

# Marina Wastewater System Improvements Truman Lake State Park Warsaw, Missouri

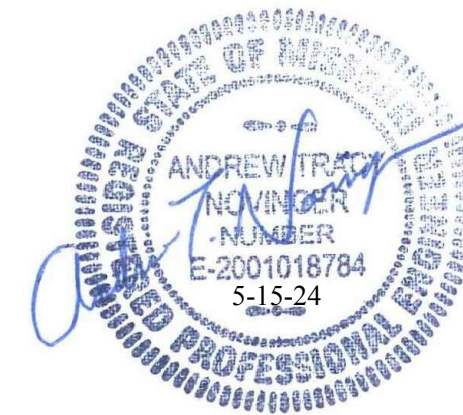
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OWNER: STATE OF MISSOURI  
MICHAEL L. PARSON,  
GOVERNOR  
  
DEPARTMENT OF  
NATURAL RESOURCES  
DIVISION OF STATE PARKS

PROJECT  
MANAGEMENT: OFFICE OF ADMINISTRATION  
DIVISION OF FACILITIES MANAGEMENT,  
DESIGN AND CONSTRUCTION

DESIGNER: OWN, Inc.

PROJECT NUMBER: X2308-01

SITE NUMBER: 9006  
FACILITY NUMBER: 53743

SHEET NUMBER:

**C-001**

1 OF 9 SHEETS  
FEBRUARY 28, 2024



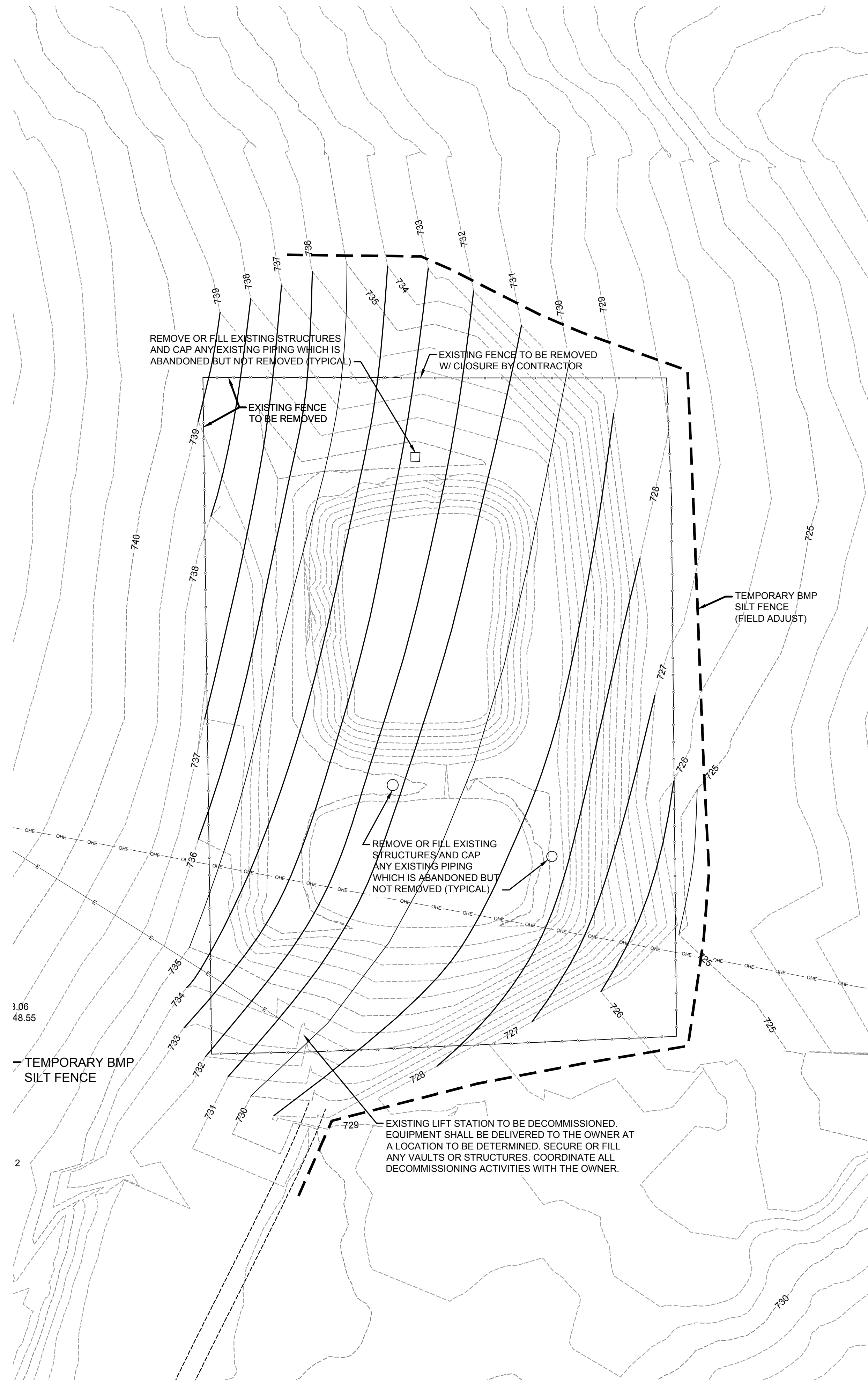




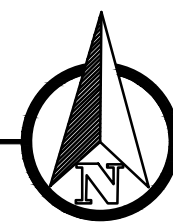
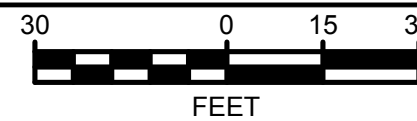








**EROSION CONTROL PLAN**



**NOTE:**

ANY ADDITIONAL EROSION CONTROL MEASURES REQUIRED BY PROJECT TO COMPLY WITH MDNR REGULATIONS NOT INCLUDED IN THE BID SCHEDULE SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.

EQUIPMENT STORAGE FOR THIS PORTION OF THE SITE MAY BE ANYWHERE WITHIN THE TEMPORARY SILT FENCE AREA. NO DESIGNATED SITE WILL BE SHOWN.

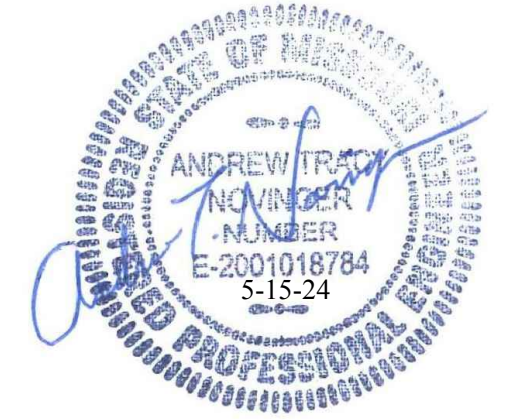
**EROSION CONTROL & MAINTENANCE PLAN NOTES:**

