

#### **Forsyth County Procurement**

Donna H. Kukarola, CPPO< CPPB Director

May 21, 2020

#### ADDENDUM #1 BID NO. 20-65-5212

For: Construction of refresh of Caney Creek Preserve

This addendum supersedes and supplements all portions of the bidding documents and becomes part of the contract documents for the above-referenced project.

Where any item called for in the specifications or indicated on the drawings is supplemented hereby, the original requirements shall remain in effect.

Where any original item is amended, voided or superseded hereby, the provision of such item not so specifically amended, voided or superseded shall remain in effect.

Questions received: (response in italics)

1. The Plans appear to be in 11" x 17" format and not the full size set, how can we obtain the full set?

Please see attached.

End of Addendum #1

# Caney Creek Preserve Park Improvements Site Development Plans

# Consultants

## Landscape Architect



# Civil Engineer



# Surveyor

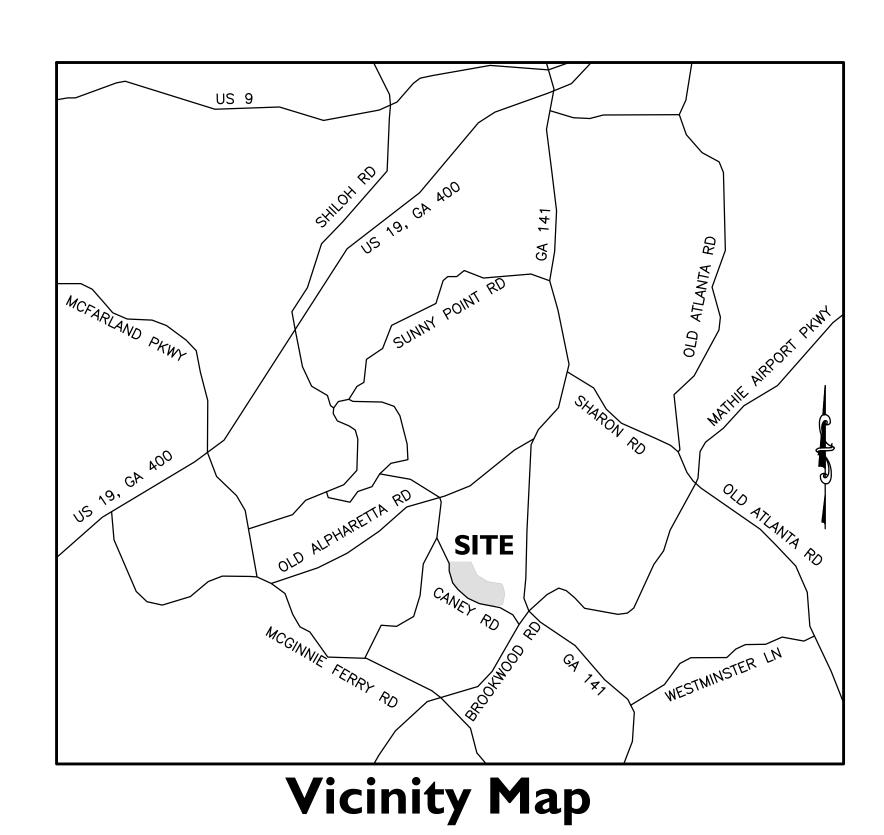
Singleton Land Surveying Company Inc. 8641 Dorris Road, Suite 140C, Douglasville, Georgia 30134 P (770)577-7001

# **Owner/Developer**

Forsyth County
110 East Main Street,
Cumming, Georgia 30040
P (770)781-2101

# Forsyth County, Georgia Parcel ID: 112264





# Schedule of Drawings

#### Civil/Landscape Architectural

- C100 Overall Existing Conditions/ Demolition Plan
- C101 Existing Conditions/Demolition Plan Enlargement West
- C102 Existing Conditions/Demolition Plan Enlargement East
- C200 Overall Site Plan
- C201 Site Plan Enlargement West
- C202 Site Plan Enlargement East
- C300 Overall Grading/Utility Plan
- C301 Grading/Drainage Plan Enlargement West
- C302 Grading/Drainage Plan Enlargement East
- C303 Pipe Plan & Profiles
- C304 ESCP Plan Initial Phase
- C305 ESCP Plan Intermediate Phase
- C306 ESCP Plan Final Phase
- C307 ESCP Plan Notes I of 3
- C308 ESCP Plan Notes 2 of 3
- C309 ESCP Plan Notes 1 of 3
- C310 ESCP Details 1 of 2
- C311 ESCP Details 2 of 2 C400 Overall Utility Plan
- C500 Overall Landscape Plan
- C501 Landscape Plan Enlargement West
- C502 Landscape Plan Enlargement East
- C600 Site Construction Details
- C601 Site Construction Details

C602 Site Construction Details

#### Irrigation

- 1100 Overall Irrigation Plan
- 1101 Irrigation Plan Enlargement-West
- 1102 Irrigation Plan Enlargement-East
- 1103 Irrigation Details

Site Address:

Main Entrance = 2755 Caney Road

Secondary Entrance = 3055 Caney Road

#### Note

- Source of Water and Sewer is Forsyth County Department of Water & Sewer.
- Notify Forsyth County Water and Sewer Department 24 hours prior to construction (404) 623-4241.
- Certificate of Occupancy will not be issued until final inspections completed by Forsyth County Water & Sewer Department.

Erosion and Sediment Control 24-Hour Contact James Weldon (404) 276-3622

Date of Issue:

Forsyth County Board of Tax Assessors
2nd District, 1st Section, Land Lot(s) 988, 989, 990, 1026, 1027, 1060, 1061 ETAL
Total Area: 61.97 Acres
Total Area Disturbed: 2.0 Acres



#### **DEMOLITION/CLEARING NOTES**

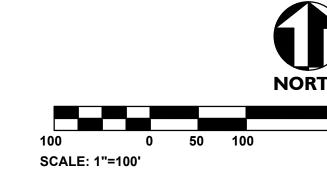
1. BOUNDARY AND TOPOGRAPHIC INFORMATION TAKEN FROM 2 SOURCES. HARRISON PROPERTY AS BUILT SURVEY DATED JUNE 2018 PREPARED BY SINGLETON LAND SURVEYING AND FROM

CLEARING BY OWNER (N.I.C.)

SCALE 1"=30'

- FORSYTH COUNTY GIS. 2. PROTECT ADJACENT CURBS, TREES, BUILDINGS, UTILITIES AND OTHER ITEMS TO REMAIN FROM DAMAGE. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR AND/OR PAYMENT OF ANY DAMAGED ITEMS TO REMAIN.
- 3. CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING WORK, BOTH PUBLIC AND PRIVATE. CONTRACTOR IS FULLY RESPONSIBLE FOR ALL UNDERGROUND UTILITIES AND SHALL REPAIR ANY DAMAGE AS A RESULT OF THIS
- 4. CONTRACTOR SHALL REPORT ANY ENCROACHMENTS OR DISCREPANCIES IMMEDIATELY TO ALFRED BENESCH & COMPANY
- 5. NO SOIL DISTURBANCE OR COMPACTION, CONSTRUCTION MATERIALS, TRAFFIC, BURIAL PITS, TRENCHING OR OTHER LAND DISTURBING ACTIVITY ALLOWED IN EXISTING WOODED AREAS UNLESS SHOWN ON PLAN.
- 6. CLEARING LIMITS ON THE PLAN INDICATE THE EXTENT OF ALL MAJOR CLEARING REQUIRED, CONTRACTOR IS ALSO RESPONSIBLE FOR ANY INCIDENTAL CLEARING REQUIRED FOR MINOR DISCREPANCIES IN GRADE, UTILITY OR STORM PIPE INSTALLATIONS, EROSION CONTROL MEASURES, ETC.
- 7. FEMA FIRM PANEL NUMBER: 13117C0227F, 13117C0235F DATE: 03/04/2013.7. THE FLOODPLAIN RUNS THROUGH THE CENTER OF THE CANEY CREEK PRESERVE ON EITHER SIDE OF CANEY CREEK. THIS AREA WILL REMAIN UNDISTURBED.

NOTIFY FORSYTH COUNTY INSPECTOR 24 HOURS BEFORE THE BEGINNING PHASE OF CONSTRUCTION. (770) 781-2165.





**CI00** 

Project No:

Revisions:

Sheet Title:

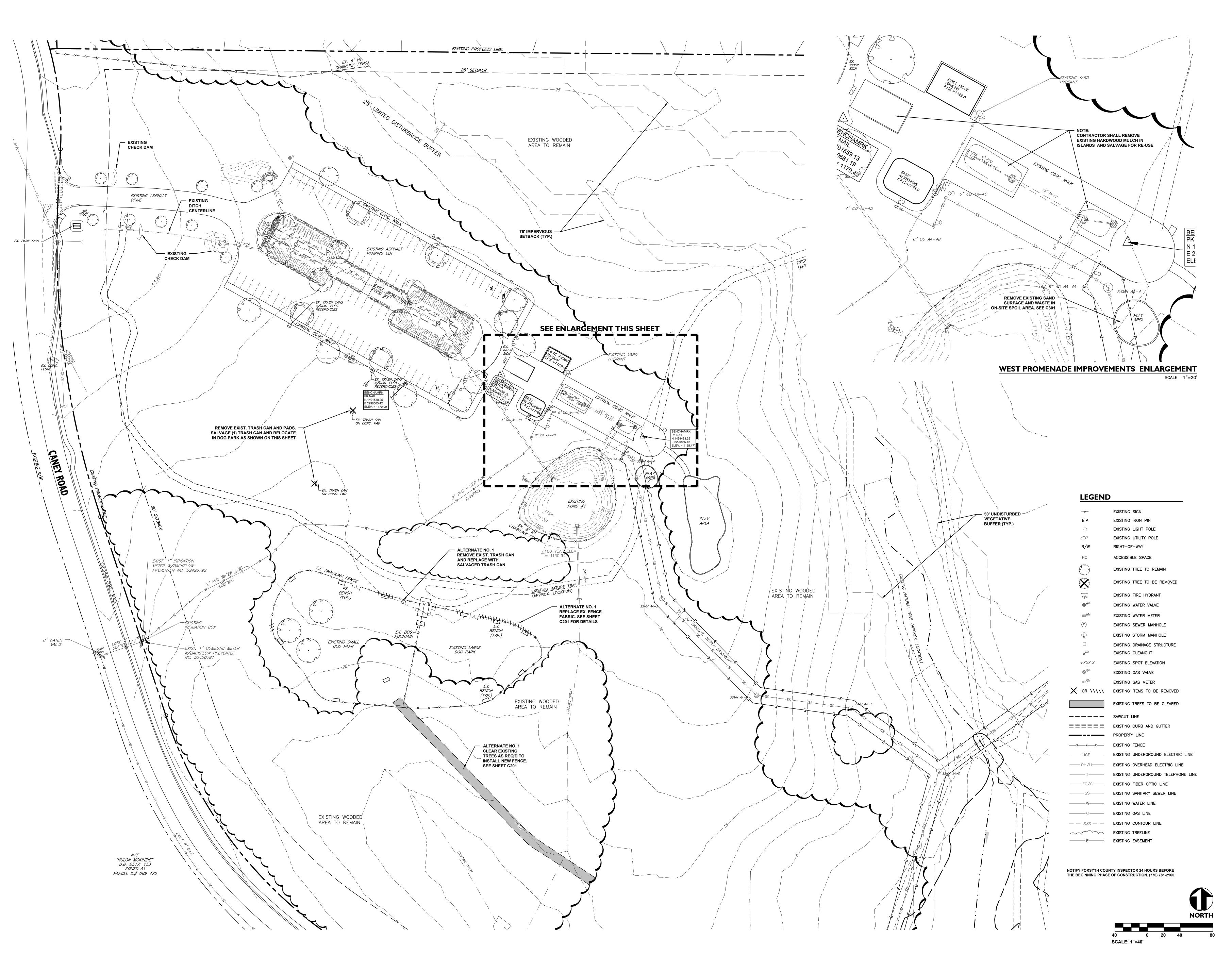
Per County Comments 01.31.20

Per County Comments 03.04.20

Per County Comments 04.27.20

17.000291

01.08.20



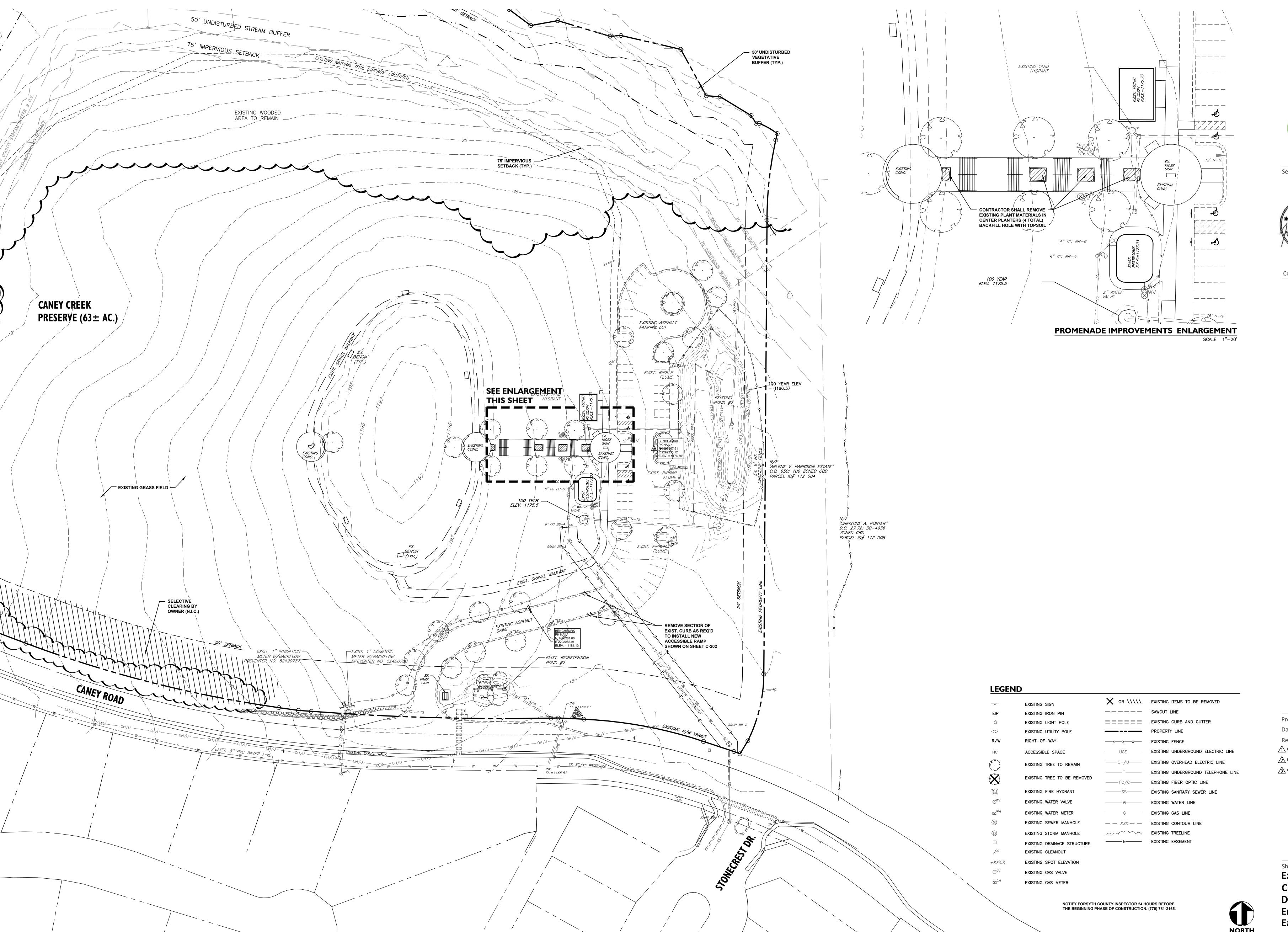




17.000291

Project No: Revisions: Per County Comments 01.31.20 Per County Comments 03.04.20 Per County Comments 04.27.20

Sheet Title: **Existing** Conditions/ **Demolition Plan Enlargement-**West







Project No: Revisions: Per County Comments 01.31.20 Per County Comments 03.04.20 Per County Comments 04.27.20

Sheet Title: **Existing Conditions/ Demolition Plan Enlargement-**East

SCALE: 1"=40'



- SHALL SECURE AND PAY FOR ALL PERMITS (BOTH SITE AND BUILDING RELATED) INCLUDING BUT NOT LIMITED TO REGULATORY FEES, LICENSES, AND INSPECTIONS NECESSARY FOR PROPER EXECUTION AND COMPLETION OF THE WORK.
- 5. THE GENERAL CONTRACTOR SHALL CONTACT ALL OWNERS OF EASEMENTS, UTILITIES, AND RIGHT-OF-WAYS, PUBLIC AND
- 7. USE CAUTION WHEN REPRODUCING COPIES OF THE CONSTRUCTION DRAWINGS. COPIES ARE SUBJECT TO DISTORTION AND
- 8. ALL SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MANUAL ON UNIFORM

- 1. CONSTRUCTION WASTE AND/OR VEGETATIVE MATERIAL MAY BE BURNED OR BURIED AND MUST BE TAKEN TO A STATE
- 2. PER UDC 10-1.13 OUTSIDE CONSTRUCTION SHALL BE LIMITED TO THE HOURS OF 7:00 AM TO 7:00 PM MONDAY TO FRIDAY;
- 3. ALL STRUCTURES WILL COMPLY WITH THE FIRE SEPARATION DISTANCE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE AS ADOPTED AND AMENDED BY THE GA DEPARTMENT OF COMMUNITY AFFAIRS. APPROVAL OF THIS PERMIT WILL

- 2. NO STRUCTURES, FENCES, OR OTHER OBSTRUCTIONS MAY BE LOCATED WITHIN A DRAINAGE OR ACCESS EASEMENT
- 5. APPROVAL OF THESE PLANS IS SUBJECT TO, AND CONTINGENT UPON THE APPLICANT OBTAINING ANY AND ALL NECESSARY APPROVALS FROM ANY AND ALL APPLICABLE AGENCIES INCLUDING, BUT NOT LIMITED TO THE UNITED STATES ARMY CORPS OF ENGINEERS, THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, USDA-NRCS, GEORGIA

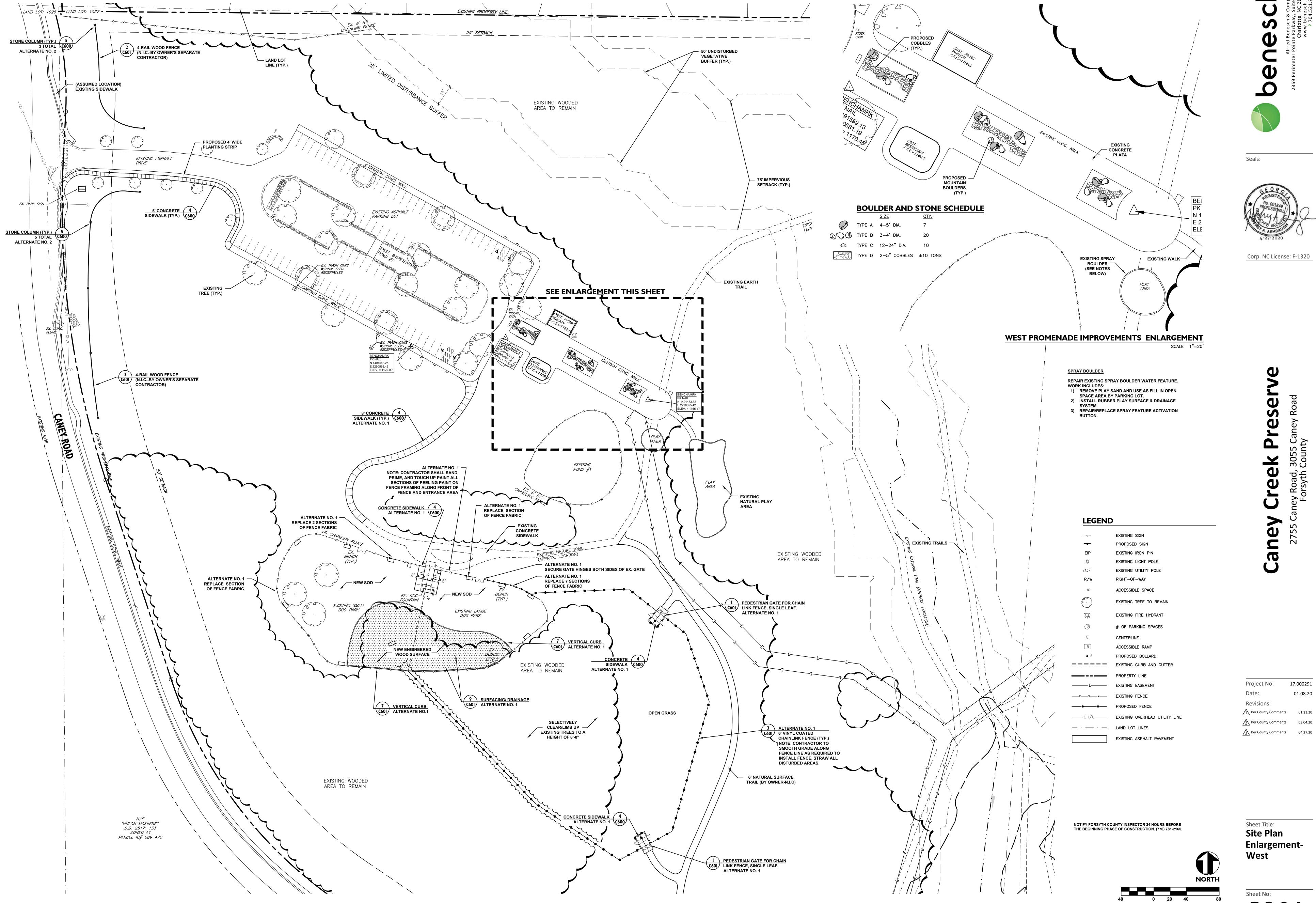
SCALE: 1"=100'

6. ALL UNDISTURBED BUFFERS SHALL BE IDENTIFIED WITH ORANGE, FOUR-FOOT TREE-SAVE FENCING PRIOR TO ANY LAND

Project No: 17.000291 Revisions: Per County Comments 01.31.20 Per County Comments 03.04.20 Per County Comments 04.27.20

**Overall Site** 

**C200** 





17.000291 01.08.20

SCALE: 1"=40'





# 17.000291 Revisions: Per County Comments 01.31.20 Per County Comments 03.04.20

Per County Comments 04.27.20

Sheet Title: Site Plan **Enlargement-**East

NOTIFY FORSYTH COUNTY INSPECTOR 24 HOURS BEFORE THE BEGINNING PHASE OF CONSTRUCTION. (770) 781-2165.

5. CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING WORK, BOTH PUBLIC AND PRIVATE. CONTRACTOR IS FULLY RESPONSIBLE FOR ALL UNDERGROUND UTILITIES AND SHALL REPAIR ANY DAMAGE AS A RESULT OF THIS CONTRACT.

6. CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY TO TRANSITION BACK TO EXISTING GRADE.

7. THE PROPOSED CONTOURS AND SPOT ELEVATIONS SHOWN IN DRIVES, PARKING LOTS AND SIDEWALKS ARE FINISHED ELEVATIONS INCLUDING ASPHALT. REFER TO PAVEMENT CROSS SECTION DATA TO ESTABLISH CORRECT SUBBASE OR AGGREGATE BASE COURSE ELEVATIONS TO BE COMPLETED UNDER THIS CONTRACT. 8. PROPOSED SPOT ELEVATIONS SHOWN REFER TO BOTTOM OF CURB UNLESS OTHERWISE NOTED ON PLAN.

9. PIPE LENGTHS SHOWN ARE THE ENGINEER'S ESTIMATE USED TO COMPUTE PIPE SLOPES AND INVERTS AND

10. CROSS SLOPE OF SIDEWALKS SHALL BE 2% (MAX).

11. SLOPES SHALL BE GRADED NO STEEPER THAN 3:1

12. NO DISTURBANCE OR COMPACTION, CONSTRUCTION MATERIALS, TRAFFIC, BURIAL PITS, TRENCHING OR OTHER LAND DISTURBING ACTIVITY ALLOWED IN THE TREE PROTECTION ZONE. TREE BARRICADES MUST BE INSTALLED BEFORE ANY DEMOLITION, GRADING OR CONSTRUCTION BEGINS, AND NOT REMOVED UNTIL FINAL INSPECTION.

13. NO GRUBBING WITHIN TREE PROTECTION ZONE. LEAVE SOIL AND LEAF LITTER UNDISTURBED. SUPPLEMENT WITH 1-2 INCHES OF MULCH. RE-SEED WITH GRASS ONLY IN DISTURBED/GRADED AREAS.

14. BRUSH, VINES AND SMALL TREES (<8 IN. DIA., OR AS SMALL AS 2 IN. CALIPER) MAY BE HAND CLEARED ONLY CUT FLUSH WITH GROUND SURFACE. EXISTING TREES MAY BE LIMBED UP 6 FEET (AT LEAST 2/3 OF THE BRANCHES SHOULD BE LEFT) TO IMPROVE VISIBILITY.

15. EXPOSED TREE ROOTS MUST BE CLEANLY CUT WITH A SHARP PRUNING TOOL; BACKFILL ASAP TO MINIMIZE EXPOSURE TO THE AIR.

SCALE: 1"=100'

16. PIPE LENGTHS SHOWN ON CULVERTS INCLUDE FLARED END SECTIONS.

17. IN ORDER TO ENSURE ADEQUATE DRAINAGE, FLOW LINES IN GUTTERS SHALL BE 0.50% MINIMUM.

NOTIFY FORSYTH COUNTY INSPECTOR 24 HOURS BEFORE THE BEGINNING PHASE OF CONSTRUCTION. (770) 781-2165.

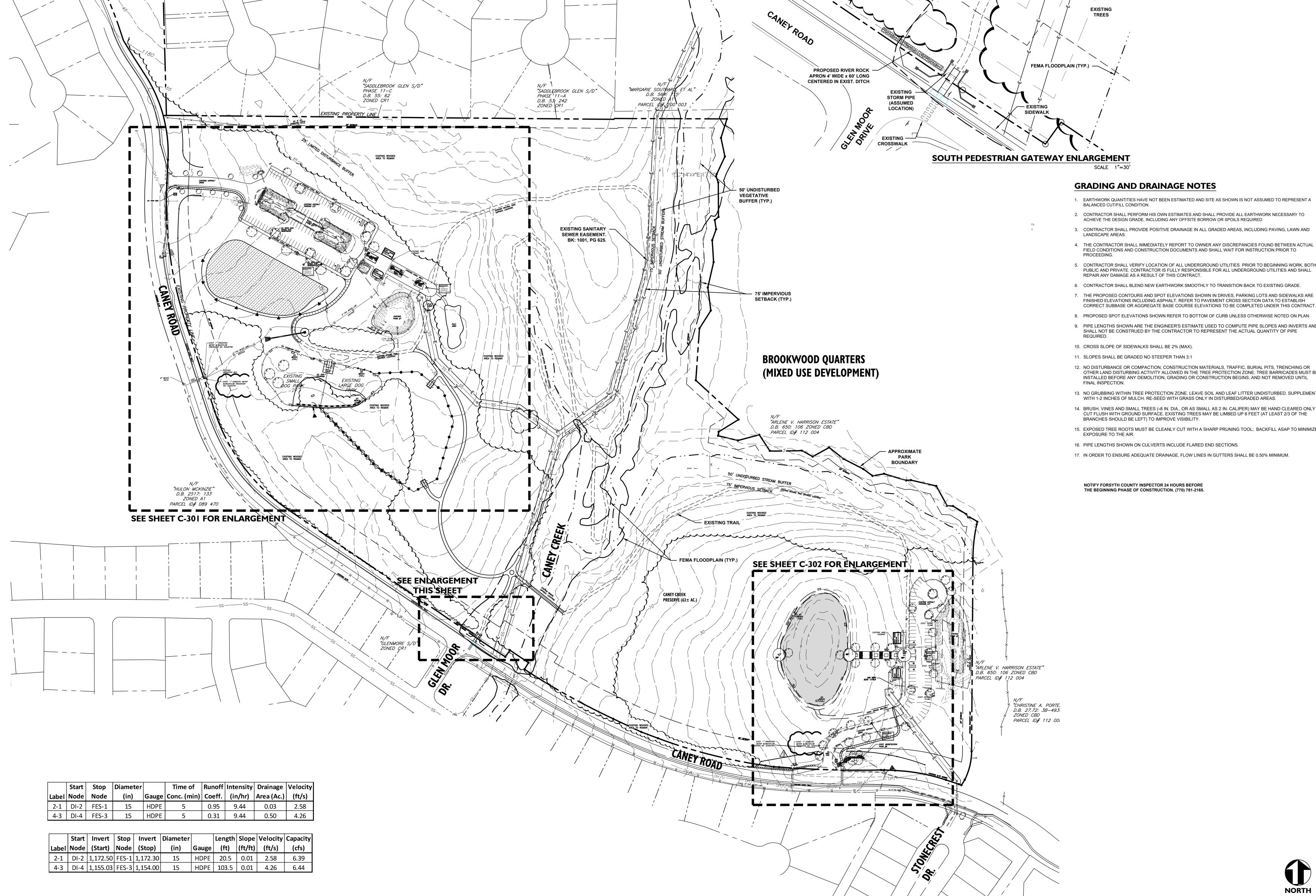
# Project No: 17.000291 01.08.20 Revisions: Per County Comments 01.31.20 Per County Comments 03.04.20

Sheet Title:

Overall Grading Plan

Per County Comments 04.27.20

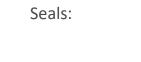
**C300** 



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Corp. NC License: F-1320

Project No: 17.000291 Revisions: Per County Comments 01.31.20 Per County Comments 03.04.20 Per County Comments 04.27.20

Sheet Title: **Grading Plan Enlargement-**West

Sheet No: **C30I** 

SCALE: 1"=40'

NOTIFY FORSYTH COUNTY INSPECTOR 24 HOURS BEFORE THE BEGINNING PHASE OF CONSTRUCTION. (770) 781-2165.

