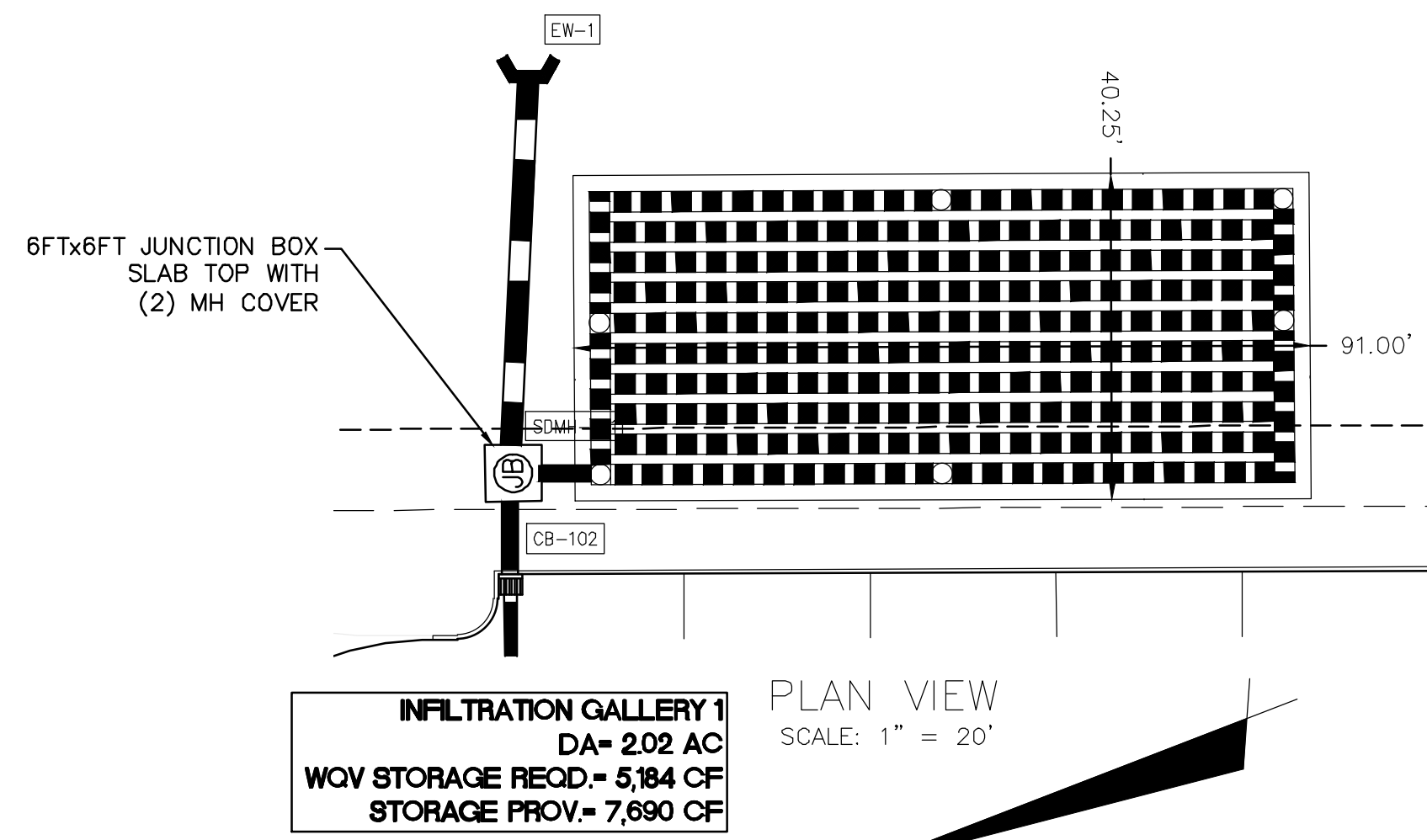
STATUS: FINAL DESIGN
NOT FOR CONSTRUCTION

