

SAWMILL POINT APARTMENTS

1015 NUTT ST.

WILMINGTON, NORTH CAROLINA

TRC PERMIT SET

JANUARY 20, 2015
FINAL DESIGN - NOT FOR CONSTRUCTION

SHEET INDEX - SAWMILL POINT

SHEET #	FILE #	DESCRIPTION
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20	CU-506	CFPUA STD. DETAILS
	L.800	LANDSCAPE PLANS BY STEWART, INC.
	L.810	LANDSCAPE PLANS BY STEWART, INC.

OWNER / DEVELOPER:

SAWMILL POINT APARTMENTS, LLC
103 TORREY PINES DRIVE
CARY, NORTH CAROLINA 27513

OWNER'S DESIGNATED REPRESENTATIVE:

BLAIR M. BOOTH, PRESIDENT
SAWMILL POINT APARTMENTS, LLC
bbooth@symphony-properties.com
(919) 439-1040

PROJECT ENGINEER / REPRESENTATIVE:

J. BRANCH SMITH, PE
McKIM & CREED, INC.
243 NORTH FRONT STREET
WILMINGTON, NORTH CAROLINA 28401
brsmith@mckimcreed.com
(910) 343-1048

PROJECT ADDRESS:

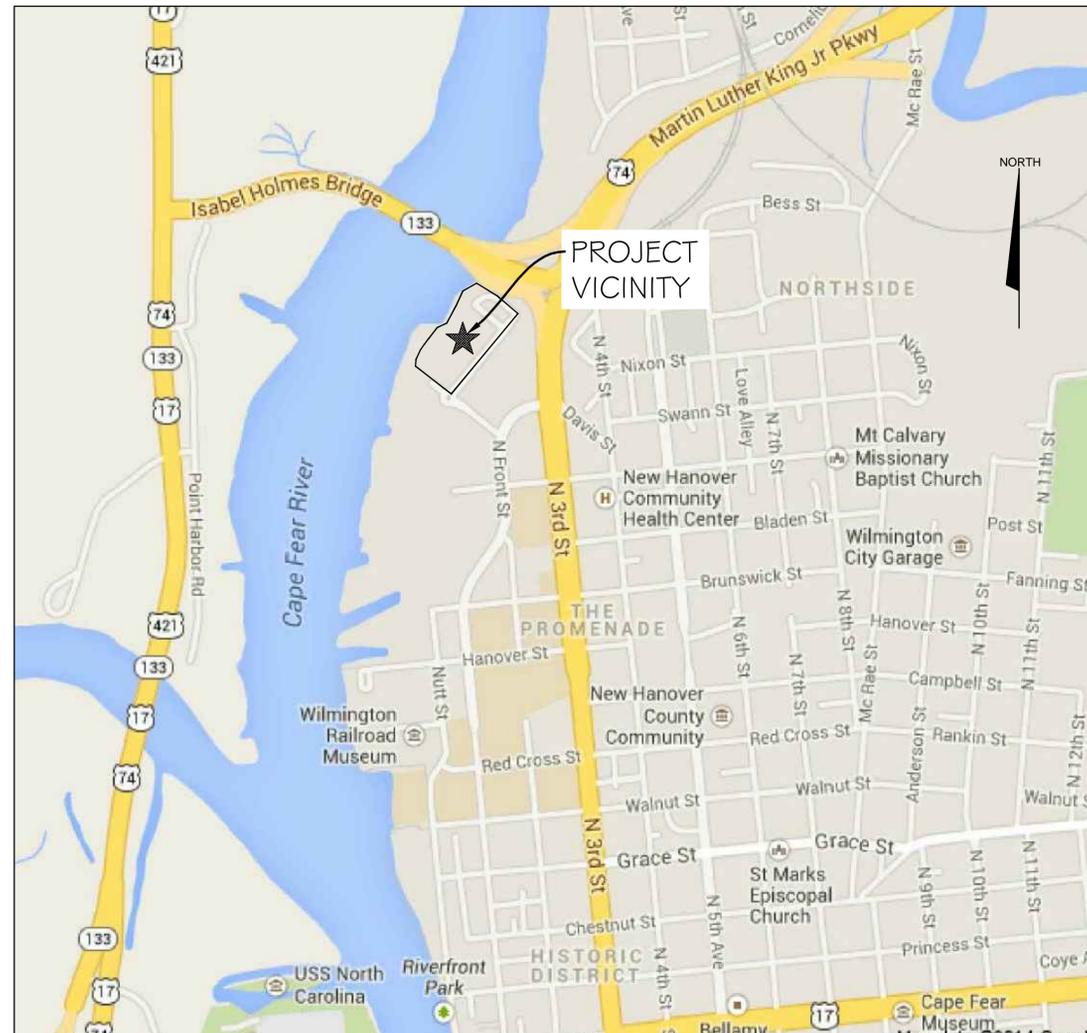
1015 NUTT STREET
WILMINGTON, NC 28401

TAX PARCEL IDENTIFICATION NUMBER:

R04712-002-003-000

PROPERTY ZONING:

CBD - CENTRAL BUSINESS DISTRICT



REF. GOOGLE MAP IMAGES ONLINE

VICINITY MAP
SCALE: 1" = 1000'

CITY OF WILMINGTON STANDARD NOTES

- CONTACT THE NORTH CAROLINA ONE CALL CENTER PRIOR TO DOING ANY DIGGING AT 1-800-632-4949.
- PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AND NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
- ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
- 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.
- 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.
- ANY BROKEN OR MISSING SIDEWALK PANELS AND CURBING SHALL BE REPLACED BY THE CONTRACTOR.
- CONTACT KAREN DIXON AT (910) 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
- IF THE CONTRACTOR DESIRES WATER FOR CONSTRUCTION HE SHALL APPLY WITH THE CFPWA 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.
- CONTACT TRAFFIC ENGINEERING AT (910)341-7888 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. TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING PRIOR TO ACTUAL STRIPING.
- TACTILE WARNING MATS ARE TO BE INSTALLED ON ALL WHEELCHAIR RAMPS.
- 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.
- STOP SIGNS AND STREET SIGNS TO REMAIN IN PLACE DURING CONSTRUCTION.
- A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY UTILITY.
- NO OBSTRUCTIONS ARE PERMITTED IN THE SPACE BETWEEN THIRTY (30) INCHES AND TEN (10) FEET ABOVE THE GROUND WITHIN THE TRIANGULAR SIGHT DISTANCE.
- PERMITTING OF BUSINESS IDENTIFICATION SIGNAGE IS A SEPARATE PROCESS. NCDOT/CITY OF WILMINGTON WILL NOT ALLOW OBSTRUCTIONS WITHIN THE RIGHT-OF-WAY.



Know what's below.
Call before you dig.



FINAL DESIGN
NOT FOR CONSTRUCTION



243 North Front Street
Wilmington, North Carolina 28401
Phone: (910)343-1048 , Fax: (910)251-8282
NC LICENSE NO. F-1222
www.mckimcreed.com

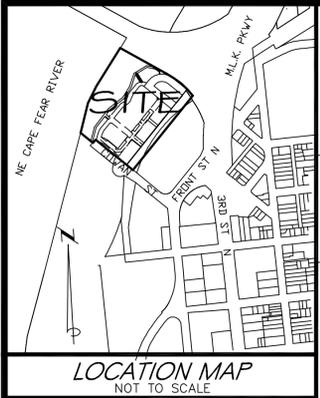


STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____ PERMIT # _____
SIGNED _____

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

1 inch

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



- LEGEND**
UTILITIES AND OTHER
- EXISTING DROP INLET
 - ⊗ EXISTING WATER VALVE
 - ⊕ EXISTING FIRE HYDRANT
 - ⊕ EXISTING CATCH BASIN
 - ⊕ EXISTING STORM DRAIN MH
 - ⊕ EXISTING STORM DRAIN PIPE
 - ⊕ EXISTING SAN. SEWER MH
 - ⊕ EXISTING SS CLEANOUT
 - ⊕ EXISTING SAN. SEWER LINE
 - ⊕ EXISTING LIGHT
 - ⊕ EXISTING 4"-6" DBH OAK
 - ⊕ EXISTING ELECTRICAL BOX
 - ⊕ EXISTING ELECTRICAL PANEL
 - ⊕ EXISTING ELECTRICAL TRANSFORMER
 - ⊕ EXISTING CABLE TV PEDESTAL
 - ⊕ EXISTING TELEPHONE PEDESTAL
 - ⊕ WATER METER
 - ⊕ BACK FLOW PREVENTER

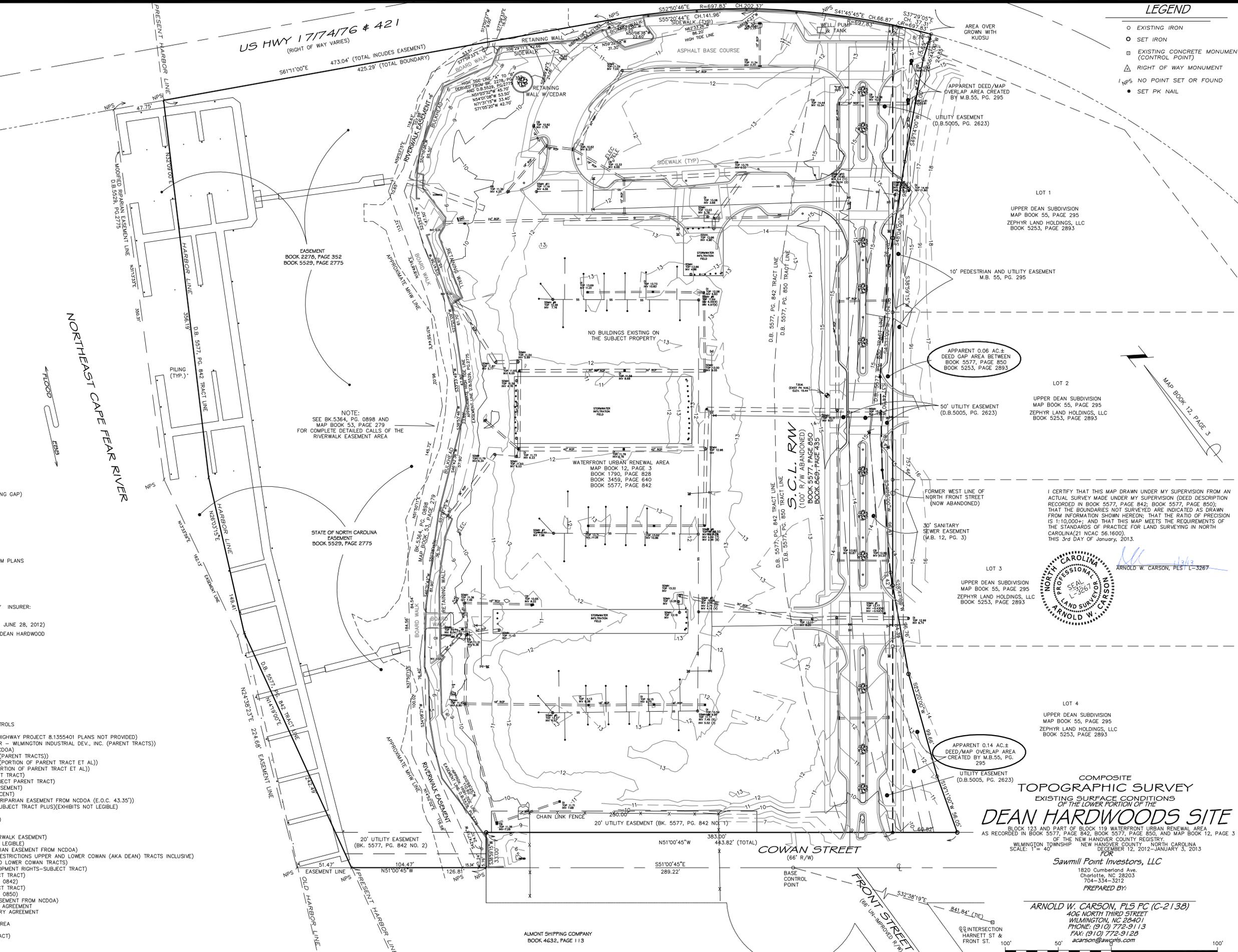
NOTES:

- TOTAL AREA = 11.13 AC.± (TO HARBOR LINE) (INCLUDING GAP) 8.12 AC.± (TO MHW) (INCLUDING GAP)
- THIS TRACT IS LOCATED IN ZONE "AE" (EL 9') ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NUMBER 372031800 K DATED 6/2/06.
- UTILITIES SHOWN HEREON WERE LOCATED BY THIS FIRM AT VARIOUS TIMES, THERE ARE ADDITIONAL UNDERGROUND UTILITIES WHICH ARE NOT REFLECTED ON THIS SURVEY. CALL NC ONE CALL PRIOR TO DIGGING OR FOR ADDITIONAL PLANNING PURPOSES.
- SOME OF THE IMPROVEMENTS SHOWN HEREON ARE FROM PLANS PREPARED BY: Coastal Site Design, PC
3805 Cherry Avenue
Wilmington, NC 28403-6209
(910) 791-4441

5. ZONING AND SETBACK INFORMATION TO BE VERIFIED BY INSURER:
ZONED: CBD-CENTRAL BUSINESS DISTRICT
(CITY OF WILMINGTON ZONING VERIFICATION FORM DATED: JUNE 28, 2012)
SETBACKS ACCORDING TO PLAN ENTITLED "SITE PLAN OF DEAN HARDWOOD SITE" DATED: 1/17/07 LAST REVISION DATE: 6/25/08.
BUILDING SETBACKS:
MINIMUM FRONT SETBACK: ON ROW OR WITHIN 5' OF ROW
PROPOSED FRONT SETBACK: 0'
MINIMUM SIDE SETBACK: 0'
PROPOSED SIDE SETBACK: 0'

SURVEY REFERENCES:

BOOK/PAGE	DECLARATION OF REGULATIONS AND CONTROLS
0769 0494	(RAILROAD ROW, SUBJECT TRACT)
0869 0435	(RAILROAD ROW, SUBJECT TRACT)
1086 0833	NC DOT RIGHTS OF WAY (LEGIBLE STATE HIGHWAY PROJECT 8.1355401 PLANS NOT PROVIDED)
1238 1166	DEED OF TRUST (IMPORT-EXPORT LUMBER - WILMINGTON INDUSTRIAL DEV., INC. (PARENT TRACTS))
2278 0352	EASEMENT (RIPARIAN EASEMENT FROM NCDOA)
2724 0780	DEED OF TRUST (DEANCO, INC. - BB&T (PARENT TRACTS))
4581 0262	DEED OF TRUST (DEANCO, INC. - BB&T (PORTION OF PARENT TRACT ET AL))
4619 0214	DEED OF TRUST (BB&T CSC - BB&T (PORTION OF PARENT TRACT ET AL))
4890 0106	QUITCLAIM DEED (RAILROAD ROW, SUBJECT TRACT)
4979 0966	DEED OF TRUST (SFA) (PORTION OF SUBJECT PARENT TRACT)
5005 2623	C.O.W. STREET CLOSURE (RETAINS 50' EASEMENT)
5063 2390	WATERFRONT LAND HOLDINGS, LLC (ADJACENT)
5146 1071	EASEMENT TRANSFER "CAMA" (C.F. RIVER RIPARIAN EASEMENT FROM NCDOA (E.O.C. 43.35'))
5199 2046	RAIL CORRIDOR VACATION AGREEMENT (SUBJECT TRACT PLUS)(EXHIBITS NOT LEGIBLE)
5199 2055	(RAILROAD ROW, SUBJECT TRACT)
52532893	ZEPHYR LAND HOLDINGS, LLC (ADJACENT)
5341 0372	NOTICE OF CONTRACT
5364 0898	C.O.W. RIVERWALK EASEMENT
5364 0904	SUBORDINATION AGREEMENT (C.O.W. RIVERWALK EASEMENT)
5371 1106	DEVELOPMENT AGREEMENT (EXHIBITS NOT LEGIBLE)
5529 2775	EASEMENT MODIFICATION (MODIFIED RIPARIAN EASEMENT FROM NCDOA)
5540 1056	RESTRICTIVE COVENANT (STORM WATER RESTRICTIONS UPPER AND LOWER COWAN (AKA DEAN) TRACTS INCLUSIVE)
5253 2905	COST RECOVERY AGREEMENT (UPPER AND LOWER COWAN TRACTS)
5577 0842	TRUSTEE'S DEED (ASSIGNMENT OF DEVELOPMENT RIGHTS-SUBJECT TRACT)
5577 0850	TRUSTEE'S DEED (RAILROAD ROW, SUBJECT TRACT)
5577 0848	NOTICE OF FORECLOSURE (SUBJECT 5577 0842)
5577 0850	TRUSTEE'S DEED (RAILROAD ROW, SUBJECT TRACT)
5577 0855	NOTICE OF FORECLOSURE (SUBJECT 5577 0850)
5577 0857	ASSIGNMENT OF EASEMENT (RIPARIAN EASEMENT FROM NCDOA)
5577 0863	ASSIGNMENT OF RIGHTS IN DEVELOPMENT AGREEMENT
5577 0869	ASSIGNMENT OF RIGHTS IN COST RECOVERY AGREEMENT
M.B./Pg.	
012 003	MAP OF WATERFRONT URBAN RENEWAL AREA
053 279	MAP OF RIVERWALK EASEMENT AREA
055 295	UPPER DEAN SUBDIVISION (ADJACENT TRACT)



- LEGEND**
- EXISTING IRON
 - SET IRON
 - ⊕ EXISTING CONCRETE MONUMENT (CONTROL POINT)
 - ⊕ RIGHT OF WAY MONUMENT
 - ⊕ NPS NO POINT SET OR FOUND
 - SET PK NAIL

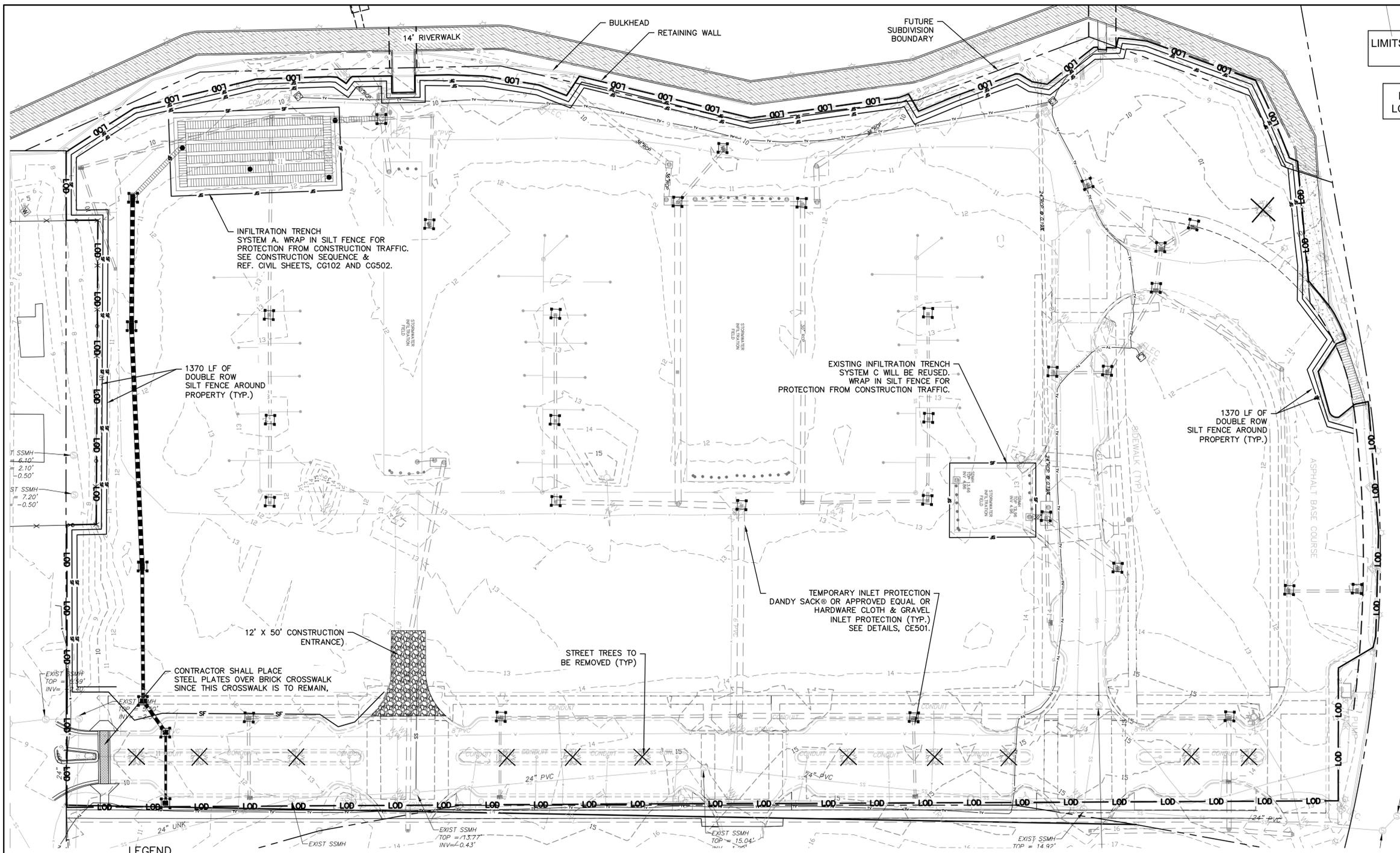
I CERTIFY THAT THIS MAP DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION (DEED DESCRIPTION RECORDED IN BOOK 5577, PAGE 842; BOOK 5577, PAGE 850); THAT THE BOUNDARIES NOT SURVEYED ARE INDICATED AS DRAWN FROM INFORMATION SHOWN HEREON; THAT THE RATIO OF PRECISION IS 1:10,000+- AND THAT THIS MAP MEETS THE REQUIREMENTS OF THE STANDARDS OF PRACTICE FOR LAND SURVEYING IN NORTH CAROLINA(21 NCAC 56.1600).
THIS 3rd DAY OF January, 2013.

ARNOLD W. CARSON, PLS L-3267

COMPOSITE TOPOGRAPHIC SURVEY
EXISTING SURFACE CONDITIONS OF THE LOWER PORTION OF THE
DEAN HARDWOODS SITE
BLOCK 123 AND PART OF BLOCK 119 WATERFRONT URBAN RENEWAL AREA AS RECORDED IN BOOK 5577, PAGE 842, BOOK 5577, PAGE 850, AND MAP BOOK 12, PAGE 3 OF THE NEW HANOVER COUNTY REGISTRY OF WILMINGTON TOWNSHIP - NORTH CAROLINA
SCALE: 1"= 40'

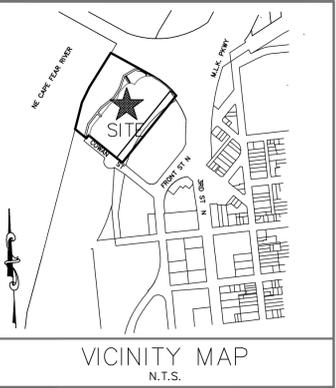
Sawmill Point Investors, LLC
1820 Cumberland Ave.
Charlotte, NC 28203
704-334-3212
PREPARED BY:

ARNOLD W. CARSON, PLS PC (C-2138)
406 NORTH THIRD STREET
WILMINGTON, NC 28401
PHONE: (910) 772-9113
FAX: (910) 772-9128
acarson@awcpls.com



LIMITS OF DISTURBANCE = 7.11 AC

LAT: 34° 14' 59" N
LONG: 77° 56' 59" W



STAGE 1 CONSTRUCTION SEQUENCE

1. ESTABLISH LIMITS OF DISTURBANCE AS SHOWN.
2. A PRECONSTRUCTION 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.
3. INSTALL TEMPORARY GRAVEL CONSTRUCTION ENTRANCE AS SHOWN. CONTRACTOR SHALL MAINTAIN A SUFFICIENT GRAVEL ENTRANCE UNTIL FINAL SUBGRADE IS ESTABLISHED. IF DIRT/MUD GETS ON THE STREET, THEN A WASH RACK WILL NEED TO BE INSTALLED.
4. INSTALL SILT FENCING AS NOTED ON PLANS BEFORE COMMENCING ANY LAND DISTURBANCE ACTIVITY. ENSURE SILT FENCE PROTECTS INFILTRATION SYSTEMS.
5. INSTALL INLET PROTECTION AS SHOWN ON PLANS. CONTRACTOR TO USE DANDY SACK® OR APPROVED EQUAL OR HARDWARE CLOTH & GRAVEL INLET PROTECTION DEPENDING ON INLET'S LOCATION. INLET PROTECTION TO REMAIN IN PLACE UNTIL INLET IS REMOVED ACCORDING TO DEMOLITION PLAN. DEMOLITION OF EXISTING STORM DRAIN SYSTEM(S) SHALL NOT COMMENCE UNTIL PROPOSED STORM DRAIN SYSTEM(S) SHOWN ON THIS PLAN IS CONSTRUCTED.
6. COMMENCE GRUBBING AND ROUGH GRADING WITHIN THE LIMITS OF CONSTRUCTION.
7. COMMENCE DEMOLITION OF EXISTING INFILTRATION TRENCH SYSTEM(S) NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED INFILTRATION TRENCH SYSTEM AS SHOWN ON THIS PLAN.
8. COMMENCE CONSTRUCTION OF PROPOSED INFILTRATION TRENCH SYSTEM AS SHOWN ON THIS PLAN (SEE ALSO CG-502). DEMOLITION OF REMAINING EXISTING INFILTRATION TRENCH SYSTEM(S) SHALL NOT COMMENCE UNTIL PROPOSED INFILTRATION TRENCH SYSTEM SHOWN ON THIS PLAN IS CONSTRUCTED AND OPERATIONAL.
9. COMMENCE DEMOLITION OF EXISTING ASPHALT, CURB & GUTTER, SIDEWALKS, CROSSWALKS, UTILITY SERVICES, REMAINING INFILTRATION TRENCH SYSTEMS, ETC PER THE DEMOLITION PLAN (CD-101). ALL DEMOLITION MATERIAL SHALL BE DISPOSED OF, SALVAGED, OR RECYCLED PER THE PROJECT SPECIFICATIONS.
10. COORDINATE DISCONNECTION OF EXISTING UTILITIES WITH THE PROPER AUTHORITIES.
11. PROVIDE TEMPORARY STABILIZATION AND SEEDING AS NECESSARY TO PREVENT EROSION. REFER TO SHEET CE501 FOR GROUND STABILIZATION CRITERIA AND SEEDING SCHEDULE.