DISTURBED AREA = 1.00 AC

LEGEND

<del>- o -</del>	EXISTING SIGN
EIP	EXISTING IRON PIN
<b>\$</b>	EXISTING LIGHT POLE
0	EXISTING UTILITY POLE
R/W	RIGHT-OF-WAY
<b>X</b>	EXISTING FIRE HYDRANT
$\otimes^{WV}$	EXISTING WATER VALVE
⊠ <sup>WM</sup>	EXISTING WATER METER
(\$)	EXISTING SEWER MANHOLE
осо	EXISTING CLEANOUT
	EXISTING DRAINAGE STRUCTURE
DII	PROPOSED DRAINAGE STRUCTURE
$\otimes^{GV}$	EXISTING GAS VALVE
$\bowtie^{GM}$	EXISTING GAS METER
=====	EXISTING CURB AND GUTTER
	PROPERTY LINE
xxx	EXISTING FENCE
———UGE———	EXISTING UNDERGROUND ELECTRIC LINE
OH/U	EXISTING OVERHEAD ELECTRIC LINE
T	EXISTING UNDERGROUND TELEPHONE LINE
SS	EXISTING SANITARY SEWER LINE

EXISTING STORM MANHOLE

TEMPORARY INLET PROTECTION

SCALE: 1"=40'

Per County Comments 01.31.20

Per County Comments 03.04.20

Per County Comments 04.27.20

Sheet Title:
Grading Plan
Enlargement-East

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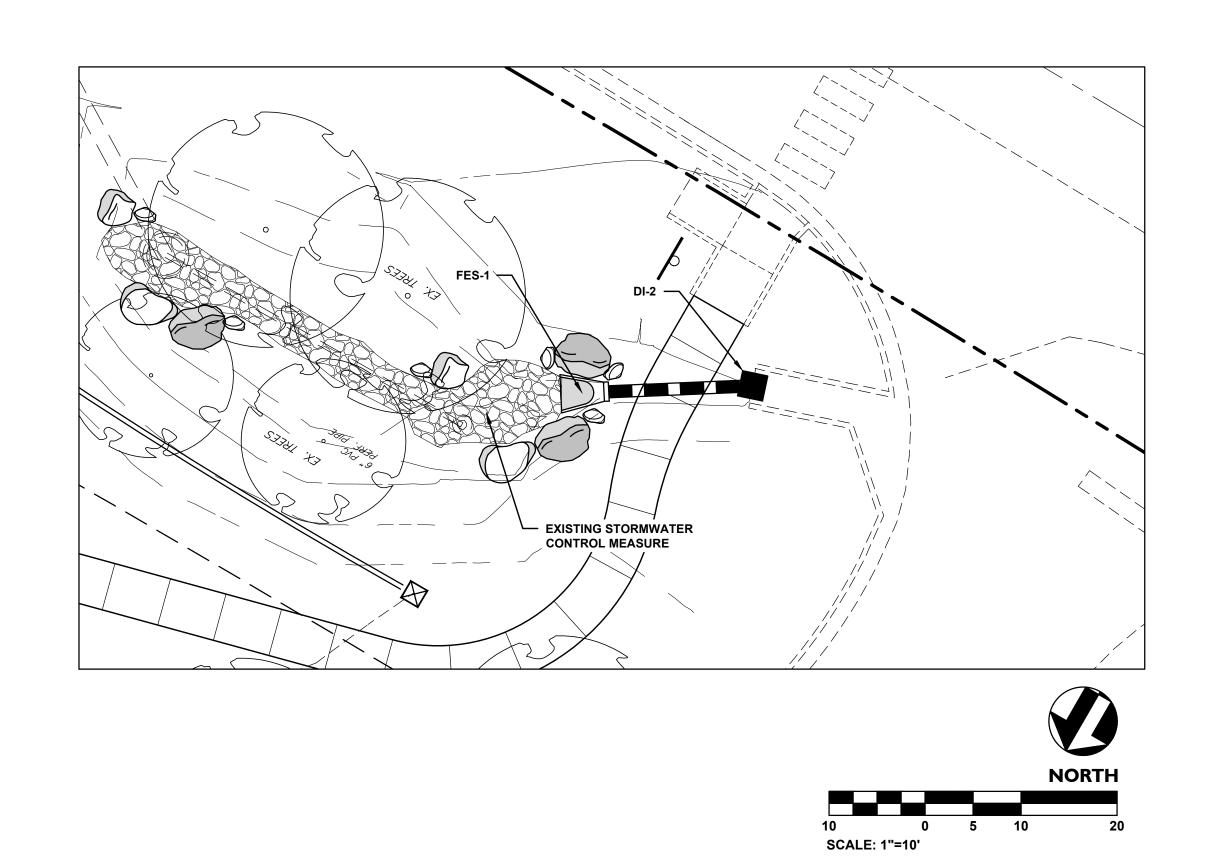
Creek **Caney** 2755 Cal

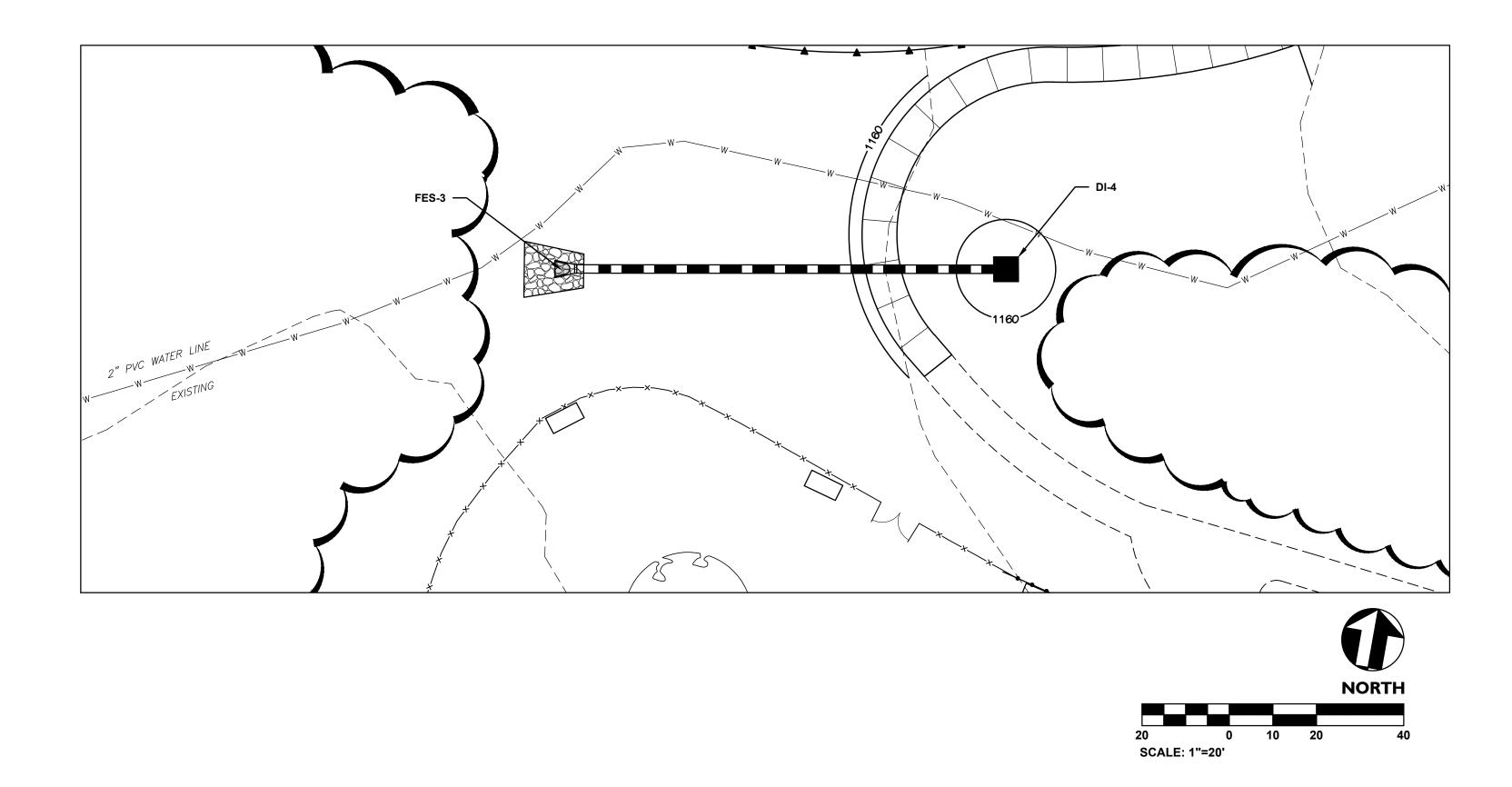
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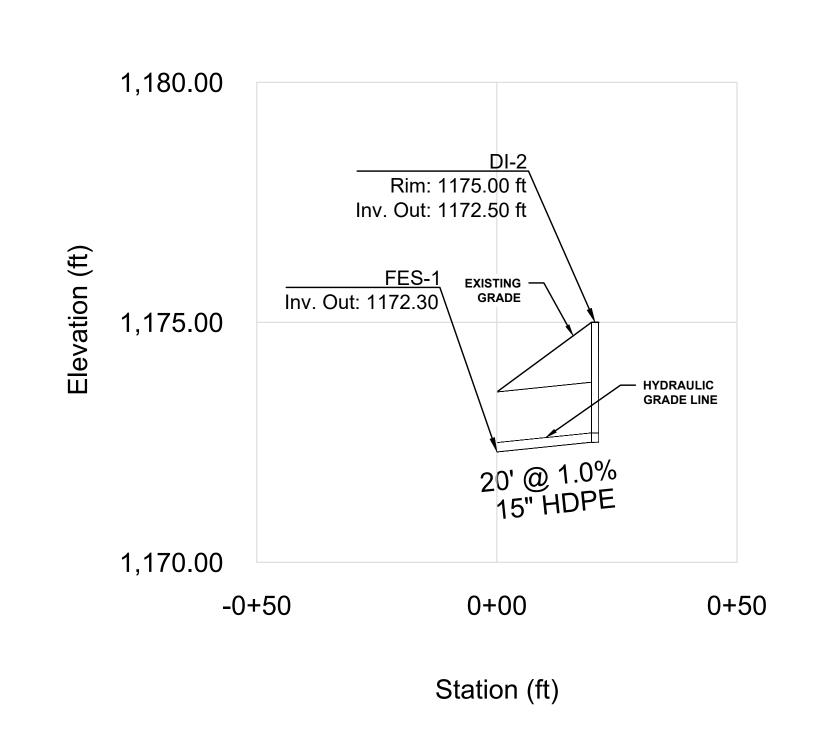
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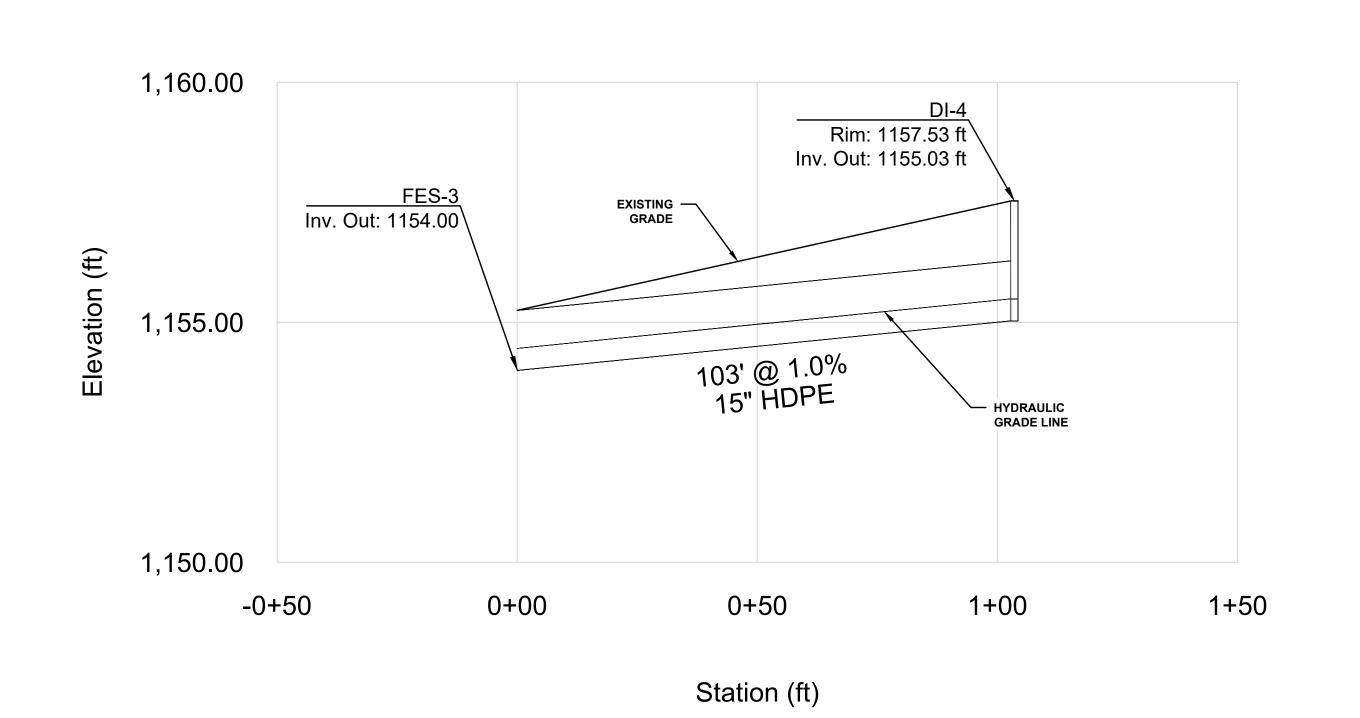
Sheet Title:
Pipe Plan &
Profiles

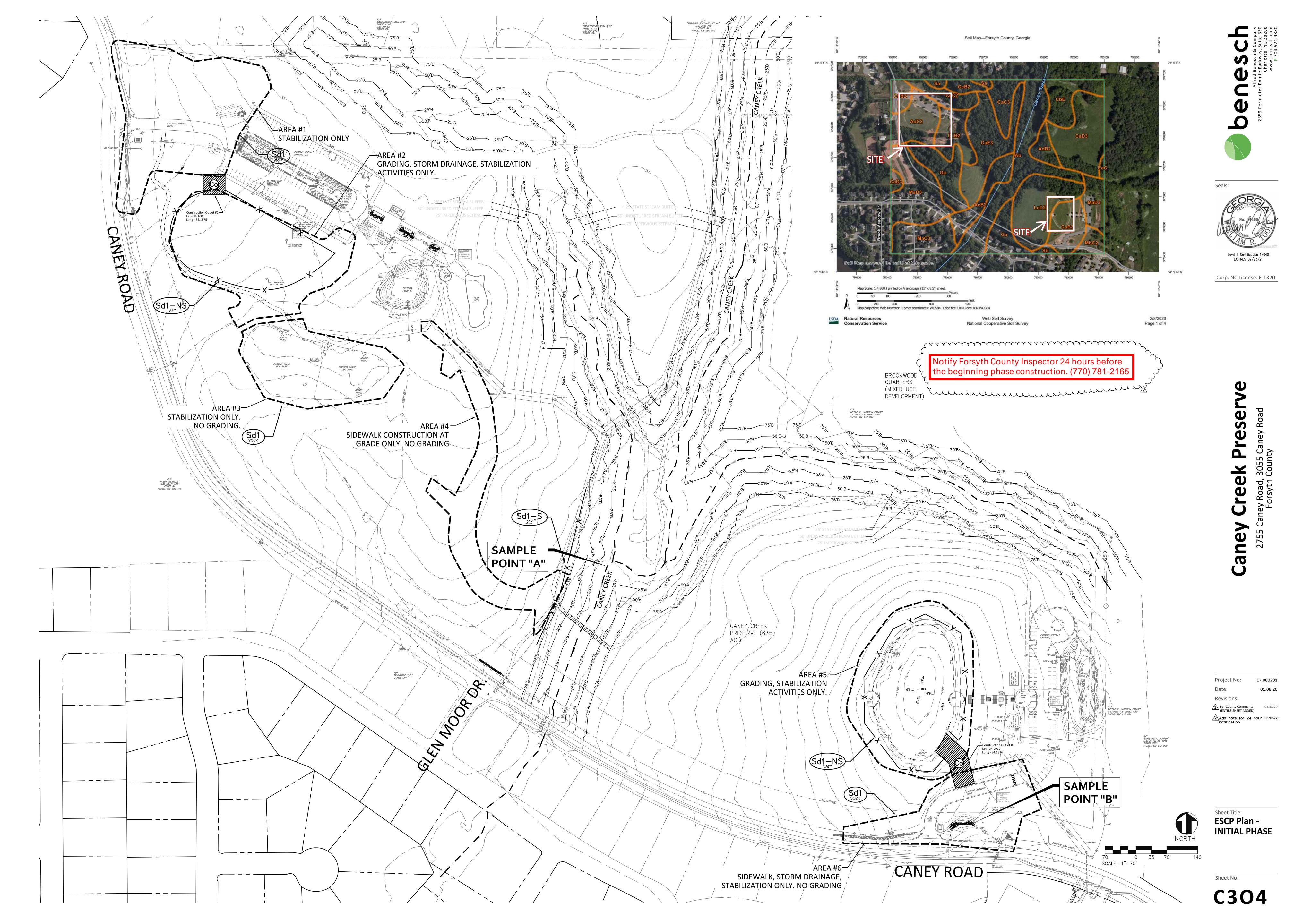
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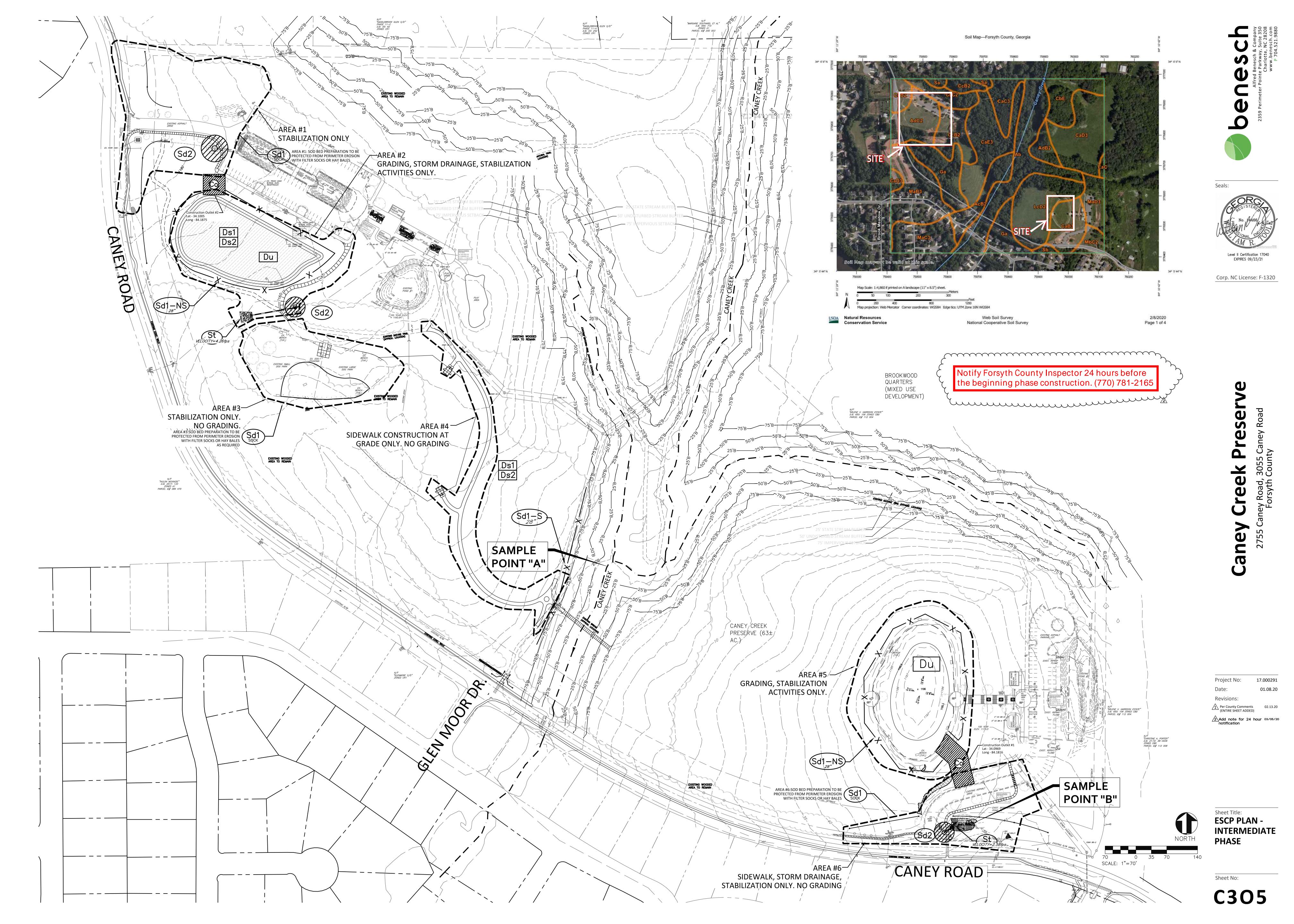


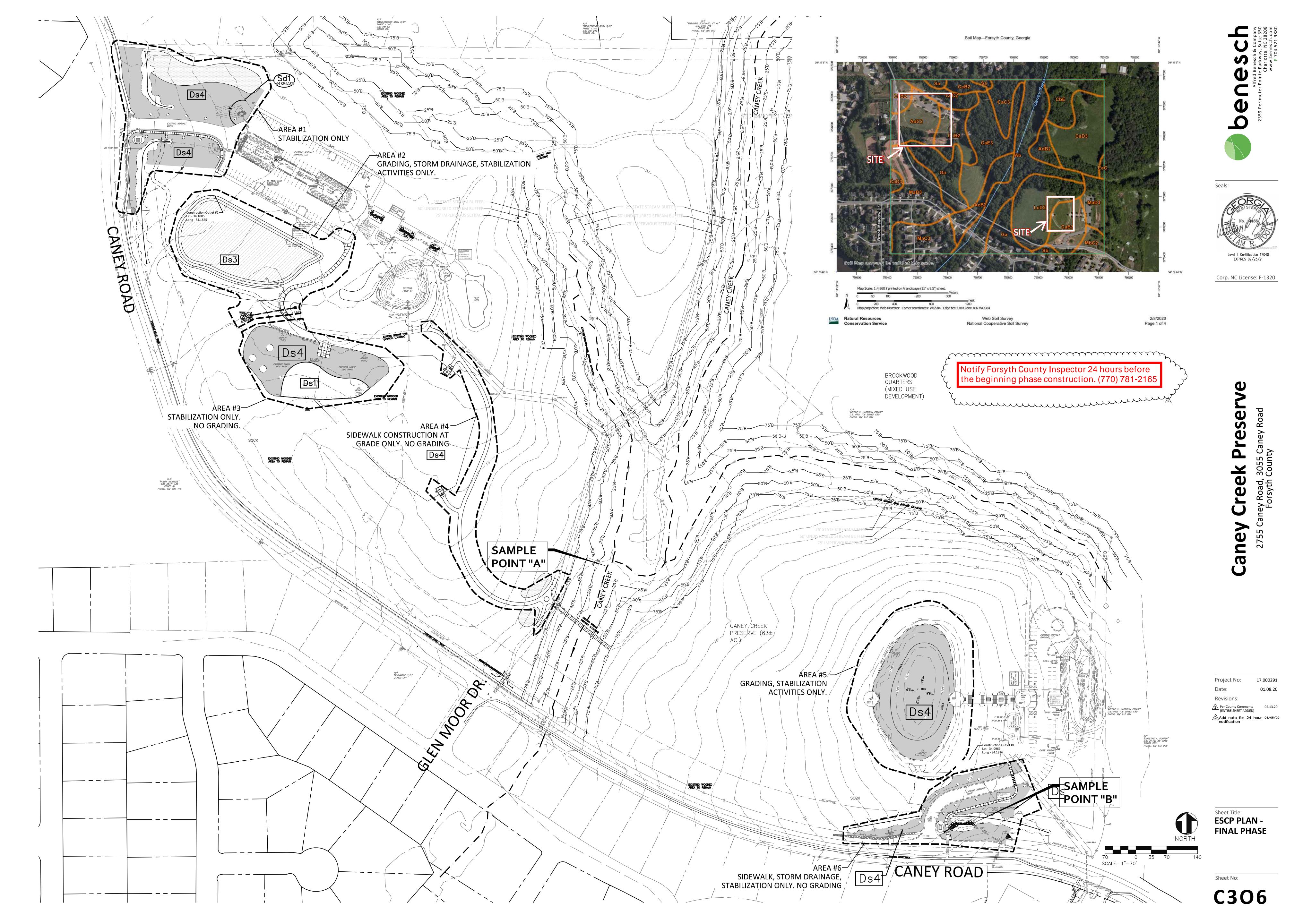












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EXPIRES 09/23/21

/2\Add note for 24 hour 03/05/20

Sheet Title: **ESCP PLAN -**

C307

**GSWCC AND NPDES NOTES:** PROJECT NAME: CANEY CREEK PARK IMPROVEMENTS 2755 Caney Road CITY / COUNTY: **CUMMING, GEORGIA** DATE ON PLANS: \_\_\_\_\_08/16/19 GAR 100003 COMMON DEVELOPMENTS INFRASTRUCTURE STAND ALONE L 2. LEVEL II CERTIFICATION: NAME: 3. 24 HOUR CONTACT: NAME: \_\_JIM PRYOR - FORSYTH COUNTY PARKS & RECREATION 4. PRIMARY PERMITTEE: \_ ZIP CODE: **\_30028**\_ PHONE: **770-205-4679** \_\_\_\_ EMAIL: <u>TJPryor@forsythco.com</u> 5. TOTAL ACRES: 61.97+/- ACRES TOTAL ACRES DISTURBED: 2.0 ACRES 6.(A) TAX MAP NUMBER: **112 264** 6.(B) CRITICAL AREAS: IF YES, DESCRIBE: 7. VICINITY MAP: SHEET **COVER** ON PLANS. 8. GRAPHIC SCALE: AS NOTED ON INDIVIDUAL SHEETS. 9. EXISTING AND PROPOSED CONTOUR LINES AT REQUIRED INTERVALS: 10. BOUNDARY LINE SURVEY: SHEET(S) \_\_\_\_\_ ALL \_\_\_ OF \_\_\_\_ N/A \_\_ ON PLANS 11. DELINEATION OF DRAINAGE BASINS ON PROJECT SITE: 12.(A) DELINEATION OF ON SITE WETLANDS: ON-SITE WETLANDS: 12.(B) DELINEATION OF STATE WATERS ON ARE WITHIN 200 FT. OF PROJECT SITE: NO YES SHEET(S) STATE WATERS THAT ARE ON OR WITHIN 200 FT. OF PROJECT SITE 13. DELINEATION OF 25 FOOT OR 50 FOOT UNDISTURBED BUFFER NOT APPLICABLE 14. DELINEATE ALL SAMPLING LOCATIONS, PERENNIAL AND INTERMEDIATE STREAMS: SHEET(S) \_\_\_\_ 15. STORM DRAIN PIPE AND WEIR VELOCITIES WITH APPROPRIATE OUTLET PROTECTION: STORM DRAIN PIPE MUST SHOW Q, V, L, W, D, AND SIZE. 16. SOIL SERIES FOR THE PROJECT SITE: (PROVIDE MAP) SHFFT C304-C306 ON PLANS. 17. IDENTIFY PROJECT RECEIVING STREAM: CANEY CREEK 18. IMPAIRED STREAM: YES 19. TMDL IMPLEMENTATION PLAN FOR SEDIMENT: YES

20. HYDROLOGY STUDY FOR PRE AND POST DEVELOPED CONDITIONS: 21. INITIAL DATE ON PLANS AND THE DATE(S) OF ANY REVISIONS AND WHO REQUESTED THEM: 22. LIMITS OF DISTURBANCE FOR EACH PHASE OF CONSTRUCTION: SHEET(S) <u>C4.3, C4.3</u> NO \_ ON PLANS. 23. LIMITS OF DISTURBANCE OVER 50 ACRES: 24. SEDIMENT STORAGE PER CHECKLIST / PERMIT REQUIREMENTS: SHEET **C4.3, C5.3** ON PLANS. NO IF YES, ALT. BMP CALC SHEET 25. USE OF ALTERNATIVE BMP'S: 26. BEST MANAGEMENT PRACTICES TO REDUCE OFFSITE VEHICLE TRACKING (Co) AND THE GENERATION OF DUST (Du):

27. OFF-SITE VEHICLE TRACKING OF DIRT, SOILS, AND SEDIMENTS AND THE GENERATION OF DUST SHOULD BE MINIMIZED OR ELIMINATED TO THE MAXIMUM EXTENT PRACTICAL THE PLAN SHALL INCLUDE THE BEST MANAGEMENT PRACTICE TO BE IMPLEMENTED AT THE SITE OR CONSTRUCTION ACTIVITY. A STABILIZED CONSTRUCTION EXIT HAS BEEN PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENT. REFER TO SHEET NO's. **C4.3** AND \_\_\_\_\_FOR CONSTRUCTION EXIT LOCATION AND DETAILS. THE PAVED STREETS ADJACENT TO THE SITE SHALL BE INSPECTED DAILY FOR TRACKING OF MUD, DIRT, OR ROCK. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARPAULIN.

#### CRUSHED STONE CONSTRUCTION EXIT:

THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO ADJACENT ROADS & DRIVES. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 1"-3" STONE, AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEAN OUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES OFFSITE ONTO ADJACENT ROADS AND DRIVES, OR INTO STORM DRAINS, MUST BE REMOVED IMMEDIATELY.

#### DUST CONTROL (DU) NOTES:

\* SPRAY-ON ADHESIVES: THESE ARE USED ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS). KEEP TRAFFIC OFF THESE AREAS.

\* TILLAGE: THIS PRACTICE IS DESIGNED TO ROUGHEN AND BRING CLODS TO THE SURFACE. IT IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE WIND EROSION STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART, SPRING-TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.

\* IRRIGATION: THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS WET. REPEAT AS NEEDED.

\* BARRIERS: SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS. BALES OF HAY AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLE TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 15 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING WIND EROSION.

#### DUST CONTROL (DU) NOTES (CONT'D.):

\* CALCIUM CHLORIDE: APPLY AT A RATE THAT WILL KEEP SURFACE MOIST. MAY NEED

REFER ALSO TO SHEET NUMBER(S) **FOR** THE "DUST CONTROL ON DISTURBED AREAS (Du)" GSWCC DETAIL AND SHEET NUMBER(S) \_ THE "CONSTRUCTION EXIT (Co)" GSWCC DETAIL.

28. BMPs FOR CONCRETE WASHDOWN OF THE FOLLOWING:

ALL CONCRETE WASH WATER THAT RESULTS FROM THE WASHDOWN OF TOOLS USED FOR CONCRETE WORK SHALL BE CONTAINED IN A DESIGNATED CONCRETE WASHOUT AREA. DETAIL ON SHEET(S) C3.1

ALL CONCRETE WASH WATER THAT RESULTS FROM THE RINSING OUT OF CONCRETE MIXER CHUTES SHALL BE CONTAINED IN A DESIGNATED CONCRETE WASHOUT AREA.

ALL CONCRETE WASH WATER THAT RESULTS FROM THE RINSING OUT OF CONCRETE HOPPERS SHALL BE CONTAINED IN A DESIGNATED CONCRETE WASHOUT AREA.

ALL CONCRETE AND WASH WATER THAT RESULTS FROM THE RINSING OFF OF THE REAR OF CONCRETE TRUCKS SHALL BE CONTAINED IN A DESIGNATED CONCRETE WASHOUT AREA.

WASH OUT OR DISCHARGE OF ANY SURPLUS CONCRETE ON THE GROUND OR DRUM WASHOUT FROM CONCRETE TRUCKS AT THE CONSTRUCTION SITE IS PROHIBITED.

#### 29. BMP's FOR THE REMEDIATION OF ALL PETROLEUM SPILLS AND LEAKS:

SPILL CLEANUP AND CONTROL PRACTICES:

- LOCAL, STATE, AND MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND PROCEDURES WILL BE MADE AVAILABLE TO ALL ON-SITE PERSONNEL.

- MATERIAL AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREAS. TYPICAL MATERIALS AND EQUIPMENT INCLUDE, BUT IS NOT LIMITED TO: BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, CAT LITTER, SAND, SAWDUST, AND PROPERLY LABELED PLASTIC AND METAL WASTE CONTAINERS. - SPILL PREVENTION PRACTICES AND PROCEDURES WILL BE REVIEWED AFTER A SPILL AND ADJUSTED AS NECESSARY TO PREVENT FUTURE SPILLS. - ALL SPILLS WILL BE CLEANED UP IMMEDIATELY UPON DISCOVERY. ALL SPILLS WILL BE REPORTED AS REQUIRED BY LOCAL STATE, AND FEDERAL REGULATIONS. - FOR SPILLS THAT IMPACT SURFACE WATER (I.E. LEAVE A SHEEN ON SURFACE WATER THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24-HOURS AT 1-(800)-424-8802.

- FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24-HOURS AT 1-(800)-426-2675. - FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE GEORGIA ENVIRONMENTAL PROTECTION DIVISION (EPD) WILL BE CONTACTED WITHIN 24-HOURS. GA. EPD (404)-656-4863 OR (800)-241-4113 AND THE NATIONAL RESPONSE CENTER AT (800)-424-8802

- FOR SPILLS LESS THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE SPILL WILL BE CLEANED UP AND LOCAL AGENCIES WILL BE CONTACTED AS REQUIRED.

THE CONTRACTOR SHALL NOTIFY THE LICENSED PROFESSIONAL WHO PREPARED THIS PLAN IF MORE THAN 1.320 GALLONS OF PETROLEUM IS STORED ON-SITE (THIS INCLUDES CAPACITIES OF EQUIPMENT) OR IF ANY ONE PIECE OF EQUIPMENT HAS A CAPACITY GREATER THAN 660 GALLONS. IN SUCH A CASE. THE CONTRACTOR WILL NEED A SPILL PREVENTION, CONTAINMENT, AND COUNTERMEASURES PLAN PREPARED BY A LICENSED PROFESSIONAL.

30. FOR PHASED EROSION AND SEDIMENT CONTROL PLANS (I.E. INITIAL PHASE INTERMEDIATE PHASE, AND FINAL PHASE) SHOWING THE LOCATION OF BEST MANAGEMENT PRACTICES (BMPs) THAT ARE CONSISTENT WITH AND NO LESS STRINGENT THAN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA CURRENT EDITION, USING UNIFORM CODING SYMBOLS FROM THE MANUAL, CHAPTER 6, WITH LEGEND, REFER TO SHEET NUMBER(S) GAR 100001

#### 31. DESCRIPTION OF THE NATURE OF CONSTRUCTION ACTIVITY:

THIS PROJECT IS A PRIMARILY LANSCAPE AND BEAUTIFICATION PROJECT, WITH SOME MINOR EXPANSION OF SIDEWALKS AND SOME GRADING TO REDUCE EROSION ON-SITE. CONSTRUCTION WILL CONSIST OF DEMOLITION. CLEARING AND GRUBBING SMALL PORTIONS OF OF THE SITE, GRADING, STORM DRAINAGE, LANDSCAPING AND CONSTRUCTION OF NEW SIDEWALK. STORMWATER IS MANAGED ONSITE INFRASTRUCTURE WITHIN THIS SITE. STORMWATER DISCHARGE WILL BE MANAGED BY **ONSITE DETENTION SYSTEMS.** 

32. DESCRIPTION OF THE APPROPRIATE CONTROLS AND MEASURES THAT WILL BE IMPLEMENTED AT THE CONSTRUCTION SITE FOR EACH PHASE OF EROSION AND SEDIMENT CONTROL:

INSTALLATION OF PERIMETER CONTROL BMP's (SILT FENCE (Sd1-C) AT THE LIMITS OF DISTURBANCE); CONSTRUCTION EXITS (Co) TO PREVENT THE TRACKING OR FLOW OF MUD ONTO ADJACENT ROADS AND DRIVES; DUST CONTROL ON DISTURBED AREAS (Du); DISTURBED AREA STABILIZATION WITH MULCHING ONLY (Ds1)

#### **INTERMEDIATE PHASE:**

MAINTAIN SILT FENCE TYPE-"C" (Sd1-C) FOR PERIMETER CONTROL; MAINTAIN CONSTRUCTION EXITS (Co) TO PREVENT THE TRACKING OR FLOW OF MUD ONTO ADJACENT ROADS AND DRIVES; DUST CONTROL ON DISTURBED AREAS (Du); DISTURBED AREA STABILIZATION WITH MULCHING ONLY (Ds1); AND DISTURBED AREA STABILIZATION WITH TEMPORARY SEEDING (Ds2).

ANTICIPATED CONSTRUCTION ACTIVITY SCHEDULE:

MONTHS OF CONSTRUCTION ACTIVITY 1. INSTALL INITIAL SEDIMENT CONTROL STRUCTURES 2. CONSTRUCT SEDIMENT / RETROFIT BASIN(S) 3. CLEARING AND GRUBBING / DEMOLITION 4. TEMPORARY GRASSING 5. MAINTAIN SEDIMENT CONTROL STRUCTURES 6. GRADING 7. UTILITY CONSTRUCTION 10. FINAL GRASSING 11. REMOVAL OF SEDIMENT CONTROL STRUCTURES

#### GSWCC AND NPDES NOTES (CONT'D.):

MAINTAIN INLET SEDIMENT TRAPS (Sd2-F & Sd2-P) AND FILTER RING (Fr) AT EXISTING INLETS; MAINTAIN SILT FENCE TYPE-"C" (Sd1-C) FOR PERIMETER CONTROL; DISTURBED AREA STABILIZATION WITH SOD (Ds4). REMOVAL OF ALL BMP DEVICES ONCE THE SITE IS FULLY STABILIZED.

- 33. CONSTRUCTION SCHEDULE:
- CHART ON SHEET: <u>C3.1</u> 34. PRODUCT SPECIFIC PRACTICES:

#### PETROLEUM BASED PRODUCTS

CONTAINERS FOR PRODUCTS SUCH AS FUELS, LUBRICANTS, AND TARS WILL BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INCLUDES ON-SITE VEHICLE AND MACHINERY DAILY INSPECTIONS AND REGULAR PREVENTATIVE MAINTENANCE OF SUCH EQUIPMENT. EQUIPMENT MAINTENANCE AREAS WILL BE LOCATED AWAY FROM STATE WATER, NATURAL DRAINS, AND STORM WATER DRAINAGE INLETS. IN ADDITION, TEMPORARY FUELING TANKS SHALL HAVE A SECONDARY CONTAINMENT LINER TO PREVENT/ MINIMIZE SITE CONTAMINATION. DISCHARGE OF OILS, FUELS, AND LUBRICANTS IS PROHIBITED. PROPER DISPOSAL METHODS WILL INCLUDE COLLECTION IN A SUITABLE CONTAINER AND DISPOSAL AS REQUIRED BY LOCAL AND STATE REGULATIONS.

#### PAINTS/FINISHES/SOLVENTS

ALL PRODUCTS WILL BE STORED IN TIGHTLY SEALED ORIGINAL CONTAINERS WHEN NOT IN USE. EXCESS PRODUCT WILL NOT BE DISCHARGED TO THE STORM WATER COLLECTION SYSTEM. EXCESS PRODUCT, MATERIALS USED WITH THESE PRODUCTS, AND PRODUCT CONTAINERS WILL BE DISPOSED OF ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.

#### FERTILIZER/HERBICIDES

THESE PRODUCTS WILL BE APPLIED AT RATES THAT DO NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS OR ABOVE THE GUIDELINES SET FORTH IN THE CROP ESTABLISHMENT OR IN THE GSWCC MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. ANY STORAGE OF THESE MATERIALS WILL BE UNDER ROOF IN SEALED CONTAINERS.

#### BUILDING MATERIALS

A. NO BUILDING OR CONSTRUCTION MATERIALS WILL BE BURIED OR DISPOSED OF ON-SITE. ALL SUCH MATERIALS WILL BE DISPOSED OF IN ACCORDANCE WITH PROPER WASTE DISPOSAL PROCEDURES.