1. INSTALLATION OF ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY THE CITY OR STATE. CONTRACTOR TO VERIFY REQUIREMENTS PRIOR TO BEGINNING ANY WORK ON PROJECT SITE.
2. PROVIDE TEMPORARY EROSION CONTROL TO CONTAIN ALL SOILS ON SITE. COMPLY WITH GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
3. CONTRACTOR TO RETAIN FLOATABLE WIND BLOWN MATERIALS ON SITE BY STORING ALL TRASH AND BUILDING MATERIAL WASTE IN ENCLOSURES UNTIL PROPER DISPOSAL AT OFF-SITE FACILITIES. CHECK ADJACENT AREAS DAILY AND PICK UP CONSTRUCTION WASTE MATERIALS AND DEBRIS THAT HAVE BLOWN OR WASHED OFF SITE.
4. PERMANENTLY STABILIZE ALL SURFACE AREA WITHIN AND ADJACENT TO THIS SITE THAT IS DISTURBED BY VEHICLES, GRADING AND OTHER CONSTRUCTION FOR THE PROPOSED FACILITY. STABILIZATION IS OBTAINED WHEN THE DISTURBED SURFACE IS COVERED WITH STRUCTURES, PAVING AND OR PERENNIAL VEGETATION HAVING A UNIFORM COVERAGE DENSITY OF AT LEAST 70%. STABILIZATION OF ALL DISTURBED AREA IS REQUIRED BEFORE TERMINATING MAINTENANCE AND REMOVAL OF EROSION CONTROL MEASURES.
5. CONTRACTORS SHALL INSPECT POLLUTION CONTROL MEASURES AT LEAST ONCE EVERY 7 DAYS AND WITHIN 24 HOURS AFTER A STORM EVENT OF 1/2 INCH OR GREATER. DAMAGED MEASURES THAT PROVE TO BE INEFFECTIVE SHALL BE REPLACED WITH MORE EFFECTIVE MEASURES OR ADDITIONAL MEASURES WITHIN SEVEN DAYS. REPEATED FAILURE OF A CONTROL MEASURE REQUIRES INSTALLATION OF A MORE SUITABLE DEVICE TO PREVENT DISCHARGE OF POLLUTANTS FROM THE CONSTRUCTION SITE.
6. CARE SHALL BE TAKEN TO ELIMINATE TO THE MAXIMUM EXTENT POSSIBLE THE ENCROACHMENT OF SEDIMENT INTO ALL STORM DRAIN APPURTENANCES, PUBLIC STREETS, AND ONTO PRIVATE PROPERTY UNTIL IMPERVIOUS MATERIAL (ROAD/PARKING AREA SURFACE) IS APPLIED OR UNTIL PROPOSED LANDSCAPE HAS BEEN ESTABLISHED.
7. REMOVE SEDIMENT DEPOSITS AS NECESSARY AFTER EACH STORM TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. CARE NEEDS TO BE TAKEN TO AVOID UNDERMINING THE FENCE WHEN REMOVING SEDIMENT. SEDIMENT IS TO BE REAPPLIED TO THE SITE AND STABILIZED.
8. ALL GRASS SLOPES WHICH EXCEED 3:1 (H:V) AND SELECT PIPE OUTFALLS SHALL UTILIZE TURF REINFORCEMENT. MATS SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND STANDARDS. CONTRACTOR SHALL COORDINATE INSTALLATION INSPECTION WITH MANUFACTURER.
9. ALL DISTURBED AREAS ARE TO BE RE-SEEDED IN ACCORDANCE WITH THE CURRENT REQUIREMENTS AND DESIGN STANDARDS.
10. THE DETENTION BASIN, ALL WATER QUALITY MEASURES AND STORMWATER CHANNELS (PIPES) SHALL BE FUNCTIONING PRIOR TO STARTING ANY OTHER CONSTRUCTION ACTIVITIES.
11. CONSTRUCTION ACCESS TO THE SITE SHALL BE LIMITED TO THE APPROVED TEMPORARY CONSTRUCTION ENTRANCE AS SHOWN ON THE STORMWATER POLLUTION PREVENTION PLAN.
12. EROSION CONTROL DEVICES SHALL BE MAINTAINED DURING THE WHOLE CONSTRUCTION PERIOD BY THE CONTRACTOR.
13. THE INSTALLATION OF SILT FENCE FOR CONSTRUCTION IS TO BE INSTALLED BY THE CONTRACTOR AND IN PLACE BEFORE BEGINNING SITE CONSTRUCTION. HAY BALES OR SIMILAR DEVICES ARE TO BE USED BY THE CONTRACTOR TO MEET THE REQUIREMENTS OF THE ENGINEER. DEVICES TO BE IN PLACE AS SHOWN ON THE PLANS. ADJUSTMENT OF THE LOCATION BY THE CONTRACTOR MAY BE DONE TO MEET EXISTING FIELD CONDITIONS. ALL CONTROLS ARE TO BE LACED WITHIN OWNER'S PROPERTY. ACCUMULATED SEDIMENT IN BASINS WILL REQUIRE REMOVAL DURING CONSTRUCTION OR AFTER EACH RAIN EVENT AND AT THE END OF CONSTRUCTION. EACH BASIN SHALL BE CHECKED AFTER EACH RAIN EVENT. CONTRACTOR TO MINIMIZE THE AREA DISTURBED BY CONSTRUCTION ACTIVITIES AT ANY ONE TIME AND TO PROMPTLY RE-VEGETATE (OR MECHANICALLY STABILIZE) ARE DISTURBED BY CONSTRUCTION ACTIVITY.
14. SILT FENCE SHALL BE PLACED AROUND ALL SOIL SPOIL PILES TO PREVENT EROSION.

