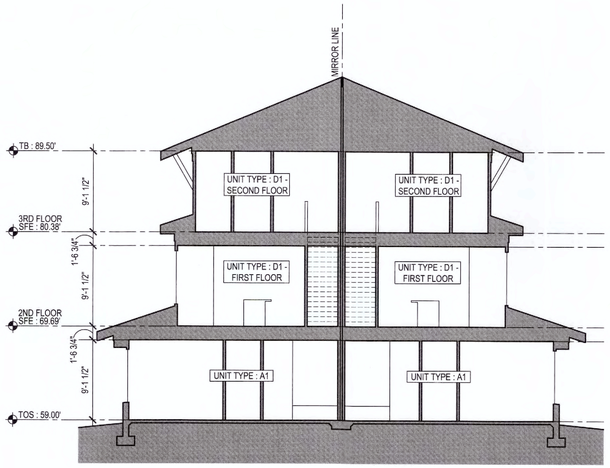
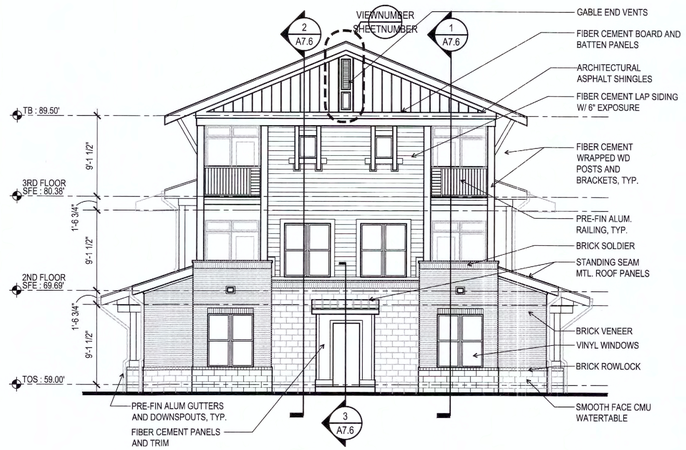
AXIOM
ARCHITECTURE
333 WEST TRADE ST.
SUITE 200
CHARLOTTE, NC 28202
T 704.927.9900
F 704.343.9380
www.axiomarchitecture.com

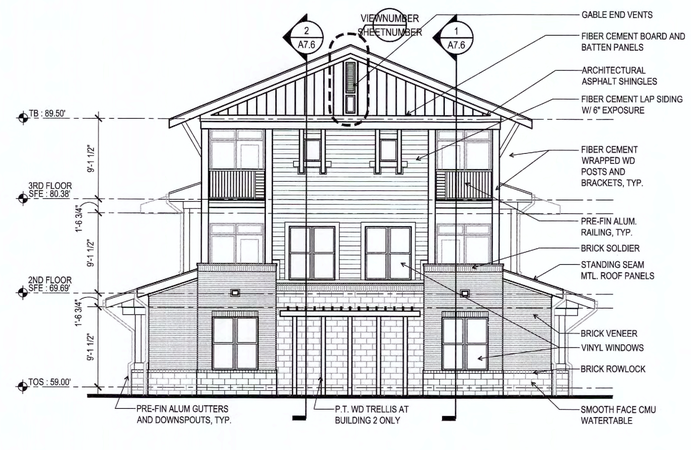
NOT FOR CONSTRUCTION



4 / A5.1 **BUILDING 2-3 : CROSS SECTION**
1/8" = 1'-0"



3 / A5.1 **BLDG 2 EAST ELEVATION : BLDG 3 WEST ELEVATION**
1/8" = 1'-0"



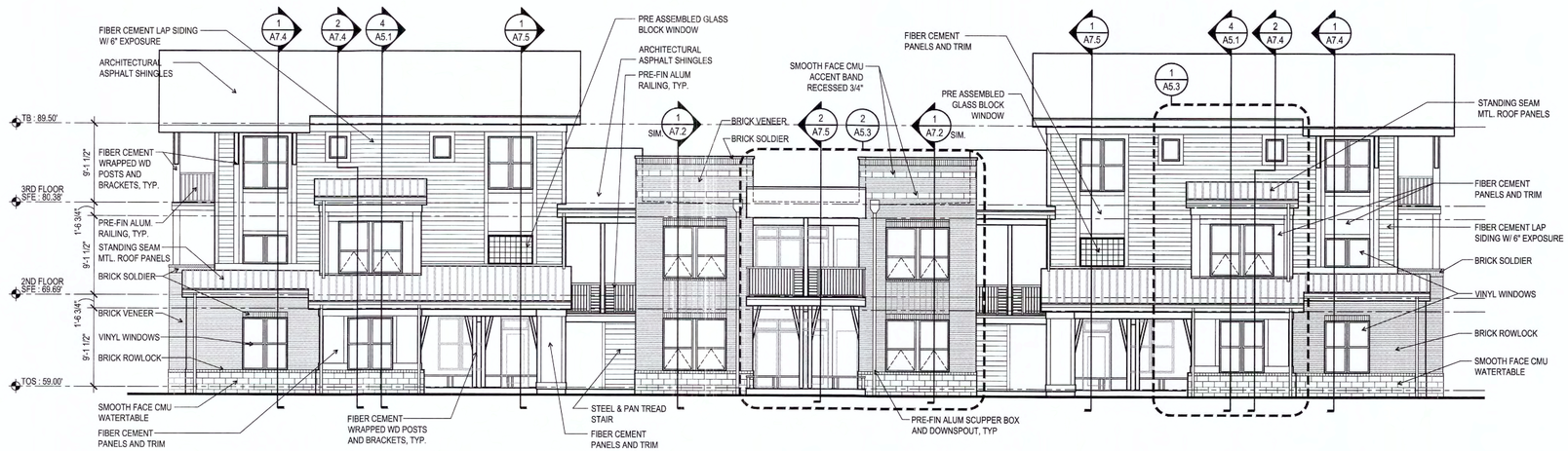
2 / A5.1 **BLDG 2 WEST ELEVATION : BLDG 3 EAST ELEVATION**
1/8" = 1'-0"

EXTERIOR NOTES

1. INSTALL SELF-ADHERING MEMBRANE BEHIND MASONRY ANCHORS WHEN INSTALLED.
2. ALL PENETRATIONS, INCLUDING MECHANICAL DUCTS, ELECTRICAL LINES, WINDOWS AND DOORS TO BE SEALED TO THE BACKUP WALL AT THE PRIMARY MOISTURE BARRIER.
3. PROVIDE FLASHING AT ALL HORIZONTAL TRANSITIONS AND SEALANT JOINTS AT ALL VERTICAL TRANSITIONS.

EXTERIOR FINISH LEGEND

FIELD BRICK:	CAROLINA CERAMICS COLOR : BURGUNDY - VELOUR SIZE : MODULAR
ACCENT BRICK:	CAROLINA CERAMICS COLOR : XXX - SMOOTH SIZE : 8X16 OVERSIZED
FIBER-CEMENT:	JAMES HARDIE SMOOTH PANELS, TRIM & BOARD AND BATTEN COLOR : TBD - SW DURATION OR APPROVED EQUAL
MTL. WALL PANELS:	PAC-CLAD 12" REVEAL PANEL COLOR : PAC-CLAD COPPER PENNY WINDOW TRIM & COPING : PAC-CLAD DARK BRONZE
MTL. ROOF PANELS:	PAC-CLAD 16" TITE-LOC PLUS PANEL COLOR : PAC-CLAD COPPER PENNY
COPINGS/TRIM/RAILINGS:	COLOR : MATCH PAC-CLAD DARK BRONZE
GUTTER/DOWNSPOUTS:	COLOR : MATCH PACK-CLAD DARK BRONZE



1 / A5.1 **BUILDING 2-3 : NORTH AND SOUTH ELEVATION**
1/8" = 1'-0"

DAWSON STREET LOFTS

WILMINGTON, NORTH CAROLINA
WILMINGTON HOUSING AUTHORITY

WILMINGTON HOUSING AUTHORITY

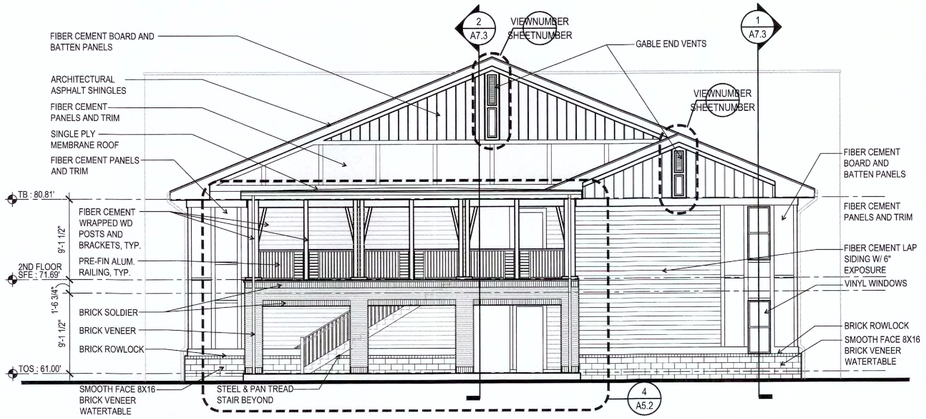
PROJECT # - A-1304

BUILDING 2 & 3 ELEVATIONS

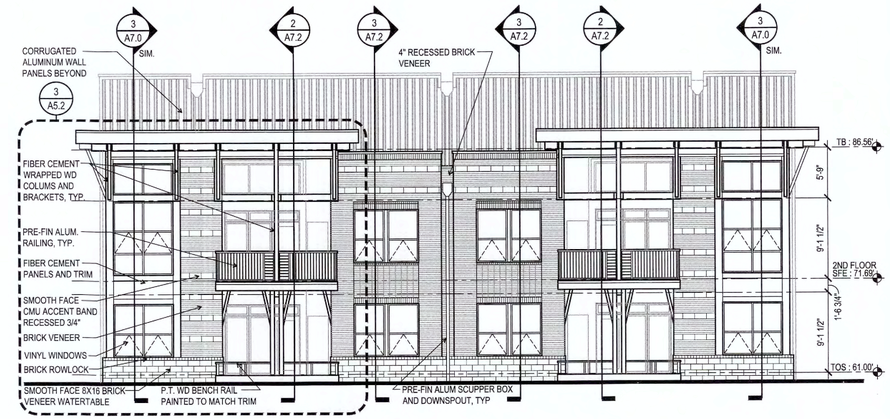
SEPTEMBER 17, 2013

REVISION 1 -
REVISION 2 -
REVISION 3 -
REVISION 4 -

A5.1



4 A5.0 BUILDING 1 - 10TH STREET ELEVATION
1/8" = 1'-0"



3 A5.0 BUILDING 1 - 8TH STREET ELEVATION
1/8" = 1'-0"

2 A5.0 BUILDING 1 - VIRGIE RHODES LANE ELEVATION
1/8" = 1'-0"

EXTERIOR NOTES

1. INSTALL SELF-ADHERING MEMBRANE BEHIND MASONRY ANCHORS WHEN INSTALLED.
2. ALL PENETRATIONS, INCLUDING MECHANICAL DUCTS, ELECTRICAL LINES, WINDOWS AND DOORS TO BE SEALED TO THE BACKUP WALL AT THE PRIMARY MOISTURE BARRIER.
3. PROVIDE FLASHING AT ALL HORIZONTAL TRANSITIONS AND SEALANT JOINTS AT ALL VERTICAL TRANSITIONS.

EXTERIOR FINISH LEGEND

FIELD BRICK:	CAROLINA CERAMICS COLOR : BURGUNDY - VELOUR SIZE : MODULAR
ACCENT BRICK:	CAROLINA CERAMICS COLOR : XXX - SMOOTH SIZE : 8X16 OVERSIZED
FIBER-CEMENT:	JAMES HARDIE SMOOTH PANELS, TRIM & BOARD AND BATTEN COLOR : TBD - SW DURATION OR APPROVED EQUAL
MTL. WALL PANELS:	PAC-CLAD 12" REVEAL PANEL COLOR : PAC-CLAD COPPER PENNY WINDOW TRIM & COPING : PAC-CLAD DARK BRONZE
MTL. ROOF PANELS:	PAC-CLAD 16" TITE-LOC PLUS PANEL COLOR : PAC-CLAD COPPER PENNY
COPINGS/TRIM/RAILINGS:	COLOR : MATCH PAC-CLAD DARK BRONZE
GUTTER/DOWNSPOUTS:	COLOR : MATCH PACK-CLAD DARK BRONZE

1 A5.0 BUILDING 1 - DAWSON STREET ELEVATION
1/8" = 1'-0"

AXIOM
ARCHITECTURE
333 WEST TRADE ST.
SUITE 200
CHARLOTTE, NC 28202
T 704.927.9900
F 704.343.9380
www.axiomarchitecture.com

NOT FOR CONSTRUCTION

DAWSON STREET LOFTS

WILMINGTON, NORTH CAROLINA
WILMINGTON HOUSING AUTHORITY

WILMINGTON HOUSING AUTHORITY

PROJECT # - A-1304

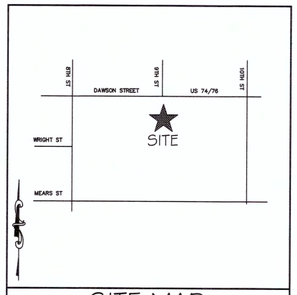
BUILDING 1 ELEVATIONS

SEPTEMBER 17, 2013

REVISION 1 -
REVISION 2 -
REVISION 3 -
REVISION 4 -

A5.0

NEW HANOVER COUNTY
CITY OF WILMINGTON, NORTH CAROLINA
DAWSON STREET LOFTS
TRC SUBMITTAL
SEPTEMBER 25, 2013



SITE MAP
N.T.S.

VICINITY MAP
NOT TO SCALE

ARCHITECT:
MATT MAJORS, AIA LEED AP
AXIOM ARCHITECTURE
333 WEST TRADE ST.
SUITE 200
CHARLOTTE, NC 28202
(704)927-9900

PROJECT ENGINEER / REPRESENTATIVE:
RICHARD CHRISTENSEN, PE
McKIM + CREED, INC.
243 NORTH FRONT STREET
WILMINGTON, NORTH CAROLINA 28401
rchristensen@mckimcreed.com
(910) 343-1048

OWNER:
WILMINGTON HOUSING AUTHORITY
1524 SOUTH 16TH STREET
WILMINGTON, NC 28401
(910)341-7700

SHEET INDEX

SHEET NO.	FILE NO.	DESCRIPTION
1	G-001	COVER
2	CX-101	EXISTING CONDITIONS
3	CE-101	SEDIMENTATION & EROSION CONTROL PLAN
4	CD-101	DEMOLITION PLAN
5	CS-101	SITE PLAN
6	CG-101	GRADING & STORMDRAIN PLAN
7	CG-102	INFILTRATION PLAN
8	CU-101	UTILITY PLAN
9	CL-101	LANDSCAPE PLAN
10	CS-501	SITE DETAILS
11	CE-501	SEDIMENTATION & EROSION CONTROL DETAILS
12	CG-501	GRADING DETAILS
12	CL-501	LANDSCAPE DETAILS
13	CU-501	SSD-1 CFPUA SANITARY SEWER STANDARD DETAILS
14	CU-502	SSD-2 CFPUA SANITARY SEWER STANDARD DETAILS
15	CU-503	SSD-3 CFPUA SANITARY SEWER STANDARD DETAILS
16	CU-504	SSD-4 CFPUA SANITARY SEWER STANDARD DETAILS
17	CU-505	WSD-1 WATER DISTRIBUTION SYSTEM STANDARD DETAILS
18	CU-506	WSD-2 WATER DISTRIBUTION SYSTEM STANDARD DETAILS

CALL NC ONE CALL BEFORE YOU DIG
STOP
1-800-632-4949
AVOID UTILITY DAMAGE
PHONE# 1-800-632-4949

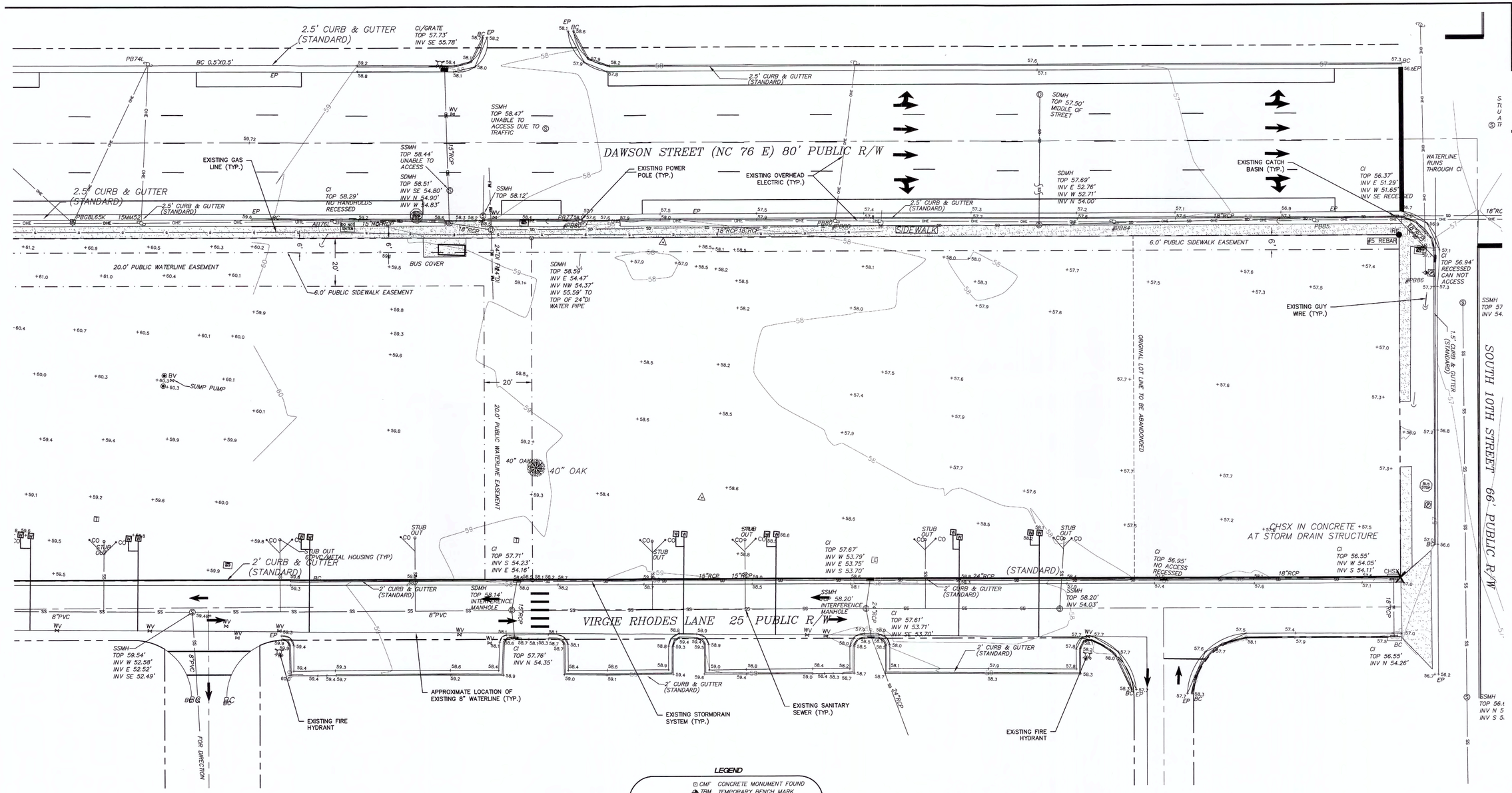
243 North Front Street
Wilmington, North Carolina 28401
Phone: (910)343-1048 , Fax: (910)251-8282
NC LICENSE NO. F-1222
www.mckimcreed.com

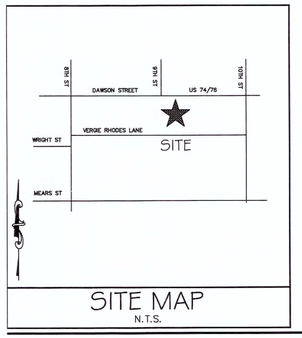
AXIOM
ARCHITECTURE
333 WEST TRADE ST.
SUITE 200
CHARLOTTE, NC 28202
T 704.927.9900
F 704.343.9380
www.axiomarchitecture.com

NORTH CAROLINA PROFESSIONAL SEAL 038577 ENGINEER RICHARD CHRISTENSEN
9-25-2013
NOT FOR CONSTRUCTION

DAWSON STREET LOFTS

6464-0001





SITE MAP
N.T.S.

Approved Construction Plan

	Name	Date
Planning		
Traffic		
Fire		

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

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

- CMF — CONCRETE MONUMENT FOUND
- TBM — TEMPORARY BENCH MARK
- IPF — IRON PIPE FOUND
- IRF — IRON ROD FOUND
- PK NAIL FOUND
- RC — REBAR AND CAP
- STORM DRAIN MANHOLE
- GRATED INLET
- OPEN CURB INLET
- SANITARY SEWER MANHOLE
- CO — CLEAN OUT
- LIGHT POWER POLE
- ABL76 — POWER POLE WITH NUMBER
- GUY WIRE
- GV — GAS VALVE
- BV — BLOW OFF VALVE
- BOLLARD
- W — WATER METER
- TELEPHONE PEDESTAL FIBER OPTIC
- XXX — VARIOUS SIGNS AS LABELED
- CALCULATED POINT
- R/W — RIGHT OF WAY
- +18.6 — SPOT ELEVATION
- RCP — REINFORCED CONCRETE PIPE
- VCP — VITRIFIED CLAY PIPE
- BC — BACK OF CURB
- EP — EDGE OF PAVEMENT
- DEED PROPERTY LINE
- OVERHEAD ELECTRIC
- STORM SEWER
- SANITARY SEWER
- GAS LINE
- RIGHT OF WAY
- ROAD CENTERLINE
- CONCRETE HATCH
- PAVEMENT HATCH
- EP

1. ALL DISTANCES ARE HORIZONTAL GROUND IN U.S. SURVEY FEET UNLESS OTHERWISE SHOWN.
2. BEARINGS BASED ON MAP BOOK 47 PAGE 343.
3. VERTICAL DATUM IS NAVD 88 ELEVATIONS WITH A 1' CONTOUR INTERVAL:
4. SURVEYOR HAS MADE NO INVESTIGATION OR INDEPENDENT SEARCH FOR EASEMENTS OF RECORD, ENCUMBRANCES, RESTRICTIVE COVENANTS, OWNERSHIP, TITLE EVIDENCE, OR ANY OTHER FACTS THAT AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.
5. UNDERGROUND UTILITIES ARE SHOWN ONLY WHERE ABOVEGROUND SERVICES WERE VISIBLE.
6. SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS A PART OF THIS SURVEY. NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONTAINERS OR FACILITIES THAT MAY AFFECT THE USE OR DEVELOPMENT OF THIS TRACT.
7. THE EXISTENCE OR NONEXISTENCE OF WETLANDS ON SUBJECT PROPERTY HAS NOT BEEN DETERMINED BY THIS SURVEY.
8. SUBJECT TO ALL EASEMENTS, RIGHT OF WAYS, AND OR ENCUMBRANCES THAT MAY EFFECT THIS PROPERTY.
9. EASEMENT TO BELL SOUTH DEED BOOK 3509 PAGE 735 10' WIDE STRIP ALONG ANY ACCESS AND TO ANY BUILDING FROM DAWSON STREET.
10. EASEMENT TO CAROLINA POWER AND LIGHT DEED BOOK 3509 PAGE 732 30' WIDE ON ALL OVERHEAD LINES AND 10' ON ALL UNDERGROUND AND 10' AROUND ANY FOUNDATION OF ANY ENCLOSURE.
11. THIS PROPERTY LIES IN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AS SHOWN ON FLOOD INSURANCE RATE MAP PANEL NUMBER 3127, MAP NUMBER 3720312700J DATED APRIL 3, 2006.
12. PROPOSED FUTURE RIGHT OF WAY EXPANSION LINE AS SHOWN ON MB 47 PAGE 343 REMOVED DUE TO NO RECORD OF ACCEPANCE OR DEDICATION.

ZONING INFORMATION

UMX URBAN MIXED USE DISTRICT

SET BACKS: NONE REQUIRED UNLESS FACING A SINGLE-FAMILY RESIDENTIAL ZONING DISTRICT

THE SIDE FACING IS:
FRONT 5' (BUT NOT MORE THAN 10')
REAR 5'
SIDE 5'

IN NO CASE SHALL FRONT SET BACK BE MORE THAN 10'

ALLOWABLE BUILDING HEIGHTS ALONG ARTERIAL STREETS:
4 STORIES OR 45'
ALONG RESIDENTIAL AND COLLECTOR STREETS:
2 STORIES OR 35'

CONSULT LAND DEVELOPMENT CODE FOR MORE EXACTING CONDITIONS.

N

20' 0 20' 40'
SCALE: 1"=20' (Horiz.)