B. PLASTING SEETING, TEMPORARY ROOF STRUCTURES OR OTHER APPROVED METHODS SHALL BE USED TO COVER EXPOSED BUILDING MATERIALS BUILDING PRODUCTS, CONSTRUCTION WASTES, TRASH, LANDSCAPE MATERIALS, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE, AND OTHER MATERIALS TO MINIMUZE EXPOSRE TO STORMWATER

35. DESCRIPTION OF MEASURES THAT WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS TO CONTROL POLLUTANTS IN STORM WATER THAT WILL OCCUR AFTER CONSTRUCTION OPERATIONS HAVE BEEN COMPLETED:

MEASURES INCLUDE A COMBINATION OF VEGETATED SWALES AND NATURAL DEPRESSIONS FOR FLOW ATTENUATION, LANDSCAPED AND TURF AREAS, AND IMPERVIOUS SURFACES THAT WILL REDUCE SOIL AND SEDIMENT RUNOFF.

THESE MEASURES WILL ENSURE THAT THE NATURAL, PHYSICAL, AND BIOLOGICAL CHARACTERISTICS AND FUNCTIONS OF THE WATER COURSE ARE MAINTAINED AND

36. DESIGN PROFESSIONAL'S CERTIFICATION STATEMENT AND SIGNATURE THAT THE SITE WAS VISITED PRIOR TO DEVELOPMENT OF THE ES&PC PLAN AS STATED ON PAGE 14 OF THE PERMIT:

"I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY MYSELF OR MY AUTHORIZED AGENT, UNDER MY SUPERVISION."

#### WILLIAM TOOLE GSWCC LEVEL II DESIGN PROFESSIONAL GSWCC LEVEL II CERTIFICATION NO. EXP. DATE

37. DESIGN PROFESSIONAL'S CERTIFICATION STATEMENT AND SIGNATURE THAT THE PERMITTEE'S ES&PC PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BMPs AND SAMPLING TO MEET PERMIT REQUIREMENTS AS STATED ON PAGE 14 OF THE PERMIT:

"I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BEST MANAGEMENT PRACTICES REQUIRED BY THE GEORGIA WATER QUALITY CONTROL ACT AND THE DOCUMENT "MANUAL FOR EROSION AN SEDIMENT CONTROL IN GEORGIA" (MANUAL) PUBLISHED BY THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH THE LAND-DISTURBING ACTIVITY WAS PERMITTED, PROVIDES FOR THE SAMPLING OF THE RECEIVING WATER(S) OR THE SAMPLING OF THE STORM WATER OUTFALLS AND THAT THE DESIGNED SYSTEM OF BEST MANAGEMENT PRACTICES AND SAMPLING METHODS IS EXPECTED TO MEET THE REQUIREMENTS CONTAINED IN THE GENERAL NPDES PERMIT NO. GAR 100001

#### GSWCC LEVEL II DESIGN PROFESSIONAL GSWCC LEVEL II CERTIFICATION NO. EXP. DATE

38. CERTIFICATION STATEMENT AND SIGNATURE OF THE PERMITTEE OR DULY AUTHORIZED REPRESENTATIVE AS STATED IN SECTION V.G.2.d OF THE STATE GENERAL

#### STANDARD PERMIT CONDITIONS SIGNATORY REQUIREMENTS CERTIFICATION:

"I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT CERTIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED UPON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT

THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS." 770-205-4674 PRIMARY PERMITTEE CONTACT PHONE NUMBER

THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING

THESE ARE STANDARD NOTES PROVIDED BY THE LOCAL ISSUING AUTHORITY AND MODIFIED BY THE DESIGN PROFESSIONAL.

NAME: JIM PRYOR

PHONE: <u>770-205-4679</u>

24-HOUR LOCAL ES&PC CONTACT: TJPryor@forsythco.com

IF YOU DIG GEORGIA.. Know what's **below**. **Call** before you di UTILITIES PROTECTION CENTER

CALL US FIRST!

GSWCC AND NPDES NOTES (CONT'D.)

39. ESTIMATE OF THE RUNOFF COEFFICIENT OF THE SITE PRIOR TO AND AFTER CONSTRUCTION ACTIVITIES ARE COMPLETED: EAST PRE 50 EAST POST 50 WEST PRE 65 WEST POST 65

40. NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION OR WITHIN 25-FEET OF THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS

NO WORK ASSOCIATED WITH THIS PROJECT PROPOSES ANY ENCROACHMENT INTO 25-FOOT UNDISTURBED BUFFERS OF STATE WATERS OR 50-FOOT UNDISTURBED BUFFERS ALONG DESIGNATED TROUT STREAMS; THEREFORE, NO SPECIAL VARIANCES OR PERMITS ARE REQUIRED.

41. INDICATION THAT THE DESIGN PROFESSIONAL WHO PREPARED THE ES&PC PLAN IS TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMPs WITHIN 7 DAYS AFTER INSTALLATION:

WITHIN 7 DAYS OF INSTALLATION OF INITIAL PHASE EROSION CONTROL MEASURES, THE DESIGN PROFESSIONAL, OR AN AUTHORIZED AGENT DESIGNATED BY THE DESIGN PROFESSIONAL, WILL PERFORM AN INSPECTION OF THE EROSION AND SEDIMENTATION CONTROL BMPs THAT HAVE BEEN INSTALLED AND WILL SUBMIT A SIGNED COPY OF A REPORT OF THEIR FINDINGS TO THE PRIMARY OPERATOR, WHICH SHALL BE KEPT ON FILE WITH THE NOTICE OF INTENT (NOI) AND ALL OTHER REQUIRED PAPER WORK.

"I CERTIFY THE SITE WAS IN COMPLIANCE WITH THE ES&PC PLANS ON THE DATE OF INSPECTION."

#### GSWCC LEVEL II DESIGN PROFESSIONAL GSWCC LEVEL II CERTIFICATION NO. EXP. DATE

INSPECTION REVEALED THE FOLLOWING DISCREPANCIES FROM THE ES&PC PLAN:

(PROVIDE THIS CERTIFICATION IN LETTER FORMAT FOR RECORDS)

WORK SHALL NOT PROCEED ON THE SITE UNTIL DESIGN PROFESSIONAL CERTIFICATION 42. ANY AMENDMENTS/REVISIONS TO THE EROSION, SEDIMENTATION, AND POLLUTION

CONTROL PLANS (ES&PC PLANS), WHICH HAVE A SIGNIFICANT EFFECT ON BMP'S WITH

THESE DISCREPANCIES MUST BE ADDRESSED AND A RE-INSPECTION SCHEDULED.

A HYDRAULIC COMPONENT, MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL. 43. WASTE MATERIALS SHALL NOT BE DISPOSED OF OR DISCHARGED INTO STORM WATER INLETS OR TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.

ALL WASTE MATERIALS WILL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE WILL BE DISPOSED OF IN THE DUMPSTER. THE DUMPSTER WILL BE EMPTIED A MINIMUM OF ONCE PER WEEK OR MORE OFTEN IF NECESSARY, AND TRASH WILL BE HAULED AS REQUIRE BY LOCAL REGULATIONS. NO CONSTRUCTION WASTE WILL BE BURIED ON-SITE. ALL PERSONNEL WILL BE INSTRUCTED ON PROPER PROCEDURES FOR WASTE DISPOSAL. A NOTICE STATING THESE PRACTICES WILL BE POSTED AT THE JOBSITE AND THE CONTRACTOR WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

44. DOCUMENTATION THAT THE ES&PC PLAN IS IN COMPLIANCE WITH WASTE DISPOSAL. SANITARY SEWER, OR SEPTIC TANK REGULATIONS DURING AND AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED:

ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL, STATE, AND/OR FEDERAL REGULATIONS AND BY THE MANUFACTURER OF SUCH PRODUCTS. THE JOB SITE SUPERINTENDENT, WHO WILL ALSO BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED, WILL INSTRUCT SITE PERSONNEL IN THESE PRACTICES. MATERIAL SAFETY DATA SHEETS (MSDS's) FOR EACH SUBSTANCE WITH HAZARDOUS PROPERTIES THAT IS USED ON THE JOB SITE WILL BE OBTAINED AND USED FOR THE PROPER MANAGEMENT OF POTENTIAL WASTES THAT MAY RESULT FROM THESE PRODUCTS. AN MSDS WILL BE POSTED IN THE IMMEDIATE AREA WHERE SUCH PRODUCT IS STORED AND/OR USED AND ANOTHER COPY OF EACH MSDS WILL BE MAINTAINED IN THE ESPCP FILE AT THE JOB SITE CONSTRUCTION TRAILER OFFICE. EACH EMPLOYEE WHO MUST HANDLE A SUBSTANCE WITH HAZARDOUS PROPERTIES WILL BE INSTRUCTED ON THE USE OF MSDS SHEETS AND THE SPECIFIC INFORMATION IN THE APPLICABLE MSDS FOR THE PRODUCT HE/SHE IS USING, PARTICULARLY REGARDING SPILL CONTROL TECHNIQUES.

THE CONTRACTOR WILL IMPLEMENT THE SPILL PREVENTION CONTROL AND COUNTER-MEASURES (SPCC) PLAN FOUND WITHIN THE ESPCP AND WILL TRAIN ALL PERSONNEL IN THE PROPER CLEANUP AND HANDLING OF SPILLED MATERIALS. NO SPILLED HAZARDOUS MATERIALS OR HAZARDOUS WASTES WILL BE ALLOWED TO COME IN CONTACT WITH STORM WATER DISCHARGES. IF SUCH CONTACT OCCURS, THE STORM WATER DISCHARGE WILL BE CONTAINED ON-SITE UNTIL APPROPRIATE MEASURES IN COMPLIANCE WITH STATE AND FEDERAL REGULATIONS ARE TAKEN TO DISPOSE OF SUCH CONTAMINATED STORMWATER. IT SHALL BE THE RESPONSIBILITY OF THE JOB SITE SUPERINTENDENT TO PROPERLY TRAIN ALL PERSONNEL IN THE USE OF THE SPCC

45. DOCUMENTATION THAT THE ES&PC PLAN IS IN COMPLIANCE WITH WASTE DISPOSAL, SANITARY SEWER, OR SEPTIC TANK REGULATIONS DURING AND AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED (CONT'D.):

ALL PERMITTEES SHALL ENSURE AND DEMONSTRATE THAT THEIR PLAN IS IN COMPLIANCE WITH APPLICABLE STATE AND LOCAL WASTE WATER DISPOSAL, SANITARY SEWER, OR SEPTIC SYSTEM REGULATIONS. A MINIMUM OF ONE PORTABLE SANITARY UNIT WILL BE PROVIDED FOR EVERY TEN (10) WORKERS ON THE SITE ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONE TIME PER WEEK PER A LICENSED PORTABLE FACILITY PROVIDER IN COMPLIANCE WITH LOCAL AND STATE REGULATIONS. NOT PROVIDE FOR POST CONSTRUCTION SANITARY SEWER.

45. DOCUMENTATION THAT THE ES&PC PLAN IS IN COMPLIANCE WITH WASTE DISPOSAL,

Project No: Revisions:

NOTES 1 of 3

ummmmmm 2

Level II Certification 17040

EXPIRES 09/23/21

Corp. NC License: F-1320

#### SANITARY WASTES (CONT'D.)

a. PERMITTEE REQUIREMENTS.

ALL SANITARY WASTE UNITS WILL BE LOCATED IN AN AREA WHERE THE LIKELIHOOD OF THE UNIT CONTRIBUTING TO STORMWATER DISCHARGE IS NEGLIGIBLE. ADDITIONAL CONTAINMENT BMP's MUST BE IMPLEMENTED, SUCH AS GRAVEL BAGS OR SPECIALLY DESIGNED PLASTIC SKID CONTAINERS AROUND THE BASE, TO PREVENT WASTES FROM CONTRIBUTING TO STORM WATER DISCHARGES. THE LOCATION OF SANITARY WASTE UNITS MUST BE IDENTIFIED ON THE EROSION CONTROL PLAN GRADING PHASE, SHEET NO. <u>C4.4, C5.4</u> BY THE CONTRACTOR ONCE THE LOCATIONS HAVE BEEN DETERMINED. SANITARY SEWER WILL NOT BE PROVIDED BY MUNICIPAL AUTHORITY AT THE COMPLETION OF THIS PROJECT.

46. DETAILS ON COMPLETE REQUIREMENTS OF INSPECTIONS AND RECORD KEEPING BY THE PRIMARY PERMITTEE:

INSPECTIONS (NPDES GENERAL PERMIT NO. GAR100001, SEC. IV.D.4.):

- (1). EACH DAY WHEN ANY TYPE OF CONSTRUCTION ACTIVITY HAS TAKEN PLACE AT A PRIMARY PERMITTEE'S SITE, CERTIFIED PERSONNEL, PROVIDED BY THE PRIMARY PERMITTEE, SHALL INSPECT:
- (a.) ALL AREAS AT THE PRIMARY PERMITTEE'S SITE WHERE PETROLEUM PRODUCTS ARE STORED, USED, OR HANDLED FOR SPILLS AND LEAKS FROM VEHICLES AND
- (b.) ALL LOCATIONS AT THE PRIMARY PERMITTEE'S SITE WHERE VEHICLES ENTER OR EXIT THE SITE FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING; AND,

(c.) MEASURE RAINFALL ONCE EACH 24-HOUR PERIOD AT THE SITE.

THESE INSPECTIONS MUST BE CONDUCTED UNTIL A NOTICE OF TERMINATION IS SUBMITTED.

- (2) MEASURE AND RECORD RAINFALL WITHIN DISTURBED AREAS OF THE SITE THAT HAVE NOT MET FINAL STABILIZATION ONCE EVERY 24 HOURS EXCEPT ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY AND NON-WORKING FEDERAL HOLIDAY. THE DATA COLLECTED FOR THE PURPOSE OF COMPLIANCE WITH THIS PERMIT SHALL BE REPRESENTATIVE OF THE MONITORED ACTIVITY. MEASUREMENT OF RAINFALL MAY BE SUSPENDED IF ALL AREAS OF THE SITE HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION.
- (3). CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24-HOURS OF THE END OF A STORM EVENT THAT IS 0.5 INCHES RAINFALL OR GREATER (UNLESS SUCH STORM ENDS AFTER 5:00 PM ON ANY FRIDAY OR ON ANY NON-WORKING SATURDAY. NON-WORKING SUNDAY OR ANY NON-WORKING FEDERAL HOLIDAY IN WHICH CASE THE INSPECTION SHALL BE COMPLETED BY THE END OF THE NEXT BUSINESS DAY AND/OR WORKING DAY, WHICHEVER OCCURS FIRST):
- (a.) DISTURBED AREAS OF THE PRIMARY PERMITTEE'S CONSTRUCTION SITE THAT HAVE NOT UNDERGONE FINAL STABILIZATION; (b.) AREAS USED BY THE PRIMARY PERMITTEE FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION THAT HAVE NOT UNDERGONE FINAL STABILIZATION;

#### (c.) STRUCTURAL CONTROL MEASURES.

EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN APPLICABLE TO THE PRIMARY PERMITTEE'S SITE SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE. THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATER(S). FOR AREAS OF A SITE THAT HAVE UNDERGONE FINAL STABILIZATION, THE PERMITTEE MUST COMPLY WITH PART IV.D.4.a.(3). THESE INSPECTIONS MUST BE CONDUCTED UNTIL A NOTICE OF TERMINATION IS SUBMITTED.

- (4). CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT AT LEAST ONCE PER MONTH DURING THE TERM OF THIS PERMIT (I.E. UNTIL A NOTICE OF TERMINATION IS RECEIVED BY EPD) THE AREAS OF THE SITE THAT HAVE UNDERGONE FINAL STABILIZATION. THESE AREAS SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM AND THE RECEIVING WATER(S). EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATER(S).
- (5). BASED ON THE RESULTS OF EACH INSPECTION, THE SITE DESCRIPTION AND THE POLLUTION PREVENTION AND CONTROL MEASURES IDENTIFIED IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN, THE PLAN SHALL BE REVISED AS APPROPRIATE NOT LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION. IMPLEMENTATION OF SUCH CHANGES SHALL BE MADE AS SOON AS PRACTICAL BUT IN NO CASE LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION.
- (6). A REPORT OF EACH INSPECTION THAT INCLUDES THE NAME(S) OF PERSONNEL MAKING EACH INSPECTION, THE DATE(S) OF EACH INSPECTION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN, AND ACTIONS TAKEN IN ACCORDANCE WITH PART IV.D.4.a.(4) OF THE PERMIT SHALL BE MADE AND RETAINED AT THE SITE OR BE READILY AVAILABLE AT A DESIGNATED ALTERNATE LOCATION UNTIL THE ENTIRE SITE OR THAT PORTION OF A CONSTRUCTION PROJECT THAT HAS BEEN PHASED HAS UNDERGONE FINAL STABILIZATION AND A NOTICE OF TERMINATION IS SUBMITTED TO EPD. SUCH REPORTS SHALL IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE. WHERE THE REPORT DOES NOT IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE, THE REPORT SHALL CONTAIN A CERTIFICATION THAT THE CONSTRUCTION SITE IS IN COMPLIANCE WITH THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN AND THIS PERMIT. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART V.G. OF THIS PERMIT.
- 47. DETAILS ON COMPLETE REQUIREMENTS OF SAMPLING FREQUENCY AND REPORTING OF SAMPLING RESULTS:

SAMPLING FREQUENCY (NPDES GENERAL PERMIT NO. GAR 100001, SEC. IV.D.6.d.):

- (1). THE PRIMARY PERMITTEE MUST SAMPLE IN ACCORDANCE WITH THE PLAN AT LEAST ONCE FOR EACH RAINFALL EVENT DESCRIBED BELOW. FOR A QUALIFYING EVENT, SAMPLES MUST BE TAKEN WITHIN FORTY-FIVE (45) MINUTES OF:
- (a). THE ACCUMULATION OF THE MINIMUM AMOUNT OF RAINFALL FOR THE QUALIFYING EVENT, IF THE STORM WATER DISCHARGE TO A MONITORED RECEIVING WATER OR FROM A MONITORED OUTFALL HAS BEGUN AT OR PRIOR TO THE ACCUMULATION;
- (b). THE BEGINNING OF ANY STORM WATER DISCHARGE TO A MONITORED RECEIVING WATER OR FROM A MONITORED OUTFALL, IF THE DISCHARGE BEGINS AFTER THE ACCUMULATION OF THE MINIMUM AMOUNT OF RAINFALL FOR THE QUALIFYING EVENT.

#### GSWCC AND NPDES NOTES (CONT'D.)

- (2). HOWEVER, WHERE MANUAL AND AUTOMATIC SAMPLING ARE IMPOSSIBLE (AS DEFINED IN THIS PERMIT), OR ARE BEYOND THE PERMITTEE'S CONTROL, THE PERMITTEE SHALL TAKE SAMPLES AS SOON AS POSSIBLE, BUT IN NO CASE MORE THAN TWELVE (12) HOURS AFTER THE BEGINNING OF THE STORM WATER DISCHARGE.
- (3). SAMPLING BY THE PERMITTEE SHALL OCCUR FOR THE FOLLOWING EVENTS:
- (a). FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING STREAM, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH AND ALLOWS FOR MONITORING DURING NORMAL BUSINESS HOURS \* (MONDAY THROUGH FRIDAY, 8:00 A.M. TO 5:00 P.M., AND SATURDAY, 8:00 A.M. TO 5:00 P.M., EXCLUDING ALL NON-WORKING FEDERAL HOLIDAYS, WHEN CONSTRUCTION ACTIVITY IS BEING CONDUCTED BY THE PRIMARY PERMITTEE) THAT OCCURS AFTER ALL CLEARING AND GRUBBING OPERATIONS HAVE BEEN COMPLETED IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE REPRESENTATIVE SAMPLING LOCATION;
- (b). IN ADDITION TO (a) ABOVE, FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING STREAM, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH AND ALLOWS FOR MONITORING DURING NORMAL BUSINESS HOURS \* THAT OCCURS EITHER 90-DAYS AFTER THE FIRST SAMPLING EVENT OR AFTER ALL MASS GRADING OPERATIONS HAVE BEEN COMPLETED IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE REPRESENTATIVE SAMPLING LOCATION, WHICHEVER COMES FIRST;
- (c). AT THE TIME OF SAMPLING PERFORMED PURSUANT TO (a) AND (b) ABOVE, IF BMPs ARE FOUND TO BE PROPERLY DESIGNED, INSTALLED AND MAINTAINED, NO FURTHER ACTION IS REQUIRED. IF BMPs IN ANY AREA OF THE SITE THAT DISCHARGES TO A RECEIVING STREAM ARE NOT PROPERLY DESIGNED, INSTALLED AND MAINTAINED, CORRECTIVE ACTION SHALL BE DEFINED AND IMPLEMENTED WITHIN TWO (2) BUSINESS DAYS, AND TURBIDITY SAMPLES SHALL BE TAKEN FROM DISCHARGES FROM THAT AREA OF THE SITE FOR EACH SUBSEQUENT RAIN EVENT THAT REACHES 0.5 INCH DURING NORMAL BUSINESS HOURS \* UNTIL THE SELECTED TURBIDITY STANDARD IS ATTAINED, OR UNTIL POST-STORM EVENT INSPECTIONS DETERMINE THAT BMPs ARE PROPERLY DESIGNED, INSTALLED AND MAINTAINED.

\*NOTE THAT THE PERMITTEE MAY CHOOSE TO MEET THE REQUIREMENTS OF (a) AND (b) ABOVE BY COLLECTING TURBIDITY SAMPLES FROM ANY RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH AND ALLOWS FOR MONITORING AT ANY TIME OF THE DAY OR WEEK.

#### REPORTING (NPDES GENERAL PERMIT NO. GAR100001, SEC. IV.E.):

- 48. THE APPLICABLE PERMITTEE'S ARE REQUIRED TO SUBMIT A SUMMARY OF THE MONITORING RESULTS TO THE EPD AT THE ADDRESS SHOWN IN PART II.C. BY THE FIFTEENTH DAY OF THE MONTH FOLLOWING THE REPORTING PERIOD. REPORTING PERIODS ARE MONTHS DURING WHICH SAMPLES ARE TAKEN IN ACCORDANCE WITH THIS PERMIT. SAMPLING RESULTS SHALL BE IN A CLEARLY LEGIBLE FORMAT. UPON WRITTEN NOTIFICATION, EPD MAY REQUIRE THE APPLICABLE PERMITTEE TO SUBMIT THE SAMPLING RESULTS ON A MORE FREQUENT BASIS. SAMPLING AND ANALYSIS OF ANY STORM WATER DISCHARGE(S) OR THE RECEIVING WATER(S) BEYOND THE MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED IN A SIMILAR MANNER TO THE EPD. THE SAMPLING REPORTS MUST BE SIGNED IN ACCORDANCE WITH PART V.G. SAMPLING REPORTS MUST BE SUBMITTED TO EPD UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI.
- (1). THE APPLICABLE PERMITTEES ARE REQUIRED TO SUBMIT THE SAMPLING RESULTS TO THE EPD AT THE ADDRESS SHOWN IN PART II.C. BY THE FIFTEENTH DAY OF THE MONTH FOLLOWING THE REPORTING PERIOD. REPORTING PERIODS ARE MONTHS DURING WHICH SAMPLES ARE TAKEN IN ACCORDANCE WITH THIS PERMIT. SAMPLING RESULTS SHALL BE IN A CLEARLY LEGIBLE FORMAT. UPON WRITTEN NOTIFICATION, EPD MAY REQUIRE THE APPLICABLE PERMITTEE TO SUBMIT THE SAMPLING RESULTS ON A MORE FREQUENT BASIS. SAMPLING AND ANALYSIS OF ANY STORMWATER DISCHARGE(S) OR THE RECEIVING WATER(S) BEYOND THE MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED IN A SIMILAR MANNER TO THE EPD. THE SAMPLING REPORTS MUST BE SIGNED IN ACCORDANCE WITH PART V.G.2. SAMPLING REPORTS MUST BE SUBMITTED TO EPD USING THE ELECTRONIC SUBMITTAL SERVICE PROVIDED BY EPD. SAMPLING REPORTS MUST BE SUBMITTED TO EPD UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI.

#### (2). ALL MONITORING RESULTS SHALL INCLUDE THE FOLLOWING INFORMATION:

- (a). THE DATE, EXACT PLACE, AND TIME OF SAMPLING OR MEASUREMENTS; (b). THE NAME(S) OF THE INDIVIDUAL(S) WHO PERFORMED THE SAMPLING AND
- MEASUREMENTS; (c). THE DATE(S) ANALYSES WERE PERFORMED;
- (d). THE TIME(S) ANALYSES WERE INITIATED;
- (e). THE NAME(S) OF THE INDIVIDUAL(S) WHO PERFORMED THE ANALYSES; (f). REFERENCES AND WRITTEN PROCEDURES, WHEN AVAILABLE, FOR THE ANALYTICAL TECHNIQUES OR METHODS USED; AND,
- (g). THE RESULTS OF SUCH ANALYSES, INCLUDING THE BENCH SHEETS, INSTRUMENT READOUTS, COMPUTER DISKS OR TAPES, ETC., USED TO
- DETERMINE THESE RESULTS. (h). RESULTS WHICH EXCEED 1,000 NTU SHALL BE REPORTED AS "EXCEEDS
- 1.000 NTU."

#### 49. COMPLETE DETAILS FOR RETENTION OF RECORDS AS PER PART IV.F. OF

- (1). THE PRIMARY PERMITTEE SHALL RETAIN THE FOLLOWING RECORDS AT THE CONSTRUCTION SITE OR THE RECORDS SHALL BE READILY AVAILABLE AT A DESIGNATED ALTERNATE LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI:
- (a). A COPY OF ALL NOTICES OF INTENT SUBMITTED TO EPD; (b). A COPY OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN
- REQUIRED BY THIS PERMIT; (c). THE DESIGN PROFESSIONAL'S REPORT OF THE RESULTS OF THE INSPECTION
- CONDUCTED IN ACCORDANCE WITH PART IV.A.5. OF THIS PERMIT; (d). A COPY OF ALL MONITORING INFORMATION, RESULTS, AND REPORTS REQUIRED BY THIS PERMIT;
- (e). A COPY OF ALL INSPECTION REPORTS GENERATED IN ACCORDANCE WITH PART
- IV.D.4.a. OF THIS PERMIT; (f). A COPY OF ALL VIOLATION SUMMARIES AND VIOLATION SUMMARY REPORTS
- GENERATED IN ACCORDANCE WITH PART III.D.2. OF THIS PERMIT; AND, (g), DAILY RAINFALL INFORMATION COLLECTED IN ACCORDANCE WITH PART IV.D.4.a.(1)(c) OF THIS PERMIT.

#### GSWCC AND NPDES NOTES (CONT'D.)

- 50. COMPLETE DETAILS FOR RETENTION OF RECORDS AS PER PART IV.F. OF THE PERMIT (CONT'D.):
- (2). COPIES OF ALL NOTICES OF INTENT, NOTICES OF TERMINATION, REPORTS, PLANS, MONITORING REPORTS, MONITORING INFORMATION, INCLUDING ALL CALIBRATION AND MAINTENANCE RECORDS AND ALL ORIGINAL STRIP CHART RECORDINGS FOR CONTINUOUS MONITORING INSTRUMENTATION, EROSION, SEDIMENTATION AND POLLUTION CONTROL PLANS, RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT TO BE COVERED BY THE NPDES PERMIT AND ALL OTHER RECORDS REQUIRED BY THIS PERMIT SHALL BE RETAINED BY THE PERMITTEE WHO EITHER PRODUCED OR USED IT FOR A PERIOD OF AT LEAST THREE YEARS FROM THE DATE THAT THE NOT IS SUBMITTED IN ACCORDANCE WITH PART VI OF THIS PERMIT. THESE RECORDS MUST BE MAINTAINED AT THE PERMITTEE'S PRIMARY PLACE OF BUSINESS OR AT A DESIGNATED ALTERNATIVE LOCATION ONCE THE CONSTRUCTION ACTIVITY HAS CEASED AT THE PERMITTED SITE. THIS PERIOD MAY BE EXTENDED BY REQUEST OF THE EPD AT ANY TIME UPON WRITTEN NOTIFICATION TO THE PERMITTEE.
- 51. DESCRIPTION OF ANALYTICAL METHODS TO BE USED TO COLLECT AND ANALYZE THE SAMPLES FROM EACH LOCATION:

#### SAMPLE TYPE (NPDES GENERAL PERMIT NO GAR100001, SEC. IV.D.6.b.):

ALL SAMPLING SHALL BE COLLECTED BY "GRAB SAMPLES" AND THE ANALYSIS OF THESE SAMPLES MUST BE CONDUCTED IN ACCORDANCE WITH METHODOLOGY AND TEST PROCEDURES ESTABLISHED BY 40 CFR PART 136 (UNLESS OTHER TEST PROCEDURES HAVE BEEN APPROVED); THE GUIDANCE DOCUMENT TITLED "NPDES STORM WATER SAMPLING GUIDANCE DOCUMENT, EPA 833-B-92-001"; AND, GUIDANCE DOCUMENTS THAT MAY BE PREPARED BY THE EPD. ANALYTICAL METHODS USED FOR THE COLLECTION AND ANALYSIS OF SAMPLES FOR THE PURPOSE OF COMPLIANCE WITH THIS PERMIT SHALL USE, AT A MINIMUM, THE GUIDELINES SET FORTH IN PART IV.D.6.a. AND PART IV.D.6.b. OF THIS PERMIT.

#### SAMPLING POINTS (NPDES GENERAL PERMIT NO. GAR100001, SEC. IV.D.6.c.):

FOR CONSTRUCTION ACTIVITIES, THE PRIMARY PERMITTEE MUST SAMPLE ALL RECEIVING WATER(S), OR ALL OUTFALL(S), OR A COMBINATION OF RECEIVING WATER(S) AND OUTFALL(S). HOWEVER, PROVIDED FOR IN AND IN ACCORDANCE WITH PART IV.D.6.c.(2) OF THIS PERMIT, PRIMARY PERMITTEES ON AN INFRASTRUCTURE CONSTRUCTION PROJECT MAY SAMPLE THE REPRESENTATIVE RECEIVING WATER(S) OR OUTFALLS, OR A COMBINATION THEREOF. SAMPLES TAKEN FOR THE PURPOSE OF COMPLIANCE WITH THIS PERMIT SHALL BE REPRESENTATIVE OF THE MONITORED ACTIVITY AND REPRESENTATIVE OF THE WATER QUALITY OF THE RECEIVING WATER(S) AND/OR THE STORM WATER OUTFALLS USING THE MINIMUM GUIDELINES SET FORTH IN PART IV.D.6.c.(1). OF THIS PERMIT. RECEIVING WATER(S) MUST HAVE AN UPSTREAM AND A DOWNSTREAM SAMPLE LOCATION.

52. "APPENDIX B" RATIONALE FOR OUTFALL SAMPLING POINTS:

#### SAMPLING REQUIREMENTS (NPDES GENERAL PERMIT NO GAR100001, SEC.

WHEN THE PERMITTEE HAS DETERMINED THAT SOME OR ALL OF THE OUTFALLS WILL BE MONITORED, A RATIONALE MUST BE INCLUDED FOR THE NTU LIMIT(S) SELECTED FROM APPENDIX B. THIS RATIONALE MUST INCLUDE THE SIZE OF THE CONSTRUCTION SITE, THE CALCULATION OF THE SIZE OF THE SURFACE WATER DRAINAGE AREA, AND THE TYPE OF RECEIVING WATER(S) (I.E., TROUT STREAM OR SUPPORTING WARM WATER FISHERIES).

STORM WATER IS TO BE SAMPLED FOR NEPHELOMETRIC TURBIDITY UNITS (NTU) AT THE OUTFALL LOCATION(S). A DISCHARGE OF STORM WATER RUNOFF FROM DISTURBED AREAS WHERE BEST MANAGEMENT PRACTICES (BMP's) HAVE NOT BEEN PROPERLY DESIGNED, INSTALLED, AND MAINTAINED SHALL CONSTITUTE A SEPARATE VIOLATION FOR EACH DAY ON WHICH SUCH CONDITION RESULTS IN THE TURBIDITY OF THE DISCHARGE EXCEEDING THE VALUE THAT WAS SELECTED FROM "APPENDIX B" IN THE NPDES GENERAL PERMIT NO. GAR 100001.

AREA OF APPROXIMATELY **0.003** SQUARE MILES, AND THE RECEIVING WATERS,

STORMWATER RUNOFF LEAVES THE PROJECT SITE THROUGH THE FOLLOWING:

EXISTING SITE DRAINS TO A PIPE NETWORK PREVIOUSLY CONSTRUCTED. RUNNOFF WILL

#### GSWCC AND NPDES GENERAL ADDED NOTES (CONT'D):


THE SELECTED NTU VALUE OF \_\_\_\_\_\_\_ IS BASED UPON THE CONSTRUCTION SITE

-				
_				
_				

"I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR THE MONITORING OF: (A) ALL PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES SHOWN ON THE USGS TOPOGRAPHIC MAP AND ALL OTHER FIELD VERIFIED PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES, OR (B) WHERE ANY SUCH SPECIFIC IDENTIFIED PERENNIAL OR INTERMITTENT STREAM AND OTHER WATER BODY IS NOT PROPOSED TO BE SAMPLED, I HAVE DETERMINED IN MY PROFESSIONAL JUDGMENT, UTILIZING THE FACTORS REQUIRED IN THE GENERAL NPDES PERMIT NO. GAR100001, THAT THE INCREASE IN THE TURBIDITY OF EACH SPECIFIC IDENTIFIED SAMPLED RECEIVING WATER WILL BE REPRESENTATIVE OF THE INCREASE IN THE TURBIDITY OF A SPECIFIC IDENTIFIED UN-SAMPLED RECEIVING WATER."

GSWCC LEVEL II DESIGN PROFESSIONAL EXP. DATE GSWCC LEVEL II NO.

> Project No: 17.000291 Date: 01.08.20 Revisions: Per County Comments 02.13.20 (ENTIRE SHEET ADDED) /2\Add note for 24 hour 03/05/20

> > notification

THESE ARE STANDARD NOTES PROVIDED BY THE LOCAL ISSUING AUTHORITY AND MODIFIED BY THE DESIGN PROFESSIONAL.

BE MANAGED BY THE EXISTING INFRASTRUCTURE.



Sheet Title:
ESCP PLAN NOTES 2 of 3

**C308** 

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/1 Per County Comments 02.13.20

/2\Add note for 24 hour 03/05/20

(ENTIRE SHEET ADDED)

Date:

Revisions:

Sheet Title:
ESCP PLAN NOTES 3 of 3

GENERAL EROSION & SEDIMENTATION CONTROL NOTES:

1. ALL DISTURBED AREAS SHALL HAVE EROSION CONTROL PROVIDED IN ACCORDANCE WITH THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA , CURRENT EDITION.

