

INVENTORY OF TREES TO BE PROTECTED

TREE TYPE	TREE SIZE	QUANTITY	TOTAL DBH
GUM	18"	1	18
GUM	11"	1	11
GUM	9"	2	18
MAPLE	16"	1	16
CYPRESS	14"	1	14
CYPRESS	11"	1	11
CYPRESS	10"	2	20
PINE	17"	1	17
PINE	15"	1	15
PINE	13"	7	91
PINE	12"	2	24
PINE	8"	1	8
MAGNOLIA	8"	1	8
MAGNOLIA	4"	2	8
DOGWOOD	5"	1	5
HOLLY	11"	1	11
OAK	16"	1	16
OAK	13"	1	13
OAK	10"	1	10

NOTES:
TOTAL DBH = 334
334/6 = 56 TREES (CREDIT)

INVENTORY OF TREES TO BE REMOVED

TREE TYPE	TREE SIZE	QUANTITY
*GUM	20"	1
*GUM	14"	2
*GUM	12"	4
*GUM	11"	6
*GUM	9"	1
*GUM	8"	2
MAPLE	12"	1
MAPLE	10"	1
*CYPRESS	13"	2
*CYPRESS	12"	1
CYPRESS	7"	1
CHERRY	7"	1
PINE	20"	1
PINE	19"	1
PINE	18"	1
PINE	17"	2
PINE	16"	9
PINE	15"	11
PINE	14"	12
PINE	13"	8
PINE	12"	9
PINE	11"	1
PINE	10"	1

* SIGNIFICANT TREES

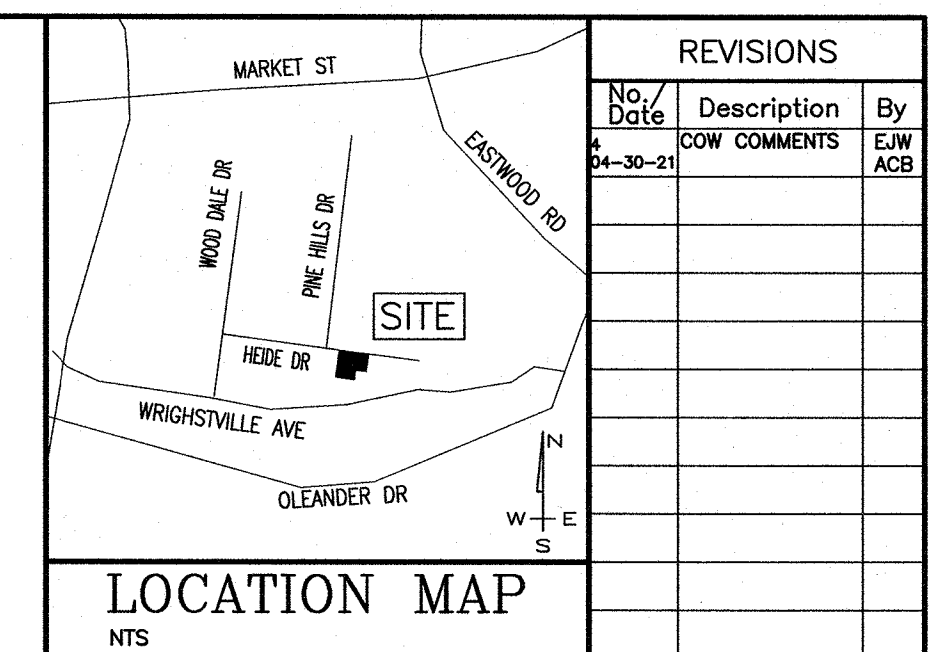
INVENTORY OF TREES TO BE REMOVED

TREE TYPE	TREE SIZE	QUANTITY
*MAGNOLIA	10"	1
*MAGNOLIA	9"	1
*MAGNOLIA	8"	1
*MAGNOLIA	7"	7
*MAGNOLIA	6"	1
*MAGNOLIA	5"	1
*MAGNOLIA	4"	4
*DOGWOOD	11"	1
*DOGWOOD	8"	1
*DOGWOOD	7"	1
*DOGWOOD	6"	1
*DOGWOOD	4"	7
OAK	18"	1
OAK	16"	1
OAK	12"	2
OAK	11"	1
OAK	10"	2
OAK	9"	5
OAK	8"	4
OAK	7"	1
OAK	6"	1
OAK	3"	1
*HARDWOOD	8"	1

TREE MITIGATION CHART

TREE TYPE	TREE SIZE	# OF TREES	% MITIGATION	REPLACEMENT TREES REQUIRED
GUM	20"	1	75	(20x(0.75*2))/3=10
GUM	14"	2	75	(28x(0.75*2))/3=14
GUM	12"	4	75	(48x(0.75*2))/3=24
GUM	11"	6	75	(66x(0.75*2))/3=33
GUM	8"	2	75	(16x(0.75*2))/3=5.33
CYPRESS	13"	2	100	(26x(1*2))/3=17.33
CYPRESS	12"	1	100	(12x(1*2))/3=8
MAGNOLIA	10"	1	100	(10x(1*2))/3=6.67
MAGNOLIA	9"	1	100	(9x(1*2))/3=6
MAGNOLIA	8"	1	100	(8x(1*2))/3=5.33
DOGWOOD	8"	1	100	(8x(1*2))/3=5.33
DOGWOOD	11"	1	100	(11x(1*2))/3=7.33
HARDWOOD	8"	1	25	(8x(0.75*2))/3=4

NOTES:
REPLACEMENT TREES REQUIRED = 145 TREES
TREE CREDIT = 56 TREES



REVISIONS

No.	Date	Description	By
1	06-18-20	ISSUE FOR PERMITS	BJH

- SITE INVENTORY NOTES:**
- PREPARER OF THE PLAN: TRIPP ENGINEERING, P.C.
 - APPLICANT NAME: WILLIAMS DEVELOPMENT GROUP, LLC LANDS
 - SITE ADDRESS OF THE DEVELOPMENT: HEIDE DRIVE
 - PROPERTY OWNER: STW PROPERTIES, LLC
 - DEVELOPER: WILLIAMS DEVELOPMENT GROUP
 - PROPERTY BOUNDARY: SEE PLAN
TAX PARCEL INFORMATION:
TRACT 2 PINE HILLS MAP BOOK 6 PAGE 59 DEED BOOK 5274 PAGE 613
TRACT 3 PINE HILLS MAP BOOK 6 PAGE 59 DEED BOOK 5274 PAGE 613
 - PROPERTY ZONING: R-10 RESIDENTIAL
PID: ROS520-008-068-000
PID: ROS520-008-067-000
52,272 SF / AC: 1.02
 - ADJACENT PROPERTY OWNER INFORMATION: SEE PLAN
 - VICINITY MAP: SEE PLAN
 - TOPOGRAPHY: SEE PLAN
 - 100-YEAR FLOOD BOUNDARY: N/A
 - EXISTING DITCHES, CREEKS AND STREAMS: SEE PLAN
 - SOIL: BH-HAYMEADE, MU-MURVILLE, SE-SEAGATE
 - 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: SEE PLAN
 - PROTECTED SPECIES OR HABITAT: N/A
 - EXISTING OR PROPOSED THROUGHFARES, BIKE ROUTES, PEDESTRIAN SIDEWALKS OR TRAILS AND TRANSIT FACILITIES: SEE SITE PLAN

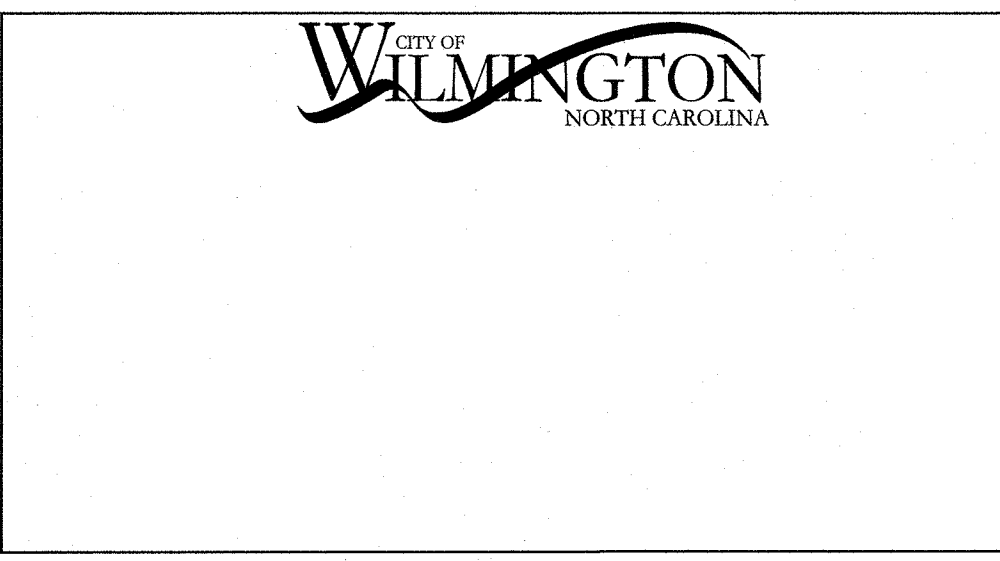
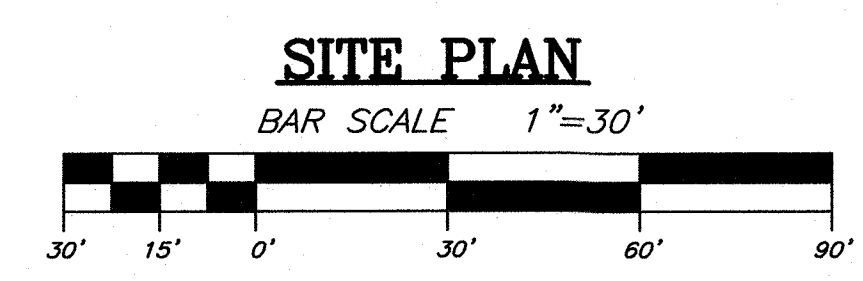
LEGEND

- TREE TO BE REMOVED
- TREE PROTECTION
- DEMO
- EXISTING IRON SET IRON
- CONC. MONUMENT
- EXIST. FIRE HYDRANT
- EXIST. POWER POLE
- PROPERTY LINE
- OHE EXIST. OVERHEAD ELECTRIC
- SS EXIST. SANITARY SEWER LINE
- SD EXIST. STORM DRAINAGE LINE
- W EXIST. WATER LINE

SURVEYOR LEGEND

- IRON PIPE FOUND (EIP)
- IRON REBAR FOUND (EIR)
- IRON PIPE SET (IPS)
- CONC. MONUMENT FOUND (ECM)
- MAG NAIL SET
- CENTERLINE (CL)
- R/W = RIGHT OF WAY
- NON-MONUMENTED POINT (NMP)
- CONIFER TREE (SIZES/TYPES AS NOTED)
- DECIDUOUS TREE (SIZES/TYPES AS NOTED)
- FLOWERING TREE (SIZES/TYPES AS NOTED)

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

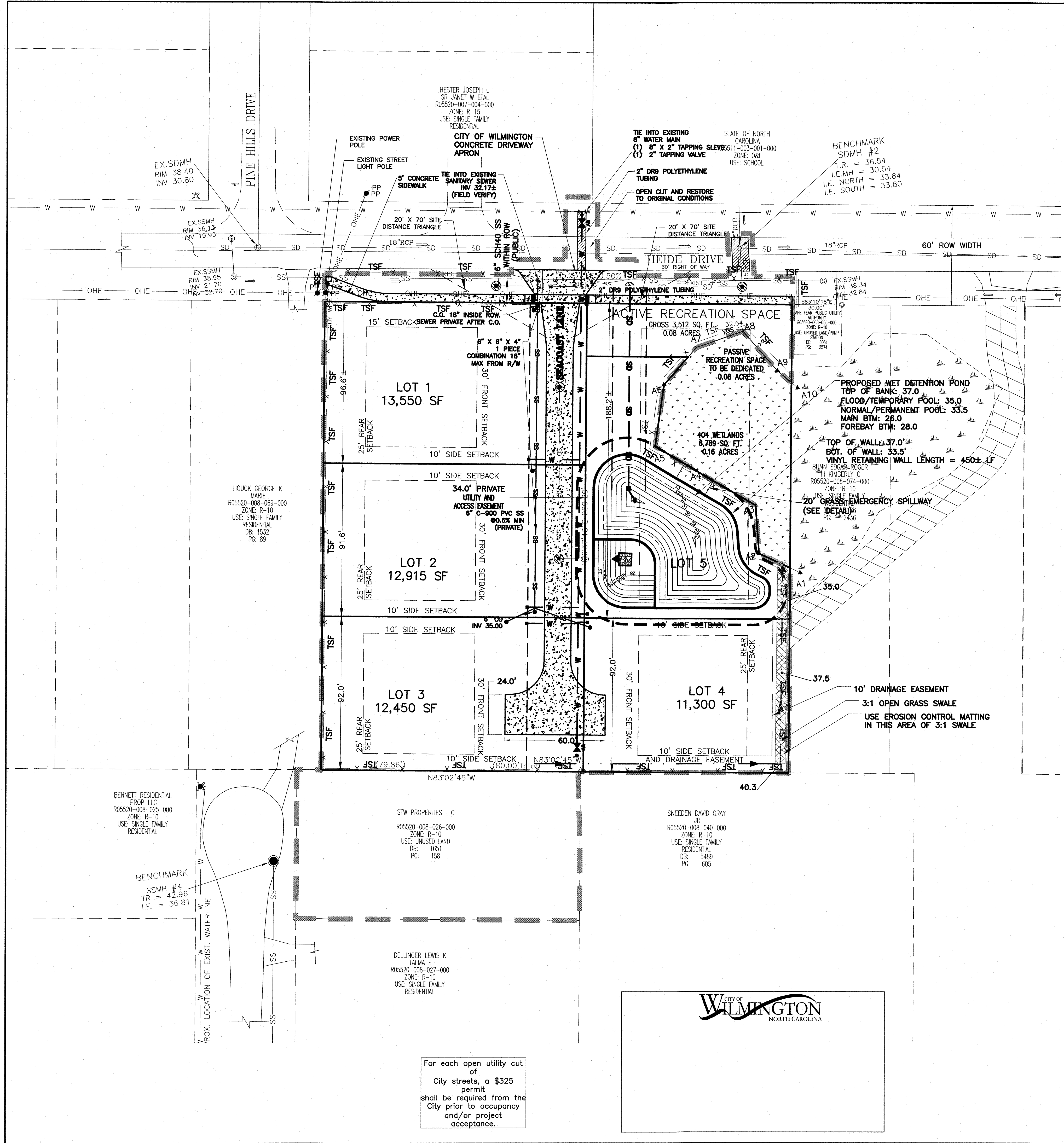


TRIPP ENGINEERING, P.C.
 419 Chestnut Street
 Wilmington, North Carolina 28401
 Phone 910-763-5100
 Fax 910-763-5631
 © 2018 TRIPP ENGINEERING, P.C.

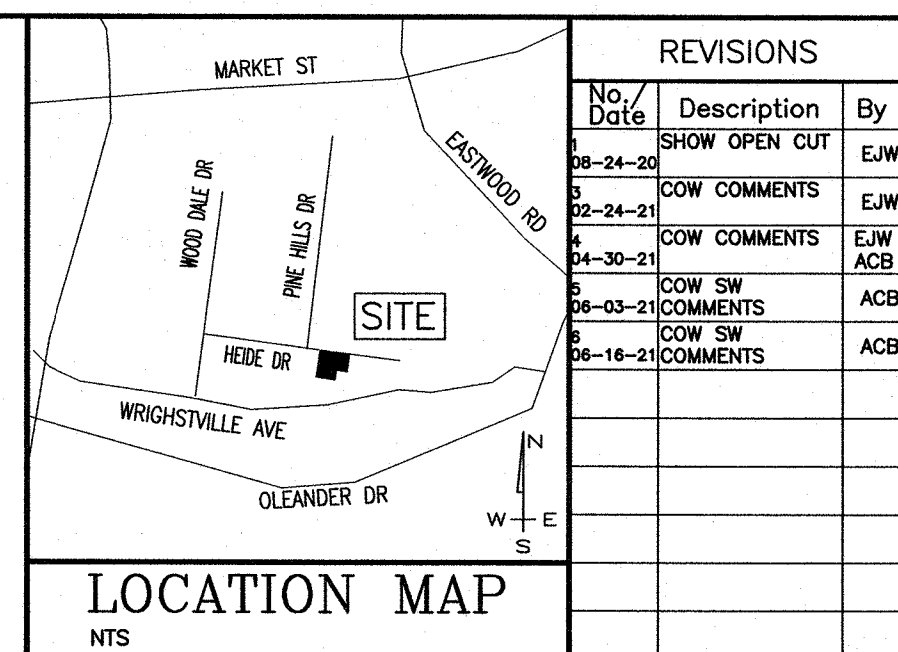
SITE INVENTORY, DEMOLITION, AND TREE REMOVAL PLAN
WOODLAND PARK SUBDIVISION
 WILMINGTON, NORTH CAROLINA

DATE 06-18-20
 DESIGN PGT
 DRAWN BJH

C1
 SHEET 1 OF 7
 19009



- NOTES:**
- ZONING**
- 1) TOPOGRAPHY AND TREE SURVEY COMPLETED BY DANFORD AND ASSOC.
 - 2) PERMITTING OF 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, PROPOSED EASEMENTS AS SHOWN.
 - 5) CONTRACTOR SHALL MAINTAIN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
 - 6) UNDERGROUND FIRE LINE(S) 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 ROLL OUT CARTS.
- 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) IT SHALL BE THE RESPONSIBILITY OF THE SUBDIVIDER TO ERECT OFFICIAL STREET NAME SIGNS AT ALL INTERSECTIONS ASSOCIATED WITH THE SUBDIVISION IN ACCORDANCE WITH THE TECHNICAL STANDARDS AND SPECIFICATIONS MANUAL. THE SUBDIVIDER MUST ACQUIRE AND ERECT OFFICIAL STREET NAME SIGNS OR MAY CHOOSE TO CONTRACT WITH THE CITY TO INSTALL THE STREET SIGNS AND THE SUBDIVIDER SHALL PAY THE COST OF SUCH INSTALLATION. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. PROPOSED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.
 - 3) 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.
 - 4) CONTACT TRAFFIC ENGINEERING AT 341-7888 TO ENSURE THAT ALL TRAFFIC SIGNALS FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN.
 - 5) CALL TRAFFIC ENGINEERING AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
 - 6) ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND CURBING WILL BE REPLACED.
 - 7) CONTACT TRAFFIC ENGINEERING AT 741-7888 TO DISCUSS STREET LIGHTING OPTIONS.
 - 8) ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
 - 9) NO ROWS TO BE CLOSED.
 - 10) NO STREETS PROPOSED.
 - 11) NO OFF SITE PARKING PROPOSED.
 - 12) PRIVATE ACCESS EASEMENTS IS PROPOSED.
 - 13) TRAFFIC ENGINEERING MUST APPROVE A PAVEMENT MARKING PRIOR TO ACTUAL STRIPING.
 - 14) ALL PARKING STALL MARKING AND LANE ARROWS WITHIN THE PARKING AREA SHALL BE WHITE.
 - 15) STOP SIGNS AND STREET SIGNS TO REMAIN IN PLACE DURING CONSTRUCTION.
 - 16) A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. CONTACT 341-5888 FOR MORE DETAILS. IN CERTAIN CASES AN ENTIRE RESURFACING OF THE AREA BEING OPEN CUT MAY BE REQUIRED.
 - 17) 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 PLAT. (SD 15-14 CoW TECH STDS)
- 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 PLAT.
 - 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/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 WILL OCCUR IN THOSE 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.
- CFPUA**
- 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 STATE 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 332-6419 FOR INFORMATION.
 - 5) ANY BACKFLOW PREVENTION DEVICES REQUIRED BY CFPUA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES FOR USFCOCHR OR ASSE.
 - 6) PUBLIC WATER AND SEWER EXIST WITHIN WRIGHTSVILLE AVE. R/W. NO RECORDS OF INDIVIDUAL EASEMENTS EXIST.
 - 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.
- DRAINAGE**
- 1) INVERTED CROWN TO DROP INLETS TO DETENTION POND.
 - 2) ALL ONSITE LOT AND ACCESS EASEMENT DRAINAGE TO BE DIRECTED TO DETENTION POND.
- FIRE AND LIFE SAFETY**
- ADDITIONAL FIRE PROTECTION AND/OR ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.



