

# ROANE COUNTY EMS STATION 1 SITE

GALLAHER RD.  
KINGSTON, TN 37763

## PROJECT INFORMATION:

**OWNER**  
NAME: ROANE COUNTY  
CONTACT: LYNN FARNHAM, PURCHASING AGENT  
ADDRESS: 200 EAST FACE ST., SUITE 3  
KINGSTON, TN 37763  
PHONE: (865) 376-4317

**PROPERTY DATA**  
ADDRESS: GALLAHER RD.  
KINGSTON, TN 37763  
MAP: 060  
PARCEL ID: 004.00  
ZONING: C-2 (HIGHWAY BUSINESS DISTRICT)

VERTICAL DATUM: NAVD 88

SETBACKS: 30' FRONT  
10' REAR  
10' SIDE

## LIST OF DRAWINGS:

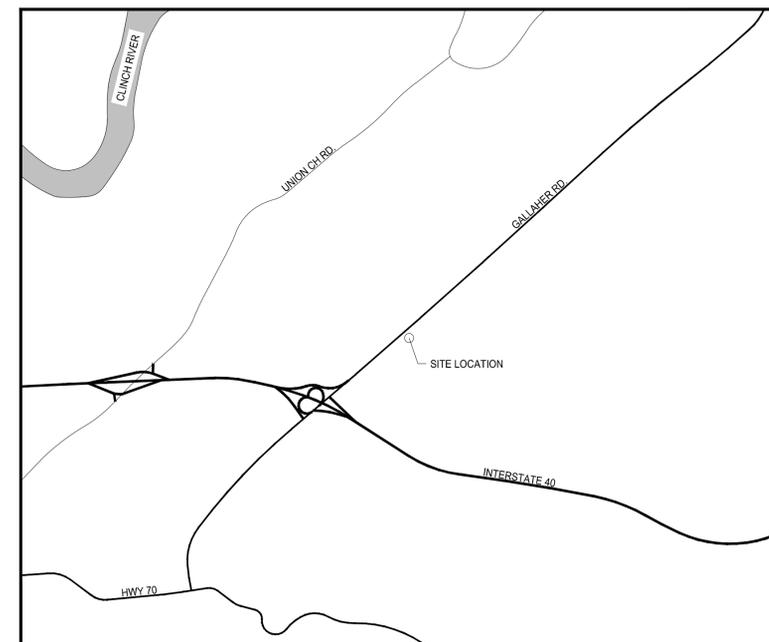
**GENERAL**  
G000 COVER SHEET

**SURVEY**  
SS101 SITE SURVEY

**CIVIL AND SITE ENGINEERING**  
C001 CIVIL NOTES & LEGENDS  
C100 EROSION PREVENTION & SEDIMENT CONTROL PLAN  
C300 SITE LAYOUT & UTILITY PLAN  
C400 SITE GRADING & DRAINAGE PLAN  
C700 DRAINAGE & UTILITY PROFILES  
C800 CIVIL DETAILS  
C801 CIVIL DETAILS

NUMBER OF SHEETS: 9 TOTAL

## VICINITY MAP:



**MBI**

ENGINEER:

MBI COMPANIES INC.  
299 N. WEISGARBER ROAD  
KNOXVILLE, TN 37919  
PHONE: (865) 584-0999  
FAX: (865) 584-5213  
WEB: mbicompanies.com

CONSULTANT

SEAL:



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PROJECT INFORMATION

PROJECT:

ROANE COUNTY  
EMS STATION 1 SITE

PROJECT ADDRESS:

GALLAHER RD.  
KINGSTON TN 37763

PROJECT NO.: 220397-01

ACTIVE DESIGN PHASE

- FOR REVIEW ONLY
- FOR PERMITTING ONLY
- SCHEMATIC DESIGN
- DESIGN DEVELOPMENT
- CONSTRUCTION BIDDING
- CONSTRUCTION DOCUMENTS
- AS-BUILT RECORD SET

REVISION INFORMATION

NO.	DATE	DESCRIPTION

KEY PLAN

SHEET INFORMATION

SHEET ISSUED: 12/22/2022  
DESIGNED BY: I.A.J.  
DRAWN BY: I.A.J.  
REVIEWED BY: C.B.T.  
SHEET TITLE:

COVER SHEET

SHEET NO.:

G000

### GENERAL NOTES

- COMPLY WITH ALL PERTINENT PROVISIONS OF THE "MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION" ISSUED BY A.G.C. OF AMERICA, INC. AND THE SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION ISSUED BY THE U.S. DEPARTMENT OF LABOR, 29 CFR 1926 OSHA.
- THE APPROPRIATE TRAFFIC CONTROL SIGNS AS DEFINED BY THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, F.H.W.A., 2009" SHALL BE INSTALLED AT THE POINTS OF CONSTRUCTION AND SHALL BE PROPERLY MAINTAINED AND/OR OPERATED DURING THE TIME SUCH SPECIAL CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS THEY ARE NEEDED AND SHALL BE REMOVED IMMEDIATELY AFTER NEEDED.
- NOTHING IN THE GENERAL NOTES OR SPECIAL PROVISIONS SHALL RELIEVE THE CONTRACTOR FROM THEIR RESPONSIBILITIES TOWARD THE SAFETY AND CONVENIENCE OF THE GENERAL PUBLIC.
- VERIFY THE LOCATIONS OF ALL PROPOSED ITEMS PRIOR TO COMMENCING CONSTRUCTION. NOTIFY A/E IMMEDIATELY OF ANY DISCREPANCIES BEFORE STARTING WORK. COMMENCEMENT OF CONSTRUCTION AFTER SUCH DISCOVERY SHALL BE AT THE CONTRACTOR'S RISK.
- ANY AREA THAT IS DISTURBED OUTSIDE THE LIMITS OF CONSTRUCTION DURING THE LIFE OF THE PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AT THEIR EXPENSE.

### DEMOLITION NOTES

- DO ALL DEMOLITION WORK REQUIRED TO REMOVE EXISTING MASONRY WALLS, PAVING, FOUNDATIONS, CONCRETE SLABS, EXISTING UNDERGROUND PIPING, CONDUIT, BUILDING FINISHES, DOORS, WINDOWS AS SHOWN ON THE DRAWINGS AND ANY OTHER NECESSARY ITEMS TO INSTALL THE PROPOSED WORK.
- CONTRACTORS SUBMITTING PROPOSALS SHALL DETERMINE THE QUANTITIES OF DEMOLITION WORK REQUIRED BY FIELD INVESTIGATION OF THE BUILDING AND SITE.
- SUBMIT A DEMOLITION SCHEDULE TO THE PROJECT MANAGER PRIOR TO EXECUTION OF THE WORK. INDICATE PROPOSED METHODS AND SEQUENCES OF OPERATIONS. INCLUDE PROPOSAL FOR CONTROL OF DUST AND NOISE, AND COORDINATION FOR SHUT-OFF, CAPPING, AND CONTINUATION OF UTILITY SERVICES.
- MAINTAIN TEMPORARY BARRICADES FOR PROTECTION OF JOB PERSONNEL AND THE PUBLIC. REMOVE BARRICADES WHEN NO LONGER REQUIRED.
- CONDUCT OPERATIONS IN SUCH A MANNER AS TO MINIMIZE INTERFERENCE WITH USE OF PUBLIC WAYS AND ADJACENT USED FACILITIES. DO NOT CLOSE, BLOCK OR OTHERWISE OBSTRUCT USE OF PUBLIC WAYS OR FACILITIES WITHOUT WRITTEN CONSENT OF AUTHORITIES HAVING JURISDICTION. PROVIDE ALTERNATIVE ROUTES TO CLOSED OR OBSTRUCTED FACILITIES AS REQUIRED BY LOCAL REGULATIONS.
- EXISTING UTILITIES INDICATED TO REMAIN SHALL BE KEPT IN SERVICE AND PROTECTED FROM DAMAGE DURING DEMOLITION OPERATIONS.
- DO NOT INTERRUPT EXISTING UTILITIES USED OR OCCUPIED FACILITIES UNLESS AUTHORIZED IN WRITING BY AUTHORITIES HAVING JURISDICTION IF INTERRUPTION IS ALLOWED, PROVIDE ALTERNATIVE TEMPORARY SERVICES ACCEPTABLE TO GOVERNING AUTHORITIES.
- LOCATE, IDENTIFY, SHUT OFF, CAP AND DISCONNECT UTILITIES AT PROPERTY LINE OR VALVE AS REQUIRED. PROVIDE BY-PASS CONNECTIONS AS REQUIRED TO MAINTAIN SERVICES TO ADJACENT PROPERTIES AND FACILITIES. PROVIDE A MINIMUM OF 72 HOURS NOTICE TO PROPERTY OWNERS IF SHUT-DOWN OF SERVICES IS REQUIRED DURING THE CHANGE-OVER.
- COORDINATE WITH ALL UTILITY COMPANIES 48 HOURS PRIOR TO ANY DEMOLITION WORK.
- REMOVE DEBRIS, RUBBISH, AND OTHER SUBSTANCES FROM SITE. LEGALLY TRANSPORT AND DISPOSE OF SUCH MATERIALS OFF-SITE.
- BURYING OR BURNING OF MATERIALS ON THE PROJECT SITE IS FORBIDDEN.
- AVAILABILITY FOR DEMOLITION MUST BE CONFIRMED BY OWNER JUST PRIOR TO DEMOLITION.
- THE USE OF EXPLOSIVES IS STRICTLY PROHIBITED.
- HISTORIC ARTIFACTS, INCLUDING CORNERSTONES, THEIR CONTENTS, COMMEMORATIVE PLAQUES AND TABLETS, ANTIQUES, AND OTHER ITEMS OF SIGNIFICANCE SHALL REMAIN THE PROPERTY OF THE OWNER. NOTIFY OWNERS REPRESENTATIVE IF SUCH ARTICLES ARE ENCOUNTERED. OBTAIN APPROVAL REGARDING METHOD OF REMOVAL. SALVAGE SUCH ARTICLES AND TURN OVER TO OWNER.
- IF HAZARDOUS MATERIALS ARE ENCOUNTERED, COMPLY WITH APPLICABLE REGULATIONS IN HANDLING, REMOVING, AND PROTECTING AGAINST EXPOSURE OR ENVIRONMENTAL POLLUTION.
- REGRADE ALL AREAS WHERE DEMOLITION HAS OCCURRED. PROVIDE SMOOTH TRANSITION BETWEEN EXISTING AND NEW GRADING. THERE SHALL NOT BE ANY VOIDS, PITS, OR MOUNDING OF EARTHWORK.

### SITE NOTES

- WHERE PROPOSED PAVEMENT ABUTS EXISTING PAVEMENT, THE EXISTING PAVEMENT SHALL BE CUT IN A NEAT STRAIGHT LINE THROUGH PAVEMENT AND BASE. PROVIDE A SMOOTH TRANSITION.
- INSTALL EXPANSION JOINT MATERIAL BETWEEN NEW AND EXISTING CONCRETE AND/OR ASPHALT.
- MAINTAIN AND PROTECT EXISTING PAVEMENT OR GRAVEL SURFACES WHICH ARE TO REMAIN. CONTRACTOR SHALL REPLACE DAMAGED AREAS, MATCHING DEPTH, MATERIAL AND GRADES OF EXISTING SURFACES.
- DIMENSIONS SHOWN ARE TO FACE OF CURB, CENTER OF COLUMN, EDGE OF BUILDING EXTERIOR OR CENTER OF PAINTED STRIPES.
- SIDEWALK AND PAVING JOINTS ARE SHOWN FOR REFERENCE ONLY. REVIEW JOINT LAYOUT WITH ALL SPECIFICATIONS AND DETAILS BEFORE POURING CONCRETE.