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. **LIMITS OF DISTURBANCE 7.11 ACRES.**
2. GRADING MORE THAN ONE ACRE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A VIOLATION OF THE COUNTY EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE. ANY BUILDER THAT ANTICIPATES THE DISTURBANCE OF MORE THAN 1 CUMULATIVE ACRE WILL BE REQUIRED TO GET AN EROSION CONTROL PERMIT FROM NEW HANOVER COUNTY.
3. SEE SHEET CE501 FOR GROUND STABILIZATION REQUIREMENTS.
4. ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A REPRESENTATIVE OF THE NEW HANOVER COUNTY ENGINEERING DEPARTMENT.
5. SLOPES SHALL BE GRADED NO STEEPER THAN 3:1.
6. ADDITIONAL DEVICES MAY BE REQUIRED AS AGREED UP ON BY FIELD INSPECTOR, ENGINEER, AND OWNER.
7. **WITHIN 24 HOURS FOLLOWING ANY RAIN EVENT, THE CONTRACTOR SHALL INSPECT AND REPAIR, AS NECESSARY, ALL DAMAGED EROSION CONTROL MEASURES.**

EROSION CONTROL MAINTENANCE PLAN:

1. ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL, BUT IN NO CASE, LESS THAN ONCE EVERY WEEK AND WITHIN 24 HOURS OF EVERY HALF INCH RAINFALL.
2. ALL POINTS OF EGRESS WILL HAVE CONSTRUCTION ENTRANCES/EXITS THAT WILL BE PERIODICALLY TOP-DRESSED WITH 2-3" COARSE STONE TO MAINTAIN 6" THICKNESS. ENTRANCES/EXITS WILL BE MAINTAINED IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE SITE. IMMEDIATELY REMOVE OBJECTIONABLE MATERIAL SPILLED, WASHED, OR TRACKED ONTO THE CONSTRUCTION ENTRANCE/EXIT OR PUBLIC ROADWAYS. (NCDENR PRACTICE 6.06)
3. SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES HALF-FILLED. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. STAKES MUST BE STEEL. STAKE SPACING WILL BE 6 FEET MAX. WITH THE USE OF EXTRA STRENGTH FABRIC, WITHOUT WIRE BACKING. STAKE SPACING WILL BE 8 FEET MAX. WHEN STANDARD STRENGTH FABRIC AND WIRE BACKING ARE USED. (NCDENR PRACTICE 6.62)
4. SEDIMENT WILL BE REMOVED FROM HARDWARE CLOTH AND GRAVEL INLET PROTECTIONS WHEN THE SEDIMENT REACHES HALF OF THE DEPTH TO THE TOP OF THE ROCK. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT CONTROL MEASURE NO LONGER DRAINS AS INTENDED. REMOVE DEBRIS FROM THE ROCK AS NECESSARY TO ALLOW FOR PROPER DRAINAGE. (NCDENR PRACTICES 6.51)
5. SILT SACKS SHALL BE EMPTIED ONCE A WEEK AND AFTER EVERY RAIN EVENT. SEDIMENT WILL BE REMOVED FROM AROUND SILT SACKS ONCE A WEEK AND AFTER EVERY RAIN EVENT. (NHC PRACTICES)
6. ALL SEEDED AREAS WILL BE FERTILIZED, RE-SEEDED AS NECESSARY AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER. 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.

NOTE COW(18-458)

NO EQUIPMENT IS ALLOWED ON SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING HAS BEEN INSTALLED AND APPROVED.

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.

LEGEND

△ RBC	= REBAR & CAP	●	= SANITARY SEWER MANHOLE
PF	= IRON PIPE FOUND	○	= POWER POLE
INV.	= INVERT	GW	= GUY WIRE
EL.	= ELEVATION	□	= CABLE PEDESTAL
W	= WELL	□	= TELEPHONE PEDESTAL
⊕	= FIRE HYDRANT	□	= TELEPHONE MANHOLE
⊕	= WATER VALVE	□	= GAS VALVE
⊕	= GRATED INLET	□	= ASPHALT PAVEMENT
⊕	= YARD INLET	□	= TEMPORARY INLET PROTECTION
⊕	= STORM DRAIN MANHOLE	---	= LIMITS OF DISTURBANCE LINE
		---	= SILT FENCE LINE
		---	= UNDERGROUND STORM LINE
		---	= UNDERGROUND SANITARY LINE
		---	= UNDERGROUND WATER LINE

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.

Approved Construction Plan

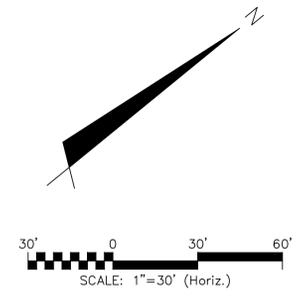
Name _____ Date _____

Planning _____

Traffic _____

Fire _____

1 inch



REV. NO.	DESCRIPTION	DATE
1	RESUBMITTED TRC PLANS FROM COMMENTS DATED DEC. 2014	01/20/15



MCKIM & CREED

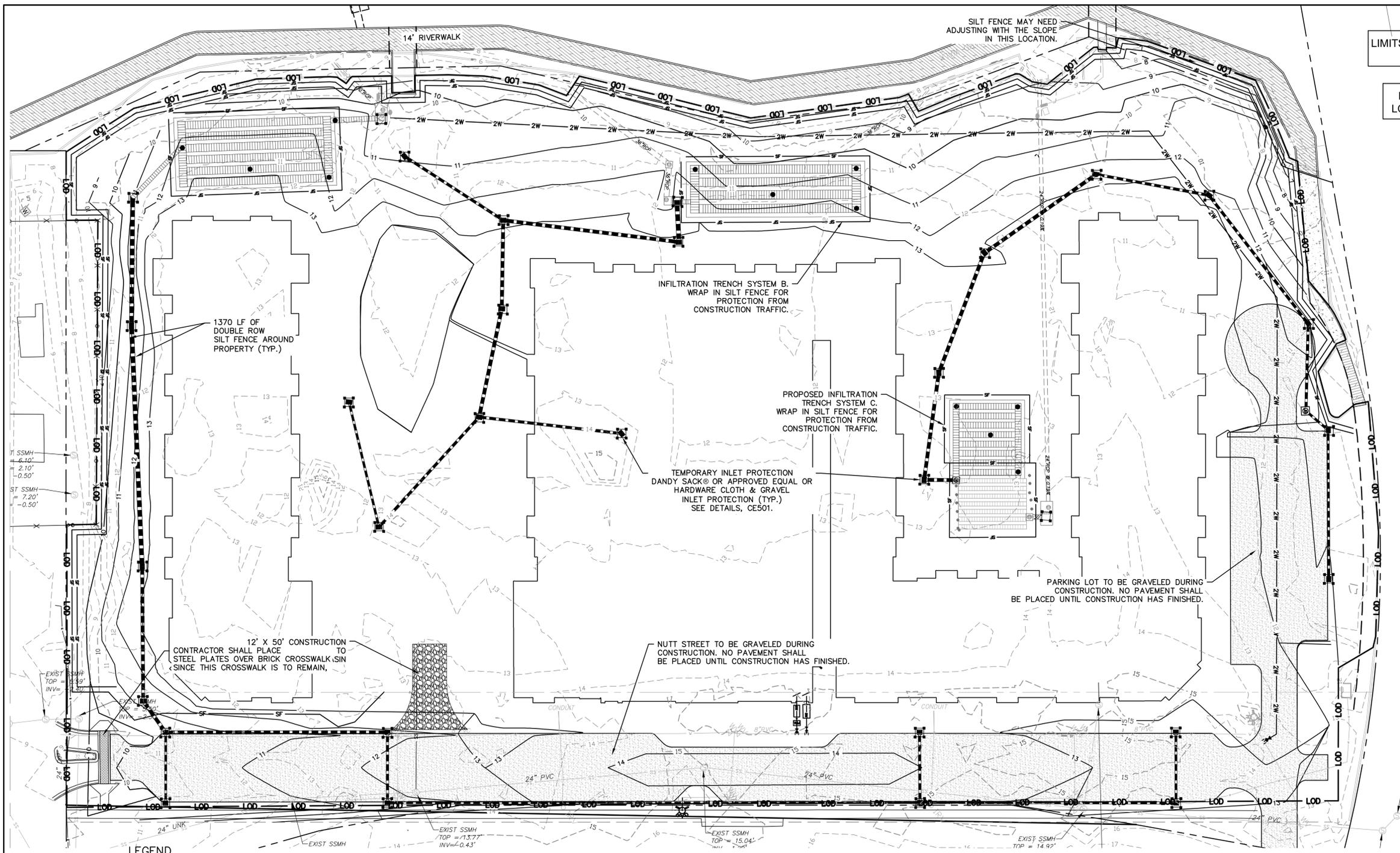
243 North Front Street
Wilmington, NC 28401
Phone: (910)343-1048, Fax: (910)251-8282
NC LICENSE F-1222
www.mckimcreed.com

SYMPHONY properties
Orchestrating REAL Solutions

SAWMILL POINT APARTMENTS
1015 NUTT STREET
WILMINGTON, NORTH CAROLINA

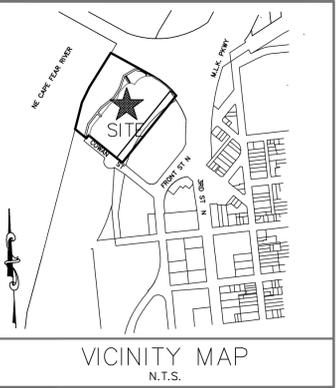
SEDIMENT & EROSION CONTROL
STAGE 1

DATE: 16 DEC 2014	SCALE: HORIZONTAL: 1"=30'	MAC FILE NUMBER: CE101
MCE PROJ.#: 06886-001	VERTICAL: 1"=30'	DRAWING NUMBER: 3
DRAWN: TCM/RAC		
DESIGNED: JBS/TCM/RAC		
CHECKED: JBS/RMC		
PROJ. MGR.: RMC		
STATUS: FINAL DESIGN	REVISION: 1	
NOT FOR CONSTRUCTION		



LIMITS OF DISTURBANCE = 7.11 AC

LAT: 34° 14' 59" N
LONG: 77° 56' 59" W



- STAGE 2 CONSTRUCTION SEQUENCE**
- INSTALL SEWER AND WATER AND STORMWATER MANAGEMENT FACILITIES TO INCLUDE PIPING, CATCH BASINS, DROP INLETS AND INFILTRATION TRENCH SYSTEMS INCLUDING INSTALLATION OF STAGE TWO INLET PROTECTION.
 - REMOVE ACCUMULATED SEDIMENT FROM SEDIMENT CONTROL MEASURES AS REQUIRED ON THE PLANS AND PERMIT.
 - COMPLETE PARKING AREAS AND ENTRANCE CONSTRUCTION TO SUBGRADE. COMPACT ALL FILL AREAS TO 95% STD. PROCTOR MAXIMUM DRY DENSITY.
 - INSTALL GRAVEL BASE IN PARKING AREAS.
 - INSTALL CONCRETE CURB AND GUTTER.
 - CONTRACTOR SHALL CONTINUOUSLY MAINTAIN EROSION CONTROL MEASURES AND CLEAN AND REPAIR TEMPORARY SEDIMENT MEASURES TO MEET NEW HANOVER COUNTY APPROVAL.
 - UPON COMPLETION OF CONSTRUCTION, PRIOR TO FINAL ASPHALT LIFT INSTALLATION, CONTRACTOR TO REQUEST FINAL INSPECTION FROM NEW HANOVER COUNTY EROSION CONTROL INSPECTOR TO ALLOW REMOVAL OF ALL TEMPORARY EROSION CONTROL DEVICES.
 - INSTALL LANDSCAPING AND ESTABLISH FINAL GRADES AS SHOWN ON CG101.
 - INSTALL PERMANENT SEEDING. REFER TO GROUND STABILIZATION CRITERIA TABLE FOR AREAS THAT REQUIRE 7-DAY STABILIZATION. ALL OTHER AREAS NOT REQUIRING 7-DAY STABILIZATION SHALL BE STABILIZED WITHIN 14-DAYS.
 - REMOVE ALL SEDIMENT FROM ALL STORM DRAIN PIPES.
 - SILT FENCE MUST REMAIN INSTALLED AND FUNCTIONING PROPERLY UNTIL THE LIMITS OF CONSTRUCTION HAVE BEEN PERMANENTLY STABILIZED.

GROUND STABILIZATION CRITERIA		
SITE AREA DESCRIPTION	STABILIZATION TIMEFRAME	STABILIZATION TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10 FT OR LESS 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 FT IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE (EXCEPT FOR PERIMETERS AND HWZ ZONES)

LEGEND

△ RBC = REBAR & CAP	● = SANITARY SEWER MANHOLE
● IPF = IRON PIPE FOUND	○ = POWER POLE
INV. = INVERT	Y GW = GUY WIRE
EL. = ELEVATION	□ = CABLE PEDESTAL
⊕ = WELL	⊕ = TELEPHONE PEDESTAL
⊕ = FIRE HYDRANT	⊕ = GAS VALVE
⊕ = WATER VALVE	⊕ = ASPHALT PAVEMENT
⊕ = GRATED INLET	⊕ = YARD INLET
⊕ = STORM DRAIN MANHOLE	⊕ = TEMPORARY INLET PROTECTION
	⊕ = LIMITS OF DISTURBANCE LINE
	⊕ = SILT FENCE LINE
	⊕ = UNDERGROUND STORM LINE
	⊕ = UNDERGROUND SANITARY LINE
	⊕ = UNDERGROUND WATER LINE

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.

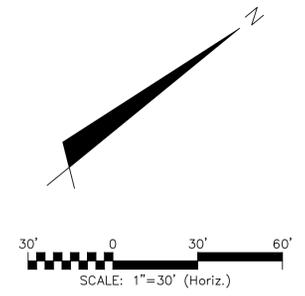
Approved Construction Plan

Name _____ Date _____

Planning _____

Traffic _____

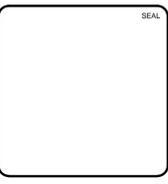
Fire _____



NOTE COW(18-458)
NO EQUIPMENT IS ALLOWED ON SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING HAS BEEN INSTALLED AND APPROVED.

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.

REV. NO.	DESCRIPTION	DATE
1	RESUBMITTED TRC PLANS FROM COMMENTS DATED DEC. 2014	01/20/15



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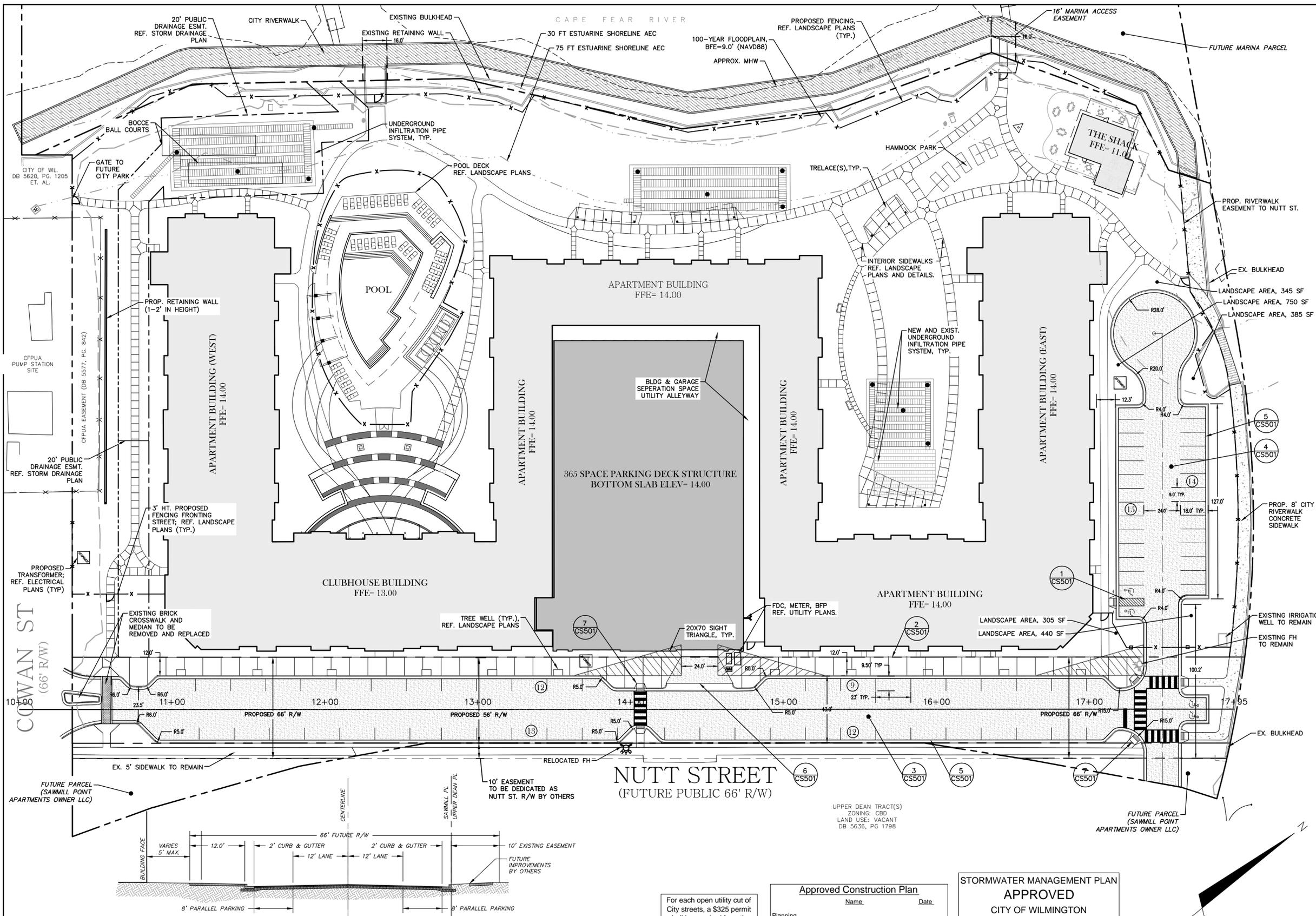
243 North Front Street
Wilmington, NC 28401
Phone: (910)343-1048, Fax: (910)251-8282
NC LICENSE F-1222
www.mckimcreed.com

SYMPHONY properties
Orchestrating REAL Solutions

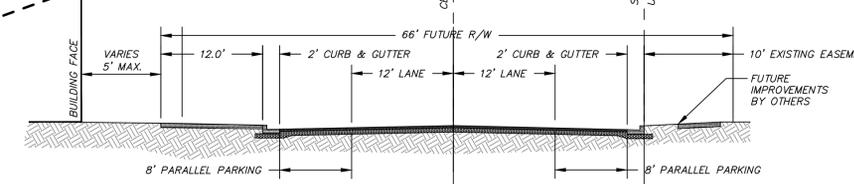
SAWMILL POINT APARTMENTS
1015 NUTT STREET
WILMINGTON, NORTH CAROLINA

SEDIMENT & EROSION CONTROL
STAGE 2

DATE: 16 DEC 2014	SCALE: HORIZONTAL: 1"=30'	MAC FILE NUMBER: CE102
MCE PROJ.#: 06586-001	VERTICAL: 1"=30'	DRAWING NUMBER: 4
DRAWN: TCM/RAC		
DESIGNED: JBS/TCM/RAC		
CHECKED: JBS/RMC		
PROJ. MGR.: RMC		
STATUS: FINAL DESIGN	REVISION: 1	
NOT FOR CONSTRUCTION		



SITE DATA TABLE		SAWMILL POINT
PARCEL ADDRESS	1015 NUTT STREET	
BUILDING SETBACKS	REQUIRED	PROPOSED
FRONT	ON R/W OR WITHIN 5'	WITHIN 5'
REAR	0	105', 99', 84'
SIDE (INTERIOR)	0	86'
SIDE (CORNER)	0	61'
TAX PARCEL IDENTIFICATION NUMBER(S)	R04712-002-003-000 R04712-002-004-000	
CURRENT ZONING	CBD-CENTRAL BUSINESS DISTRICT	
TOTAL ACREAGE TO EXISTING HARBOUR LINE	11.13 ACRES (484,823 SF)	
TOTAL ACREAGE WITHIN THE PROPOSED APARTMENT SUBDIVISION	7.56 ACRES (329,385 SF)	
NC BUILDING CODE CONSTRUCTION TYPE	VA	
NUMBER OF UNITS	280	
NUMBER OF BUILDINGS	3	
BUILDING HEIGHT	55'	
NUMBER OF STORIES & SQUARE FEET PER FLOOR	4 STORIES - 84,755 SF/FLOOR	
TOTAL AMOUNT OF DISTURBED AREA	7.11 ACRES	
CAMA LAND USE CLASSIFICATION*	CONSERVATION*	
EXISTING PERMITTED (#2008031) IMPERVIOUS AREA	135,036 SF	
* PROJECT IS LOCATED IN THE "URBAN WATERFRONT" AS DESCRIBED BY COASTAL AREA MANAGEMENT ACT (CAMA).		
IMPERVIOUS AREA (PROPOSED)		
ROOF TOPS	85,173	SF
ROADWAYS (ON-SITE)	30,683	SF
PARKING	11,694	SF
SIDEWALKS	26,174	SF
OTHER (PARKING DECK)	25,308	SF
TOTAL S.F. (ONSITE IMPERVIOUS AREA)	179,032	SF
PERCENTAGE (ONSITE IMPERVIOUS AREA/ONSITE AREA) = 153,724/329,385	46.67	%
PARKING CALCULATIONS		
PROPOSED USE:	MULTI-FAMILY	
TOTAL SPACES PROVIDED	441 (1.59 SPACES PER UNIT)	
SURFACE PARKING PROVIDED	29 SPACES	
PARKING DECK SPACES PROVIDED	365 SPACES	
SPACES PROVIDED ON NUTT STREET	48 SPACES	
ACCESSIBLE SPACES IN PARKING DECK	10	
ACCESSIBLE SPACES IN SURFACE LOT AND NUTT ST.	4	
ACCESSIBLE SPACES PROVIDED	14 (6 VAN)	
BICYCLE SPACES PROVIDED (5 PER 100 SPACES)	22	
SEC. 18-529, EACH PARKING SPACE LOCATED AT THE PERIMETER OF A PARKING FACILITY SHALL BE EQUIPPED WITH A CURB, WHEEL STOP, OR SIMILAR DEVICE TO PREVENT VEHICLE ENCRoACHMENT BEYOND PROPERTY LINES OF PARKING LOTS AND INTO PEDESTRIAN WAYS OR TRAFFIC AISLES.		
BUILDING FRONTAGE CALCULATIONS		
TOTAL BUILDING FRONTAGE	560 LF	
BUILDING FRONTAGE WITHIN 5' OF R/W REQUIRED	280 LF	
BUILDING FRONTAGE WITHIN 5' OF R/W PROVIDED	299 LF	
FLOOD ZONE INFORMATION		
100-YEAR FLOODPLAIN ELEV.	9' (NAVD 88)	
PROPOSED BUILDING FINISHED FLOOR ELEV.	13.0' & 14.0' (NAVD 88)	



1 inch

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Approved Construction Plan

Name _____ Date _____

Planning _____

Traffic _____

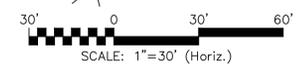
Fire _____

STORMWATER MANAGEMENT PLAN
APPROVED

CITY OF WILMINGTON
ENGINEERING DEPARTMENT

DATE _____ PERMIT # _____

SIGNED _____

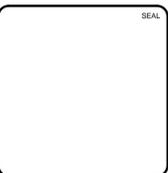


NOTE: WASTE DISPOSAL RECEPTACLES WILL BE WITHIN PARKING GARAGE ONLY.

NOTE: IF THESE UNITS ARE SOLD AT ANY POINT, THE BUYER MUST RECEIVE A SUBDIVISION STREET DISCLOSURE STATEMENT.

NOTE: ANY FUTURE DRIVEWAYS INTO THE NUTT STREET 66' R/W MUST BE IN COMPLIANCE WITH THE CITY OF WILMINGTON STANDARDS.