REVISIONS		
No./Date	Description	By
08-24-20	SHOW OPEN CUT	EJW
09-24-21	COW COMMENTS	EJW
10-24-21	COW COMMENTS	EJW
11-03-21	COW SW COMMENTS	ACB
11-16-21	COW SW COMMENTS	ACB

SITE DATA:

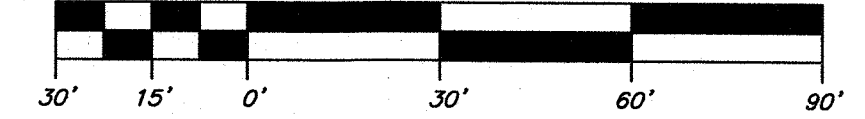
PIN NUMBERS	PID: R05520-008-068-000 PID: R05520-008-067-000
PROPERTY OWNER	STW PROPERTIES, LLC
PROJECT ADDRESS	5030 HEIDE DR. 5032 HEIDE DR.
TRACT AREA	78,457 SF (1.80 Ac)
ZONING DISTRICT	R-10
AREA NOT IN A FEMA 100-YEAR FLOOD ZONE	
CAMA LAND USE	URBAN
PROPOSED ZONING	R-10
PROPOSED USE SQUARE FOOTAGE(S) OF USE(S)	N/A
NUMBER OF UNITS/BEDROOMS	8/20
BUILDING CONSTRUCTION TYPE	TBD
BUILDING LOT COVERAGE PERCENTAGE	
LOT 1	16%
LOT 2	16%
LOT 3	16%
LOT 4	21%
BUILDING HEIGHT / # OF STORIES	1
SF PER FLOOR	2,850 SF
BUILDING SETBACKS - REQUIRED AND PROPOSED	
	REQUIRED
	FRONT: 30 FT
	SIDE: 10
	REAR: 25
	PROPOSED
	FRONT: 30 FT
	SIDE: 10
	REAR: 25
PARKING SPACES	N/A
EXISTING IMPERVIOUS AREA	0 SF
PROPOSED ON SITE IMPERVIOUS AREA	24,760 SF
LOTS (6,190 SF PER LOT)	
ACCESS ROAD	4,920 SF
SIDEWALK	2,020 SF
FUTURE	1,225 SF
TOTAL	32,925 SF
	0.76 AC (42%) SF
PROPOSED OFF SITE IMPERVIOUS CONCRETE	2,013 SF
	.05 AC
DISTURBED AREA	92,898 SF (2.13 AC)
NUMBER OF UNITS	4 LOTS
RECREATION AREA - (0.03 AC/UNIT) (4 UNITS X .03) = 0.12 AC REQ'D	
** 0.08 AC. ACTIVE PROVIDED **	
** 0.08 AC. PASSIVE PROVIDED **	

LEGEND

- X-14PINE EXISTING TREE TO BE REMOVED
- TSF x TSF LIMITS OF DISTURBANCE
- TSF x TSF TEMPORARY SILT FENCE
- EXIST. FIRE HYDRANT
- R/W LINE
- BOUNDARY LINE
- SS STORMWATER
- PROPOSED SANITARY SEWER
- PROPOSED WATER
- PROPOSED CONCRETE

SITE PLAN

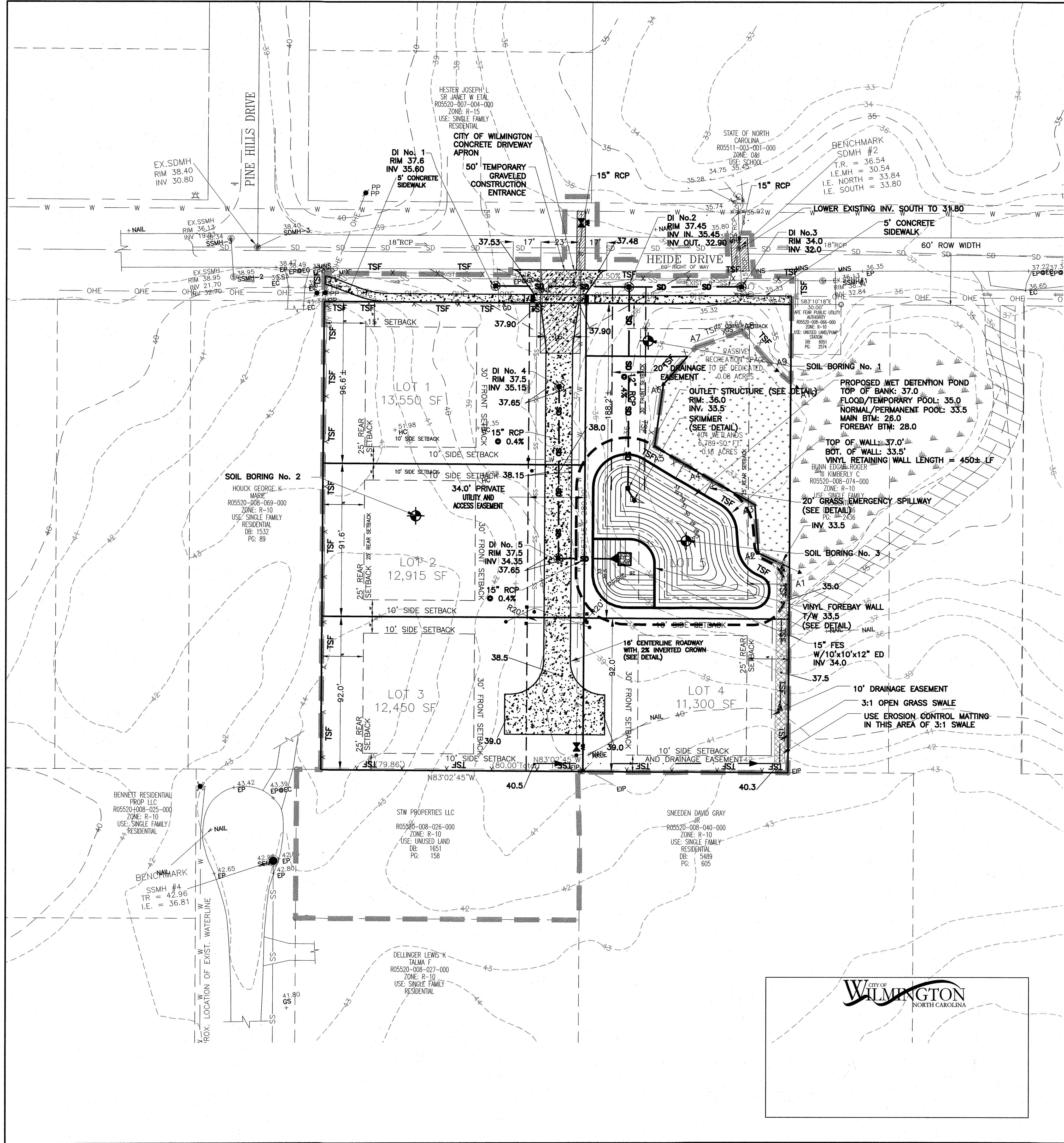
BAR SCALE 1"=30'



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 AND UTILITY PLAN
WOODLAND PARK SUBDIVISION
WILMINGTON, NORTH CAROLINA
TRIPP ENGINEERING, P.C.
 419 Chestnut Street
 Wilmington, North Carolina 28401
 Phone 910-763-5100
 Fax 910-763-5631
 © 2020 TRIPP ENGINEERING, P.C.



NOTES:

ZONING

- 1) TOPOGRAPHY AND TREE SURVEY COMPLETED BY DANFORD AND ASSOC.
- 2) PERMITTING OF 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, PROPOSED EASEMENTS AS SHOWN.
- 5) CONTRACTOR SHALL MAINTAIN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
- 6) UNDERGROUND FIRE LINE(S) 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 ROLL OUT CARTS.

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) IT SHALL BE THE RESPONSIBILITY OF THE SUBDIVIDER TO ERECT OFFICIAL STREET NAME SIGNS AT ALL INTERSECTIONS ASSOCIATED WITH THE SUBDIVISION IN ACCORDANCE WITH THE TECHNICAL STANDARDS AND SPECIFICATIONS MANUAL. THE SUBDIVIDER MAY ACQUIRE AND ERECT OFFICIAL STREET NAME SIGNS OR MAY CHOOSE TO CONTRACT WITH THE CITY TO INSTALL THE STREET SIGNS AND THE SUBDIVIDER SHALL PAY THE COST OF SUCH INSTALLATION. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. PROPOSED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.
- 3) 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.
- 4) CONTACT TRAFFIC ENGINEERING AT 341-7888 TO ENSURE THAT ALL TRAFFIC SIGNALS FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN.
- 5) CALL TRAFFIC ENGINEERING AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
- 6) ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND CURBING WILL BE REPLACED.
- 7) CONTACT TRAFFIC ENGINEERING AT 741-7888 TO DISCUSS STREET LIGHTING OPTIONS.
- 8) ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
- 9) NO ROWS TO BE CLOSED.
- 10) NO STREETS PROPOSED.
- 11) NO OFF SITE PARKING PROPOSED.
- 12) PRIVATE ACCESS EASEMENTS IS PROPOSED.
- 13) TRAFFIC ENGINEERING MUST APPROVE A PAVEMENT MARKING PRIOR TO ACTUAL STRIPING.
- 14) ALL PARKING SLAT MARKING AND LANE ARROWS WITHIN THE PARKING AREA SHALL BE WHITE.
- 15) STOP SIGNS AND STREET SIGNS TO REMAIN IN PLACE DURING CONSTRUCTION.
- 16) A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. CONTACT 341-5888 FOR MORE DETAILS. IN CERTAIN CASES AN ENTIRE RESURFACING OF THE AREA BEING OPEN CUT MAY BE REQUIRED.
- 17) 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)

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 PLAT.
- 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/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 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.

CFPUA

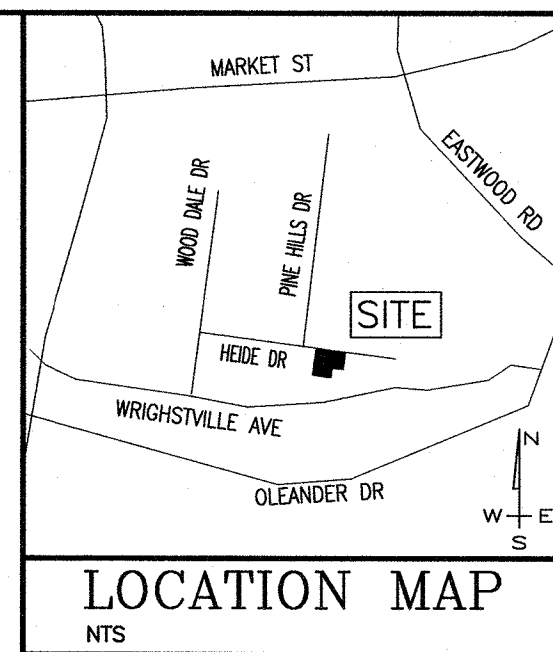
- 1) WATER AND SEWER SERVICE SHALL MEET CAPE FEAR PUBLIC UTILITY AUTHORITY (CFPUA) DETAILS AND SPECIFICATIONS.
- 2) PROJECT SHALL COMPLY WITH THE CFPUA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METER(S) CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND THE STATE HAS GIVEN THEIR FINAL APPROVAL.
- 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 DEVELOPERS SIDE OF THE WATER METER BOX.
- 4) ANY IRRIGATION SYSTEM SUPPLIED BY CFPUA WATER SHALL COMPLY WITH THE CFPUA'S CONNECTION CONTROL REGULATION. CALL 332-6419 FOR INFORMATION.
- 5) ANY BACKFLOW PREVENTION DEVICES REQUIRED BY CFPUA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES FOR USCFCOCHR OR ASSE.
- 6) PUBLIC WATER AND SEWER EXIST WITHIN WRIGHTSVILLE AVE. R/W. NO RECORDS OF INDIVIDUAL EASEMENTS EXIST.
- 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.

DRAINAGE

- 1) INVERTED CROWN TO DROP INLETS TO DETENTION POND.
- 2) ALL ONSITE LOT AND ACCESS EASEMENT DRAINAGE TO BE DIRECTED TO DETENTION POND.

FIRE AND LIFE SAFETY

ADDITIONAL FIRE PROTECTION AND/OR ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.



REVISIONS			
No./Date	Description	By	By
08-24-20	SHOW OPEN CUT	EJM	
08-19-20	ADDED POND	BJH	
07-22-20	COW COMMENTS	EJM	
04-20-21	COW COMMENTS	EJM	ACB
08-03-20	COW SW COMMENTS	ACB	
08-16-21	COW SW COMMENTS	ACB	

SITE DATA:

PIN NUMBERS: R05520-008-068-000
R05520-008-067-000

PROPERTY OWNER: STW PROPERTIES, LLC
PROJECT ADDRESS: 5032 HEIDE DR.
TRACT AREA: 78,457 SF (1.80 AC)

ZONING DISTRICT: R-10
AREA NOT IN A FEMA 100-YEAR FLOOD ZONE
CAMA LAND USE: URBAN
PROPOSED ZONING: R-10
PROPOSED USE SQUARE FOOTAGE(S) OF USE(S): N/A
NUMBER OF UNITS/BEDROOMS: 8/20
BUILDING CONSTRUCTION TYPE: TBD
BUILDING LOT COVERAGE PERCENTAGE: TBD

LOT 1: 16%
LOT 2: 16%
LOT 3: 16%
LOT 4: 21%

BUILDING HEIGHT / # OF STORIES: 1
SF PER FLOOR: 2,850 SF
BUILDING SETBACKS - REQUIRED AND PROPOSED:

REQUIRED	FRONT: 30 FT
REQUIRED	SIDE: 10
REQUIRED	REAR: 25
PROPOSED	FRONT: 30 FT
PROPOSED	SIDE: 10
PROPOSED	REAR: 25

PARKING SPACES: N/A

EXISTING IMPERVIOUS AREA: 0 SF

PROPOSED ON SITE IMPERVIOUS AREA: 24,760 SF
LOTS (6,190 SF PER LOT)
ACCESS ROAD: 4,920 SF
SIDEWALK: 2,020 SF
FUTURE: 1,225 SF
TOTAL: 32,925 SF
0.76 AC (42%) SF

PROPOSED OFF SITE IMPERVIOUS CONCRETE: 2,013 SF
0.05 AC

DISTURBED AREA: 92,898 SF (2.13 AC)

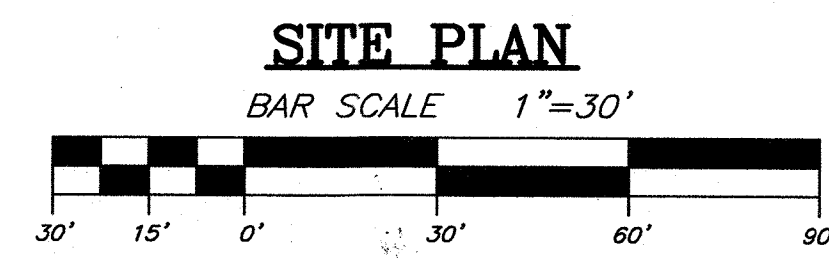
NUMBER OF UNITS: 4 LOTS
RECREATION AREA - (0.03 AC/UNIT) (4 UNITS X .03) = 0.12 AC REQ'D
** 0.08 AC. ACTIVE PROVIDED **
** 0.08 AC. PASSIVE PROVIDED **

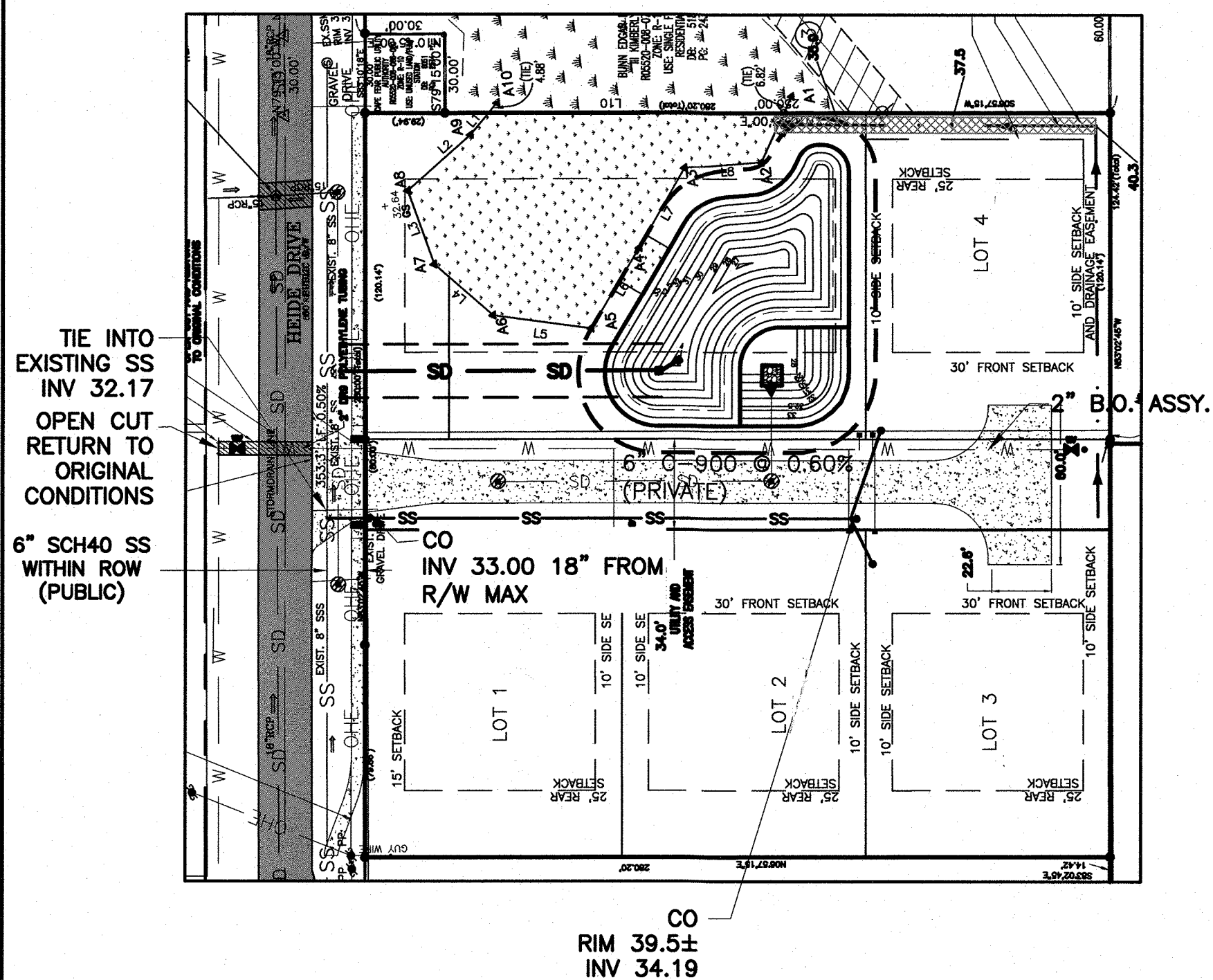
TRIPP ENGINEERING, P.C.
 419 Chestnut Street
 Wilmington, North Carolina 28401
 Phone 910-763-5100
 Fax 910-763-5631
 © TRIPP ENGINEERING, P.C.

