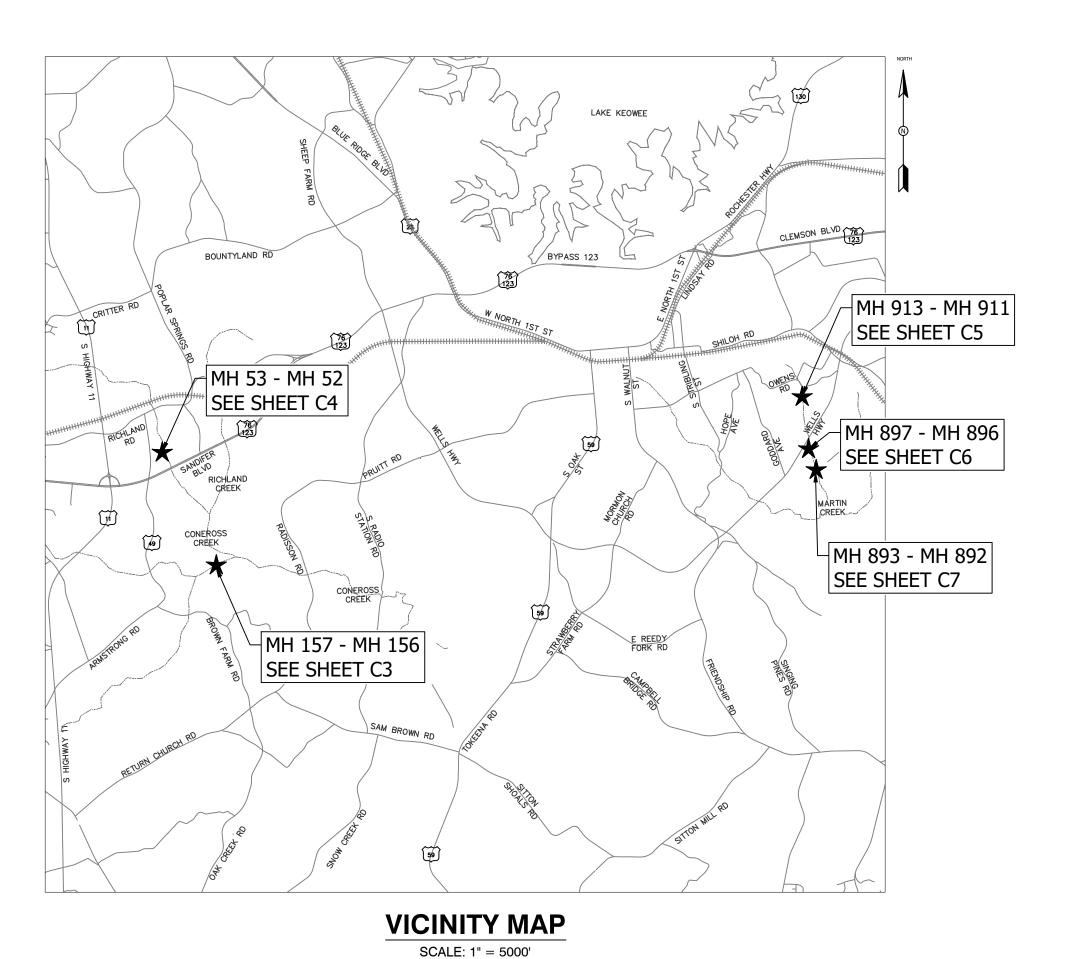
TO #09 CORRECTIVE REPAIRS **FOR** OCONEE JOINT REGIONAL SEWER AUTHORITY

SENECA, SOUTH CAROLINA 29678 W.K. DICKSON PROJECT NO: 20230009.00.GV

7 June 2023



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OJRSA **OCONEE JOINT REGIONAL SEWER AUTHORITY**

623 RETURN CHURCH ROAD SENECA, SOUTH CAROLINA 29678



PRIOR TO CONSTRUCTION, DIGGING, OR EXCAVATION THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES (PUBLIC OR PRIVATE) THAT MAY EXIST AND CROSS THROUGH THE AREA(S) OF CONSTRUCTION, WHETHER INDICATED ON THE PLANS OR NOT. CALL "811" TO ANY UTILITY DAMAGED RESULTING FROM CONSTRUCTION ACTIVITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.



BID

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- ALL UNDERGROUND PIPING SHALL BE INSPECTED IN PLACE PRIOR TO BACKFILLING.
 THE PIPE SHALL ENTER THE MANHOLE AT THE BOTTOM, ON THE EXISTING SHELF, AT AN ANGLE
- IN RELATION TO THE EXISTING FLOW.

 3. ALL FOREIGN MATTER AND DIRT SHALL BE CLEANED FROM THE INSIDE OF THE PIPE BEFORE INSTALLING, AND THE PIPE SHALL BE KEPT CLEAN DURING AND AFTER INSTALLATION.

 4. DURING TIMES WHEN PIPE LAYING IS NOT IN PROGRESS, THE OPEN ENDS OF THE PIPE SHALL BE
- CLOSED, AND NO TRENCH OR STORM WATER SHALL BE PERMITTED TO ENTER THE PIPE.

 5. PIPE JOINTS SHALL BE ASSEMBLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- 6. THE TAP (HOLE) SHALL BE MADE INTO THE MANHOLE BY CORE DRILLING AND SHALL BE NO LARGER THAN IS NECESSARY FOR THE INSTALLATION OF THE PROPER-SIZED RUBBER BOOT FOR THE PIPE TO ENTER. IN- LINE "HAMMER TAPS" ARE NOT ALLOWED.
- 7. REPAIR AROUND PIPE ENTRY INTO THE MANHOLE SHALL BE MADE WATERTIGHT BY PLASTERING BOTH THE INSIDE AND OUTSIDE OF THE MANHOLE AT THE CONNECTION. PLASTER MATERIALS SHALL BE VINYL BASE OR RUBBERIZED MATERIAL, SUCH AS VINYL CRETE, WATER PLUG, OR EQUAL. MORTAR OR CEMENT ARE NOT ALLOWED. THIS REPAIR SHALL BE ALLOWED TO CURE OR SET BEFORE BACKFILLING AND TRENCH WATER SHALL BE ISOLATED FROM THE AREA DURING THE CURING PROCESS.
- 8. THE INVERT SHALL BE REFORMED AND BUILT TO A SMOOTH TEXTURE TO PREVENT OBSTRUCTIONS IN THE FLOW OF THE SEWER.

CLEARING AND GRUBBING

- 1. CLEARING AND GRUBBING ALONG PIPELINES SHALL BE DONE PRIOR TO TRENCHING AND PIPE INSTALLATION.
- 2. PIPE LAYING OPERATIONS AND WIDTH OF CLEARING SHALL BE HELD TO A MINIMUM.

EARTHWORK

- 1. IN GENERAL, THE WORK CONSISTS OF ALL NECESSARY GRADING, TRENCH EXCAVATION, AND BACKFILL RELATED TO THIS CONNECTION. ALL EXCAVATION AND GRADING SHALL BE CONFINED TO THE CONSTRUCTION AREA AND SHALL BE DONE WITH THE PROPER EQUIPMENT.
- 2. CONTRACTOR SHALL TAKE EVERY PRECAUTION TO PROTECT EXISTING UTILITY SERVICES FROM DAMAGE DURING CONSTRUCTION OPERATIONS. IF DAMAGE OCCURS, THE PROPER UTILITY MUST BE NOTIFIED IMMEDIATELY. ALL REPAIRS INCURRED AS A RESULT OF DAMAGE SHALL BE MADE PROMPTLY AT CONTRACTOR'S EXPENSE.

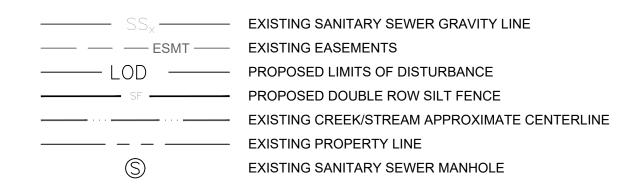
EXCAVATION, BEDDING, AND BACKFILL

- 1. GRADING SHALL BE DONE AS NECESSARY TO PREVENT SURFACE WATER FROM FLOWING INTO TRENCHES OR OTHER EXCAVATIONS. ANY WATER ACCUMULATING THEREIN SHALL BE REMOVED BY PUMPING OR BY OTHER APPROVED METHODS.
- 2. TRENCHES SHALL BE EXCAVATED BY AN APPROVED METHOD TO A DEPTH TO PERMIT INSTALLATION OF PIPE. THE WIDTH OF THE TRENCH SHALL BE SUFFICIENT TO ALLOW THOROUGH COMPACTING OF TILE BACKFILL UNDER AND AROUND THE PIPE.
- 3. THE SIDE OF ALL TRENCHES AND EXCAVATIONS SHALL BE ADEQUATELY BRACED AND SHEETED TO PROTECT PERSONNEL, STRUCTURES, AND PROPERTY FROM SLIDES, CAVE-INS, OR SETTLEMENT
- 4. FULL RESPONSIBILITY FOR THE DESIGN, TYPE, AND STRENGTH OF SHORING, SHEETING, AND BRACING SHALL REST WITH THE CONTRACTOR.
- 5. THE CONTRACTOR SHALL DO ALL PUMPING NECESSARY FOR DEWATERING TRENCHES AND TO PROVIDE PROPER WORK CONDITIONS FOR INSTALLING OF PIPE AND APPURTENANCES.
- 6. BEDDING CONDITIONS SHALL BE SUCH AS REQUIRED TO PROVIDE FIRM FOUNDATION OF UNIFORM DENSITY THROUGHOUT THE ENTIRE LENGTH OF THE PIPE.
- 7. SUITABLE NATIVE SOIL MATERIALS MAY BE USED AS BEDDING MATERIAL.
- 8. GRANULAR MATERIALS USED FOR BEDDING SHALL BE SAND OF SUITABLE CONSISTENCY AND GRADATION.
- 9. THE TRENCH SHALL BE BACKFILLED ONLY AFTER THE PIPES HAVE BEEN LAID, INSPECTED, AND APPROVED. EACH LAYER OF SOIL SHALL BE THOROUGHLY TAMPED AND COMPACTED BEFORE THE NEXT LAYER IS DEPOSITED. CARE SHALL BE EXERCISED TO AVOID ANY WEDGING ACTION OR ECCENTRIC ACTION UPON OR AGAINST ANY PIPE OR STRUCTURE AND TO AVOID ANY DISTURBANCE OR DAMAGE TO THE WORK.
- 10.BACKFILL MATERIAL FOR THE LOWER PORTION OF THE TRENCH SHALL CONSIST OF FINE, LOOSE EARTH, FREE OF LARGE CLODS, STONES, VEGETABLE MATTER, DEBRIS, AND/OR OTHER OBJECTIONABLE MATERIAL. IT SHALL HAVE MOISTURE CONTENT SUITABLE FOR THOROUGH COMPACTION. IT SHALL BE DEPOSITED IN HORIZONTAL LAYERS NOT TO EXCEED SIX (6) INCHES IN THICKNESS, THOROUGHLY TAMPED OR RAMMED AROUND THE PIPE WITH APPROVED HAND OR POWER-DRIVEN TOOLS UNTIL ENOUGH MATERIAL HAS BEEN PLACED AND COMPACTED TO PROVIDE A COVER OF NOT LESS THAN 18 INCHES OVER THE TOP OF THE PIPE.
- 11. BACKFILL ADJACENT TO THE MANHOLE SHALL BE PLACED AND COMPACTED UNIFORMLY IN SUCH A MANNER AS TO PREVENT WEDGING ACTION OR ECCENTRIC LOADING UPON OR

GRASSING AND SITE STABILIZATION

ALL DISTURBED AREAS WITHIN THE RIGHT-OF-WAY SHALL BE COVERED WITH A MINIMUM FOUR (4) INCH THICKNESS OF TOPSOIL, EXCEPT AREAS THAT ARE GRAVELED, PAVED, OR ARE BELOW THE WATER LEVEL. ALL AREAS WHERE TOPSOIL IS APPLIED SHALL BE SEEDED PER THE CURRENT VERSION OF THE SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS (SCDOT SC-M-810-3) TO OBTAIN TURF OF KENTUCKY 31 FESCUE.