REV. NO.	DESCRIPTIONS	DATE
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SYMPHONY properties
Orchestrating REAL Solutions

SAWMILL POINT APARTMENTS
1015 NUTT STREET
WILMINGTON, NORTH CAROLINA

SITE PLAN

DATE: 16 DEC 2014	SCALE: HORIZONTAL: 1"=30'	MAC FILE NUMBER: CS101
MCE PROJ.#: 06886-001	VERTICAL: 1"=30'	DRAWING NUMBER: 6
DRAWN: TCM/RAC		
DESIGNED: JBS/TCM/RAC		
CHECKED: JBS/RMC		
PROJ. MGR.: RMC		
STATUS: FINAL DESIGN	REVISION: 1	
NOT FOR CONSTRUCTION		

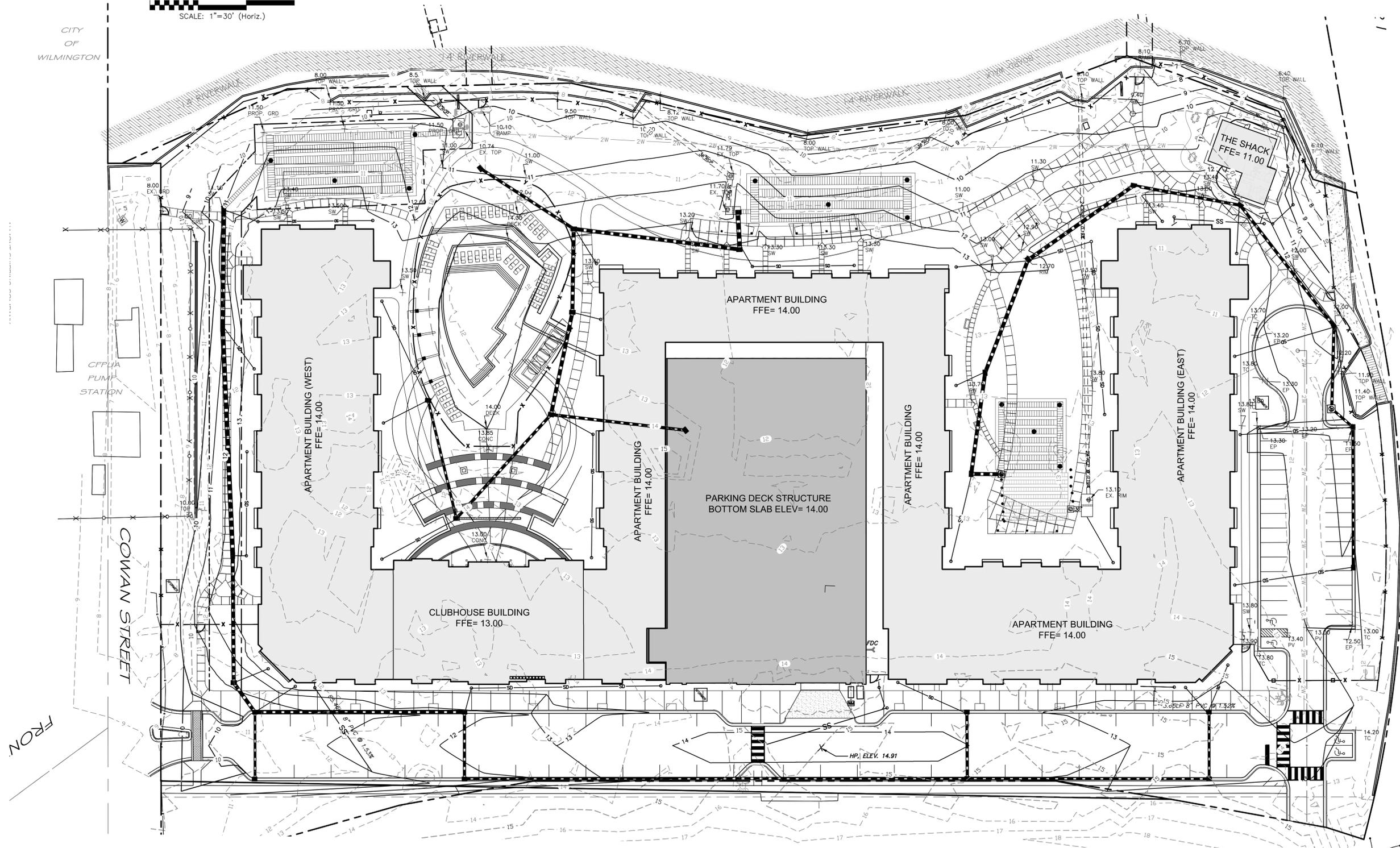
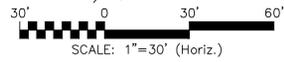
For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

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

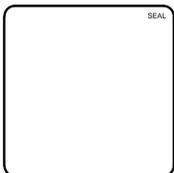
STORMWATER MANAGEMENT PLAN
APPROVED
 CITY OF WILMINGTON
 ENGINEERING DEPARTMENT
 DATE _____ PERMIT # _____
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LEGEND

- EXISTING CONTOUR
- - - PROPOSED CONTOUR
- STORM DRAINAGE PIPE
- BUILDING ROOF OUTLINE
- STORM DRAINAGE MANHOLE
- STORM DRAINAGE CATCH BASIN
- SPOT ELEVATION (EXISTING GRADE ALONG BULKHEAD)



REV. NO.	DESCRIPTIONS	DATE
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SAWMILL POINT APARTMENTS
 1015 NUTT STREET
 WILMINGTON, NORTH CAROLINA

GRADING PLAN

DATE:	16 DEC 2014
MCE PROJ. #	06586-001
DRAWN	TCM/RAC
DESIGNED	JBS/TCM/RAC
CHECKED	JBS/RMC
PROJ. MGR.	RMC

SCALE	MAC FILE NUMBER
HORIZONTAL: 1"=30'	CG101
VERTICAL:	DRAWING NUMBER
	7
STATUS:	REVISION
FINAL DESIGN	1
NOT FOR CONSTRUCTION	

NORTHEAST CAPE FEAR RIVER
 FLOOD ← EBB →

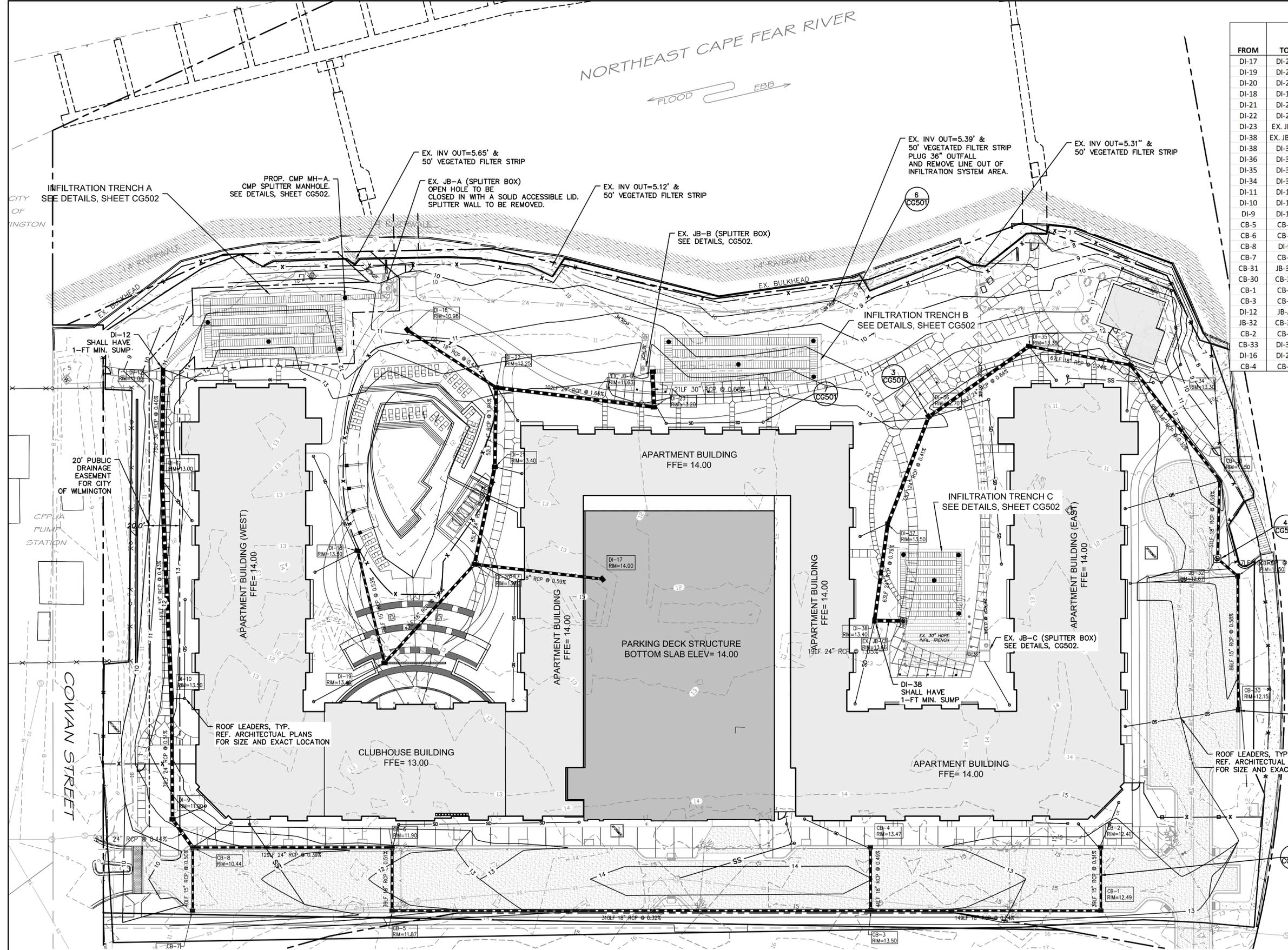
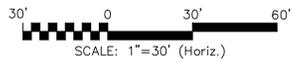
STORM DRAINAGE SCHEDULE							
FROM	TO	Inlet Elevation (ft)	Inlet Invert (ft)	Outlet Invert (ft)	Pipe Dia. (in)	Length (ft)	Slope (ft)
DI-17	DI-20	14.00	10.00	9.50	18	86.5	0.60%
DI-19	DI-20	13.40	10.50	9.50	18	65.4	1.50%
DI-20	DI-21	13.91	9.50	9.00	24	65.0	0.80%
DI-18	DI-19	13.50	10.80	10.50	15	64.4	0.50%
DI-21	DI-22	13.40	9.00	8.00	24	49.2	2.00%
DI-22	DI-23	12.25	8.00	6.30	24	94.1	1.80%
DI-23	EX. JB-B	13.71	6.30	6.16	30	22.8	0.60%
DI-38	EX. JB-C1	13.40	6.00	5.80	24	71.0	0.30%
DI-38	DI-38	13.48	6.50	6.00	24	62.0	0.80%
DI-36	DI-38	12.70	6.80	6.50	24	76.9	0.40%
DI-35	DI-36	13.30	7.30	6.80	24	64.7	0.80%
DI-34	DI-35	13.30	7.80	7.30	18	80.2	0.60%
DI-11	DI-12	13.00	6.50	6.20	30	73.9	0.40%
DI-10	DI-11	13.50	7.20	6.50	30	140.9	0.50%
DI-9	DI-10	11.00	7.50	7.20	24	79.3	0.40%
CB-5	CB-6	11.87	8.30	8.20	18	39.3	0.30%
CB-6	CB-8	11.90	8.20	7.60	24	126.8	0.50%
CB-8	DI-9	10.44	7.60	7.50	24	18.6	0.50%
CB-7	CB-8	10.31	7.80	7.60	15	39.0	0.50%
CB-31	JB-32	11.50	8.50	8.40	15	17.3	0.60%
CB-30	CB-31	12.15	9.00	8.50	15	87.3	0.60%
CB-1	CB-3	12.49	9.90	9.40	18	150.7	0.30%
CB-3	CB-5	13.50	9.40	8.30	18	313.0	0.40%
DI-12	JB-A	13.30	6.20	6.10	30	17.8	0.60%
JB-32	CB-33	12.67	8.40	8.10	18	62.3	0.50%
CB-2	CB-1	12.49	10.10	9.90	15	41.3	0.50%
CB-33	DI-34	11.50	8.10	7.80	18	73.9	0.40%
DI-16	DI-22	10.99	8.20	8.00	15	69.6	0.30%
CB-4	CB-3	13.47	9.90	9.40	18	42.3	1.20%

- STORM DRAINAGE NOTES**
- STORM PIPE SHALL BE NCDOT CLASS III REINFORCED CONCRETE PIPE (RCP) (C-WALL PIPE WITH O-RING GASKETS OR ENGINEER-APPROVED SUBSTITUTE AND SHALL CONFORM TO LATEST ASTM C76, C361, AND CONTRACT SPECIFICATIONS.
 - RCP STORM PIPE JOINTS AND WALL PENETRATIONS SHALL BE SEALED WITH BUTYL RUBBER JOINT SEALANT CONFORMING TO THE REQUIREMENTS OF ASTM C990, OR MORTAR AS PER NCDOT REQUIREMENTS OR BOTH.
 - STORM CATCH BASIN STRUCTURES ARE NOTED AS "CB #" AND SHALL CONFORM TO NCDOT STANDARD DRAWING 840.01 OR 840.02, WITH FRAME AND GRATES CONFORMING TO NCDOT STD. 840.03. FRAMES MUST BE MARKED AS SUCH, "DO NOT DUMP DRAINS TO STREAMS."
 - STORM DROP INLET STRUCTURES ARE NOTED AS "DI #" AND SHALL CONFORM TO NCDOT STD. 840.14 OR 840.15 WITH FRAME AND GRATES CONFORMING TO STD. 840.16. FRAMES MUST BE MARKED AS SUCH, "DO NOT DUMP DRAINS TO STREAMS."
 - STORM JUNCTION BOX STRUCTURES ARE NOTED AS "JB #" AND SHALL CONFORM TO NCDOT STD. 840.32 WITH MANHOLE RING AND COVER CONFORMING TO NCDOT STD. 840.54 OR CITY STD. SD 14-04. FRAMES MUST BE MARKED AS SUCH, "DO NOT DUMP DRAINS TO STREAMS."
 - STORM PIPE LENGTHS AND SLOPES SHOWN ARE APPROXIMATE. STORM PIPES SHALL BE LAID ON STRAIGHT ALIGNMENTS AND UNIFORM GRADES.
 - EXISTING STORM DRAINAGE PIPE AND STRUCTURES SHALL BE INSPECTED BY THE CONTRACTOR PRIOR TO JOINING OR AMENDING EXISTING PIPES. ANY STRUCTURAL DEFICIENCIES SUCH AS PIPE CRACKS, WALL CRACKS, EXPOSED REBAR, ETC. SHALL BE REPORTED TO ENGINEER AS SOON AS NOTED.

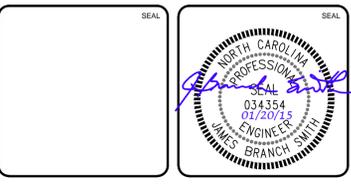
STORMWATER MANAGEMENT PLAN
APPROVED
 CITY OF WILMINGTON
 ENGINEERING DEPARTMENT
 DATE _____ PERMIT # _____
 SIGNED _____

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

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SYMPHONY properties
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SAWMILL POINT APARTMENTS
 1015 NUTT STREET
 WILMINGTON, NORTH CAROLINA

STORM DRAINAGE PLAN

DATE: 16 DEC 2014
 MCE PROJ. #: 06586-001
 DRAWN: TCM/RAC
 DESIGNED: JBS/TCM/RAC
 CHECKED: JBS/RMC
 PROJ. MGR.: RMC

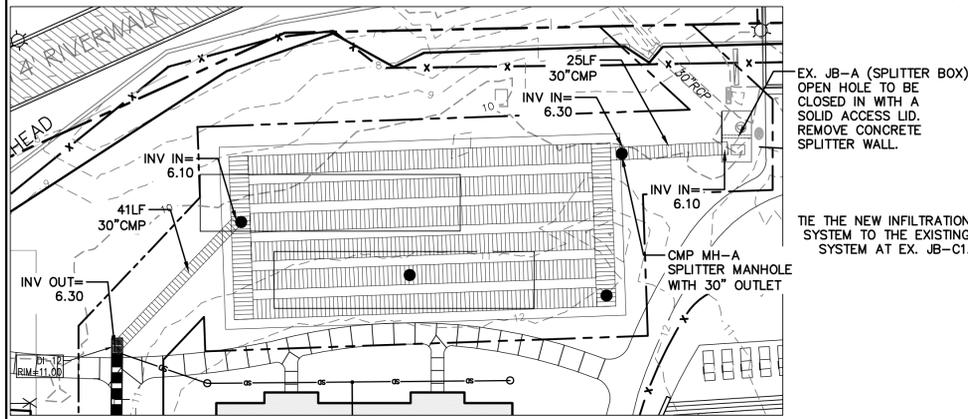
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 VERTICAL: 1"=30'

MAC FILE NUMBER: CG102
 DRAWING NUMBER: 8

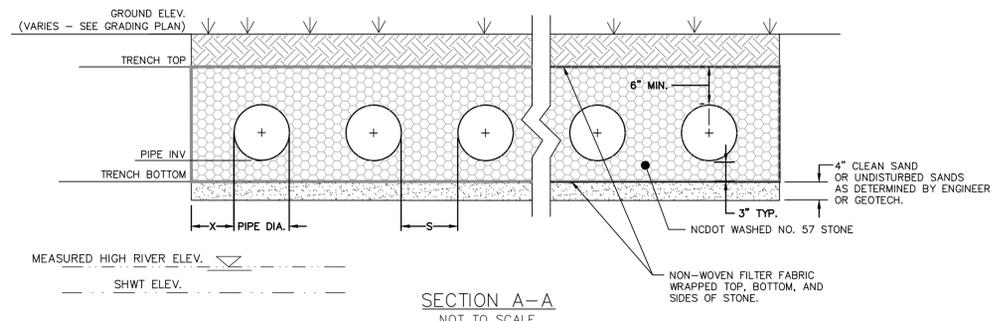
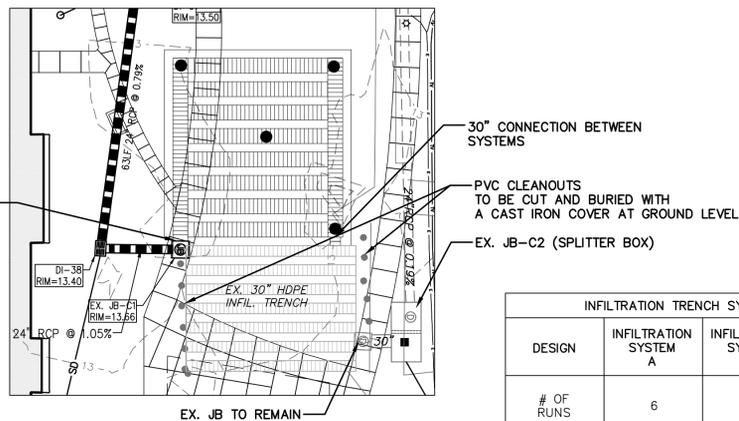
STATUS: FINAL DESIGN
 NOT FOR CONSTRUCTION

REVISION: 1

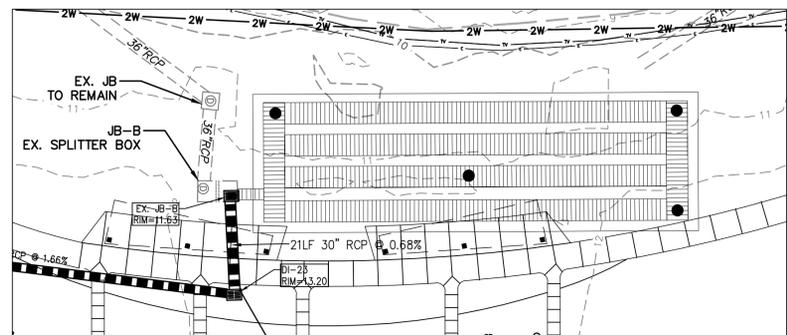
INFILTRATION TRENCH SYSTEM A



INFILTRATION TRENCH SYSTEM C

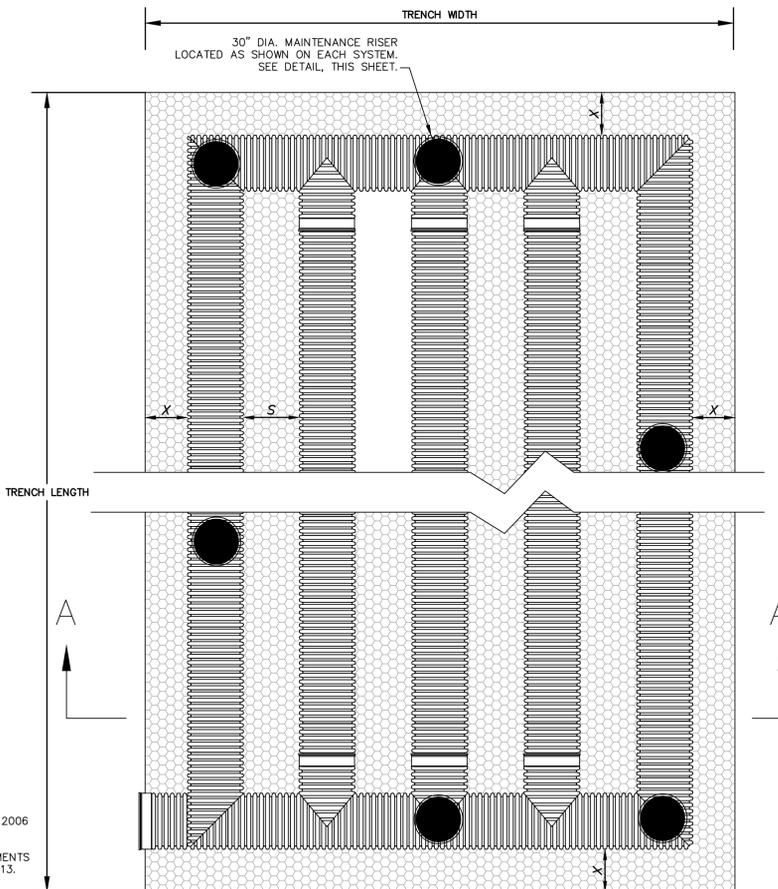


INFILTRATION TRENCH SYSTEM B



DESIGN	CMP MH-A	EX. JB-B	EX. JB-C2
RIM ELEVATION	11.50'	11.63'	13.08'
WEIR #2 ELEVATION	10.20'	10.85'	8.60'
WEIR #1 ELEVATION	9.80'	10.60'	N/A
SUMP ELEVATION	5.10'	4.6' ±	3.2' ±
OUTFALL PIPE INVERT	6.30'	6.03'	5.78'

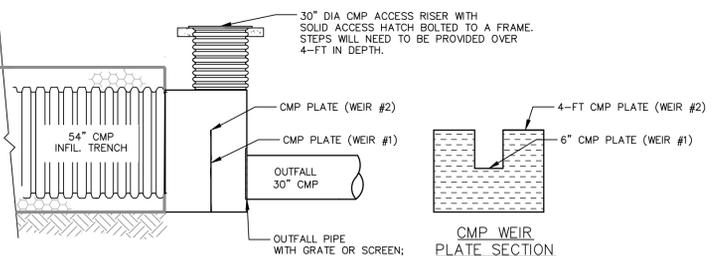
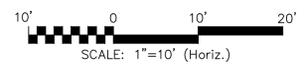
DESIGN	INFILTRATION SYSTEM A	INFILTRATION SYSTEM B	INFILTRATION SYSTEM C
# OF RUNS	6	4	EX. 7@30" & PROP. 8@42" TOTAL=15
PIPE DIAMETER (IN)	54" CMP	60" CMP	EX. 30" HDPE & PROP. 42" CMP
MIN. X (IN)	1/2 DIA. OF PIPE	1/2 DIA. OF PIPE	1/2 DIA. OF PIPE
MIN. S (IN)	1/2 DIA. OF PIPE	1/2 DIA. OF PIPE	1/2 DIA. OF PIPE
TRENCH WIDTH (FT)	43'	32.5'	PROP. 44'
TRENCH LENGTH (FT)	95'	105'	PROP. 44'
SHWT ELEVATION	3.80'	3.80'	3.80'
HIGH RIVER ELEVATION	3.75'	3.87'	3.89'
TRENCH BOTTOM ELEVATION	5.85'	5.85'	EX. 4.46' & PROP. 4.46'
PIPE TRENCH INVERT	6.10'	6.10'	EX. 4.96' & PROP. 4.96'
TRENCH TOP ELEVATION	11.10'	11.60'	EX. 9.68' (EST.) & PROP. 8.96'
10-YR WSEL	8.8'	9.3'	7.0'
25-YR WSEL	10.2'	10.9'	8.7'
50-YR WSEL	10.6'	11.3'	9.2'
100-YR WSEL	11.0'	11.6'	9.4'



1 inch

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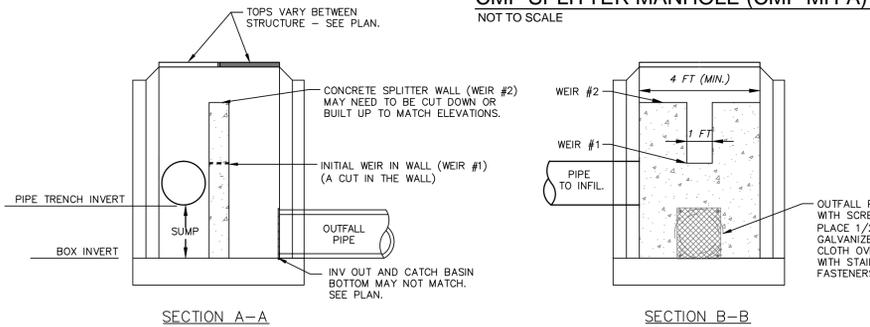
STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____ PERMIT # _____
SIGNED _____



- NOTES:
- EXISTING ELEVATIONS TAKEN FROM COMBINATION OF FIELD MEASUREMENTS AND TOPOGRAPHY SURVEY BY ARNOLD CARSON, PLS DATED JAN. 2013.
 - CONTRACTOR TO SUBMIT RISER MANHOLE AND DETAILS FOR ENGINEER APPROVAL.
 - SEE SPLITTER BOX TABLE FOR ELEVATIONS.