**GRADING, DRAINAGE EROSION CONTROL
 STORMWATER MANAGEMENT AND UTILITY PLAN
 WOODLAND PARK SUBDIVISION
 WILMINGTON, NORTH CAROLINA**

LEGEND

SS	SEWER
W	WATER
SD	PROPOSED STORM WATER
FLAIED END SECTION	FLAIED END SECTION STORM WATER
TSF	LIMITS OF DISTURBANCE
TSF x TSF	TEMPORARY SILT FENCE
(Pattern)	PROPOSED SIDEWALK
38.9	PROPOSED SPOT ELEVATION
(Symbol)	DROP INLET PROTECTION





PLAN
1" = 40'

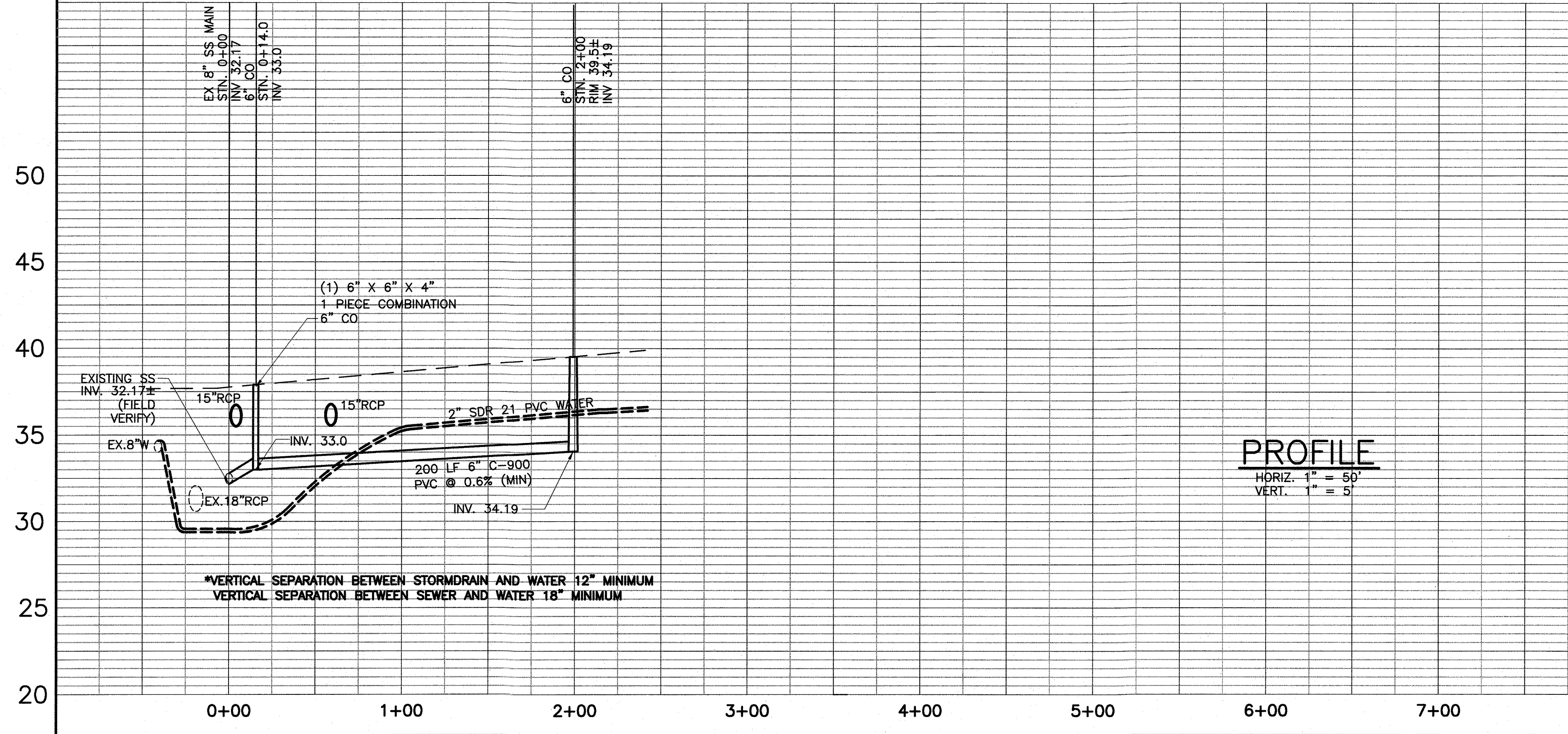
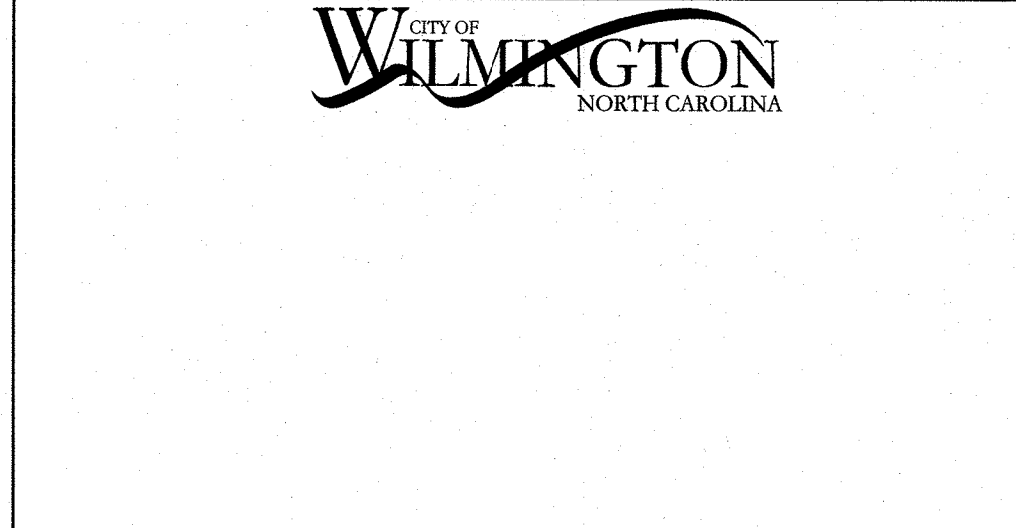
CAPE FEAR PUBLIC UTILITY AUTHORITY STANDARD NOTES:

- ALL PROPOSED ADDITIONS TO THE CAPE FEAR PUBLIC UTILITY AUTHORITY (CPFA) WATER DISTRIBUTION AND SANITARY SEWER COLLECTION SYSTEMS AS SHOWN AND SPECIFIED HEREIN, SHALL BE DESIGNED AND CONSTRUCTED TO CONFORM TO STATE RULES AND THE CPFA'S MINIMUM TECHNICAL STANDARDS. THE CPFA'S 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, STABLES, STEEL SEWER GUARDS REQUIRED AT MANHOLES LOCATED IN WATER AND SEWER SERVICES SHALL BE PERPENDICULAR TO MAIN AND TERMINATE 18" INSIDE RIGHT-OF-WAY LINE. SEWER SERVICES IN CUT-OF-GRASS 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 STEEL COUPLINGS SHALL BE USED.
- ALL MANHOLE STEEL FASTENERS SHALL BE TYPE 316.
- CLEARWAYS SHALL BE LOCATED A MINIMUM OF 5 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, 5' UPSTREAM AND 5' DOWNSTREAM SHALL BE REPLACED FOR NEW SEWER SERVICE CONNECTING TO EXISTING CLAY GRAVITY SEWER MAINS.
- A MINIMUM OF 20' OF MAIN LINE, 10' UPSTREAM AND 10' DOWNSTREAM SHALL BE REPLACED FOR NEW CUT IN MANHOLES ON EXISTING CLAY GRAVITY SEWER MAINS.
- PROVIDE A MINIMUM DISTANCE OF 36 (3) INCHES BETWEEN EDGE OF MANHOLE CORE HOLES AND MANHOLE BARREL CENTER. PROVIDE A MINIMUM DISTANCE OF 36 (3) INCHES BETWEEN EDGES OF CORE HOLES. CORING THE MANHOLE CONE IS NOT PERMITTED.
- WATER MAIN AND FORCE MAIN PIPE INSTALLED BY OPEN CUT SHALL BE BURIED AT A MINIMUM OF THREE (3) FEET AND A MAXIMUM OF FIVE (5) FEET BELOW FINISHED GRADE. DEPTHS GREATER THAN FIVE (5) FEET MUST BE APPROVED BY CPFA.
- ALL MANHOLE MAIN LINE AND SERVICE PIPING TO BE INSTALLED AT A MINIMUM OF CROWN TO CROWN OF THE LARGEST DIAMETER PIPE.

DATE: 06-18-20
SCALE: 1" = 50'
1" = 5'

DRAWN: BJH
CHECKED: PGT
PROJECT NO: 19009

SHEET NO: C4
OF 4 OF 7



PROFILE
HORIZ. 1" = 50'
VERT. 1" = 5'

REV NO.	DESCRIPTION	DATE
1	ADDED WATER PROFILE, OPEN CUT	08-24-20

SANITARY SEWER EXTENSION
WOODLAND PARK SUBDIVISION
WILMINGTON, NORTH CAROLINA

TRIPP ENGINEERING, P.C.
419 Chestnut Street
Wilmington, North Carolina 28401
Phone 910-763-5100
Fax 910-763-5631
© 2011 TRIPP ENGINEERING, P.C.

CAPE FEAR PUBLIC UTILITY AUTHORITY
NORTH CAROLINA

Date: _____ Page: _____

PART II, SECTION G, ITEM (4) DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that allow water from the surface when devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather). Non-surface withdrawal from sediment basins shall be allowed only when all of the following criteria have been met:

- The EASDC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the EASDC plan authority has approved these items.
- The non-surface withdrawal has been reported as an anticipated type in accordance with Part II, Section G, Item (2)(c) and (d) of this permit.
- Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include primary sited, designed and maintained dewatering tanks, wet tanks, and filtration systems.
- Vegetated upland areas of the sites or a properly designed area pad is used to the extent feasible to divert the outlet of the dewatering treatment devices described in item (c) above.
- Velocity dissipation devices such as check dams, rock, and riprap are provided at discharge points of all dewatering devices, and
- Sediment removed from the dewatering treatment devices described in item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

PART II 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 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 equal to or 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:
(1) Rain gauge maintained in good working order	Daily rainfall amounts. If daily rain gauge observations are made during wetland on holiday periods, and no individual daily rainfall information is available, record the cumulative rain measurement for those wetland days (this will include inspection records taken on non-rainfall occurred shall be recorded as "0"). The permittee may use another rain-measuring device approved by the Division.	
(2) EASDC 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. Identification of whether the measures were operating properly 5. Description of maintenance needs for the measures 6. Description, evidence, and date of corrective actions taken
(3) Stormwater discharge outlets (DOCs)	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 outlets inspected 2. Date and Time of the inspection 3. Name of the person performing the inspection 4. Evidence of indication of sediment pollution such as oil, sludge, floating or suspended solids or discoloration 5. Indication of visible sediment leaving the site 6. Description, evidence, and date corrective 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.	1. Identification of the perimeter of the site 2. Date and Time of the inspection 3. Name of the person performing the inspection 4. Evidence of indication of sediment pollution such as oil, sludge, floating or suspended solids or discoloration 5. Indication of visible sediment leaving the site 6. Description, evidence, and date corrective actions taken
(5) Stream or wetlands and/or off-site (where accessible)	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 stream or wetland 2. Date and Time of the inspection 3. Name of the person performing the inspection 4. Evidence of indication of sediment pollution such as oil, sludge, floating or suspended solids or discoloration 5. Indication of visible sediment leaving the site 6. Description, evidence, and date corrective actions taken
(6) Ground Stabilization Measures	After each phase of grading.	1. The phase of grading (installation of perimeter EASDC or a similar inspection form that includes all required elements. Use of electronically available records in lieu of the required paper copies will be allowed if the records are accurate and clearly legible. 2. Documentation that the required ground stabilization measures have been installed for the required timeframe or assurance that they will be provided as soon as possible.

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

PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

The approved EASDC plan must be kept up-to-date throughout the coverage under the permit. The following items pertaining to the EASDC plan shall be kept on file and available for inspection at all times during normal business hours.

Item to Document	Document Requirements
(a) EASDC Plan Documentation	Initial and date a copy of the approved EASDC plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(b) A phase of grading has been completed	Initial and date a copy of the approved EASDC plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved EASDC plan.	Initial and date a copy of the approved EASDC 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 EASDC measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to EASDC measures.	Initial and date a copy of the approved EASDC plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

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 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 (40 CFR 113.3 and 40 CFR 117.3) or Section 102 of CERCLA (40 CFR 300.4) or 40 CFR 145.214-215.65.
(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 timeframe and in accordance with the requirements listed below. Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800) 558-5366.
Reporting Timeframes (After Discovery) and Other Requirements:
(a) Within 24 hours, an oral or electronic notification.
(b) Within 7 calendar days, a report that contains a description of the occurrence and actions taken to address the cause of the deposition in a stream or wetland.
(c) The stream is named on the NC 30306 list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if self-determination indicates additional reporting is warranted.
(d) Within 24 hours, an oral or electronic notification.
(e) Within 7 calendar days, a report that contains a description of the occurrence and actions taken to address the cause of the deposition in a stream or wetland.
(f) The stream is named on the NC 30306 list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if self-determination indicates additional reporting is warranted.
(g) Oil spills and releases of hazardous substances per item (b)-(c) above:
(i) A report of least ten days before the date of the spillage, if possible. The report shall include an evaluation of the anticipated quality and effect of the spillage.
(ii) Within 24 hours, an oral or electronic notification.
(iii) Within 7 calendar days, a report that contains an evaluation of the spillage and effect of the spillage.
(iv) Within 24 hours, an oral or electronic notification.
(v) Within 7 calendar days, a report that contains an evaluation of the spillage and effect of the spillage.
(vi) Noncompliance with the conditions of this permit that may endanger health or the environment.
(vii) Within 7 calendar days, a report that contains an evaluation of the occurrence and actions taken to address the cause of the deposition in a stream or wetland.
(viii) Division staff may waive the requirement for a written report on a case-by-case basis.

NCG-01 SELF INSPECTION

Date: _____ Page: _____

SECTION E: GROUND STABILIZATION

Implementing the details and specifications on this plan shall result in the construction activity being consistent 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.

Site Area Description	Required Ground Stabilization Timelines	Timeframe variations
(1) Perimeter dikes, swales, ditches, and slopes	Stabilize within 7 days after existing land disturbance	None
(2) High Quality Water (HQW) Zones	7	None
(3) Slopes steeper than 3:1	7	If slopes are 10 feet or less in length and are not steeper than 2:1, 14 days are allowed. 7 days for slopes greater than 10 ft in length and with slopes steeper than 4:1
(4) Slopes 2:1 to 4:1	14	10 days for Falls Lake Watershed 10 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones 10 days for Falls Lake Watershed unless there is a steep slope
(5) Areas with slopes flatter than 4:1	14	None

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

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
- Temporary grass seed covered with straw or other mulches and fasteners. - Hydroseeding. - Rolled erosion control products with or without temporary grass seed. - Mulch or other permanent plantings covered with mulch. - Uniform and evenly distributed ground cover sufficient to restrain erosion. - Structural materials such as concrete, asphalt or retaining walls. - Rolled erosion control products with grass seed.	- Permanent grass seed covered with straw or other mulches and fasteners. - Geotextile fabric such as permanent soil reinforcement matting. - Hydroseeding. - Strips or other permanent plantings covered with mulch. - Uniform and evenly distributed ground cover sufficient to restrain erosion. - Structural materials such as concrete, asphalt or retaining walls. - Rolled erosion control products with grass seed.

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 effluent.
- Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

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.

EQUIPMENT AND VEHICLE MAINTENANCE

- Maintain vehicles and equipment to prevent discharge of fluids.
- Provide drip pans under all equipment.
- Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
- Collect all spilled fluids, store in separate containers and properly dispose as hazardous waste (unless where prohibited).
- Remove leaking vehicles and construction equipment from service until the problem has been identified.
- 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 CLEANING WASTE

- Never bury or burn waste. Place litter and debris in approved waste containers.
- Provide a sufficient number and size of waste containers (e.g. dumpster, trash receptacle) on site to contain construction and domestic wastes.
- Locate waste containers at least 50 feet away from storm drain inlets and surface waters and 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 or provide secondary containment. Repair or replace damaged waste containers.
- Anchors all lightweight items in waste containers during times of high winds.
- Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
- Dispose waste materials at an approved disposal facility.
- On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

- Do not pour paint and other liquid waste into storm drains, streams or wetlands.
- Locate paint worksheds at least 50 feet away from storm drain inlets and surface waters and 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 leakage 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 and fence on grass or 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 portable sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.
- Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.