2. ALL EROSION CONTROL MEASURES SHALL COMPLY WITH THE STATE OF GEORGIA SOIL AND WATER CONSERVATION COMMISSION MANUAL FOR EROSION AND SEDIMENT CONTROL IN THE STATE OF GEORGIA , CURRENT

3. FULL COORDINATION SHALL BE MAINTAINED BETWEEN THE CONTRACTOR, DESIGN PROFESSIONAL, AND THE REGULATORY INSPECTOR REGARDING PROJECT SEQUENCE.

4. THE NOTATION XXX AS SHOWN ON THE EROSION CONTROL PLAN SHEET(S) AND ON THE EROSION CONTROL DETAIL SHEET FOR THE EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES, REFERS TO THE GEORGIA UNIFORM CODING SYSTEM AS DETAILED IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA , CURRENT EDITION.

5. GENERAL STATEMENT OF DESIGNED EROSION CONTROL SYSTEM:

(a). NO SURFACE WATER FLOWS FROM DISTURBED AREA TO BE ALLOWED INTO THE STORM SEWER SYSTEM WITHOUT FIRST BEING FILTERED BY AN EFFECTIVE SEDIMENT ENTRAPMENT DEVICE.

(b). SEDIMENT ENTRAPMENT DEVICES ARE TO BE MAINTAINED AT ALL POINTS WHERE SURFACE FLOWS FROM DISTURBED AREAS CAN LEAVE THE SITE. FLOWS ARE TO BE DIRECTED TO ENTRAPMENT DEVICES THROUGHOUT CONSTRUCTION ACTIVITIES.

6. EROSION CONTROL MEASURES ARE TO BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES ON-SITE AND MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED. EROSION CONTROL MEASURES SHALL BE INSPECTED AT THE END OF EACH WORKING DAY AND AFTER EACH STORM EVENT TO ENSURE THAT ALL MEASURES ARE FUNCTIONING PROPERLY. ANY REPAIRS SHALL BE MADE BY THE CONTRACTOR.

7. IN ADDITION TO THE NOTE ABOVE, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AT LEAST WEEKLY, AFTER EACH RAIN EVENT, AND REPAIRED AS NECESSARY . THESE INSPECTIONS SHALL BE DOCUMENTED WITH COPIES SENT TO THE OWNER.

8. EROSION AND SEDIMENT CONTROL DEVICES MUST BE INSTALLED AND INSPECTED PRIOR TO ANY LAND DISTURBANCE ON SITE. SILT BARRIER TO BE PLACED AS SHOWN AND/OR AS DIRECTED BY THE PROJECT ENGINEER AND/OR OWNER: **GA WAR VETERANS HOME** 

9. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES, PRIOR TO LAND DISTURBING ACTIVITIES.

10. EROSION AND SEDIMENTATION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

11. ANY DISTURBED AREA LEFT IDLE/EXPOSED FOR A PERIOD GREATER THAN 14-DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING; DISTURBED AREAS IDLE/EXPOSED 30-DAYS SHALL BE STABILIZED WITH PERMANENT VEGETATION.

12. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DETERMINED NECESSARY BY ON-SITE INSPECTION.

13. THE CONTRACTOR SHALL COMPLETELY REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES (I.E. SILT FENCE, SEDIMENT TRAPS, ETC...) AND TREE PROTECTION FENCING ONCE PERMANENT VEGETATION IS

14. THE CONTRACTOR IS RESPONSIBLE FOR MONITORING DOWNSTREAM CONDITIONS THROUGHOUT THE CONSTRUCTION PERIOD AND FOR CLEARING ANY DEBRIS AND SEDIMENT THAT IS CAUSED BY CONSTRUCTION ACTIVITIES.

15. ALL DISTURBED AREAS SHALL BEST BE STABILIZED AS REQUIRED BY THESE PLANS BY THE SITEWORK CONTRACTOR AS SOON AS CONSTRUCTION PHASES

16. WHEN HAND PLANTING, MULCH (HAY OR STRAW) SHOULD BE UNIFORMLY SPREAD OVER SEEDED AREA WITHIN 24-HOURS OF SEEDING.

17. DURING UNSUITABLE GROWING SEASONS, MULCH WILL BE USED AS A TEMPORARY COVER (Ds1). ON SLOPES 4:1 OR STEEPER, MULCH WILL BE ANCHORED.

18. SILT FENCE SHALL MEET THE MINIMUM REQUIREMENTS OF SECTION 171 OF THE STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS, CURRENT EDITION, AND/OR GEORGIA EPD "GREEN BOOK" AS AMENDED.

19. SEDIMENT STORAGE MAINTENANCE INDICATORS MUST BE INSTALLED IN SEDIMENT STORAGE STRUCTURES, INDICATING THE 1/3 FULL VOLUME FOR RETROFITS AND TEMPORARY SEDIMENT BASINS, AND THE 1/2 FULL VOLUME FOR ALL OTHER SEDIMENT STORAGE STRUCTURES (I.E. CHECK DAMS, SILT FENCE, ETC...).

20. ALL SEDIMENT STORAGE DEVICES ARE TO BE CONSTRUCTED COMPLETELY AND FULLY OPERATIONAL PRIOR TO ANY OTHER CONSTRUCTION OR GRADING.

21. CONCENTRATED FLOW AREAS AND ALL SLOPES STEEPER THAN 2.5:1 WITH A HEIGHT OF TEN FEET OR GREATER SHALL BE STABILIZED WITH APPROPRIATE EROSION CONTROL MATTING AND BLANKETS.

22. ALL PERMANENT GRADED EARTH SLOPES, EXCAVATION OR EMBANKMENT (CUT AND FILL), SHALL BE GRADED TO A MAXIMUM FINISHED SLOPE OF TWO (2) FEET HORIZONTAL TO ONE (1) FOOT VERTICAL (MAXIMUM SLOPE 2H:1V).

23. ALL DISTURBED AREAS LEFT MULCHED AFTER 30-DAYS SHALL BE STABILIZED WITH TEMPORARY GRASSING.

24. SEDIMENT SHALL NOT BE WASHED INTO INLETS. IT SHALL BE REMOVED FROM THE SEDIMENT TRAPS AND DISPOSED OF AND STABILIZED SO THAT IT WILL NOT ENTER THE INLETS.

25. FAILURE TO INSTALL, OPERATE, OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE APPROVED EROSION CONTROL PLANS, I.E., MANDATORY STOP WORK ORDER!

GENERAL EROSION & SEDIMENTATION CONTROL NOTES (CONT'D.):

26. THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 1-3" STONE, AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEAN-OUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM A VEHICLE OR FROM THE SITE ONTO PUBLIC ROADWAY OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

INITIAL PHASE (CLEARING & GRUBBING) NOTES:

1. ALL STAGING AREAS, MATERIAL STORAGE AREAS, CONCRETE WASH-OUT AREAS, SHALL BE LOCATED AT SETBACK DISTANCES FROM DESIGNATED TREE PROTECTION AREAS AND/OR STREAM BUFFERS AS REQUIRED BY LOCAL AND STATE REGULATIONS.

2. A COPY OF THE APPROVED LAND DISTURBANCE PLAN AND PERMIT SHALL BE PRESENT ON THE SITE AT ALL TIMES. POST ON DAY ONE.

3. PRIOR TO COMMENCING LAND DISTURBING ACTIVITY, THE LIMITS OF LAND DISTURBANCE SHALL BE CLEARLY AND ACCURATELY DELINEATED WITH STAKES, RIBBONS, OR OTHER APPROPRIATE MEANS. THE LOCATION AND EXTENT OF ALL AUTHORIZED LAND DISTURBANCE ACTIVITY SHALL BE DEMARCATED FOR THE DURATION OF THE CONSTRUCTION ACTIVITY. NO LAND DISTURBANCE SHALL

OCCUR OUTSIDE THE APPROVED LIMITS INDICATED ON THE APPROVED PLANS.

4. PRIOR TO ANY OTHER CONSTRUCTION, A STABILIZED CONSTRUCTION EXIT (Co) SHALL BE CONSTRUCTED AT EACH POINT OF ENTRY TO OR EXIT FROM THE SITE OR ONTO ANY PUBLIC ROADWAY AS SHOWN ON THE PLANS.

LOCATION: Construction Outlet #1 Construction Outlet #2 Lat - 34.1005 Long - 84.1816 Long - 84.1875 5. IMMEDIATELY AFTER THE ESTABLISHMENT OF CONSTRUCTION ENTRANCE/EXITS, ALL PERIMETER EROSION CONTROL AND STORMWATER MANAGEMENT DEVICES

CONTROL PLAN. 6. SILT FENCE OR APPROVED EQUAL SHALL BE INSTALLED AT THE PERIMETER OF THE DISTURBED AREA OR AS SHOWN ON THE PLAN. SILT SHOULD BE REMOVED WHEN ACCUMULATION REACHES HALF THE HEIGHT OF THE BARRIER. THE PERIMETER SILT FENCE SHOULD BE INSPECTED DAILY FOR ANY FAILURES.

SHALL BE INSTALLED AS SHOWN ON THE INITIAL PHASE OF THE EROSION

7. INLET SEDIMENT PROTECTION MEASURES SHALL BE INSTALLED ON ALL EXISTING STORM STRUCTURES AS SHOWN ON THE PLAN.

ANY FAILURES OF SAID FENCING SHOULD BE REPAIRED IMMEDIATELY.

8. TREE PROTECTION FENCING AND STREAM BUFFER LIMITS SHOULD BE INSTALLED PRIOR TO THE START OF ANY LAND DISTURBING ACTIVITY AND MAINTAINED UNTIL FINAL LANDSCAPE IS INSTALLED. THE TREE PROTECTION FENCING SHOULD BE INSPECTED DAILY. ANY FAILURES OF SAID FENCING SHOULD BE REPAIRED IMMEDIATELY.

9. AFTER INSTALLATION OF INITIAL EROSION CONTROL MEASURES, THE SITE CONTRACTOR SHALL SCHEDULE AN INSPECTION BY THE PROJECT DESIGN PROFESSIONAL WITHIN 7 DAYS AFTER INSTALLATION. NO OTHER CONSTRUCTION ACTIVITIES SHALL OCCUR UNTIL THE PROJECT PROFESSIONAL APPROVES THE INSTALLATION OF SAID EROSION MEASURES. IF UNFORESEEN CONDITIONS EXIST IN THE FIELD THAT WARRANT ADDITIONAL EROSION CONTROL MEASURES, THE CONTRACTOR MUST CONSTRUCT ANY ADDITIONAL EROSION CONTROL DEVICES DEEMED NECESSARY BY THE SITE INSPECTION WITH CONSULTATION WITH THE DESIGN PROFESSIONAL.

10. AFTER APPROVAL OF THE INITIAL EROSION CONTROL INSTALLATION, THE CONTRACTOR MAY PROCEED WITH CLEARING AND GRUBBING ACTIVITIES. AS CLEARING PERMITS, THE CONTRACTOR SHALL CONSTRUCT TEMPORARY SEDIMENT STORAGE DEVICES AS SHOWN ON THE INITIAL PHASE PLAN TO CONTROL EROSION AND STORMWATER RUNOFF.

11.	INITIAL PHASE BMP'S UTILIZED IN THIS PLAN(S) ARE AS FOLLOWS:	

	( )
	SILT FENCE
	CONSTRUCTION OUTLET
	STORM BOX SEDIMENT TRAP
_	
_	
_	

INTERMEDIATE PHASE (GRADING & TEMPORARY VEGETATION) NOTES:

1. MAINTAIN PREVIOUSLY INSTALLED BMP'S.

2. SCHEDULING AND PERFORMANCE TO ENSURE THAT LAND STRIPPED OF ITS NATURAL GROUND COVER IS EXPOSED ONLY IN SMALL QUANTITIES, AND THEREFORE LIMITED DURATIONS, BEFORE PERMANENT EROSION PROTECTION IS ESTABLISHED.

3. GROUND DISTURBANCE OCCURS. THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM THAT SHOWN ON THE APPROVED PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE FINAL PROPOSED DRAINAGE PATTERNS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION. ANY DIFFICULTY IN CONTROLLING EROSION AND SEDIMENTATION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE DESIGN PROFESSIONAL IMMEDIATELY.

4. THE SILT FENCE SHALL BE MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED. SILT SHALL BE REMOVED WHEN ACCUMULATION REACHES HALF OF THE HEIGHT OF THE BARRIER.

5. SILT FENCE SHALL BE PLACED AT THE TOE OF ALL DIRT STOCK PILE AREAS.

6. AFTER PRELIMINARY CLEARING AND GRADING ACTIVITIES, THE CONTRACTOR SHALL CONSTRUCT ALL SEDIMENT ENTRAPMENT DEVICES AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL MAINTAIN THE DEVICES UNTIL PERMANENT GROUND COVER IS ESTABLISHED. SEDIMENT SHALL BE CLEANED OUT WHEN IT REACHES THE CLEAN-OUT ELEVATION SHOWN ON THE PLANS.

7. SEDIMENT AND EROSION CONTROL MEASURES MUST BE CHECKED WEEKLY AND AFTER EACH RAIN EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF OF THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MUST BE INSTALLED IF NEW CHANNELS HAVE DEVELOPED.

8. INTERMEDIATE PHASE BMP'S UTILIZED ON THIS PLAN(S) ARE AS FOLLOWS:

DUST CO	NTROL	
STORM B	OX SEDIMENT TRAP	
TEMPORA	ARY GRASSING	

THESE ARE STANDARD NOTES PROVIDED BY THE

DESIGN PROFESSIONAL.



FINAL PHASE (STORMWATER MANAGEMENT & PERMANENT VEGETATION) NOTES:

1. THE CONTRACTOR SHALL MAINTAIN ALL SEDIMENT DEVICES AND EROSION CONTROL MEASURES UNTIL PERMANENT GROUND COVER IS ESTABLISHED. SEDIMENT SHALL BE CLEANED OUT OF EACH DEVICE WHEN IT REACHES THE REQUIRED CLEAN-OUT ELEVATION SHOWN ON THE PLANS.

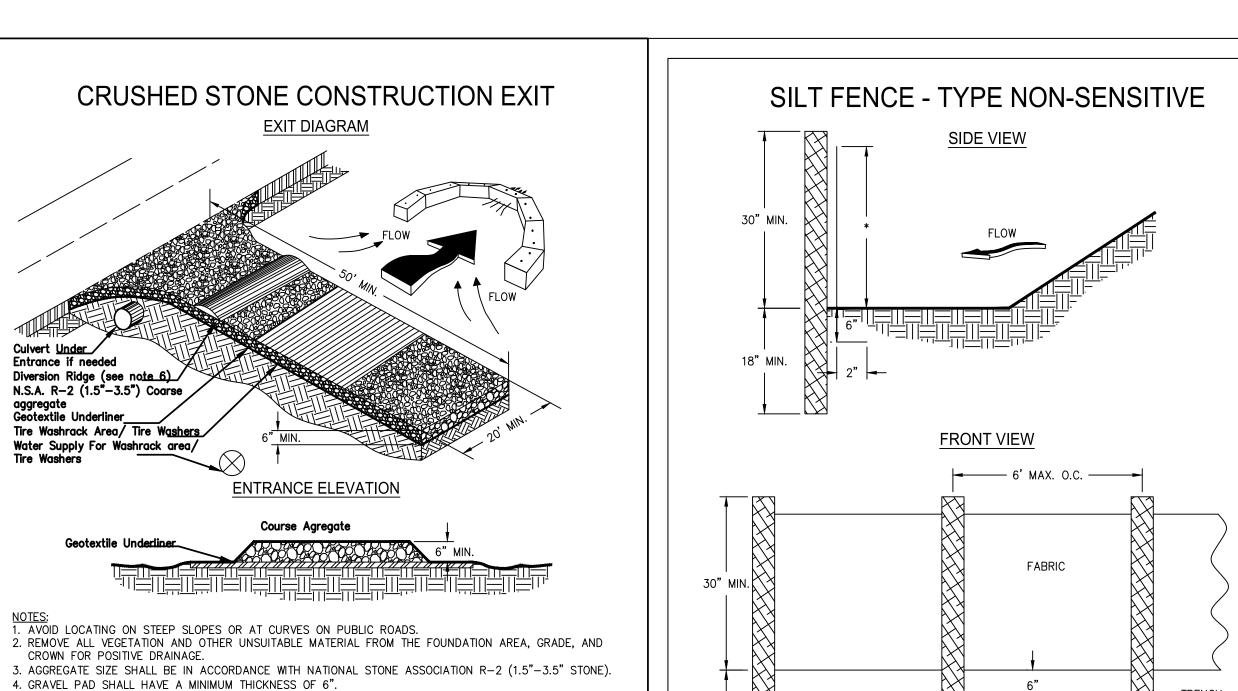
2. AFTER CURBING AND PAVEMENT HAS BEEN INSTALLED, ALL INLET SEDIMENT TRAPS ON THE EXISTING INLETS SHALL BE REMOVED AND REPLACED WITH CURB FILTER INLET PROTECTION. 3. FINAL STABILIZATION OF PERMANENT GRASS MUST MEET 100% COVERAGE,

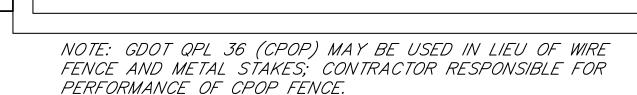
70% DENSITY RULE. 4. FINAL PHASE BMP'S UTILIZED ON THIS PLAN(S) ARE AS FOLLOWS:

SEDIMEN.	T SOCK, HAY BALES FOR S	OD BED PREP.		
SEDIMENT SOCK, HAY BALES FOR SOD BED PREP.				
			<del></del>	
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LOCAL ISSUING AUTHORITY AND MODIFIED BY THE

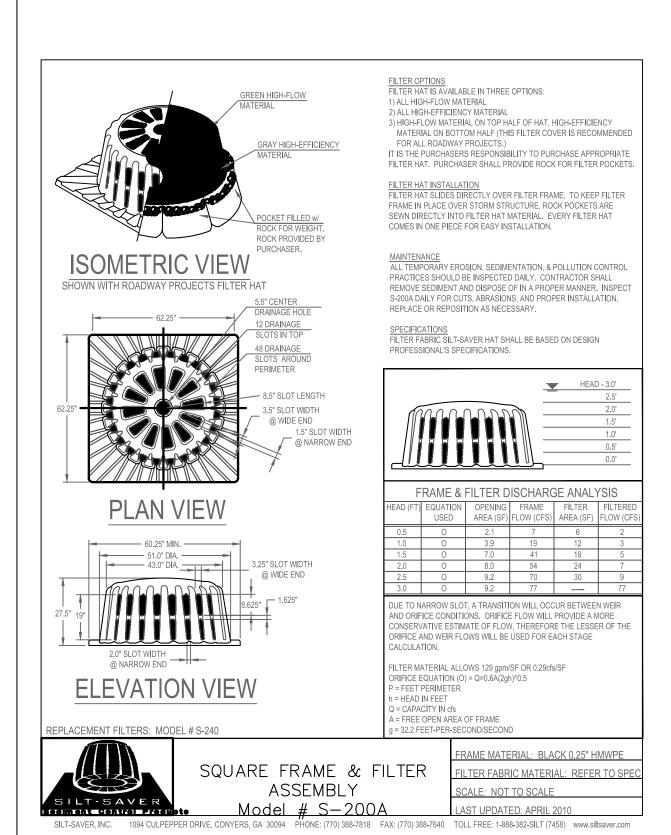
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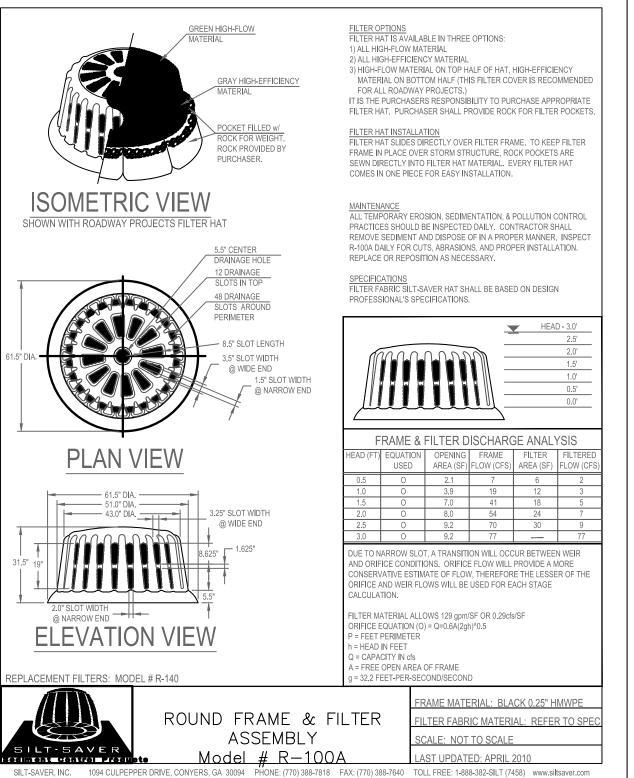


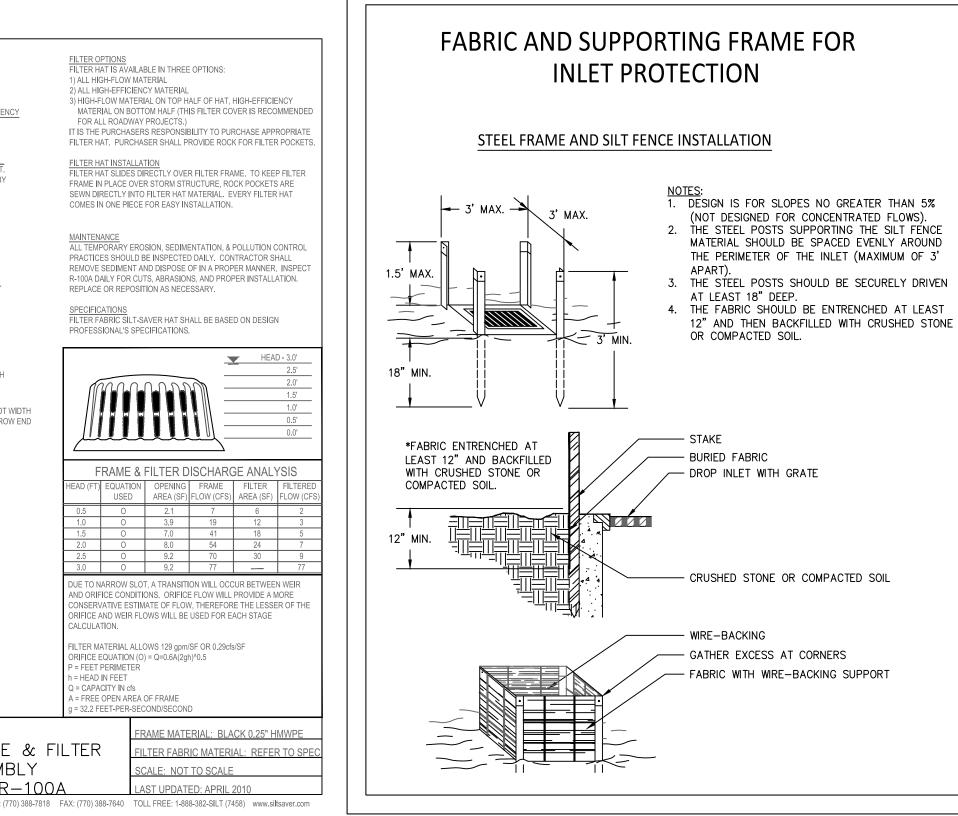


. USE STEEL OR WOOD POSTS OR AS SPECIFIED BY THE EROSION, SEDIMENTATION,

2. HEIGHT (\*) IS TO BE SHOWN ON THE EROSION, SEDIMENTATION, AND POLLUTION





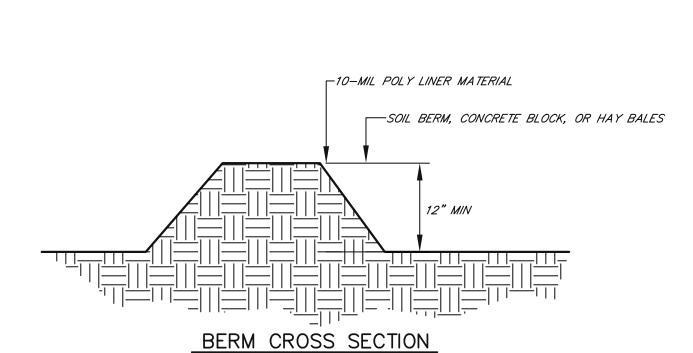


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Notify Forsyth County Inspector 24 hours before

the beginning phase construction. (770) 781-2165

www....



5. PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'. 6. A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%..

8. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT

DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (DIVERT ALL SURFACE RUNOFF AND

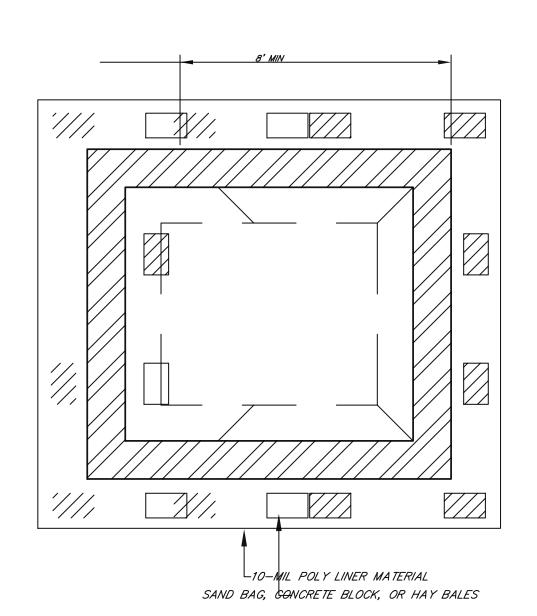
9. WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL SUITABLE FOR TRUCK TRAFFIC THAT

RIGHTS-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES

10.MAINTAIN AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC

7. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES.

DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE).

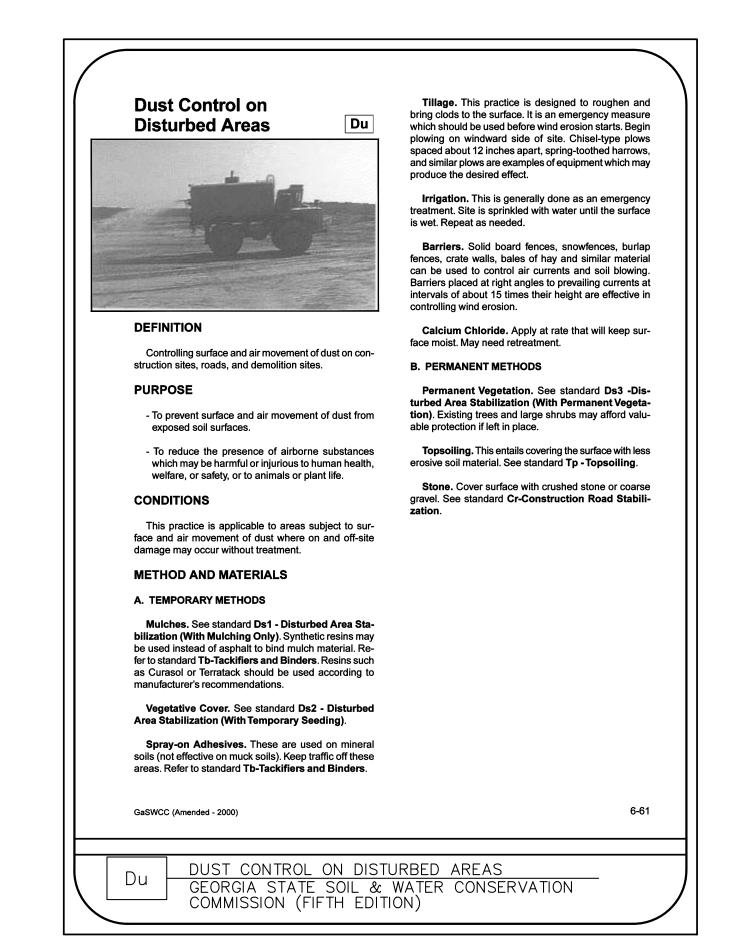


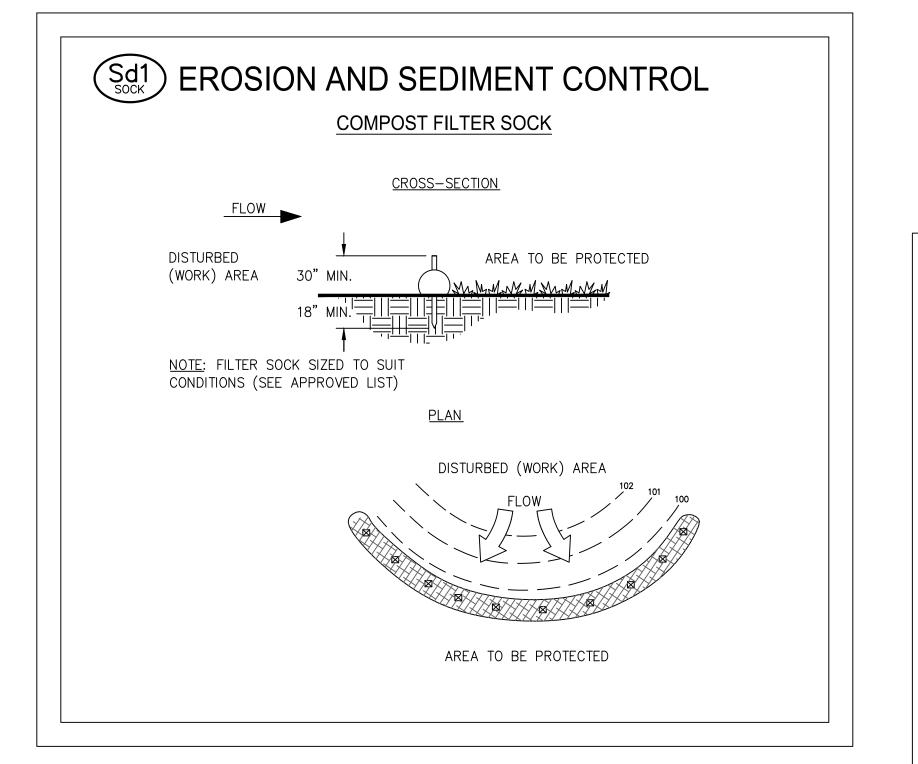
#### PLAN VIEW

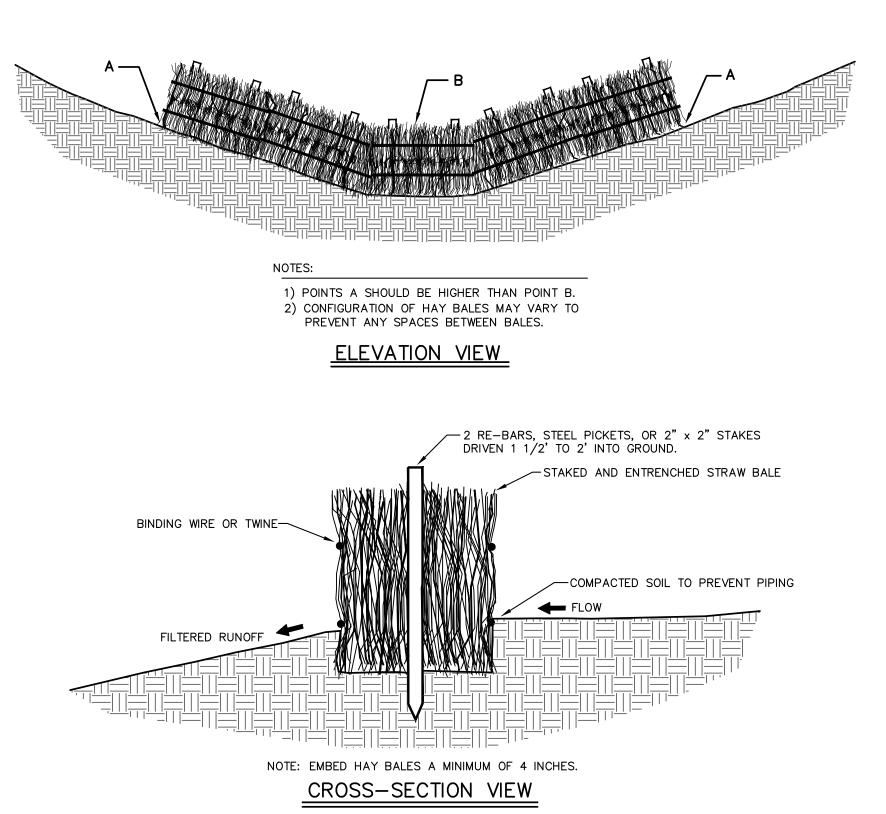
#### **CONCRETE WASHDOWN NOTES**

OR STREAMS.

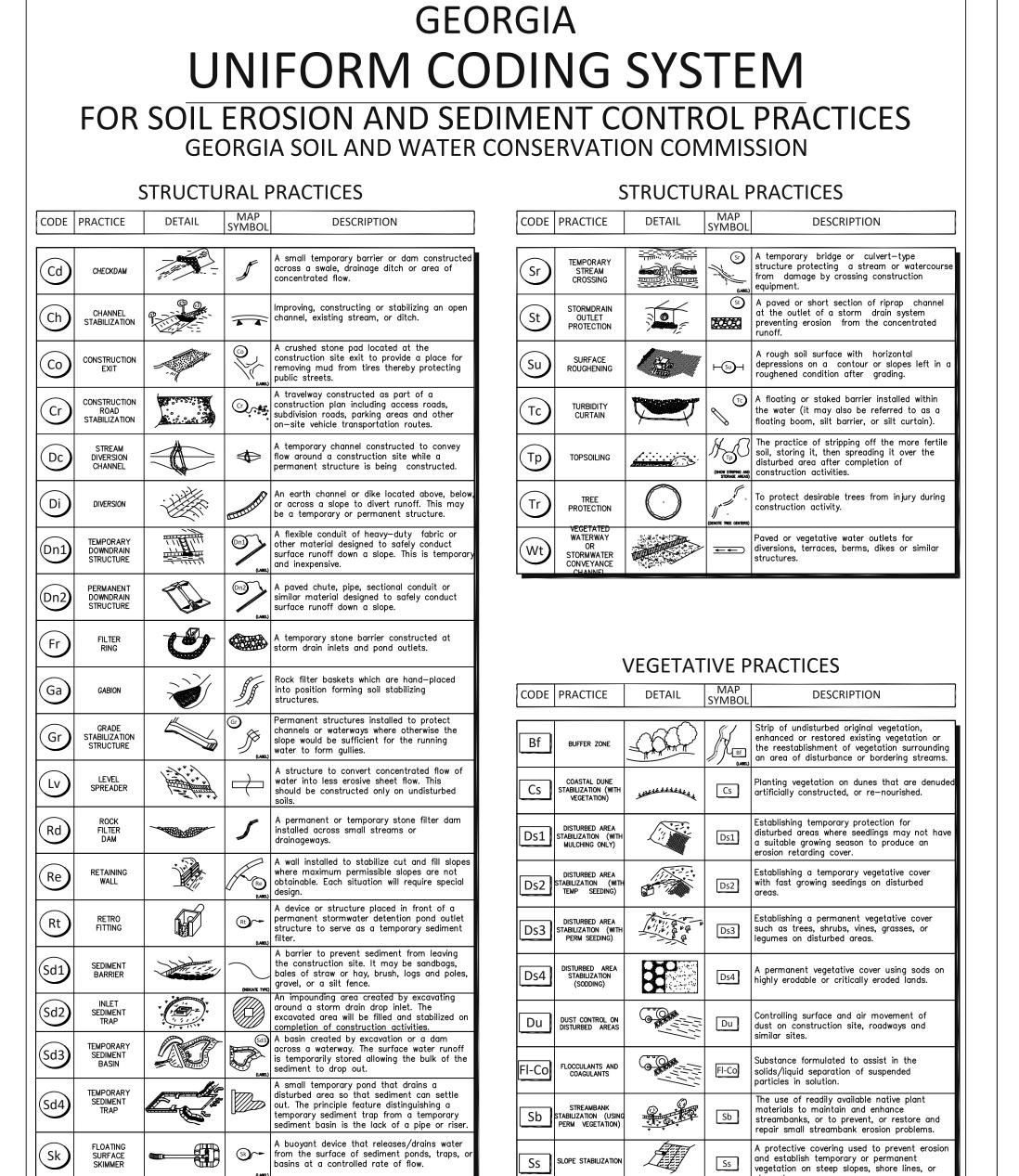
- 1. DESIGNATED WASHDOWN AREA AND EXCAVATE PIT LARGE ENOUGH TO CONTAIN WASHDOWN WATER. THIS MUST BE AWAY FROM STORM
- DRAINS AND WATERWAYS. 2. ADVISE CONCRETE TRUCK DRIVERS OF THE DESIGNATED WASH-OUT AREAS BEFORE THEY START THE JOB.
- 3. WASHDOWN CHUTE, HOPPER, AND REAR OF VEHICLE ONLY. DO NOT WASH OUT DRUM 4. ENSURE THAT ALL WASHDOWN WATER STAYS IN PIT.
- 5. DISPOSE OF SETTLED, HARDENED CONCRETE IN GARBAGE WITH
- OTHER CONSTRUCTION DEBRIS. 6. NEVER DISPOSE OF WASHDOWN WATER IN STREETS, STORM DRAINS,
  - CONCRETE WASHDOWN PIT











diversion perpendicular to the direction of

runoff to enhance dissipation and infiltration

while creating multiple sedimentation chamb

Sheet No:

Substance used to anchor straw or hay

GaSWCC (Amended - 2013)

mulch by causing the organic material to bind together.

