

CONSTRUCTION PLANS

GOVERNMENT RESOURCE CENTER

127 CARDINAL DRIVE EXTENSION

SITE PLAN/PROPOSED SUBDIVISION

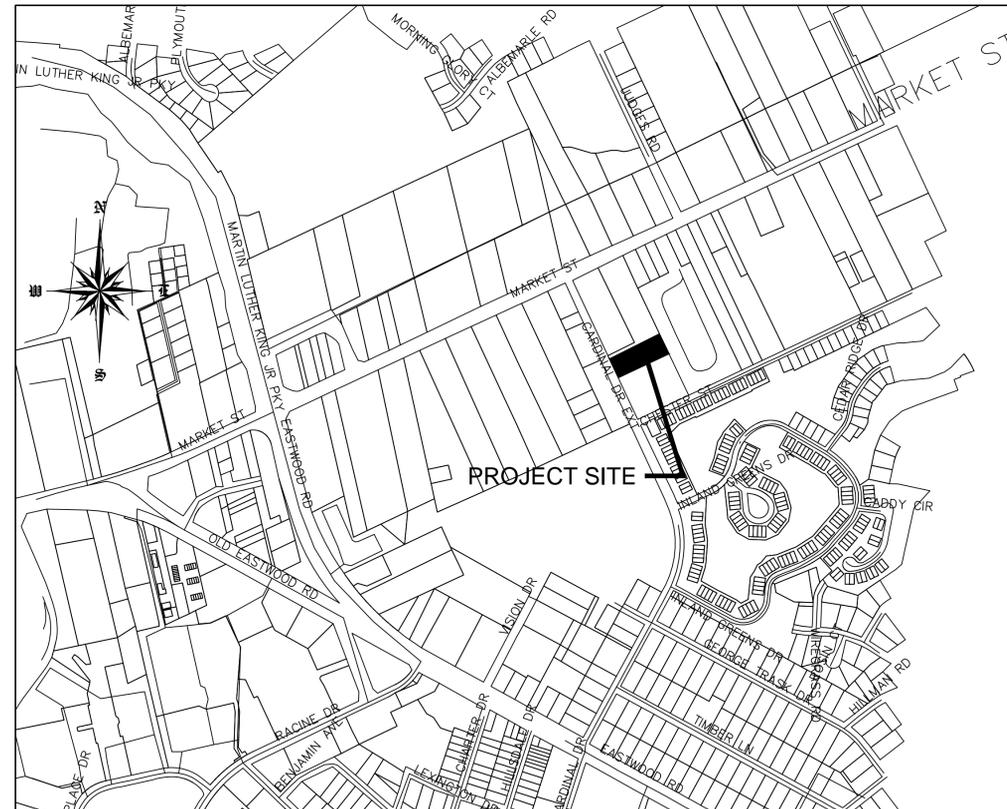
Approved Construction Plan	
Name _____	Date _____
Planning _____	
Traffic _____	
Fire _____	

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

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

NOTES

1. PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING (IF REQUIRED) WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AND NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION.
2. ANY TREES AND/OR AREAS DESIGNATED TO BE PROTECTED MUST BE PROPERLY BARRICADED WITH FENCING AND PROTECTED THROUGHOUT CONSTRUCTION TO INSURE THAT NO CLEARING, GRADING OR STAGING OF MATERIALS OCCUR IN THOSE AREAS.
3. NO EQUIPMENT IS ALLOWED ON SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING IS INSTALLED AND APPROVED. PROTECTIVE FENCING IS TO BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT, AND CONTRACTORS SHALL RECEIVE ADEQUATE INSTRUCTION ON TREE PROTECTION METHODS.
4. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS OF WAY AND FOR DRIVEWAY ARE TO BE THERMO PLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
5. ONCE STREETS ARE OPEN TO TRAFFIC, CONTACT TRAFFIC ENGINEERING REGARDING THE INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. PROPOSED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET SIGN NAMES.
6. TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD STANDARDS AND BE MAINTAINED BY THE OWNER.
7. CONTACT TRAFFIC ENGINEERING AT 910-341-7888 TO ENSURE THAT ALL TRAFFIC SIGNAL FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN.
8. TRAFFIC ENGINEERING TO BE NOTIFIED AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT OF WAY.
9. TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING PRIOR TO ACTUAL STRIPING.
10. ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN PARKING AREAS SHALL BE WHITE. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS OF WAY FOR DRIVEWAY ARE TO BE THERMO PLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
11. ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT OF WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER.
12. STOP SIGNS AND STREET SIGNS TO REMAIN IN PLACE DURING CONSTRUCTION.
13. TACTILE WARNING MATS WILL BE INSTALLED ON ALL WHEEL CHAIR RAMPS.
14. A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET.
15. ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND CURBING WILL BE REPLACED.
16. CONTACT KAREN DIXON AT 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
17. WATER AND SEWER SERVICE SHALL MEET CAPE FEAR PUBLIC UTILITY AUTHORITY DETAILS AND SPECIFICATIONS.
18. PROJECT SHALL COMPLY WITH CFPWA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METERS CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND THE STATE HAS GIVEN THEIR FINAL APPROVAL.
19. IF THE CONTRACTOR DESIRES CFPWA WATER FOR CONSTRUCTION HE SHALL APPLY IN ADVANCE FOR THIS SERVICE AND MUST SUPPLY A RPZ BACKFLOW PREVENTION DEVICE ON THE DEVELOPER'S SIDE OF THE WATER METER BOX.
20. ANY IRRIGATION SYSTEM SUPPLIED BY CFPWA SHALL COMPLY WITH THE CFPWA CROSS CONNECTION REGULATIONS.
21. ANY IRRIGATION SYSTEM SHALL BE EQUIPPED WITH A RAIN AND FREEZE SENSOR.
22. ANY BACKFLOW PREVENTION DEVICES REQUIRED BY THE CFPWA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USCFCOCHR.
23. CONTRACTOR TO FILED VERIFY EXISTING WATER AND SEWER LOCATIONS, SIZES AND MATERIALS PRIOR TO CONSTRUCTION. ENGINEER TO BE NOTIFIED OF CONFLICTS.
24. AN ALL WEATHER DRIVING SURFACE FOR EMERGENCY VEHICLES MUST BE MAINTAINED DURING CONSTRUCTION.
25. UNDERGROUND FIRE LINE(S) MUST BE PERMITTED AND INSPECTED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC ROW TO THE BUILDING. CONTACT THE WILMINGTON FIRE DEPARTMENT DIVISION OF FIRE AND LIFE SAFETY AT 910-341-0696.
26. NO OBSTRUCTIONS ARE PERMITTED IN THE SPACE BETWEEN THIRTY (30) INCHES AND TEN (TEN) FEET ABOVE THE GROUND WITHIN THE TRIANGLE SIGHT DISTANCE.
27. CONTRACTOR IS TO NOTIFY (AT A MINIMUM) THE FOLLOWING COMPANIES FOR LOCATION SERVICES:
 ULOCO1-800-632-4949, 48 HOURS IN ADVANCE
 BELL SOUTH.....1-800-392-8712 (STEVE DAYVAULT)
 CAROLINA ONE CALL CENTER 1-800-632-4949
28. THERE SHALL BE NO ENCUMBRANCES WITHIN THE NCDOT RIGHT OF WAY.
29. 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 (SD 15-14 CoW TECH STDS)
30. FIRE HYDRANTS CANNOT BE FURTHER THAN 6' FROM THE CURB.
31. PARKING AND LANDSCAPING CANNOT BLOCK FIRE HYDRANTS OF FDC'S
32. FDC'S CAN BE NO FURTHER THAN 40' FROM FIRE DEPARTMENT VEHICLE PLACEMENT
33. FDC'S CAN BE NO FURTHER THAN 150' FROM A FIRE HYDRANT
34. BICYCLE PARKING IS PROVIDED ON THE SOUTHWEST CORNER OF PROPOSED BUILDING



SCALE 1" = 600'
VICINITY MAP
FEBRUARY, 2015

LIST OF DRAWINGS

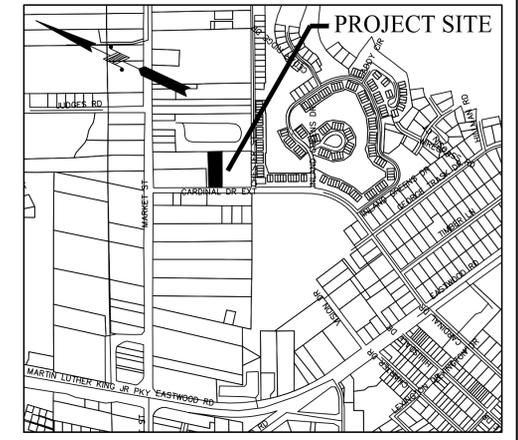
XX	COVER SHEET
C1	SITE PLAN
C2	GRADING, DRAINAGE & EROSION CONTROL
L1	LANDSCAPE PLAN
A201	PRELIMINARY BLDG ELEVATION & PLAN VIEW
WSD-1	CFPUA WATER - STANDARD DETAILS
SSD-2	CFPUA SEWER - STANDARD DETAILS

OWNER/DEVELOPER
CARD HOLDINGS, LLC
MR. EARL WORSLEY
1135 MILITARY CUTOFF
WILMINGTON, NC 28405
1-910-256-0044

CIVIL ENGINEER
JBS CONSULTING, PA
BRAD SEDGWICK, PE
7332 COTESWORTH DRIVE
WILMINGTON, NC 28405
1-910-619-9990

SURVEYOR
GEOINNOVATION, PC
MR. DEAN EXLINE, PLS
311 JUDGES ROAD
SUITE 3D
WILMINGTON, NC 28405
1-910-367-2110





VICINITY MAP
 NTS

SITE DATA

ADDRESS 127 CARDINAL DRIVE EXTENSION
 WILMINGTON, NC 28405

PARCEL ID NUMBERS R05010-001-008-000

DEED BOOK & PAGE D.B. 5295 PG. 293

ZONING RB-REGIONAL BUSINESS
 CITY OF WILMINGTON

TOTAL LOT AREA 4.37 ACRES
 AFTER PROPOSED SUBDIVISION..... 1.05 ACRES

CAMA LAND USE CLASSIFICATION .. URBAN

PROPOSED USE.....OFFICE

NUMBER OF BUILDINGS 1 PROPOSED (4-2,000 SF UNITS)