NORTH CAROLINA PROFESSIONAL SEAL 038577 ENGINEER RICHARD W. CREED, JR.
9-25-2013
NOT FOR CONSTRUCTION

AXIOM ARCHITECTURE
333 WEST TRADE ST.
SUITE 200
CHARLOTTE, NC 28202
T 704.927.9900
F 704.343.9380
www.axiomarchitecture.com

ENGINEER:
McKim & Creed, Inc.
243 N Front St.
Wilmington, NC 28401
(910)-343-1048

OWNER:
Wilmington Housing Authority
1524 S 16th St.
Wilmington, NC 28401

DAWSON STREET LOFTS

WILMINGTON, NORTH CAROLINA
WILMINGTON HOUSING AUTHORITY

WILMINGTON HOUSING AUTHORITY

PROJECT # - A-1304

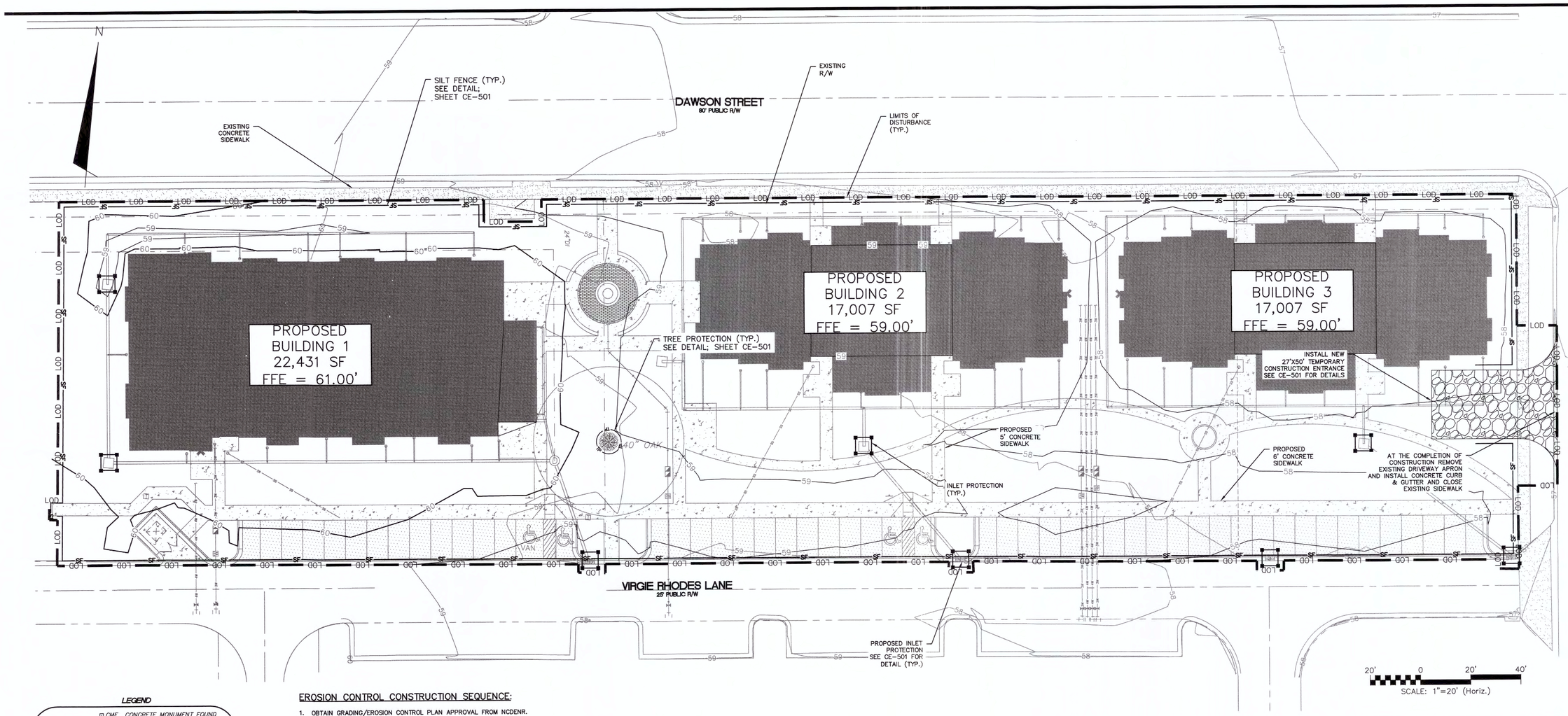
EXISTING CONDITIONS

SEPTEMBER 26, 2013

REVISION 1 -
REVISION 2 -
REVISION 3 -
REVISION 4 -

BID SET

CX-101



AXIOM
ARCHITECTURE
333 WEST TRADE ST.
SUITE 200
CHARLOTTE, NC 28202
T 704.927.9900
F 704.343.9380
www.axiomarchitecture.com

ENGINEER:
McKim & Creed, Inc.
243 N Front St.
Wilmington, NC 28401
(910)-343-1048

OWNER:
Wilmington Housing Authority
1524 S 16th St.
Wilmington, NC 28401

DAWSON STREET LOFTS

WILMINGTON, NORTH CAROLINA

WILMINGTON HOUSING AUTHORITY

LEGEND

CMF	CONCRETE MONUMENT FOUND
TBM	TEMPORARY BENCH MARK
IPF	IRON PIPE FOUND
IRF	IRON ROD FOUND
	PK NAIL FOUND
	STORM DRAIN MANHOLE
	SANITARY SEWER MANHOLE
CO	CLEAN OUT
	LIGHT POWER POLE
	POWER POLE
	GUY WIRE
GV	GAS VALVE
BV	BLOW OFF VALVE
	BOLLARD
W	WATER METER
T	TELEPHONE PEDESTAL FIBER OPTIC
	CALCULATED POINT
R/W	RIGHT OF WAY
+18.6	SPOT ELEVATION
RCP	REINFORCED CONCRETE PIPE
VCP	VITRIFIED CLAY PIPE
BC	BACK OF CURB
	DEED PROPERTY LINE
OHE	OVERHEAD ELECTRIC
	STORM SEWER
SS	SANITARY SEWER
G	GAS LINE
	RIGHT OF WAY
	ROAD CENTERLINE
	CONCRETE HATCH

LIMITS OF DISTURBANCE = (85,843.57 sf) 1.97 acres

LAT: 34° 13' 28" N
LONG: 77° 56' 10" W

EROSION CONTROL CONSTRUCTION SEQUENCE:

1. OBTAIN GRADING/EROSION CONTROL PLAN APPROVAL FROM NCDENR.
2. SCHEDULE MANDATORY PRE-CONSTRUCTION MEETING WITH LAND QUALITY (WILMINGTON #910-796-7215) 48 HOURS PRIOR TO CONSTRUCTION TO DISCUSS EROSION CONTROL MEASURES.
3. ESTABLISH LIMITS OF DISTURBANCE AS SHOWN.
4. 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.
5. INSTALL SILT FENCING AS NOTED ON PLANS BEFORE COMMENCING ANY LAND DISTURBANCE ACTIVITY. TREE PROTECTION FENCING AND ADDITIONAL SILT FENCE MAY BE REQUIRED.
6. INSTALL TEMPORARY INLET PROTECTION DEVICE AS DETAILED ON THE PLANS. CONTRACTOR TO MONITOR THIS DEVICE FOLLOWING MORE THAN 1/2-INCH OF RAINFALL AND AT LEAST WEEKLY FOR SILT AND DEBRIS BUILDUP. REMOVE THE SILT AND DEBRIS AS NEEDED TO ENSURE PROPER FILTRATION.
7. COMMENCE GRUBBING AND ROUGH GRADING WITHIN THE LIMITS OF CONSTRUCTION.
8. COMMENCE DEMOLITION AS SHOWN ON CD-101. ALL DEMOLITION MATERIAL SHALL BE DISPOSED OF, SALVAGED, OR RECYCLED PER THE PROJECT SPECIFICATIONS.
9. COORDINATE DISCONNECTION OF EXISTING UTILITIES:
   - ELECTRICAL SERVICES AND POLES WITH DUKE ENERGY
   - TELEPHONE SERVICES AND POLES WITH BELL SOUTH
   - CABLE WITH TIME WARNER CABLE
   - SEWER AND WATER SERVICES WITH CAPE FEAR PUBLIC UTILITY AUTHORITY
   - STORM DRAINAGE SYSTEM WITH CITY OF WILMINGTON
10. PROVIDE TEMPORARY STABILIZATION AND SEEDING AS NECESSARY TO PREVENT EROSION. REFER TO SHEET CE-501 FOR GROUND STABILIZATION CRITERIA AND SEEDING SCHEDULE.
11. UPON COMPLETION OF CONSTRUCTION, CONTRACTOR TO REQUEST FINAL SITE INSPECTION BY NCDENR INSPECTOR TO ALLOW REMOVAL OF ALL TEMPORARY EROSION CONTROL DEVICES.
12. INSTALL LANDSCAPING AND ESTABLISH FINAL GRADES AS SHOWN ON CG-101.
13. 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.
14. REMOVE SEDIMENT FROM ALL STORM DRAIN PIPES.
15. SILT FENCE MUST REMAIN INSTALLED AND FUNCTIONING PROPERLY UNTIL THE LIMITS OF CONSTRUCTION HAVE BEEN PERMANENTLY STABILIZED.
16. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE NCDENR REGULATIONS.
17. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES TO MINIMIZE EROSION. THE CONTRACTOR SHALL MAINTAIN CLOSE CONTACT WITH THE NCDENR INSPECTOR SO THAT PERIODIC INSPECTIONS CAN BE PERFORMED AT APPROPRIATE STAGES OF CONSTRUCTION.

EROSION CONTROL NOTES:

1. ANY GRADING BEYOND THE DENUDED LIMITS SHOWN ON THE PLAN IS A VIOLATION OF THE NCDENR-DLQ EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE. LIMITS OF DISTURBANCE 1.97 ACRES (85,843.57 SF).
2. GRADING MORE THAN ONE ACRE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A VIOLATION OF THE NCDENR-DLQ 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 NCDENR-DIVISION OF LAND QUALITY.
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 NCDENR-DLQ.
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 WILL BE COMPLETE PRIOR TO ANY RAIN EVENT.

Approved Construction Plan

	Name	Date
Planning		
Traffic		
Fire		

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

EROSION CONTROL MAINTENANCE PLAN:

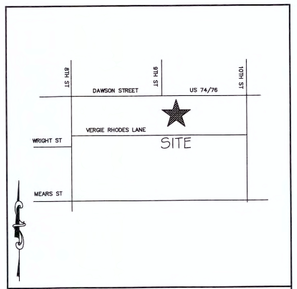
1. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED AND REPAIRED, AS NECESSARY, EVERY SEVEN (7) DAYS OR AFTER EACH RAINFALL OCCURRENCE THAT EXCEEDS ONE-HALF (0.5) INCH.
2. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL 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 SEDIMENT FENCE WHEN IT BECOMES ABOUT 0.5 FEET DEEP. THE SEDIMENT FENCE WILL BE REPAIRED OR REPLACED AS NECESSARY TO MAINTAIN A BARRIER.
4. ALL AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
5. STONE CONSTRUCTION ENTRANCE TO BE CLEANED WHEN SEDIMENT ACCUMULATIONS ARE VISIBLE OR SEDIMENT IS TRACKED ON TO THE PAVEMENT. STONE WILL BE PERIODICALLY TOP DRESSED WITH 2 INCHES OF #4 STONE TO MAINTAIN 6 INCH DEPTH. THE CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT, AS REQUIRED.
6. INSPECT 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.
7. SEE NPDES PERMIT COVERAGE NOTES FOR STABILIZATION TIME FRAMES AND VEGETATION PLAN SPECIFICATIONS.
8. CONTRACTOR SHALL FOLLOW NPDES NCG 010000 PERMIT CONDITIONS THAT INCLUDE SELF-INSPECTION AND RECORD KEEPING.

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

NORTH CAROLINA PROFESSIONAL SEAL 038577 ENGINEER RICHARD A. MCKIM
9-25-2013
NOT FOR CONSTRUCTION

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 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 HQW ZONES)



SITE MAP
N.T.S.

WILMINGTON HOUSING AUTHORITY

PROJECT # - A-1304

SEDIMENT & EROSION CONTROL PLAN

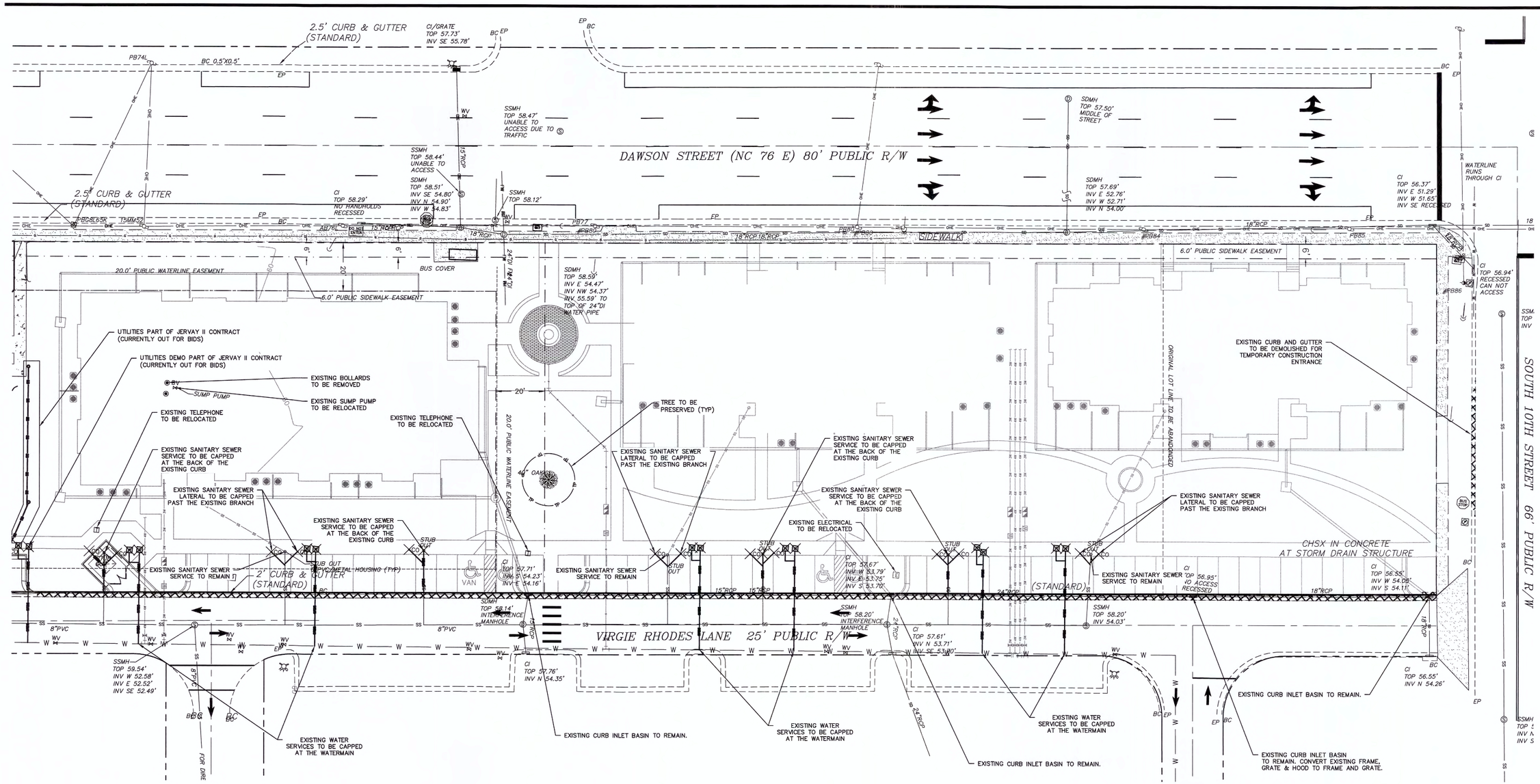
SEPTEMBER 26, 2013

REVISION 1 -
REVISION 2 -
REVISION 3 -
REVISION 4 -

BID SET

CE-101

S:\5464\0001\80-Drawings\CE101_5464-0001.dwg, 9/24/2013 6:13:26 PM, \\wil-print-svr\KIP_7100



DEMOLITION NOTES

1. THE CONTRACTOR SHALL VISIT THE SITE TO BECOME FAMILIARIZED WITH FIELD DEMOLITION CONDITIONS.
2. THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL DEMOLISHED DEBRIS ASSOCIATED WITH THE PROJECT IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
3. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST GENERATED BY THE WORK, INCLUDING BUT NOT LIMITED TO DEMOLITION AND CONSTRUCTION ACTIVITIES, SITE VEHICULAR TRAFFIC AND RELATED OPERATIONS.
4. THE CONTRACTOR IS RESPONSIBLE FOR HAVING ALL EXISTING UTILITIES LOCATED PRIOR TO BEGINNING ANY DEMOLITION. CONTRACTOR SHALL CONTACT NC ONE CALL AT LEAST 72 HOURS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED.
5. EXISTING UTILITIES AND STRUCTURES SHOWN, BOTH UNDERGROUND AND ABOVE GROUND, ARE BASED ON FIELD SURVEY AND THE BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO BEGINNING RELATED CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE AND ENGINEER IMMEDIATELY.
6. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF DISCONNECTING AND ABANDONING ALL EXISTING UTILITIES WITH THE OWNER UNLESS OTHERWISE NOTED. ALL EXISTING UTILITIES AND ASSOCIATED PIPING, ETC. NOT IN USE ON THE SITE SHALL BE PROPERLY ABANDONED AND REMOVED AS REQUIRED. COORDINATE WITH THE OWNER.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ANY EXISTING UTILITIES THAT REMAIN IN SERVICE DURING DEMOLITION.
8. THE CONTRACTOR IS RESPONSIBLE FOR STABILIZATION OF ALL DISTURBED AREAS AND SLOPES ON AND OFF SITE IN ACCORDANCE WITH THE EROSION CONTROL MEASURES SPECIFIED ON THE PLANS AND IN THE SPECIFICATIONS. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER TO DETERMINE WHO IS RESPONSIBLE FOR PROVIDING THE PERMANENT STABILIZATION MEASURES AND THE TYPE OF PERMANENT MEASURES PRIOR TO BEGINNING DEMOLITION AND CONSTRUCTION. THE PERMANENT STABILIZATION MEASURES SHALL BE IN PLACE AND ACCEPTABLE TO THE OWNERS REPRESENTATIVE AND ENGINEER PRIOR TO PROJECT CLOSEOUT. COORDINATE INSPECTION WITH THE OWNER AND ENGINEER PRIOR TO PROJECT CLOSEOUT.
9. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND CONTACTING THE ENGINEER FOR THE REQUIRED INSPECTIONS ON THE PROJECT.
10. WETLANDS DO EXIST ON SITE AND ARE NOTED ON THE PLANS. UNLESS OTHERWISE INDICATED, THE WETLANDS SHALL NOT BE DISTURBED DURING CONSTRUCTION OF THIS PROJECT.

LEGEND

CMF	CONCRETE MONUMENT FOUND
TBM	TEMPORARY BENCH MARK
IPF	IRON PIPE FOUND
IRF	IRON ROD FOUND
	PK NAIL FOUND
	STORM DRAIN MANHOLE
	SANITARY SEWER MANHOLE
CO	CLEAN OUT
	LIGHT POWER POLE
	POWER POLE
	GUY WIRE
GV	GAS VALVE
BV	BLOW OFF VALVE
	BOLLARD
W	WATER METER
	TELEPHONE PEDESTAL FIBER OPTIC
O	CALCULATED POINT
R/W	RIGHT OF WAY
+18.6	SPOT ELEVATION
RCP	REINFORCED CONCRETE PIPE
VCP	VITRIFIED CLAY PIPE
BC	BACK OF CURB
	DEED PROPERTY LINE
OHE	OVERHEAD ELECTRIC
	STORM SEWER
SS	SANITARY SEWER
G	GAS LINE
	RIGHT OF WAY
	ROAD CENTERLINE
	CONCRETE HATCH

Approved Construction Plan

	Name	Date
Planning		
Traffic		
Fire		

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

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.

N

20' 0 20' 40'
SCALE: 1"=20' (Horiz.)

DEMOLITION LEGEND

- CURB AND GUTTER TO BE REMOVED
- TREE PROTECTION FENCING
- DEMO — EXISTING UTILITY TO BE REMOVED

AXIOM
ARCHITECTURE
333 WEST TRADE ST.
SUITE 200
CHARLOTTE, NC 28202
T 704.927.9900
F 704.343.9380
www.axiomarchitecture.com

ENGINEER:
McKim & Creed, Inc.
243 N Front St.
Wilmington, NC 28401
(910)-343-1048

OWNER:
Wilmington Housing Authority
1524 S 16th St.
Wilmington, NC 28401

DAWSON STREET LOFTS

WILMINGTON, NORTH CAROLINA
WILMINGTON HOUSING AUTHORITY

WILMINGTON HOUSING AUTHORITY

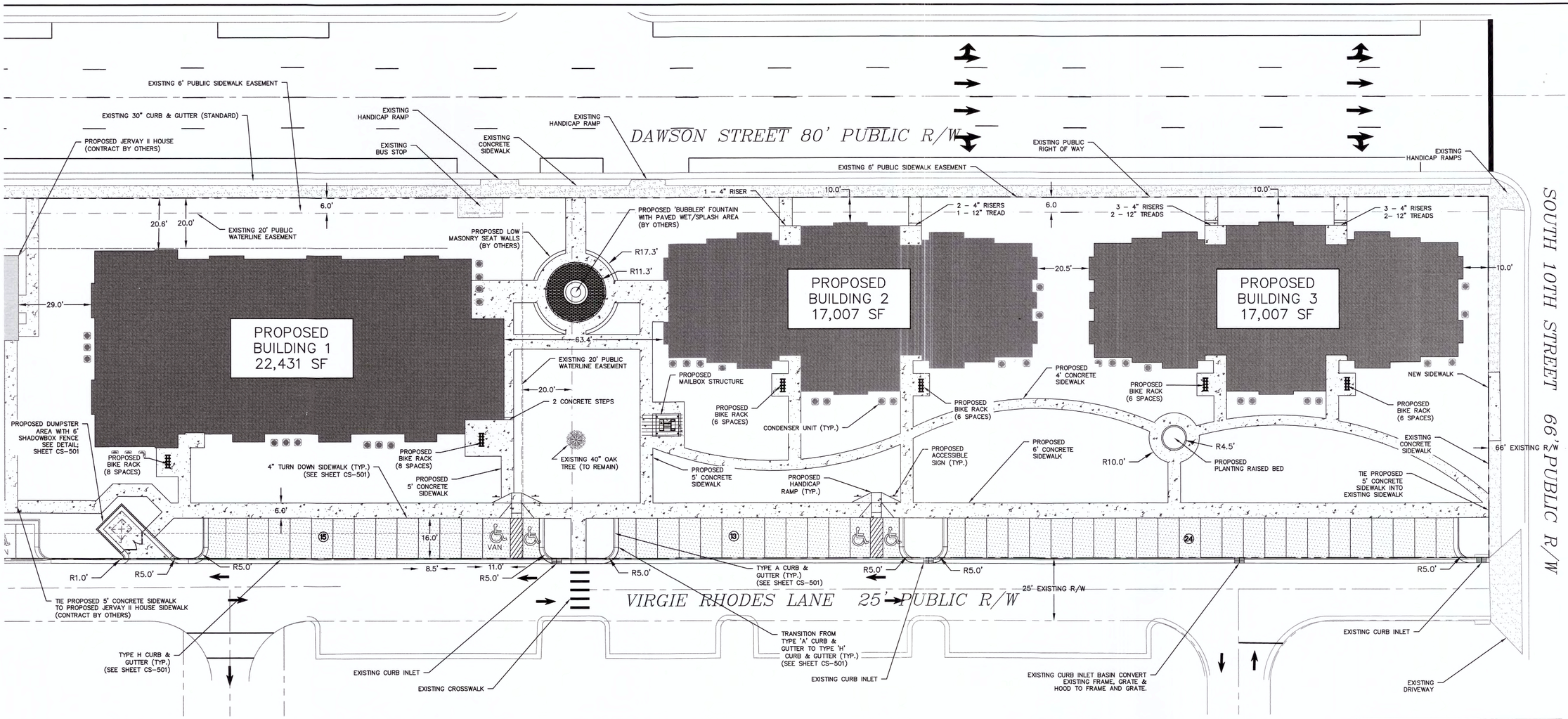
PROJECT # - A-1304
DEMOLITION PLAN

SEPTEMBER 26, 2013

REVISION 1 -
REVISION 2 -
REVISION 3 -
REVISION 4 -

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 038577 — 9/26/2013
NOT FOR CONSTRUCTION

BID SET
CD-101



SITE DATA TABLE	DAWSON STREET LOFTS	
PARCEL ADDRESS	809 VIRGIE RHODES LANE	
BUILDING SETBACKS	REQUIRED	PROPOSED
FRONT	5' MIN	10' – 20'
REAR	5' MIN	45' – 65'
SIDE (INTERIOR)	5' MIN	NA
SIDE (CORNER)	PER BLOCK FACE	10'
TAX PARCEL IDENTIFICATION NUMBER:	R05414–001–025–000	
ZONING/OVERLAY DISTRICT:	UMX/DAWSON–WOOSTER	
TOTAL ACREAGE WITHIN THE PROJECT BOUNDARY	14.34 ACRES (624,650 SF)	
TOTAL ACREAGE WITHIN THE PROJECT PARCEL BOUNDARY	2.4 ACRES (104,557 SF)	
TOTAL BUILDING(S) SIZE WITH SQUARE FOOTAGE	56,445 GROSS SF	
NC BUILDING CODE CONSTRUCTION TYPE	VB	
BUILDING LOT COVERAGE	26.0 %	
NUMBER OF UNITS	40	
NUMBER OF BUILDINGS	3	
BUILDING HEIGHT	45' MAX – 35.66' & 39.0' PROPOSED	
NUMBER OF STORIES & SQUARE FEET PER FLOOR	VARIES – 2 & 3 STORY	
TOTAL AMOUNT OF DISTURBED AREA	1.91 ACRES (83,182 SF)	
CAMA LAND USE CLASSIFICATION	URBAN	
EXISTING IMPERVIOUS AREA	0	SF
IMPERVIOUS AREA (PROPOSED)		
ROOF TOPS	27,215	SF
ROADWAYS	0	SF
PARKING	6,961	SF
SIDEWALKS	9,565	SF
OTHER (FOUNTAIN, DUMPSTER PAD)	770	SF
TOTAL POST DEVELOPMENT/%	44,511	SF/42.57%
TOTAL PRE DEVELOPMENT/%	0	SF/0.00%

PARKING CALCULATIONS	
PROPOSED USE:	MULTIFAMILY
MINIMUM NUMBER OF SPACES REQUIRED	NONE
MINIMUM NUMBER OF SPACES ALLOWED	NA
MAXIMUM NUMBER OF SPACES ALLOWED	100
	2.5 SPACE PER UNIT
SPACES PROVIDED	52
EXISTING USE:	UNDEVELOPED
SPACES EXISTING	NONE
ACCESSIBLE SPACES REQUIRED	2
ACCESSIBLE SPACES PROVIDED	4 (1 VAN)
BICYCLE PARKING SPACES REQUIRED	40
BICYCLE PARKING SPACES PROVIDED	40
ON–SITE DISTURBANCE PROPOSED	83,182 SF (1.91 ACRES)

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.

