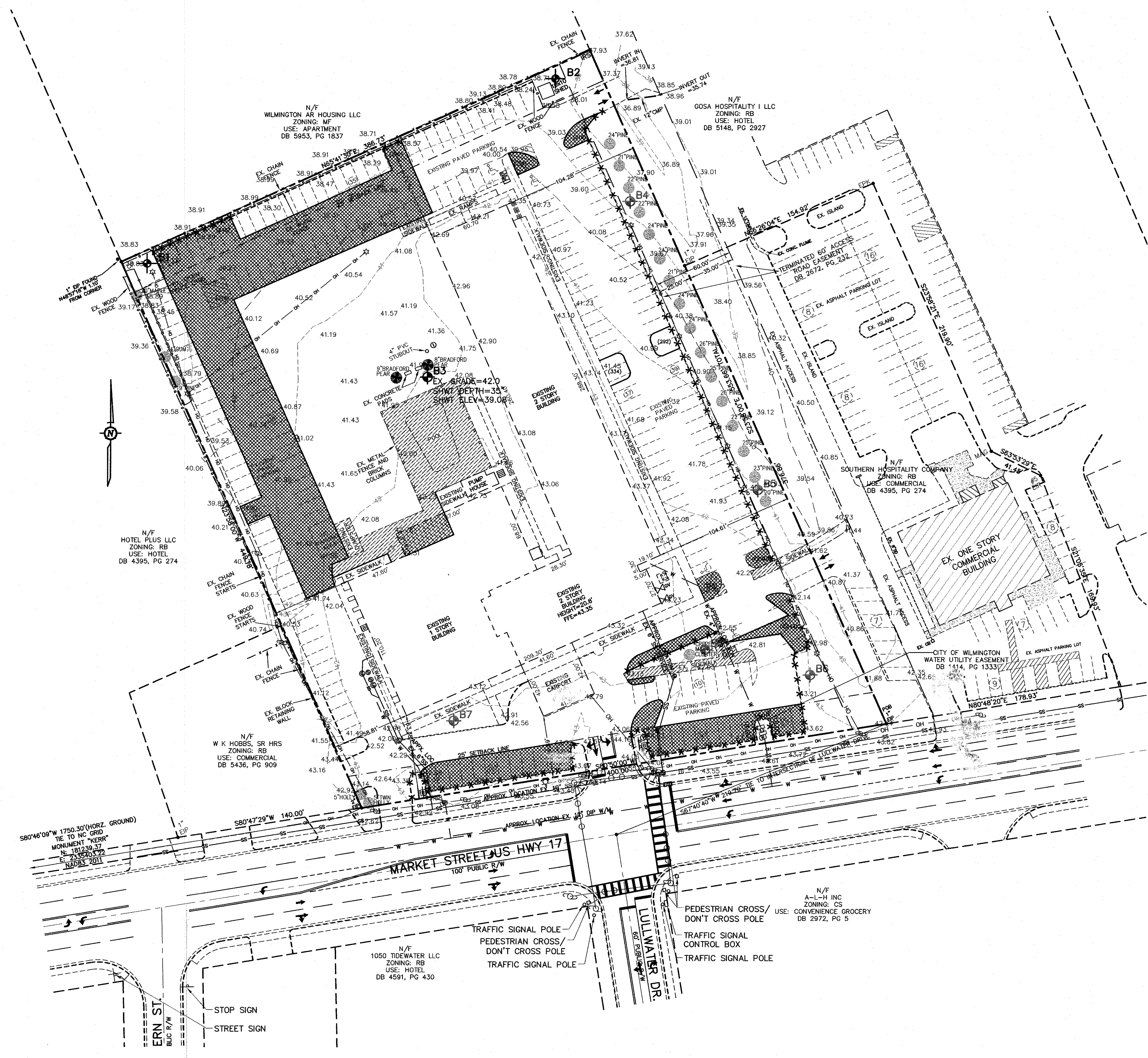


REVISIONS			
No./Date	Description	By	Check
4/05/19	RESPONSE LETTER REV	JET	

LOCATION MAP
NTS



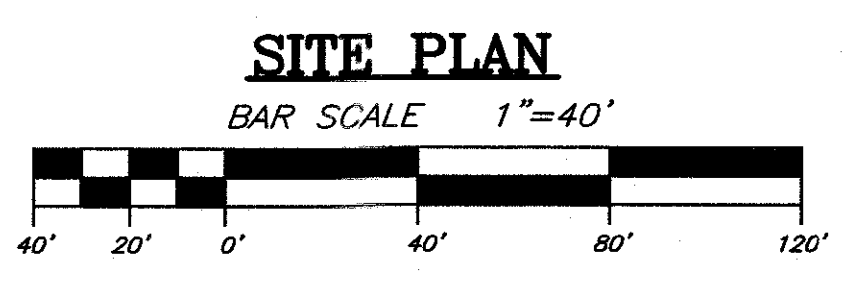
- SITE INVENTORY NOTES:**
- PREPARER OF THE PLAN: TRIPP ENGINEERING, P.C.
 - APPLICANT NAME: SERAI ENTERPRISES, INC.
 - SITE ADDRESS OF THE DEVELOPMENT: 5001 MARKET STREET
 - PROPERTY OWNER: SERAI ENTERPRISES, INC.
 - DEVELOPER: SERAI ENTERPRISES, INC.
 - PROPERTY BOUNDARY: SEE PLAN
TAX PARCEL INFORMATION: R04915-001-010-000
 - PROPERTY ZONING: RB; REGIONAL BUSINESS DISTRICT
 - ADJACENT PROPERTY OWNER INFORMATION: SEE PLAN
 - VICINITY MAP: SEE PLAN
 - TOPOGRAPHY: SEE PLAN
 - 100-YEAR FLOOD BOUNDARY: N/A
 - EXISTING DITCHES, CREEKS AND STREAMS: NONE
 - SOIL: Ur; URBAN LAND AND Se; SEAGATE FINE SAND
 - CAMA AEC: N/A
 - CAMA LAND CLASSIFICATION: URBAN
 - CONSERVATION RESOURCES: NONE
ASSOCIATED SETBACKS: N/A
 - HISTORIC OR ARCHAEOLOGICAL SITE: N/A
 - CEMETERIES, BURIAL SITES/GROUNDS: N/A
 - FORESTED AREAS, HABITAT AND DOMINANT SPECIES: N/A
 - WETLANDS: NONE
 - PROTECTED SPECIES OR HABITAT: N/A
 - EXISTING OR PROPOSED THOROUGHFARES, BIKE ROUTES, PEDESTRIAN SIDEWALKS OR TRAILS AND TRANSIT FACILITIES: SEE SITE PLAN
 - EXISTING TREES: SEE PLAN

- LEGEND**
- PROPERTY BOUNDARY
 - LIGHT POLE
 - CURB INLET
 - UTILITY POLE
 - OVERHEAD WIRE
 - GAS ASSEMBLY
 - TRAFFIC BOX
 - WATER METER
 - DROP INLET
 - GUY WIRE
 - SANITARY SEWER MANHOLE
 - SEPTIC CLEANOUT
 - BACKFLOW PREVENTER
 - FIRE HYDRANT
 - SIGN
 - LARGE SIGN
 - ELECTRIC APPARATUS
 - UTILITY BOX
 - IRRIGATION CONTROL VALVE
 - ASPHALT/DEMO TO BE REMOVED
 - DEMO

CITY OF WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT 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.



SITE INVENTORY PLAN

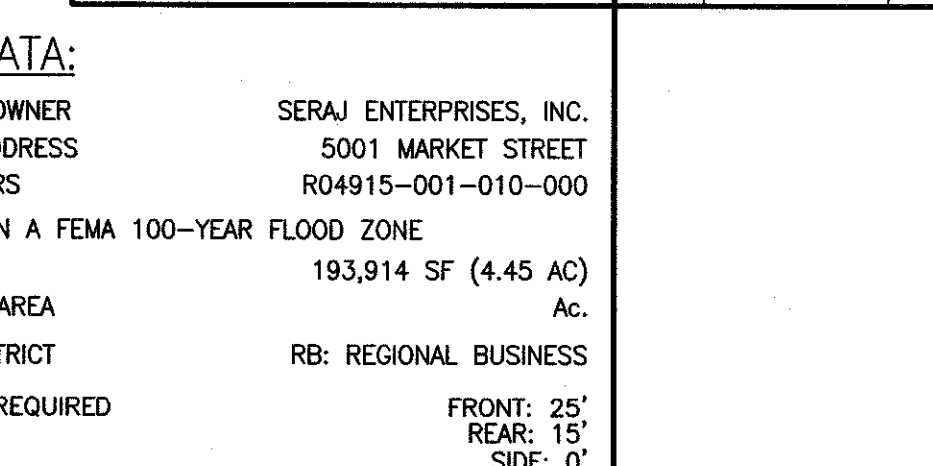
TRU & TAPESTRY HOTEL
5001 MARKET STREET
WILMINGTON, NORTH CAROLINA

TRIPP ENGINEERING, P.C.
419 Chestnut Street
Wilmington, North Carolina 28401
Phone 910-763-5100
Fax 910-763-5631
© 2014 TRIPP ENGINEERING, P.C.

DATE 02-08-19
DESIGN PGT
DRAWN JET

C1
SHEET 1 OF 7
17068

REVISIONS			
No./Date	Description	By	Jet
4/05/19	RESPONSE LETTER REV JET		



SITE DATA:

PROPERTY OWNER	SERAJ ENTERPRISES, INC.
PROJECT ADDRESS	5001 MARKET STREET
PIN NUMBERS	R04915-001-010-000
AREA NOT IN A FEMA 100-YEAR FLOOD ZONE	
TRACT AREA	193,914 SF (4.45 AC)
DISTURBED AREA	Ac.
ZONING DISTRICT	RB: REGIONAL BUSINESS
SETBACKS REQUIRED	FRONT: 25' REAR: 15' SIDE: 0'
PROPOSED BUILDING SETBACK (VESTIBULE)	FRONT: 66.7' REAR: 15' SIDE: 124.8'
PROPOSED BUILDING SETBACK (HOTEL)	FRONT: - REAR: 65.9' SIDE: 66.6'

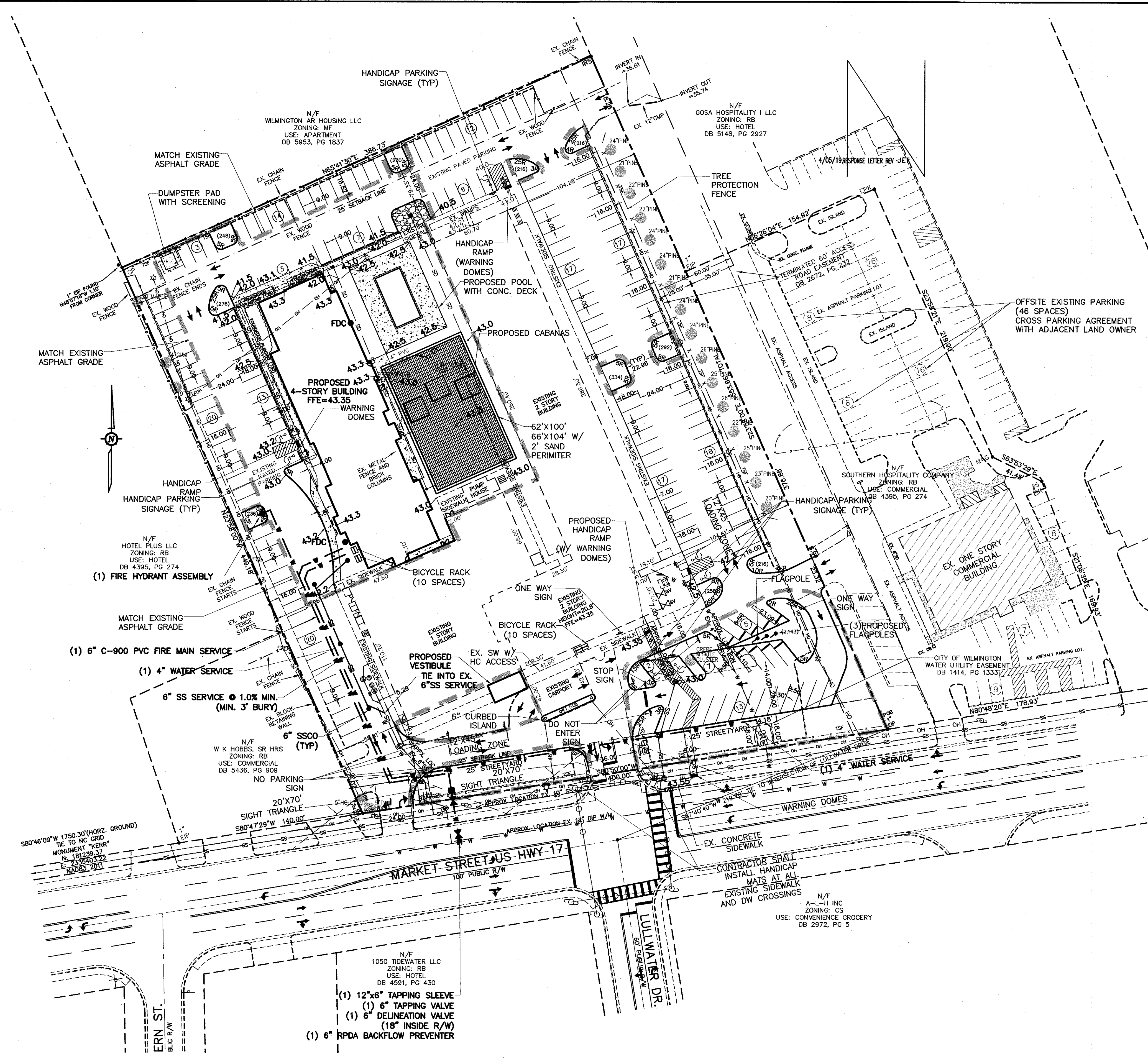
CAMA LAND USE	URBAN
BUILDING USE	HOTEL
PROPOSED BUILDING AREA	SF
BUILDING LOT COVERAGE (53,340/193,914)	27.51%
NUMBER OF BUILDINGS	207
NUMBER OF UNITS	207
BUILDING HEIGHT (HOTEL/VESTIBULE)	40'/20'
NUMBER OF STORIES (HOTEL/VESTIBULE)	4/1
GROSS SF PER FLOOR (HOTEL)	
GROUND FLOOR	13,469 SF
2ND, 3RD & 4TH FLOORS	13,201 SF
GROSS SF PER FLOOR (VESTIBULE)	370 SF
EXISTING IMPERVIOUS AREAS:	
EXISTING BUILDING	38,995 SF
EXISTING ASPHALT	82,878 SF
EXISTING CONCRETE	13,790 SF
EXISTING IMPERVIOUS AREA	135,663 SF (69.96%)
PROPOSED ONSITE IMPERVIOUS AREAS:	
PROPOSED BUILDING	15,020 SF
(INCLUDING CANOPY & CABANAS)	
PROPOSED ASPHALT & CURBING	10,535 SF
PROPOSED CONCRETE	6,078 SF
EXISTING IMPERVIOUS TO BE REMOVED	-18,590 SF
EXISTING IMPERVIOUS TO REMAIN	117,176 SF
TOTAL ONSITE IMPERVIOUS AREA	148,706 SF (76.69%)
TOTAL OFFSITE IMPERVIOUS AREA	62 SF

PARKING REQUIRED:	
1/GUEST ROOM PLUS 50% OF THE REQUIRED SPACES FOR ANY ACCESSORY USES	
1/GUEST ROOM (207 ROOMS)	207
RESTAURANT	
(1/80 SF MIN x 50% & 1/65 SF MAX x 50%)	
(2000 SF/80x50% & 2000 SF/65x50%)	13-15
BANQUET HALL	
(1/80 SF MIN x 50% & 1/65 SF MAX x 50%)	
(2575 SF/80x50% & 2575 SF/65x50%)	16-20
TOTAL PARKING REQUIRED	236-242
PARKING PROVIDED (ONSITE)	194
PARKING PROVIDED (OFFSITE)	46
TOTAL PARKING PROVIDED (ONSITE-OFFSITE)	240
HANDICAP SPACES REQUIRED	7
HANDICAP SPACES PROVIDED	7
BICYCLE PARKING REQUIRED	15
BICYCLE PARKING PROVIDED	20
PUBLIC WATER AND SEWER BY CFPUA	
EXISTING WATER FLOW:	13,200 GPD
EXISTING SEWER FLOW:	12,000 GPD
PROPOSED WATER FLOW:	
(120 GPD PER ROOM x 207 ROOMS x 110%)	27,324 GPD
PROPOSED SEWER FLOW:	
(120 GPD PER ROOM x 207 ROOMS)	24,840 GPD
FOUNDATION PLANTING REQUIRED NORTH	274
FOUNDATION PLANTING PROVIDED NORTH	306
FOUNDATION PLANTING REQUIRED WEST	591
FOUNDATION PLANTING PROVIDED NORTH	730

- NOTES:**
- 1) TOPOGRAPHY COMPLETED BY PORT CITY GEOMATICS, LTD.
 - 2) PERMITTING OF BUSINESS IDENTIFICATION SIGNAGE IS A SEPARATE PROCESS. CITY OF WILMINGTON WILL NOT ALLOW OBSTRUCTIONS WITHIN THE RIGHT-OF-WAY.
 - 3) CONTRACTOR SHALL FIELD VERIFY SIZE, MATERIAL, INVERTS AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO INSTALLATION OF PROPOSED CONNECTIONS.
 - 4) EXISTING EASEMENTS AS SHOWN.
 - 5) CONTRACTOR SHALL MAINTAIN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
 - 6) UNDERGROUND FIRE LINES 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 910-341-0696.
- SOLID WASTE:**
- 1) SITE TO USE DUMPSTER.
- TRAFFIC:**
- 1) ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
 - 2) 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.
 - 3) CONTACT TRAFFIC ENGINEERING AT 910-341-7888 TO ENSURE THAT ALL TRAFFIC SIGNALS FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN.
 - 4) CALL TRAFFIC ENGINEERING AT 910-341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
 - 5) ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND CURBING WILL BE REPLACED.
 - 6) CONTACT 910-341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
 - 7) ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
 - 8) NO ROWS TO BE CLOSED.
 - 9) NO STREETS PROPOSED.
 - 10) OFF SITE PARKING PROPOSED AS SHOWN.
 - 11) DRIVEWAYS TO MEET CITY STANDARDS.
 - 12) ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
 - 13) STOP SIGNS AND STREET SIGNS TO REMAIN IN PLACE DURING CONSTRUCTION.
 - 14) STOP SIGNS AND STREET SIGNS TO REMAIN IN PLACE DURING CONSTRUCTION.
 - 15) PRACTICE WARNING MATS WILL BE INSTALLED ON ALL WHEELCHAIR RAMPS.
 - 16) POSTED SPEED LIMIT 40 MPH.
- LANDSCAPING:**
- 1) A LANDSCAPING PLAN INDICATING THE LOCATION OF REQUIRED STREET TREES SHALL BE SUBMITTED TO THE CITY OF WILMINGTON TRAFFIC ENGINEERING DIVISION AND THE PARKS AND RECREATION DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO THE RECORDING OF THE FINAL PLAN.
 - 2) NO OBSTRUCTIONS ARE PERMITTED IN THE SPACE BETWEEN THIRTY (30) INCHES AND TEN (10) FEET ABOVE THE GROUND WITHIN THE TRIANGULAR SITE DISTANCE.
 - 3) 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.
 - 4) ANY TREES AND AREAS DESIGNATED TO BE PROTECTED MUST BE PROPERLY BARICADED WITH FENCING AND PROTECTED THROUGHOUT CONSTRUCTION TO INSURE THAT NO CLEARING, GRADING OR STAGING OF MATERIALS WILL OCCUR IN THESE AREAS.
 - 5) 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 INSTRUCTIONS ON TREE PROTECTION METHODS.
 - 6) ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30'-10'.