**SEDIMENT & EROSION CONTROL GENERAL NOTES**

1. THIS PLAN SHOWS THE LOCATION AND DETAILS FOR PRIMARY SEDIMENT CONTROLS TO BE CONSTRUCTED. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING EROSION AND DISCHARGE OF SEDIMENT FROM THE SITE AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE NECESSARY MEASURES DURING ALL PHASES OF HIS OPERATIONS REGARDLESS OF WHETHER THEY ARE SPECIFICALLY NOTED ON THIS PLAN AND SHALL MAINTAIN AND REPLACE CONTROLS AS NECESSARY DURING THE COURSE OF HIS OPERATIONS.
2. TEMPORARY CONSTRUCTION ENTRANCE(S) AND SILT FENCES, STRAW BALE DIKES OR OTHER INITIAL SEDIMENT CONTROLS SHOWN ON THIS PLAN MUST BE INSTALLED PRIOR TO ANY OTHER WORK.
3. SEDIMENT BASINS SHOWN ON THIS PLAN MUST BE INSTALLED WITHIN TEN (10) CALENDAR DAYS AFTER CONSTRUCTION BEGINS OR AS SOON AS TWO (2) OR MORE ACRES ARE DISTURBED, WHICHEVER OCCURS FIRST.
4. THE CONTRACTOR SHALL CLEAN STREETS BOTH INTERIOR AND ADJACENT TO THE SITE, AS NEEDED, AFTER EACH RAINFALL, AND AT THE END OF CONSTRUCTION.
5. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST DURING CONSTRUCTION AND SHALL WATER THE CONSTRUCTION AREAS WHENEVER CONDITIONS WARRANT.
6. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING ACCUMULATED SEDIMENT FROM STORM DRAINS PRIOR TO APPROVAL OF CONSTRUCTION.
7. ALL DISTURBED AREAS NOT RECEIVING OTHER PERMANENT STABILIZATION SUCH AS PAVEMENT, ROOFS, SOD, ETC., SHALL BE SEEDED AND MULCHED, AS SPECIFIED BEFORE TEMPORARY SEDIMENT CONTROLS CAN BE REMOVED AND PRIOR TO FINAL APPROVAL OF CONSTRUCTION.