BARTHEN STOCKPILE MANAGEMENT

- Show stockpile locations on plans. Locate earth-material stockpile areas at least 50 feet away from storm drain inlets, wetland basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
- Protect stockpiles with silt fence installed along toe of slope with a minimum offset of five feet from the toe of slope.
- Provide stable stone access point when feasible.
- Stabilize stockpiles 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.

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 instructions 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 wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
- Do not stockpile these materials on-site.

Date: _____ Page: _____

NCG-01 GROUND COVER & MATERIALS HANDLING

ON-SITE CONCRETE WASHOUT STRUCTURE WITH LINER

1. Do not discharge concrete or cement slurry from the site.
2. Dispose of, or recycle, settled, hardened concrete residues in accordance with local and state solid waste regulations and at an approved facility.
3. Manage washout from mortar mixers in accordance with the above item and in addition place the mixer residue materials on impervious barrier and within 100 feet of perimeter silt fence.
4. 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.
5. 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 as soon as possible.
6. 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 inlets closest to the washout which could receive spills or overflow.
7. 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.
8. 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.
9. Prevent the leakage of concrete washout when at approximately 75% capacity 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.
10. At the completion of the concrete work, remove and retaining leavings and dispose of in an approved off-site facility. Fill pit, if applicable, and minimize any disturbance caused by removal of washout.