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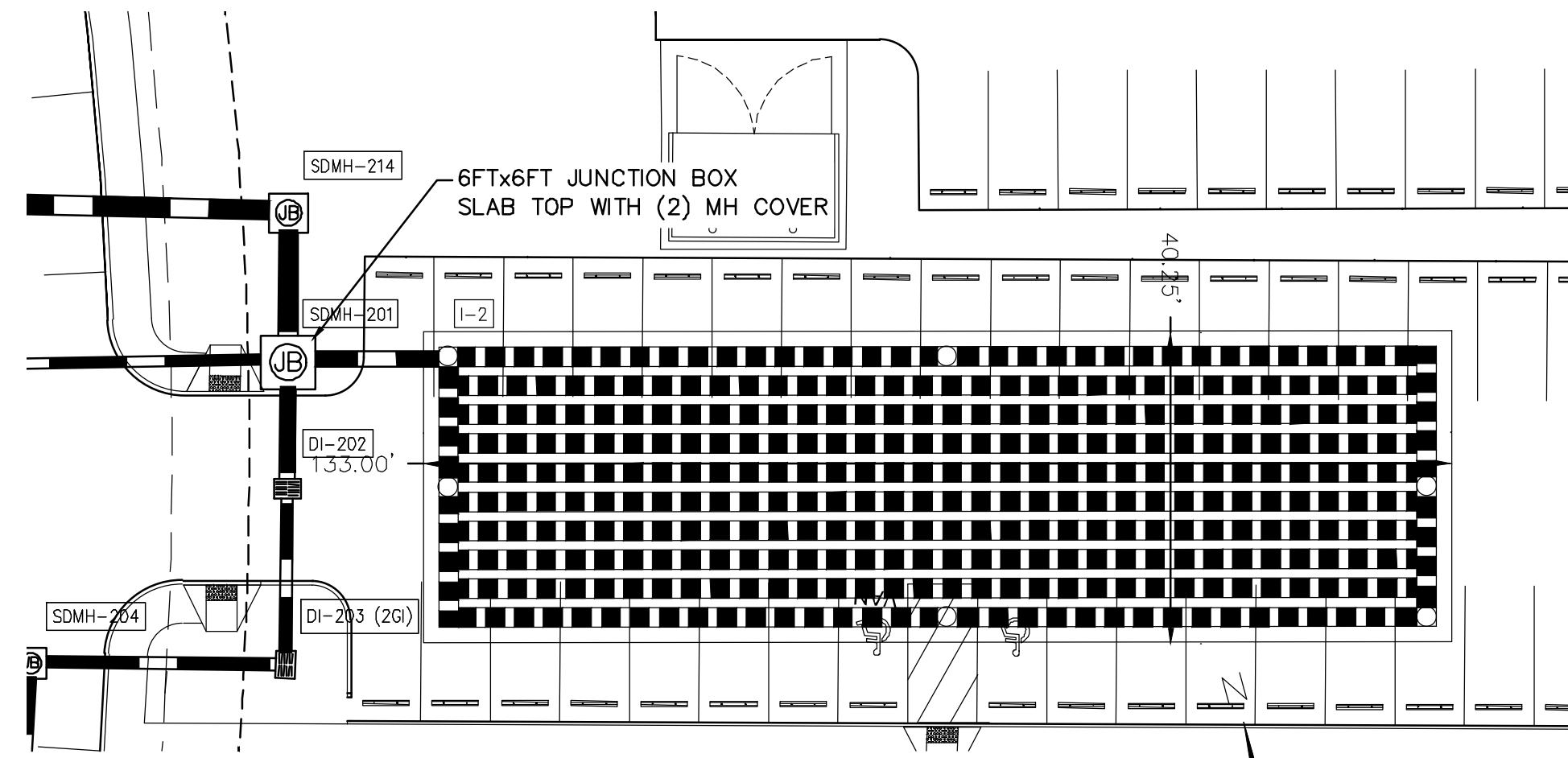
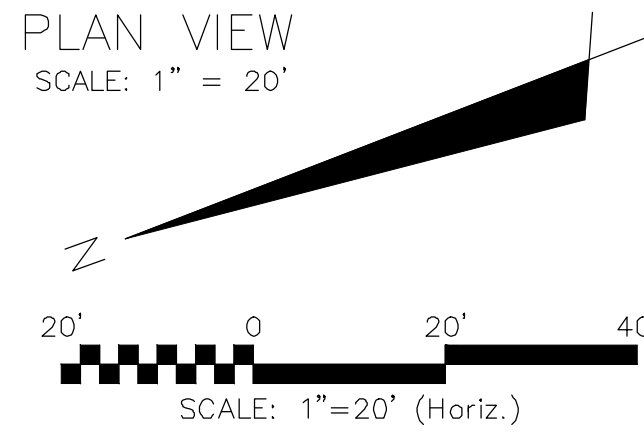
INFILTRATION GALLERY 1

INFILTRATION GALLERY 2

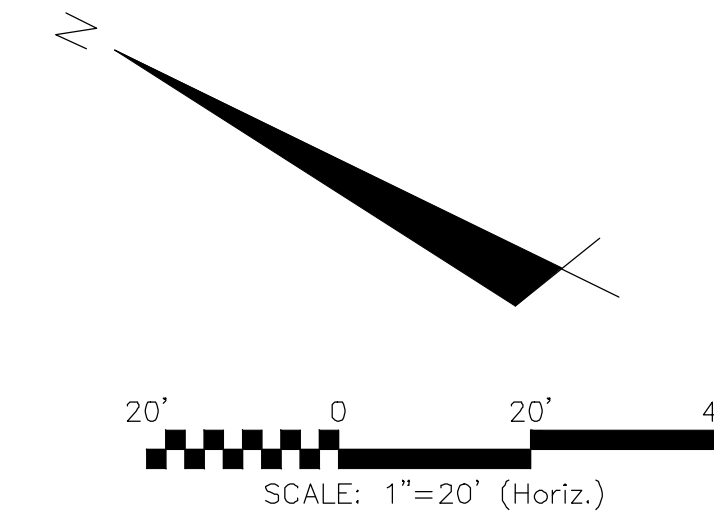
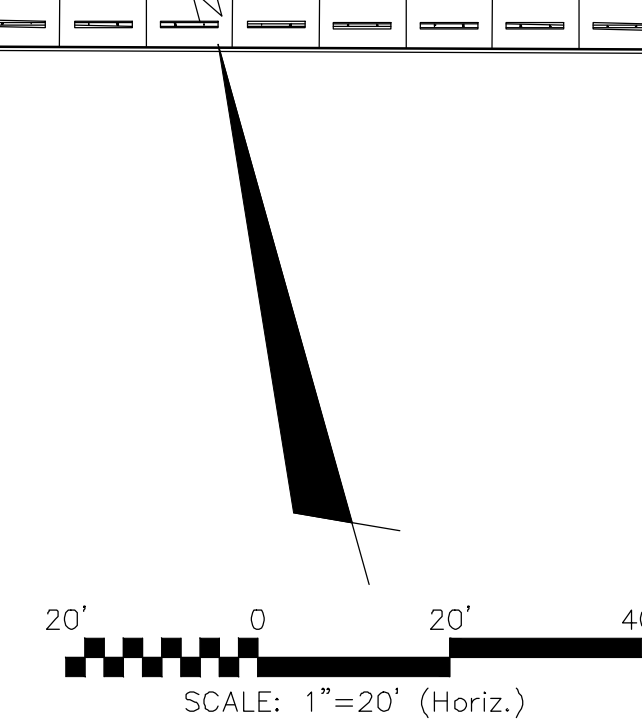
INFILTRATION GALLERY 3



