

**Claire Sichko**

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**From:** Claire Sichko  
**Sent:** Tuesday, October 20, 2015 12:40 PM  
**To:** EPLANS TURNINS; TDOT CopyCenter  
**Cc:** TDOT.HQ Construction; TDOT EstimatingOffice; Anthony Myers; John Hewitt; Shane Hester  
**Subject:** PIN 119066.00, SWPPP SHEET SUBMITTAL (region 3)  
**Attachments:** PIN 119066 00 SWPPP.pdf

## **LETTING PLANS REVISION**

PIN 119066.00  
Project # 60010-1216-94  
State Route 99  
Turn lanes, Intersection at Patterson Drive in Columbia  
Maury County

Description of Revision: SWPPP Sheets

Number of Sheets Added: 6

This email serves as notification that the subject project is being electronically submitted for the 12/04/15 Letting Process. Please find the SWPPP Sheets attached.

**ATTENTION PRINT SHOP: 1 sets of 11" X17" prints of the revised sheets only is requested for the HQ Construction Office. Please contact their office when the prints are ready to be picked up.**

Cc:  
Anthony Myers, Senior Transportation Project Specialist  
John Hewitt, CE Manager 2  
Shane Hester, Region 3 CE Manager

Thank you,



**Claire Sichko** | Consultant  
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**STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION**

**ENVIRONMENTAL DIVISION**  
SUITE 900, JAMES K. POLK BUILDING  
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**JOHN C. SCHROER**  
COMMISSIONER

**BILL HASLAM**  
GOVERNOR

October 19, 2015

Mr. Jim McAdoo, Permit Section  
TN Department of Environment and Conservation  
Division of Water Pollution Control  
11<sup>th</sup> Floor William R. Snodgrass Tennessee Tower  
312 Rosa L. Parks Avenue  
Nashville, Tennessee 37243

RE: NOI and SWPPP Submittals for TDOT Construction Activities

Dear Mr. McAdoo:

We request coverage under the General NPDES Permit for Discharges of Storm Water Associated with Construction Activities for the subject project. Enclosed is the Notice of Intent (NOI) for Construction Activity – Storm Water Discharges and one hard copy and one electronic copy on CD of the site-specific Storm Water Pollution Prevention Plan (SWPPP).

Project # 60010-1216-94, PIN 119066.00  
SR-99, Intersection at Patterson Drive in Columbia  
Maury County

By copy of this letter, we are sending three hard copies of the permits and documentation binder and one CD of this SWPPP to the Region Construction Office (one copy for the contractor).

Please forward our office the Notice of Coverage (NOC) for this project as soon as it becomes available. Please contact me at (615)532-9945 if I can be of any assistance.

Sincerely,

Anthony Myers  
Environmental Permits Section

Enclosures  
JLH: ARM: CSS: PC

Enclosures for:

cc: Mr. Mike Brown, Region 3 Construction (CD)  
Reading File, NPDES File

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NOTE: CITATIONS IN PARENTHESIS INDICATE SECTIONS OF THE CURRENT CGP.