- CEPUA:**
- 1) WATER AND SEWER SERVICE SHALL MEET CAPE FEAR PUBLIC UTILITY AUTHORITY (CFPUA) DETAILS AND SPECIFICATIONS.
 - 2) PROJECT SHALL COMPLY WITH THE CFPUA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METERS(C) CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND THE STATE HAS GIVEN THEIR FINAL APPROVAL.
 - 3) IF THE CONTRACTOR DESIRES CFPUA WATER FOR CONSTRUCTION, HE SHALL NOTIFY IN ADVANCE FOR THIS SERVICE AND MUST PROVIDE A REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION DEVICE ON THE DEVELOPERS SIDE OF THE WATER METER BOX.
 - 4) ANY IRRIGATION SYSTEM SHALL COMPLY WITH THE CFPUA WATER FOR INFORMATION.
 - 5) ANY BACKFLOW PREVENTION DEVICES REQUIRED BY CFPUA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES FOR USDFC/CHOR OR ASSE.
 - 6) PUBLIC WATER MAIN EXTENSION AND WATER SERVICE PROPOSED. SANITARY SEWER SERVICE PROPOSED.
 - 7) CONTACT THE NORTH CAROLINA ONE CALL CENTER AT 1-800-632-4949 PRIOR TO DOING ANY DIGGING, CLEARING OR GRADING.
 - 8) ANY IRRIGATION SYSTEM SHALL BE EQUIPPED WITH A RAIN AND FREEZER SENSOR.
 - 9) CONTRACTOR TO FIELD VERIFY EXISTING WATER AND SEWER SERVICE LOCATIONS, SIZES AND MATERIALS PRIOR TO CONSTRUCTION. ENGINEER TO BE NOTIFIED OF ANY CONFLICTS.
 - 10) A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. CONTACT 910-341-5588 FOR MORE DETAILS.
- DRAINAGE:**
- 1) EXISTING DISCHARGE FOR ENTIRE SITE IS SHEET TO THE NORTH AND EAST THEN OFFSITE THROUGH AN EXISTING 12" CMP, THEN NORTH.
 - 2) ALL ELECTRIC, CABLE TELEVISION AND TELEPHONE FACILITIES, FIRE ALARM CABLES, STREET LIGHTS AND OTHER WIRING CONDUITS AND SIMILAR FACILITIES SHALL BE PLACED UNDERGROUND BY THE DEVELOPER OR THE APPROPRIATE UTILITY COMPANY.
 - 3) MINIMUM COVER OF 30-INCHES OVER ALL PROPOSED WATER LINES SHALL BE PROVIDED.
- FIRE:**
- 1) FIRE HYDRANTS TO BE INSTALLED PER CITY OF WILMINGTON ORDINANCE AND CFPUA STANDARDS.
 - 2) PARKING AND LANDSCAPING CANNOT BLOCK FIRE HYDRANTS OR FDC'S.
 - 3) FDC'S CAN BE NO FURTHER THAN 40' FROM FIRE DEPARTMENT VEHICLE PLACEMENT.
 - 4) FDC'S CAN BE NO FURTHER THAN 150' FROM A FIRE HYDRANT.
 - 5) SHOW ALL FDC LOCATIONS IN FINAL PLAN.
 - 6) ALL WEATHER ACCESS ROAD MUST BE MAINTAINED AROUND CONSTRUCTION SITE AT ALL TIMES.
 - 7) NEW HYDRANTS SHALL BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS BEING DELIVERED TO THE JOB SITE.
 - 8) HYDRANTS SHALL BE OF SUFFICIENT NUMBERS TO ACCOMMODATE BASE FIRE FLOW REQUIREMENTS OF STRUCTURE.
 - 9) IN ADDITION TO THE STANDARD COMMENTS, ADDITIONAL FIRE PROTECTION AND ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.
 - 10) PRIVATE UNDERGROUND FIRE LINES REQUIRE A SEPARATE UNDERGROUND FIRE LINE PERMIT FROM THE WILMINGTON FIRE AND LIFE SAFETY DIVISION 910-343-0696.
 - 11) ALL ISOLATION VALVES WITHIN THE "HOT BOX" SHALL BE ELECTRICALLY SUPERVISED. PLEASE WORK CLOSELY WITH YOUR FIRE SPRINKLER AND ALARM INSTALLER IN REGARDS TO RUNNING WIRE FOR TAMPER SWITCH.
 - 12) BUILDING CONSTRUCTION TYPE IS SA.
 - 13) CONTRACTOR SHALL SUBMIT A RADIO SIGNAL STRENGTH STUDY THAT DEMONSTRATES THAT EXISTING EMERGENCY RESPONDER RADIO SIGNAL LEVELS MEET THE REQUIREMENTS OF SECTION 510 OF THE 2018 NC FIRE CODE.
- NOTE:**
- 1) SITE LIGHTING TO BE PROVIDED BY DUKE ENERGY.

- LEGEND**
- P— PROPERTY BOUNDARY
 - L— LIGHT POLE
 - C— CURB INLET
 - U— UTILITY POLE
 - W— OVERHEAD WIRE
 - G— GAS ASSEMBLY
 - T— TRAFFIC BOX
 - M— WATER METER
 - D— DROP INLET
 - G— GUY WIRE
 - S— SANITARY SEWER MANHOLE
 - C— SEPTIC CLEANOUT
 - B— BACKFLOW PREVENTER
 - F— FIRE HYDRANT
 - S— SIGN
 - L— LARGE SIGN
 - E— ELECTRIC APPARATUS
 - U— UTILITY BOX
 - I— IRRIGATION CONTROL VALVE
 - SS— PROPOSED SEWER
 - W— PROPOSED WATER
 - SD— PROPOSED STORM WATER



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.

SITE PLAN
BAR SCALE 1"=40'

City of Wilmington
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN

Date: _____ Permit # _____
Signed: _____

TRIPP ENGINEERING, P.C.
419 Chestnut Street
Wilmington, North Carolina 28401
Phone 910-763-5100
Fax 910-763-5681

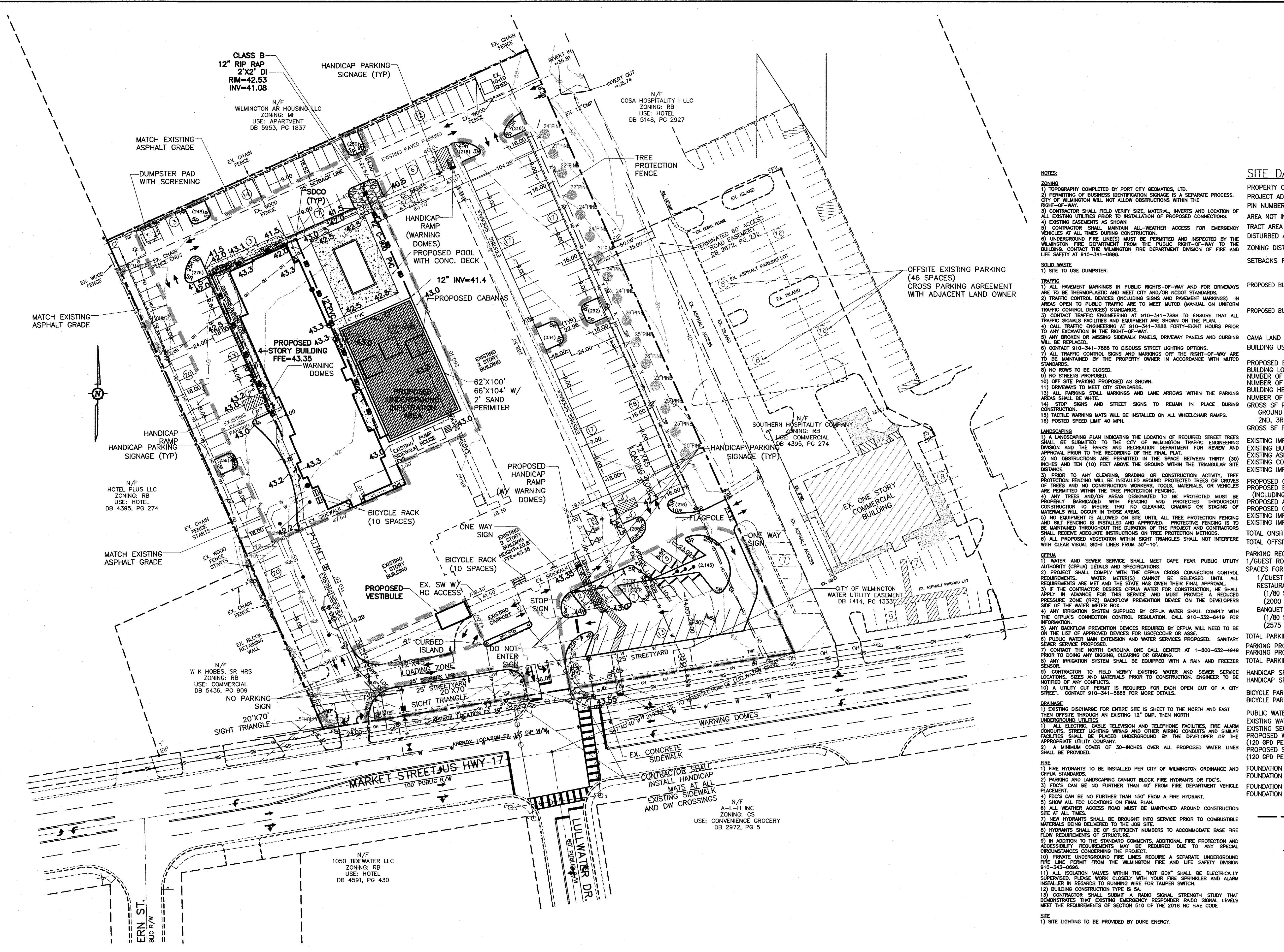
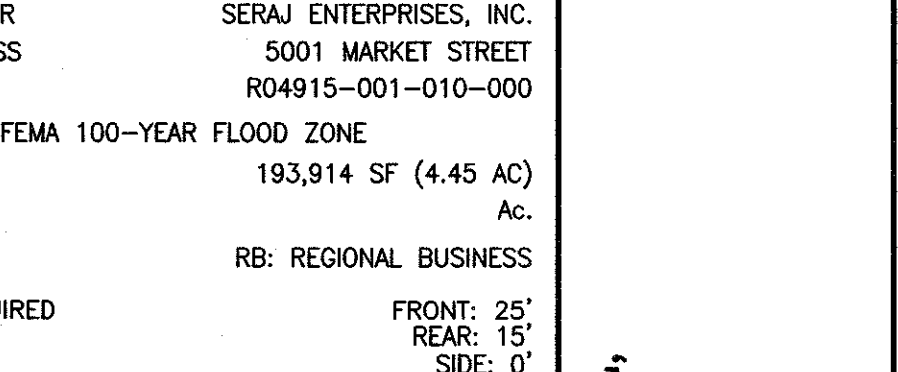
TRU & TAPESTRY HOTEL
5001 MARKET STREET
WILMINGTON, NORTH CAROLINA

DATE 02-08-19
DESIGN PGT
DRAWN JET

SHEET 2 OF 7
17068

REVISIONS		
No.	Description	By
1	4/05/19 RESPONSE LETTER REV	JET

LOCATION MAP
NTS



NOTES:

- 1) TOPOGRAPHY COMPLETED BY PORT CITY GEOMATICS, LTD.
- 2) PERMITTING OF BUSINESS IDENTIFICATION SIGNAGE IS A SEPARATE PROCESS. CITY OF WILMINGTON WILL NOT ALLOW OBSTRUCTIONS WITHIN THE RIGHT-OF-WAY.
- 3) CONTRACTOR SHALL FIELD VERIFY SIZE, MATERIAL, INVERTS AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO INSTALLATION OF PROPOSED CONNECTIONS.
- 4) EXISTING EASEMENTS AS SHOWN.
- 5) CONTRACTOR SHALL MAINTAIN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
- 6) UNDERGROUND FIRE LINES 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 910-341-0668.

SOLID WASTE:

- 1) SITE TO USE DUMPSTER.

TRAFFIC:

- 1) ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NC DOT STANDARDS.
- 2) 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.
- 3) CONTACT TRAFFIC ENGINEERING AT 910-341-7888 TO ENSURE THAT ALL TRAFFIC SIGNALS FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN.
- 4) CALL TRAFFIC ENGINEERING AT 910-341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EDUCATION IN THE RIGHT-OF-WAY.
- 5) ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND CURBING WILL BE REPLACED.
- 6) CONTACT 910-341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
- 7) ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
- 8) NO ROWS TO BE CLOSED.
- 9) NO STREETS PROPOSED AS SHOWN.
- 10) OFF SITE PARKING PROPOSED AS SHOWN.
- 11) DRIVEWAYS TO MEET CITY STANDARDS.
- 12) ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
- 13) STOP SIGNS AND STREET SIGNS TO REMAIN IN PLACE DURING CONSTRUCTION.
- 14) STOP SIGNS AND STREET SIGNS TO REMAIN IN PLACE DURING CONSTRUCTION.
- 15) TACTILE WARNING MATS WILL BE INSTALLED ON ALL WHEELCHAIR RAMPS.
- 16) POSTED SPEED LIMIT 40 MPH.

LANDSCAPING:

- 1) A LANDSCAPING PLAN INDICATING THE LOCATION OF REQUIRED STREET TREES SHALL BE SUBMITTED TO THE CITY OF WILMINGTON TRAFFIC ENGINEERING DIVISION AND THE PARKS AND RECREATION DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO THE RECORDING OF THE FINAL PLAN.
- 2) NO OBSTRUCTIONS ARE PERMITTED IN THE SPACE BETWEEN THIRTY (30) INCHES AND TEN (10) FEET ABOVE THE GROUND WITHIN THE TRIANGULAR SITE DISTANCE.
- 3) PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES. TREE PROTECTION FENCING SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION. MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
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- 6) ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30'-10'.

CEPIA:

- 1) WATER AND SEWER SERVICE SHALL MEET CAPE FEAR PUBLIC UTILITY AUTHORITY (CFPUA) DETAILS AND SPECIFICATIONS.
- 2) PROJECT SHALL COMPLY WITH THE CFPUA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METER(S) CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND THE APLIC HAS GIVEN THEIR FINAL APPROVAL.
- 3) 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.
- 4) ANY IRRIGATION SYSTEM SUPPLIED BY CFPUA WATER SHALL COMPLY WITH THE CFPUA'S CONNECTION CONTROL REGULATION. CALL 910-332-6419 FOR INFORMATION.
- 5) ANY BACKFLOW PREVENTION DEVICES REQUIRED BY CFPUA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES FOR USFCCOOR OR ASSE.
- 6) PUBLIC WATER MAIN EXTENSION AND WATER SERVICES PROPOSED. SANITARY SEWER SERVICE PROPOSED.
- 7) CONTACT THE NORTH CAROLINA ONE CALL CENTER AT 1-800-632-4949 PRIOR TO DOING ANY DIGGING, CLEARING OR GRADING.
- 8) ANY IRRIGATION SYSTEM SHALL BE EQUIPPED WITH A RAIN AND FREEZER SENSOR.
- 9) CONTRACTOR TO FIELD VERIFY EXISTING WATER AND SEWER SERVICE LOCATIONS, SIZES AND MATERIALS PRIOR TO CONSTRUCTION. ENGINEER TO BE NOTIFIED OF ANY CONFLICTS.
- 10) A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. CONTACT 910-341-5888 FOR MORE DETAILS.

DRAINAGE:

- 1) EXISTING DISCHARGE FOR ENTIRE SITE IS SHEET TO THE NORTH AND EAST THEN OFFSITE THROUGH AN EXISTING 12" CMP, THEN NORTH UNDERGROUND UTILITIES.
- 1) ALL ELECTRIC, CABLE TELEVISION AND TELEPHONE FACILITIES, FIRE ALARM CONDUITS, STREET LIGHTING WIRING AND OTHER WIRING CONDUITS AND SIMILAR FACILITIES SHALL BE PLACED UNDERGROUND BY THE DEVELOPER OR THE APPROPRIATE UTILITY COMPANY.
- 2) A MINIMUM COVER OF 30-INCHES OVER ALL PROPOSED WATER LINES SHALL BE PROVIDED.

FIRE:

- 1) FIRE HYDRANTS TO BE INSTALLED PER CITY OF WILMINGTON ORDINANCE AND CFPUA STANDARDS.
- 2) PARKING AND LANDSCAPING CANNOT BLOCK FIRE HYDRANTS OR FDC'S.
- 3) FDC'S CAN BE NO FURTHER THAN 40' FROM FIRE DEPARTMENT VEHICLE PLACEMENT.
- 4) FDC'S CAN BE NO FURTHER THAN 150' FROM A FIRE HYDRANT.
- 5) SHOW ALL FDC LOCATIONS ON FINAL PLAN.
- 6) ALL WEATHER ACCESS ROAD MUST BE MAINTAINED AROUND CONSTRUCTION SITE AT ALL TIMES.
- 7) NEW HYDRANTS SHALL BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS BEING DELIVERED TO THE JOB SITE.
- 8) HYDRANTS SHALL BE OF SUFFICIENT NUMBERS TO ACCOMMODATE BASE FIRE FLOW REQUIREMENTS OF STRUCTURE.
- 9) IN ADDITION TO THE STANDARD COMMENTS, ADDITIONAL FIRE PROTECTION AND ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.
- 10) PRIVATE UNDERGROUND FIRE LINES REQUIRE A SEPARATE UNDERGROUND FIRE LINE PERMIT FROM THE WILMINGTON FIRE AND LIFE SAFETY DIVISION 910-343-0668.
- 11) ALL ISOLATION VALVES WITHIN THE "HOT BOX" SHALL BE ELECTRICALLY SUPERVISED. PLEASE WORK CLOSELY WITH YOUR FIRE SPRINKLER AND ALARM INSTALLER IN REGARDS TO RUNNING WIRE FOR TAMPER SWITCH.
- 12) BUILDING CONSTRUCTION TYPE IS SA.
- 13) CONTRACTOR SHALL SUBMIT A RADIO SIGNAL STRENGTH STUDY THAT DEMONSTRATES THAT EXISTING EMERGENCY RESPONDER RADIO SIGNAL LEVELS MEET THE REQUIREMENTS OF SECTION 510 OF THE 2018 NC FIRE CODE.

SITE:

- 1) SITE LIGHTING TO BE PROVIDED BY DUKE ENERGY.