### SURVEY NOTES

- TOPOGRAPHIC INFORMATION WAS PREPARED FROM TENNESSEE STATE LIDAR. INFORMATION GATHERED 11/30/2022.
- BOUNDARY WAS PREPARED BY CARTER LAND SURVEYING P.O. BOX 851, KINGSTON, TN 37763. SURVEY PERFORMED 01/13/2022.
- COORDINATES ARE IN FEET AND REFERENCE TO TENNESSEE STATE PLANE SYSTEM OF 1983.
- BEARINGS SHOWN ARE BASED ON MAGNETIC NORTH.
- THE VERTICAL DATUM IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. EXISTING UTILITIES SHOWN ON DRAWINGS ARE APPROXIMATE IN DEPTH AND LOCATION. REPAIR EXISTING UTILITIES DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.

### GRADING NOTES

- FIELD VERIFY CRITICAL GRADES AT CONNECTION POINTS SUCH AS ENTRANCES PRIOR TO CONSTRUCTION AND NOTIFY PROJECT MANAGER OR ENGINEER OF ANY DISCREPANCIES.
- THE MINIMUM SLOPE FOR PARKING, SIDEWALKS, AND LANDSCAPED AREAS IS 1%. FIELD VERIFY MINIMUM SLOPE IS ACHIEVED.
- MAXIMUM SLOPE IN HANDICAP PARKING AREAS IS 2%. MAXIMUM LONGITUDINAL SIDEWALK SLOPE IS 5%. SLOPE SIDEWALKS AWAY FROM BUILDING AT 1/4% CROSS SLOPE UNLESS OTHERWISE NOTED. SIDEWALK CROSS SLOPE CANNOT EXCEED 2% IN ANY CASE.
- UNLESS OTHERWISE NOTED, ELEVATIONS SHOWN REPRESENT FINISHED GRADES. ADJUST FOR PAVEMENT THICKNESS, TOPSOIL, ETC.
- ADJUST DRAINAGE STRUCTURE TOPS AS NECESSARY TO MATCH FINAL GRADES.
- NO SLOPE SHALL BE STEEPER THAN 2(H):1(V)
- ALL EARTHWORK SHALL MEET THE FOLLOWING REQUIREMENTS AT A MINIMUM:
  - FOLLOW ALL RECOMMENDATIONS OF THE PROJECT SUBSURFACE INVESTIGATION REPORT. REPORT ANY CONTRADICTIONS TO THE PROJECT MANAGER. SOIL EXCAVATION SHALL BE CONSIDERED AS UNCLASSIFIED.
  - OBTAIN CERTIFICATION FROM A TESTING LAB, SIGNED AND SEALED BY AN ENGINEER, STATING THAT ALL EARTHWORK IS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND SUBSURFACE INVESTIGATION REPORT AND SOILS ARE CAPABLE OF SUPPORTING THE STRUCTURE AND IMPROVEMENTS.
  - SUBMIT SOIL SAMPLES FOR TESTING AS REQUIRED BY THE PROJECT GEOTECHNICAL ENGINEER. SOIL FOR COMPACTED BACKFILL AND ENGINEERED FILL SHALL CONSIST OF CLEAN GRANULAR SOILS, CLAY SOILS, OR SHALE SOILS HAVING A PLASTICITY INDEX OF LESS THAN 35 AND A MINIMUM DENSITY OF 90 POUNDS PER CUBIC FOOT WHEN COMPACTED TO ONE HUNDRED PERCENT (100%) OF ITS MAXIMUM DRY DENSITY PER STANDARD PROCTOR TEST. (ASTM D-698). MATERIAL SHALL BE FREE OF VEGETATION, ROOTS, ROCKS LARGER THAN 2" IN ANY DIMENSION, DEBRIS AND OTHER DELETERIOUS MATERIALS. RESIDUAL SOIL EXCAVATED AT THE SITE MAY BE USED FOR BACKFILL IF IT MEETS THE SPECIFICATION REQUIREMENTS. THE MOISTURE CONTENT OF THE FILL SOILS SHOULD BE MAINTAINED WITHIN +3 AND -3 PERCENTAGE POINTS OF OPTIMUM MOISTURE CONTENT DETERMINED FROM THE STANDARD PROCTOR COMPACTION TEST.
  - ALL FILL IN AREAS TO BE OCCUPIED BY THE BUILDING(S) AND PAVING, INCLUDING AN AREA 10 FEET OUTSIDE THE PERIMETERS THEREOF, SHALL BE CONTROLLED (ENGINEERED) FILL AND THE COMPACTION SHALL BE TESTED BY A LICENSED AND QUALIFIED GEOTECHNICAL ENGINEER. CONTROLLED FILL IN AREAS OF BUILDINGS SHALL BE COMPACTED IN MAXIMUM 4" LIFTS TO AT LEAST 98% OF MAXIMUM DRY DENSITY WITHIN 3% OF OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM SPECIFICATION D-698 (STANDARD PROCTOR). FILL IN AREAS OF ASPHALT PAVING SHALL BE COMPACTED IN MAXIMUM 6" LIFTS TO AT LEAST 98% OF MAXIMUM DRY DENSITY WITHIN 3% OF OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM SPECIFICATION D-698. THE UPPER 12 INCHES OF FILL BENEATH PAVEMENTS AND UPPER 24 INCHES BENEATH FOOTINGS AND GRADE SLABS SHALL BE COMPACTED TO 100%. PROVIDE 95% COMPACTION IN ALL OTHER AREAS.
  - AFTER STRIPPING TOPSOIL, ALL FILL AREAS SHALL BE PROOFROLLED AND MONITORED BY THE PROJECT GEOTECHNICAL ENGINEER.
  - FILL OUTSIDE OF BUILDING AND PAVEMENT SHALL BE PLACED IN 8" LIFTS IN THE PRESENCE OF A REPRESENTATIVE OF THE SOIL TESTING LAB, COMPACTED TO SPECIFIED REQUIREMENTS, AND TESTED EVERY 900 SQ. FT. FOR EACH LAYER OF FILL. REMEDY ANY INADEQUATELY PLACED FILL TO MEET PROJECT SPECIFICATIONS.
  - ALL LANDSCAPED AND GRASS AREAS SHALL HAVE A MINIMUM OF 5" OF CLEAN TOPSOIL.
  - TOLERANCES FOR SURFACES: HARDSCAPE: ± 0.025' LANDSCAPE/GRASSED AREAS: ± 0.1'
  - ALL OFFSITE BORROW AND SPILL SITES, IF REQUIRED, SHALL BE PROPERLY PERMITTED.

### UTILITY NOTES

- COORDINATE WITH EXISTING UTILITIES AND STORM SEWER INSTALLATION TO AVOID CONFLICTS. UTILITY INSTALLATION AND MATERIAL SHALL MEET THE REQUIREMENTS OF WATER, SEWER, ELECTRIC & GAS COMPANIES AND ALL APPLICABLE CODES. COORDINATE WITH WATER, SEWER, ELECTRIC & GAS COMPANIES PRIOR TO CONSTRUCTION TO DETERMINE MATERIAL, INSTALLATION TESTING AND INSPECTION REQUIREMENTS. VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. PAVEMENT REPAIR AND TRAFFIC CONTROL SHALL MEET THE REQUIREMENTS OF THE AGENCY HAVING JURISDICTION.
- COORDINATE LOCATION OF GAS LINE TO AVOID CONFLICTS WITH OTHER UTILITIES. CONNECTION TO EXISTING GAS SERVICE SHALL MEET THE REQUIREMENTS OF GAS COMPANY. CONTACT GAS COMPANY AND COORDINATE INSTALLATION.
- GAS METER AND SUPPLY LINE SHALL BE SIZED AND INSTALLED BY GAS COMPANY FOR THE LOADS SHOWN ON THE PLUMBING DRAWINGS. PROVIDE 4" SLEEVE UNDER PAVED AREAS.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ANY AND ALL PERMITS AND LICENSES REQUIRED TO WORK IN THE PUBLIC R.O.W. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TAP FEES AND COORDINATION WITH WATER & SEWER COMPANIES TO ESTABLISH WATER AND SEWER SERVICE.
- PROVIDE 10" MIN. HORIZONTAL SEPARATION BETWEEN WATER AND SEWER LINES. WHERE CROSSINGS OCCUR, PROVIDE 18" MIN. SEPARATION BETWEEN WATER AND SEWER LINES. PROVIDE 6" MIN. CLEARANCE BETWEEN STORM SEWERS AND OTHER UTILITIES. UNLESS OTHERWISE NOTED PROVIDE 3" MINIMUM COVER FOR ALL UTILITIES. PROVIDE #5 STONE BEDDING AND BACKFILL TO SUBGRADE FOR ALL UTILITIES LOCATED IN PAVED AREAS.
- ADJUST ALL EXISTING UTILITY STRUCTURES, WHETHER SPECIFICALLY INDICATED ON THE DRAWINGS OR NOT, TO MATCH FINAL GRADES. ADJUSTMENTS SHALL MEET THE REQUIREMENTS OF WATER, SEWER, ELECTRIC & GAS COMPANIES.
- COORDINATE WITH WATER, SEWER, ELECTRIC & GAS COMPANIES TO REMOVE OR ABANDON EXISTING UTILITIES, WHETHER SPECIFICALLY INDICATED ON THE DRAWINGS OR NOT, THAT ARE LOCATED WITHIN THE PROJECT LIMITS AND NO LONGER IN USE.
- UNLESS OTHERWISE NOTED, ALL SANITARY SEWER PIPE AND FITTINGS SHALL BE PVC MEETING THE REQUIREMENTS OF ASTM D 3034. USE SDR 35 UNLESS OTHERWISE SPECIFIED. FITTINGS SHALL MEET THE REQUIREMENTS OF ASTM D 3311 AND ASTM D 2665. PIPE SHALL HAVE AN INTEGRAL BELL END WITH GASKET SEAL WHICH HAS BEEN REINFORCED WITH A STEEL RING, BAND, OR OTHER RIGID MATERIAL THAT PERMANENTLY LOCKS THE GASKET IN PLACE. THE JOINT SHALL MEET THE REQUIREMENTS OF ASTM D 3212. GASKETS SHALL BE OF A LOCK-IN TYPE GASKET, REBER TYPE OR APPROVED SUBSTITUTE. MEETING THE REQUIREMENTS OF ASTM F-477. UNLESS OTHERWISE NOTED, MINIMUM SLOPE SHALL BE 2.0% FOR 4" LINE AND 1.0% FOR 6" LINES.
- UNLESS OTHERWISE NOTED, ALL WATER LINES SHALL BE AWWA C900 PVC (CLASS 200) WITH BELL END FOR PUSH-ON TYPE JOINTS. JOINTS SHALL CONSIST OF COMPACT PATTERN DUCTILE IRON FITTINGS MEETING THE REQUIREMENTS OF AWWA C 153 WITH RUBBER GASKETS MEETING THE REQUIREMENTS OF AWWA C 111.
- INSTALLATION SHALL COMPLY WITH UL 1285.
- ALL FIRE WATER LINES SHALL BE CLASS 385 DUCTILE IRON WITH PUSH-ON TYPE JOINTS. PIPE SHALL COMPLY WITH AWWA C151 AND CEMENT - MORTAR LINING SHALL COMPLY WITH AWWA C104. INSTALLATION SHALL COMPLY WITH AWWA C600.
- FIRE LINE SIZE SHALL BE VERIFIED BY SPRINKLER CONTRACTOR. CERTIFIED CALCULATIONS SHALL BE SUBMITTED TO THE OWNER. SEE THE FIRE PROTECTION PLAN FOR FURTHER REQUIREMENTS. ALL FIRE PROTECTION PIPING STARTING FROM THE POINT OF SERVICE MUST BE INSTALLED BY A TENNESSEE REGISTERED SPRINKLER CONTRACTOR.
- ALL WATER LINE MATERIAL SHALL BE LEAD FREE.