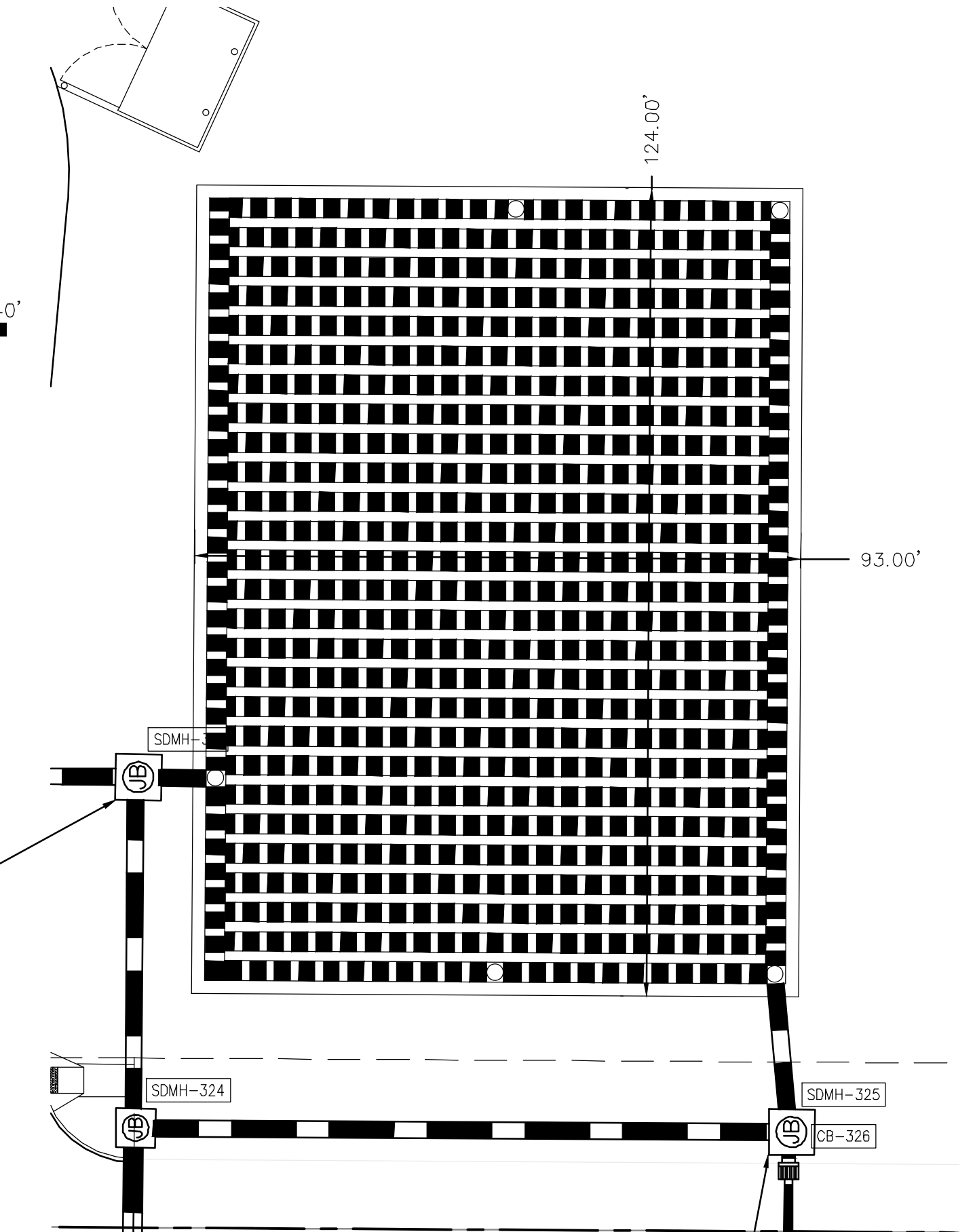
INFILTRATION GALLERY 1
DA= 2.02 AC
WQV STORAGE REQD.= 5,184 CF
STORAGE PROV.= 7,690 CF



INFILTRATION GALLERY 2
DA= 2.35 AC
WQV STORAGE REQD.= 4,841 CF
STORAGE PROV.= 11,294 CF

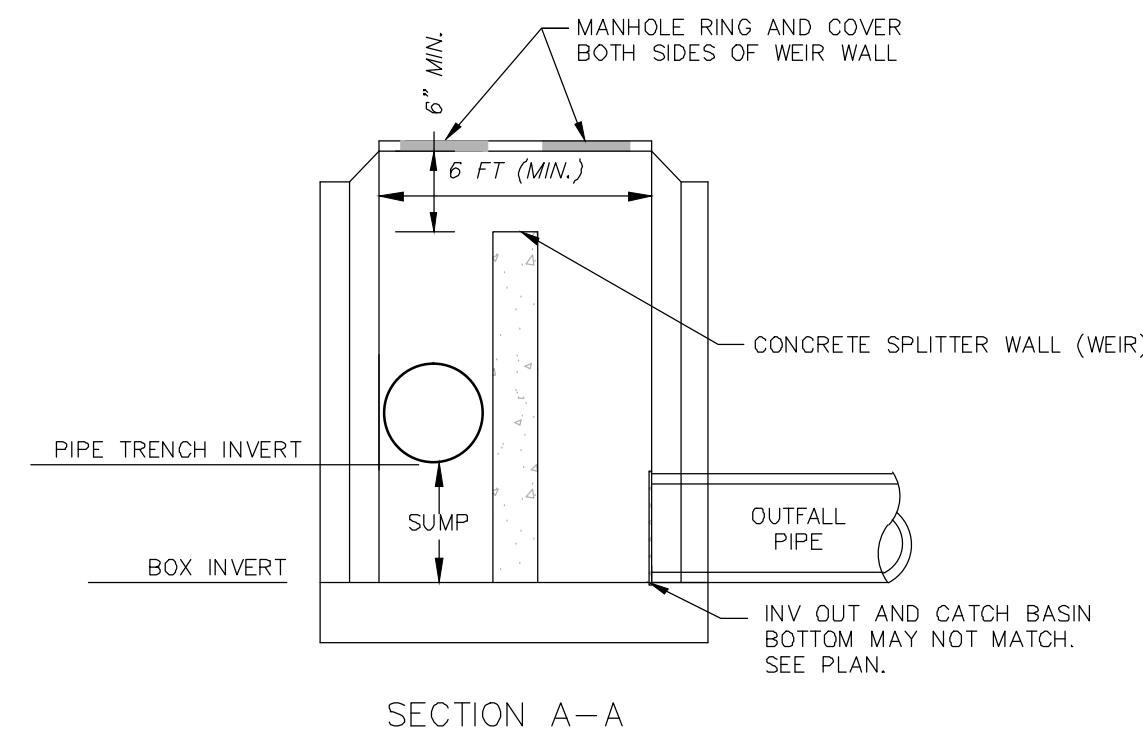
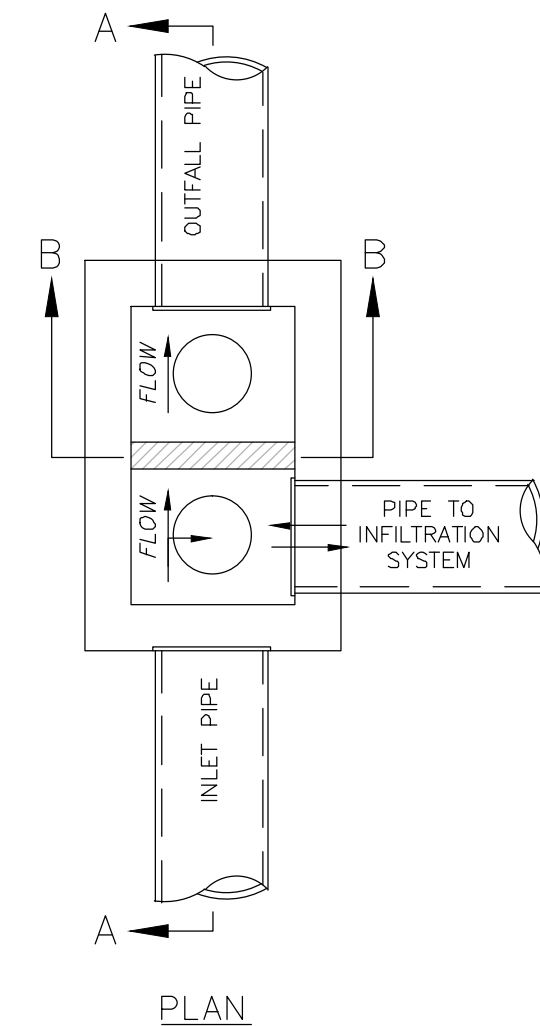


