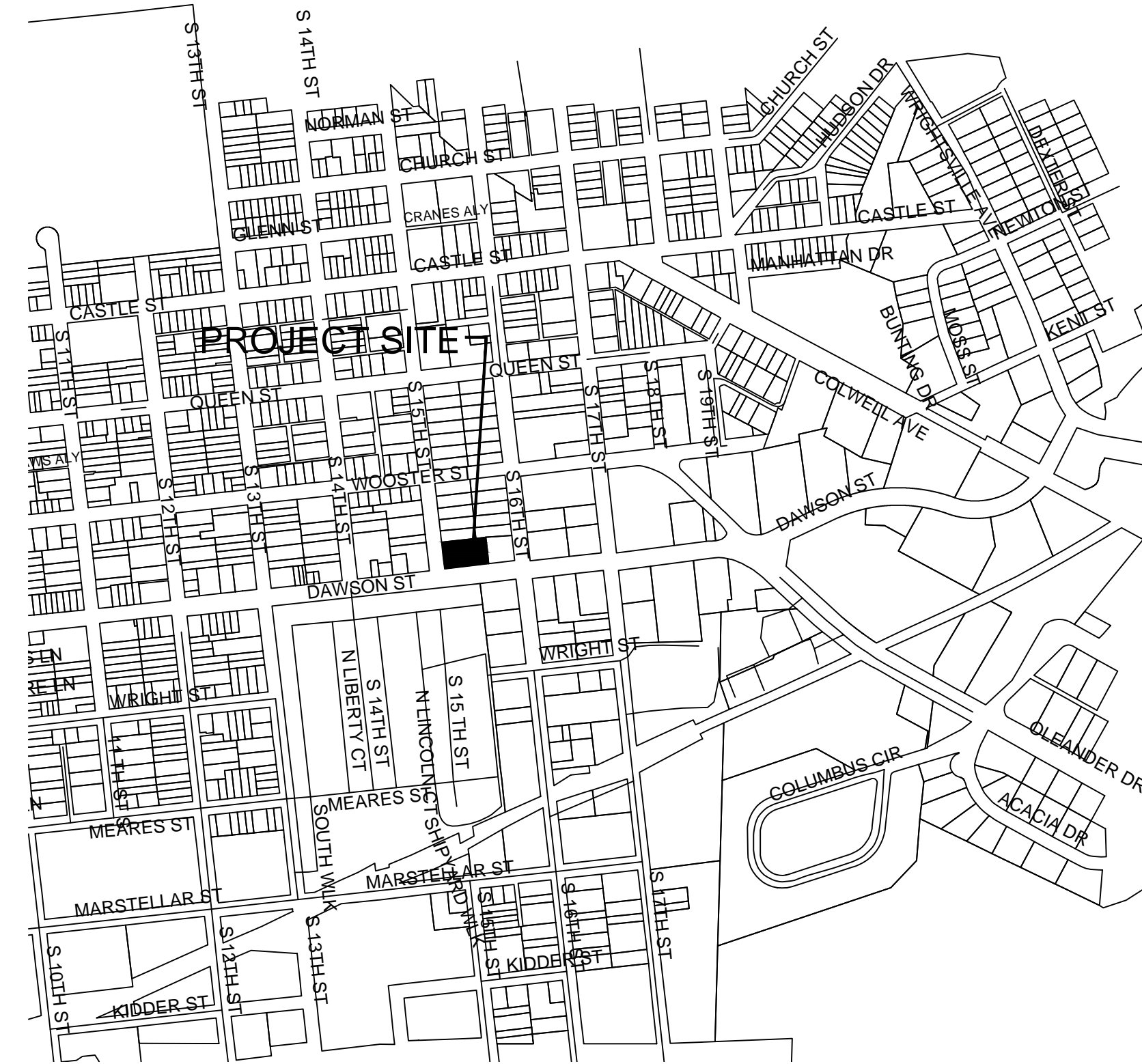
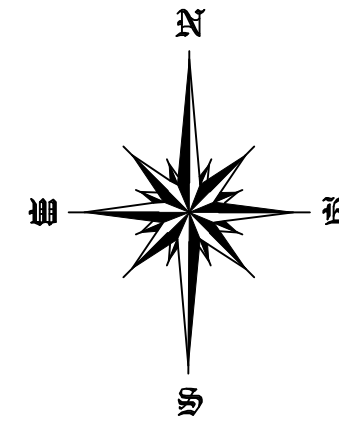


# SITE CONSTRUCTION PLANS WILMINGTON WASH HOUSE

1507 DAWSON STREET  
WILMINGTON, NC 28403

## NOTES

- 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.
- 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.
- 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.
- ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS OF WAY AND FOR DRIVEWAY ARE TO BE THERMO PLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
- 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.
- 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.
- CONTACT TRAFFIC ENGINEERING AT 910-341-7888 TO ENSURE THAT ALL TRAFFIC SIGNAL FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN.
- TRAFFIC ENGINEERING TO BE NOTIFIED AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT OF WAY.
- TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING PRIOR TO ACTUAL STRIPING.
- 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.
- ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT OF WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER.
- STOP SIGNS AND STREET SIGNS TO REMAIN IN PLACE DURING CONSTRUCTION.
- TACTILE WARNING MATS WILL BE INSTALLED ON ALL WHEEL CHAIR RAMPS.
- A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET.
- ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND CURBING WILL BE REPLACED.
- CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
- WATER AND SEWER SERVICE SHALL MEET CAPE FEAR PUBLIC UTILITY AUTHORITY DETAILS AND SPECIFICATIONS.
- 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.
- IF THE CONTRACTOR DESIRES CFPWA WATER FOR CONSTRUCTION HE SHALL APPLY IN ADVANCE FOR THIS SERVICE AND MUST SUPPLY A RP2 BACKFLOW PREVENTION DEVICE ON THE DEVELOPERS SIDE OF THE WATER METER BOX.
- ANY IRRIGATION SYSTEM SUPPLIED BY CFPWA SHALL COMPLY WITH THE CFPWA CROSS CONNECTION REGULATIONS.
- ANY IRRIGATION SYSTEM SHALL BE EQUIPPED WITH A RAIN AND FREEZE SENSOR.
- ANY BACKFLOW PREVENTION DEVICES REQUIRED BY THE CFPWA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USFCOCHR OR ASSE.
- CONTRACTOR TO FIELD VERIFY EXISTING WATER AND SEWER LOCATIONS, SIZES AND MATERIALS PRIOR TO CONSTRUCTION. ENGINEER TO BE NOTIFIED OF CONFLICTS.
- AN ALL WEATHER DRIVING SURFACE FOR EMERGENCY VEHICLES MUST BE MAINTAINED DURING CONSTRUCTION.
- 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.
- NO OBSTRUCTIONS ARE PERMITTED IN THE SPACE BETWEEN THIRTY (30) INCHES AND TEN (TEN) FEET ABOVE THE GROUND WITHIN THE TRIANGLE SIGHT DISTANCE.
- CONTRACTOR IS TO NOTIFY (AT A MINIMUM) THE FOLLOWING COMPANIES FOR LOCATION SERVICES:  
ULOCO .....1-800-632-4949, 48 HOURS IN ADVANCE  
BELL SOUTH.....1-800-392-8712 (STEVE DAYVAULT)  
CAROLINA ONE CALL CENTER 1-800-632-4949
- THERE SHALL BE NO ENCUMBRANCES WITHIN THE NCDOT RIGHT OF WAY.
- 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 CofW TECH STDS)
- FIRE HYDRANTS CANNOT BE FURTHER THAN 8' FROM THE CURB.
- PARKING AND LANDSCAPING CANNOT BLOCK FIRE HYDRANTS OF FDC'S
- FDC'S CAN BE NO FURTHER THAN 40' FROM FIRE DEPARTMENT VEHICLE PLACEMENT
- FDC'S CAN BE NO FURTHER THAN 150' FROM A FIRE HYDRANT
- BICYCLE PARKING IS PROVIDED ON THE SOUTHWEST CORNER OF PROPOSED BUILDING



SCALE 1" = 600'  
VICINITY MAP  
APRIL, 2018

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.

 CITY OF WILMINGTON NORTH CAROLINA Public Services • Engineering Division APPROVED DRAINAGE PLAN	
Date: _____	Permit # _____
Signed: _____	

## LIST OF DRAWINGS

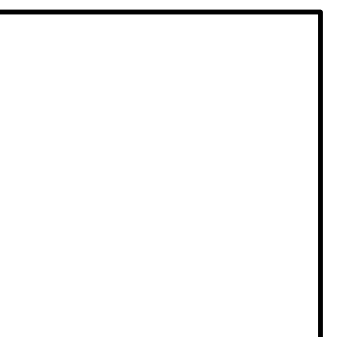
XX	COVER SHEET
C1	EXISTING SITE & DEMO PLAN
C2	SITE PLAN
C3	GRADING, DRAINAGE & EROSION CONTROL
C4	DETAILS
C5	LANDSCAPE PLAN
C6	NCDOT DRIVEWAY PERMIT PLAN
A1	BUILDING ELEVATION
WSD-1	WATER DETAILS

**OWNER/DEVELOPER**  
MR. RODNEY WILLIFORD  
RKW PROPERTIES, LLC  
7986 HWY 11 BUSINESS  
BETHEL, NC 27812  
1-252-714-5838

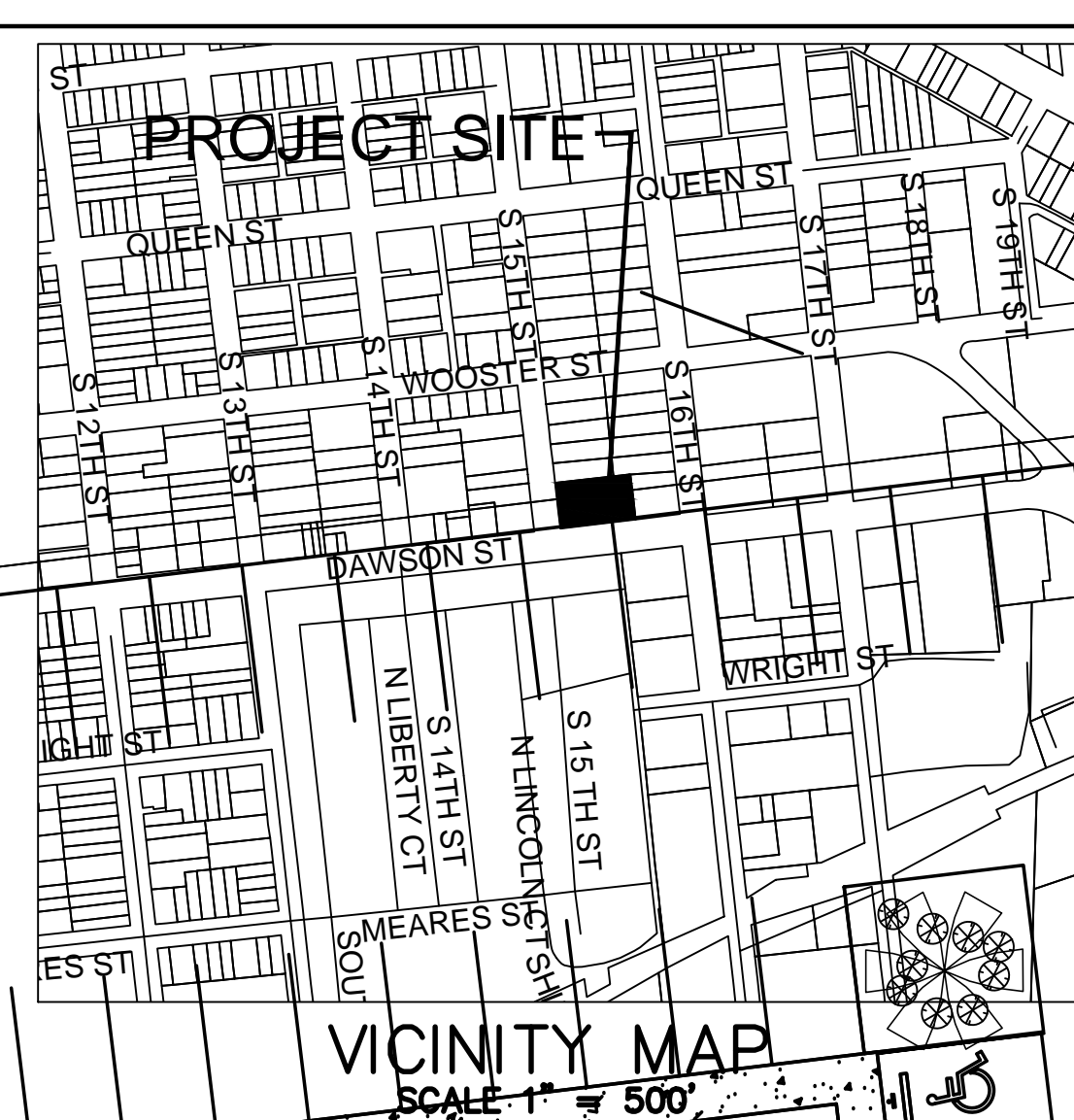
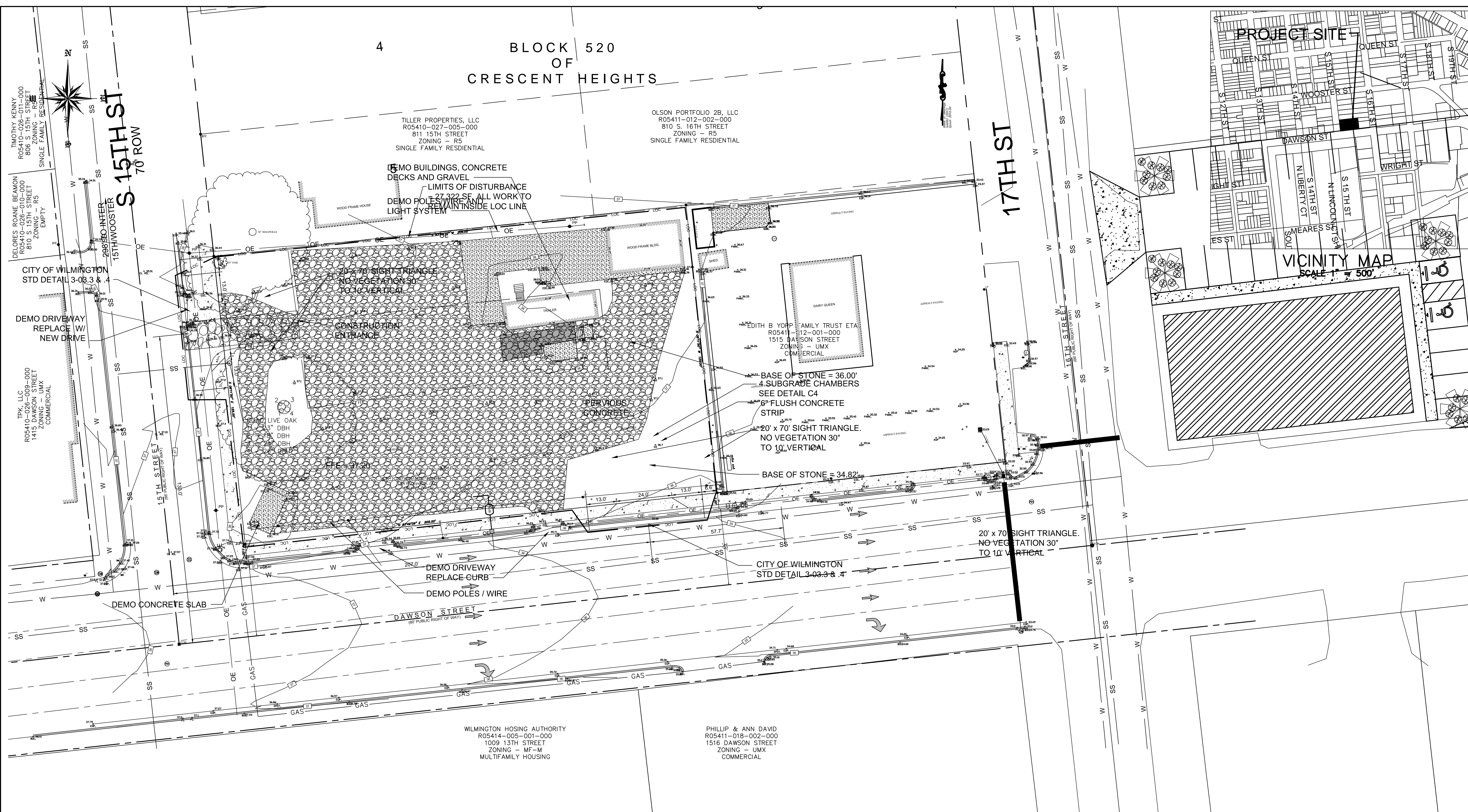
**CIVIL ENGINEER**  
JBS CONSULTING, PA  
BRAD SEDGWICK, PE  
7332 COTESWORTH DRIVE  
WILMINGTON, NC 28405  
1-910-619-9990  
bradsedgwick@hotmail.com

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

**GENERAL CONTRACTOR**  
TMC TAYLOR  
MR. GREG TAYLOR  
1406 CASTLE HAYNE ROAD  
WILMINGTON, NC 28401  
910-251-1181



4 BLOCK 520 OF CRESCENT HEIGHTS



**LEGEND**

EXISTING GRAVEL PAVEMENT	
CONC. PAVEMENT	
PERVIOUS CONCRETE	
PROPOSED SPOT ELEVATION	38.20
EXISTING SPOT ELEVATION	36.7
WAVE STYLE BIKE RACK	
TREE PROTECTION FENCING SEE DETAIL	
BUILDING GUTTER & DOWN SPOUT SYSTEM - SURFACE DISCHARGE TOWARD PAVEMENT	