**1. SWPPP REQUIREMENTS (3.0)**

- 1.1. HAS THE SWPPP TEMPLATE BEEN PREPARED BY AN INDIVIDUAL THAT HAS THE FOLLOWING CERTIFICATIONS (3.1.1)?  
 YES  NO  (CHECK ALL THAT APPLY BELOW)
  - 1.1.1.  CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC); OR
  - 1.1.2.  TDEC LEVEL II
- 1.2. DO THE EPSC PLANS INVOLVE STRUCTURAL DESIGN, HYDRAULIC, HYDROLOGIC OR OTHER ENGINEERING CALCULATIONS FOR EPSC STRUCTURAL MEASURES (SEDIMENT BASINS, ETC.)(3.1.1)? YES  NO   
 IF YES, HAVE THE EPSC PLANS BEEN PREPARED, STAMPED AND CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER OR LANDSCAPE ARCHITECT?  
 YES  NO
  - 1.3. DO THE PROJECT STORMWATER OUTFALLS DIRECTLY DISCHARGE INTO THE FOLLOWING (5.4.1)? YES  NO  (CHECK ALL THAT APPLY BELOW)
    - 1.3.1.  IMPAIRED WATERS (303d FOR SILTATION OR HABITAT ALTERATION)
    - 1.3.2.  KNOWN EXCEPTIONAL TENNESSEE WATERS (KETW)
 IF YES TO SECTION 1.3, HAVE THE EPSC PLANS BEEN PREPARED BY AN INDIVIDUAL WHO IS TDEC LEVEL II CERTIFIED? (5.4.1.b)  
 YES  NO  N/A (MAY 23, 2013 CGP EXEMPTION); AND  
 IF YES TO SECTION 1.3, HAS THE SWPPP TEMPLATE BEEN PREPARED BY AN INDIVIDUAL WHO IS TDEC LEVEL II CERTIFIED? (5.4.1.b)  
 YES  NO  N/A (MAY 23, 2013 CGP EXEMPTION)

**2. SITE DESCRIPTION (3.5.1)**

- 2.1. PROJECT LIMITS (3.5.1.g): REFER TO TITLE SHEET
- 2.2. PROJECT DESCRIPTION (3.5.1.a):  
 TITLE: SR-99 INTERSECTION AT PATTERSON DRIVE IN COLUMBIA  
 COUNTY: MAURY  
 PIN: 119066.00
  - 2.3. SITE MAP(S) (3.5.1.g): REFER TO TITLE SHEET
  - 2.4. DESCRIPTION OF EXISTING SITE TOPOGRAPHY (3.5.1.d): REFER TO EXISTING CONTOURS SHEET(S)   , DRAINAGE MAP SHEET(S)   , USGS QUAD MAP, AND THE OUTFALL TABLE IN SECTION 4.2.3.
  - 2.5. MAJOR SOIL DISTURBING ACTIVITIES (3.5.1.b) (CHECK ALL THAT APPLY):
    - 2.5.1.  CLEARING AND GRUBBING
    - 2.5.2.  EXCAVATION
    - 2.5.3.  CUTTING AND FILLING

- 2.5.4.  FINAL GRADING AND SHAPING
- 2.5.5.  UTILITIES
- 2.5.6.  OTHER (DESCRIBE): \_\_\_\_\_
- 2.6. TOTAL PROJECT AREA (3.5.1.c): 5.10 ACRES
- 2.7. TOTAL AREA TO BE DISTURBED (3.5.1.c): 2.65 ACRES  
 IF GREATER THAN 50 ACRES, HAS CONSTRUCTION PROJECT PHASING BEEN SPECIFIED IN SECTION 3 BELOW AND IN THE PLANS (3.5.3.1.k)?  
 YES  NO  N/A   
 IF YES, SEE SHEET \_\_\_\_\_ FOR NOTE RESTRICTING CONSTRUCTION ACTIVITIES TO LESS THAN 50 ACRES.
  - 2.8. ARE THERE ANY SEASONAL LIMITATIONS ON WORK? YES  NO   
 IF YES, DESCRIBE AND LIST THE CORRESPONDING PLAN SHEET: \_\_\_\_\_
  - 2.9. WAS ROW FINALIZED PRIOR TO FEBRUARY 1, 2010 (4.1.2.2)?  
 YES  \_\_\_\_\_ (DATE) NO   
  
**IF ROW WAS FINALIZED PRIOR TO FEBRUARY 1, 2010, THIS PROJECT IS CONSIDERED A PRE-APPROVED SITE (4.1.2.2)**
    - 2.10. ARE UTILITIES INCLUDED IN THE CONTRACT? YES  NO
    - 2.11. SOIL PROPERTIES (3.5.1.e)(4.1.1).  
 SOIL PROPERTIES FOR THE PRIMARY SOILS ARE LISTED IN THE TABLE BELOW.
- 2.10. ARE UTILITIES INCLUDED IN THE CONTRACT? YES  NO
- 2.11. SOIL PROPERTIES (3.5.1.e)(4.1.1).  
 SOIL PROPERTIES FOR THE PRIMARY SOILS ARE LISTED IN THE TABLE BELOW.