PROJECT WILL PROVIDE A NFPA 13R FIRE SPRINKLER SYSTEM FOR THE BUILDING.

PROJECT WILL DISPOSE OF SOLID WASTE THROUGH THE USE OF CARTS.

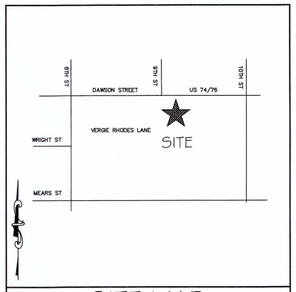
GENERAL NOTES:

1. ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
2. ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT–OF–WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
3. A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. CONTACT 341–5888 FOR MORE DETAILS. IN CERTAIN CASES AN ENTIRE RESURFACING OF THE AREA BEING OPEN CUT MAY BE REQUIRED.
4. A LANDSCAPING PLAN INDICATING THE LOCATION OF REQUIRED STREET TREES SHALL BE SUBMITTED TO THE CITY OF WILMINGTON TRAFFIC ENGINEERING DIVISION AND PARKS AND RECREATION DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO THE RECORDING OF THE FINAL PLAT.

PROPOSED BUILING(S)		
BUILDING 1		
TOTAL BUILDING SQUARE FOOTAGE	22,169	SF
NUMBER OF UNITS	18	UNITS
NUMBER OF STORIES	2	FLOORS
SQUARE FEET PER FIRST FLOOR	10,953	SF
SQUARE FEET PER SECOND FLOOR	11,215.5	SF
BUILDING HEIGHT	38'–5"	SF
BUILDING 2		SF
TOTAL BUILDING SQUARE FOOTAGE	17,066	SF
NUMBER OF UNITS	12	UNITS
NUMBER OF STORIES	3	FLOORS
SQUARE FEET PER FIRST FLOOR	7,704.8	SF
SQUARE FEET PER SECOND FLOOR	6,372.1	SF
SQUARE FEET PER THIRD FLOOR	2,989.2	SF
BUILDING HEIGHT	39'–0"	SF
BUILDING 3		
TOTAL BUILDING SQUARE FOOTAGE	17,066	SF
NUMBER OF UNITS	12	UNITS
NUMBER OF STORIES	3	FLOORS
SQUARE FEET PER FIRST FLOOR	7,704.8	SF
SQUARE FEET PER SECOND FLOOR	6,372.1	SF
SQUARE FEET PER THIRD FLOOR	2,989.2	SF
BUILDING HEIGHT	39'–0"	SF

20' 0 20' 40'
SCALE: 1"=20' (Horiz.)

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



SITE MAP
N.T.S.

N

Approved Construction Plan
Name Date
Planning_____
Traffic_____
Fire_____

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

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 038577 RICHARD A. BRIDGEWATER
9-26-2013
NOT FOR CONSTRUCTION

AXIOM ARCHITECTURE
333 WEST TRADE ST.
SUITE 200
CHARLOTTE, NC 28202
T 704.927.9900
F 704.343.9380
www.axiomarchitecture.com

ENGINEER:
McKim & Creed, Inc.
243 N Front St.
Wilmington, NC 28401
(910)-343-1048

OWNER:
Wilmington Housing Authority
1524 S 16th St.
Wilmington, NC 28401

DAWSON STREET LOFTS

WILMINGTON, NORTH CAROLINA
WILMINGTON HOUSING AUTHORITY

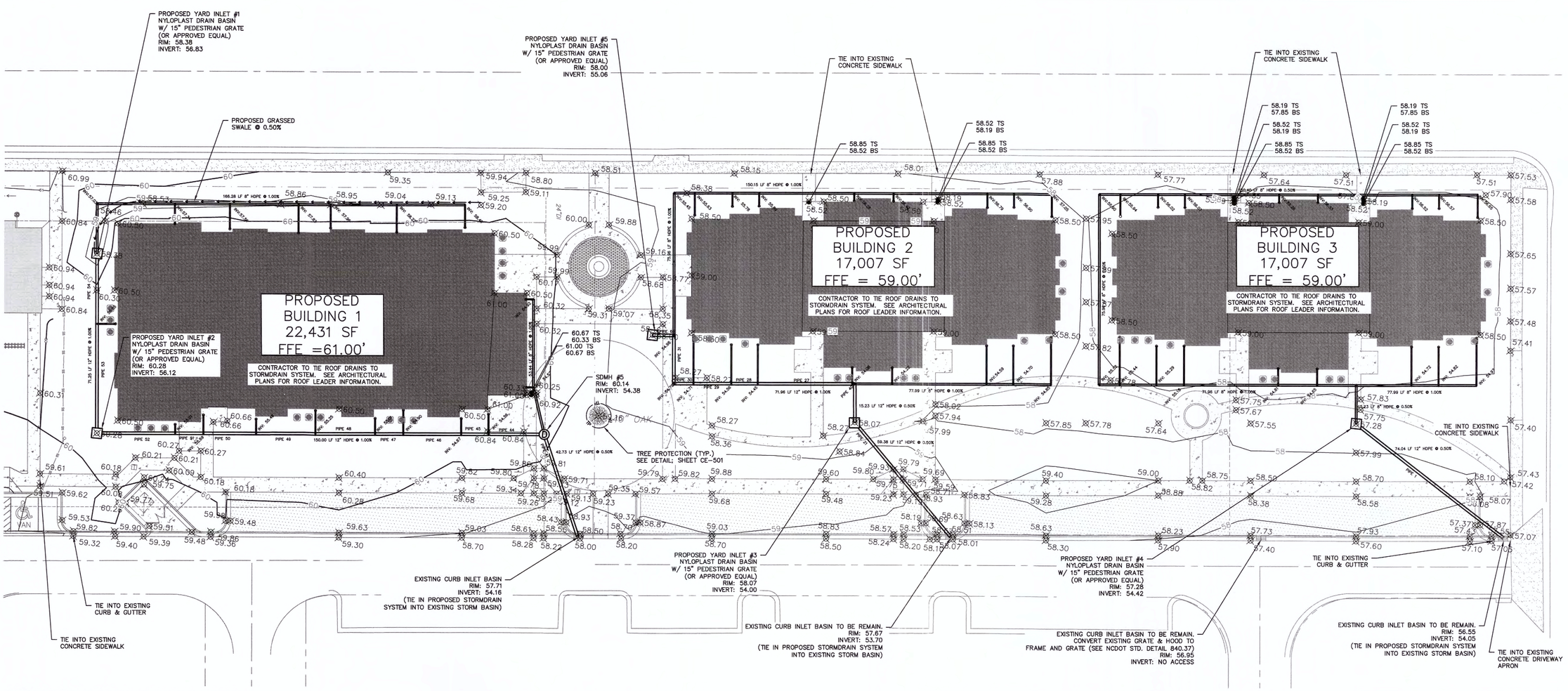
WILMINGTON HOUSING AUTHORITY

PROJECT # - A-1304
SITE PLAN

SEPTEMBER 26, 2013

REVISION 1 -
REVISION 2 -
REVISION 3 -
REVISION 4 -

BID SET
CS-101



STORM DRAINAGE AND GRADING NOTES:

1. IN ACCORDANCE WITH NC GENERAL STATUES, 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. NCDENR STANDARD INSPECTION REPORTS SHALL BE PREPARED AND SIGNED WITH COPIES PROVIDED TO THE OWNER, ARCHITECT, AND ENGINEER, BY THE CONTRACTOR.
2. 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.
3. 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.
4. 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.
5. 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.
6. WHEN HAND SEEDING, MULCH (HAY OR STRAW) SHOULD BE UNIFORMLY SPREAD AND TACKED OVER SEEDED AREA WITHIN 24 HOURS OF SEEDING.
7. DURING UNSUITABLE GROWING SEASONS, MULCH WILL BE USED AS A TEMPORARY COVER ON SLOPES THAT ARE 4:1 OR STEEPER, MULCH WILL BE ANCHORED.
8. NO LAND DISTURBANCE, INCLUDING TREE REMOVAL, IS TO OCCUR OUTSIDE THE LIMITS SHOWN.

STORM DRAINAGE NOTES:

1. DO NOT PLANT TREES WITHIN UTILITY AND DRAINAGE EASEMENTS.
2. 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).
3. 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.

20' 0 20' 40'
SCALE: 1"=20' (Horiz.)

CITY OF WILMINGTON STANDARD NOTES:

1. CONTACT THE NORTH CAROLINA ONE CALL CENTER PRIOR TO DOING ANY DIGGING AT 1-800-632-4949.
2. PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING 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.
3. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
4. IT SHALL BE THE RESPONSIBILITY OF THE SUBDIVIDER TO ERECT OFFICIAL STREET NAME SIGNS AT ALL INTERSECTIONS ASSOCIATED WITH THE SUBDIVISION IN ACCORDANCE WITH THE TECHNICAL STANDARDS AND SPECIFICATIONS MANUAL. THE SUBDIVIDER MAY ACQUIRE AND ERECT OFFICIAL STREET NAME SIGNS OR MAY CHOOSE TO CONTRACT WITH THE CITY TO INSTALL THE STREET SIGNS AND THE SUBDIVIDER SHALL PAY THE COST OF SUCH INSTALLATION. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. PROPOSED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.
5. TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.
6. ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY APRON PANELS AND CURB & GUTTER SECTIONS SHALL BE REPLACED BY THE CONTRACTOR.
7. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
8. IF THE CONTRACTOR DESIRES WATER FOR CONSTRUCTION HE SHALL APPLY WITH THE CFPUA IN ADVANCE FOR THIS SERVICE AND MUST PROVIDE A REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION DEVICE ON THE DEVELOPER'S SIDE OF THE WATER METER BOX.
9. CONTACT TRAFFIC ENGINEERING AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
10. 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, DEVISES, 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.

Pipe Table

NAME	SIZE	LENGTH	SLOPE	MATERIAL
Pipe - 62	12"	8.39'	1.00%	HDPE
Pipe - 31	12"	19.02'	1.00%	HDPE
Pipe - 30	12"	7.83'	1.00%	HDPE
Pipe - 29	12"	15.01'	1.00%	HDPE
Pipe - 28	12"	10.59'	1.00%	HDPE
Pipe - 27	12"	37.51'	1.00%	HDPE
Pipe - 22	12"	15.23'	0.50%	HDPE
Pipe -40	12"	0.69'	1.01%	HDPE
Pipe - 21	12"	59.38'	0.50%	HDPE
Pipe - 1	12"	74.04'	0.50%	HDPE
Pipe - 49	12"	23.59'	1.00%	HDPE
Pipe - 48	12"	23.73'	1.00%	HDPE
Pipe - 47	12"	11.23'	1.00%	HDPE
Pipe - 46	12"	23.01'	1.00%	HDPE
Pipe - 45	12"	10.87'	1.00%	HDPE
Pipe - 44	12"	22.13'	0.80%	HDPE
Pipe - 41	12"	42.73'	0.52%	HDPE
Pipe - 50	12"	20.96'	1.00%	HDPE
Pipe - 51	12"	11.24'	1.00%	HDPE
Pipe - 52	12"	31.16'	1.00%	HDPE
Pipe - 53	12"	43.31'	1.00%	HDPE
Pipe - 54	12"	27.94'	1.00%	HDPE

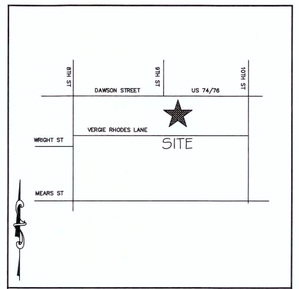
N

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_____



SITE MAP
N.T.S.

1 inch

NORTH CAROLINA PROFESSIONAL SEAL 038577 ENGINEER RICHARD A. CRAIG
9-26-13
NOT FOR CONSTRUCTION

AXIOM ARCHITECTURE
333 WEST TRADE ST.
SUITE 200
CHARLOTTE, NC 28202
T 704.927.9900
F 704.343.9380
www.axiomarchitecture.com

ENGINEER:
McKim & Creed, Inc.
243 N Front St.
Wilmington, NC 28401
(910)-343-1048

OWNER:
Wilmington Housing Authority
1524 S 16th St.
Wilmington, NC 28401

DAWSON STREET LOFTS

WILMINGTON, NORTH CAROLINA
WILMINGTON HOUSING AUTHORITY

WILMINGTON HOUSING AUTHORITY

PROJECT # - A-1304

GRADING AND STORMDRAIN PLAN

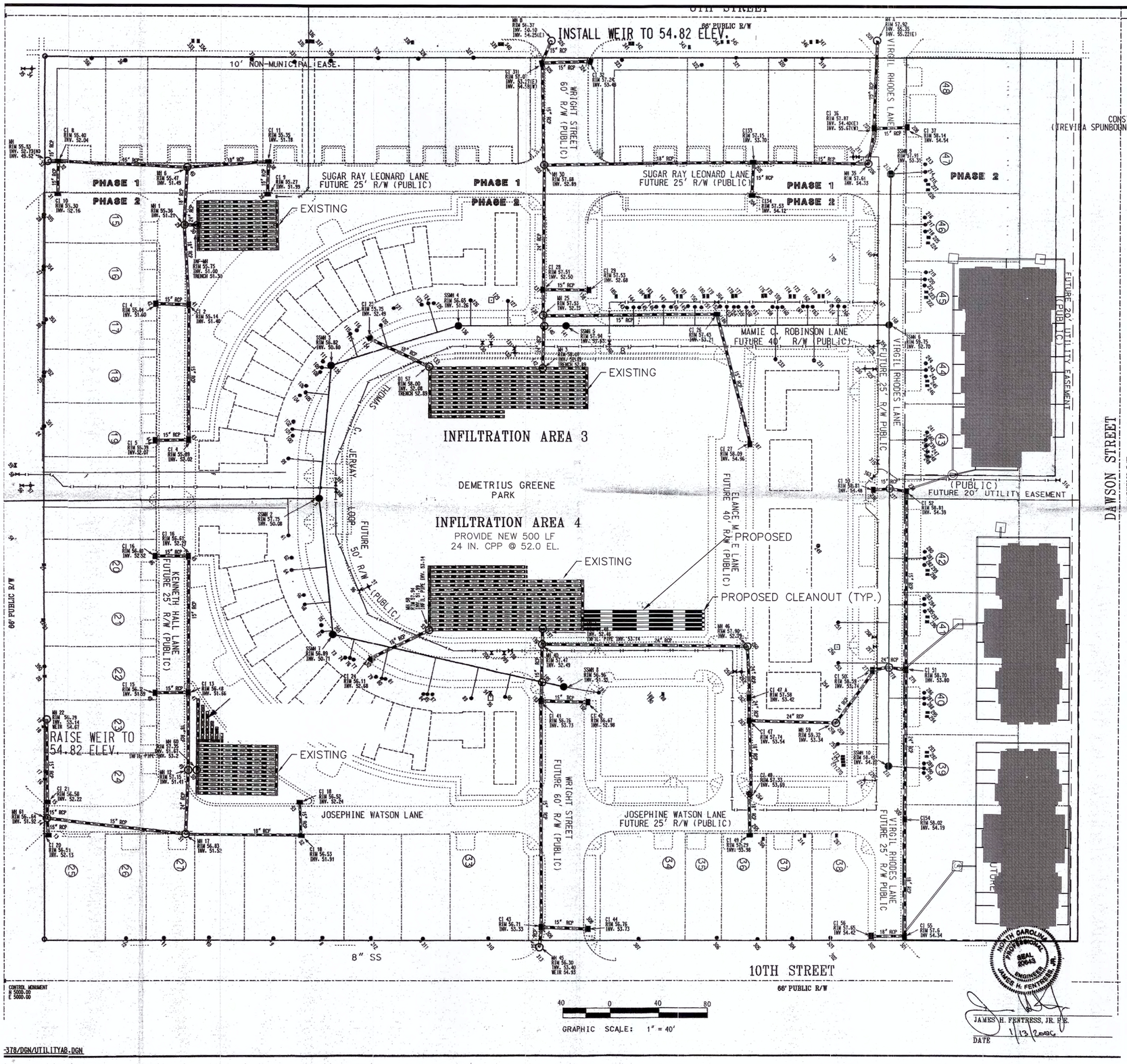
SEPTEMBER 26, 2013

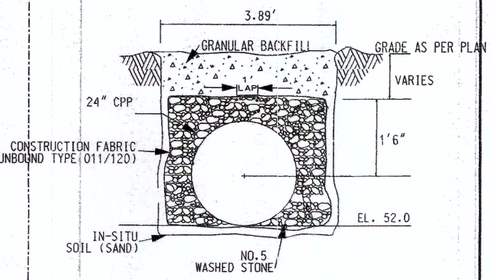
REVISION 1 -
REVISION 2 -
REVISION 3 -
REVISION 4 -

BID SET

CG-101

S:\6464\00010\8b-Drawings\CG101_6464-00010.dwg, 9/24/2013 5:33:12 PM, \\wil-print-svr\KIP_7100





NEW PERFORATED PIPE TRENCH DETAIL

N.T.S.

NOTE:
ORIGINAL PLAN SHEET WAS COMPLETED BY STROUD ENGINEERING, PA AND SEALED ON 1/13/2006.

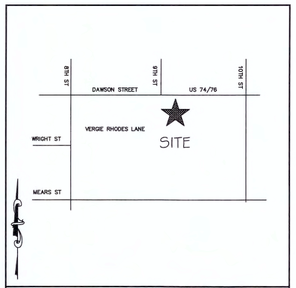
1 inch

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

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

Approved Construction Plan

	Name	Date
Planning		
Traffic		
Fire		



SITE MAP
N.T.S.

NORTH CAROLINA PROFESSIONAL SEAL 20643 ENGINEER JAMES H. FENTRESS, JR.

JAMES H. FENTRESS, JR. P.E.
1/13/2006
DATE

AXIOM
ARCHITECTURE
333 WEST TRADE ST.
SUITE 200
CHARLOTTE, NC 28202
T 704.927.9900
F 704.343.9380
www.axiomarchitecture.com

ENGINEER:
McKim & Creed, Inc.
243 N Front St.
Wilmington, NC 28401
(910)-343-1048

OWNER:
Wilmington Housing Authority
1524 S 16th St.
Wilmington, NC 28401

DAWSON STREET LOFTS

WILMINGTON, NORTH CAROLINA
WILMINGTON HOUSING AUTHORITY

WILMINGTON HOUSING AUTHORITY

PROJECT # - A-1304

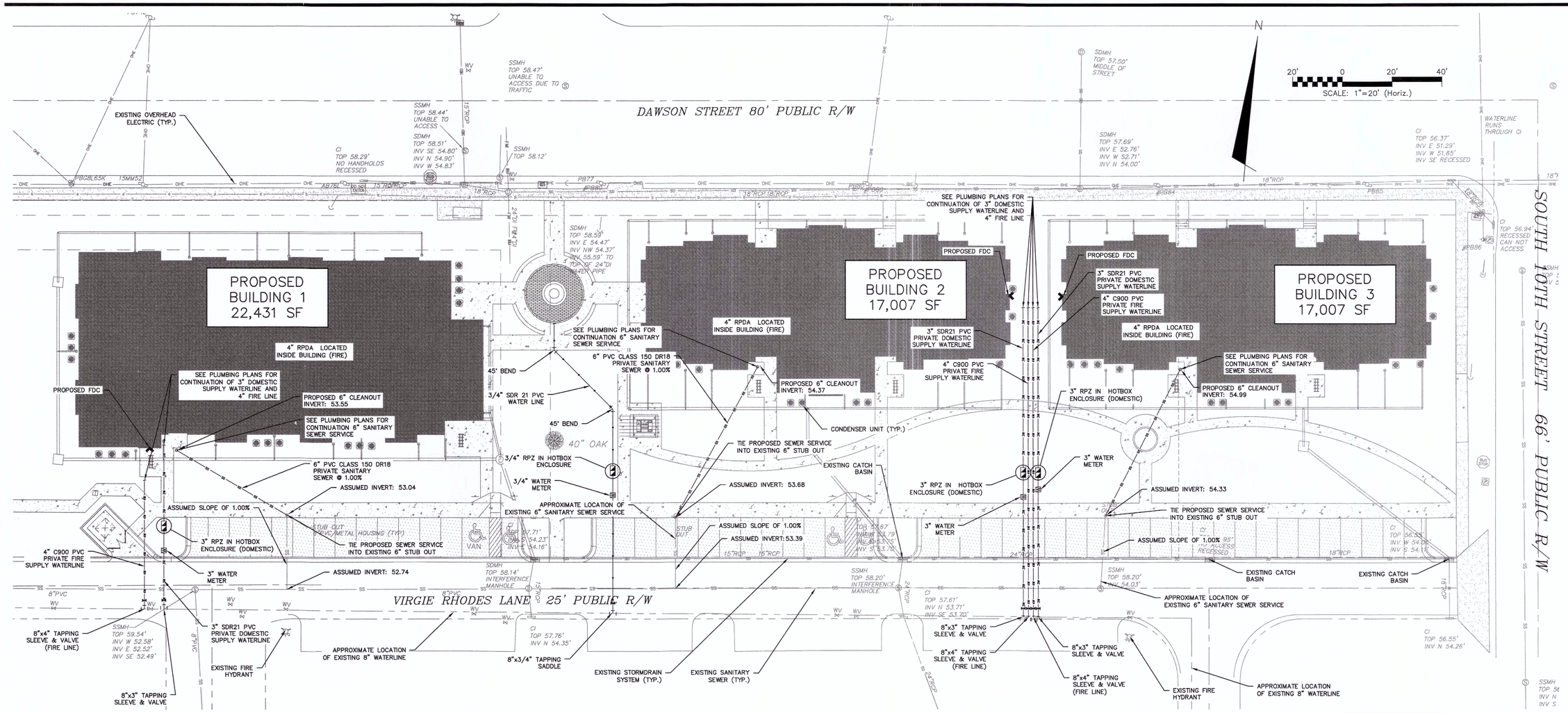
INFILTRATION PLAN

SEPTEMBER 26, 2013

REVISION 1 -
REVISION 2 -
REVISION 3 -
REVISION 4 -

BID SET

CG-102



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. COMBUSTIBLE MATERIALS MAY NOT BE STORED OR ERECTED ONSITE WITHOUT CITY FIRE INSPECTOR APPROVAL.
5. 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.
6. A MINIMUM OF 5' SHALL SEPARATE UNDERGROUND FIRE LINES OR PRIVATE WATER MAINS FROM UNDERGROUND UTILITIES
7. CONTRACTOR SHALL MAINTAIN AN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
8. HYDRANTS MUST BE LOCATED WITHIN 8' OF CURB.
9. NEW HYDRANTS MUST BE AVAILABLE FOR USE PRIOR TO CONSTRUCTION OF THE BUILDING(S).
10. TEMPORARY STREET SIGNS SHALL BE INSTALLED AT EACH STREET INETERSECTION WHEN CONSTRUCTION OF NEW ROADWAYS ALLOWS PASSAGE BY VEHICLES.