8. THE CONTRACTOR IS RESPONSIBLE FOR INSPECTING BEST MANAGEMENT PRACTICES, (BMPs), WEEKLY AND AFTER IT RAINS IN ACCORDANCE WITH THE MDNR EROSION CONTROL PERMIT.
9. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING COPIES OF THE SEDIMENT AND EROSION CONTROL PLAN, THE STORMWATER POLLUTION PREVENTION PLAN, (SWPPP), AND THE WEEKLY INSPECTION REPORTS ON SITE AT ALL TIME.
10. APPROVAL FOR THESE EROSION CONTROL PLANS IN NO WAY RELEASES THE DEVELOPER/CONTRACTOR FROM THE RESPONSIBILITY FOR ALL SEDIMENT/EROSION CONTROL METHODS TO BE IN COMPLIANCE WITH THE STANDARDS AND CODES OF THE CITY. THIS INCLUDES, BUT IS NOT LIMITED TO: PROPER MAINTENANCE OF ALL CONTROLS IN PLACE AND PROVIDING ADDITIONAL CONTROL AS REQUIRED FOR BOTH SHEET FLOW AND CONCENTRATED FLOW AREAS.

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DEPARTMENT OF  
Natural Resources  
Division of State Parks

MARINA WASTEWATER  
SYSTEM IMPROVEMENTS

TRUMAN LAKE STATE PARK  
WARSAW, MISSOURI

PROJECT # X2308-01  
SITE # 9006  
FACILITY # 53743

REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
ISSUE DATE: \_\_\_\_\_

CAD DWG FILE: \_\_\_\_\_  
DRAWN BY: OWN STAFF  
CHECKED BY: OWN STAFF  
DESIGNED BY: OWN INC.

SHEET TITLE:

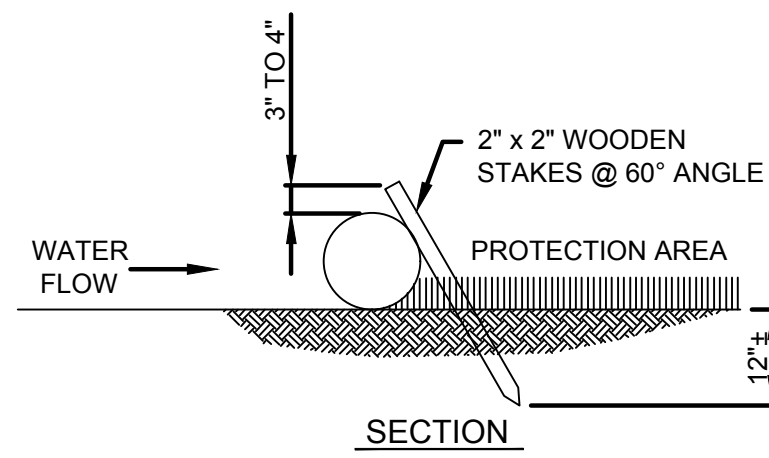
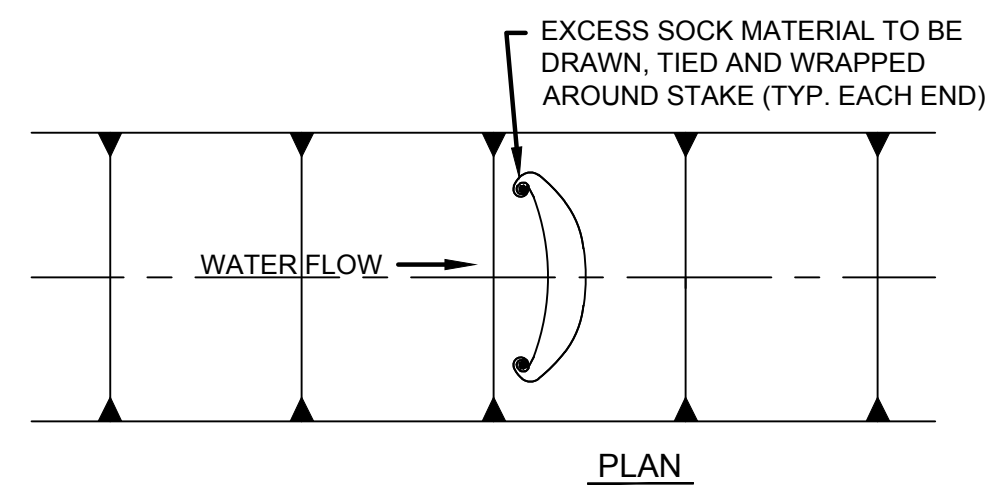
EROSION CONTROL  
PLAN - LAGOON

