

CITY OF WILMINGTON  
NEW HANOVER COUNTY, NORTH CAROLINA  
**SAWMILL POINT**  
TRC SUBMITTAL  
JANUARY 22, 2014

**OWNER / DEVELOPER:**

SYMPHONY PROPERTIES, LLC  
103 TORREY PINES DRIVE  
CARY, NORTH CAROLINA 27513

**OWNER'S DESIGNATED REPRESENTATIVE:**

BLAIR M. BOOTH, PRESIDENT  
SYMPHONY PROPERTIES, LLC  
bbooth@symphony-properties.com  
(919) 349-8915

**PROJECT ENGINEER / REPRESENTATIVE:**

RICHARD A. CHRISTENSEN, PE  
MCKIM & CREED, INC.  
243 NORTH FRONT STREET  
WILMINGTON, NORTH CAROLINA 28401  
rchristensen@mckimcreed.com  
(910) 343-1048

**PROJECT ADDRESS:**

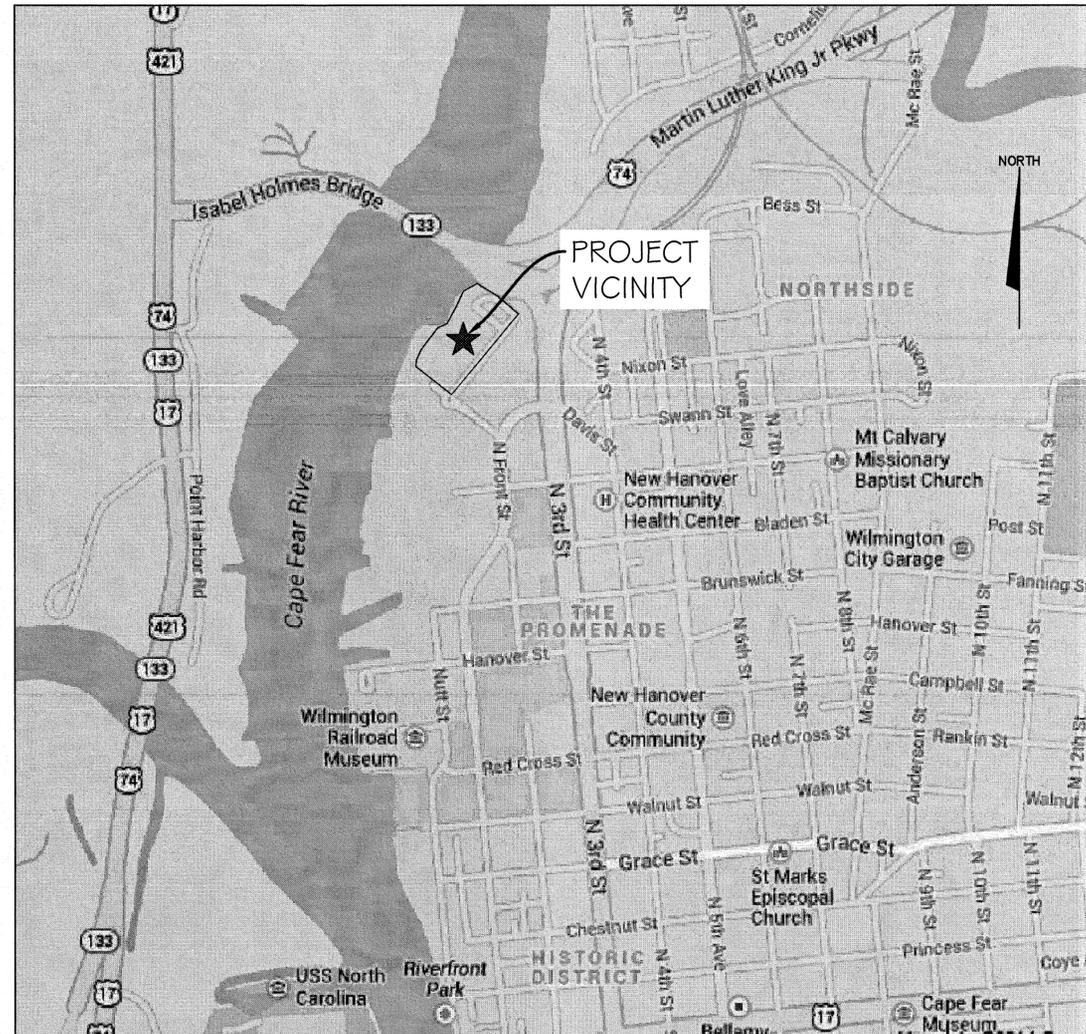
15 COWAN STREET  
WILMINGTON, NC 28401

**TAX PARCEL IDENTIFICATION NUMBER:**

R04712-002-003-000

**PROPERTY ZONING:**

CBD - CENTRAL BUSINESS DISTRICT



VICINITY MAP  
SCALE: 1" = 1000'

**SHEET INDEX - SAWMILL POINT**

SHEET #	FILE #	DESCRIPTION
1	G-001	COVER SHEET
2	G-002	GENERAL NOTES & LEGEND
3	CX-101	EXISTING CONDITIONS - SITE INVENTORY MAP
4	CE-101	SEDIMENT & EROSION CONTROL PLAN - STAGE 1
5	CD-101	DEMOLITION PLAN
6	CS-101	SITE PLAN
7	CG-101	GRADING PLAN
8	CG-102	STORM DRAINAGE PLAN
9	CG-502	STORMWATER MANAGEMENT DETAILS
10	CE-102	SEDIMENT & EROSION CONTROL PLAN - STAGE 2
11	CL-101	LANDSCAPE PLAN
12	CU-101	UTILITY PLAN
13	CS-501	SITE DETAILS
14	CS-502	SITE DETAILS
15	CE-501	SEDIMENT & EROSION CONTROL DETAILS
16	CG-501	STORM DRAINAGE AND GRADING DETAILS
17	CL-501	LANDSCAPE DETAILS
18	CU-501	SSD-1 CFPWA SANITARY SEWER DETAILS
19	CU-502	SSD-2 CFPWA SANITARY SEWER DETAILS
20	CU-503	SSD-3 CFPWA SANITARY SEWER DETAILS
21	CU-504	SSD-4 CFPWA SANITARY SEWER DETAILS
22	CU-505	WSD-1 CFPWA WATER DISTRIBUTION DETAILS
23	CU-506	WSD-2 CFPWA WATER DISTRIBUTION DETAILS

STORMWATER MANAGEMENT PLAN  
**APPROVED**  
CITY OF WILMINGTON  
ENGINEERING DEPARTMENT  
DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
SIGNED \_\_\_\_\_

Approved Construction Plan  
Name \_\_\_\_\_ Date \_\_\_\_\_  
Planning \_\_\_\_\_  
Traffic \_\_\_\_\_  
Fire \_\_\_\_\_



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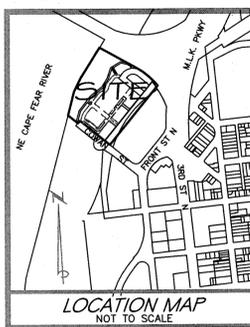


**PRELIMINARY PLANS  
NOT FOR CONSTRUCTION**

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**
- EXISTING IRON
  - SET IRON
  - EXISTING CONCRETE MONUMENT (CONTROL POINT)
  - △ RIGHT OF WAY MONUMENT
  - ▽ NO POINT SET OR FOUND
  - SET PK NAIL

- 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:**

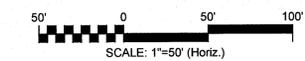
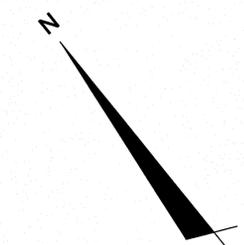
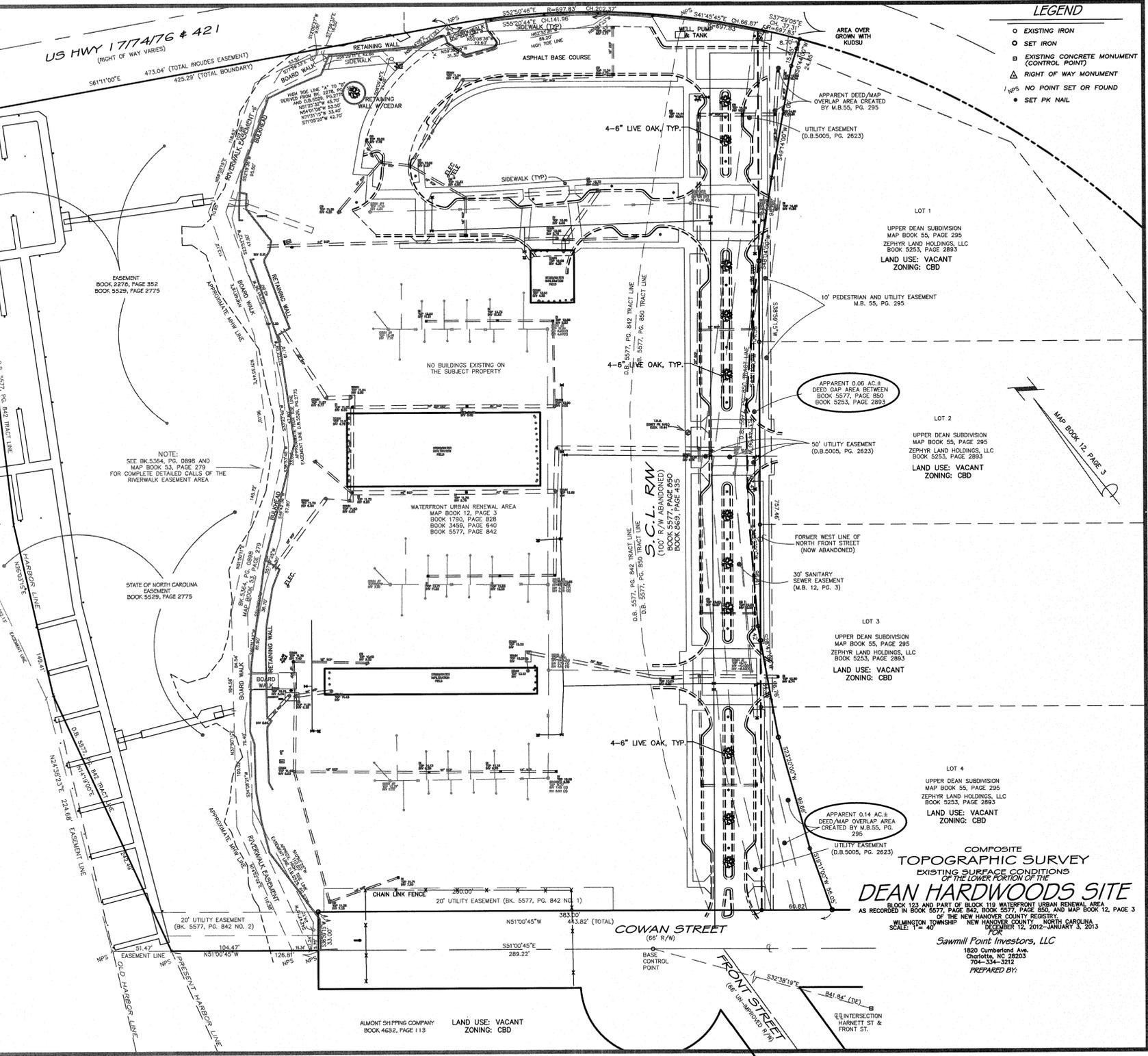
- TOTAL AREA = 11.13 AC.± (TO HARBOR LINE) (INCLUDING GAP) 0.12 AC.± (TO MH) (INCLUDING GAP)
- THIS TRACT IS LOCATED IN ZONE "AE" (EL 9') ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NUMBER 372031800 K DATED 6/2/06.
- UTILITIES SHOWN HEREON WERE LOCATED BY THIS FIRM AT VARIOUS TIMES. THERE ARE ADDITIONAL UNDERGROUND UTILITIES WHICH ARE NOT REFLECTED ON THIS SURVEY. CALL AN 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 28403-8209  
(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
0789 0494	(RAILROAD ROW, SUBJECT TRACT)
0869 0435	NOTICE OF RIGHTS OF WAY (LEGISLATIVE STATE HIGHWAY PROJECT 8.1355401 PLANS NOT PROVIDED)
1058 0832	DEED OF TRUST (IMPORT-EXPORT LUMBER - WILMINGTON INDUSTRIAL DEV., INC. (PARENT TRACTS))
1238 1186	EASEMENT (RIPARIAN EASEMENT FROM NCCDA)
2278 0352	DEED OF TRUST (DEANCO, INC. - BB&T (PARENT TRACTS))
2724 0780	DEED OF TRUST (DEANCO, INC. - BB&T (PORTION OF PARENT TRACT ET AL))
4581 0282	DEED OF TRUST (DEANCO, INC. - BB&T (PORTION OF PARENT TRACT ET AL))
4619 0214	DEED OF TRUST (DEANCO, INC. - BB&T (PORTION OF PARENT TRACT ET AL))
4890 0106	QUITCLAIM DEED (RAILROAD ROW, SUBJECT TRACT)
4979 0986	DEED OF TRUST (SFA) (PORTION OF SUBJECT PARENT TRACT)
5065 2823	C.O.W. STREET CLOSURE (RETAINS 80' EASEMENT)
5063 2390	WATERFRONT LAND HOLDINGS, LLC (ADJACENT)
5148 1071	EASEMENT TRANSFER "CAMA" (C.F. RIVER RIPARIAN EASEMENT FROM NCCDA (D.O.C. 43.35'))
5189 2048	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 0988	C.O.W. RIVERWALK EASEMENT
5364 0904	SUBORDINATION AGREEMENT (C.O.W. RIVERWALK EASEMENT)
5371 1108	DEVELOPMENT AGREEMENT (EXHIBITS NOT LEGIBLE)
5529 2775	EASEMENT MODIFICATION (MODIFIED RIPARIAN EASEMENT FROM NCCDA)
5540 1058	RESTRICTIVE COVENANT (STORM WATER RESTRICTIONS UPPER AND LOWER COWAN (AKA DEAN) TRACTS INCLUSIVE)
5253 2805	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 NCCDA)
5577 0863	ASSIGNMENT OF RIGHTS IN DEVELOPMENT AGREEMENT
5577 0869	ASSIGNMENT OF RIGHTS IN COST RECOVERY AGREEMENT
M.S. 795	
012 003	MAP OF WATERFRONT URBAN RENEWAL AREA
053 279	MAP OF RIVERWALK EASEMENT AREA
025 295	UPPER DEAN SUBDIVISION (ADJACENT TRACT)



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1 inch

**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 840, BOOK 5577, PAGE 850, AND MAP BOOK 12, PAGE 3 OF THE NEW HANOVER COUNTY REGISTRY.  
WILMINGTON TOWNSHIP, NEW HANOVER COUNTY, NORTH CAROLINA  
SCALE: 1"=40'  
FOR  
Sawmill Point Investors, LLC  
1820 Cumberland Ave.  
Charlotte, NC 28203  
704-334-3212  
PREPARED BY:

**Approved Construction Plan**

Name \_\_\_\_\_ Date \_\_\_\_\_

Planning \_\_\_\_\_

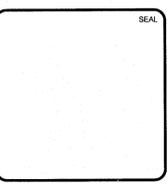
Traffic \_\_\_\_\_

Fire \_\_\_\_\_

**STORMWATER MANAGEMENT PLAN APPROVED**

CITY OF WILMINGTON  
ENGINEERING DEPARTMENT  
DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
SIGNED \_\_\_\_\_

REV. NO.	DESCRIPTIONS	DATE



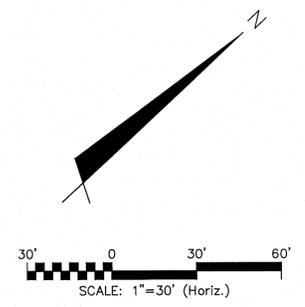
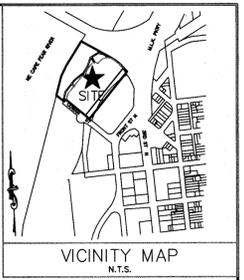
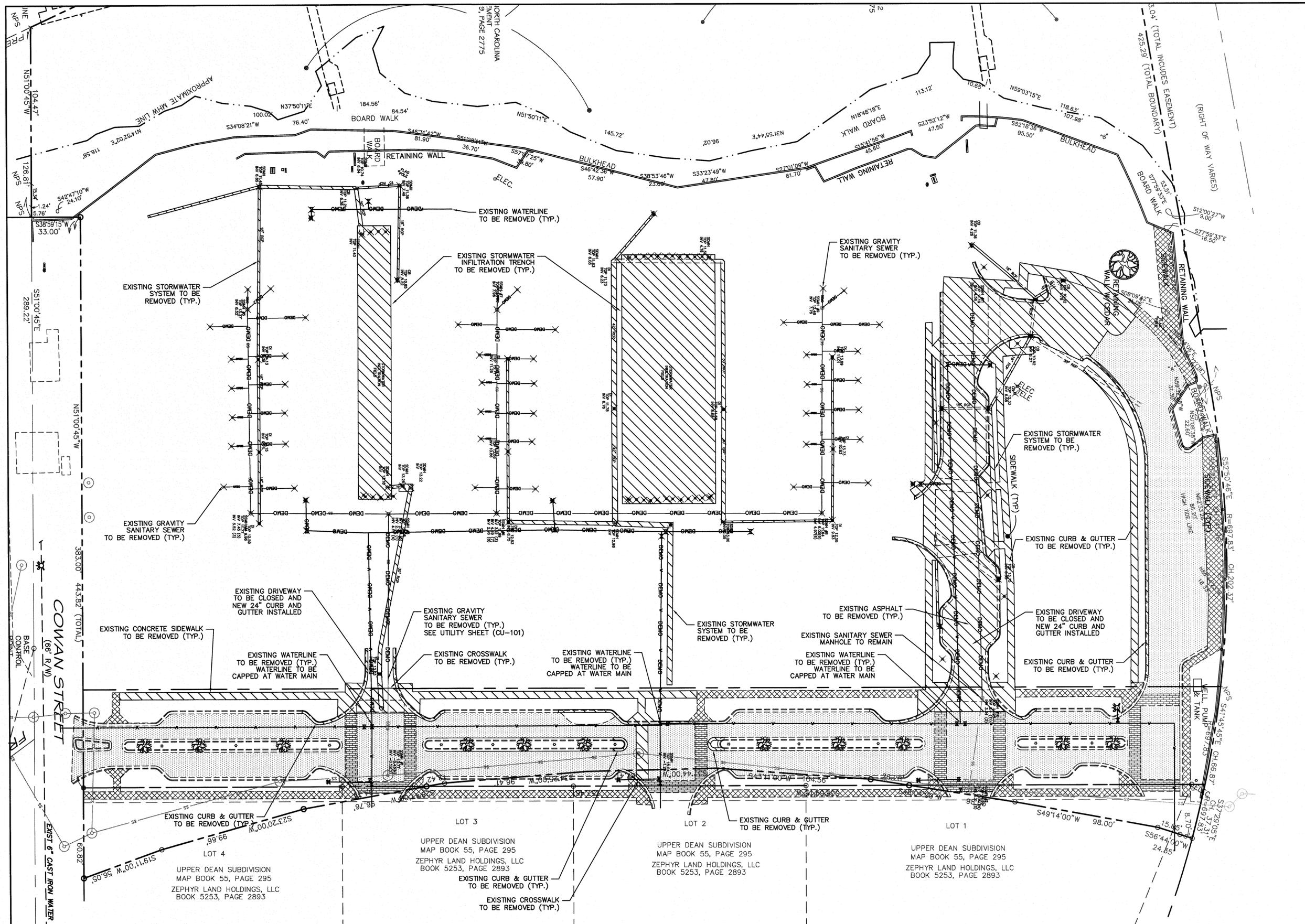
**MCKIM & CREED**  
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Phone: (910) 343-1048, Fax: (910) 251-8282  
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**SYMPHONY properties**  
Orchestrating REAL Solutions