CONCRETE WASHOUTS

SECTION A-A

SECTION B-B

SECTION C-C

SECTION D-D

SECTION E-E

SECTION F-F

SECTION G-G

SECTION H-H

SECTION I-I

SECTION J-J

SECTION K-K

SECTION L-L

SECTION M-M

SECTION N-N

SECTION O-O

SECTION P-P

SECTION Q-Q

SECTION R-R

SECTION S-S

SECTION T-T

SECTION U-U

SECTION V-V

SECTION W-W

SECTION X-X

SECTION Y-Y

SECTION Z-Z

SECTION AA-AA

SECTION BB-BB

SECTION CC-CC

SECTION DD-DD

SECTION EE-EE

SECTION FF-FF

SECTION GG-GG

SECTION HH-HH

SECTION II-II

SECTION JJ-JJ

SECTION KK-KK

SECTION LL-LL

SECTION MM-MM

SECTION NN-NN

SECTION OO-OO

SECTION PP-PP

SECTION QQ-QQ

SECTION RR-RR

SECTION SS-SS

SECTION TT-TT

SECTION UU-UU

SECTION VV-VV

SECTION WW-WW

SECTION XX-XX

SECTION YY-YY

SECTION ZZ-ZZ

SECTION AA-AA

SECTION BB-BB

SECTION CC-CC

SECTION DD-DD

SECTION EE-EE

SECTION FF-FF

SECTION GG-GG

SECTION HH-HH

SECTION II-II

SECTION JJ-JJ

SECTION KK-KK

SECTION LL-LL

SECTION MM-MM

SECTION NN-NN

SECTION OO-OO

SECTION PP-PP

SECTION QQ-QQ

SECTION RR-RR

SECTION SS-SS

SECTION TT-TT

SECTION UU-UU

SECTION VV-VV

SECTION WW-WW

SECTION XX-XX

SECTION YY-YY

SECTION ZZ-ZZ

SECTION AA-AA

SECTION BB-BB

SECTION CC-CC

SECTION DD-DD

SECTION EE-EE

SECTION FF-FF

SECTION GG-GG

SECTION HH-HH

SECTION II-II

SECTION JJ-JJ

SECTION KK-KK

SECTION LL-LL

SECTION MM-MM

SECTION NN-NN

SECTION OO-OO

SECTION PP-PP

SECTION QQ-QQ

SECTION RR-RR

SECTION SS-SS

SECTION TT-TT

SECTION UU-UU

SECTION VV-VV

SECTION WW-WW

SECTION XX-XX

SECTION YY-YY

SECTION ZZ-ZZ

SECTION AA-AA

SECTION BB-BB

SECTION CC-CC

SECTION DD-DD

SECTION EE-EE

SECTION FF-FF

SECTION GG-GG

SECTION HH-HH

SECTION II-II

SECTION JJ-JJ

SECTION KK-KK

SECTION LL-LL

SECTION MM-MM

SECTION NN-NN

SECTION OO-OO

SECTION PP-PP

SECTION QQ-QQ

SECTION RR-RR

SECTION SS-SS

SECTION TT-TT

SECTION UU-UU

SECTION VV-VV

SECTION WW-WW

SECTION XX-XX

SECTION YY-YY

SECTION ZZ-ZZ

SECTION AA-AA

SECTION BB-BB

SECTION CC-CC

SECTION DD-DD

SECTION EE-EE

SECTION FF-FF

SECTION GG-GG

SECTION HH-HH

SECTION II-II

SECTION JJ-JJ

SECTION KK-KK

SECTION LL-LL

SECTION MM-MM

SECTION NN-NN

SECTION OO-OO

SECTION PP-PP

SECTION QQ-QQ

SECTION RR-RR

SECTION SS-SS

SECTION TT-TT

SECTION UU-UU

SECTION VV-VV

SECTION WW-WW

SECTION XX-XX

SECTION YY-YY

SECTION ZZ-ZZ

SECTION AA-AA

SECTION BB-BB

SECTION CC-CC

SECTION DD-DD

SECTION EE-EE

SECTION FF-FF

SECTION GG-GG

SECTION HH-HH

SECTION II-II

SECTION JJ-JJ

SECTION KK-KK

SECTION LL-LL

SECTION MM-MM

SECTION NN-NN

SECTION OO-OO

SECTION PP-PP

SECTION QQ-QQ

SECTION RR-RR

SECTION SS-SS

SECTION TT-TT

SECTION UU-UU

SECTION VV-VV

SECTION WW-WW

SECTION XX-XX

SECTION YY-YY

SECTION ZZ-ZZ

SECTION AA-AA

SECTION BB-BB

SECTION CC-CC

SECTION DD-DD

SECTION EE-EE

SECTION FF-FF

SECTION GG-GG

SECTION HH-HH

SECTION II-II

SECTION JJ-JJ

SECTION KK-KK

SECTION LL-LL

SECTION MM-MM

SECTION NN-NN

SECTION OO-OO

SECTION PP-PP

SECTION QQ-QQ

SECTION RR-RR

SECTION SS-SS

SECTION TT-TT

SECTION UU-UU

SECTION VV-VV

SECTION WW-WW

SECTION XX-XX

SECTION YY-YY

SECTION ZZ-ZZ

SECTION AA-AA

SECTION BB-BB

SECTION CC-CC

SECTION DD-DD

SECTION EE-EE

SECTION FF-FF

SECTION GG-GG

SECTION HH-HH

SECTION II-II

SECTION JJ-JJ

SECTION KK-KK

SECTION LL-LL

SECTION MM-MM

SECTION NN-NN

SECTION OO-OO

SECTION PP-PP

SECTION QQ-QQ

SECTION RR-RR

SECTION SS-SS

SECTION TT-TT

SECTION UU-UU

SECTION VV-VV

SECTION WW-WW

SECTION XX-XX

SECTION YY-YY

SECTION ZZ-ZZ

SECTION AA-AA

SECTION BB-BB

SECTION CC-CC

SECTION DD-DD

SECTION EE-EE

SECTION FF-FF

SECTION GG-GG

SECTION HH-HH

SECTION II-II

SECTION JJ-JJ

SECTION KK-KK

SECTION LL-LL

SECTION MM-MM

SECTION NN-NN

SECTION OO-OO

SECTION PP-PP

SECTION QQ-QQ

SECTION RR-RR

SECTION SS-SS

SECTION TT-TT

SECTION UU-UU

SECTION VV-VV

SECTION WW-WW

SECTION XX-XX

SECTION YY-YY

SECTION ZZ-ZZ

SECTION AA-AA

SECTION BB-BB

SECTION CC-CC

SECTION DD-DD

SECTION EE-EE

SECTION FF-FF

SECTION GG-GG

SECTION HH-HH

SECTION II-II

SECTION JJ-JJ

SECTION KK-KK

SECTION LL-LL

SECTION MM-MM

SECTION NN-NN

SECTION OO-OO

SECTION PP-PP

SECTION QQ-QQ

SECTION RR-RR

SECTION SS-SS

SECTION TT-TT

SECTION UU-UU

SECTION VV-VV

SECTION WW-WW

SECTION XX-XX

SECTION YY-YY

SECTION ZZ-ZZ

SECTION AA-AA

SECTION BB-BB

SECTION CC-CC

SECTION DD-DD

SECTION EE-EE

SECTION FF-FF

SECTION GG-GG

SECTION HH-HH

SECTION II-II

SECTION JJ-JJ

SECTION KK-KK

SECTION LL-LL

SECTION MM-MM

SECTION NN-NN

SECTION OO-OO

SECTION PP-PP

SECTION QQ-QQ

SECTION RR-RR

SECTION SS-SS

SECTION TT-TT

SECTION UU-UU

SECTION VV-VV

SECTION WW-WW

SECTION XX-XX

SECTION YY-YY

SECTION ZZ-ZZ

SECTION AA-AA

SECTION BB-BB

SECTION CC-CC

SECTION DD-DD

SECTION EE-EE

SECTION FF-FF

SECTION GG-GG

SECTION HH-HH

SECTION II-II

SECTION JJ-JJ

SECTION KK-KK

SECTION LL-LL

SECTION MM-MM

SECTION NN-NN

SECTION OO-OO

SECTION PP-PP

SECTION QQ-QQ

SECTION RR-RR

SECTION SS-SS

SECTION TT-TT

SECTION UU-UU

SECTION VV-VV

SECTION WW-WW

SECTION XX-XX

SECTION YY-YY

SECTION ZZ-ZZ

SECTION AA-AA

SECTION BB-BB

SECTION CC-CC

SECTION DD-DD

SECTION EE-EE

SECTION FF-FF

SECTION GG-GG

SECTION HH-HH

SECTION II-II

SECTION JJ-JJ

SECTION KK-KK

SECTION LL-LL

SECTION MM-MM

SECTION NN-NN

SECTION OO-OO

SECTION PP-PP

SECTION QQ-QQ

SECTION RR-RR

SECTION SS-SS

SECTION TT-TT

SECTION UU-UU

SECTION VV-VV

SECTION WW-WW

SECTION XX-XX

SECTION YY-YY

SECTION ZZ-ZZ

SECTION AA-AA

SECTION BB-BB

SECTION CC-CC

SECTION DD-DD

SECTION EE-EE

SECTION FF-FF

SECTION GG-GG

SECTION HH-HH

SECTION II-II

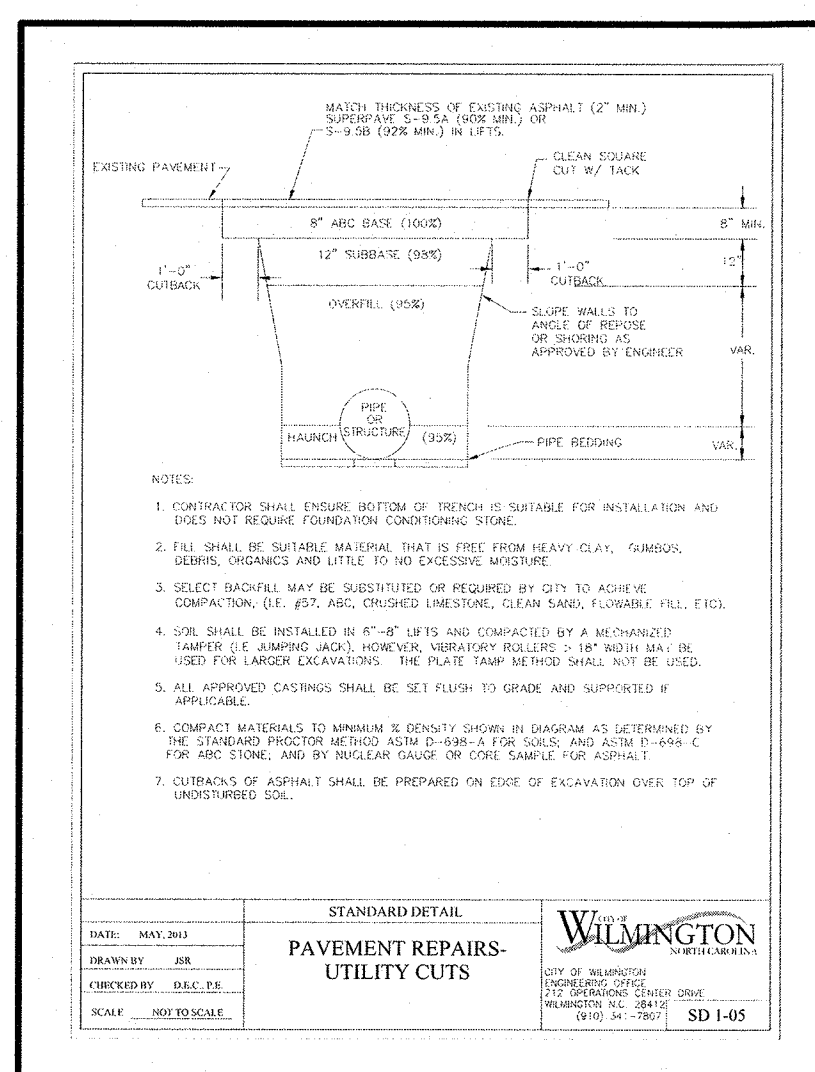
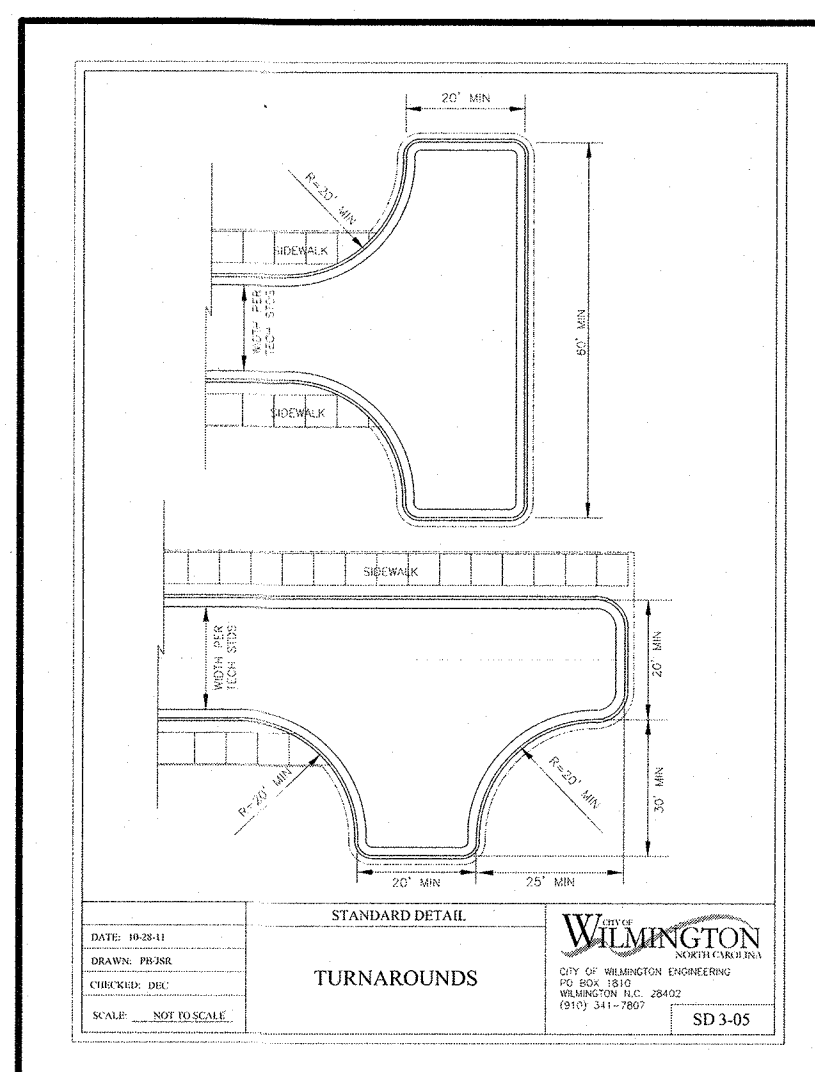
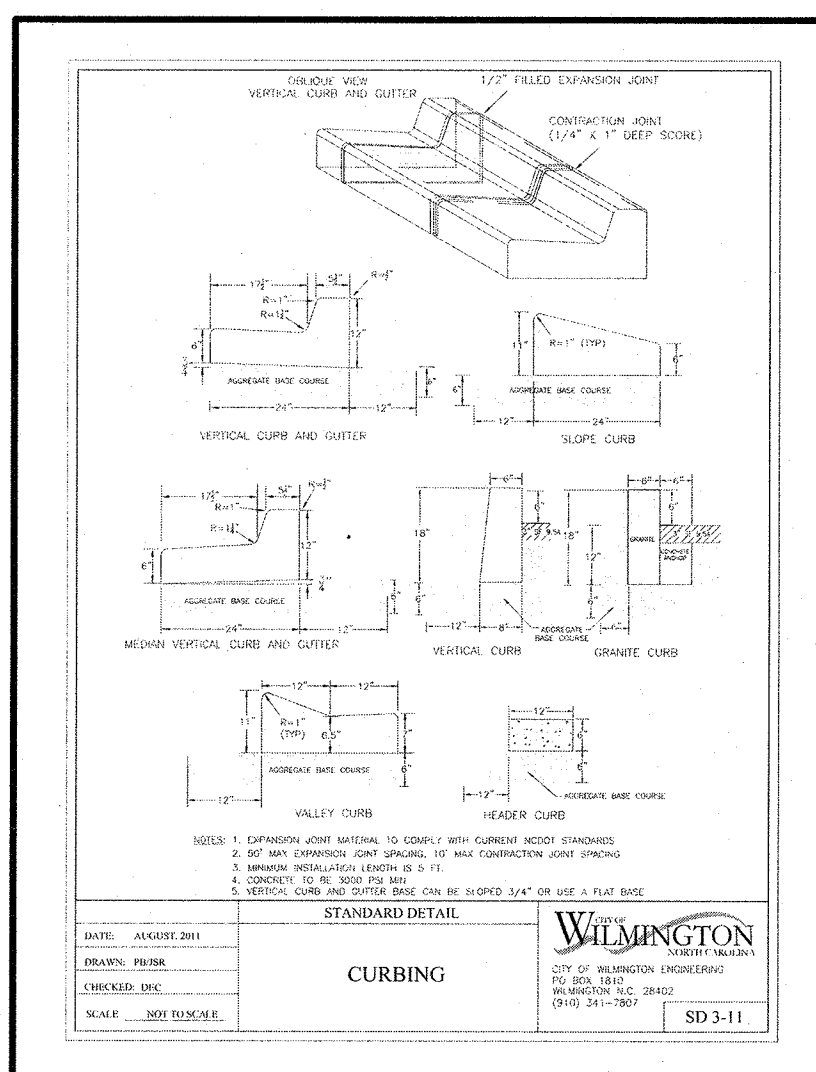
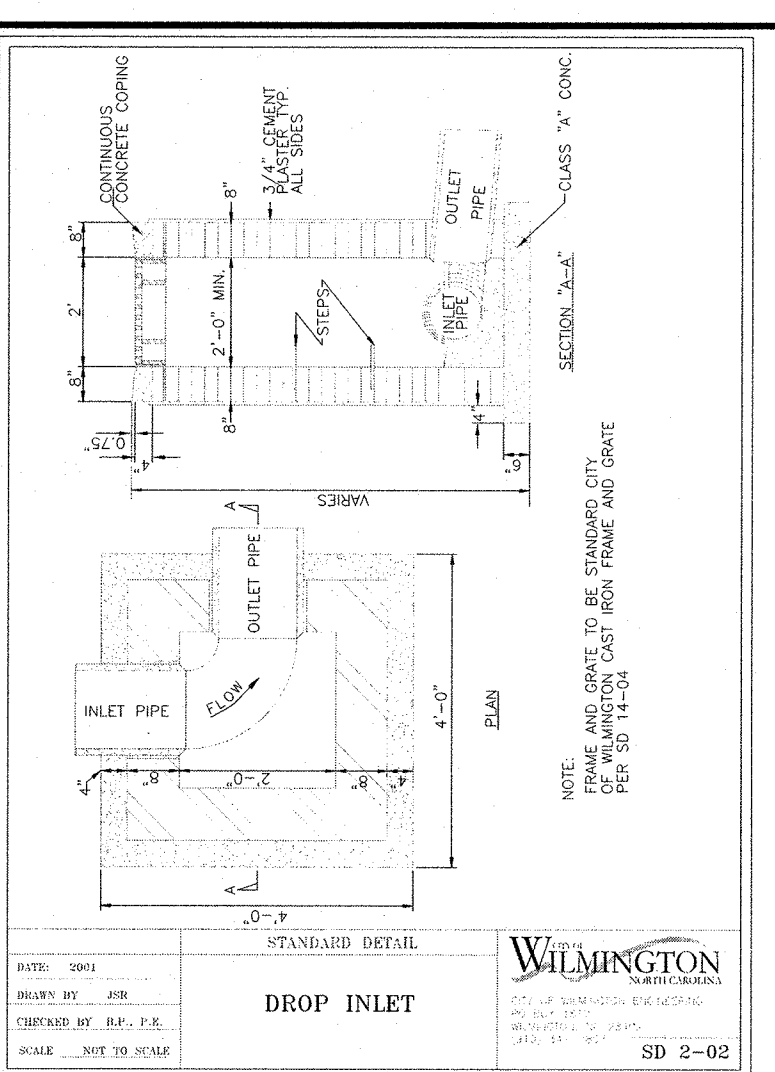
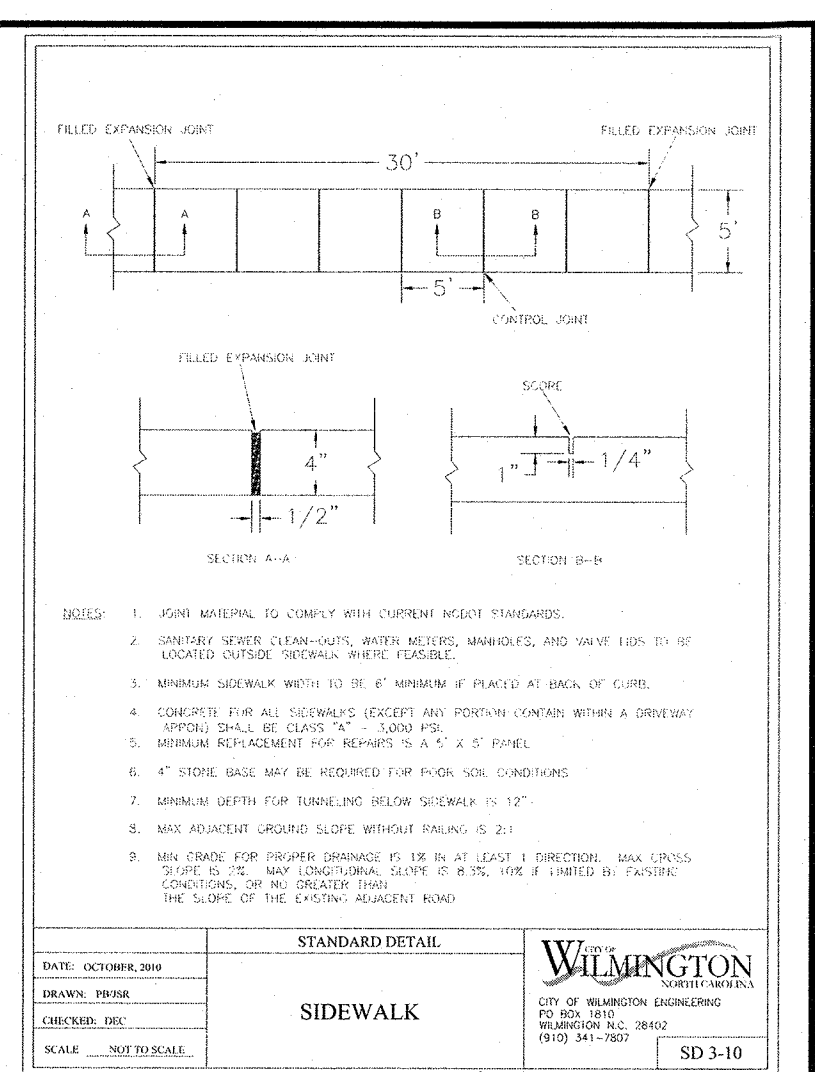
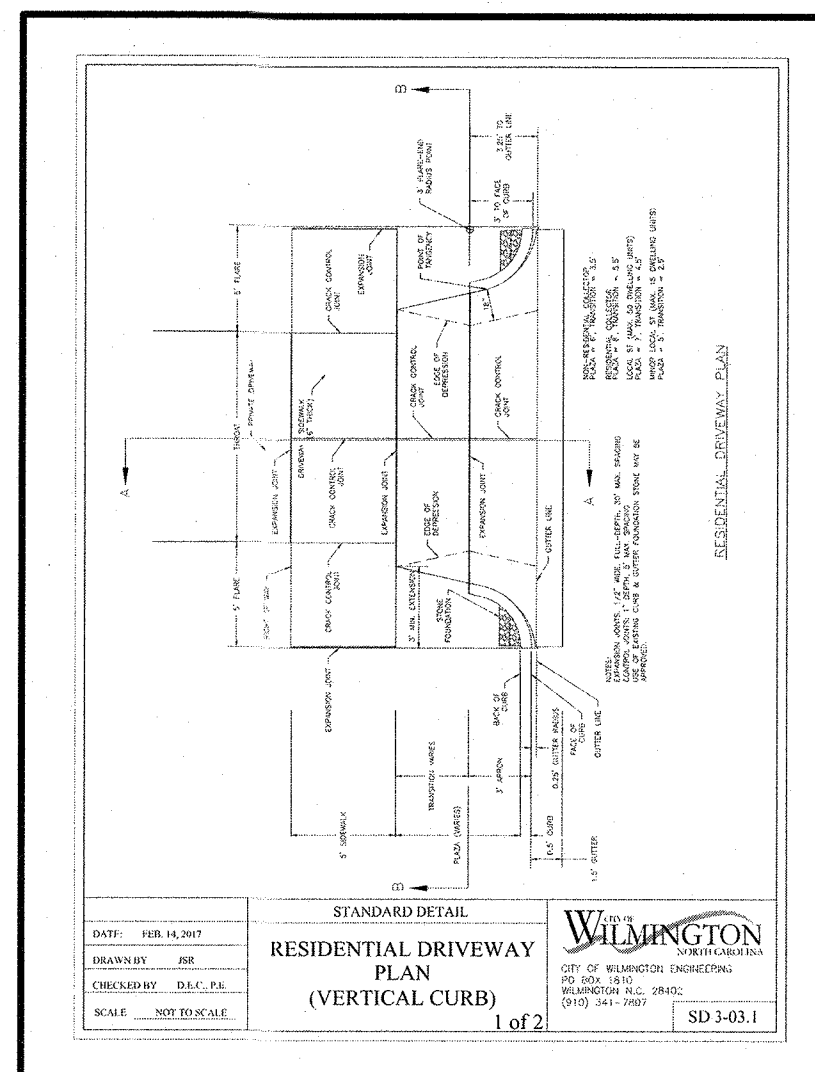
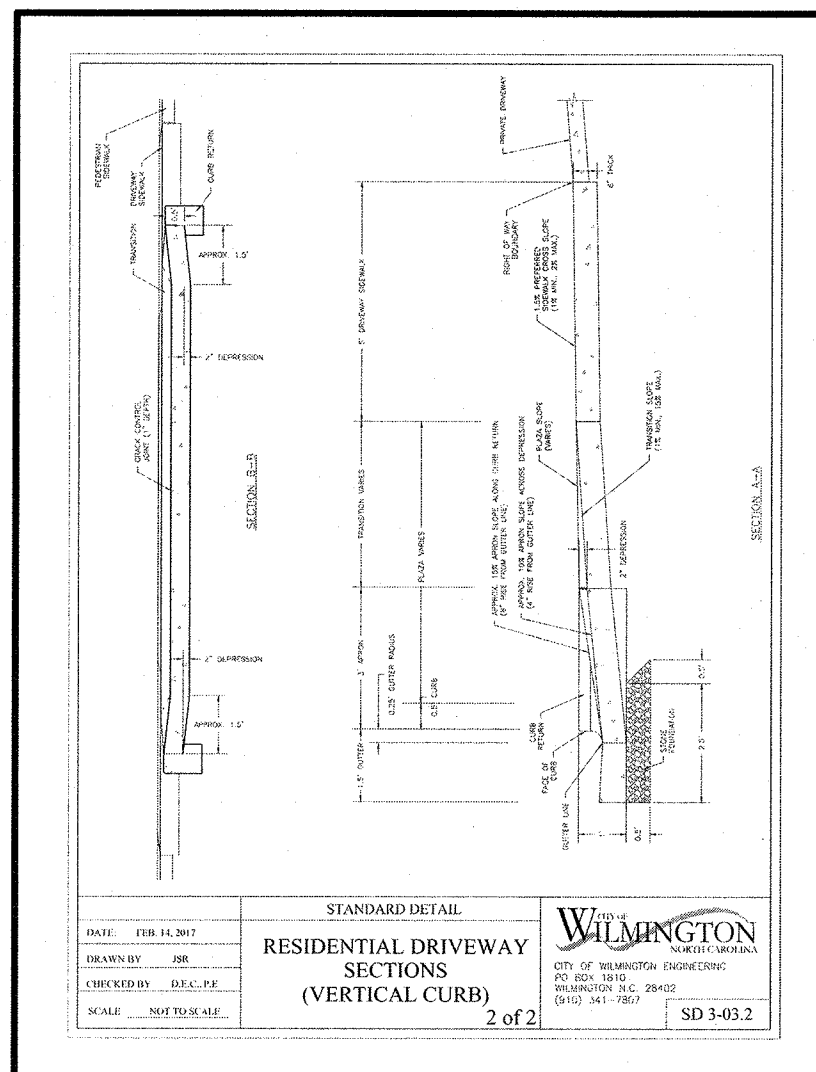
SECTION JJ-JJ

SECTION KK-KK

SECTION LL-LL

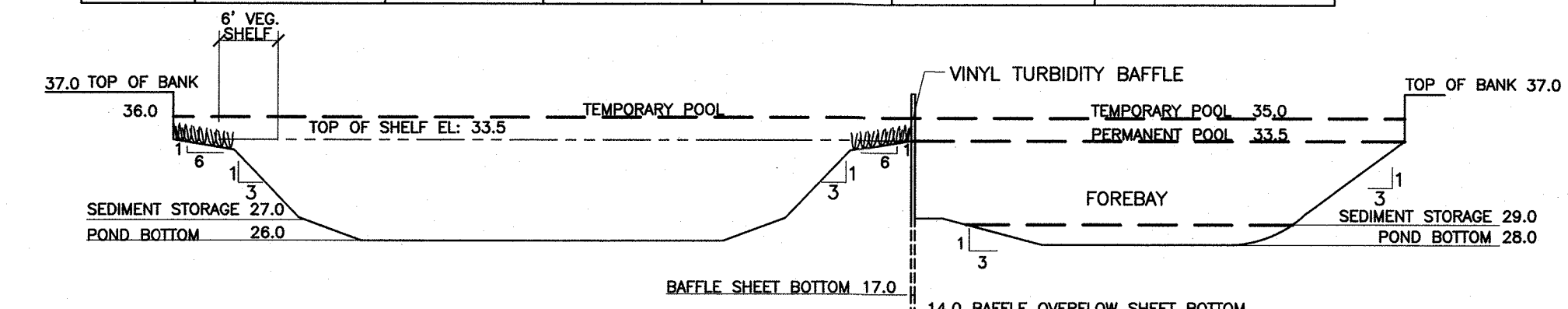
SECTION MM-MM

SECTION NN-NN



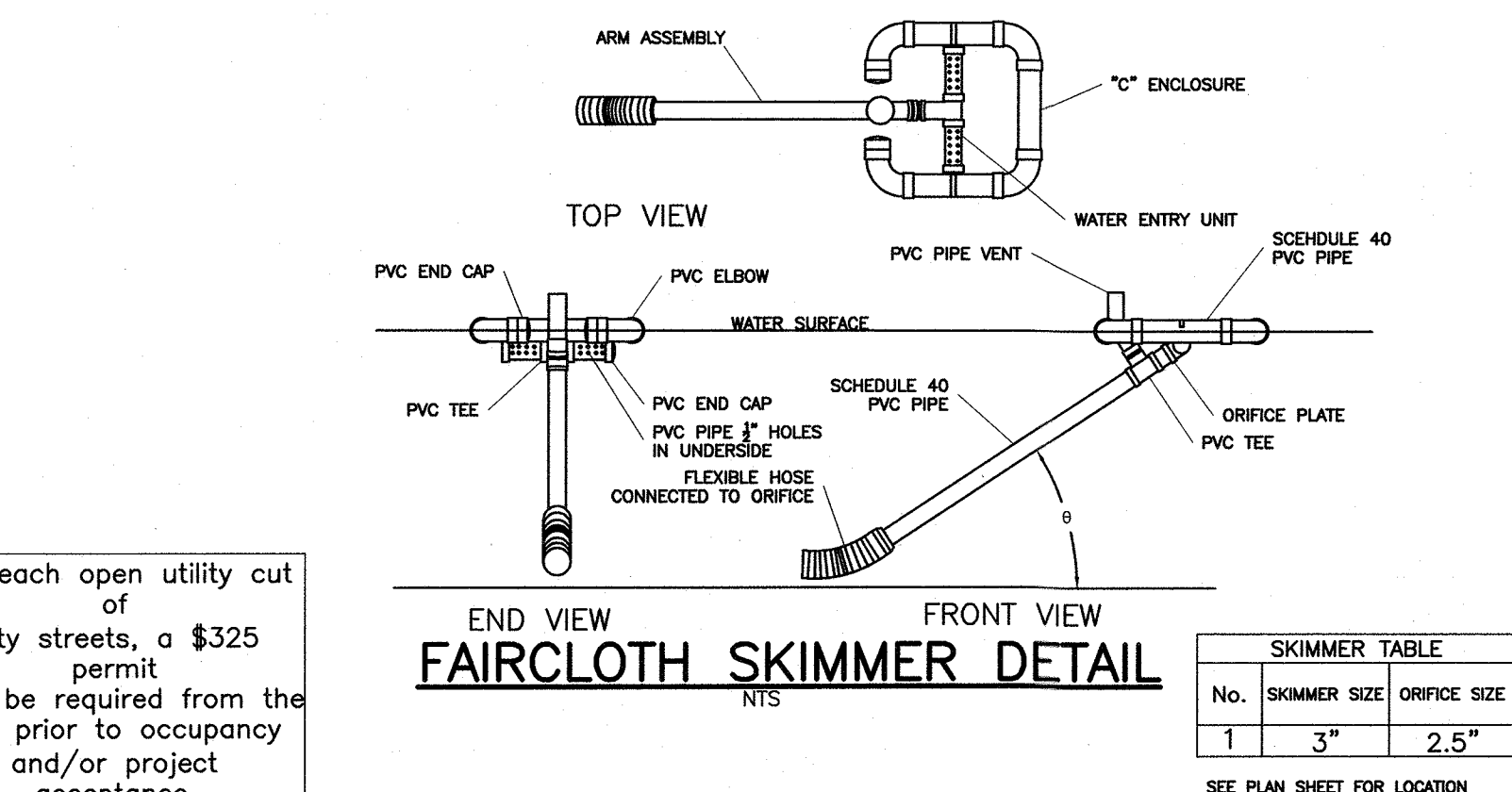
WET DETENTION BASIN DATA

BASIN #	TOP OF BANK ELEV.	TEMPORARY POOL ELEV.	PERMANENT POOL ELEV.	EMERGENCY SPILLWAY EL.	BOTTOM MAIN/FOREBAY	SEDIMENT STORAGE MAIN/FOREBAY
1	37.00	35.00	33.50	36.50	26.0/28.0	27.0/29.0



- * POND SLOPE TO BE SEEDED IN ACCORDANCE TO SEEDING SPECIFICATIONS
- * 6:1 VEGETATED SHELF TO BE PLANTED WITH WETLAND SPECIES I.E. PICKEREL WEED, DUCK POTATO, SWAMP ROSE, BLUE FLAG AND CARDINAL FLOWER
- * A PUMP WILL BE PROVIDED TO DRAIN THE BASIN FOR MAINTENANCE AND EMERGENCIES