INFILTRATION GALLERY 3
DA= 7.51 AC
WQV STORAGE REQD.= 11,263 CF
STORAGE PROV.= 28,643 CF

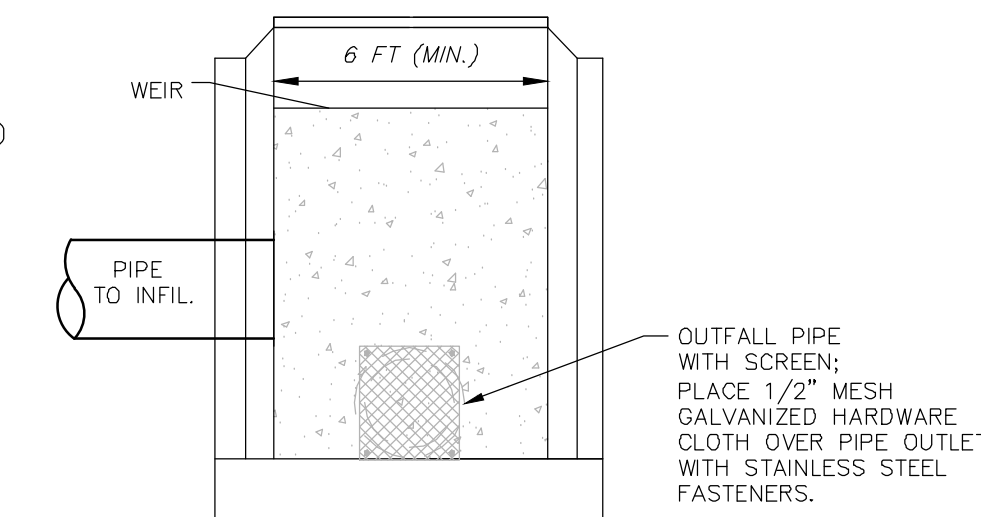


INFILTRATION GALLERY 3
DA= 7.51 AC
WQV STORAGE REQD.= 11,263 CF
STORAGE PROV.= 28,643 CF

SPLITTER /BYPASS STRUCTURE TABLE				
DESIGN	SDMH-101	SDMH-201	SDMH-301	SDMH-325
RIM ELEVATION	11.67'	11.85'	11.47'	11.50'
WEIR ELEVATION	9.30'	9.10'	9.40'	9.40'
SUMP ELEVATION	7.05'	6.75'	6.54'	6.54'
OUTFALL PIPE INVERT	7.76'	6.75'	6.54'	6.54'



SPLITTER OUTLET BOX (TYP.)
NOT TO SCALE



SECTION B-B

Approved Construction Plan
Name _____ Date _____
Planning _____
Traffic _____
Fire _____

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____ PERMIT # _____
SIGNED _____

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

1 inch

REVNO.	DESCRIPTIONS	DATE
H	QTY OF WILMINGTON TRC SUBMITTAL 3	07/10/2015
G	NEW HANOVER COUNTY EROSION CONTROL SUBMITTAL 2	06/11/2015
F	CAPE FEAR PUBLIC UTILITY AUTHORITY SUBMITTAL	06/11/2015
E	QTY OF WILMINGTON TREE REMOVAL	06/05/2015
D	QTY OF WILMINGTON TRC SUBMITTAL 2	05/29/2015
C	QTY OF WILMINGTON STORMWATER SUBMITTAL	05/20/2015
B	NEW HANOVER COUNTY EROSION CONTROL SUBMITTAL	05/13/2015
A	QTY OF WILMINGTON TRC SUBMITTAL	04/08/2015

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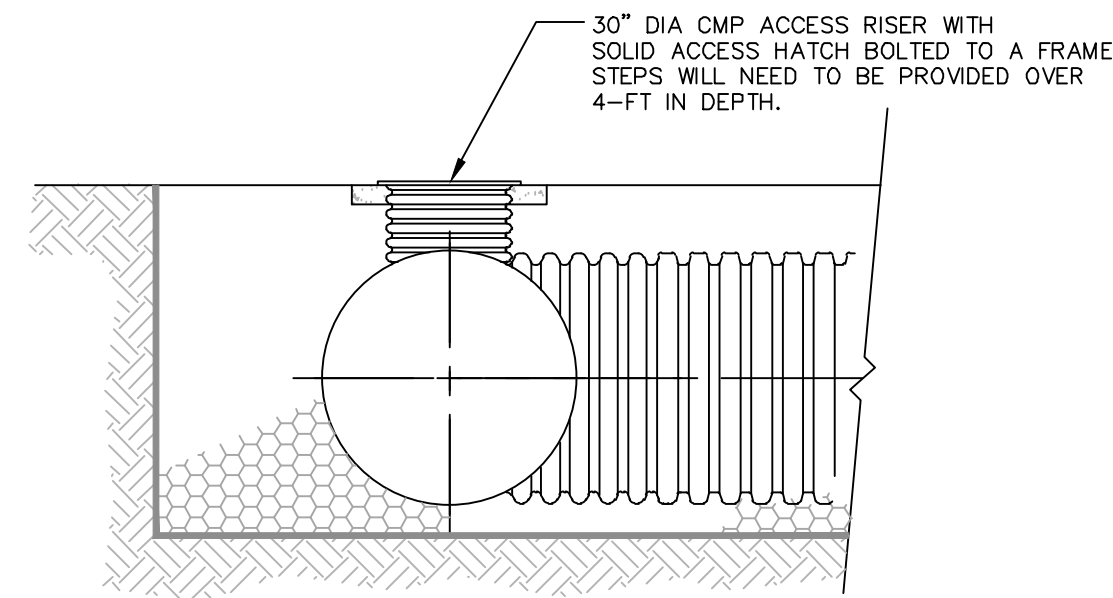
RIVERLIGHTS
by Newland COMMUNITIES
NORTH AMERICA SEKISUI HOUSE, LLC