BUILDING SQUARE FOOTAGE

TOTAL..... 8,000 SF

RB - REGIONAL BUSINESS

	REQUIRED	PROPOSED
MIN. LOT AREA	1 ACRE	1.05 ACRES
MIN. LOT WIDTH	100'	113.74'
MAX. LOT COVERAGE	40%	17.5% (8000/45,826)
FRONT BUILDING SETBACK	25'	25'
REAR BUILDING SETBACK	25'	30'
SIDE BUILDING SETBACK	0'	7.5'
MAX. BUILDING HEIGHT	35'	EAVE HEIGHT = 11' PEAK HEIGHT = 21.5'

PARKING REQUIREMENTS

NUMBER OF SPACES 1 PER 300 MIN (8000/300) = 27 SPACES
 1 PER 200 MAX (8000/200) = 40 SPACES

PROPOSED SPACES.....27 SPACES + 2 H/C = 29

BUA CALCULATIONS

EXISTING PARKING LOT	6,338 SF
UNDER DRIP LINE PRO BUILDING	9,271 SF
PRO PARKING	12,849 SF
S/W NOT UNDER DRIP LINE	1,269 SF
TOTAL	29,727 SF

% IMPERVIOUS (29,727/45,826) 65%

OVERLAY DISTRICTS

THE SITE IS NOT IN A KNOWN OVERLAY DISTRICT

FLOOD INFORMATION

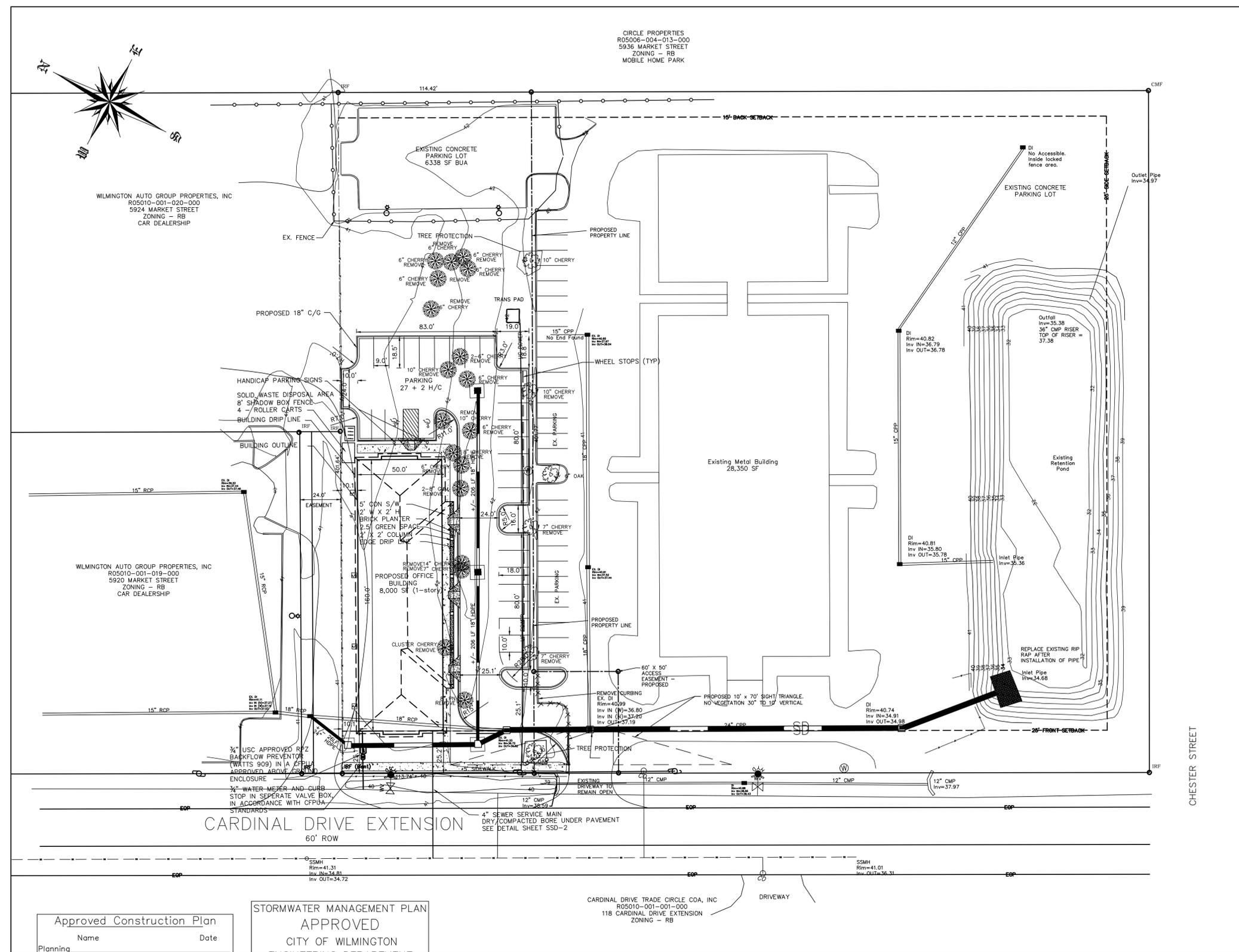
PER FLOOD MAP 37203314800J THIS SITE IS IN A "X" ZONE.

STORMWATER - THIS SITE IS COVERED UNDER AN EXISTING NCDENR STORMWATER PERMIT # SW8 20211 AND OFFSITE SUPPLEMENT SW8 970715. ACCORDING TO THE PERMIT THERE IS EXTRA ALLOWABLE BUA ALLOWED FOR THIS DEVELOPMENT. THIS DEVELOPMENT CAN BE COVERED BY THE EXTRA ALLOWABLE BUA IN THE PERMIT. THE ENGINEER WILL SUBMIT A "PLAN REVISION" TO NCDENR.

WATER/SEWER INFO

GENERAL OFFICE 25 GPD/EMPLOYEE/SHIFT
 3 EMPLOYEES/4 OFFICES/ 1 SHIFT = 300 GPD

WATER USE - CURRENT	0 GPD
WATER USE - PROPOSED	300 GPD
SEWER USE - CURRENT	0 GPD
SEWER USE - PROPOSED	300 GPD



Approved Construction Plan

Name _____ Date _____

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STORMWATER MANAGEMENT PLAN
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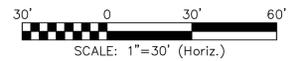
DATE _____ PERMIT # _____

SIGNED _____

SITE PLAN
 SCALE 1" = 30'

LEGEND

ASPHALT PAVEMENT	
CONC. PAVEMENT	



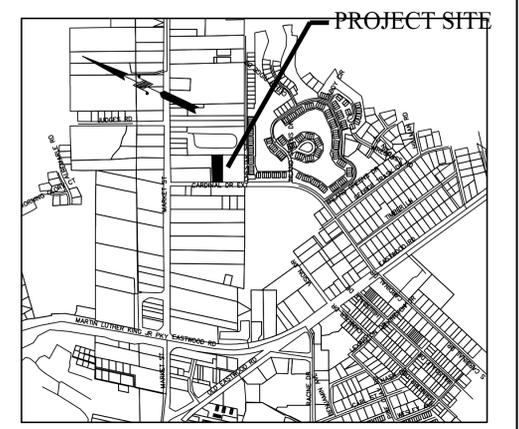
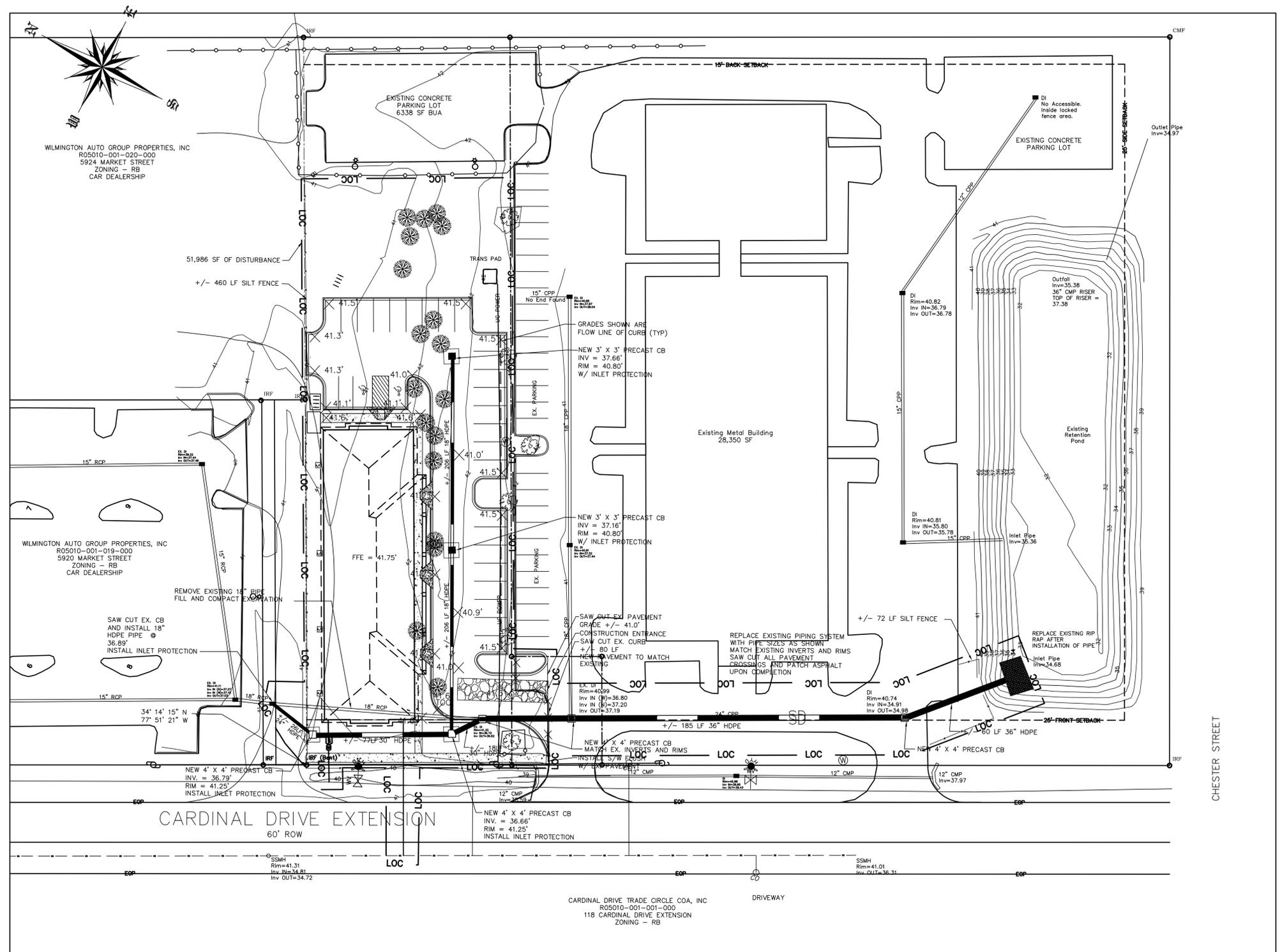
For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