Add note for 24 hour 03/05/20 notification

Sheet Title: **ESCP DETAILS -**2 of 2

Sheet No:

Quickcover. Low growing

Mox with Tall fescue or winter

Out when seed is mature, but before it shatters. Add Tall

and sod forming. Full sun. Good for athletic fields.

. Sod should be machine cut and contain 3/4" (+ or -1/4") of soil, not including shoots or thatch. Sod should be cut to the desired size within + or -5%. Torn or uneven pads should be rejected. Avoid planting when subject to frost heave or hot weather if irrigation is not available.

GaSWCC (Amended - 2000)

Ds4 DISTURBED AREA STABILIZATION (WITH SODDING)
GEORGIA STATE SOIL & WATER CONSERVATION COMMISSION (FIFTH EDITION)

APPEARANCE OF GOOD SOD THATCH - GRASS CLIPPINGS AND DEAD LEAVES, UP TO 1/2" THICK.

GaSWCC (Amended - 2000)

Figure 6-34.3 - Riprap Outlet Protection (Modified From Va SWCC) GSWCC 2016 Edition

> Notify Forsyth County Inspector 24 hours before the beginning phase construction. (770) 781-2165

William Market Company of the Compan

6-212

# RIPRAP OUTLET PROTECTION St PIPE OUTLET TO FLAT AREA -- NO WELL DEFINED CHANNEL

La IS THE LENGTH OF THE RIPRAP

DIAMETER BUT NOT LESSHAN 6".

IN A WELL-DEFINED CHANNEL, EXTEND

AN ELEVATION OF 6" ABOVE THE

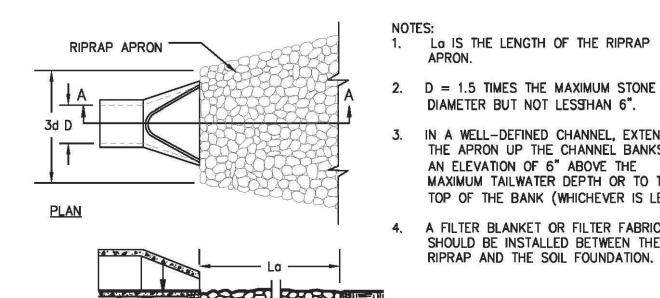
A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE

RIPRAP AND THE SOIL FOUNDATION.

THE APRON UP THE CHANNEL BANKS T

MAXIMUM TAILWATER DEPTH OR TO THE

TOP OF THE BANK (WHICHEVER IS LESS).



PIPE OUTLET TO WELL DEFINED CHANNEL

SECTION A-A

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DISTURBED AREA **STABILIZATION** (WITH SODDING) Irrigate sod and soil to a depth of 4" immediately after installation. Sod should not be cut or spread in extremely wet or dry weather. Irrigation should be used to supplement rainfall for a minimum of 2-3 weeks. Sodding is preferable to seed in waterways and CONSTRUCTION SPECIFICATIONS INSTALLATION A permanent vegetative cover using sods on highly erodible or critically eroded lands. - Establish immediate ground cover. - Reduce runoff and erosion. - Improve aesthetics and land value. - Reduce dust and sediments. - Stabilize waterways, critical areas - Filter sediments, nutrients and bugs. - Reduce downstream complaints. - Reduce likelihood of legal action - Reduce likelihood of work stoppage due to lega - Increase "good neighbor" benefits Lay sod with tight joints and in straight lines. Don't overlap joints. Stagger joints and do not stretch sod (See Figure 6-6.2) SODDED WATERWAYS LAY SOD ACROSS THE DIRECTION OF FLOW. Source: Va. DSWC GaSWCC (Amended - 2000)

# Ds2 | STABILIZATION WITH TEMPORARY SEEDING Fertilizer Requirements

TYPE OF SPECIES	YEAR	ANALYSIS OR EQUIVALENT N-P-K	RATE	N TOP DRESSING RATE
1. Cool season	First	6-12-12	1500 lbs./ac.	50-100 lbs./ac. 1/2/
grasses	Second	6-12-12	1000 lbs./ac.	-
	Maintenance	10-10-10	400 lbs./ac.	30
2. Cool season	First	6-12-12	1500 lbs./ac.	0-50 lbs./ac. 1/
grasses and	Second	0-10-10	1000 lbs./ac.	•
legumes	Maintenance	0-10-10	400 lbs./ac.	-
3. Ground covers	First	10-10-10	1300 lbs./ac. 3/	-
	Second	10-10-10	1300 lbs./ac. 3/	
	Maintenance	10-10-10	1100 lbs./ac.	-
4. Pine seedlings	First	20-10-5	one 21-gram pellet	-
			per seedling placed	
			in the closing hole	
5. Shrub Lespedeza	First	0-10-10	700 lbs./ac.	-
	Maintenance	0-10-10	700 lbs./ac. 4/	
Temporary     cover crops     seeded alone	First	10-10-10	500 lbs./ac.	30 lbs./ac. 5/
7. Warm season	First	6-12-12	1500 lbs./ac.	50-100 lbs./ac. 2/6
grasses	Second	6-12-12	800 lbs./ac.	50-100 lbs./ac. 2/
	Maintenance	10-10-10	400 lbs./ac.	30lbs./ac.
8. Warm season	First	6-12-12	1500 lbs./ac.	50 lbs./ac./6/
grasses and	Second	0-10-10	1000 lbs./ac.	
			1	

legumes Maintenance 0-10-10 400 lbs./ac. 1/ Apply in spring following seeding. 2/ Apply in split applications when high rates are used. 3/ Apply in 3 split applications.

PLANT, PLANTING RATES, AND PLANTING DATED FOR TEMPORARY COVER OR COMPANION CROPS 1/

PLANT, PLANTING RATES, AND PLANTING DATED FOR TEMPORARY COVER OR COMPANION CROPS 1/

PLANT, PLANTING RATES, AND PLANTING DATED FOR TEMPORARY COVER OR COMPANION CROPS

3 bu. 4.1 lb. (180 lbs.) //2 bu. 0.7 lb.

# Temporary cover crops are very competitive and will crown out perennials if seeded too heavily.

(Horduem vulgare)

(Lespedeza striata)

MILLET, BROWNTOP

(Panicum fasciculatum)

(Avena sativa)

in mixtures

3/ PLS is an abbreviation for Pure Live Seed. 4/ P represents the Southern Piedmont MLRA

4/ Apply when plants are pruned. 5/ Apply to grass species only. 6/ Apply when plants grow to a height of 2 to 4 inches.

FERTILIZER RATES

### Ds3 | STABILIZATION WITH PERMANENT SEEDING

PLANTS, PLANTING RATES, AND PLANTING DATES FOR PERMANENT COVER

(Paspalum notatum)

with other perennials

(Paspalum notatum) alone or with temporary cover with other perennials

(Cynodon dactyl on)

Unhulled seed

(Coronilla varia)

(Lespedeza cuneata)

in height. Not recommended

winterhardyas rye or barley.

15,000 seed per pound .

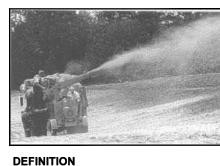
J F M A M J J A S 0 N D 55,000 seed per pound. Good

with temporary cover with other perennials

MATERIAL	QUANTITY
DRY STRAW OR HAY	2" - 4" DEPTH
WOOD WASTE (SAWDUST, BARK, CHIPS)	2" - 3" DEPTH
CUTBACK ASPHALT (SLOW CURING)	1200 GAL. PER ACRE (1/4 GAL PER SQ. YD.)
POLYETHYLENE FILM	COMPLETELY COVERING EXPOSED AREA. TRENCHED IN AT OUTER EDGES.

STRAW OR HAY MULCH SHALL BE ANCHORED IMMEDIATELY AFTER APPLICATION. MULCH MAY BE ANCHORED BY MECHANICALLY PRESSING INTO SURFACE. IF SPREAD WITH BLOWER EQIPMENT, MULCH SHALL BE ANCHORED WITH EMULSIFIED ASPHALT (GRADE AE-5 OR SS-1)--100 GAL. ASPHALT + 100 GAL. WATER PER TON OF MULCH. NETTING SHALL BE USED TO ANCHOR WOOD WASTE AND CHIPS. POLYETHYLENE SHALL BE TRENCHED IN AT EDGES. Ds1 MULCHING

#### **Disturbed Area Stabilization** (With Mulching Only) Ds1



GaSWCC (Amended - 2000)

**SPECIFICATIONS** 

MULCHING WITHOUT SEEDING This standard applies to grades or cleared areas

2. If the area will eventually be covered with perennial vegetation, 20-30 pounds of nitrogen

per acre in addition to the normal amount shall be applied to offset the uptake of nitrogen caused by the decomposition of the organic

DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)
GEORGIA STATE SOIL & WATER CONSERVATION COMMISSION (FIFTH EDITION)

6-33 6-34 GaSWCC (Amended - 2000)

#### son to produce an erosion retardant cover, but can be 3. Cutback asphalt shall be applied uniformly. stabilized with a mulch cover. Care should be taken in areas of pedestrian traffic due to problems of 'tracking in' or damage to shoes, clothing, etc. 1. Grade to permit the use of equipment for ap-4. Apply polyethylene film on exposed areas. plying and anchoring mulch. 2. Install needed erosion control measures as required such as dikes, diversions, berms, ter- Straw or hay mulch can be pressed into the soil with a disk harrow with the disk set straight races and sediment barriers. or with a special "packer disk." Disks may be DEFINITION 3. Loosen compact soil to a minimum depth of 3 smooth or serrated and should be 20 inches or more in diameter and 8 to 12 inches apart. Applying plant residues or other suitable materials, The edges of the disk should be dull enough produced on the site if possible, to the soil surface. not to cut the mulch but to press it into the soil leaving much of it in an erect position. Straw Select one of the following materials and apply at the or hay mulch shall be anchored immediately after application. - To reduce runoff and erosion 1. Dry straw or hay shall be applied at a depth of Straw or hay mulch spread with special 2 to 4 inches providing complete soil coverage. One advantage of this material is easy appli-- To conserve moisture blower-type equipment may be anchored with emulsified asphalt (Grade AE-5 or SS-1). The - To prevent surface compaction or crusting asphalt emulsion shall be sprayed onto the mulch as it is ejected from the machine. Use 2. Wood waste (chips, sawdust or bark) shall be - To control undesirable vegetation 100 gallons of emulsified asphalt and 100 galapplied at a depth of 2 to 3 inches. Organic lons of water per ton of mulch. Tackifers and material from the clearing stage of development - To modify soil temperature should remain on site, be chipped, and applied binders can be substituted for emulsified asphalt. Please refer to specification Tb as mulch. This method of mulching can greatly - To increase biological activity in the soil ackifers and Binders. Plastic mesh or netreduce erosion control costs. ting with mesh no larger than one inch by one REQUIREMENT FOR REGULATORY inch shall be installed according to 3. Cutback asphalt (slow curing) shall be applied COMPLIANCE manufacturer's specifications. at 1200 gallons per acre (or 1/4 gallon per sq. Mulch or temporary grassing shall be applied to all 2. Netting of the appropriate size shall be used to anchor wood waste. Openings of the netting be used as a singular erosion control device for up to shall not be larger than the average size of the or stockpiled soil material for temporary prosix months, but it shall be applied at the appropriate tection. This material can be salvaged and redepth, depending on the material used, anchored, and have a continuous 90% cover or greater of the soil sur-3. Polyethylene film shall be anchor trenched at face. Maintenance shall be required to maintain approthe top as well as incrementally as necessary. priate depth and 90% cover. Temporary vegetation may be employed instead of mulch if the area will remain When mulch is used without seeding, mulch shall be undisturbed for less than six months. If an area will reapplied to provide full coverage of the exposed area. main undisturbed for greater than six months, permanent vegetative techniques shall be employed. Refer to Ds2 -Disturbed Area Stabilization (With Temporary 1. Dry straw or hay mulch and wood chips shall be applied uniformly by hand or by mechanical Seeding), Ds3 - Disturbed Area Stabilization (With equipment. Permanent Seeding), and Ds4 - Disturbed Area Stabilization (With Sodding).

#### **UTILITY NOTES** 1. UTILITY CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND STATE CODE REQUIREMENTS.

IRRIGATION BOX

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES (STORM DRAINAGE, ELECTRIC, GAS, TELEPHONE, ETC.) PRIOR TO CONSTRUCTION. INFORMATION SHOWN ON THIS PLAN IS FOR REFERENCE ONLY AND SHALL BE FIELD

3. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER IMMEDIATELY IF ANY DISCREPANCIES BETWEEN THE CONSTRUCTION PLANS AND ACTUAL FIELD CONDITIONS ARE FOUND.

4. THE CONNECTION TO EXISTING WATER MAINS SHALL BE PERFORMED ONLY AFTER ALL PRESSURE TESTING AND CHLORINATION ARE SUCCESSFULLY COMPLETED AND THE LOCAL REVIEW AUTHORITY HAS APPROVED THE CONNECTION. THE CONTRACTOR SHALL AVOID DISRUPTION OF EXISTING SERVICE. 5. UNLESS OTHERWISE NOTED, THE PHYSICAL CONNECTION BETWEEN THE SITE UTILITY LINES AND THE

PIPE INSTALLED BY THE PLUMBING CONTRACTOR SHALL BE MADE BY THE SITE UTILITY CONTRACTOR. 6. PIPE LENGTHS SHOWN ON PLAN ARE THE ENGINEER'S ESTIMATE USED TO COMPUTE PIPE SLOPES AND INVERTS AND SHALL NOT BE CONSTRUED BY THE CONTRACTOR TO REPRESENT THE ACTUAL QUANTITY OF PIPE REQUIRED.

7. IRRIGATION SYSTEMS ARE PROHIBITED ON ALL EXISTING AND PROPOSED COUNTY RIGHT-OF-WAY AND CONSIDERED TO BE A VIOLATION OF THE COUNTY'S ORDINANCE PROHIBITING UNPERMITTED

#### FORSYTH COUNTY WATER NOTES

INSTALL NEW RPZ

FOR EACH METER.

**WATER METER** 

**BACKFLOWS IN HOT BOX** 

#### 1. NOTIFY FORSYTH COUNTY WATER AND SEWER DEPT. 24 HOURS PRIOR T ANY SEWER CONSTRUCTION AT

2. WATER SERVICE IS PROVIDED BY THE FORSYTH COUNTY DEPARTMENT OF WATER AND SEWER. 3. THE DEVELOPER/CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF ALL INFRASTRUCTURE FOR A

4. ALL WORK AND MATERIALS ARE TO CONFORM TO CURRENT FORSYTH COUNTY STANDARDS.

5. THE CONTRACTOR SHALL CALL THE UTILITIES PROTECTION CENTER "CALL BEFORE YOU DIG", TELEPHONE

NUMBER 1-800-282-7411, **BEFORE I**NITIATING EXCAVATION ACTIVITIES.

6. ALL WATER LINES SHALL BE DUCTILE IRON PIPE CLASS 50 OR 350.

7. WATER LINES SHALL BE INSTALLED 5' BACK OF CURB.

8. WATER LINES SHALL HAVE AT LEAST 4 FEET OF COVER OR BE 4 FEET BELOW GRADE WHICHEVER IS

9. SHORT SIDE SERVICES SHALL BE 3/4" COPPER.

10. LONG SIDE SERVICES SHALL BE 1" COPPER IN 2" PVC CONDUITS WITH 3/4" WYES AT LOT CORNERS.

11. WATER METER ARE TO BE LOCATED IMMEDIATELY BEHIND BACK OF CURB.

12. FIRE HYDRANTS ARE TO BE 3-WAY 5-1/4" TYPE, AVK SERIES 27.

13. FIRE HYDRANTS MUST BE FLOW TESTED PRIOR TO FINAL PLAT TO ENSURE ADEQUATE FLOWS. 14. CONCRETE MAKERS ARE TO BE INSTALLED AT ALL VALVES EXCEPT AT FIRE HYDRANTS.

15. CONCRETE BLOCKING SHALL BE PLACED AT ALL BENDS, TEES, AND FITTINGS.

16. 300 PSI CURB STOPS, CORPS, WYES, REQUIRED PER FORSYTH COUNTY STANDARDS.

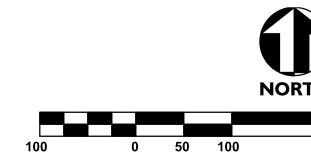
17. ALL VALVES SHALL BE GATE VALVES.

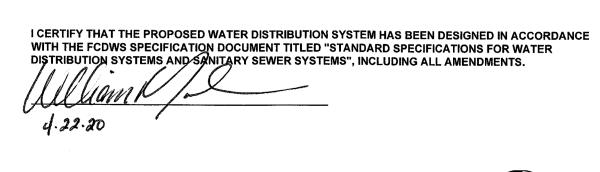
18. GATE VALVES OVER 5' DEEP SHALL HAVE STEM EXTENSIONS.

19. NO DEVIATIONS FROM APPROVED DRAWINGS ARE ALLOWED WITHOUT APPROVAL FROM FORSYTH COUNTY DEPARTMENT OF WATER AND SEWER.

20. LINES ARE TO BE PRESSURE TESTED AND DISINFECTION PER COUNTY SPECIFICATIONS.

NOTIFY FORSYTH COUNTY INSPECTOR 24 HOURS BEFORE





Sheet Title: **Overall Utility** 

Project No:

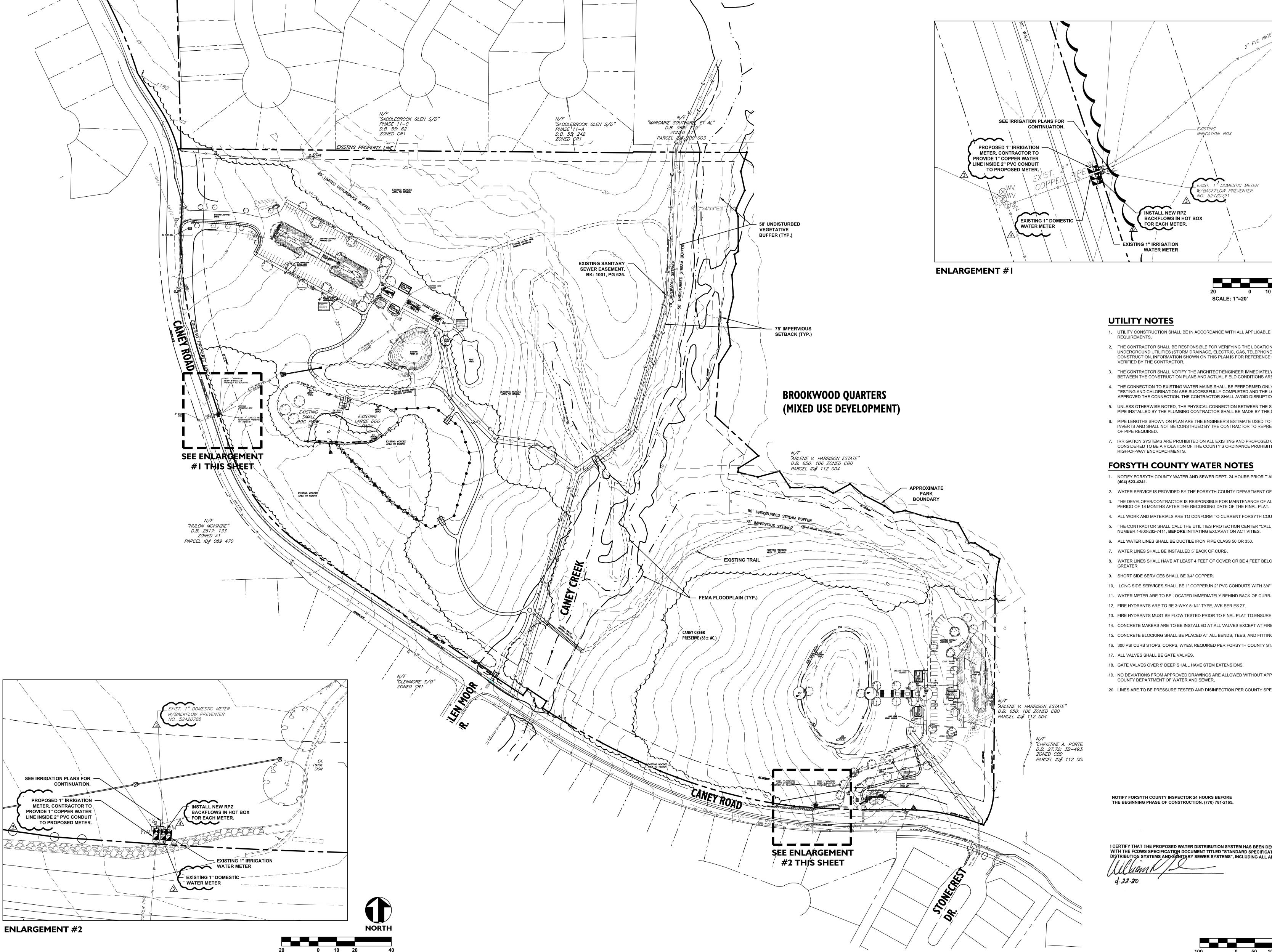
Revisions:

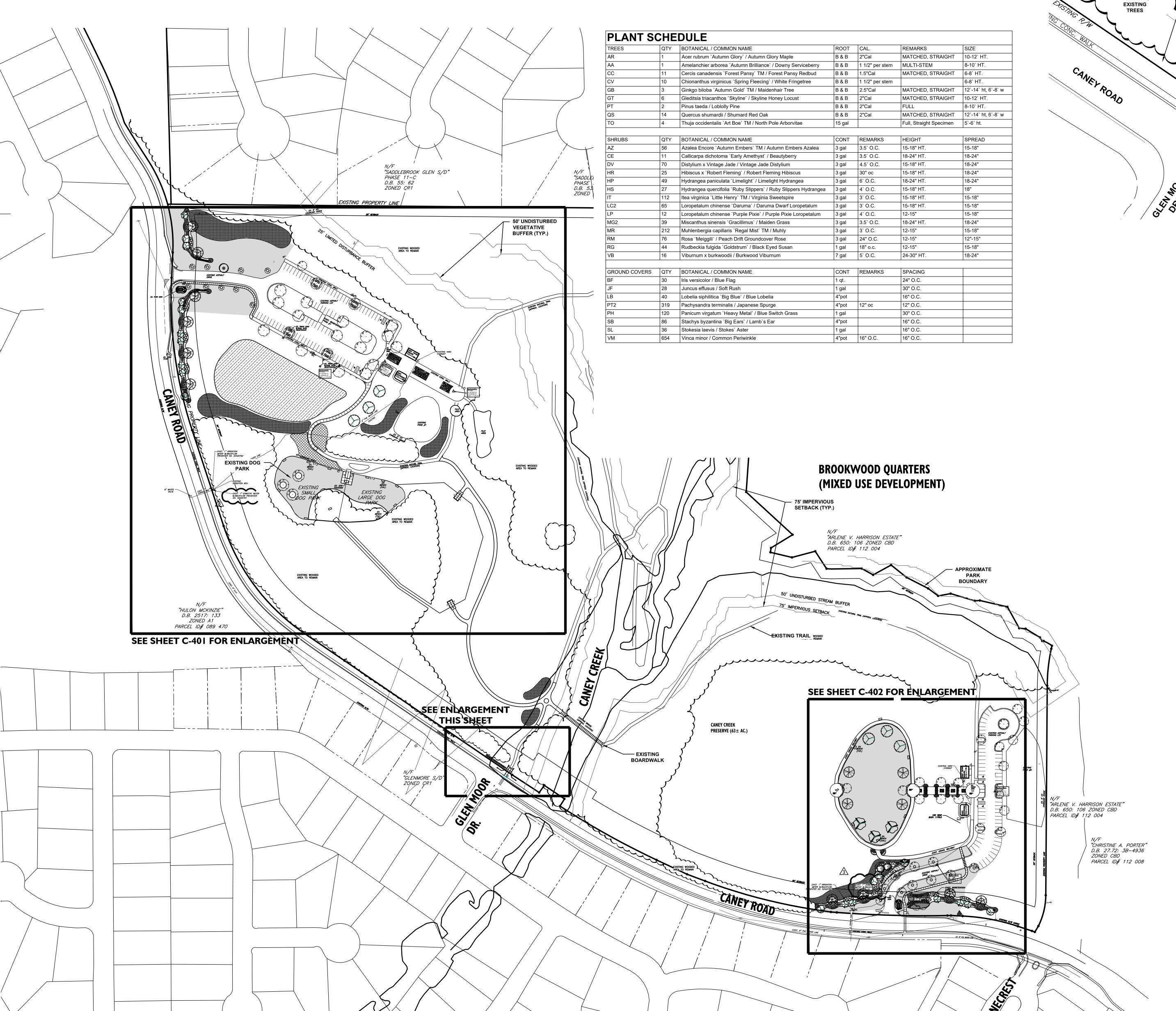
Per County Comments 01.31.20

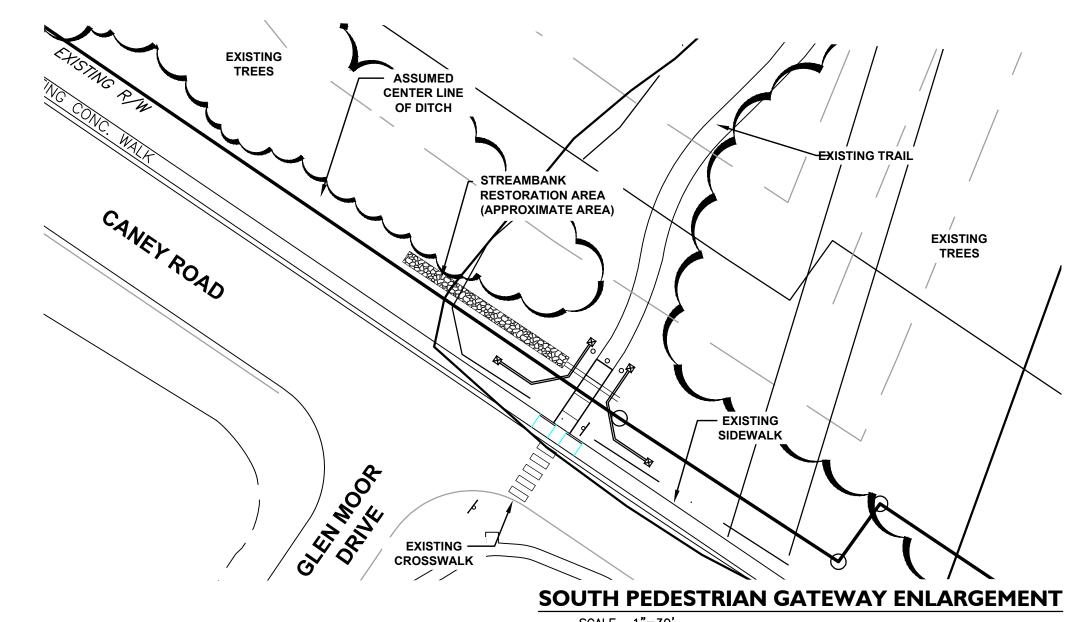
Per County Comments 03.04.20

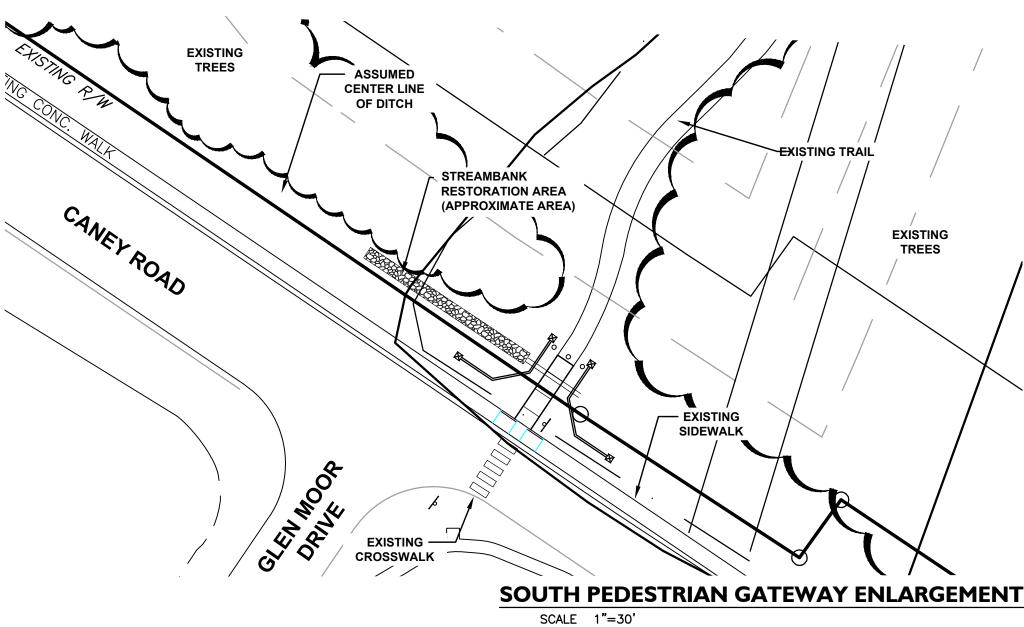
Per County Comments 04.27.20

17.000291















# LANDSCAPE NOTES

#### **PLANT MATERIAL**

- 1. MINIMUM TREE SIZE AT PLANTING IS 2" CALIPER AND 8' TALL FOR SINGLE-STEM TREES. ALL MULTI-STEM PLANTS MUST BE TREE FORM, MAXIMUM 3 TO 5 TRUNKS, AND MINIMUM 10' TALL. 2. ALL NEW TREES MUST HAVE <u>STRAIGHT TRUNKS WITH STRONG CENTRAL LEADERS INTACT TO THE TOP OF THE CROWN</u> UNLESS MULTI-STEM TREES ARE SPECIFIED. ALL TREES SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY, HAVE NORMAL GROWTH HABITS, HAVE WELL-DEVELOPED BRANCHES, BE VIGOROUS AND HAVE FIBROUS ROOT SYSTEMS. TREES WITH CO-DOMINANT BRANCHING WILL  ${\hbox{\tt NOT}}$ BE ACCEPTED. TREES THAT HAVE BEEN SHEARED, TOPPED OR CUT BACK TO MULTIPLY THE BRANCHING STRUCTURE WILL <u>NOT</u> BE ACCEPTED. TREES SHALL BE FREE OF ABRASIONS, DAMAGE, DISEASE, PESTS AND CRACKS. ALL PRUNING CUTS GREATER THAN I DIAMETER SHALL HAVE CALLUS TISSUE FORMED PRIOR TO PLANTING. NO PRUNING CUT ON THE TRUNK SHALL BE MORE THAN ONE-HALF THE DIAMETER OF THE CENTRAL LEADER AT THE HEIGHT WHERE THE CUT WAS MADE. ROOT FLARES SHALL BE LOCATED AT GRADE. TREES WITH MORE THAN 2" OF SOIL COVERING THE ROOT BALL/FLARE FROM WILL NOT BE ACCEPTED. 3. SIZE OF PLANTS, SPREAD OF ROOTS AND SIZE OF BALLS SHALL BE IN ACCORDANCE WITH ANSI Z60.1
- (LATEST EDITION) AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION. 4. ALL TREES OF A PARTICULAR SPECIES AND VARIETY SHALL BE UNIFORM IN SIZE AND CONFIGURATION.

#### PLANTING REQUIREMENTS

- 1. PLASTIC HOSE PARTS WILL <u>NOT</u> BE ACCEPTED FOR TREE STAKING. SEE DETAILS AND SPECIFICATIONS FOR APPROVED STAKING METHOD/MATERIALS.
- 2. ALL STRAPPING, AND TOP  $\frac{1}{2}$  OF WIRE BASKET AND BURLAP MUST BE CUT AWAY AND REMOVED FROM ROOT BALL WHEN PLANTING. 3. FOR NEW PLANTING AREAS, REMOVE ALL PAVEMENT, GRAVEL SUB-BASE AND CONSTRUCTION DEBRIS; REMOVE COMPACTED SOIL AND ADD 24" NEW TOPSOIL, OR TILL AND AMEND
- THE TOP 24" OF EXISTING SOIL TO MEET TOPSOIL/ PLANTING MIX STANDARDS FOR TREES. 4. ALL SAUCERS SHALL BE SOAKED WITH WATER AND MULCHED IMMEDIATELY FOLLOWING
- 5. THE TOP OF ALL ROOT BALLS FOR SHRUBS & GROUNDCOVERS SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE, AS BORN TO PREVIOUS GROWING CONDITIONS.
- ALL ROOT BALLS REMOVED FROM CONTAINERS SHALL BE SCARIFIED PRIOR TO BACKFILLING. MULCH A MINIMUM 4 FOOT AREA AROUND EACH TREE AND - MULCH A CONTINUOUS AREA AROUND ALL SHRUB BEDS, AS INDICATED ON THE PLAN. MULCH SHALL BE 3-4" THICK. MULCH AROUND TREES SHALL BE TAPERED TOWARD TRUNK SO THAT NO MORE THAN 2" IS PLACED AT TREE TRUNK AS SHOWN ON DETAIL. SEE SPECIFICATIONS FOR TYPE.