**CITY OF WILMINGTON**  
NORTH CAROLINA  
Public Services • Engineering Division  
APPROVED DRAINAGE PLAN

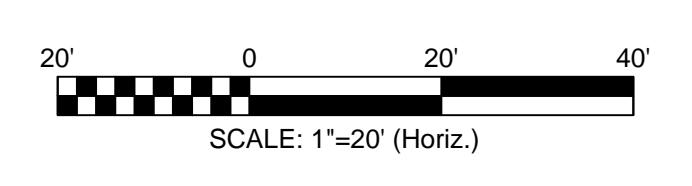
Date: \_\_\_\_\_ Permit # \_\_\_\_\_

Signed: \_\_\_\_\_

**Approved Construction Plan**

Name	Date
Planning	_____
Traffic	_____
Fire	_____

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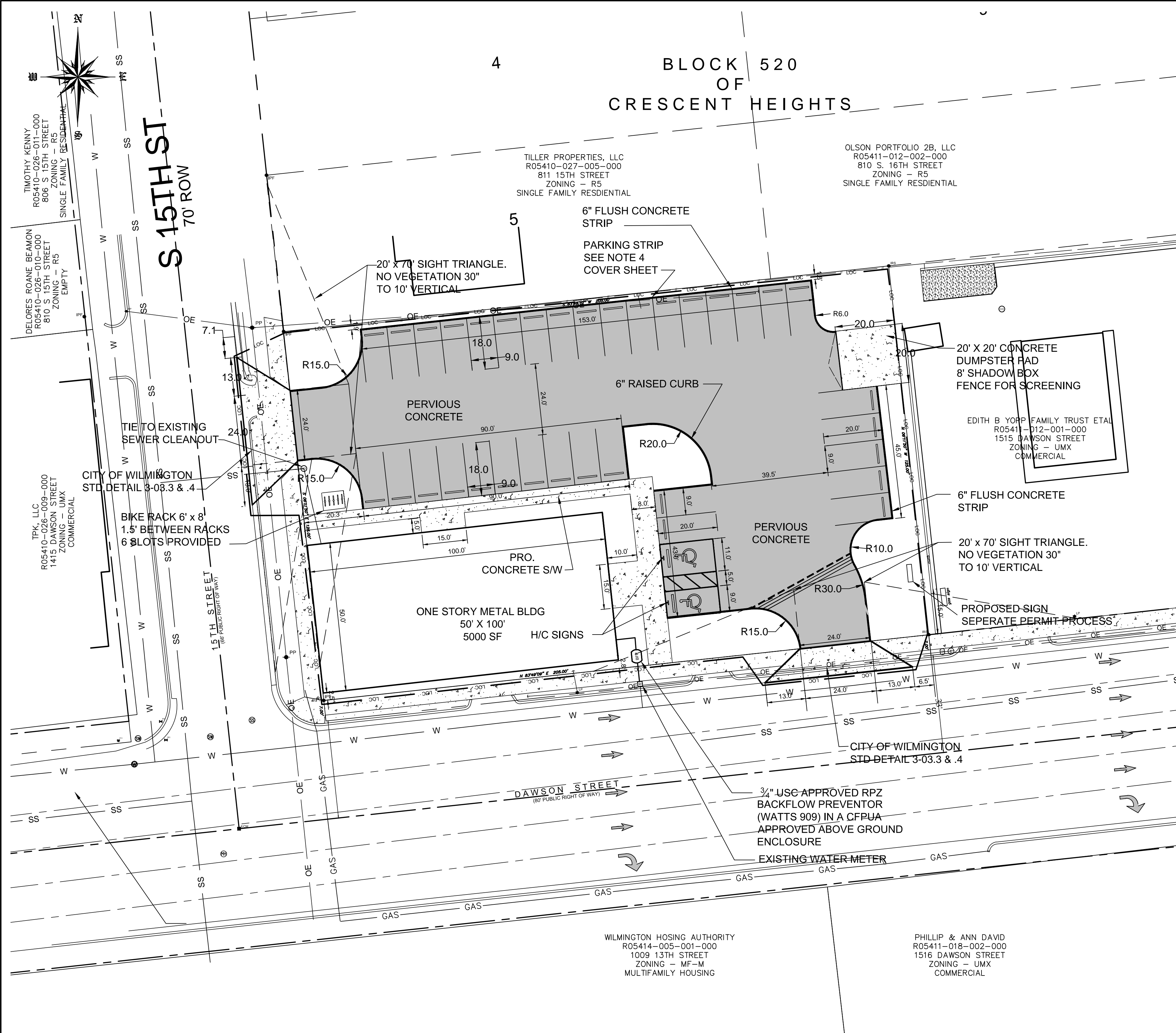
**EXISTING SITE & DEMO PLAN**

1507 DAWSON STREET  
WILMINGTON, NC

**OWNER/DEVELOPER**  
MR. RODNEY WILLIFORD  
RKW PROPERTIES, LLC  
7986 HWY 11 BUSINESS  
BETHEL, NC 27812  
1-252-714-5838

**CONSULTING, PA**  
7332 Colesworth Drive  
Wilmington, NC 28405  
(910) 619-9990  
LICENSE NUMBER  
C2523  
PLANNING - ENGINEERING - CONSTRUCTION MANAGEMENT

SHEET  
**C1**  
of X  
JOB NO. 032-025



**SITE DATA**

ADDRESS ..... 1507 DAWSON ST  
WILMINGTON, NC

PARCEL ID NUMBERS ..... R05410-027-006-000

DEED BOOK & PAGE ..... D.B. 6133 PG. 510

MAP BOOK & PAGE ..... MB N/A PG. N/A

ZONING ..... UMX - URBAN MIXED USE  
CITY OF WILMINGTON

TOTAL LOT AREA ..... +/- 25,625 SF/0.59ACRES

CAMA LAND USE CLASSIFICATION .. URBAN

SPECIAL OVERLAY DISTRICT.....NONE

PROPOSED USE.....LAUNDRY MAT

NUMBER OF BUILDINGS ..... 1 PROPOSED

BUILDING SQUARE FOOTAGE..... 5,000 SF

FLOOR COVERAGE..... 5000 SF / 25,625 SF = 19.35%

UMX - REQUIREMENTS

REQUIRED	PROPOSED
MIN. LOT AREA	N/A
MIN. LOT WIDTH	0.57 ACRES
MAX. LOT COVERAGE	330 FT
FRONT BUILDING SETBACK	20.1%
SIDE BUILDING SETBACK	0'
MAX. BLDG HEIGHT	34.5'
	18' EAVE HEIGHT

PARKING REQUIREMENTS

NO MINIMUM PARKING REQUIREMENTS PER UMX

PARKING PROVIDED 34 REGULAR + 2 H/C = 36 TOTAL

BICYCLE PARKING  
6 PROVIDED

PROPOSED BUA

SEE TABLE BELOW

LIMITS OF DISTURBANCE = 27,322 SF

SOLID WASTE  
SOLID WASTE DISPOSAL WILL BE A DUMPSTER. SCREENING VIA 8' SHADOW BOX FENCE.

UTILITY INFORMATION

WATER: 600 GPD (CURRENT USE)  
8,000 GPD (PROPOSED USE)  
USE BASED ON SIMILAR FACILITY IN JACKSONVILLE BY SAME OWNER

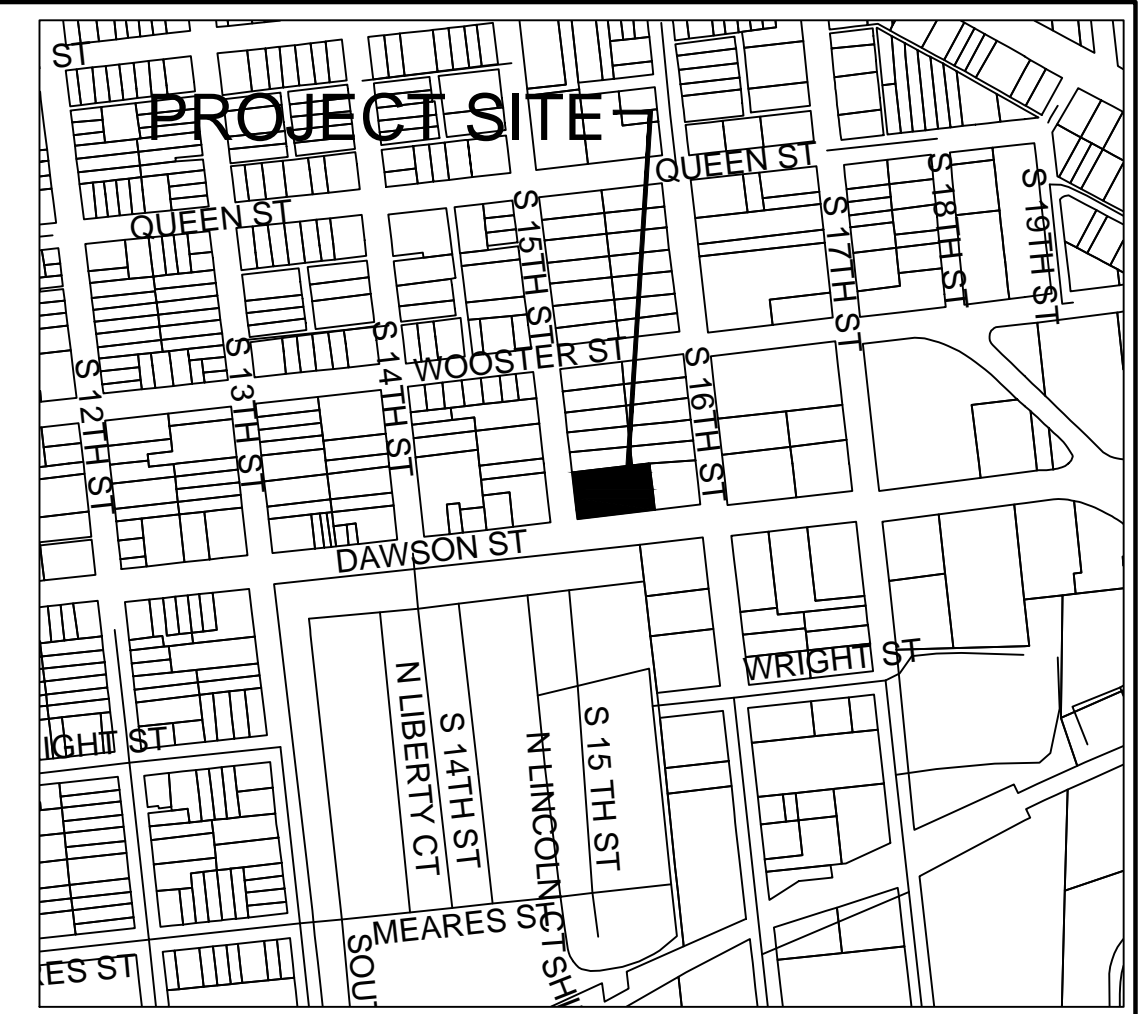
SEWER: 000 GPD (CURRENT USE)  
8,000 GPD (PROPOSED USE)

STORMWATER CLASSIFICATION  
RECEIVING STREAM: MINERAL SPRINGS BRANCH  
RIVER BASIN: CAPE FEAR  
STREAM INDEX NUMBER: 18-74-63.2-1  
WATER CLASSIFICATION: C;Sw

HVAC EQUIPMENT TO BE MOUNTED ON ROOF.

FLOOD INFO

ZONE X - MINIMAL RISK  
PANEL 3127  
MAP NUMBER #3720312700J  
5/2006

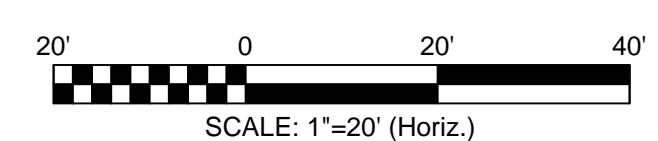


VICINITY MAP  
SCALE 1" = 500'

BUA Summary - 1507 Dawson Street

Existing	Proposed	Impervious	Previous
Ex. Buildings		5000	
Ex. Concrete		1282	
Ex. Gravel		400	
TOTAL EX. BUA		6682	13843
Proposed			
Pro Building			
Pro Sidewalk			
Pro Dumpster Pad			
Pro Parking			
Total Proposed BUA		6682	13843

SITE PLAN  
SCALE 1" = 20'



**LEGEND**

EXISTING GRAVEL PAVEMENT	
CONC. PAVEMENT	
PERVIOUS CONCRETE	
PROPOSED SPOT ELEVATION	
EXISTING SPOT ELEVATION	
WAVE STYLE BIKE RACK	
TREE PROTECTION FENCING SEE DETAIL	
BUILDING GUTTER & DOWN SPOUT SYSTEM - SURFACE DISCHARGE TOWARD PAVEMENT	

**CITY OF WILMINGTON**  
NORTH CAROLINA  
Public Services • Engineering Division  
APPROVED DRAINAGE PLAN

Date: \_\_\_\_\_ Permit # \_\_\_\_\_

Signed: \_\_\_\_\_

**Approved Construction Plan**

Name	Date
Planning	
Traffic	
Fire	

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DESIGN BY: BDS  
DRAWN BY: BDS  
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**SITE PLAN**

**1507 DAWSON STREET**  
WILMINGTON, NC

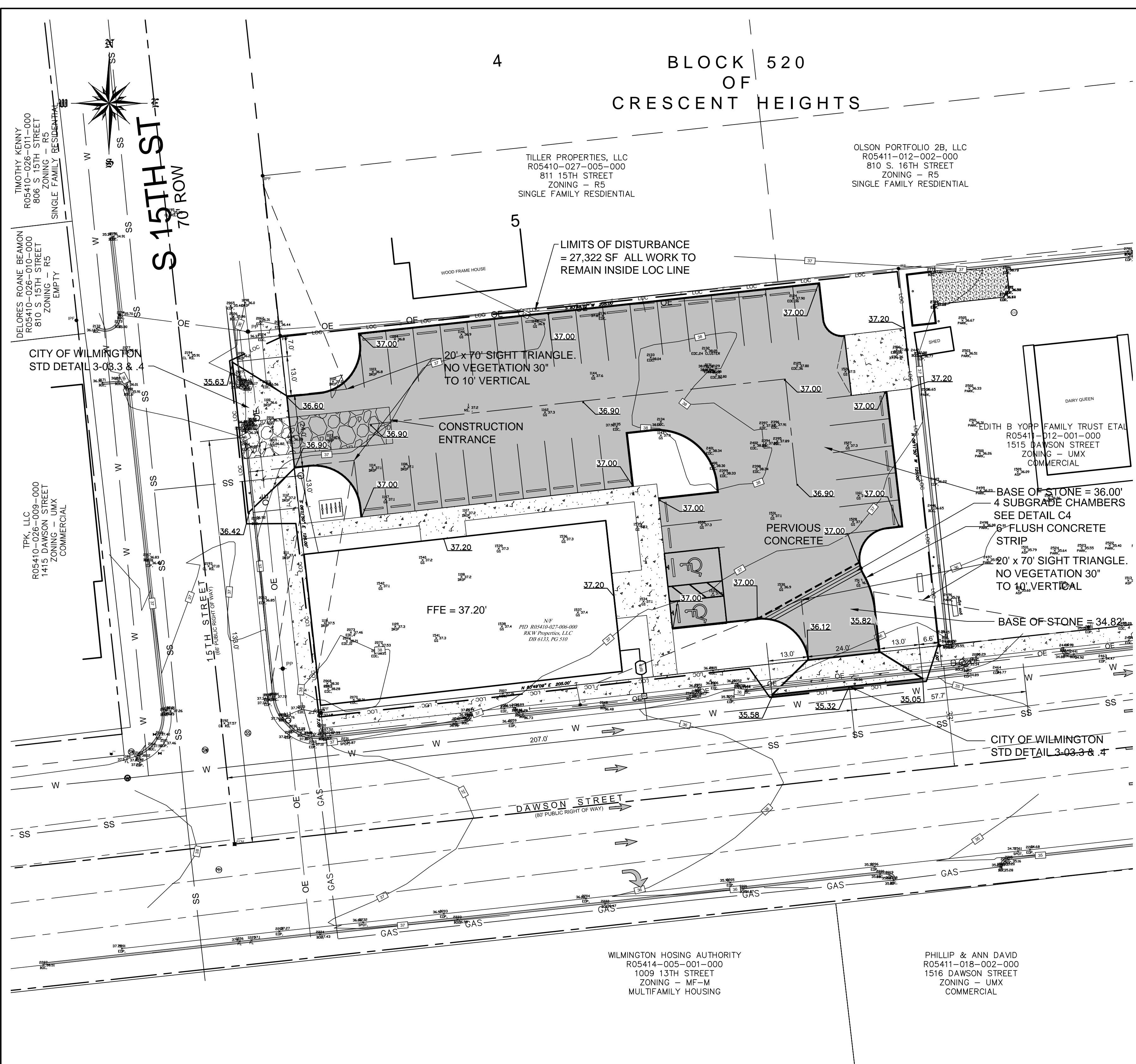
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SHEET  
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of X