NO WETLAND WITHIN PROJECT AREA

NO WETLAND WITHIN PROJECT AREA

REVISION	DATE	DESCRIPTION





- ### GRADING NOTES
1. INITIATE EROSION CONTROL SEQUENCE BEFORE BEGINNING CLEARING, GRUBBING AND GRADING OPERATIONS.
 2. CLEAR AREAS TO BE GRADED OF ALL VEGETATION. PROTECT VEGETATION BEYOND GRADING LIMITS.
 3. STRIP TOPSOIL TO FULL DEPTH IN AREAS TO BE GRADED AND STOCKPILE.
 4. COMPACT ALL FILL AREAS TO 95% OF MAXIMUM DENSITY.
 5. ALL BANKS AND SWALE SIDE SLOPES SHALL BE GRADED WITH NO GREATER THAN 3:1 SLOPES.
 6. ALL AREAS ARE TO BE GRADED SO THAT NO AREAS OF STANDING WATER OCCUR.
 7. PROPOSED SPOT ELEVATIONS ARE SHOWN AT FINISHED GRADE.
 8. OPERATOR SHALL FIELD VERIFY EXISTING TOPOGRAPHY IN RELATION TO THE PROPOSED GRADES TO ENSURE DRAINAGE IN THE DIRECTIONS INDICATED ON THE PLAN.

- ### CONSTRUCTION SEQUENCE
1. OBTAIN ALL NECESSARY PERMIT APPROVALS PRIOR TO ANY LAND DISTURBING ACTIVITY.
 2. HOLD A PRE-CONSTRUCTION MEETING WITH THE EROSION CONTROL INSPECTOR.
 3. INSTALL GRAVEL CONSTRUCTION ENTRANCE AND SILT FENCE. COMMENCE CLEARING AND ROUGH GRADING OPERATIONS TO ESTABLISH DIVERSION SWALES AND SEDIMENT TRAPS AND BASIN.
 4. ROUGH GRADE SITE AND INSTALL UNDERGROUND UTILITIES.
 5. PROVIDE TEMPORARY PROTECTION MEASURES AND DEVICES AS REQUIRED UNTIL UNDERGROUND UTILITIES AND PAVEMENT SECTION IS COMPLETE AND FINAL GRADES ARE STABILIZED WITH TEMPORARY VEGETATIVE COVER.
 6. STABILIZE (FERTILIZE, SEED, AND MULCH) ALL DISTURBED AREAS AS SOON AS FINAL GRADES ARE ESTABLISHED.
 7. ONCE CONSTRUCTION IS COMPLETE AND ALL DISTURBED AREAS ARE STABILIZED, REMOVE TEMPORARY EROSION CONTROL MEASURES.

- ### EROSION CONTROL MAINTENANCE PLAN
1. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF - PRODUCING RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED.
 2. INSPECT SEDIMENT TRAPS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT, AND RESTORE THE TRAP TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP. PLACE THE SEDIMENT THAT IS REMOVED IN DESIGNATED DISPOSAL AREA, AND REPLACE THE PART OF THE GRAVEL FACING THAT IS IMPAIRED BY SEDIMENT.
 3. SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES ABOUT 0.5 FEET DEEP AT THE FENCE. THE SEDIMENT FENCE WILL BE REPAIRED OR REPLACED AS NECESSARY TO MAINTAIN A BARRIER.
 4. ALL AREAS WILL BE FERTILIZED, RESEED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
 5. GRAVEL CONSTRUCTION ENTRANCE TO BE CLEANED WHEN SEDIMENT ACCUMULATIONS ARE VISIBLE OR SEDIMENT IS DEPOSITED ON THE ASPHALT AND STONE WILL BE PERIODICALLY TOP DRESSED WITH 2 INCHES OF #4 STONE TO MAINTAIN 6 INCH DEPTH.
 6. INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1\"/>

- ### EROSION CONTROL NOTES
1. ANY CONSTRUCTION ACTIVITY BEYOND THE 1.2 ACRE LIMITS SHOWN ON THE PLAN IS A VIOLATION OF THE COUNTY EROSION CONTROL ORDINANCE AND IS SUBJECT TO FINES.
 2. CONTRACTOR SHALL REMOVE ALL TREES AND VEGETATION WITHIN ROAD RIGHT OF WAYS UNLESS OTHERWISE DESIGNATED TO REMAIN.
 3. CONTRACTOR SHALL RAKE AND REMOVE ROOTS, STUMPS, VEGETATION, DEBRIS, EXISTING STRUCTURES ABOVE AND BELOW GRADE, ORGANIC MATERIAL OR ANY OTHER UNSUITABLE MATERIAL WITH IN THE LIMITS OF CONSTRUCTION.
 4. CONTRACTOR SHALL COORDINATE WITH OWNER AND THEIR GEOTECHNICAL REPRESENTATIVE TO COORDINATE REMOVAL OF ANY UNSUITABLE SOILS.
 5. CLEARED, GRUBBED, STRIPPED OR OTHER WASTE MATERIALS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A PROPERLY PERMITTED FACILITY.
 6. THE CONTRACTOR SHALL FURNISH ANY REQUIRED BORROW MATERIALS FROM A PROPERLY PERMITTED OFF-SITE FACILITY.
 7. ALL GRADED SLOPES MUST BE SEEDED AND MULCHED WITHIN 21 CALENDAR DAYS OF COMPLETION OF GRADING. STABILIZE AREAS OTHER THAN SLOPES WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS, WHICHEVER IS SHORTER.
 8. ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A REPRESENTATIVE OF THE COUNTY ENGINEERING DEPARTMENT.
 9. SLOPES SHALL BE GRADED NO STEEPER THAN 3:1.
 10. ADDITIONAL DEVICES MAY BE REQUIRED AS AGREED UPON BY THE FIELD INSPECTOR, ENGINEER, AND OWNER.
 11. IF ACTIVE CONSTRUCTION CEASES IN ANY AREA FOR MORE THAN 15 CALENDAR DAYS, ALL DISTURBED AREAS MUST BE SEEDED, MULCHED, AND TACKED.

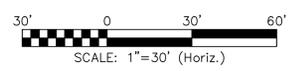
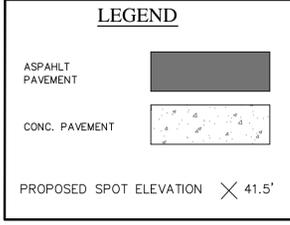
GRADING, DRAINAGE, EROSION CONTROL

SCALE 1" = 30'

Approved Construction Plan	
Name	Date
Planning	
Traffic	
Fire	

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

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NO WETLAND WITHIN PROJECT AREA

REVISION	DATE	DESCRIPTION
R2	4/22/2015	SUBMITTED TO COW WITH TRC COMMENTS ADDRESSED

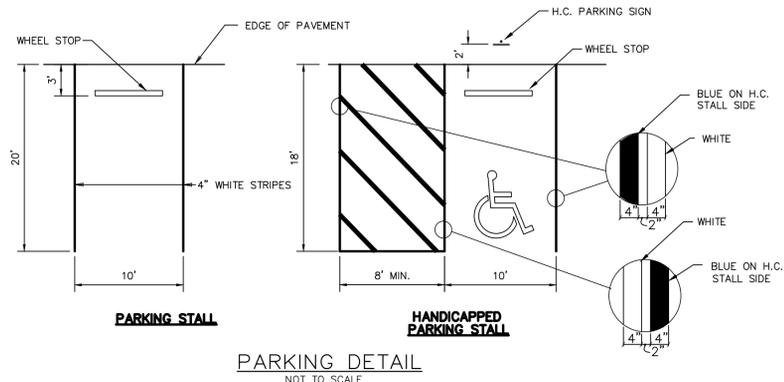
DESIGN BY: BDS
 DRAWN BY: BDS
 CHECKED BY: BDS
 DATE: FEBRUARY, 2015

JBS CONSULTING, PA
 7332 Cotesworth Drive
 Wilmington, NC 28045
 (910) 619-9990
 LICENSE NUMBER C-2525
 PLANNING - ENGINEERING - PROJECT MANAGEMENT

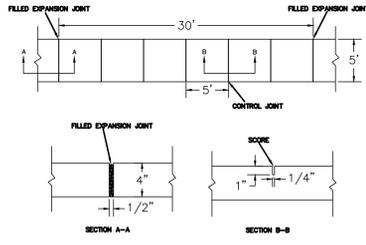


GRADING, DRAINAGE
 EROSION CONTROL
 GOVERNMENT RESOURCE CENTER
 127 CARDINAL DRIVE EXTENSION
 WILMINGTON, NORTH CAROLINA 28405

CARD HOLDINGS, LLC
 1135 MILITARY CUTOFF ROAD
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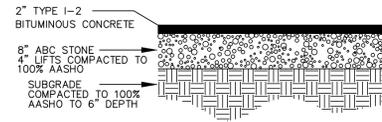


PARKING DETAIL
NOT TO SCALE

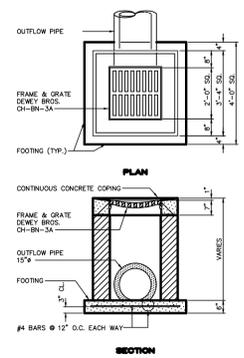


- NOTES:**
1. JOINT MATERIAL TO COMPLY WITH CURRENT MCDOT STANDARDS.
 2. SANITARY SEWER CLEAN-OUTS, WATER METERS, MANHOLES, AND VALVE LIDS TO BE LOCATED OUTSIDE SIDEWALK WHERE FEASIBLE.
 3. MINIMUM SIDEWALK WIDTH TO BE 6' UNLESS OTHERWISE SPECIFIED.
 4. CONCRETE FOR ALL SIDEWALKS (EXCEPT ANY PORTION CONTAINING A DRIVEWAY APRON) SHALL BE CLASS "A" - 3000 PSI.
 5. MINIMUM REPLACEMENT FOR REPAIRS IS 4' X 4' PANEL.
 6. 4" STONE BASE MAY BE REQUIRED FOR POOR SOIL CONDITIONS.
 7. MINIMUM DEPTH FOR TUNNELING BELOW SIDEWALK IS 12"
 8. MAX ADJACENT GROUND SLOPE WITHOUT RAILING IS 2:1
 9. MIN GRADE FOR PROPER DRAINAGE IS 1/8" IN AT LEAST 1 DIRECTION. MAX CROSS SLOPE IS 2". MAX LONGITUDINAL SLOPE IS 0.5%, UNLESS OTHERWISE SPECIFIED BY THE SLOPE OF THE EXISTING ADJACENT ROAD.