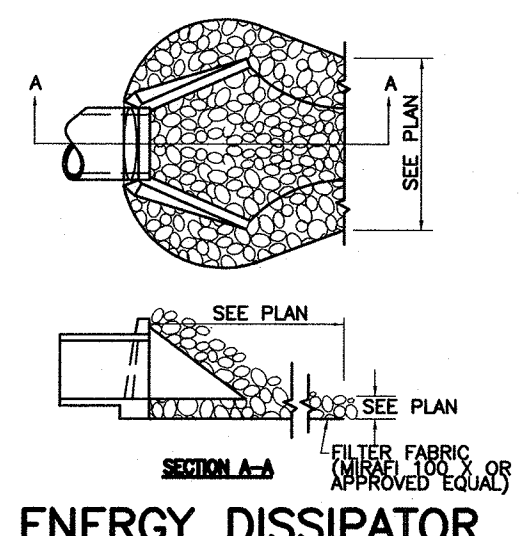
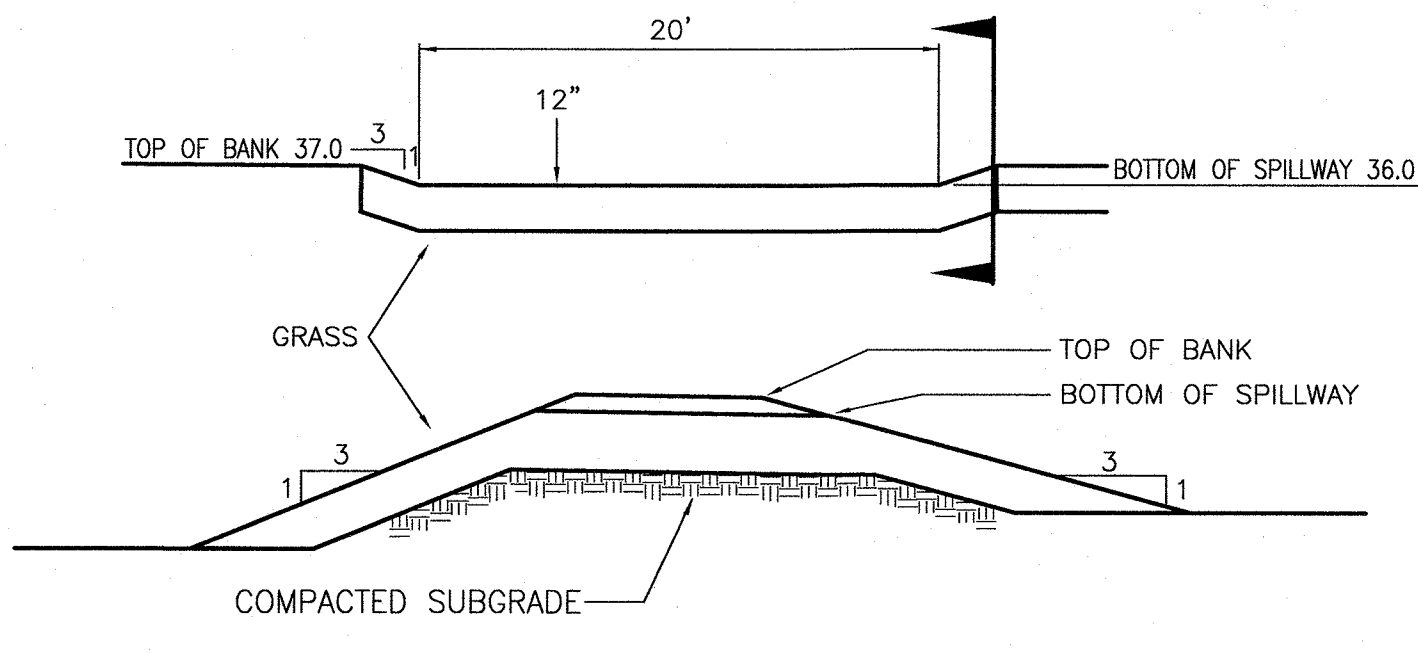
WET DETENTION BASIN & FOREBAY SECTION
NTS



SKIMMER TABLE

No.	SKIMMER SIZE	ORIFICE SIZE
1	3"	2.5"

SEE PLAN SHEET FOR LOCATION



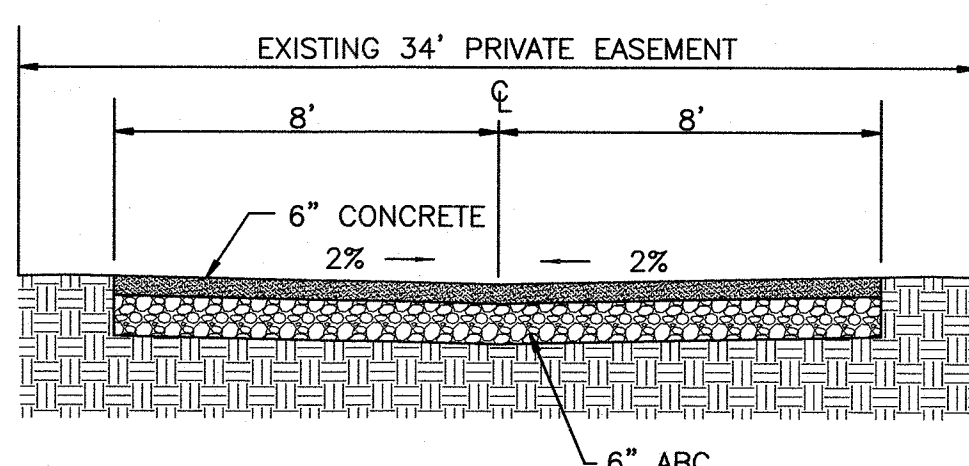
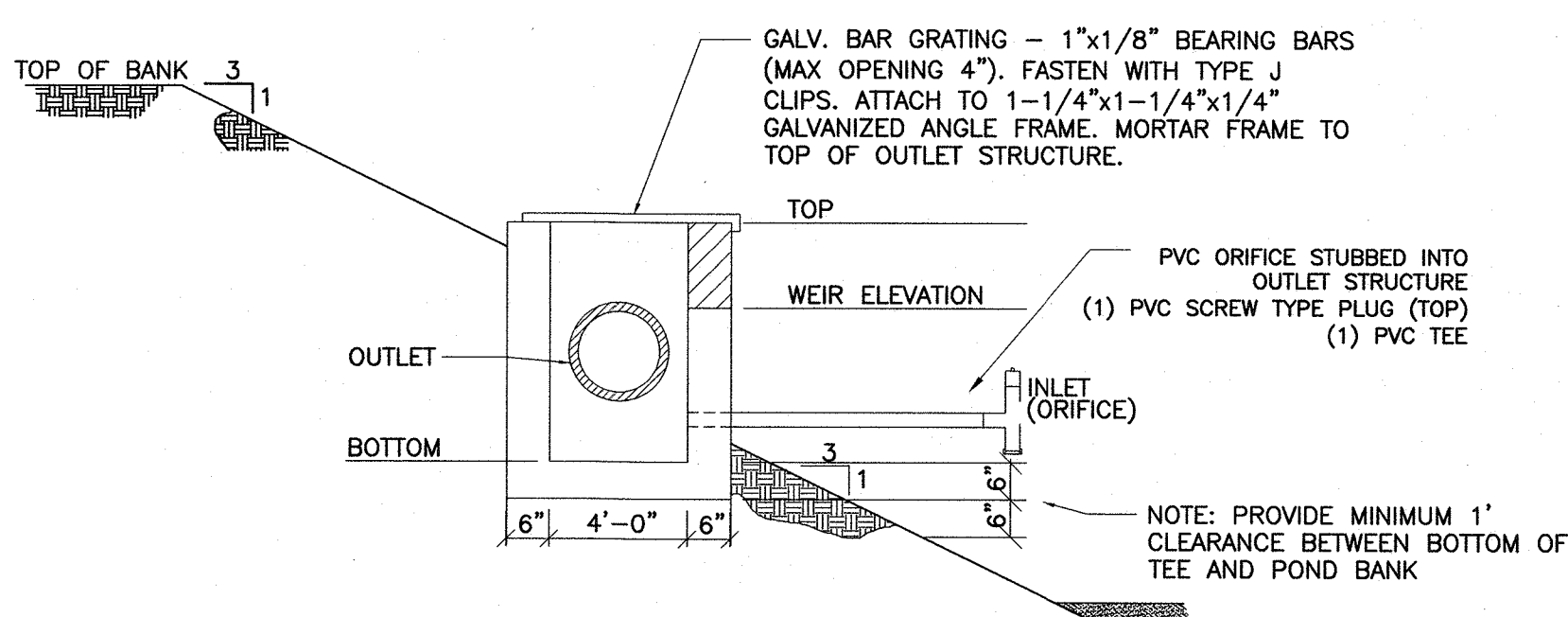
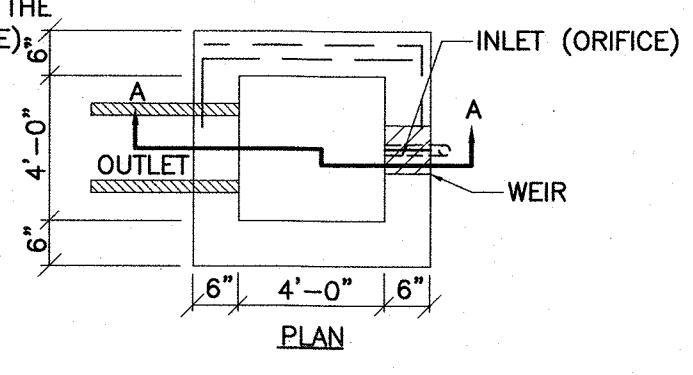
ENERGY DISSIPATOR DATA

STR. #	Q10 (CFS)	V (FPS)	L (FT)	W (FT)	D (FT)	PIPE SIZE (INCH)
1	7	5.50	10	10	1.0	15

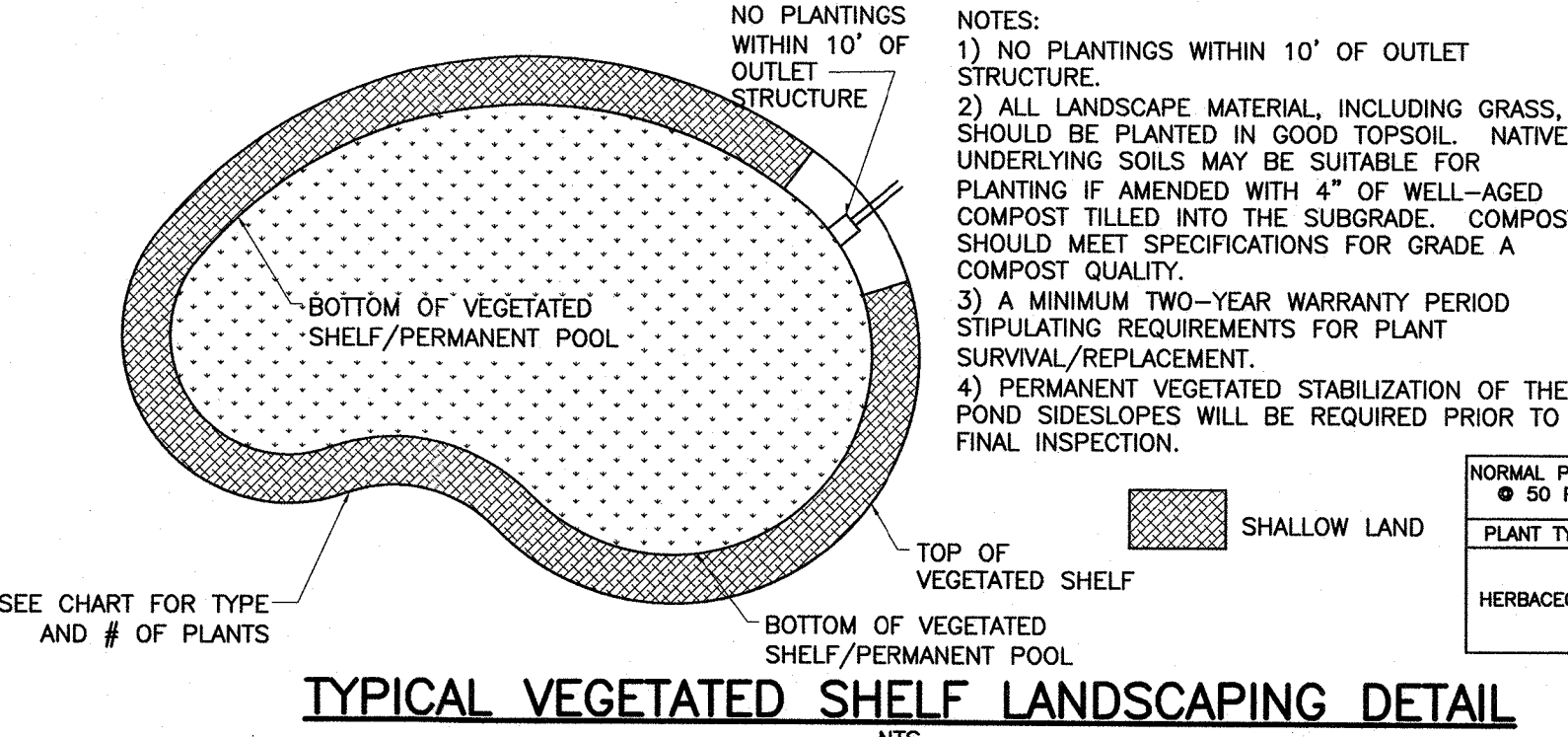
OUTLET STRUCTURE DATA

BASIN #	TOP ELEV.	BOTTOM ELEV.	INLET (ORIFICE) SIZE/INVERT	OUTLET SIZE	OUTLET INV. IN/ INV. OUT	WEIR WIDTH	WEIR ELEVATION
1	36.0	32.5	1.15"/33.5	12 inch	33.0/33.5	9"	35.0

NOTE: WHILE SKIMMER IS FUNCTIONING, CLOSE ALL OPENINGS OF THE OUTLET STRUCTURE EXCEPT THE TOP AND THE INLET (ORIFICE)

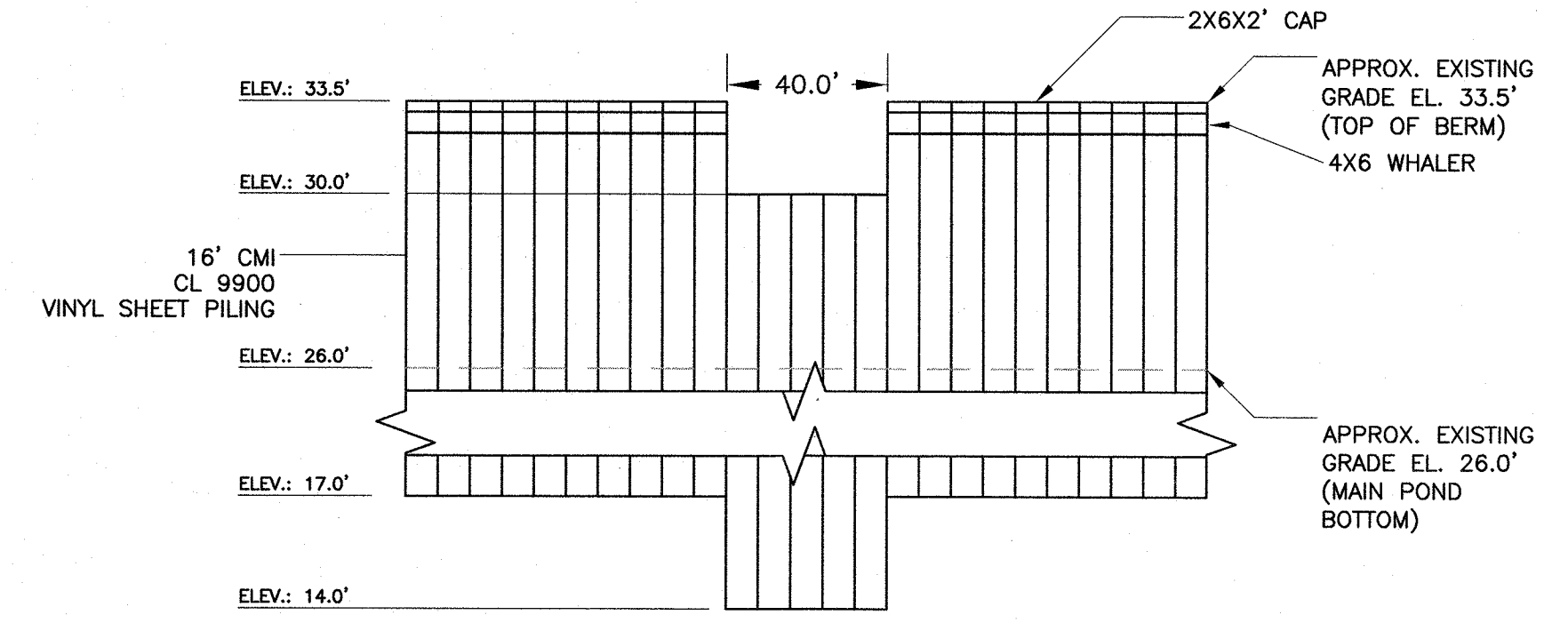
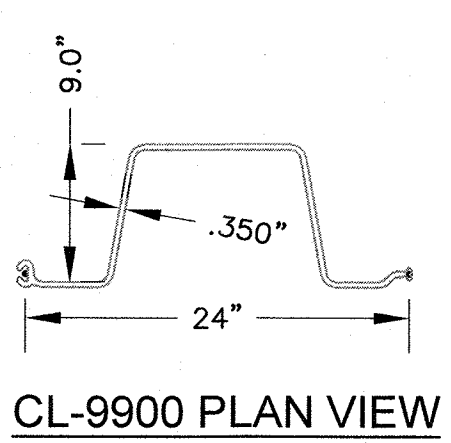


- NOTES:**
- 1) 400' MAXIMUM LENGTH TO FURTHEST UNIT FROM PUBLIC STREET.
 - 2) SERVES A MAXIMUM OF 4 SINGLE FAMILY OR DUPLEX UNITS.
 - 3) 23' WIDTH REQUIRED AT STREET INTERSECTION.
 - 4) RESIDENTIAL USE ONLY. NOT FOR COMMERCIAL USE.
 - 5) INVERTED CROWN OR SUPER ELEVATED SECTION MAY BE APPROVED BY CITY ENGINEER.