LEGEND



THE PLANS HAVE BEEN PREPARED FOR THE OWNER BY ENGINEER FOR CORRECTIVE MAINTENANCE. THE OWNER IS SOLELY RESPONSIBLE FOR ADMINISTRATION OF THE CONTRACT, OBSERVANCE OF WORK AND CONFIRMATION OF PROPER INSTALLATION. ENGINEER CAN NOT AND SHALL NOT BE RESPONSIBLE FOR VERIFICATION OF WORK PERFORMED AND SHALL NOT BE HELD RESPONSIBLE FOR WORK PERFORMED OR CONDITIONS TO PERFORM WORK.

GENERAL NOTES:

- 1) ALL THE INFORMATION SHOWN HERE ON THE PLANS IS BASED ON THE DATA AVAILABLE FROM OJRSA GIS. IT IS CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY OWNER IMMEDIATELY WITH ANY CONFLICTS FOR FURTHER DIRECTION.
- 2) THE TOPOGRAPHY SHOWN ON THE PLANS ARE BASED ON THE DATA AVAILABLE 2011 SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES (SCDNR) LiDAR.
- 3) CONTRACTOR TO STRICTLY STAY WITHIN THE TEMPORARY CONSTRUCTION EASEMENT IDENTIFIED WITHIN PLANS, NO EXCEPTIONS.
- 4) EXISTING SANITARY SEWER SYSTEM TO BE IN OPERATION DURING CONSTRUCTION AND CONTRACTOR TO PROVIDE BYPASS AS NEEDED.
- 5) CONTRACTOR IS RESPONSIBLE FOR DEWATERING BORE PITS, TRENCHES AND OTHER AREAS AS NEEDED TO MAINTAIN THE EXCAVATION IN A DRY CONDITION DURING CONSTRUCTION OPERATIONS.
- 6) CONTRACTOR TO CLEAR EXISTING EASEMENT AREAS AS NEEDED FOR VEHICULAR ACCESS.
- 7) REMOVE AND REPLACE ANY EXISTING FENCING AS REQUIRED FOR CONSTRUCTION. TEMPORARY FENCING TO BE INSTALLED DURING CONSTRUCTION WHERE EXISTING FENCING HAS BEEN REMOVED. REPLACED PERMANENT FENCING SHALL BE THE SAME MATERIAL AS THE EXISTING FENCE AND WILL BE RESTORED TO ITS ORIGINAL CONDITION OR BETTER.
- 8) ANY DAMAGE TO EXISTING STRUCTURES, UTILITIES, LANDSCAPE ETC, WILL BE REPLACED TO ITS ORIGINAL CONDITION OR BETTER AT CONTRACTOR'S EXPENSE.

PROJECT SPECIFIC NOTES:

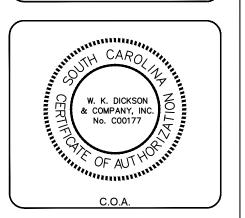
- 1) CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN OF THE EROSION & SEDIMENT CONTROL PLAN AND STORMWATER POLLUTION PREVENTION PLAN (SWPPP) WITH SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (SCDHEC) AND APPLICABLE LOCAL MUNICIPALITY TO OBTAIN, ANY NECESSARY, LAND DISTURBANCE PERMITS OR CONSTRUCTION PERMITS. CONTRACTOR SHALL ALSO APPLY, PAY ALL APPLICATION AND PERMIT FEES, ACQUIRE AND MAINTAIN ALL APPLICABLE STORMWATER AND LAND DISTURBANCE PERMITS.
- 2) CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION (SCDOT) TO ACCESS OCONEE JOINT REGIONAL SEWER AUTHORITY (OJRSA) EASEMENTS AND ANY NECESSARY DESIGN, APPLICATIONS AND FEES, AND PERMITS ASSOCIATED TO COMPLETE THE WORK IN THE CONSTRUCTION DOCUMENTS.
- 3) FOR REPAIRS REQUIRING COFFERDAMS, OR EQUIVALENT DIVERSION METHOD, SHALL INSTALL AND PERFORM REPAIRS DURING DRY WEATHER CREEK AND/OR STREAM FLOW CONDITIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING NORMAL DRY WEATHER FLOW CONDITIONS AND WILL NOT PERFORM DIVERSION OR OTHER CONSTRUCTION ACTIVITIES WITHIN SEVENTY-TWO (72) HOURS OF A RECORDED RAINFALL IN THE VICINITY OF THE DIVERSION AND REPAIR LOCATION.
- 4) "CONTRACTOR MAY ENCOUNTER SMALL CREEK/STREAM/CHANNEL CROSSINGS AND DRAINAGE PIPES CROSSING THE OJRSA EASEMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR CROSSING THE CREEKS WITHOUT BLOCKING NORMAL CREEK OR DRAINAGE FLOW. CONTRACTOR SHALL PROTECT ANY DRAINAGE PIPE OR OTHER STRUCTURE FROM DAMAGE DURING CONSTRUCTION ACTIVITIES AND SOLELY RESPONSIBLE FOR ANY DAMAGE. CONTRACTOR SHALL RESTORE THE AREA TO THE SAME GRADE AND SAME CONDITION, AND STABILIZE ANY IMPACTED AREAS"
- 5) CONTRACTOR SHALL BE RESPONSIBLE FOR BEING FAMILIAR WITH BOTH THE SITE CONDITIONS AND ACCESSIBILITY PRIOR TO BID AND SHALL BE RESPONSIBLE FOR INSTALLING NECESSARY TEMPORARY STREAM CROSSINGS AND RETURNING THE STREAM TO STABILIZED CONDITIONS. TEMPORARY STREAM CROSSINGS WILL BE PAID AS NEEDED. CONTRACTOR TO COORDINATE AND GET APPROVAL FROM OWNER PRIOR TO CONSTRUCTING ONE.
- 6) OJRSA (OWNER) WILL BE PROVIDING PRE AND POST CCTV INSPECTION SERVICES FROM A THIRD PARTY. CONTRACTOR MUST NOTIFY OWNER 10 DAYS PRIOR TO CONSTRUCTION ACTIVITIES FOR PRE CONSTRUCTION CLEANING AND INSPECTION AND NOTIFY THE OWNER AFTER INSTALLATION OF THE REPAIR FOR POST CONSTRUCTION INSPECTION. OWNER WILL HAVE 15 BUSINESS DAYS TO PERFORM THE INSPECTION AND NOTIFY THE CONTRACTOR OF ANY NECESSARY CORRECTIVE ACTIONS FOR ACCEPTANCE UNLESS WEATHER CONDITIONS DO NOT PERMIT. ANY ADDITIONAL CCTV INSPECTIONS DUE TO CONFIRM DEFECTIVE OR UNACCEPTABLE IS CORRECTED WILL BE THE RESPONSIBILITY OF CONTRACTOR.