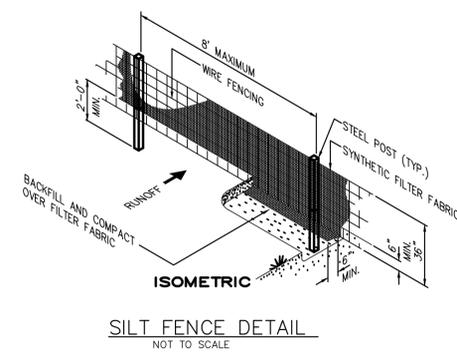
CONCRETE WALK SECTION
SECTION 22 5-10



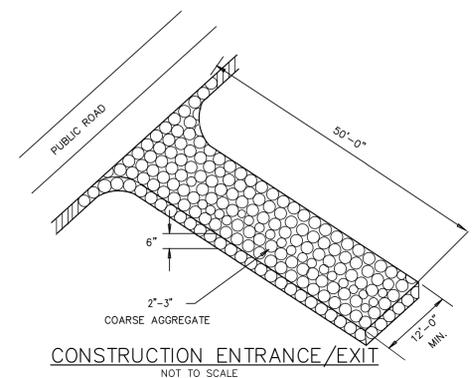
ASPHALT PAVEMENT SECTION
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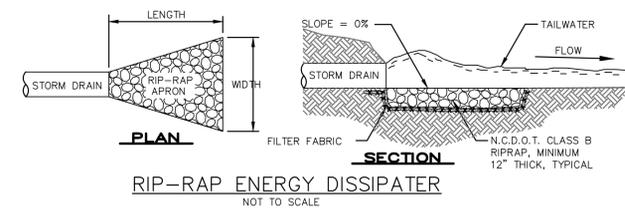
DROP INLET DETAIL
NOT TO SCALE



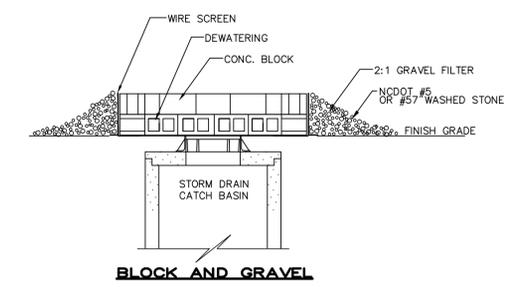
SILT FENCE DETAIL
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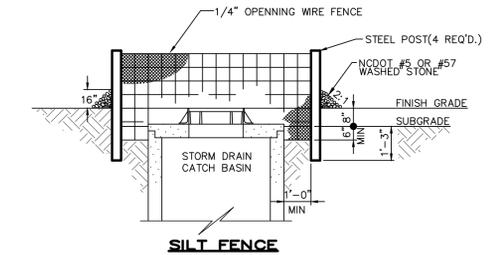
CONSTRUCTION ENTRANCE/EXIT
NOT TO SCALE



RIP-RAP ENERGY DISSIPATER
NOT TO SCALE



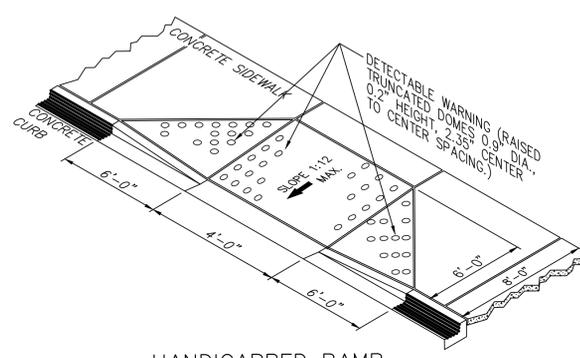
BLOCK AND GRAVEL



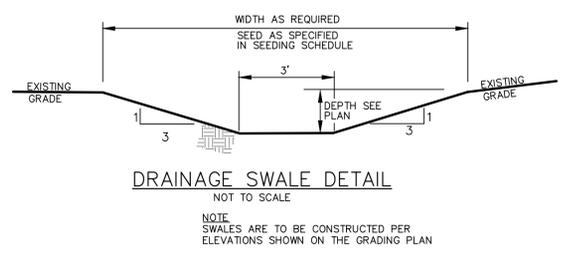
SILT FENCE

NOTE: USE BLOCK AND GRAVEL INLET PROTECTION IN AREAS WHERE SILT FENCE INLET PROTECTION CAN NOT BE INSTALLED.

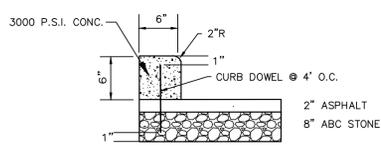
INLET SEDIMENTATION CONTROL
NOT TO SCALE



HANDICAPPED RAMP
NOT TO SCALE



DRAINAGE SWALE DETAIL
NOT TO SCALE



6" EXTRUDED CONCRETE CURB
NOT TO SCALE

Approved Construction Plan

Name _____ Date _____

Planning _____

Traffic _____

Fire _____

STORMWATER MANAGEMENT PLAN

APPROVED

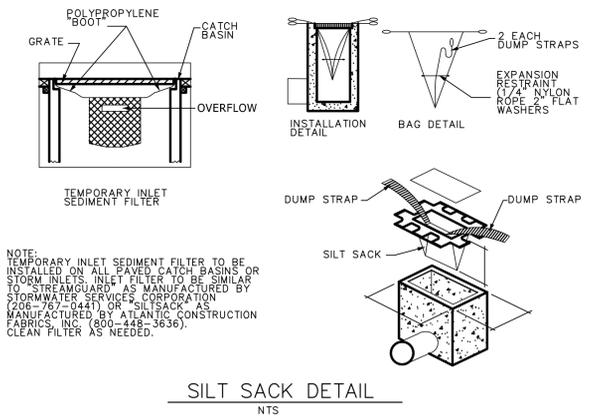
CITY OF WILMINGTON

ENGINEERING DEPARTMENT

DATE _____ PERMIT # _____

SIGNED _____

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SILT SACK DETAIL
NTS

NOTE: TEMPORARY INLET SEDIMENT FILTER TO BE INSTALLED ON ALL PAVED CATCH BASINS OR STORM INLETS. INLET FILTER TO BE SIMILAR TO "STRENGTHGUARD" AS MANUFACTURED BY STORMWATER SERVICES CORPORATION (708-767-5841) OR SILTSACK AS MANUFACTURED BY ATLANTIC CONSTRUCTION FABRICS, INC. (800-448-3636). CLEAN FILTER AS NEEDED.

DESIGN BY: BDS
DRAWN BY: BDS
CHECKED BY: BDS
DATE: FEBRUARY, 2015

JBS CONSULTING, PA
7332 Colesworth Drive
Wilmington, NC 28045
(910) 619-9990
LICENSE NUMBER C-2525
PLANNING - ENGINEERING - PROJECT MANAGEMENT