**SAWMILL POINT**  
15 COWAN STREET  
WILMINGTON, NORTH CAROLINA

**EXISTING CONDITIONS SITE INVENTORY MAP**

DATE: 22 JAN 14	SCALE: HORIZONTAL: 1"=50'	MFC FILE NUMBER: CX101
MCE PROJ. #: 06586-0001	DESIGNED: TCM/RAC	DRAWING NUMBER: 3
DRAWN: TCM/RAC	CHECKED: RMC	
DESIGNED: TCM/RAC	PROJ. MGR.: RMC	
STATUS: PRELIMINARY PLANS NOT FOR CONSTRUCTION	REVISION:	



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1 inch

**Approved Construction Plan**

Name	Date
Planning	
Traffic	
Fire	

**STORMWATER MANAGEMENT PLAN APPROVED**  
 CITY OF WILMINGTON  
 ENGINEERING DEPARTMENT  
 DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
 SIGNED \_\_\_\_\_

REVNO	DESCRIPTIONS	DATE



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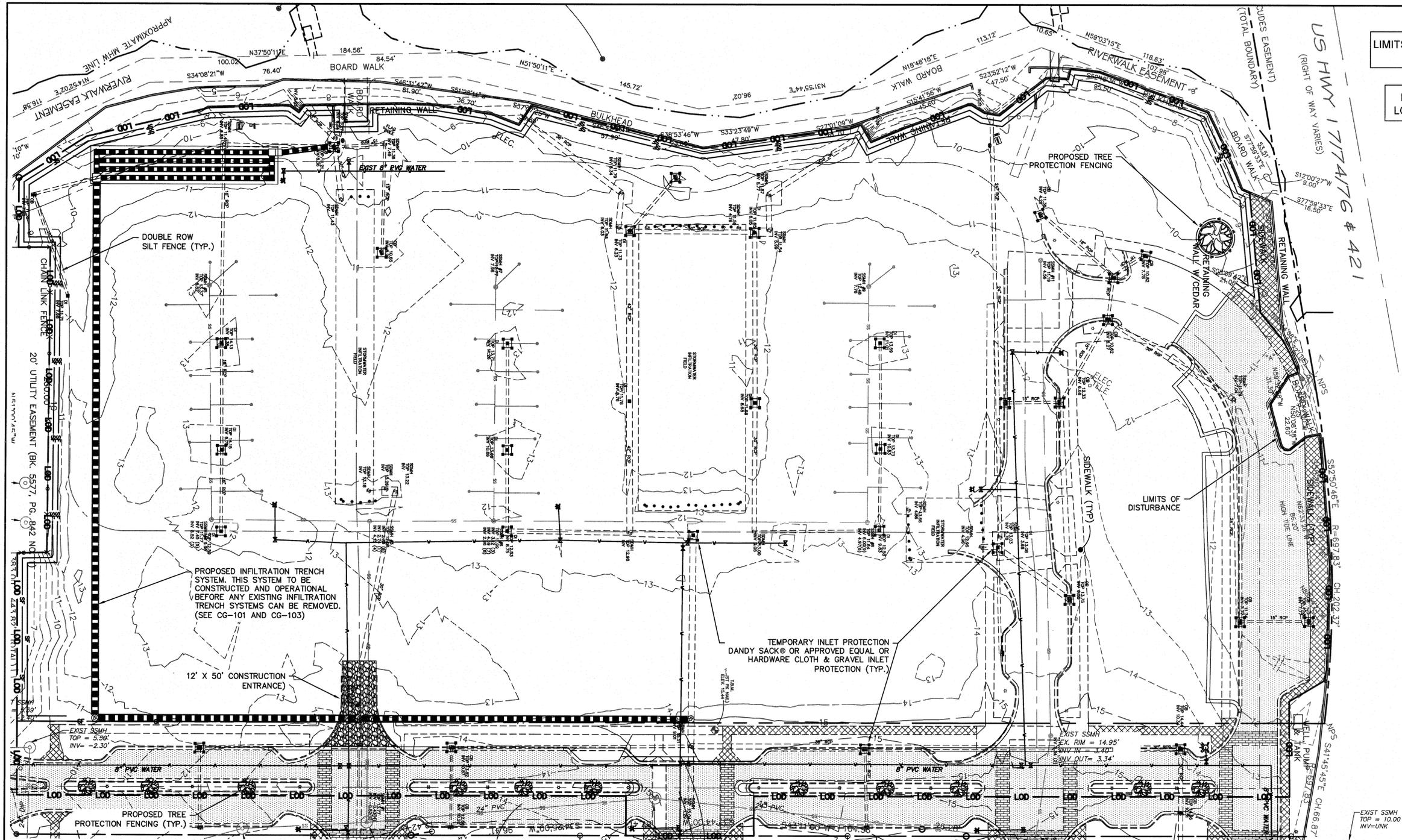
**SYMPHONY properties**  
 Orchestrating REAL Solutions

**SAWMILL POINT**  
 15 COWAN STREET  
 WILMINGTON, NORTH CAROLINA  
**DEMOLITION PLAN**

DATE: 22 JAN 14	SCALE: 1"=30'	M&C FILE NUMBER: CD101
MCE PROJ.#: 06586-0001	HORIZONTAL: 1"=30'	DRAWING NUMBER: 5
DRAWN: TCM/RAC	VERTICAL:	
DESIGNED: TCM/RAC		
CHECKED: RMC		
PROJ. MGR: RMC		

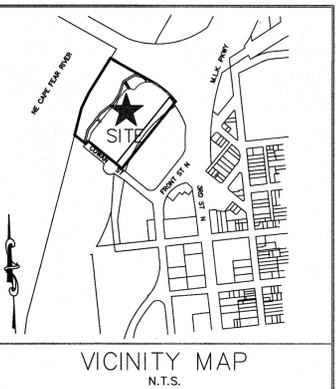
STATUS: PRELIMINARY PLANS  
 NOT FOR CONSTRUCTION

S:\6586\0001\60-Drawing\CD101\_6586-0001.dwg, 1/21/2014 4:35:44 PM, rcozler



LIMITS OF DISTURBANCE = 6.75 AC

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



**CONSTRUCTION SEQUENCE:**

**PHASE 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 TREE PROTECTION FENCING AND SILT FENCING AS NOTED ON PLANS BEFORE COMMENCING ANY LAND DISTURBANCE ACTIVITY. ADDITIONAL TREE PROTECTION FENCING AND SILT FENCING MAY BE REQUIRED.
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 STORMDRAIN SYSTEM(S) SHALL NOT COMMENCE UNTIL PROPOSED STORMDRAIN SYSTEM 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 CN-501). 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 (CG-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 CE-501 FOR GROUND STABILIZATION CRITERIA AND SEEDING SCHEDULE.

**NOTE COW(18-458)**

NO EQUIPMENT IS ALLOWED ONSITE 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.

**EROSION CONTROL NOTES:**

1. ANY GRADING BEYOND THE DENIED LIMITS SHOWN ON THE PLAN IS A VIOLATION OF THE COUNTY EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE. LIMITS OF DISTURBANCE 6.75 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 SLOPE THAT ANTICIPATES THE DISTURBANCE OF MORE THAN 1 CUMULATIVE ACRE WILL BE REQUIRED TO GET AN EROSION CONTROL PERMIT FROM NEW HANOVER COUNTY.
3. GROUND COVER MUST BE PROVIDED ON EXPOSED SLOPES WITHIN 21 CALENDAR DAYS FOLLOWING COMPLETION OF ANY PHASE OF GRADING. ALL OTHER AREAS SHOULD BE STABILIZED WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS, WHICHEVER IS SHORTER, AFTER ANY PHASE OF ACTIVITY.
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. IF ACTIVE CONSTRUCTION CEASES IN ANY AREA FOR MORE THAN 15 WORKING DAYS, ALL DISTURBED AREAS MUST BE SEEDED, MULCHED, AND TACKED UNLESS WRITTEN APPROVAL IS GRANTED BY THE EROSION CONTROL OFFICER.
8. WITHIN 24 HOURS FOLLOWING ANY RAIN EVENT, THE CONTRACTOR SHALL INSPECT AND REPAIR, AS NECESSARY, ALL DAMAGED EROSION CONTROL MEASURES.
9. ALL ACTIVITY AND INSTALLATION OF EROSION CONTROL MATTING WILL BE COMPLETE PRIOR TO ANY RAIN EVENT.

**EROSION CONTROL MAINTENANCE PLAN:**

1. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED AND REPAIRED, AS NECESSARY, EVERY SEVEN (7) DAYS OR AFTER EACH RAINFALL OCCURRENCE THAT EXCEEDS ONE-HALF (0.5) INCH.
2. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.
3. SEDIMENT SHALL BE REMOVED FROM BEHIND THE SILT FENCE WHEN IT BECOMES ABOUT 0.5 FEET DEEP. THE SEDIMENT FENCE WILL BE REPAIRED OR REPLACED AS NECESSARY TO MAINTAIN A BARRIER.
4. ALL AREAS WILL BE FERTILIZED, RESEED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
5. STONE CONSTRUCTION ENTRANCE TO BE CLEANED WHEN SEDIMENT ACCUMULATIONS ARE VISIBLE OR SEDIMENT IS TRACKED ON TO THE PAVEMENT. STONE WILL BE PERIODICALLY TOP DRESSED WITH 2 INCHES OF #4 STONE TO MAINTAIN 6 INCH DEPTH. THE CONTRACTOR SHALL DAILY REMOVE MUD/SOL FROM PAVEMENT, AS REQUIRED.
6. INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (0.5" OR GREATER) RAINFALL EVENT. CLEAR THE MESH WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED. INLET PROTECTION SHOULD BE CLEANED OUT WHEN IT IS HALF FULL.

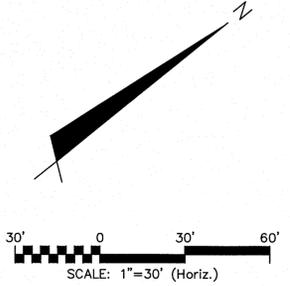
**TREE PROTECTION NOTES:**

1. NO LAND DISTURBANCE INCLUDING TREE REMOVAL IS TO OCCUR OUTSIDE THE LIMITS OF DISTURBANCE SHOWN ON THE PLANS. [18-457(b)]
2. PROTECTIVE FENCING IS TO BE PROPERLY MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT. [18-458]
3. LAND CLEARING AND CONSTRUCTION CONTRACTORS SHALL RECEIVE ADEQUATE INSTRUCTION ON TREE PROTECTION REQUIREMENTS AND METHODS. [18-457(d)]
4. ANY TREES AND/OR AREAS DESIGNATED TO BE PROTECTED MUST PROPERLY BARRICADED WITH FENCING AND PROTECTED THROUGHOUT CONSTRUCTION TO INSURE THAT NO CLEARING AND GRADING OR STAGING OF MATERIALS WILL OCCUR IN THOSE AREAS. [18-458]
5. NO EQUIPMENT IS ALLOWED ON THE SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING HAS BEEN INSTALLED AND APPROVED. [18-458]
6. REGULATED AND SIGNIFICANT TREES IN THE STREET YARD [18-456(g)] AND ANY TREES IN ANY REQUIRED BUFFERS [18-456(b)] ARE REQUIRED TO BE RETAINED.

STORMWATER MANAGEMENT PLAN  
**APPROVED**  
CITY OF WILMINGTON  
ENGINEERING DEPARTMENT  
DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
SIGNED \_\_\_\_\_

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1 inch



Approved Construction Plan	
Name	Date
Planning	
Traffic	
Fire	

REV. NO.	DESCRIPTIONS	DATE

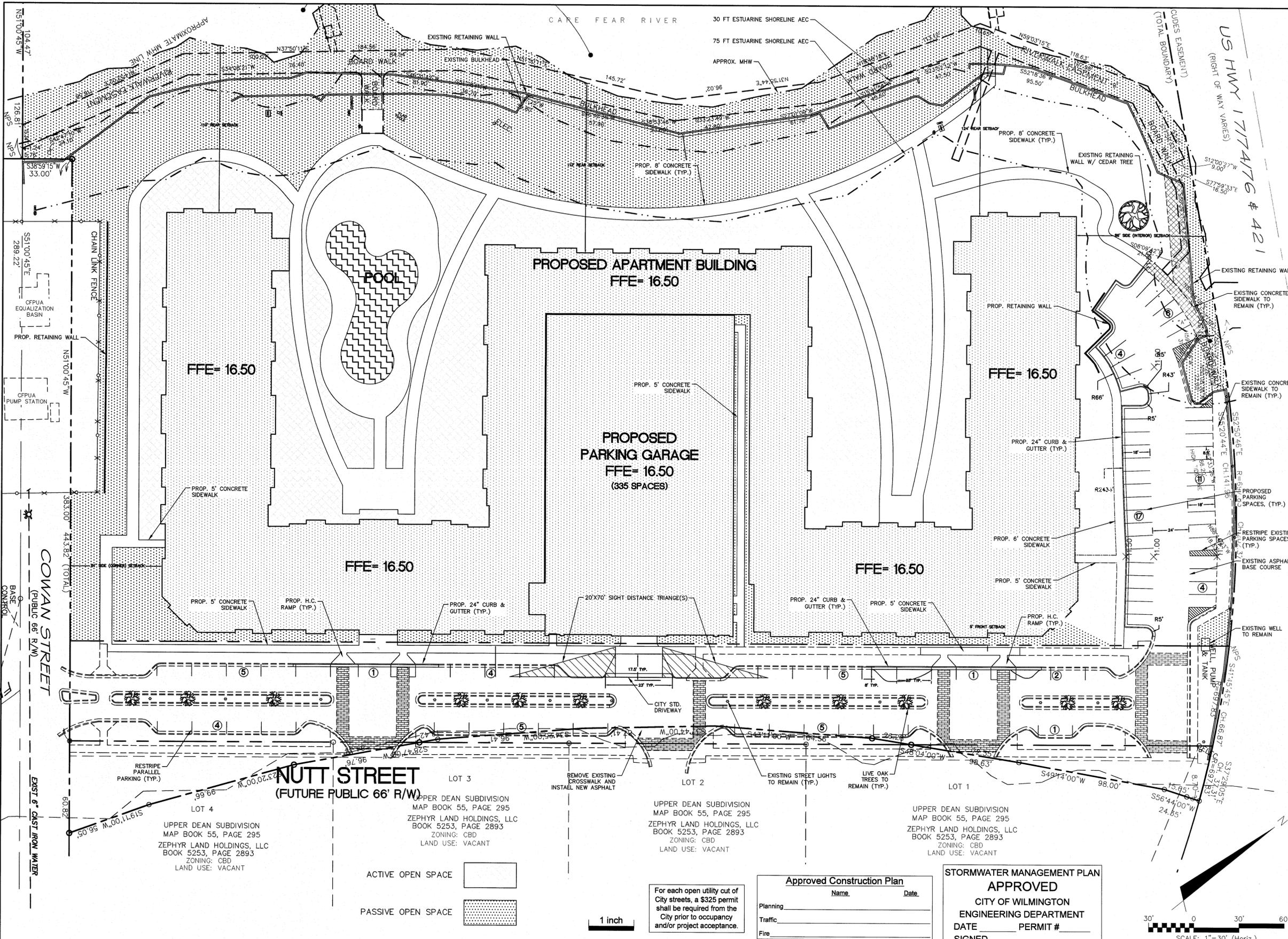


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**SYMPHONY properties**  
Orchestrating REAL Solutions

SAWMILL POINT  
15 COWAN STREET  
WILMINGTON, NORTH CAROLINA  
**SEDIMENT & EROSION CONTROL  
STAGE 1**

DATE: 22 JAN 14	SCALE: HORIZONTAL: 1"=30'	M/C FILE NUMBER: CE101
MCE PROJ # 06598-0001	VERTICAL:	DRAWING NUMBER: 4
DRAWN: TCM/RAC		
DESIGNED: TCM/RAC		
CHECKED: RMC		
PROJ. MGR: RMC		
STATUS: PRELIMINARY PLANS NOT FOR CONSTRUCTION		



SITE DATA TABLE		SAWMILL POINT	
PARCEL ADDRESS	15 COWAN DRIVE		
BUILDING SETBACKS	REQUIRED	PROPOSED	
FRONT	ON R/W OR WITHIN 5'	WITHIN 5'	
REAR	0	110', 112', 124'	
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 PROJECT BOUNDARIES (TO MHW)	8.12 ACRES (353,707 SF)		
BUILDING SIZE WITH SQUARE FOOTAGE	330,448 GROSS SF		
NC BUILDING CODE CONSTRUCTION TYPE	VA		
BUILDING LOT COVERAGE	23.40%		
NUMBER OF UNITS	278		
NUMBER OF BUILDINGS	1		
BUILDING HEIGHT	55'		
NUMBER OF STORIES & SQUARE FEET PER FLOOR	4 STORIES - 82,612 SF/FLOOR		
TOTAL AMOUNT OF DISTURBED AREA	13.31 ACRES (579,611 SF)		
CAMA LAND USE CLASSIFICATION	URBAN		
EXISTING IMPERVIOUS AREA	90,680 SF (25.6%)		
<b>IMPERVIOUS AREA (PROPOSED)</b>			
ROOF TOPS	82,650	SF	
ROADWAYS	0	SF	
PARKING	40,920	SF	
SIDEWALKS	30,060	SF	
OFF-SITE IMPERVIOUS (WITHIN PROPOSED PUBLIC R/W)	0	SF	
TOTAL S.F. (ONSITE IMPERVIOUS AREA)	153,630	SF	
PERCENTAGE (ONSITE IMPERVIOUS AREA/ONSITE AREA)	43.40	%	
<b>OPEN SPACE CALCULATIONS</b>			
TRACT AREA	353,707	SF	
REQUIRED OPEN SPACE (35% OF TRACT AREA)	123,797	SF	
ACTIVE OPEN SPACE	66,638	SF	
PASSIVE OPEN SPACE	66,554	SF	
TOTAL OPEN SPACE PROVIDED	133,192	SF (37.7%)	
<b>PARKING CALCULATIONS</b>			
PROPOSED USE:	MULTI-FAMILY		
MINIMUM NUMBER OF SPACES REQUIRED	417		
MAXIMUM NUMBER OF SPACES REQUIRED	695		
TOTAL SPACES PROVIDED	427 (1.54 SPACES PER UNIT)		
SURFACE PARKING PROVIDED	42 SPACES		
PARKING DECK SPACES PROVIDED	335 SPACES		
SPACES PROVIDED ON NUTT STREET	50 SPACES		
ACCESSIBLE SPACES REQUIRED	11		
ACCESSIBLE SPACES IN PARKING DECK	9		
ACCESSIBLE SPACES IN SURFACE LOT	2		
ACCESSIBLE SPACES PROVIDED	11 (4 VAN)		
BICYCLE SPACES PROVIDED (5 PER 100 SPACES)	21		

REV. NO.	DESCRIPTIONS	DATE



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 Wilmington, NC 28401  
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**SYMPHONY properties**  
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**SAWMILL POINT**  
 15 COWAN STREET  
 WILMINGTON, NORTH CAROLINA  
**SITE PLAN**

DATE: 22 JAN 14  
 MCE PROJ #: 06598-0001  
 DRAWN: TCM/RAC  
 DESIGNED: TCM/RAC  
 CHECKED: RMC  
 PROJ MGR: RMC

SCALE: 1"=30'  
 HORIZONTAL: 1"=30'  
 VERTICAL: 1"=30'

MFC FILE NUMBER: CS101  
 DRAWING NUMBER: 6

STATUS: PRELIMINARY PLANS  
 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 \_\_\_\_\_

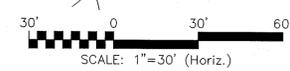
Planning \_\_\_\_\_

Traffic \_\_\_\_\_

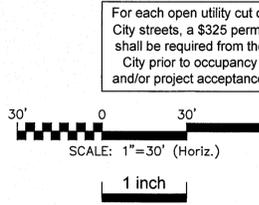
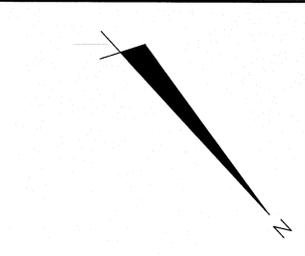
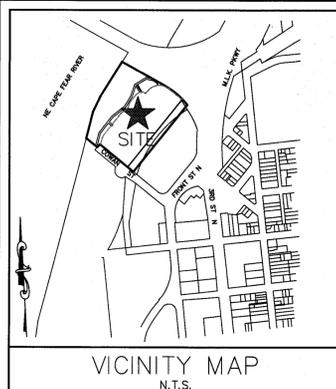
Fire \_\_\_\_\_