### DRAINAGE NOTES

- FIELD VERIFY CRITICAL GRADES AT CONNECTION POINTS PRIOR TO CONSTRUCTION OR FABRICATION OF PRECAST STRUCTURES.
- UNLESS OTHERWISE NOTED, HDPE SHALL BE HANCOX, LANE HDPE, OR ADS N-12 SMOOTH INTERIOR WALL HDPE PIPE. PROVIDE #57 STONE BEDDING AND BACKFILL TO PAVEMENT SUBGRADE OR 12" ABOVE PIPE IN GRASS AREAS. ALL PIPE AND FITTINGS SHALL MEET THE REQUIREMENTS OF AASHTO M252, TYPE S (4"-10") OR AASHTO M294, TYPE S (12"-48"). GASKET SHALL MEET THE REQUIREMENTS OF ASTM F477. INSTALLATION SHALL BE IN ACCORDANCE WITH ASTM D2321. JOINTS SHALL BE SILT TIGHT AND NON-RATED WATER TIGHT GASKETS SHALL BE COVERED WITH A REMOVABLE WRAP BY THE MANUFACTURER TO ENSURE THAT THE GASKET IS FREE FROM DEBRIS.
- UNLESS OTHERWISE NOTED, RCP SHALL BE CLASS III CONFORMING TO ASTM C-76 (LATEST REVISION); "STANDARD SPECIFICATION FOR REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE".
- ROOF LEADERS SHALL BE ASTM D3034 SDR 35 PVC WITH GASKET JOINTS. UNLESS OTHERWISE NOTED ON THE PLANS, 4" SHALL BE LAD AT A 2% MINIMUM SLOPE AND 6" SHALL BE LAD AT 1% MINIMUM SLOPE.
- COORDINATE WITH GOVERNING AGENCY FOR ALL REQUIRED MATERIAL APPROVALS, INSPECTIONS AND TESTING.

### EROSION CONTROL NOTES

- UNLESS SHOWN OTHERWISE, ALL DISTURBED AREAS NOT ULTIMATELY RECEIVING A HARD SURFACE SHALL HAVE A MINIMUM DEPTH OF 5" OF TOPSOIL AND BE STABILIZED WITH GRASS.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL APPLICABLE PERMITS AND COMPLYING WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS RELATED TO SITE GRADING, EROSION AND SEDIMENTATION CONTROL, AND STORMWATER RUNOFF.
- NO LAND DISTURBANCE IS PERMISSIBLE UNTIL THE CONTRACTOR HAS SUBMITTED A SIGNED NOTICE OF INTENT AND RECEIVED A NOTICE OF COVERAGE FROM THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC). COORDINATE WITH OWNER TO ENSURE THAT ALL NECESSARY PERMITS HAVE BEEN RECEIVED PRIOR TO LAND DISTURBANCE.
- A NOTICE WILL BE POSTED BY NEAR THE CONSTRUCTION ENTRANCE BEFORE WORK BEGINS CONTAINING:
  - A COPY OF THE NOC WITH THE TRACKING NUMBER ASSIGNED BY TDEC.
  - THE NAME, COMPANY NAME, TELEPHONE NUMBER, EMAIL AND ADDRESS OF THE PROJECT SITE OPERATOR INCLUDING A LOCAL CONTACT PERSON.
  - A PROJECT DESCRIPTION.
  - THE LOCATION OF THE SWPPP ON SITE.
- IN PREPARATION FOR AND PRIOR TO INSTALLATION OF EROSION AND SEDIMENTATION CONTROL MEASURES, THE CONTRACTOR SHALL:
  - EXAMINE THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND THE SITE EROSION AND SEDIMENTATION CONTROL DRAWINGS AT THE SITE.
  - NOTIFY ENGINEER OF DEFICIENCIES OR CHANGES IN THE SWPPP OR DRAWINGS REQUIRED BY CURRENT SITE CONDITIONS. REVISIONS OF THE DOCUMENTS WILL BE MADE AS DETERMINED BY THE ENGINEER.
- FURNISH, ERECT AND MAINTAIN EROSION AND SEDIMENTATION CONTROL MEASURES IN CONFORMITY WITH THE TENNESSEE EROSION AND SEDIMENT CONTROL HANDBOOK, FOURTH EDITION, AS PREPARED BY TDEC. SEE PLAN AND DETAILS FOR SPECIFIC EROSION AND SEDIMENTATION CONTROL MEASURES.
- EROSION AND SEDIMENTATION CONTROL MEASURES SHOWN ON THIS PLAN ARE A MINIMUM REQUIREMENT. MAINTAIN, MODIFY AND ADD EROSION AND SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION AS NECESSARY TO PREVENT SEDIMENT FROM LEAVING THE SITE.
- ENVIRONMENTAL PERMIT REQUIREMENTS: SHOW COMPLIANCE WITH ALL REQUIREMENTS OF THE GENERAL NPDES PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES CURRENTLY ADOPTED BY TDEC (CGP) AND THE PROJECT STORM WATER POLLUTION PREVENTION PLAN (SWPPP). PROVIDE ENGINEER AND TDEC WITH COPIES OF ALL REQUIRED PAPERWORK. PERFORM AND PROVIDE ALL MAINTENANCE, INSPECTIONS, RECORD KEEPING, AND REPORTING.
- INSPECTIONS WILL BE PERFORMED BY PERSONNEL CERTIFIED IN THE TDEC LEVEL 1 EROSION CONTROL COURSE. PROOF OF INSPECTOR'S CERTIFICATION SHALL BE KEPT ON FILE AT THE JOBSITE ALONG WITH ALL INSPECTION REPORTS AND OTHER REQUIRED PAPERWORK IDENTIFIED IN THE PROJECT SWPPP AND THE CGP. MAINTENANCE REPAIR NEEDS IDENTIFIED BY INSPECTIONS SHALL BE ADDRESSED WITHIN 7 DAYS OR BEFORE THE NEXT RAIN EVENT, DOCUMENT WHEN MAINTENANCE ITEMS ARE COMPLETED ON THE INSPECTION REPORT.
- MAINTAIN A RAIN GAUGE AND RAINFALL RECORDS ON SITE AS REQUIRED BY TDEC.
- EROSION AND SEDIMENTATION CONTROL IMPLEMENTATION:
  - STAKE THE DISTURBED AREA LIMITS AND UNDISTURBED AREAS IN THE FIELD BEFORE BEGINNING WORK.
  - INSTALL CONSTRUCTION EXITS.
  - TEMPORARY EROSION AND SEDIMENTATION CONTROL: PROVIDE MEASURES TO PREVENT SOIL EROSION AND DISCHARGE OF SOIL-BEARING WATER RUNOFF AND AIRBORNE DUST TO UNDISTURBED AREAS AND TO ADJACENT PROPERTIES AND WALKWAYS, ACCORDING TO THE SITE EROSION AND SEDIMENTATION CONTROL DRAWINGS AS WELL AS THE CGP AND THE SWPPP.
  - BEGIN SITE GRADING.
  - VERIFY THAT FLOWS OF WATER REDIRECTED FROM CONSTRUCTION AREAS OR GENERATED BY CONSTRUCTION ACTIVITY DO NOT ENTER OR CROSS TREE- OR PLANT- PROTECTION ZONES.
  - INSPECT, REPAIR, AND MAINTAIN EROSION AND SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION UNTIL PERMANENT VEGETATION HAS BEEN ESTABLISHED.
  - CLEAN, REPAIR, AND RESTORE ADJACENT PROPERTIES AND PAVES AFFECTED BY EROSION AND SEDIMENTATION FROM THE PROJECT SITE DURING THE COURSE OF THE PROJECT. OBTAIN PERMISSION AND APPROPRIATE PERMITS TO ACCESS AREAS OUTSIDE THIS SITE.
  - AFTER FINAL STABILIZATION OF THE SITE, REMOVE EROSION AND SEDIMENTATION CONTROLS AND RESTORE AND STABILIZE AREAS DISTURBED DURING REMOVAL.
- STORMWATER CONTROL: COMPLY WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION. PROVIDE BARRIERS IN AND AROUND EXCAVATIONS AND SUBGRADE CONSTRUCTION TO PREVENT FLOODING BY RUNOFF OF STORMWATER FROM HEAVY RAINS.
- PROJECT MANAGER OR ENGINEER MAY DIRECT CONTRACTOR TO LIMIT SURFACE AREA OF ERODIBLE EARTH MATERIAL EXPOSED BY CLEARING AND GRUBBING, EXCAVATION, BORROW AND EMBANKMENT OPERATIONS AND MAY DIRECT CONTRACTOR TO PROVIDE IMMEDIATE PERMANENT OR TEMPORARY POLLUTION CONTROL MEASURES.
- PROVIDE PERMANENT EROSION CONTROL MEASURES AT EARLIEST PRACTICAL TIME TO MINIMIZE REQUIREMENT FOR TEMPORARY EROSION CONTROLS. PERMANENTLY SEED AND MULCH CUT SLOPES AS EXCAVATION PROCEEDS.
- MAINTAIN TEMPORARY EROSION CONTROL SYSTEMS INSTALLED BY CONTRACTOR AS DIRECTED BY PROJECT MANAGER OR ENGINEER TO CONTROL SILTATION AT ALL TIMES THROUGHOUT WORK. PROVIDE MAINTENANCE OR ADDITIONAL WORK DIRECTED BY ENGINEER WITHIN 48 HOURS OF NOTIFICATION BY ENGINEER.
- EROSION CONTROL SHALL BE MAINTAINED UNTIL PAVING IS COMPLETED AND LAWNS HAVE BEEN ESTABLISHED. PROTECT ADJACENT PROPERTIES AND WATER RESOURCES FROM EROSION AND SEDIMENT DAMAGE THROUGHOUT THE LIFE OF THE PROJECT UNTIL A NOTICE OF TERMINATION IS FILED WITH TDEC. CONTRACTOR COORDINATE WITH THE ENGINEER AND OBTAIN APPROVAL TO FILE A NOTICE OF TERMINATION AT THE APPROPRIATE TIME.
- STABILIZATION MEASURES WILL BE INITIATED AS SOON AS POSSIBLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY OR PERMANENT SOIL STABILIZATION AT THE CONSTRUCTION SITE (OR PHASE OF THE PROJECT) MUST BE COMPLETED NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED NOT LATER THAN 31 DAYS AFTER CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED. PERMANENT STABILIZATION WITH PERENNIAL VEGETATION OR OTHER PERMANENTLY STABLE, NON-ERODING SURFACE SHALL REPLACE ANY TEMPORARY MEASURES AS SOON AS PRACTICABLE. UNPACKED GRAVEL CONTAINING FINES OR CRUSHER RUNS WILL NOT BE CONSIDERED A NON-ERODING SURFACE.
- ALL WATER DISCHARGES FROM EXCAVATIONS AND TEMPORARY SEDIMENT PONDS SHALL BE FILTERED USING SEDIMENT CONTROLS ACCEPTABLE TO TDEC AS WELL AS THE LOCAL AUTHORITY HAVING JURISDICTION.
- UNLESS OTHERWISE NOTED, RIP-RAP SHALL BE T.D.O.T. MACHINED CLASS A-1 WITH A MEDIAN RIP-RAP SIZE D50 OF 6", 9" THICK AND SHALL BE UNDERLAIN WITH A NON-WOVEN GEOTEXTILE FABRIC.
- CONCRETE WASHOUT AREA SHALL BE IN CONFORMANCE WITH STANDARDS OF TDEC, AS WELL AS THE LOCAL PERMITTING AUTHORITY HAVING JURISDICTION.
- AT THE END OF THE PROJECT, DURING FINAL SITE STABILIZATION, DEWATER TEMPORARY SEDIMENT PONDS AND TRAPS IN CONFORMANCE WITH STANDARDS OF TDEC, AS WELL AS THE LOCAL PERMITTING AUTHORITY HAVING JURISDICTION. REMOVE ALL TEMPORARY EROSION CONTROLS AT THE END OF THE PROJECT AND COORDINATE WITH OWNER TO FILE NOTICE OF TERMINATION. AT THE APPROPRIATE TIME, WITH AUTHORITY HAVING JURISDICTION, CONTRACTOR COORDINATE WITH ENGINEER AT BEGINNING OF LAND DISTURBANCE TO DETERMINE WHETHER OR NOT AN INITIAL SITE ASSESSMENT INSPECTION BY THE ENGINEER IS REQUIRED. IF REQUIRED, THE SITE ASSESSMENT INSPECTION BY THE ENGINEER MUST BE PERFORMED WITHIN 1 MONTH OF STARTING CONSTRUCTION. ALLOW ENGINEER A MINIMUM OF 1 WEEK NOTICE IN SCHEDULING SITE ASSESSMENT INSPECTIONS.