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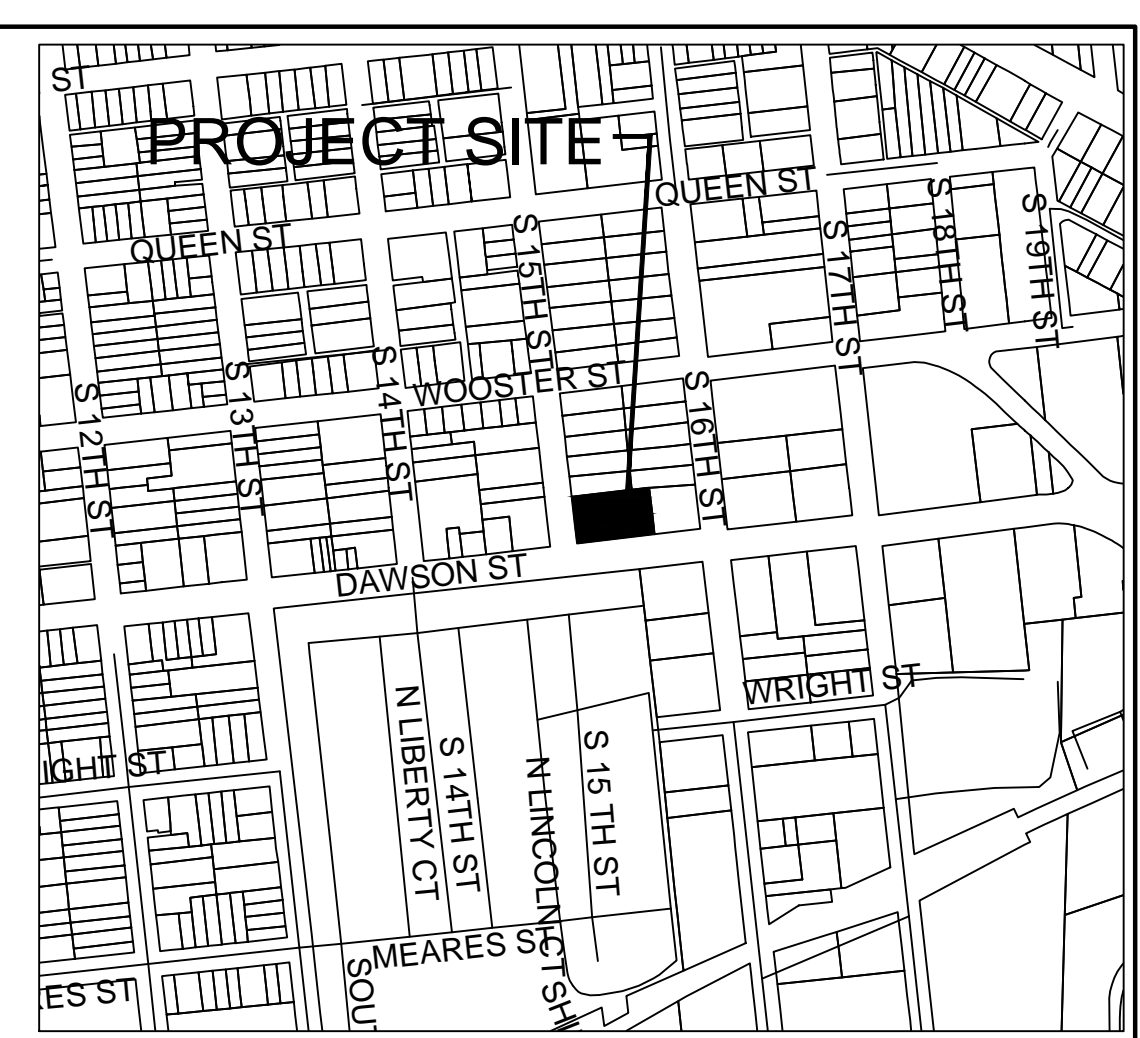
4 BLOCK 520 OF CRESCENT HEIGHTS



GRADING, DRAINAGE & EROSION CONTROL  
SCALE 1" = 20'

LABEL	1) GROUND STABILIZATION	STABILIZATION TIME FRAME	STABILIZATION TIME FRAME EXCEPTIONS
[Cross-hatch pattern]	-PERIMETER DIKES, DITCHES AND SLOPES	7 DAYS	NONE
	-HIGH QUALITY WATER (HOW) ZONES	7 DAYS	NONE
	-SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1 14 DAYS ARE ALLOWED
[Diagonal line pattern]	-SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50 FEET IN LENGTH
	-ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE (EXCEPT FOR PERIMETERS AND HOW ZONES)

- 2) BUILDING WASTES HANDLING
- NO PAINT OR LIQUID WASTES IN STREAM OF STORM DRAINS
  - DEDICATED AREAS FOR DEMOLITION, CONSTRUCTION AND OTHER WASTES MUST BE LOCATED 50' FROM STORM DRAINS AND STREAMS UNLESS NO REASONABLE ALTERNATIVES AVAILABLE
  - LEATHER-MATERIALS STOCKPILES MUST BE LOCATED 50' FROM STORM DRAINS AND STREAMS UNLESS NO REASONABLE ALTERNATIVES AVAILABLE
  - CONCRETE MATERIALS MUST BE CONTROLLED TO AVOID CONTACT WITH SURFACE WATERS, WETLANDS, OR BUFFERS.
- 3) INSPECTIONS
- SAME WEEKLY INSPECTION REQUIREMENTS
  - SAME RAIN GAUGE & INSPECTIONS AFTER 0.5" RAIN EVENT
  - INSPECTIONS ARE ONLY REQUIRED DURING "NORMAL BUSINESS HOURS"
  - INSPECTION REPORTS MUST BE AVAILABLE ON-SITE DURING BUSINESS HOURS UNLESS A SITE-SPECIFIC EXEMPTION IS APPROVED
  - RECORDS MUST BE KEPT FOR 3 YEARS AND AVAILABLE UPON REQUEST
  - ELECTRONICALLY-AVAILABLE RECORDS MAY BE SUBSTITUTES UNDER CERTAIN CONDITIONS
- 4) SEDIMENT BASINS
- OUTLET STRUCTURES MUST WITHDRAW FROM BASIN SURFACES UNLESS DRAINAGE AREA IS LESS THAN 1 ACRE
  - USE ONLY DWS-APPROVED FLOCCULANTS
- NPDES - SPECIFIC PLAN SHEET NOTES
1. THIS PAGE IS SUBMITTED TO COMPLY WITH NPDES GENERAL STORMWATER PERMIT NCG000000.
  2. THIS PAGE CAN BE APPROVED BY THE COUNTY PURSUANT TO NPDES GENERAL STORMWATER PERMIT NCG000000 ONLY.
  3. THIS PAGE OF THE APPROVED PLANS IS ENFORCEABLE EXCLUSIVELY PURSUANT TO NPDES GENERAL STORMWATER PERMIT NCG000000.
  4. THE COUNTY IS NOT AUTHORIZED TO ENFORCE THIS PAGE OF THE PLANS AND IT IS NOT PART OF THE APPROVED PLANS FOR THE PURPOSES OF ENFORCEMENT ACTION UNDER THE CITY CODE.



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

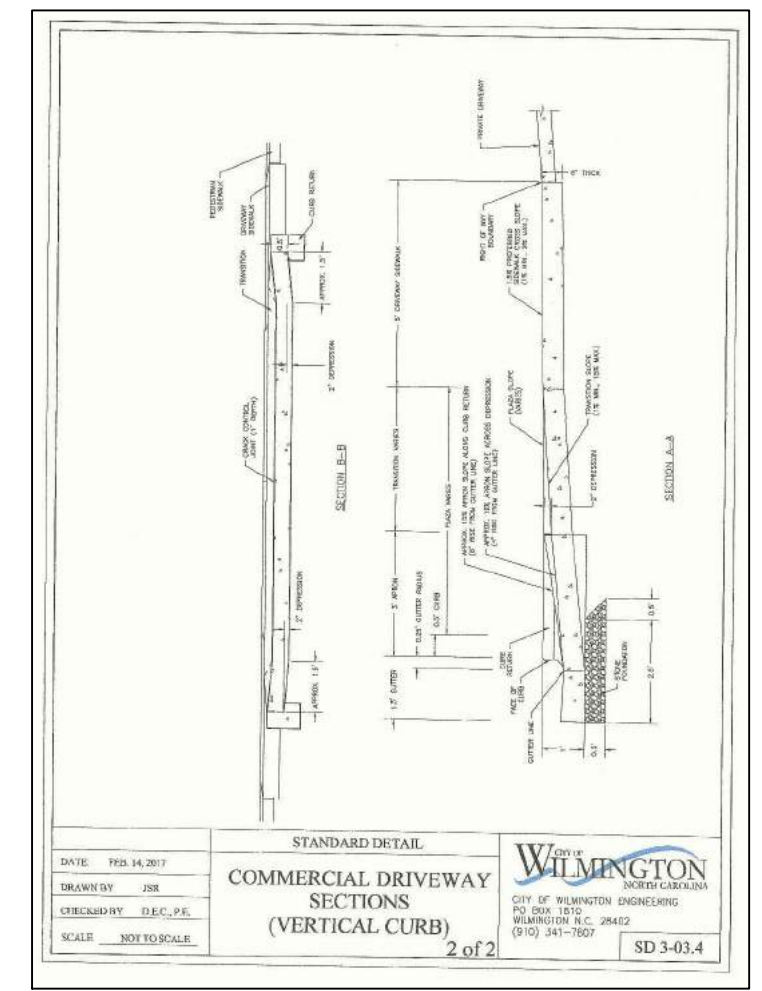
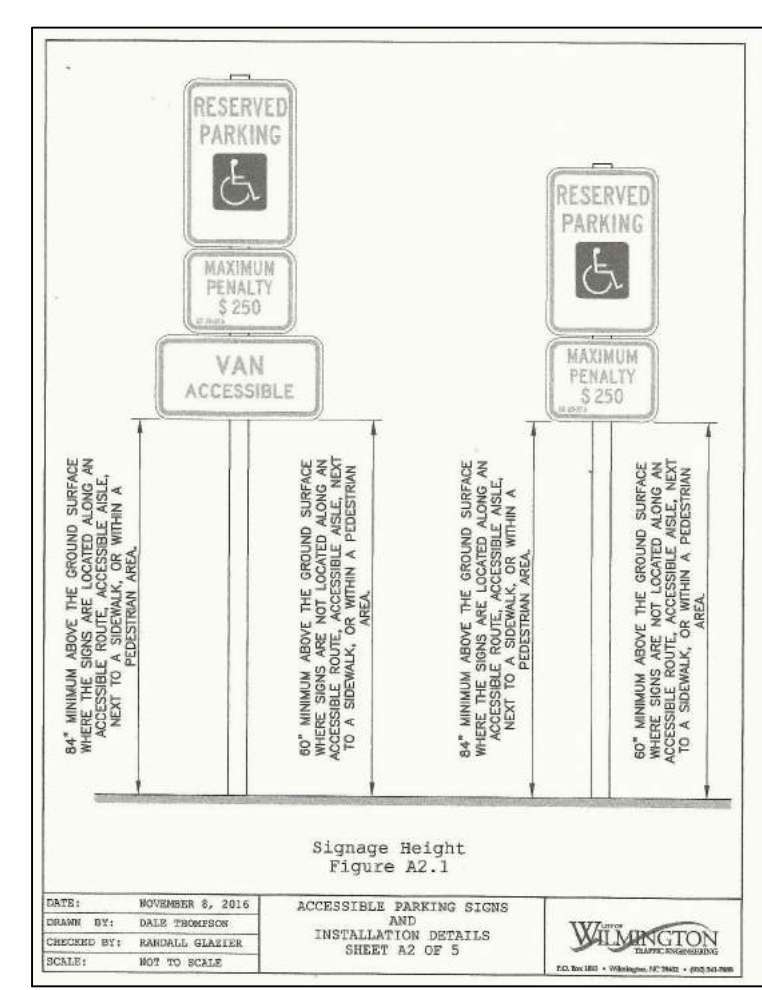
1. A SEDIMENTATION & EROSION CONTROL PERMIT IS NOT REQUIRED FOR THIS PROJECT. REGARDLESS THE CONTRACTOR SHALL FOLLOW ALL MEASURES AS SHOWN ON THIS PLAN.
2. N/A
3. INSTALL GRAVEL CONSTRUCTION ENTRANCE AND SILT FENCE, COMMENCE CLEARING AND ROUGH GRADING OPERATIONS.
4. ROUGH GRADE SITE AND INSTALL UNDERGROUND 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. 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.
3. 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.
4. INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1" OR GREATER) RAINFALL EVENT. CLEAR THE 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.
5. ALL AREAS WILL BE FERTILIZED, RESEED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.

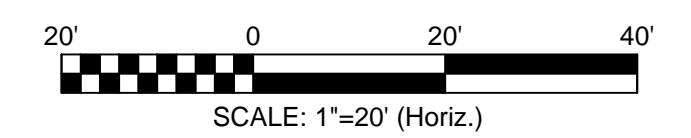
EROSION CONTROL NOTES

1. ANY CONSTRUCTION ACTIVITY BEYOND THE 0.51 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 SEED 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 SEED, MULCHED, AND TACKED.



LEGEND

EXISTING GRAVEL PAVEMENT	[Pattern]
CONC. PAVEMENT	[Pattern]
PERVIOUS CONCRETE	[Pattern]
PROPOSED SPOT ELEVATION	39.20
EXISTING SPOT ELEVATION	35.6, 36.7
WAVE STYLE BIKE RACK	[Symbol]
TREE PROTECTION FENCING SEE DETAIL	[Symbol]
BUILDING GUTTER & DOWN SPOUT SYSTEM - SURFACE DISCHARGE TOWARD PAVEMENT	[Symbol]



Date: \_\_\_\_\_ Permit # \_\_\_\_\_

Signed: \_\_\_\_\_

Approved Construction Plan

Name	Date

Planning \_\_\_\_\_

Traffic \_\_\_\_\_

Fire \_\_\_\_\_

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DRAWN BY: BDS  
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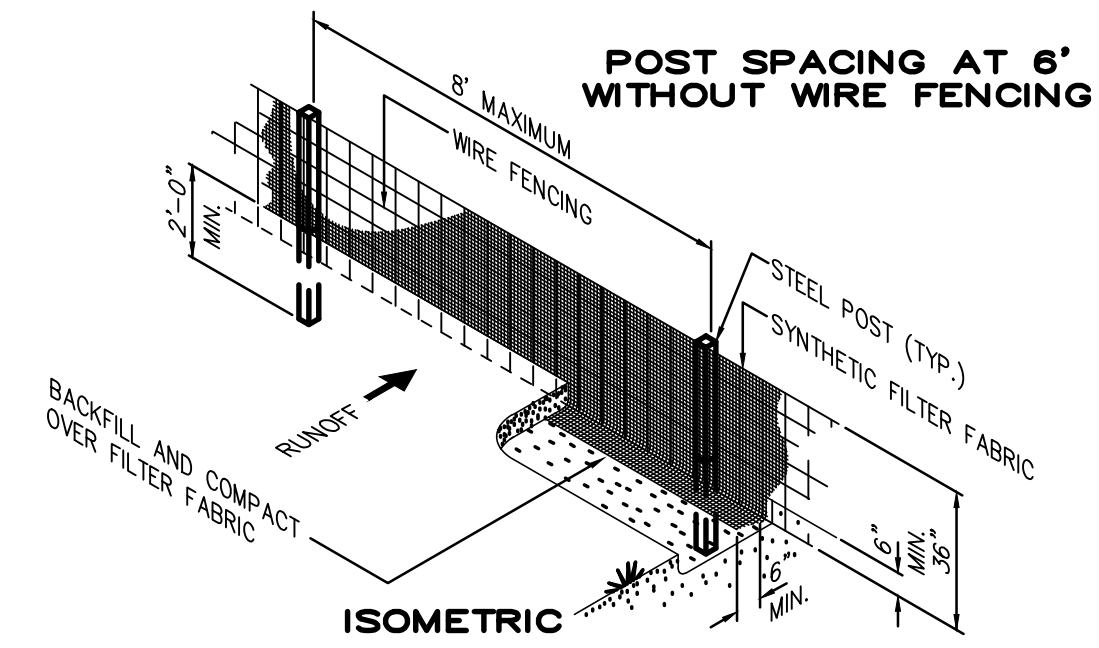
GRADING, DRAINAGE & EROSION CONTROL  
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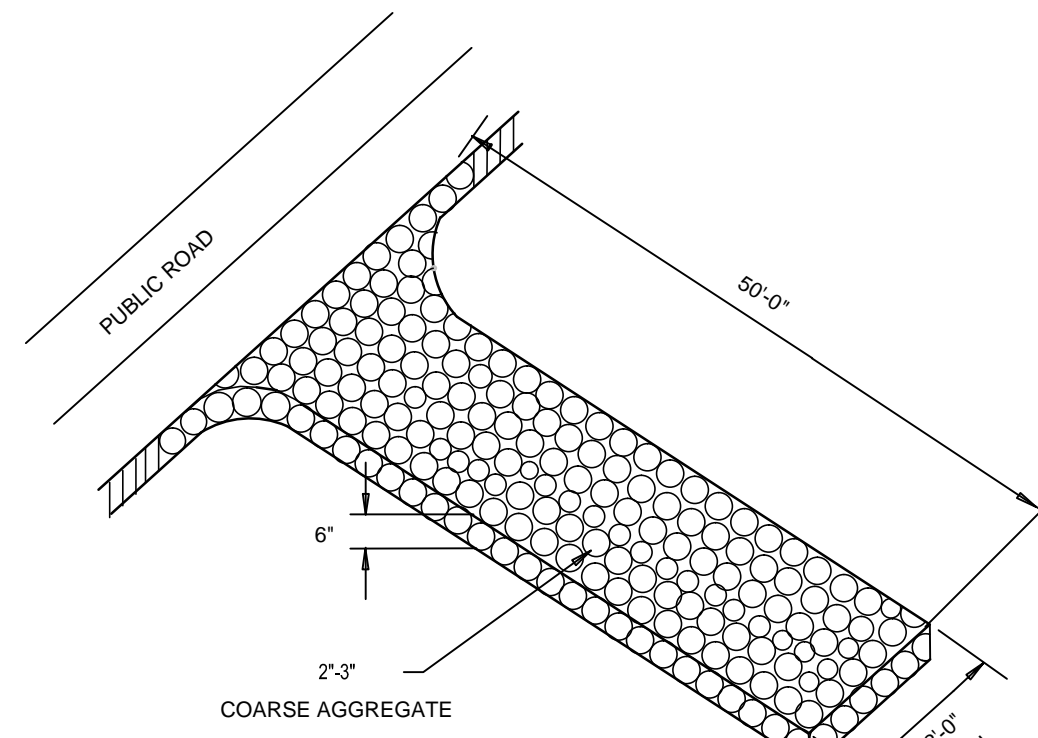
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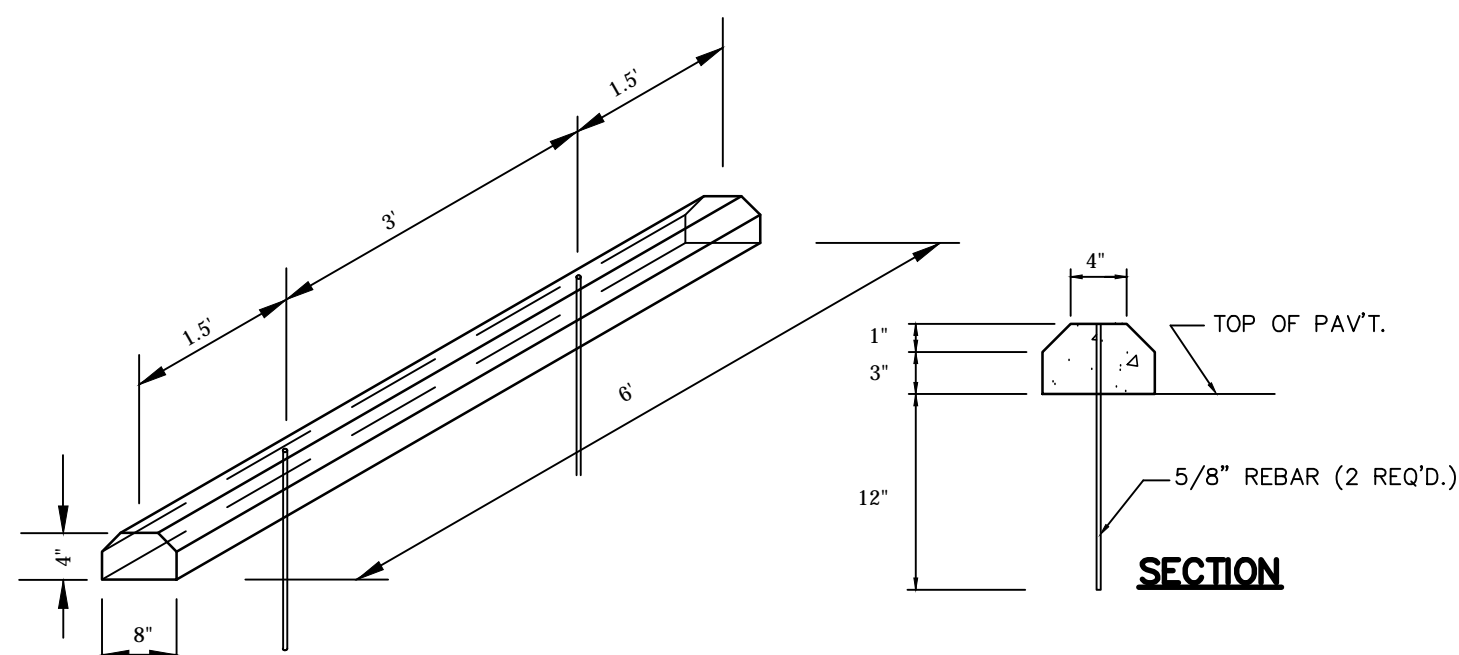
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C3 of X  
JOB NO. 032-025