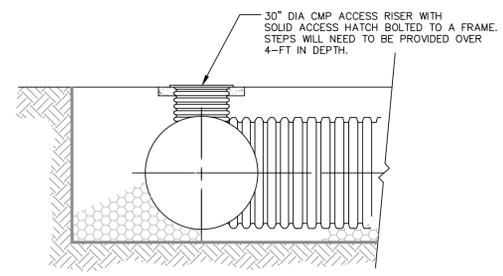
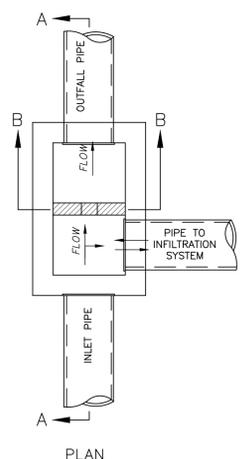
CMP SPLITTER MANHOLE (CMP MH-A)

NOT TO SCALE



EXISTING SPLITTER OUTLET BOX (TYP.)

NOT TO SCALE

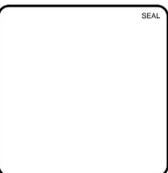


- NOTES:
- INFILTRATION TRENCH PIPE SHALL BE CONTECH PERFORATED ALUMINIZED OR ALUMINUM CMP PIPE MEETING AASHTO M-36, CLASS 2 PERFORATIONS (3/8" DIA); OR PERFORATED HDPE MEETING AASHTO CLASS 2, TYPE S PERFORATIONS. CONTRACTOR TO SUBMIT INFILTRATION TRENCH SPECIFICATION FOR ENGINEER APPROVAL.
 - CMP OR 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

REV. NO.	DESCRIPTION	DATE
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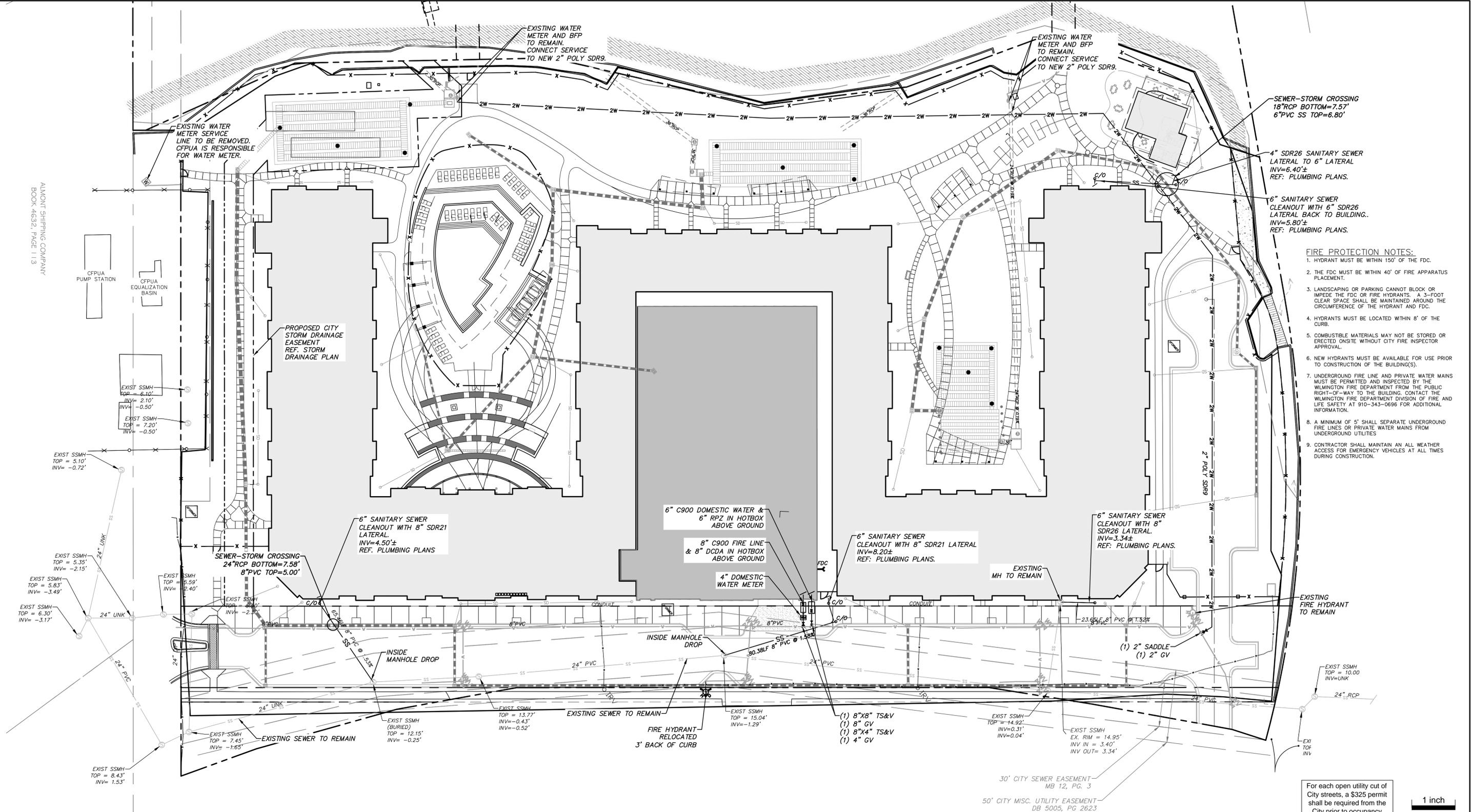
SYMPHONY properties
Orchestrating REAL Solutions

SAWMILL POINT APARTMENTS
1015 NUTT STREET
WILMINGTON, NORTH CAROLINA

INFILTRATION TRENCH SYSTEM AND OUTLET STRUCTURE DETAILS

DATE: 16 DEC 2014	SCALE: CG502
MCE PROJ.#: 06586-0001	HORIZONTAL: N/A
DRAWN: TCM/RAC	VERTICAL: 9
DESIGNED: JBS/TCM/RAC	
CHECKED: JBS/RMC	
PROJ. MGR.: RMC	
STATUS: FINAL DESIGN	REVISION: 1
NOT FOR CONSTRUCTION	

ALMONT SHIPPING COMPANY
BOOK 4632, PAGE 113



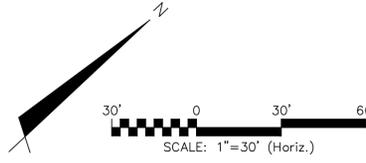
- FIRE PROTECTION NOTES:**
1. HYDRANT MUST BE WITHIN 150' OF THE FDC.
 2. THE FDC MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT.
 3. LANDSCAPING OR PARKING CANNOT BLOCK OR IMPEDE THE FDC OR FIRE HYDRANTS. A 3-FOOT CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE HYDRANT AND FDC.
 4. HYDRANTS MUST BE LOCATED WITHIN 8' OF THE CURB.
 5. COMBUSTIBLE MATERIALS MAY NOT BE STORED OR ERRECTED ON-SITE 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.

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

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

Approved Construction Plan	
Name	Date
Planning	
Traffic	
Fire	



REV. NO.	DESCRIPTIONS	DATE
1	RESUBMITTED TRC PLANS FROM COMMENTS DATED DEC. 2014	01/20/15

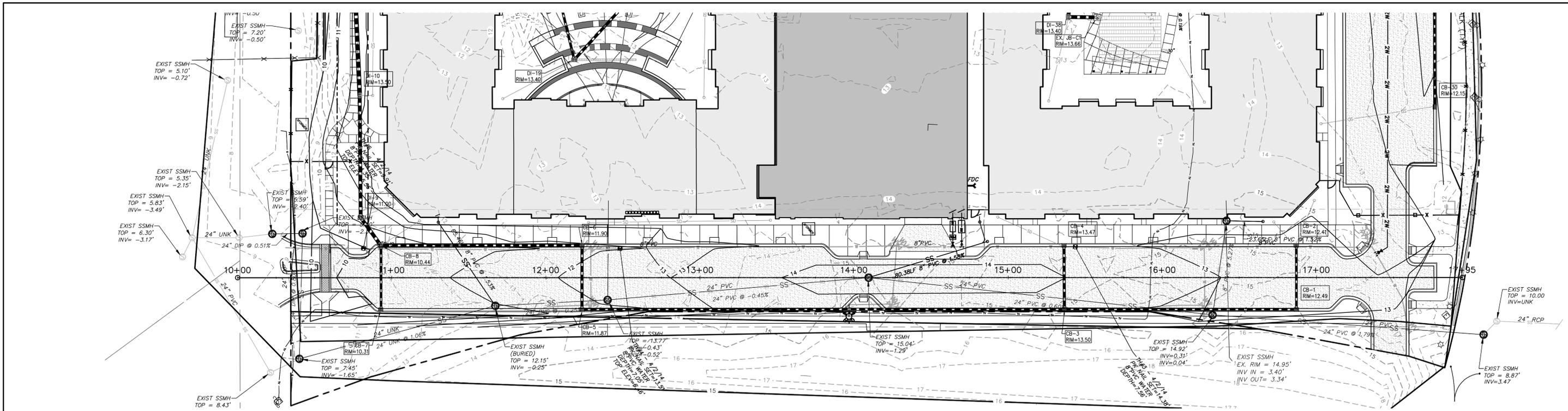


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SYMPHONY properties
Orchestrating REAL Solutions

SAWMILL POINT APARTMENTS
1015 NUTT STREET
WILMINGTON, NORTH CAROLINA
UTILITY PLAN

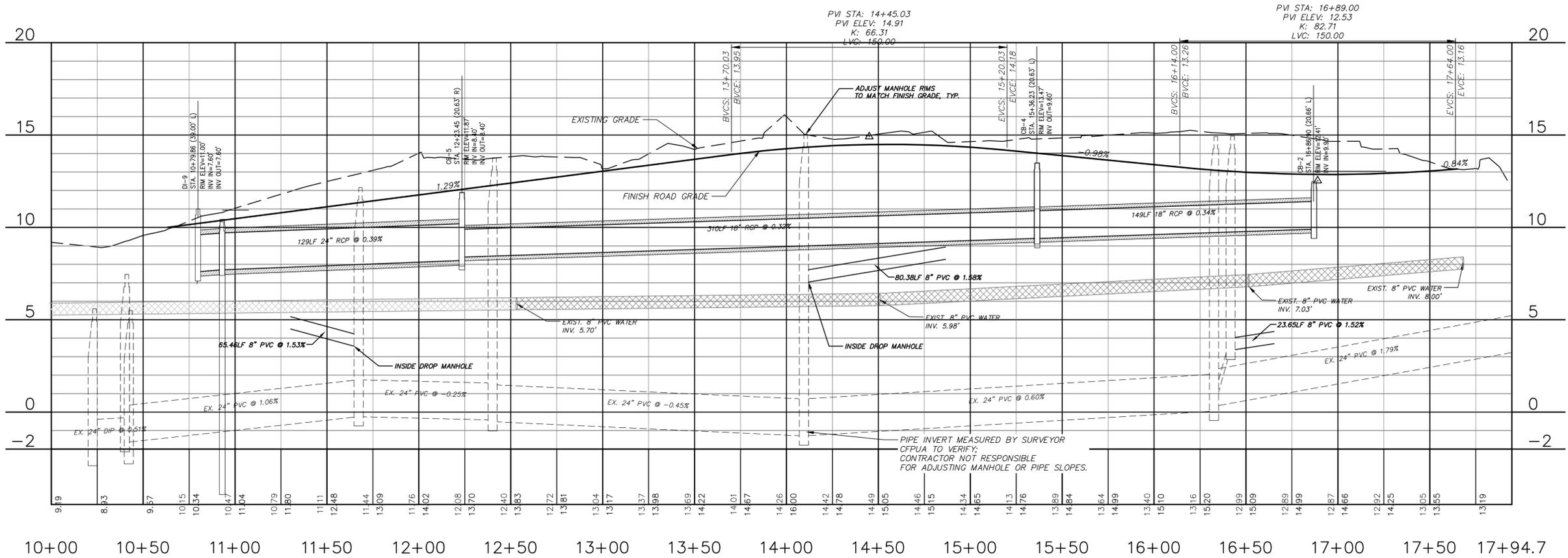
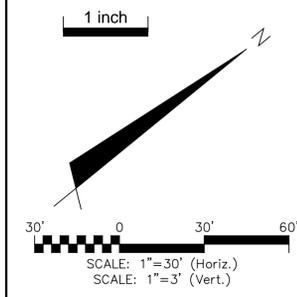
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DRAWN: TCM/RAC		
DESIGNED: JBS/TCM/RAC		
CHECKED: JBS/RMC		
PROJ. MGR.: RMC		
STATUS: FINAL DESIGN	REVISION: 1	
NOT FOR CONSTRUCTION		



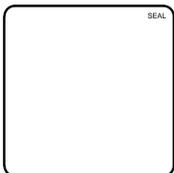
STORMWATER MANAGEMENT PLAN
APPROVED
 CITY OF WILMINGTON
 ENGINEERING DEPARTMENT
 DATE _____ PERMIT # _____
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Approved Construction Plan
 Name _____ Date _____
 Planning _____
 Traffic _____
 Fire _____

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REV. NO.	DESCRIPTION	DATE
1	RESUBMITTED TRC PLANS FROM COMMENTS DATED DEC. 2014	01/20/15



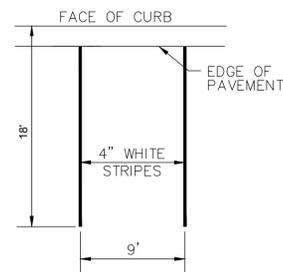
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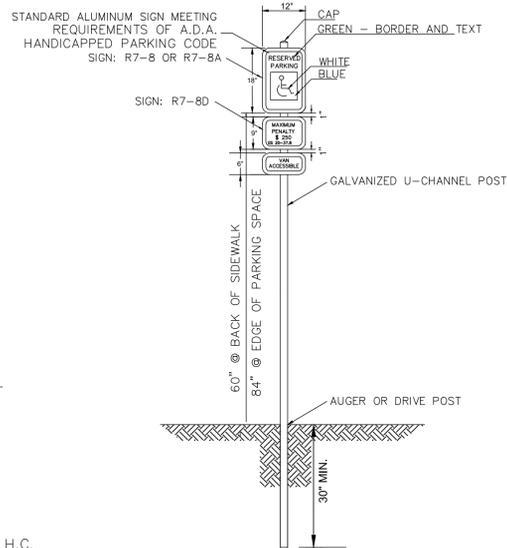
SAWMILL POINT APARTMENTS
 1015 NUTT STREET
 WILMINGTON, NORTH CAROLINA

NUTT STREET ROADWAY PROFILE

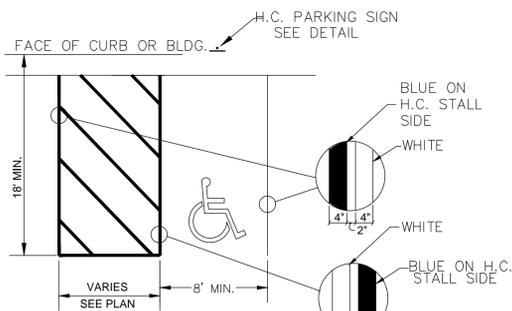
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DRAWN: TCM/RAC	VERTICAL: 1"=3'	
DESIGNED: JBS/TCM/RAC		
CHECKED: JBS/RMC		
PROJ. MGR.: RMC		
STATUS: FINAL DESIGN	REVISION: 1	
NOT FOR CONSTRUCTION		



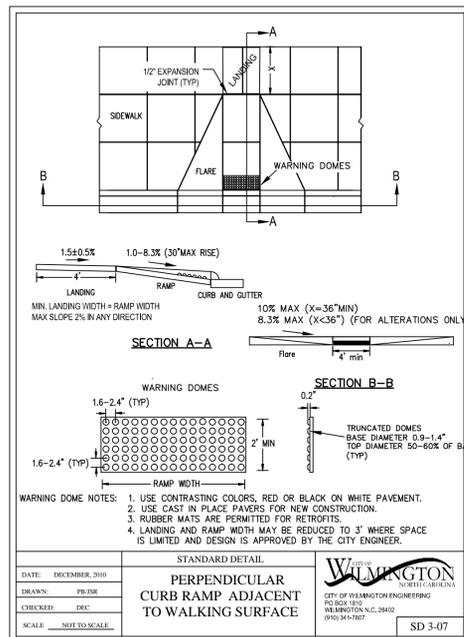
TYPICAL PARKING STALL
NOT TO SCALE



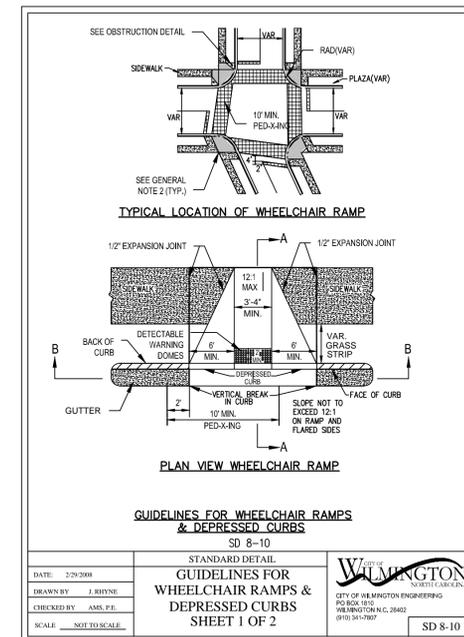
HANDICAP PARKING SIGN
NOT TO SCALE



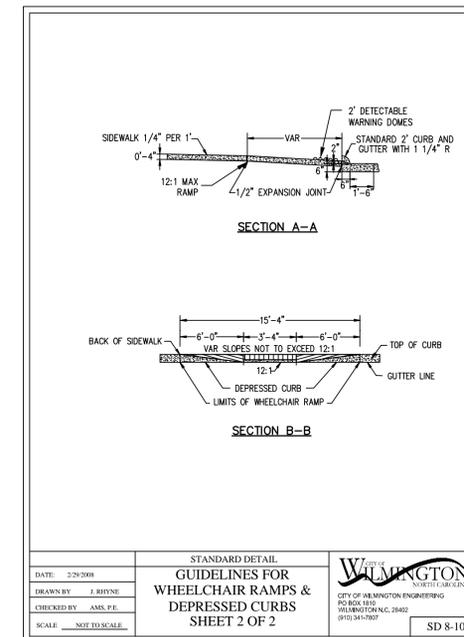
HANDICAP PARKING STALL
NOT TO SCALE



**STANDARD DETAIL
PERPENDICULAR
CURB RAMP ADJACENT
TO WALKING SURFACE**
SD 3-07



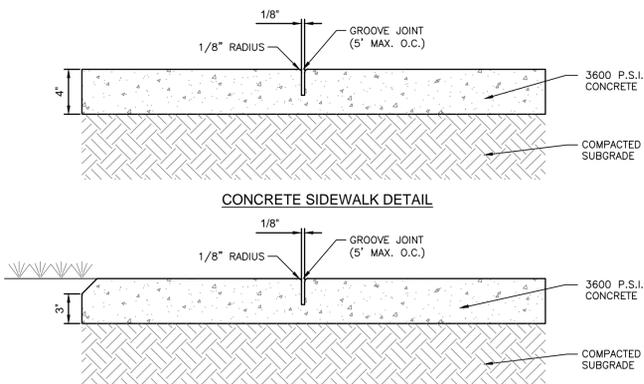
**STANDARD DETAIL
GUIDELINES FOR
WHEELCHAIR RAMPS &
DEPRESSED CURBS**
SD 8-10



**STANDARD DETAIL
GUIDELINES FOR
WHEELCHAIR RAMPS &
DEPRESSED CURBS**
SD 8-10

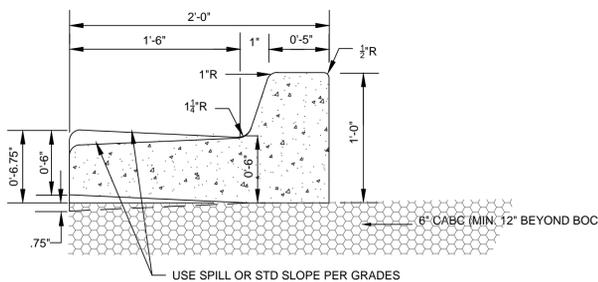
1 PARKING STRIPING & HANDICAP DETAILS
CS501 NOT TO SCALE

7 STANDARD CITY HANDICAP RAMP DETAILS
CS501 NOT TO SCALE

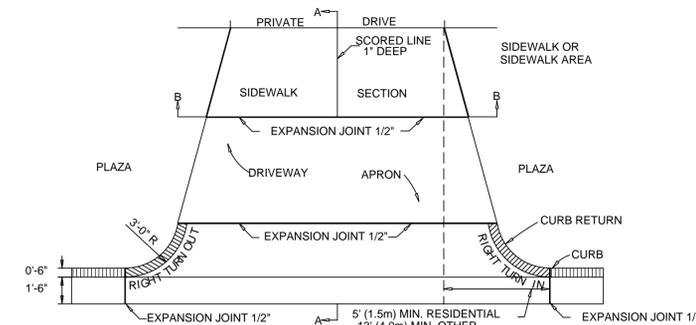


CONCRETE SIDEWALK DETAIL

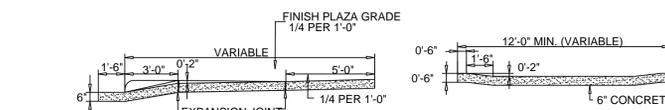
- NOTES:**
1. A GROOVE JOINT 1" DEEP WITH 1/8" RADII SHALL BE REQUIRED IN THE CONCRETE SIDEWALK AT 5' INTERVALS.
 2. ONE 1/2" EXPANSION JOINT WILL BE REQUIRED AT 45' INTERVALS.
 3. A 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK ABUTS ANY CURB AND GUTTER AND ANY RIGID STRUCTURES.
 4. IN SIDEWALKS AND PLAZA AREAS EXPANSION JOINTS ARE REQUIRED AT NO GREATER THAN 30' INTERVALS.
 5. CONCRETE SHALL BE 3600 PSI. IN 28 DAYS.