SITE DATA:

PROPERTY OWNER	SERAJ ENTERPRISES, INC.
PROJECT ADDRESS	5001 MARKET STREET
PIN NUMBERS	R04915-001-010-000
AREA NOT IN A FEMA 100-YEAR FLOOD ZONE	
TRACT AREA	193,914 SF (4.45 AC)
DISTURBED AREA	Ac.
ZONING DISTRICT	RB: REGIONAL BUSINESS
SETBACKS REQUIRED	FRONT: 25' REAR: 15' SIDE: 0'
PROPOSED BUILDING SETBACK (VESTIBULE)	FRONT: 66.7' REAR: 124.8' SIDE: 66.6'
PROPOSED BUILDING SETBACK (HOTEL)	FRONT: - REAR: 65.9' SIDE: 66.6'
CAMA LAND USE	URBAN
BUILDING USE	HOTEL
PROPOSED BUILDING AREA	SF
BUILDING LOT COVERAGE (53,340/193,914)	27.51%
NUMBER OF BUILDINGS	207
NUMBER OF UNITS	407/207
BUILDING HEIGHT (HOTEL/VESTIBULE)	4/1
NUMBER OF STORIES (HOTEL/VESTIBULE)	
GROSS SF PER FLOOR (HOTEL)	
GROUND FLOOR	13,469 SF
2ND, 3RD & 4TH FLOORS	13,201 SF
GROSS SF PER FLOOR (VESTIBULE)	370 SF
EXISTING IMPERVIOUS AREAS:	
EXISTING BUILDING	38,995 SF
EXISTING ASPHALT	82,878 SF
EXISTING CONCRETE	13,790 SF
EXISTING IMPERVIOUS AREA	135,663 SF (69.96%)
PROPOSED ONSITE IMPERVIOUS AREAS:	
PROPOSED BUILDING	15,020 SF
(INCLUDING CANOPY & CABANAS)	
PROPOSED ASPHALT & CURBING	10,535 SF
PROPOSED CONCRETE	6,078 SF
EXISTING IMPERVIOUS TO BE REMOVED	-18,590 SF
EXISTING IMPERVIOUS TO REMAIN	117,176 SF
TOTAL ONSITE IMPERVIOUS AREA	148,706 SF (76.69%)
TOTAL OFFSITE IMPERVIOUS AREA	62 SF
PARKING REQUIRED:	
1/GUEST ROOM PLUS 50% OF THE REQUIRED SPACES FOR ANY ACCESSORY USES	
1/GUEST ROOM (207 ROOMS)	207
RESTAURANT	
(1/80 SF MIN x 50% & 1/65 SF MAX x 50%)	
(2000 SF/80x50% & 2000 SF/65x50%)	13-15
BANQUET HALL	
(1/80 SF MIN x 50% & 1/65 SF MAX x 50%)	
(2575 SF/80x50% & 2575 SF/65x50%)	16-20
TOTAL PARKING REQUIRED	236-242
PARKING PROVIDED (ONSITE)	194
PARKING PROVIDED (OFFSITE)	46
TOTAL PARKING PROVIDED (ONSITE+OFFSITE)	240
HANDICAP SPACES REQUIRED	7
HANDICAP SPACES PROVIDED	15
BICYCLE PARKING REQUIRED	1
BICYCLE PARKING PROPOSED	20
PUBLIC WATER AND SEWER BY CFPUA	
EXISTING WATER FLOW:	13,200 GPD
EXISTING SEWER FLOW:	12,000 GPD
PROPOSED WATER FLOW:	27,324 GPD
(120 GPD PER ROOM x 207 ROOMS x 110%)	
PROPOSED SEWER FLOW:	24,840 GPD
(120 GPD PER ROOM x 207 ROOMS)	
FOUNDATION PLANTING REQUIRED NORTH	274
FOUNDATION PLANTING PROVIDED NORTH	306
FOUNDATION PLANTING REQUIRED WEST	591
FOUNDATION PLANTING PROVIDED NORTH	730

LEGEND

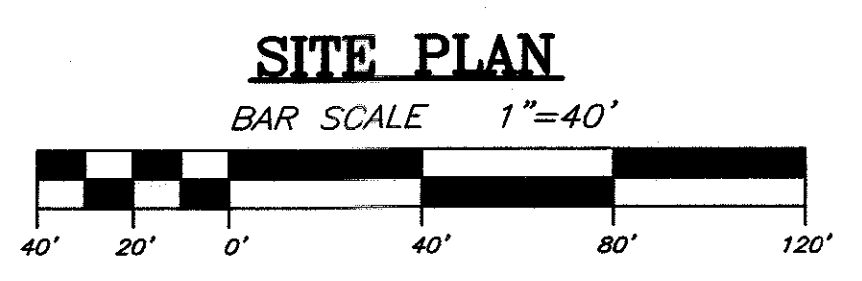
- PROPERTY BOUNDARY
- LIGHT POLE
- CURB INLET
- UTILITY POLE
- OVERHEAD WIRE
- GAZ ASSEMBLY
- TRAFFIC BOX
- WATER METER
- DROP INLET
- GUY WIRE
- SANITARY SEWER MANHOLE
- SEPTIC CLEANOUT
- BACKFLOW PREVENTER
- FIRE HYDRANT
- SIGN
- LARGE SIGN
- ELECTRIC APPARATUS
- UTILITY BOX
- IRRIGATION CONTROL VALVE
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED STORM WATER
- PROPOSED CONCRETE
- PROPOSED ASPHALT
- LIMITS OF DISTURBANCE
- TEMPORARY SILT FENCE

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

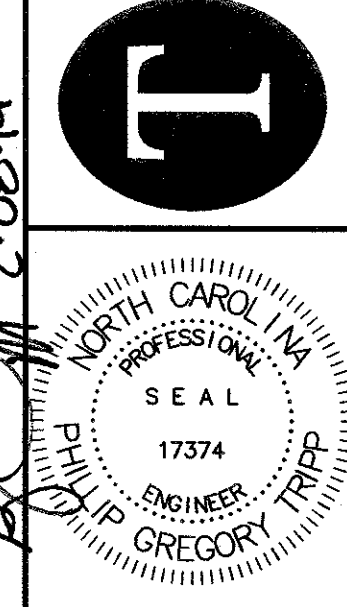
Approved Construction Plan

Name	Date
Planning	
Traffic	
Fire	

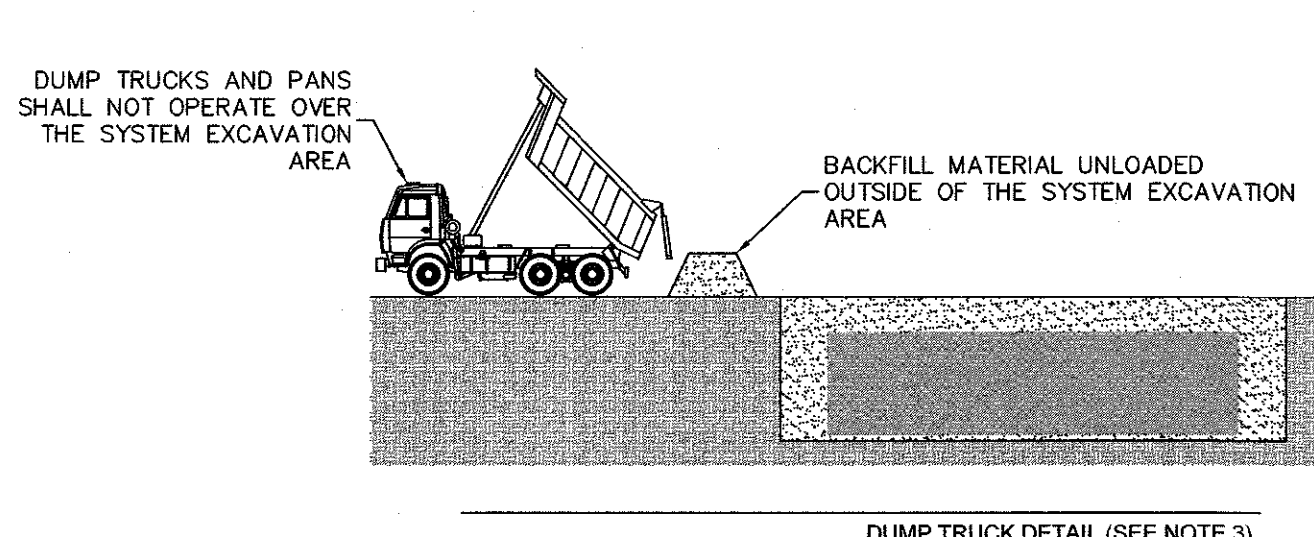
For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.