community infrastructure consultants

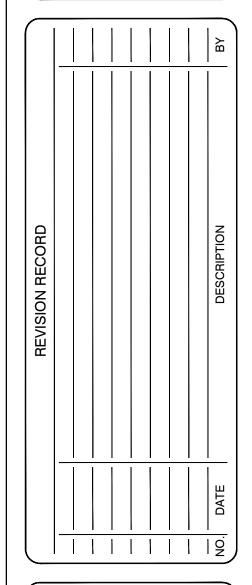
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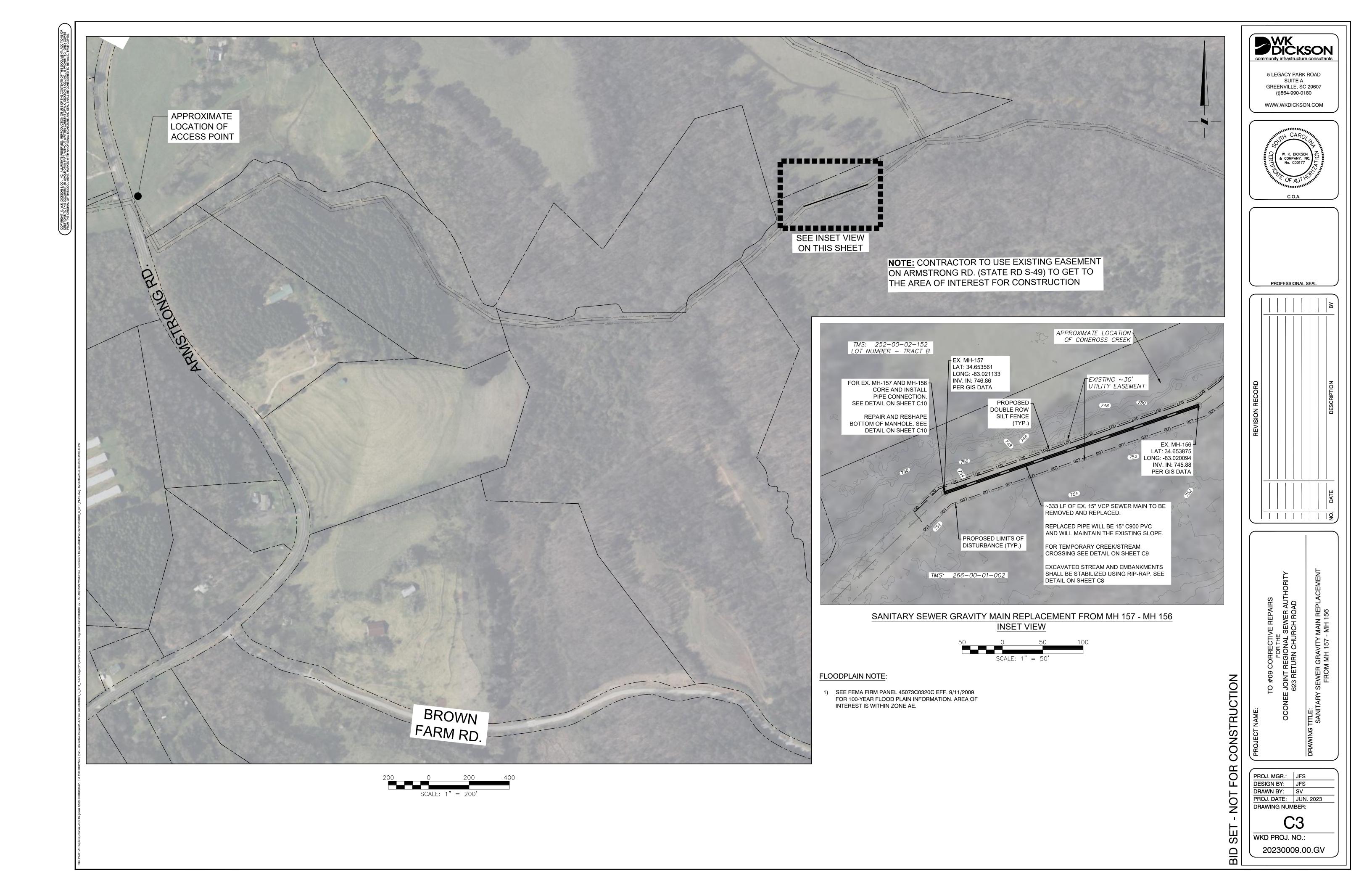
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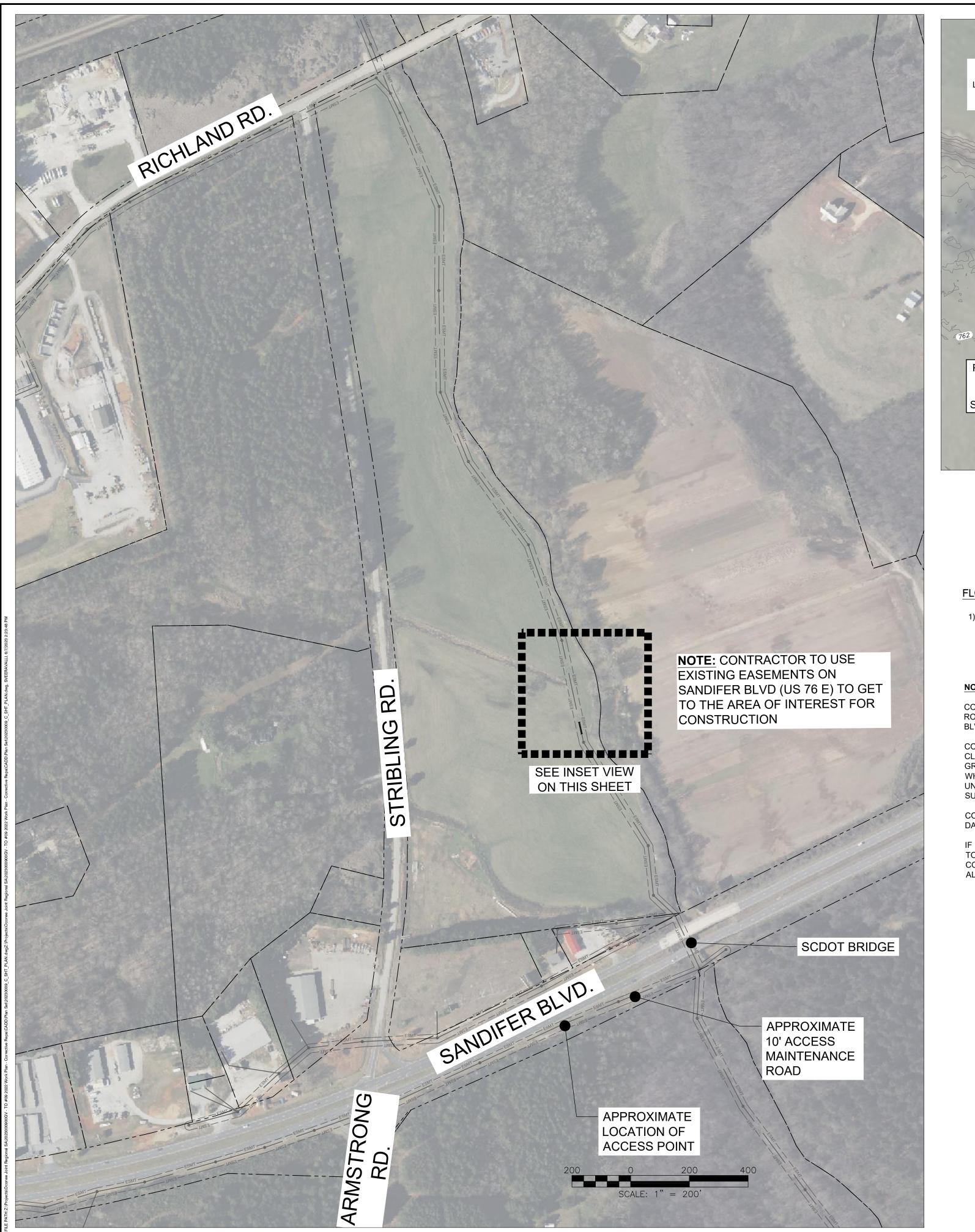
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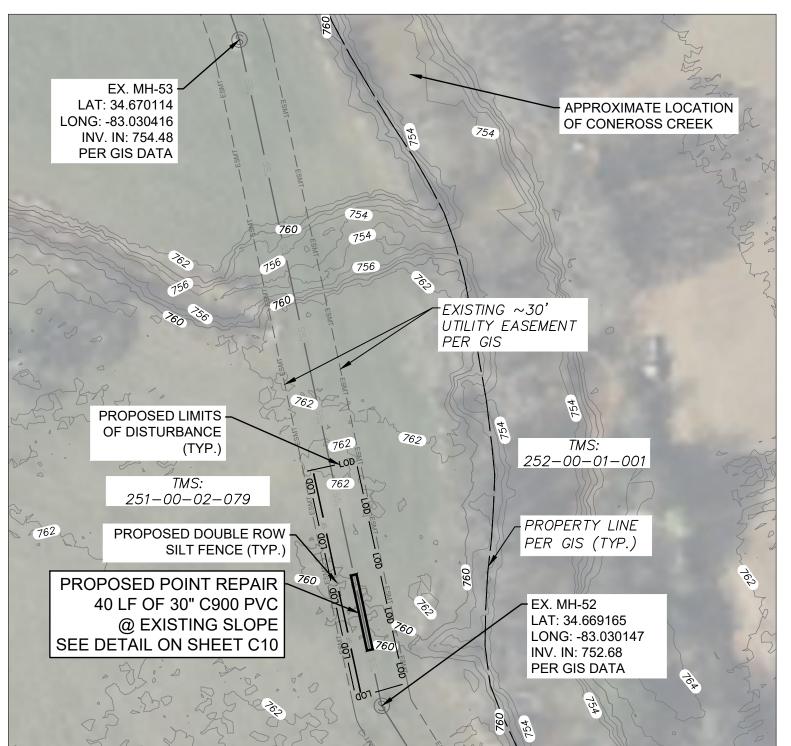
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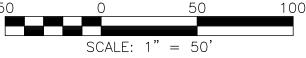






SANITARY SEWER GRAVITY MAIN POINT REPAIR MH 53 - MH 52 **INSET VIEW**

SCALE: 1" = 50'



FLOODPLAIN NOTE:

1) SEE FEMA FIRM PANEL 45073C0320C EFF. 9/11/2009 FOR 100-YEAR FLOOD PLAIN INFORMATION. AREA OF INTEREST IS WITHIN ZONE AE.

CONTRACTOR WILL USE THE EXISTING OJRSA MAINTENANCE ROAD AND TRAVERSE UNDER THE SCDOT BRIDGE (SANDIFER BLVD, US 76 E) TO ACCESS THE REPAIR LOCATION.

CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE CLEARANCES FROM THE BOTTOM OF THE BRIDGE TO THE GROUND IN COORDINATION WITH SCDOT AND DETERMINING WHAT EQUIPMENT AND MATERIALS CAN SAFELY TRAVERSE UNDER THE BRIDGE WITHOUT DAMAGE TO SCDOT OR SURROUNDING PROPERTY.

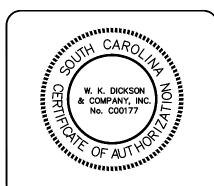
CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY DAMAGE WITH NO ADDITIONAL EXPENSE TO THE OWNER.

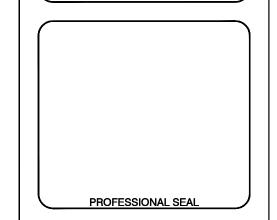
IF DETERMINED THE SCDOT CLEARANCES ARE NOT SUITABLE TO TRAVERSE REQUIRED EQUIPMENT AND MATERIALS, CONTRACTOR SHALL NOTIFY THE OWNER TO COORDINATE ALTERNATIVE ACCESS ROUTES.