5 STANDARD 24" CURB & GUTTER (TYPE A)
CS501 NOT TO SCALE (COW SD 7-01 & SD 1-02)



PAVEMENT PLAN



SECTION A-A

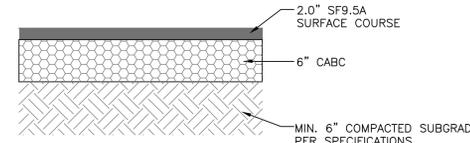
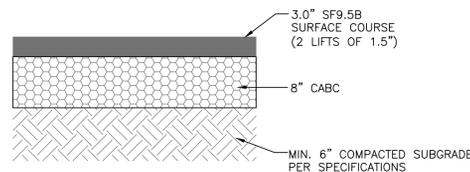
SECTION B-B

6 STANDARD CONCRETE DRIVEWAY
CS501 NOT TO SCALE (COW SD 8-02)

2 CONCRETE SIDEWALK SECTION
CS501 NOT TO SCALE

3 NUTT STREET ASPHALT PAVEMENT SECTION
CS501 NOT TO SCALE

4 PARKING LOT PAVEMENT SECTION
CS501 NOT TO SCALE



***REF. LANDSCAPE PLANS AND DETAILS FOR INTERIOR SIDEWALKS AND STREET SIDEWALK JOINT PATTERNS

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Approved Construction Plan

Name _____ Date _____

Planning _____

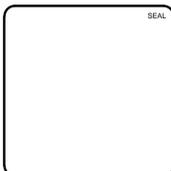
Traffic _____

Fire _____

STORMWATER MANAGEMENT PLAN APPROVED

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

REV. NO.	DESCRIPTIONS	DATE
1	RESUBMITTED TRC PLANS FROM COMMENTS DATED DEC. 2014	01/20/15



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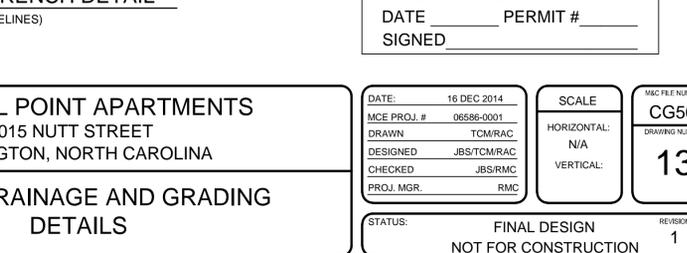
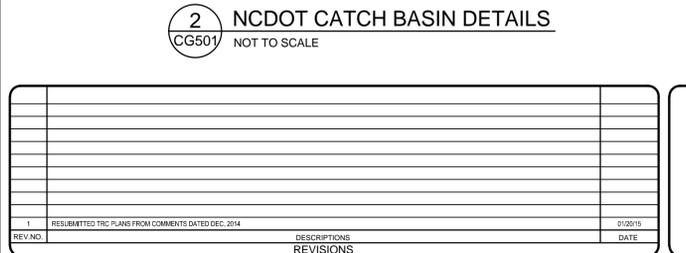
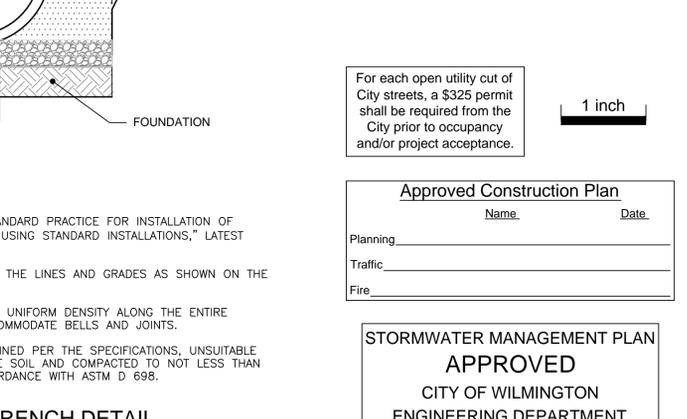
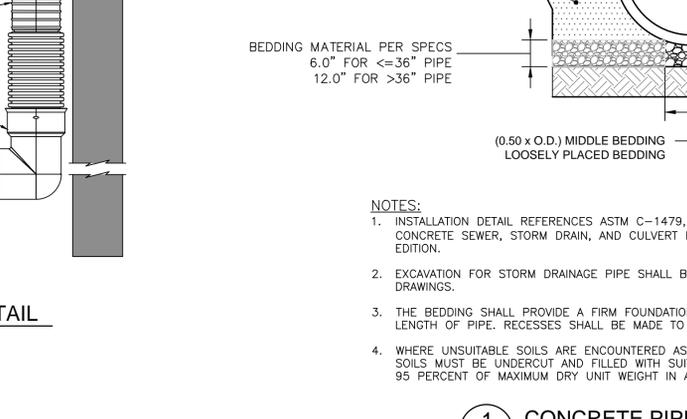
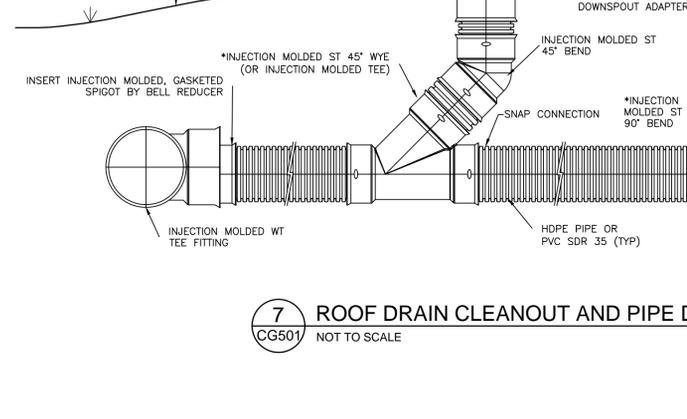
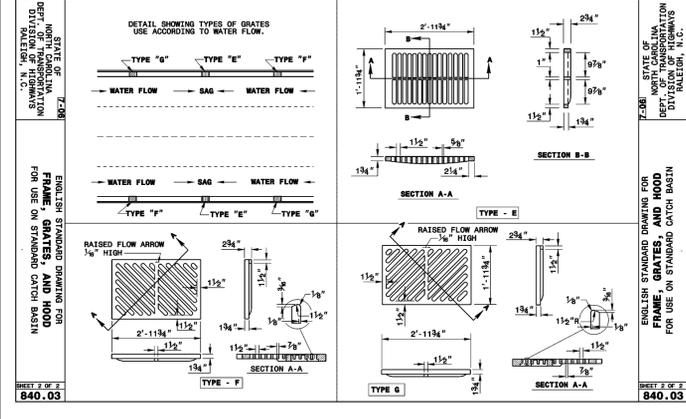
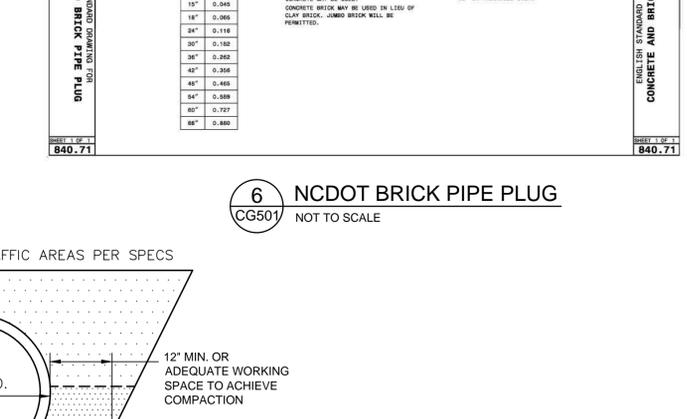
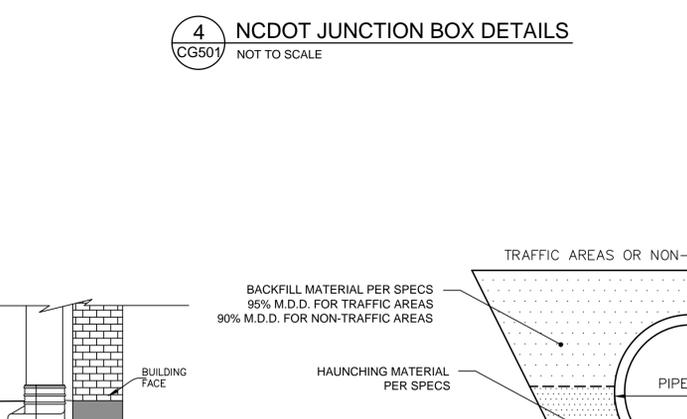
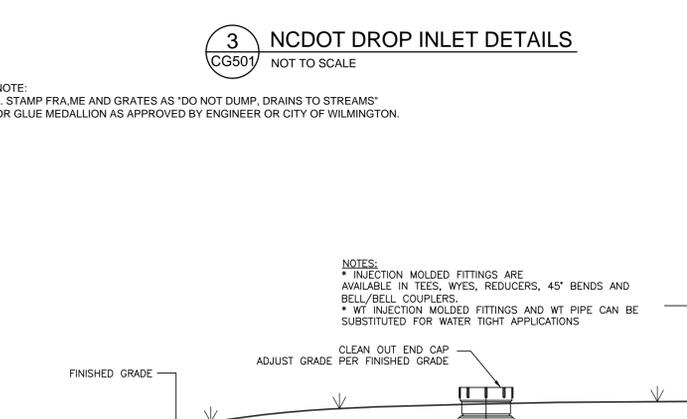
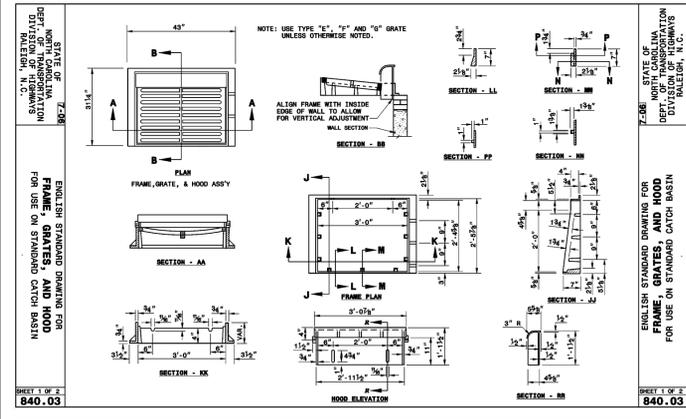
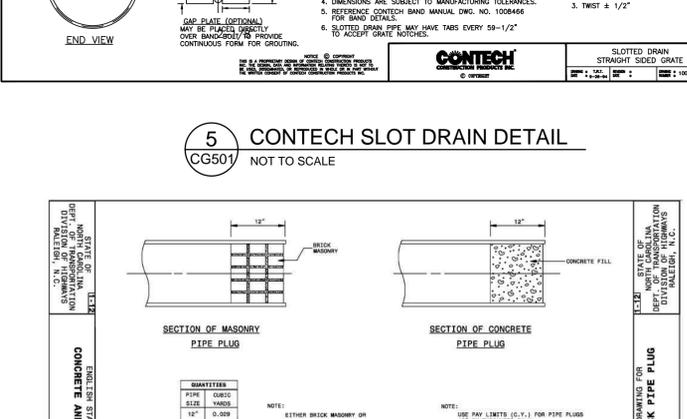
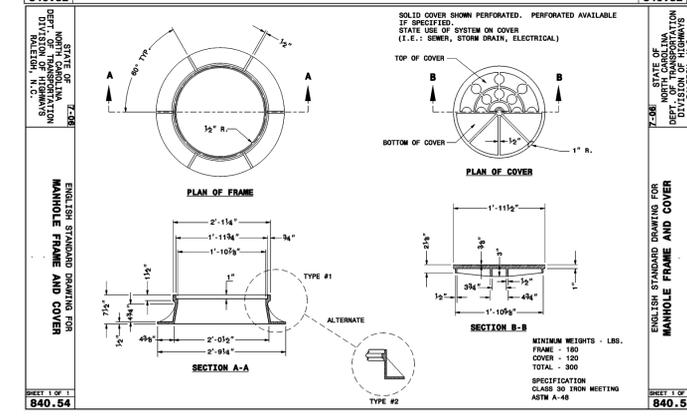
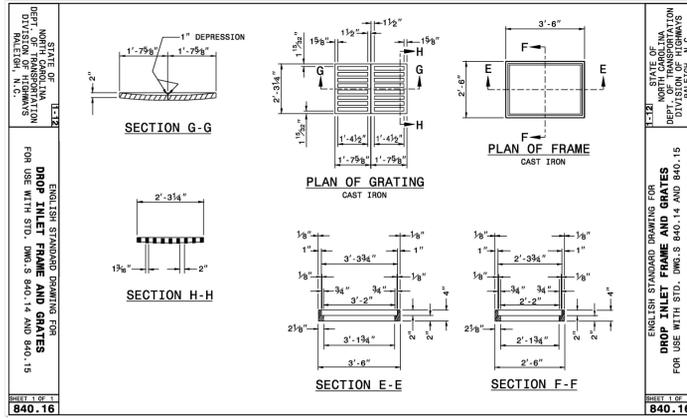
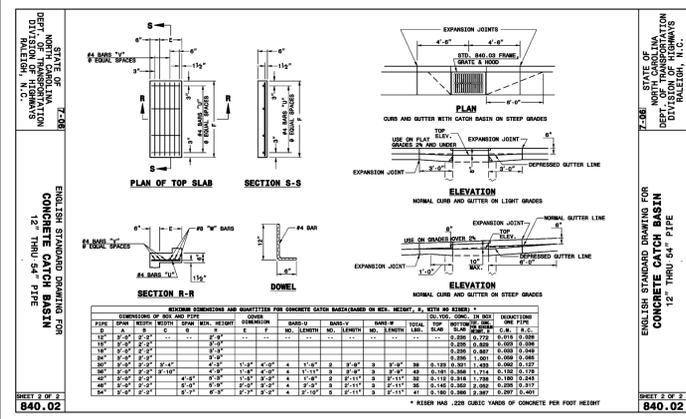
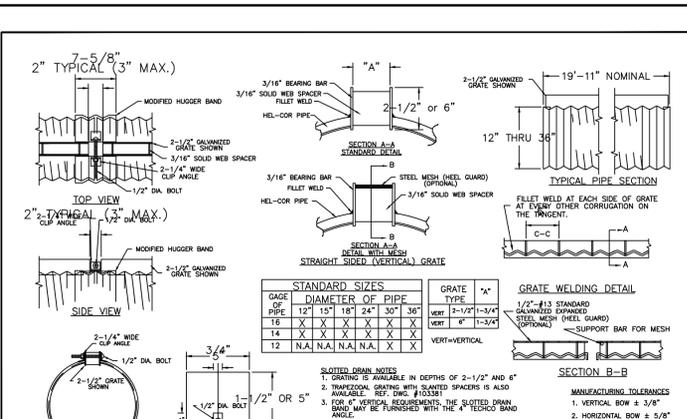
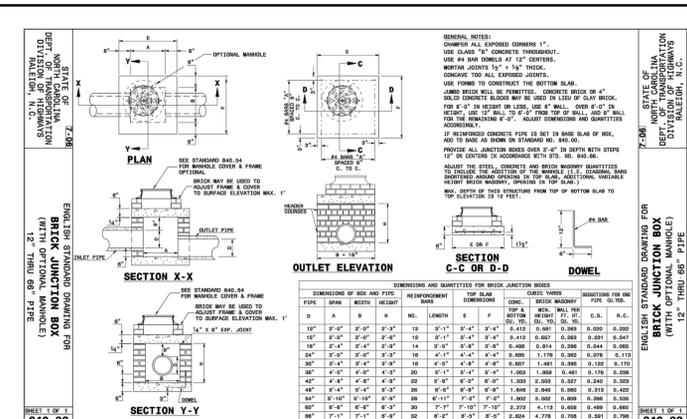
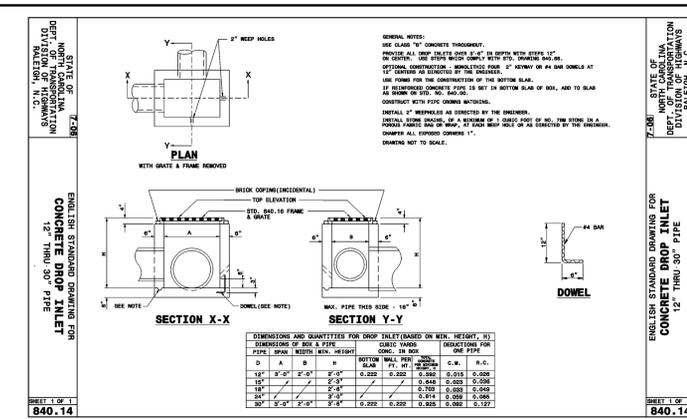
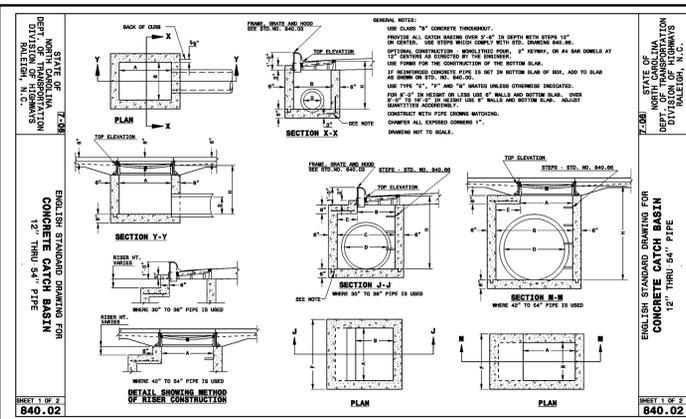
SAWMILL POINT APARTMENTS
1015 NUTT STREET
WILMINGTON, NORTH CAROLINA

SITE DETAILS

DATE: 16 DEC 2014
MCE PROJ. #: 06586-0001
DRAWN: TCM/RAC
DESIGNED: JBS/TCM/RAC
CHECKED: JBS/RMC
PROJ. MGR.: RMC

SCALE: HORIZONTAL: N/A VERTICAL: 1/4\"/>

STATUS: FINAL DESIGN REVISION: 1
NOT FOR CONSTRUCTION



1	RESUBMITTED TRC PLANS FROM COMMENTS DATED DEC. 2014	01/20/15	DATE
REV NO.	DESCRIPTIONS	REVISIONS	DATE

SEAL	PROFESSIONAL ENGINEER	034354	01/20/15
SEAL	PROFESSIONAL ENGINEER	JAMES BRANCH	SMITH

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SAWMILL POINT APARTMENTS
 1015 NUTT STREET
 WILMINGTON, NORTH CAROLINA
STORM DRAINAGE AND GRADING DETAILS

DATE: 16 DEC 2014
 MCE PROJ. # 06586-0001
 DRAWN: TCM/RAC
 DESIGNED: JBS/TCM/RAC
 CHECKED: JBS/RMC
 PROJ. MGR.: RMC

SCALE: HORIZONTAL: N/A
 VERTICAL: 1/4" = 1'-0"

MAC FILE NUMBER: CG501
 DRAWING NUMBER: 13

STATUS: FINAL DESIGN
 REVISION: 1
 NOT FOR CONSTRUCTION

3 NCDOT DROP INLET DETAILS
 CG501 NOT TO SCALE

4 NCDOT JUNCTION BOX DETAILS
 CG501 NOT TO SCALE

5 CONTECH SLOT DRAIN DETAIL
 CG501 NOT TO SCALE

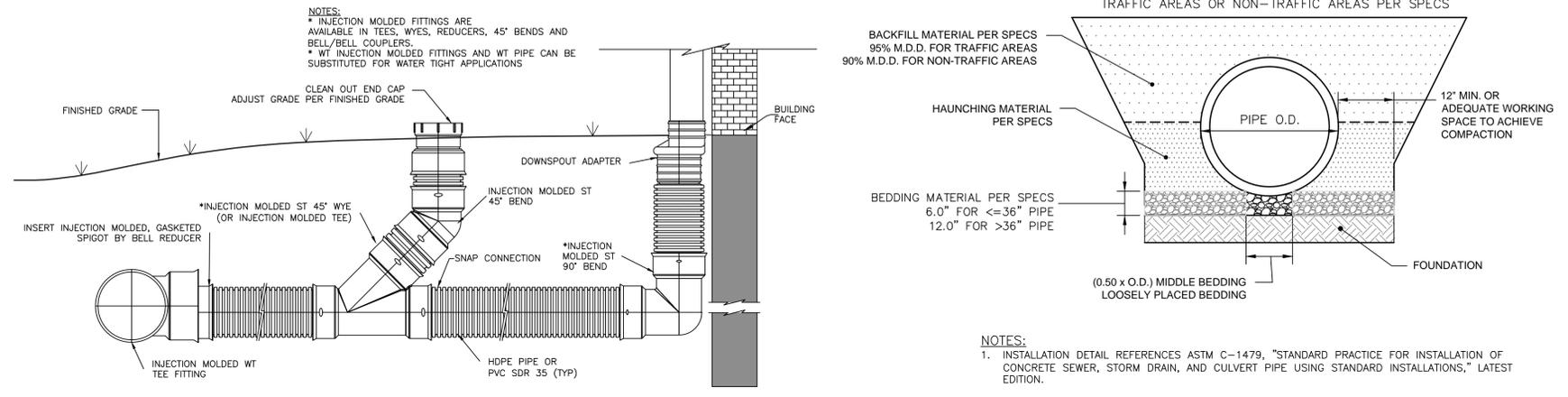
6 NCDOT BRICK PIPE PLUG
 CG501 NOT TO SCALE

2 NCDOT CATCH BASIN DETAILS
 CG501 NOT TO SCALE

7 ROOF DRAIN CLEANOUT AND PIPE DETAIL
 CG501 NOT TO SCALE

1 CONCRETE PIPE TRENCH DETAIL
 CG501 NOT TO SCALE (REF. ACPA GUIDELINES)

NOTE:
 1. STAMP FRAME AND GRATES AS "DO NOT DUMP, DRAINS TO STREAMS"
 OR GLUE MEDALLION AS APPROVED BY ENGINEER OR CITY OF WILMINGTON.



- NOTES:
- INSTALLATION DETAIL REFERENCES ASTM C-1479, "STANDARD PRACTICE FOR INSTALLATION OF CONCRETE SEWER, STORM DRAIN, AND CULVERT PIPE USING STANDARD INSTALLATIONS," LATEST EDITION.
 - EXCAVATION FOR STORM DRAINAGE PIPE SHALL BE TO THE LINES AND GRADES AS SHOWN ON THE DRAWINGS.
 - THE BEDDING SHALL PROVIDE A FIRM FOUNDATION OF UNIFORM DENSITY ALONG THE ENTIRE LENGTH OF PIPE. RECESSES SHALL BE MADE TO ACCOMMODATE BELLS AND JOINTS.
 - WHERE UNSUITABLE SOILS ARE ENCOUNTERED AS DEFINED PER THE SPECIFICATIONS, UNSUITABLE SOILS MUST BE UNDERCUT AND FILLED WITH SUITABLE SOIL AND COMPACTED TO NOT LESS THAN 95 PERCENT OF MAXIMUM DRY UNIT WEIGHT IN ACCORDANCE WITH ASTM D 698.

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Approved Construction Plan

Name: _____ Date: _____

Planning: _____

Traffic: _____

Fire: _____

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

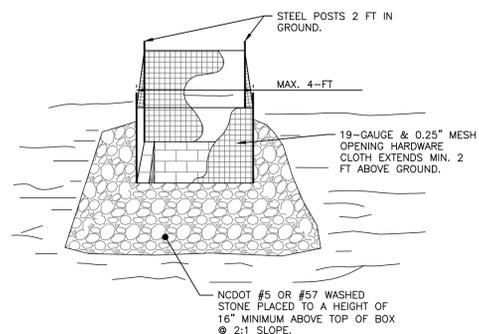
VEGETATION PLAN SPECIFICATIONS

- ALL DISTURBED AREAS SHALL BE DRESSED TO THE EXISTING TYPICAL SECTION AND TILLED OR RIPPED TO A MIN. DEPTH OF 4-INCHES. THE TOP 2 INCHES SHALL BE PULVERIZED TO PROVIDE A UNIFORM SEEDBED.
- LIME AND FERTILIZER SHOULD BE INCORPORATED INTO THE SOIL PRIOR TO SEEDING OR SOD. FOLLOW SOIL TESTS OR AS FOLLOWS:
 AGRICULTURAL LIMESTONE - 2 TONS/ACRE
 FERTILIZER - 1000 LBS/ACRE (10-10-10)
 SUPERPHOSPHATE - 500 LBS/ACRE (20%)
 MULCH - 2 TONS/ACRE (SMALL GRAIN STRAW)
 ANCHOR - ASPHALT EMULSION AT 450 GAL/ACRE
- FOR OPEN AREAS, USE STRAW MULCH AS A MINIMUM FOR STABILIZATION IF THE AREAS CANNOT BE SEEDING ACCORDING TO THE PLANTING DATES. OTHER MULCHING PRACTICES ARE LISTED IN SECTION 6.14 OF THE EROSION CONTROL MANUAL FOR MULCHING.
- FOR DITCHES AND SLOPES, USE EXCELSIOR MATTING AS A MINIMUM FOR STABILIZATION IF THE AREAS CANNOT BE SEEDING ACCORDING TO THE PLANTING DATES. OTHER MATTING PRACTICES ARE LISTED IN SECTION 6.14 OF THE EROSION CONTROL MANUAL FOR MULCHING.
- CHEMICAL STABILIZERS MAY BE USED, BUT IT IS NOT RECOMMENDED FOR VEGETATION GROWTH. REFER TO THE EROSION CONTROL MANUAL FOR A LIST OF STABILIZERS AND FOLLOW MANUFACTURER'S SPECIFICATIONS.
- THE FOLLOWING TABLES ARE REFERENCED FROM NC EROSION CONTROL MANUAL SEC. 6.10 AND 6.11, AND THE STABILIZATION TABLE IS REFERENCED FROM NPDES NCG 010000.

TEMPORARY SEEDING			
GRASS TYPE	AMOUNT/1000 S.F.	TIME OF SEEDING	INITIAL
RYE GRAIN	1-2 LBS.	APRIL - JUNE	25 LBS. 10-10-10
BROWNTOP MILLET	1-2 LBS	JUNE - AUGUST	25 LBS 10-10-10

PERMANENT SEEDING			
GRASS TYPE	AMOUNT/1000 S.F.	TIME OF SEEDING	INITIAL
BERMUDA COMMON	1-2 LBS.	APRIL - JUNE	25 LBS. 10-10-10
FESCUE TALL (KENTUCKY 31)	5-7 LBS	JUNE - AUGUST FEB. - OCT.	25 LBS 10-10-10
SERICEA LESPEDEZA (SLOPES)	1-2 LBS	MARCH - APRIL	25 LBS 10-10-10

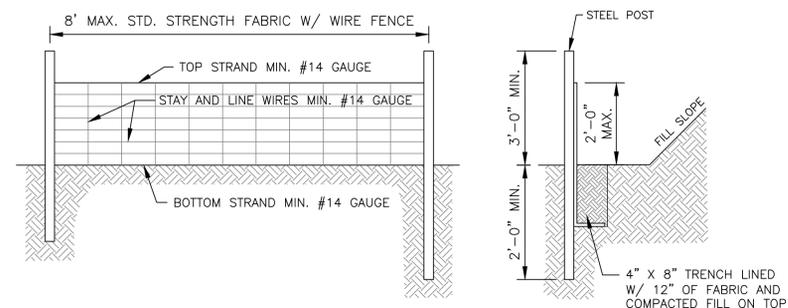
GROUND STABILIZATION CRITERIA		
SITE AREA DESCRIPTION	STABILIZATION TIMEFRAME	STABILIZATION TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10 FT OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50 FT IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE (EXCEPT FOR PERIMETERS AND HW ZONES)



- NOTES:**
- DRIVE 5-FOOT STEEL POSTS (1.25 lb/ft steel) 2 FEET INTO THE GROUND SURROUNDING THE INLET. SPACE POSTS EVENLY AROUND THE PERIMETER OF THE INLET, A MAXIMUM OF 4 FEET APART.
 - SURROUND THE POSTS WITH AT LEAST 19-GAUGE HARDWARE CLOTH WITH A 1/4-INCH MESH OPENING. SECURE THE WIRE MESH TO THE STEEL POSTS AT THE TOP, MIDDLE, AND BOTTOM FOR A MIN. 2 FEET ABOVE THE GROUND. PLACING A 2-FOOT FLAP OF THE WIRE MESH UNDER THE GRAVEL FOR ANCHORING AND REMOVAL IS RECOMMENDED.
 - UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET. THE TOP ELEVATION OF THE STRUCTURE MUST BE AT LEAST 12-INCHES LOWER THAN THE SURROUNDING GROUND ELEVATION DOWNSLOPE FROM THE INLET TO ENSURE THAT STORM FLOWS GET INTO THE INTENDED INLET; UNLESS OTHER SEDIMENT-CONTROL DEVICES ARE INSTALLED TO PREVENT OFF-SITE SEDIMENT-RUNOFF.
- ALTERNATE MEASURE:
 THE USE OF INLET SACK BAGS OR PYRAMID SHAPED STEEL STRUCTURES MAY BE USED AS AN ALTERNATE MEASURE DEVICE. CONTACT TRIANGLE STORMWATER SOLUTIONS OR OTHER MANUFACTURERS.