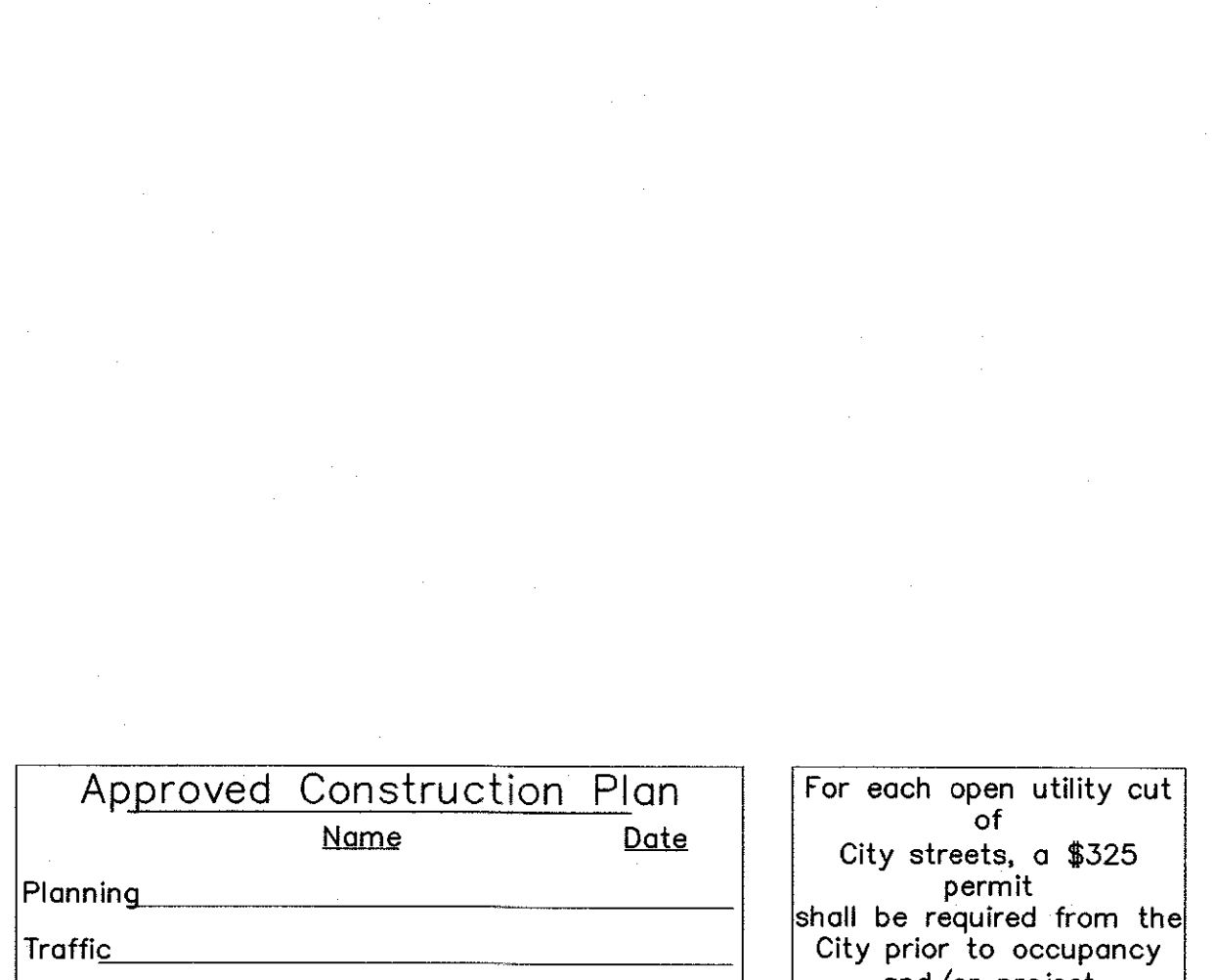
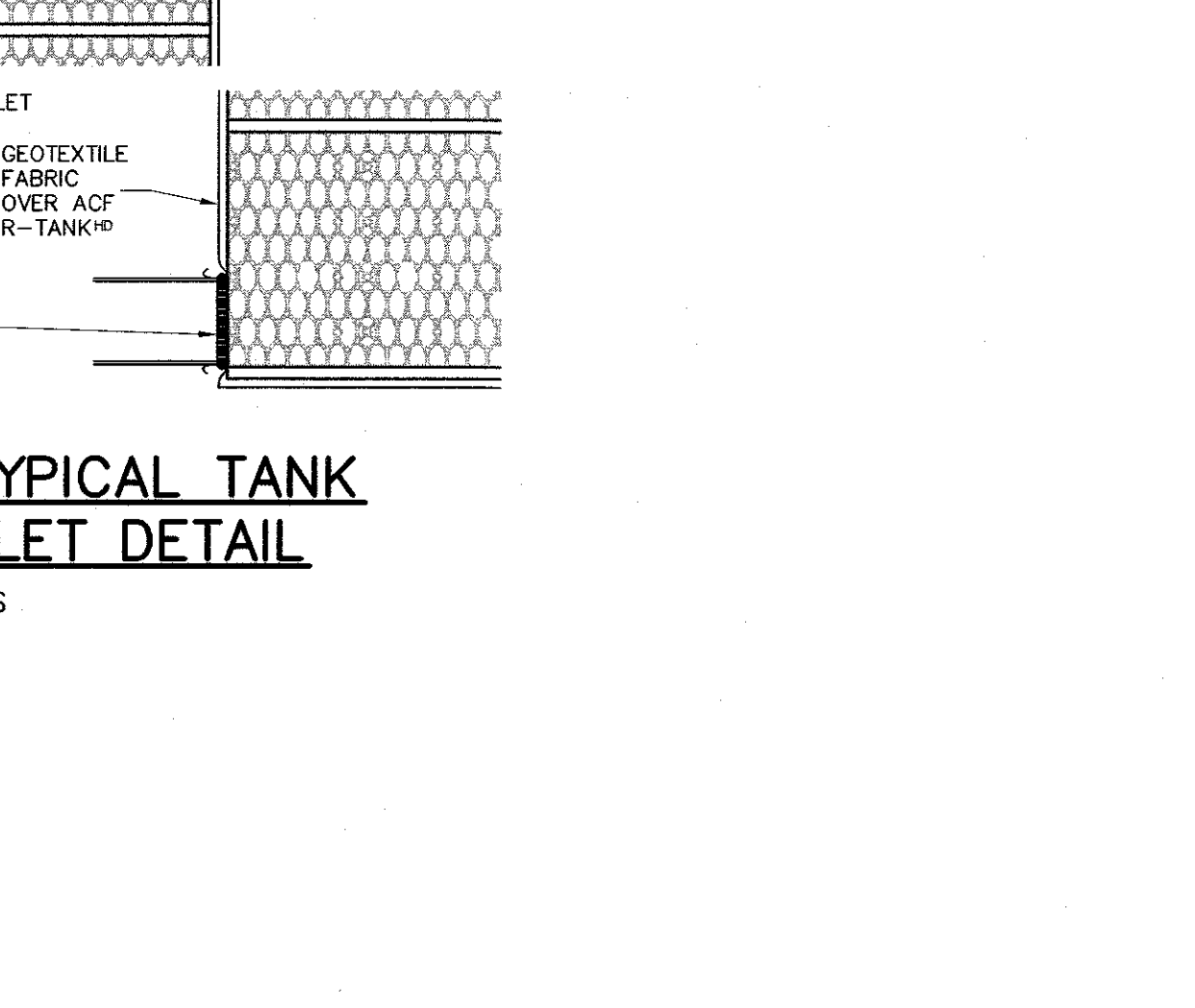
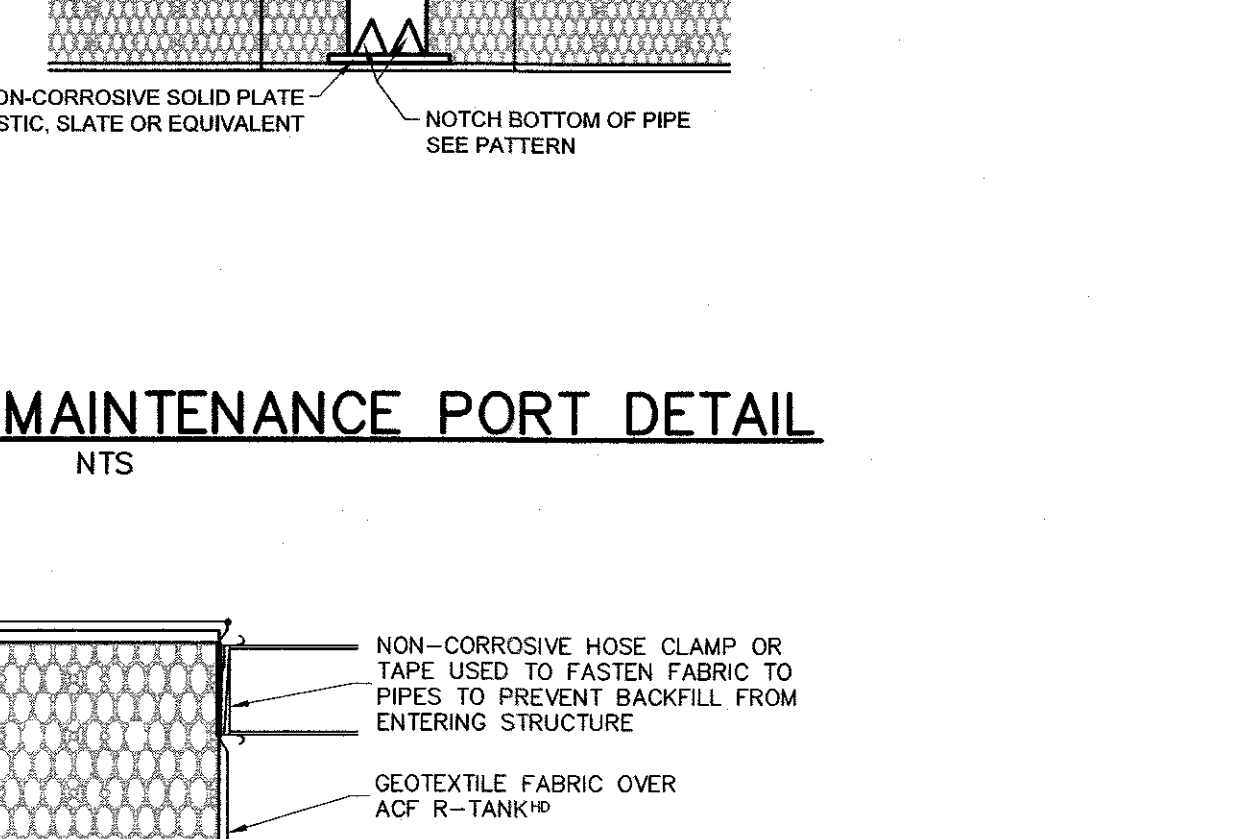
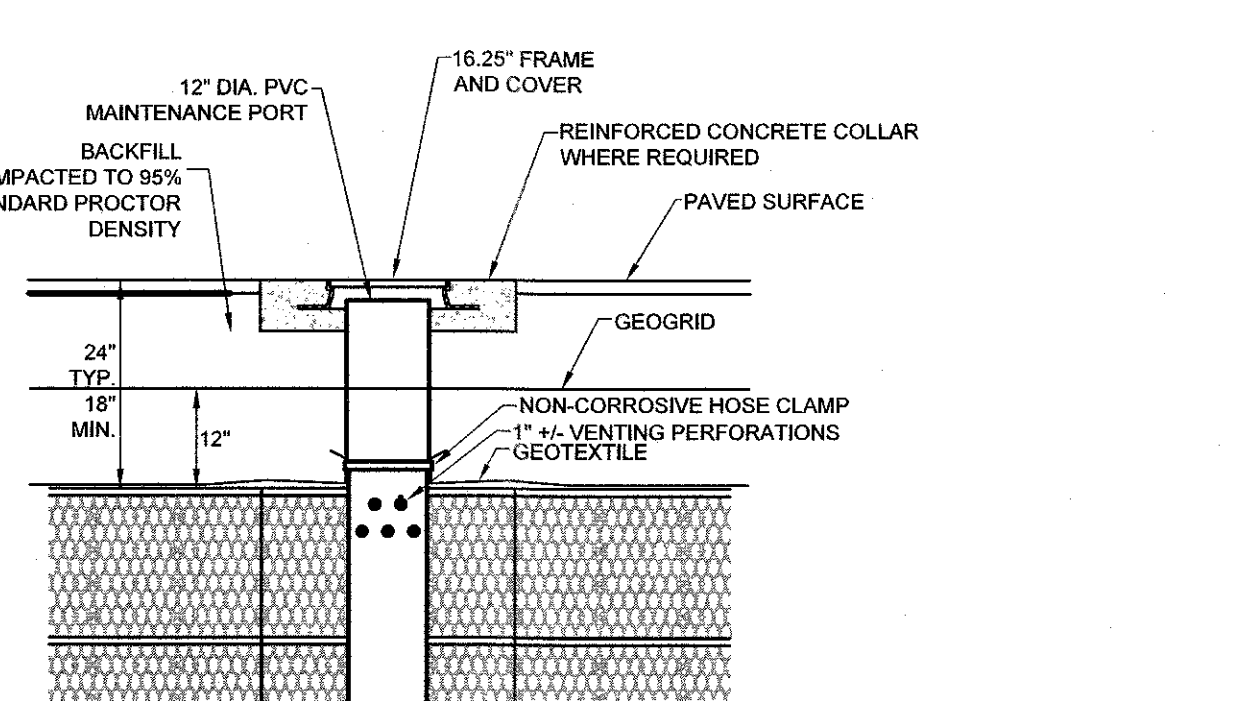
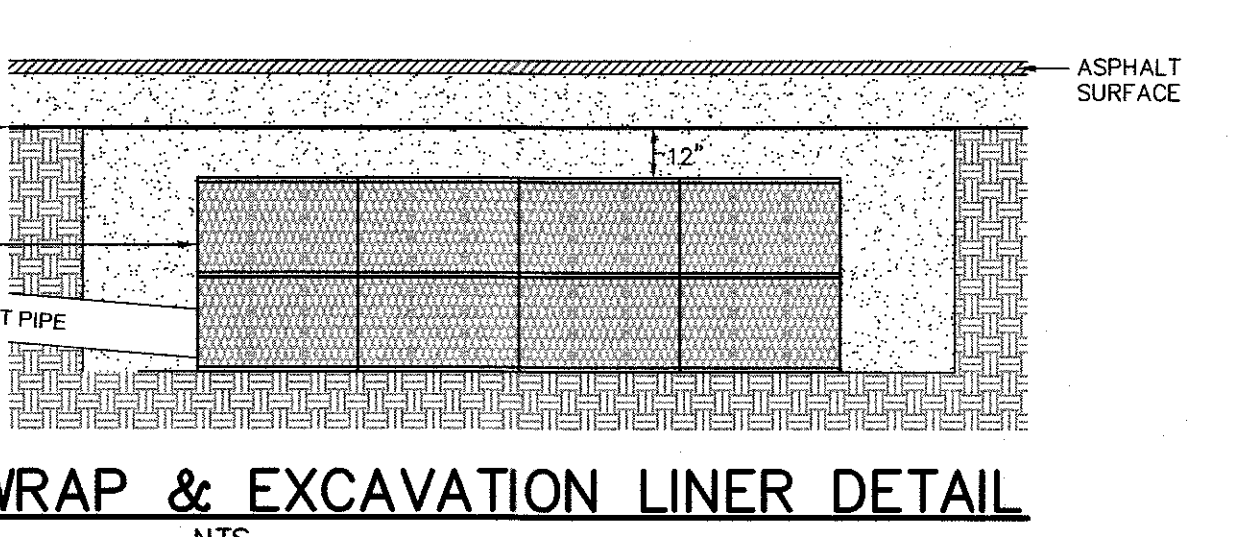
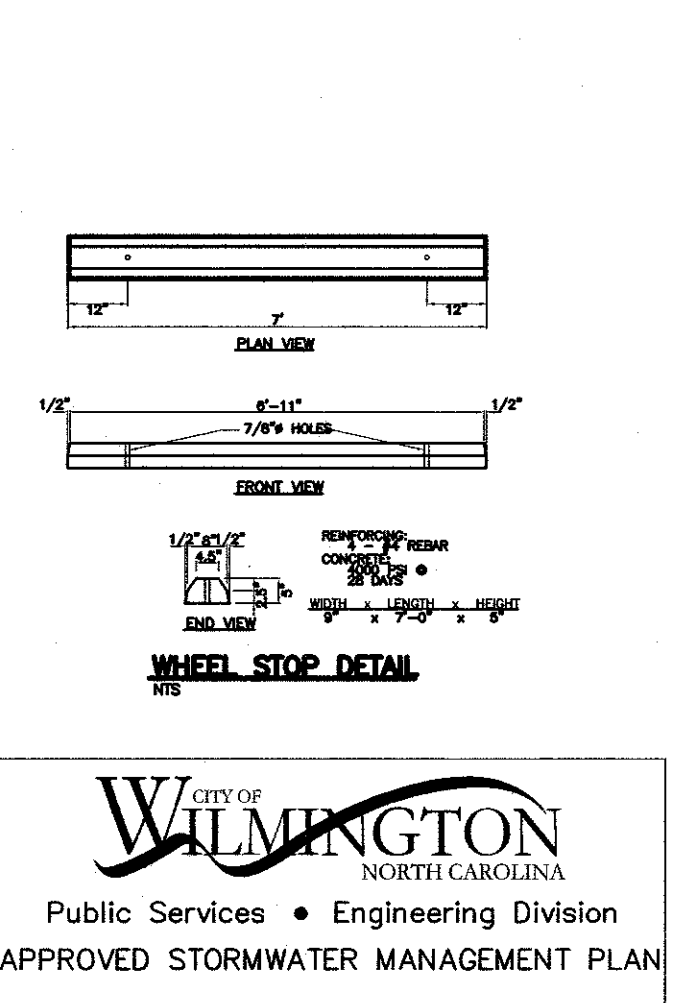
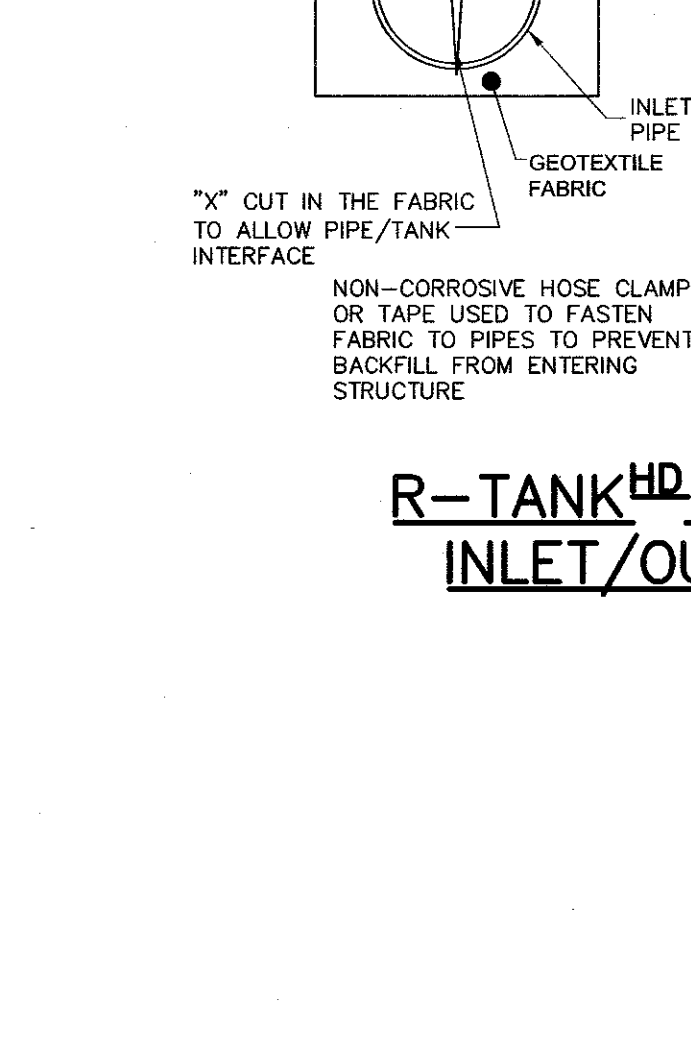
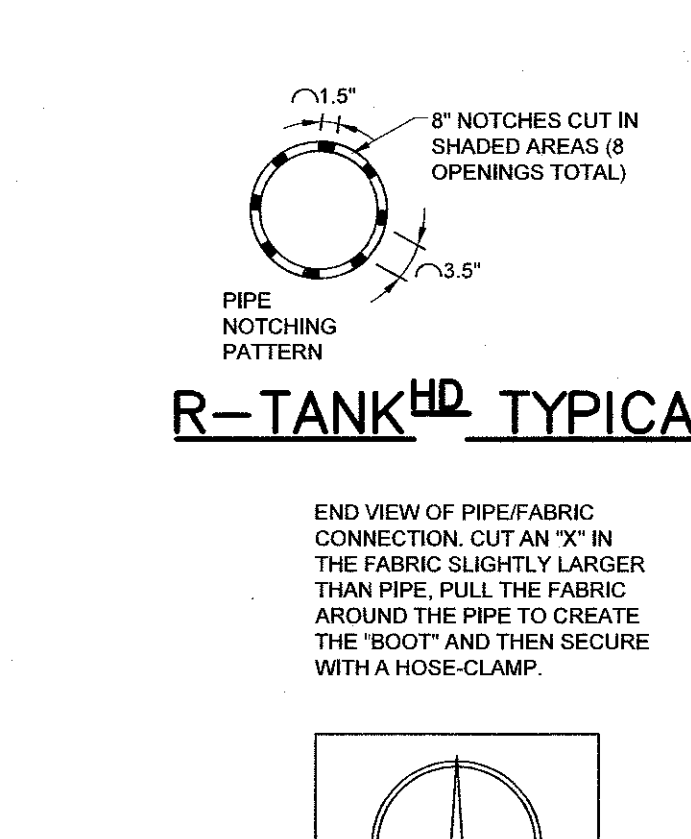
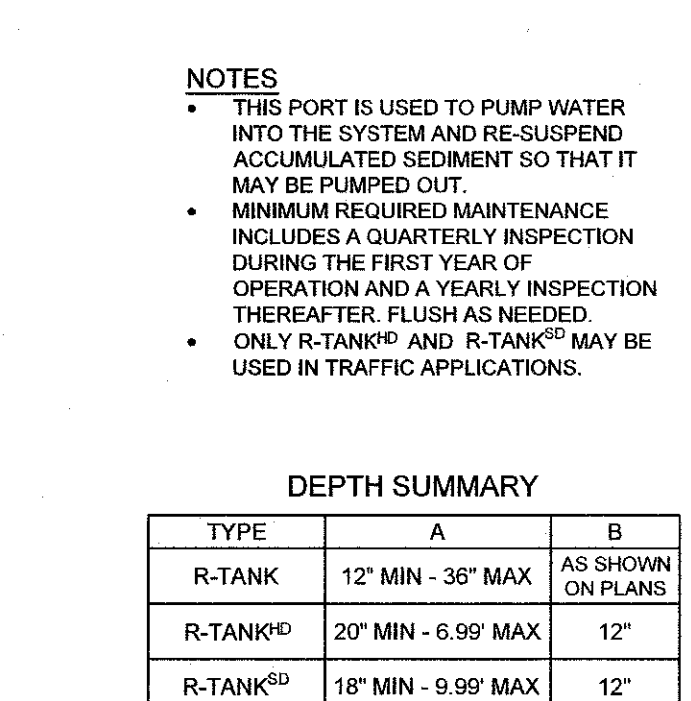
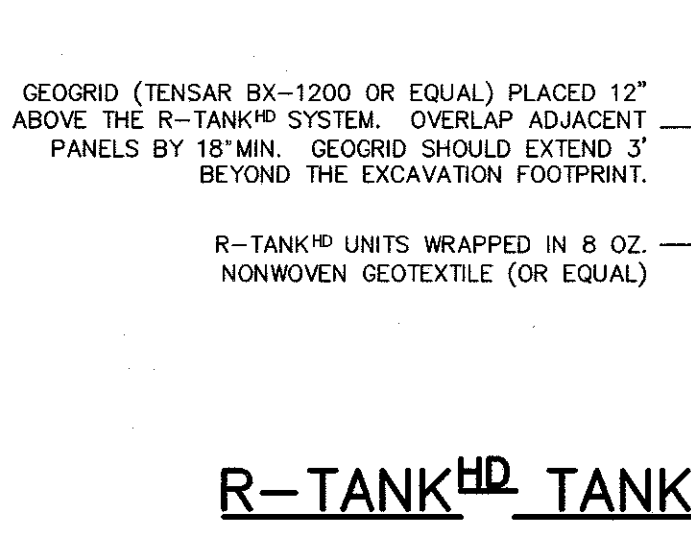
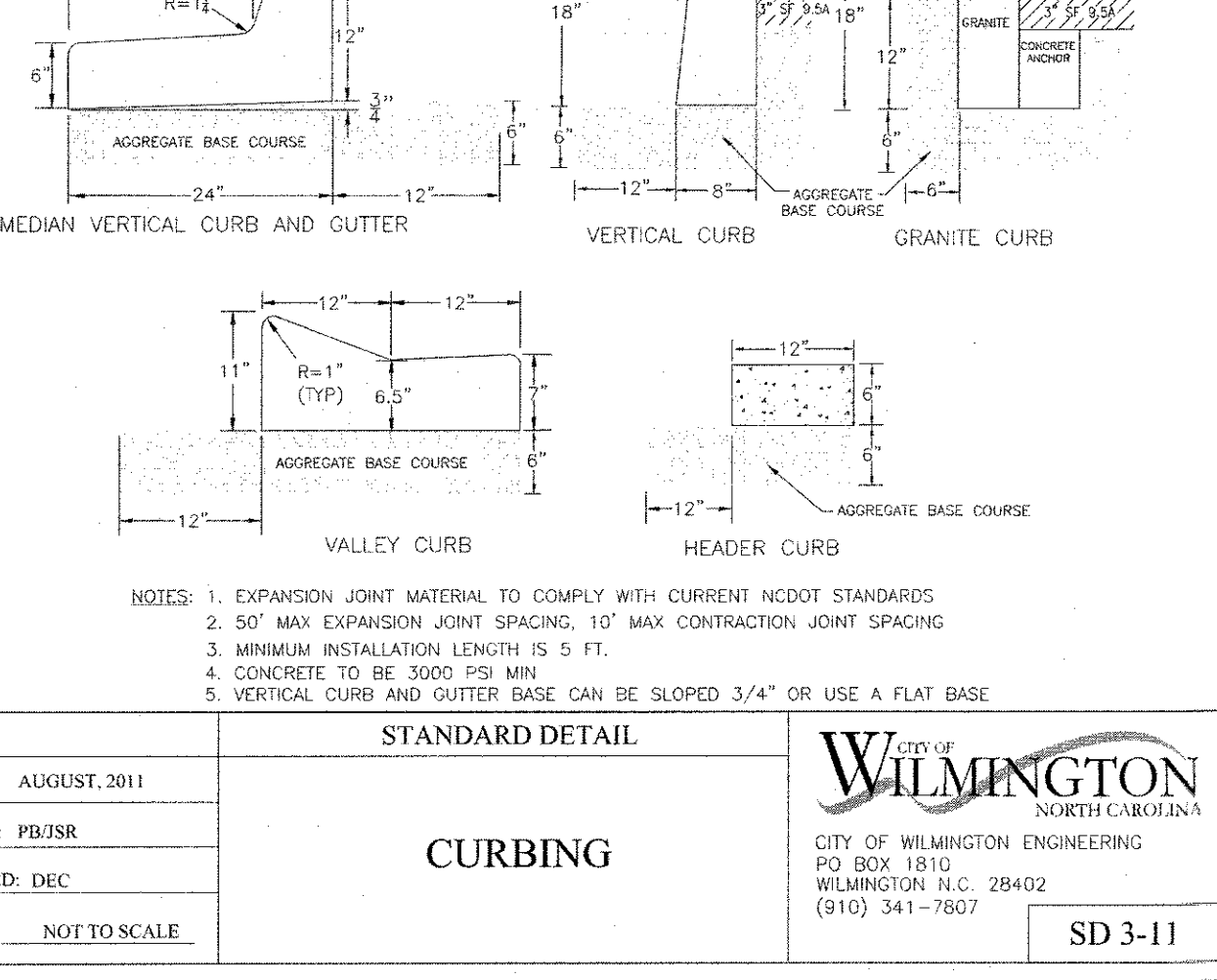
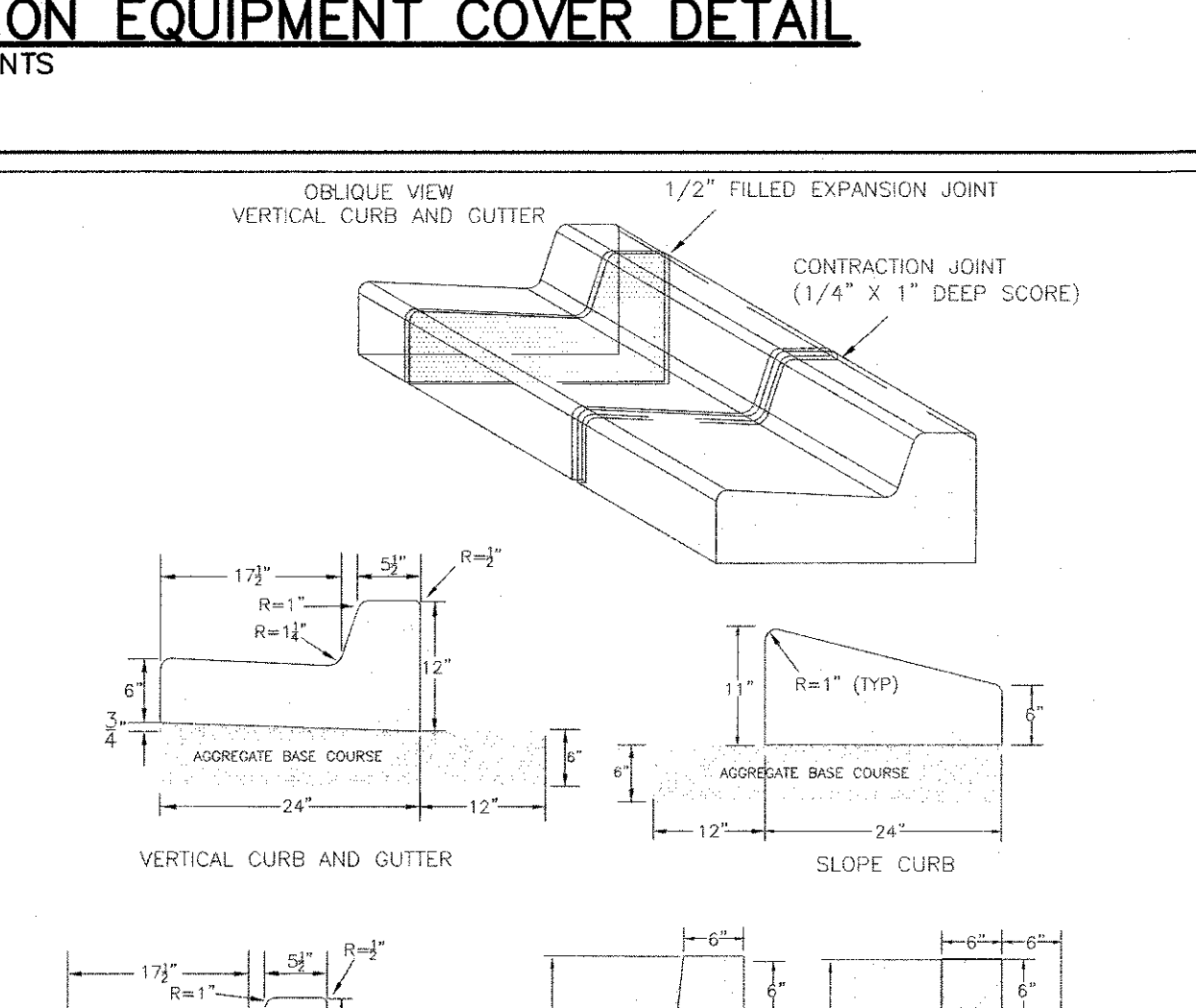
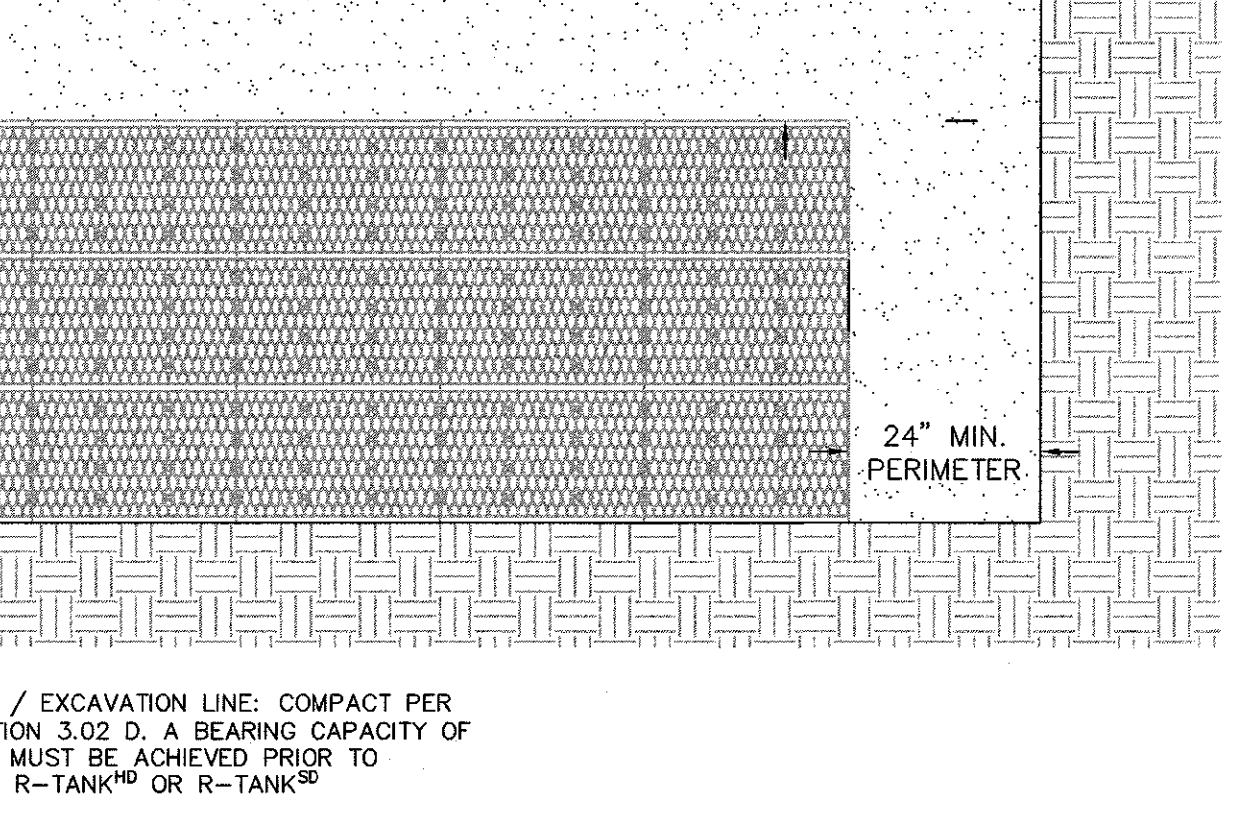
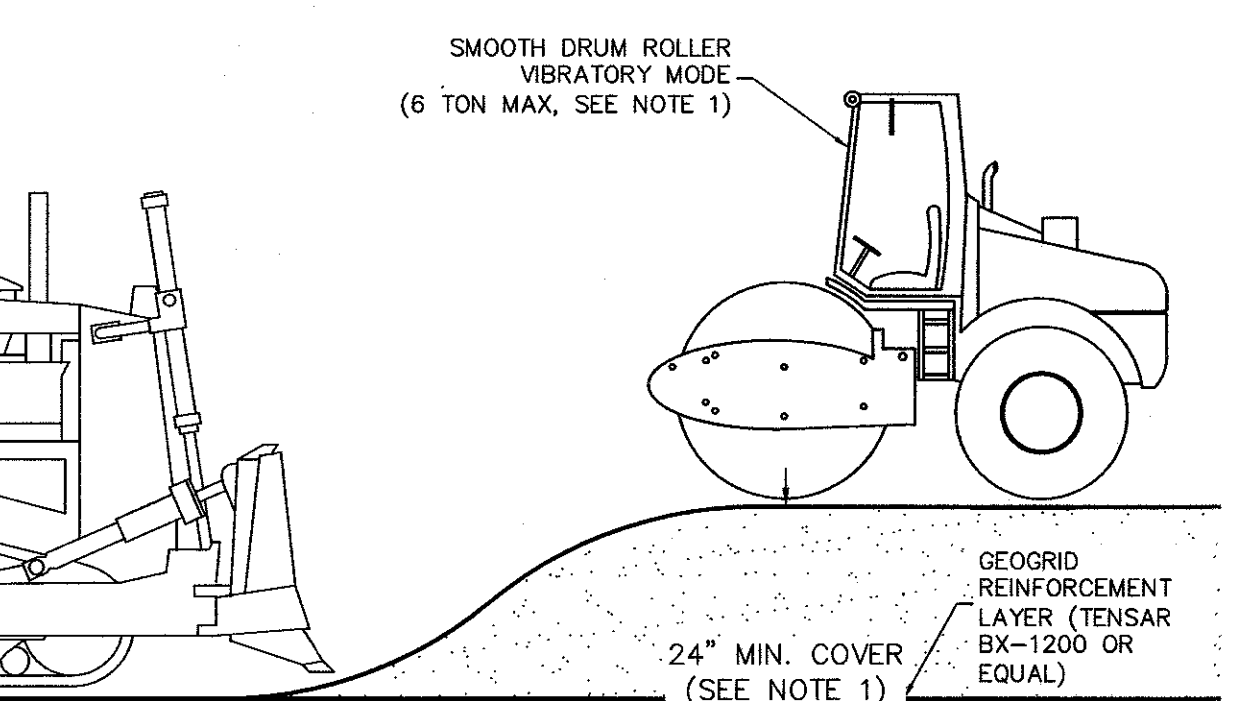
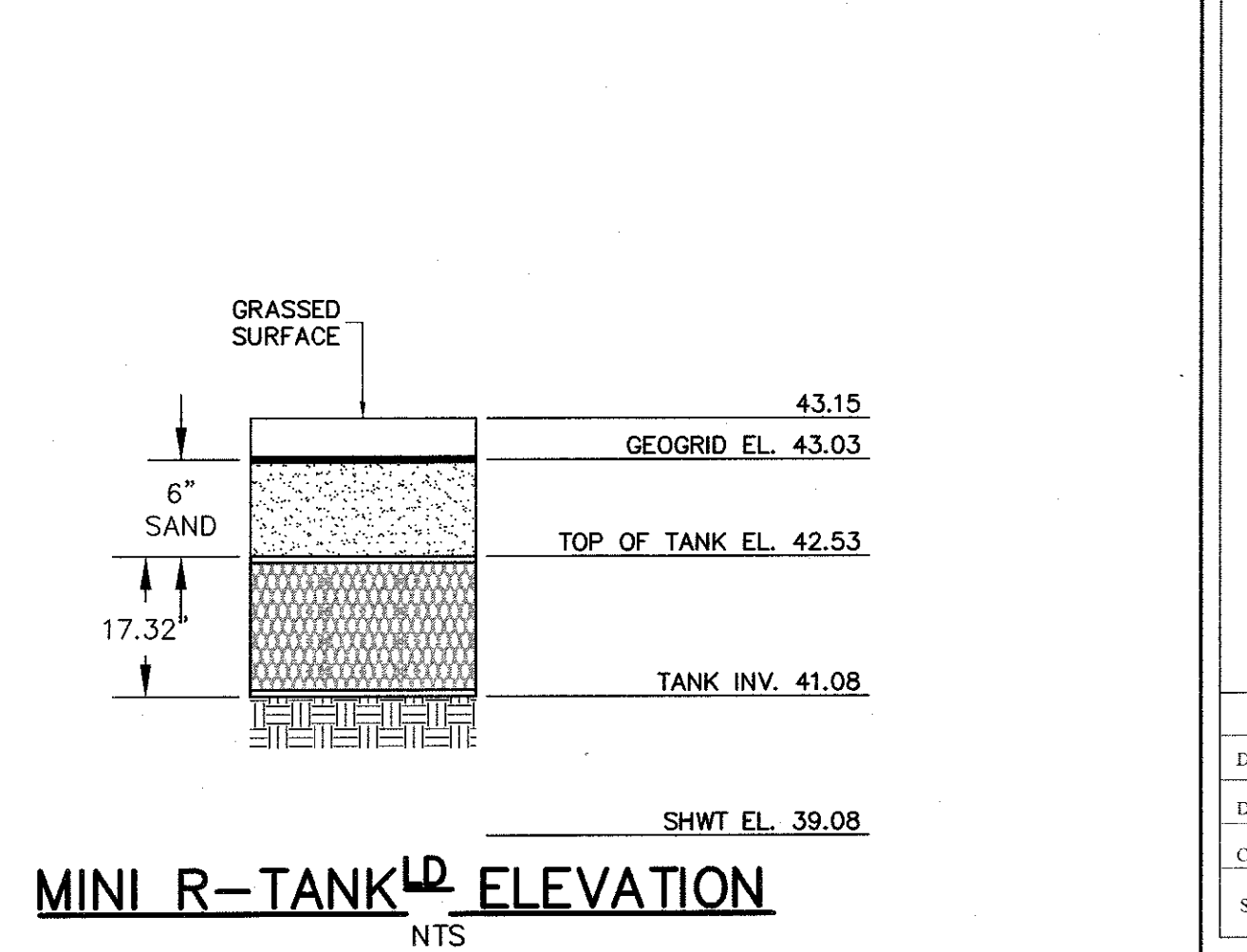
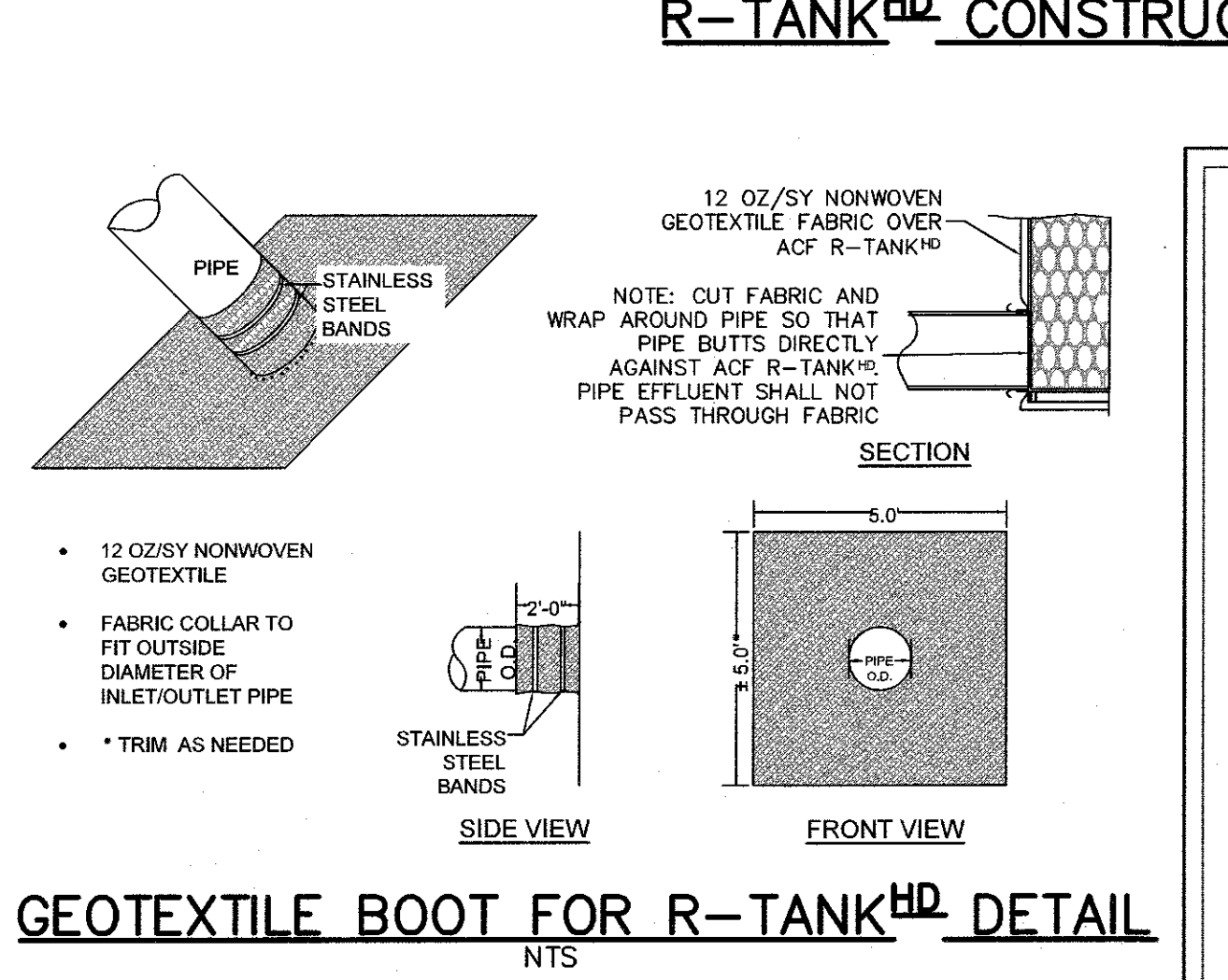
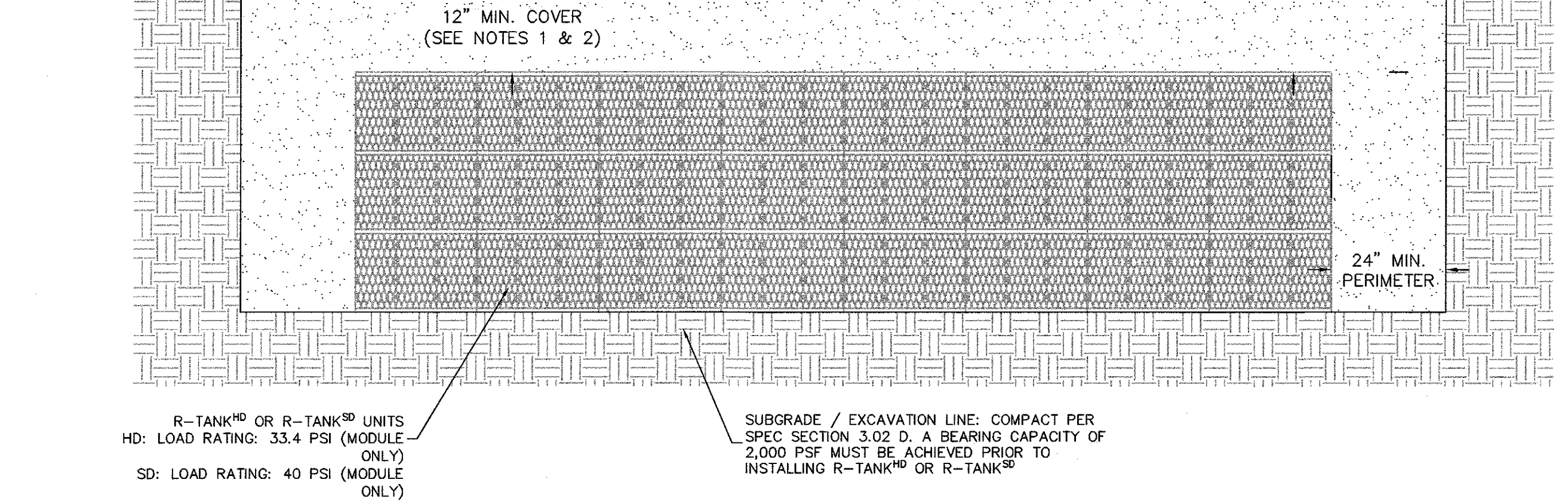
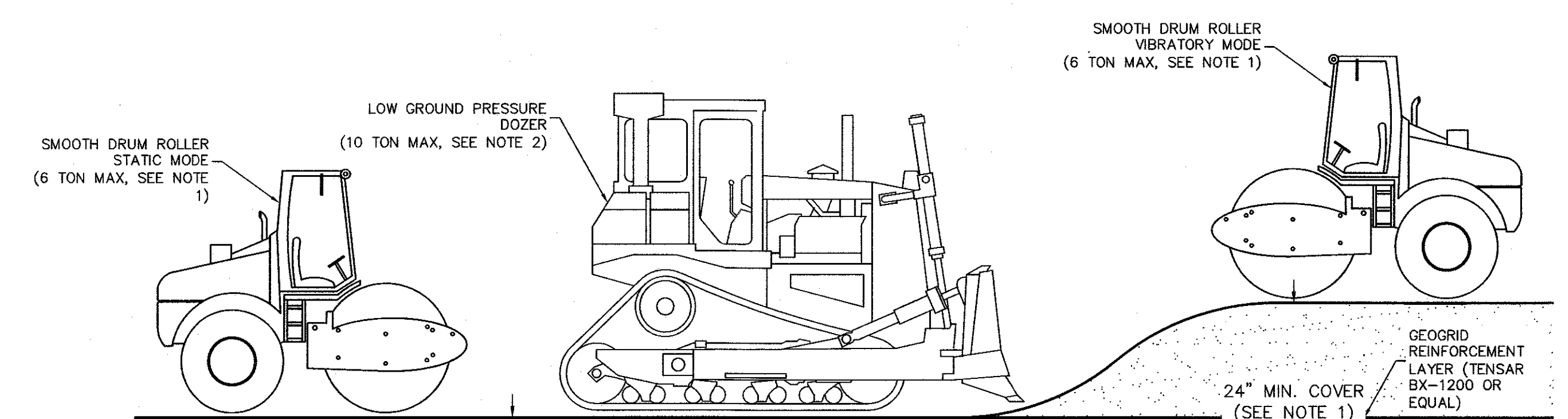
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Wilmington, North Carolina 28401
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DATE 02-08-19
DESIGN PGT
DRAWN JET
C3
SHEET 3 OF 7
17068