WATER AND SEWER CAPACITY:

1. WATER 0 GPD (CURRENT USE)
2. WATER 9,600 GPD (PROPOSED USE)
3. SEWER 0 GPD (CURRENT USE)
4. SEWER 9,600 GPD (PROPOSED USE)

NOTE: ELEVATIONS OF EXISTING 6" SANITARY SEWER SERVICE UNKNOWN. MINIMUM SLOPE OF 1.0% WAS ASSUMED FOR DESIGN. ELEVATIONS TO BE VERIFIED BY CONTRACTOR AND ANY DIFFERENCES SHALL BE PROVIDED TO THE ENGINEER FOR ANALYSIS.

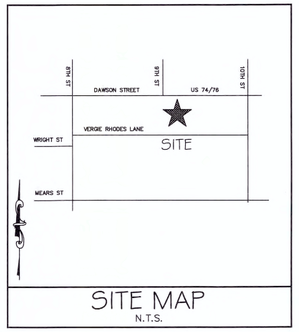
UTILITY NOTES:

1. SCHEDULE A PRECONSTRUCTION MEETING WITH CAPE FEAR PUBLIC UTILITY AUTHORITY 48 HOURS PRIOR TO CONSTRUCTION OF WATER AND SEWER LINES.
2. WATER AND SANITARY SEWER UTILITY MAINS ARE PRIVATE BEYOND THE PUBLIC STREET RIGHT-OF-WAY.
3. THIS PROJECT SHALL COMPLY WITH THE CFPUA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METER(S) CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND NCDENR HAS ISSUED THE "FINAL APPROVAL".
4. ALL COMMERCIAL WATER SERVICES AND ANY IRRIGATION SYSTEMS SUPPLIED BY CFPUA WATER SHALL HAVE A BACKFLOW PREVENTION DEVICE ACCEPTABLE TO CFPUA AND APPROVED BY USCFCCCHR OR ASSE.
5. BACKFLOW PREVENTION AND METERS WILL BE PROVIDED FOR BOTH FIRE LINES (RPDA) AND DOMESTIC SERVICE (RPZ). FIRE LINE BACKFLOW PREVENTER AND DOMESTIC SERVICE BACKFLOW PREVENTER WILL BE LOCATED AS SHOWN ON THE UTILITY PLANS. INSTALLER OF BACKFLOW PREVENTERS MUST CONTACT CFPUA PRIOR TO INSTALLING UNITS TO GIVE CFPUA THE OPTION TO VERIFY INSTALLATION PROCEDURES.
   - 5.1. REDUCED PRESSURE PRINCIPLE ASSEMBLY FOR DOMESTIC WATER SERVICE
   - 5.2. REDUCED PRESSURE DETECTOR ASSEMBLY WILL BE UTILIZED FOR THE BACKFLOW PREVENTER ON THE FIRE SERVICE.
6. IF THE CONTRACTOR DESIRES CFPUA WATER FOR CONSTRUCTION HE SHALL APPLY 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.
7. WATER: 1.5" & 2" PVC MAINS SHALL BE CONSTRUCTED USING ASTM D2241, IPS, GASKETED PIPE, SDR 21. 4"-12" PVC MAINS AND SERVICES SHALL BE CONSTRUCTED USING AWWA C-900 PVC, CL235 (DR-18).
8. SANITARY SEWER: FOR PIPE SIZES 4" AND 6" PIPE SHALL BE SCH 40 CONFORMING TO THE REQUIREMENTS OF ASTM D1785 WTH SOLVENT WELD JOINTS CONFORMING TO ASTM D2672. FOR PIPE SIZES 8" THROUGH 12", PIPE SHALL BE CLASS 150, DR18 CONFORMING TO THE REQUIREMENTS OF AWWA C900 WITH ELASTOMERIC PUSH-ON JOINTS CONFORMING TO ASTM D3212 OR ASTM D3139.
9. WATER AND SEWER SERVICES CANNOT BE ACTIVATED ON NEW MAINS UNTIL ENGINEER'S CERTIFICATION AND AS-BUILTS ARE RECEIVED AND "FINAL APPROVAL" ISSUED BY PUBLIC WATER SUPPLY SECTION OF NCDENR AND "FINAL ENGINEERING CERTIFICATION" ISSUED BY DIVISION OF WATER QUALITY OF NCDENR.
10. PVC WATER MAINS AND POLYETHYLENE SERVICES ARE TO BE MARKED WITH NO. 10 SINGLE STRAND INSULATED COPPER WIRE INSTALLED THE ENTIRE LENGTH AND STRAPPED TO THE PIPES WITH DUCT TAPE. THE INSULATED WIRE IS TO BE STRIPPED TO BARE WIRE AND SECURED TO ALL VALVES. THIS WIRE IS TO BE ACCESSIBLE AT ALL FIRE HYDRANTS AND WATER METER BOXES TO AID IN FUTURE LOCATION OF FACILITIES.
11. SITE UTILITY CONTRACTOR TO PROVIDE WATER AND SANITARY SEWER SERVICE TO WITHIN 5 FEET OF THE BUILDING. CONTRACTOR SHALL COORDINATE SITE PLAN CONNECTIONS WITH THE ARCHITECTURAL BUILDING PLANS.
12. FIRE SPRINKLERS WILL BE PROVIDED FOR BUILDINGS.
13. UNDERGROUND UTILITIES: ALL NEW UTILITIES SHALL BE INSTALLED UNDERGROUND, EXCEPT WHERE SUCH PLACEMENT IS PROHIBITED OR DEEMED IMPRACTICAL BY THE UTILITY PROVIDER. UNDERGROUND TERMINAL FACILITIES FOR STREET LIGHTING ALONG THE PUBLIC STREETS ABUTTING THE SUBJECT SITE SHALL BE INSTALLED BY THE DEVELOPER.
14. MINIMUM OF 36" COVERAGE ABOVE ALL WATERMAINS.
15. MINIMUM OF 36" VERTICAL SEPARATION BETWEEN WATERLINES AND STORMDRAIN CURB INLETS.

RELATION OF WATER MAINS TO SEWERS:

1. LATERAL SEPARATION OF SEWERS AND WATER MAINS: WATER MAINS SHALL BE LAID AT LEAST 10 FEET LATERALLY FROM EXISTING OR PROPOSED SEWERS UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT A 10 FOOT LATERAL SEPARATION, IN WHICH CASE:
   - 1.1. THE WATER MAIN IS LAID IN A SEPARATE TRENCH, WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER, OR
   - 1.2. THE WATER MAIN IS LAID IN THE SAME TRENCH AS THE SEWER WITH THE WATER MAIN LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH, AND ABOVE THE TOP OF THE SEWER.
2. CROSSING A WATER MAIN OVER A SEWER MAIN: WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS OVER A SEWER THE WATER MAIN SHALL BE LAID AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 24 INCHES ABOVE THE TOP OF THE SEWER MAIN. UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT AN 18 INCH VERTICAL SEPARATION – IN WHICH CASE BOTH THE WATER MAIN AND THE SEWER MAIN SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING.
3. CROSSING A WATER MAIN UNDER A SEWER MAIN: WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS UNDER A SEWER MAIN BOTH THE WATER MAIN AND THE SEWER MAIN SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING.
4. CROSSING A SEWER MAIN/WATER MAIN OVER OR UNDER A STORM DRAIN: WHENEVER IT IS NECESSARY FOR A SEWER MAIN/WATER MAIN TO CROSS A STORM DRAIN PIPE, THE SEWER MAIN/WATER MAIN SHALL BE LAID AT SUCH AN ELEVATION THAT THE OUTSIDE OF THE SEWER MAIN/WATER MAIN NEAREST TO THE OUTSIDE OF THE STORM DRAIN PIPE SHALL MAINTAIN A 24 INCH CLEAR SEPARATION DISTANCE HORIZONTAL, OR THE SEWER MAIN/WATER MAIN SHALL EITHER BE CONSTRUCTED OF DUCTILE IRON PIPE OR ENCASED IN EITHER CONCRETE OR DUCTILE IRON PIPE FOR AT LEAST 5 FEET ON EITHER SIDE OF THE CROSSING.

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



SITE MAP
N.T.S.

Approved Construction Plan

	Name	Date
Planning		
Traffic		
Fire		

1 inch

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

NOT FOR CONSTRUCTION

AXIOM ARCHITECTURE
333 WEST TRADE ST.
SUITE 200
CHARLOTTE, NC 28202
T 704.927.9900
F 704.343.9380
www.axiomarchitecture.com

ENGINEER:
McKim & Creed, Inc.
243 N Front St.
Wilmington, NC 28401
(910)-343-1048

OWNER:
Wilmington Housing Authority
1524 S 16th St.
Wilmington, NC 28401

DAWSON STREET LOFTS

WILMINGTON, NORTH CAROLINA
WILMINGTON HOUSING AUTHORITY

WILMINGTON HOUSING AUTHORITY

PROJECT # - A-1304
UTILITY PLAN

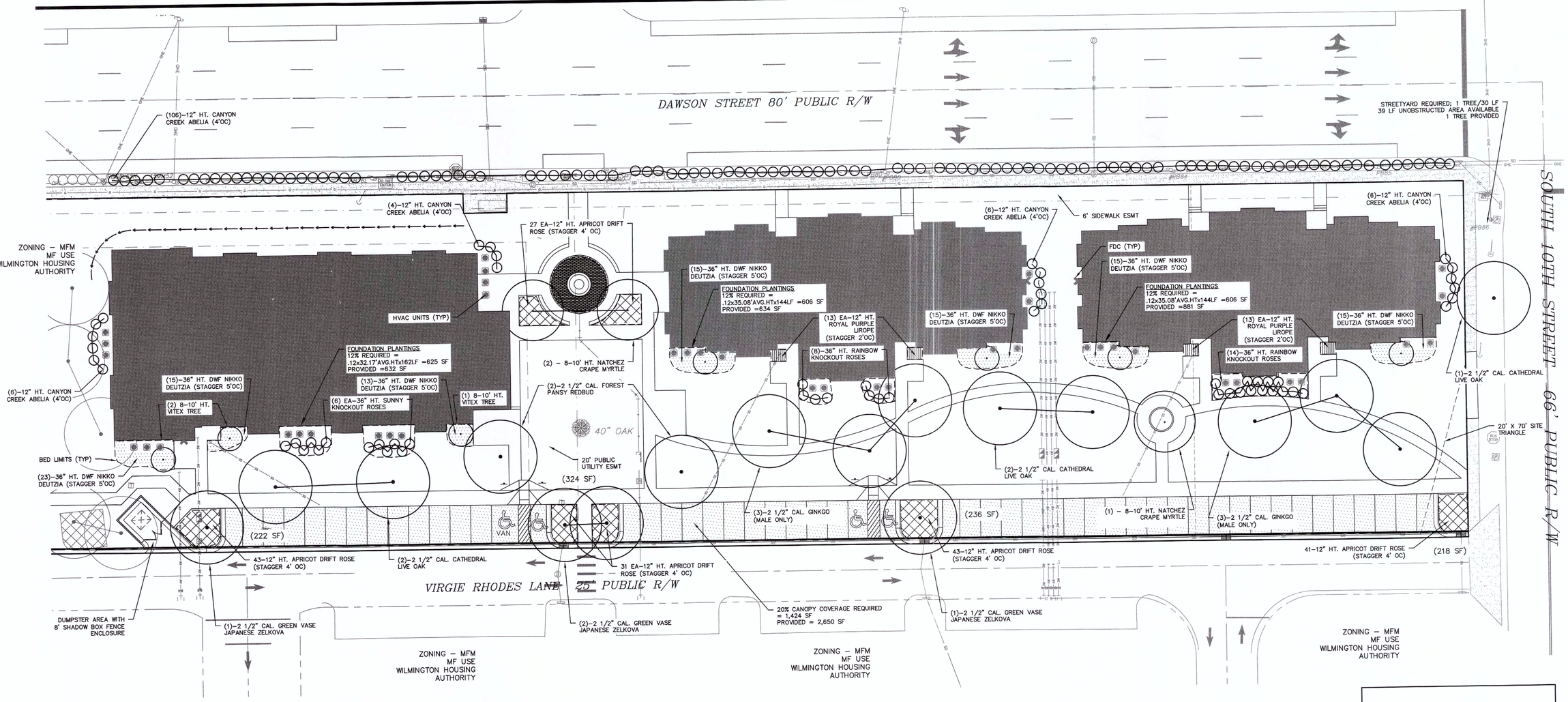
SEPTEMBER 26, 2013

REVISION 1 -
REVISION 2 -
REVISION 3 -
REVISION 4 -

BID SET

CU-101

S:\6464\0003\80-Drawings\CU101_6464-0001.dwg, 9/24/2013 6:24:08 PM, \\wil-print-sv\XP_710u



NOTES:

1. TOTAL SQUARE FOOTAGE OF STRUCTURES = 56,445 SF/40 UNITS.
2. TOTAL SQUARE FOOTAGE OF VEHICULAR SURFACE AREA = 7,119 SF.
3. NO SIGNIFICANT TREES WILL BE REMOVED AS A RESULT OF THE PROPOSED SITE IMPROVEMENTS.
4. CANOPY COVERAGE CALCULATIONS:
   707 SF = CANOPY TREE/15' RADIUS
   314 SF = SMALLER CANOPY TREE/10' RADIUS
   PERIMITER TREES BASED ON % OVERHANG
5. TREE REQUIREMENT CALCULATIONS:
   1.91 ACRES DISTURBED X 15 TREES/ACRE = 19 REQUIRED TREES
   PROPOSED: 19 NEW PLANTINGS
   PRESERVED: 1
   TOTAL: 20 TREES
6. 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.
7. ALL PLANTED AND RETAINED LIVING MATERIAL REQUIRED TO MEET THE PROVISIONS OF THE CITY OF WILMINGTON LAND DEVELOPMENT CODE, SHALL BE PERPETUALLY PROTECTED AND MAINTAINED TO PROFESSIONALLY ACCEPTED STANDARDS BY JOINT AND SEVERAL RESPONSIBILITY OF THE OWNER, OCCUPANT, TENANT, AND REPRESENTATIVE AGENTS OF THE PROPERTY ON WHICH THE MATERIAL IS LOCATED.
8. FUTURE TRANSFORMER WILL BE FULLY SCREENED WITH EVERGREEN SHRUBS 36" IN HEIGHT SPACED FOR 100% OPACITY.

N

20' 0 20' 40'
SCALE: 1"=20' (Horiz.)

ADDITIONAL TREATMENTS:

HVAC EQUIPMENT, AIR CONDITIONING WINDOW UNITS, AND OTHER ELECTRICAL EQUIPMENT SHALL NOT BE LOCATED ON STREET FRONTAGES. ALL SUCH EQUIPMENT SHALL BE PLACED IN THE INTERIOR YARDS OR ON THE ROOF OF THE BUILDING AND SCREENED FROM THE RIGHT OF WAY. THROUGH-WALL MECHANICAL UNITS ARE PERMITTED ON ANY FACADE IF THEY ARE INCORPORATED INTO THE DESIGN OF THE BUILDING, FLUSH WITH THE FACADE ON WHICH THEY ARE LOCATED, CONCEALED BY A VENT COVER AND HAVE AN INTERNAL DRIP SYSTEM FOR CONDENSATION. UTILITY METERS, TRANSFORMERS AND FIXED TRASH DISPOSAL RECEPTACLES THAT CANNOT BE CONCEALED FROM THE PUBLIC RIGHT OF WAY SHALL BE SCREENED WITH AN OPAQUE FENCE OR WALL.

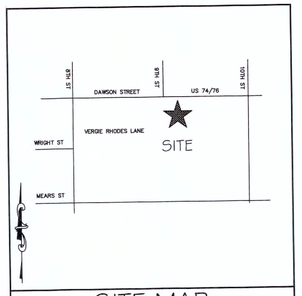
1 inch

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_____



SITE MAP
N.T.S.

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT No. 559 MARGARET A. GRAY
9/26/13
NOT FOR CONSTRUCTION

AXIOM ARCHITECTURE
333 WEST TRADE ST.
SUITE 200
CHARLOTTE, NC 28202
T 704.927.9900
F 704.343.9380
www.axiomarchitecture.com

ENGINEER:
McKim & Creed, Inc.
243 N Front St.
Wilmington, NC 28401
(910)-343-1048

OWNER:
Wilmington Housing Authority
1524 S 16th St.
Wilmington, NC 28401

DAWSON STREET LOFTS

WILMINGTON, NORTH CAROLINA
WILMINGTON HOUSING AUTHORITY

WILMINGTON HOUSING AUTHORITY

PROJECT # - A-1304

LANDSCAPE PLAN

SEPTEMBER 26, 2013

REVISION 1 -
REVISION 2 -
REVISION 3 -
REVISION 4 -

BID SET

CL-101

S:\646A\0001\80-Drawings\CL101_6464-0001.dwg, 9/24/2013 6:53:55 PM, \\wil-print-sv\KIP_7100

GENERAL CONSTRUCTION NOTES:

1. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE CITY OF WILMINGTON, NORTH CAROLINA UNLESS OTHERWISE NOTED.
2. 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.
3. 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.
4. 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.
5. 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.
6. 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

1. 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.
2. WHEELCHAIR RAMPS SHALL BE LOCATED AS INDICATED IN DETAIL DRAWINGS; HOWEVER, EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC. MAY AFFECT PLACEMENT.
3. CURB RAMPS SHALL HAVE DETECTABLE WARNINGS EXTENDING THE FULL WIDTH OF THE RAMP AND A MINIMUM OF 2-FT. IN LENGTH.

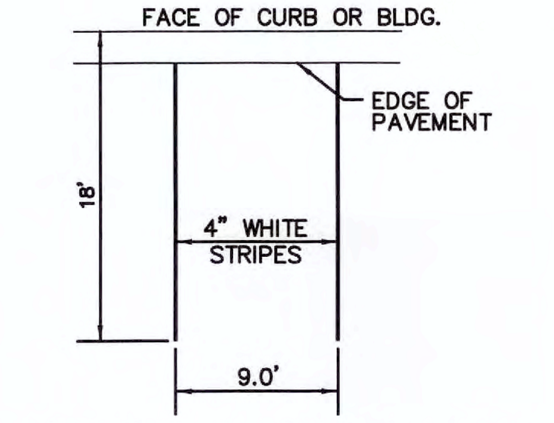
CONSTRUCTION NOTES

1. CONSTRUCTION SHALL CONFORM WITH CONSTRUCTION STANDARDS OF THE GOVERNING BODY WHICH HAS JURISDICTION OF THE PARTICULAR STREET.
2. WHEELCHAIR RAMPS SHALL BE CONSTRUCTED OF CLASS "A" CONCRETE WITH THE SURFACE HAVING A ROUGH, NON-SKID TYPE FINISH.
3. A ½-IN. EXPANSION JOINT SHALL BE REQUIRED WHERE THE CONCRETE WHEELCHAIR RAMP JOINS ANY RIGID PAVEMENT OR STRUCTURE.
4. 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.
5. TRANSITIONS FROM RAMPS TO WALKS, GUTTERS OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES.
6. THE MAXIMUM SLOPE ON THE CURB RAMP RUN IS 1:12.
7. THE MAXIMUM CROSS SLOPE OF THE CURB RAMP IS 1:50.
8. MAXIMUM SLOPES OF ADJOINING GUTTERS, ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP, OR ACCESSIBLE ROUTE SHALL NOT EXCEED 1:20.
9. 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.
10. 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.

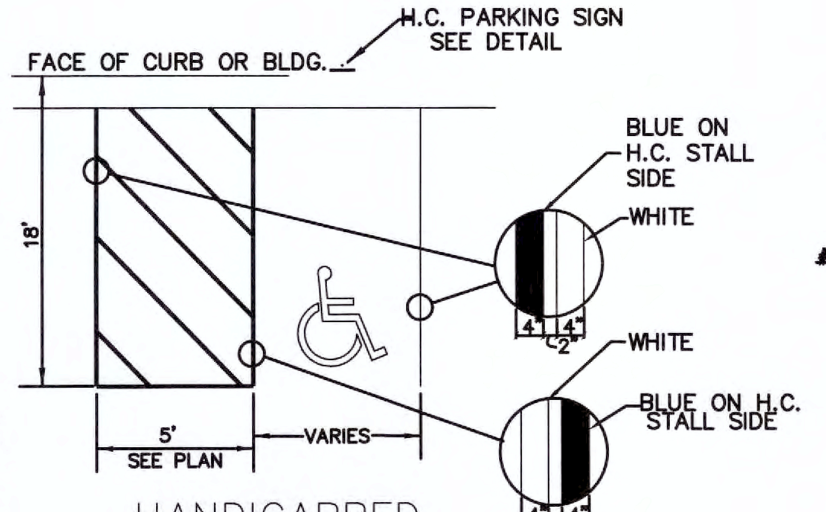
ADDITIONAL NOTES

1. 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.
2. PARKING SHALL BE ELIMINATED A MINIMUM OF 20 FEET BACK OF THE PEDESTRIAN CROSSWALK.
3. 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.
4. CURB RAMPS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARED SIDES.
5. THE BOTTOM OF DIAGONAL (CORNER TYPE) CURB RAMPS AT MARKED CROSSINGS SHALL HAVE 48-IN. MINIMUM CLEAR SPACE WITHIN THE MARKINGS.
6. 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.