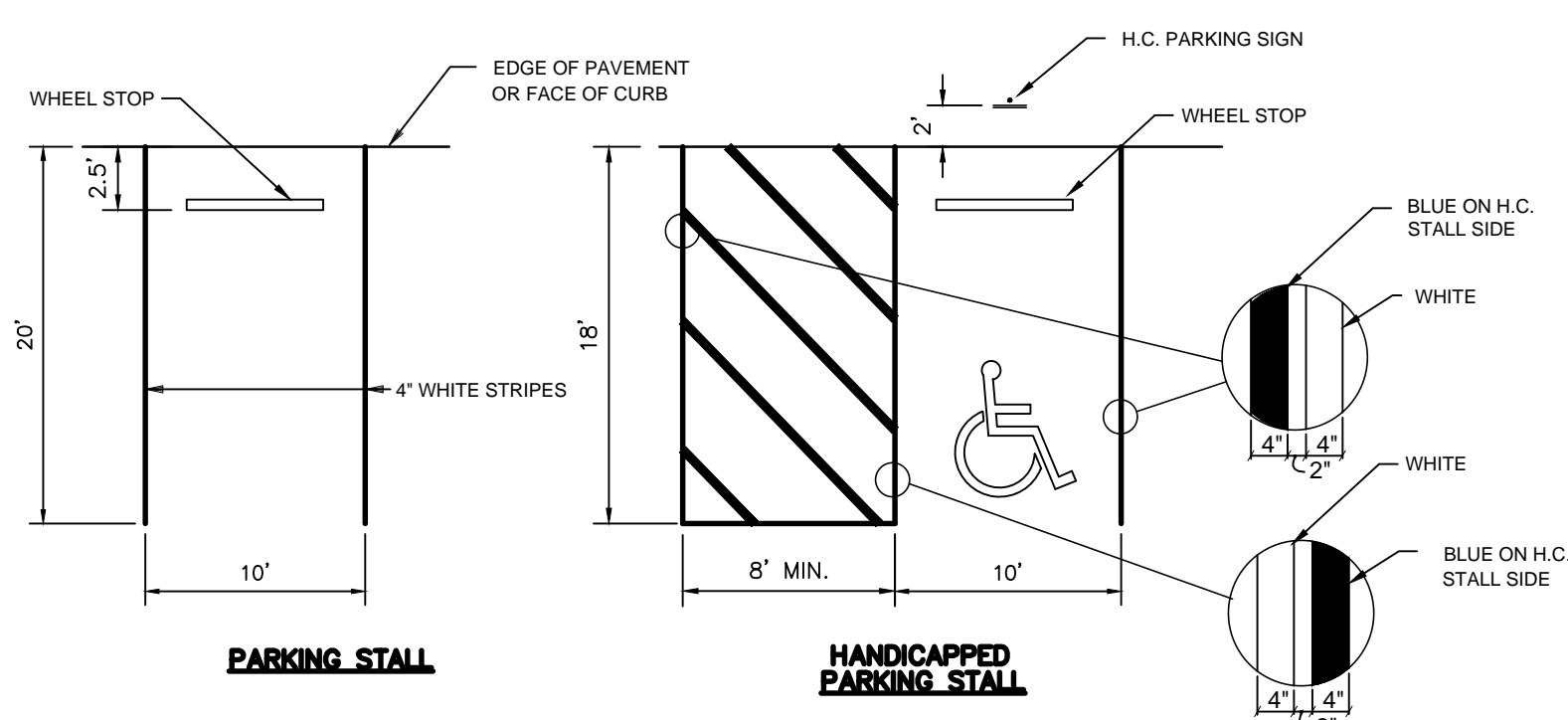
SILT FENCE DETAIL  
NOT TO SCALE



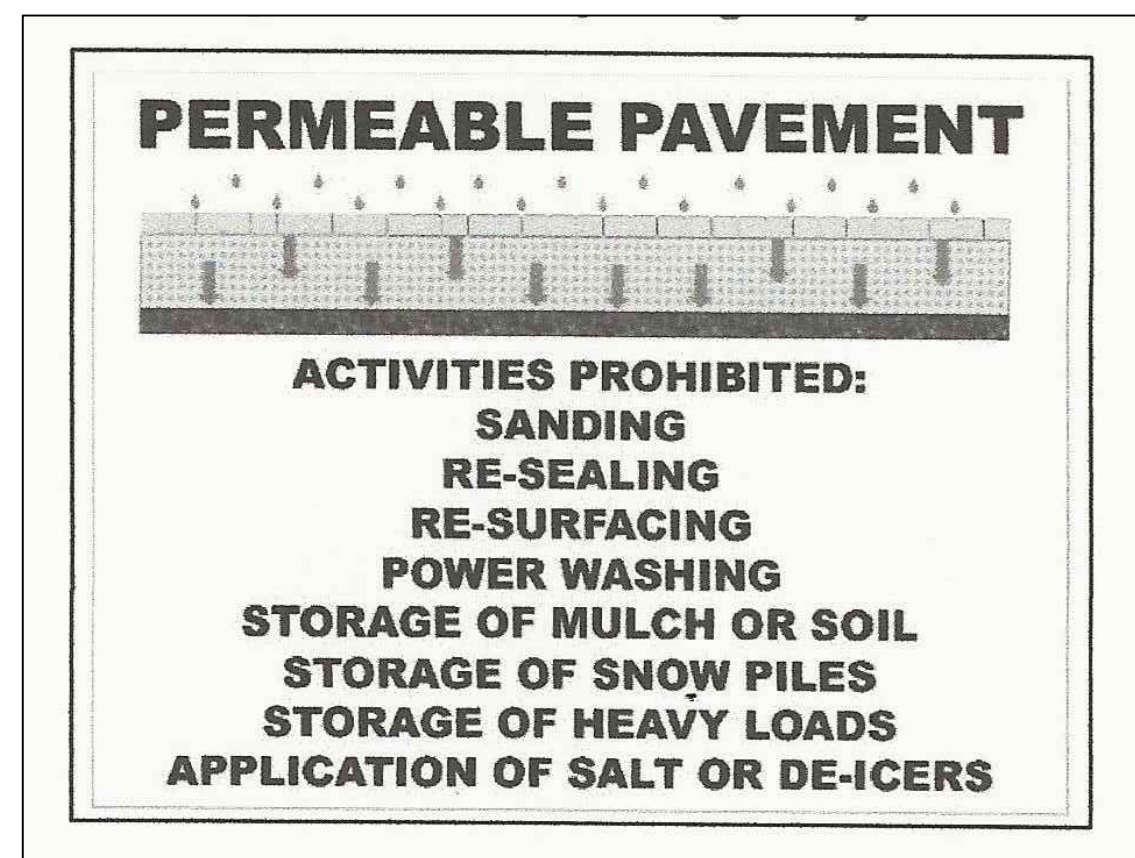
CONSTRUCTION ENTRANCE/EXIT  
NOT TO SCALE



WHEEL STOP DETAIL  
NOT TO SCALE

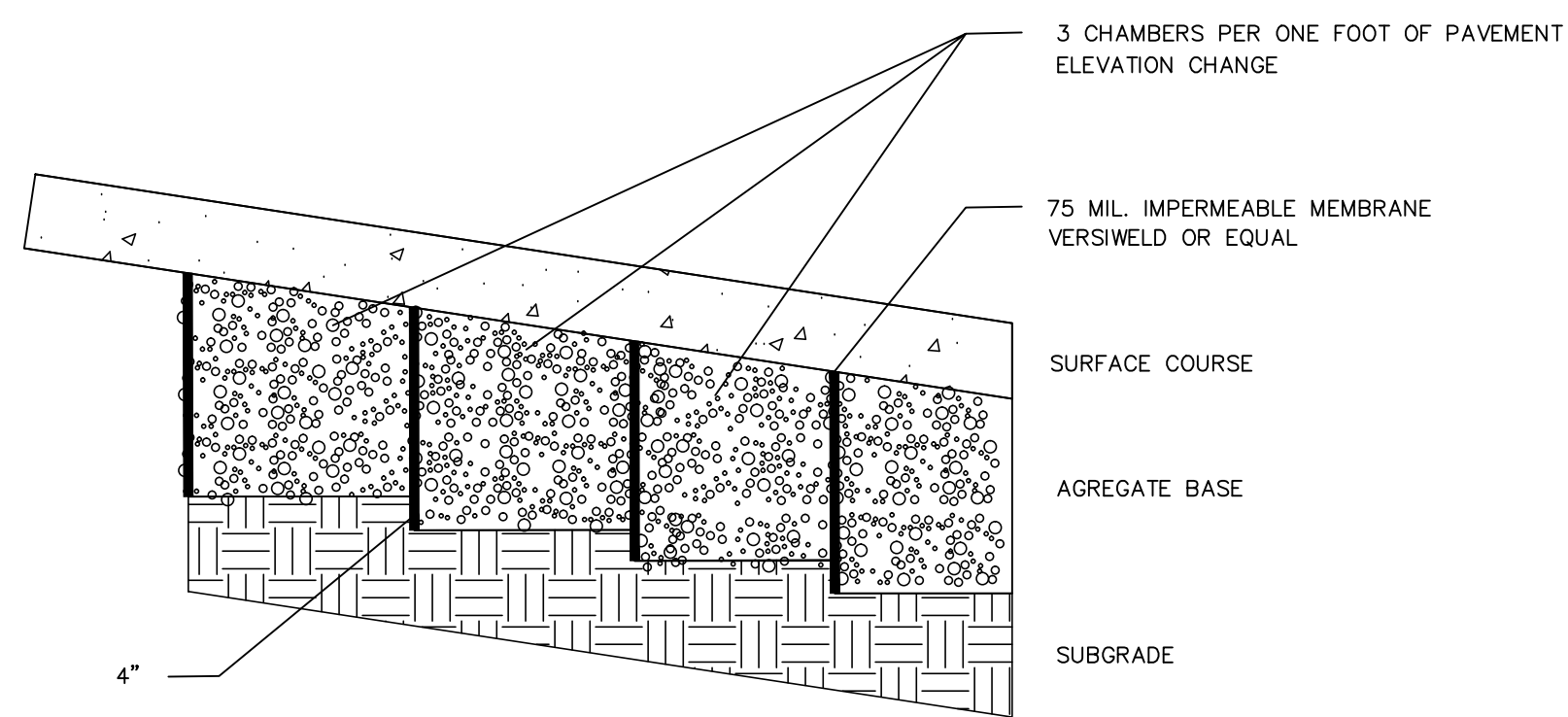


PARKING DETAIL  
NOT TO SCALE

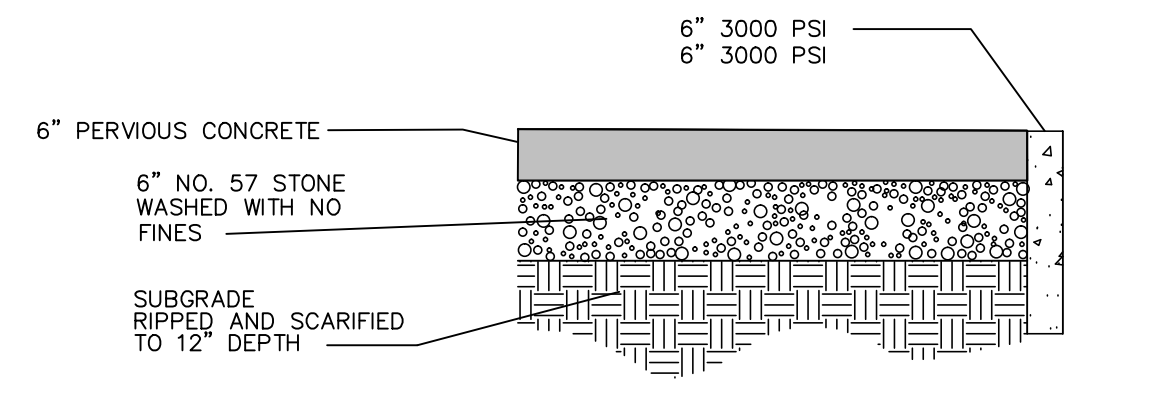


NOTE: EXAMPLE OF SIGN TO BE PLACED WHERE SHOWN ON THE PLANS. SIGN 18" X 24" ON STANDARD METAL BACKING AND MOUNTED WITH STANDARD STREET SIGN MATERIALS AND METHODS.

EXAMPLE PERMEABLE PAVEMENT SIGN  
NOT TO SCALE



PERVIOUS CONCRETE SUBGRADE SLOPE  
NOT TO SCALE



PERVIOUS PAVER PAVEMENT SECTION  
NOT TO SCALE

**AGGREGATE DEPTH FOR WATER QUALITY STORM D(WQ)**

D(WQ) = DEPTH OF AGGREGATE REQUIRED

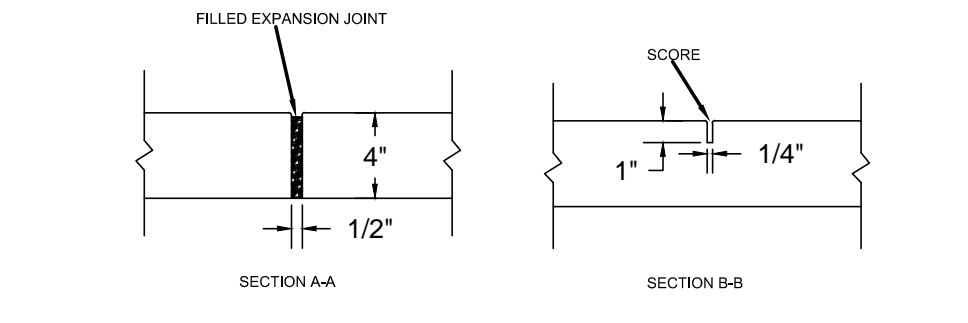
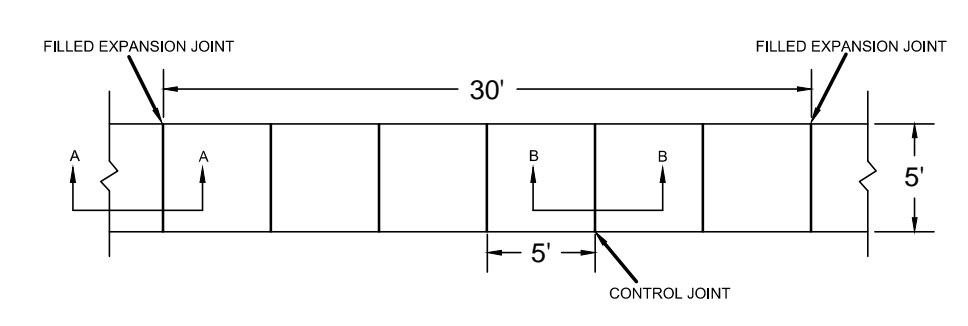
P = DEPTH OF DESIGN STORM (INCHES)

R = A(A)/A(P) - RATIO OF IMPERVIOUS BUA TO PERMEABLE PAVEMENT

N = PERCENT VOIDS IN GRAVEL AGGREGATE (40%)