NOTES:
 1. FOLLOWING PLACEMENT OF SIDE BACKFILL, A UNIFORM 12" LIFT OF THE FREELY DRAINING MATERIAL (SPEC SECTION 3.05 B) SHALL BE PLACED OVER THE R-TANK AND LIGHTLY COMPACTED USING A WALK-BEHIND TRENCH ROLLER. ALTERNATELY, A ROLLER (MAXIMUM GROSS VEHICLE WEIGHT OF 6 TONS) MAY BE USED. ROLLER MUST REMAIN IN STATIC MODE UNTIL A MINIMUM OF 24" OF COVER HAS BEEN PLACED OVER THE MODULES. SHEEP FOOT ROLLERS SHOULD NOT BE USED. SPEC SECTION 3.05 A.
 2. ONLY LOW PRESSURE TIRE OR TRACK VEHICLES (LESS THAN 7 PSI AND OPERATING WEIGHT OF LESS THAN 20,000 LBS) SHALL BE OPERATED OVER THE R-TANK SYSTEM DURING CONSTRUCTION. SPEC SECTION 3.05 B.
 3. DUMP TRUCKS AND PANS SHALL NOT BE OPERATED WITHIN THE R-TANK SYSTEM AT ANY TIME WHERE NECESSARY. THE HEAVY EQUIPMENT SHOULD UNLOAD IN AN AREA ADJACENT TO THE R-TANK SYSTEM AND THE MATERIAL SHOULD BE MOVED OVER THE SYSTEM WITH TRACKED EQUIPMENT. SPEC SECTION 3.05 B.
 4. ENSURE THAT ALL UNRELATED CONSTRUCTION TRAFFIC IS KEPT AWAY FROM THE LIMITS OF EXCAVATION UNTIL THE PROJECT IS COMPLETE AND FINAL SURFACE MATERIALS ARE IN PLACE. NO NON-INSTALLATION RELATED LOADING SHOULD BE ALLOWED OVER THE R-TANK SYSTEM UNTIL THE FINAL DESIGN SECTION HAS BEEN CONSTRUCTED (INCLUDING PAVEMENT). SPEC SECTION 3.05 C. SEE R-TANK INSTALLATION GUIDE OR CONTACT YOUR LOCAL ACF REPRESENTATIVE FOR ADDITIONAL INFORMATION.