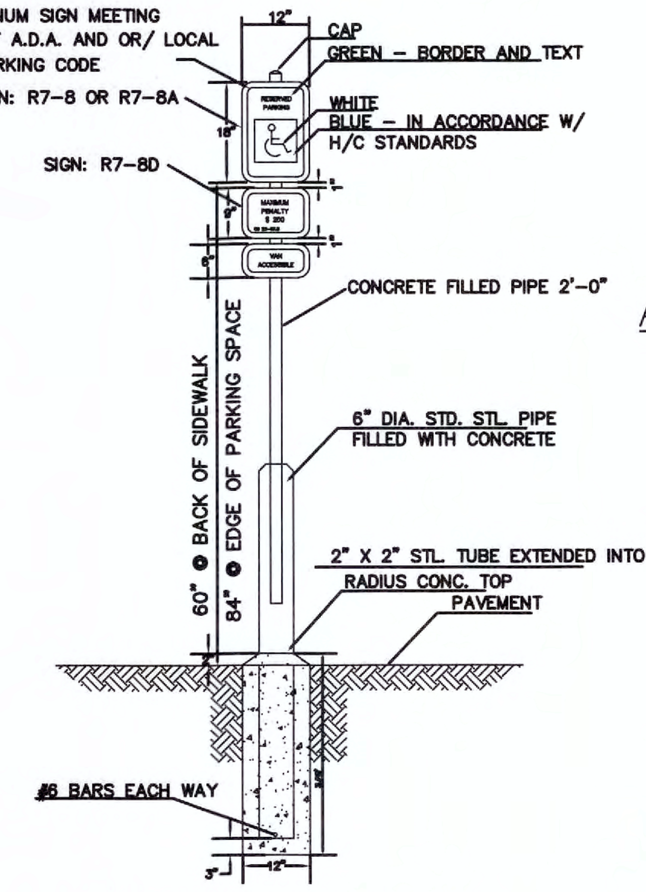
SD 8-09



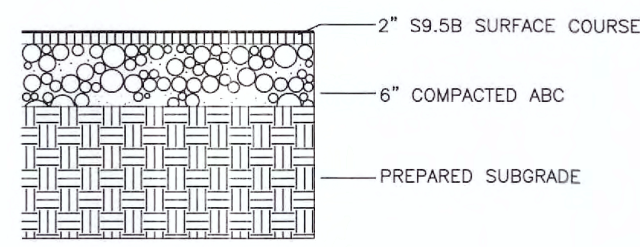
TYPICAL PARKING STALL
NOT TO SCALE



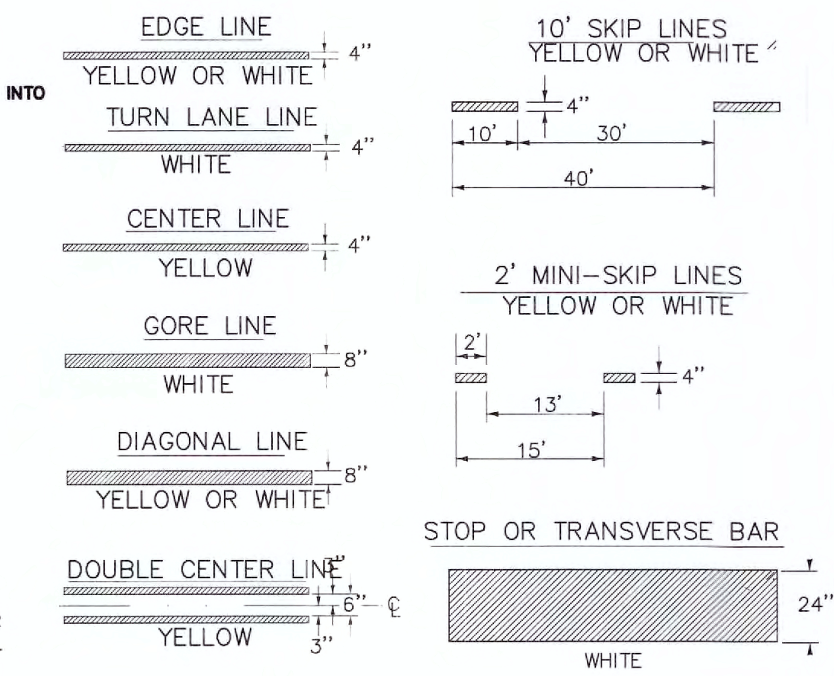
HANDICAPPED PARKING STALL
NOT TO SCALE



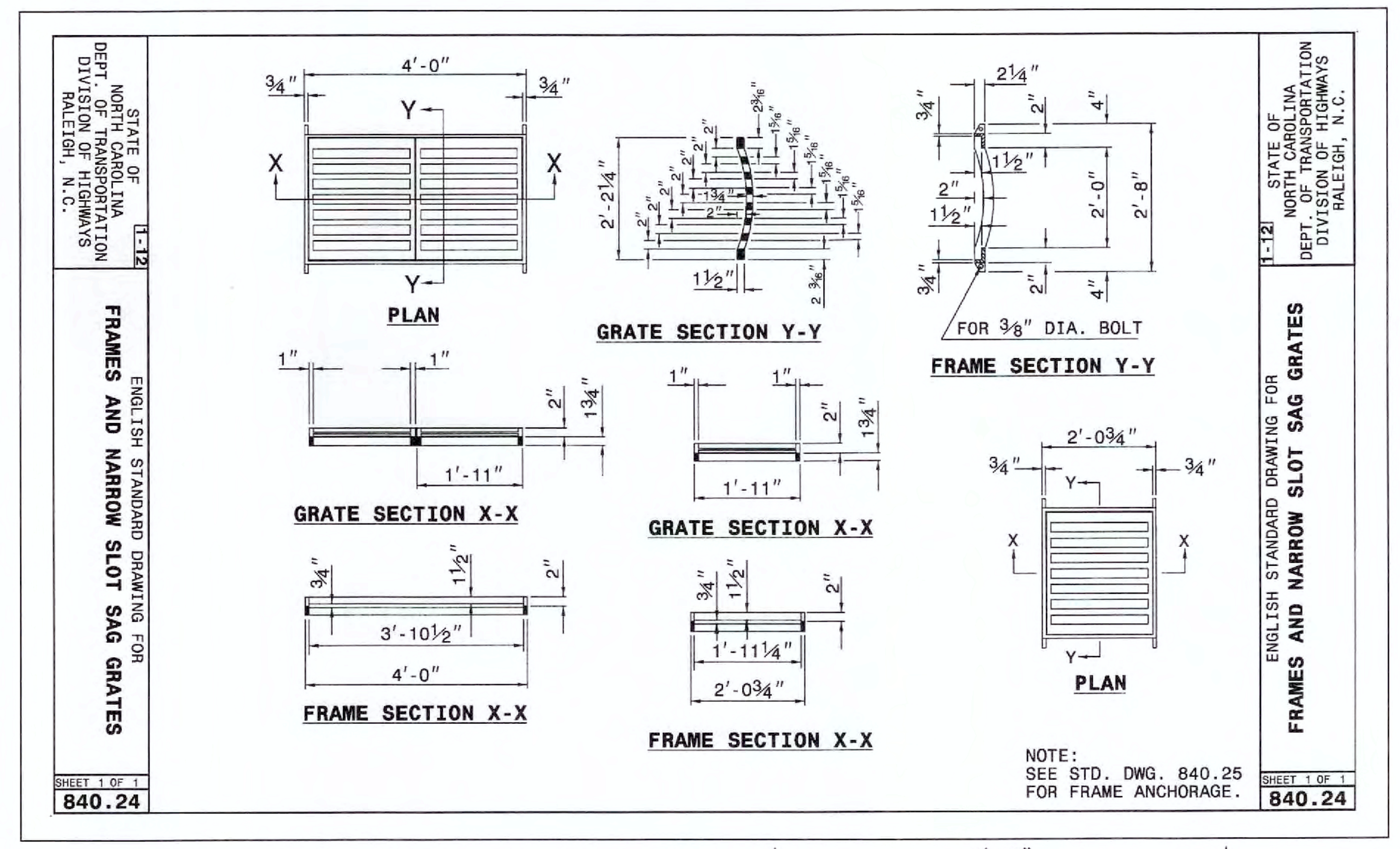
HANDICAP PARKING SIGN
NOT TO SCALE

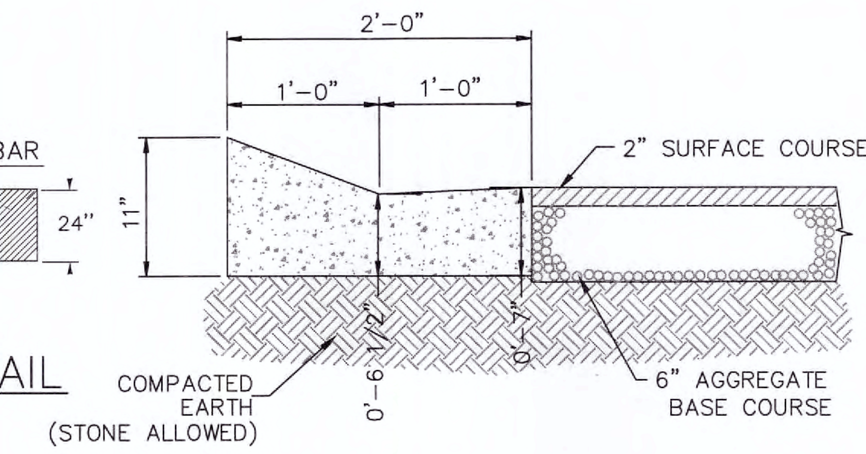


ASPHALT PAVEMENT SECTION
(LIGHT DUTY PAVEMENT)
NOT TO SCALE

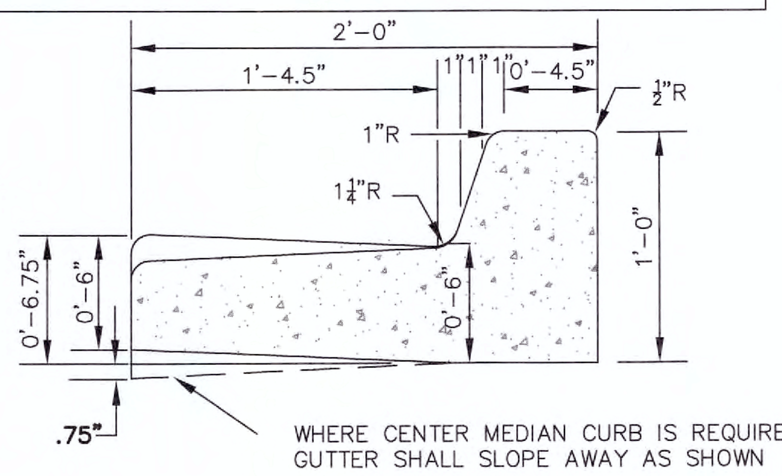


PAVEMENT MARKING DETAIL
NOT TO SCALE

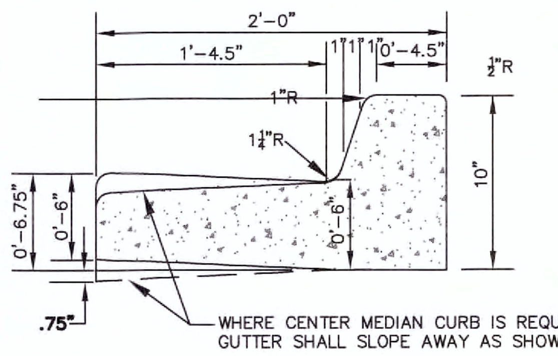




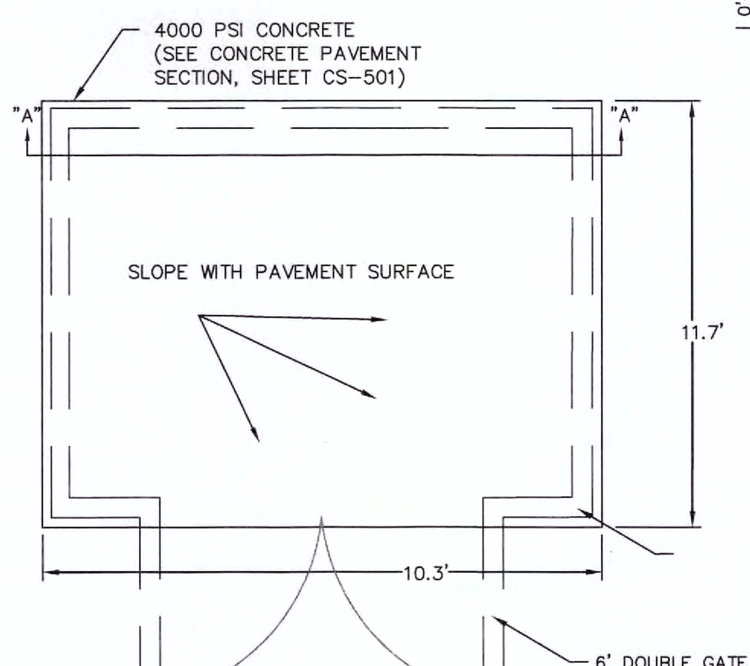
TYPE "H" CURB AND GUTTER
SD 7-04
NOT TO SCALE



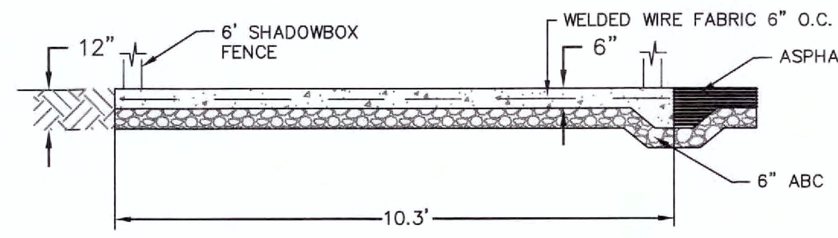
STANDARD CURB SECTION TYPE "A"
SD 7-01
NOT TO SCALE



4" CURB SECTION
NOT TO SCALE



DUMPSTER PAD
NOT TO SCALE



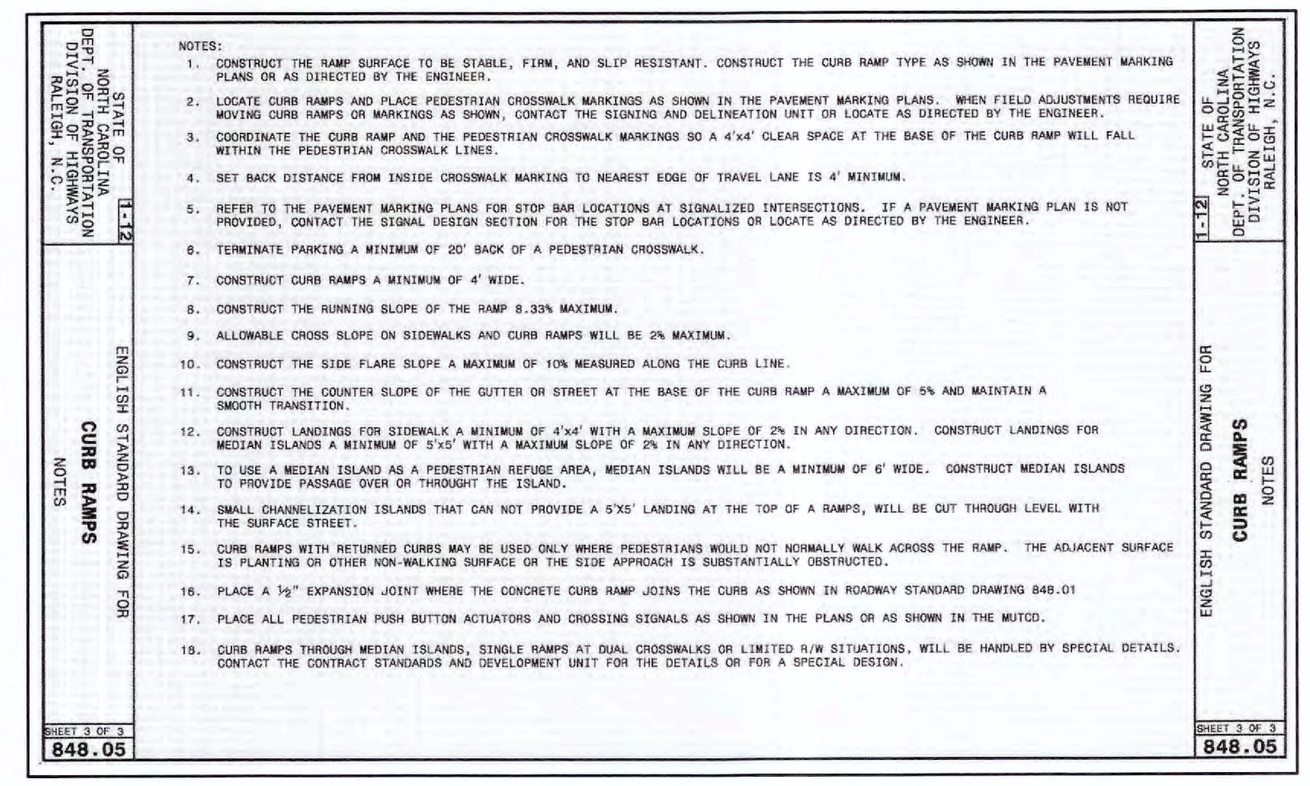
SECTION A-A

Approved Construction Plan	Name	Date
Planning		
Traffic		
Fire		

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE ________ PERMIT #______
SIGNED________________

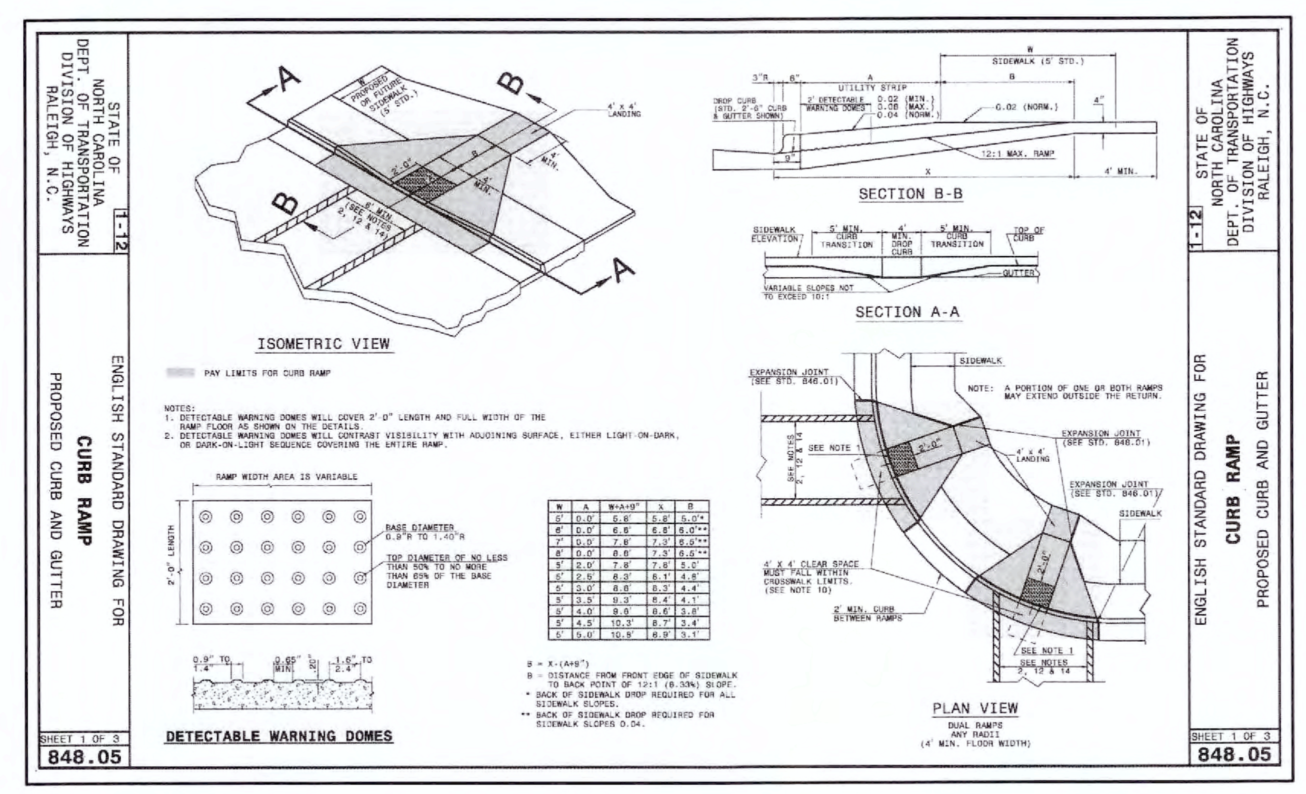
1 inch

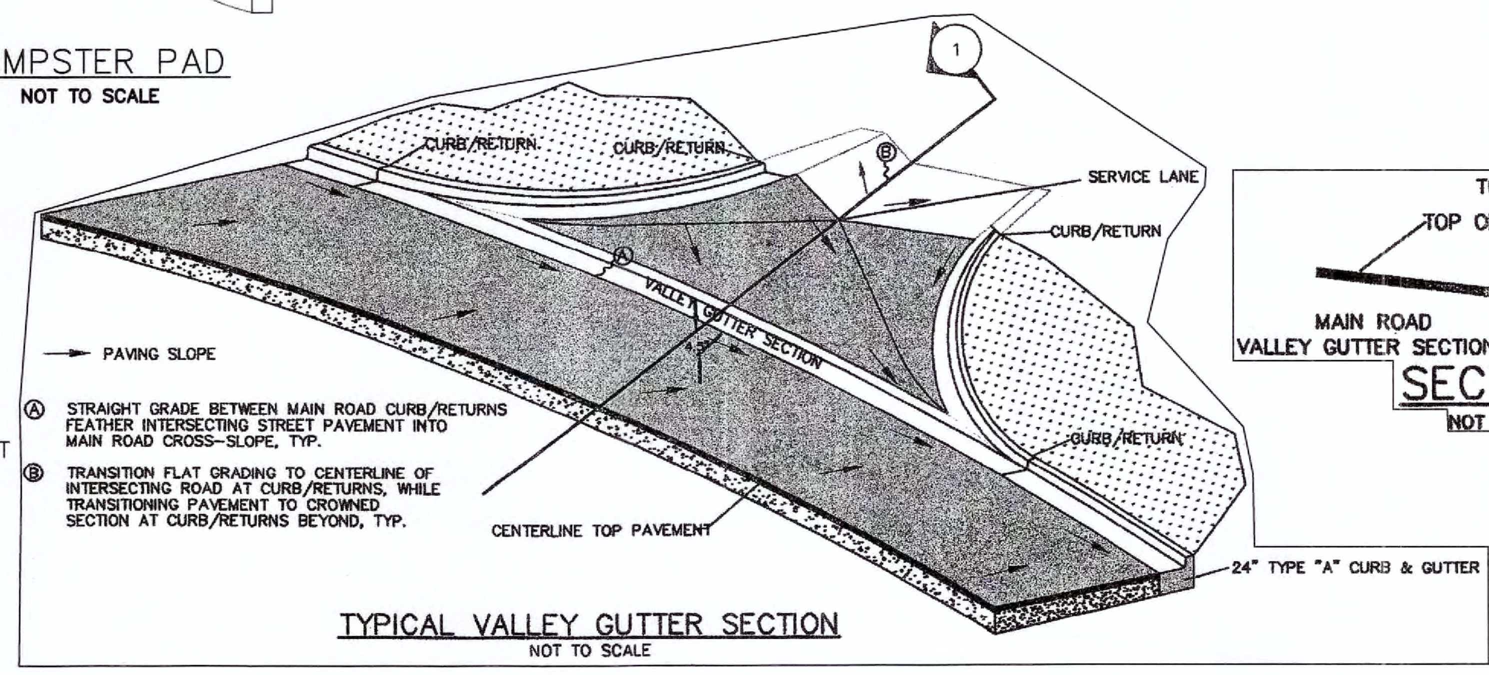
For each open utility cut of City streets, a $325 permit shall be required from the City prior to occupancy and/or project acceptance.


STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
ENGLISH STANDARD DRAWING FOR CURB RAMPS NOTES

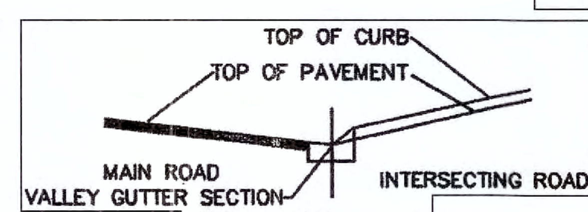
NOTES:
1. CONSTRUCT THE RAMP SURFACE TO BE STABLE, FIRM, AND SLIP RESISTANT. CONSTRUCT THE CURB RAMP TYPE AS SHOWN IN THE PAVEMENT MARKING PLANS OR AS DIRECTED BY THE ENGINEER.
2. LOCATE CURB RAMPS AND PLACE PEDESTRIAN CROSSWALK MARKINGS AS SHOWN IN THE PAVEMENT MARKING PLANS. WHEN FIELD ADJUSTMENTS REQUIRE MOVING CURB RAMPS OR MARKINGS AS SHOWN, CONTACT THE SIGNING AND DELINEATION UNIT OR LOCATE AS DIRECTED BY THE ENGINEER.
3. COORDINATE THE CURB RAMP AND THE PEDESTRIAN CROSSWALK MARKINGS SO A 4'x4' CLEAR SPACE AT THE BASE OF THE CURB RAMP WILL FALL WITHIN THE PEDESTRIAN CROSSWALK LINES.
4. SET BACK DISTANCE FROM INSIDE CROSSWALK MARKING TO NEAREST EDGE OF TRAVEL LANE IS 4' MINIMUM.
5. REFER TO THE PAVEMENT MARKING PLANS FOR STOP BAR LOCATIONS AT SIGNALIZED INTERSECTIONS. IF A PAVEMENT MARKING PLAN IS NOT PROVIDED, CONTACT THE SIGNAL DESIGN SECTION FOR THE STOP BAR LOCATIONS OR LOCATE AS DIRECTED BY THE ENGINEER.
6. TERMINATE PARKING A MINIMUM OF 20' BACK OF A PEDESTRIAN CROSSWALK.
7. CONSTRUCT CURB RAMPS A MINIMUM OF 4' WIDE.
8. CONSTRUCT THE RUNNING SLOPE OF THE RAMP 8.33% MAXIMUM.
9. ALLOWABLE CROSS SLOPE ON SIDEWALKS AND CURB RAMPS WILL BE 2% MAXIMUM.
10. CONSTRUCT THE SIDE FLARE SLOPE A MAXIMUM OF 10% MEASURED ALONG THE CURB LINE.
11. CONSTRUCT THE COUNTER SLOPE OF THE GUTTER OR STREET AT THE BASE OF THE CURB RAMP A MAXIMUM OF 5% AND MAINTAIN A SMOOTH TRANSITION.
12. CONSTRUCT LANDINGS FOR SIDEWALK A MINIMUM OF 4'x4' WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION. CONSTRUCT LANDINGS FOR MEDIAN ISLANDS A MINIMUM OF 5'x5' WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION.
13. TO USE A MEDIAN ISLAND AS A PEDESTRIAN REFUGE AREA, MEDIAN ISLANDS WILL BE A MINIMUM OF 6' WIDE. CONSTRUCT MEDIAN ISLANDS TO PROVIDE PASSAGE OVER OR THROUGH THE ISLAND.
14. SMALL CHANNELIZATION ISLANDS THAT CAN NOT PROVIDE A 5'X5' LANDING AT THE TOP OF A RAMPS, WILL BE CUT THROUGH LEVEL WITH THE SURFACE STREET.
15. CURB RAMPS WITH RETURNED CURBS MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP. THE ADJACENT SURFACE IS PLANTING OR OTHER NON-WALKING SURFACE OR THE SIDE APPROACH IS SUBSTANTIALLY OBSTRUCTED.
16. PLACE A ½" EXPANSION JOINT WHERE THE CONCRETE CURB RAMP JOINS THE CURB AS SHOWN IN ROADWAY STANDARD DRAWING 848.01
17. PLACE ALL PEDESTRIAN PUSH BUTTON ACTUATORS AND CROSSING SIGNALS AS SHOWN IN THE PLANS OR AS SHOWN IN THE MUTCD.
18. CURB RAMPS THROUGH MEDIAN ISLANDS, SINGLE RAMPS AT DUAL CROSSWALKS OR LIMITED R/W SITUATIONS, WILL BE HANDLED BY SPECIAL DETAILS. CONTACT THE CONTRACT STANDARDS AND DEVELOPMENT UNIT FOR THE DETAILS OR FOR A SPECIAL DESIGN.