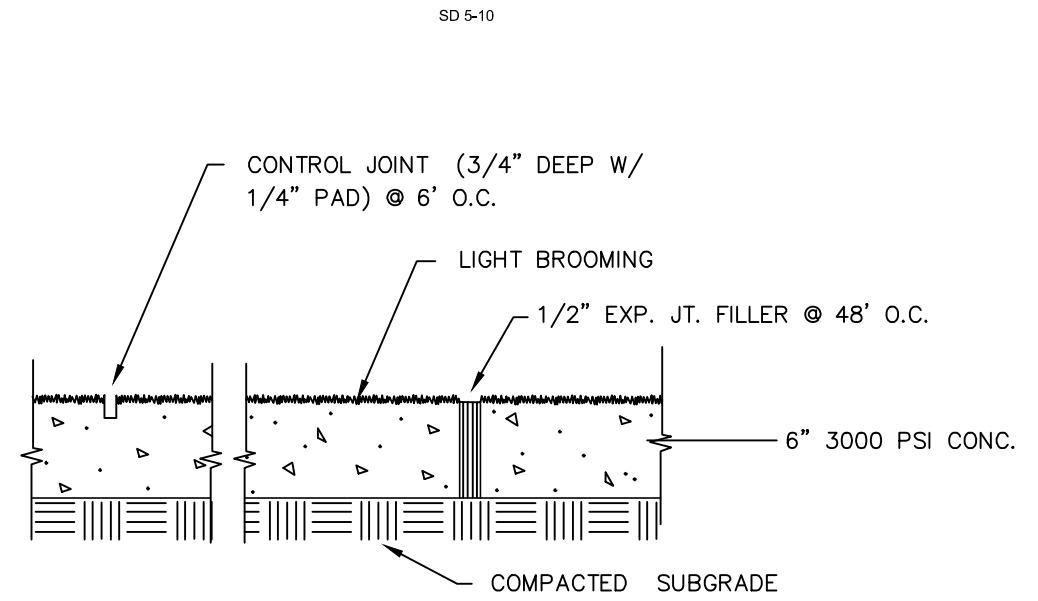
$$D(WQ) = \frac{P(1+R)}{N}$$

P	A(A)	A(P)	R	N	D(WQ)
1.5	6682	13843	0.48	0.4	6

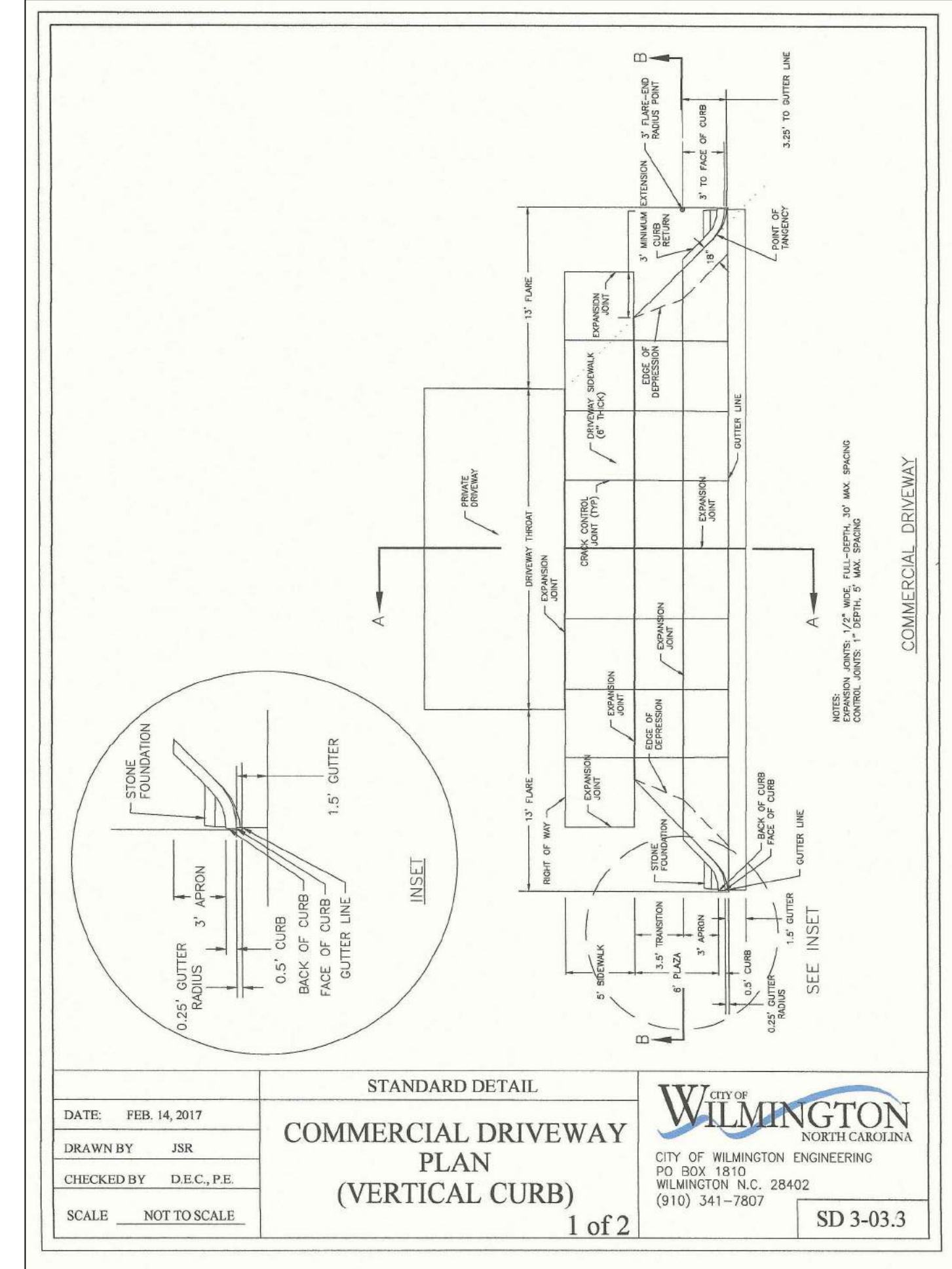


- NOTES:
1. JOINT MATERIAL TO COMPLY WITH CURRENT NCOT STANDARDS.
  2. SANITARY SEWER CLEANOUTS, WATER METERS, MANHOLES, AND VALVE LIDS TO BE LOCATED OUTSIDE SIDEWALK WHERE FEASIBLE.
  3. MINIMUM SIDEWALK WIDTH TO BE 6' MINIMUM IF PLACED AT BACK OF CURB.
  4. CONCRETE FOR ALL SIDEWALKS (EXCEPT ANY PORTION CONTAIN WITHIN A DRIVEWAY APRON) SHALL BE CLASS 7K - 3000 PSI.
  5. MINIMUM REPLACEMENT FOR REPAIRS IS A 5' X 9' 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% IN AT LEAST 1 DIRECTION. MAX CROSS SLOPE IS 3%. MAX LONGITUDINAL SLOPE IS 8.3%. 10% IF LIMITED BY EXISTING CONDITIONS, OR NO GREATER THAN THE SLOPE OF THE EXISTING ADJACENT ROAD.

**CONCRETE WALK SECTION**



CONCRETE SECTION  
NOT TO SCALE  
DUMPSTER PAD



STANDARD DETAIL

COMMERCIAL DRIVEWAY PLAN (VERTICAL CURB)

1 of 2

DATE: FEB. 14, 2017

DRAWN BY: JSR

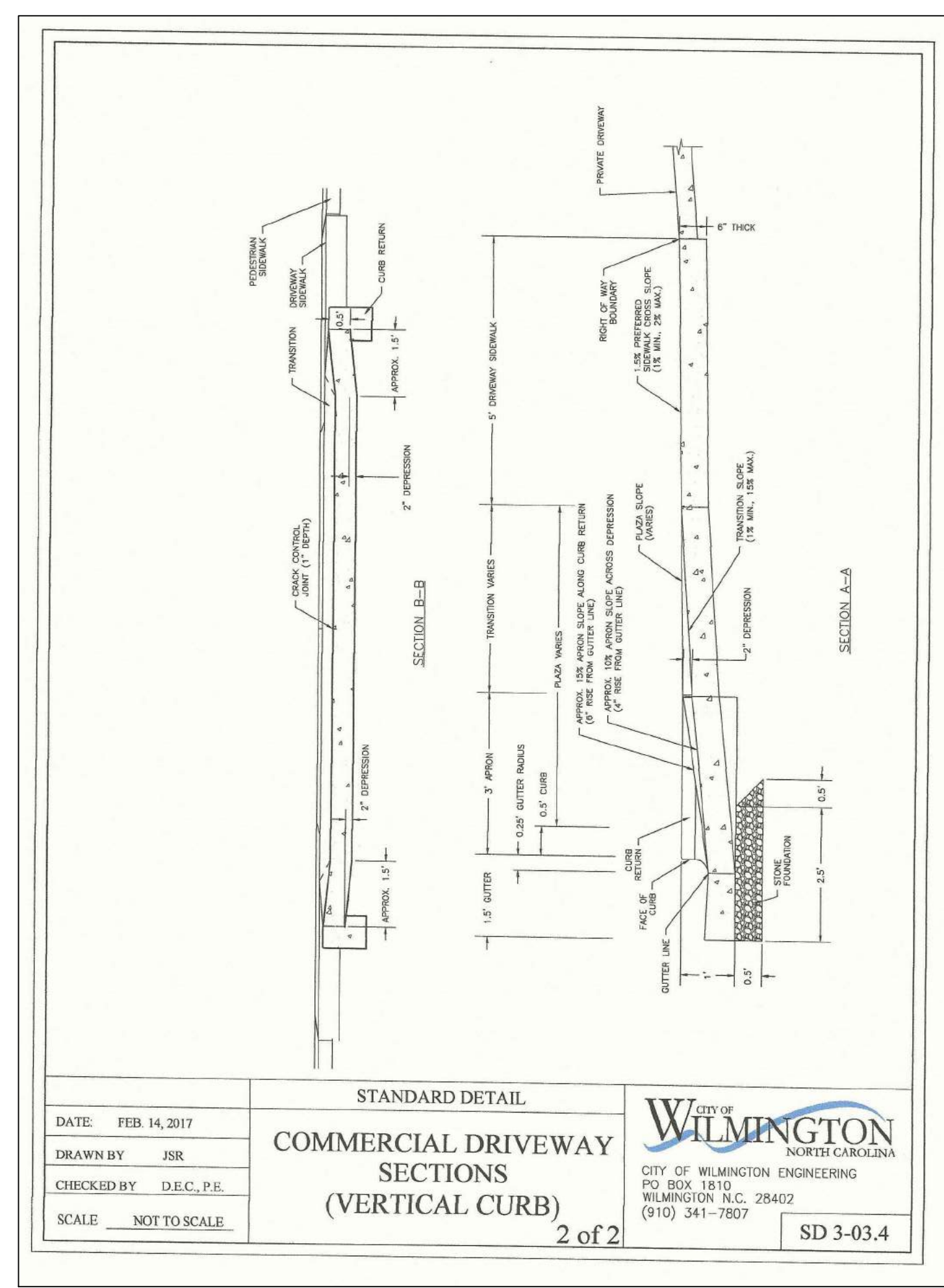
CHECKED BY: D.E.C., P.E.

SCALE: NOT TO SCALE

CITY OF WILMINGTON ENGINEERING

PO BOX 1810 WILMINGTON, N.C. 28402 (910) 341-7807

SD 3-03.3



STANDARD DETAIL

COMMERCIAL DRIVEWAY SECTIONS (VERTICAL CURB)

2 of 2

DATE: FEB. 14, 2017

DRAWN BY: JSR

CHECKED BY: D.E.C., P.E.

SCALE: NOT TO SCALE

CITY OF WILMINGTON ENGINEERING

PO BOX 1810 WILMINGTON, N.C. 28402 (910) 341-7807

SD 3-03.4



Public Services • Engineering Division  
APPROVED DRAINAGE PLAN

Date: \_\_\_\_\_ Permit # \_\_\_\_\_

Signed: \_\_\_\_\_

**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.

DESIGNED BY:	BDS
DRAWN BY:	BDS
CHECKED BY:	BDS
DATE	APRIL, 2018

**DETAILS**

**1507 DAWSON STREET**

WILMINGTON, NC

**OWNER/DEVELOPER**

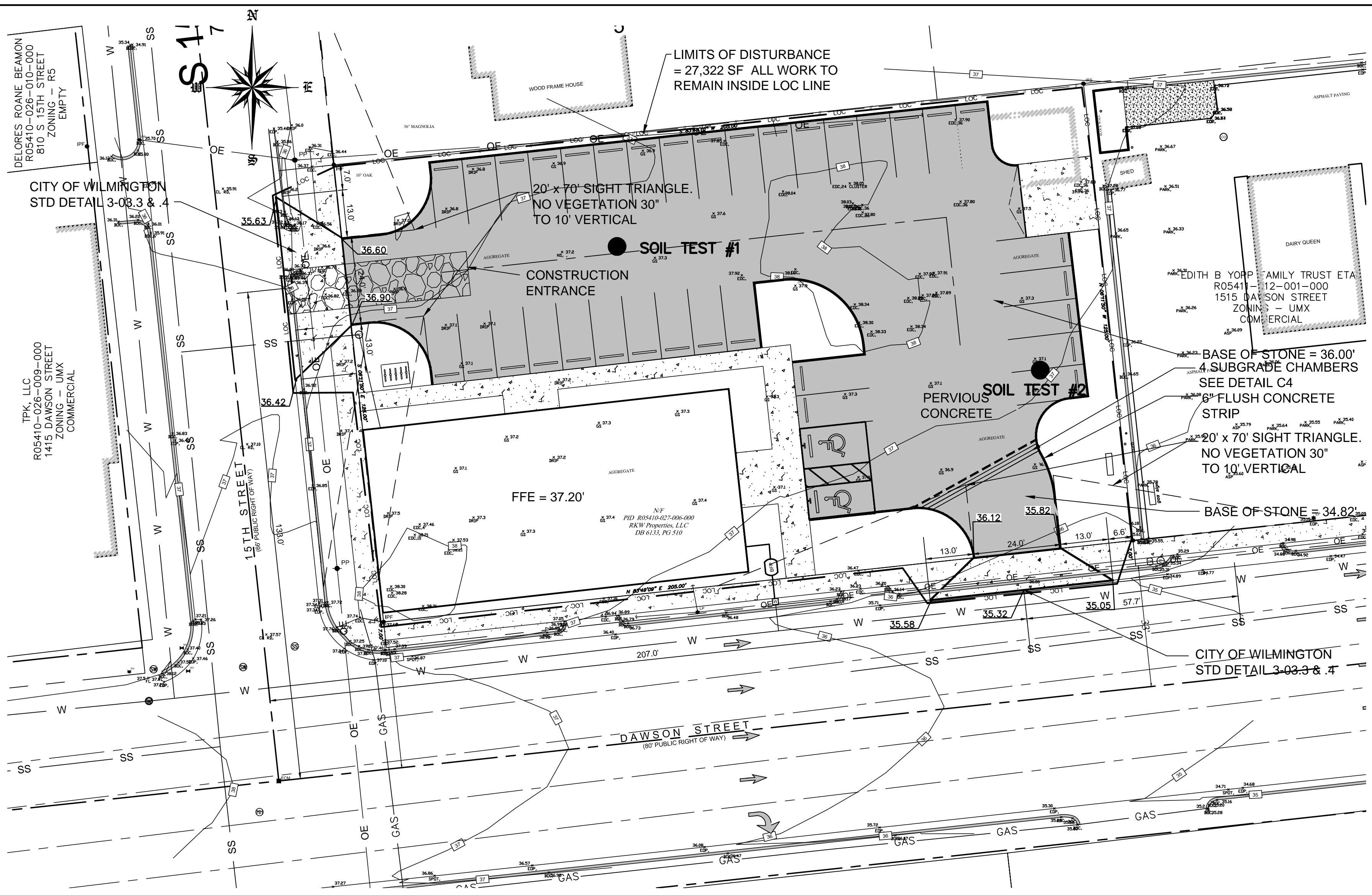
MR. RODNEY WILLIFORD  
RKW PROPERTIES, LLC  
7986 HWY 11 BUSINESS  
BETHEL, NC 27812  
1-252-714-5838

**CONSULTING, PA**

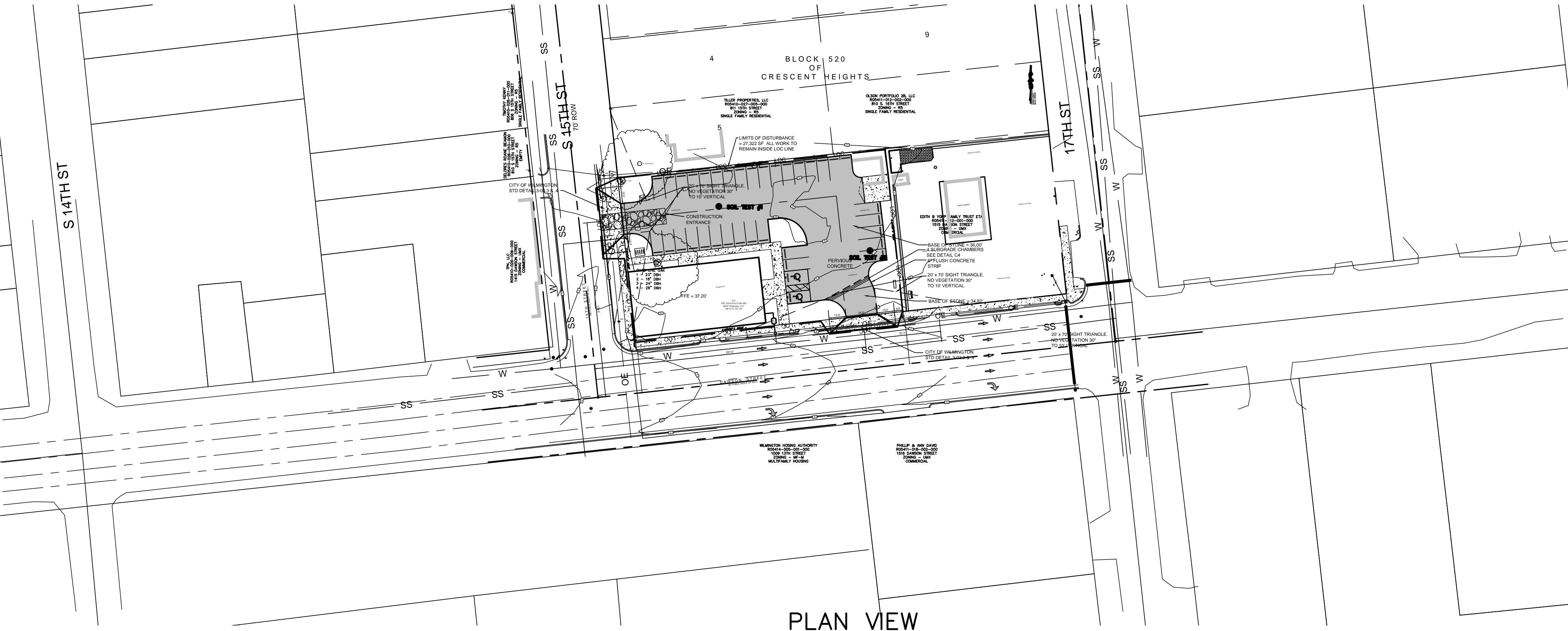
7332 Colesworth Drive  
Wilmington, NC 28405  
(910) 619-9990  
LICENSE NUMBER  
C2523