RIVERLIGHTS MARINA VILLAGE
STORMWATER MANAGEMENT DETAILS

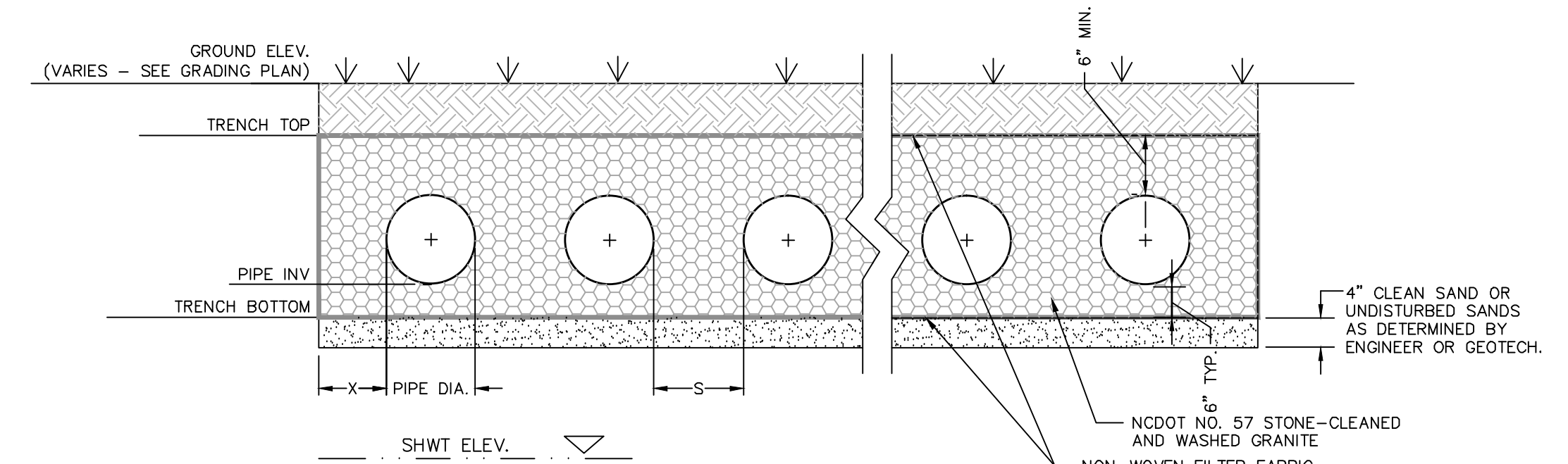
DATE: 08APR15
MCE PROJ. # 2735-0124
DRAWN: EEM
DESIGNED: EEM
CHECKED: RMC
PROJ. MGR.: NJL

SCALE: HORIZONTAL: --- VERTICAL: ---
MAC FILE NUMBER: CN-501
DRAWING NUMBER: 23
REVISION: H

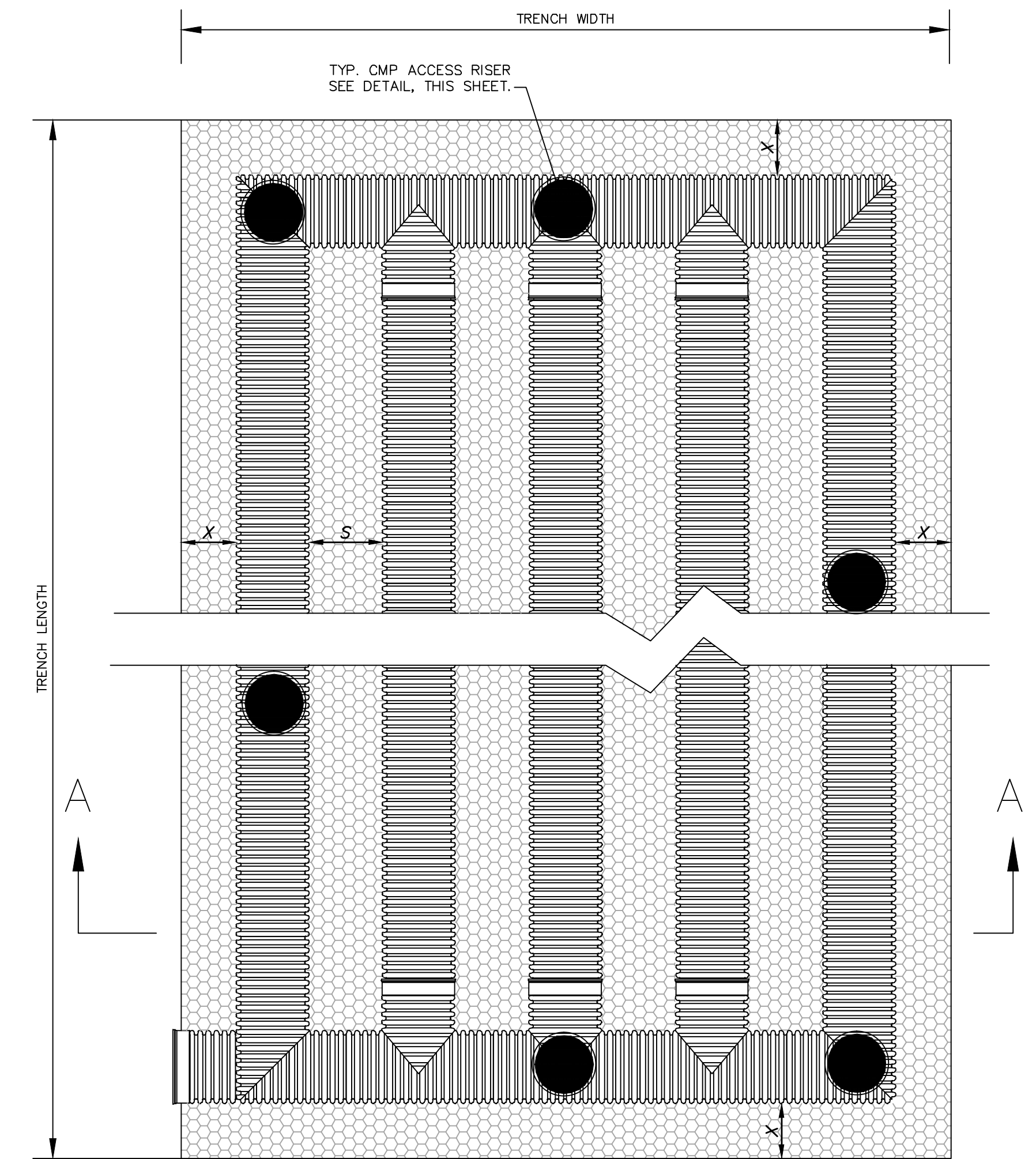
STATUS: FINAL DESIGN
NOT FOR CONSTRUCTION