SHEET NUMBER:

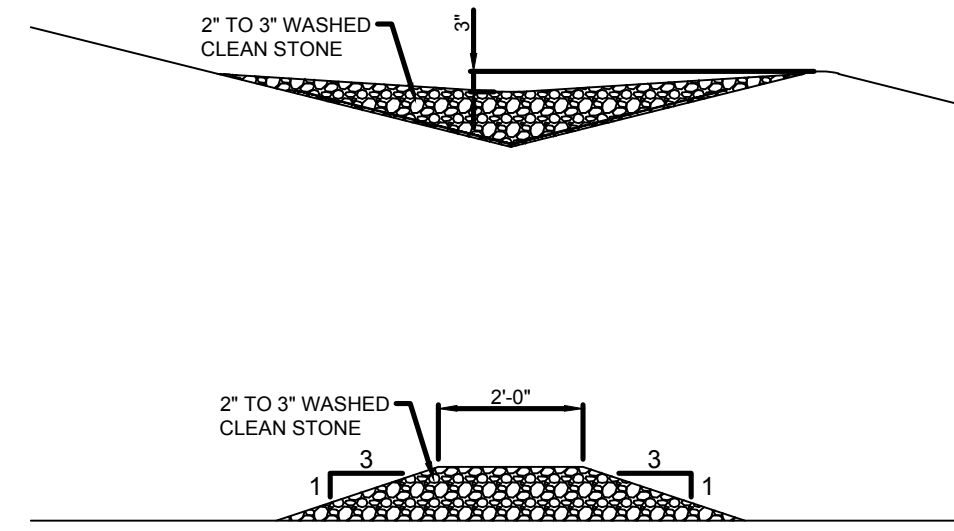
C-008

8 OF 9 SHEETS



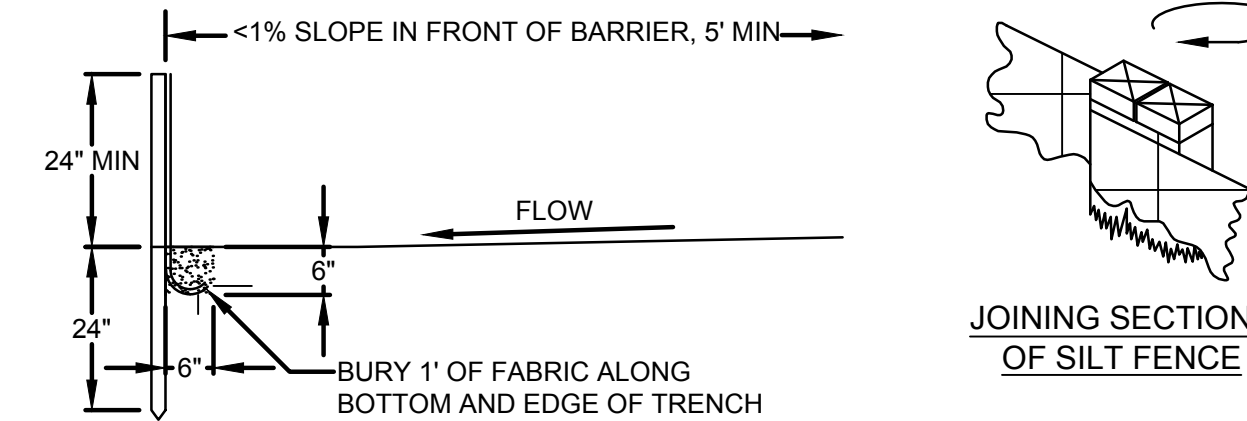
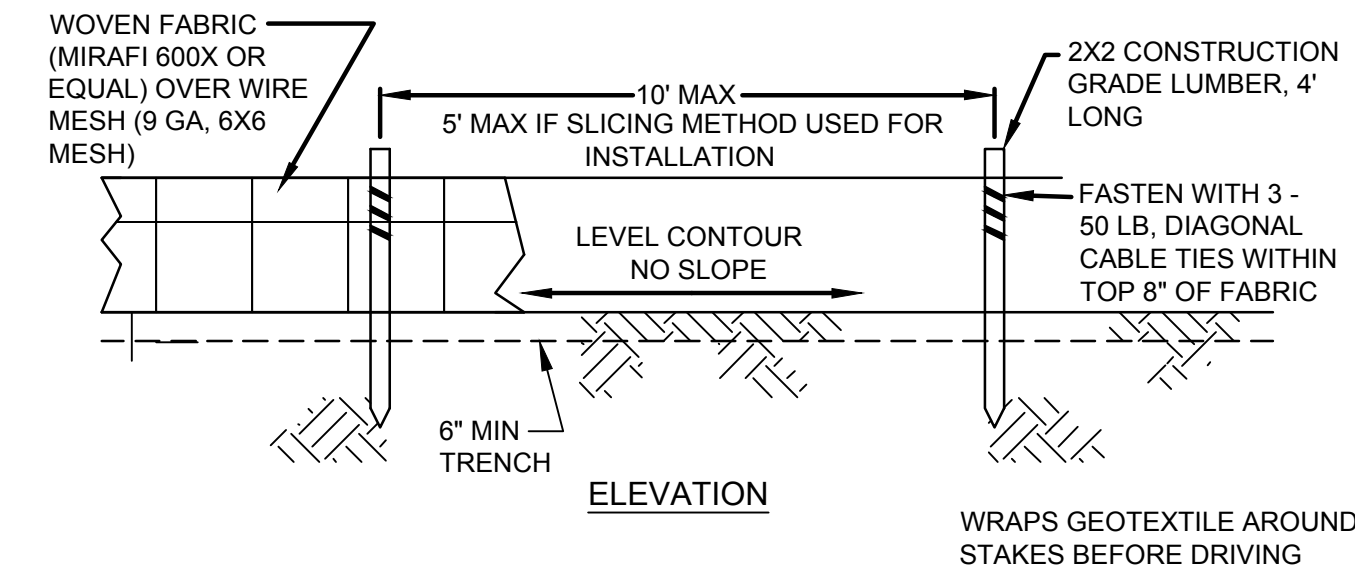