SOIL PROPERTIES			
PRIMARY SOIL NAME	HSG	% OF SITE	ERODIBILITY (k value)
Rb - ROCKLAND	N/A	28.1	N/A
Rc - ROCKLAND	N/A	5.2	N/A
Rd - ROCKLAND, MIMOSA AND INMAN MATERIALS	C	66.7	N/A

- 2.12. IS ACID PRODUCING ROCK (APR) (i.e. PYRITE) LOCATED WITHIN THE PROJECT LIMITS? YES  NO 
  - 2.12.1. IF YES TO SECTION 2.12, HAVE APR LOCATIONS BEEN IDENTIFIED WITHIN THE CONSTRUCTION PLANS AND/OR THE GEOTECHNICAL REPORT?  YES  NO; AND
  - 2.12.2. IF YES TO SECTION 2.12.1, HAS A SPECIAL HANDLING PLAN AND/OR ADAPTIVE MANAGEMENT PLAN (AMP) BEEN PREPARED FOR THE PROJECT?  YES  NO  N/A (TDOT SP107L WILL BE APPLIED.)
- 2.13. PROJECT RUNOFF COEFFICIENTS AND AREA PERCENTAGES (3.5.1.f).

RUNOFF COEFFICIENTS FOR EXISTING CONDITIONS				
AREA TYPE	AREA(AC)	PERCENTAGE OF TOTAL AREA (%)	RUNOFF CN	C FACTOR
IMPERVIOUS	1.3	25	98	
PERVIOUS (GRASS, FORESTS, ETC.)	3.8	75	76	
WEIGHTED CURVE NUMBER =			82	

RUNOFF COEFFICIENTS FOR POST-CONSTRUCTION CONDITIONS				
AREA TYPE	AREA(AC)	PERCENTAGE OF TOTAL AREA (%)	RUNOFF CN	C FACTOR
IMPERVIOUS	1.5	29	98	
PERVIOUS (GRASS, FORESTS, ETC.)	3.6	71	76	
WEIGHTED CURVE NUMBER =			83	

**3. ORDER OF CONSTRUCTION ACTIVITIES (3.5.1.b, 3.5.2.a):**

- 3.1. SPECIAL SEQUENCING REQUIREMENTS (SEE SHEETS N/A)
- 3.2. INSTALL STABILIZED CONSTRUCTION EXITS.
- 3.3. INSTALL PERIMETER PROTECTION WHERE RUNOFF SHEETS FROM THE SITE.
- 3.4. INSTALL INITIAL EPSC (EROSION PREVENTION AND SEDIMENT CONTROL) MEASURES.
- 3.5. PERFORM CLEARING AND GRUBBING (NOT MORE THAN 15 DAYS PRIOR TO GRADING OR EARTH-MOVING. REFER TO THE STABILIZATION PRACTICES BELOW.)
- 3.6. REMOVE AND STORE TOPSOIL.
- 3.7. STABILIZE DISTURBED AREAS WITHIN 14 DAYS OF COMPLETING ANY STAGE AND/OR PHASE OF ACTIVITY.
- 3.8. INSTALL UTILITIES, STORM SEWERS, CULVERTS AND BRIDGE STRUCTURES.
- 3.9. INSTALL INLET AND CULVERT PROTECTION ONCE STRUCTURES ARE IN PLACE AND CAPABLE OF INTERCEPTING FLOW.
- 3.10. PERFORM FINAL GRADING AND INSTALL BASE STONE.
- 3.11. COMPLETE FINAL PAVING AND SEALING OF CONCRETE.
- 3.12. INSTALL TRAFFIC CONTROL AND PROTECTION DEVICES.
- 3.13. COMPLETE FINAL STABILIZATION (TOPSOIL, SEEDING, MULCH, EROSION CONTROL BLANKET, SOD, ETC.)
- 3.14. REMOVE TEMPORARY EROSION CONTROLS AND ACCUMULATED SEDIMENT FROM AREAS THAT HAVE ESTABLISHED AT LEAST 70 PERCENT PERMANENT VEGETATIVE COVER.
- 3.15. RE-STABILIZE AREAS DISTURBED BY REMOVAL ACTIVITIES.