TYP. CMP ACCESS RISER
NOT TO SCALE



SECTION A-A
NOT TO SCALE



PLAN VIEW
NOT TO SCALE

INFILTRATION TRENCH SYSTEM TABLE			
DESIGN	INFILTRATION GALLERY 1	INFILTRATION GALLERY 2	INFILTRATION GALLERY 3
# OF RUNS	10	10	27
LENGTH PER RUN	87'	129'	89'
PIPE DIAMETER (IN)	30"CAP	30"CAP	36"CAP
MIN. X (IN)	2'	2'	2'
MIN. S (IN)	1/2 DIA. OF PIPE	1/2 DIA. OF PIPE	1/2 DIA. OF PIPE
TRENCH WIDTH (FT)	40.25'	40.25'	124'
TRENCH LENGTH (FT)	91'	133'	93'
SHWT ELEVATION	4.22	4.22'	4.52'
TRENCH BOTTOM ELEVATION	6.50'	6.50'	6.50'
PIPE TRENCH INVERT	7.00'	7.00'	7.00'
TRENCH TOP ELEVATION	10.00'	10.00'	10.50'
10-YR WSEL	9.66'	9.41'	9.65'
25-YR WSEL	9.88'	9.79'	10.20'
50-YR WSEL	10.00'	9.98'	10.47'

- NOTES:**
- SHWT AND HIGH RIVER ELEVATIONS TAKEN FROM SITE & SOILS EVALUATION REPORT BY ECS CAROLINAS, LLP DATED FEBRUARY 18, 2015 FOR NEWLAND COMMUNITIES, LLC.
 - EXISTING ELEVATIONS TAKEN FROM COMBINATION OF FIELD MEASUREMENTS AND TOPOGRAPHY SURVEY BY MCKIM & CREED, INC.

- NOTES:**
- INFILTRATION TRENCH PIPE SHALL BE CONTECH PERFORATED ALUMINIZED OR ALUMINUM CMP PIPE MEETING AASHTO M-36, CLASS 2 PERFORATIONS (3/8" DIA); OR PERFORATED HDPE MEETING AASHTO CLASS 2, TYPE S PERFORATIONS. CONTRACTOR TO SUBMIT INFILTRATION TRENCH SPECIFICATION FOR ENGINEER APPROVAL.
 - CMP OR HDPE PIPE TO BE INSTALLED PER ASTM & MANUFACTURER'S RECOMMENDATIONS. PIPE JOINTS TO BE PER MANUFACTURER'S RECOMMENDATIONS AS AN UNDERGROUND INFILTRATION SYSTEM.
 - SEE TABLE FOR NUMBER OF PIPE RUNS AND DIMENSIONS.
 - IT IS IMPORTANT THAT FILL MATERIAL FOR THE INFILTRATION TRENCHES SHALL BE SAME MATERIAL AS EXISTING SOILS UNDERLYING THE TRENCH. BE SURE NOT TO COMPACT THE SAND UNDER THE TRENCH SO THAT PROPER INFILTRATION RATES CAN OCCUR BELOW THE TRENCHES.

TYP. INFILTRATION TRENCH SYSTEM
NOT TO SCALE

Approved Construction Plan

Name _____ Date _____

Planning _____

Traffic _____

Fire _____

STORMWATER MANAGEMENT PLAN APPROVED

CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____ PERMIT # _____
SIGNED _____

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

1 inch

REVNO.	DESCRIPTIONS	DATE
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G	NEW HANOVER COUNTY EROSION CONTROL SUBMITTAL 2	06/11/2015
F	CAPE FEAR PUBLIC UTILITY AUTHORITY SUBMITTAL	06/11/2015
E	CITY OF WILMINGTON TREE REMOVAL	06/25/2015
D	CITY OF WILMINGTON TRC SUBMITTAL 2	05/29/2015
C	CITY OF WILMINGTON STORMWATER SUBMITTAL	05/20/2015
B	NEW HANOVER COUNTY EROSION CONTROL SUBMITTAL	05/13/2015
A	CITY OF WILMINGTON TRC SUBMITTAL	04/08/2015

FINAL DRAWINGS
DO NOT USE FOR
CONSTRUCTION



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RIVERLIGHTS
by Newland COMMUNITIES