**STORMWATER MANAGEMENT PLAN APPROVED**

CITY OF WILMINGTON  
 ENGINEERING DEPARTMENT  
 DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
 SIGNED \_\_\_\_\_



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



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 \_\_\_\_\_

- LEGEND**
- EXISTING CONTOUR
  - PROPOSED CONTOUR
  - STORM DRAINAGE PIPE
  - BUILDING ROOF OUTLINE
  - STORM DRAINAGE MANHOLE
  - STORM DRAINAGE CATCH BASIN
  - SPOT ELEVATION (TOP OF CURB)

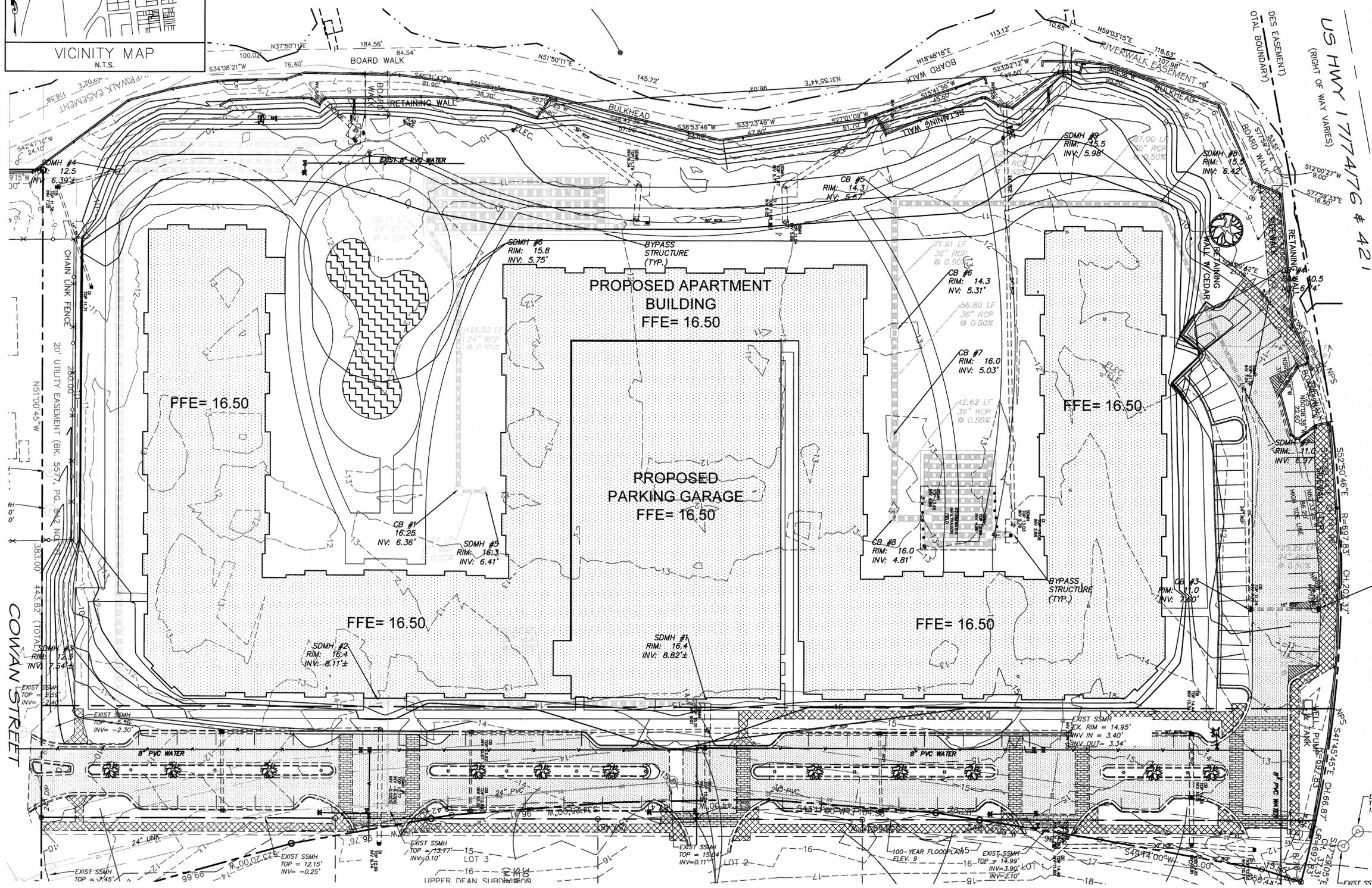
- STORM DRAINAGE AND GRADING NOTES:**
- IN ACCORDANCE WITH NC GENERAL STATUTES, NPDES REGULATIONS, AND NHC REQUIREMENTS, STORMWATER DISCHARGE OUTFALLS SHALL BE INSPECTED BY THE CONTRACTOR. INSPECTIONS SHALL BE PERFORMED BY THE CONTRACTOR AFTER EACH STORM EVENT OF 1/2 INCH OR GREATER, WITH ONE WEEKLY INSPECTION MINIMUM. NCEENR STANDARD INSPECTION REPORTS SHALL BE PREPARED AND SIGNED WITH COPIES PROVIDED TO THE OWNER, ARCHITECT, AND ENGINEER, BY THE CONTRACTOR.
  - INLET PROTECTION SHALL BE INSTALLED AROUND ALL STORM INLETS WITHIN THE LIMITS OF DISTURBANCE. STRUCTURES SHALL BE CONSTRUCTED TO FINAL PROPOSED CONDITION UPON STABILIZATION OF CONTRIBUTING GROUND SURFACES AND REMOVAL OF SEDIMENT FROM STORM PIPES.
  - SEDIMENT / EROSION DEVICES SHALL BE CHECKED BY THE CONTRACTOR DAILY. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF THE CAPACITY OF THE DEVICE.
  - ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ARCHITECT IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO CONTRACTOR FOR ANY WORK DONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
  - UNLESS OTHERWISE NOTED, GRADES AND SPOT ELEVATIONS NOTED ON PLANS INDICATE FINISHED GRADE OR PAVEMENT SURFACE. ALL DIMENSIONS ARE MEASURED TO THE BACK OF CURB UNLESS OTHERWISE INDICATED.
  - WHEN HAND SEEDING, MULCH (HAY OR STRAW) SHOULD BE UNIFORMLY SPREAD AND TACKED OVER SEEDED AREA WITHIN 24 HOURS OF SEEDING.
  - DURING UNSUITABLE GROWING SEASONS, MULCH WILL BE USED AS A TEMPORARY COVER ON SLOPES THAT ARE 4:1 OR STEEPER, MULCH WILL BE ANCHORED.
  - NO LAND DISTURBANCE, INCLUDING TREE REMOVAL, IS TO OCCUR OUTSIDE THE LIMITS SHOWN.

- STORM DRAINAGE NOTES:**
- ALL PIPE BEDDING SHALL BE CLASS "C" UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
  - ALL STORM DRAINAGE PIPES SHALL BE RCP CLASS III UNLESS OTHERWISE NOTED ON THE PLANS.
  - DO NOT PLANT TREES WITHIN UTILITY AND DRAINAGE EASEMENTS.
  - THE ENGINEER AND THE CONTRACTOR SHALL INSPECT ALL EXISTING PIPES USED IN THE FINAL DRAINAGE SYSTEM AND AGREE ON THE CONDITION OF THE PIPES PRIOR TO CONSTRUCTION. IF DAMAGE OCCURS TO THESE PIPES DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF THE PIPE(S).
  - THE CONTRACTOR SHALL CONTACT ONECALL BEFORE COMMENCING ANY WORK. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES WHETHER INDICATED ON THE DRAWINGS OR NOT. THE CONTRACTOR WILL ASSURE THE PRESENCE ONSITE OF A REPRESENTATIVE OF THE GAS COMPANY WHEN WORKING IN THE VICINITY OF ANY GAS MAINS.

- 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 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
  - IF THE CONTRACTOR DESIRES WATER FOR CONSTRUCTION HE SHALL APPLY WITH THE CPWA 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.
  - THE NUMBER AND SPACING OF DRIVEWAYS FOR ALL INTERCONNECTED SITES WILL BE DETERMINED BY THE COMBINED FRONTAGE OF THE INTERCONNECTED PROPERTIES.
  - CONTACT TRAFFIC ENGINEERING TO ENSURE THAT ALL TRAFFIC SIGNAL FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN. CALL TRAFFIC ENGINEERING FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
  - TACTILE WARNING MATS ARE TO BE INSTALLED ON ALL WHEELCHAIR RAMPS.

**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.

**NOTE COW(18-458)**  
NO EQUIPMENT IS ALLOWED ONSITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING HAS BEEN INSTALLED AND APPROVED BY LANDSCAPE ARCHITECT.



REV NO	DESCRIPTIONS	REVISIONS	DATE



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**SYMPHONY properties**  
Orchestrating REAL Solutions

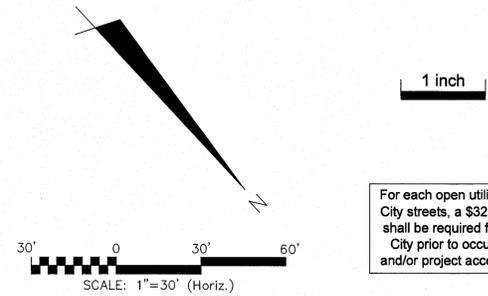
**SAWMILL POINT**  
15 COWAN STREET  
WILMINGTON, NORTH CAROLINA

**GRADING PLAN**

DATE: 22 JAN 14	SCALE: HORIZONTAL: 1"=30'	MFC FILE NUMBER: CG101
MCE PROJ #: 06586-0001	VERTICAL: 1"=30'	DRAWING NUMBER: 7
DRAWN: TCM/RAC	DESIGNED: TCM/RAC	CHECKED: RMC
PROJ. MGR: RMC	STATUS: PRELIMINARY PLANS	REVISION: NOT FOR CONSTRUCTION

S:\6880001\1818-Drm\mwp\CG101\_1686-0001.dwg, 1/21/2014, 4:50:23 PM, Edward A. Christensen

- LEGEND**
- EXISTING CONTOUR
  - - - PROPOSED CONTOUR
  - STORM DRAINAGE PIPE
  - BUILDING ROOF OUTLINE
  - ⊙ STORM DRAINAGE MANHOLE
  - ▣ STORM DRAINAGE CATCH BASIN
  - CB-17  
840.02, 840.03  
RIM  
INV. OUT
  - STRUCTURE LABEL  
DETAIL REFERENCE  
RIM (FLOWLINE)  
INVERT



**STORMWATER MANAGEMENT PLAN  
APPROVED**  
CITY OF WILMINGTON  
ENGINEERING DEPARTMENT  
DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
SIGNED \_\_\_\_\_

**Approved Construction Plan**

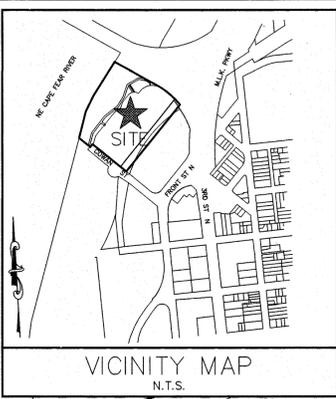
Name \_\_\_\_\_ Date \_\_\_\_\_

Planning \_\_\_\_\_

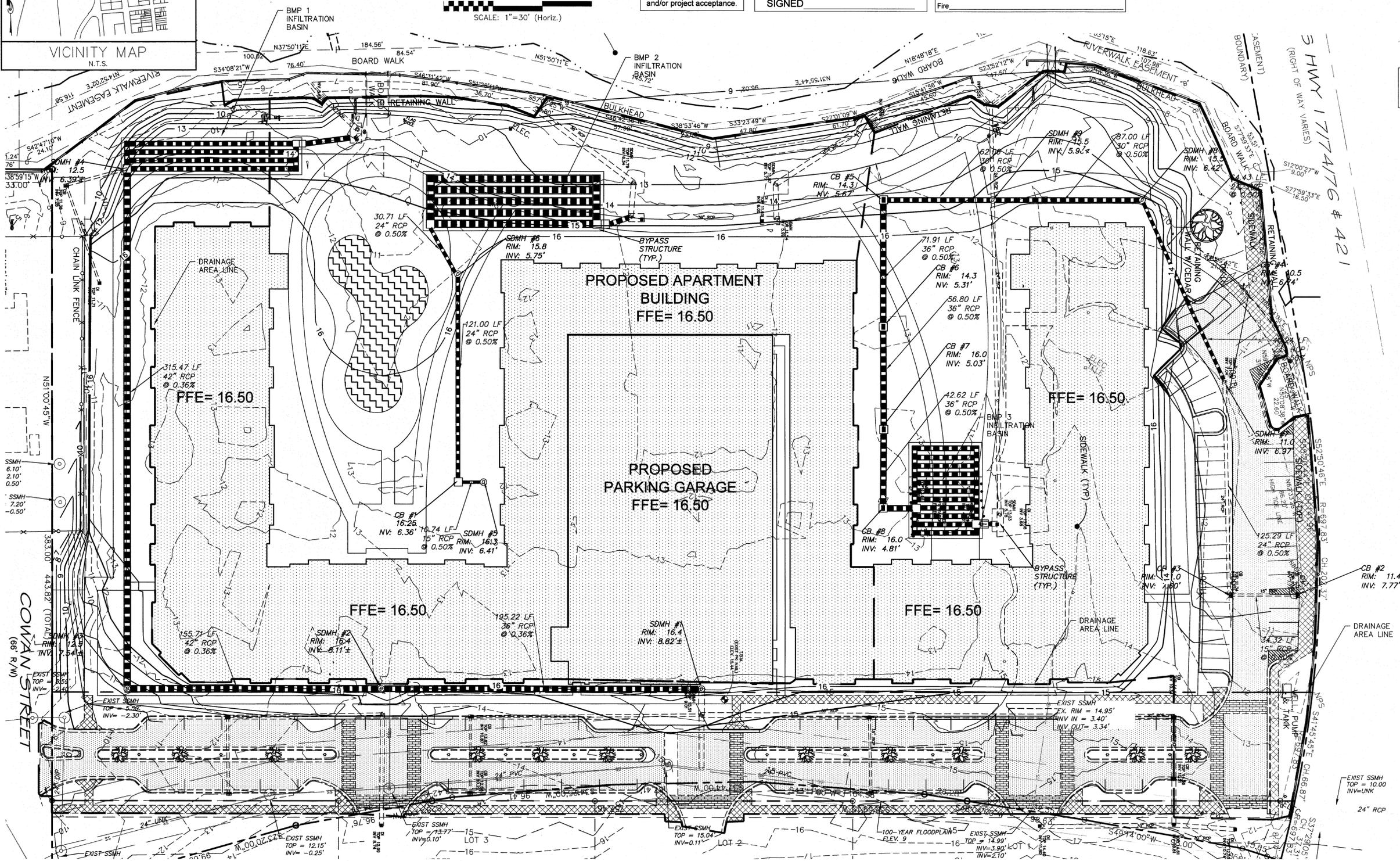
Traffic \_\_\_\_\_

Fire \_\_\_\_\_

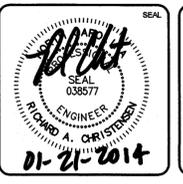
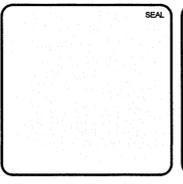
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State regulated water body serving the watershed:  
Cape Fear River - Class SC



REV. NO.	DESCRIPTIONS	DATE



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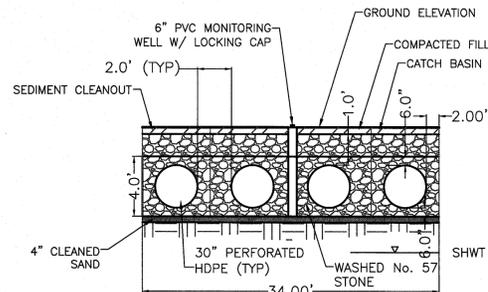
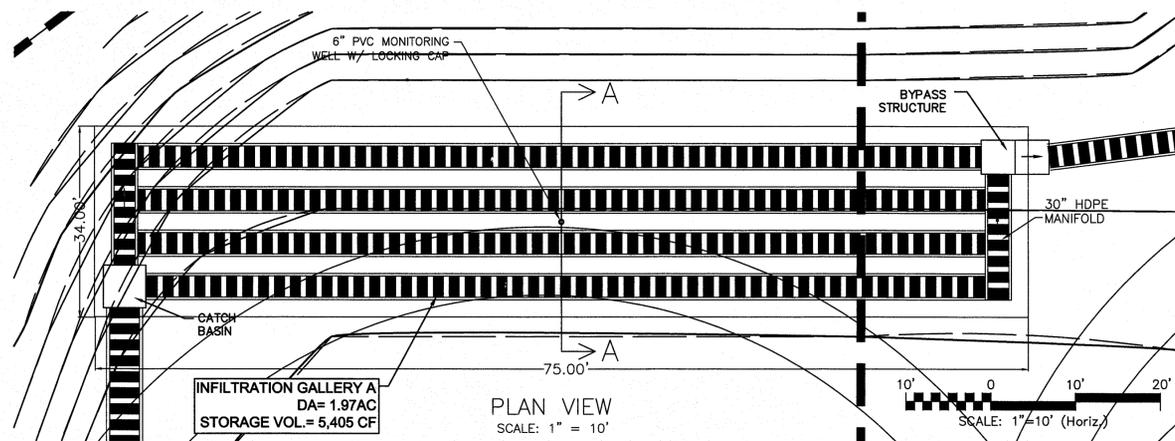
**SYMPHONY properties**  
Orchestrating REAL Solutions

**SAWMILL POINT**  
15 COWAN STREET  
WILMINGTON, NORTH CAROLINA

**STORM DRAINAGE PLAN**

DATE: 22 JAN 14	SCALE: HORIZONTAL: 1"=30'	MAC FILE NUMBER: CG102
MCE PROJ.#: 06586-001	VERTICAL: 1"=30'	DRAWING NUMBER: 8
DRAWN: TCM/RAC	DESIGNED: TCM/RAC	CHECKED: RMC
PROJ. MGR.: RMC	STATUS: PRELIMINARY PLANS	REVISION: NOT FOR CONSTRUCTION

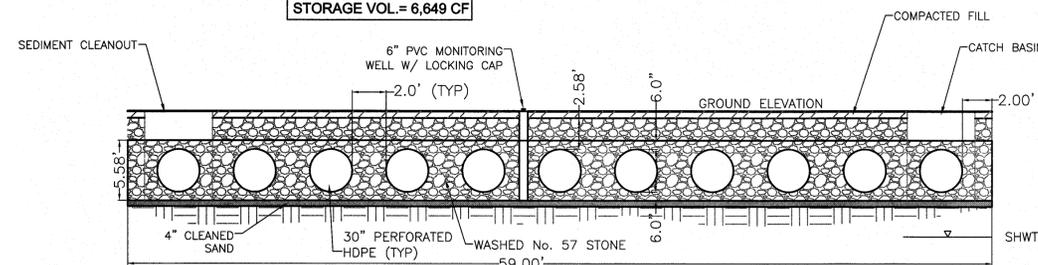
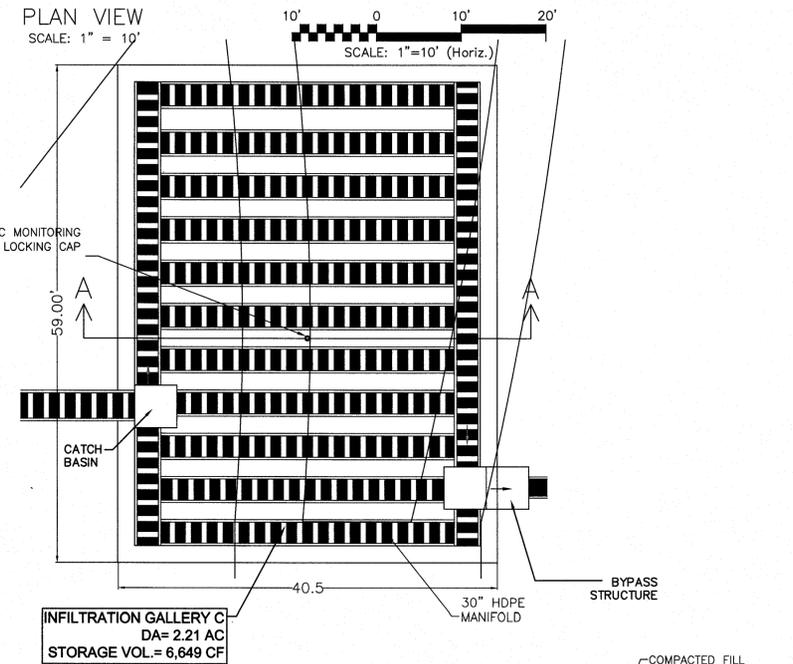
# INFILTRATION GALLERY A



NOTE: WRAP No. 57 STONE WITH NON-WOVEN FABRIC ON ALL SIDES. OVERLAP PER CITY OF WILMINGTON TECHNICAL STANDARDS.