TEMPORARY INLET PROTECTION

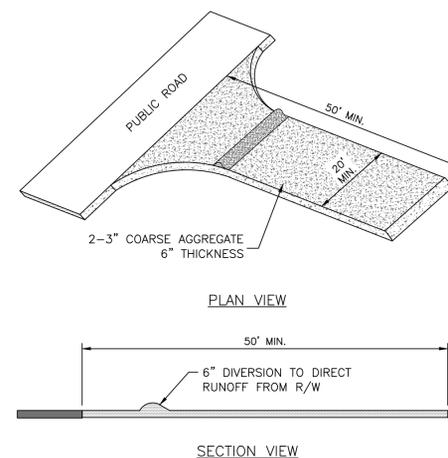
NOT TO SCALE
 NCDENR PRACTICE STD. 6.51



- NOTES:**
- WIRE FENCE (IF USED) SHALL BE MINIMUM 14 GAUGE WITH A MAXIMUM MESH OPENING OF 6-INCHES.
 - SYNTHETIC FILTER FABRIC OF AT LEAST 95% BY WEIGHT OF POLYOLEFIN'S OR POLYESTER, WHICH IS CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS IN ASTM D 6461 AND ALSO SHOULD CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS ACCORDING TO ASTM D 4355.
 - SEE THE NC EROSION CONTROL MANUAL FOR SPECIFICATIONS INSTALLING SEDIMENT FENCE USING THE SLICING METHOD MACHINERY.

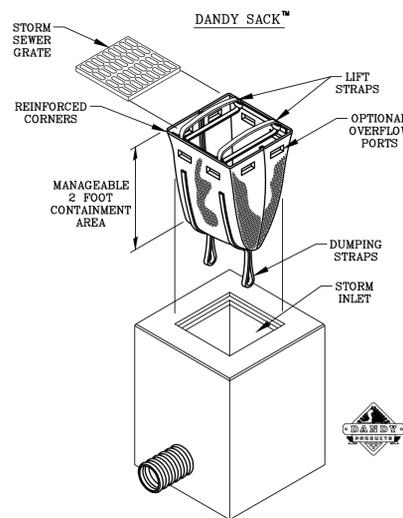
TEMPORARY SILT FENCE

NOT TO SCALE
 NCDENR PRACTICE STD. 6.62



TEMPORARY CONSTRUCTION ENTRANCE

NOT TO SCALE
 NCDENR PRACTICE STD. 6.06



NOTE: THE DANDY SACK™ WILL BE MANUFACTURED IN THE U.S.A. FROM A NON MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

REGULAR FLOW DANDY SACK™ (BLACK)				
Mechanical Properties	Test Method	Units	MARV	
Grab Tensile Strength	ASTM D 4832	kn (lbf)	1.78 (400)	1.40 (315)
Grab Tensile Elongation	ASTM D 4832	%	15	11
Puncture Strength	ASTM D 4833	kn (lbf)	0.67 (150)	
Mullen Burst Strength	ASTM D 3786	kPa (psi)	5506 (800)	
Trapezoid Tear Strength	ASTM D 4533	kn (lbf)	0.67 (150) x 0.75 (168)	
UV Resistance	ASTM D 4355	%	90	
Apparent Opening Size	ASTM D 4751	mm (US Std. Sieve)	0.425 (40)	
Flow Rate	ASTM D 4491	l/min/m² (gal/min/ft²)	2852 (70)	
Permeability	ASTM D 4491	Sec⁻¹	0.90	

HI-FLOW DANDY SACK™ (SAFETY ORANGE)				
Mechanical Properties	Test Method	Units	MARV	
Grab Tensile Strength	ASTM D 4832	kn (lbf)	1.62 (365)	0.89 (200)
Grab Tensile Elongation	ASTM D 4832	%	24	10
Puncture Strength	ASTM D 4833	kn (lbf)	0.42 (90)	
Mullen Burst Strength	ASTM D 3786	kPa (psi)	3097 (450)	
Trapezoid Tear Strength	ASTM D 4533	kn (lbf)	0.91 (115) x 0.53 (75)	
UV Resistance	ASTM D 4355	%	90	
Apparent Opening Size	ASTM D 4751	mm (US Std. Sieve)	0.425 (40)	
Flow Rate	ASTM D 4491	l/min/m² (gal/min/ft²)	5907 (145)	
Permeability	ASTM D 4491	Sec⁻¹	2.1	

*Note: All Dandy Sacks™ can be ordered with our optional oil absorbent pillows

TEMPORARY DANDY SACK® INLET PROTECTION

NOT TO SCALE

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 _____

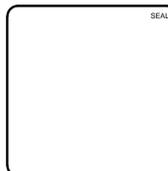
Planning _____

Traffic _____

Fire _____

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

REV. NO.	DESCRIPTIONS/REVISIONS	DATE
1	RESUBMITTED TRC PLANS FROM COMMENTS DATED DEC. 2014	01/20/15



MCKIM & CREED
 243 North Front Street
 Wilmington, NC 28401
 Phone: (910)343-1048, Fax: (910)251-8282
 NC LICENSE F-1222
 www.mckimcreed.com

SYMPHONY properties
 Orchestrating REAL Solutions

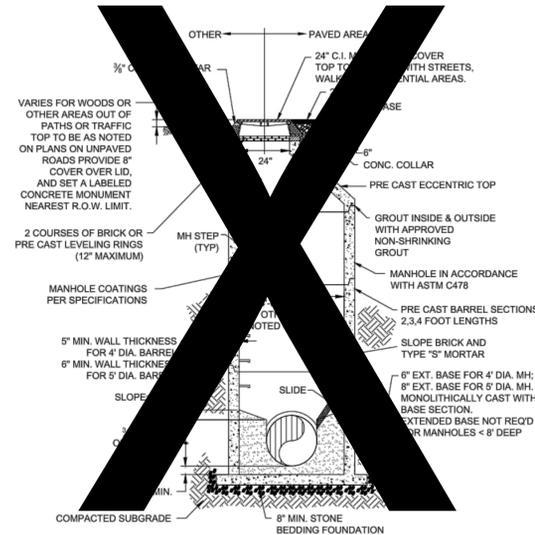
SAWMILL POINT APARTMENTS
 1015 NUTT STREET
 WILMINGTON, NORTH CAROLINA

SEDIMENT & EROSION CONTROL DETAILS

DATE:	16 DEC 2014
MCE PROJ. #	06586-0001
DRAWN	TCM/RAC
DESIGNED	JBS/TCM/RAC
CHECKED	JBS/RMC
PROJ. MGR.	RMC

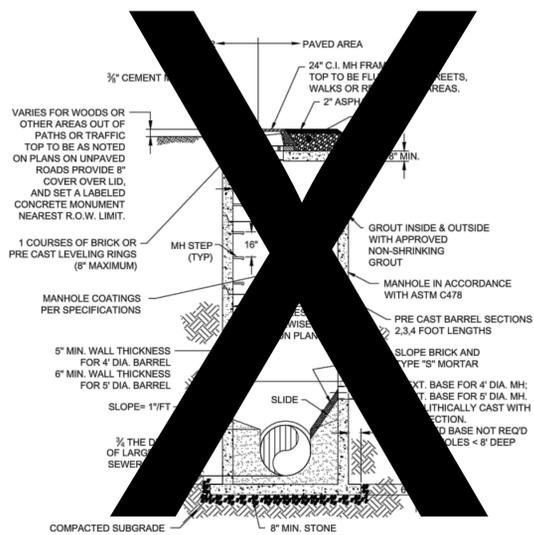
SCALE	CE501
HORIZONTAL:	N/A
VERTICAL:	N/A
REVISION	1

STATUS: FINAL DESIGN
 NOT FOR CONSTRUCTION



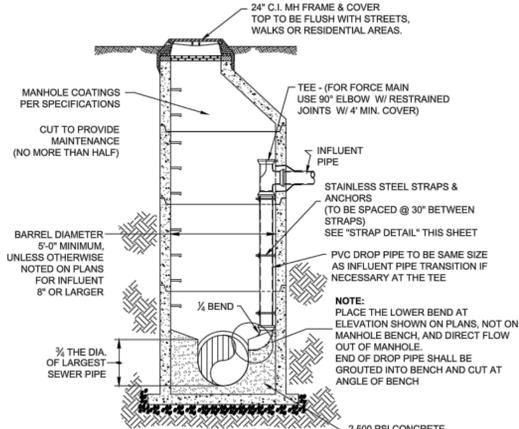
PRECAST CONCRETE OFFSET MANHOLE TYPICAL

(LESS THAN 30" DROP)
NOT TO SCALE

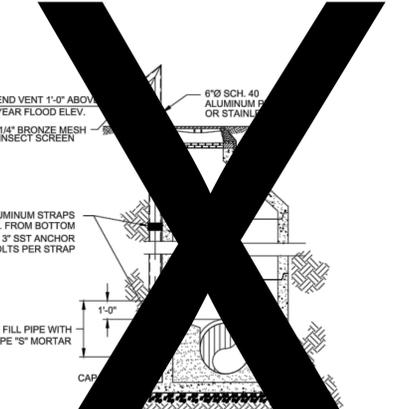


PRECAST CONCRETE FLAT TOP MANHOLE TYPICAL

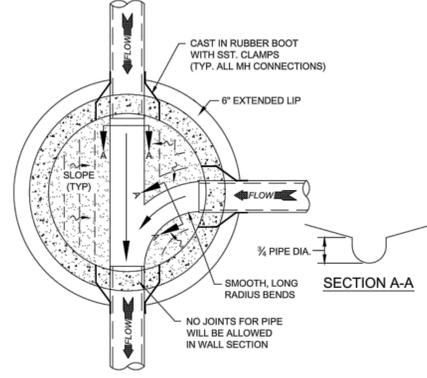
(LESS THAN 30" DROP)
NOT TO SCALE



DROP MANHOLE
(MORE THAN 30" DROP)
NOT TO SCALE

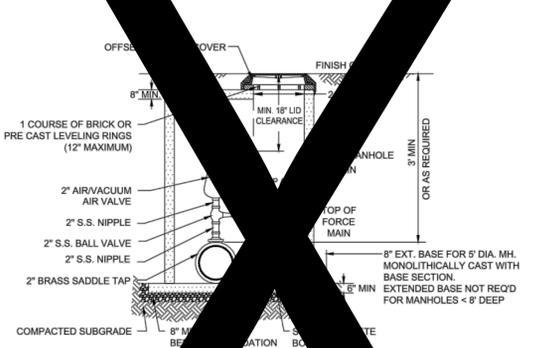


STANDARD VENT MANHOLE
NOT TO SCALE



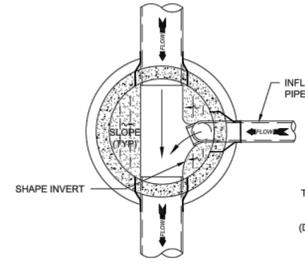
MANHOLE FLOOR PLAN

NOT TO SCALE



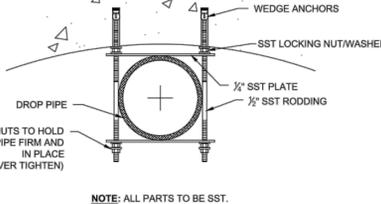
VACUUM AND AIR RELEASE COMBINATION VALVE
NOT TO SCALE

NOTES:
1. CONTRACTOR TO INSTALL VALVE AT SUFFICIENT ELEVATION TO ALLOW FOR ACCESS.
2. FORCE MAIN TO BE OFF TO LEFT TO KEEP AREA BELOW CLEAR FOR ACCESS.
3. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS.
4. USE CAST IN RUBBER BOOT WITH S.S.T. CLAMPS FOR ALL MH CONNECTIONS INCLUDING FORCE MAIN.



DROP MANHOLE FLOOR PLAN

NOT TO SCALE



STRAP DETAIL

NOT TO SCALE

NOTE: ALL PARTS TO BE SST.

TIGHTEN NUTS TO HOLD DROP PIPE FIRM AND IN PLACE (DO NOT OVER TIGHTEN)

- CAPE FEAR PUBLIC UTILITY AUTHORITY 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 AT RIGHT-OF-WAY LINE.
 - ALL SERVICES TYING INTO DUCTILE IRON MAINS SHALL BE CONSTRUCTED OF CLASS 50, DIP, WITH PROTECTO 401 CERAMIC EPOXY LINING.
 - MINIMUM 10' UTILITIES EASEMENT PROVIDED ALONG THE FRONTAGE OF ALL LOTS AND AS SHOWN FOR NEW DEVELOPMENTS.
 - NO FLEXIBLE COUPLINGS SHALL BE USED.
 - ALL STAINLESS STEEL FASTENERS SHALL BE 316.

STANDARD SEWER NOTES
(REQUIRED ON ALL SEWER PLAN AND PROFILE SHEETS)

- GENERAL NOTES:**
- NO EXCAVATED MATERIAL SHALL BE PLACED IN ANY STREAM, DITCH OR DRAINAGE-WAY.
 - THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES BEFORE ANY CONSTRUCTION BEGINS.
 - THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES WHILE CONSTRUCTION IS IN PROGRESS.
 - THE CONTRACTOR IS RESPONSIBLE FOR STABILIZATION OF ALL DISTURBED AREAS.
 - THE CONTRACTOR IS RESPONSIBLE FOR LAY DOWN & STOCKPILE AREAS (TO ARRANGE AND INSURE COMPLIANCE WITH ALL LOCAL AND STATE REGULATIONS).

THE DETAILS SHOWN HEREON SUPERCEDE CFPUA WRITTEN TECHNICAL SPECIFICATIONS VERSIONS 1.00 - 1.04

REV.	DESCRIPTION:	DATE:
1	AIR / VACUUM AND AIR RELEASE COMBINATION VALVE REVISED	10/26/12
2	STANDARD SEWER NOTE #6 REVISED	12/10/12

CFPUA SANITARY SEWER		DATE: 1/9/12
STANDARD DETAILS		SCALE: N/A
 CAPE FEAR PUBLIC UTILITY AUTHORITY 235 GOVERNMENT CENTER DRIVE WILMINGTON, NC 28403 OFFICE: (910)332-6560 <small>Stewardship. Sustainability. Service.</small>		DRAWN BY: CFPUA
 SYMPHONY properties <small>Orchestrating REAL Solutions</small>		CHECKED BY: CFPUA
SAWMILL POINT APARTMENTS 1015 NUTT STREET WILMINGTON, NORTH CAROLINA		PROJECT NO.:
SSD-1 CFPUA SANITARY SEWER DETAILS		SHEET NO.: SSD-1

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 _____

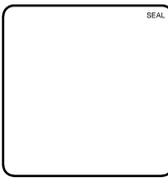
STORMWATER MANAGEMENT PLAN APPROVED

CITY OF WILMINGTON
ENGINEERING DEPARTMENT

DATE _____ PERMIT # _____

SIGNED _____

REV. NO.	DESCRIPTIONS	DATE
1	RESUBMITTED TRC PLANS FROM COMMENTS DATED DEC 2014	01/29/15



MCKIM & CREED

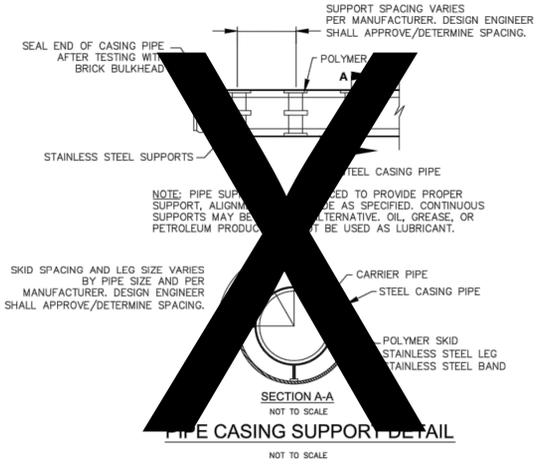
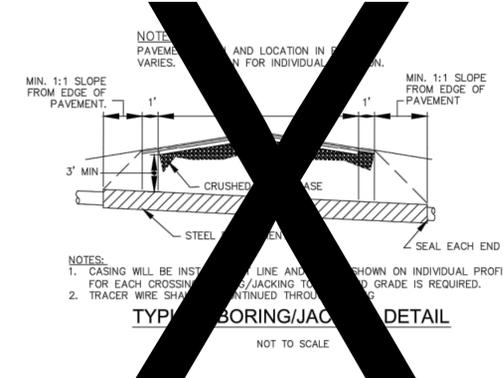
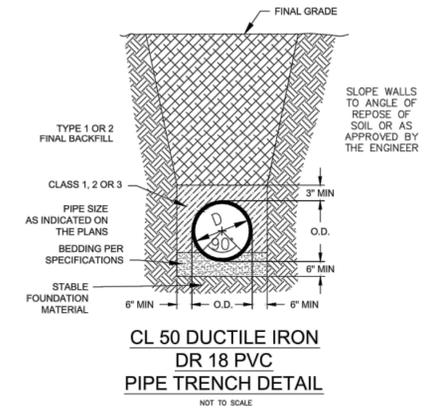
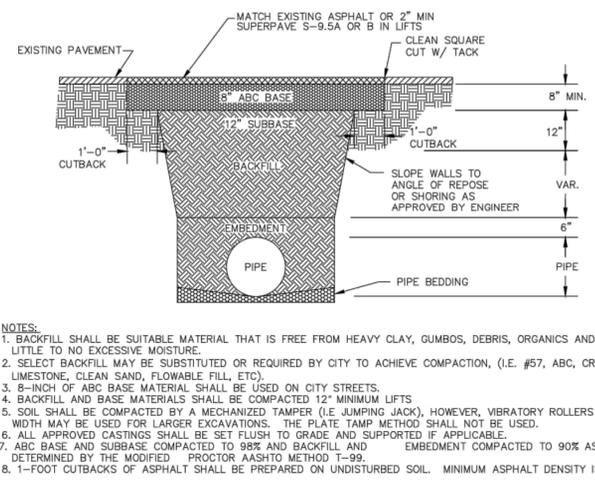
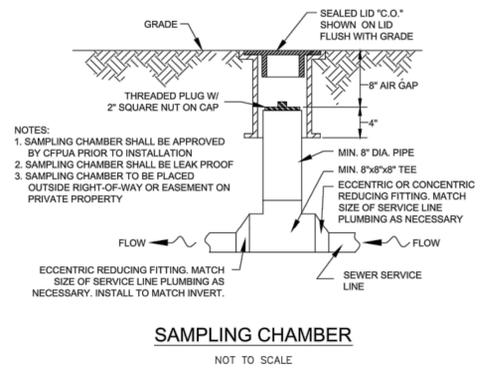
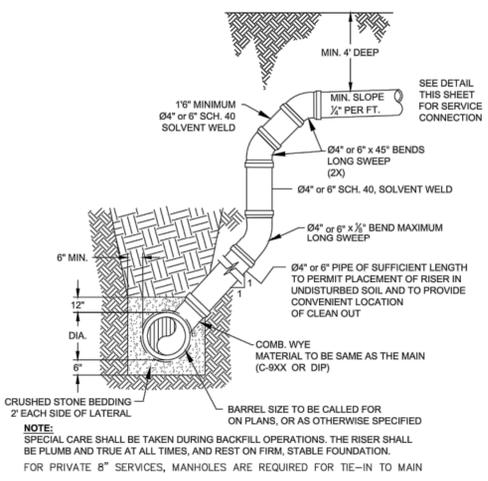
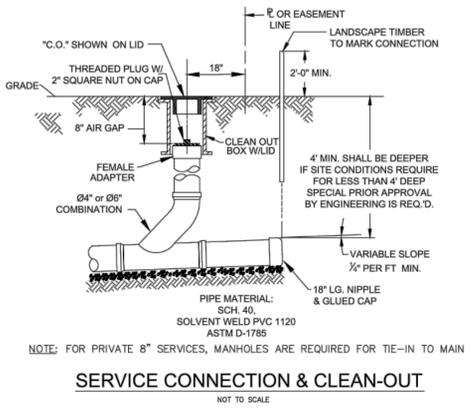
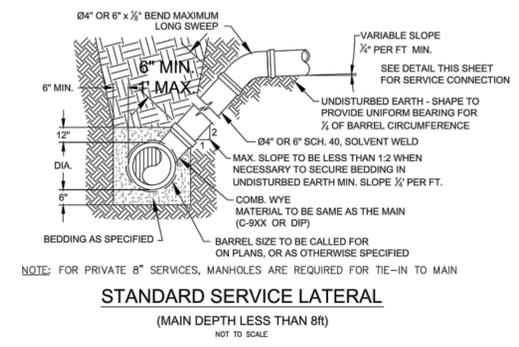
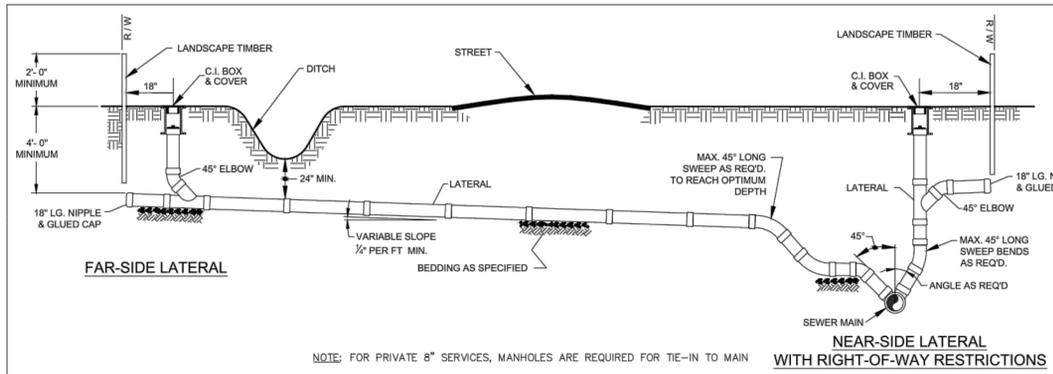
243 North Front Street
Wilmington, NC 28401
Phone: (910)343-1048, Fax: (910)251-8282
NC LICENSE F-1222
www.mckimcreed.com

SYMPHONY properties
Orchestrating REAL Solutions

SAWMILL POINT APARTMENTS
1015 NUTT STREET
WILMINGTON, NORTH CAROLINA

SSD-1 CFPUA SANITARY SEWER DETAILS

DATE: 16 DEC 2014	SCALE: N/A	HORIZONTAL: N/A	VERTICAL: N/A	MAC FILE NUMBER: CU501
MCE PROJ. # 06586-0001	DRAWN BY: TCM/RAC	DESIGNED BY: JBS/TCM/RAC	CHECKED BY: JBS/RMC	DRAWING NUMBER: 15
PROJ. MGR. RMC	STATUS: FINAL DESIGN NOT FOR CONSTRUCTION			REVISION: 1



- GENERAL NOTES:**
- NO EXCAVATED MATERIAL SHALL BE PLACED IN ANY STREAM, DITCH OR DRAINAGE-WAY.
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THE DETAILS SHOWN HEREON SUPERCEDE CFPWA WRITTEN TECHNICAL SPECIFICATIONS VERSIONS 1.00 - 1.04

CFPUA SANITARY SEWER

STANDARD DETAILS

DATE: 1/9/12
SCALE: N/A
DRAWN BY: CFPWA
CHECKED BY: CFPWA
PROJECT NO.:

SAWYER ENGINEERING
235 GOVERNMENT CENTER DRIVE
WILMINGTON, NC 28403
OFFICE: (910)332-6560

SHEET NO: **SSD-2**

REV.	DESCRIPTION	DATE
1	SAMPLING CHAMBER REVISED	10/28/12

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: _____

STORMWATER MANAGEMENT PLAN APPROVED

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

REV. NO.	DESCRIPTIONS	DATE
1	RESUBMITTED TRC PLANS FROM COMMENTS DATED DEC. 2014	01/20/15



MCKIM & CREED

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Wilmington, NC 28401
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SYMPHONY properties
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WILMINGTON, NORTH CAROLINA