SHEET 3 OF 3
848.05

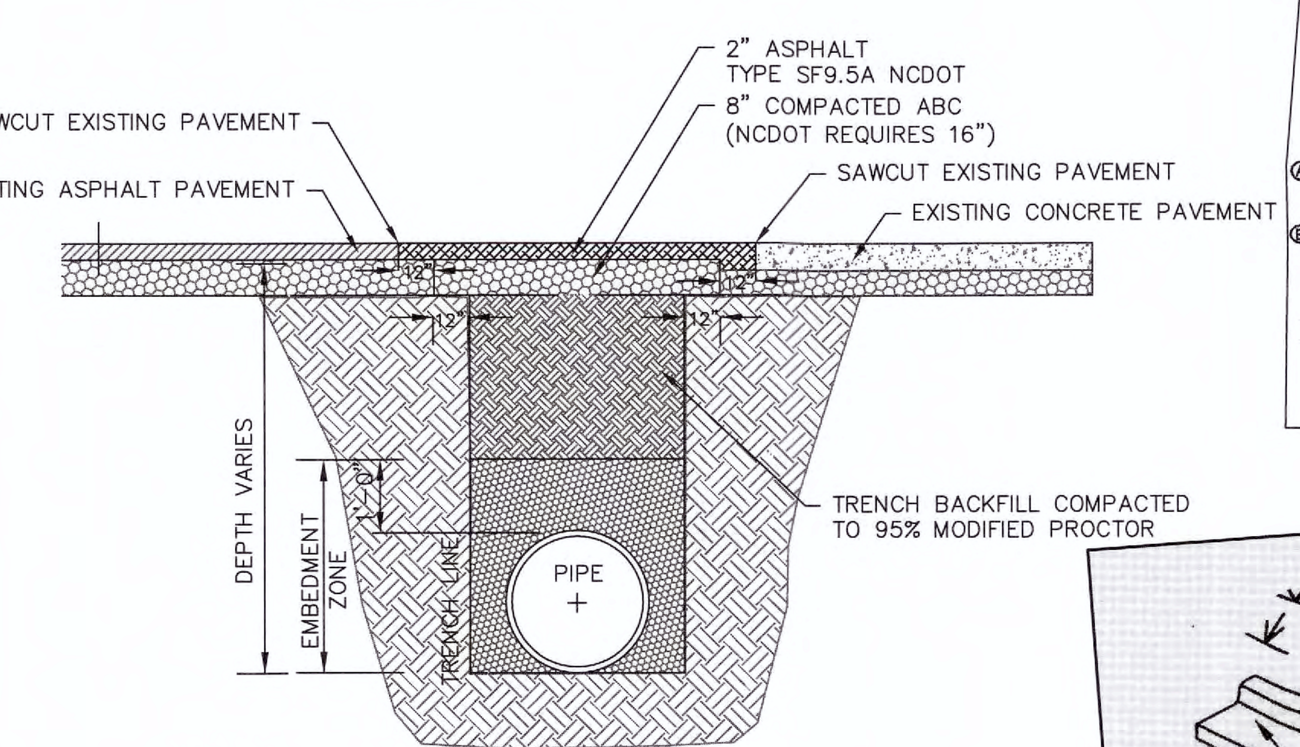




TYPICAL VALLEY GUTTER SECTION
NOT TO SCALE



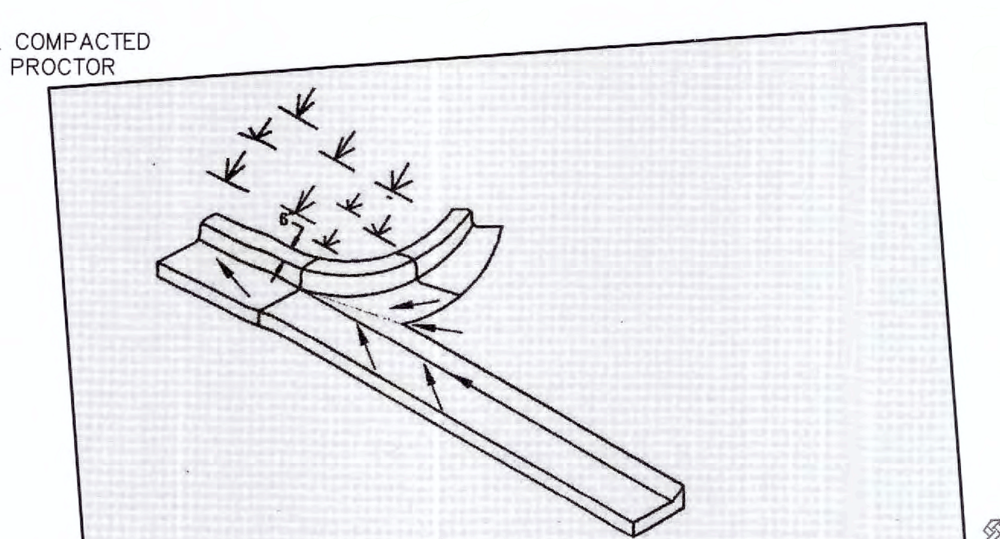
SECTION 1
NOT TO SCALE



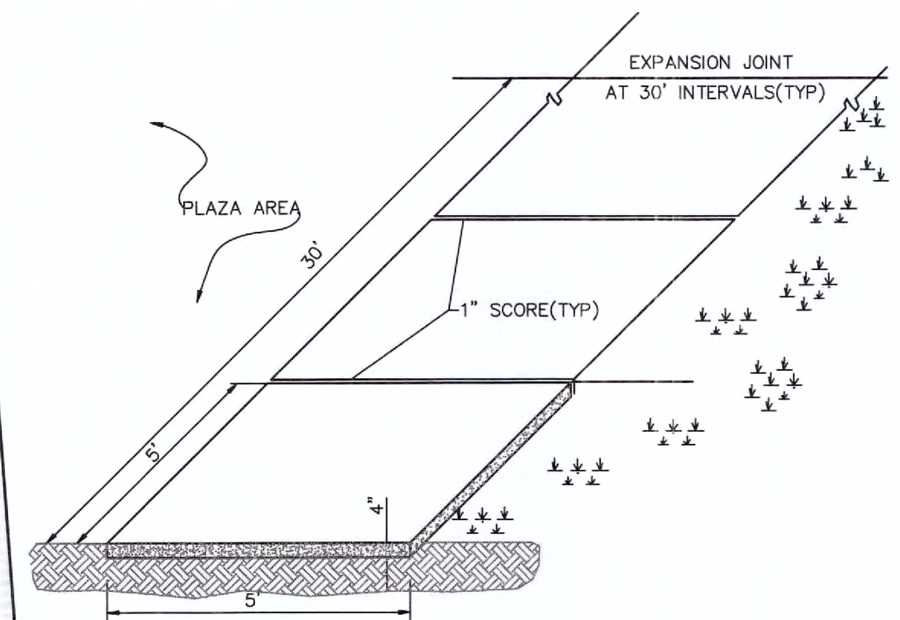
NOTES:
* BACKFILL TO BE INSTALLED IN 6" LIFTS (MAXIMUM) AND COMPACTED TO A MINIMUM DENSITY OF 95% AS DETERMINED BY THE MODIFIED A.A.S.H.T.O. STANDARD METHOD T-99
* CUT – BACK TO BE PREPARED AFTER TRENCH BACKFILLING AND COMPACTION

STANDARD SHOWING METHOD MAKING PAVEMENT REPAIRS WHERE PIPE IS INSTALLED

PAVEMENT REPAIR DETAIL
SD 1-16
NOT TO SCALE



TRANSITION FROM TYPE "A" CURB & GUTTER TO TYPE "H" CURB & GUTTER
NOT TO SCALE



STANDARD SIDEWALK DETAIL
SD 8-15
NOT TO SCALE

AXIOM
ARCHITECTURE
333 WEST TRADE ST.
SUITE 200
CHARLOTTE, NC 28202
T 704.927.9900
F 704.343.9380
www.axiomarchitecture.com

ENGINEER:
McKim & Creed, Inc.
243 N Front St.
Wilmington, NC 28401
(910)-343-1048

OWNER:
Wilmington Housing Authority
1524 S 16th St.
Wilmington, NC 28401

DAWSON STREET LOFTS
WILMINGTON, NORTH CAROLINA
WILMINGTON HOUSING AUTHORITY

WILMINGTON HOUSING AUTHORITY

PROJECT # - A-1304
SITE DETAILS

SEPTEMBER 26, 2013
REVISION 1 -
REVISION 2 -
REVISION 3 -
REVISION 4 -

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 038577 RICHARD A. CHRISTENSEN 9-25-2013
NOT FOR CONSTRUCTION

BID SET
CS-501

S:\6464\0001\80-Drawings\DETAILS_6464-0001.dwg, 9/24/2013 2:30:54 PM, \\wil-print-svr\KIP_7100

SEEDBED PREPARATION:

1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
2. RIP THE ENTRANCE AREA TO 6 INCHES DEPTH.
3. REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
4. APPLY AGRICULTURAL LIME, FERTILIZER, AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL (SEE BELOW*).
5. CONTINUE TILLAGE UNTIL A WELL – PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED 4 TO 6 INCHES DEEP.
6. SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
8. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE OVER 60% DAMAGED, REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
9. CONSULT CONSERVATION INSPECTOR ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.
10. APPLY:
    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

TEMPORARY SEEDING

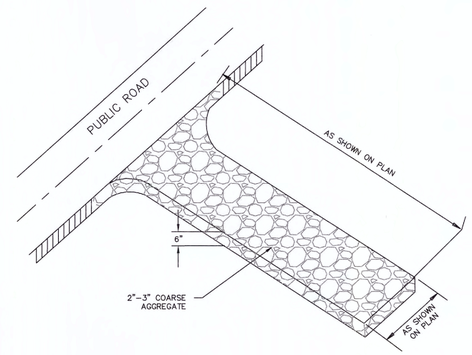
GRASS TYPE	AMOUNT/ 1000 S.F.	TIME OF SEEDING	INITIAL
RYE GRAIN	1–2 LBS.	APRIL – JUNE	25 LBS. 10–10–10
BROWNTOP MILLET	1–2 LBS	JUNE – AUGUST	25 LBS 10–10–10

PERMANENT SEEDING

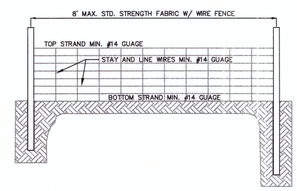
GRASS TYPE	AMOUNT/ 1000 S.F.	TIME OF SEEDING	INITIAL
BERMUDA, COMMON	1–2 LBS.	APRIL – JUNE	25 LBS. 10–10–10
FESCUE, TALL (KENTUCKY 31)	5–7 LBS	JUNE – AUGUST FEB. – OCT.	25 LBS 10–10–10
SERICEA LESPEDEZA (SLOPES	1–2 LBS	MARCH – APRIL	25 LBS 10–10–10

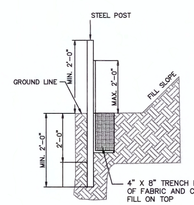
GROUND STABILIZATION CRITERIA

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 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 HQW ZONES)



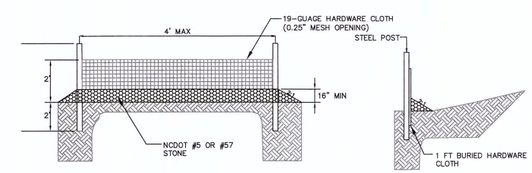
CONSTRUCTION ENTRANCE/EXIT
SD 13–03
NOT TO SCALE





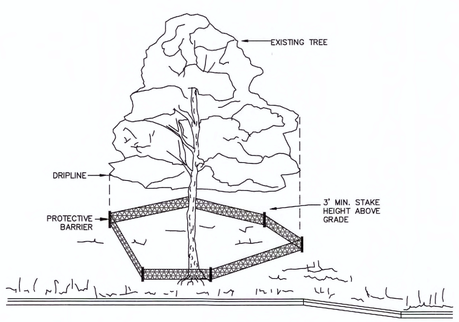
NOTES:
1. WIRE FENCE (IF USED) SHALL BE MINUMUM 14 GAUGE WITH A MAXIMUM MESH OPENING OF 6–INCHES.
2. SYNTHETIC FILTER FABRIC OF AT LEAST 95% BY WEIGHT OF POLYOLEFINS OR POLYESTER, WHICH IS CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS IN ASTM D 6461 AND ALSO SHOULD CONTAIN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

TEMPORARY SILT FENCE
NOT TO SCALE



NOTES:
1. DRIVE 5–FOOT STEEL POSTS 2 FEET INTO THE GROUND SURROUNDING THE INLET. SPACE POSTS EVENLY AROUND THE PERIMETER OF THE INLET, A MAXIMUM OF 4 FEET APART.
2. SURROUND THE POSTS WITH WIRE MESH HARDWARE CLOTH. SECURE THE WIRE MESH TO THE STEEL POSTS AT THE TOP, MIDDLE, AND BOTTOM. PLACING A 1–FOOT FLAP OF THE WIRE MESH UNDER THE GRAVEL FOR ANCHORING IS RECOMMENDED.
3. PLACE CLEAN GRAVEL (NC DOT #5 OR #57 STONE) ON A 2:1 SLOPE WITH A HEIGHT OF 16 INCHES AROUND THE WIRE, AND SMOOTH TO AN EVEN GRADE.

GUIDELINES FOR HARDWARE CLOTH & GRAVEL INLET PROTECTION
SD 13–01
NOT TO SCALE



NOTE
TREES TO BE SAVED WILL BE CLEARLY MARKED PRIOR TO CONSTRUCTION AND A PROTECTIVE BARRIER IS TO BE INSTALLED AT THE DRIPLINE. DRIP LINE – THE AREA OF SOIL DIRECTLY BENEATH THE TREE EXTENDING OUT TO THE TIPS OF THE OUTERMOST BRANCHES.

METHOD OF TREE PROTECTION DURING CONSTRUCTION
SD 15–08
NOT TO SCALE

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(c)] AND ANY TREES IN ANY REQUIRED BUFFERS [18–456(d)] ARE REQUIRED TO BE RETAINED.

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_____

AXIOM ARCHITECTURE
333 WEST TRADE ST.
SUITE 200
CHARLOTTE, NC 28202
T 704.927.9900
F 704.343.9380
www.axiomarchitecture.com

ENGINEER:
McKim & Creed, Inc.
243 N Front St.
Wilmington, NC 28401
(910)-343-1048

OWNER:
Wilmington Housing Authority
1524 S 16th St.
Wilmington, NC 28401

DAWSON STREET LOFTS
WILMINGTON, NORTH CAROLINA
WILMINGTON HOUSING AUTHORITY

WILMINGTON HOUSING AUTHORITY

PROJECT # - A-1304

SEDIMENTATION & EROSION CONTROL DETAILS

SEPTEMBER 26, 2013

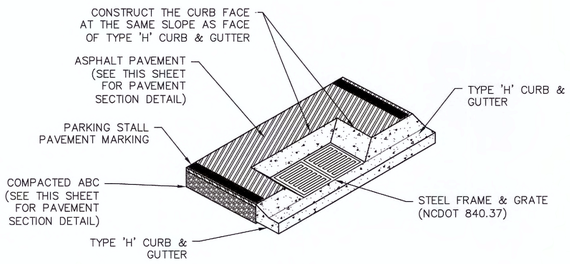
REVISION 1 -
REVISION 2 -
REVISION 3 -
REVISION 4 -

NOT FOR CONSTRUCTION

BID SET

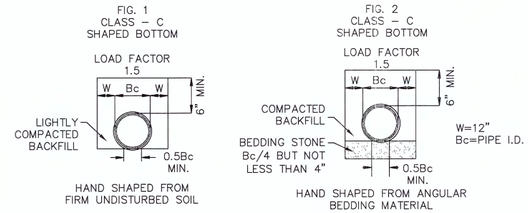
CE-501

S:\6464\0001\80-Drawings\DETAILS_6464-0001.dwg, 9/24/2013 2:40:08 PM, \\wil-print-svr\KP_7100



DROP INLET DETAIL

NOT TO SCALE

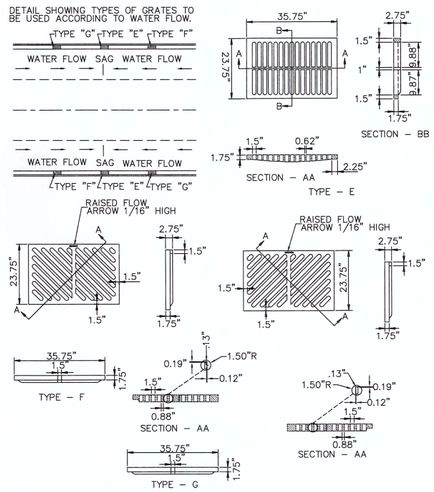


GUIDELINES FOR BEDDING DETAILS, STORM SEWER CLASS C

SD 2–17

NOT TO SCALE

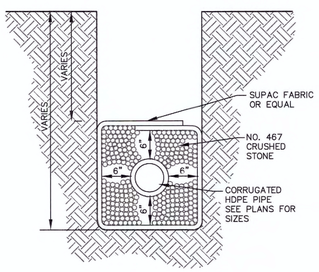
- EXCAVATION FOR STORM DRAINAGE PIPE SHALL BE TO THE LINES AND GRADES AS SHOWN ON THE PLANS.
- THE BEDDING SHALL BE SHAPED IN ACCORDANCE WITH CLASS "C" BEDDING AS SHOWN ON CITY STANDARD DETAIL SD 2–17.
- THE BEDDING SHALL PROVIDE A FIRM FOUNDATION OF UNIFORM DENSITY ALONG THE ENTIRE LENGTH OF PIPE. RECESSES SHALL BE MADE TO ACCOMMODATE BELLS AND JOINTS.
- WHERE UNSTABLE SOILS ARE ENCOUNTERED AS DETERMINED BY GEOTECHNICAL ENGINEER, A MINIMUM 4–INCH THICK BEDDING OF STONE SHALL BE PLACED, SEE FIGURE 2, SD 2–17.
- THE STONE SHALL BE UNIFORMLY GRADED FROM 3/4 INCH TO NO. 4 IN ACCORDANCE WITH ASTM C–33. CARE SHALL BE TAKEN TO PREVENT UNDERCUTTING IN SUITABLE SOIL.
- AREAS UNDERCUT SHALL BE FILLED WITH SUITABLE SOIL AND COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D 1557 STANDARD TEST METHOD.



CATCH BASIN GRATE FOR PRE–CAST

SD 2–20

NOT TO SCALE

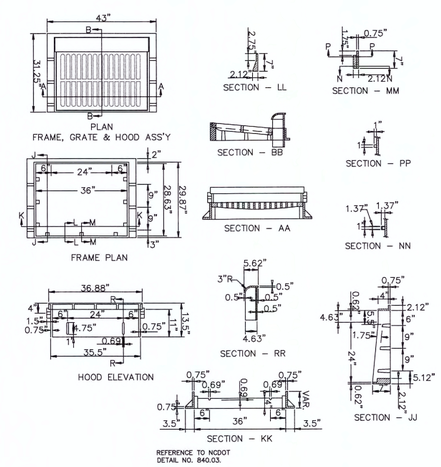


TYPICAL SECTION

GUIDELINES FOR SUB–DRAIN

SD 2–04

NOT TO SCALE

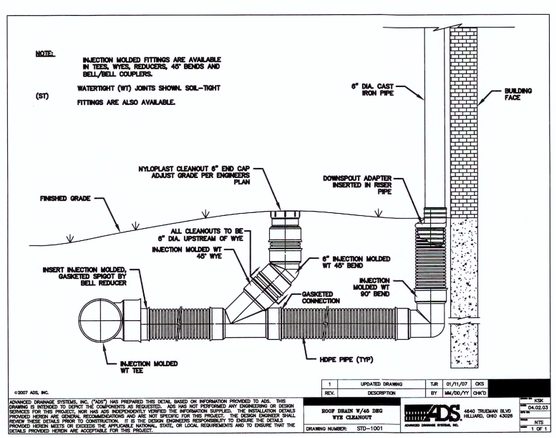


NOTE: USE TYPE "E","F",& "G" GRATE UNLESS OTHERWISE INDICATED

CATCH BASIN CASTING FOR PRE–CAST

SD 2–19

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_____

NOT FOR CONSTRUCTION

AXIOM ARCHITECTURE
333 WEST TRADE ST.
SUITE 200
CHARLOTTE, NC 28202
T 704.927.9900
F 704.343.9380
www.axiomarchitecture.com

ENGINEER:
McKim & Creed, Inc.
243 N Front St.
Wilmington, NC 28401
(910)-343-1048

OWNER:
Wilmington Housing Authority
1524 S 16th St.
Wilmington, NC 28401

DAWSON STREET LOFTS

WILMINGTON, NORTH CAROLINA

WILMINGTON HOUSING AUTHORITY

WILMINGTON HOUSING AUTHORITY

PROJECT # - A-1304

GRADING DETAILS

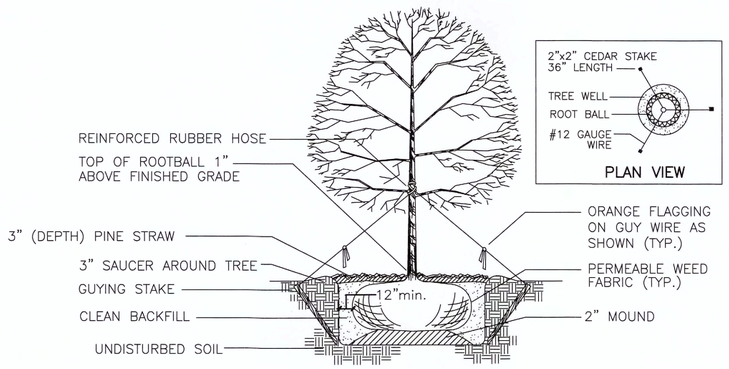
SEPTEMBER 26, 2013

REVISION 1 -
REVISION 2 -
REVISION 3 -
REVISION 4 -

BID SET

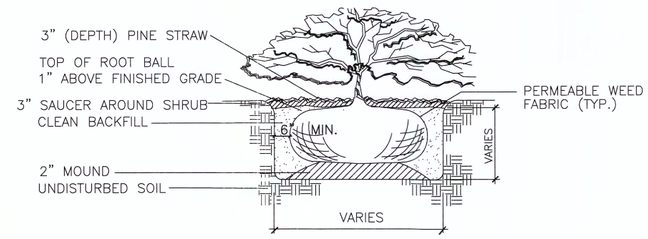
CG-501

S:\0464\0001\80-Drawings\DETAILS_0464-0001.dwg, 9/24/2013 5:37:26 PM, \\wilmpnas...\KP_7100



TREE PLANTING DETAIL

NO SCALE

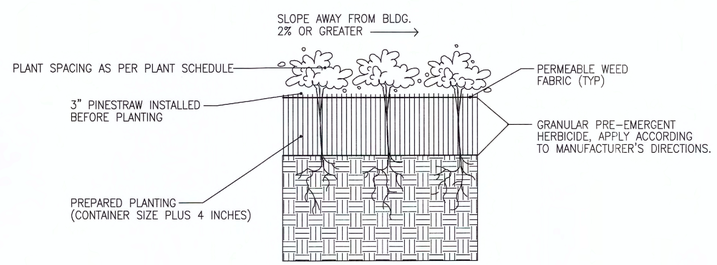


SHRUB PLANTING DETAIL

NO SCALE

PLANTING NOTES:

1. ALL TOPSOIL SHALL BE RETAINED AND REUSED IN PLANTING HOLES AFTER DIGGING HAS BEEN COMPLETED. USE ANY EXCESS SOIL FROM THE PLANTING PIT AS WELL TO FORM A SAUCER 2" TO 4" HIGH AROUND THE PLANT. SAUCERS SHALL BE THE SAME DIAMETER OR SLIGHTLY LARGER THAN THE ROOT BALL.
2. MULCHING SHALL BE COMPLETED WITHIN 48 HOURS AFTER PLANTING OF NEW PLANT MATERIAL. MULCH SHALL BE SPREAD TO A DEPTH OF 3" FOR INDIVIDUALLY PLANTED TREES AND SHRUBS AND SHOULD COVER THE ENTIRE SAUCER AREA OF EACH PLANT.
3. ALL PLANTS SHALL BE "WATERED IN" BY FLOODING THE BACKFILLED HOLE WITHIN THE SAME WORKING DAY UPON WHICH THEY WERE PLANTED. DURING AND IMMEDIATELY AFTER WATERING, ALL PLANTS SHALL BE ADJUSTED AS NECESSARY TO INSURE CORRECT DEPTH OF PLANTING, VERTICAL ALIGNMENT AND/OR TO COMPENSATE FOR SETTLING. SOIL SHALL BE FIRMED AROUND EACH PLANT AS FINAL ADJUSTMENTS ARE MADE.
4. PLANTS SHALL BE SET PLUMB AND HELD IN POSITION UNTIL SUFFICIENT SOIL HAS BEEN FIRMLY PLACED AROUND THE ROOTS OR BALL. PLANTS SHALL BE SET AT GROUND LEVEL OR NO MORE THAN 2" ABOVE THE EXISTING GRADE. THIS IS TO ENSURE ADEQUATE RECEPTION OF OXYGEN AND MOISTURE TO THE ROOTS OF THE PLANT.
5. CLEAR, REMOVE AND DISPOSE OF BRUSH, SNAGS, AND RUBBISH WITHIN 50" OF THE PLANTING HOLE. GRADE THE AREA TO MEET THE EXISTING LANDSCAPE UNLESS PLANTING ON A SLOPE.
6. PLANT ALL NEW PLANT MATERIAL AT ORIGINAL FIELD GROWN LEVEL. TAMP SOIL MIX BELOW ROOT BALL.
7. PLANTING HOLES ASSOCIATED WITH PROPOSED TREES SHOULD BE SLOPED (NOT COMPACTED) AND A MINIMUM OF 18-24 INCHES WIDER THAN THE DIAMETER OF THE ROOT BALL. TREES WILL BE INSTALLED SUCH THAT THE TOP OF THE ROOT MASS IS LEVEL WITH THE SURFACE OF THE PLANTING HOLE. TREES SHALL ALSO BE INSTALLED 3-5 INCHES ABOVE GRADE ON SITES CONTAINING CLAY.