**COMPOST FILTER SOCK  
DITCH CHECK DETAILS**  
NTS



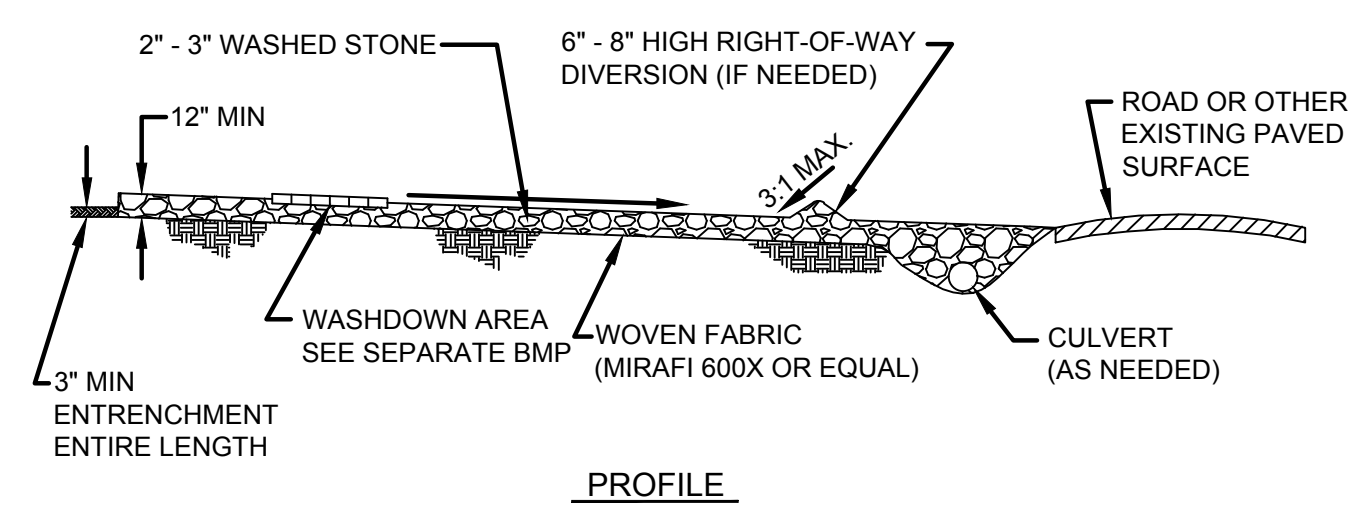
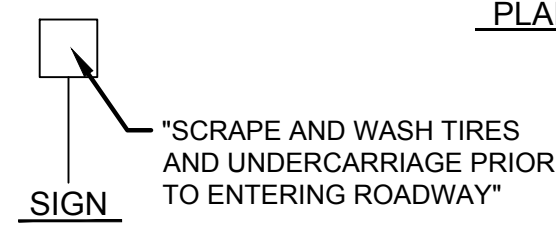
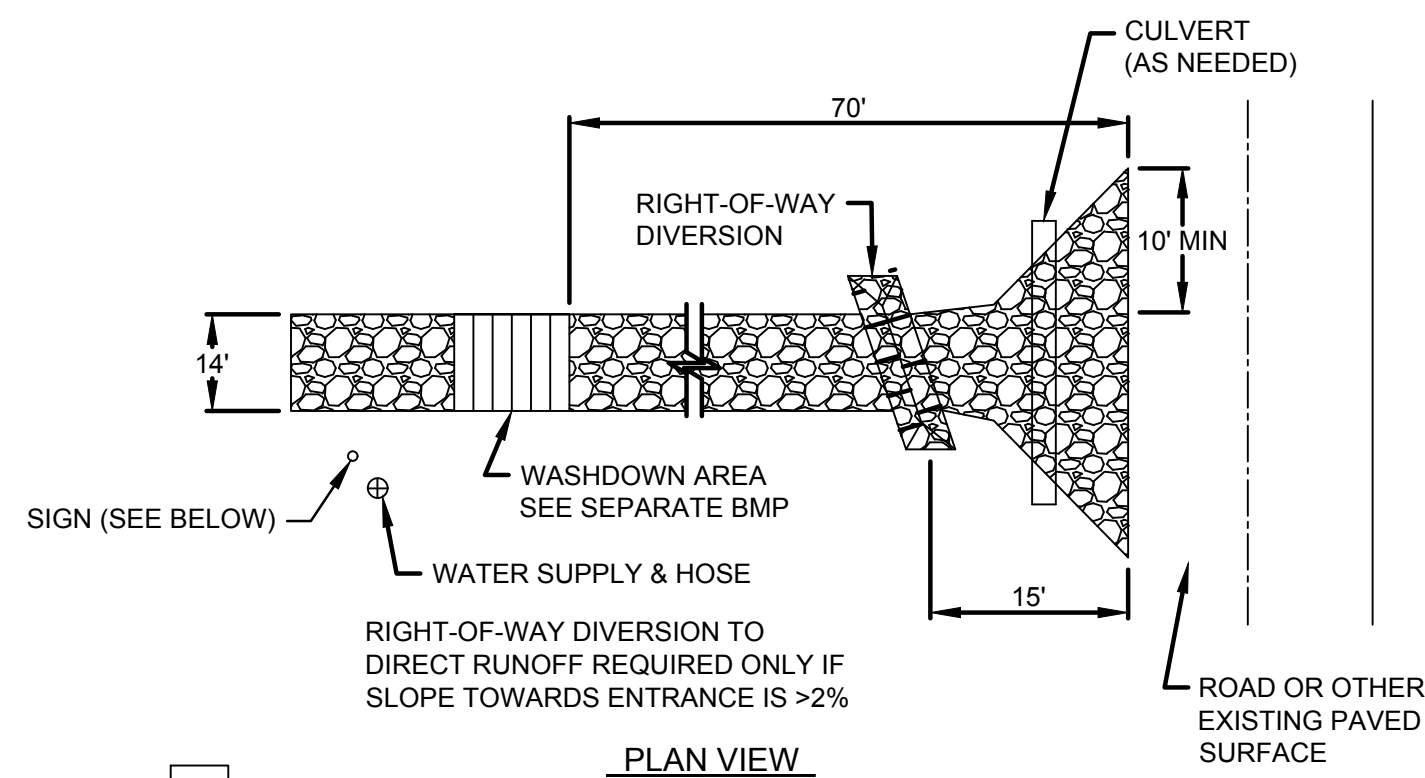
**ROCK DITCH CHECK**  
NTS