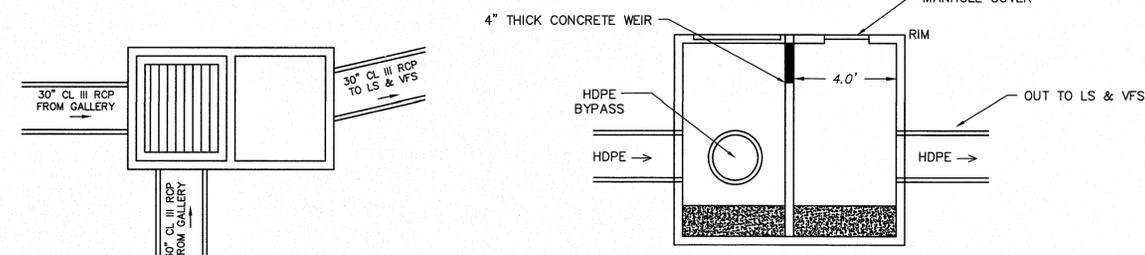
SECTION A-A  
SCALE: N.T.S.

# INFILTRATION GALLERY C



NOTE: WRAP No. 57 STONE WITH NON-WOVEN FABRIC ON ALL SIDES. OVERLAP PER CITY OF WILMINGTON TECHNICAL STANDARDS.

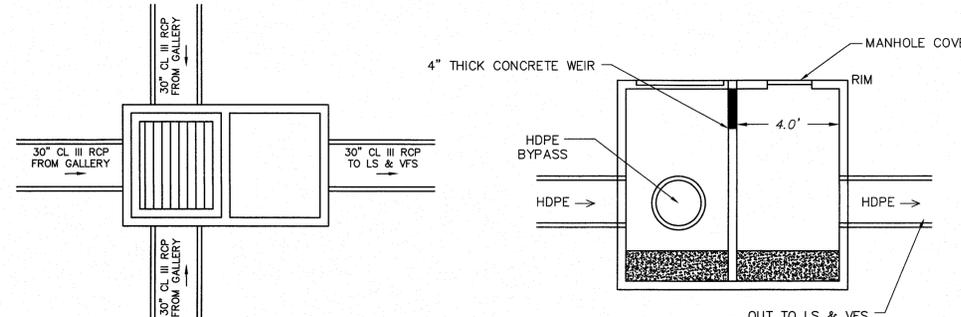
SECTION A-A  
SCALE: N.T.S.



PLAN VIEW

SECTION

**BYPASS STRUCTURE**  
NOT TO SCALE

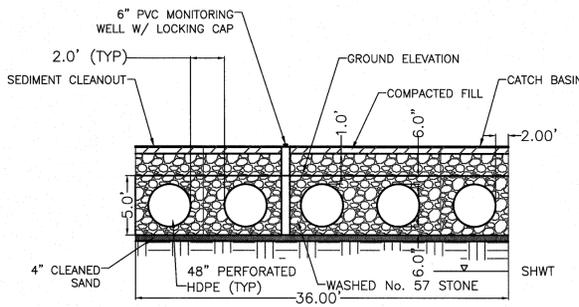
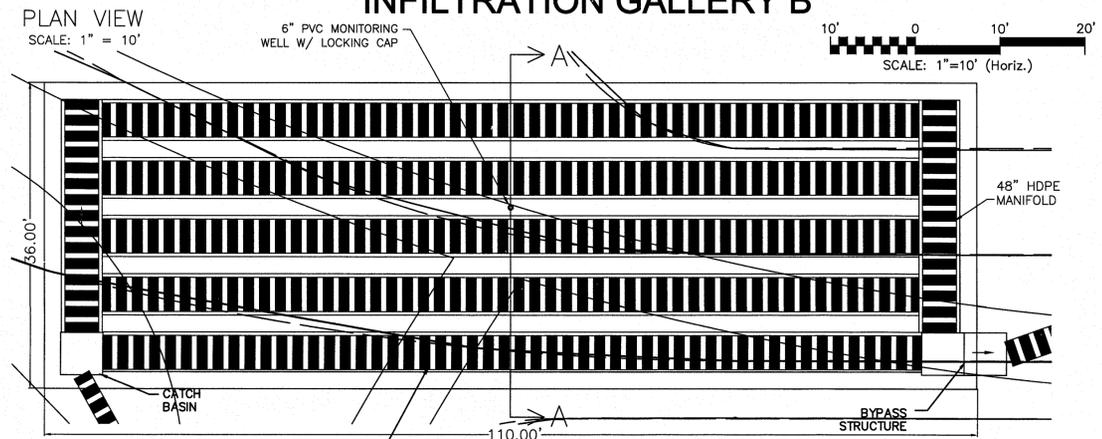


PLAN VIEW

SECTION

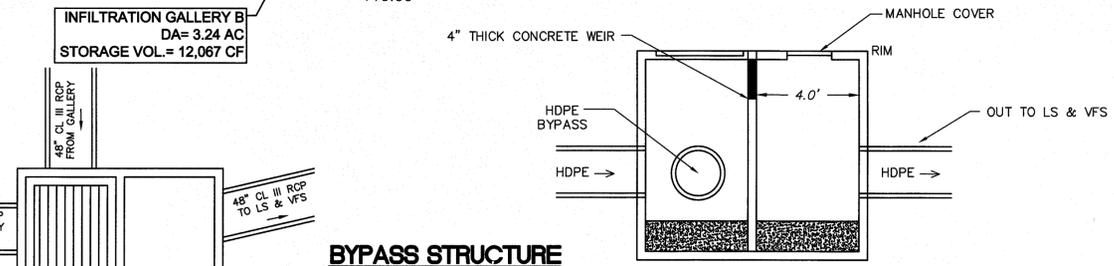
**BYPASS STRUCTURE**  
NOT TO SCALE

# INFILTRATION GALLERY B



NOTE: WRAP No. 57 STONE WITH NON-WOVEN FABRIC ON ALL SIDES. OVERLAP PER CITY OF WILMINGTON TECHNICAL STANDARDS.

SECTION A-A  
SCALE: N.T.S.



PLAN VIEW

SECTION

**BYPASS STRUCTURE**  
NOT TO SCALE

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.

Approved Construction Plan  
Name \_\_\_\_\_ Date \_\_\_\_\_  
Planning \_\_\_\_\_  
Traffic \_\_\_\_\_  
Fire \_\_\_\_\_

STORMWATER MANAGEMENT PLAN  
**APPROVED**  
CITY OF WILMINGTON  
ENGINEERING DEPARTMENT  
DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
SIGNED \_\_\_\_\_

REV. NO.	DESCRIPTIONS	DATE

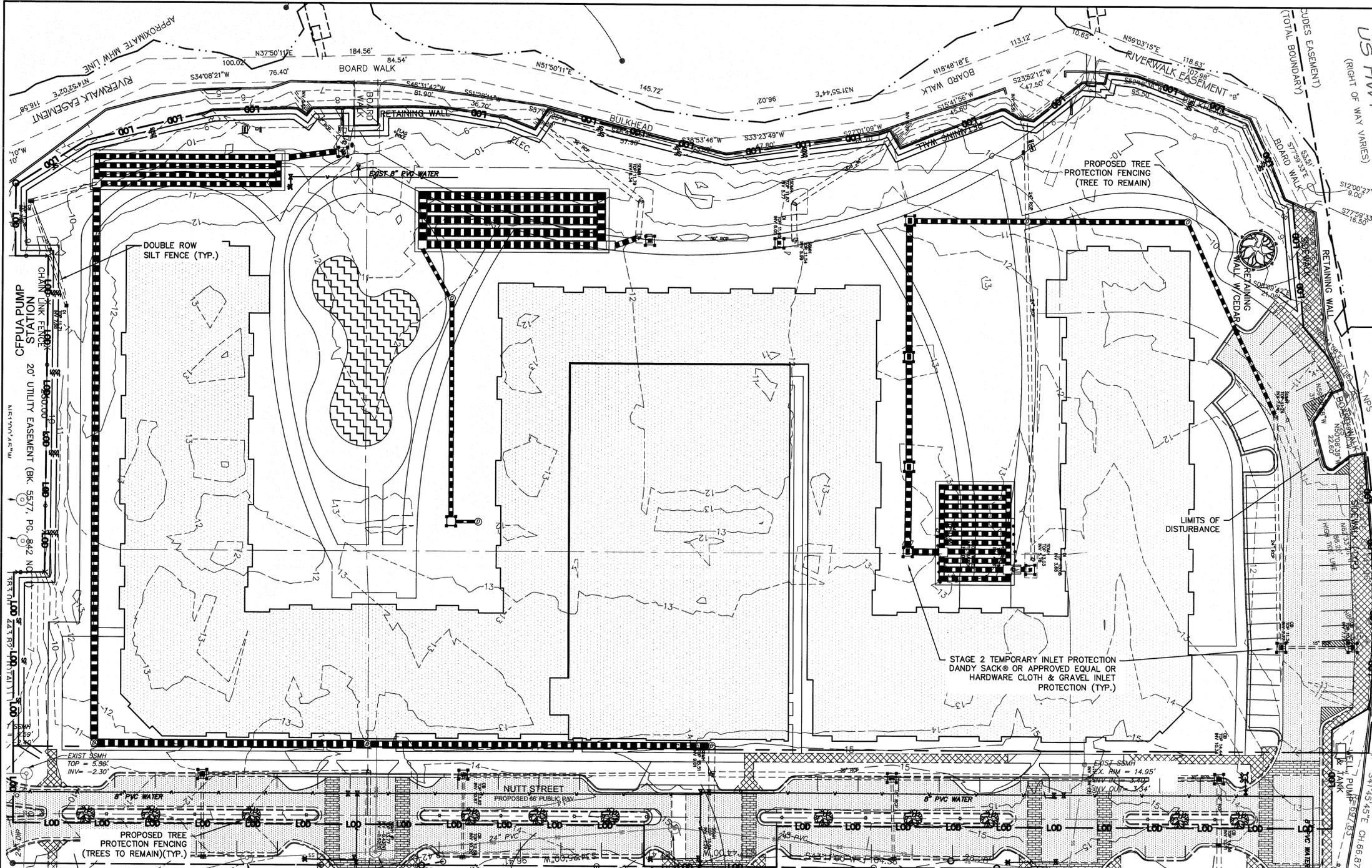


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**SYMPHONY properties**  
Orchestrating REAL Solutions

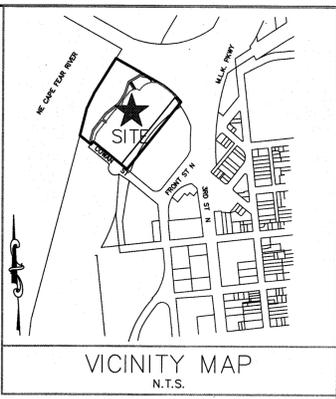
SAWMILL POINT  
15 COWAN STREET  
WILMINGTON, NORTH CAROLINA  
**STORMWATER MANAGEMENT DETAILS**

DATE: 22 JAN 14  
MCE PROJ # 08586-0001  
DRAWN TCM/RAC  
DESIGNED TCM/RAC  
CHECKED RMC  
PROJ. MGR. RMC  
SCALE: HORIZONTAL: N/A, VERTICAL: 9  
M&C FILE NUMBER: CG502  
DRAWING NUMBER: 9  
STATUS: PRELIMINARY PLANS, NOT FOR CONSTRUCTION



LIMITS OF DISTURBANCE = 6.75 AC

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



**STAGE 2 CONSTRUCTION SEQUENCE**

1. 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.
2. REMOVE ACCUMULATED SEDIMENT FROM SEDIMENT CONTROL MEASURES AS REQUIRED ON THE PLANS AND PERMIT.
3. COMPLETE PARKING AREAS AND ENTRANCE CONSTRUCTION TO SUBGRADE. COMPACT ALL FILL AREAS TO 95% STD. PROCTOR MAXIMUM DRY DENSITY.
4. INSTALL GRAVEL BASE IN PARKING AREAS.
5. INSTALL CONCRETE CURB AND GUTTER.
6. INSTALL FIRST LIFT OF ASPHALT BASE COURSE, AND THEN HOLD OFF ON THE FINAL ASPHALT COURSE UNTIL END OF CONSTRUCTION SEQUENCE.
7. CONTRACTOR SHALL CONTINUOUSLY MAINTAIN EROSION CONTROL MEASURES AND CLEAN AND REPAIR TEMPORARY SEDIMENT MEASURES TO MEET NEW HANOVER COUNTY APPROVAL.
8. 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.
9. INSTALL LANDSCAPING AND ESTABLISH FINAL GRADES AS SHOWN ON CG-101.
10. 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.
11. REMOVE ALL SEDIMENT FROM ALL STORM DRAIN PIPES.
12. SILT FENCE MUST REMAIN INSTALLED AND FUNCTIONING PROPERLY UNTIL THE LIMITS OF CONSTRUCTION HAVE BEEN PERMANENTLY STABILIZED.

**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.

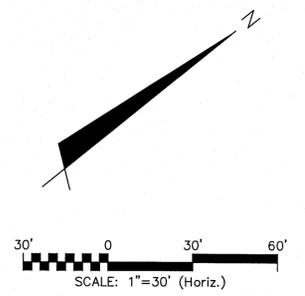
SITE AREA DESCRIPTION	STABILIZATION TIMEFRAME	STABILIZATION TIMEFRAME EXCEPTIONS
PERMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10 FT OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 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 HOW ZONES)

STORMWATER MANAGEMENT PLAN  
**APPROVED**  
CITY OF WILMINGTON  
ENGINEERING DEPARTMENT  
DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
SIGNED \_\_\_\_\_

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

1 inch

Approved Construction Plan  
Name \_\_\_\_\_ Date \_\_\_\_\_  
Planning \_\_\_\_\_  
Traffic \_\_\_\_\_  
Fire \_\_\_\_\_



REV. NO.	DESCRIPTIONS	DATE

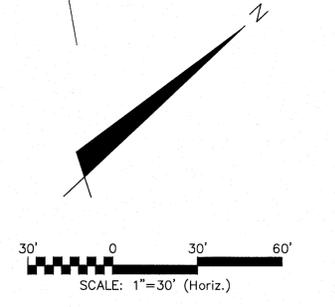
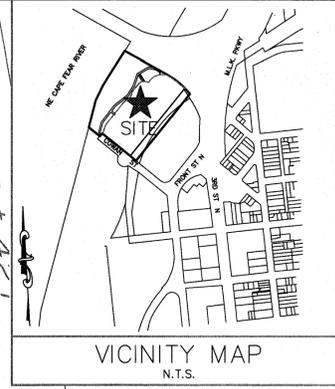
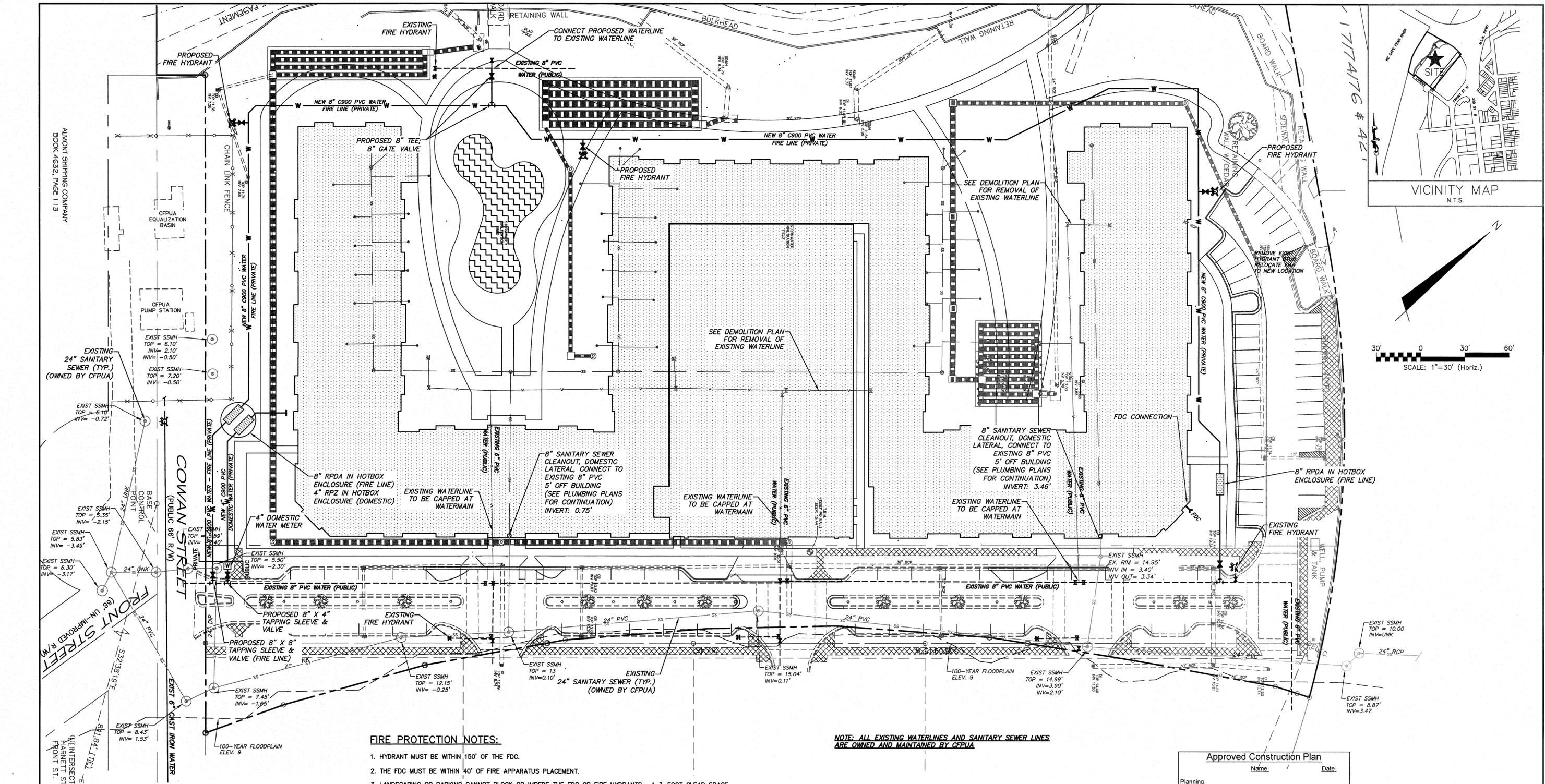


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**SYMPHONY properties**  
Orchestrating REAL Solutions

SAWMILL POINT  
15 COWAN STREET  
WILMINGTON, NORTH CAROLINA  
**SEDIMENT & EROSION CONTROL  
STAGE 2**

DATE: 22 JAN 14	SCALE: HORIZONTAL: 1"=30' VERTICAL: 1"=30'	MAC FILE NUMBER: CE102
MCE PROJ # 06586-0001	DESIGNED: TCM/RAC	DRAWING NUMBER: 10
DRAWN: TCM/RAC	CHECKED: RMC	
DESIGNED: TCM/RAC	PROJ. MGR.: RMC	
CHECKED: RMC		
PROJ. MGR.: RMC		
STATUS: PRELIMINARY PLANS NOT FOR CONSTRUCTION		



- 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 ERECTED ONSITE WITHOUT CITY FIRE INSPECTOR APPROVAL.
  6. NEW HYDRANTS MUST BE AVAILABLE FOR USE PRIOR TO CONSTRUCTION OF THE BUILDING(S).
  7. UNDERGROUND FIRE LINE AND PRIVATE WATER MAINS MUST BE PERMITTED AND INSPECTED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC RIGHT-OF-WAY TO THE BUILDING. CONTACT THE WILMINGTON FIRE DEPARTMENT DIVISION OF FIRE AND LIFE SAFETY AT 910-343-0696 FOR ADDITIONAL INFORMATION.
  8. A MINIMUM OF 5' SHALL SEPARATE UNDERGROUND FIRE LINES OR PRIVATE WATER MAINS FROM UNDERGROUND UTILITIES.
  9. CONTRACTOR SHALL MAINTAIN AN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.