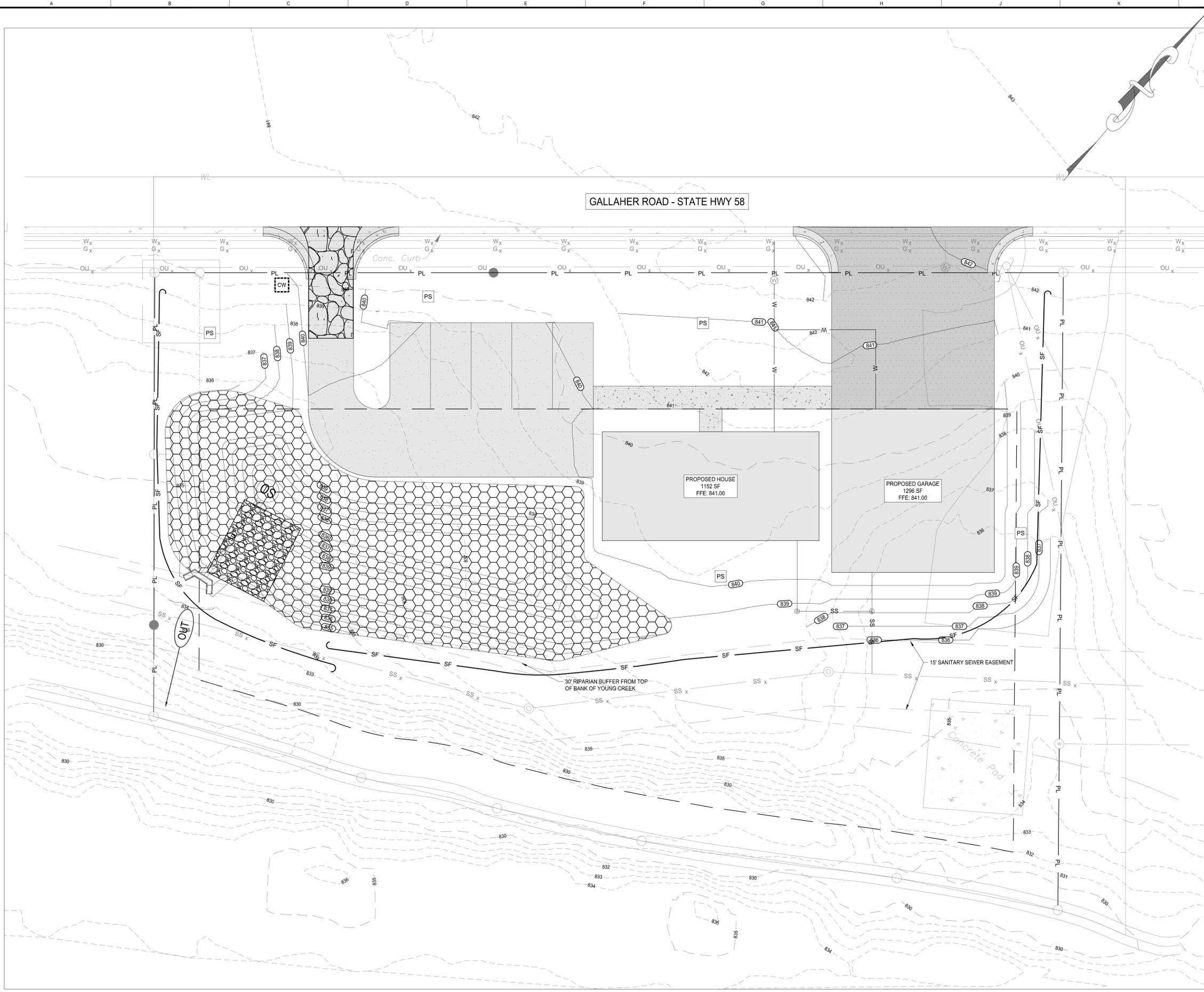
### UTILITY NOTES

- COORDINATE WITH EXISTING UTILITIES AND STORM SEWER INSTALLATION TO AVOID CONFLICTS. UTILITY INSTALLATION AND MATERIAL SHALL MEET THE REQUIREMENTS OF WATER, SEWER, ELECTRIC & GAS COMPANIES AND ALL APPLICABLE CODES. COORDINATE WITH WATER, SEWER, ELECTRIC & GAS COMPANIES PRIOR TO CONSTRUCTION TO DETERMINE MATERIAL, INSTALLATION TESTING AND INSPECTION REQUIREMENTS. VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. PAVEMENT REPAIR AND TRAFFIC CONTROL SHALL MEET THE REQUIREMENTS OF THE AGENCY HAVING JURISDICTION.
- COORDINATE LOCATION OF GAS LINE TO AVOID CONFLICTS WITH OTHER UTILITIES. CONNECTION TO EXISTING GAS SERVICE SHALL MEET THE REQUIREMENTS OF GAS COMPANY. CONTACT GAS COMPANY AND COORDINATE INSTALLATION.
- GAS METER AND SUPPLY LINE SHALL BE SIZED AND INSTALLED BY GAS COMPANY FOR THE LOADS SHOWN ON THE PLUMBING DRAWINGS. PROVIDE 4" SLEEVE UNDER PAVED AREAS.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ANY AND ALL PERMITS AND LICENSES REQUIRED TO WORK IN THE PUBLIC R.O.W. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TAP FEES AND COORDINATION WITH WATER & SEWER COMPANIES TO ESTABLISH WATER AND SEWER SERVICE.
- PROVIDE 10" MIN. HORIZONTAL SEPARATION BETWEEN WATER AND SEWER LINES. WHERE CROSSINGS OCCUR, PROVIDE 18" MIN. SEPARATION BETWEEN WATER AND SEWER LINES. PROVIDE 6" MIN. CLEARANCE BETWEEN STORM SEWERS AND OTHER UTILITIES. UNLESS OTHERWISE NOTED PROVIDE 3" MINIMUM COVER FOR ALL UTILITIES. PROVIDE #5 STONE BEDDING AND BACKFILL TO SUBGRADE FOR ALL UTILITIES LOCATED IN PAVED AREAS.
- ADJUST ALL EXISTING UTILITY STRUCTURES, WHETHER SPECIFICALLY INDICATED ON THE DRAWINGS OR NOT, TO MATCH FINAL GRADES. ADJUSTMENTS SHALL MEET THE REQUIREMENTS OF WATER, SEWER, ELECTRIC & GAS COMPANIES.
- COORDINATE WITH WATER, SEWER, ELECTRIC & GAS COMPANIES TO REMOVE OR ABANDON EXISTING UTILITIES, WHETHER SPECIFICALLY INDICATED ON THE DRAWINGS OR NOT, THAT ARE LOCATED WITHIN THE PROJECT LIMITS AND NO LONGER IN USE.
- UNLESS OTHERWISE NOTED, ALL SANITARY SEWER PIPE AND FITTINGS SHALL BE PVC MEETING THE REQUIREMENTS OF ASTM D 3034. USE SDR 35 UNLESS OTHERWISE SPECIFIED. FITTINGS SHALL MEET THE REQUIREMENTS OF ASTM D 3311 AND ASTM D 2665. PIPE SHALL HAVE AN INTEGRAL BELL END WITH GASKET SEAL WHICH HAS BEEN REINFORCED WITH A STEEL RING, BAND, OR OTHER RIGID MATERIAL THAT PERMANENTLY LOCKS THE GASKET IN PLACE. THE JOINT SHALL MEET THE REQUIREMENTS OF ASTM D 3212. GASKETS SHALL BE OF A LOCK-IN TYPE GASKET, REBER TYPE OR APPROVED SUBSTITUTE. MEETING THE REQUIREMENTS OF ASTM F-477. UNLESS OTHERWISE NOTED, MINIMUM SLOPE SHALL BE 2.0% FOR 4" LINE AND 1.0% FOR 6" LINES.
- UNLESS OTHERWISE NOTED, ALL WATER LINES SHALL BE AWWA C900 PVC (CLASS 200) WITH BELL END FOR PUSH-ON TYPE JOINTS. JOINTS SHALL CONSIST OF COMPACT PATTERN DUCTILE IRON FITTINGS MEETING THE REQUIREMENTS OF AWWA C 153 WITH RUBBER GASKETS MEETING THE REQUIREMENTS OF AWWA C 111.
- INSTALLATION SHALL COMPLY WITH UL 1285.
- ALL FIRE WATER LINES SHALL BE CLASS 385 DUCTILE IRON WITH PUSH-ON TYPE JOINTS. PIPE SHALL COMPLY WITH AWWA C151 AND CEMENT - MORTAR LINING SHALL COMPLY WITH AWWA C104. INSTALLATION SHALL COMPLY WITH AWWA C600.
- FIRE LINE SIZE SHALL BE VERIFIED BY SPRINKLER CONTRACTOR. CERTIFIED CALCULATIONS SHALL BE SUBMITTED TO THE OWNER. SEE THE FIRE PROTECTION PLAN FOR FURTHER REQUIREMENTS. ALL FIRE PROTECTION PIPING STARTING FROM THE POINT OF SERVICE MUST BE INSTALLED BY A TENNESSEE REGISTERED SPRINKLER CONTRACTOR.
- ALL WATER LINE MATERIAL SHALL BE LEAD FREE.