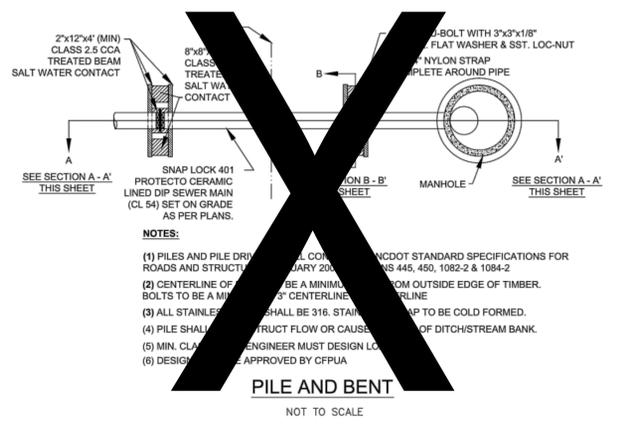
SSD-2 CFPWA SANITARY SEWER DETAILS

DATE: 16 DEC 2014
MCE PROJ. # 06586-0001
DRAWN: TCM/RAC
DESIGNED: JBS/TCM/RAC
CHECKED: JBS/RMC
PROJ. MGR.: RMC

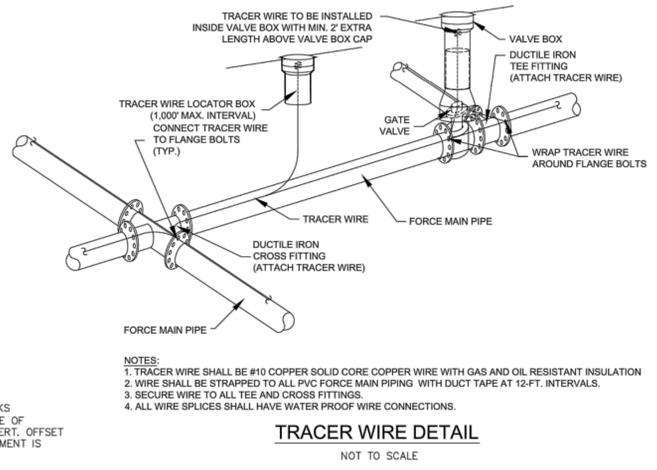
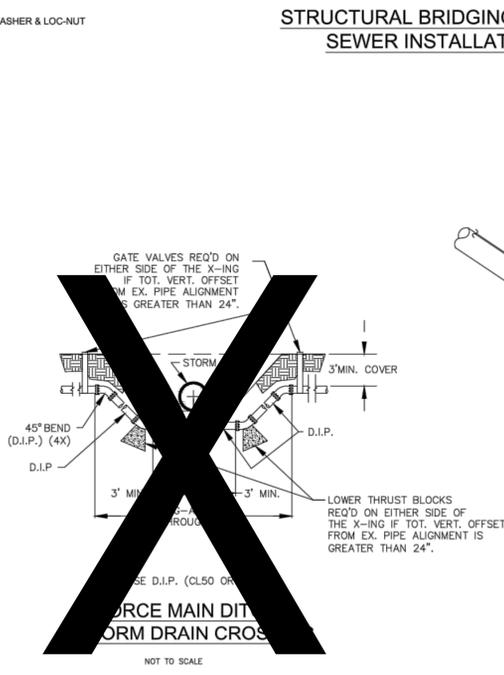
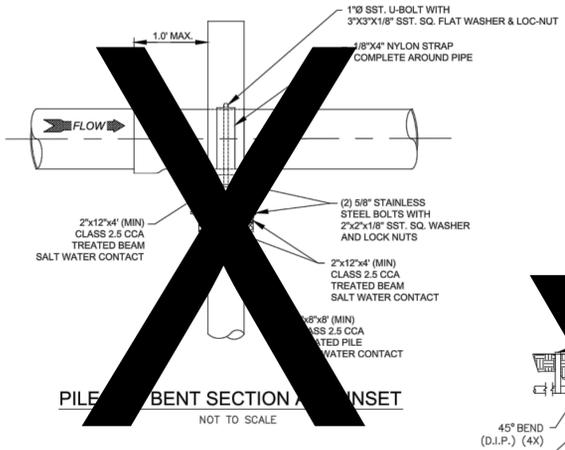
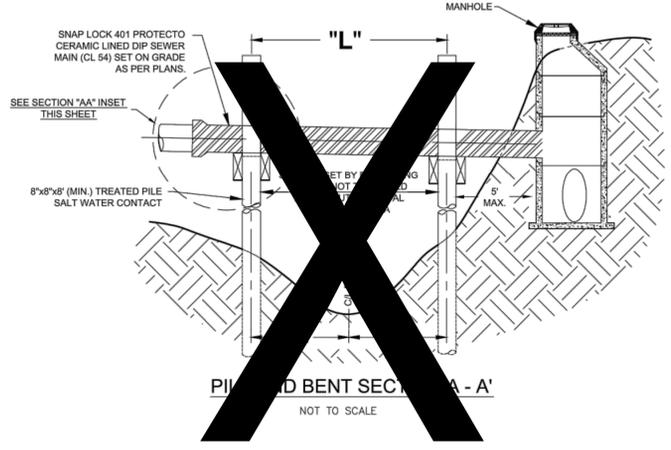
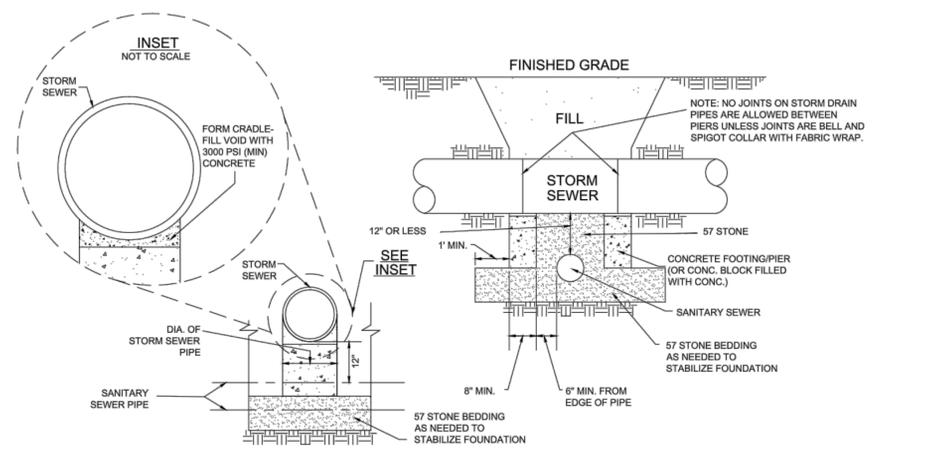
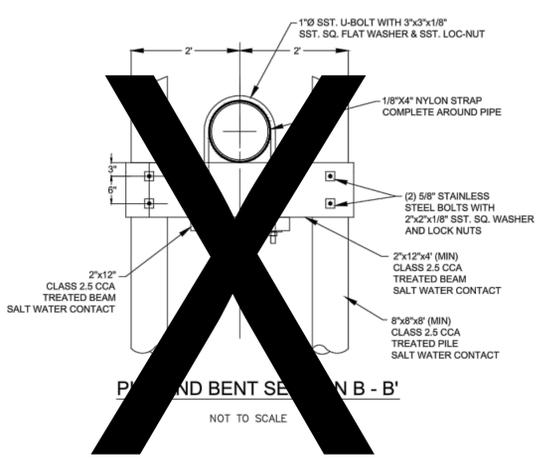
SCALE: HORIZONTAL: N/A VERTICAL: 16

MAC FILE NUMBER: CU502
DRAWING NUMBER: 16

STATUS: FINAL DESIGN REVISION: 1
NOT FOR CONSTRUCTION



- NOTES:**
- (1) PILES AND PILE DRIVING SHALL COMPLY WITH STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECONDARY 2002, SECTIONS 445, 450, 1062-2 & 1064-2
 - (2) CENTERLINE OF PILE SHALL BE A MINIMUM 2' FROM OUTSIDE EDGE OF TIMBER.
 - (3) ALL STAINLESS STEEL SHALL BE 316. STAINLESS STEEL SHALL BE COLD FORMED.
 - (4) PILE SHALL BE DESIGNED TO RESIST FLOW OR CAUSE OF DITCH/STREAM BANK.
 - (5) MIN. CLASS 2.5 CCA TREATED PILE SHALL BE 8" DIA.
 - (6) DESIGN SHALL BE APPROVED BY CFPUA



- GENERAL NOTES:**
1. NO EXCAVATED MATERIAL SHALL BE PLACED IN ANY STREAM, DITCH OR DRAINAGE-WAY.
 2. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES BEFORE ANY CONSTRUCTION BEGINS.
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THE DETAILS SHOWN HEREON SUPERCEDE CFPUA WRITTEN TECHNICAL SPECIFICATIONS VERSIONS 1.00 - 1.04

CFPUA SANITARY SEWER

DATE: 1/9/12
SCALE: N/A
DRAWN BY: CFPUA
CHECKED BY: CFPUA
PROJECT NO.:

STANDARD DETAILS

CAPE FEAR PUBLIC UTILITY AUTHORITY
235 GOVERNMENT CENTER DRIVE
WILMINGTON, NC 28403
OFFICE: (910)332-6560
Stewardship. Sustainability. Service.

SHEET NO:
SSD-3

REV.	DESCRIPTION:	DATE:

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

Approved Construction Plan

Name: _____ Date: _____

Planning _____

Traffic _____

Fire _____

STORMWATER MANAGEMENT PLAN APPROVED

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

REV. NO.	DESCRIPTIONS REVISIONS	DATE



MCKIM & CREED

243 North Front Street
Wilmington, NC 28401
Phone: (910)343-1048, Fax: (910)251-8282
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www.mckimcreed.com

SYMPHONY properties
Orchestrating REAL Solutions

SAWMILL POINT APARTMENTS
1015 NUTT STREET
WILMINGTON, NORTH CAROLINA

SSD-3 CFPUA SANITARY SEWER DETAILS

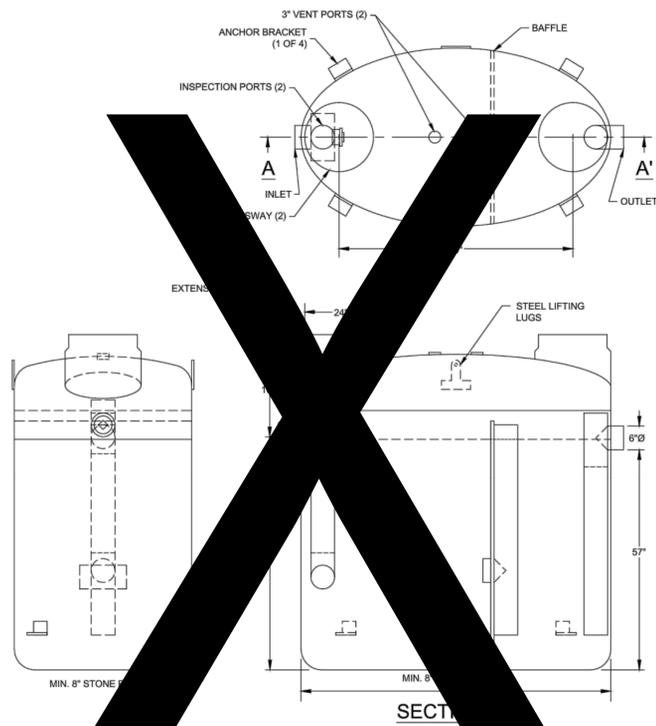
DATE: 16 DEC 2014
MCE PROJ. # 06586-0001
DRAWN TCM/RAC
DESIGNED JBS/TCM/RAC
CHECKED JBS/RMC
PROJ. MGR. RMC

SCALE: HORIZONTAL: N/A
VERTICAL: N/A

MAC FILE NUMBER: CU503
DRAWING NUMBER: 17

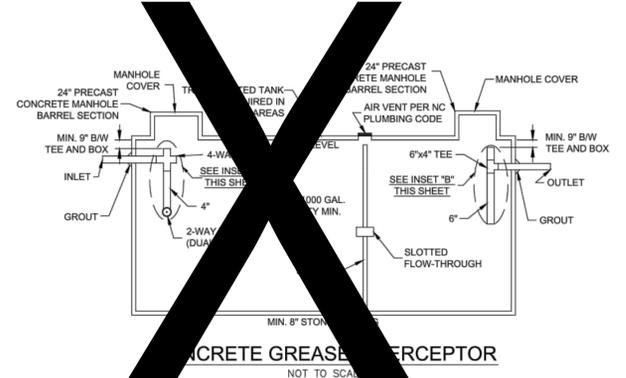
STATUS: FINAL DESIGN
NOT FOR CONSTRUCTION

REVISION: 1

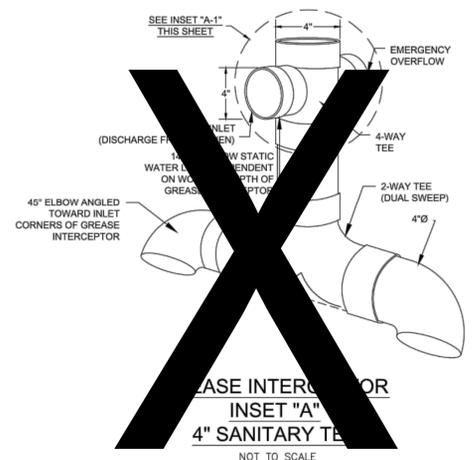


FIBERGLASS GREASE INTERCEPTOR
NOT TO SCALE

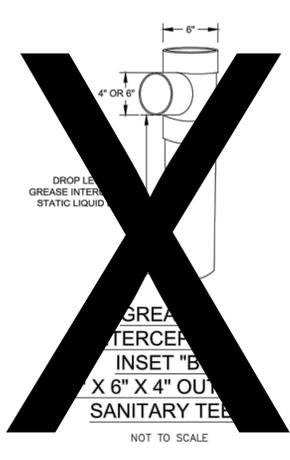
1. FOR GRAVITY APPLICATIONS ONLY
2. MIN. THICKNESS: 1/4\"/>



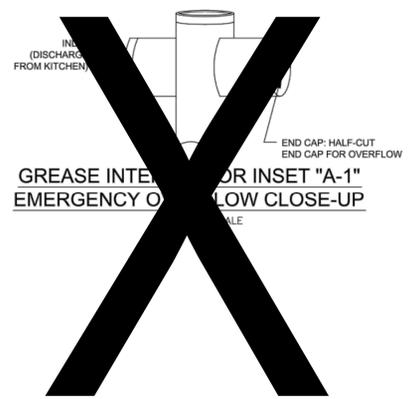
CONCRETE GREASE INTERCEPTOR
NOT TO SCALE



GREASE INTERCEPTOR FOR INSET 'A'
4\"/> NOT TO SCALE



GREASE INTERCEPTOR FOR INSET 'B'
6\"/> X 6\"/> X 4\"/> OUTLET SANITARY TEE
NOT TO SCALE



GREASE INTERCEPTOR FOR INSET 'A-1'
EMERGENCY OVERFLOW CLOSE-UP
NOT TO SCALE

GENERAL NOTES:

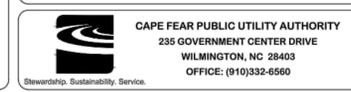
1. NO EXCAVATED MATERIAL SHALL BE PLACED IN ANY STREAM, DITCH OR DRAINAGE-WAY.
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THE DETAILS SHOWN HEREON SUPERCEDE CFPUA WRITTEN TECHNICAL SPECIFICATIONS VERSIONS 1.00 - 1.04

CFPUA SANITARY SEWER

DATE:	1/8/12
SCALE:	N/A
DRAWN BY:	CFPUA
CHECKED BY:	CFPUA
PROJECT NO.:	

STANDARD DETAILS



SHEET NO:
SSD-4

REV:	DESCRIPTION:	DATE:

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

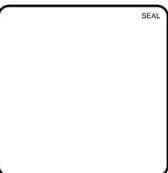
1 inch

Approved Construction Plan

Name _____	Date _____
Planning _____	
Traffic _____	
Fire _____	

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

REV. NO.	DESCRIPTIONS / REVISIONS	DATE
1	RESUBMITTED TRC PLANS FROM COMMENTS DATED DEC. 2014	01/20/15

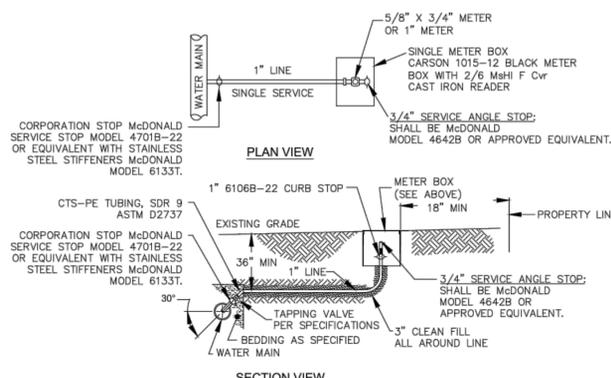


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SYMPHONY properties
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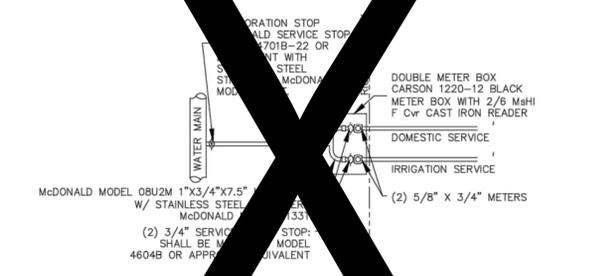
SAWMILL POINT APARTMENTS
1015 NUTT STREET
WILMINGTON, NORTH CAROLINA
SSD-4 CFPUA SANITARY SEWER DETAILS

DATE:	16 DEC 2014	SCALE:	N/A	MAC FILE NUMBER:	CU504
MCE PROJ. #	06586-0001	HORIZONTAL:	N/A	DRAWING NUMBER:	18
DRAWN BY:	TCM/RAC	VERTICAL:	N/A		
DESIGNED BY:	JBS/TCM/RAC				
CHECKED BY:	JBS/RMC				
PROJ. MGR.:	RMC				
STATUS:	FINAL DESIGN	REVISION:	1		
	NOT FOR CONSTRUCTION				

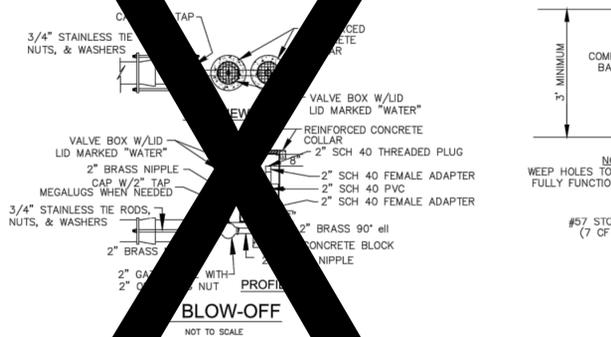


NOTES:
 1. NO JOINT SHALL BE INSTALLED BETWEEN THE MAIN SERVICE TAP AND THE METER STOP. ALL SERVICES SHALL BE INSTALLED PERPENDICULAR TO MAIN.
 2. SERVICE SADDLES ON PVC MAINS SHALL BE WIDE BAND BRASS BODY; SADDLE McDONALD 3801 OR EQUIVALENT.
 3. METER BOXES SUSCEPTIBLE TO TRAFFIC SHALL CONFORM TO ASTM A48, CLASS 30B AND AASHTO H20 LOAD RATING STANDARDS (SIP MODEL 4240 OR APPROVED EQUIVALENT)

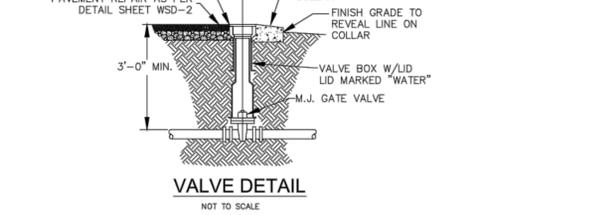
SINGLE SERVICE CONNECTION
 TYPICAL WATER SERVICE CONNECTION FOR RESIDENTIAL SINGLE FAMILY HOME ON CFPWA WATER SYSTEM
 NOT TO SCALE



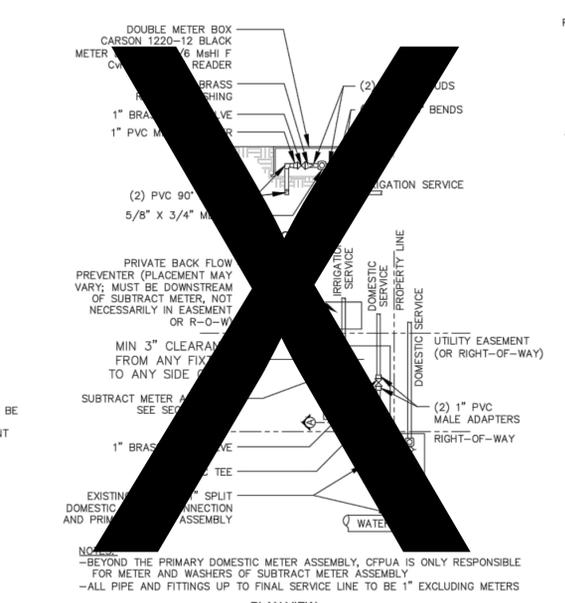
DOUBLE SERVICE CONNECTION
 TYPICAL WATER SERVICE CONNECTION FOR RESIDENTIAL SINGLE FAMILY HOME ON CFPWA WATER SYSTEM
 NOT TO SCALE



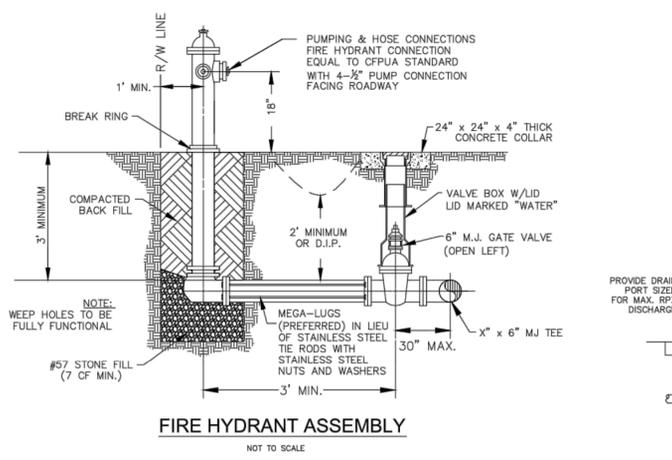
BLOW-OFF
 NOT TO SCALE



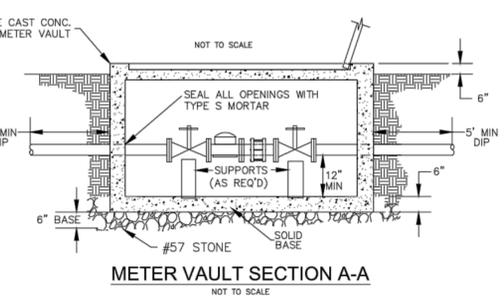
VALVE DETAIL
 NOT TO SCALE



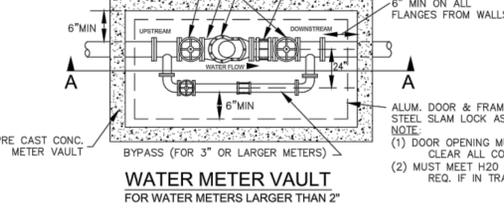
DOUBLE SERVICE CONNECTION USING SUBTRACT METER
 (MULTIPLE DOMESTIC SERVICES PER TAP)
 NOT TO SCALE



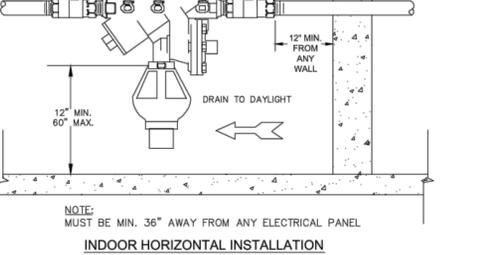
FIRE HYDRANT ASSEMBLY
 NOT TO SCALE



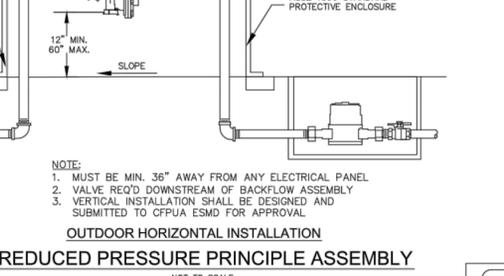
METER VAULT SECTION A-A
 NOT TO SCALE



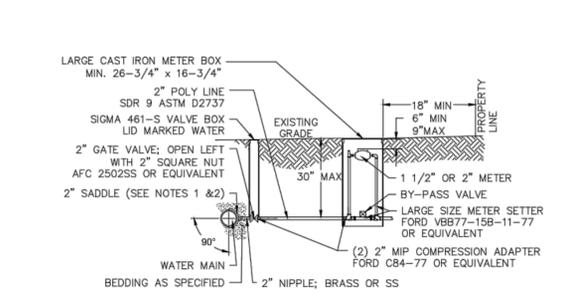
WATER METER VAULT
 FOR WATER METERS LARGER THAN 2"
 NOT TO SCALE



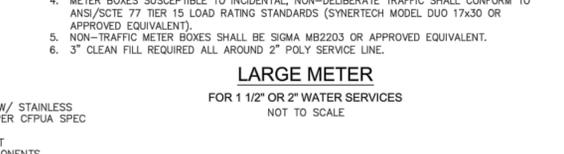
INDOOR HORIZONTAL INSTALLATION
 NOT TO SCALE



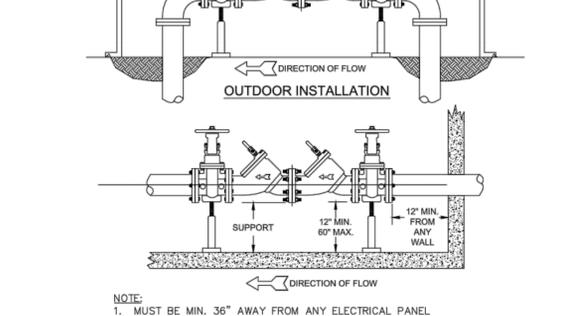
OUTDOOR HORIZONTAL INSTALLATION
 NOT TO SCALE



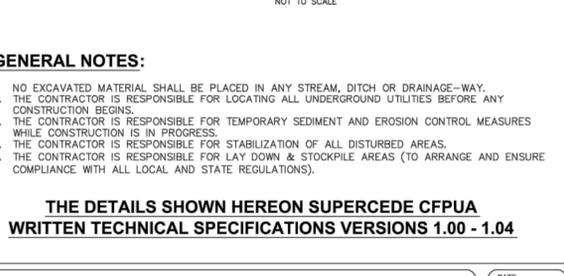
LARGE METER
 FOR 1 1/2" OR 2" WATER SERVICES
 NOT TO SCALE



DOUBLE CHECK VALVE ASSEMBLY
 NOT TO SCALE



INDOOR INSTALLATION
 NOT TO SCALE



REDUCED PRESSURE PRINCIPLE ASSEMBLY
 NOT TO SCALE

GENERAL NOTES:
 1. NO EXCAVATED MATERIAL SHALL BE PLACED IN ANY STREAM, DITCH OR DRAINAGE-WAY.
 2. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES BEFORE ANY CONSTRUCTION BEGINS.
 3. THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES WHILE CONSTRUCTION IS IN PROGRESS.
 4. THE CONTRACTOR IS RESPONSIBLE FOR STABILIZATION OF ALL DISTURBED AREAS.
 5. THE CONTRACTOR IS RESPONSIBLE FOR LAY DOWN & STOCKPILE AREAS (TO ARRANGE AND ENSURE COMPLIANCE WITH ALL LOCAL AND STATE REGULATIONS).