**NOTE: ALL EXISTING WATERLINES AND SANITARY SEWER LINES ARE OWNED AND MAINTAINED BY CFPUA.**

- CAPE FEAR PUBLIC UTILITY AUTHORITY STANDARD SEWER NOTES**
1. SEWER GUARDS REQUIRED AT ALL MANHOLES. STAINLESS STEEL SEWER GUARDS REQUIRED AT MANHOLES LOCATED IN TRAFFIC AREAS.
  2. SERVICES SHALL BE PERPENDICULAR TO MAIN AND TERMINATE AT RIGHT-OF-WAY LINE. SERVICES IN CUL-DE-SACS ARE REQUIRED TO BE PERPENDICULAR, OR MUST ORIGINATE IN MANHOLE AND TERMINATE AT RIGHT-OF-WAY LINE.
  3. ALL SERVICES TYING INTO DUCTILE IRON MAINS SHALL BE CONSTRUCTED OF CLASS 50, DIP, WITH PROTECTO 401 CERAMIC EPOXY LINING.
  4. MINIMUM 10' UTILITIES EASEMENT PROVIDED ALONG THE FRONTAGE OF ALL LOTS AND AS SHOWN FOR NEW DEVELOPMENTS.
  5. NO FLEXIBLE COUPLINGS SHALL BE USED.
  6. ALL STAINLESS STEEL FASTENERS SHALL BE 316.

ESTIMATED WATER & SANITARY DEMAND			
PROPOSED USE	EXISTING FLOW (GPD)	REQUIREMENT	FLOW (GAL)
RESIDENTIAL	360 (SINGLE RESIDENCE)	360 GALLONS/UNIT	100,080
<b>TOTAL =</b>			<b>100,080</b>

EXISTING WATER & SANITARY DEMAND			
EXISTING USE	EXISTING FLOW (GPD)	REQUIREMENT	FLOW (GAL)
VACANT	0	0	0
<b>TOTAL =</b>			<b>0</b>

**Approved Construction Plan**

Name \_\_\_\_\_ Date \_\_\_\_\_

Planning \_\_\_\_\_

Traffic \_\_\_\_\_

Fire \_\_\_\_\_

**STORMWATER MANAGEMENT PLAN APPROVED**

CITY OF WILMINGTON  
ENGINEERING DEPARTMENT

DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_

SIGNED \_\_\_\_\_

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

1 inch

REV. NO.	DESCRIPTIONS / REVISIONS	DATE



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**SYMPHONY properties**  
Orchestrating REAL Solutions

**SAWMILL POINT**  
15 COWAN STREET  
WILMINGTON, NORTH CAROLINA

**UTILITY PLAN**

DATE: 22 JAN 14	SCALE: HORIZONTAL: 1"=30'	MCFE NUMBER: <b>CU101</b> DRAWING NUMBER: <b>12</b>
MCE PROJ # 06586-0001	VERTICAL:	
DRAWN: TCM/RAC	CHECKED: RMC	STATUS: PRELIMINARY PLANS NOT FOR CONSTRUCTION
DESIGNED: TCM/RAC	PROJ. MGR: RMC	

**GENERAL CONSTRUCTION NOTES:**

- CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE CITY OF WILMINGTON, NORTH CAROLINA UNLESS OTHERWISE NOTED.
- ALL TREES, STUMPS, ROOT MAT, ETC. SHALL BE ENTIRELY REMOVED REGARDLESS OF DEPTH. BURIAL OF ORGANIC MATERIAL WITHIN THE PROJECT LIMITS IS NOT PERMITTED. OPEN BURNING OF DOWNED TREES AND STUMPS IS PERMITTED. HOWEVER, CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS. CHIPPED MATERIALS MUST BE REMOVED PRIOR TO THE PLACEMENT OF EMBANKMENT OR TOPSOIL.
- THE CONTRACTOR IS SOLELY RESPONSIBLE TO OBTAIN OFF-SITE SPOIL AREAS FOR DISPOSAL OF EXCESS AND/OR UNSUITABLE MATERIALS AS NECESSARY. OFF-SITE SPOIL AREAS MUST BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL BY APPLICABLE REGULATORY AGENCIES AND PRIOR TO UTILIZATION BY THE CONTRACTOR. NO AREAS DESIGNATED AS WETLANDS WILL BE PERMITTED FOR USE AS A DISPOSAL SITE. THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER THAT NO WETLANDS WILL BE IMPACTED. THE ENGINEER WILL NOT CONSIDER ANY DELAYS OR MONETARY CLAIMS OF ANY NATURE RESULTING FROM THE CONTRACTOR'S FAILURE OR DIFFICULTY IN FINDING NECESSARY DISPOSAL SITES TO MEET THE TIME FRAMES REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PLANS, PERMITS, EROSION AND SEDIMENT CONTROL MEASURES, ETC. REQUIRED BY THE APPROPRIATE REGULATORY AGENCIES FOR UTILIZING OFF-SITE SPOIL AREAS. THE CONTRACTOR SHALL CERTIFY TO THE ENGINEER THAT ALL REQUIRED PERMITS HAVE BEEN OBTAINED PRIOR TO UTILIZING THE OFF-SITE SPOIL AREAS. ALL COSTS FOR PROCURING AND UTILIZING THE OFF-SITE SPOIL AREAS ARE TO BE INCIDENTAL TO THE BASE BID.
- APPROVED COVERS TO PREVENT MATERIAL FROM LEAVING THE TRUCKS MUST BE INSTALLED OVER ALL LOADED TRUCKS HAULING BORROW EXCAVATED MATERIAL AND/OR FINE AGGREGATES TO OR FROM THE PROJECT SITES OVER STATE MAINTAINED ROADS. THE TRUCKS SHALL BE FULLY COVERED TO PREVENT MATERIAL FROM LEAVING THE TRUCK DURING HAULING. ANY MATERIALS DELIVERED, TRANSPORTED, OR REMOVED IN UNCOVERED TRUCKS WILL BE INCORPORATED INTO THE PROJECT OR REMOVED FROM THE SITE WITH NO ADDITIONAL PAYMENT TO THE CONTRACTOR FOR FURNISHING, REMOVING, OR PLACING THE MATERIALS INVOLVED.
- DRIVEWAYS ARE NOT TO BE LOCATED OVER WATER METERS OR SEWER CLEANOUTS, METERS WILL NOT BE SET IF WATER METER BOXES, SEWER CLEAN-OUTS, VALVE BOXES OR OTHER APPURTENANCES ARE DAMAGED OR IMPROPERLY POSITIONED.
- EXISTING PAVING, CONCRETE, AND OTHER UNSUITABLE MATERIALS SHALL NOT BE USED AS FILL AND SHALL BE DISPOSED OF OUTSIDE THE PROJECT LIMITS AT THE CONTRACTOR'S EXPENSE. CONTRACTOR IS RESPONSIBLE FOR PERMITTING AND FEES FOR DISPOSAL.

**GENERAL NOTES**

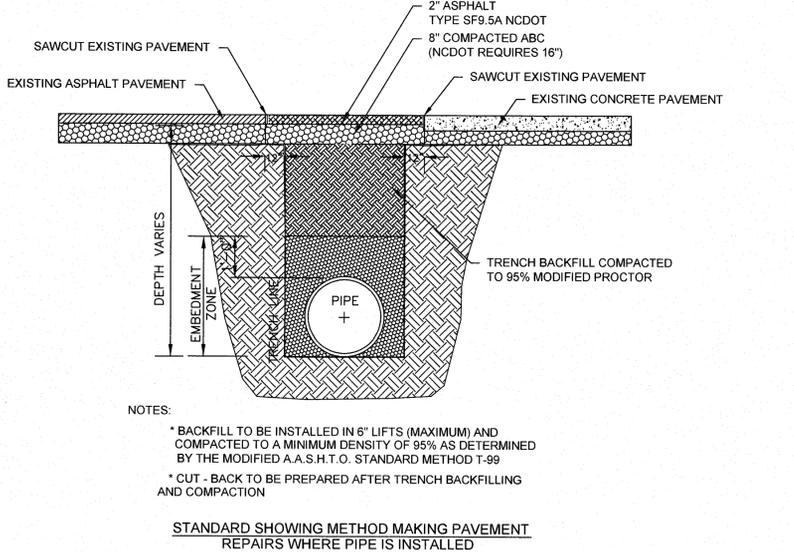
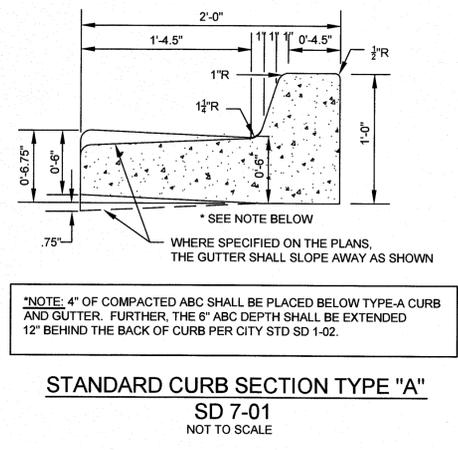
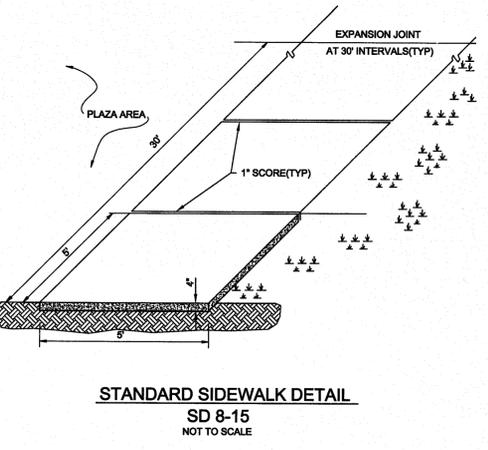
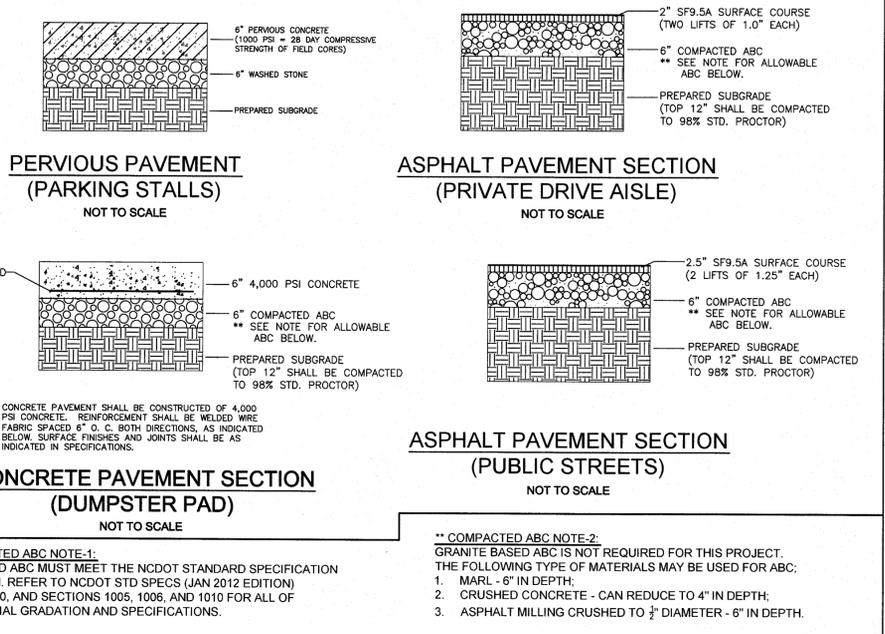
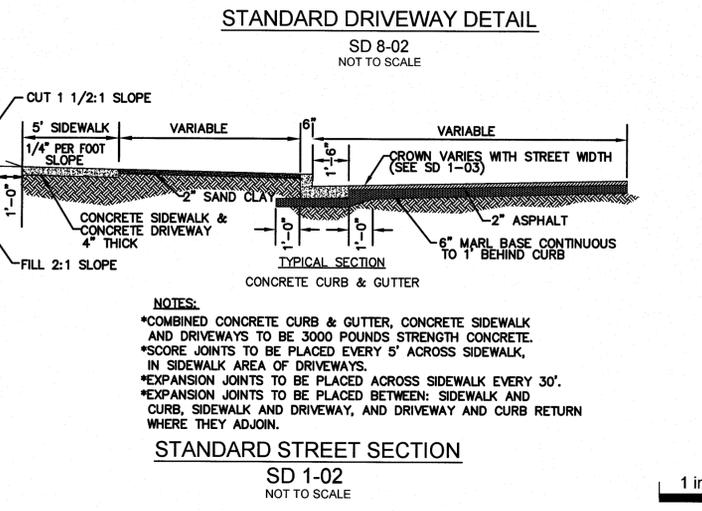
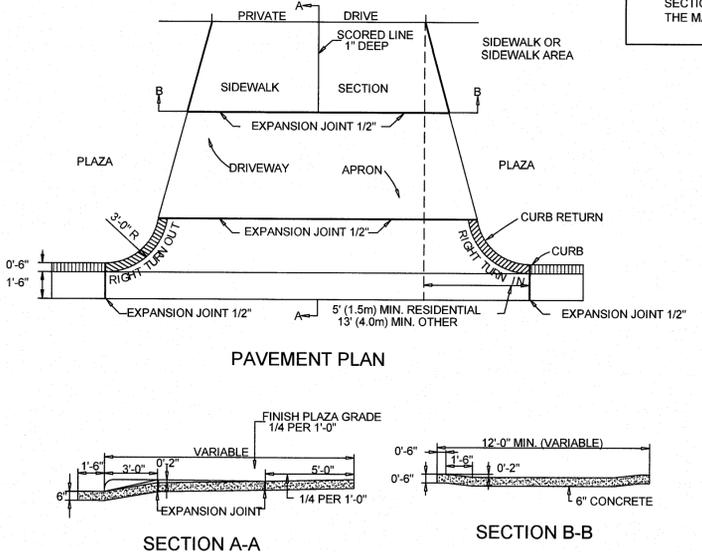
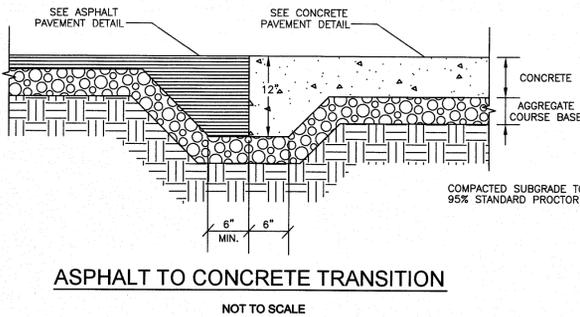
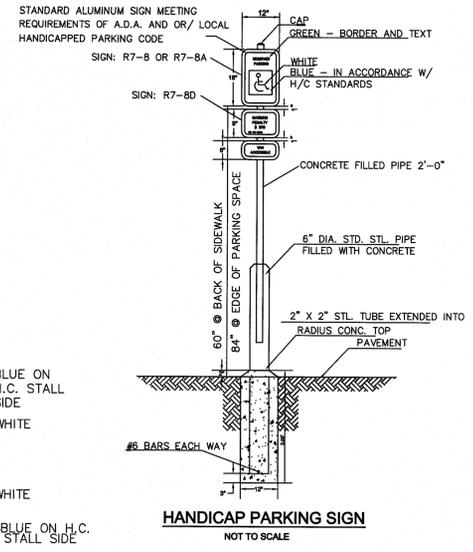
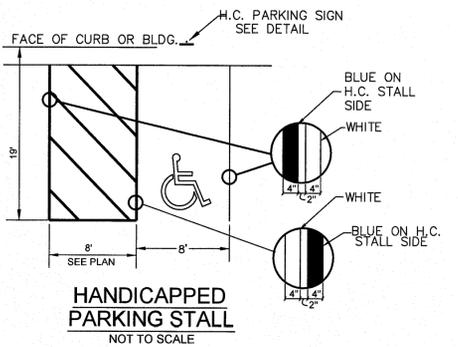
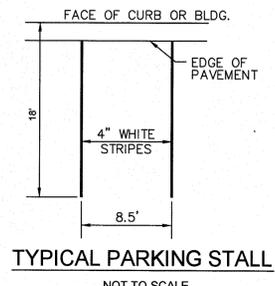
- IN ACCORDANCE WITH N.C.G.S. 136-44.14 ALL STREET CURBS BEING CONSTRUCTED OR RECONSTRUCTED SHALL PROVIDE WHEELCHAIR RAMPS FOR THE PHYSICALLY HANDICAPPED ON EACH SIDE OF ANY STREET OR ROAD, WHERE CURBS AND SIDEWALKS ARE PROVIDED AND AT OTHER MAJOR POINTS OF PEDESTRIAN FLOW.
- WHEELCHAIR RAMPS SHALL BE LOCATED AS INDICATED IN DETAIL DRAWINGS; HOWEVER, EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC. MAY AFFECT PLACEMENT.
- CURB RAMPS SHALL HAVE DETECTABLE WARNINGS EXTENDING THE FULL WIDTH OF THE RAMP AND A MINIMUM OF 2-FT. IN LENGTH.

**CONSTRUCTION NOTES**

- CONSTRUCTION SHALL CONFORM WITH CONSTRUCTION STANDARDS OF THE GOVERNING BODY WHICH HAS JURISDICTION OF THE PARTICULAR STREET.
- WHEELCHAIR RAMPS SHALL BE CONSTRUCTED OF CLASS 'A' CONCRETE WITH THE SURFACE HAVING A ROUGH, NON-SKID TYPE FINISH.
- A 1/4" EXPANSION JOINT SHALL BE REQUIRED WHERE THE CONCRETE WHEELCHAIR RAMP JOINS ANY RIGID PAVEMENT OR STRUCTURE.
- IN NO CASE SHALL THE WIDTH OF A CURB RAMP OR CURB CUT BE LESS THAN 40-IN. (3-FT. 4-IN.), NOT INCLUDING THE FLARED SIDES.
- TRANSITIONS FROM RAMPS TO WALKS, GUTTERS OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES.
- THE MAXIMUM SLOPE ON THE CURB RAMP RUN IS 1:12.
- THE MAXIMUM CROSS SLOPE OF THE CURB RAMP IS 1:50.
- MAXIMUM SLOPES OF ADJOINING GUTTERS, ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP, OR ACCESSIBLE ROUTE SHALL NOT EXCEED 1:20.
- ANY RAISED ISLANDS IN CROSSINGS SHALL BE CUT THROUGH LEVEL WITH THE STREET OR HAVE CURB RAMPS AT BOTH SIDES AND A LEVEL AREA AT LEAST 48-IN. LONG BETWEEN THE CURB RAMPS.
- DETECTABLE WARNINGS SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9-IN., A HEIGHT OF NOMINAL 0.2-IN. AND A CENTER-TO-CENTER SPACING OF NOMINAL 2.35-IN. AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT.