### ABBREVIATIONS

NOTE: ALL ABBREVIATIONS MAY NOT APPLY TO THIS PROJECT

@	AND	— P/E —	STATE AND	— C/E —
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY & TRANSPORTATION OFFICIALS	R/W	RIGHT-OF-WAY	R/W
ADA	AMERICANS WITH DISABILITIES ACT	PL	PROPERTY LINE	PL
APPD	APPROVED APPROXIMATE	2010	MAJOR CONTOUR	2010
APPROX. OR -	APPROXIMATE	2011	MINOR CONTOUR	2011
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS	SS x	SANITARY SEWER	SS
ASPH.	ASPHALT	G <sub>x</sub>	GAS PIPING	G
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	W <sub>x</sub>	WATER LINE	W
AWWA	AMERICAN WATER WORKS ASSOCIATION	OU x	OVERHEAD UTILITIES	OU
B/C	BACK OF CURB	UE x	ELECTRIC (UNDERGROUND)	UE
BLDG.	BUILDING	UT x	TELEPHONE/COMM.	T
BLVD.	BOULEVARD	SD x	STORM SEWER	SD
BM	BENCHMARK	RD	ROOF DRAINS	RD
B/W	BOTTOM OF WALL	F	FIRE SUPPRESSION LINE	F
Δ	CURVE DELTA ANGLE	SSFM	FORCE MAIN	SSFM
CB	CATCH BASIN	SF	SILT FENCE	SF
CFS	CUBIC FEET PER SECOND	SSF	REINFORCED SILT FENCE	SSF
CGP	CONSTRUCTION GENERAL PERMIT		CONSTRUCTION LIMITS	
CI	CURB INLET		SETBACK	
C	CENTERLINE		EXISTING TO BE REMOVED	
CMP	CORRUGATED METAL PIPE		DRAINAGE SWALE	
CMU	CONCRETE MASONRY UNIT		CHECK DAM	
C.O.	CLEANOUT		DIVERSION DITCH	
C.O.	CONCRETE		TUBES AND WATTLES	
CONT.	CONTINUOUS		CURBLINE	
°	DEGREES		CURBLINE	
DOB	DOUBLE CATCH BASIN		BUILDING	
DIA. OR Ø	DIAMETER		FENCE	
DIP	DUCTILE IRON PIPE		VEGETATION	
DWG.	DRAWING		SEWER MANHOLE	
E	EAST		GREASE TRAP	
E.A.	EACH		STORM MANHOLE	
E.F.	EACH FACE		JUNCTION BOX	
EIP	EXISTING IRON PIPE		HORIZONTAL	
EL. OR ELEV.	ELEVATION		CATCH BASIN	
EOP	EDGE OF PAVEMENT		CURB INLET	
EPA	ENVIRONMENTAL PROTECTION AGENCY		THROATED INLET	
ETC.	ET CETERA		OUTFALL	
E.W.	EACH WAY		RIPRAP OUTLET PROTECTION	
EX. OR EXIST.	EXISTING		TEMP. CONSTRUCTION EXIT	
FC	FACE OF CURB		INLET PROTECTION	
FFE	FINISHED FLOOR ELEVATION		THRUST BLOCK	
FIN.	FINISHED		WATER VALVE	
FP	FIRE PROTECTION		WATER METER	
FT.	FEET		POST INDICATOR VALVE	
GC	GENERAL CONTRACTOR		FIRE HYDRANT	
GI	GRATE INLET		FIRE DEPARTMENT CONNECTION	
GPM	GALLONS PER MINUTE		IRRIGATION VALVE	
GV	GAS VALVE		GAS VALVE	
H	HORIZONTAL		GAS METER	
HOPE	HIGH DENSITY POLYETHYLENE		UTILITY POLE	
HP	HIGH POINT		ELECTRICAL VAULT	
HP HDPE	HIGH PERFORMANCE HIGH DENSITY POLYETHYLENE		ELECTRIC METER	
HWY.	HIGHWAY		ELECTRICAL BOX	
ID	INSIDE DIAMETER OR INLINE DRAIN		GUY WIRE	
IN.	INCH(ES)		LIGHT STANDARD	
INV.	INVERT		TELEPHONE PEDESTAL	
IPF	IRON PIN FOUND		BOLLARD	
JB	JUNCTION BOX		SLOPE DRAIN	
L	LENGTH		SLOPE MATTING	
LBS.	POUNDS		TEMPORARY STABILIZATION	
LF	LINEAR FEET		PERMANENT STABILIZATION	
MAX.	MAXIMUM		CONCRETE WASHOUT	
MH	MANHOLE		FILTER RING	
MIN.	MINIMUM		BENCHMARK	
MUTCD	MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES		CONTROL POINT	
N	NORTH			
N/A	NOT APPLICABLE			
NFPA	NATIONAL FIRE PROTECTION AGENCY			
NIC	NOT IN CONTRACT			
NIP	NEW IRON PIN			
NO. OR #	NUMBER			
NOI	NOTICE OF INTENT			
NPDES	NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM			
N.T.E.	NOT TO SCALE			
O.C.	ON CENTER			
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION			
PIV	POST INDICATOR VALVE			
POB	POINT OF BEGINNING (ALIGNMENT)			
POE	POINT OF ENDING (ALIGNMENT)			
PP	POWER/UTILITY POLE			
PSI	POUNDS PER SQUARE INCH			
PVC	POLYVINYL CHLORIDE			
PVMT	PAVEMENT			
Q1	1 YEAR STORM PEAK FLOW			
Q10	10 YEAR STORM PEAK FLOW			
QLP	QUALIFYING LOCAL PROGRAM			
R	RADIUS			
RCP	REINFORCED CONCRETE PIPE			
RD	ROAD			
REF.	REFERENCE			
REQD	REQUIRED			
REV.	REVISION			
R.O.W.	RIGHT-OF-WAY			
S	SOUTH			
SAN.	SANITARY			
SCH.	SCHEDULE			
SD	STORM DRAIN			
SDR				



**GENERAL SHEET NOTES:**

1. SEE SHEET C001 FOR CIVIL NOTES AND LEGENDS

**EROSION CONTROL LEGEND**

- SF SILT FENCE; SEE DETAIL 3/C800
- CONSTRUCTION EXIT; SEE DETAIL 1/C800
- SLOPE MATTING; SEE DETAIL 2/C800
- OUTFALL
- CONCRETE WASHOUT; SEE DETAIL 4/C800
- PERMANENT STABILIZATION; SEE SEED MIXTURE TABLES BELOW
- TDOT CLASS A6 RIPRAP; TO BE PLACED IN DETENTION POND SPILLWAY

**PERMANENT SEED MIXTURES (TDOT)**

GROUPS	SEEDING DATES	GRASS SEEDS	PERCENT
A	FEBRUARY 1 TO JULY 1	KENTUCKY 31 FESCUE	80%
		KOREAN LESPEDEZA	15%
		ENGLISH RYE	5%
B	JUNE 1 TO AUGUST 15	KENTUCKY 31 FESCUE	55%
		ENGLISH RYE	20%
		KOREAN LESPEDEZA	15%
		GERMAN MILLET	10%
B1	APRIL 15 TO AUGUST 15	BERMUDAGRASS (HULLED)	70%
		ANNUAL LESPEDEZA	30%
C	AUGUST 1 TO DECEMBER 1	KENTUCKY 31 FESCUE	70%
		ENGLISH RYE	20%
		WHITE CLOVER	10%
C1	FEBRUARY 1 TO DECEMBER 1	KENTUCKY 31 FESCUE	70%
		CROWN VETCH	25%
		ENGLISH RYE	5%



ENGINEER:  
 MBI COMPANIES INC.  
 299 N. WEISGARBER ROAD  
 KNOXVILLE, TN 37919  
 PHONE: (865) 584-0999  
 FAX: (865) 584-5213  
 WEB: mbicompanies.com  
 CONSULTANT



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**PROJECT INFORMATION**

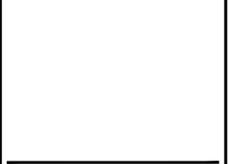
PROJECT:  
**ROANE COUNTY  
 EMS STATION 1 SITE**  
 PROJECT ADDRESS:  
 GALLAHER RD.  
 KINGSTON TN 37763  
 PROJECT NO.:  
**220397-01**

- ACTIVE DESIGN PHASE**
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  - FOR PERMITTING ONLY
  - SCHEMATIC DESIGN
  - DESIGN DEVELOPMENT
  - CONSTRUCTION BIDDING
  - CONSTRUCTION DOCUMENTS
  - AS-BUILT RECORD SET

**REVISION INFORMATION**

NO.	DATE	DESCRIPTION

**KEY PLAN**



**SHEET INFORMATION**

SHEET ISSUED: 12/22/2022  
 DESIGNED BY: I.A.J.  
 DRAWN BY: I.A.J.  
 REVIEWED BY: C.B.T.  
 SHEET TITLE:

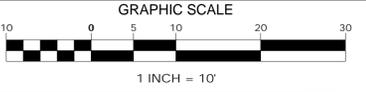
**EROSION PREVENTION & SEDIMENT CONTROL PLAN**