NORMAL POOL TO SHELF TOP = 1,203 SF
50 PLANTS PER 200 SF = 301 PLANTS

PLANT TYPE	QTY	BOTANICAL NAME	COMMON NAME	ROOT	CALIPER
HERBACEOUS	100	HIBISCUS COCCINEUS	SCARLET ROSE	CONT.	4" POT
HERBACEOUS	100	EUPATORIUM SP.	MILKWEED	CONT.	4" POT
HERBACEOUS	101	ASCLEPIAS INCARNATA	SWAMP MILKWEED	CONT.	4" POT



VINYL SHEET PILE FOREBAY WALL
NTS

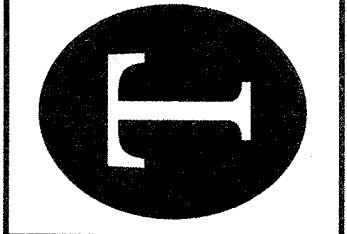
REVISIONS

No.	Date	Description	By
1	06-18-20	ADDED WATER DETAILS	EJW
2	06-18-20	ADDED POND DETAILS	BJH
3	02-24-21	COW COMMENTS	EJW
4	04-30-21	COW COMMENTS	EJW
5	08-23-21	COW SW COMMENTS	ACB
6	08-23-21	COW SW COMMENTS	ACB
7	08-16-21	COW SW COMMENTS	ACB

DETAILS AND NOTES

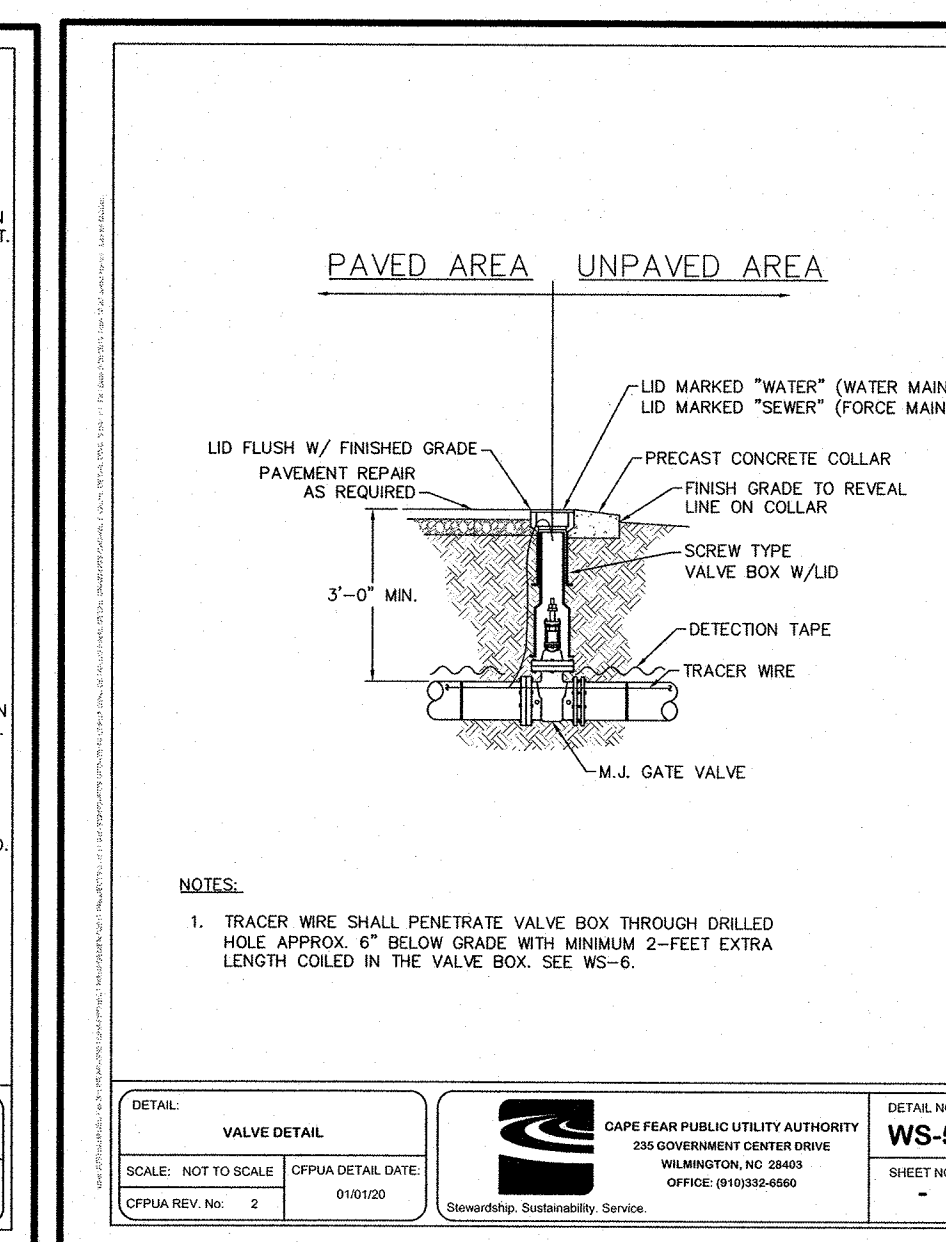
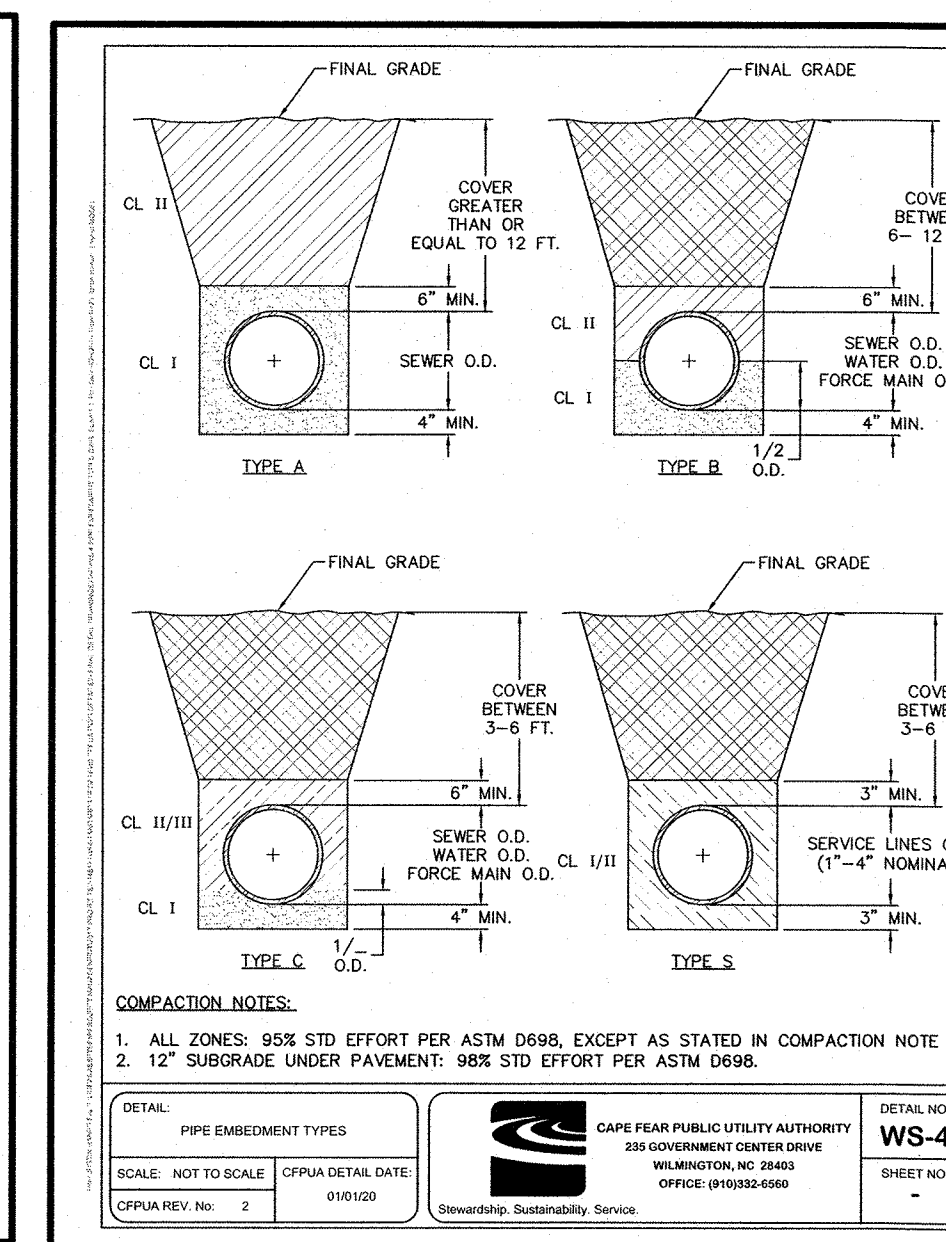
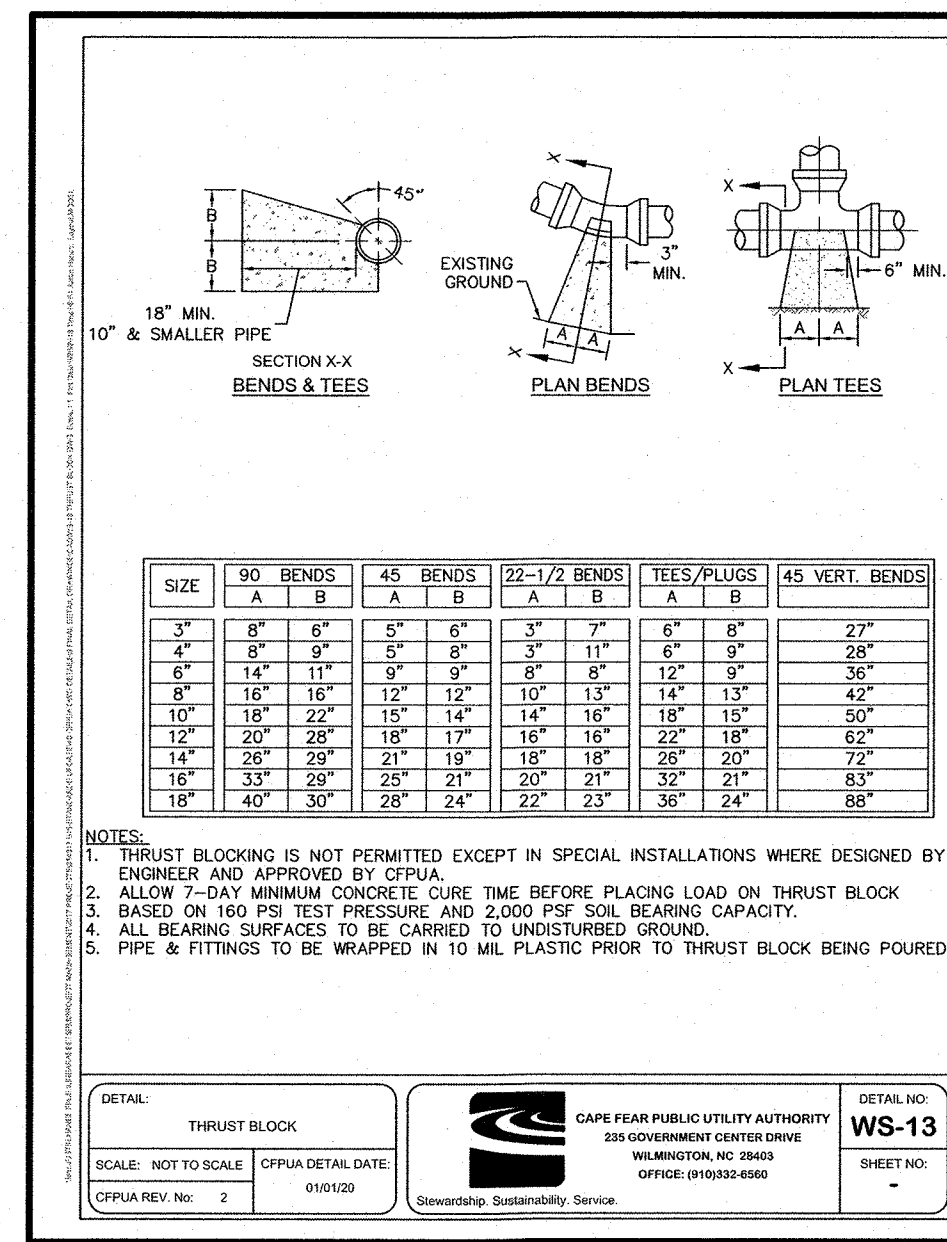