REVISIONS

No.	Date	Description	By
1	4/05/19	RESPONSE LETTER REV	JET

101 Related Documents
 A Drawings, technical specification and general provisions of the Contract as modified herein apply to this section.

102 Description of Work Included
 A Provide excavation and base preparation per geotechnical engineer's recommendations and/or as shown on the design drawings, to provide adequate support for project design loads and safety from excessive lateral collapse. Excavations shall be in accordance with the owner's and IDMI requirements.
 B Provide and install R-Tank, R-Tank HD, or R-Tank SD system (hereafter called R-Tank) and all related products including fill materials, geotextiles, geogrids, inlet and outlet pipe with connections per the manufacturer's installation guidelines provided in this section.
 C Provide and construct the cover of the R-Tank system including stone backfill, structural fill cover, and pavement section as specified.
 D Protect R-Tank system from construction traffic after installation until completion of all construction activity in the installation area.

103 Quality Control
 A All materials shall be manufactured in ISO certified facilities.
 B Installation Contractor shall demonstrate the following experience:
 1. A minimum of three R-Tank or equivalent projects completed within 2 years and
 2. A minimum of 100,000 sq. ft. of stone backfill completed within 2 years.
 C Contractor experience requirement may be waived if the manufacturer's representative provides on-site training and review during construction.
 D Installation Personnel Performed only by skilled workers with satisfactory record of performance on bulk earthworks, pipe, chamber, or pond/fillfill construction projects of comparable size and quality.
 E Contractor must have manufacturer's representative available for site review if requested by owner.

104 Submittals
 A Submit proposed R-Tank layout drawings. Drawings shall include typical section details as well as the required base elevation of stone and tanks, minimum cover requirements and tank configuration.
 B Submit manufacturer's product data, including compressive strength and unit weight.
 C Submit manufacturer's installation instructions.
 D Submit R-Tank sample for review. Reviewed and accepted samples will be returned to the Contractor.
 E Submit material certificates for geotextile, geogrid, base course and backfill materials.
 F Submit required experience and personnel requirements as specified in Section 103.
 G Any proposed equal alternative product substitution to this specification must be submitted for review and approved prior to bid opening. Review package should include third party reviewed performance data that meets or exceeds criteria in Table 2.01 B.

105 Delivery, Storage, and Handling
 A Protect R-Tank and other materials from damage during delivery, and store in sensitive materials under tarp to protect from sunlight when the from delivery to installation exceeds two weeks. Storage of materials should be on smooth surfaces, free from dirt, mud and debris.
 B Handling is to be performed with equipment appropriate to the materials and site conditions, and may include hand, handcart, forklifts, extension lifts, etc.
 C Cold weather:
 1. Care must be taken when handling plastics when air temperature is 40 degrees or below as plastic becomes brittle.
 2. Do not use frozen materials or materials mixed or coated with ice or frost.
 3. Do not build on frozen ground or wet, saturated or muddy subgrade.

106 Preinstallation Conference
 A Prior to the start of the installation, a preinstallation conference shall occur with the representatives from the design team, the general contractor, the excavation contractor, the R-Tank installation contractor, and the manufacturer's representative.

107 Project Conditions
 A Concrete installation for the R-Tank system with other on-site activities to eliminate all non-installation related construction traffic over the completed R-Tank system. No loads heavier than the design loads shall be allowed over the system, and in no case shall loads higher than a standard MS101 M20 for M25, depending on design criteria load be allowed on the system at any time.
 B Protect adjacent work from damage during R-Tank system installation.
 C All pre-treatment systems to remove debris and heavy sediments must be in place and functional prior to operation of the R-Tank system. Additional pretreatment measures may be needed if unit is operational during construction due to increased sediment load.
 D Contractor is responsible for any damage to the system during construction.

201 R-Tank Units
 A R-Tank - Injection molded plastic tank plates assembled to form a 30% void modular structure of predesigned height (custom for each project).
 B R-Tank units shall meet the following Physical & Chemical Characteristics:

PROPERTY	DESCRIPTION	R-Tank ^{HD} VALUE	R-Tank ^{SD} VALUE	R-Tank ^{LD} VALUE
Unit Weight	Volume weight for water storage	95%	95%	95%
Surface Area	Percentage of surface available for infiltration	95%	95%	95%
Compressive Strength	ASTM D1557 (24" x 24")	30 PSI	30 PSI	43.2 PSI
HD-30 Minimum Cover	Minimum required depth above top of tank	18"	30"	18"
HD-30 Minimum Cover	Minimum required depth above top of tank	18"	30"	18"
Minimum Cover	Minimum required depth above top of tank	3 feet	+3 feet	+3 feet
Max. Depth	Height of tank for water hold over tank	3.28 m (10.7')	3.66 m (12.0')	3.66 m (12.0')
HD-30 Maximum	Thickness of concrete cover over tank	0.15 m (5.0')	0.15 m (5.0')	0.15 m (5.0')
Service Temperature	Safe temperature range for use	-14 - 187°F	-14 - 187°F	-14 - 187°F

202 Geotextiles
 A Geotextile A geotextile envelope is required to prevent backfill material from entering the R-Tank modules.
 1. Standard Application: The standard geotextile shall be a 100 gsm nonwoven geotextile (ACF M80 or equivalent).
 2. Infiltration Applications: When water must infiltrate through the geotextile as a function of the system design, a woven nonwoven (ACF M80 or equivalent) shall be used.
 B Geogrid: For installations subject to traffic loads and/or when required by project plans, install geogrid ACF M202 or equivalent to reinforce backfill above the R-Tank system. Geogrid is often not required for non-traffic load applications.

203 Backfill & Cover Materials
 A Backfill Material: Stone (smaller than 150 in diameter) or soil (GV, GP, SV, or SP as classified by the Unified Soil Classification System) shall be used below the R-Tank system. All backfill material shall be free from lumps, debris, and any sharp objects that could cut the geotextile. Material shall be within 3 percent of the optimum moisture content as determined by ASTM D598. The use of infiltration for infiltration applications: Backfill material shall be free draining.
 B Side and Top Backfill: Free draining stone (smaller than 150 in diameter) or soil (GV, GP, SV, or SP as classified by the Unified Soil Classification System) shall be used adjacent to R-Tank modules and above the first 120 of the R-Tank system. Material shall be free from lumps, debris, and any sharp objects that could cut the geotextile. Material shall be within 3 percent of the optimum moisture content as determined by ASTM D598 at the time of installation.
 C Additional Cover Materials: Structural fill shall consist of granular materials meeting the gradational requirements of SD SP, SV, GV, GP or GV as classified by the Unified Soil Classification System. Structural fill shall have a maximum clay content of 25 percent and a maximum plasticity index of 10 percent and a maximum flexibility index of 4. Material shall be within 3 percent of the optimum moisture content as determined by ASTM D598 at the time of installation.
 D Other Materials
 A Utility Markers: Install metallic tape at corners of R-Tank system to mark the area for future utility detection.

301 Execution
 301 Assembly of R-Tank Units
 A On-site assembly of tanks shall be performed in accordance with the R-Tank Installation Manual, Section 2.

302 Layout and Installation
 A Installer shall stake out, excavate, and prepare the subgrade area to the required plan grades and dimensions, ensuring that the excavation is at least 2 feet greater than R-Tank dimensions in each direction along the installation of geotextile fabric. R-Tank modules and free draining backfill materials.
 B All excavations must be prepared with IDMI approved excavated sides and sufficient spacing.
 C Protect partially completed installation against damage from other construction traffic by establishing a perimeter with high visibility construction tape, fencing, barricades, or other means until construction is complete.
 D Base of the excavation shall be uniform, level, and free of lumps or debris and soft or yielding subgrade areas. A minimum 2,000 pounds per square foot bearing capacity is required.
 E Standard Applications: Compact subgrade to a minimum of 95% of Standard Proctor ASTM D698 density or as required by the owner's engineer.
 F Infiltration Applications: Subgrade shall be prepared in accordance with the contract documents. Compaction of subgrade should not be performed in infiltration applications.
 G Infiltrable Side or Cover: All questions about the bearing capacity of the excavation shall be referred to the owner's engineer, who will approve the subgrade conditions prior to placement of stone. The owner's engineer shall determine the required bearing capacity of the R-Tank subgrade; however, in no case shall a bearing capacity of less than 2,000 pounds per square foot be provided.
 H If unavoidable side encroachments at the subgrade, or if the subgrade is pumping or appears excessively soft, repair the area in accordance with contract documents and/or as directed by the owner's engineer.
 I If indications of the water table are observed during excavation, the engineer shall be contacted to provide recommendations.
 J Do not start installation of the R-Tank system until unsatisfactory subgrade conditions are corrected and the subgrade conditions are accepted by the owner's engineer.

303 Preparation of Base
 A Place a thin layer of soil unless otherwise specified of bedding material (Section 2.03 A), over the subgrade to establish a level working platform for the R-Tank modules. Level to within 1/4" (6.35 mm) or as shown on the plans. Native subgrade soils or other materials may be used if determined to meet the requirements of 2.03 A and is accepted by the owner's engineer.
 B Standard Applications: Stale soil or otherwise compact bedding material until they are firm and unyielding.
 C Infiltration Applications: Bedding materials shall be prepared in accordance with the contract documents.
 D Outline the Footprint of the R-Tank system on the excavation floor using spray paint or chalk line to ensure a 2" perimeter is available around the R-Tank system for proper installation and compaction of backfill.

304 Installation of the R-Tank
 A Where a geotextile area is specified on the stone base, cut strips to length and install in excavation, removing wrinkles so material lays flat. Overlap geotextile a minimum 12" or as recommended by manufacturer.
 B Where an in-situ liner (or containment) is specified, install the liner per manufacturer's recommendations and the contract documents. The R-Tank units shall be separated from in-situ liner by a non-woven geotextile fabric installed in accordance with Section 3.04A.
 C Install R-Tank modules by placing side by side, in accordance with the design drawings. No lateral connections are required. It is advisable to use a string line to form square corners and straight edges along the perimeter of the R-Tank system. The design drawings (SD31 or SD32) with required depths as shown on the plans. The large side of the tank should be placed on the perimeter of the system. This will typically require that the two ends of the tank are not a true 90 degree angle perpendicular to all other tanks. This is not shown in the construction drawings. It is a single field adjustment that will have minimal effect on the overall system footprint. Refer to R-Tank Installation Guide for more details.
 D Wrap the R-Tank top and sides in specified geotextile. Cut strips of geotextile so that it will cover the sides and top, encapsulating the entire system to prevent soil entry into the system during construction. Geotextile must be secured to the R-Tank modules and free draining backfill materials during placement.
 E Identify locations of inlet, outlet and any other penetrations of the geotextile (and optional liner). These connections should be installed flush with the R-Tank and the geotextile fabric shall be cut to enable hydraulic continuity between the connections and the R-Tank units. These connections shall be secured using pipe boots with stainless steel pipe clamps. Support pipe in trenches during backfill operations to prevent pipe from settling and damaging the geotextile. In-situ liner or other specified or approved connections shall be 90 degree angles facilitates construction, unless otherwise specified. Ensure end of pipe is installed snug against R-Tank system.
 F Install Inspection and Maintenance Ports in locations noted on plans. At a minimum one maintenance port shall be installed within 10' of each inlet & outlet connection, and with a maximum spacing of one maintenance port for every 2,000 square feet. Install all ports as noted in the R-Tank Installation Guide.
 G If required, install ventilation pipes and vents as specified on drawings to provide ventilation for proper hydraulic performance. The number of pipes and vents will depend on the size of the system. Vents are often installed using a 20 degree elbow with PVC pipe into a landscaped area with 10' head or venting below to inhibit the ingress of debris. A ground level concrete or steel cover can be used.

305 Backfilling of the R-Tank Units
 A Backfill and fill with recommended materials as follows:
 1. Place freely draining backfill material (Section 2.03 B) around the perimeter in lifts with a maximum thickness of 12". Each lift shall be placed around the entire perimeter such that each lift is no more than 24" higher than the side backfill along any other location on the perimeter of the R-Tank system. No fill shall be placed over top of tanks until the side backfill has been completed.
 2. Each lift shall be compacted at the specified moisture content to a minimum of 95% of the Standard Proctor Density until no further densification is observed (for self-compacting stone materials). The side lifts must be compacted with walk behind compaction equipment. Even when "self-compacting" backfill materials are selected, a walk behind vibratory compactor must be used.
 3. Take care to ensure that the compaction process does not allow the machinery to come into contact with the modules due to the potential for damage to the geotextile and R-Tank units.
 4. No compaction equipment is permissible to operate directly on the R-Tank modules.
 5. Following placement of side backfill, a uniform 12" lift of the freely draining material (Section 2.03 B) shall be placed over the R-Tank and lightly compacted using a walk-behind trench roller. Alternately, a roller (maximum gross weight of 6 tons) may be used. Roller shall be placed over the R-Tank and lightly compacted using a walk-behind trench roller. Sheep foot rollers should not be used.
 6. Install a geogrid required for infiltration applications over the initial 12" lift of backfill. Geogrid shall extend a minimum of 3 feet beyond the limits of the excavation as specified in the contract documents.
 7. Following placement and compaction of the initial cover, subsequent lifts of structural fill (Section 2.03 C) shall be placed at the specified moisture content and compacted to a minimum of 95% of the Standard Proctor Density and shall cover the entire footprint of the R-Tank system. During placement of fill above the system, unless otherwise specified, uniform elevation of fill shall be maintained to within 1/2" across the footprint of the R-Tank system. Do not exceed maximum cover depths listed in Table 2.01 B.
 8. Place additional layers of geotextile and/or geogrid at elevations as specified in the design details. Each layer of geotextile/reinforcement placed above the R-Tank system shall extend a minimum of 3 feet beyond the limits of the excavation.
 9. Only low pressure tire or track vehicles shall be operated over the R-Tank system during construction. No machinery should be driven over top of the tank until a minimum of 18" of backfill and compaction is achieved. Dump Trucks and Pans shall not be operated within the R-Tank system footprint at any time. Where necessary the heavy equipment will be used in an area adjacent to the R-Tank system and the material shall be moved over the system with tracked equipment.
 10. Ensure that all unrelated construction traffic is kept away from the limits of excavation until the project is complete and final surface materials are in place. No non-installation related loading should be allowed over the R-Tank system until the final design section has been constructed (including pavement).
 11. Place surface materials such as grass/seeds over the large trench, or avoid materials over the structure with care to avoid displacement of cover fill and damage to surrounding areas.
 12. Backfill depth over R-Tank system must be within the limitations shown in the table in Section 2.01 B. If the total backfill depth does not comply with this table, contact engineer or manufacturer's representative for assistance.

401 Using the System
 401 Maintenance Requirements
 A Routine maintenance effort is required to ensure proper performance of the R-Tank system. The maintenance program should be focused on pretreatment systems. Ensuring these structures are clean and functioning properly will reduce the risk of contamination of the R-Tank system and stormwater released from the site. Pre-treatment systems shall be inspected quarterly, or as directed by the regulatory agency and the manufacturer's representative. Maintenance of pre-treatment systems shall be in accordance with the manufacturer's (or proprietary) system.
 B Inspection and Maintenance Ports in the R-Tank system all need to be inspected for accumulation of sediments at least quarterly through the first year of operation and at least yearly thereafter. This is by removing the cap of the port and using a measuring device to reach the bottom of the R-Tank system and lift enough to push through the loose sediments, allowing a depth measurement.
 C If sediment has accumulated to the level noted in the R-Tank Maintenance Guide or beyond a level acceptable to the Owner's engineer, the R-Tank system should be flushed.
 D A flushing event consists of pumping water into the R-Tank Maintenance Guide or beyond a level acceptable to the Owner's engineer, the R-Tank system to re-suspend the fine sediments. If multiple Maintenance Ports have been installed, water should be pumped into each port to maximize flushing efficiency. Sediment-laden water can be filtered through a filter bag or approved equivalent if permitted by the locality.

402 Maintenance Requirements
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 B Inspection and Maintenance Ports in the R-Tank system all need to be inspected for accumulation of sediments at least quarterly through the first year of operation and at least yearly thereafter. This is by removing the cap of the port and using a measuring device to reach the bottom of the R-Tank system and lift enough to push through the loose sediments, allowing a depth measurement.
 C If sediment has accumulated to the level noted in the R-Tank Maintenance Guide or beyond a level acceptable to the Owner's engineer, the R-Tank system should be flushed.
 D A flushing event consists of pumping water into the R-Tank Maintenance Guide or beyond a level acceptable to the Owner's engineer, the R-Tank system to re-suspend the fine sediments. If multiple Maintenance Ports have been installed, water should be pumped into each port to maximize flushing efficiency. Sediment-laden water can be filtered through a filter bag or approved equivalent if permitted by the locality.