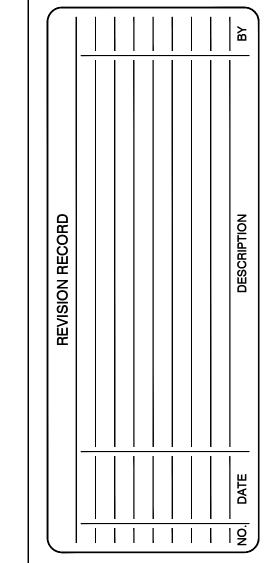


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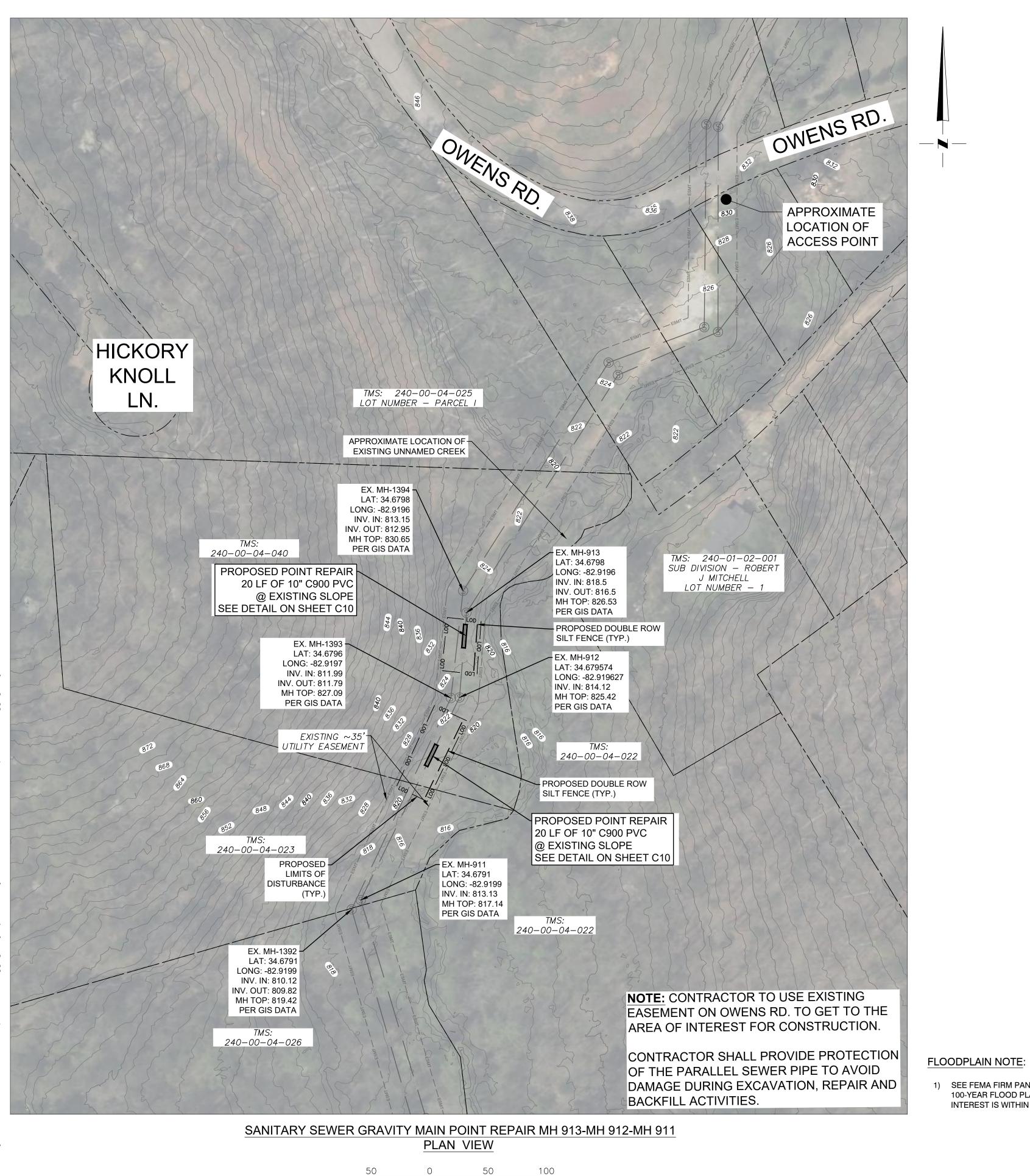




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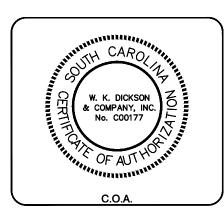
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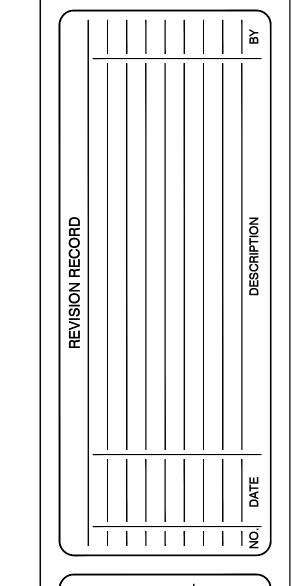
1) SEE FEMA FIRM PANEL 45073C0345C EFF. 9/11/2009 FOR 100-YEAR FLOOD PLAIN INFORMATION. PARTS OF AREA OF INTEREST IS WITHIN ZONE AE.

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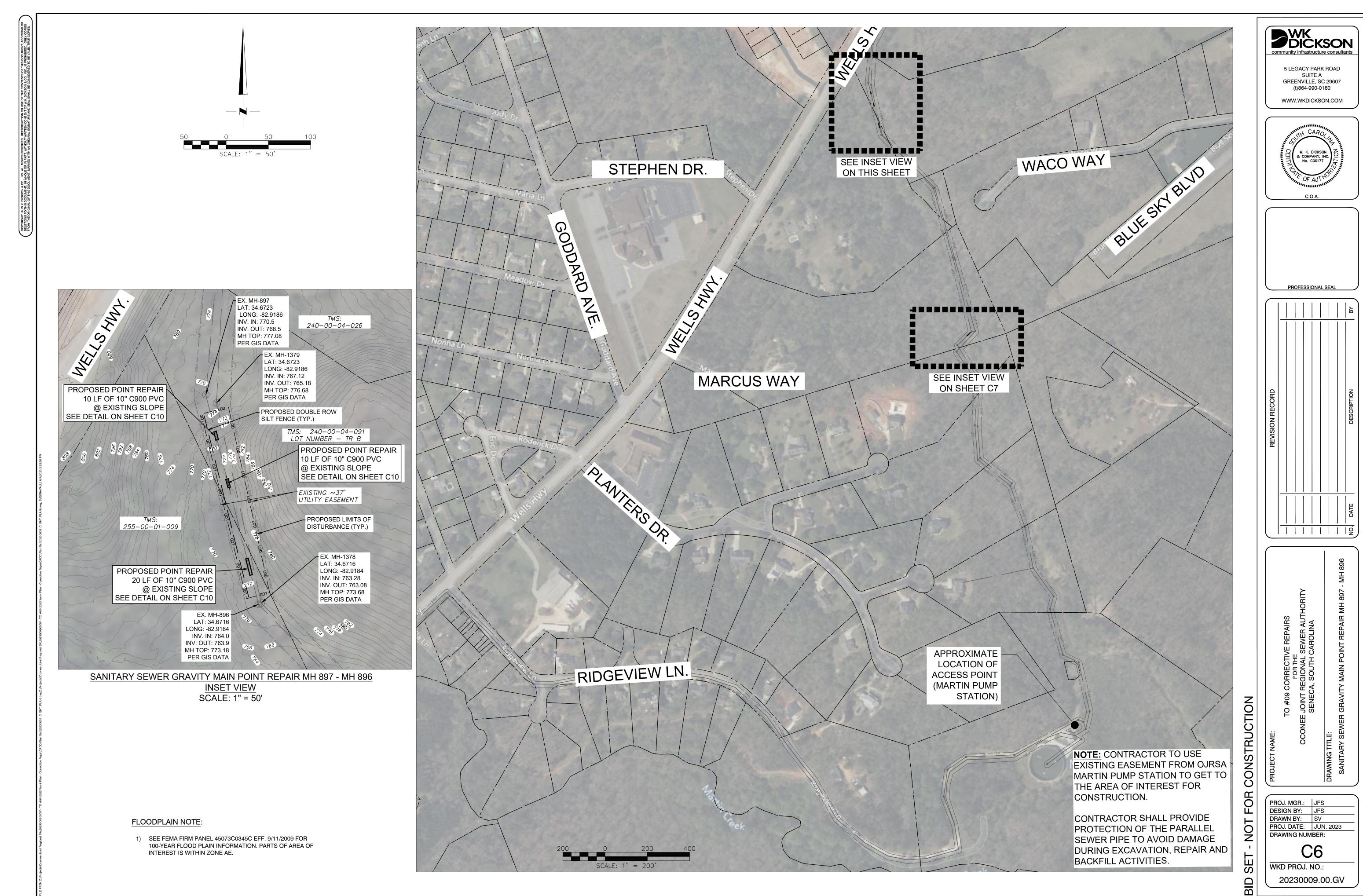
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SENECA, SOUTH CAROLINA

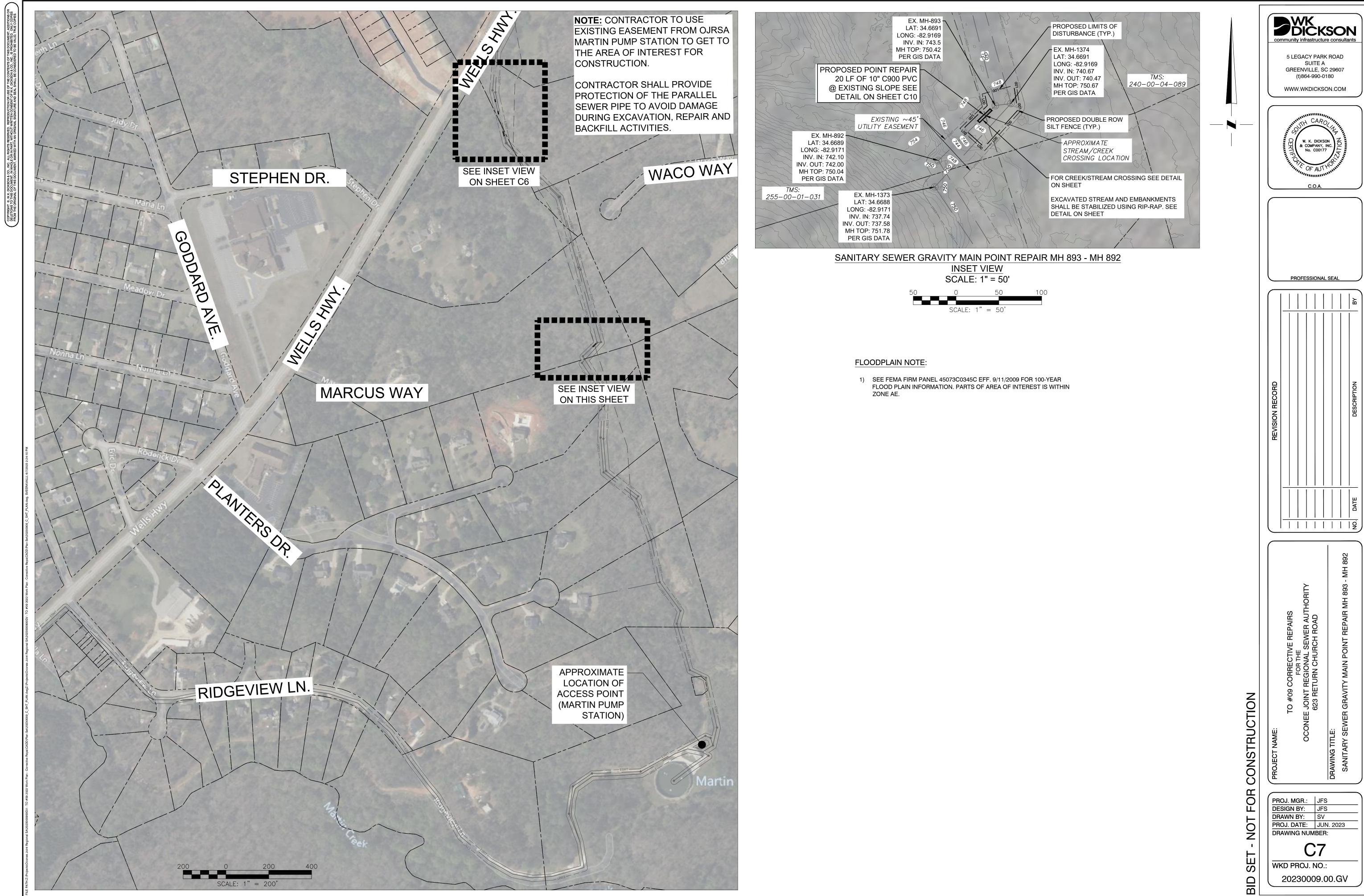
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2. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN FOURTEEN (14) DAYS AFTER WORK HAS CEASED, EXCEPT AS STATED BELOW. WHERE STABILIZATION BY THE 14TH DAY IS PRECLUDED BY SNOW COVER OR FROZEN GROUND CONDITIONS. STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRACTICABLE. WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED AND EARTH-DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 14 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE.

3. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED ONCE EVERY CALENDAR WEEK. IF PERIODIC INSPECTION OR OTHER INFORMATION INDICATES THAT A BMP HAS BEEN INAPPROPRIATELY OR INCORRECTLY INSTALLED, THE PERMITTEE MUST ADDRESS THE NECESSARY REPLACEMENT OR MODIFICATION REQUIRED TO CORRECT THE BMP WITHIN 48 HOURS OF IDENTIFICATION.

4. PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING UTILITY CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, GRADED, AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY INSTALLATION. FILL, COVER, AND TEMPORARY SEEDING AT THE END OF EACH DAY ARE RECOMMENDED. IF WATER IS ENCOUNTERED WHILE TRENCHING, THE WATER SHOULD BE FILTERED TO REMOVE SEDIMENT BEFORE BEING PUMPED BACK INTO ANY WATERS OF THE STATE.

5. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.

6. THE CONTRACTOR MUST TAKE NECESSARY ACTION TO MINIMIZE THE TRACKING OF MUD ONTO PAVED ROADWAY(S) FROM CONSTRUCTION AREAS AND THE GENERATION OF DUST. THE CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT, AS MAY BE REQUIRED.

7. RESIDENTIAL SUBDIVISIONS REQUIRE EROSION CONTROL FEATURES FOR INFRASTRUCTURE AS WELL AS FOR INDIVIDUAL LOT CONSTRUCTION. INDIVIDUAL PROPERTY OWNERS SHALL FOLLOW THESE PLANS DURING CONSTRUCTION OR OBTAIN APPROVAL OF AN INDIVIDUAL PLAN IN ACCORDANCE WITH S.C REG. 72-300 ET SEQ AND SCR100000.

8. TEMPORARY DIVERSION BERMS AND/OR DITCHES WILL BE PROVIDED AS NEEDED DURING CONSTRUCTION TO PROTECT WORK AREAS FROM UPSLOPE RUNOFF AND/OR TO DIVERT SEDIMENT-LADEN WATER TO APPROPRIATE TRAPS OR STABLE OUTLETS.

9. ALL WATERS OF THE STATE (WOS), INCLUDING WETLANDS, ARE TO BE FLAGGED OR OTHERWISE CLEARLY MARKED IN THE FIELD. A DOUBLE ROW OF SILT FENCE IS TO BE INSTALLED IN ALL AREAS WHERE A 50-FOOT BUFFER CAN'T BE MAINTAINED BETWEEN THE DISTURBED AREA AND ALL WOS. A 10-FOOT BUFFER SHOULD BE MAINTAINED BETWEEN THE LAST ROW OF SILT FENCE AND ALL WOS.

10. LITTER, CONSTRUCTION DEBRIS, OILS, FUELS, AND BUILDING PRODUCTS WITH SIGNIFICANT POTENTIAL FOR IMPACT, SUCH AS STOCKPILES OF FRESHLY TREATED LUMBER AND CONSTRUCTION CHEMICALS THAT COULD BE EXPOSED TO STORM WATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE IN STORM WATER DISCHARGES.

11. A COPY OF THE SWPPP, INSPECTIONS RECORDS, AND RAINFALL DATA MUST BE RETAINED AT THE CONSTRUCTION SITE OR A NEARBY LOCATION EASILY ACCESSIBLE DURING NORMAL BUSINESS HOURS, FROM THE DATE OF COMMENCEMENT OF CONSTRUCTION ACTIVITIES TO THE DATE THAT FINAL STABILIZATION IS

12. INITIATE STABILIZATION MEASURES ON ANY EXPOSED STEEP SLOPE (3H:1V OR GREATER) WHERE LAND-DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED, AND WILL NOT RESUME FOR A PERIOD OF 7 CALENDAR DAYS.

13. MINIMIZE SOIL COMPACTION AND, UNLESS INFEASIBLE, PRESERVE TOPSOIL.

14. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING, WHEEL WASH WATER, AND OTHER WASH WATERS. WASH WATERS MUST BE TREATED IN A SEDIMENT BASIN OR ALTERNATIVE CONTROL THAT PROVIDES EQUIVALENT OR BETTER TREATMENT PRIOR TO DISCHARGE.

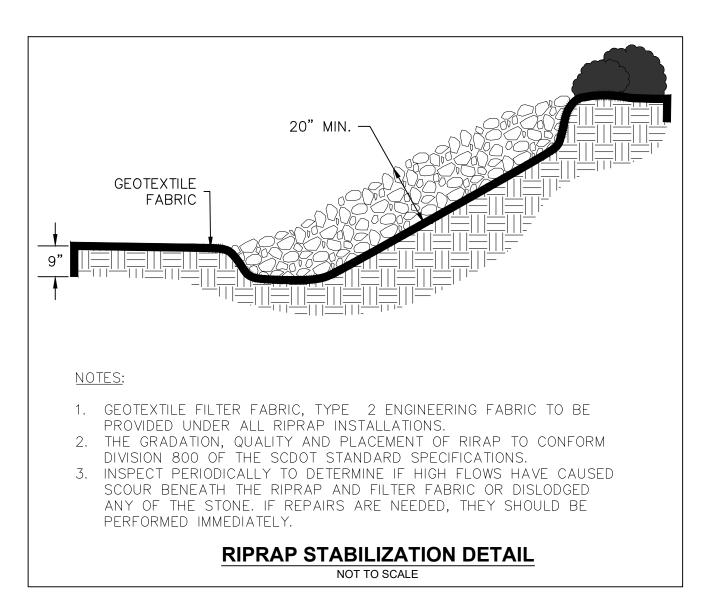
15. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM DEWATERING OF TRENCHES AND EXCAVATED AREAS. THESE DISCHARGES ARE TO BE ROUTED THROUGH APPROPRIATE BMPS (SEDIMENT BASIN, FILTER BAG, ETC.).

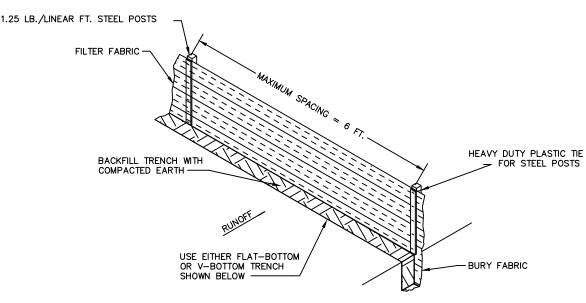
16. THE FOLLOWING DISCHARGES FROM SITES ARE PROHIBITED: - WASTEWATER FROM WASHOUT OF CONCRETE, UNLESS MANAGED BY AN APPROPRIATE CONTROL WASTEWATER FROM WASHOUT AND CLEANOUT OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS FUELS, OILS, OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE AND SOAPS OR SOLVENTS USED IN VEHICLE AND EQUIPMENT WASHING.

17. AFTER CONSTRUCTION ACTIVITIES BEGIN, INSPECTIONS MUST BE CONDUCTED AT A MINIMUM OF AT LEAST ONCE EVERY CALENDAR WEEK AND MUST BE CONDUCTED UNTIL FINAL STABILIZATION IS REACHED ON ALL AREAS OF THE CONSTRUCTION SITE.

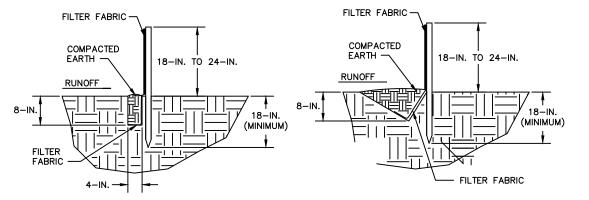
18. IF EXISTING BMPS NEED TO BE MODIFIED OR IF ADDITIONAL BMPS ARE NECESSARY TO COMPLY WITH THE REQUIREMENTS OF THIS PERMIT AND/OR SC'S WATER QUALITY STANDARDS, IMPLEMENTATION MUST BE COMPLETED BEFORE THE NEXT STORM EVENT WHENEVER PRACTICABLE. IF IMPLEMENTATION BEFORE THE NEXT STORM EVENT IS IMPRACTICABLE, THE SITUATION MUST BE DOCUMENTED IN THE SWPPP AND ALTERNATIVE BMPS MUST BE IMPLEMENTED AS SOON AS REASONABLY POSSIBLE.

19. A PRE-CONSTRUCTION CONFERENCE MUST BE HELD FOR EACH CONSTRUCTION SITE WITH AN APPROVED ON-SITE SWPPP PRIOR TO THE IMPLEMENTATION OF CONSTRUCTION ACTIVITIES. FOR NON-LINEAR PROJECTS THAT DISTURB 10 ACRES OR MORE THIS CONFERENCE MUST BE HELD ON-SITE UNLESS THE DEPARTMENT HAS APPROVED OTHERWISE





SILT FENCE INSTALLATION



FLAT-BOTTOM TRENCH DETAIL V-SHAPED TRENCH DETAIL

When and Where to Use It

Silt fence is applicable in areas:

Where the maximum sheet or overland flow path length to the fence is 100—feet. Where the maximum slope steepness (normal [perpendicular] to fence line) is 2H:1V. That do not receive concentrated flows greater than 0.5 cfs.