DETAILS

GOVERNMENT RESOURCE CENTER
127 CARDINAL DRIVE EXTENSION
WILMINGTON, NORTH CAROLINA 28405

CARD HOLDINGS, LLC
1135 MILITARY CUTOFF ROAD
WILMINGTON, NC 28405
1-910-256-0044

SHEET

C3

of 3

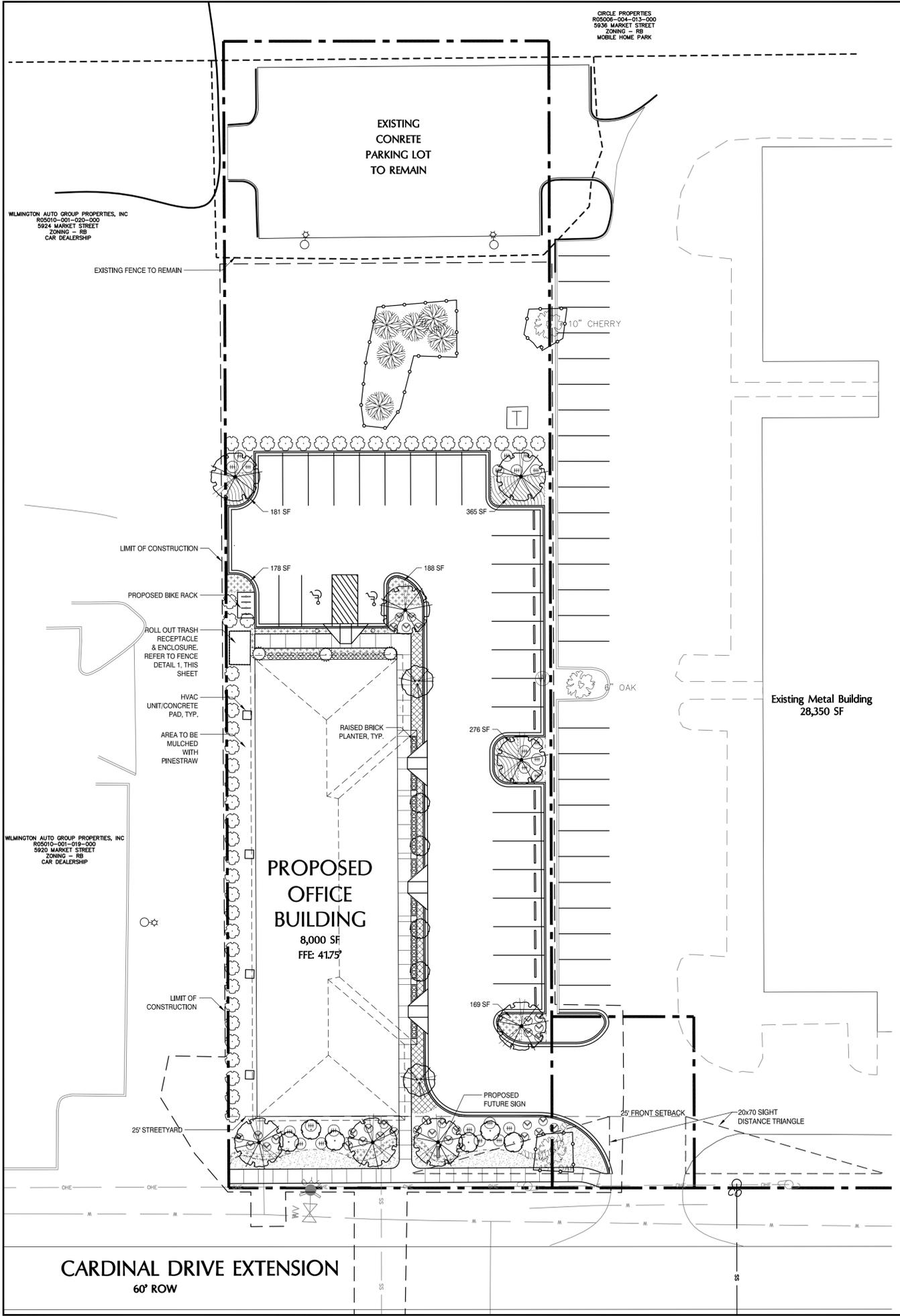
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REVISION	DATE	DESCRIPTION
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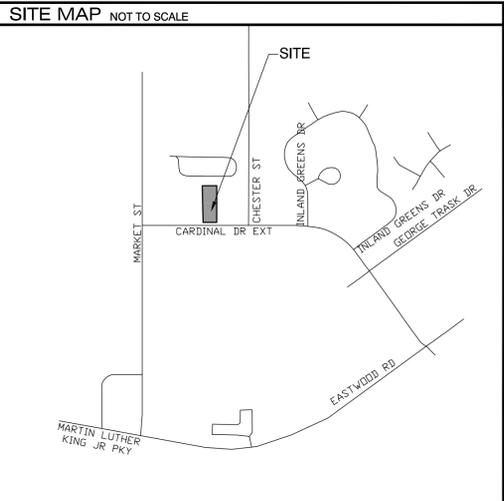
CIRCLE PROPERTIES
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 9336 MARKET STREET
 ZONING - RB
 MOBILE HOME PARK

WILMINGTON AUTO GROUP PROPERTIES, INC
 ROS010-001-002-000
 9924 MARKET STREET
 ZONING - RB
 CAR DEALERSHIP

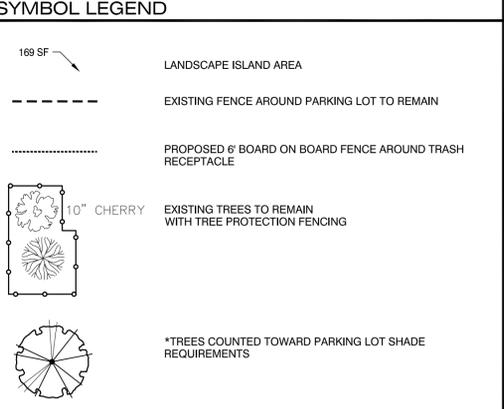
WILMINGTON AUTO GROUP PROPERTIES, INC
 ROS010-001-019-000
 9920 MARKET STREET
 ZONING - RB
 CAR DEALERSHIP



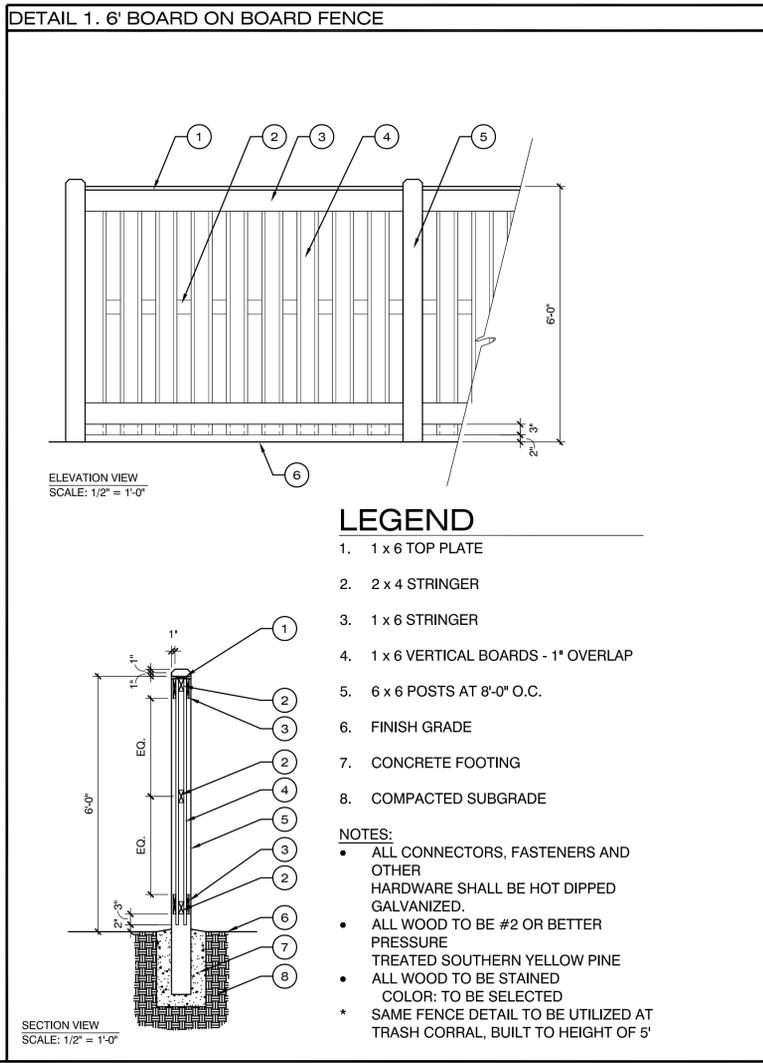
PLANT SCHEDULE						
TREES	BOTANICAL NAME / COMMON NAME	CONT	CAL	RANGE		QTY
	Lagerstroemia i. 'Pink Velour' / Pink Velour Crape Myrtle	25 GAL	1-1.5" CAL	8-10' HT		10
	Lagerstroemia x 'Natchez' / Natchez Crape Myrtle	B & B	3" CAL	8-10' HT		2
	Quercus virginiana / Southern Live Oak*	B & B	3" CAL	10-12' HT		8
SHRUBS	BOTANICAL NAME / COMMON NAME	SIZE	RANGE			QTY
	Abelia x grandiflora 'Rose Creek' / Rose Creek Abelia	3 gal	18-24" HT			34
	Buxus m. 'Wintergreen' / Wintergreen Boxwood	3 gal	12-18" HT			42
	Ilex vomitoria / Yaupon Holly	3 gal	18-24" HT			46
	Osmanthus fragrans / Sweet Olive	25 gal	5-6' HT			3
	Pittosporum l. 'Variegata' / Variegated Mock Orange	3 gal	18-24" HT			23
GROUND COVERS	BOTANICAL NAME / COMMON NAME	SIZE	RANGE		SPACING	QTY
	Liriope gigantea / Giant Liriope	1 GAL	12-18" HT		24" o.c.	104
	Liriope muscari / Lily Turf	1 GAL	6-12" HT		18" o.c.	178
	Pennisetum a. 'Hameln' / Hameln Dwarf Fountain Grass	3 GAL	12-15" HT		36" o.c.	52
SOD/SEED	BOTANICAL NAME / COMMON NAME	SIZE	RANGE		SPACING	QTY
	Eremochloa ophiuroides / Centipede Sod	sod				722 sf



LANDSCAPE REQUIREMENTS		
ADDRESS:	127 CARDINAL DRIVE EXTENSION	
PARCEL ID:	ROS010-001-008-000	
TOTAL LOT AREA	4.37 ACRES	
AFTER PROPOSED SUBDIVISION	1.05 ACRES	
EXISTING ZONING	RB - REGIONAL BUSINESS	
CAMA LAND CLASSIFICATION	URBAN OFFICE	
PROPOSED USE	OFFICE	
NUMBER OF BUILDINGS	1; (4) 2,000 SF UNITS	
LANDSCAPE REQUIREMENTS		
STREET YARD*	REQUIRED	PROVIDED
PRIMARY STREET YARD (CARDINAL DRIVE EXT.)		
(138 LF X 25)	3450 SF	3450 SF
TREES: 3,450 SF/600	6	1 EXISTING, 3 CANOPY TREES, 6 UNDERSTORY TREES
SHRUBS: (3,450/600)*6	36	37
FOUNDATION PLANTINGS	REQUIRED	PROVIDED
(209 LF*12")*.12	300 SF	439 SF
PARKING LOT SHADE REQUIREMENTS		
12,849 SF*.20 =	2,570 SF	3535 SF, 5 CANOPY TREES