**4. STREAM, OUTFALL, WETLAND, TMDL AND ECOLOGY INFORMATION**

- 4.1. STREAM INFORMATION
  - 4.1.1. WILL CONSTRUCTION AND/OR EROSION PREVENTION AND SEDIMENT CONTROLS IMPACT ANY STREAMS WITHIN THE PROJECT LIMITS?  
 YES  NO
  - 4.1.2. HAVE ANY OF THE RECEIVING WATERS LESS THAN OR EQUAL TO 1 FLOW MILE DOWN GRADIENT OF THE PROJECT LIMITS BEEN CLASSIFIED BY TDEC AS FOLLOWS (CHECK ALL THAT APPLY):
    - 4.1.2.1.  303d IMPAIRED FOR SILTATION
    - 4.1.2.2.  303d IMPAIRED FOR HABITAT ALTERATION
    - 4.1.2.3.  KNOWN EXCEPTIONAL TENNESSEE WATERS (KETW)
  - 4.1.3. RECEIVING STREAMS (3.5.1.j).

RECEIVING STREAM INFORMATION					
NATURAL RESOURCE LABEL	NAME OF RECEIVING NATURAL RESOURCE	303d IMPAIRED FOR SILTATION OR HABITAT ALTERATION (YES OR NO)	KETW (YES OR NO)	LOCATED WITHIN PROJECT LIMITS (YES OR NO)	LOCATED WITHIN ≤ 1 FLOW MILE DOWN GRADIENT OF PROJECT LIMITS (YES OR NO)
STR-1	BEAR CREEK	NO	NO	YES	YES
	DUCK RIVER	NO	YES	NO	YES

4.1.4. ARE BUFFER ZONES REQUIRED (4.1.2, 5.4.2)? YES  NO   
 IF YES, THEY HAVE BEEN INCLUDED ON PLAN SHEET(S) 9-10  
 IF YES, CHECK THE APPROPRIATE BOX BELOW FOR SIZE OF BUFFER.  
 60-FEET FOR IMPAIRED AND KNOWN EXCEPTIONAL TENNESSEE WATERS (AVERAGE WIDTH PER SIDE WITH A MINIMUM OF 30-FEET)  
 30-FEET FOR ALL OTHER STREAMS (AVERAGE WIDTH PER SIDE WITH A MINIMUM OF 15-FEET)  
 IF NO, CHECK THE APPROPRIATE BOX BELOW.  
 BUFFERS NOT REQUIRED (I.E. NO STREAM, WETLAND, ETC. IMPACTS)  
 TDEC ARAP APPLIED FOR

**BUFFER ZONE REQUIREMENTS ARE NOT REQUIRED FOR PRE-APPROVED SITES (4.1.2.2.)**

4.1.5. ARE THERE BUFFER ZONE EXEMPTIONS (4.1.2.1)? YES  NO   
 IF YES, EXISTING CONDITIONS DESCRIPTION: \_\_\_\_\_

4.2. OUTFALL INFORMATION:  
 A SEDIMENT BASIN OR EQUIVALENT MEASURE(S) WILL BE PROVIDED FOR ANY OUTFALL IN A DRAINAGE AREA:

- 4.2.1. OF TEN ACRES OR MORE FOR AN OUTFALL(S) THAT DOES NOT DISCHARGE TO AN IMPAIRED STREAM OR KNOWN EXCEPTIONAL TENNESSEE WATERS (3.5.3.3) OR
- 4.2.2. OF FIVE ACRES OR MORE FOR AN OUTFALL(S) THAT DISCHARGES TO AN IMPAIRED STREAM OR KNOWN EXCEPTIONAL TENNESSEE WATERS (5.4.1.f).
- 4.2.3. OUTFALL TABLE (3.5.1.d, 5.4.1.f).  
SEE SWPPP SHEET S-6 FOR OUTFALL INFORMATION.