NOTE:  
COMPOST FILTER SOCK OR ROCK  
DITCH CHECKS MAY BE USED

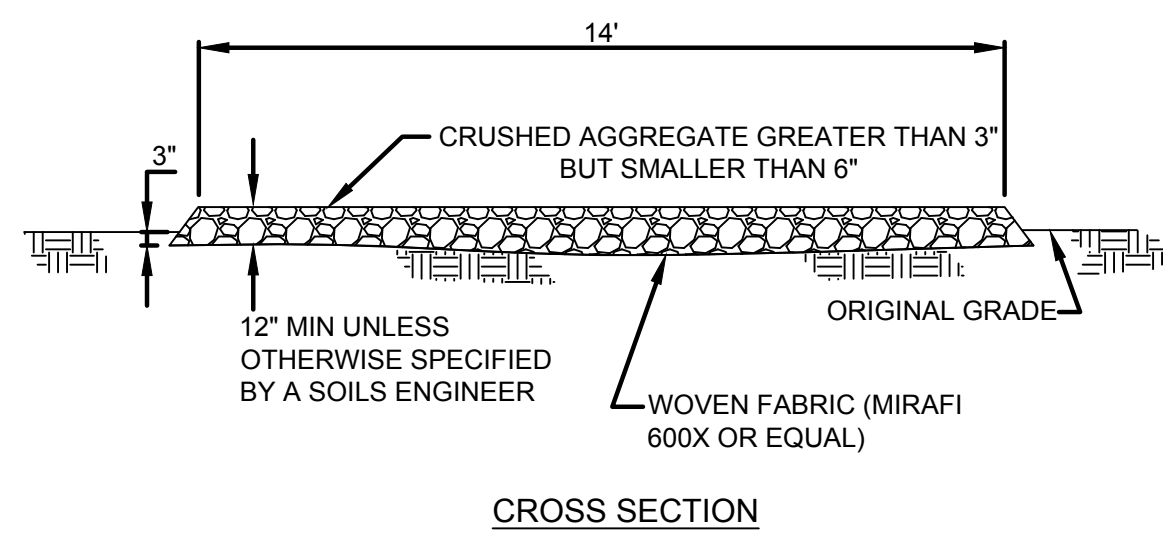
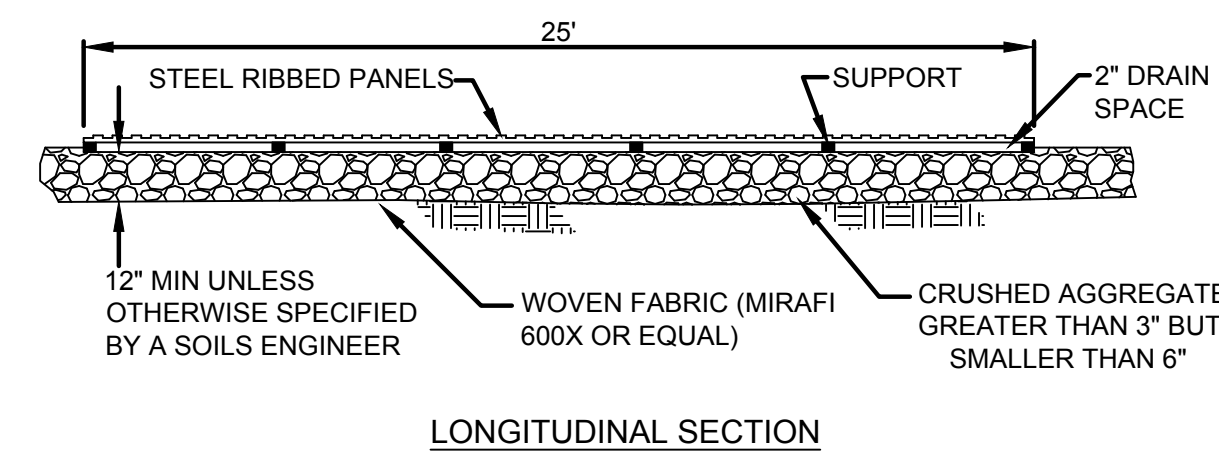


NOTE: IF FABRIC IS INSTALLED BY EQUIPMENT DESIGNED TO SLICE INTO THE GROUND, THE TRENCH IS NOT NEEDED

**SILT FENCE**  
NTS

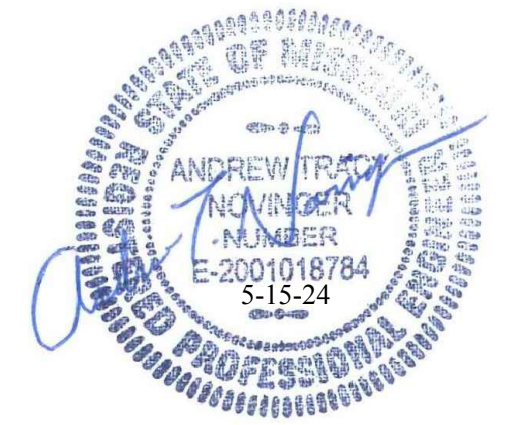


**CONSTRUCTION ACCESS ROAD**  
NTS



**WASHDOWN RACK DETAILS**  
NTS

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DESIGNED BY: OWN INC.

SHEET TITLE:

EROSION CONTROL  
DETAILS (BMPS)

SHEET NUMBER:

**C-009**

9 OF 9 SHEETS