- GENERAL PLANTING NOTES**
- THIS WORK INCLUDES, BUT IS NOT LIMITED TO THE FURNISHING OF ALL LABOR, MATERIALS, EQUIPMENT, FINAL GRADING, SEEDING, SOIL AMENDMENTS, ETC., AS MAY BE REQUIRED FOR A COMPLETE INSTALLATION.
 - QUANTITIES SHOWN IN PLANT LISTS ARE FOR CONVENIENCE ONLY. PLANS SHALL GOVERN.
 - THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES IN PLANT LOCATIONS OR INSUFFICIENT PLANT QUANTITIES DUE TO DIFFERENCES IN PLAN AND ACTUAL FIELD CONDITIONS.
 - ALL TREE AND SHRUB MATERIAL SPECIFIED MUST MEET STANDARD INDUSTRY SPECIFICATIONS FOR THE CONTAINER SIZE INDICATED. DOWNSIZING OR SUBSTITUTION OF PLANT MATERIAL WITHOUT PRIOR APPROVAL OF LANDSCAPE ARCHITECT WILL NOT BE ALLOWED.
 - ALL LANDSCAPE AREAS SHALL BE GRADED TO A SMOOTH EVEN SURFACE PRIOR TO ANY PLANT INSTALLATION. ALL PLANT MATERIALS SHALL BE INSTALLED USING GOOD HORTICULTURAL PRACTICES IN ACCORDANCE WITH THE PLANS AND DETAILS.
 - TREES SHALL NOT BE PLANTED CLOSER THAN FOUR (4) FEET FROM ANY WALKWAY OR PUBLIC SIDEWALK EXCEPT WHERE TREE WELLS OR PARKWAYS ARE PROVIDED IN THE SIDEWALK AREA. ALL TREE PLANTED WITHIN FIVE (5) FEET OF WALKS OR PUBLIC UTILITIES SHALL RECEIVE DEEP ROOT BARRIERS.
 - TREE LOCATIONS SHOWN ON PLAN MAY REQUIRE ADJUSTMENT IN THE FIELD, WHENEVER FEASIBLE. TREES SHOULD BE PLANTED A MINIMUM OF TEN (10) FEET FROM ALL UNDERGROUND UTILITIES, STREETLIGHTS, HYDRANTS, AND OUT OF DRAINAGE FLOW LINES. SHOULD THIS NOT BE POSSIBLE, CONTACT THE LANDSCAPE ARCHITECT FOR DECISION ON PLACEMENT.
 - ALL TREES IN TURF AREAS SHALL HAVE 12" MIN. CLR. CIRCUMFERENCE AROUND THE TRUNK BASE. PROVIDE 2" MIN. THK. MULCH AT BASE OF TRUNK.
 - GROUNDCOVER TYPE SHOWN SHALL BE PLANTED IN ALL SHRUB AREAS AS SPECIFIED ON PLANS. GROUNDCOVER SHALL BE PLANTED AT 8" ON-CENTER UNIFORM TRIANGULAR SPACING, AND SHALL BE CONTINUOUS UNDER ALL TREE AND SHRUB MASSES AS SHOWN ON PLAN.
 - MATURE PLANTINGS SHALL NOT INTERFERE WITH UTILITIES AND TRAFFIC SIGHT LINES.
 - ALL PLANTING AREAS SHALL BE MULCHED WITH PINESTRAW, EXCEPT FOR AREAS PLANTED WITH GROUNDCOVER. ALL AREAS PLANTED WITH GROUNDCOVER SHALL BE MULCHED WITH HARDWOOD MULCH.
 - 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 (SEC. 18-462d).
 - ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30'-10' (SEC. 18-566).



- LEGEND**
- 1 x 6 TOP PLATE
 - 2 x 4 STRINGER
 - 1 x 6 STRINGER
 - 1 x 6 VERTICAL BOARDS - 1" OVERLAP
 - 6 x 6 POSTS AT 8'-0" O.C.
 - FINISH GRADE
 - CONCRETE FOOTING
 - COMPACTED SUBGRADE
- NOTES:**
- ALL CONNECTORS, FASTENERS AND OTHER HARDWARE SHALL BE HOT DIPPED GALVANIZED.
 - ALL WOOD TO BE #2 OR BETTER PRESSURE TREATED SOUTHERN YELLOW PINE
 - ALL WOOD TO BE STAINED
 - COLOR: TO BE SELECTED
 - * SAME FENCE DETAIL TO BE UTILIZED AT TRASH CORRAL, BUILT TO HEIGHT OF 5'

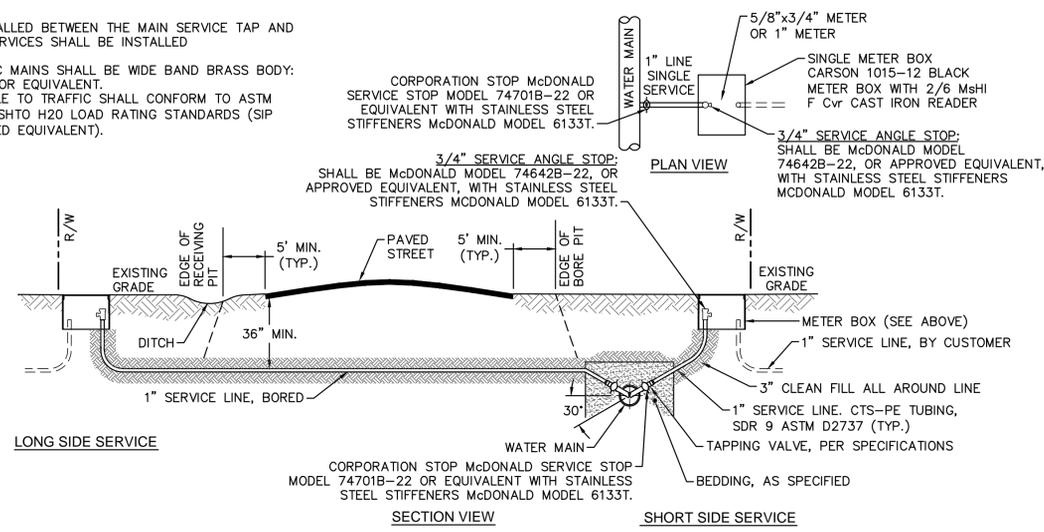


CLIENT
 WORSLEY REAL ESTATE
 1133 MILITARY CUTOFF ROAD, SUITE 100
 WILMINGTON, NC 28405
 CONTACT: EARL WORSLEY
 EWORSLEY@WORLDSEYREALSTATE.COM

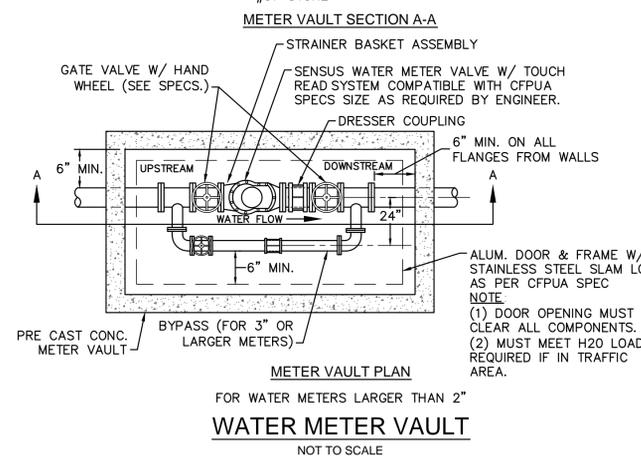
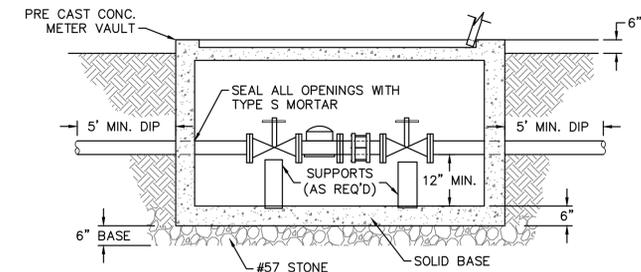
PROJECT
 GOVERNMENT RESOURCE CENTER
 127 CARDINAL DRIVE EXTENSION
 WILMINGTON, NC 28405
 LANDSCAPE PLAN

Date: 04/13/2015
 Phase: 000
 Job Number: 340-06
 Designed by: MLD
 Drawn by: ALM
 Checked by: JWM
 Sheet Title: LANDSCAPE PLAN
 Sheet Number: 1.1
 of 1 sheets

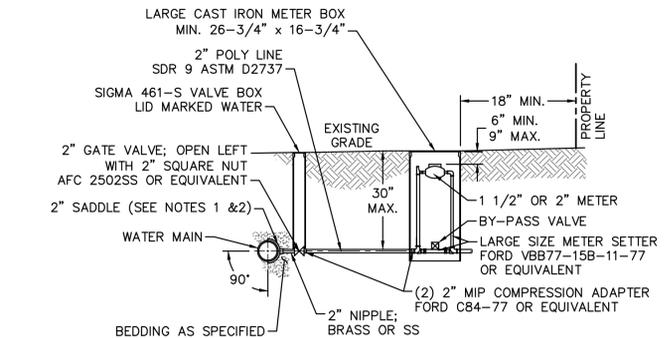
- NOTES:**
- NO JOINT SHALL BE INSTALLED BETWEEN THE MAIN SERVICE TAP AND THE METER STOP. ALL SERVICES SHALL BE INSTALLED PERPENDICULAR TO MAIN.
 - SERVICE SADDLES ON PVC MAINS SHALL BE WIDE BAND BRASS BODY: SADDLE McDONALD 3801 OR EQUIVALENT.
 - METER BOXES SUSCEPTIBLE TO TRAFFIC SHALL CONFORM TO ASTM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