NORTH AMERICA SEKISUI HOUSE, LLC

RIVERLIGHTS MARINA VILLAGE

STORMWATER MANAGEMENT DETAILS

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PROJ. MGR.: NJL

SCALE: HORIZONTAL: --- VERTICAL: ---

MAC FILE NUMBER: CN-502
DRAWING NUMBER: 24
REVISION: H

STATUS: FINAL DESIGN
NOT FOR CONSTRUCTION

STORM DRAINAGE PIPE DATA TABLE - STRM - 11							
FROM	TO	LENGTH	SIZE	PIPE TYPE	SLOPE	UPSTREAM INVERT	DOWNSTREAM INVERT
SDMH-101		49.03'	30"	RCP	0.50%	7.76'	7.51'
SDMH-101	I-1	10.00'	24"	RCP	0.50%	7.05'	7.00'
DI-114	DI-113	75.85'	15"	RCP	0.50%	8.48'	8.10'
DI-113	DI-112	33.76'	15"	RCP	0.50%	8.10'	7.93'
DI-112	CB-108	31.86'	15"	RCP	0.50%	7.93'	7.77'
DI-111	CB-109	36.01'	15"	RCP	0.50%	8.36'	8.18'
CB-110	CB-109	18.30'	15"	RCP	0.50%	8.28'	8.18'
CB-109	CB-108	82.81'	15"	RCP	0.50%	8.18'	7.77'
CB-108	CB-103	103.98'	15"	RCP	0.50%	7.77'	7.25'
CB-107A	CB-103	64.87'	15"	RCP	0.50%	7.57'	7.25'
CB-107	CB-107A	37.76'	15"	RCP	0.50%	7.76'	7.57'
CB-106	CB-105	37.25'	15"	RCP	0.50%	8.45'	8.27'
CB-105	CB-104	158.00'	15"	RCP	0.50%	8.27'	7.48'
CB-104	CB-103	45.82'	15"	RCP	0.50%	7.48'	7.25'
CB-103	CB-102	25.78'	18"	RCP	0.50%	7.25'	7.12'
CB-102	SDMH-101	13.87'	24"	RCP	0.50%	7.12'	7.05'

STORM DRAINAGE PIPE DATA TABLE - STRM - 13							
FROM	TO	LENGTH	SIZE	PIPE TYPE	SLOPE	UPSTREAM INVERT	DOWNSTREAM INVERT
SDMH-325	SDMH-324	100.55'	30"	RCP	0.60%	7.10'	6.50'
SDMH-325		22.86'	30"	RCP	0.30%	7.07'	7.00'
SDMH-324		132.96'	36"	RCP	1.30%	6.50'	4.77'
SDMH-314	CB-313	22.39'	15"	RCP	0.30%	7.78'	7.71'
SDMH-312	CB-302B	111.83'	24"	RCP	0.29%	7.56'	7.23'
SDMH-305	CB-304	75.07'	24"	RCP	0.30%	7.91'	7.68'
SDMH-301		10.85'	30"	RCP	0.37%	7.04'	7.00'
SDMH-301	SDMH-324	53.81'	30"	RCP	1.00%	7.04'	6.50'
DI-322	DI-321 (2GI)	58.19'	15"	RCP	0.30%	8.35'	8.18'
DI-321 (2GI)	CB-319	46.02'	15"	RCP	0.30%	8.18'	8.04'
DI-317	DI-316	67.83'	15"	RCP	0.50%	8.37'	8.04'
DI-316	CB-315	30.20'	15"	RCP	0.50%	8.04'	7.88'
DI-311 (2GI)	DI-310	52.85'	15"	RCP	0.30%	8.60'	8.44'
DI-310	CB-307	36.01'	15"	RCP	0.30%	8.44'	8.33'
CB-327	CB-326	26.33'	15"	RCP	0.30%	7.17'	7.09'

STORM DRAINAGE PIPE DATA TABLE - STRM - 12								
FROM	TO	LENGTH	SIZE	PIPE TYPE	SLOPE	UPSTREAM INVERT	DOWNSTREAM INVERT	
SDMH-214	EW-2	173.73'	30"	RCP	0.50%	6.65'	5.78'	
SDMH-204	DI-203 (2GI)	32.94'	18"	RCP	0.30%	7.31'	7.22'	
SDMH-201	SDMH-214	19.18'	30"	RCP	0.50%	6.75'	6.65'	
SDMH-201	I-2	19.49'	24"	RCP	0.50%	7.10'	7.00'	
DI-211	DI-210	60.89'	15"	RCP	0.30%	8.02'	7.84'	
DI-210	CB-206	29.57'	15"	RCP	0.30%	7.84'	7.75'	
DI-208	CB-207	31.79'	15"	RCP	0.40%	8.50'	8.38'	
DI-203 (2GI)	DI-202	22.78'	18"	RCP	0.30%	7.22'	7.15'	
DI-202	SDMH-201	16.76'	24"	RCP	0.30%	7.15'	7.10'	
CB-213	SDMH-201	50.26'	15"	RCP	1.00%	8.02'	7.52'	
CB-212	DI-211	34.20'	15"	RCP	0.30%	8.12'	8.02'	
CB-209	CB-205	18.30'	15"	RCP	0.50%	7.61'	7.52'	
CB-207	CB-206	158.01'	15"	RCP	0.40%	8.38'	7.75'	
CB-206	CB-205	45.06'	15"	RCP	0.50%	7.75'	7.52'	
CB-205	SDMH-204	68.40'	18"	RCP	0.30%	7.52'	7.31'	

STORM DRAINAGE PIPE DATA TABLE - STRM - 13								
FROM	TO	LENGTH	SIZE	PIPE TYPE	SLOPE	UPSTREAM INVERT	DOWNSTREAM INVERT	
CB-326	SDMH-325	6.08'	24"	RCP	0.30%	7.09'	7.07'	
CB-323	CB-315	69.16'	15"	RCP	0.30%	8.09'	7.88'	
CB-320	CB-319	83.36'	15"	RCP	0.30%	8.29'	8.04'	
CB-319	CB-318	92.57'	18"	RCP	0.30%	8.04'	7.76'	
CB-318	CB-313	18.26'	18"	RCP	0.30%	7.76'	7.71'	
CB-315	SDMH-314	34.60'	15"	RCP	0.30%	7.88'	7.78'	
CB-313	SDMH-312	50.65'	24"	RCP	0.30%	7.71'	7.56'	
CB-309	CB-304	26.29'	15"	RCP	1.00%	9.20'	8.94'	
CB-308	CB-307	53.21'	15"	RCP	0.30%	8.49'	8.33'	
CB-307	CB-306	70.51'	18"	RCP	0.30%	8.33'	8.12'	
CB-306	SDMH-305	71.03'	24"	RCP	0.30%	8.12'	7.91'	
CB-304	CB-303	64.92'	24"	RCP	0.30%	7.68'	7.49'	
CB-303	CB-302A	86.39'	24"	RCP	0.31%	7.49'	7.22'	
CB-302B	CB-302A	4.00'	24"	RCP	0.30%	7.23'	7.22'	
CB-302A	SDMH-301	56.04'	30"	RCP	0.33%	7.22'	7.04'	