PLANNING - ENGINEERING - CONSTRUCTION MANAGEMENT

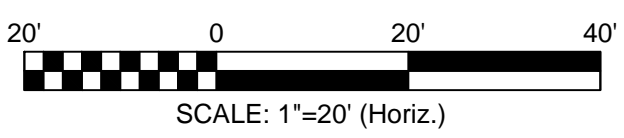




PLAN VIEW  
SCALE: 1" = 20'



PLAN VIEW  
SCALE: 1" = 50'



**CITY OF WILMINGTON**  
NORTH CAROLINA  
Public Services • Engineering Division  
APPROVED DRAINAGE PLAN

Date: \_\_\_\_\_ Permit # \_\_\_\_\_

Signed: \_\_\_\_\_

**Approved Construction Plan**

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

Planning \_\_\_\_\_

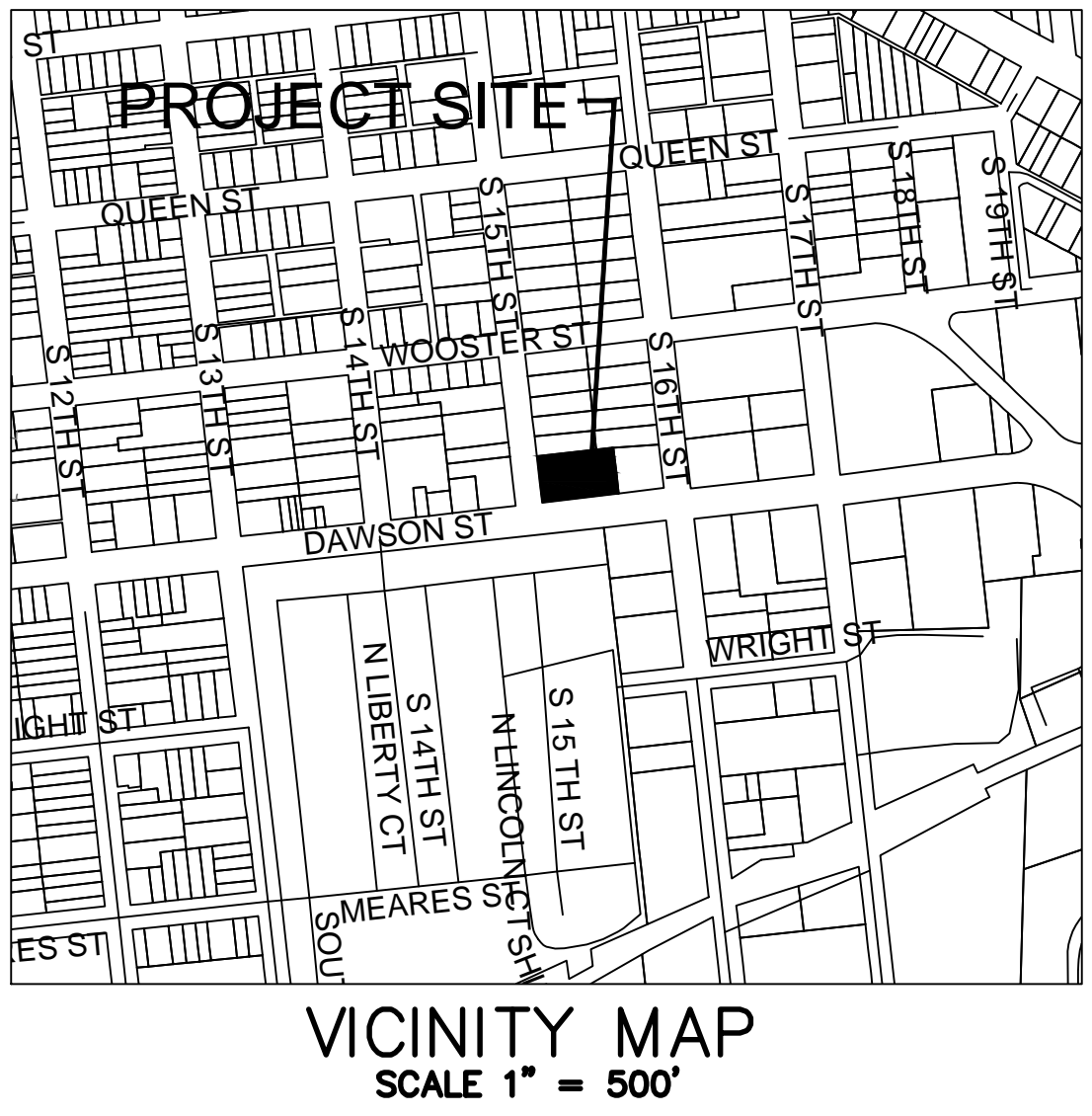
Traffic \_\_\_\_\_

Fire \_\_\_\_\_

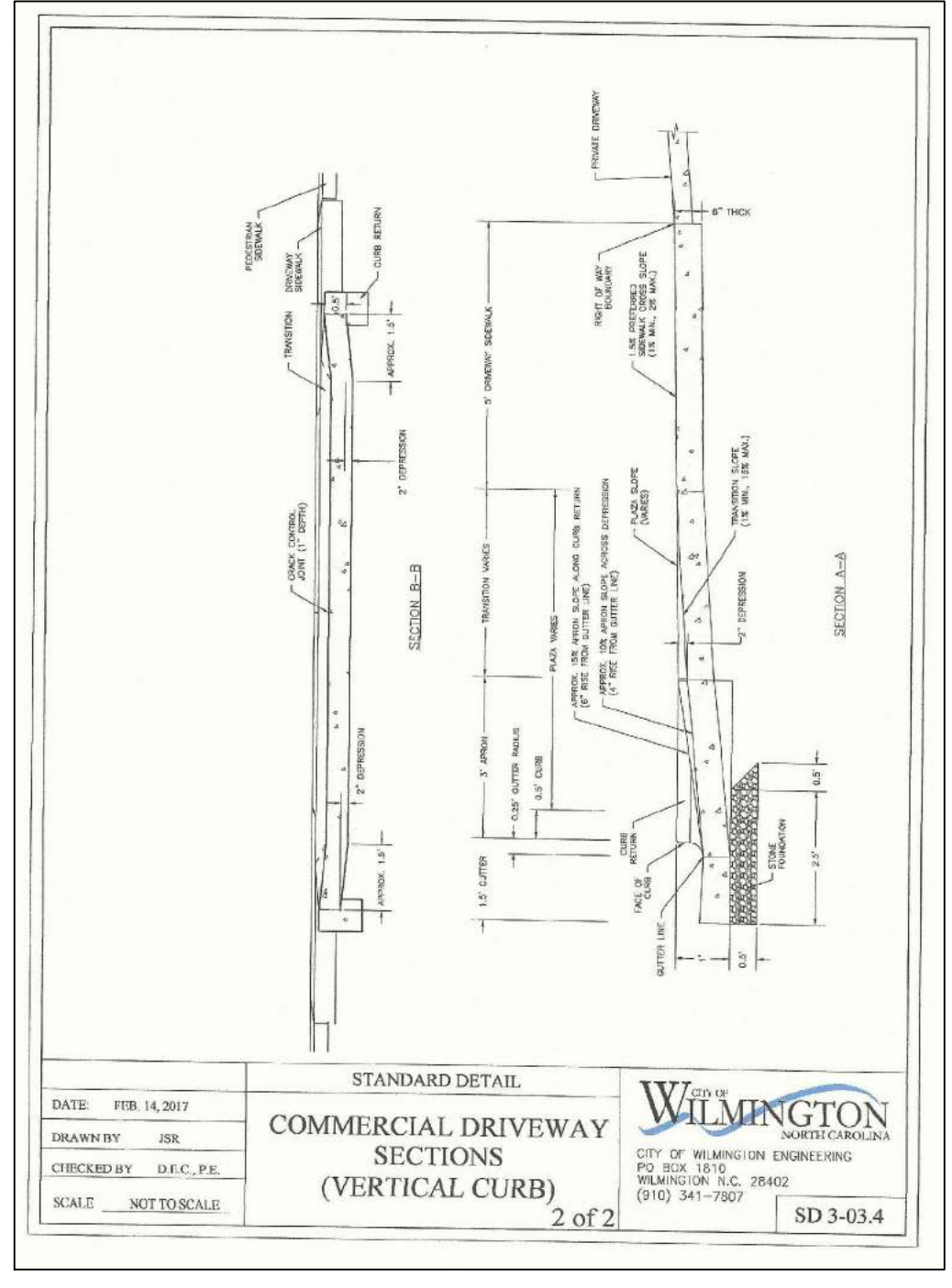
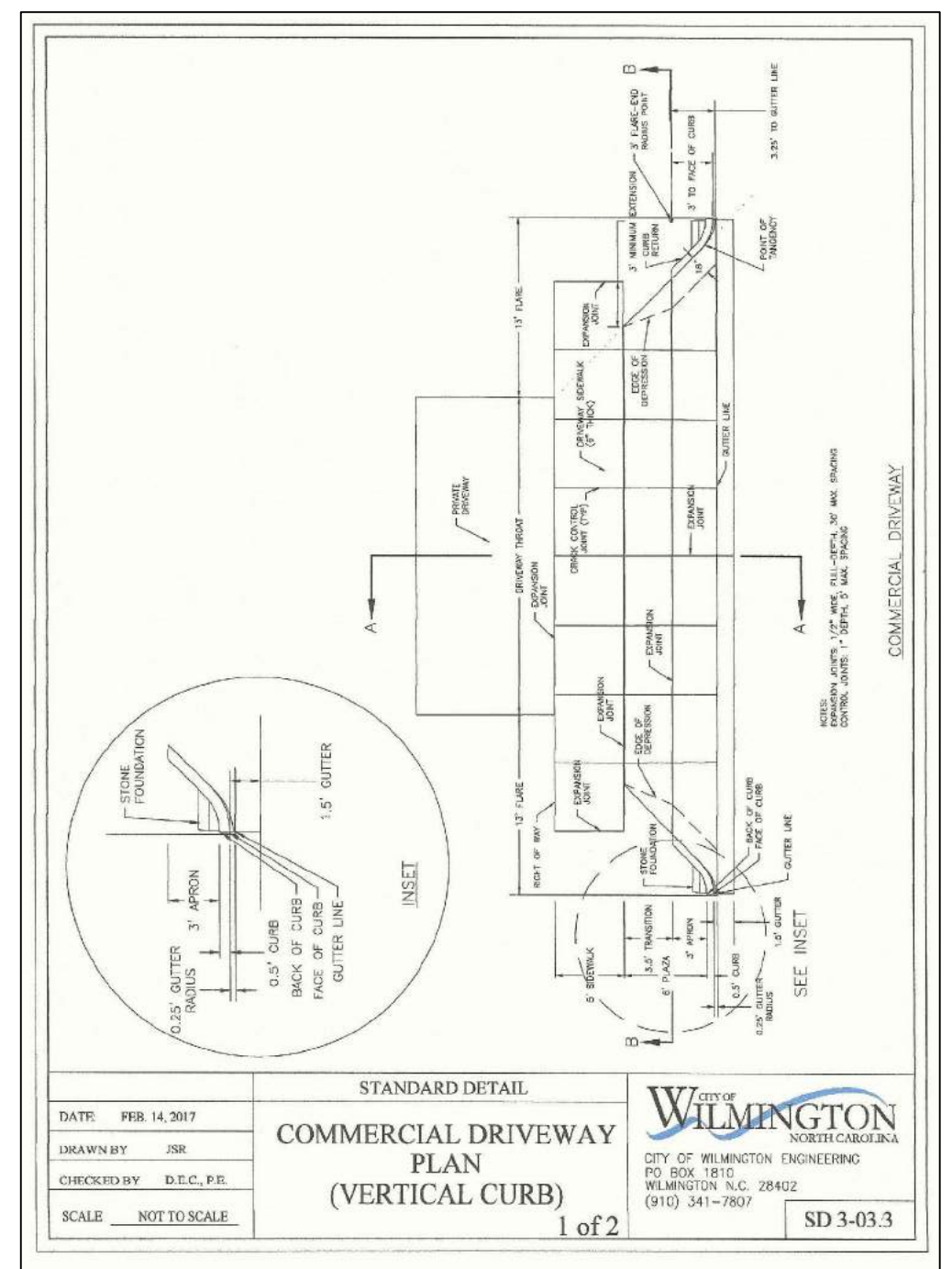
For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

**LEGEND**

- EXISTING GRAVEL PAVEMENT
- CONC. PAVEMENT
- PERVIOUS CONCRETE
- PROPOSED SPOT ELEVATION 39.20
- EXISTING SPOT ELEVATION 36.7
- WAVE STYLE BIKE RACK
- TREE PROTECTION FENCING SEE DETAIL
- BUILDING GUTTER & DOWN SPOUT SYSTEM - SURFACE DISCHARGE TOWARD PAVEMENT



VICINITY MAP  
SCALE 1" = 500'



NUMBER	DATE	REVISION

DESIGN BY:	BDS
DRAWN BY:	BDS
CHECKED BY:	BDS
DATE:	APRIL, 2018

**NCDOT DRIVEWAY PLAN**

**1507 DAWSON STREET**  
WILMINGTON, NC

**OWNER/DEVELOPER**  
MR. RODNEY WILLIFORD  
RKW PROPERTIES, LLC  
7986 HWY 11 BUSINESS  
BETHEL, NC 27812  
1-252-714-5838

**JBS CONSULTING, PA**  
7332 Catesworth Drive  
Wilmington, NC 28405  
(910) 619-9890  
LICENSE NUMBER  
C2523

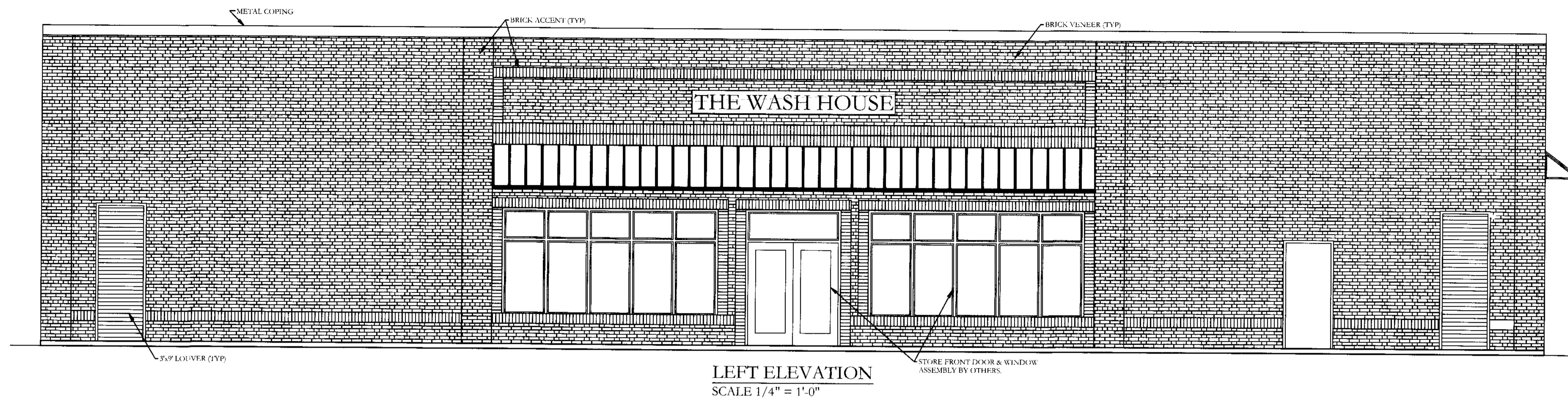
PLANNING • ENGINEERING • CONSTRUCTION MANAGEMENT