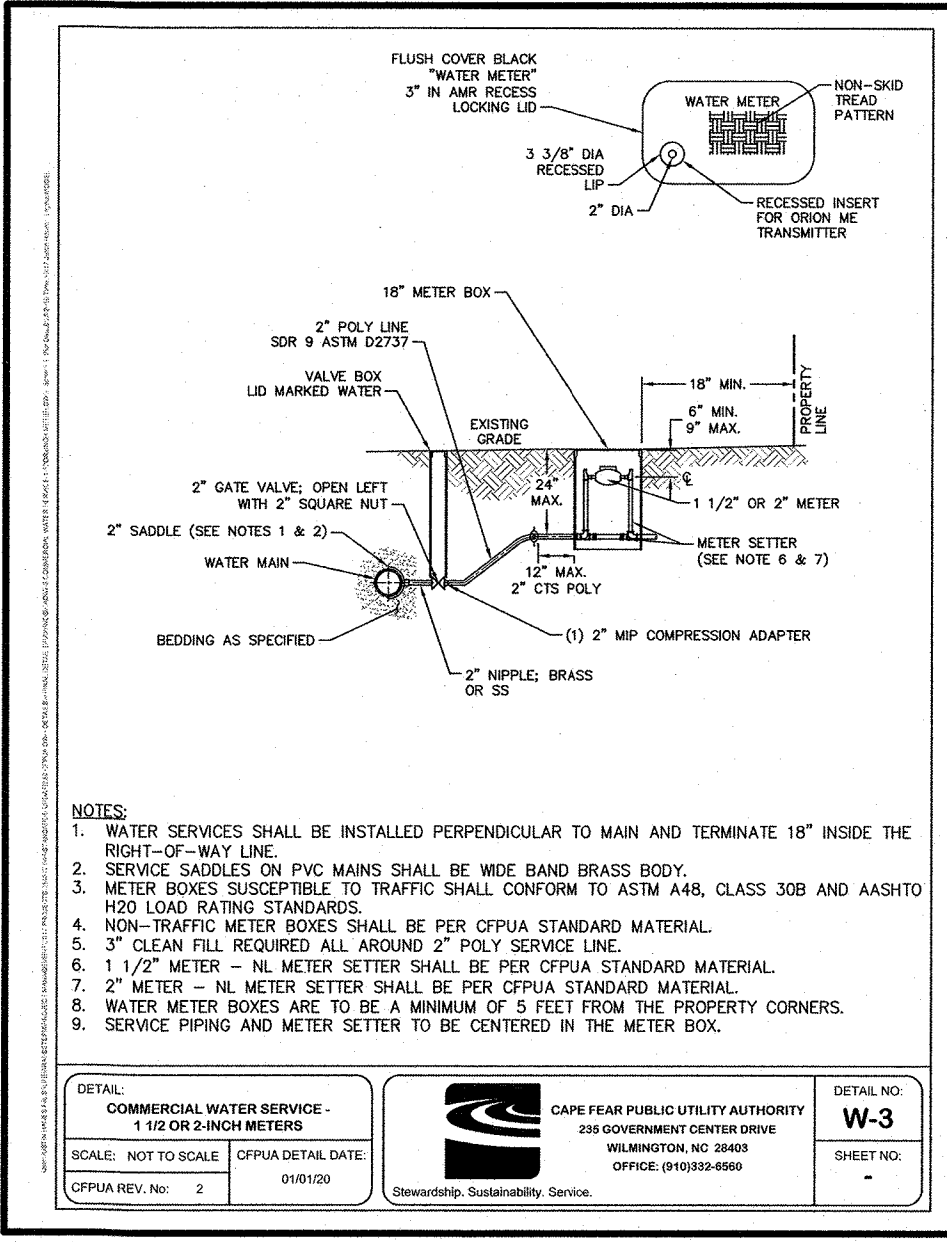
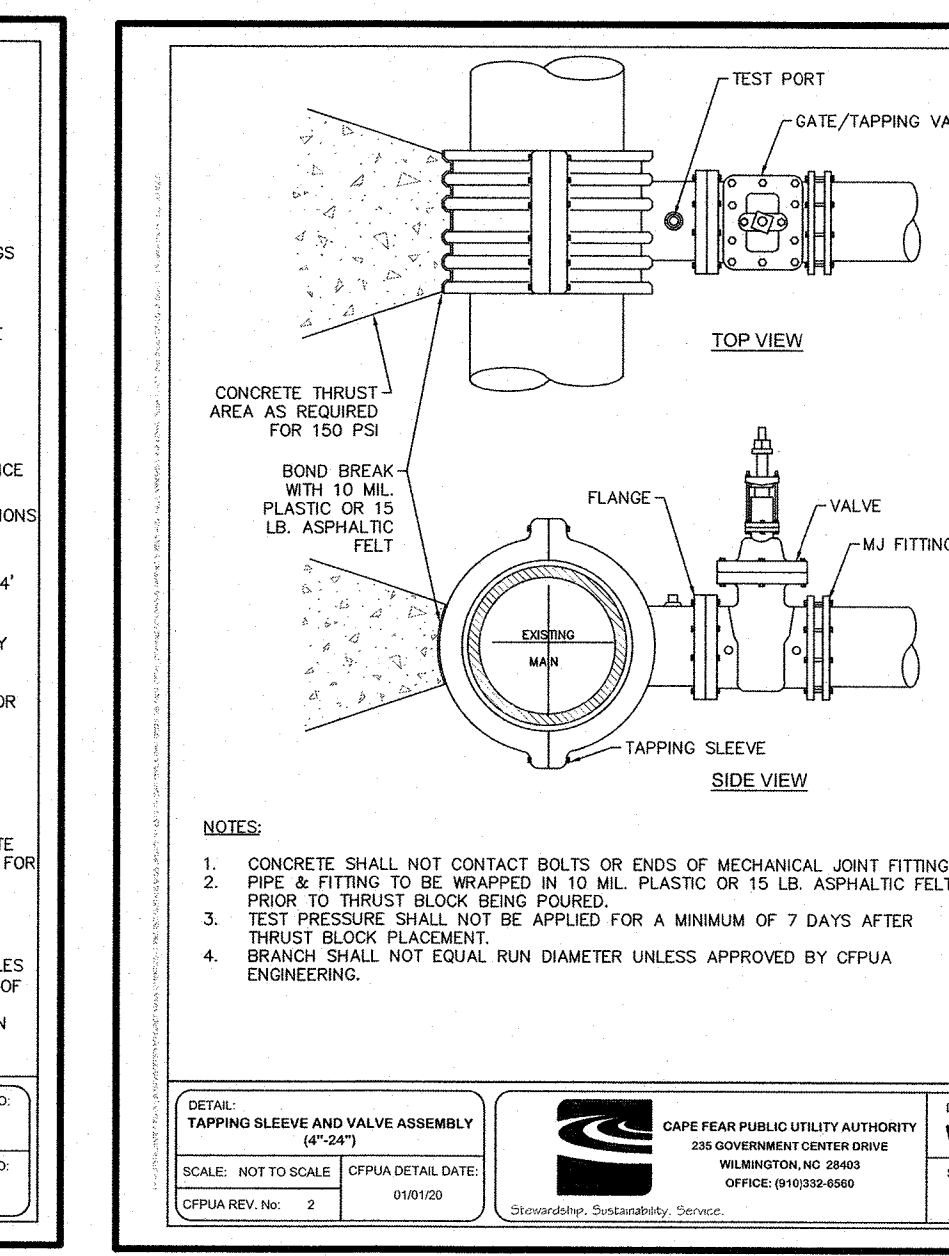
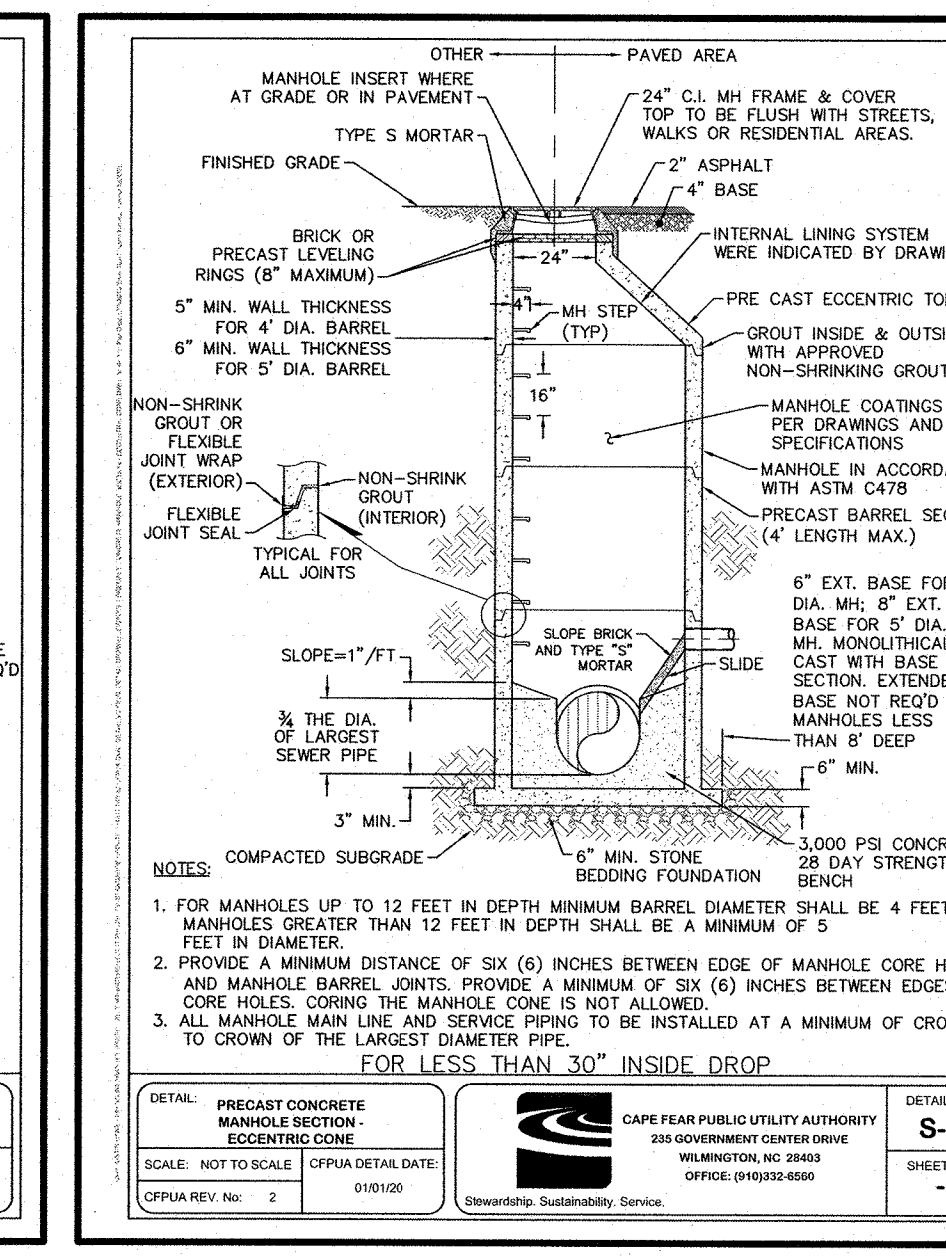
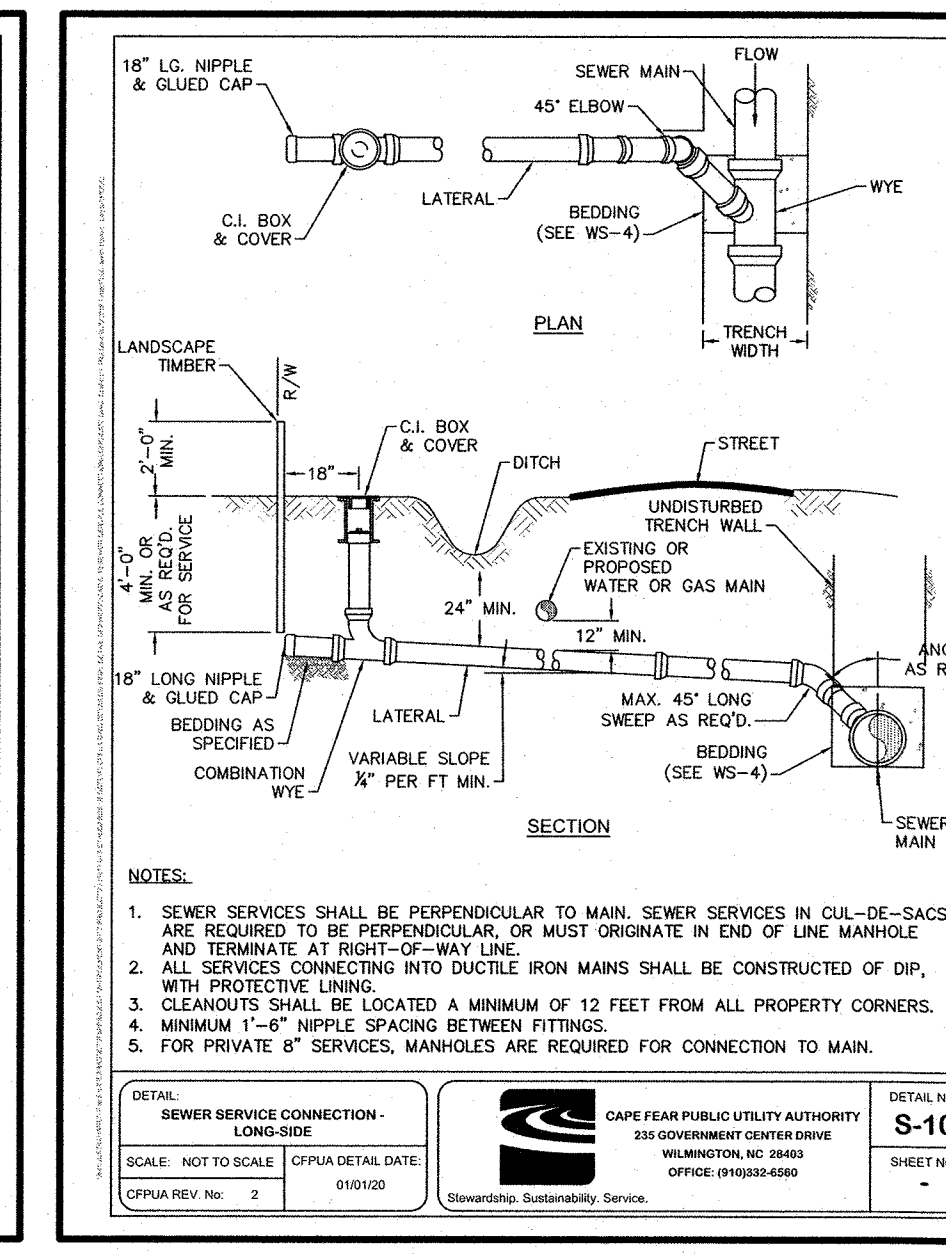
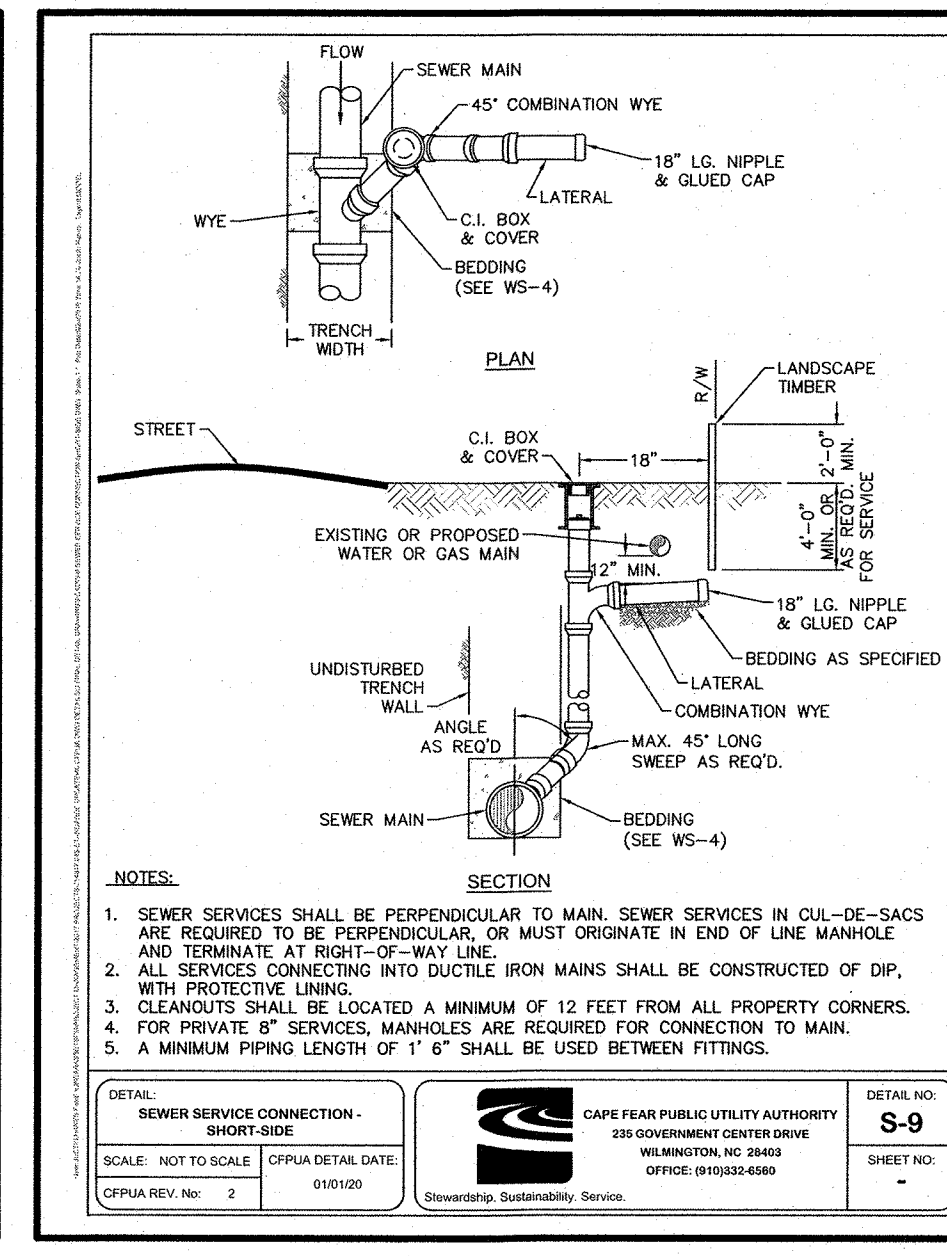
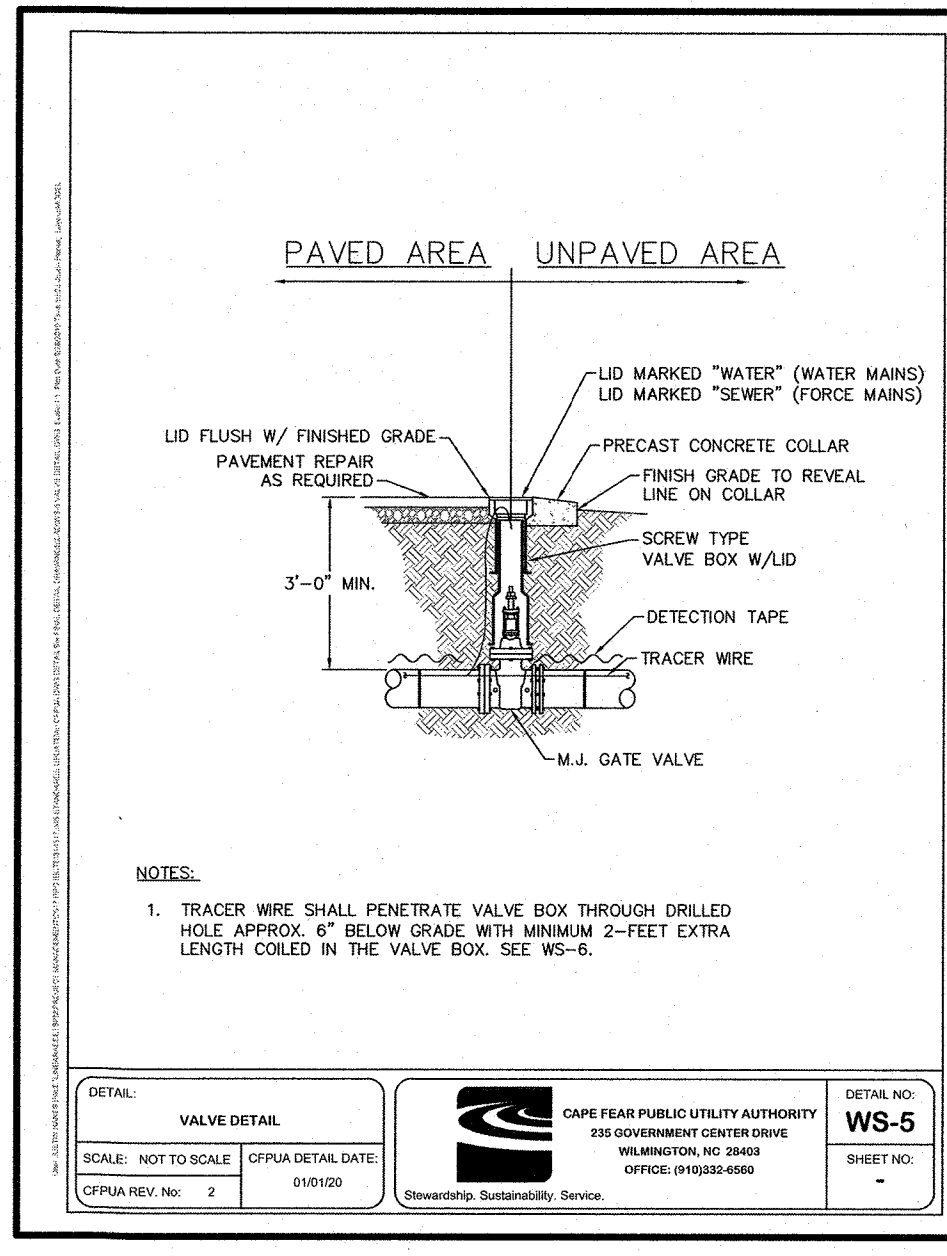
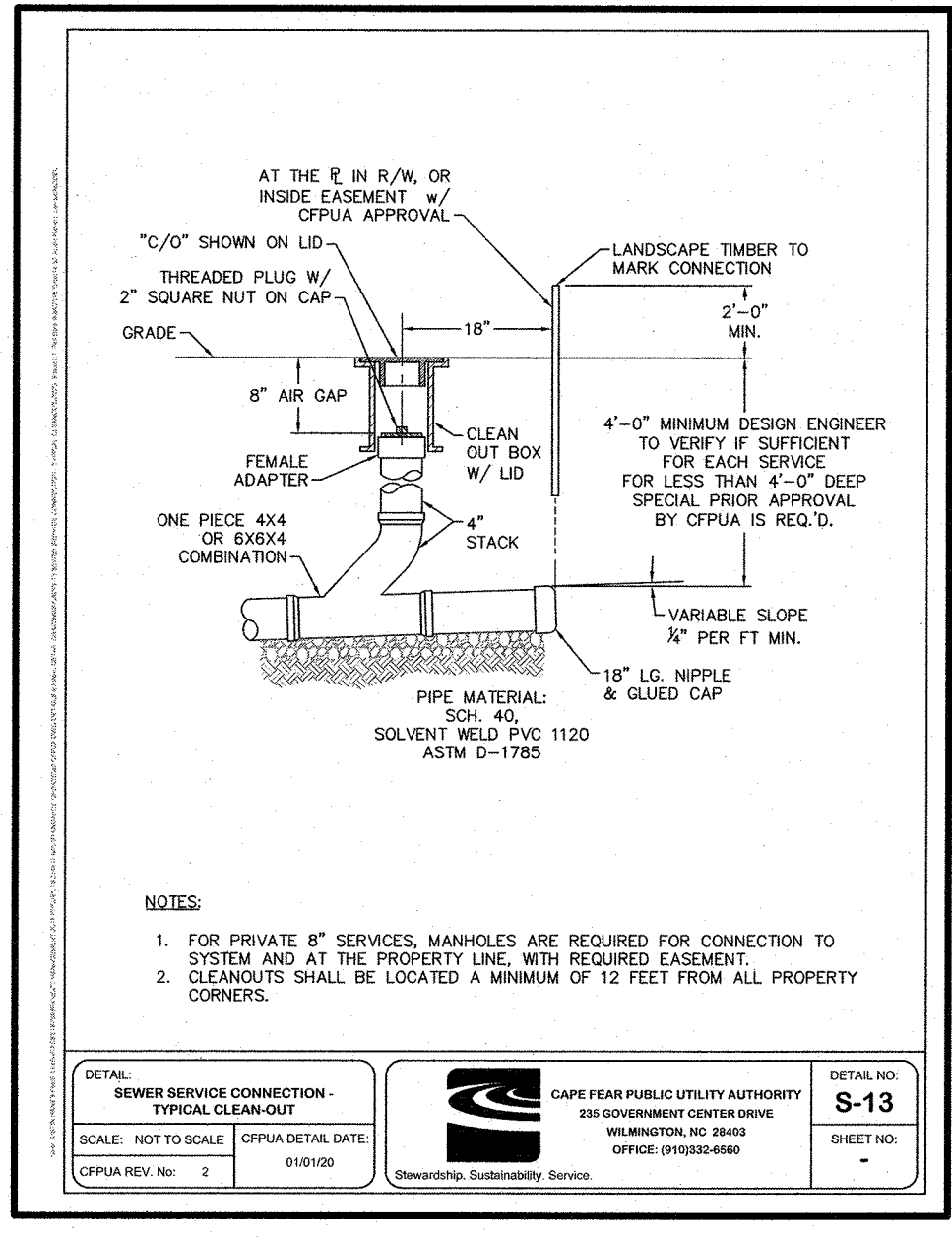
WOODLAND PARK SUBDIVISION
WILMINGTON, NORTH CAROLINA

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



DATE 06-18-20
DESIGN PGT
DRAWN BJH

REVISIONS		
No./Date	Description	By
18-24-20	ADDED WATER DETAILS	EW



TRIPP ENGINEERING, P.C.
 419 Chestnut Street
 Wilmington, North Carolina 28401
 Phone 910-763-5100
 Fax 910-763-5631
 © LICENSE NO. C-1187

DETAILS AND NOTES
WOODLAND PARK SUBDIVISION
WILMINGTON, NORTH CAROLINA

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

DATE 06-18-20
DESIGN PGT
DRAWN BJH