#### **UTILITY ISSUES**

- 1. LARGE MATURING TREES MAY NOT BE PLANTED WITHIN 25' OF OVERHEAD POWER DISTRIBUTION OR TRANSMISSION LINES. IF TREES CONFLICT WITH POWER LINES OR SIGNS, CALL LANDSCAPE ARCHITECT TO RESOLVE <u>BEFORE</u> PLANTING.

  CONTRACTOR IS RESPONSIBLE FOR HAVING ALL UNDERGROUND UTILITIES LOCATED AND CLEARLY PAINTED WITHIN 10 DAYS OF ANY GROUND DISTURBING ACTIVITY. OWNER WILL NOT PAY FOR UTILITY
- REPAIRS DUE TO FAILURE TO MARK AND OBSERVE UTILITY LOCATIONS. 3. ADJUST TREE PLANTING LOCATIONS TO AVOID UNDERGROUND UTILITIES- PLANT 15' FROM ALL UNDERGROUND UTILITIES (SEWER AND STORM DRAINAGE, GAS WATER, PHONE AND ELECTRICAL

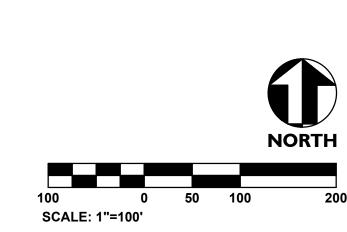
#### **GENERAL**

1. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE QUANTITY OF PLANTS SHOWN ON THE PLAN. ANY DISCREPANCIES BETWEEN QUANTITIES ON PLAN AND PLANT LIST SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT AND ANY FIELD ADJUSTMENTS OR QUANTITY ADJUSTMENTS MUST BE AUTHORIZED PRIOR TO PLANTING.

2. ALL PLANTS SHALL BE GUARANTEED TO BE IN HEALTHY CONDITION FOR ONE (1) YEAR AFTER ACCEPTANCE BY OWNER OF ALL PLANT MATERIAL.

3. ALL DISTURBED AREAS SHALL BE SEEDED AS SPECIFIED. 4. SEE EROSION CONTROL/GRADING PLAN FOR ADDITIONAL TREE PRESERVATION NOTES.

NOTIFY FORSYTH COUNTY INSPECTOR 24 HOURS BEFORE THE BEGINNING PHASE OF CONSTRUCTION. (770) 781-2165.



Sheet Title: Overall **Landscape Plan** 

17.000291

01.08.20

Project No:

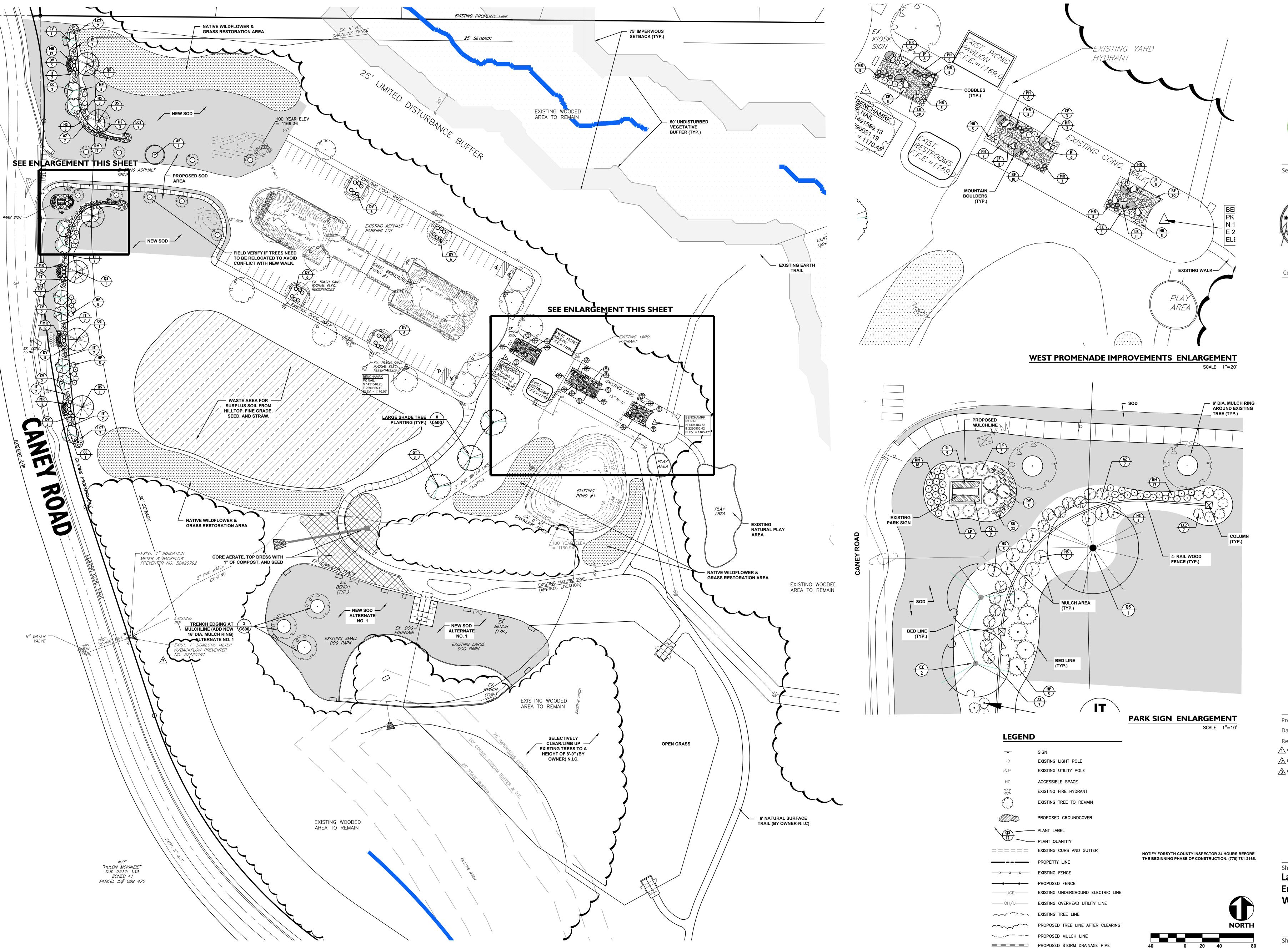
Revisions:

Per County Comments 01.31.20

Per County Comments 03.04.20

Per County Comments 04.27.20

**C500** 



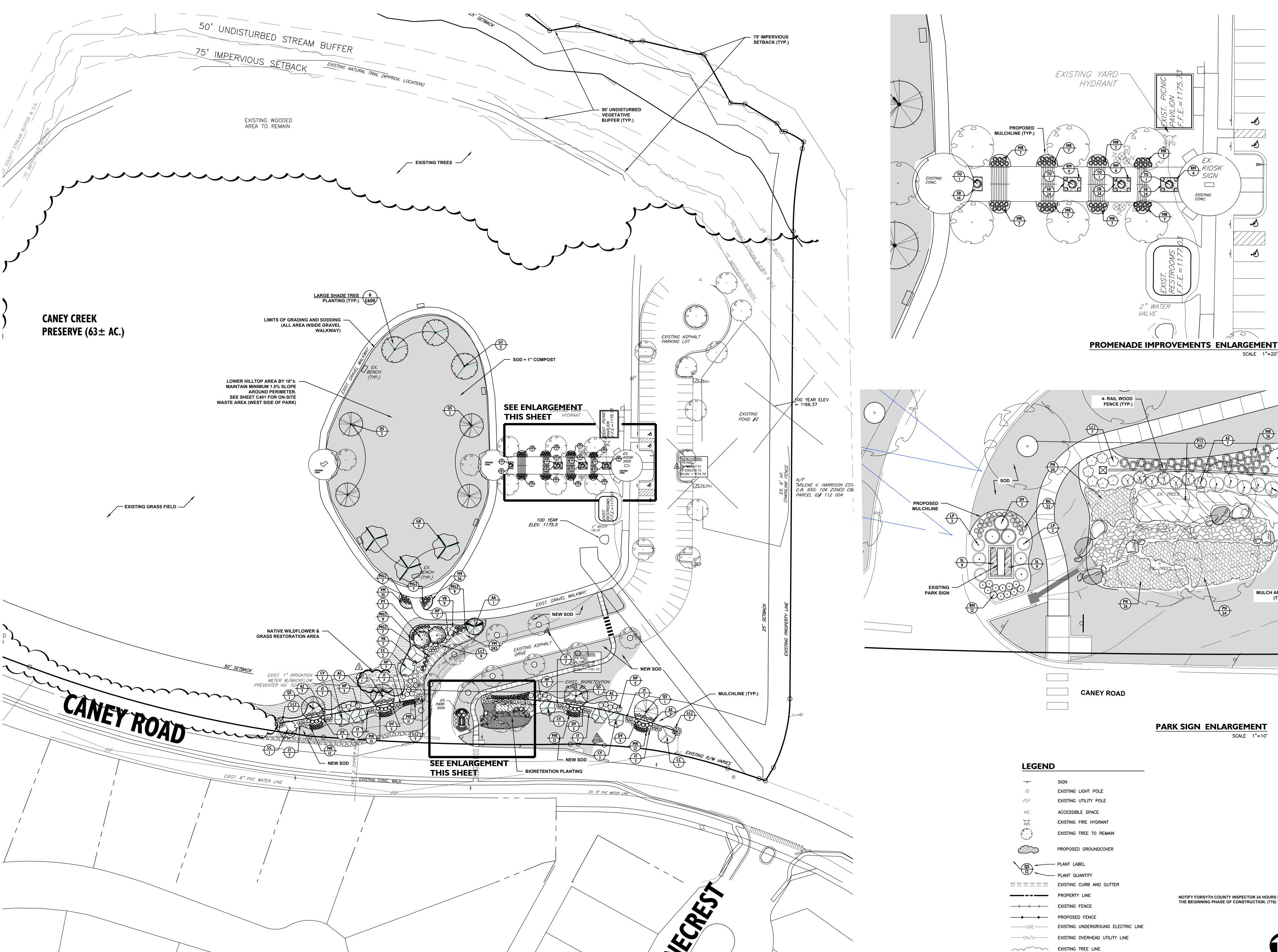


Project No: 17.000291 Per County Comments 01.31.20 Per County Comments 03.04.20 Per County Comments 04.27.20

Sheet Title: Landscape Plan **Enlargement-**West

Sheet No:

SCALE: 1"=40'





PARK SIGN ENLARGEMENT

SCALE 1"=20'

MULCH AREA (TYP.)

		SCALE 1"=10'	
LEGEND			
<del></del>	SIGN		
¢	EXISTING LIGHT POLE		
0	EXISTING UTILITY POLE		
HC	ACCESSIBLE SPACE		
	EXISTING FIRE HYDRANT		
Se s	EXISTING TREE TO REMAIN		
	PROPOSED GROUNDCOVER		
Q5	– PLANT LABEL		
12	– PLANT QUANTITY		
=====	EXISTING CURB AND GUTTER		
	PROPERTY LINE	NOTIFY FORSYTH COUNTY INSPECTOR 24 HOURS BEF	
xx	EXISTING FENCE	THE BEGINNING PHASE OF CONSTRUCTION. (770) 781	-2165.
•—•—	PROPOSED FENCE		
UGE	EXISTING UNDERGROUND ELECTRIC LINE		
OH/U	EXISTING OVERHEAD UTILITY LINE		
~~~~	EXISTING TREE LINE		
~~~	PROPOSED TREE LINE AFTER CLEARING	NOR	<del>▼</del> ₹TH
/	PROPOSED MULCH LINE		

PROPOSED STORM DRAINAGE PIPE

Per County Comments 04.27.20

Sheet Title:
Landscape Plan
EnlargementEast





**(1)** 

Project No: 17.000291 01.08.20 Date: Revisions: /1\ Per County Comments 01.31.20 Per County Comments 03.04.20

/3\ Per County Comments 04.27.20

Sheet Title: Site

Construction Details

**C600** 

Sheet No:

INSULATION

STANDARD COLORS WHITE



MULCH

— SOIL MIX

- SUBGRADE

**SECTION** 

- PAVEMENT

- SHRUB BED

SEEDING MIXTURE SPECIES RATE (LB/ACRE) RYE (GRAIN) <u>SEEDING DATES</u> MOUNTAINS—AUG. 15 — DEC. 30 COASTAL PLAIN AND PIEDMONT-AUG. 15 - DEC. 30 SOIL AMENDMENTS FOLLOW SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 1,000 LB/ACRE 10-10-10 SEEDING MIXTURE

SPECIES RYE (GRAIN)

ANNUAL LESPEDEZA (KOBE IN

PIEDMONT AND COSTÀL PLAIN, KOREAN IN MOUNTAINS)

PIEDMONT-JAN. 1 - MAY 1

MULCH ANCHORING TOOL.

OTHER DAMAGE.

SOIL AMENDMENTS

COASTAL PLAIN-DEC. 1 - APRIL 15

COVER IS NOT TO EXTEND BEYOND JUNE.

OMIT ANNUAL LESPEDEZA WHEN DURATION OF TEMPORARY

BELOW 2500 FEET: FEB. 1 - MAY 1

FOLLOW SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND

AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10

APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING

DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A

MAINTENANCE
REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED,
REFERTILIZE, AND MULCH IMMEDIATELY FOLLOWING EROSION OR

TEMPORARY SEEDING RECOMMENDATIONS

Tree Planting Detail

FOR LATE WINTER AND EARLY SPRING

WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A

<u>SEEDING DATES</u> MOUNTAINS—ABOVE 2500 FEET: FEB. 15 — MAY 15

APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL. MAINTENANCE
REPAIR AND RE-FERTILIZE DAMAGED AREAS IMMEDIATELY.

8' MAX. STANDARD STRENGTH FENCE WITH WIRE FENCE

6' MAX. W/EXTRA STRENGTH FABRIC WITHOUT WIRE FENCE

WIRE FENCING

FABRIC

CUT STONE CAP,

8x8x16 CMU

8x8x16 CMU

FINISH GRADE

4x8x16 SOLID

CONCRETE FOOTING

**SECTION** 

MORTAR ADHERED

(2) 1" SCH 80 ELEC. CONDUIT

SLEEVES FOR FUTURE WIRING

(4) #5 BAR VERTICAL-GROUT

SÓLIĎ. SEE STRUCTURAL DWG.

APPROVAL. MORTAR IN PLACE

STANDARD 9 GUAGE LADDER TYPE JOINT REINFORCING AT 16"

O.C. SEE STRUCTURAL DWG.

CONTINUE CONDUIT TO CONNECT

ACCOMMODATE FUTURE WIRING

42" HT. 4 RAIL HORSE FENCE, SEE OTHER DETAILS

— WOVEN FILTER

- BACKFILL TRENCH

AND COMPACT

THOROUGHLY

- PLASTIC OR

WIRE TIES

TOPDRESS WITH 50 LB/ACRE OF NITROGEN IN MARCH. IF NECESSARY TO EXTENT TEMPORARY COVER BEYOND JUNE 15, OVERSEED WITH 50 LB/ACRE KOBE (PIEDMONT AND COSTAL PLAIN) OR KOREAN (MOUNTAINS) LESPEDEZA IN LATE FEBRUARY OR EARLY MARCH. TEMPORARY SEEDING RECOMMENDATIONS FOR FALL

SEEDING MIXTURE RATE (LB/ACRE) SPECIES GERMAIN MILLET IN THE PIEDMONT AND MOUNTAINS, A SMALL-STEMMED SUDANGRASS MAY BE SUBSTITUTED AT A RATE OF 50 LB/ACRE. <u>SEEDING DATES</u> MOUNTAINS-MAY 15 - AUG. 15

PIEDMONT-MAY 1 - AUG. 15 COASTAL PLAIN-APR. 15 - AUG. 15 SOIL AMENDMENTS FOLLOW SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10

APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE
REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE, AND MULCH IMMEDIATELY FOLLOWING EROSION OR TEMPORARY SEEDING RECOMMENDATIONS FOR SUMMER

Seeding Specifications for Temporary Erosion Control

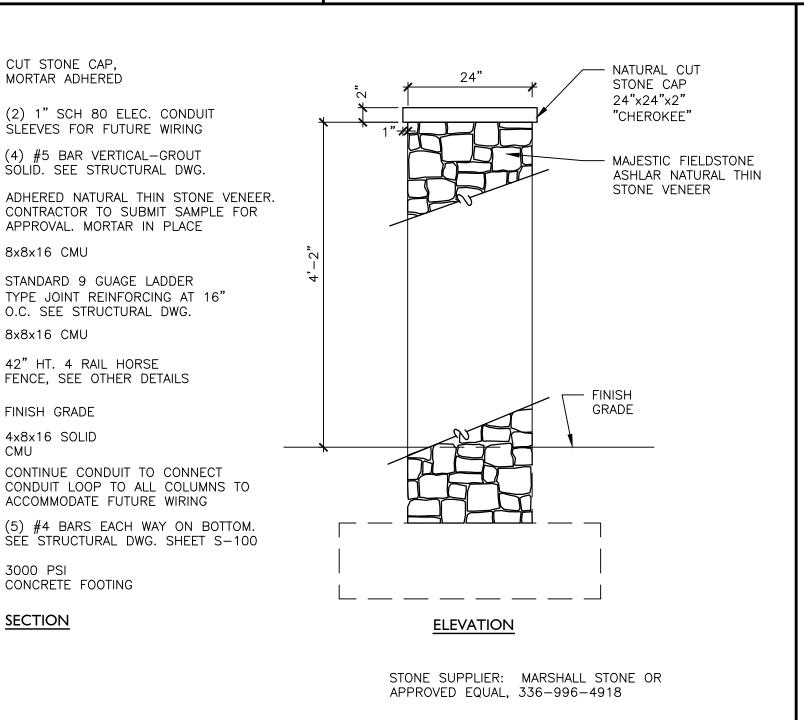
RATE (LB/ACRE)

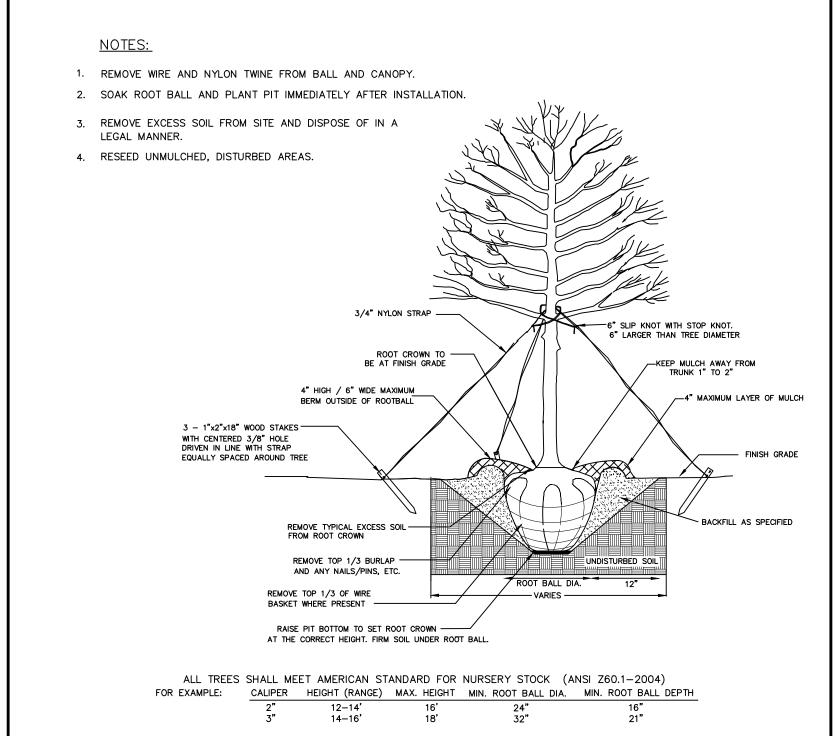
- GRASS AREA

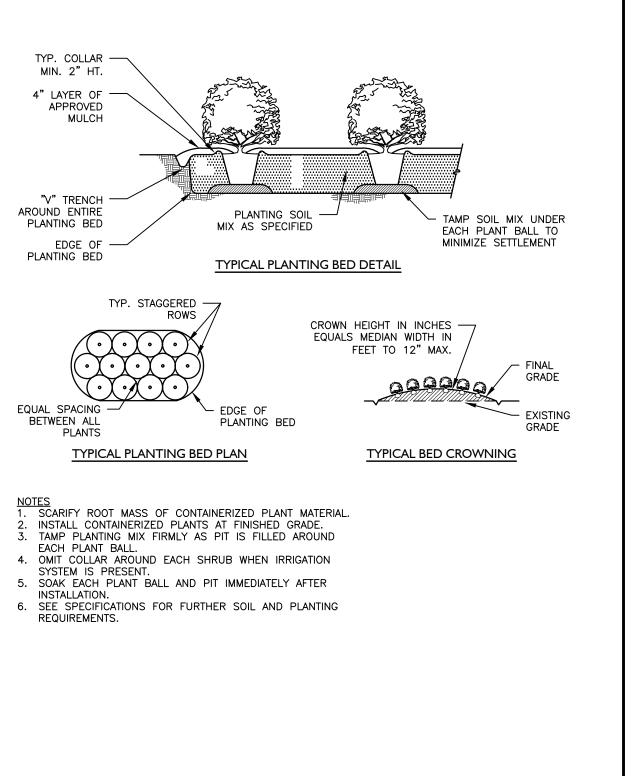
4" DEEP

TRENCH EDGING

Trench Edging Detail







SUPPORTS (SEE NOTES BELOW) -

WATER METER

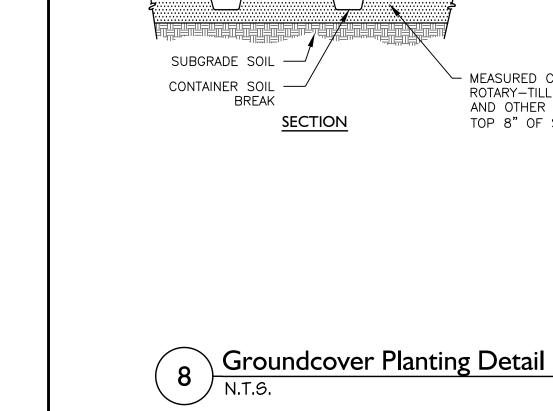
THE COVER FOR THE ABOVE GROUND RPZ

INSTALLATION CAN BE PLACED ON A FULL CONCRETE SLAB OR A PERIMETER FOOTER

AS INDICATED IN CURRENT SPECIFICATIONS. FULL SLAB IS SHOWN IS THIS DIAGRAM.

SUPPORTS SHOULD BE USED IF PVC PIPING IS USED AND PLACED AS SHOWN.





DIMENSION

DIMENSION

- HAND TROWEL SCORE JOINT-

SCORE JOINT SPACING

- MEDIUM BROOM FINISH

PROVIDE 1" BIT. EXPANSION JOINT @ 30' O.C.

16" BELOW FLUSH ON 1" THICK EXPANSION

ANY STRUCTURE, AND AT 30' O.C. MAX.

- 1/4" X 3/4" TOOLED JOINT

WITH RADIUS EDGES.

JOINT. PLACE EXP. JOINT WHERE SHOWN ON

PLAN, WHERE NEW POUR IS CONTIGUOUS TO

3000 PSI FIBER-

REINFORCED CONCRETE

- SIDEWALK CONTRACTOR TO

BACKFILL ALL SIDEWALKS

WITH SUITABLE SOIL

Concrete Sidewalk Detail

WITH JOINT SEALER AS SPECIFIED-1/2" THICK,

1/4"X3/4" DEEP SEE SITE PLAN FOR

 $\Delta$   $\Delta$ 

COMPACTED SUBGRADE 95% STD. PROCTOR

ASTM D 698

STAGGERED PLANTING LAYOUT

— 4" MULCH MINIMUM

MEASURED COMPRESSED

MEASURED COMPRESSED

TOP 8" OF SOIL

REDUCED PRESSURE ZONE

ASSEMBLY INSTALLATION

ENCLOSURE: HOT BOX . OR EQUIVALENT BOX,

SIZED TO ASSEMBLY SIZE 3/4" TO 2".

ACIDA EGISM BURNE DESCRIPT STORM METERS

Fiberglass construction, drainage capacity (RPZ devices), engineered heater sizing (protection for -30°F), testing /

maintenance, ground anchor expubilities and lockable lid

TWO PIECE BOX

ROTARY—TILL ORGANIC MATTER AND OTHER ADDITIVES INTO

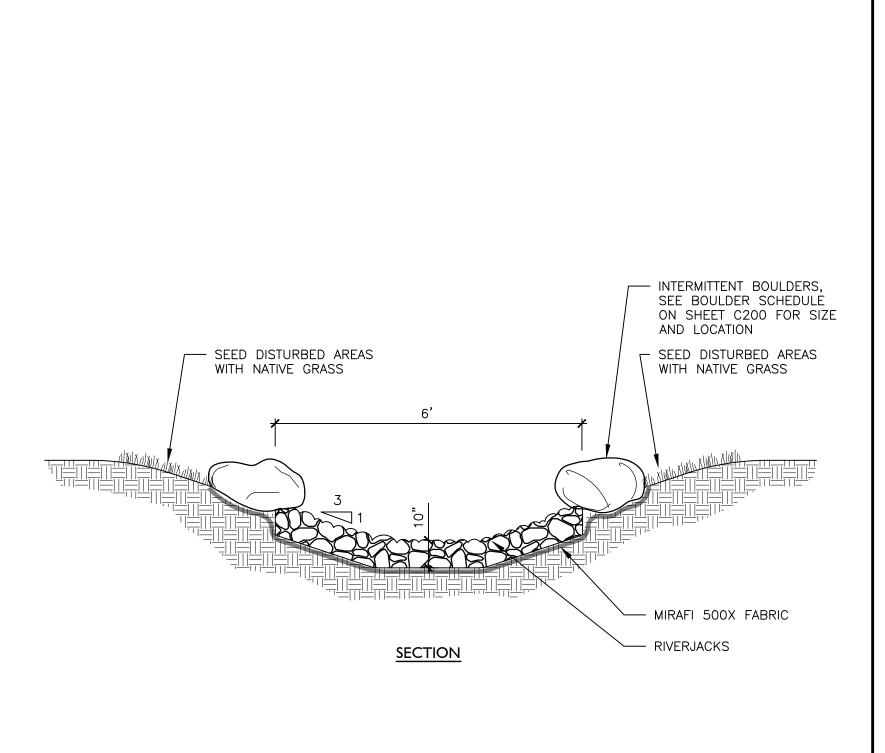
<u>PLAN</u>

- MEDIUM BROOM FINISH

PERPENDICULAR TO

TRAFFIC FLOW

PERPENDICULAR TO TRAFFIC FLOW



9 River Rock Channel With Boulders
N.T.G.

(2) SCH 80 1" 45° ELBOW

STEEL POST —

WIRE FENCING -

WOVEN FILTER -

**GENERAL NOTES:** 

OPENINGS.

GUIDELINES).

**MAINTENANCE NOTES:** 

1'-4"

1'-4"

Stone Column Detail

INCLUDE IN ALTERNATE NO. 2

4'-0"

12" STAY SPACING.

1. FILTER FABRIC FENCE SHALL BE A MINIMUM OF 32" IN

REMAIN FOR A PERIOD OF MORE THAN 30 DAYS.

4. WIRE FENCING SHALL BE AT LEAST #10 GAGE WITH A

6. WIRE MESH SHALL BE MIN. 14 GAGE WITH MAXIMUM 6"

7. ORANGE SAFETY FENCE IS REQUIRED AT BACK OF SILT

BUFFERS OR WETLANDS (REFER TO SWIM BUFFER

RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.

BECOME INEFFECTIVE, REPLACE IT PROMPTLY.

DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

FENCE (WITHIN 5 FT.) WHEN GRADING IS ADJACENT TO SWIM

1. INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH

CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT.

High Hazard Temporary Silt Fence

2. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE OR

VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE

3. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE

4. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING

MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.

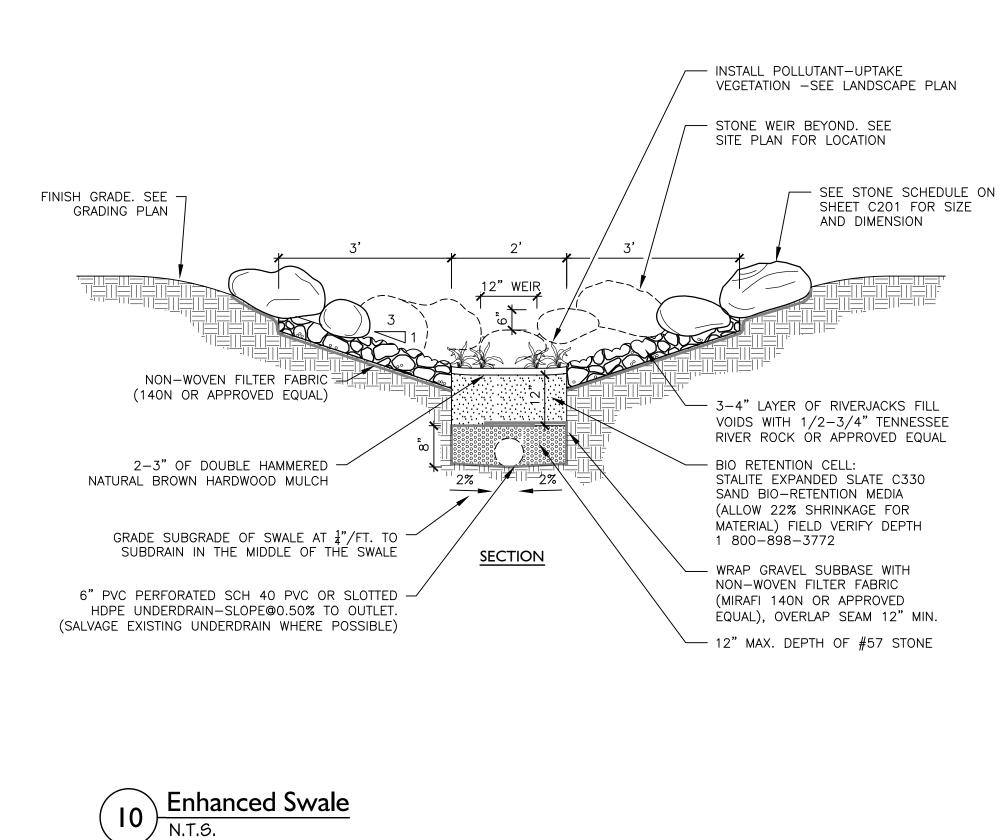
SELF-FASTENER ANGLE STEEL TYPE.

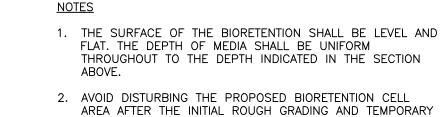
5. TURN SILT FENCE UP SLOPE AT ENDS.

2. WOVEN FILTER FABRIC BE USED WHERE SILT FENCE IS TO

3. STEEL POSTS SHALL BE 5'-0" IN HEIGHT AND BE OF THE

WIDTH AND SHALL HAVE A MINIMUM OF 6 LINE WIRES WITH





STABILIZATION HAS BEEN PERFORMED.

3. EXCAVATE THE BIORETENTION CELL TO THE DESIGN DIMENSIONS. 4. PROTECTION OF THE BIORETENTION CELL(S) DURING AND AFTER CONSTRUCTION ARE VERY IMPORTANT TO THE WORKING FUNCTION OF THE BMP FACILITY. CONTRACTOR SHALL AT ALL TIMES PROTECT THE FILTER MEDIA MATERIAL FROM CONTAMINATION OF CLAY SOILS, SILTS AND ANY OTHER CONTAMINANTS THAT MAY REDUCE THE PERCOLATION RATE OF THE MEDIA. FAILURE TO PROVIDE ADEQUATE PROTECTION MAY RESULT IN A NON-FUNCTIONING BMP AND MAY NEED TO BE REPLACED AT THE CONTRACTORS

5. UNDERDRAIN SYSTEMS SHALL BE SCHEDULE 40 PVC, WITH A MINIMUM OF 4 ROWS OF PERFORATION PROVIDED AROUND THE DIAMETER OF THE PIPE PLACED 6" ON CENTER WITHIN EACH ROW OF THE ENTIRE LENGTH OF THE DRAINAGE LATERAL. PERFORATIONS SHALL BE 3 IN

6. #57 WASHED STONE SHALL COVER OVER UNDERDRAINS AND SHALL BE AT LEAST 3" IN DEPTH

7. CONTRACTOR SHALL PROVIDE ADDITIONAL #57 WASHED STONE AS NEEDED TO PROVIDE POSITIVE DRAINAGE ALONG BOTTOM OF CELL 8. FILTER FABRIC MUST MEET A MINIMUM PERMEABILITY RATE OF 75 GALLONS/MINUTE/SQUARE FOOT AND SHALL NOT

IMPEDE THE INFILTRATION RATE OF THE SOIL MEDIUM. NON-WOVEN FABRIC IS PREFERRED OVER WOVEN AND INSTALLATION REQUIRES AT LEAST 1 FOOT OVERLAP AT THE ENDS AND STAKING IN PLACE DURING CONSTRUCTION AT THE TURNED SURFACES. 9. THE SOIL MIXTURE FOR USE IN A BIORETENTION FACILITY

SHALL HAVE A PERMEABILITY (K) RATING FROM 2 INCHES/HOUR TO 4 INCHES/HOUR AS MEASURED IN THE FIELD. SOIL MEDIA SHALL BE TESTED AND CERTIFIED AT CONTRACTOR'S EXPENSE PRIOR TO INSTALLATION. 10. SOIL MEDIA TEST RESULTS SHALL BE SUBMITTED TO

12. UPON FINAL ACCEPTANCE OF STRUCTURE, OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE PER THE MAINTENANCE

AGREEMENT

ENGINEER FOR REVIEW AND APPROVAL. SOIL MEDIA TESTING METHODS ARE AS FOLLOWS: 11. MAINTENANCE AND FUNCTION OF STRUCTURE IS THE FULL RESPONSIBILITY OF THE CONTRACTOR UNTIL FINAL ACCEPTANCE.