403 Maintenance Requirements
 A Routine maintenance effort is required to ensure proper performance of the R-Tank system. The maintenance program should be focused on pretreatment systems. Ensuring these structures are clean and functioning properly will reduce the risk of contamination of the R-Tank system and stormwater released from the site. Pre-treatment systems shall be inspected quarterly, or as directed by the regulatory agency and the manufacturer's representative. Maintenance of pre-treatment systems shall be in accordance with the manufacturer's (or proprietary) system.
 B Inspection and Maintenance Ports in the R-Tank system all need to be inspected for accumulation of sediments at least quarterly through the first year of operation and at least yearly thereafter. This is by removing the cap of the port and using a measuring device to reach the bottom of the R-Tank system and lift enough to push through the loose sediments, allowing a depth measurement.
 C If sediment has accumulated to the level noted in the R-Tank Maintenance Guide or beyond a level acceptable to the Owner's engineer, the R-Tank system should be flushed.
 D A flushing event consists of pumping water into the R-Tank Maintenance Guide or beyond a level acceptable to the Owner's engineer, the R-Tank system to re-suspend the fine sediments. If multiple Maintenance Ports have been installed, water should be pumped into each port to maximize flushing efficiency. Sediment-laden water can be filtered through a filter bag or approved equivalent if permitted by the locality.

WILMINGTON NORTH CAROLINA
 Public Services • Engineering Division
 APPROVED STORMWATER MANAGEMENT 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.

DETAILS AND NOTES

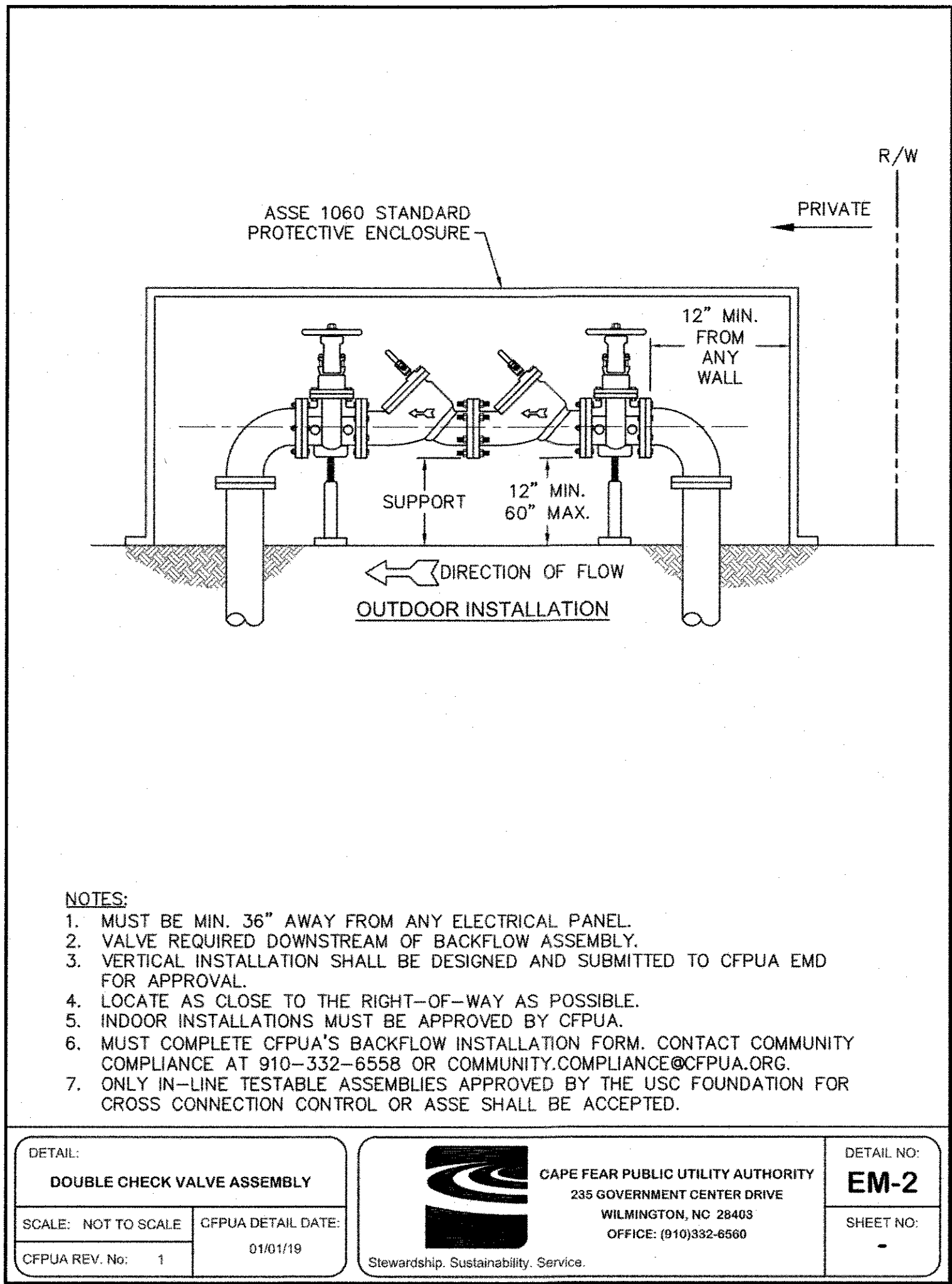
TRIPP ENGINEERING, P.C.
 419 Chestnut Street
 Wilmington, North Carolina 28401
 Phone 910-763-5100
 Email trippeng@ec.rr.com
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TRU & TAPESTRY HOTEL
 5001 MARKET STREET
 WILMINGTON, NORTH CAROLINA

DATE 02-08-19
 DESIGN PGT
 DRAWN JET

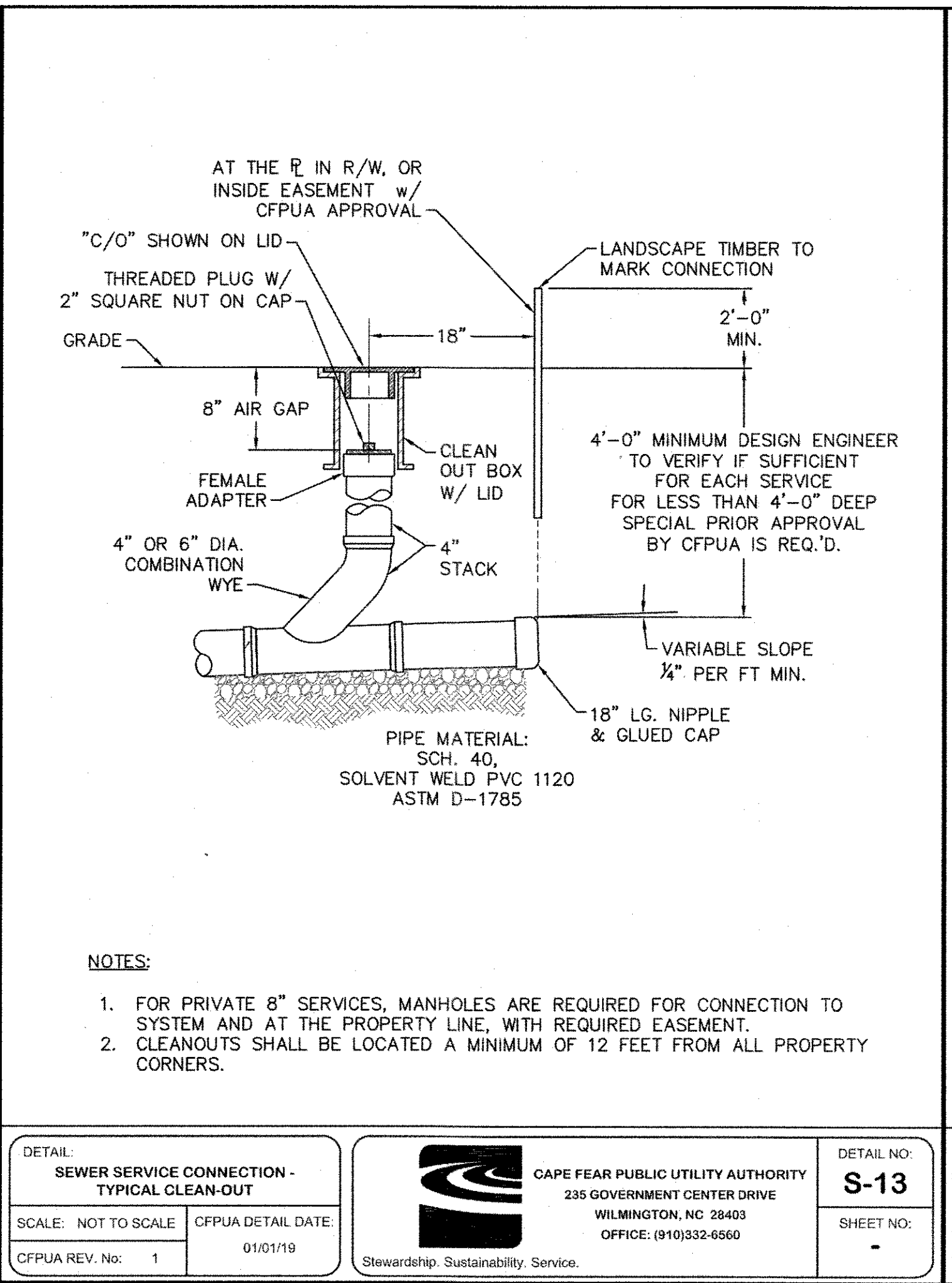
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SHEET 5 OF 7
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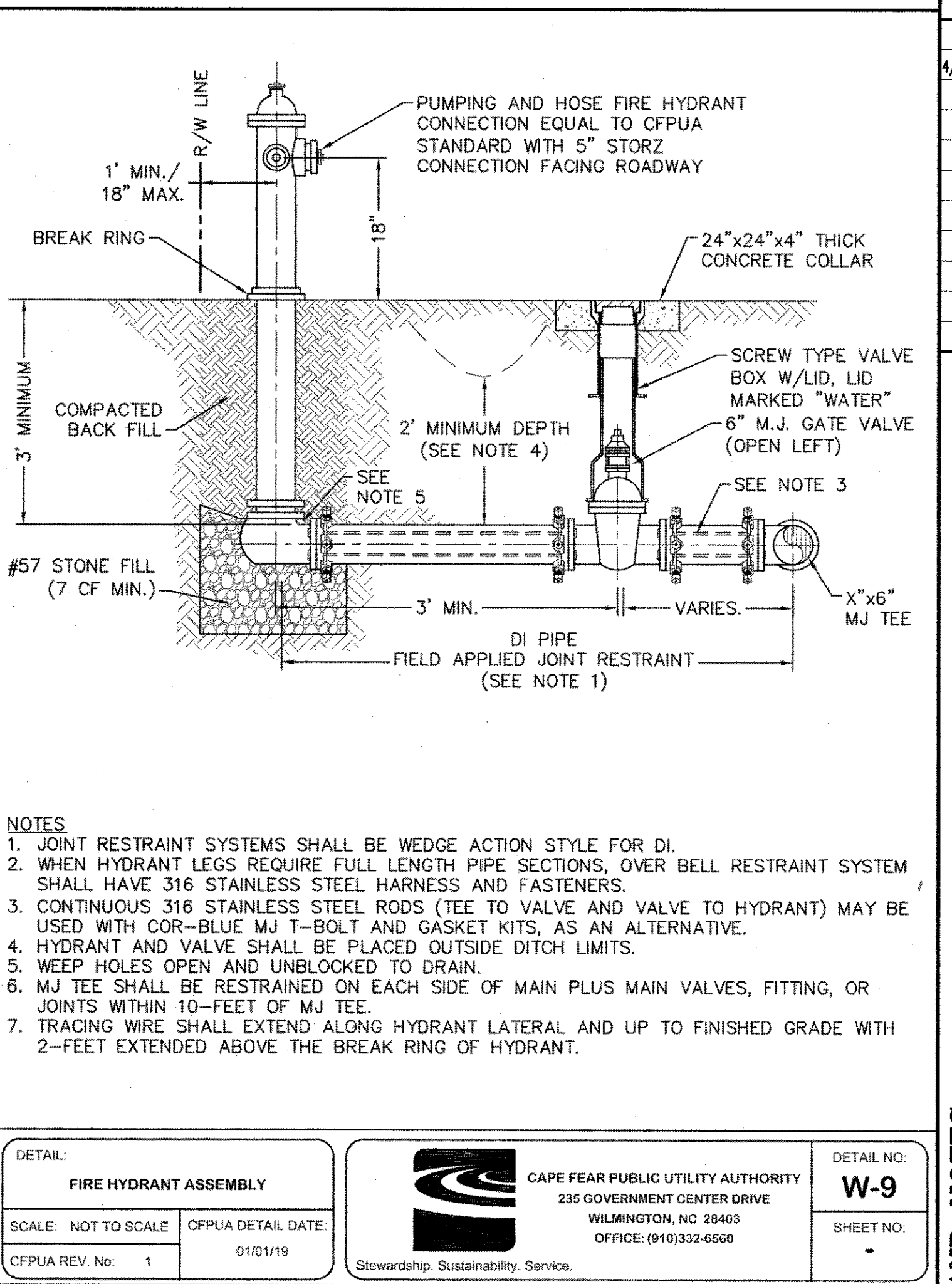
- NOTES:**
- MUST BE MIN. 36" AWAY FROM ANY ELECTRICAL PANEL.
 - VALVE REQUIRED DOWNSTREAM OF BACKFLOW ASSEMBLY.
 - VERTICAL INSTALLATION SHALL BE DESIGNED AND SUBMITTED TO CFPUA EMD FOR APPROVAL.
 - LOCATE AS CLOSE TO THE RIGHT-OF-WAY AS POSSIBLE.
 - INDOOR INSTALLATIONS MUST BE APPROVED BY CFPUA.
 - MUST COMPLETE CFPUA'S BACKFLOW INSTALLATION FORM. CONTACT COMMUNITY COMPLIANCE AT 910-332-6558 OR COMMUNITY.COMPLIANCE@CFPUA.ORG.
 - ONLY IN-LINE TESTABLE ASSEMBLIES APPROVED BY THE USC FOUNDATION FOR CROSS CONNECTION CONTROL OR ASSE SHALL BE ACCEPTED.

<p>DETAIL: DOUBLE CHECK VALVE ASSEMBLY</p> <p>SCALE: NOT TO SCALE CFPUA DETAIL DATE: 01/01/19</p> <p>CFPUA REV. No: 1</p>	<p>CAPE FEAR PUBLIC UTILITY AUTHORITY 235 GOVERNMENT CENTER DRIVE WILMINGTON, NC 28403 OFFICE: (910)332-6560</p> <p>Stewardship. Sustainability. Service.</p>	<p>DETAIL NO: EM-2</p> <p>SHEET NO: -</p>
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- NOTES:**
- FOR PRIVATE 8" SERVICES, MANHOLES ARE REQUIRED FOR CONNECTION TO SYSTEM AND AT THE PROPERTY LINE, WITH REQUIRED EASEMENT.
 - CLEANOUTS SHALL BE LOCATED A MINIMUM OF 12 FEET FROM ALL PROPERTY CORNERS.

<p>DETAIL: SEWER SERVICE CONNECTION - TYPICAL CLEAN-OUT</p> <p>SCALE: NOT TO SCALE CFPUA DETAIL DATE: 01/01/19</p> <p>CFPUA REV. No: 1</p>	<p>CAPE FEAR PUBLIC UTILITY AUTHORITY 235 GOVERNMENT CENTER DRIVE WILMINGTON, NC 28403 OFFICE: (910)332-6560</p> <p>Stewardship. Sustainability. Service.</p>	<p>DETAIL NO: S-13</p> <p>SHEET NO: -</p>
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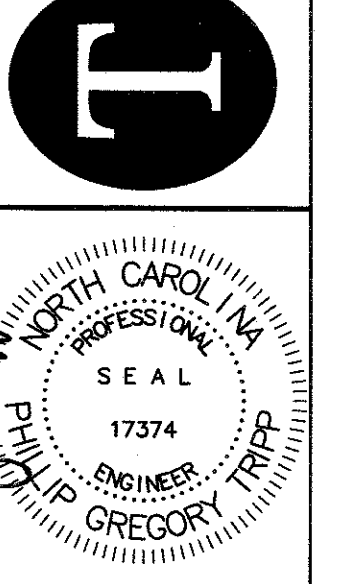
- NOTES:**
- JOINT RESTRAINT SYSTEMS SHALL BE WEDGE ACTION STYLE FOR DI.
 - WHEN HYDRANT LEGS REQUIRE FULL LENGTH PIPE SECTIONS, OVER BELL RESTRAINT SYSTEM SHALL HAVE 316 STAINLESS STEEL HARNESS AND FASTENERS.
 - CONTINUOUS 316 STAINLESS STEEL RODS (TEE TO VALVE AND VALVE TO HYDRANT) MAY BE USED WITH COR-BLUE MJ T-BOLT AND GASKET KITS, AS AN ALTERNATIVE.
 - HYDRANT AND VALVE SHALL BE PLACED OUTSIDE DITCH LIMITS.
 - WEEP HOLES OPEN AND UNBLOCKED TO DRAIN.
 - MJ TEE SHALL BE RESTRAINED ON EACH SIDE OF MAIN PLUS MAIN VALVES, FITTING, OR JOINTS WITHIN 10'-FEET OF MJ TEE.
 - TRACING WIRE SHALL EXTEND ALONG HYDRANT LATERAL AND UP TO FINISHED GRADE WITH 2'-FEET EXTENDED ABOVE THE BREAK RING OF HYDRANT.