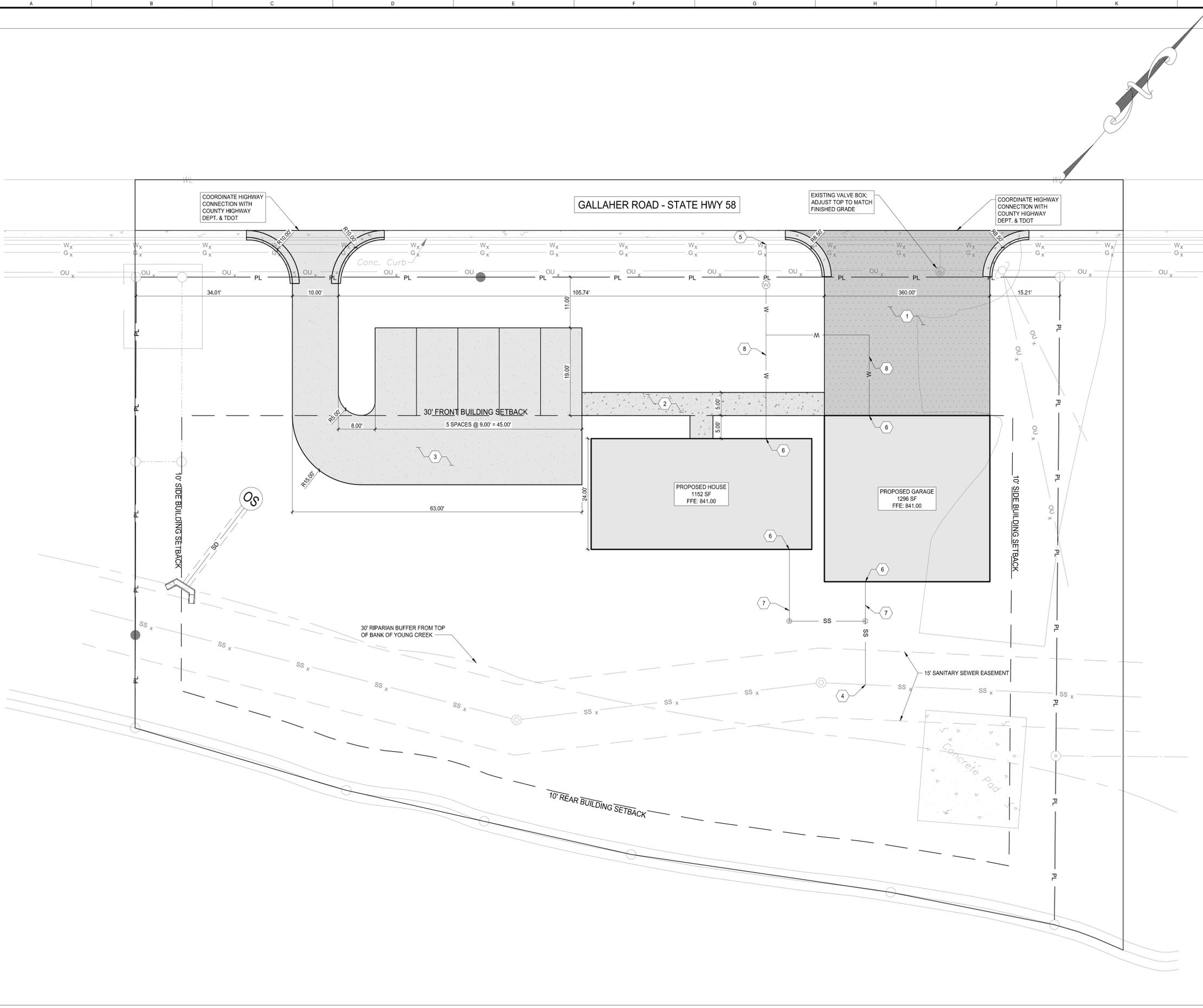
SHEET NO.: **C100**

**EROSION PREVENTION & SEDIMENT CONTROL PLAN**



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**GENERAL SHEET NOTES:**

1. ALL RADII NOT LABELED ARE TO BE R3.00'
2. FOR TYPICAL PARKING SPACE LAYOUT, SEE 5/C801

**SITE & UTILITY KEYED NOTES**

- 1 HEAVY DUTY ASPHALT PAVING; SEE DETAIL 1/C801
- 2 CONCRETE SIDEWALK; SEE DETAIL 6/C800
- 3 LIGHT DUTY ASPHALT PAVING; SEE DETAIL 1/C801
- 4 SEWER LINE CONNECTION BY LOCAL SEWER COMPANY. COORDINATE TAP LOCATIONS.
- 5 WATER LINE CONNECTION BY LOCAL UTILITY COMPANY. COORDINATE TAP & WATER METER LOCATIONS.
- 6 FOR CONTINUATION SEE PLUMBING PLAN
- 7 4" ASTM D3034 SDR35 PVC BUILDING SANITARY SEWER SERVICE LINE @ 2.0% MIN. SLOPE; SEE DETAIL 3/C801
- 8 POTABLE WATER (PVC CLASS 200); SEE DETAIL 3/C801; VERIFY SIZE WITH PLUMBING PLAN

**UTILITY LEGEND**

- ⊕ WATER METER BY LOCAL UTILITY
- ⊙ CO-CLEANOUT; SEE DETAIL 4/C801



ENGINEER:  
 MBI COMPANIES INC.  
 299 N. WEISGARBER ROAD  
 KNOXVILLE, TN 37919  
 PHONE: (865) 584-0999  
 FAX: (865) 584-5213  
 WEB: mbicompanies.com

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 EMS STATION 1 SITE**

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PROJECT NO.:  
**220397-01**

ACTIVE DESIGN PHASE

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<input type="checkbox"/>	DESIGN DEVELOPMENT
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<input type="checkbox"/>	CONSTRUCTION DOCUMENTS
<input type="checkbox"/>	AS-BUILT RECORD SET

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KEY PLAN

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 DESIGNED BY: I.A.J.  
 DRAWN BY: I.A.J.  
 REVIEWED BY: C.B.T.  
 SHEET TITLE:

SITE LAYOUT & UTILITY PLAN  
 SHEET NO.:

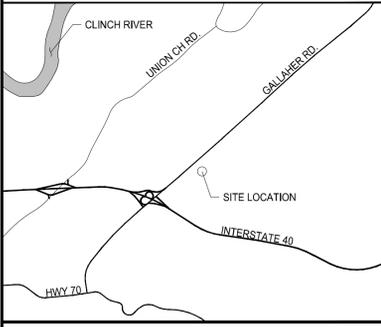
**AREAS & CALCULATIONS**

IMPERVIOUS AREA		
EXISTING	PROPOSED	TOTAL INCREASE
0.07 Acres	0.15 Acres	0.08 Acres
3,193 sqft	6,498 sqft	3,305 sqft

DISTURBED AREA	
TOTAL SITE AREA	DISTURBED AREA
0.56 Acres	0.33 Acres
24,394 sqft	14,375 sqft

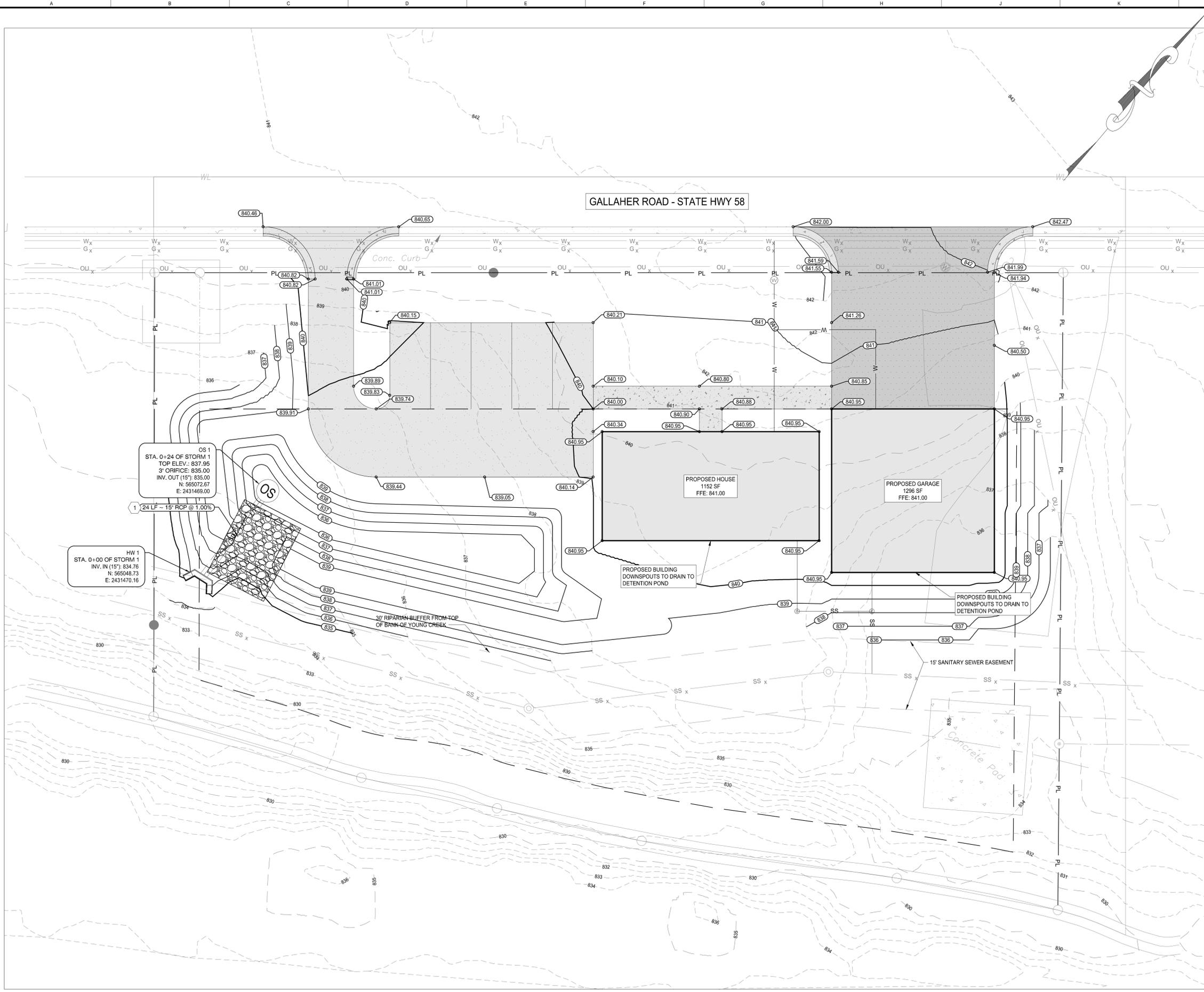
PARKING CALCULATION

PROVIDED	
REGULAR	5
ACCESSIBLE	0
TOTAL	5



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**SITE LAYOUT & UTILITY PLAN**



**GENERAL SHEET NOTES**

1. SEE SHEET C001 FOR CIVIL NOTES AND LEGENDS

**DRAINAGE LEGEND**

- HW-HEADWALL
- OS-OUTLET STRUCTURE; SEE DETAIL 2/C801

**DRAINAGE KEYED NOTES**

- 1 STORM SEWER DRAINAGE PIPE & UTILITY TRENCH; SEE DETAIL 5/C800

**MBI**

ENGINEER:

MBI COMPANIES INC.  
299 N. WEISGARBER ROAD  
KNOXVILLE, TN 37919

PHONE: (865) 584-0999  
FAX: (865) 584-5213  
WEB: mbicompanies.com

CONSULTANT

---

SEAL:

CHRISTOPHER B. TILGO  
REGISTERED ENGINEER  
NO. 10912  
EXPIRES 12/22/2022  
STATE OF TENNESSEE

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KINGSTON TN 37663

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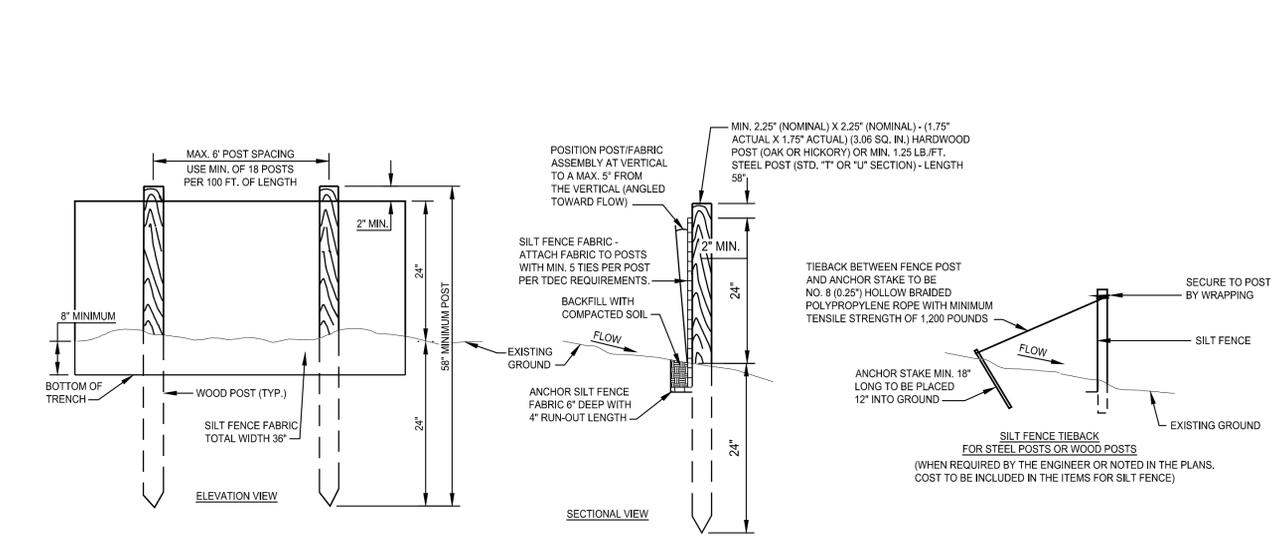
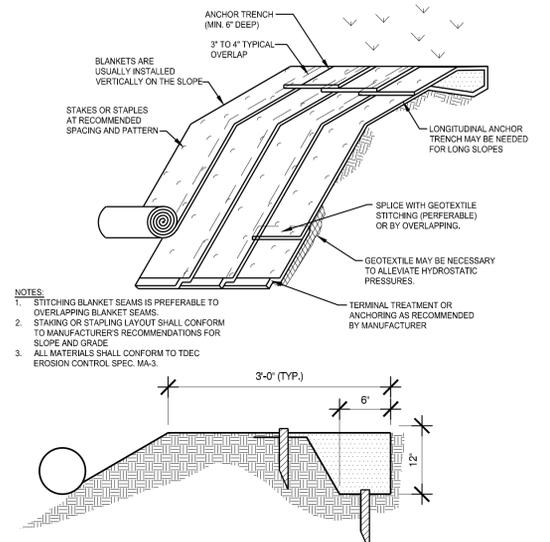
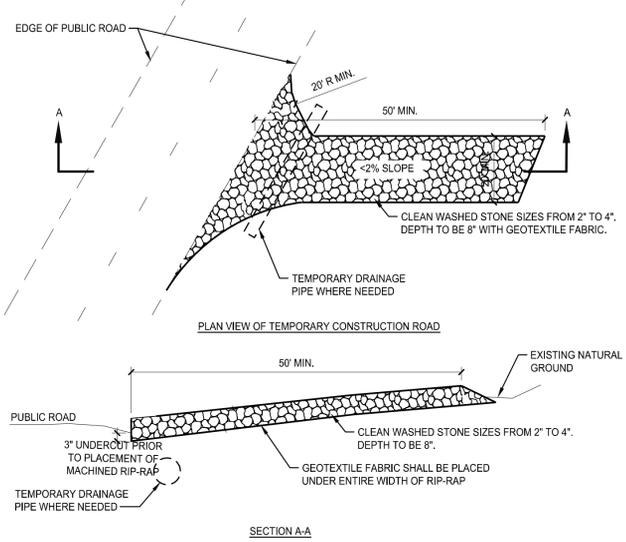
GRAPHIC SCALE  
10 0 5 10 20 30  
1 INCH = 10'

SITE GRADING & DRAINAGE PLAN

SHEET NO.: **C400**

**SITE GRADING & DRAINAGE PLAN**

1

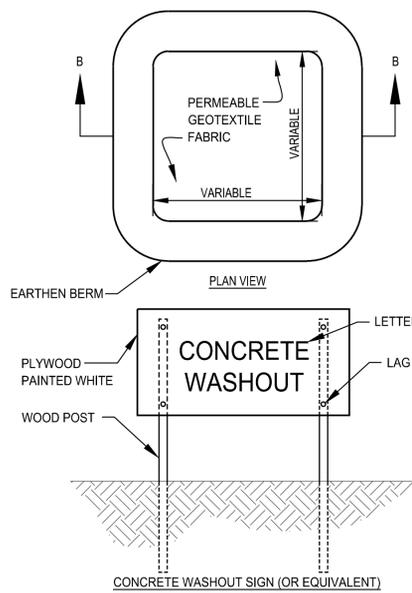
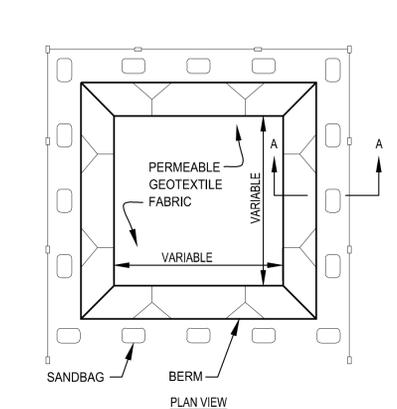


**CONSTRUCTION EXIT**

**1 SLOPE MATTING**

**2 SILT FENCE**

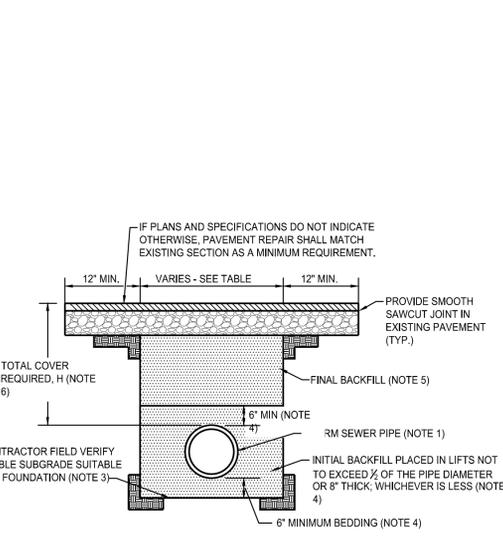
**3**



- NOTES:  
 1. ACTUAL LAYOUT DETERMINED IN THE FIELD.  
 2. SIGNAGE IDENTIFYING THE CONCRETE WASHOUT AREA SHALL BE INSTALLED WITHIN 5FT. OF THE WASHOUT FACILITY.

**CONCRETE WASHOUT**

**4**

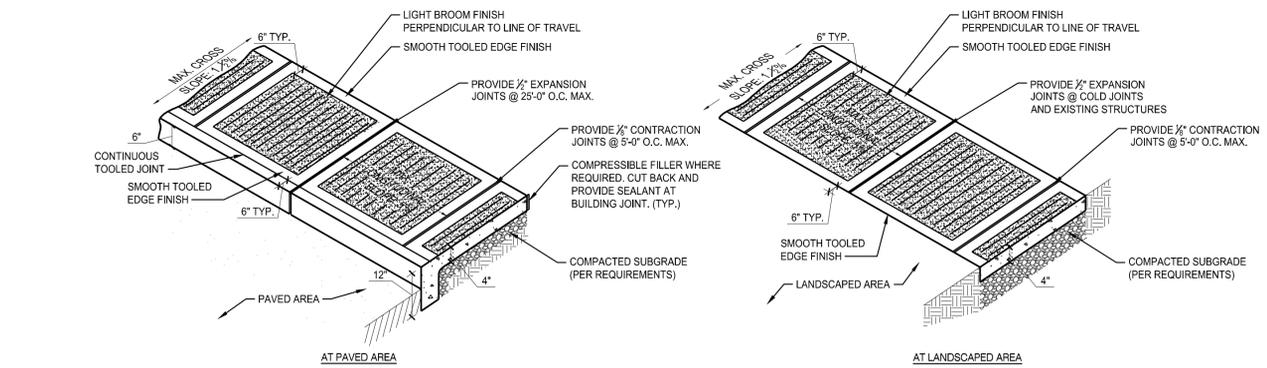


1. ALL HDPE PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST ED. AND ALL CMP SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM A 798, LATEST ED.  
 2. THIS DETAIL ADDRESSES A TRENCH TYPE INSTALLATION. FOR EMBANKMENT OR OTHER INSTALLATIONS, FOR CMP SEE ASHTO SECTION 27. FOR HDPE SEE ASHTO SECTION 30. THIS DETAIL DOES NOT ADDRESS OSHA TRENCH SAFETY REQUIREMENTS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO MEET ALL HEALTH AND SAFETY ISSUES REGARDING TRENCH SAFETY.  
 3. WHERE THE TRENCH BOTTOM IS UNSUITABLE FOR FOUNDATION IN THE OPINION OF THE PROJECT GEOTECHNICAL ENGINEER, THE CONTRACTOR SHALL STABILIZE THE TRENCH BOTTOM ACCORDING TO THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER.  
 4. BEDDING AND INITIAL BACKFILL TO 6\"/>

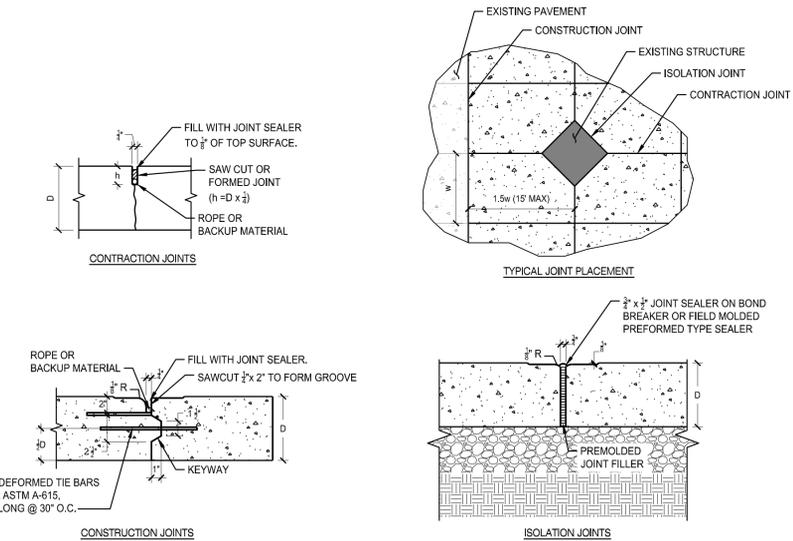
RCP AND CONCRETE		ALUMINIZED CMP, HDPE AND PVC	
PIPE DIA (IN)	MINIMUM WIDTH (IN)	PIPE DIA (IN)	MINIMUM WIDTH (IN)
4	21	4	21
6	23	6	23
8	26	8	26
12	22	12	30
15	26	15	34
18	31	18	39
24	40	24	48
30	50	30	56
36	59	36	64
42	68	42	72
48	78	48	80
54	87	54	88
60	98	60	96