GROUNDCOVER/PERENNIAL PLANTING DETAIL

NO 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_____

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT MARGARET ANN GRAY
LANDSCAPE ARCHITECTURE
NO. 559

NOT FOR CONSTRUCTION

AXIOM
ARCHITECTURE
333 WEST TRADE ST.
SUITE 200
CHARLOTTE, NC 28202
T 704.927.9900
F 704.343.9380
www.axiomarchitecture.com

ENGINEER:
McKim & Creed, Inc.
243 N Front St.
Wilmington, NC 28401
(910)-343-1048

OWNER:
Wilmington Housing Authority
1524 S 16th St.
Wilmington, NC 28401

DAWSON STREET LOFTS

WILMINGTON, NORTH CAROLINA

WILMINGTON HOUSING AUTHORITY

WILMINGTON HOUSING AUTHORITY

PROJECT # - A-1304

LANDSCAPE DETAILS

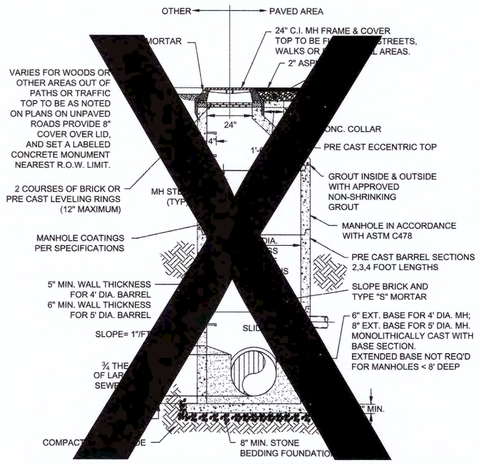
SEPTEMBER 26, 2013

REVISION 1 -
REVISION 2 -
REVISION 3 -
REVISION 4 -

BID SET

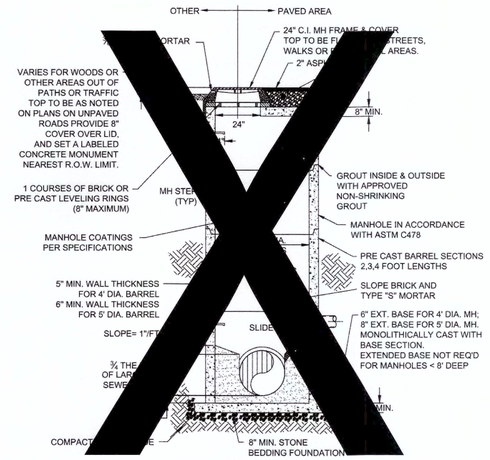
CL-501

S:\6464\0001\80 Drawings\DETAILS_6464-0001.dwg, 9/24/2013 2:43:18 PM, \\wil-print-svr\XP_7100



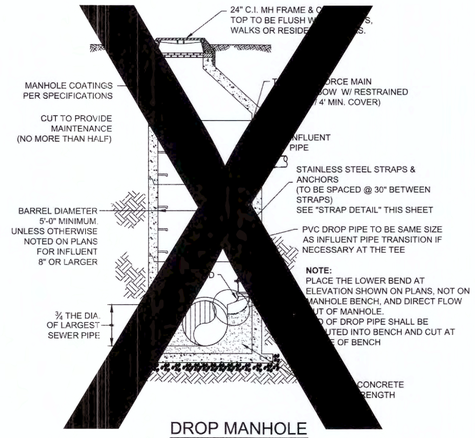
PRECAST CONCRETE OFFSET MANHOLE TYPICAL

(LESS THAN 30" DROP)
NOT TO SCALE



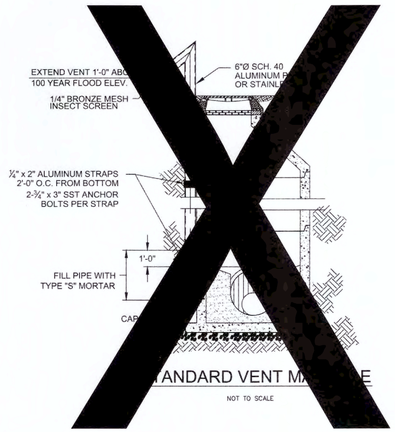
PRECAST CONCRETE FLAT TOP MANHOLE TYPICAL

(LESS THAN 30" DROP)
NOT TO SCALE



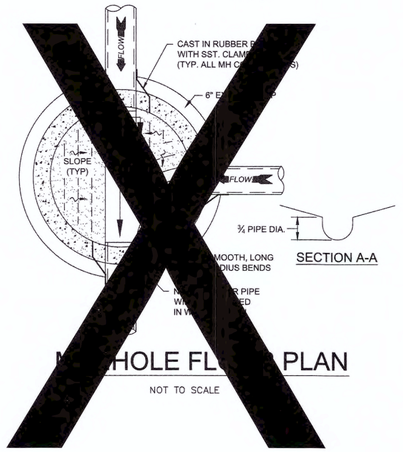
DROP MANHOLE

(MORE THAN 30" DROP)
NOT TO SCALE



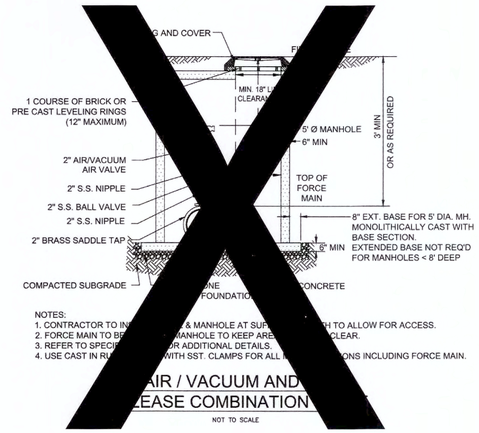
ANDARD VENT M E

NOT TO SCALE



HOLE FL PLAN

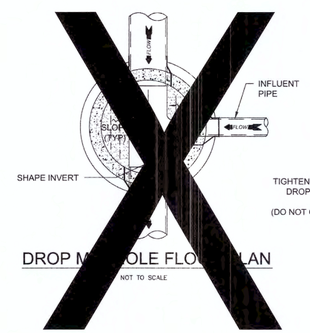
NOT TO SCALE



NOTES:
1. CONTRACTOR TO IM & MANHOLE AT SUF H TO ALLOW FOR ACCESS.
2. FORCE MAIN TO BE MANHOLE TO KEEP ARE CLEAR.
3. REFER TO SPECI OR ADDITIONAL DETAILS.
4. USE CAST IN RU WITH SST. CLAMPS FOR ALL ONS INCLUDING FORCE MAIN.

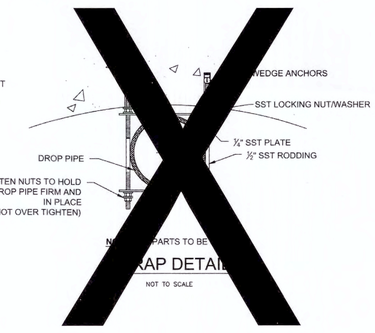
AIR / VACUUM AND EASE COMBINATION

NOT TO SCALE



DROP M HOLE FLO LAN

NOT TO SCALE



AP DETAI

NOT TO SCALE

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.

STANDARD SEWER NOTES

(REQUIRED ON ALL SEWER PLAN AND PROFILE SHEETS)

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

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

STANDARD DETAILS

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

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

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_____

NORTH CAROLINA PROFESSIONAL SEAL 038577 ENGINEER RICHARD A. SPRIGGEN
9/26/2013
NOT FOR CONSTRUCTION

AXIOM
ARCHITECTURE
333 WEST TRADE ST.
SUITE 200
CHARLOTTE, NC 28202
T 704.927.9900
F 704.343.9380
www.axiomarchitecture.com

ENGINEER:
McKim & Creed, Inc.
243 N Front St.
Wilmington, NC 28401
(910)-343-1048

OWNER:
Wilmington Housing Authority
1524 S 16th St.
Wilmington, NC 28401

DAWSON STREET LOFTS

WILMINGTON, NORTH CAROLINA
WILMINGTON HOUSING AUTHORITY

WILMINGTON HOUSING AUTHORITY

PROJECT # - A-1304
CFPUA SEWER DETAILS

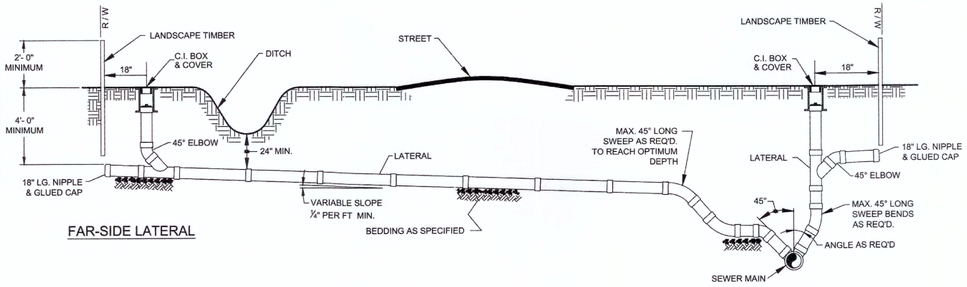
SEPTEMBER 26, 2013

REVISION 1 -
REVISION 2 -
REVISION 3 -
REVISION 4 -

BID SET

CU-501

S:\6464\0001\90-Drawings\CFPUA DETAILS_6464-0001.dwg, 9/24/2013 2:44:28 PM, \\wil-print-srv\KP_7100



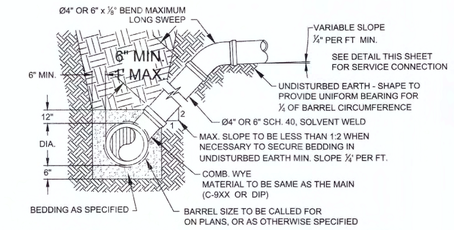
FAR-SIDE LATERAL

NEAR-SIDE LATERAL WITH RIGHT-OF-WAY RESTRICTIONS

NOTE: FOR PRIVATE 8" SERVICES, MANHOLES ARE REQUIRED FOR TIE–IN TO MAIN

STANDARD SERVICE CONNECTION TO SANITARY SEWER

NOT TO SCALE

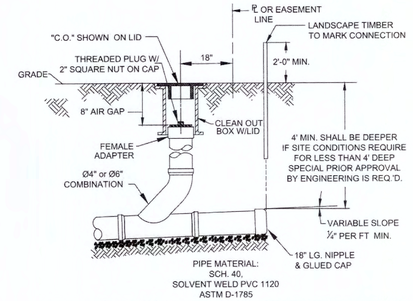


NOTE: FOR PRIVATE 8" SERVICES, MANHOLES ARE REQUIRED FOR TIE–IN TO MAIN

STANDARD SERVICE LATERAL

(MAIN DEPTH LESS THAN 8ft)

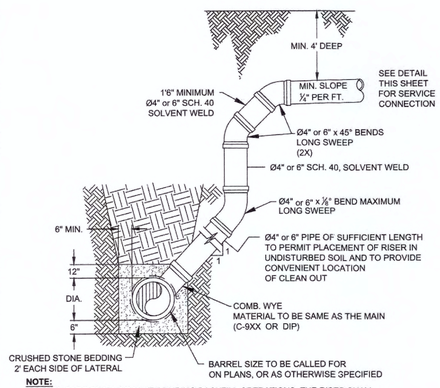
NOT TO SCALE



NOTE: FOR PRIVATE 8" SERVICES, MANHOLES ARE REQUIRED FOR TIE–IN TO MAIN

SERVICE CONNECTION & CLEAN-OUT

NOT TO SCALE



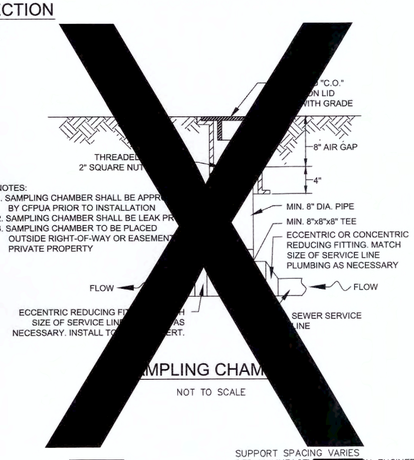
NOTE:
SPECIAL CARE SHALL BE TAKEN DURING BACKFILL OPERATIONS. THE RISER SHALL BE PLUMB AND TRUE AT ALL TIMES, AND REST ON FIRM, STABLE FOUNDATION.

FOR PRIVATE 8" SERVICES, MANHOLES ARE REQUIRED FOR TIE–IN TO MAIN

DEEP SERVICE LATERAL

(MAIN DEPTH GREATER THAN 8ft)

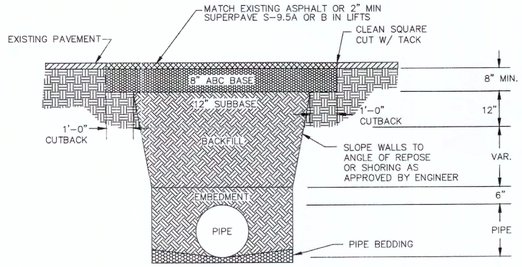
NOT TO SCALE



NOTES:
1. SAMPLING CHAMBER SHALL BE APPR[illegible] BY CFPUA PRIOR TO INSTALLATION
2. SAMPLING CHAMBER SHALL BE LEAK PR[illegible]
3. SAMPLING CHAMBER TO BE PLACED OUTSIDE RIGHT-OF-WAY OR EASEMENT PRIVATE PROPERTY

[illegible]MPLING CHAM[illegible]

NOT TO SCALE

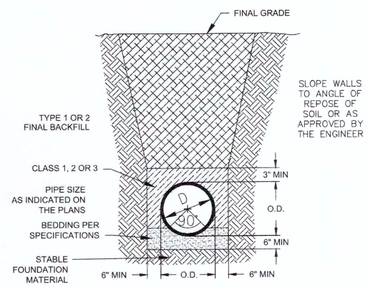


NOTES:
1. BACKFILL SHALL BE SUITABLE MATERIAL THAT IS FREE FROM HEAVY CLAY, GUMBOS, DEBRIS, ORGANICS AND LITTLE TO NO EXCESSIVE MOISTURE.
2. SELECT BACKFILL MAY BE SUBSTITUTED OR REQUIRED BY CITY TO ACHIEVE COMPACTION, (I.E. #57, ABC, CRUSHED LIMESTONE, CLEAN SAND, FLOWABLE FILL, ETC).
3. 8–INCH OF ABC 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%.

PAVEMENT REPAIR WHERE PIPE INSTALLED

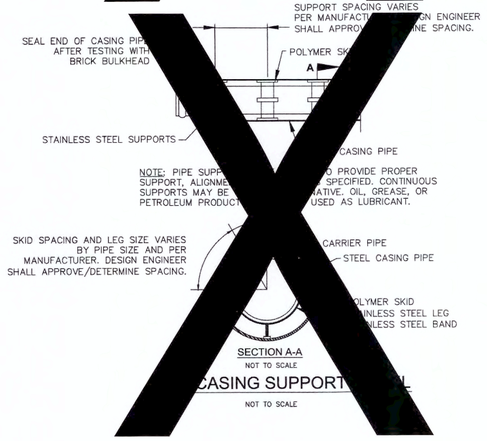
(FOR PRIVATE ROADS AND PAVED AREAS;
CONTRACTOR TO MEET MIN. REQUIREMENTS AS DEFINED BY
RIGHT-OF-WAY OWNER FOR PUBLIC ROAD REPAIRS)

NOT TO SCALE



CL 50 DUCTILE IRON DR 18 PVC PIPE TRENCH DETAIL

NOT TO SCALE



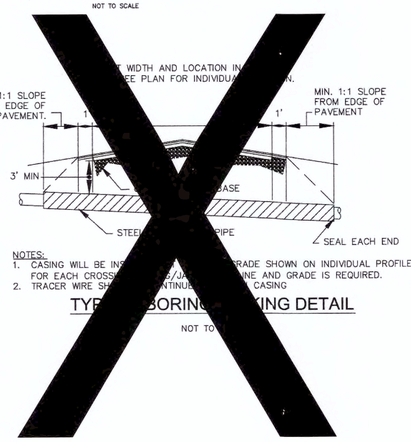
NOTE: PIPE SUPP[illegible] TO PROVIDE PROPER SUPPORT, ALIGNME[illegible] SPECIFIED. CONTINUOUS SUPPORTS MAY BE [illegible]ATIVE. OIL, GREASE, OR PETROLEUM PRODUCT[illegible] USED AS LUBRICANT.

SECTION A-A

NOT TO SCALE

[illegible]CASING SUPPORT [illegible]

NOT TO SCALE



NOTES:
1. CASING WILL BE IN[illegible] GRADE SHOWN ON INDIVIDUAL PROFILE FOR EACH CROSS[illegible]NE AND GRADE IS REQUIRED.
2. TRACER WIRE SH[illegible] CASING

TYP[illegible]BORING[illegible]ING DETAIL

NOT TO [illegible]

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

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

CFPUA SANITARY SEWER

STANDARD DETAILS

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

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

SHEET NO: SSD-2

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_____

NOT FOR BID
NOT FOR CONSTRUCTION
SEAL 038577 ENGINEER RICHARD [illegible]
9/26/2013
NOT FOR CONSTRUCTION

AXIOM ARCHITECTURE
333 WEST TRADE ST.
SUITE 200
CHARLOTTE, NC 28202
T 704.927.9900
F 704.343.9380
www.axiomarchitecture.com

ENGINEER:
McKim & Creed, Inc.
243 N Front St.
Wilmington, NC 28401
(910)-343-1048

OWNER:
Wilmington Housing Authority
1524 S 16th St.
Wilmington, NC 28401

DAWSON STREET LOFTS

WILMINGTON, NORTH CAROLINA
WILMINGTON HOUSING AUTHORITY

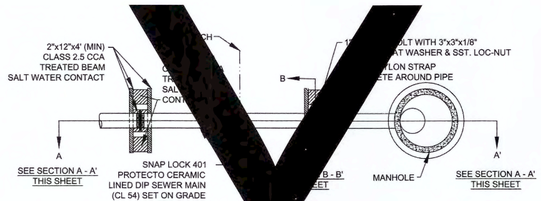
WILMINGTON HOUSING AUTHORITY

PROJECT # - A-1304
CFPUA SEWER DETAILS

SEPTEMBER 26, 2013
REVISION 1 -
REVISION 2 -
REVISION 3 -
REVISION 4 -

BID SET
CU-502

S:\6464\0001\80-Drawings\CFPUA DETAILS_6464-0001.dwg 9/24/2013 2:45:10 PM \\wil-print-svr\KIP_7100



NOTES:

(1) PILES AND PILE DRIV... TO NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTU... IONS 445, 450, 1082-2 & 1084-2

(2) CENTERLINE OF P... FROM OUTSIDE EDGE OF TIMBER. BOLTS TO BE A MINI... TERLINE

(3) ALL STAINLES... LL BE 316. ...RAP TO BE COLD FORMED.

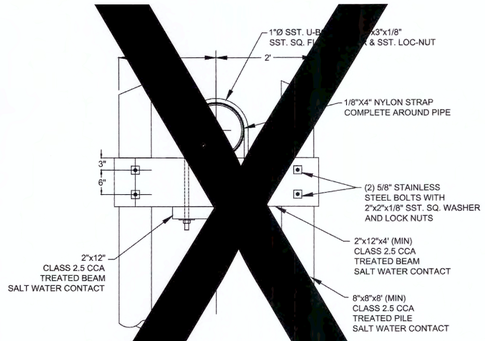
(4) PILE SHALL ... CT FLOW OR C... ON OF DITCH/STREAM BANK.

(5) MIN. CLAS... GINEER MUST DESIG...

(6) DESIGN... PPROVED BY CFPUA

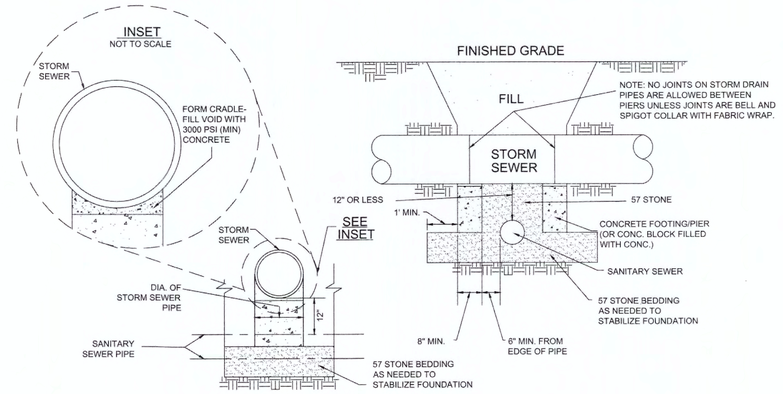
PILE AND BE...

NOT TO SCALE



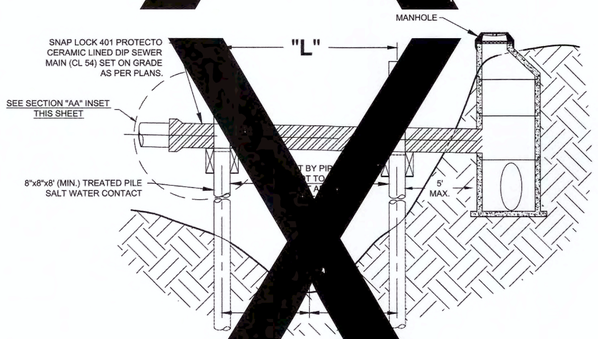
PI... D BENT SECTIO...

NOT TO SCALE



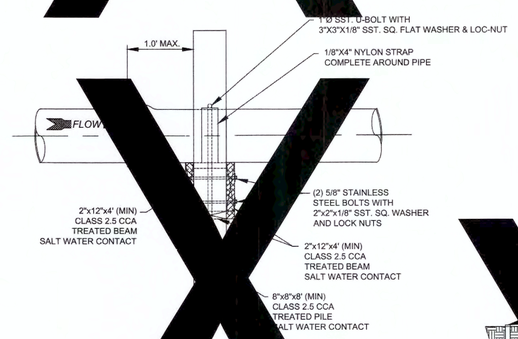
STRUCTURAL BRIDGING DETAIL FOR STORMWATER OVER GRAVITY SEWER INSTALLATIONS WITH LESS THAN 12" SEPARATION

NOT TO SCALE



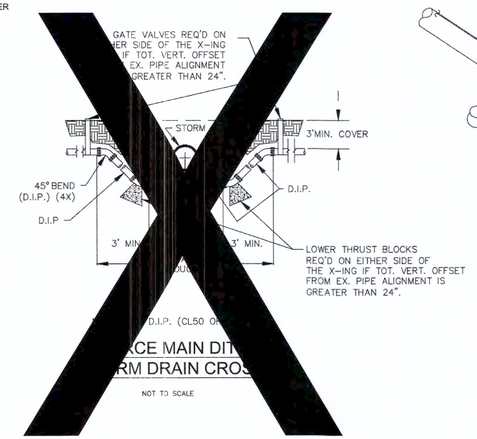
PILE ... BENT SEC... - A'

NOT TO SCALE



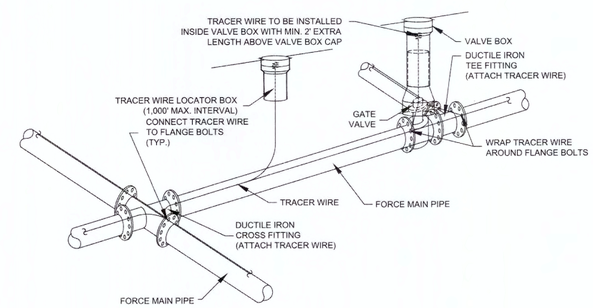
PILE AND ... SECTI... A' INSET

NOT TO SCALE



RCE MAIN DIT...
RM DRAIN CROS...