SHEET

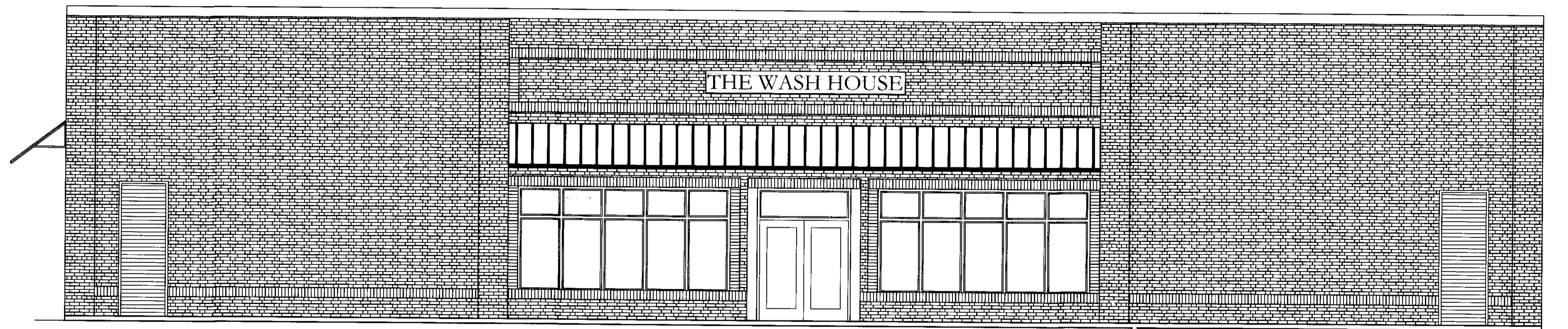
**C5**

of X

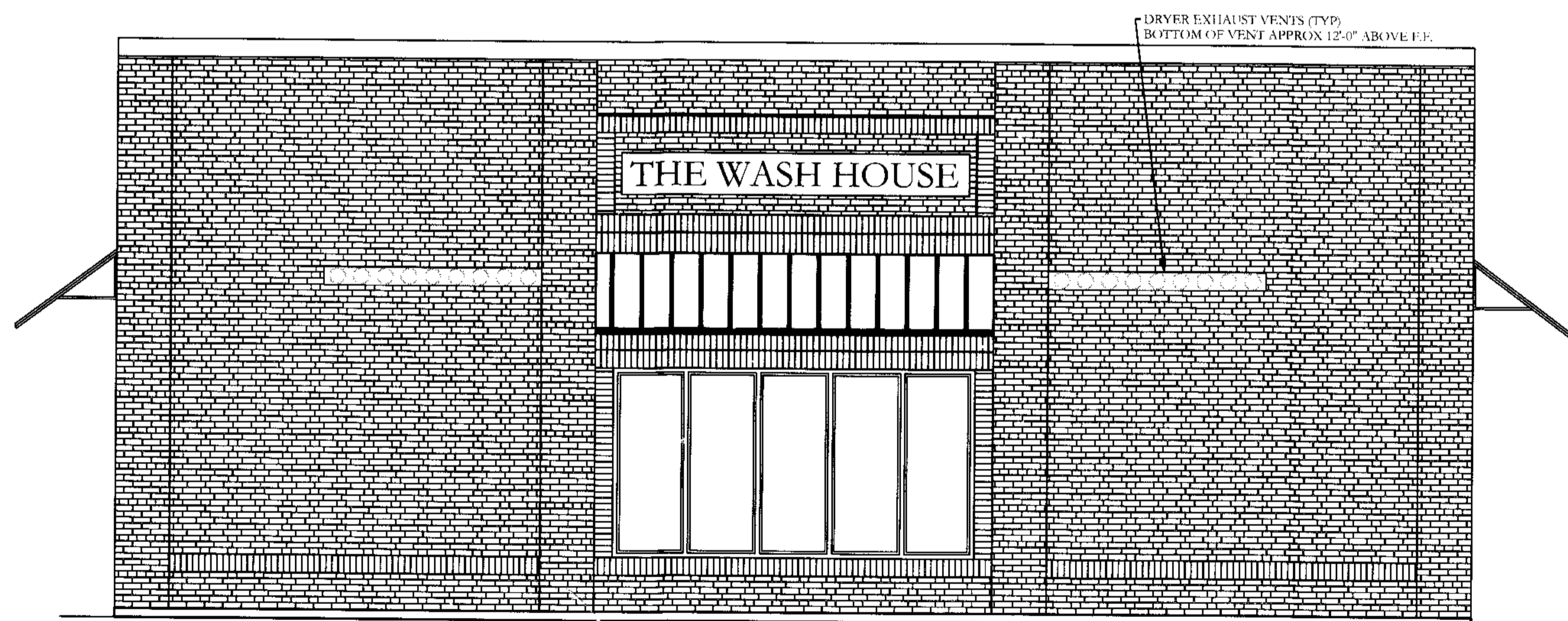
JOB NO. 032-025



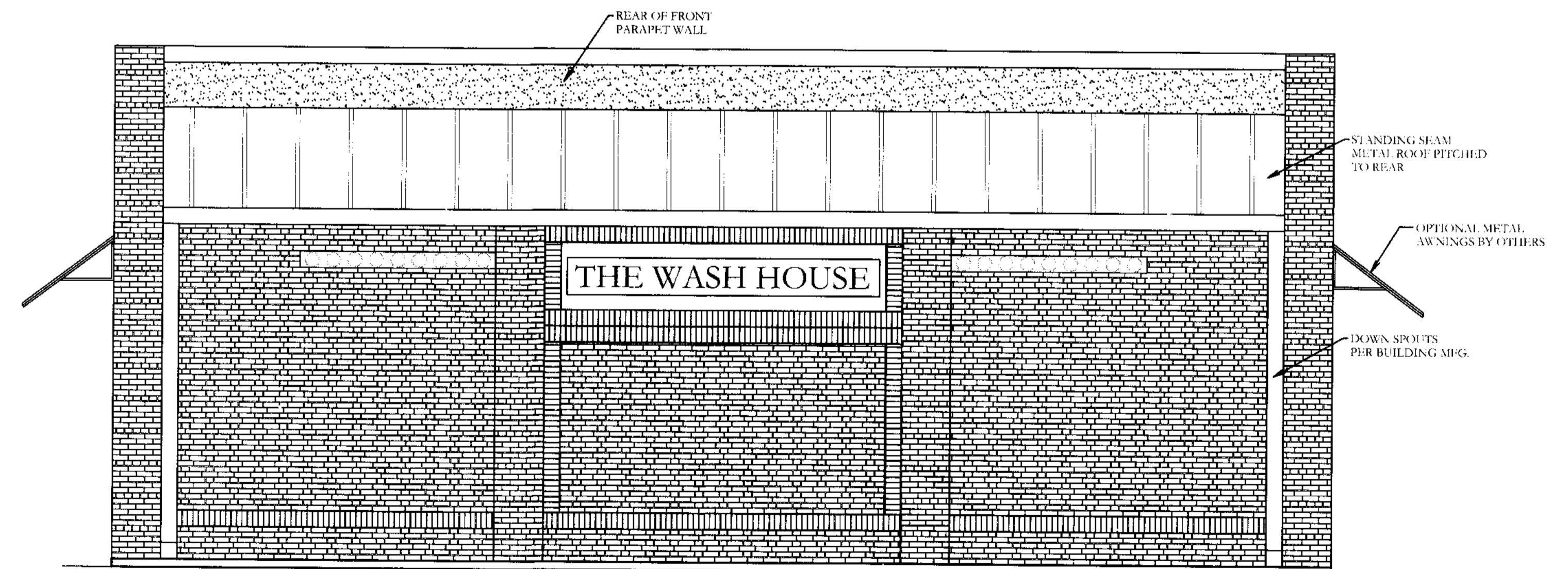
**LEFT ELEVATION**  
SCALE 1/4" = 1'-0"



**RIGHT ELEVATION**  
SCALE 1/4" = 1'-0"



**STREET ELEVATION**  
SCALE 1/4" = 1'-0"

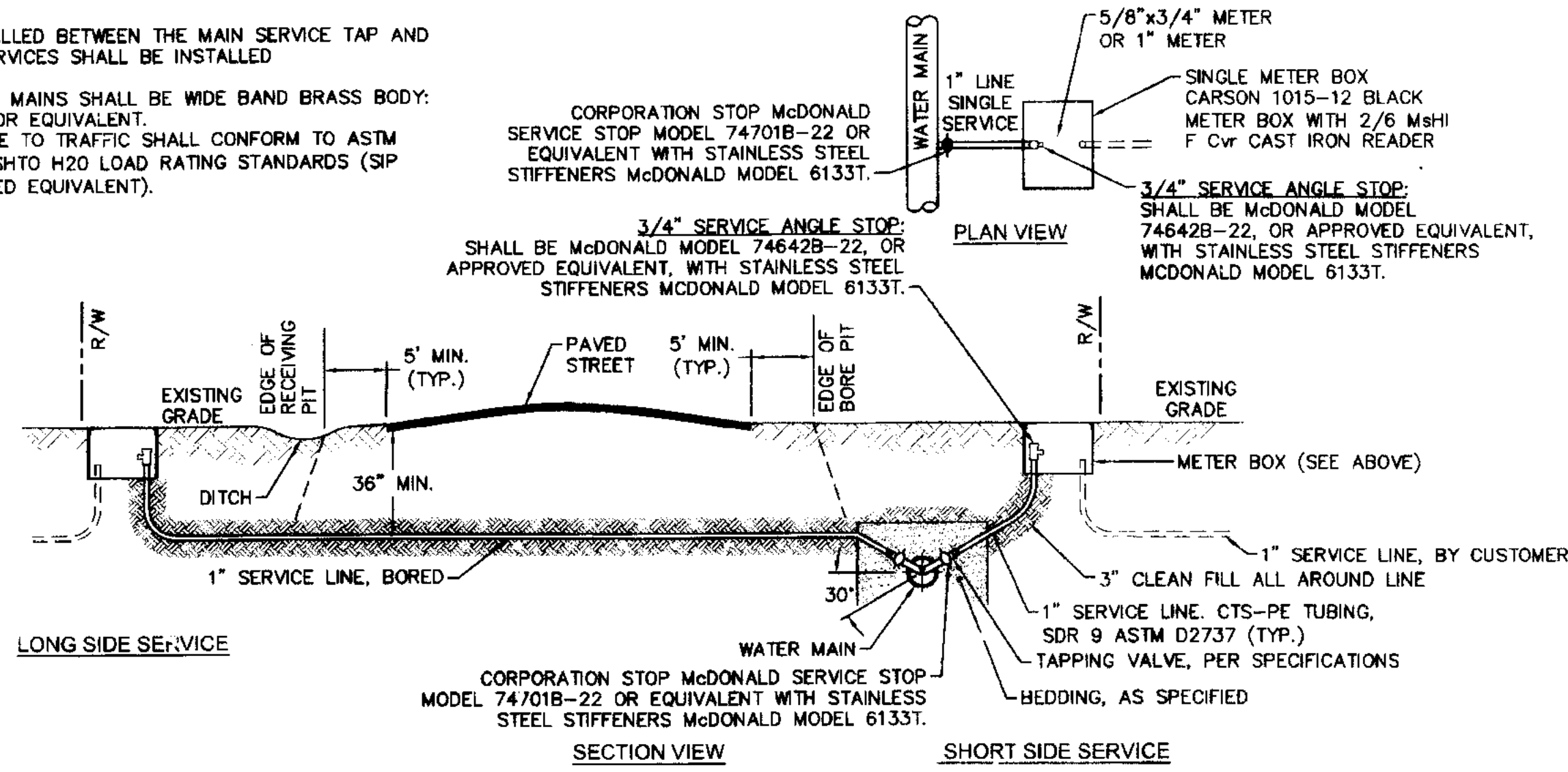


**REAR ELEVATION**  
SCALE 1/4" = 1'-0"



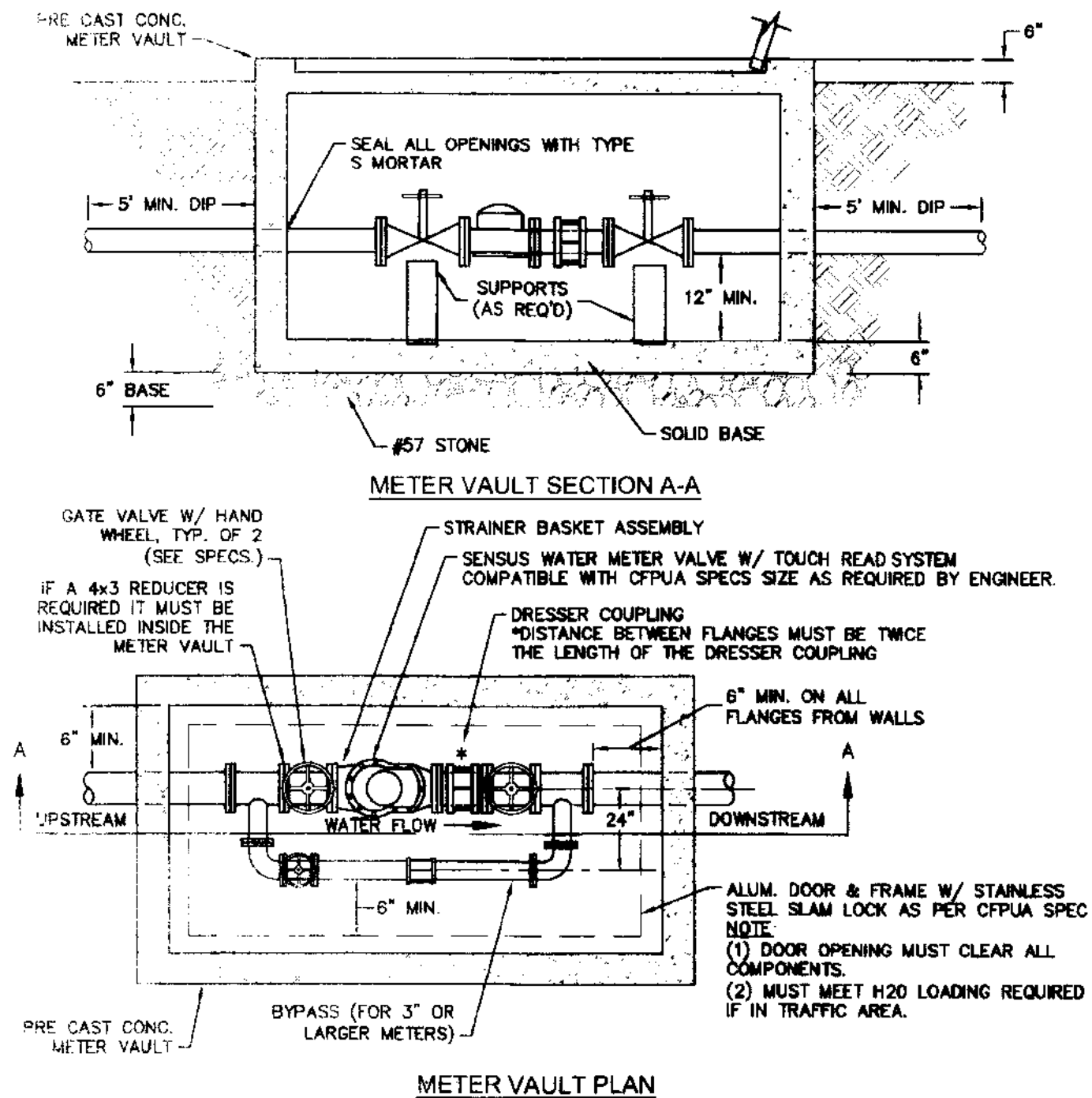
**NOTES:**

- 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 4242, OR APPROVED EQUIVALENT).



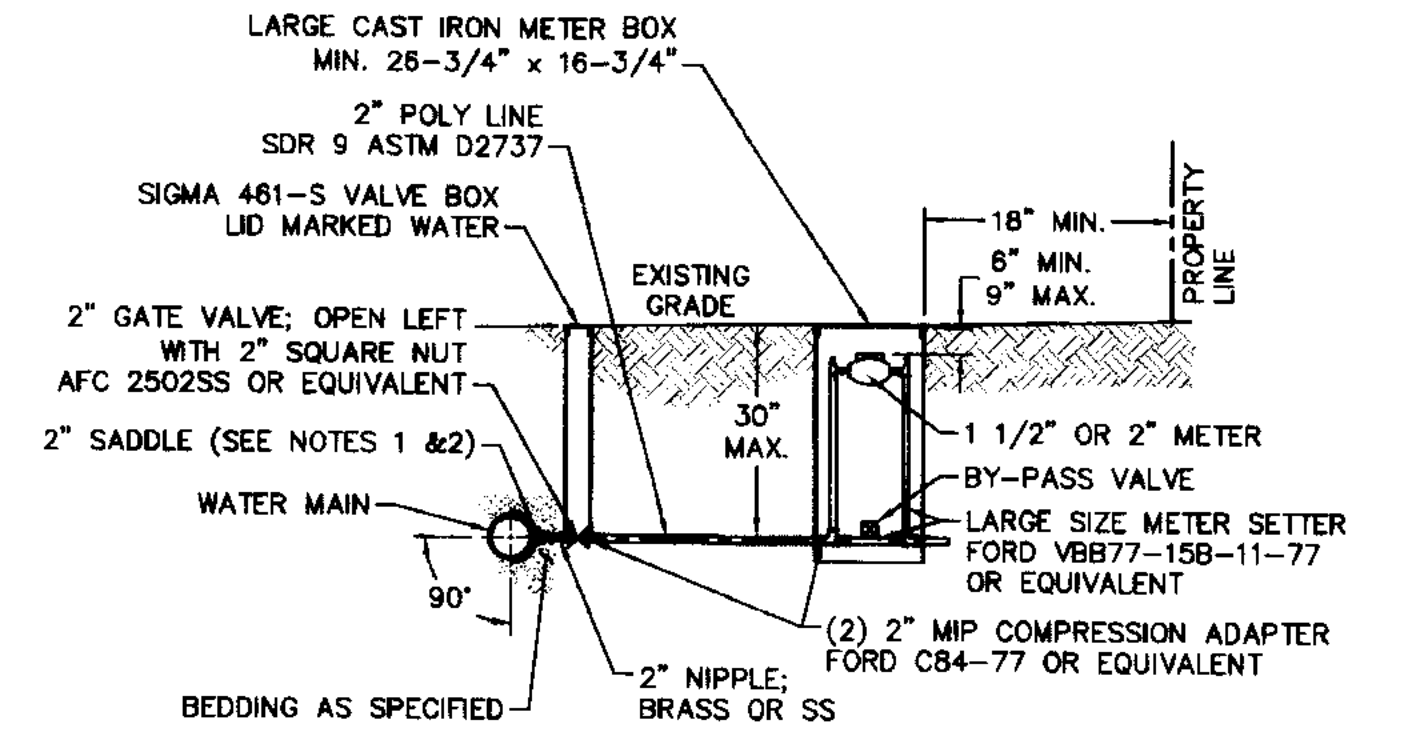
**WD-18 SINGLE SERVICE CONNECTION**  
NOT TO SCALE