Reduced Pressure Zone Backflow Prevention Assembly

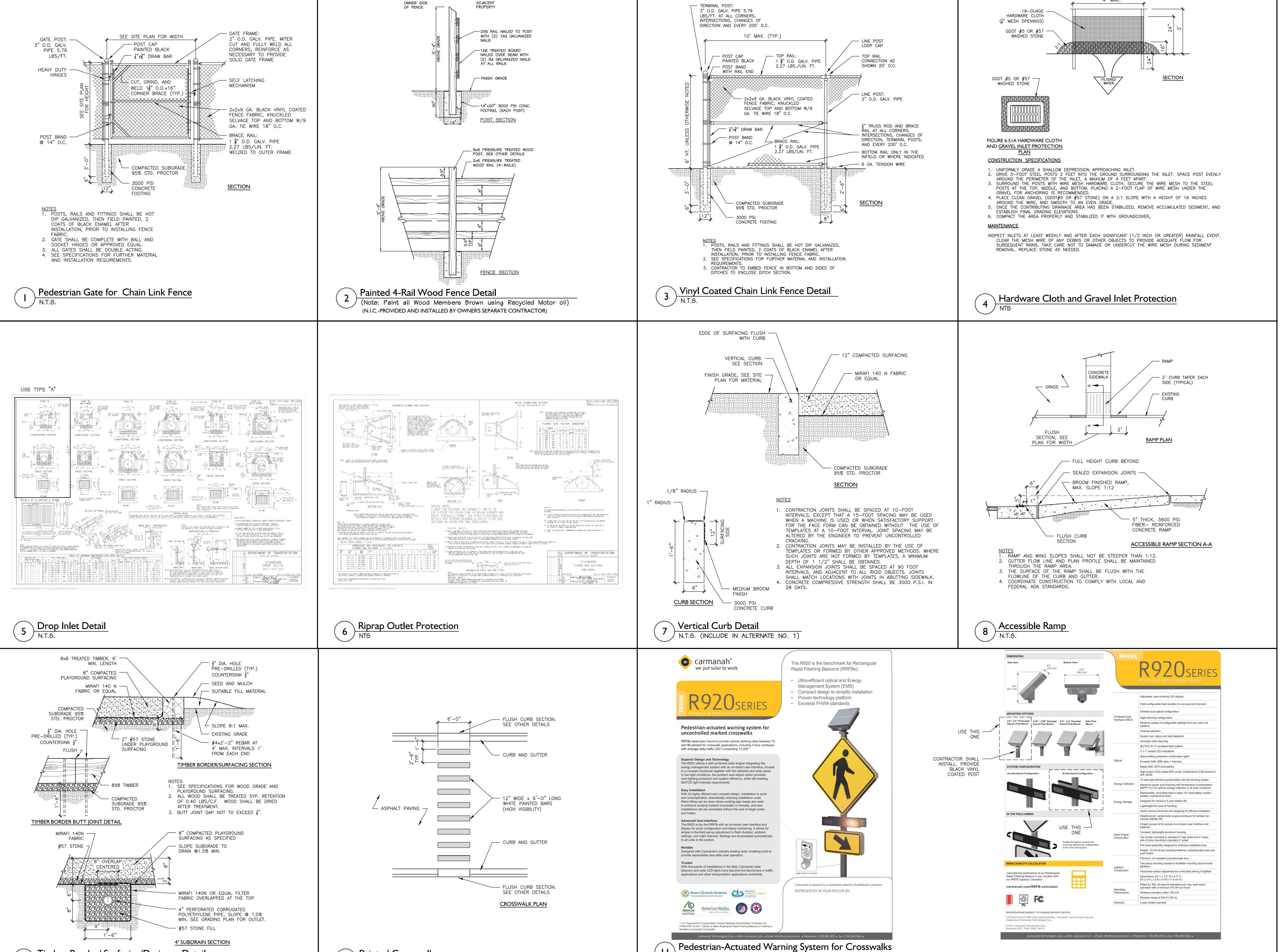
FREEZE PROTECTION INSTALLATION VARIATION FOR

REDUCED PRESSURE ZONE BACKFLOW PREVENTION ASSEMBLY

OR EQUIVALENT FREEZE PROTECTION DEVICE

EMBEDDED IN CONCRETE

NOTIFY FORSYTH COUNTY INSPECTOR 24 HOURS BEFORE THE BEGINNING PHASE OF CONSTRUCTION. (770) 781-2165.



NOTE: FIELD CONFIRM LOCATION PRIOR TO INSTALLATION.

Timber Border/ Surfacing/Drainage Detail

INCLUDE IN ALTERNATE NO. 1

Painted Crosswalk

Sassy Perimeter Pointe Parkway, Suite 350

4' MAX.



Seals:



Corp. NC License: F-1320

aney Creek Preserve
2755 Caney Road, 3055 Caney Road

Sheet Title:

Site Construction Details

Sheet No:

NOTIFY FORSYTH COUNTY INSPECTOR 24 HOURS BEFORE

THE BEGINNING PHASE OF CONSTRUCTION. (770) 781-2165.

C601

**Revisions:** 1 Per County Comments 02.12.20

**Irrigation** 

**GENERAL NOTES** 

1. ALL MAINLINES TO HAVE A MINIMUM OF 18" OF COVER. (CLASS 200 PVC PIPE). 2. ALL LATERAL AND SUB-MAIN PIPE TO HAVE A MINIMUM OF 12" OF COVER.

(CLASS 200 PVC PIPE). 3. NO ROCKS, BOULDER, OR OTHER EXTRANEOUS MATERIALS TO BE USED IN BACKFILLING OF TRENCH.

4. ALL PIPE TO BE INSTALLED AS PER MANUFACTURERS' SPECIFICATIONS. 5. ALL THREADED JOINTS TO BE COATED WITH TEFLON TAPE OR LIQUID

6. ALL LINES TO BE THOROUGHLY FLUSHED BEFORE INSTALLATION OF SPRINKLER HEADS. SPRINKLER AND RELATED EQUIPMENT TO BE INSTALLED AS PER DETAILS. ALL ELECTRICAL JOINTS TO BE MADE USING WATERPROOF CONNECTIONS AS

SHOWN ON DETAILS. 9. ALL EQUIPMENT NOT SPECIFIED IN THE LEGEND SHALL BE DETERMINED AND FURNISHED BY THE CONTRACTOR.

10. NO ELECTRICAL CONNECTIONS SHALL BE MADE IN THE FIELD EXCEPT AT A VALVE CONTROL BOX OR ANOTHER VALVE BOX SPECIFICALLY FOR CONNECTIONS.

11. ANY DISCREPANCY BETWEEN THIS SHEET AND OTHERS IN THIS SET MUST BE REFERRED TO THE IRRIGATION CONSULTANT BY THE CONTRACTOR FOR CLARIFICATION BEFORE PRECEEDING WITH THE WORK.

12. ALL 24 VOLT WIRE SHALL BE #12 UF/UL FOR COMMON WIRE, AND #14 UF/UL FOR CONTROL WIRES, DIRECT BURIAL, SOLID COPPER. 13. CONTRACTOR TO BE RESPONSIBLE FOR PROPER COVERAGE OF AREAS TO BE WATERED. I.E. ADJUST HEADS WITH INSUFFICIENT COVERAGE DUE TO

BLOCKAGE BY EXISTING OR PROPOSED SITE FEATURES. 14. CONTRACTOR TO REFER TO LANDSCAPE PLAN TO KEEP SPRINKLER EQUIPMENT AND ACCESSORY MATERIAL FROM INTERFERING WITH PROPER

PLANTING, i.e. VERIFY ROOT BALL SIZE FOR PLANTING. 15. CONTRACTOR SHALL PROVIDE EXPANSION COILS AT EACH WIRE CONNECTION IN VALVE BOX (WRAP AROUND 3/4" PIPE 12 TIMES).

16. CONTRACTOR TO UTILIZE APPROPRIATE AUTOMATIC DRAIN DEVICE WHERE LOW HEAD DRAINAGE MAY OCCUR. 17. ALL SPRINKLERS TO BE MOUNTED ON SWING JOINTS - REFER TO DETAILS. 18. CONTRACTOR SHALL UTILIZE VALVE I.D. TAGS ON ALL REMOTE CONTROL

19. 24 VOLT WIRE SHALL BE COLOR CODED; COMMON-WHITE, CONTROL-RED. 20. CONTRACTOR SHALL INSTALL MANUFACTURERS' RECOMMENDED

GROUNDING EQUIPMENT FOR POWER SUPPLY AND VALVE OUTPUT WITH (2) 5/8" COPPER CLAD GROUND RODS. 21. CONTRACTOR SHALL INSTALL MANUFACTURERS' RECOMMENDATION ON

UTILIZED

**CONTRACTOR INSTALLATION NOTES:** 

1. CONTRACTOR SHALL LOCATE AND REPAIR IRRIGATION THAT IS

2. CONTRACTOR SHALL TURN OFF AND CAP EXISTING IRRIGATION

THAT FORSYTH COUNTY PARKS DESIGNATES AS NOT BEING

EXISTING WOODED AREA TO REMAIN

NOT IMPACTED BY THE NEW INSTALLATION; ASSUME TO ADD

\$2,000.00 TO A LINE ITEM OF YOUR BID FOR EACH PARK AREA.

FAULT GROUND AND LIGHTNING PROTECTION. 22. CONTROLLER GROUNDING MUST BE AS PER ASIC REQUIREMENTS 23. ALL MATERIAL TO BE SUPPLIED BY CONTRACTOR TO OWNER: A. TWO WRENCHES FOR DISASSEMBLING AND ADJUSTING EACH TYPE OF SPRINKLER HEADS AND VALVE SUPPLIED.

B. TWO KEYS FOR EACH OF THE AUTOMATIC CONTROLLERS. C. TWO QUICK COUPLER KEYS WITH MATCHING HOSE SWIVELS.

24. SYSTEM IS DIAGRAMMATIC TO IMPROVE CLARITY. ALL MAINLINE PIPING ELECTRIC VALVES AND WIRING ARE TO BE INSTALLED IN LANDSCAPE AREAS AND WITHIN PROPERTY BOUNDARIES. CONTRACTOR SHALL REFERENCE THE LANDSCAPE PLAN PRIOR TO THE INSTALLATION OF PIPING TO AVOID CONTACT WITH PLANT MATERIALS EXISTING OR NEW.

25. CONTRACTOR TO ADD EXTENSION RISER TO POP-UP HEADS WHEN NEEDED FOR PROPER COVERAGE.

SUBMITTALS CONTRACTOR SHALL NOTIFY CONSULTANT OF ANY CHANGES FROM

26. CONTRACTOR SHALL INSTALL SPRINKLER EQUIPMENT 12" FROM FOUNDATIONS. ALSO INSTALL SPRINKLERS 4" FROM CURB OR WALKS. 27. PRIOR TO BID IRRIGATION CONTRACTOR SHALL VERIFY RIGHT-OF-WAY AND BACKFLOW REQUIREMENTS. NO LATER THAN FIVE DAYS BEFORE BID

PLANS AND SPECIFICATIONS. 28. IRRIGATION CONTRACTOR SHALL PROVIDE THE OWNER AND LANDSCAPE ARCHITECT WITH A REPRODUCIBLE CROSS MEASURED AS-BUILT DRAWING OF THE INSTALLED IRRIGATION SYSTEM IN AUTOCAD 2017 FORMAT BEFORE FINAL

29. A 1-YEAR WARRANTY PERIOD SHALL BE PROVIDED FOR SYSTEM AFTER SUBSTANTIAL COMPLETION IS ACCEPTED. START UP AND ADJUSTING OF

SYSTEM IN SPRING TIME SHALL BE INCLUDED IN WARRANTY. 30. PRIOR TO BID, CONTRACTOR SHALL VERIFY THAT ALL MATERIALS, INSTALLATION PARAMETERS AND OPERATIONS CONFORM TO ALL APPLICABLE CODES AND ORDINANCES. NO LATER THAN FIVE DAYS BEFORE BID SUBMITTALS CONTRACTOR SHALL NOTIFY IRRIGATION CONSULTANT/DESIGNER OF ANY CHANGES REQUIRED DUE TO CURRENT CODE OR ORDINANCE DISCREPANCIES. IF CONTRACTOR DOES NOT COMPLY TO THIS NOTIFICATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY INSTALLATION CHANGE AND

REDESIGN COSTS FOR NON-COMPLIANCE. 31. UNLESS OTHERWISE NOTED, THE CONTRACTOR MUST COMPLETE 2 PRESSURE TESTS OF THE IRRIGATION SYSTEM MAINLINE (BOTH TO SHOW NO DROP IN

PRESSURE DURING DURATION OF TEST. A. 2-HOUR PRESSURE TEST AT 1.5 TIMES THE SYSTEM STATIC PRESSURE

B. 24-HOUR PRESSURE TEST AT THE SYSTEM STATIC PRESSURE 32. IRRIGATION INSTALLATION CONTRACTOR SHALL PROVIDE OWNER WITH A COLOR-CODED ZONES DIAGRAM PLAN, 8-1/2"X11" LAMINATED SHEET(S), TO IDENTIFY CONTROLLER STATION TO THE CONTROL VALVE NUMBER FOR EACH CONTROLLER. TO BE LOCATED IN ADHESIVE POUCH ATTACHED INSIDE OF CONTROLLER(S).

> NOTIFY FORSYTH COUNTY INSPECTOR 24 HOURS BEFORE THE BEGINNING PHASE CONSTRUCTION. (770) 781-2165.

(MIXED USE

"ARLENE V. HARRISON ESTATE" D.B. 650: 106 ZONED CBD PARCEL ID# 112 004

SEE SHEET I-102 FOR ENLARGEMENT

Add (2)/8 Station Module for New Irrigation. Contractor shall locate and Contractor shall Repair/Replace \_\_\_ ~~~~~ Install New RPZ Backflow Preventer foreach meter in Hot Box ontractor shall be responsbile to before starting construction. New Proposed 1" Irrigation Water Meter —

REFER TO UTILITY PLANS FOR MORE SPECIFICS RELATED TO IRRIGATION WATER METER TAPS, COPPER LINE RUNNING FROM TAPS TO PROPOSED METERS AND ACTUAL PROPOSED METER LOCATIONS.

EXISTING WOODED AREA TO REMAIN

IRRIGATION SYSTEMS ARE PROHIBITED ON ALL EXISTING AND PROPOSED COUNTRY RIGHT-OF-WAY AND CONSIDERED TO BE A VIOLATION OF THE COUNTY'S ORDINANCE PROHIBITING UNPERMITTED RIGHT-OF-WAY ENCROACHMENTS.

"SADDLEBROOK GLEN S/D"

D.B. 55: 62

EXISTING WOODED AREA TO REMAIN

—Dog Park Irrigation - Alternate No.∕1

EXISTING WOODED AREA TO REMAIN

√ Existing Rain Bird ESP-LXME Controller/-

Irrigation. Contractor shall locate and

1-1/2" Irrigation Mainline

GPM @ 75 PSI. Installation

UTILITY NOTE:

Contractor shall be responsible to verify system requirements at site

before starting construction.

New Proposed 1" Irrigation

Existing 1" Irrigation Water Meter 📈

Existing

"HULON MCKINZIE" D.B. 2517: 133

ZONFD A1

PARCEL ID# 089 470

SEE SHEET I-101 FOR ENLARGEMENT

with High Pressure Spring

· 106 ZONED CBD

"CHRISTINE A. PORTER" D.B. 27.72: 3B-4936

PARCEL ID# 112 008

ZONED CBD

FULL-8.0 GPM, HALF-4.0 GPM, QUARTER-2.0 GPM, 45 PSI, DETAIL-B. HUNTER I-20-06-SS LAWN ROTOR WITH STAINLESS STEEL RISERS, 30' RADIUS, FULL-4.0 GPM, HALF-2.0 GPM, QUARTER-1.0 GPM, 45 PSI, DETAIL-B. HUNTER INDUSTRIES MP ROTATOR SERIES 3000, MOUNTED ON RAIN BIRD 1806-

SAM SPRINKLER IN LAWN, 30' RADIUS, FULL-4.0 GPM, HALF-2.0 GPM, QUARTER-1.0 GPM, 40 PSI, DETAIL-C. HUNTER INDUSTRIES MP ROTATOR SERIES 2000, MOUNTED ON RAIN BIRD 1806-SAM SPRINKLER IN LAWN, 20' RADIUS, FULL-2.0 GPM, HALF-1.0 GPM, QUARTER-

> 0.5 GPM, 40 PSI, DETAIL-C. HUNTER INDUSTRIES MP ROTATOR SERIES 3000, MOUNTED ON RAIN BIRD 1812-SAM SPRINKLER IN BED AREAS, 30' RADIUS, FULL-4.0 GPM, HALF-2.0 GPM, QUARTER-1.0 GPM, 40 PSI, DETAIL-D.

HUNTER INDUSTRIES MP ROTATOR SERIES 2000, MOUNTED ON RAIN BIRD 1812-SAM SPRINKLER IN BED AREA, 20' RADIUS, FULL-2.0 GPM, HALF-1.0 GPM, QUARTER-0.5 GPM, 40 PSI, DETAIL-D.

RAIN BIRD #5 QUICK COUPLING VALVE 1" SIZE. CONTRACTOR TO SUPPLY TWO QCV KEYS AND MATCHING HOSE SWIVELS. DETAIL-K. SCH 80 PVC TRUE UNION BALL VALVE, SIZED SAME AS MAINLINE, MOUNTED IN

CARSON VALVE BOX, DETAIL-L. MAINLINE PIPE: 2" SIZE IF NOT NOTED. CLASS 200 PVC SOLVENT WELD PIPE UTILIZING SCH 40 PVC SOLVENT WELD FITTINGS.

IRRIGATION SLEEVE: CLASS 200 PVC, SIZE NOTED ON PLAN. DETAIL-H. \_ \_ \_ \_ \_ \_ \_ \_ LATERAL LINE PIPE: CLASS 200 PVC SOLVENT WELD PIPE UTILIZING SCH 40 PVC

SOLVENT WELD FITTINGS, SIZE NOTED. — · — · — · — 3" ELECTRICAL CONDUIT SLEEVE.

NOTES:

, #1a,#1b,#2a,#2b

PREVENTER IN HOT BOX. DETAIL-F.

REGULATION DEVICES, DETAIL-A.

REGULATION DEVICES, DETAIL-A.

RADIUS, 1.5 GPM, 30 PSI. DETAIL-C.

RADIUS, 1.5 GPM, 30 PSI. DETAIL-C.

RADIUS, 1.0 GPM, 30 PSI. DETAIL-C.

RADIUS, 1.5 GPM, 30 PSI. DETAIL-D.

RADIUS, 1.5 GPM, 30 PSI, DETAIL-D.

RADIUS, 1.0 GPM, 30 PSI. DETAIL-D.

6" POP-UP TREE BUBBLER, 1.0 GPM, DETAIL-C.

GPM, 30 PSI. DETAIL-D.

DETAIL-J.

WINTERIZATION ASSEMBLY. DETAIL-M.

EXISTING RAIN BIRD LXME CONTROLLER(S): INSTALLATION

THAT EACH CONTROLLER HAS A RAIN/FREEZE SENSOR.

GPM, HALF-1.0 GPM, QUARTER-0.5 GPM, 30 PSI. DETAIL-C.

GPM, HALF-2.0 GPM, QUARTER-1.0 GPM, 30 PSI. DETAIL-C.

CONTRACTOR SHALL ADD (2) 8 STATION EXPANSION MODULE TO

EACH CONTROLLER. INSTALLATION CONTRACTOR SHALL ENSURE

HIGH TENSION SPRING, FOR OPERATION BETWEEN 70 AND 100 PSI.

2" IRRIGATION PRESSURE REDUCING VALVE, WATTS U5B-Z3-HP, WITH

MOUNTED WITH SCH 80 PVC TRUE UNION BALL VALVE WITH PRESSURE

MOUNTED WITH SCH 80 PVC TRUE UNION BALL VALVE WITH PRESSURE

RAIN BIRD 150-PEB-PRS PLASTIC ELECTRIC REMOTE CONTROL VALVE, 11/2" SIZE,

RAIN BIRD 100-PEB-PRS PLASTIC ELECTRIC REMOTE CONTROL VALVE, 1" SIZE,

RAIN BIRD 1806-SAM, 6" POP-UP LAWN SPRAY SPRINKLER, 12' RADIUS, FULL-2.0

RAIN BIRD 1806-SAM, 6" POP-UP LAWN SPRAY SPRINKLER, 15' RADIUS, FULL-4.0

RAIN BIRD 1806-SAM, 6" LAWN POP-UP SIDE STRIP SPRAY SPRINKLER, 9' X 18'

RAIN BIRD 1812-SAM, 12" HI-POP SHRUB SPRAY SPRINKLER, 15' RADIUS, FULL-4.0

GPM, HALF-2.0 GPM, QUARTER-1.0 GPM, THREE QUARTER-3.0 GPM, 30 PSI. DETAIL-D.

RAIN BIRD 1812-SAM, 12" HI-POP SHRUB SPRAY SPRINKLER, 12' RADIUS, FULL-2.0

RAIN BIRD 1812-SAM, 12" HI-POP SHRUB SIDE STRIP SPRAY SPRINKLER, 9' X 18'

RAIN BIRD 1812-SAM, 12" HI-POP SHRUB SIDE STRIP SPRAY SPRINKLER, 4' X 30'

RAIN BIRD 1812-SAM, 12" HI-POP SHRUB END STRIP SPRAY SPRINKLER, 4' X 15'

RAIN BIRD 1806-SAM WITH 1404 BUBBLER NOZZLE AND PA-80 ADAPTER.

HUNTER I-20-06-SS LAWN ROTOR WITH STAINLESS STEEL RISERS. 40' RADIUS.

RAIN BIRD 1806-SAM, 6" LAWN SIDE STRIP SPRAY SPRINKLER, 4' X 30'

RAIN BIRD 1806-SAM, 6" LAWN END STRIP SPRAY SPRINKLER, 4' X 15'

1. ALL SPRINKLERS WILL BE MOUNTED ON (3) MARLEX STREET ELLS WITH A SCHED. 80 NIPPLE SIZE OF SPRINKLER INLET. 2. CONTRACTOR TO UTILIZE A AUTOMATIC DRAIN CHECK VALVE DEVICE

WHERE LOW HEAD DRAINAGE MAY OCCUR. 3. ALL WIRE WILL BE COLOR CODED DIRECT BURIAL UL/UF WIRE: COMMON (WHITE) #12-1, CONTROL (RED) #14-1. 4. ALL PIPING AND WIRING UNDER HARDTOPS WILL BE IN CLASS 200 PVC

PIPE SLEEVE.

TYPICAL VALVE INDICATOR

VALVE SIZE

GALLONS PER MIN. STATION NUMBER

Per County Comments 03.05.20 3 Per County Comments 04.27.20

"HULON MCKINZIE"

D.B. 2517: 133

ZONFD A1

PARCEL ID# 089 470

EQUIPMENT AND ACCESSORY MATERIAL FROM INTERFERING WITH PROPER

16. CONTRACTOR TO UTILIZE APPROPRIATE AUTOMATIC DRAIN DEVICE WHERE

17. ALL SPRINKLERS TO BE MOUNTED ON SWING JOINTS - REFER TO DETAILS.

19. 24 VOLT WIRE SHALL BE COLOR CODED; COMMON-WHITE, CONTROL-RED.

21. CONTRACTOR SHALL INSTALL MANUFACTURERS' RECOMMENDATION ON

GROUNDING EQUIPMENT FOR POWER SUPPLY AND VALVE OUTPUT WITH

18. CONTRACTOR SHALL UTILIZE VALVE I.D. TAGS ON ALL REMOTE CONTROL

PLANTING, i.e. VERIFY ROOT BALL SIZE FOR PLANTING.

LOW HEAD DRAINAGE MAY OCCUR.

(2) 5/8" COPPER CLAD GROUND RODS.

FAULT GROUND AND LIGHTNING PROTECTION.

15. CONTRACTOR SHALL PROVIDE EXPANSION COILS AT EACH WIRE

CONNECTION IN VALVE BOX (WRAP AROUND 3/4" PIPE 12 TIMES).

20. CONTRACTOR SHALL INSTALL MANUFACTURERS' RECOMMENDED

22. CONTROLLER GROUNDING MUST BE AS PER ASIC REQUIREMENTS

ORDINANCES. NO LATER THAN FIVE DAYS BEFORE BID SUBMITTALS

A. 2-HOUR PRESSURE TEST AT 1.5 TIMES THE SYSTEM STATIC PRESSURE

32. IRRIGATION INSTALLATION CONTRACTOR SHALL PROVIDE OWNER WITH A

B. 24-HOUR PRESSURE TEST AT THE SYSTEM STATIC PRESSURE

REDESIGN COSTS FOR NON-COMPLIANCE.

PRESSURE DURING DURATION OF TEST.

CONTROLLER(S).

CONTRACTOR SHALL NOTIFY IRRIGATION CONSULTANT/DESIGNER OF ANY

SHALL BE RESPONSIBLE FOR ALL NECESSARY INSTALLATION CHANGE AND

31. UNLESS OTHERWISE NOTED, THE CONTRACTOR MUST COMPLETE 2 PRESSURE

TESTS OF THE IRRIGATION SYSTEM MAINLINE (BOTH TO SHOW NO DROP IN

COLOR-CODED ZONES DIAGRAM PLAN, 8-1/2"X11" LAMINATED SHEET(S), TO

CONTROLLER. TO BE LOCATED IN ADHESIVE POUCH ATTACHED INSIDE OF

IDENTIFY CONTROLLER STATION TO THE CONTROL VALVE NUMBER FOR EACH

CHANGES REQUIRED DUE TO CURRENT CODE OR ORDINANCE DISCREPANCIES.

IF CONTRACTOR DOES NOT COMPLY TO THIS NOTIFICATION, THE CONTRACTOR



Corp. NC License: F-1320

Project No: 17.000291 11.15.19

**Revisions:**  $\uparrow$  Per County Comments 02.12.20 Per County Comments 03.05.20 Per County Comments 04.27.20

Sheet Title:

**Irrigation Plan Enlargement-**West

Sheet No:

SCALE: 1"=40'

0 20 40

REFER TO UTILITY PLANS FOR MORE SPECIFICS RELATED TO

IRRIGATION SYSTEMS ARE PROHIBITED ON ALL EXISTING AND PROPOSED COUNTRY RIGHT-OF-WAY AND CONSIDERED TO BE A VIOLATION OF THE COUNTY'S ORDINANCE PROHIBITING UNPERMITTED

RIGHT-OF-WAY ENCROACHMENTS.

IRRIGATION WATER METER TAPS, COPPER LINE RUNNING FROM TAPS

TO PROPOSED METERS AND ACTUAL PROPOSED METER LOCATIONS.

#### **GENERAL NOTES**

23. ALL MATERIAL TO BE SUPPLIED BY CONTRACTOR TO OWNER:

B. TWO KEYS FOR EACH OF THE AUTOMATIC CONTROLLERS.

C. TWO QUICK COUPLER KEYS WITH MATCHING HOSE SWIVELS

SPRINKLER HEADS AND VALVE SUPPLIED.

ALSO INSTALL SPRINKLERS 4" FROM CURB OR WALKS.

MATERIALS EXISTING OR NEW.

PLANS AND SPECIFICATIONS.

PROPER COVERAGE.

ACCEPTANCE.

CONTROLLER(S).

A. TWO WRENCHES FOR DISASSEMBLING AND ADJUSTING EACH TYPE OF

24. SYSTEM IS DIAGRAMMATIC TO IMPROVE CLARITY. ALL MAINLINE PIPING ELECTRIC

VALVES AND WIRING ARE TO BE INSTALLED IN LANDSCAPE AREAS AND WITHIN

PROPERTY BOUNDARIES, CONTRACTOR SHALL REFERENCE THE LANDSCAPE

PLAN PRIOR TO THE INSTALLATION OF PIPING TO AVOID CONTACT WITH PLANT

25. CONTRACTOR TO ADD EXTENSION RISER TO POP-UP HEADS WHEN NEEDED FOR

26. CONTRACTOR SHALL INSTALL SPRINKLER EQUIPMENT 12" FROM FOUNDATIONS.

SUBMITTALS CONTRACTOR SHALL NOTIFY CONSULTANT OF ANY CHANGES FROM

ARCHITECT WITH A REPRODUCIBLE CROSS MEASURED AS-BUILT DRAWING OF

THE INSTALLED IRRIGATION SYSTEM IN AUTOCAD 2017 FORMAT BEFORE FINAL

30. PRIOR TO BID, CONTRACTOR SHALL VERIFY THAT ALL MATERIALS, INSTALLATION

CHANGES REQUIRED DUE TO CURRENT CODE OR ORDINANCE DISCREPANCIES.

IF CONTRACTOR DOES NOT COMPLY TO THIS NOTIFICATION, THE CONTRACTOR

PARAMETERS AND OPERATIONS CONFORM TO ALL APPLICABLE CODES AND

CONTRACTOR SHALL NOTIFY IRRIGATION CONSULTANT/DESIGNER OF ANY

SHALL BE RESPONSIBLE FOR ALL NECESSARY INSTALLATION CHANGE AND

31. UNLESS OTHERWISE NOTED, THE CONTRACTOR MUST COMPLETE 2 PRESSURE

TESTS OF THE IRRIGATION SYSTEM MAINLINE (BOTH TO SHOW NO DROP IN

COLOR-CODED ZONES DIAGRAM PLAN, 8-1/2"X11" LAMINATED SHEET(S), TO

CONTROLLER. TO BE LOCATED IN ADHESIVE POUCH ATTACHED INSIDE OF

IDENTIFY CONTROLLER STATION TO THE CONTROL VALVE NUMBER FOR EACH

27. PRIOR TO BID IRRIGATION CONTRACTOR SHALL VERIFY RIGHT-OF-WAY AND

BACKFLOW REQUIREMENTS. NO LATER THAN FIVE DAYS BEFORE BID

28. IRRIGATION CONTRACTOR SHALL PROVIDE THE OWNER AND LANDSCAPE

29. A 1-YEAR WARRANTY PERIOD SHALL BE PROVIDED FOR SYSTEM AFTER

ORDINANCES. NO LATER THAN FIVE DAYS BEFORE BID SUBMITTALS

A. 2-HOUR PRESSURE TEST AT 1.5 TIMES THE SYSTEM STATIC PRESSURE

32. IRRIGATION INSTALLATION CONTRACTOR SHALL PROVIDE OWNER WITH A

B. 24-HOUR PRESSURE TEST AT THE SYSTEM STATIC PRESSURE

SYSTEM IN SPRING TIME SHALL BE INCLUDED IN WARRANTY.

REDESIGN COSTS FOR NON-COMPLIANCE.

PRESSURE DURING DURATION OF TEST.

SUBSTANTIAL COMPLETION IS ACCEPTED. START UP AND ADJUSTING OF

1. ALL MAINLINES TO HAVE A MINIMUM OF 18" OF COVER. (CLASS 200 PVC PIPE). 2. ALL LATERAL AND SUB-MAIN PIPE TO HAVE A MINIMUM OF 12" OF COVER. (CLASS 200 PVC PIPE).

NO ROCKS, BOULDER, OR OTHER EXTRANEOUS MATERIALS TO BE USED IN BACKFILLING OF TRENCH. 4. ALL PIPE TO BE INSTALLED AS PER MANUFACTURERS' SPECIFICATIONS.

ALL THREADED JOINTS TO BE COATED WITH TEFLON TAPE OR LIQUID

6. ALL LINES TO BE THOROUGHLY FLUSHED BEFORE INSTALLATION OF SPRINKLER HEADS.

SPRINKLER AND RELATED EQUIPMENT TO BE INSTALLED AS PER DETAILS. ALL ELECTRICAL JOINTS TO BE MADE USING WATERPROOF CONNECTIONS AS

ALL EQUIPMENT NOT SPECIFIED IN THE LEGEND SHALL BE DETERMINED AND

FURNISHED BY THE CONTRACTOR. 10. NO ELECTRICAL CONNECTIONS SHALL BE MADE IN THE FIELD EXCEPT AT A

VALVE CONTROL BOX OR ANOTHER VALVE BOX SPECIFICALLY FOR

CONNECTIONS. 11. ANY DISCREPANCY BETWEEN THIS SHEET AND OTHERS IN THIS SET MUST BE

REFERRED TO THE IRRIGATION CONSULTANT BY THE CONTRACTOR FOR CLARIFICATION BEFORE PRECEEDING WITH THE WORK.

12. ALL 24 VOLT WIRE SHALL BE #12 UF/UL FOR COMMON WIRE, AND #14 UF/UL

FOR CONTROL WIRES, DIRECT BURIAL, SOLID COPPER. 13. CONTRACTOR TO BE RESPONSIBLE FOR PROPER COVERAGE OF AREAS TO

BE WATERED. I.E. ADJUST HEADS WITH INSUFFICIENT COVERAGE DUE TO

BLOCKAGE BY EXISTING OR PROPOSED SITE FEATURES.

14. CONTRACTOR TO REFER TO LANDSCAPE PLAN TO KEEP SPRINKLER EQUIPMENT AND ACCESSORY MATERIAL FROM INTERFERING WITH PROPER

PLANTING, i.e. VERIFY ROOT BALL SIZE FOR PLANTING.

15. CONTRACTOR SHALL PROVIDE EXPANSION COILS AT EACH WIRE CONNECTION IN VALVE BOX (WRAP AROUND 3/4" PIPE 12 TIMES).

16. CONTRACTOR TO UTILIZE APPROPRIATE AUTOMATIC DRAIN DEVICE WHERE LOW HEAD DRAINAGE MAY OCCUR.

17. ALL SPRINKLERS TO BE MOUNTED ON SWING JOINTS - REFER TO DETAILS. 18. CONTRACTOR SHALL UTILIZE VALVE I.D. TAGS ON ALL REMOTE CONTROL

19. 24 VOLT WIRE SHALL BE COLOR CODED; COMMON-WHITE, CONTROL-RED. 20. CONTRACTOR SHALL INSTALL MANUFACTURERS' RECOMMENDED GROUNDING EQUIPMENT FOR POWER SUPPLY AND VALVE OUTPUT WITH

(2) 5/8" COPPER CLAD GROUND RODS. 21. CONTRACTOR SHALL INSTALL MANUFACTURERS' RECOMMENDATION ON

FAULT GROUND AND LIGHTNING PROTECTION. 22. CONTROLLER GROUNDING MUST BE AS PER ASIC REQUIREMENTS

#### IRRIGATION LEGEND

NEW PROPOSED 1" IRRIGATION WATER METER INSTALLED NEXT TO EXISTING 1" DOMESTIC WATER METER (NOT FOR IRRIGATION) AND EXISTING 1" IRRIGATION WATER METER (TO BE USED FOR IRRIGATION). EACH SYSTEM REQUIRES 55 GPM @ 75 PSI. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE SYSTEM REQUIREMENTS AT SITE BEFORE STARTING CONSTRUCTION.

MANUAL DRAIN VALVE. SCH 80 PVC TRUE UNION BALL VALVE. DETAIL-E. WATTS #909-M1-QT-1", 1" REDUCED PRESSURE ASSEMBLY BACKFLOW #1a,#1b,#2a,#2b

PREVENTER IN HOT BOX. DETAIL-F. #1,#2

#1,#2(🏳)

WINTERIZATION ASSEMBLY. DETAIL-M.

EXISTING RAIN BIRD LXME CONTROLLER(S): INSTALLATION CONTRACTOR SHALL ADD (2) 8 STATION EXPANSION MODULE TO EACH CONTROLLER. INSTALLATION CONTRACTOR SHALL ENSURE THAT EACH CONTROLLER HAS A RAIN/FREEZE SENSOR.

2" IRRIGATION PRESSURE REDUCING VALVE, WATTS U5B-Z3-HP, WITH HIGH TENSION SPRING, FOR OPERATION BETWEEN 70 AND 100 PSI.

RAIN BIRD 150-PEB-PRS PLASTIC ELECTRIC REMOTE CONTROL VALVE, 11/2" SIZE, MOUNTED WITH SCH 80 PVC TRUE UNION BALL VALVE WITH PRESSURE REGULATION DEVICES, DETAIL-A.