**ADDITIONAL NOTES**

- STOP BARS SHALL BE USED WHERE IT IS IMPORTANT TO INDICATE THE POINT BEHIND WHICH VEHICLES ARE REQUIRED TO STOP IN COMPLIANCE WITH A TRAFFIC SIGNAL, STOP SIGN OR OTHER LEGAL REQUIREMENT.
- PARKING SHALL BE ELIMINATED A MINIMUM OF 20 FEET BACK OF THE PEDESTRIAN CROSSWALK.
- ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION. THIS DOCUMENT IS AVAILABLE FROM THE SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON, D.C. 20402.
- CURB RAMPS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARED SIDES.
- THE BOTTOM OF DIAGONAL (CORNER TYPE) CURB RAMPS AT MARKED CROSSINGS SHALL HAVE 48-IN. MINIMUM CLEAR SPACE WITHIN THE MARKINGS.
- IF DIAGONAL CURB RAMPS HAVE FLARED SIDES, THEY SHALL HAVE AT LEAST A 24-IN. LONG SEGMENT OF STRAIGHT CURB LOCATED ON EACH SIDE OF THE CURB RAMP AND WITHIN THE MARKED CROSSING.



NOTES:  
 \* BACKFILL TO BE INSTALLED IN 6" LIFTS (MAXIMUM) AND COMPACTED TO A MINIMUM DENSITY OF 95% AS DETERMINED BY THE MODIFIED A.A.S.H.T.O. STANDARD METHOD T-99  
 \* CUT-BACK TO BE PREPARED AFTER TRENCH BACKFILLING AND COMPACTION

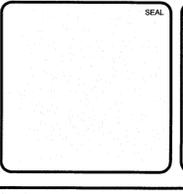
STANDARD SHOWING METHOD MAKING PAVEMENT REPAIRS WHERE PIPE IS INSTALLED

PAVEMENT REPAIR DETAIL  
 SD 1-16  
 NOT TO SCALE

Approved Construction Plan  
 Name \_\_\_\_\_ Date \_\_\_\_\_  
 Planning \_\_\_\_\_  
 Traffic \_\_\_\_\_  
 Fire \_\_\_\_\_

STORMWATER MANAGEMENT PLAN  
**APPROVED**  
 CITY OF WILMINGTON  
 ENGINEERING DEPARTMENT  
 DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
 SIGNED \_\_\_\_\_

REVNO	DESCRIPTIONS	DATE



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**SYMPHONY properties**  
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**SAWMILL POINT**  
 15 COWAN STREET  
 WILMINGTON, NORTH CAROLINA

**SITE DETAILS**

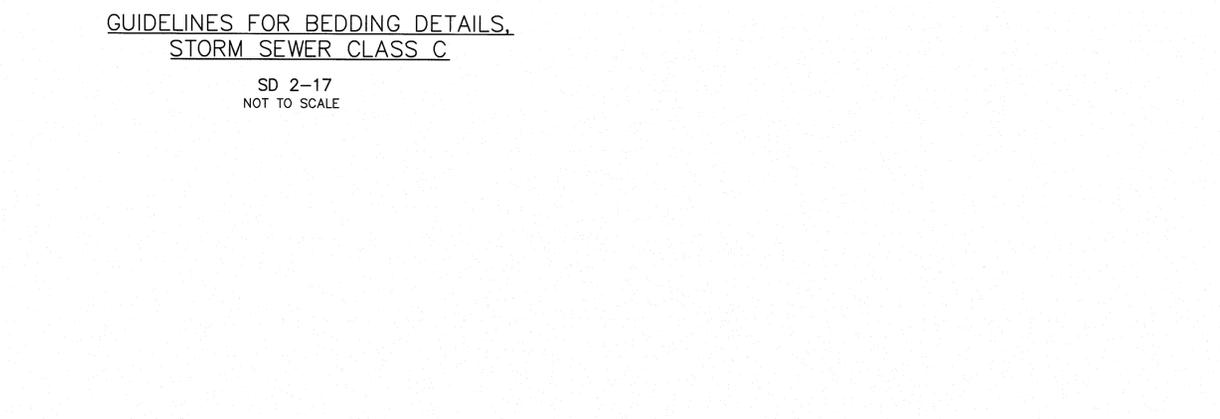
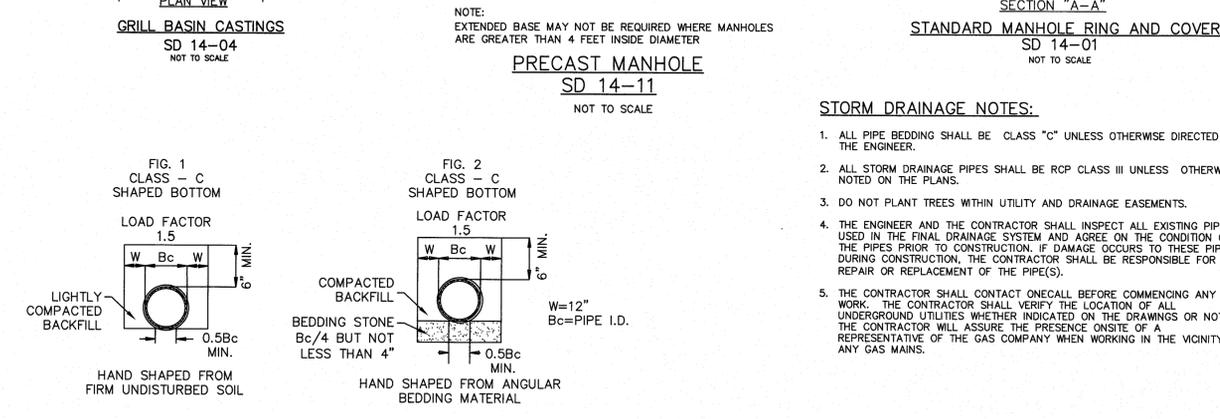
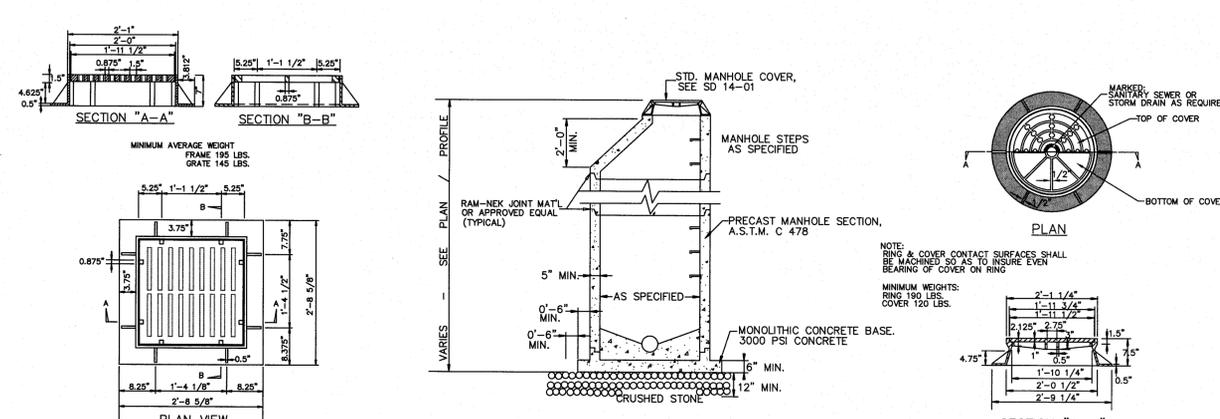
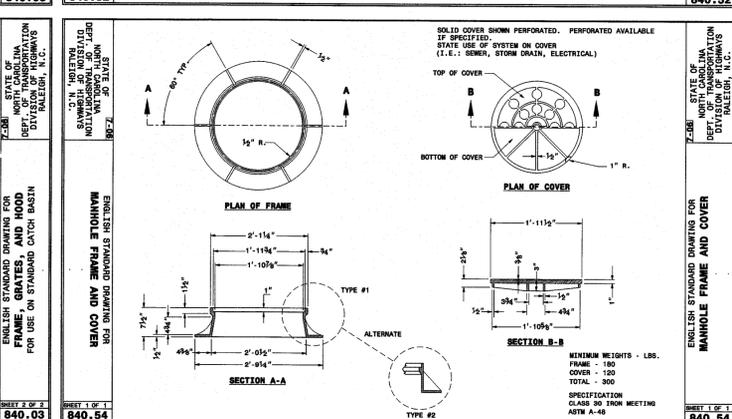
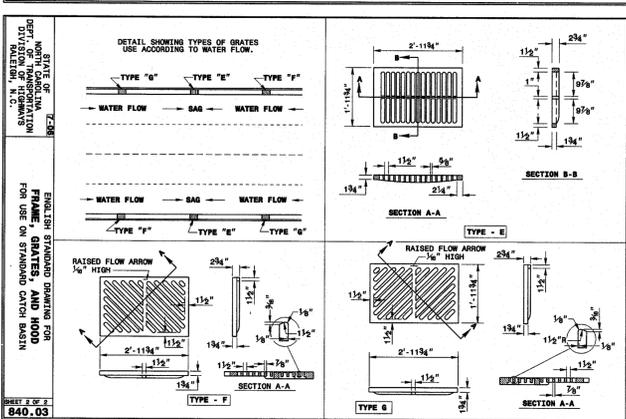
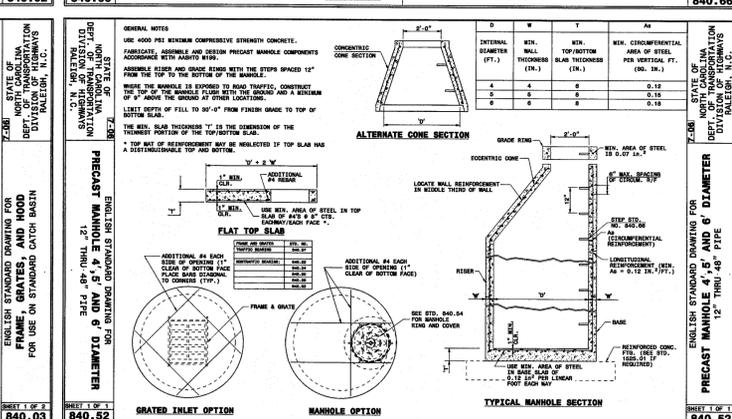
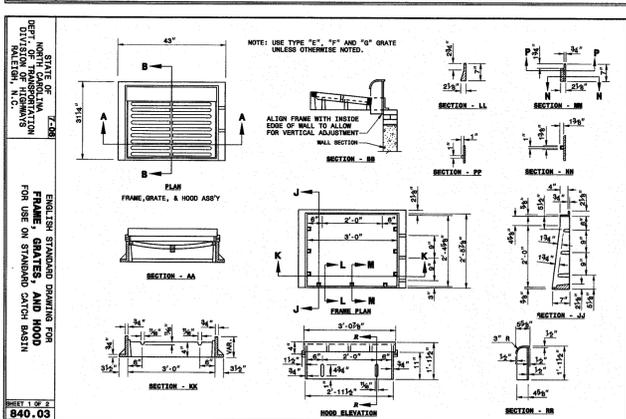
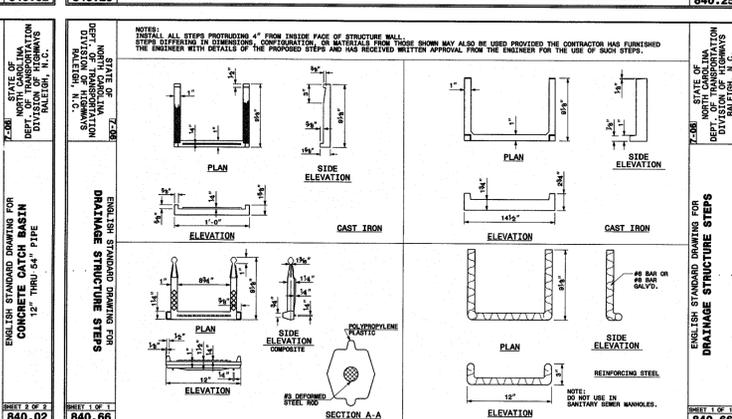
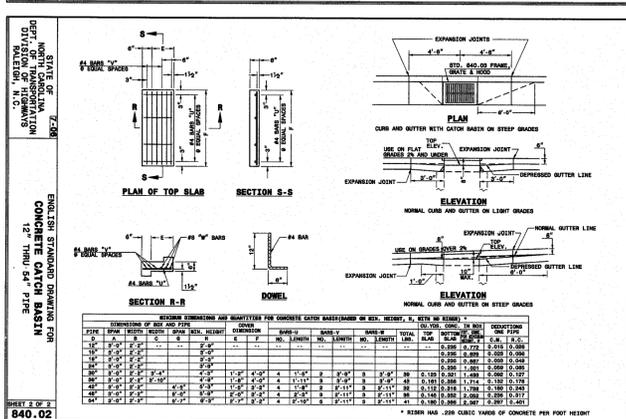
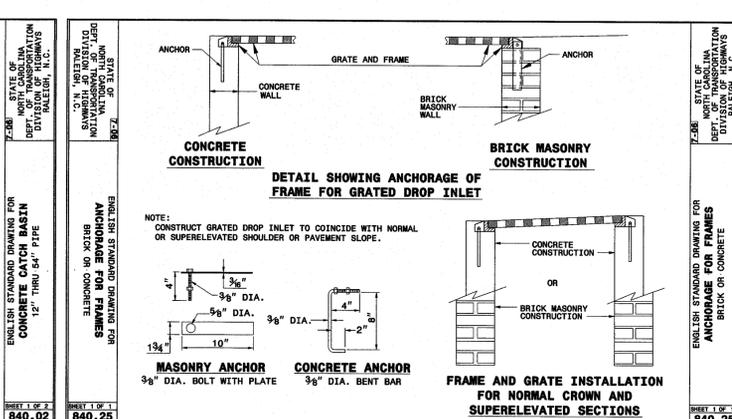
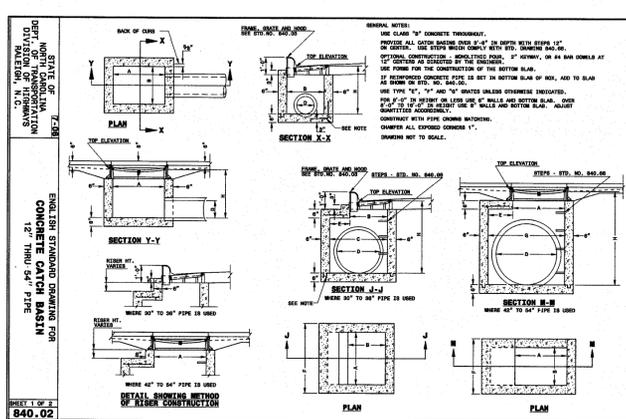
DATE: 22 JAN 14  
 MCE PROJ #: 06586-0001  
 DRAWN: TCM/RAC  
 DESIGNED: TCM/RAC  
 CHECKED: RMC  
 PROJ. MGR.: RMC

SCALE: HORIZONTAL: N/A VERTICAL: 13

STATUS: PRELIMINARY PLANS NOT FOR CONSTRUCTION





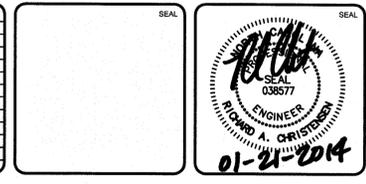


For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

Approved Construction Plan  
 Name \_\_\_\_\_ Date \_\_\_\_\_  
 Planning \_\_\_\_\_  
 Traffic \_\_\_\_\_  
 Fire \_\_\_\_\_

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

REV. NO.	DESCRIPTION	DATE



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**SYMPHONY properties**  
 Orchestrating REAL Solutions

SAWMILL POINT  
 15 COWAN STREET  
 WILMINGTON, NORTH CAROLINA  
**STORM DRAINAGE AND GRADING DETAILS**

DATE: 22 JAN 14	SCALE: CG501	MIC FILE NUMBER: CG501
MCE PROJ #: 06586-0001	HORIZONTAL: N/A	DRAWING NUMBER: 16
DRAWN: TCM/RAC	VERTICAL: RMC	
DESIGNED: TCM/RAC		
CHECKED: RMC		
PROJ. MGR: RMC		
STATUS: PRELIMINARY PLANS	REVISION: NOT FOR CONSTRUCTION	

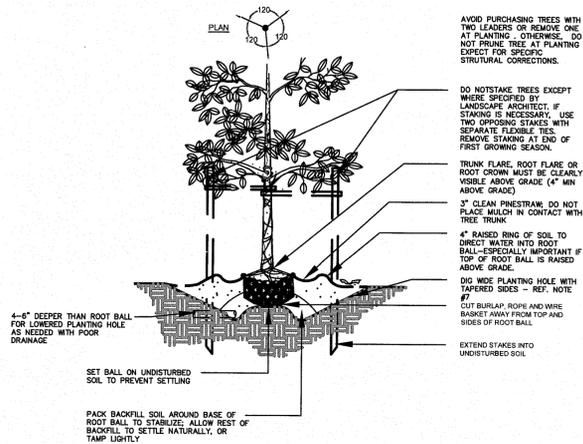
**LANDSCAPING NOTES:**

- 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.
- STREET TREES PROVIDED BASED ON CURRENT PUBLIC STREET STANDARDS. IF STREET IS DEEMED PRIVATE, OWNER MAY CHOOSE TO REDUCE THE NUMBER OF STREET TREES PROVIDED.

**DETAILS**

**NOTES:**

- PERFORM PERCOLATION TEST FOR EACH TREE PIT. PROVIDE GRAVEL SUMP 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 DUG WITH A LARGE AUGER BREAKING DOWN THE SIDES WITH A SHOVEL CAN ELIMINATE CLAYING AND CREATE THE PREFERRED SLOPING SIDE.
- WHERE SEVERAL TREES WILL BE PLANTED CLOSE TOGETHER SUCH THAT THEY WILL LIKELY SHARE ROOT SPACE, TILL IN SOIL AMENDMENTS TO A DEPTH OF 4".
- WHEN PLANTING DOWN TREES, USE FINERS TO BREAK THIN TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL. THEN CUT OR PULL AWAY 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 20-30% BY VOLUME TO BACKFILL.

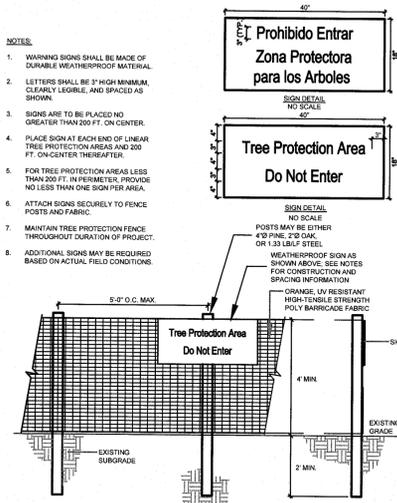


1 LARGE TREE  
L1.00 SECTION/ELEVATION

NOT TO SCALE

**NOTES:**

- WARNING SIGNS SHALL BE MADE OF DURABLE WEATHERPROOF MATERIAL.
- LETTERS SHALL BE 2" 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 AREA 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.



2 TREE PROTECTION DETAIL  
L1.00 SECTION/ELEVATION

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 AND AIR NOT TO REACH THE ROOTS AND THE TREE WILL DIE. THESE FREEING ROOTS OCCUR WELL AWAY FROM THE BASE OF THE TREE TO THE OVERHEAD BRANCH CANOPY. DAMAGING THE BARK WITH LAWNMOWERS, CONSTRUCTION EQUIPMENT, OR ANYTHING ELSE IS PROHIBITED. THE PROTECTIVE BARRIER SHOULD PREVENT DAMAGE FROM COOKING DURING CONSTRUCTION.

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

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.