NOT TO SCALE



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 FORCE 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

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 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:

CFPUA SANITARY SEWER

STANDARD DETAILS

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

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

SHEET NO: SSD-3

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_____

NORTH CAROLINA PROFESSIONAL SEAL 038577 ENGINEER RICHARD A. CARTWRIGHT
4-12-2013
NOT FOR CONSTRUCTION

AXIOM
ARCHITECTURE
333 WEST TRADE ST.
SUITE 200
CHARLOTTE, NC 28202
T 704.927.9900
F 704.343.9380
www.axiomarchitecture.com

ENGINEER:
McKim & Creed, Inc.
243 N Front St.
Wilmington, NC 28401
(910)-343-1048

OWNER:
Wilmington Housing Authority
1524 S 16th St.
Wilmington, NC 28401

DAWSON STREET LOFTS

WILMINGTON, NORTH CAROLINA
WILMINGTON HOUSING AUTHORITY

WILMINGTON HOUSING AUTHORITY

PROJECT # - A-1304

CFPUA SEWER DETAILS

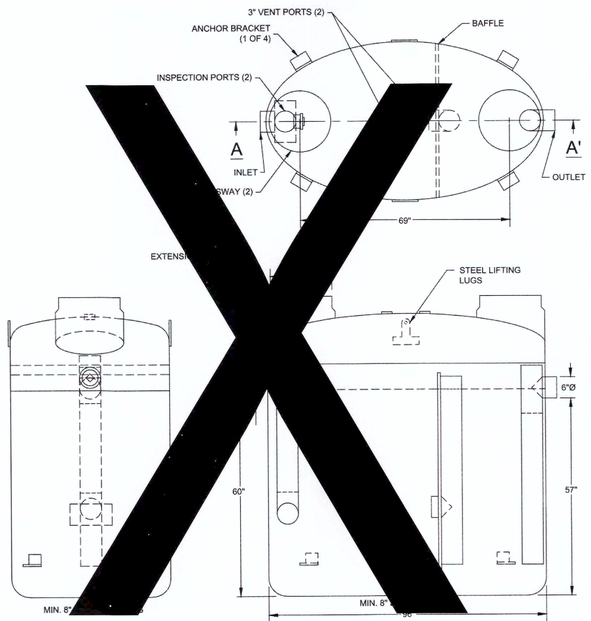
SEPTEMBER 26, 2013

REVISION 1 -
REVISION 2 -
REVISION 3 -
REVISION 4 -

BID SET

CU-503

S:\6464\0001\90-Drawings\CFPUA DETAILS_6464-0001.dwg, 9/24/2013 2:45:38 PM, \\wil-print-svr\KIP_7100

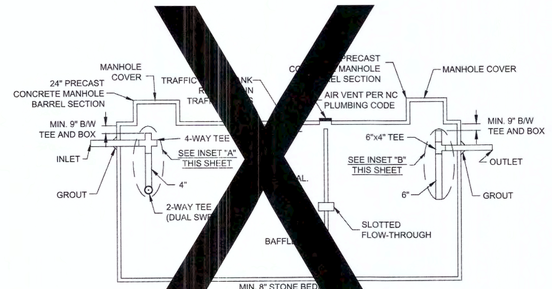


SECTION A-A'

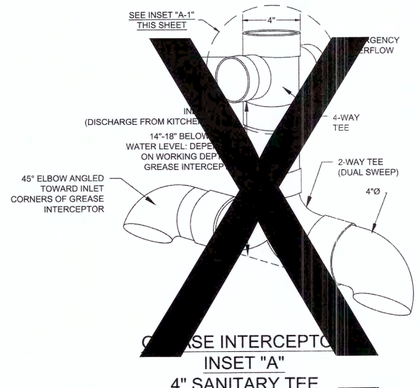
NOTES:
1. FOR GRAVITY APPLICATIONS ONLY
2. MIN. THICKNESS: 1/4" WALL AND 3/8" TOP AND BOTTOM BOWLS
3. STANDARD PIPE STUBS ARE SOCKET SDR 35 PVC
4. EXTENSION COLLARS SHALL BE CAULKED WITH SIKAFLEX OR EQUIVALENT FOR WATERTIGHT SEAL
5. FOLLOW MANUFACTURE'S SPECS FOR TRAFFIC OR PEDESTRIAN LOADING

FIBERGLASS GREASE INTERCEPTOR

NOT TO SCALE

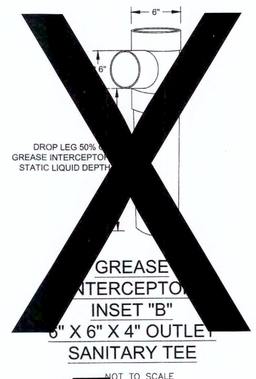


NOT TO SCALE



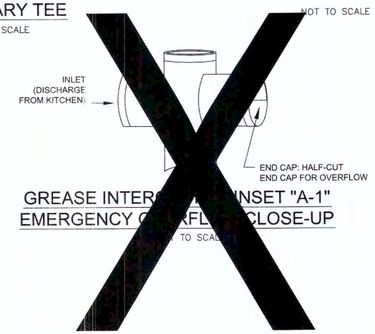
INSET "A"
4" SANITARY TEE

NOT TO SCALE



INSET "B"
6" X 6" X 4" OUTLET
SANITARY TEE

NOT TO SCALE



INSET "A-1"
CLOSE-UP

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 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:

CFPUA SANITARY SEWER

STANDARD DETAILS

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

DATE: 1/9/12
SCALE: N/A
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_____

NORTH CAROLINA PROFESSIONAL SEAL 038577 ENGINEER RICHARD A. CRAIG
9-26-2013
NOT FOR CONSTRUCTION

AXIOM ARCHITECTURE
333 WEST TRADE ST.
SUITE 200
CHARLOTTE, NC 28202
T 704.927.9900
F 704.343.9380
www.axiomarchitecture.com

ENGINEER:
McKim & Creed, Inc.
243 N Front St.
Wilmington, NC 28401
(910)-343-1048

OWNER:
Wilmington Housing Authority
1524 S 16th St.
Wilmington, NC 28401

DAWSON STREET LOFTS

WILMINGTON, NORTH CAROLINA
WILMINGTON HOUSING AUTHORITY

WILMINGTON HOUSING AUTHORITY

PROJECT # - A-1304

CFPUA SEWER DETAILS

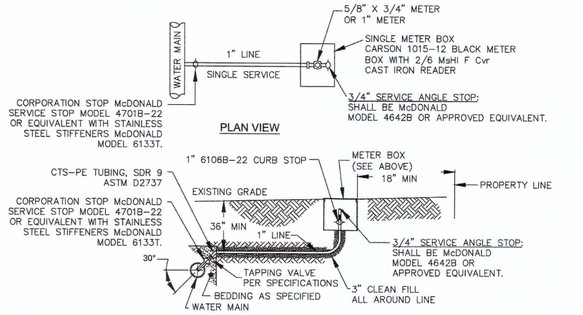
SEPTEMBER 26, 2013

REVISION 1 -
REVISION 2 -
REVISION 3 -
REVISION 4 -

BID SET

CU-504

S:\6464\0001\Bb-Drawings\CFPUA DETAILS_6464-0001.dwg, 9/24/2013 2:45:59 PM, \\wil-print-svr\KP_7100

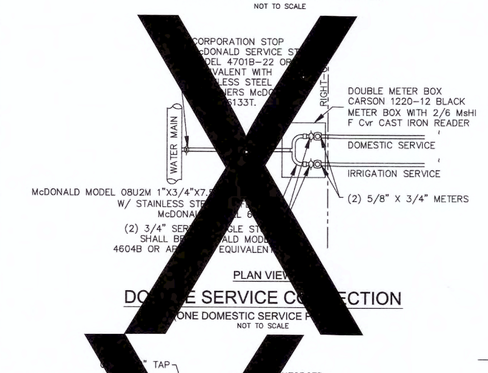


NOTES:
1. NO JOINT SHALL BE INSTALLED BETWEEN THE MAIN SERVICE TAP AND THE METER STOP. ALL SERVICES SHALL BE INSTALLED PERPENDICULAR TO MAIN.
2. SERVICE SADDLES ON PVC MAINS SHALL BE WIDE BAND BRASS BODY: SADDLE McDONALD 3801 OR EQUIVALENT
3. METER BOXES SUSCEPTIBLE TO TRAFFIC SHALL CONFORM TO ASTM A48, 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 CFPUA WATER SYSTEM

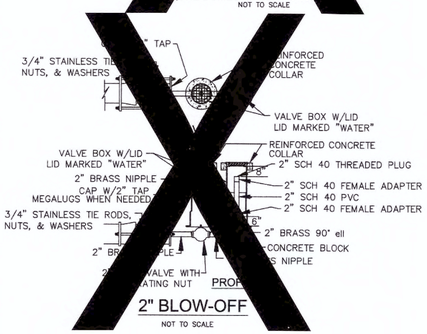
NOT TO SCALE



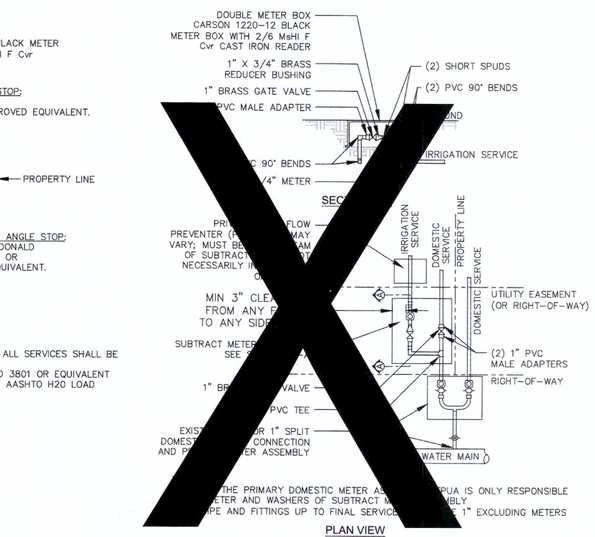
DOUBLE SERVICE CONNECTION

(ONE DOMESTIC SERVICE)

NOT TO SCALE



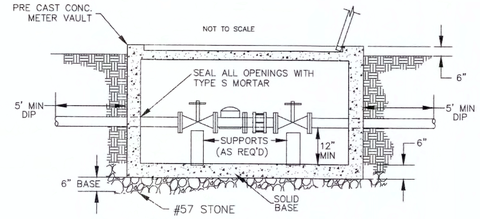
NOT TO SCALE



DOUBLE SERVICE CONNECTION USING SUBTRACT METER

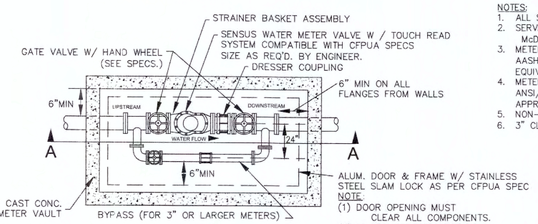
(MULTIPLE DOMESTIC SERVICES PER TAP)

NOT TO SCALE



METER VAULT SECTION A-A

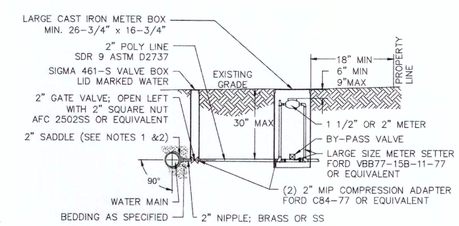
NOT TO SCALE



NOTE:
(1) DOOR OPENING MUST CLEAR ALL COMPONENTS.
(2) MUST MEET H20 LOADING REQ. IF IN TRAFFIC AREA.

WATER METER VAULT

FOR WATER METERS LARGER THAN 2"

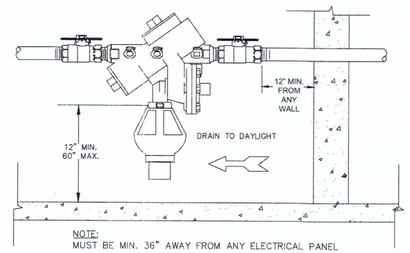


NOTES:
1. ALL SERVICES SHALL BE INSTALLED PERPENDICULAR TO MAIN.
2. SERVICE SADDLES ON PVC MAINS SHALL BE WIDE BAND BRASS BODY: McDONALD 3800, FORD S90 (DOUBLE STRAP) OR EQUIVALENT.
3. METER BOXES SUSCEPTIBLE TO TRAFFIC SHALL CONFORM TO ASTM A48, CLASS 30B AND AASHTO H20 LOAD RATING STANDARDS (OLDCASTLE PRECAST MODEL B1730 OR APPROVED EQUIVALENT).
4. METER BOXES SUSCEPTIBLE TO INCIDENTAL, NON-DELIBERATE TRAFFIC SHALL CONFORM TO ANSI/SCTE 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.

LARGE METER

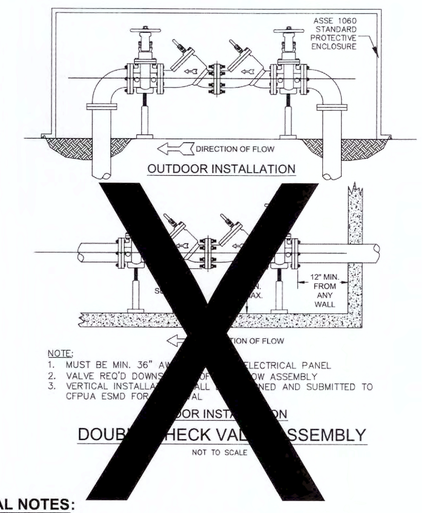
FOR 1 1/2" OR 2" WATER SERVICES

NOT TO SCALE



NOTE:
MUST BE MIN. 36" AWAY FROM ANY ELECTRICAL PANEL

INDOOR HORIZONTAL INSTALLATION

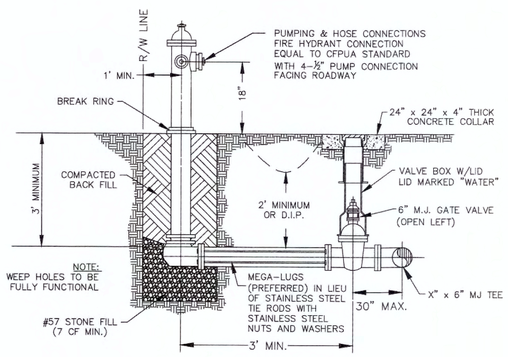


NOTE:
1. MUST BE MIN. 36" AW ELECTRICAL PANEL
2. VALVE REQ'D DOWNS W ASSEMBLY
3. VERTICAL INSTALLA ED AND SUBMITTED TO CFPUA ESMD FOR

OR INSTA ON

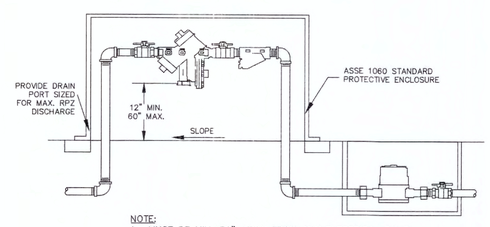
DOUB HECK VAL SSEMBLY

NOT TO SCALE



FIRE HYDRANT ASSEMBLY

NOT TO SCALE

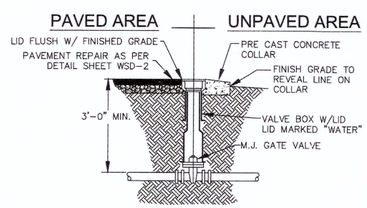


NOTE:
1. MUST BE MIN. 36" AWAY FROM ANY ELECTRICAL PANEL
2. VALVE REQ'D DOWNSTREAM OF BACKFLOW ASSEMBLY
3. VERTICAL INSTALLATION SHALL BE DESIGNED AND SUBMITTED TO CFPUA ESMD FOR APPROVAL

OUTDOOR HORIZONTAL INSTALLATION

REDUCED PRESSURE PRINCIPLE ASSEMBLY

NOT TO SCALE



VALVE DETAIL

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 CFPUA WRITTEN TECHNICAL SPECIFICATIONS VERSIONS 1.00 - 1.04

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

CFPUA WATER DISTRIBUTION SYSTEM

STANDARD DETAILS

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

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

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_____

NORTH CAROLINA PROFESSIONAL SEAL 038577 ENGINEER RICHARD J. BRUNSWICK
9-26-2013
NOT FOR CONSTRUCTION

AXIOM ARCHITECTURE
333 WEST TRADE ST.
SUITE 200
CHARLOTTE, NC 28202
T 704.927.9900
F 704.343.9380
www.axiomarchitecture.com

ENGINEER:
McKim & Creed, Inc.
243 N Front St.
Wilmington, NC 28401
(910)-343-1048

OWNER:
Wilmington Housing Authority
1524 S 16th St.
Wilmington, NC 28401

DAWSON STREET LOFTS

WILMINGTON, NORTH CAROLINA

WILMINGTON HOUSING AUTHORITY

WILMINGTON HOUSING AUTHORITY

PROJECT # - A-1304

CFPUA WATER DETAILS

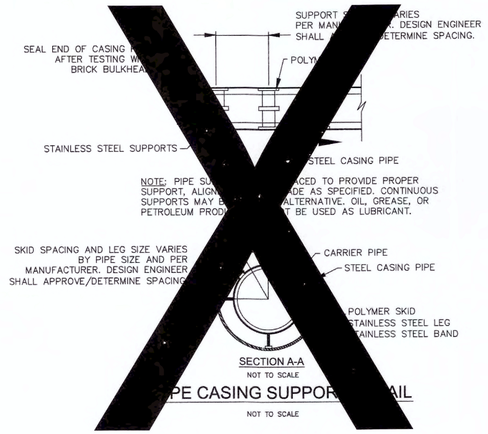
SEPTEMBER 26, 2013

REVISION 1 -
REVISION 2 -
REVISION 3 -
REVISION 4 -

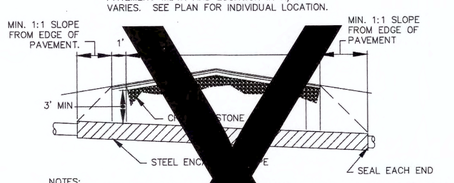
BID SET

CU-505

S:\6464\0001\80-Drawings\CFPUA DETAILS_6464-0001.dwg, 9/24/2013 2:46:19 PM, \\wil-print-srv\KP_7100

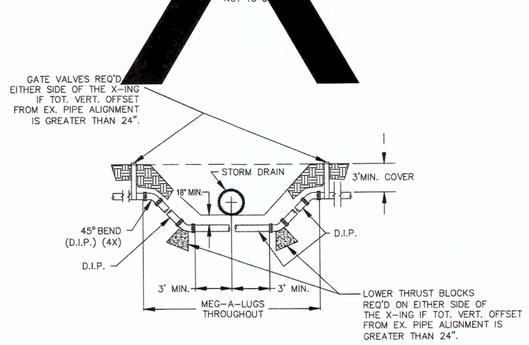


NOTE:
PAVEMENT WIDTH AND LOCATION IN R/W VARIES. SEE PLAN FOR INDIVIDUAL LOCATION.



NOTES:
1. CASING WILL BE INSTALLED
GRADE SHOWN ON INDIVIDUAL PROFILE
FOR EACH CROSSING. BORI
LINE AND GRADE IS REQUIRED.
2. TRACER WIRE SHALL BE C
H CASING

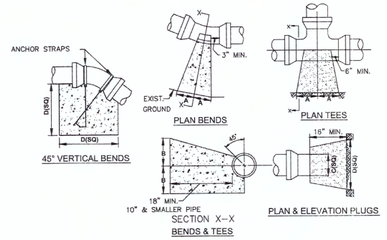
TYPICAL
ING
KING DETAIL
NOT TO S



NOTE: USE D.I.P. (CL50 OR BETTER)

WATER MAIN DITCH & STORM DRAIN CROSSING

NOT TO SCALE

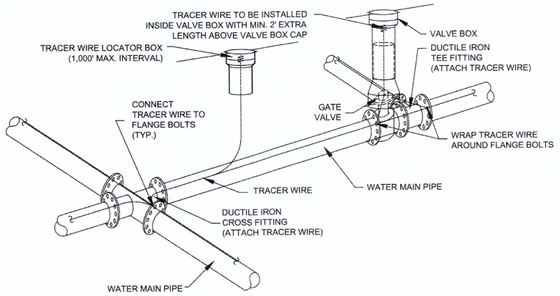


SIZE	90° BENDS		45° BENDS		22 1/2° BENDS		TEES/PLUGS		45° VERT. BENDS
	A	B	A	B	A	B	A	B	
3"	8"	6"	5"	6"	3"	7"	6"	8"	27"
4"	8"	9"	5"	8"	3"	11"	6"	9"	28"
6"	14"	11"	9"	9"	8"	8"	12"	9"	36"
8"	16"	16"	12"	12"	10"	13"	14"	13"	42"
10"	18"	22"	15"	14"	14"	16"	18"	15"	50
12"	20"	28"	18"	17"	16"	16"	22"	18"	62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

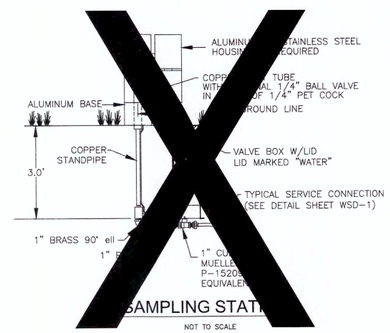
THRUST BLOCK DETAIL

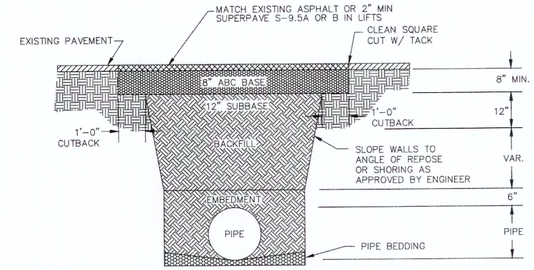
NOT TO SCALE



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



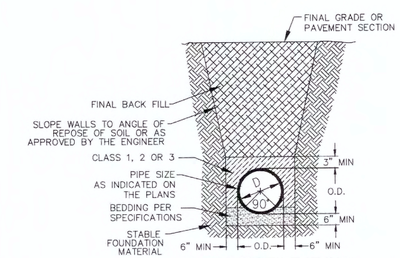


NOTES:
1. BACKFILL SHALL BE SUITABLE MATERIAL THAT IS FREE FROM HEAVY CLAY, GUMBOS, DEBRIS, ORGANICS AND LITTLE TO NO EXCESSIVE MOISTURE.
2. SELECT BACKFILL MAY BE SUBSTITUTED OR REQUIRED BY CITY TO ACHIEVE COMPACTION, (I.E. #57, ABC, CRUSHED LIMESTONE, CLEAN SAND, FLOWABLE FILL, ETC).
3. 8-INCH OF ABC 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%.

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

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 CFPUA WRITTEN TECHNICAL SPECIFICATIONS VERSIONS 1.00 - 1.04

REV:	DESCRIPTION:	DATE:

CFPUA WATER DISTRIBUTION SYSTEM

STANDARD DETAILS

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

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

SHEET NO: WSD-2

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

NORTH CAROLINA PROFESSIONAL SEAL 038577 ENGINEER
RICHARD J. CRAVEN
9-26-2013
NOT FOR CONSTRUCTION

AXIOM ARCHITECTURE
333 WEST TRADE ST.
SUITE 200
CHARLOTTE, NC 28202
T 704.927.9900
F 704.343.9380
www.axiomarchitecture.com

ENGINEER:
McKim & Creed, Inc.
243 N Front St.
Wilmington, NC 28401
(910)-343-1048

OWNER:
Wilmington Housing Authority
1524 S 16th St.
Wilmington, NC 28401

DAWSON STREET LOFTS

WILMINGTON, NORTH CAROLINA
WILMINGTON HOUSING AUTHORITY

WILMINGTON HOUSING AUTHORITY

PROJECT # - A-1304

CFPUA WATER DETAILS

SEPTEMBER 26, 2013

REVISION 1 -
REVISION 2 -
REVISION 3 -
REVISION 4 -

BID SET

CU-506

S:\646A\0001\80-Drawings\CFPUA DETAILS, 646A-0001.dwg, 9/24/2013 2:46:04 PM, \\wil-print-svr\KP_7100