RAIN BIRD 100-PEB-PRS PLASTIC ELECTRIC REMOTE CONTROL VALVE, 1" SIZE, MOUNTED WITH SCH 80 PVC TRUE UNION BALL VALVE WITH PRESSURE REGULATION DEVICES, DETAIL-A.

RAIN BIRD 1806-SAM, 6" POP-UP LAWN SPRAY SPRINKLER, 15' RADIUS, FULL-4.0

RAIN BIRD 1806-SAM, 6" POP-UP LAWN SPRAY SPRINKLER, 12' RADIUS, FULL-2.0 GPM, HALF-1.0 GPM, QUARTER-0.5 GPM, 30 PSI. DETAIL-C.

GPM, HALF-2.0 GPM, QUARTER-1.0 GPM, 30 PSI. DETAIL-C. RAIN BIRD 1806-SAM, 6" LAWN POP-UP SIDE STRIP SPRAY SPRINKLER, 9' X 18'

RADIUS, 1.5 GPM, 30 PSI. DETAIL-C. RAIN BIRD 1806-SAM, 6" LAWN SIDE STRIP SPRAY SPRINKLER, 4' X 30'

RADIUS, 1.5 GPM, 30 PSI. DETAIL-C. RAIN BIRD 1806-SAM, 6" LAWN END STRIP SPRAY SPRINKLER, 4' X 15'

RADIUS, 1.0 GPM, 30 PSI. DETAIL-C.

RAIN BIRD 1812-SAM, 12" HI-POP SHRUB SPRAY SPRINKLER, 15' RADIUS, FULL-4.0 GPM, HALF-2.0 GPM, QUARTER-1.0 GPM, THREE QUARTER-3.0 GPM, 30 PSI. DETAIL-D. RAIN BIRD 1812-SAM, 12" HI-POP SHRUB SPRAY SPRINKLER, 12' RADIUS, FULL-2.0 GPM, 30 PSI. DETAIL-D.

RAIN BIRD 1812-SAM, 12" HI-POP SHRUB SIDE STRIP SPRAY SPRINKLER, 9' X 18' RADIUS, 1.5 GPM, 30 PSI. DETAIL-D.

RAIN BIRD 1812-SAM, 12" HI-POP SHRUB SIDE STRIP SPRAY SPRINKLER, 4' X 30' RADIUS, 1.5 GPM, 30 PSI. DETAIL-D.

RAIN BIRD 1812-SAM, 12" HI-POP SHRUB END STRIP SPRAY SPRINKLER, 4' X 15' RADIUS, 1.0 GPM, 30 PSI. DETAIL-D.

RAIN BIRD 1806-SAM WITH 1404 BUBBLER NOZZLE AND PA-80 ADAPTER. 6" POP-UP TREE BUBBLER, 1.0 GPM, DETAIL-C. HUNTER I-20-06-SS LAWN ROTOR WITH STAINLESS STEEL RISERS, 40' RADIUS,

HUNTER I-20-06-SS LAWN ROTOR WITH STAINLESS STEEL RISERS, 30' RADIUS, FULL-4.0 GPM, HALF-2.0 GPM, QUARTER-1.0 GPM, 45 PSI, DETAIL-B.

HUNTER INDUSTRIES MP ROTATOR SERIES 3000, MOUNTED ON RAIN BIRD 1806- $\bigcirc\bigcirc\bigcirc\bigcirc$ SAM SPRINKLER IN LAWN, 30' RADIUS, FULL-4.0 GPM, HALF-2.0 GPM, QUARTER-1.0 GPM, 40 PSI, DETAIL-C. HUNTER INDUSTRIES MP ROTATOR SERIES 2000, MOUNTED ON RAIN BIRD 1806-

SAM SPRINKLER IN LAWN, 20' RADIUS, FULL-2.0 GPM, HALF-1.0 GPM, QUARTER-0.5 GPM, 40 PSI, DETAIL-C. HUNTER INDUSTRIES MP ROTATOR SERIES 3000, MOUNTED ON RAIN BIRD 1812-

SAM SPRINKLER IN BED AREAS, 30' RADIUS, FULL-4.0 GPM, HALF-2.0 GPM, QUARTER-1.0 GPM, 40 PSI, DETAIL-D. HUNTER INDUSTRIES MP ROTATOR SERIES 2000, MOUNTED ON RAIN BIRD 1812-

QUARTER-0.5 GPM, 40 PSI, DETAIL-D.

RAIN BIRD #5 QUICK COUPLING VALVE 1" SIZE. CONTRACTOR TO SUPPLY TWO QCV KEYS AND MATCHING HOSE SWIVELS. DETAIL-K.

SAM SPRINKLER IN BED AREA, 20' RADIUS, FULL-2.0 GPM, HALF-1.0 GPM,

SCH 80 PVC TRUE UNION BALL VALVE, SIZED SAME AS MAINLINE, MOUNTED IN CARSON VALVE BOX, DETAIL-L.

> MAINLINE PIPE: 2" SIZE IF NOT NOTED. CLASS 200 PVC SOLVENT WELD PIPE UTILIZING SCH 40 PVC SOLVENT WELD FITTINGS.

IRRIGATION SLEEVE: CLASS 200 PVC, SIZE NOTED ON PLAN. DETAIL-H.

LATERAL LINE PIPE: CLASS 200 PVC SOLVENT WELD PIPE UTILIZING SCH 40 PVC SOLVENT WELD FITTINGS, SIZE NOTED.

— · — · — · — 3" ELECTRICAL CONDUIT SLEEVE

1. ALL SPRINKLERS WILL BE MOUNTED ON (3) MARLEX STREET ELLS WITH A SCHED. 80 NIPPLE SIZE OF SPRINKLER INLET. 2. CONTRACTOR TO UTILIZE A AUTOMATIC DRAIN CHECK VALVE DEVICE

WHERE LOW HEAD DRAINAGE MAY OCCUR.

3. ALL WIRE WILL BE COLOR CODED DIRECT BURIAL UL/UF WIRE: COMMON (WHITE) #12-1, CONTROL (RED) #14-1.

4. ALL PIPING AND WIRING UNDER HARDTOPS WILL BE IN CLASS 200 PVC PIPE SLEEVE.

TYPICAL VALVE INDICATOR

STATION NUMBER VALVE SIZE

GALLONS PER MIN.

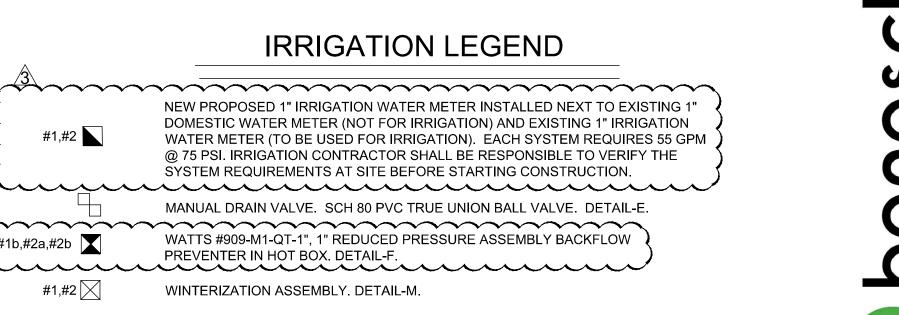
**Revisions:** 

Sheet Title: **Irrigation Plan Enlargement-**

Sheet No:

40 0 20 40

SCALE: 1"=40'



Corp. NC License: F-1320

**7** 

Project No: 17.000291

11.15.19

 $\uparrow$  Per County Comments 02.12.20 Per County Comments 03.05.20 Per County Comments 04.27.20

#### IRRIGATION LEGEND

<del></del> NEW PROPOSED 1" IRRIGATION WATER METER INSTALLED NEXT TO EXISTING 1" DOMESTIC WATER METER (NOT FOR IRRIGATION) AND EXISTING 1" IRRIGATION WATER METER (TO BE USED FOR IRRIGATION). EACH SYSTEM REQUIRES 55 GPM @ 75 PSI. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE SYSTEM REQUIREMENTS AT SITE BEFORE STARTING CONSTRUCTION. 

WATTS #909-M1-QT-1", 1" REDUCED PRESSURE ASSEMBLY BACKFLOW 、#1a,#1b,#2a,#2b │**X**│ PREVENTER IN HOT BOX. DETAIL-F. 

> EACH CONTROLLER. INSTALLATION CONTRACTOR SHALL ENSURE THAT EACH CONTROLLER HAS A RAIN/FREEZE SENSOR.

RAIN BIRD 150-PEB-PRS PLASTIC ELECTRIC REMOTE CONTROL VALVE, 11/2" SIZE, MOUNTED WITH SCH 80 PVC TRUE UNION BALL VALVE WITH PRESSURE REGULATION DEVICES, DETAIL-A.

EXISTING RAIN BIRD LXME CONTROLLER(S): INSTALLATION

CONTRACTOR SHALL ADD (2) 8 STATION EXPANSION MODULE TO

RAIN BIRD 100-PEB-PRS PLASTIC ELECTRIC REMOTE CONTROL VALVE, 1" SIZE, MOUNTED WITH SCH 80 PVC TRUE UNION BALL VALVE WITH PRESSURE REGULATION DEVICES, DETAIL-A.

RAIN BIRD 1806-SAM, 6" POP-UP LAWN SPRAY SPRINKLER, 15' RADIUS, FULL-4.0 GPM, HALF-2.0 GPM, QUARTER-1.0 GPM, 30 PSI. DETAIL-C.

RADIUS, 1.5 GPM, 30 PSI. DETAIL-C.

RAIN BIRD 1806-SAM, 6" LAWN END STRIP SPRAY SPRINKLER, 4' X 15' RADIUS, 1.0 GPM, 30 PSI. DETAIL-C.

RAIN BIRD 1812-SAM, 12" HI-POP SHRUB SPRAY SPRINKLER, 15' RADIUS, FULL-4.0 GPM, HALF-2.0 GPM, QUARTER-1.0 GPM, THREE QUARTER-3.0 GPM, 30 PSI. DETAIL-D. GPM, 30 PSI. DETAIL-D.

RAIN BIRD 1812-SAM, 12" HI-POP SHRUB SIDE STRIP SPRAY SPRINKLER, 9' X 18' RADIUS, 1.5 GPM, 30 PSI. DETAIL-D.

RADIUS, 1.5 GPM, 30 PSI. DETAIL-D.

RAIN BIRD 1806-SAM WITH 1404 BUBBLER NOZZLE AND PA-80 ADAPTER.

HUNTER I-20-06-SS LAWN ROTOR WITH STAINLESS STEEL RISERS. 40' RADIUS FULL-8.0 GPM, HALF-4.0 GPM, QUARTER-2.0 GPM, 45 PSI, DETAIL-B.

> HUNTER I-20-06-SS LAWN ROTOR WITH STAINLESS STEEL RISERS, 30' RADIUS, FULL-4.0 GPM, HALF-2.0 GPM, QUARTER-1.0 GPM, 45 PSI, DETAIL-B.

HUNTER INDUSTRIES MP ROTATOR SERIES 3000, MOUNTED ON RAIN BIRD 1806-SAM SPRINKLER IN LAWN, 30' RADIUS, FULL-4.0 GPM, HALF-2.0 GPM, QUARTER-1.0 GPM, 40 PSI, DETAIL-C.

> SAM SPRINKLER IN LAWN, 20' RADIUS, FULL-2.0 GPM, HALF-1.0 GPM, QUARTER-0.5 GPM, 40 PSI, DETAIL-C.

HUNTER INDUSTRIES MP ROTATOR SERIES 3000, MOUNTED ON RAIN BIRD 1812-SAM SPRINKLER IN BED AREAS, 30' RADIUS, FULL-4.0 GPM, HALF-2.0 GPM, QUARTER-1.0 GPM, 40 PSI, DETAIL-D.

HUNTER INDUSTRIES MP ROTATOR SERIES 2000, MOUNTED ON RAIN BIRD 1812-SAM SPRINKLER IN BED AREA, 20' RADIUS, FULL-2.0 GPM, HALF-1.0 GPM,

RAIN BIRD #5 QUICK COUPLING VALVE 1" SIZE. CONTRACTOR TO SUPPLY TWO QCV KEYS AND MATCHING HOSE SWIVELS. DETAIL-K.

CARSON VALVE BOX, DETAIL-L.

MAINLINE PIPE: 2" SIZE IF NOT NOTED. CLASS 200 PVC SOLVENT WELD PIPE UTILIZING SCH 40 PVC SOLVENT WELD FITTINGS.

LATERAL LINE PIPE: CLASS 200 PVC SOLVENT WELD PIPE UTILIZING SCH 40 PVC SOLVENT WELD FITTINGS, SIZE NOTED.

1. ALL SPRINKLERS WILL BE MOUNTED ON (3) MARLEX STREET ELLS WITH A

2. CONTRACTOR TO UTILIZE A AUTOMATIC DRAIN CHECK VALVE DEVICE WHERE LOW HEAD DRAINAGE MAY OCCUR.

3. ALL WIRE WILL BE COLOR CODED DIRECT BURIAL UL/UF WIRE: COMMON (WHITE) #12-1, CONTROL (RED) #14-1.

4. ALL PIPING AND WIRING UNDER HARDTOPS WILL BE IN CLASS 200 PVC PIPE SLEEVE.

GALLONS PER MIN.

STATION NUMBER

SUBMITTALS CONTRACTOR SHALL NOTIFY CONSULTANT OF ANY CHANGES FROM PLANS AND SPECIFICATIONS. ARCHITECT WITH A REPRODUCIBLE CROSS MEASURED AS-BUILT DRAWING OF

THE INSTALLED IRRIGATION SYSTEM IN AUTOCAD 2017 FORMAT BEFORE FINAL ACCEPTANCE.

29. A 1-YEAR WARRANTY PERIOD SHALL BE PROVIDED FOR SYSTEM AFTER SUBSTANTIAL COMPLETION IS ACCEPTED. START UP AND ADJUSTING OF SYSTEM IN SPRING TIME SHALL BE INCLUDED IN WARRANTY.

30. PRIOR TO BID, CONTRACTOR SHALL VERIFY THAT ALL MATERIALS, INSTALLATION PARAMETERS AND OPERATIONS CONFORM TO ALL APPLICABLE CODES AND ORDINANCES. NO LATER THAN FIVE DAYS BEFORE BID SUBMITTALS CONTRACTOR SHALL NOTIFY IRRIGATION CONSULTANT/DESIGNER OF ANY CHANGES REQUIRED DUE TO CURRENT CODE OR ORDINANCE DISCREPANCIES. IF CONTRACTOR DOES NOT COMPLY TO THIS NOTIFICATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY INSTALLATION CHANGE AND

A. 2-HOUR PRESSURE TEST AT 1.5 TIMES THE SYSTEM STATIC PRESSURE B. 24-HOUR PRESSURE TEST AT THE SYSTEM STATIC PRESSURE 32. IRRIGATION INSTALLATION CONTRACTOR SHALL PROVIDE OWNER WITH A COLOR-CODED ZONES DIAGRAM PLAN, 8-1/2"X11" LAMINATED SHEET(S), TO IDENTIFY CONTROLLER STATION TO THE CONTROL VALVE NUMBER FOR EACH

MANUAL DRAIN VALVE. SCH 80 PVC TRUE UNION BALL VALVE. DETAIL-E.

WINTERIZATION ASSEMBLY. DETAIL-M.

2" IRRIGATION PRESSURE REDUCING VALVE, WATTS U5B-Z3-HP, WITH HIGH TENSION SPRING, FOR OPERATION BETWEEN 70 AND 100 PSI.

RAIN BIRD 1806-SAM, 6" POP-UP LAWN SPRAY SPRINKLER, 12' RADIUS, FULL-2.0

GPM, HALF-1.0 GPM, QUARTER-0.5 GPM, 30 PSI. DETAIL-C.

RAIN BIRD 1806-SAM, 6" LAWN POP-UP SIDE STRIP SPRAY SPRINKLER, 9' X 18' RADIUS, 1.5 GPM, 30 PSI. DETAIL-C.

RAIN BIRD 1806-SAM, 6" LAWN SIDE STRIP SPRAY SPRINKLER, 4' X 30'

RAIN BIRD 1812-SAM, 12" HI-POP SHRUB SPRAY SPRINKLER, 12' RADIUS, FULL-2.0

RAIN BIRD 1812-SAM, 12" HI-POP SHRUB SIDE STRIP SPRAY SPRINKLER, 4' X 30'

RAIN BIRD 1812-SAM, 12" HI-POP SHRUB END STRIP SPRAY SPRINKLER, 4' X 15' RADIUS, 1.0 GPM, 30 PSI. DETAIL-D.

6" POP-UP TREE BUBBLER, 1.0 GPM, DETAIL-C.

HUNTER INDUSTRIES MP ROTATOR SERIES 2000, MOUNTED ON RAIN BIRD 1806-

QUARTER-0.5 GPM, 40 PSI, DETAIL-D.

SCH 80 PVC TRUE UNION BALL VALVE, SIZED SAME AS MAINLINE, MOUNTED IN

IRRIGATION SLEEVE: CLASS 200 PVC, SIZE NOTED ON PLAN. DETAIL-H. \_\_\_\_\_

— · — · — · — 3" ELECTRICAL CONDUIT SLEEVE.

SCHED. 80 NIPPLE SIZE OF SPRINKLER INLET.

#### TYPICAL VALVE INDICATOR

VALVE SIZE

1 Per County Comments 02.12.20 Per County Comments 03.05.20 3 Per County Comments 04.27.20

Project No:

**Revisions:** 

17.000291

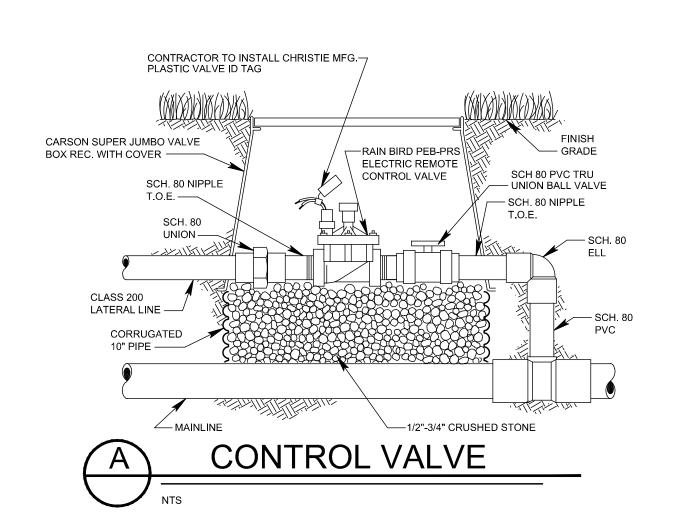
11.15.19

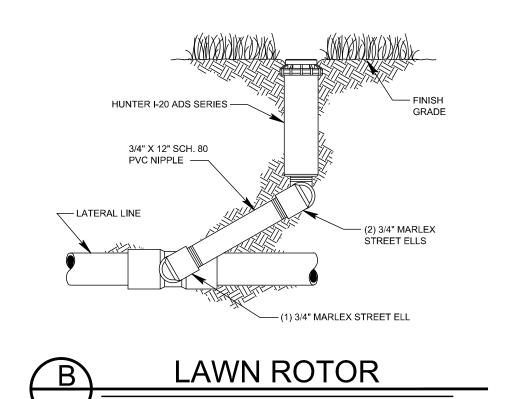
Corp. NC License: F-1320

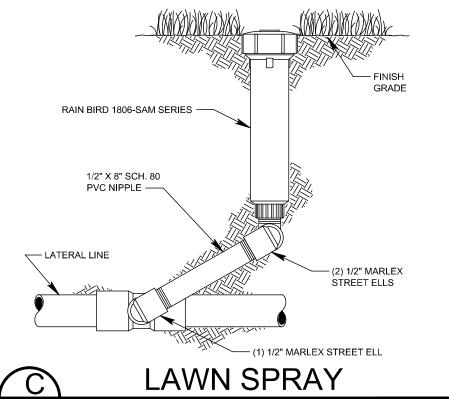
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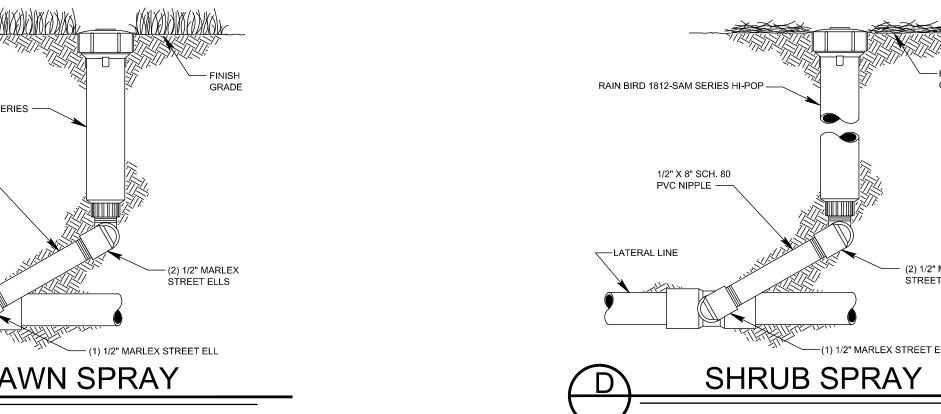
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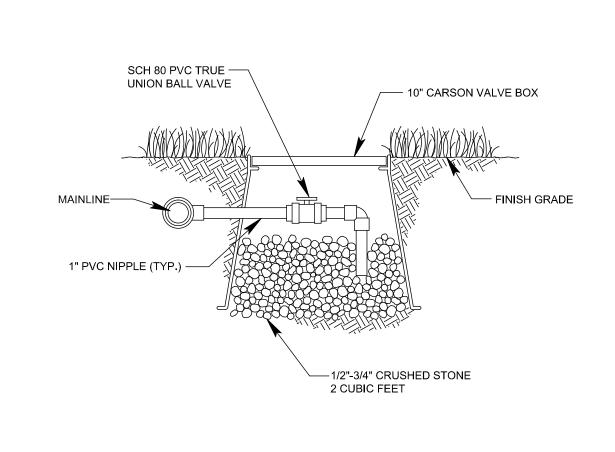
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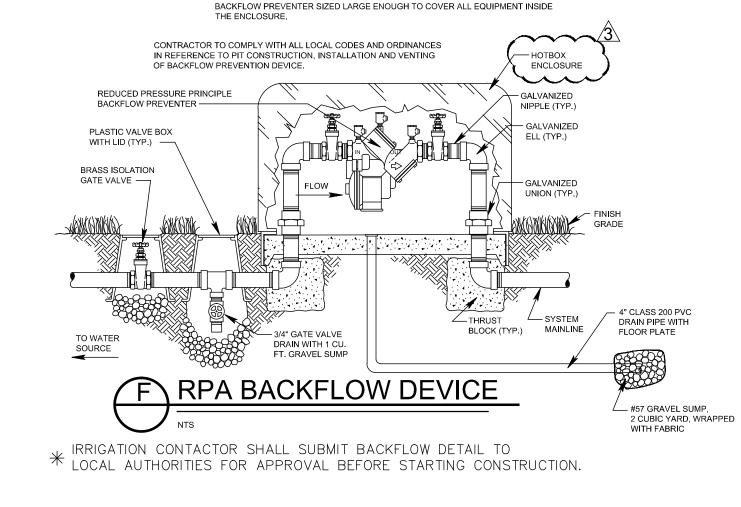




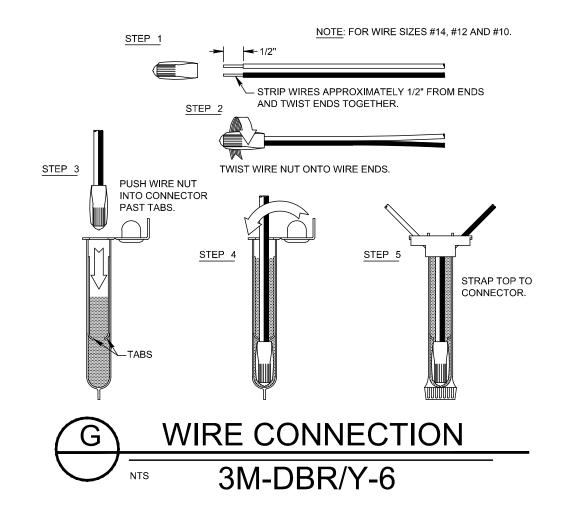


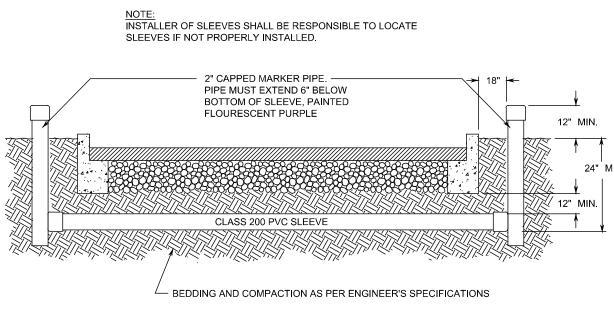


E MANUAL DRAIN VALVE



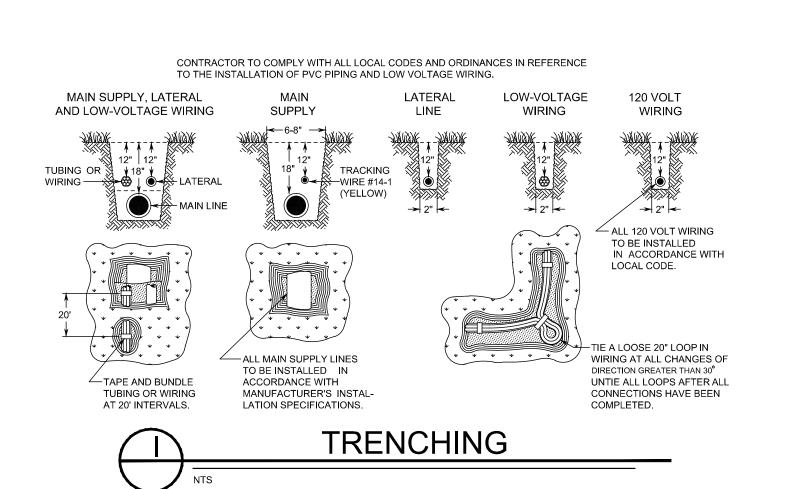
INSTALLATION CONTRACTOR SHALL PROVIDE POLAR BLANKET FOR EACH







**GENERAL NOTES** 



SCH 80 PVC TRUE

SCH. 80 NIPPLE T.O.E.—

SCH. 80 ELL

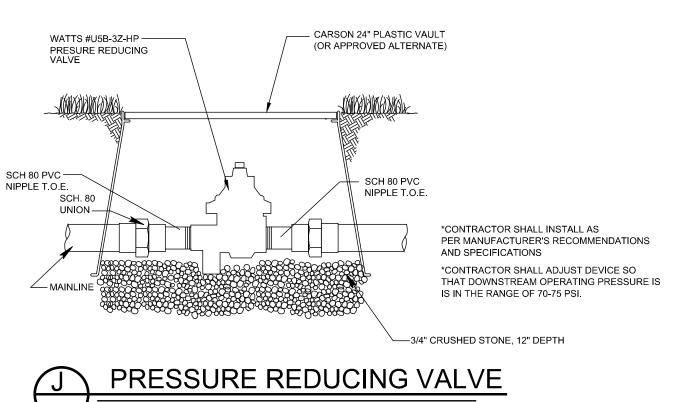
UNION BALL VALVE

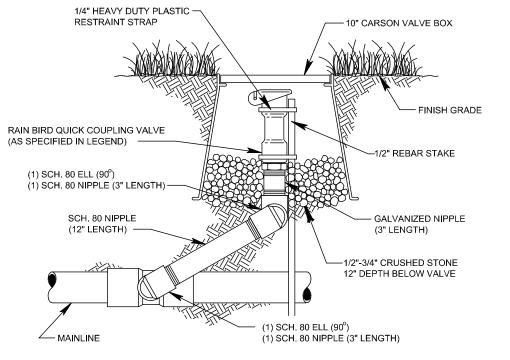
— 12" CARSON VALVE BOX

ISOLATION BALL VALVE

SCH. 80 NIPPLE T.O.E.

12" DEPTH BELOW VALVE

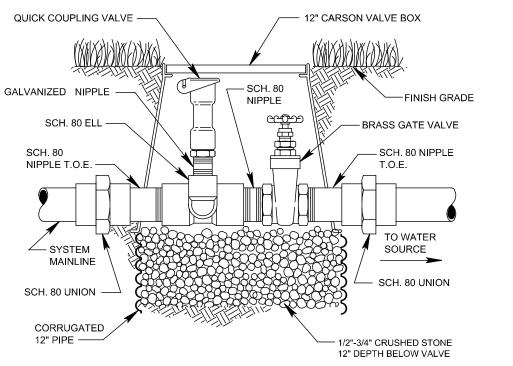


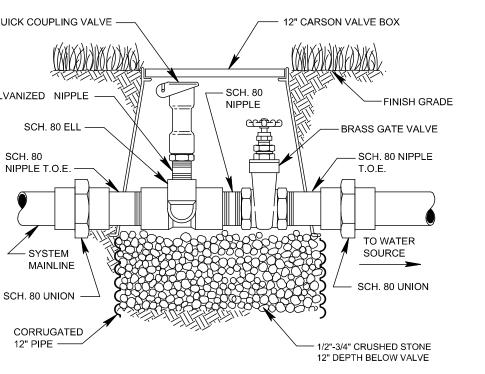


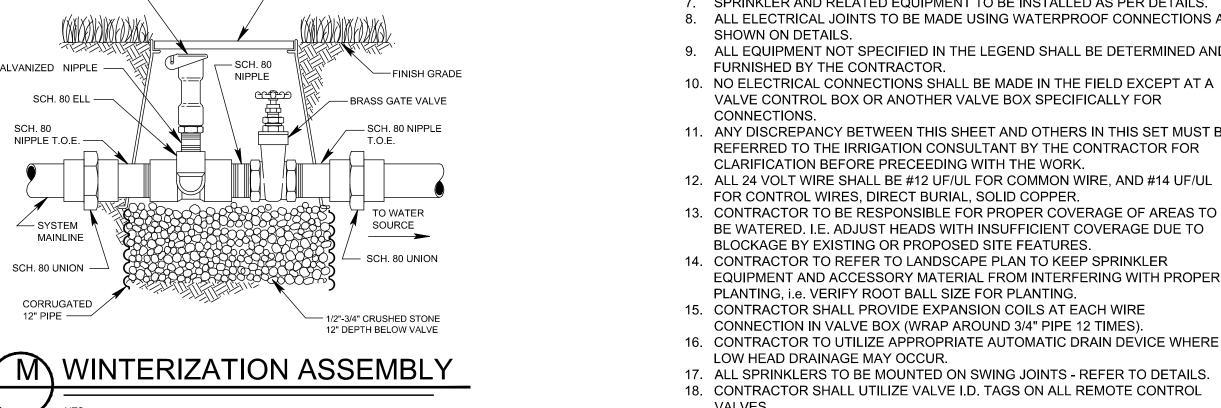












1. ALL MAINLINES TO HAVE A MINIMUM OF 18" OF COVER. (CLASS 200 PVC PIPE).

2. ALL LATERAL AND SUB-MAIN PIPE TO HAVE A MINIMUM OF 12" OF COVER.

3. NO ROCKS, BOULDER, OR OTHER EXTRANEOUS MATERIALS TO BE USED IN

4. ALL PIPE TO BE INSTALLED AS PER MANUFACTURERS' SPECIFICATIONS.

5. ALL THREADED JOINTS TO BE COATED WITH TEFLON TAPE OR LIQUID

(CLASS 200 PVC PIPE).

BACKFILLING OF TRENCH.

13. CONTRACTOR TO BE RESPONSIBLE FOR PROPER COVERAGE OF AREAS TO BE WATERED. I.E. ADJUST HEADS WITH INSUFFICIENT COVERAGE DUE TO 14. CONTRACTOR TO REFER TO LANDSCAPE PLAN TO KEEP SPRINKLER EQUIPMENT AND ACCESSORY MATERIAL FROM INTERFERING WITH PROPER 15. CONTRACTOR SHALL PROVIDE EXPANSION COILS AT EACH WIRE CONNECTION IN VALVE BOX (WRAP AROUND 3/4" PIPE 12 TIMES).

18. CONTRACTOR SHALL UTILIZE VALVE I.D. TAGS ON ALL REMOTE CONTROL VALVES. 19. 24 VOLT WIRE SHALL BE COLOR CODED; COMMON-WHITE, CONTROL-RED. 20. CONTRACTOR SHALL INSTALL MANUFACTURERS' RECOMMENDED GROUNDING EQUIPMENT FOR POWER SUPPLY AND VALVE OUTPUT WITH (2) 5/8" COPPER CLAD GROUND RODS.

21. CONTRACTOR SHALL INSTALL MANUFACTURERS' RECOMMENDATION ON FAULT GROUND AND LIGHTNING PROTECTION. 22. CONTROLLER GROUNDING MUST BE AS PER ASIC REQUIREMENTS

23. ALL MATERIAL TO BE SUPPLIED BY CONTRACTOR TO OWNER A. TWO WRENCHES FOR DISASSEMBLING AND ADJUSTING EACH TYPE OF SPRINKLER HEADS AND VALVE SUPPLIED.

B. TWO KEYS FOR EACH OF THE AUTOMATIC CONTROLLERS. C. TWO QUICK COUPLER KEYS WITH MATCHING HOSE SWIVELS. 24. SYSTEM IS DIAGRAMMATIC TO IMPROVE CLARITY. ALL MAINLINE PIPING ELECTRIC VALVES AND WIRING ARE TO BE INSTALLED IN LANDSCAPE AREAS AND WITHIN PROPERTY BOUNDARIES. CONTRACTOR SHALL REFERENCE THE LANDSCAPE PLAN PRIOR TO THE INSTALLATION OF PIPING TO AVOID CONTACT WITH PLANT MATERIALS EXISTING OR NEW. 25. CONTRACTOR TO ADD EXTENSION RISER TO POP-UP HEADS WHEN NEEDED FOR

26. CONTRACTOR SHALL INSTALL SPRINKLER EQUIPMENT 12" FROM FOUNDATIONS. ALSO INSTALL SPRINKLERS 4" FROM CURB OR WALKS. 27. PRIOR TO BID IRRIGATION CONTRACTOR SHALL VERIFY RIGHT-OF-WAY AND BACKFLOW REQUIREMENTS. NO LATER THAN FIVE DAYS BEFORE BID

28. IRRIGATION CONTRACTOR SHALL PROVIDE THE OWNER AND LANDSCAPE

REDESIGN COSTS FOR NON-COMPLIANCE. 31. UNLESS OTHERWISE NOTED, THE CONTRACTOR MUST COMPLETE 2 PRESSURE TESTS OF THE IRRIGATION SYSTEM MAINLINE (BOTH TO SHOW NO DROP IN PRESSURE DURING DURATION OF TEST.

CONTROLLER. TO BE LOCATED IN ADHESIVE POUCH ATTACHED INSIDE OF CONTROLLER(S).