STRUCTURE TABLE - STRM - 11	
STR. NAME	DETAILS
CB-102	RIM = 10.48 INV IN = 7.12W INV OUT = 7.12E
CB-103	RIM = 10.63 INV IN = 7.25NW INV IN = 7.25S INV OUT = 7.25E
CB-104	RIM = 10.71 INV IN = 7.48W INV OUT = 7.48SE
CB-105	RIM = 12.54 INV IN = 8.27N INV OUT = 8.27E
CB-106	RIM = 12.64 INV OUT = 8.45S
CB-107	RIM = 10.74 INV OUT = 7.76E
CB-107A	RIM = 10.06 INV IN = 7.57W INV OUT = 7.57S
CB-108	RIM = 11.27 INV IN = 7.77W INV IN = 7.77S INV OUT = 7.77N
CB-109	RIM = 11.78 INV IN = 8.18E INV IN = 8.18NW INV OUT = 8.18N
CB-110	RIM = 11.78 INV OUT = 8.28W
DI-111	RIM = 11.75 INV OUT = 8.36SE
DI-112	RIM = 12.16 INV IN = 7.93N INV OUT = 7.93E
DI-113	RIM = 12.86 INV IN = 8.10W INV OUT = 8.10S
DI-114	RIM = 12.96 INV OUT = 8.48E
EW-1	RIM = 0.00
I-1	RIM = 9.43 INV IN = 7.00N
SDMH-101	RIM = 11.67 INV IN = 7.05W INV OUT = 7.05S INV OUT = 7.76SE

STRUCTURE TABLE - STRM - 12	
STR. NAME	DETAILS
CB-205	RIM = 10.90 INV IN = 7.52W INV IN = 7.52SE INV OUT = 7.52N
CB-206	RIM = 11.33 INV IN = 7.75E INV IN = 7.75S INV OUT = 7.75NW
CB-207	RIM = 11.82 INV IN = 8.38SW INV OUT = 8.38W
CB-209	RIM = 10.82 INV OUT = 7.61E
CB-212	RIM = 11.23 INV OUT = 8.12SE
CB-213	RIM = 11.52 INV OUT = 8.02E
DI-202	RIM = 12.18 INV IN = 7.15S INV OUT = 7.15N
DI-203 (2GI)	RIM = 12.06 INV IN = 7.22W INV IN = 7.22N
DI-208	RIM = 12.00 INV OUT = 8.50NE
DI-210	RIM = 11.47 INV IN = 7.84SW INV OUT = 7.84N
DI-211	RIM = 11.34 INV IN = 8.02NW INV OUT = 8.02NE
EW-2	RIM = 8.53 INV IN = 5.78E
I-2	RIM = 8.88 INV IN = 7.00W
SDMH-201	RIM = 11.85 INV IN = 7.10S INV IN = 7.52W INV OUT = 6.75N INV OUT = 7.10E
SDMH-204	RIM = 10.99 INV IN = 7.31S INV OUT = 7.31E
SDMH-214	RIM = 12.97 INV IN = 6.65S INV OUT = 6.65W

STRUCTURE TABLE - STRM - 13	
STR. NAME	DETAILS
CB-302A	RIM = 10.80 INV IN = 7.22SW INV IN = 7.22NE INV OUT = 7.22SE
CB-302B	RIM = 10.80 INV IN = 7.23E INV OUT = 7.23SW
CB-303	RIM = 11.82 INV IN = 7.49NW INV OUT = 7.49NE
CB-304	RIM = 13.07 INV IN = 8.94NE INV IN = 7.68NW INV OUT = 7.68SE
CB-306	RIM = 11.65 INV IN = 8.12N INV OUT = 8.12S
CB-307	RIM = 10.90 INV IN = 8.33N INV IN = 8.33SE INV OUT = 8.33S
CB-308	RIM = 10.99 INV OUT = 8.49S
CB-309	RIM = 13.06 INV OUT = 9.20SW
CB-313	RIM = 11.45 INV IN = 7.71N INV IN = 7.71E INV OUT = 7.71S
CB-315	RIM = 11.46 INV IN = 7.88W INV IN = 7.88E
CB-318	RIM = 11.45 INV IN = 7.76N INV OUT = 7.76W
CB-319	RIM = 11.00 INV IN = 8.04N INV IN = 8.04W INV OUT = 8.04S
CB-320	RIM = 10.95 INV OUT = 8.29S
CB-323	RIM = 12.14 INV OUT = 8.09E
CB-326	RIM = 10.25 INV IN = 7.09SW INV OUT = 7.09NE
CB-327	RIM = 10.11 INV OUT = 7.17NE

STRUCTURE TABLE - STRM - 13	
STR. NAME	DETAILS
DI-310	RIM = 11.08 INV IN = 8.44N INV OUT = 8.44NW
DI-311 (2GI)	RIM = 10.98 INV OUT = 8.60S
DI-316	RIM = 11.64 INV IN = 8.04W INV OUT = 8.04S
DI-317	RIM = 12.14 INV OUT = 8.37E
DI-321 (2GI)	RIM = 10.89 INV IN = 8.18N INV OUT = 8.18SE
DI-322	RIM = 11.12 INV OUT = 8.35S
EW-3	RIM = 0.00
I-3A	RIM = 9.47
I-3B	RIM = 9.95
SDMH-301	RIM = 11.47 INV IN = 7.04NW INV OUT = 7.04SW INV OUT = 7.04SE
SDMH-305	RIM = 13.39 INV IN = 7.91N INV OUT = 7.91SE
SDMH-312	RIM = 11.64 INV IN = 7.56N INV OUT = 7.56W
SDMH-314	RIM = 11.46 INV IN = 7.78W INV OUT = 7.78S
SDMH-324	RIM = 11.62 INV IN = 6.50NE INV IN = 6.50SE INV OUT = 6.50SW
SDMH-325	RIM = 10.81 INV IN = 7.07SW INV OUT = 7.07NE INV OUT = 7.10NW

Approved Construction Plan

Name _____ Date _____

Planning _____

Traffic _____

Fire _____

STORMWATER MANAGEMENT PLAN
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25 OF 47

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