<u>Do not</u> place silt fence across channels or use it as a velocity control BMP.

<u>Materials</u>

Steel Posts

Use 48—inch long steel posts that meet the following minimum physical requirements: Composed of high strength steel with minimum yield strength of 50,000 psi. Have a standard "T" section with a nominal face width of 1.38—inches and nominal "T" length of 1.48—inches.

Weigh 1.25 pounds per foot (\pm 8%).

Have a soil stabilization plate with a minimum cross section area of 17—square inches attached to the steel posts.

Painted with a water based baked enamel paint.

Use steel posts with a minimum length of 4-feet, weighing 1.25 pounds per linear foot $(\pm~8\%)$ with projections to aid in fastening the fabric. Except when heavy clay soils are present on site, steel posts will have a metal soil stabilization plate welded near the bottom such that when the post is driven to the proper depth, the plate will be below the ground level for added stability.

The soil plates should have the following characteristics:

Be composed of minimum 15 gauge steel.

Have a minimum cross section area of 17—square inches.

Geotextile Filter Fabric

Filter fabric is:
Composed of fibers consisting of long chain synthetic polymers composed of at least
85% by weight of polyolefins, polyesters, or polyamides.

Formed into a network such that the filaments or yarns retain dimensional stability relative to each other.

Free of any treatment or coating which might adversely alter

its physical properties after installation.

Free of defects or flaws that significantly affect its physical

and/or filtering properties.

Cut to a minimum width of 36 inches.

Use only fabric appearing on SCDOT Approval Sheet #34 meeting the requirements of the most current edition of the SCDOT Standard Specifications for Highway Construction.

Excavate a trench approximately 6-inches wide and 6-inches deep when placing fabric by hand. Place 12-inches of geotextile fabric into the 6-inch deep trench, extending the remaining 6—inches towards the upslope side of the trench. Backfill the trench with soil or gravel and compact. Bury 12—inches of fabric into the ground when pneumatically installing silt fence with a slicing method. Purchase fabric in continuous rolls and cut to the length of the barrier to avoid joints. When joints are necessary, wrap the fabric together at a support post with both ends fastened to the post, with a 6-inch minimum overlap. Install posts to a minimum depth of 24-inches. Install posts a minimum of 1to 2- inches above the fabric, with no more than 3-feet of the post above the ground. Space posts to maximum 6—feet centers. Attach fabric to wood posts using staples made of heavy-duty wire at least $1\frac{1}{2}$ -inch long, spaced a maximum of 6-inches apart. Staple a 2-inch wide lathe over the filter fabric to securely fasten it to the upslope side of wooden posts. Attach fabric to the steel posts using heavy—duty plastic ties that are evenly spaced and placed in a manner to prevent sagging or tearing of the fabric. In all cases, ties should be affixed in no less than 4 places. Install the fabric a minimum of 24—inches above the ground. When necessary, the height of the fence above ground may be greater than 24—inches. In tidal areas, extra silt fence height may be required. The post height will be twice the exposed post height. Post spacing will remain the same and extra height fabric will be 4-, 5-, or 6-feet tall. Locate silt fence checks every 100 feet maximum and at low points. Install the fence perpendicular to the direction of flow and place the fence the proper distance from the toe of steep slopes to provide sediment storage and access for maintenance and cleanout.

Inspection and Maintenance

Inspect every seven calendar days and within 24—hours after each rainfall event that produces ½—inches or more of precipitation. Check for sediment buildup and fence integrity. Check where runoff has eroded a channel beneath the fence, or where the fence has sagged or collapsed by fence overtopping.

If the fence fabric tears, begins to decompose, or in any way becomes ineffective, replace the section of fence immediately. Remove sediment accumulated along the fence when it reaches 1/3 the height of the fence, especially if heavy rains are expected. Remove trapped sediment from the site or stabilize it on site. Remove silt fence within 30 days after final stabilization is achieved or after temporary best management practices (BMPs) are no longer needed. Permanently stabilize disturbed areas resulting from fence removal.

SILT FENCE DETAIL

NOT TO SCALE

Temporary Seeding - Upstate

Species	lbs./ac	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Browntop Millet (Alone)	40				1								
Browntop Millet (Mix)	10												
Rye Grain (Alone)	56												
Rye Grain (Mix)	10						-				*		
Rye Grass (Alone)	50						-				<i>3</i> .		
Rye Grass (Mix)	8												
		*	For	Stee	o Slo	pes/C	ut Slo	pes					
Weeping Lovegrass (Alone)	4												
Weeping Lovegrass (Mix)	2												

Permanent Seeding - Upstate

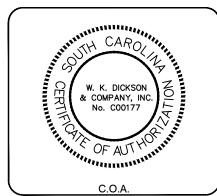
Species	Lbs/Ac	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Bahia Grass (Alone)	40												
Bahia Grass (Mix)	30												
Bermuda Grass (hulled) (Alone)	8-12												
Bermuda Grass (hulled) (Mix)	4-6												
Fescue, Tall (KY31) Alone	40												
Fescue, Tall (KY31) mix	20												
Sericea Lespedeza (Scarified) Alone or Mix (inoculate with EL Innoculant	40												
Ladino Clover (mix only) Innoculate with AB Innoculant	2												
		F	or St	eep S	lope	s/Cut	Slope	es					
Weeping Lovegrass (Alone)	4										·		
Weeping Lovegrass (Mix)	2												
Crownvetch (Mix) (Inoculate with Type M Innoculant	8-10				=								

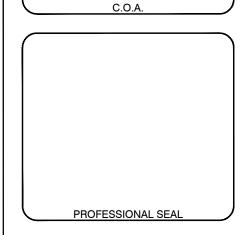
GRASS SEEDING NOTE/SCHEDULES

- 1. AREAS TO BE GRASSED SHALL BE DEFINED AS ALL AREAS OF SITE WITHIN THE GRADING LIMITS AND NOT OCCUPIED BY PAVING, CRUSHED STONE SURFACING OR STRUCTURES. GRASSING SHALL INCLUDE FINAL SHAPING, LIMING, FERTILIZING AND SEEDING OR SODDING.
- 2. LIME SHALL BE AGRICULTURAL GRADE, GROUND LIMESTONE. GROUND LIMESTONE SHALL CONTAIN NOT LESS THAN 85% OF CALCIUM CARBONATE CONTENT EQUIVALENT AND SHALL BE SUCH A FINENESS THAT 90% WILL PASS THROUGH A NO. 20 SIEVE AND NOT LESS THAN 50% THROUGH A NO. 100 SIEVE.
- 3. FERTILIZER SHALL BE GRADE 10-10-10 COMPLETE FERTILIZER OF UNIFORM COMPOSITION, FREE-FLOWING AND SUITABLE FOR APPLICATION WITH EQUIPMENT, DELIVERED TO SITE IN BAGS LABELED WITH MANUFACTURER'S GUARANTEED ANALYSIS, AND SHALL CONFORM TO ALL STATE AND FEDERAL REGULATIONS.
- 4. SEEDS SHALL BE MIXTURE AS APPROVED BY THE ENGINEER AND SHALL MEET REQUIREMENTS OF SEED LAWS OF THE STATE AND THE U.S. DEPARTMENT OF AGRICULTURE RULES AND REGULATIONS UNDER FEDERAL SEED ACT IN EFFECT ON DATE BIDS ARE RECEIVED. SEED SHALL BE DELIVERED IN STANDARD CONTAINERS. SEED WHICH HAS BECOME WET, MOLDY OR DAMAGED IN TRANSIT OR STORAGE WILL NOT BE ACCEPTABLE.
- 5. MULCH SHALL CONSIST OF SMALL GRAIN STRAW OF GOOD QUALITY, CLEAN, FREE OF NOXIOUS WEEDS, AND REASONABLY FREE OF OTHER WEEDS. SPREAD MULCH AT A RATE OF 1 TON PER ACRE ON SLOPES UP TO 8.0 % AND AT A RATE OF 1-1/2 TONS PER ACRE FROM 8.0% UP TO A SLOPE OF 3 TO 1.
- 6. SPREAD LIME AT A RATE OF 1,000 LBS. PER ACRE.
- 7. FERTILIZER SHALL BE DISTRIBUTED UNIFORMLY AT A RATE OF 1,000 LBS. PER ACRE AND SHALL BE INCORPORATED INTO SOIL TO A DEPTH OF AT LEAST 2" BY DISKING AND HARROWING.
- 8. SPREAD SEED AT A RATE AS NOTED ON THE DRAWINGS/SPECIFICATIONS.
- 9. AREAS THAT REQUIRE RE-FERTILIZATION AND\OR RE-SEEDING WILL BE DESIGNATED BY THE ENGINEER. WHEN ANY PORTION OF SURFACE BECOMES GULLED OR OTHERWISE DAMAGED FOLLOWING SEEDING, OR SEEDLINGS HAVE BEEN WINTER-KILLED OR OTHERWISE DESTROYED, AFFECTED PORTION SHALL BE REPAIRED TO RE-ESTABLISH CONDITION AND GRADE OF SOIL PRIOR TO SEEDLING AND SHALL BE RE-SEEDED AS SPECIFIED ABOVE.
- 10. ALL DISTURBED AREAS ARE TO BE GRASSED IMMEDIATELY AFTER CONSTRUCTION IN THE AREA. AT NO TIME WILL AN AREA BE LEFT BARE FOR MORE THAN 14 DAYS AFTER COMPLETION OF CONSTRUCTION.
- 11. PERMANENT GRASS SHALL BE PROVIDED FOR ALL DISTURBED AREAS. SEED SHALL BE A MINIMUM 90% PURITY AND 80% GERMINATION. AREAS TO HAVE GRASS APPLIED SHALL BE SCARIFIED CULTIVATED TO A DEPTH OF 3 INCHES, WITH ALL CLODS OR CLUMPS BROKEN UP AND FOREIGN MATERIAL AND DEBRIS REMOVED. FERTILIZER AND LIME SHALL BE THOROUGHLY WORKED INTO THE SOIL, AND THE SURFACE RAKED SMOOTH BEFORE APPLYING SEED. SEED SHALL BE APPLIED EVENLY AT THE MINIMUM RATE AND RAKED IN LIGHTLY. MULCH SHALL BE APPLIED AT THE RATE AS SPECIFIED ABOVE.
- 12. CONTRACTOR SHALL WATER AS NEEDED UNTIL GRASS IS ESTABLISHED.
- 13. ALL DISTURBED AREAS SHALL BE HYDROSEEDED.