SINGLE SERVICE CONNECTION
NOT TO SCALE

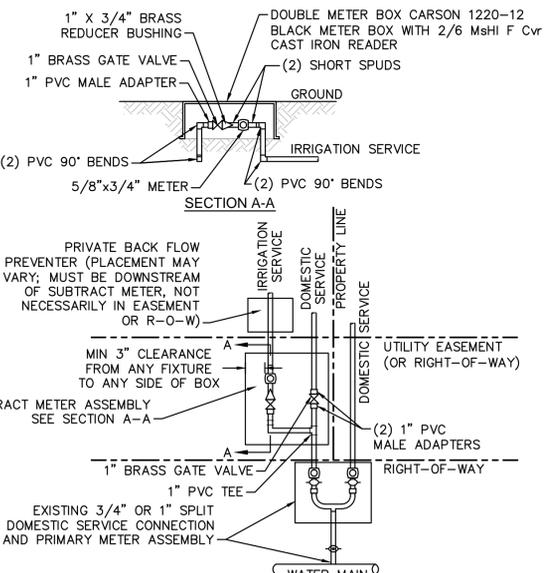


WATER METER VAULT
NOT TO SCALE



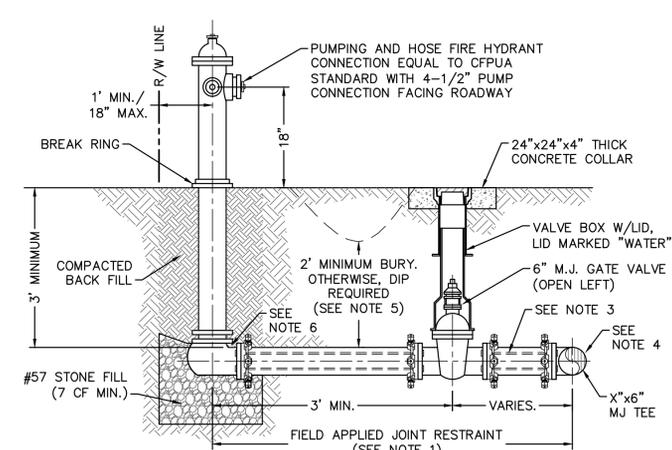
- NOTES:**
- ALL SERVICES SHALL BE INSTALLED PERPENDICULAR TO MAIN.
 - SERVICE SADDLES ON PVC MAINS SHALL BE WIDE BAND BRASS BODY: McDONALD 3800, FORD S90 (DOUBLE STRAP) OR EQUIVALENT.
 - METER BOXES SUSCEPTIBLE TO TRAFFIC SHALL CONFORM TO ASTM A48, CLASS 30B AND AASHTO H20 LOAD RATING STANDARDS (OLDCASTLE PRECAST MODEL B1730 OR APPROVED EQUIVALENT).
 - 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).
 - NON-TRAFFIC METER BOXES SHALL BE SIGMA MB2203 OR APPROVED EQUIVALENT.
 - 3" CLEAN FILL REQUIRED ALL AROUND 2" POLY SERVICE LINE.

LARGE METER
NOT TO SCALE



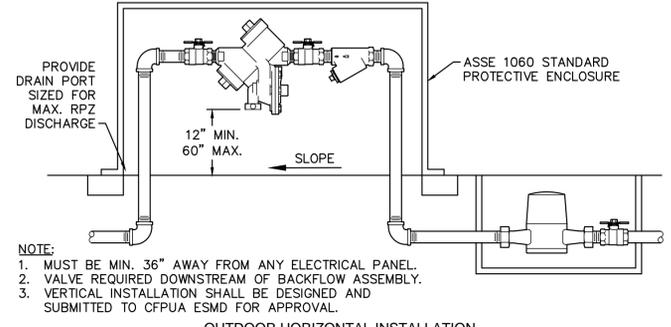
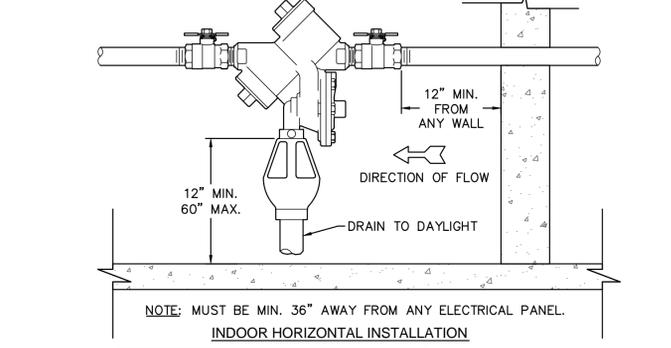
- NOTES:**
- BEYOND THE PRIMARY DOMESTIC METER ASSEMBLY, CFPUA IS ONLY RESPONSIBLE FOR METER AND WASHERS OF SUBTRACT METER ASSEMBLY.
 - ALL PIPE AND FITTINGS UP TO FINAL SERVICE LINE TO BE 1" EXCLUDING METERS.

DOUBLE SERVICE CONNECTION USING SUBTRACT METER
NOT TO SCALE

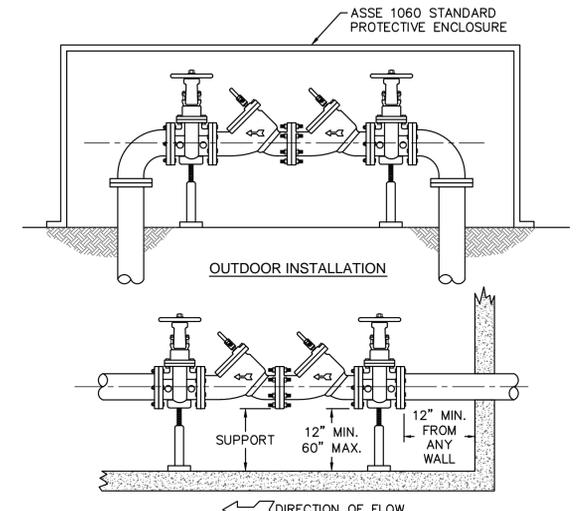


- NOTES:**
- JOINT RESTRAINT SYSTEMS SHALL BE WEDGE ACTION STYLE FOR DI OR C-900 PVC PIPE AS MANUFACTURED BY EBAA IRON, SIGMA, STAR PIPE PRODUCTS OR APPROVED EQUAL.
 - WHEN HYDRANT LEGS REQUIRE FULL LENGTH PIPE SECTIONS, OVER BELL RESTRAINT SYSTEM SHALL HAVE 316 STAINLESS STEEL HARNESS AND FASTENERS.
 - CONTINUOUS 316 STAINLESS STEEL RODS (TEE TO VALVE AND VALVE TO HYDRANT) MAY BE USED WITH COR-BLUE MJ T-BOLT AND GASKET KITS, AS AN ALTERNATIVE.
 - HYDRANT TEE SHALL BE RESTRAINED ON EACH SIDE OF MAIN PLUS ANY VALVE, FITTING, OR JOINT IN MAIN WITHIN 10- FEET OF HYDRANT TEE.
 - HYDRANT AND VALVE SHALL BE PLACED OUTSIDE DITCH LIMITS.
 - WEEP HOLES OPEN AND UNBLOCKED TO DRAIN.

FIRE HYDRANT ASSEMBLY
NOT TO SCALE



REDUCED PRESSURE PRINCIPLE ASSEMBLY
NOT TO SCALE



- NOTE:**
- MUST BE MIN. 36" AWAY FROM ANY ELECTRICAL PANEL.
 - VALVE REQUIRED DOWNSTREAM OF BACKFLOW ASSEMBLY.
 - VERTICAL INSTALLATION SHALL BE DESIGNED AND SUBMITTED TO CFPUA ESDM FOR APPROVAL.

DOUBLE CHECK VALVE ASSEMBLY
NOT TO SCALE

- GENERAL NOTES:**
- NO EXCAVATED MATERIAL SHALL BE PLACED IN ANY STREAM, DITCH OR DRAINAGE-WAY.
 - THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES BEFORE ANY CONSTRUCTION BEGINS.
 - THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES WHILE CONSTRUCTION IS IN PROGRESS.
 - THE CONTRACTOR IS RESPONSIBLE FOR STABILIZATION OF ALL DISTURBED AREAS.
 - THE CONTRACTOR IS RESPONSIBLE FOR LAY DOWN AND 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
2	Single Service Connection and Fire Hydrant Details Revised	7/23/13
3	Fire Hydrant Detail Revised	01/03/14

CFPUA WATER DISTRIBUTION SYSTEM

STANDARD DETAILS

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

DATE:
1/9/12

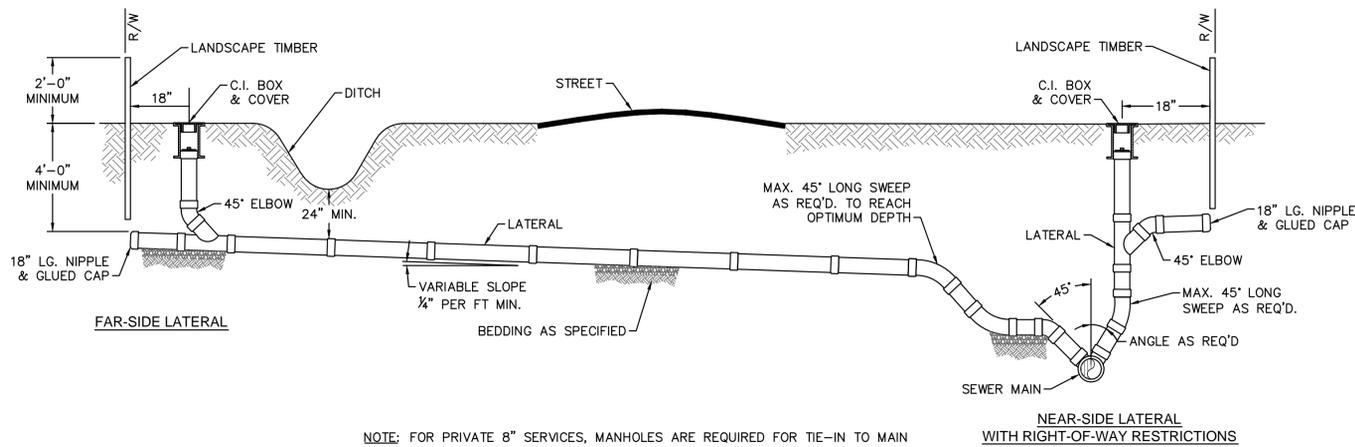
SCALE:
N/A

DRAWN BY:
CFPUA

CHECKED BY:
CFPUA

PROJECT NO.:

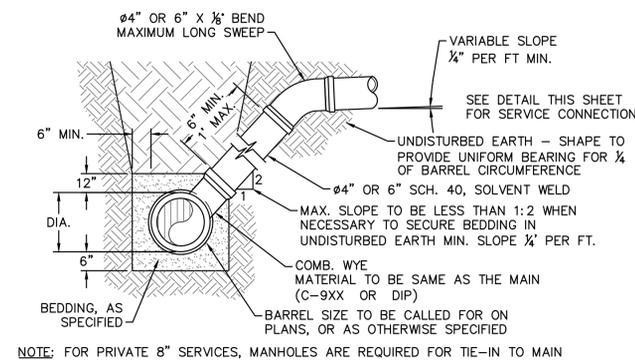
SHEET NO:
WSD-1



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

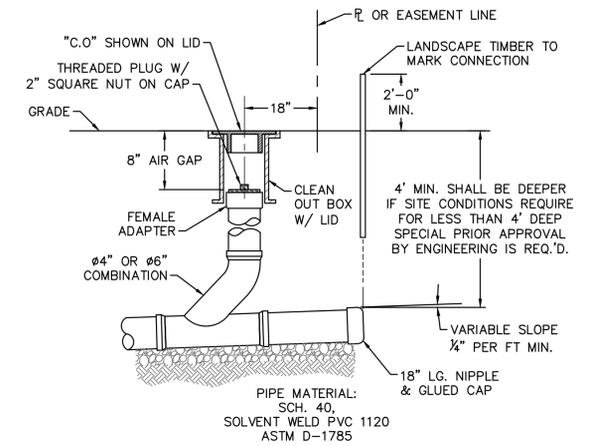
STANDARD SERVICE CONNECTION TO SANITARY SEWER

NOT TO SCALE



STANDARD SERVICE LATERAL

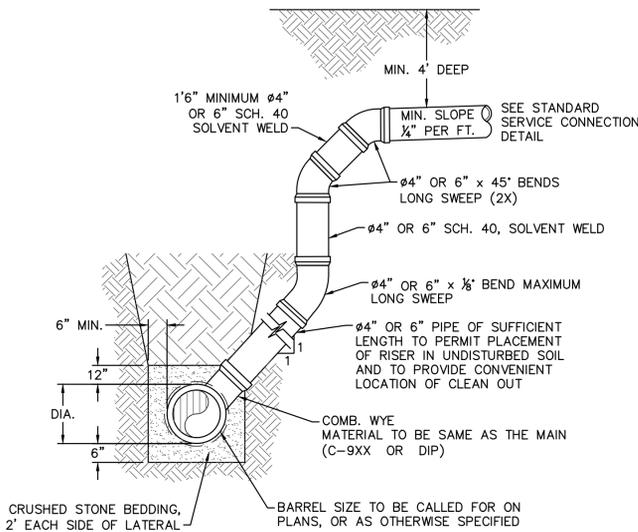
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NOTE: FOR PRIVATE 8" SERVICES, MANHOLES ARE REQUIRED FOR TIE-IN TO MAIN

SERVICE CONNECTION & CLEAN-OUT

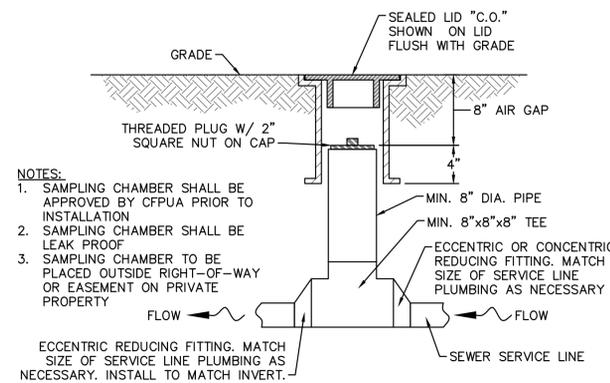
NOT TO SCALE



NOTES:
1. SPECIAL CARE SHALL BE TAKEN DURING BACKFILL OPERATIONS. THE RISER SHALL BE PLUMB AND TRUE AT ALL TIMES, AND REST ON FIRM, STABLE FOUNDATION.
2. FOR PRIVATE 8" SERVICES, MANHOLES ARE REQUIRED FOR TIE-IN TO MAIN.

DEEP SERVICE LATERAL

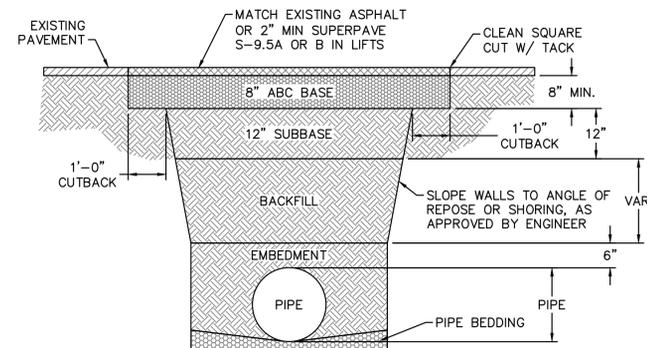
NOT TO SCALE



NOTES:
1. SAMPLING CHAMBER SHALL BE APPROVED BY CFPUA PRIOR TO INSTALLATION
2. SAMPLING CHAMBER SHALL BE LEAK PROOF
3. SAMPLING CHAMBER TO BE PLACED OUTSIDE RIGHT-OF-WAY OR EASEMENT ON PRIVATE PROPERTY

SAMPLING CHAMBER

NOT TO SCALE



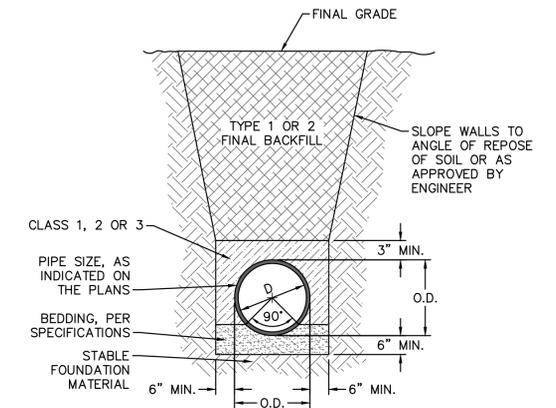
NOTES:

- BACKFILL SHALL BE SUITABLE MATERIAL THAT IS FREE FROM HEAVY CLAY, GUMBOS, DEBRIS, ORGANICS AND LITTLE TO NO EXCESSIVE MOISTURE.
- SELECT BACKFILL MAY BE SUBSTITUTED OR REQUIRED BY CITY TO ACHIEVE COMPACTION, (I.E. #57, ABC, CRUSHED LIMESTONE, CLEAN SAND, FLOWABLE FILL, ETC).
- 8-INCH OF ABC BASE MATERIAL SHALL BE USED ON CITY STREETS.
- BACKFILL AND BASE MATERIALS SHALL BE COMPACTED 12" MINIMUM LIFTS.
- 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.
- ALL APPROVED CASTINGS SHALL BE SET FLUSH TO GRADE AND SUPPORTED IF APPLICABLE.
- ABC BASE AND SUBBASE COMPACTED TO 98% AND BACKFILL AND EMBEDMENT COMPACTED TO 90% AS DETERMINED BY THE MODIFIED PROCTOR AASHTO METHOD T-99.
- 1-FOOT CUTBACKS OF ASPHALT SHALL BE PREPARED ON UNDISTURBED SOIL. MINIMUM ASPHALT DENSITY IS 90%.

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

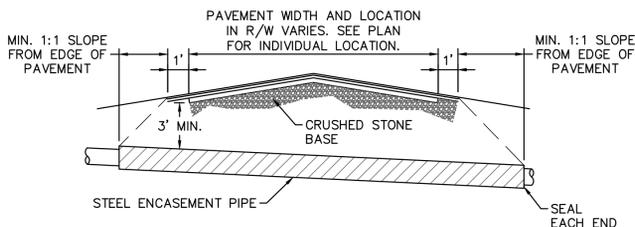
PAVEMENT REPAIR WHERE PIPE INSTALLED

NOT TO SCALE



TYPICAL TRENCH DETAIL

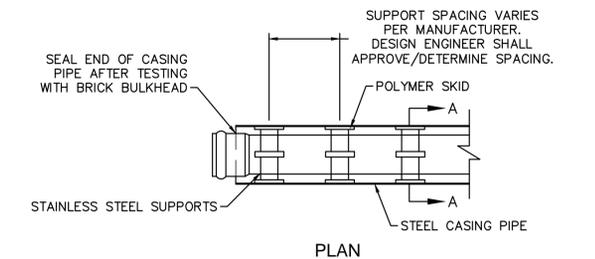
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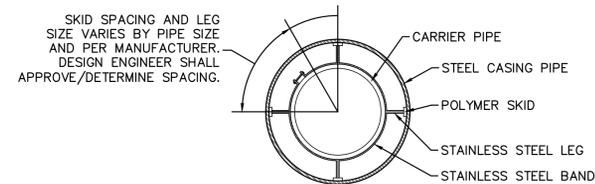
NOTES:
1. CASING WILL BE INSTALLED AT LINE AND GRADE SHOWN ON INDIVIDUAL PROFILE FOR EACH CROSSING. BORING/JACKING TO LINE AND GRADE IS REQUIRED.
2. TRACER WIRE SHALL BE CONTINUED THROUGH CASING.

TYPICAL BORING/JACKING DETAIL

NOT TO SCALE



NOTE: PIPE SUPPORT TO BE PLACED TO PROVIDE PROPER SUPPORT, ALIGNMENT, AND GRADE AS SPECIFIED. CONTINUOUS SUPPORTS MAY BE USED AS ALTERNATIVE. OIL, GREASE, OR PETROLEUM PRODUCT MAY NOT BE USED AS LUBRICANT.



SECTION A-A

PIPE CASING SUPPORT DETAIL

NOT TO SCALE

- GENERAL NOTES:
- NO EXCAVATED MATERIAL SHALL BE PLACED IN ANY STREAM, DITCH OR DRAINAGE-WAY.
 - THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES BEFORE ANY CONSTRUCTION BEGINS.
 - THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES WHILE CONSTRUCTION IS IN PROGRESS.
 - THE CONTRACTOR IS RESPONSIBLE FOR STABILIZATION OF ALL DISTURBED AREAS.
 - THE CONTRACTOR IS RESPONSIBLE FOR LAY DOWN AND 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	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:
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CFPUA
PROJECT NO.:

SHEET NO:
SSD-2