**STORM SEWER TRENCH**

**5**



- NOTES:  
 1. JOINT SPACING SHALL BE UNIFORM AND TYPICALLY LESS THAN 30xSLAB THICKNESS. IN NO CASES SHALL JOINT SPACING EXCEED 15'  
 2. THE LENGTH OF JOINT SPACING SHALL NOT EXCEED 1.5w  
 3. SAWING OF THE JOINTS SHALL BEGIN AS SOON AS THE CONCRETE HAS HARDENED SUFFICIENTLY TO PERMIT SAWING WITHOUT EXCESSIVE RAVELING BUT IN NO CASE LONGER THAN 18 HOURS AFTER POURING. ALL JOINTS SHALL BE SAWS BEFORE UNCONTROLLED SHRINKAGE CRACKING OCCURS. IF NECESSARY, THE SAWING OPERATIONS SHALL BE CARRIED ON BOTH DAY AND NIGHT REGARDLESS OF WEATHER CONDITIONS. A STANDBY SAW SHALL BE AVAILABLE IN THE EVENT OF BREAKDOWN.  
 4. CONCRETE SHALL BE THOROUGHLY CONSOLIDATED AGAINST AND ALONG THE FACES OF ALL FORMS AND ALONG THE FULL LENGTH AND ON BOTH SIDES OF ALL JOINTS.  
 5. THE JOINTS CAN BE COMPLETELY FILLED WITH SEALANT MATERIAL OR PREMOLDED JOINT FILLER CAN BE INSERTED IN THE JOINT FIRST TO REDUCE THE AMOUNT OF SEALANT REQUIRED.  
 6. SEALER TO BE POURED TO WITHIN 1/2\"/>



**CONCRETE JOINTS**

**7**

**CONCRETE SIDEWALK**

**6**

**MBI**

ENGINEER:  
 MBI COMPANIES INC.  
 299 N. WEISGARBER ROAD  
 KNOXVILLE, TN 37919  
 PHONE: (865) 584-0999  
 FAX: (865) 584-5213  
 WEB: mbicompanies.com

CONSULTANT

SEAL:

CHRISTOPHER B. TILGO  
 REGISTERED ENGINEER  
 AGRICULTURE  
 COMMERCIAL  
 NO. 100122  
 STATE OF TENNESSEE  
 12/22/2022

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PROJECT INFORMATION  
 PROJECT:  
**ROANE COUNTY EMS STATION 1 SITE**  
 PROJECT ADDRESS:  
 GALLAHER RD. KINGSTON TN 37763  
 PROJECT NO.: **220397-01**

ACTIVE DESIGN PHASE  
 FOR REVIEW ONLY  
 FOR PERMITTING ONLY  
 SCHEMATIC DESIGN  
 DESIGN DEVELOPMENT  
 CONSTRUCTION BIDDING  
 CONSTRUCTION DOCUMENTS  
 AS-BUILT RECORD SET

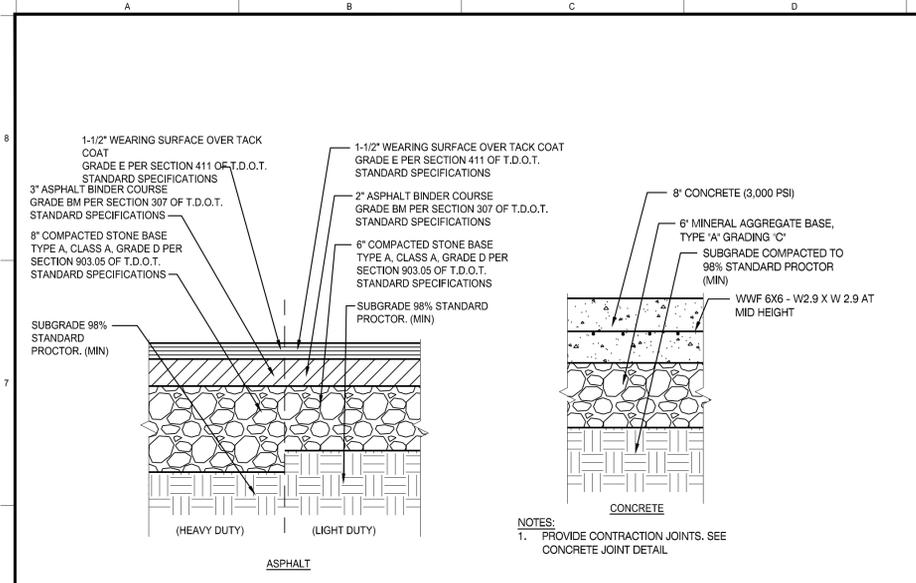
REVISION INFORMATION  
 NO. DATE DESCRIPTION

KEY PLAN

SHEET INFORMATION  
 SHEET ISSUED: 12/22/2022  
 DESIGNED BY: I.A.J.  
 DRAWN BY: I.A.J.  
 REVIEWED BY: C.B.T.  
 SHEET TITLE:

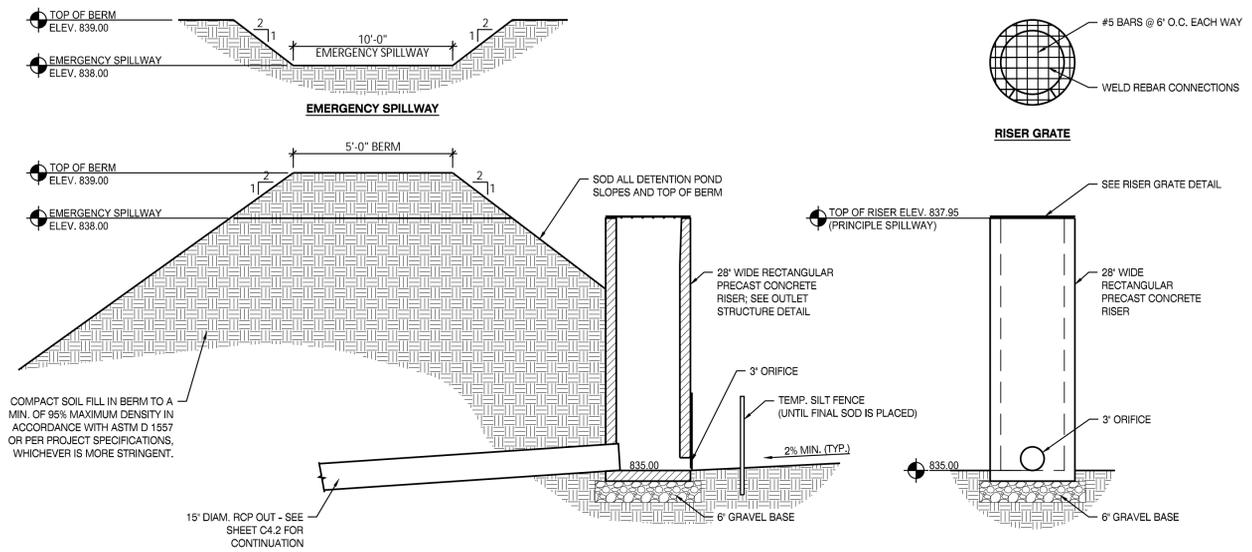
CIVIL DETAILS

SHEET NO.: **C800**



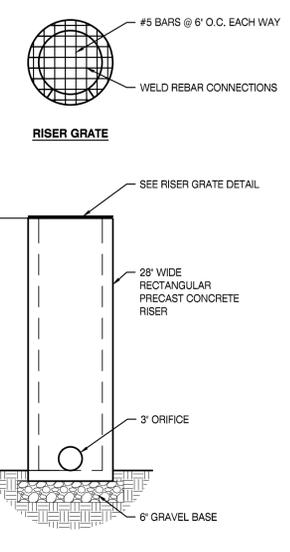
**PAVING SECTIONS**

1



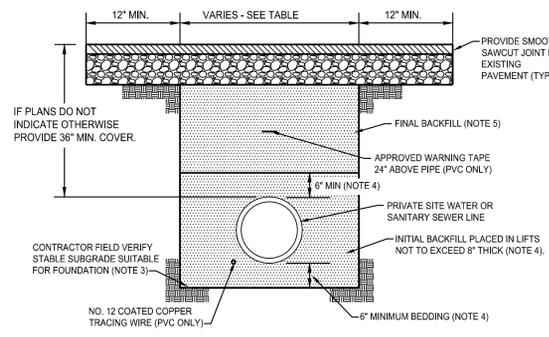
**DETENTION POND**

DETENTION POND



**OUTLET STRUCTURE**

OUTLET STRUCTURE

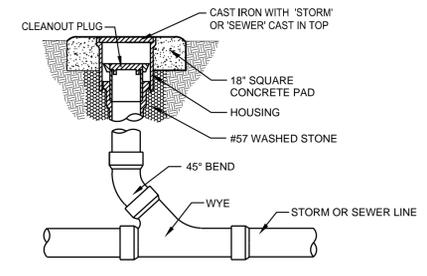


**WATER AND SEWER TRENCH**

3

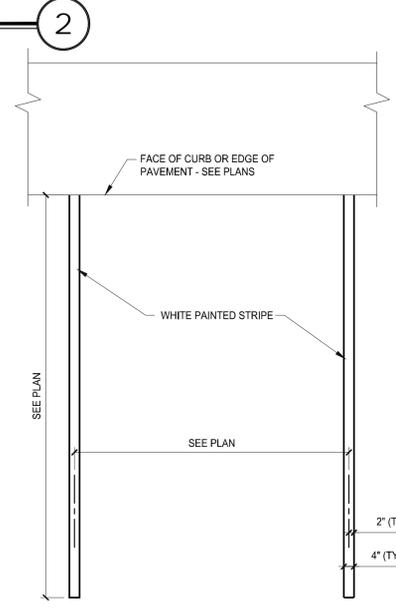
- NOTES:**
1. ALL PRIVATE SITE UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE PLUMBING CODE, LOCAL UTILITY REQUIREMENTS, AND THE LOCAL AGENCY HAVING JURISDICTION OVER BUILDING CONSTRUCTION.
  2. THIS DETAIL ADDRESSES A TRENCH TYPE INSTALLATION. THIS DETAIL DOES NOT ADDRESS OSHA TRENCH SAFETY REQUIREMENTS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO MEET ALL HEALTH AND SAFETY ISSUES REGARDING TRENCH SAFETY.
  3. WHERE THE TRENCH BOTTOM IS UNSUITABLE FOR FOUNDATION IN THE OPINION OF THE PROJECT GEOTECHNICAL ENGINEER, THE CONTRACTOR SHALL STABILIZE THE TRENCH BOTTOM ACCORDING TO THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER.
  4. BEDDING AND INITIAL BACKFILL TO 6\"/>

MINIMUM TRENCH WIDTHS	
PIPE DIA. (IN.)	MIN. WIDTH (IN.)
< 4	18
4	21
6	23
8	26



**STORM/SEWER CLEANOUT**

4



**PARKING SPACE**

5

# MBI

---

ENGINEER:

MBI COMPANIES INC.  
299 N. WEISGARDER ROAD  
KNOXVILLE, TN 37919

PHONE: (865) 584-0999  
FAX: (865) 584-5213  
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CONSULTANT

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SEAL:

12/22/2022

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REVISION INFORMATION

NO.	DATE	DESCRIPTION

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KEY PLAN

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DESIGNED BY: I.A.J.  
DRAWN BY: I.A.J.  
REVIEWED BY: C.B.T.  
SHEET TITLE:

---

**CIVIL DETAILS**

SHEET NO.: **C801**