Approved Construction Plan

Name \_\_\_\_\_ Date \_\_\_\_\_

Planning \_\_\_\_\_

Traffic \_\_\_\_\_

Fire \_\_\_\_\_

STORMWATER MANAGEMENT PLAN

**APPROVED**

CITY OF WILMINGTON

ENGINEERING DEPARTMENT

DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_

SIGNED \_\_\_\_\_

REVNO.	DESCRIPTIONS	DATE



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**SYMPHONY properties**

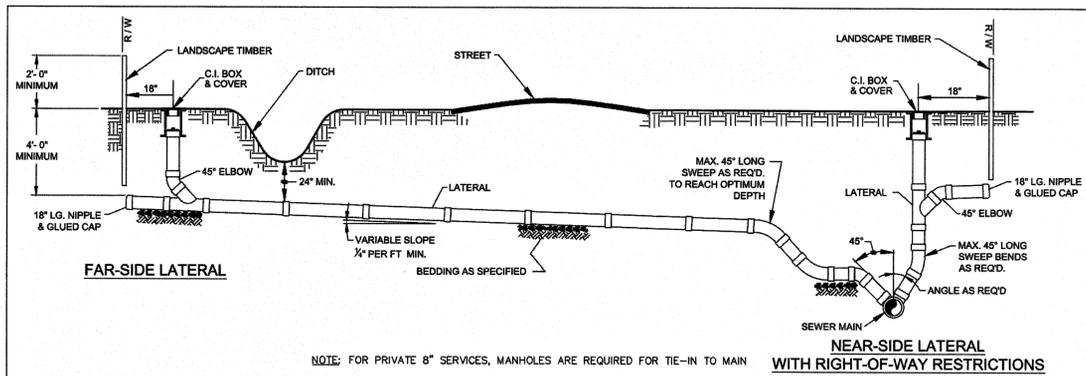
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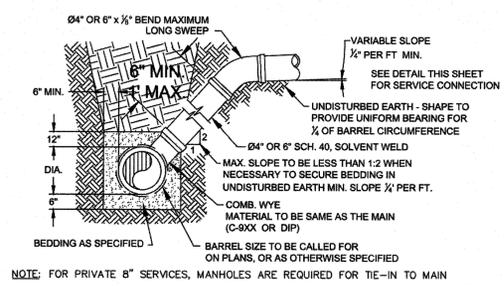
**LANDSCAPE DETAILS**

DATE: 22 JAN 14	SCALE: N/A	MDC FILE NUMBER: CL501
MCE PROJ. #: 06586-001	HORIZONTAL: N/A	DRAWING NUMBER: 17
DRAWN: TCM/RAC	VERTICAL: N/A	
DESIGNED: TCM/RAC		
CHECKED: RMC		
PROJ. MGR: RMC		
STATUS: PRELIMINARY PLANS NOT FOR CONSTRUCTION		

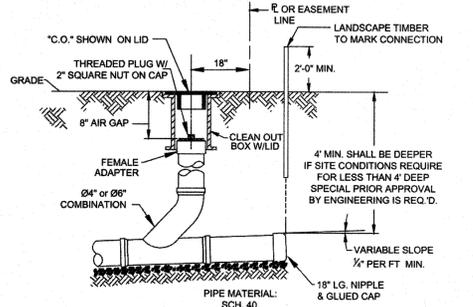




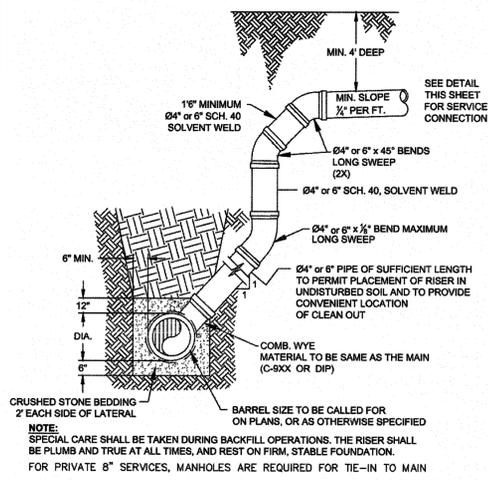
**STANDARD SERVICE CONNECTION TO SANITARY SEWER**  
 WITH RIGHT-OF-WAY RESTRICTIONS  
 NOT TO SCALE



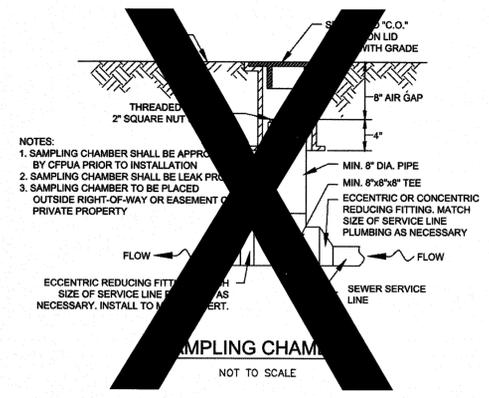
**STANDARD SERVICE LATERAL**  
 (MAIN DEPTH LESS THAN 8ft)  
 NOT TO SCALE



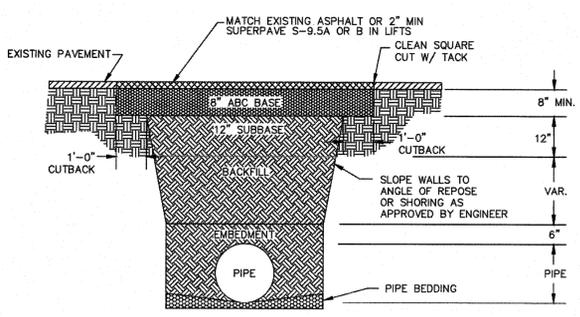
**SERVICE CONNECTION & CLEAN-OUT**  
 NOT TO SCALE



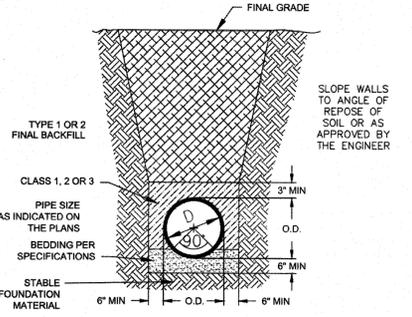
**DEEP SERVICE LATERAL**  
 (MAIN DEPTH GREATER THAN 8ft)  
 NOT TO SCALE



**SAMPLING CHAMBER**  
 NOT TO SCALE



**PAVEMENT REPAIR WHERE PIPE INSTALLED**  
 (FOR PRIVATE ROADS AND PAVED AREAS;  
 CONTRACTOR TO MEET MIN. REQUIREMENTS AS DEFINED BY  
 RIGHT-OF-WAY OWNER FOR PUBLIC ROAD REPAIRS)  
 NOT TO SCALE



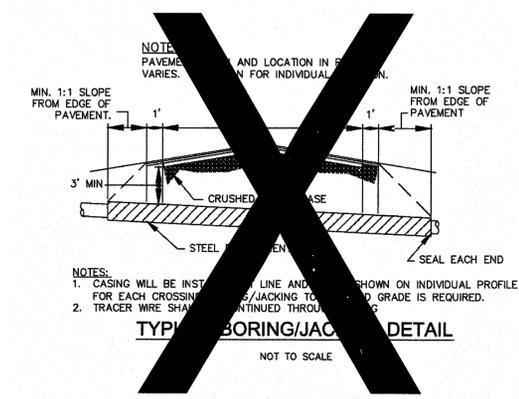
**CL 50 DUCTILE IRON  
 DR 18 PVC  
 PIPE TRENCH DETAIL**  
 NOT TO SCALE

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

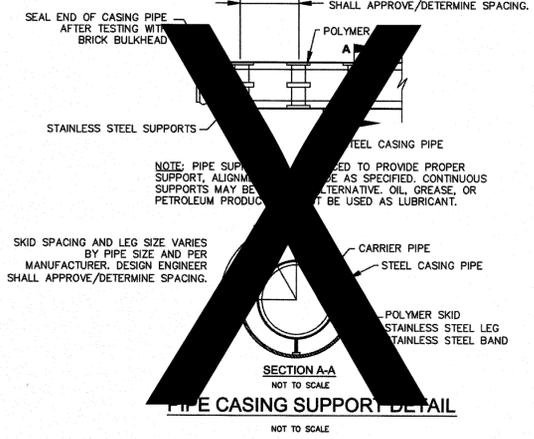
1 inch

Approved Construction Plan  
 Name \_\_\_\_\_ Date \_\_\_\_\_  
 Planning \_\_\_\_\_  
 Traffic \_\_\_\_\_  
 Fire \_\_\_\_\_

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



**TYPICAL BORING/JACKING DETAIL**  
 NOT TO SCALE



**PIPE CASING SUPPORT DETAIL**  
 NOT TO SCALE

REV.	DESCRIPTION:	DATE:
1	SAMPLING CHAMBER REVISED	10/26/12

**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 INSURE COMPLIANCE WITH ALL LOCAL AND STATE REGULATIONS).

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

**CFPUA SANITARY SEWER**

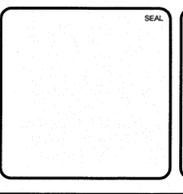
DATE: 1/9/12  
 SCALE: N/A  
 DRAWN BY: CFPUA  
 CHECKED BY: CFPUA  
 PROJECT NO.: \_\_\_\_\_

**STANDARD DETAILS**

**CAPE FEAR PUBLIC UTILITY AUTHORITY**  
 235 GOVERNMENT CENTER DRIVE  
 WILMINGTON, NC 28403  
 OFFICE: (910)332-6500  
 Stewardship. Sustainability. Service.

SHEET NO: **SSD-2**

REV. NO.	DESCRIPTIONS	DATE



**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**  
 15 COWAN STREET  
 WILMINGTON, NORTH CAROLINA

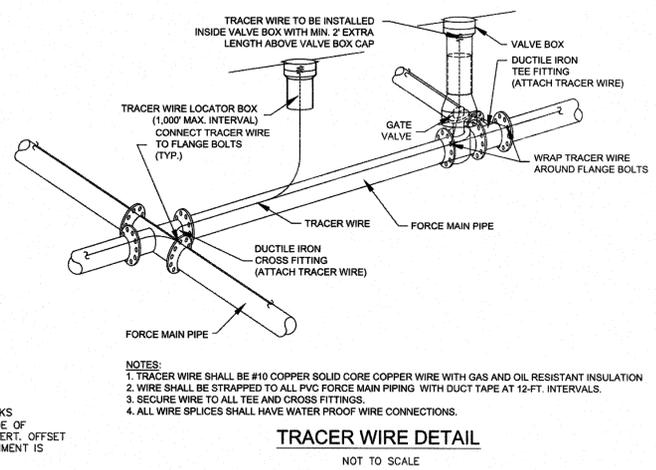
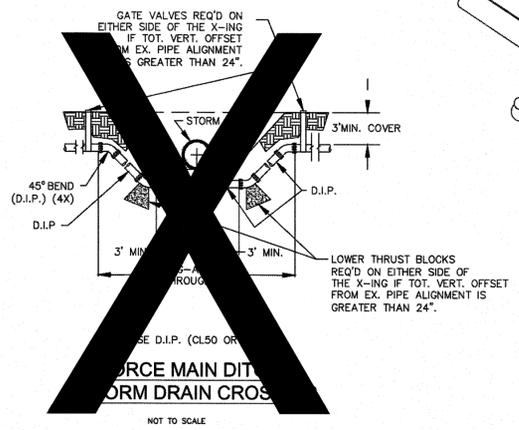
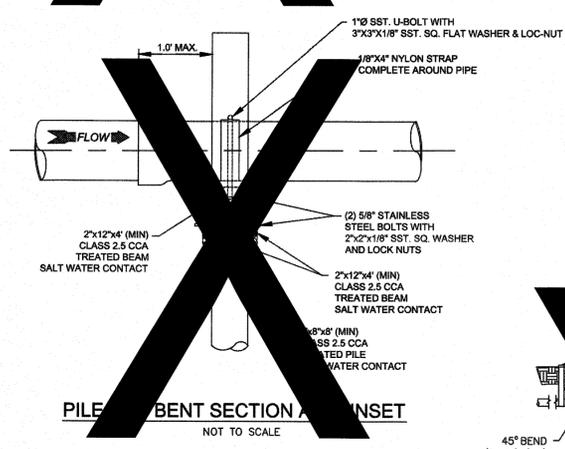
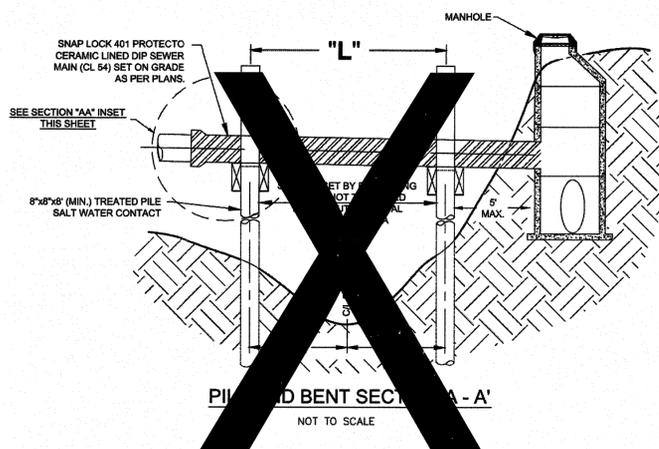
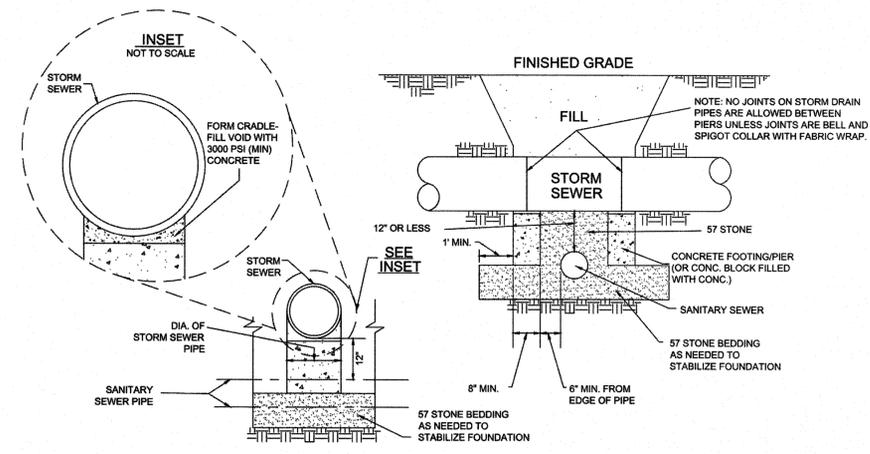
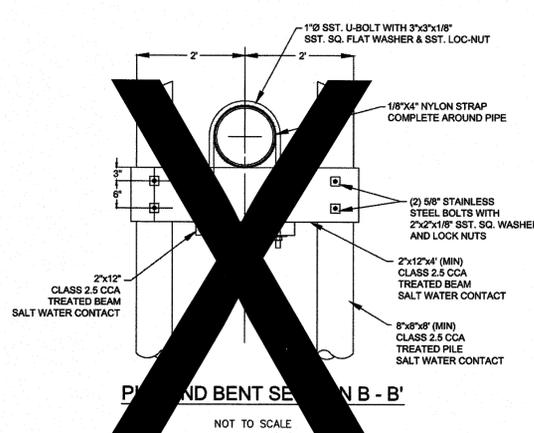
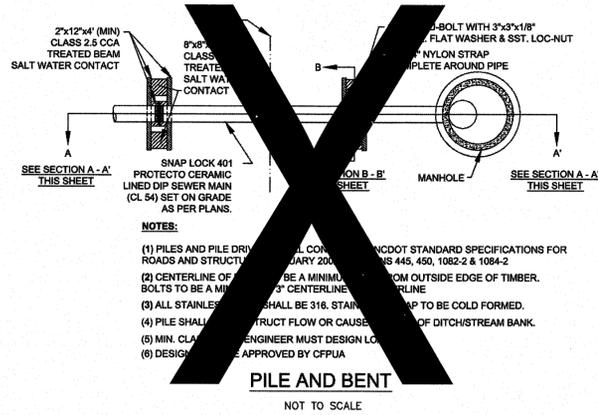
**SSD-2 CFPUA SANITARY SEWER DETAILS**

DATE: 22 JAN 14  
 MCE PROJ. #: 06588-0001  
 DRAWN: TCM/RAC  
 DESIGNED: TCM/RAC  
 CHECKED: RMC  
 PROJ. MGR: RMC

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

M&C FILE NUMBER: **CU502**  
 DRAWING NUMBER: **19**

STATUS: PRELIMINARY PLANS  
 NOT FOR CONSTRUCTION



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

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 \_\_\_\_\_

**CFPUA SANITARY SEWER**

DATE: 1/8/12

SCALE: N/A

DRAWN BY: CFPUA

CHECKED BY: CFPUA

PROJECT NO.:

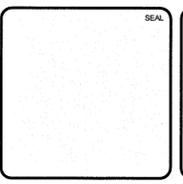
**STANDARD DETAILS**

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

SHEET NO: SSD-3

REV:	DESCRIPTION:	DATE:

REV NO.	DESCRIPTIONS	DATE



**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

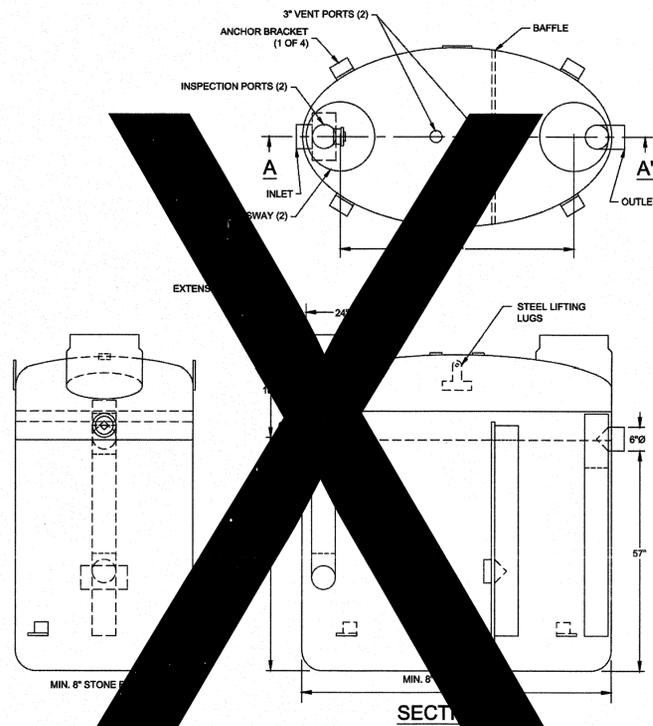
**SAWMILL POINT**  
15 COWAN STREET  
WILMINGTON, NORTH CAROLINA

**SSD-3 CFPUA SANITARY SEWER DETAILS**

DATE: 22 JAN 14  
MCE PROJ #: 06586-0001  
DRAWN: TCM/RAC  
DESIGNED: TCM/RAC  
CHECKED: RMC  
PROJ MGR: RMC

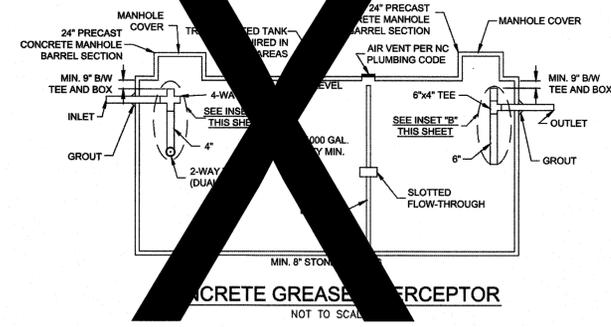
SCALE: HORIZONTAL: N/A  
VERTICAL: 20

STATUS: PRELIMINARY PLANS  
NOT FOR CONSTRUCTION

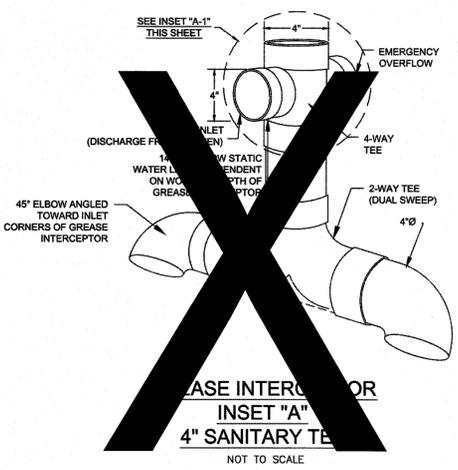


1. FOR GRAVITY APPLICATIONS ONLY
2. MIN. THICKNESS: 1/4\"/>

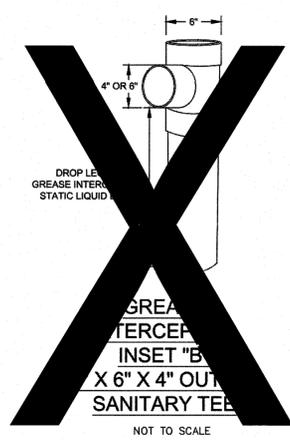
**FIBERGLASS GREASE INTERCEPTOR**  
NOT TO SCALE