**NOTE:**  
TYPICAL WATER SERVICE CONNECTION FOR RESIDENTIAL SINGLE FAMILY HOME ON CFPUA WATER SYSTEM



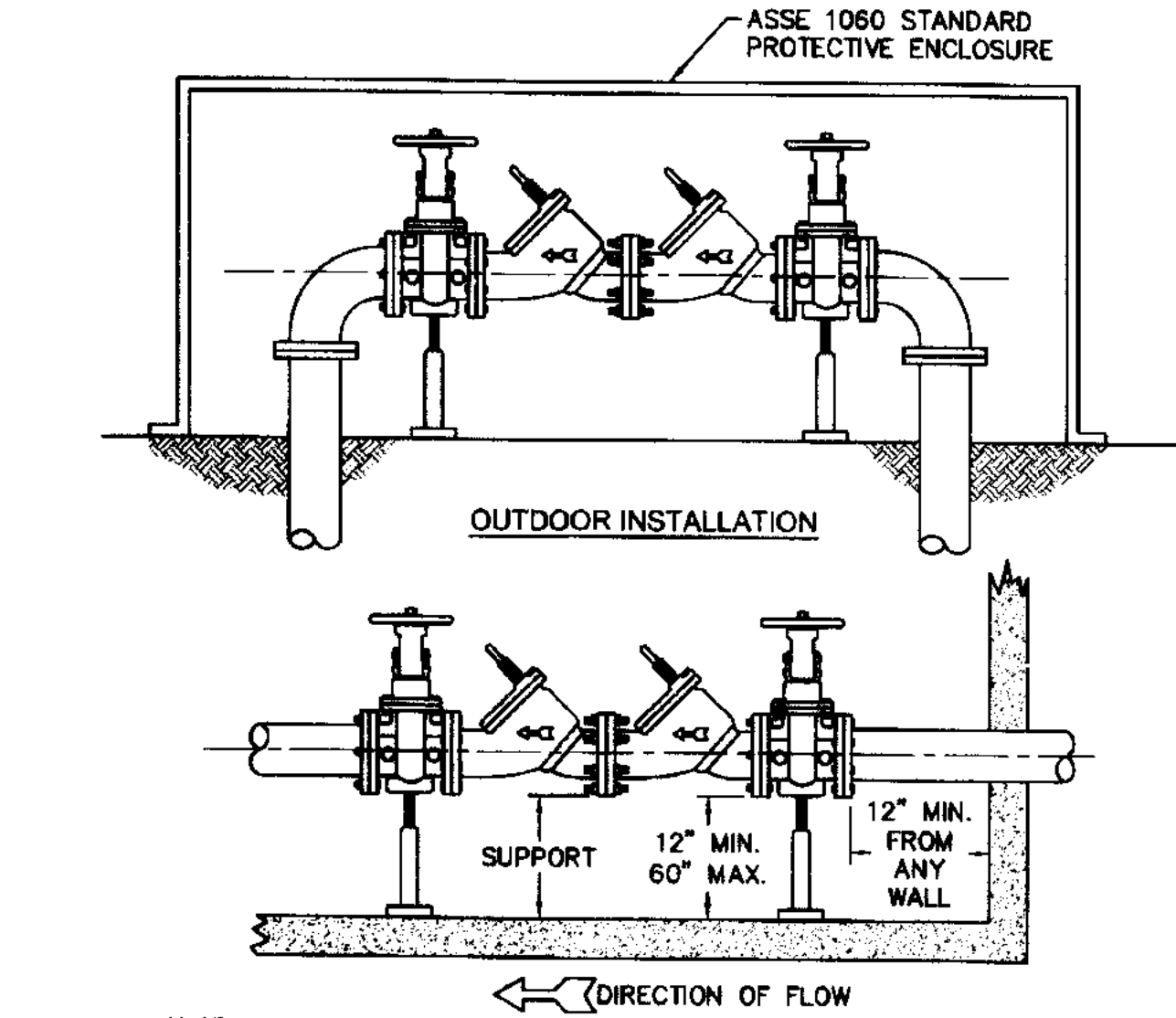
**WD-1 WATER METER VAULT**  
NOT TO SCALE

**NOTE:**  
IF A 4x3 REDUCER IS REQUIRED IT MUST BE INSTALLED INSIDE THE METER VAULT



- NOTES:**
- ALL SERVICES SHALL BE INSTALLED PERPENDICULAR TO MAIN.
  - SERVICE SADDLES ON PVC MAINS SHALL BE WIDE BAND BRASS BODY: McDONALD 3800, FORD S50 (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\"/>

**WD-11 LARGE METER**  
NOT TO SCALE



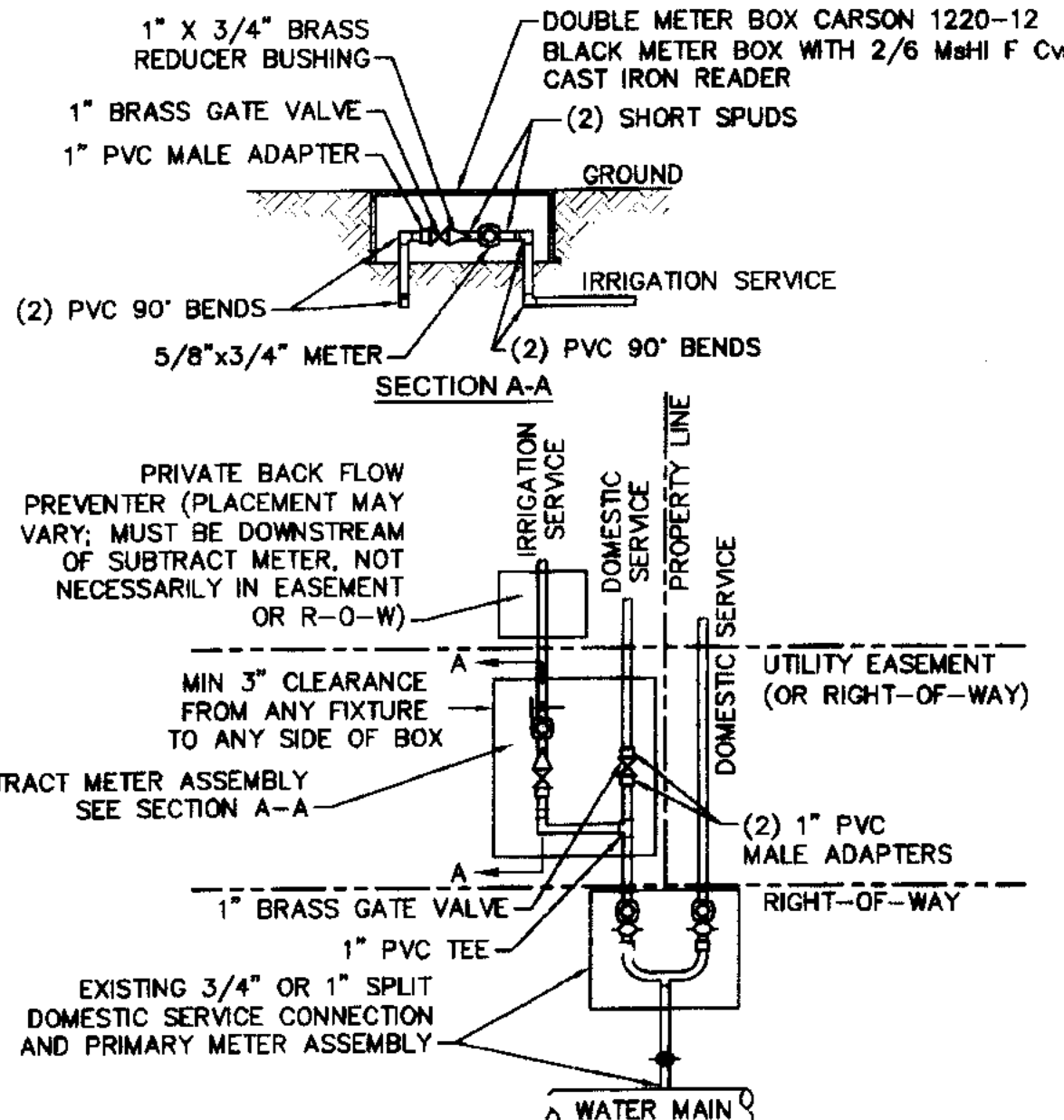
**WD-7 DOUBLE CHECK VALVE ASSEMBLY**  
NOT TO SCALE

- NOTE:**
- MUST BE MIN. 36\"/>

**GENERAL NOTES:**

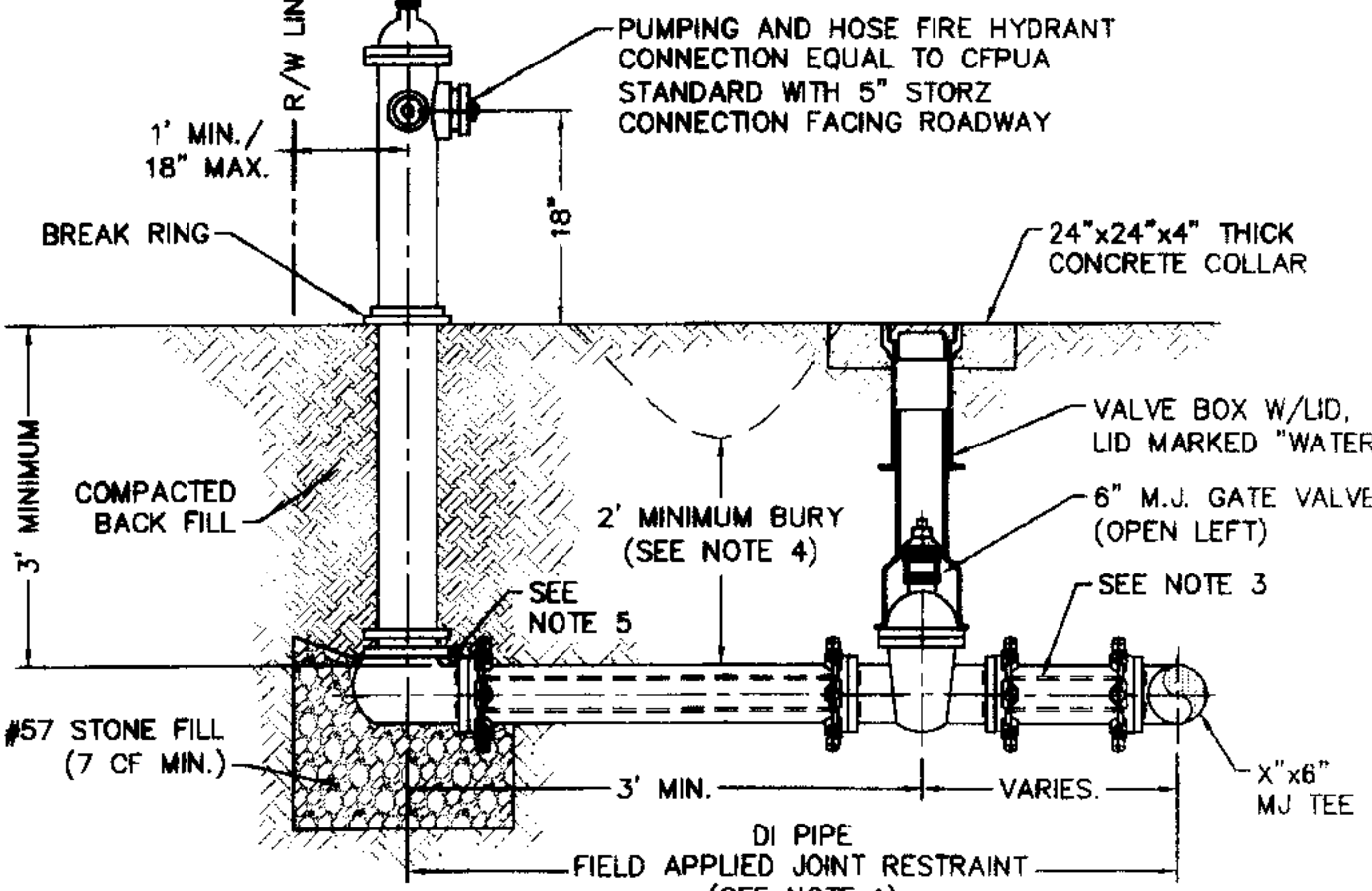
- NO EXCAVATED MATERIAL SHALL BE PLACED IN ANY STREAM, DITCH OR DRAINAGE-WAY.
- THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES BEFORE ANY CONSTRUCTION BEGINS.
- THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES WHILE CONSTRUCTION IS IN PROGRESS.
- 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**



**WD-8 DOUBLE SERVICE CONNECTION USING SUBTRACT 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\"/>



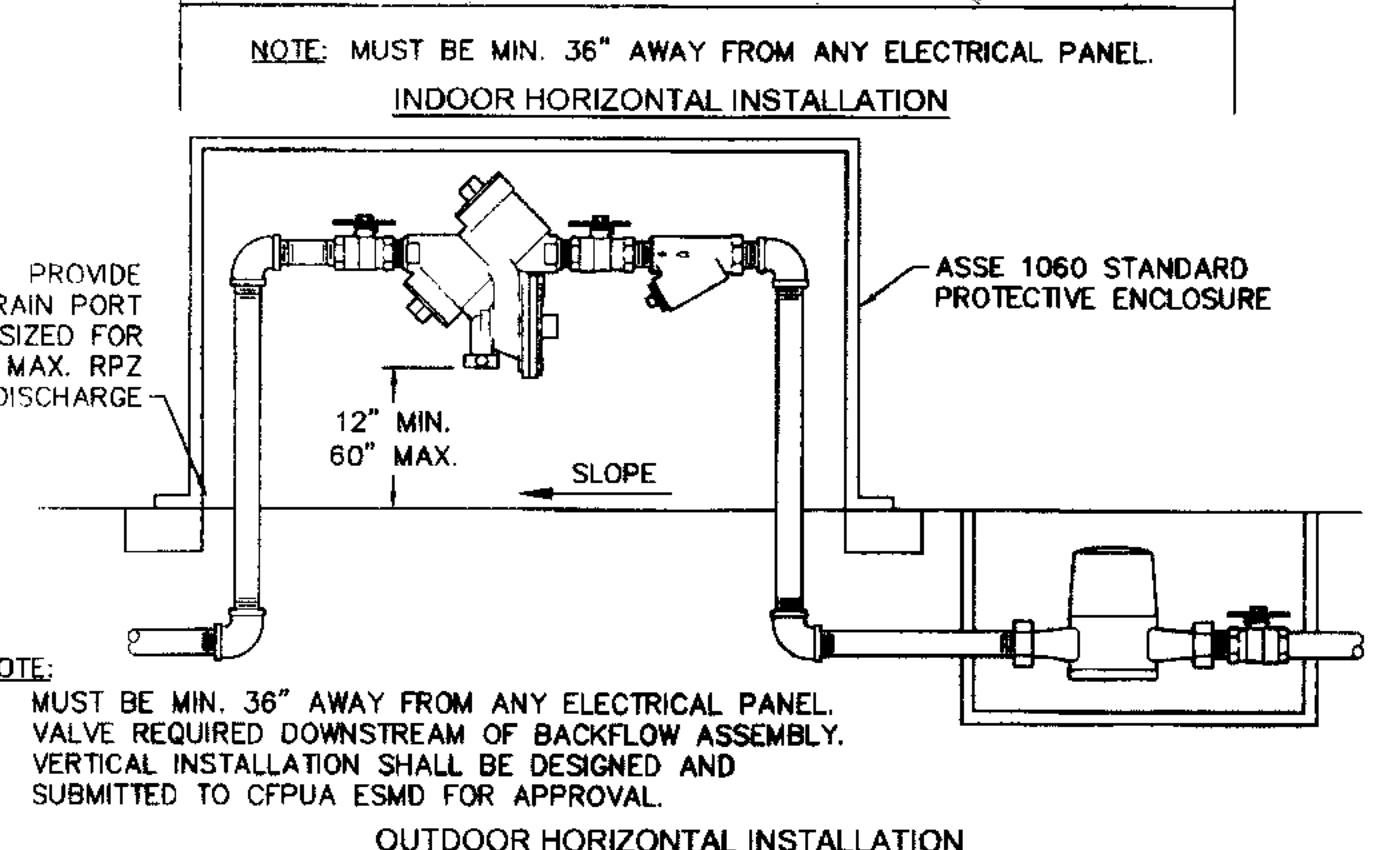
**WD-10 FIRE HYDRANT ASSEMBLY**  
NOT TO SCALE

- NOTES:**
- JOINT RESTRAINT SYSTEMS SHALL BE WEDGE ACTION STYLE FOR DI PIPE AS MANUFACTURED BY EBAA IRON, SIGMA, STAR PIPE PRODUCTS OR APPROVED EQUAL.
  - WHEN HYDRANT PIPE 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 AND VALVE SHALL BE PLACED OUTSIDE DITCH LIMITS.
  - WEEP HOLES OPEN AND UNBLOCKED TO DRAIN.

**CAPE FEAR PUBLIC UTILITY AUTHORITY STANDARD NOTES:**

- SEWER GUARDS REQUIRED AT ALL MANHOLES. STAINLESS STEEL SEWER GUARDS REQUIRED AT MANHOLES LOCATED IN TRAFFIC AREAS.
- WATER AND SEWER SERVICES SHALL BE PERPENDICULAR TO MAIN AND TERMINATE AT RIGHT-OF-WAY LINE. SEWER SERVICES IN CUL-DE-SACS ARE REQUIRED TO BE PERPENDICULAR, OR MUST ORIGINATE IN END OF LINE MANHOLE AND TERMINATE AT RIGHT-OF-WAY LINE.
- ALL SERVICES TYING INTO DUCTILE IRON MAINS SHALL BE CONSTRUCTED OF CLASS 50, DIP, WITH PROTECTO 401 CERAMIC EPOXY LINING.
- MINIMUM 10' UTILITIES EASEMENT PROVIDED ALONG THE FRONTAGE OF ALL LOTS AND AS SHOWN FOR NEW DEVELOPMENTS.
- NO FLEXIBLE COUPLINGS SHALL BE USED.
- ALL STAINLESS STEEL FASTENERS SHALL BE 316.
- CLEANOUTS SHALL BE LOCATED A MINIMUM OF 12 FEET FROM ALL PROPERTY CORNERS. WATER METER BOXES ARE TO BE A MINIMUM OF 5 FEET FROM THE PROPERTY CORNER.

**WD-19 STANDARD NOTES**  
(REQUIRED ON ALL PLAN AND PROFILE SHEETS)



**WD-12 REDUCED PRESSURE PRINCIPLE ASSEMBLY**  
NOT TO SCALE

- NOTE:**
- MUST BE MIN. 36\"/>

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
4	Revised Fire Hydrant Assembly To Show 5\"/>	

**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**