THE DETAILS SHOWN HEREON SUPERCEDE CFPWA WRITTEN TECHNICAL SPECIFICATIONS VERSIONS 1.00 - 1.04

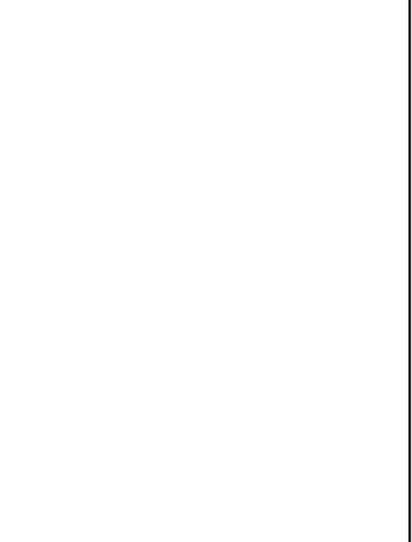
CFPWA WATER DISTRIBUTION SYSTEM

DATE: 1/9/12
 SCALE: N/A
 DRAWN BY: CFPWA
 CHECKED BY: CFPWA
 PROJECT NO.:

STANDARD DETAILS

CAPE FEAR PUBLIC UTILITY AUTHORITY
 235 GOVERNMENT CENTER DRIVE
 WILMINGTON, NC 28403
 OFFICE: (910)332-6560

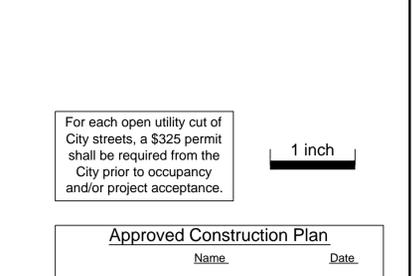
SHEET NO: WSD-1



DOUBLE SERVICE CONNECTION
 TYPICAL WATER SERVICE CONNECTION FOR RESIDENTIAL SINGLE FAMILY HOME ON CFPWA WATER SYSTEM
 NOT TO SCALE



INDOOR HORIZONTAL INSTALLATION
 NOT TO SCALE



OUTDOOR HORIZONTAL INSTALLATION
 NOT TO SCALE

GENERAL NOTES:
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THE DETAILS SHOWN HEREON SUPERCEDE CFPWA WRITTEN TECHNICAL SPECIFICATIONS VERSIONS 1.00 - 1.04

CFPWA WATER DISTRIBUTION SYSTEM

DATE: 1/9/12
 SCALE: N/A
 DRAWN BY: CFPWA
 CHECKED BY: CFPWA
 PROJECT NO.:

STANDARD DETAILS

CAPE FEAR PUBLIC UTILITY AUTHORITY
 235 GOVERNMENT CENTER DRIVE
 WILMINGTON, NC 28403
 OFFICE: (910)332-6560

SHEET NO: WSD-1

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: _____

STORMWATER MANAGEMENT PLAN APPROVED

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

REV. NO.	DESCRIPTIONS	DATE
1	RESUBMITTED TRC PLANS FROM COMMENTS DATED DEC. 2014	01/20/15



MCKIM & CREED

243 North Front Street
 Wilmington, NC 28401
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SYMPHONY properties
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SAWMILL POINT APARTMENTS
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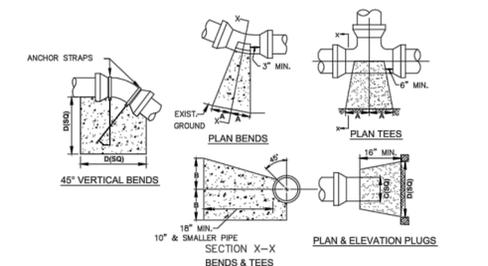
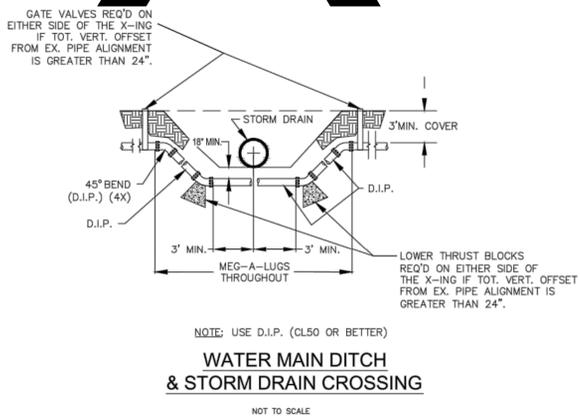
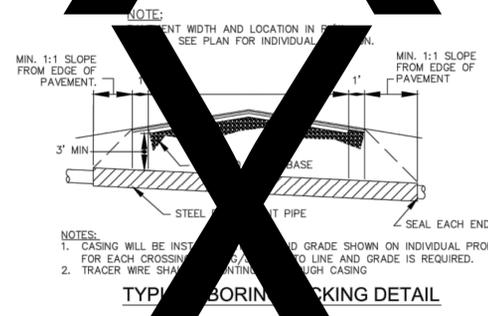
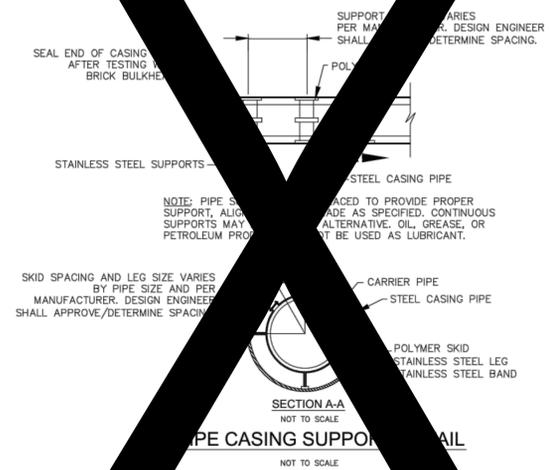
WSD-1 CFPWA WATER DISTRIBUTION DETAILS

DATE: 16 DEC 2014
 MCE PROJ. #: 06586-0001
 DRAWN: TCM/RAC
 DESIGNED: JBS/TCM/RAC
 CHECKED: JBS/RMC
 PROJ. MGR.: RMC

SCALE: HORIZONTAL: N/A VERTICAL: 1/8" = 1'-0"

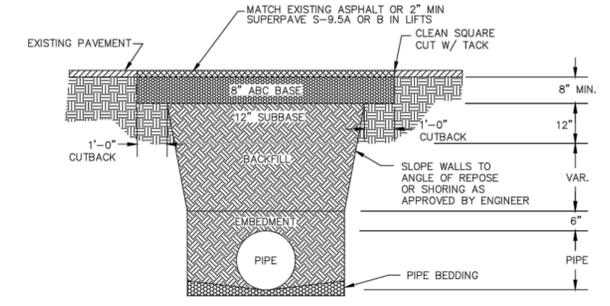
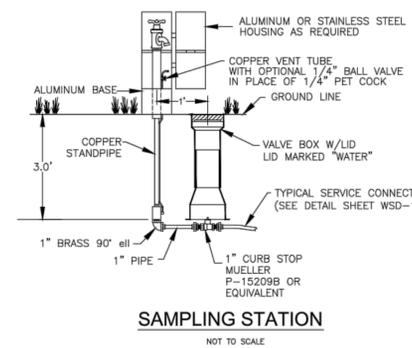
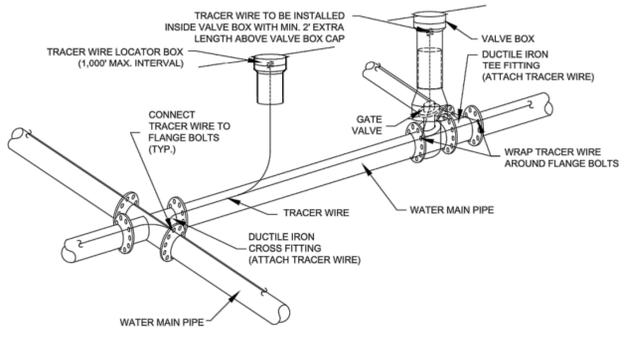
MAC FILE NUMBER: CU505
 REVISION: 19

STATUS: FINAL DESIGN NOT FOR CONSTRUCTION

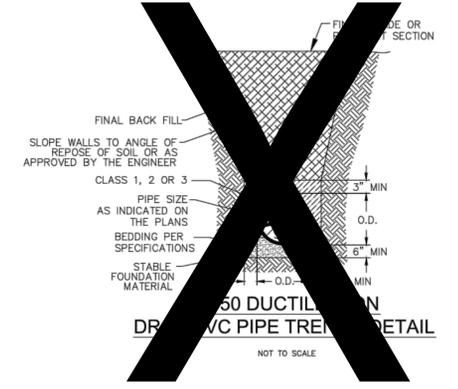


SIZE	90° BENDS		45° BENDS		22 1/2° BENDS		TEES/PLUGS		45° VERT. BENDS
	A	B	A	B	A	B	A	B	
3"	8"	6"	5"	6"	3"	7"	6"	8"	27"
4"	8"	9"	5"	8"	3"	11"	6"	9"	28"
6"	14"	11"	9"	9"	8"	8"	12"	9"	36"
8"	16"	16"	12"	12"	10"	13"	14"	13"	42"
10"	18"	22"	15"	14"	14"	16"	18"	15"	50"
12"	20"	28"	18"	17"	16"	16"	22"	18"	62"
14"	26"	29"	21"	19"	18"	18"	26"	20"	72"
16"	33"	29"	25"	21"	20"	21"	32"	21"	83"
18"	40"	30"	28"	24"	22"	23"	36"	24"	88"

- NOTES:
1. BASED ON 160 PSI TEST PRESSURE AND 2000 PSF SOIL BEARING CAPACITY.
2. ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED GROUND.
3. USE MEG-A-LUG (PREFERRED) IN LIEU OF BLOCKING AND RODDING.



- NOTES:
1. BACKFILL SHALL BE SUITABLE MATERIAL THAT IS FREE FROM HEAVY CLAY, GUMBOS, DEBRIS, ORGANICS AND LITTLE TO NO EXCESSIVE MOISTURE.
2. SELECT BACKFILL MAY BE SUBSTITUTED OR REQUIRED BY CITY TO ACHIEVE COMPACTION, (I.E. #57, ABC, CRUSHED LIMESTONE, CLEAN SAND, FLOWABLE FILL, ETC).
3. 8-INCH OF ABC BASE MATERIAL SHALL BE USED ON CITY STREETS.
4. BACKFILL AND BASE MATERIALS SHALL BE COMPACTED 12" MINIMUM LIFTS
5. SOIL SHALL BE COMPACTED BY A MECHANIZED TAMPER (I.E. JUMPING JACK), HOWEVER, VIBRATORY ROLLERS > 18" WIDTH MAY BE USED FOR LARGER EXCAVATIONS. THE PLATE TAMP METHOD SHALL NOT BE USED.
6. ALL APPROVED CASTINGS SHALL BE SET FLUSH TO GRADE AND SUPPORTED IF APPLICABLE.
7. ABC BASE AND SUBBASE COMPACTED TO 98% AND BACKFILL AND EMBEDMENT COMPACTED TO 90% AS DETERMINED BY THE MODIFIED PROCTOR AASHTO METHOD T-99
8. 1-FOOT CUTBACKS OF ASPHALT SHALL BE PREPARED ON UNDISTURBED SOIL. MINIMUM ASPHALT DENSITY IS 90%.



- GENERAL NOTES:**
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THE DETAILS SHOWN HEREON SUPERCEDE CFPUA WRITTEN TECHNICAL SPECIFICATIONS VERSIONS 1.00 - 1.04

CFPUA WATER DISTRIBUTION SYSTEM

DATE: 1/8/12
SCALE: N/A
DRAWN BY: CFPUA
CHECKED BY: CFPUA
PROJECT NO.:

STANDARD DETAILS

CAPE FEAR PUBLIC UTILITY AUTHORITY
235 GOVERNMENT CENTER DRIVE
WILMINGTON, NC 28403
OFFICE: (910)332-6560

SHEET NO: WSD-2

REV.	DESCRIPTION:	DATE:

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

Approved Construction Plan

Name _____ Date _____

Planning _____

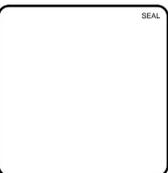
Traffic _____

Fire _____

STORMWATER MANAGEMENT PLAN APPROVED

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

REV. NO.	DESCRIPTIONS / REVISIONS	DATE
1	RESUBMITTED TRC PLANS FROM COMMENTS DATED DEC. 2014	01/20/15



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SAWMILL POINT APARTMENTS
1015 NUTT STREET
WILMINGTON, NORTH CAROLINA

WSD-2 CFPUA WATER DISTRIBUTION DETAILS

DATE: 16 DEC 2014
MCE PROJ. # 06586-0001
DRAWN: TCM/RAC
DESIGNED: JBS/TCM/RAC
CHECKED: JBS/RMC
PROJ. MGR.: RMC

SCALE: HORIZONTAL: N/A VERTICAL: 20

MAC FILE NUMBER: CU506
DRAWING NUMBER: 20

STATUS: FINAL DESIGN NOT FOR CONSTRUCTION
REVISION: 1

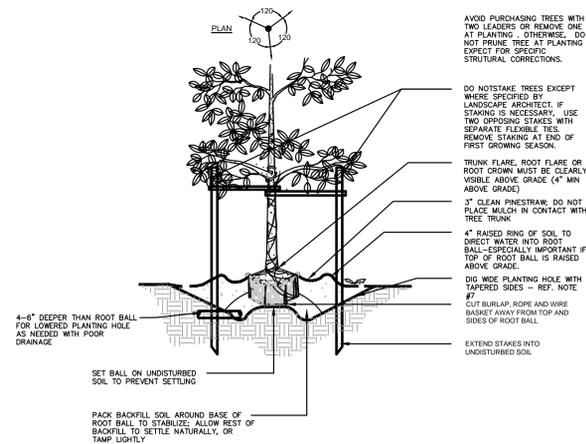
LANDSCAPING NOTES:

- ALL TREES TO BE A MINIMUM OF 2.5" IN CALIPER AND MUST MEET THE AMERICAN STANDARD FOR NURSERY STOCK.
- TREE PROTECTION NOTE:** PRIOR TO ANY CLEARING, GRADING, OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
- PURSUANT TO ARTICLE 8, SEC 18-196 CB, CENTRAL BUSINESS DISTRICT, E.1: NO SETBACKS/ BUFFERS REQUIRED EXCEPT WHERE ABUTTING A RESIDENTIAL DISTRICT.
- ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30'-10" [SEC. 18-966 COPW LDG]

DETAILS

NOTES:

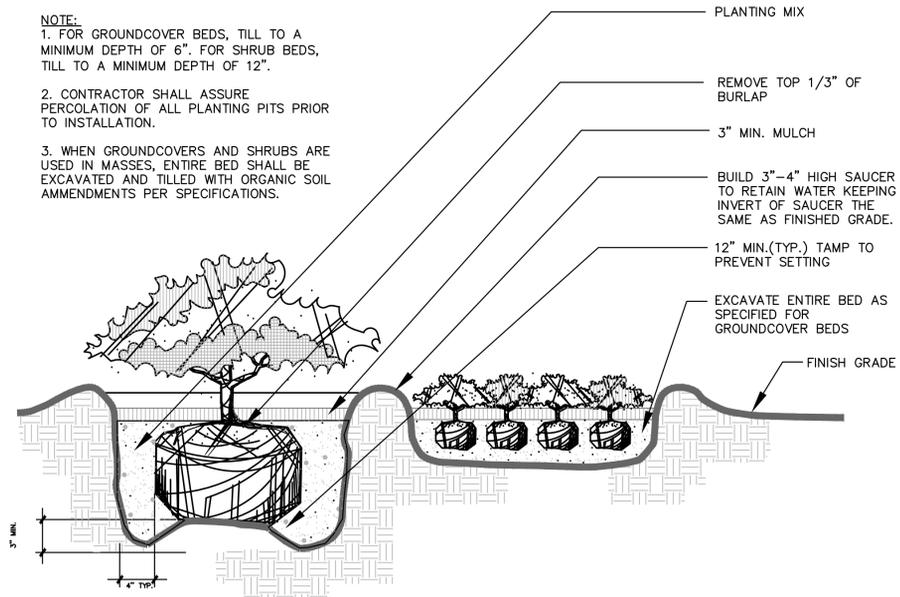
- PERFORM PERCOLATION TEST FOR EACH TREE PIT. PROVIDE GRAVEL SAND FILTER FABRIC & VENT PIPE IF DRAINAGE DOES NOT OCCUR WITHIN 24 HOURS. INCLUDE ALL Sumps IN BASE BID. SHOULD Sumps NOT BE NECESSARY AFTER PERCOLATION TEST, PROVIDE CHANGE ORDER DEDUCT TO OWNER.
- IF PLANTING HOLES ARE DIG WITH A LARGE AUGER BREAKING DOWN THE SIDES WITH A SHOVEL CAN ELIMINATE GLAZING AND CREATE THE PREFERRED SLOPING SIDE.
- WHERE SEVERAL TREES WILL BE PLANTED CLOSE TOGETHER SUCH THAT THEY WILL LIKELY SHARE ROOT SPACE, TILL IN SILE AMENDMENTS TO A DEPTH OF 4'-6" (10" SMALL OVER THEERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL. THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER.
- DURING THE DESIGN PHASE, CONFIRM THAT WATER DRAINS OUT OF THE SOIL. USE LOWERED PLANTING HOLE DEPTH AND DESIGN ALTERNATIVE DRAINAGE SYSTEM AS REQUIRED.
- THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
- THE PLANTING PROCESS IS SIMILAR FOR DECIDUOUS AND EVERGREEN TREES.
- DO NOT WRAP TRUNK; MARK NORTH SIDE OF TREE IN THE NURSERY AND LOCATE TO THE NORTH IN THE FIELD.
- WIDTH OF PLANTING HOLE IS 3X ROOT BALL DIAMETER IN HIGHLY COMPACTED OR CLAY SOIL. 2X THE ROOT BALL DIAMETER MINIMUM IN ALL OTHERS.
- BEFORE PLANTING, ADD 3"-4" OF WELL COMPOSTED LEAVES, RECYCLED YARD WASTE OR OTHER COMPOST AND TILL INTO TOP 6" OF PREPARED SOIL. ADD COMPOST AT 20-35% BY VOLUME TO BACKFILL.



1 LARGE TREE
SECTION/ELEVATION NOT TO SCALE

NOTE:

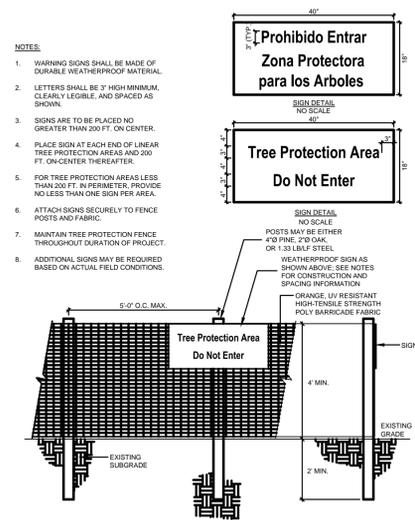
- FOR GROUNDCOVER BEDS, TILL TO A MINIMUM DEPTH OF 6". FOR SHRUB BEDS, TILL TO A MINIMUM DEPTH OF 12".
- CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING PITS PRIOR TO INSTALLATION.
- WHEN GROUNDCOVERS AND SHRUBS ARE USED IN MASSES, ENTIRE BED SHALL BE EXCAVATED AND FILLED WITH ORGANIC SOIL AMMENDMENTS PER SPECIFICATIONS.



3 SHRUB AND GROUNDCOVER
SECTION/ELEVATION NOT TO SCALE

NOTES:

- WARNING SIGNS SHALL BE MADE OF DURABLE WEATHERPROOF MATERIAL.
- LETTERS SHALL BE 3" HIGH MINIMUM, CLEARLY LEGIBLE, AND SPACED AS SHOWN.
- SIGNS ARE TO BE PLACED NO GREATER THAN 200 FT. ON CENTER.
- PLACE SIGN AT EACH END OF LINEAR TREE PROTECTION AREAS AND 200 FT. ON CENTER THEREAFTER.
- FOR TREE PROTECTION AREAS LESS THAN 200 FT. IN PERIMETER, PROVIDE NO LESS THAN ONE SIGN PER AREA.
- ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC.
- MAINTAIN TREE PROTECTION FENCE THROUGHOUT DURATION OF PROJECT.
- ADDITIONAL SIGNS MAY BE REQUIRED BASED ON ACTUAL FIELD CONDITIONS.

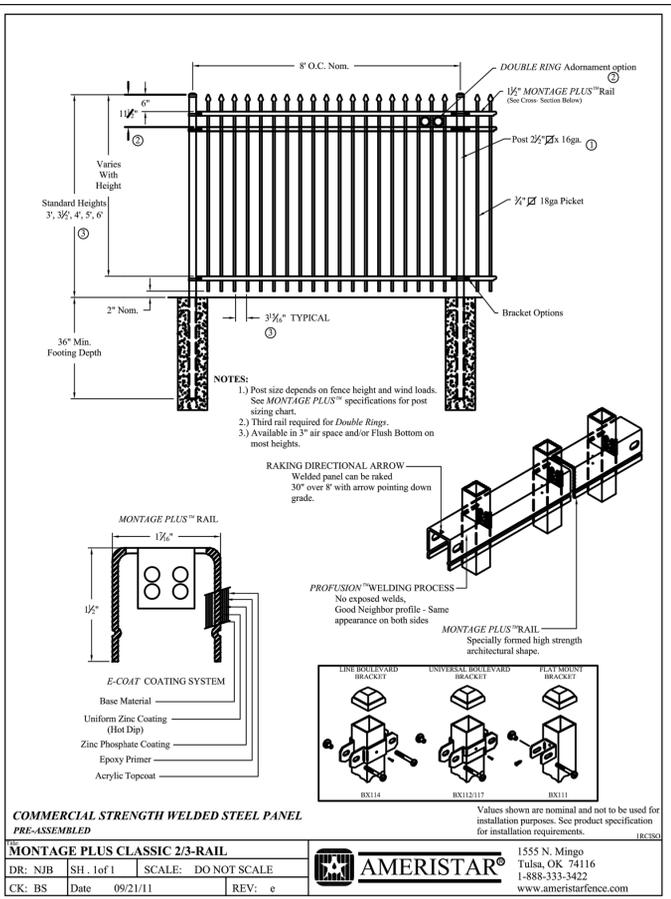


CLEARLY MARK THE TREE TO BE SAVED PRIOR TO CONSTRUCTION AND ERECT A PROTECTIVE BARRIER AT THE DRIP LINE. DO NOT COMPACT SOIL BENEATH TREES. NO VEHICLE SHALL BE ALLOWED TO PARK UNDER TREES. NO HEAVY MATERIALS SHALL BE STORED BENEATH TREES. RESULTS OF COMPACTION CAUSE WATER LANS ARE NOT TO REACH THE ROOTS AND THE TREE WILL DIE. THESE FLEETING ROOTS OCCUR WELL AWAY FROM THE BASE OF THE TREE TO THE OVERHEAD BRANCH CANOPY. DAMAGING THE BANK WITH LAWNMOWERS, CONSTRUCTION EQUIPMENT, OR ANYTHING ELSE IS PROHIBITED. THE PROTECTION BARRIER SHOULD PREVENT DAMAGE FROM OCCURRING DURING CONSTRUCTION.

TREE PROTECTION FENCE & SIGNAGE MUST BE IN PLACE PRIOR TO AND THROUGHOUT CONSTRUCTION ACTIVITIES. INITIAL TREE PROTECTION FENCE AROUND DRIPLINE OF THE EXISTING TREE.

2 TREE PROTECTION DETAIL
SECTION/ELEVATION

4 AMERISTAR SECURITY FENCE - 3' HEIGHT
SECTION/ELEVATION



COMMERCIAL STRENGTH WELDED STEEL PANEL PRE-ASSEMBLED

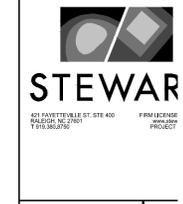
MONTAGE PLUS CLASSIC 2/3-RAIL

DR: NJB SH. 1 of 1 SCALE: DO NOT SCALE
CK: BS Date 09/21/11 REV: e

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1555 N. Mingo
Tulsa, OK 74116
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www.ameristarfence.com



HOUSIN STUDI
333 West Trade Street, Suite
Charlotte, NC 28202
T: 704.333.7862 F: 704.344



SAWMILL POINT
WILMINGTON, NORTH CAROLINA



NOT FOR CONSTRUCTION

Project No: 1321
Issue Date: 17 December
Issued For: 60% CD

Key Plan

LANDSCAPE DETA

L8.10