**CONCRETE GREASE INTERCEPTOR**  
NOT TO SCALE



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



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



**GREASE INTERCEPTOR 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, BEFORE ANY CONSTRUCTION BEGINS.
  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.
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**THE DETAILS SHOWN HEREON SUPERCEDE CFPUA WRITTEN TECHNICAL SPECIFICATIONS VERSIONS 1.00 - 1.04**

REV:	DESCRIPTION:	DATE:

<b>CFPUA SANITARY SEWER</b>		DATE: 1/9/12
<b>STANDARD DETAILS</b>		SCALE: N/A
 <b>CAPE FEAR PUBLIC UTILITY AUTHORITY</b> 235 GOVERNMENT CENTER DRIVE WILMINGTON, NC 28403 OFFICE: (910)332-6560 <small>Stewardship. Sustainability. Service.</small>		DRAWN BY: CFPUA CHECKED BY: CFPUA PROJECT NO.:
		SHEET NO: SSD-4

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



01-21-2014



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

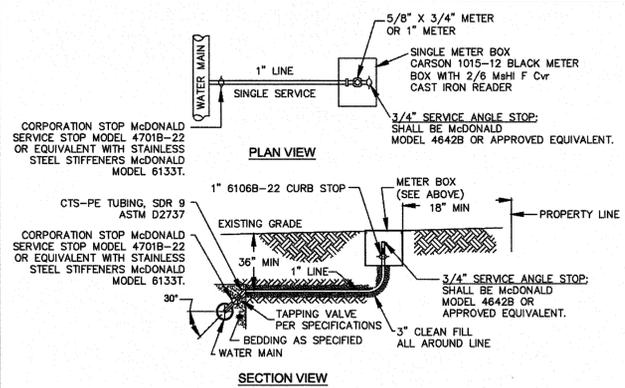


Orchestrating REAL Solutions

**SAWMILL POINT**  
15 COWAN STREET  
WILMINGTON, NORTH CAROLINA

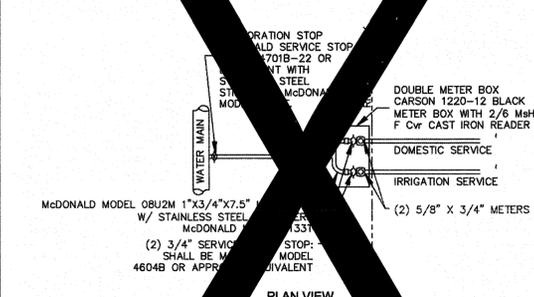
**SSD-4 CFPUA SANITARY SEWER DETAILS**

DATE: 22 JAN 14	SCALE: N/A	M&C FILE NUMBER: CU504
M&C PROJ # 06588-0001	HORIZONTAL: N/A	DRAWING NUMBER: 21
DRAWN: TCM/RAC	VERTICAL: N/A	
DESIGNED: TCM/RAC		
CHECKED: RMC		
PROJ. MGR.: RMC		
STATUS: PRELIMINARY PLANS NOT FOR CONSTRUCTION		

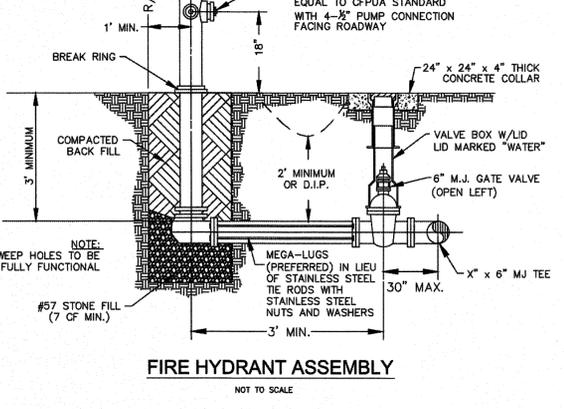
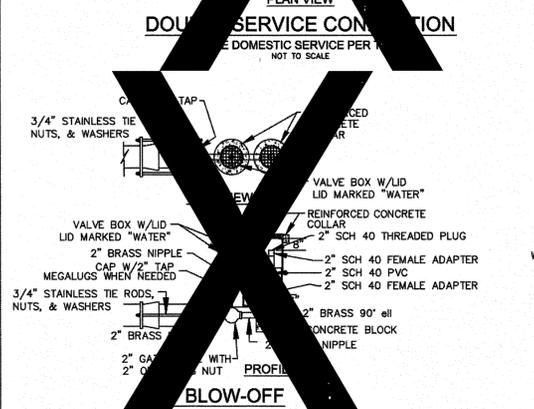


**NOTES:**  
 1. NO JOINT SHALL BE INSTALLED BETWEEN THE MAIN SERVICE TAP AND THE METER STOP. ALL SERVICES SHALL BE INSTALLED PERPENDICULAR TO MAIN.  
 2. SERVICE SADDLES ON PVC MAINS SHALL BE WIDE BAND BRASS BODY; SADDLE McDONALD 3801 OR EQUIVALENT.  
 3. METER BOXES SUSCEPTIBLE TO TRAFFIC SHALL CONFORM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

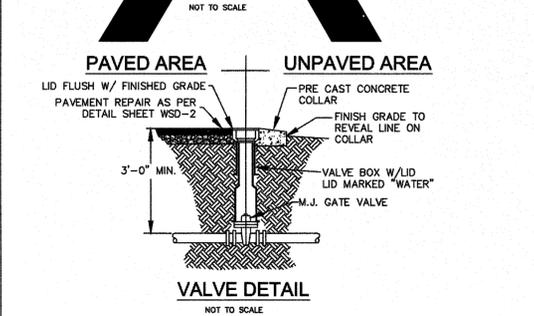
**SINGLE SERVICE CONNECTION**  
 TYPICAL WATER SERVICE CONNECTION FOR RESIDENTIAL SINGLE FAMILY HOME ON CFPWA WATER SYSTEM  
 NOT TO SCALE



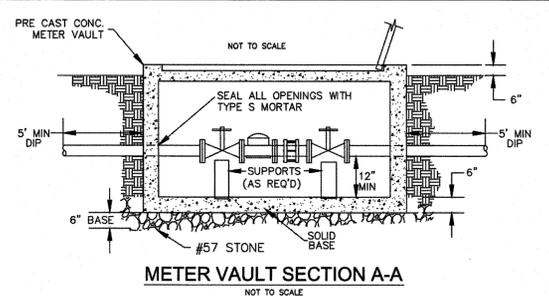
**DOUBLE SERVICE CONNECTION USING SUBTRACT METER**  
 (MULTIPLE DOMESTIC SERVICES PER TAP)  
 NOT TO SCALE



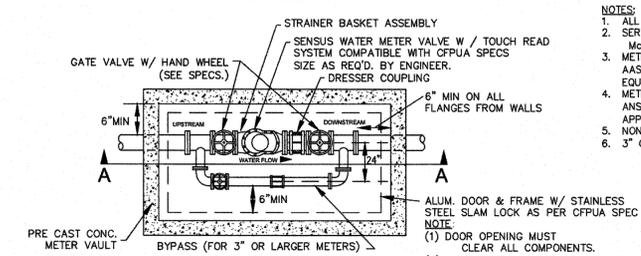
**FIRE HYDRANT ASSEMBLY**  
 NOT TO SCALE



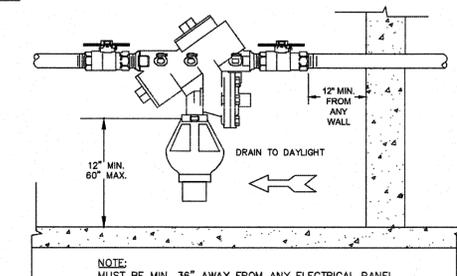
**VALVE DETAIL**  
 NOT TO SCALE



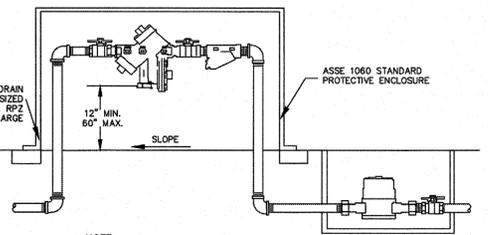
**METER VAULT SECTION A-A**  
 NOT TO SCALE



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

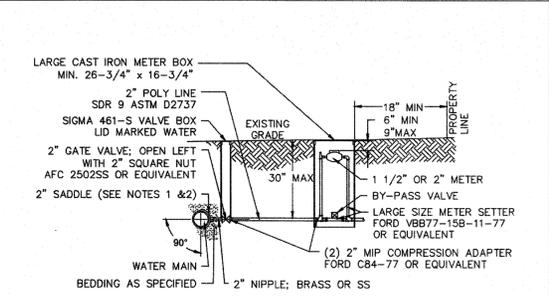


**INDOOR HORIZONTAL INSTALLATION**  
 NOT TO SCALE



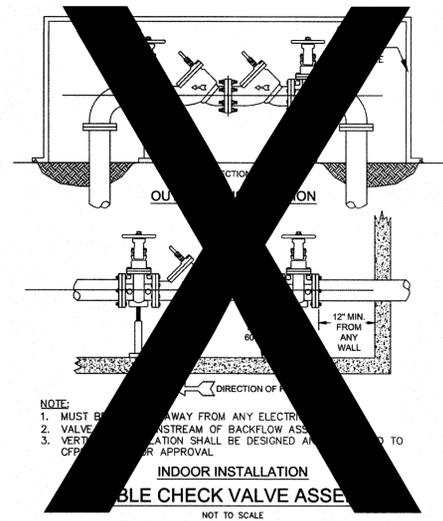
**OUTDOOR HORIZONTAL INSTALLATION**  
 REDUCED PRESSURE PRINCIPLE ASSEMBLY  
 NOT TO SCALE

REV.	DESCRIPTION:	DATE:
1	Single Service Connection, Double Service Connection, and Large Meter Revised	10/26/12



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

**NOTES:**  
 1. 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 (OLDCASTLE PRECAST MODEL B1730 OR APPROVED EQUIVALENT).  
 4. METER BOXES SUSCEPTIBLE TO INCIDENTAL, NON-DELIBERATE TRAFFIC SHALL CONFORM TO ANSI/SCIE 77 TIER 15 LOAD RATING STANDARDS (SYNERTECH MODEL DUO 17x30 OR APPROVED EQUIVALENT).  
 5. NON-TRAFFIC METER BOXES SHALL BE SIGMA MB2203 OR APPROVED EQUIVALENT.  
 6. 3" CLEAN FILL REQUIRED ALL AROUND 2" POLY SERVICE LINE.



**INDOOR INSTALLATION**  
 DOUBLE CHECK VALVE ASSEMBLY  
 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 CFPWA WRITTEN TECHNICAL SPECIFICATIONS VERSIONS 1.00 - 1.04**

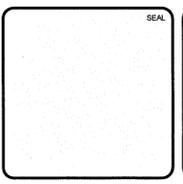
<b>CFPUA WATER DISTRIBUTION SYSTEM</b>		DATE: 1/8/12
SCALE: N/A		DRAWN BY: CFPUA
CHECKED BY: CFPUA		PROJECT NO.:
<b>STANDARD DETAILS</b>		<b>SHEET NO.:</b> WSD-1
CAPE FEAR PUBLIC UTILITY AUTHORITY 235 GOVERNMENT CENTER DRIVE WILMINGTON, NC 28403 OFFICE: (910)332-6560		STATUS: <b>PRELIMINARY PLANS</b> 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 # \_\_\_\_\_  
 SIGNED \_\_\_\_\_

REV. NO.	DESCRIPTIONS	DATE

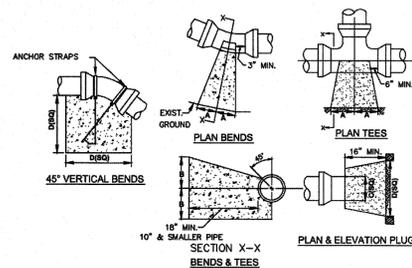
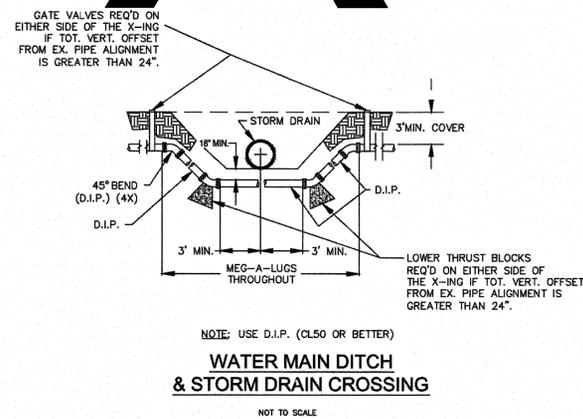
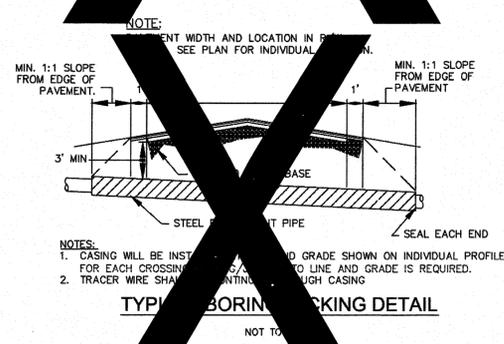
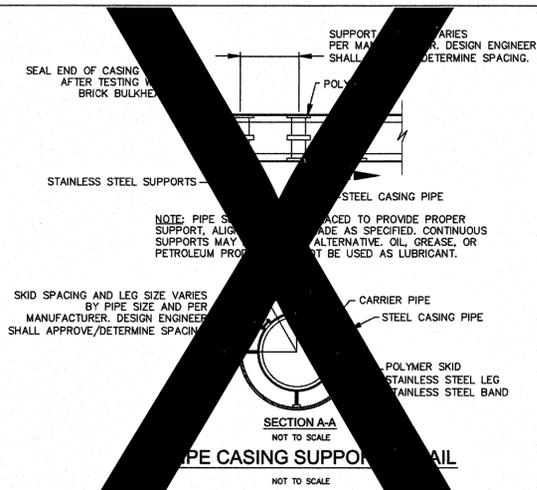


**MCKIM & CREED**  
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 Wilmington, NC 28401  
 Phone: (910)343-1048, Fax: (910)251-8282  
 NC LICENSE F-1222  
 www.mckimcreed.com

**SYMPHONY properties**  
 Orchestrating REAL Solutions

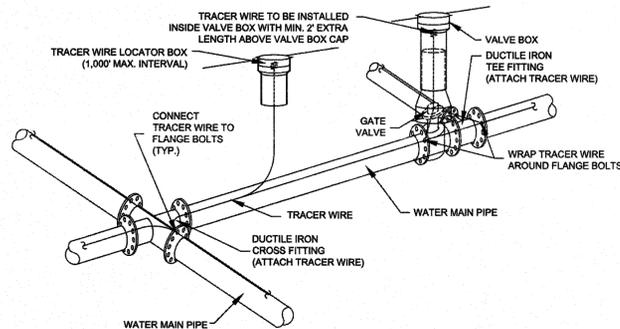
**SAWMILL POINT**  
 15 COWAN STREET  
 WILMINGTON, NORTH CAROLINA  
**WSD-1 CFPWA WATER DISTRIBUTION DETAILS**

DATE: 22 JAN 14	SCALE: N/A	MFC FILE NUMBER: CU505
MCE PROJ. #: 06596-0001	HORIZONTAL: N/A	DRAWING NUMBER: 22
DRAWN: TCMRAC	VERTICAL: 	
DESIGNED: TCMRAC		
CHECKED: RMC		
PROJ. MGR: RMC		
STATUS: <b>PRELIMINARY PLANS</b> NOT FOR CONSTRUCTION		



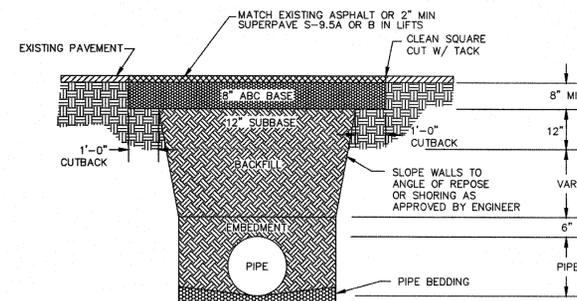
SIZE	90° BENDS		45° BENDS		22 1/2° BENDS		TEES/P.LUGS		45° VERT. BENDS
	A	B	A	B	A	B	A	B	
3"	8"	6"	5"	6"	3"	7"	6"	8"	27"
4"	8"	9"	5"	8"	3"	11"	6"	9"	28"
6"	14"	11"	9"	8"	8"	8"	12"	9"	36"
8"	16"	16"	12"	12"	10"	13"	14"	13"	42"
10"	18"	22"	15"	14"	14"	16"	18"	15"	50"
12"	20"	28"	18"	17"	16"	16"	22"	18"	62"
14"	26"	28"	21"	19"	18"	18"	26"	20"	72"
16"	33"	28"	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.



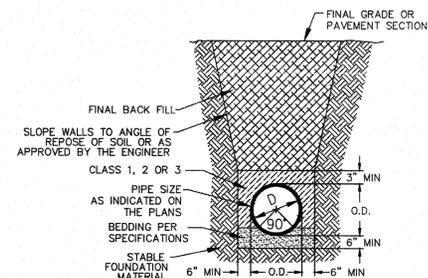
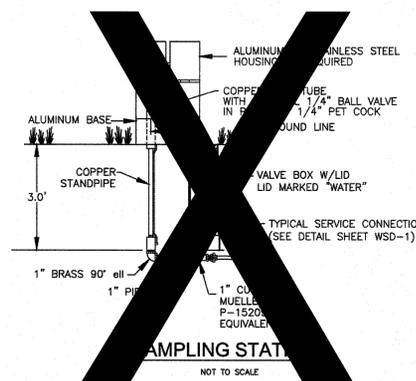
NOTES: 1. TRACER WIRE SHALL BE #10 COPPER SOLID CORE COPPER WIRE WITH GAS AND OIL RESISTANT INSULATION.  
2. WIRE SHALL BE STRAPPED TO ALL PVC WATER MAIN PIPING WITH DUCT TAPE AT 12-FT. INTERVALS.  
3. SECURE WIRE TO ALL TEE AND CROSS FITTINGS.  
4. ALL WIRE SPLICES SHALL HAVE WATER PROOF WIRE CONNECTIONS.

**TRACER WIRE DETAIL**



NOTES: 1. BACKFILL SHALL BE SUITABLE MATERIAL THAT IS FREE FROM HEAVY CLAY, GUMBOS, DEBRIS, ORGANICS AND LIQUID 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%.

**PAVEMENT REPAIR WHERE PIPE INSTALLED**



**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 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: 1/8/12  
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-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.

1 inch

**Approved Construction Plan**

Name: \_\_\_\_\_ Date: \_\_\_\_\_  
Planning: \_\_\_\_\_  
Traffic: \_\_\_\_\_  
Fire: \_\_\_\_\_

**STORMWATER MANAGEMENT PLAN**

**APPROVED**

CITY OF WILMINGTON  
ENGINEERING DEPARTMENT  
DATE: \_\_\_\_\_ PERMIT # \_\_\_\_\_  
SIGNED: \_\_\_\_\_

REVNO.	DESCRIPTIONS/REVISIONS	DATE



**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**  
15 COWAN STREET  
WILMINGTON, NORTH CAROLINA  
**WSD-2 CFPWA WATER DISTRIBUTION DETAILS**

DATE: 22 JAN 14  
MCE PROJ.#: 06586-0001  
DRAWN: TCM/RAC  
DESIGNED: TCM/RAC  
CHECKED: RMC  
PROJ. MGR.: RMC  
SCALE: HORIZONTAL: N/A, VERTICAL: 23  
MFC FILE NUMBER: CU506  
DRAWING NUMBER: 23  
STATUS: PRELIMINARY PLANS NOT FOR CONSTRUCTION