<p>DETAIL: FIRE HYDRANT ASSEMBLY</p> <p>SCALE: NOT TO SCALE CFPUA DETAIL DATE: 01/01/19</p> <p>CFPUA REV. No: 1</p>	<p>CAPE FEAR PUBLIC UTILITY AUTHORITY 235 GOVERNMENT CENTER DRIVE WILMINGTON, NC 28403 OFFICE: (910)332-6560</p> <p>Stewardship. Sustainability. Service.</p>	<p>DETAIL NO: W-9</p> <p>SHEET NO: -</p>
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REVISIONS		
No./Date	Description	By
1/05/19	RESPONSE LETTER REV	JET

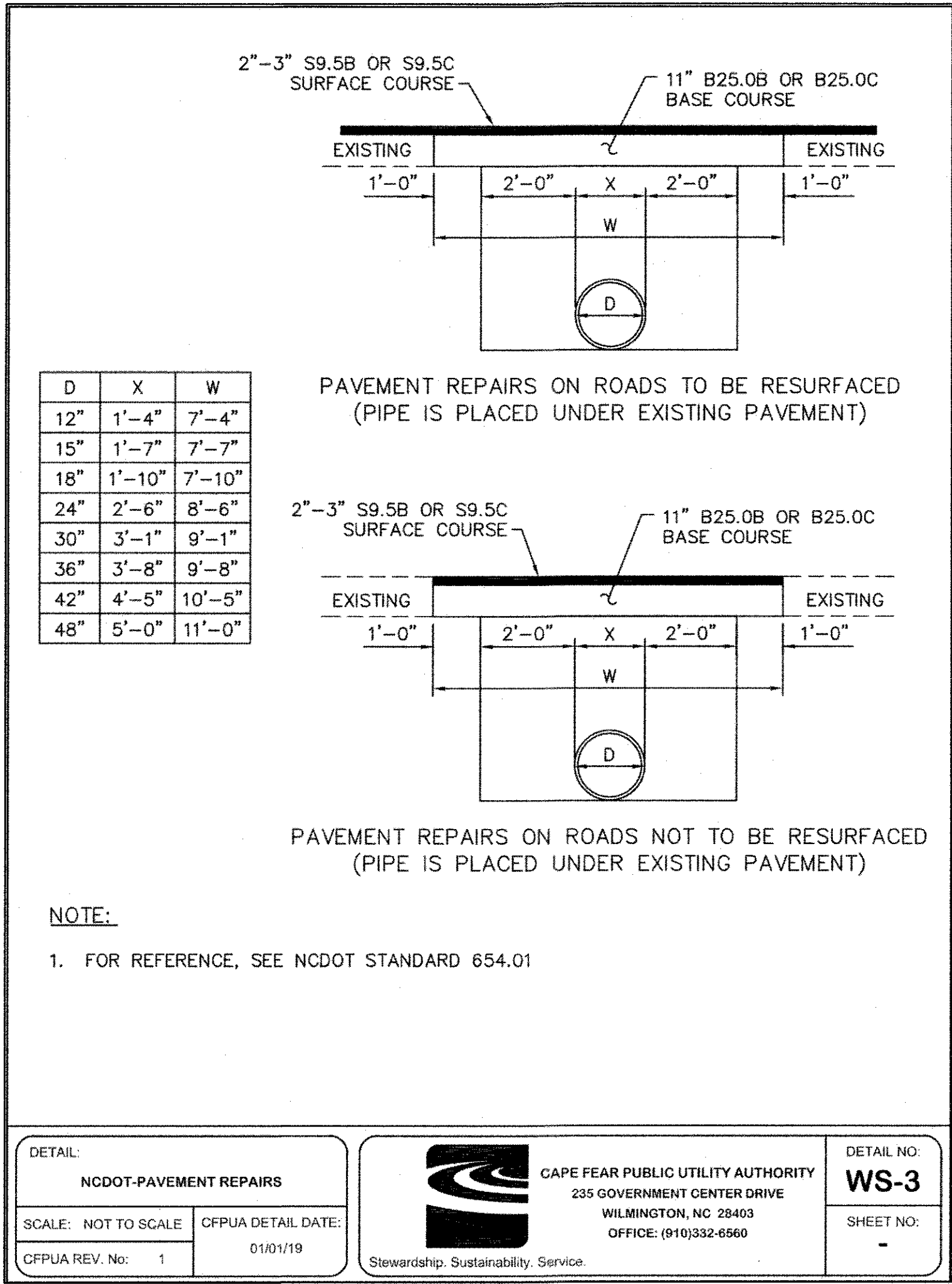
TRU & TAPESTRY HOTEL
 5001 MARKET STREET
 WILMINGTON, NORTH CAROLINA

TRIPP ENGINEERING, P.C.
 419 Chestnut Street
 Wilmington, North Carolina 28401
 Phone 910-763-5100
 Email trippeng@ec.rr.com



DATE 02-08-19
DESIGN PGT
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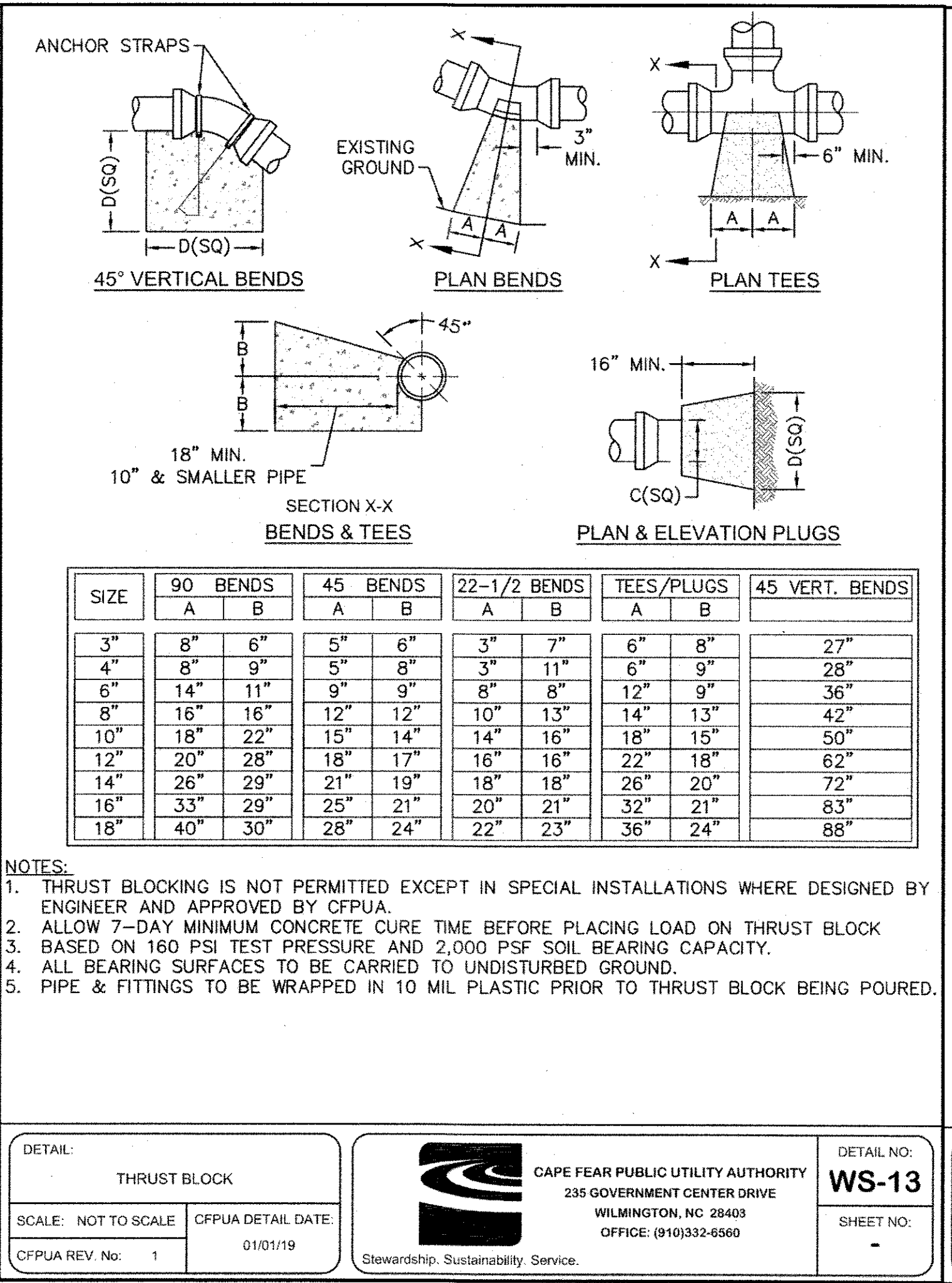
C6
SHEET 6 OF 7
17068



D	X	W
12"	1'-4"	7'-4"
15"	1'-7"	7'-7"
18"	1'-10"	7'-10"
24"	2'-6"	8'-6"
30"	3'-1"	9'-1"
36"	3'-8"	9'-8"
42"	4'-5"	10'-5"
48"	5'-0"	11'-0"

- NOTE:**
- FOR REFERENCE, SEE NCDOT STANDARD 654.01

<p>DETAIL: NCDOT-PAVEMENT REPAIRS</p> <p>SCALE: NOT TO SCALE CFPUA DETAIL DATE: 01/01/19</p> <p>CFPUA REV. No: 1</p>	<p>CAPE FEAR PUBLIC UTILITY AUTHORITY 235 GOVERNMENT CENTER DRIVE WILMINGTON, NC 28403 OFFICE: (910)332-6560</p> <p>Stewardship. Sustainability. Service.</p>	<p>DETAIL NO: WS-3</p> <p>SHEET NO: -</p>
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- NOTES:**
- THRUST BLOCKING IS NOT PERMITTED EXCEPT IN SPECIAL INSTALLATIONS WHERE DESIGNED BY ENGINEER AND APPROVED BY CFPUA.
 - ALLOW 7-DAY MINIMUM CONCRETE CURE TIME BEFORE PLACING LOAD ON THRUST BLOCK.
 - BASED ON 160 PSI TEST PRESSURE AND 2,000 PSF SOIL BEARING CAPACITY.
 - ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED GROUND.
 - PIPE & FITTINGS TO BE WRAPPED IN 10 MIL PLASTIC PRIOR TO THRUST BLOCK BEING POURED.

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"

- CAPE FEAR PUBLIC UTILITY AUTHORITY STANDARD NOTES:**
- ALL PROPOSED ADDITIONS TO THE CAPE FEAR PUBLIC UTILITY AUTHORITY (CFPUA) WATER DISTRIBUTION AND SANITARY SEWER COLLECTION SYSTEMS, AS SHOWN AND SPECIFIED HEREIN, SHALL BE DESIGNED AND CONSTRUCTED TO CONFORM TO STATE RULES AND THE CFPUA'S MINIMUM TECHNICAL STANDARDS. THE CFPUA MINIMUM TECHNICAL STANDARDS ARE CONTAINED IN THE CURRENT DESIGN GUIDANCE MANUAL, MATERIAL SPECIFICATION MANUAL, TECHNICAL SPECIFICATIONS FOR CONSTRUCTION, AND STANDARD DRAWING DETAILS.
 - 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 18" INSIDE 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 18" INSIDE RIGHT-OF-WAY LINE.
 - ALL SEWER SERVICES CONNECTING INTO DUCTILE IRON MAINS SHALL ALSO BE CONSTRUCTED OF DIP.
 - 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 TYPE 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.
 - UNUSED SERVICES SHALL BE ABANDONED. ABANDONED WATER SERVICES SHALL BE DISCONNECTED FROM MAIN.
 - A MINIMUM OF 10' OF MAIN LINE SHALL BE REPLACED FOR NEW CONNECTIONS TO EXISTING CLAY GRAVITY SEWER MAINS.

<p>DETAIL: STANDARD NOTES (REQUIRED ON ALL PLAN AND PROFILE SHEETS)</p> <p>SCALE: NOT TO SCALE CFPUA DETAIL DATE: 01/02/19</p> <p>CFPUA REV. No: 2</p>	<p>CAPE FEAR PUBLIC UTILITY AUTHORITY 235 GOVERNMENT CENTER DRIVE WILMINGTON, NC 28403 OFFICE: (910)332-6560</p> <p>Stewardship. Sustainability. Service.</p>	<p>DETAIL NO: WS-14</p> <p>SHEET NO: -</p>
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Approved Construction Plan

Name	Date
Planning	
Traffic	
Fire	

City of Wilmington, North Carolina
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN

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.

**PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING**

SECTION A: SELF-INSPECTION
Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include [40 CFR 122.41]:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those unattended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero". The permittee may use another rain-monitoring device approved by the Division.
(2) EESC Measures	At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measure, 6. Corrective actions taken, and 7. Date of actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	1. Identification of the discharge outfalls inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil, silt, floating or suspended solids or discoloration, 5. Indications of visible sediment leaving the site, 6. Actions taken to correct/prevent sedimentation, and 7. Date of actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up/stabilize the sediment that has left the site limits, 2. Date and time of the inspection, 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Evidence and actions taken to reduce sediment contribution, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item E(2)(a) of the permit of this permit.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

**PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING**

SECTION B: RECORDKEEPING
1. EESC Plan Documentation
The approved EESC plan as well as any approved deviation shall be kept on the site. The approved EESC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the EESC plan shall be documented in the manner described:

Item to Document	Documentation Requirements
(a) Each EESC Measure has been installed and does not significantly deviate from the location, dimensions and relative elevations shown on the approved EESC Plan.	Initial and date each EESC Measure on a copy of the approved EESC Plan or complete, date and sign an inspection report that lists each EESC Measure shown on the approved EESC Plan. This documentation is required upon the initial installation of the EESC Measures or if the EESC Measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved EESC Plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground covers are located and installed in accordance with the approved EESC Plan.	Initial and date a copy of the approved EESC Plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all EESC Measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to EESC Measures.	Initial and date a copy of the approved EESC Plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation
In addition to the EESC Plan documents above, the following items shall be kept on the site and available for agency inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

- This general permit as well as the certificate of coverage, after it is received.
- Records of inspections made during the previous 30 days. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.
- All data used to complete the Notice of Intent and older inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

**PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING**

SECTION C: REPORTING
1. Occurrences that must be reported
Permittees shall report the following occurrences:
(a) Visible sediment deposition in a stream or wetland.
(b) Oil spills if:
• They are 25 gallons or more,
• They are less than 25 gallons but cannot be cleaned up within 24 hours,
• They cause sheen on surface waters (regardless of volume), or
• They are within 100 feet of surface waters (regardless of volume).
(c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 111.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.
(d) Anticipated bypasses and unanticipated bypasses.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements
After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Division's Emergency Response personnel at (800) 662-7956, (800) 858-0368 or (919) 733-3300.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	• Within 24 hours , an oral or electronic notification. • Within 7 calendar days , a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. • If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired waters conditions.
(b) Oil spills and release of hazardous substances per Item 1(b) (c) above	• Within 24 hours , an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release. • A report at least ten days before the date of the bypass, if possible. The report shall include an evaluation of the anticipated quality and effect of the bypass.
(c) Anticipated bypasses [40 CFR 122.41(e)(2)]	• Within 24 hours , an oral or electronic notification.
(d) Unanticipated bypasses [40 CFR 122.41(e)(3)]	• Within 7 calendar days , a report that includes an evaluation of the quality and effect of the bypass.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment [40 CFR 122.41(f)(7)]	• Within 24 hours , an oral or electronic notification. • Within 7 calendar days , a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. [40 CFR 122.41(f)(6)]. • Division staff may waive the requirement for a written report on a case-by-case basis.



NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING EFFECTIVE: 03/01/19

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT
Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

Temporary and Permanent Groundcover*

Site Area Description	Stabilization	Timeframe Exceptions
Perimeter dikes, roads, ditches, slopes	Stabilization	None
High Quality Water (HQW) Zones	Stabilization	None
Slopes steeper than 3:1	Stabilization	If slopes are 10' or less in height and are not steeper than 2:1, 14 days are allowed.
Slopes 3:1 or flatter	Stabilization	7 days for slopes greater than 10' in height.
All other areas with slopes flatter than 4:1	Stabilization	None, except for streamlines and HQW Zones.

*For Falls Lake watershed, in disturbed areas where grading activities are incomplete, provide temporary groundcover no later than seven (7) days for slopes steeper than 3:1; ten (10) days for slopes equal to or flatter than 3:1; fourteen (14) days for areas with no slope.

GROUND STABILIZATION SPECIFICATION
Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
<ul style="list-style-type: none"> Temporary grass seed covered with straw or other mulches and seeders. Hydroseeding. Roll-on erosion control products with or without temporary grass seed. Appropriately applied straw or other mulch. Plastic sheeting. 	<ul style="list-style-type: none"> Permanent grass seed covered with straw or other mulches and seeders. Geotextile fabrics such as permanent soil reinforcement matting. Hydroseeding. Shrubs or other permanent plantings covered with mulch. Uniform and evenly distributed ground cover sufficient to restrain erosion. Structural methods such as concrete, asphalt or retaining walls.

- POLYACRYLAMIDES (PAMS) AND FLOCCULANTS**
- Select flocculants that are appropriate for the soils being exposed during construction, selecting from the NC DWR List of Approved PAMS/Flocculants.
 - Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
 - Apply flocculants at the concentrations specified in the NC DWR List of Approved PAMS/Flocculants and in accordance with the manufacturer's instructions.
 - Provide ponding area for containment of treated Stormwater before discharging offsite.
 - Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.



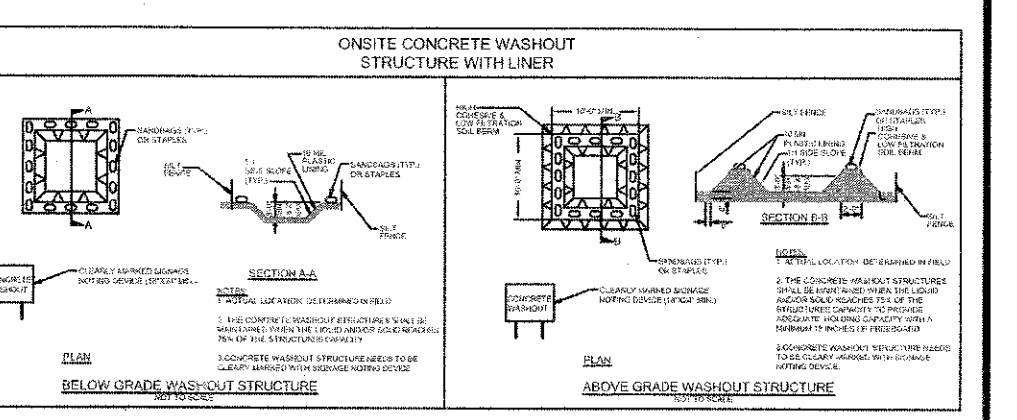
- EQUIPMENT AND VEHICLE MAINTENANCE**
- Maintain vehicles and equipment to prevent discharge of fluids.
 - Provide drip pans under any stored equipment.
 - Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
 - Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
 - Remove leaking vehicles and construction equipment from service until the problem has been corrected.
 - Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

- LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE**
- Never bury or burn waste. Place litter and debris in approved waste containers.
 - Provide a sufficient number of waste containers on site to manage the quantity of waste produced.
 - Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
 - Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
 - Cover waste containers at the end of each workday and before storm events. Repair or replace damaged waste containers.
 - Anchor all lightweight items in waste containers during times of high winds.
 - Empty waste containers as needed to prevent overflow.
 - Dispose waste off-site at an approved disposal facility.

- PAINT AND OTHER LIQUID WASTE**
- Do not dump paint and other liquid waste into storm drains, streams or wetlands.
 - Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
 - Contain liquid wastes in a controlled area.
 - Containment must be labeled, sized and placed appropriately for the needs of site.
 - Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

- PORTABLE TOILETS**
- Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind sit fence or place on a gravel pad and surround with sand bags.
 - Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
 - Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

- EARTHEN STOCKPILE MANAGEMENT**
- Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
 - Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
 - Provide stable stone access point when feasible.
 - Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.



- CONCRETE WASHOUTS**
- Do not discharge concrete or cement slurry from the site.
 - Dispose of, or recycle/strengthen, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
 - Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
 - Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
 - Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
 - Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
 - Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
 - Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
 - Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
 - At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

- HERBICIDES, PESTICIDES AND RODENTICIDES**
- Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
 - Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
 - Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
 - Do not stockpile these materials onsite.

- HAZARDOUS AND TOXIC WASTE**
- Create designated hazardous waste collection areas on-site.
 - Place hazardous waste containers under cover or in secondary containment.
 - Do not store hazardous chemicals, drums or bagged materials directly on the ground.

Approved Construction Plan

Name _____ Date _____

Planning _____

Traffic _____

Fire _____

CITY OF WILMINGTON
NORTH CAROLINA

Public Services • Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

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.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING EFFECTIVE: 03/01/19

REVISIONS

No. / Date	Description	By
4/05/19	RESPONSE LETTER REV	JET

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DETAILS AND NOTES
TRU & TAPESTRY HOTEL
 5001 MARKET STREET
 WILMINGTON, NORTH CAROLINA



DATE 02-08-19

DESIGN	PGT
DRAWN	JET