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TO #09 CORRECTIVE REPAIRS
FOR
OCONEE JOINT REGIONAL SEWER AUTHORITY
GTITLE:
DETAILS (1)

PROJ. MGR.: JFS
DESIGN BY: JFS
DRAWN BY: SV
PROJ. DATE: JUN. 2023
DRAWING NUMBER:

DRAWING NUMBER:

C8

WKD PROJ. NO.:

20230009.00.GV

BID

ELEVATION

TEMPORARY STREAM LOW WATER CROSSING

Prior to constructing a temporary stream crossing, the owner/person financially responsible for the project must submit an Application for Permit to Construct Across or Along a Stream to the South Carolina Department of Health and Environmental Control (SC DHEC). Temporary stream crossings require authorization. Refer to the US Army Corps of Engineers and SCDHEC nationwide 401 and 404 regulations for information on permitting requirements.

Crossings shall be installed prior to any other activities.

Pump-around diversions shall be installed and maintained prior to any excavation and during the installation of the

Crossings shall be placed in temporary construction easements only.

The temporary waterway crossing shall be at right angles to the stream. Where approach conditions dictate, the crossing may vary 15 degrees from a line drawn perpendicular to the centerline of the stream at the intended crossing location. However every effort shall be taken to install the crossing perpendicular to the stream. All fill materials associated with the roadway approach shall be limited to a maximum height of 2—feet above the existing flood plain elevation.

A water diverting structure such as a dike or swale shall be constructed (across the roadway on both roadway approaches) 50—feet (maximum) on either side of the waterway crossing. This will prevent roadway surface runoff from directly entering the waterway. The 50-feet is measured from the top of the waterway bank. The flow captured in these dikes and swales shall be directed to a sediment trapping structure. If the roadway approach is constructed with a reverse grade away from the waterway, a separate diverting structure is not required.

Streambank clearing shall be kept to a minimum. Do not excavate rock bottom streambeds to install the crossing. Lay the culvert pipes on the streambed "as is" when applicable. Place as many pipes as possible within the low area of the stream. Place remaining pipes required to cross the stream on the existing stream bottom.

The maximum number of pipes as possible should be placed within the stream banks with a maximum spacing of 12—inches between pipes. The minimum sized pipe culvert that may be used is <u>24-inches</u>.

The length of the culvert shall be adequate to extend the full width of the crossing, including side slopes. The slope of the culvert shall be at least

Coarse aggregate of clean limestone riprap with a 6-inch D50 stone or greater will be used to form the crossing. The depth of stone cover over the culvert shall be equal to ½ the diameter of the culvert or 12-inches, whichever is greater but no greater than 18—inches.

South Carolina Department of

Health and Environmental Control

EMPORARY STREAM CROSSIN

andard drawing no. RC $-05\,$ PAGE 2 of 3

GENERAL NOTES JULY 31, 2005

AVERAGE STONE DIAMETER

STABILIZED CONSTRUCTION ENTRANCE

UNDERLINING NON-WOVEN GEOTEXTILE FABRIC -

Stabilized construction entrances should be used at all points where

traffic will be leaving a construction site and moving directly onto a

If washing is used, provisions must be made to intercept the wash water and trap the sediment before it is carried offsite. Washdown

Washdown areas in general must be established with crushed gravel

facilities shall be required as directed by SCDHEC as needed.

and drain into a sediment trap or sediment basin. Construction entrances should be used in conjunction with the stabilization of

construction roads to reduce the amount of mud picked up by

WITH A 6-INCH MINIMUM DEPTH

When and Where to Use It

<u>Important Considerations</u>

vehicles.

- EDGES SHALL BE TAPERED

THE ENTRANCE WHEN NEEDED TO

DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE STONE PAD TO A SEDIMENT TRAP OR BASIN

OR OTHER SEDIMENT TRAPPING

STRUCTURE.

PROVIDE POSITIVE DRAINAGE.

OUT TOWARDS ROAD TO PREVENT TRACKING OF

All fill materials associated with the roadway approach shall be limited to a maximum height of 2—feet above the existing flood plain elevation.

The approaches to the structure shall consist of clean stone or concrete fill only with a minimum thickness of 6—inches. The minimum approach length shall be 20—feet and the width shall be equal to the width of the structure.

Inspection and Maintenance:

TEMPORARY STREAM LOW WATER CROSSING

Inspect crossings every seven (7) calendar days and within 24—hours after each rainfall event that produces ½—inches or more of precipitation. Check the structure integrity and for excessive sediment deposition and replace fill stone as needed.

Clean mud and/or sediment from the roadway and do not allow it to enter the stream.

The structure shall be removed when it is no longer required to provide access to the construction area. During removal, leave stone and geotextile fabric for approaches in place. Place fill over the approaches as part of the stream bank restoration operation.

A temporary culvert crossing should be in place no longer than 24-months.

South Carolina Department of Health and Environmental Contro

EMPORARY STREAM CROSSING

GENERAL NOTES JULY 31, 2005

fandard drawing no. RC-05 PAGE 3 of

<u>Installation:</u>

- Remove all vegetation and any objectionable material from the foundation area.
- Divert all surface runoff and drainage from stones to a sediment
- Install a non-woven geotextile fabric prior to placing any stone.
- Install a culvert pipe across the entrance when needed to provide positive drainage.
- The entrance shall consist of 1—inch to 3—inch D50 stone placed at a minimum depth of 6—inches.
- Minimum dimensions of the entrance shall be 24—feet wide by 100—feet long, and may be modified as necessary to
- accommodate site constraints. The edges of the entrance shall be tapered out towards the road to prevent tracking of mud at the edge of the entrance.

Inspection and Maintenance:

Inspect construction entrances every seven (7) calendar days and within 24-hours after each rainfall event that produces ½-inches or more of precipitation, or after heavy use. Check for mud and sediment buildup and pad integrity. Make daily inspections during periods of wet weather. Maintenance is required more frequently in wet weather conditions. Reshape the stone pad as needed for drainage and runoff control.

Wash or replace stones as needed and as directed by the inspector. The stone in the entrance should be washed or replaced whenever the entrance fails to reduce mud being carried off—site by vehicles. Frequent washing will extend the useful life of stone.

Immediately remove mud and sediment tracked or washed onto public roads by brushing or sweeping. Flushing should only be used when the water can be discharged to a sediment trap or basin.

Repair any broken pavement immediately.

CONSTRUCTION ENTRANCE/EXIT DETAIL

5 LEGACY PARK ROAD

SUITE A

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PROFESSIONAL SEAL

PROJ. DATE: JUN. 2023 DRAWING NUMBER:

WKD PROJ. NO.:

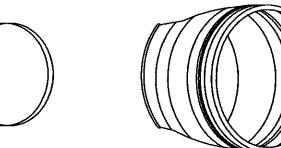
CONSTRUCTION

BID

PROJ. MGR.: JFS DESIGN BY: JFS DRAWN BY: SV

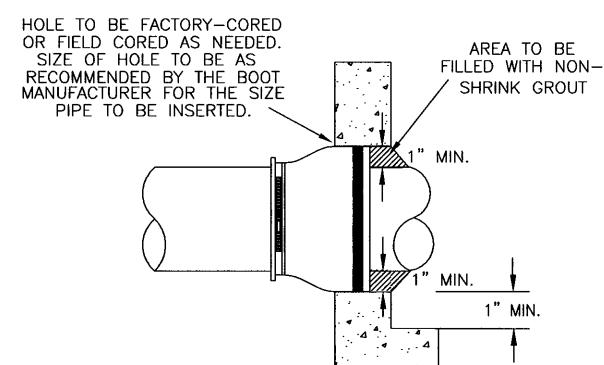
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APPROVED MATERIALS BOOTS - NPC (KOR-N-SEAL) AND PRESS-SEAL (PSX DIRECT









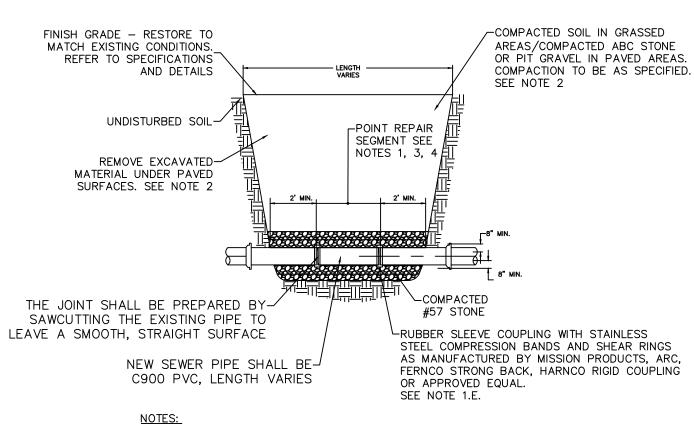
FLEXIBLE SYNTHETIC

RUBBER CONNECTOR

- REMOVE EXISTING PIPE AND MANHOLE WALL AS NECESSARY TO INSTALL NEW PIPE.
- MINIMUM OPENING IN WALL AS PER MANUFACTURER'S GUIDELINES.
- EXTEND NEW PIPE MINIMUM 2" INTO MANHOLE.
- 4. MATCH NEW PIPE TO EXISTING INVERT ELEVATION. 5. AFTER PIPE INSTALLATION, FILL VOIDS AROUND PIPE COMPLETELY WITH

NEW PIPE CONNECTION AT MANHOLE DETAIL

NOT TO SCALE



1. THE SEQUENCE OF WORK FOR PERFORMING POINT REPAIRS SHALL BE AS

- A. BYPASS PUMP FLOWS AROUND POINT REPAIR SEGMENT.
- EXCAVATE TO 8" BELOW EXISTING SEWER. NEATLY CUT EXISTING SEWER AT EACH END OF POINT REPAIR AND
- REMOVE EXISTING SEWER COMPLETELY. INSTALL #57 STONE TO SEWER INVERT ELEVATION AND COMPACT. INSTALL NEW SEWER AT A CONSTANT SLOPE BETWEEN THE TWO EXISTING PIPE ENDS. CONNECT THE NEW SEWER TO THE EXISTING WITH RUBBER SLEEVE OR DUCTILE IRON COUPLINGS. REMOVE STONE BEDDING AS REQUIRED TO INSTALL PIPE AND COUPLINGS AND FILL VOIDS UNDER PIPE WITH STONE.FLEXIBLE COUPLINGS ONLY TO BE USED IF THE EXISTING CONNECTING PIPE IS VITRIFIED CLAY OR CONCRETE. FOR ALL THE OTHER
- PIPE MATERIALS USE RIGID COUPLINGS. RETURN FLOW THROUGH PIPE AND NOTIFY OWNER OR OWNER
- REPRESENTATIVE FOR INSPECTION. G. BACKFILL AND COMPACT AS SHOWN.

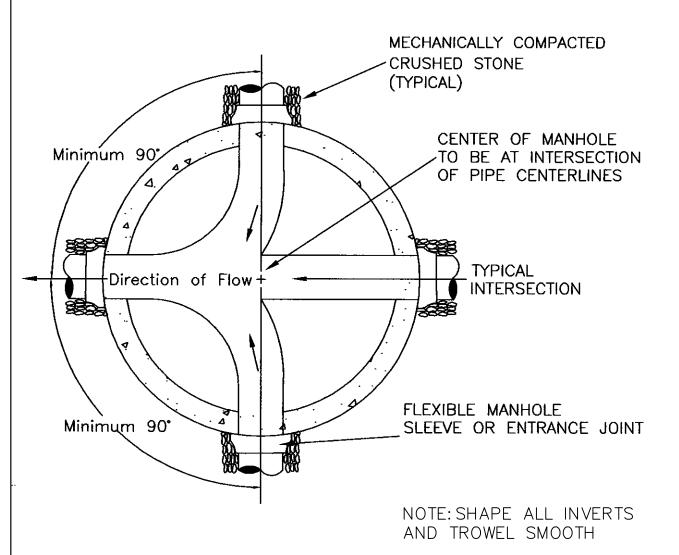
2. UNDER PAVED SURFACES ONLY, UNLESS OTHERWISE SPECIFIED, CONTRACTOR SHALL REMOVE EXCAVATE SOIL AND DISPOSE OF IT OFFSITE. CONTRACTOR SHALL IMPORT ABC STONE OR PIT GRAVEL FOR BACKFILLING FROM TOP OF #57 STONE TO PAVEMENT SUBGRADE. ALL COST OF THIS WORK SHALL BE INCLUDED "IN THE UNIT

3. LENGTH OF POINT REPAIR WILL BE INITIALLY DETERMINED BY THE ENGINEER AFTER REVIEWING THE CCTV FOOTAGE. THE CONTRACTOR SHALL EXTEND POINT REPAIRS IN THE FIELD AS NECESSARY AND APPROVED BY THE ENGINEER TO CONNECT TO SOLID PIPE.

4. THE CONTRACTOR SHALL USE A TRENCH BOX OR SHEETING AND SHORING IN ACCORDANCE WITH OSHA REGULATIONS TO SUPPORT THE TRENCH WALLS DURING THIS WORK. THE CONTRACTOR WILL NOT BE ALLOWED TO SLOPE TRENCH WALLS.

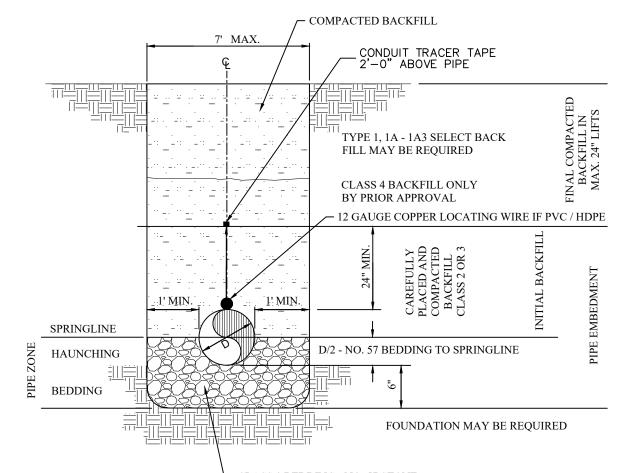
TYPICAL POINT REPAIR

SEWER LINES LESS THAN 12" - USE 4' ID MANHOLE SEWER LINES 12" - 15" - USE 5' ID MANHOLE SEWER LINES 15" - 24" - USE 6' ID MANHOLE SEWER LINES GREATER THAN 24" - USE 8' ID MANHOLE



MANHOLE INVERT DETAIL

NOT TO SCALE



CLASS 1 BEDDING - NO. 57 STONE (DEPTH OF BEDDING VARIES BY PIPE DEPTH)

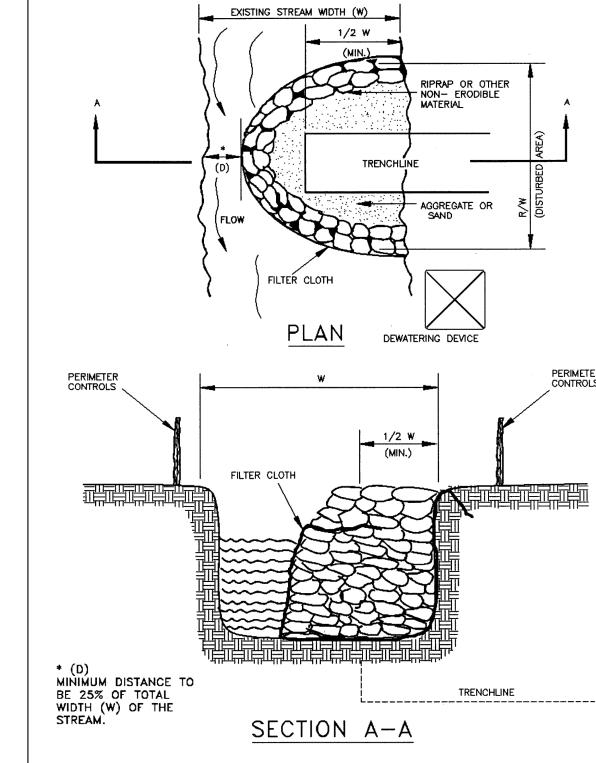
NOTES:

1. NO.57 STONE TO BE COMPACTED TO NO LESS THAN 95% OF THE MAXIMUM DENSITY. 2. BACKFILLING OF TRENCHES SHALL BE ACCOMPLISHED IMMEDIATELY AFTER THE PIPE IS

- 3. UNDER NO CIRCUMSTANCES SHALL WATER BE PERMITTED TO RISE IN UNBACKFILLED TRENCHES AFTER THE PIPE HAS BEEN PLACED. COMPACTION REQUIREMENTS SHALL BE ATTAINED BY THE USE OF MECHANICAL TAMPS ONLY.
- 4. ALL PIPE GRADES SHALL BE RESTORED TO THE EXISTING CONDITIONS.

TYPICAL TRENCH - SANITARY SEWER

NOT TO SCALE



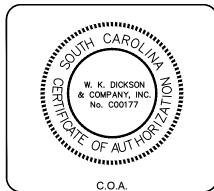
- CONSTRUCTION IS TO BE PERFORMED IN LOW FLOW PERIODS. 2. CROSSING SHALL BE ACCOMPLISHED IN A MANNER THAT WILL NOT PROHIBIT THE FLOW OF THE STREAM.
- 3. AS WITH ALL UTILITY LINE CROSSINGS, APPROACH AREAS MUST BE CONTROLLED WITH PERIMETER MEASURES SUCH AS SILT FENCE OR STRAW
- 4. REMOVE LARGE ROCKS, WOODY VEGETATION, OR OTHER MATERIAL FROM THE STREAMBED AND BANKS THAT MAY GET IN THE WAY OF PLACING THE RIPRAP. SANDBAGS, SHEET METAL, OR WOOD PLANKS OR INSTALLING THE UTILITY PIPE OR LINE.
- 5. FORM A COFFERDAM BY PLACING THE RIPRAP IN A SEMICIRCLE ALONG THE SIDE OF THE STREAM IN WHICH THE UTILITY INSTALLATION WILL BEGIN. IT MUST BE SURROUNDED AND UNDERLAIN WITH FILTER CLOTH AS SHOWN.THE HEIGHT OF AND AREA WITHIN THE DAM WILL DEPEND UPON THE SIZE OF THE WORK AREA AND THE AMOUNT OF STREAM FLOW. STACK MATERIALS AS HIGH AS WILL BE NECESSARY TO KEEP WATER FROM OVERTOPPING THE DAM AND FLOODING THE WORK AREA. WHEN THE STREAM FLOW IS SUCCESSFULLY DIVERTED BY THE COFFERDAM, DEWATER THE WORK AREA AND STABILIZE IT WITH AGGREGATE (#57 OR #68 COARSE AGGREGATE) OR SAND. MAKE SURE
- TO DISCHARGE THE WATER INTO A SEDIMENT TRAPPING DEVICE. 6. INSTALL THE UTILITY PIPE OR LINE IN HALF THE STREAMBED AS NOTED. REMOVE THE RIPRAP OR OTHER MATERIALS AND BEGIN PLACING THEM ON THE
- OTHER SIDE OF THE STREAM. 7. RESTABILIZATION SHALL CONSIST OF THE INSTALLATION OF UNGROUTED RIPRAP ON ALL DISTURBED STREAMBANK AREAS (OR ON THE AREA 6 FEET ON BOTH SIDES OF THE CENTERLINE OF ITS UTILITY TRENCH, WHICHEVER IS GREATER) WITH SLOPES OF 3:1 OR GREATER. FOR SLOPES OF 3:1 OR LESS, VEGETATIVE STABILIZATION MAY BE USED. STABILIZATION OF ITS STREAMBED AND BANKS AND THE APPROACH AREAS SHOULD OCCUR IMMEDIATELY FOLLOWING THE ATTAINMENT OF FINAL GRADE.
- 8. MAINTENANCE: CARE MUST BE TAKEN TO INSPECT ANY STEAM CROSSING AREA AT THE END OF EACH DAY TO MAKE SURE THAT THE CONSTRUCTION MATERIALS ARE POSITIONED SECURELY. THIS WILL ENSURE THAT THE WORK AREA STAYS DRY AND THAT NO CONSTRUCTION MATERIALS FLOAT DOWNSTREAM.

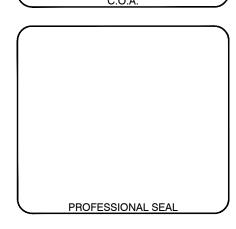
COFFERDAM CROSSING DETAIL NOT TO SCALE

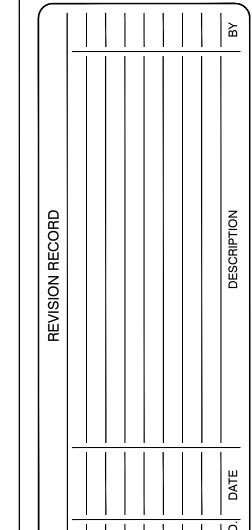
-PRECAST MANHOLE -CONCRETE BENCH

MANHOLE CHANNEL AND BENCH NOT TO SCALE

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PROJ. MGR.: JFS DESIGN BY: JFS DRAWN BY: SV PROJ. DATE: JUN. 2023 DRAWING NUMBER:

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WKD PROJ. NO.: 20230009.00.GV