4.2.4. WHERE POSSIBLE, HAS NON-PROJECT RUN-ON BEEN DIVERTED THROUGH THE PROJECT SO THAT THE OFF-SITE RUN-ON WILL NOT FLOW OVER DISTURBED AREAS WITHIN THE ROW, THUS SEPARATING NON-PROJECT RUN-OFF FROM PROJECT RUN-OFF THEREBY REDUCING THE DRAINAGE AREA TO ANY ONE OUTFALL?  
 YES  NO  N/A

- 4.2.5. ARE EQUIVALENT MEASURES BEING SUBSTITUTED FOR A SEDIMENT BASIN(S)? YES  NO  N/A
- 4.2.6. HAVE ALL OUTFALLS BEEN LABELED ON THE EPSC PLAN SHEETS (3.5.1.g, 5.4.1.f)? YES  NO
- 4.2.7. HAVE ALL OUTFALLS BEEN LABELED ON A USGS TOPOGRAPHIC MAP INCLUDED IN THE "DOCUMENTATION AND PERMITS" BINDER (2.6.2)? YES  NO

4.3. WETLAND INFORMATION  
 WILL CONSTRUCTION AND/OR EROSION AND SEDIMENT CONTROLS IMPACT ANY WETLANDS? YES  NO   
 IF YES, THE STRUCTURAL EPSC MEASURES HAVE BEEN INCLUDED IN THE TOTAL PROJECT WETLAND IMPACTS AND HAVE BEEN INCLUDED IN THE ARAP PERMIT, 401 OR 404 PERMITS.

WETLAND INFORMATION				
WETLAND LABEL	FROM STATION LT OR RT	TO STATION LT OR RT	TEMPORARY IMPACTS (AC)	PERMANENT IMPACTS (AC)
N/A	N/A	N/A	N/A	N/A

- 4.4. TOTAL MAXIMUM DAILY LOADS (TMDL) INFORMATION (3.5.10)
  - 4.4.1. IS THIS PROJECT LOCATED IN A HUC-8 WATERSHED THAT MAINTAINS AN EPA APPROVED TMDL FOR SILTATION? YES  NO
  - 4.4.2. IF YES, IS THIS PROJECT LOCATED WITHIN A HUC-12 SUBWATERSHED WITH A WASTE LOAD ALLOCATION (WLA)? YES  NO
  - 4.4.3. IF YES, DOES THE PROJECT HAVE A DIRECT DISCHARGE TO A 303(d) LISTED STREAM FOR SILTATION OR HABITAT ALTERATION? YES  NO

- 4.4.4. IF YES, HAS A SUMMARY OF THE CONSULTATION (LETTER) BEEN INCLUDED WITH THE SWPPP DOCUMENTATION? YES  NO
- 4.5. ECOLOGY INFORMATION (3.5.5.e)  
 IF SPECIAL NOTES ARE PRESENT IN THE TDOT ECOLOGY REPORT, HAVE THEY BEEN ADDED TO THE APPROPRIATE PLAN SHEETS?  
 YES  NO  NO NOTES REQUIRED   
 IF YES, LIST ALL PLAN SHEETS WHERE SPECIAL NOTES HAVE BEEN ADDED. 2E

5. EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES (3.5.3)

- 5.1. EPSC MEASURES MUST BE DESIGNED, INSTALLED AND MAINTAINED TO CONTROL STORMWATER VOLUME AND VELOCITY WITHIN THE SITE TO MINIMIZE EROSION (4.1.1).
- 5.2. EPSC MEASURES MUST CONTROL STORMWATER DISCHARGES, INCLUDING BOTH PEAK FLOWS AND TOTAL STORMWATER VOLUME, TO MINIMIZE EROSION AT OUTLETS, STREAM CHANNELS AND STREAM BANKS. (4.1.1)
- 5.3. HAVE THE CONTROL MEASURES BEEN DESIGNED ACCORDING TO THE SIZE AND SLOPE OF THE DISTURBED DRAINAGE AREA (3.5.3.3)? YES  NO
- 5.4. THE CONTROL MEASURES HAVE, AT A MINIMUM, BEEN DESIGNED FOR THE 5-YEAR, 24 HOUR STORM EVENT (3.5.3.3, 5.4.1.a).
- 5.5. ARE THE LIMITS OF DISTURBANCE CLEARLY MARKED ON THE EPSC PLANS (3.5.1.n)? YES  NO
- 5.6. HAVE STAGED EPSC PLANS BEEN PREPARED FOR THE PROJECT (3.5.2)? YES  NO  (IF YES, CHECK ONE BELOW)
  - 5.6.1.1.  PROJECT DISTURBED AREA IS THAN LESS THAN 5 ACRES (MINIMUM OF TWO STAGES OF EPSC PLANS)
  - 5.6.1.2.  PROJECT DISTURBED AREA IS GREATER THAN 5 ACRES (MINIMUM OF THREE STAGES OF EPSC PLANS)
- 5.7. IS ADDITIONAL PHYSICAL OR CHEMICAL TREATMENT OF STORMWATER RUNOFF NECESSARY (5.4.1.a)? YES  NO
- 5.8. HAVE STEEP SLOPES (GREATER THAN 35%) BEEN MINIMALLY DISTURBED AND/OR PROTECTED BY CONVEYING RUNOFF NON-EROSIVELY AROUND OR OVER THE SLOPE (3.5.3.2) (10. "STEEP SLOPE")? YES  NO  N/A
- 5.9. ALL PHYSICAL AND/OR CHEMICAL TREATMENT WILL BE RESEARCHED, APPLIED IN ACCORDANCE WITH MANUFACTURE'S GUIDELINES AMD FULLY DESCRIBED ON THE EPSC PLANS (3.5.3.1.b).
- 5.10. ALL EPSC CONTROL MEASURES WILL BE INSTALLED ACCORDING TO TDOT STANDARDS (E.G. STANDARD DRAWINGS).
- 5.11. EPSC MEASURES WILL NOT BE INSTALLED IN A STREAM WITHOUT FIRST OBTAINING US COE SECTION 404, TDEC ARAP, AND TVA PERMITS.
- 5.12. DISCHARGES FROM DEWATERING ACTIVITIES ARE PROHIBITED UNLESS MANAGED BY CONTROLS PROVIDING EQUIVALENT LEVEL OF TREATMENT (FILTRATION) (4.14).
- 5.13. DISCHARGES FROM SEDIMENT BASINS AND IMPOUNDMENTS MUST USE OUTLET STRUCTURES THAT ONLY WITHDRAW WATER FROM NEAR THE SURFACE OF THE BASIN OR IMPOUNDMENT, UNLESS INFEASIBLE (4.1.7).
- 5.14. THE CONTROL MEASURES LISTED IN THE QUANTITIES TABLE ON SHEET 2\_9 HAVE BEEN SELECTED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS AND GOOD ENGINEERING PRACTICES (3.5.3.1.b).
- 5.15. THE QUANTITIES REQUIRED FOR STABILIZED CONSTRUCTION EXITS PER TDOT STANDARDS HAVE BEEN SPECIFIED ON SHEET 2 (3.5.3.1.n).
- 5.16. STABILIZATION PRACTICES: PRE-CONSTRUCTION VEGETATIVE COVER WILL NOT BE DESTROYED, REMOVED OR DISTURBED MORE THAN 15 DAYS PRIOR TO GRADING OR EARTH MOVING UNLESS THE AREA WILL BE SEEDED AND/OR MULCHED OR OTHER TEMPORARY COVER IS INSTALLED (3.5.3.1.h).
- 5.17. STABILIZATION MEASURES WILL BE INITIATED AS SOON AS POSSIBLE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY OR PERMANENT STABILIZATION WILL BE COMPLETED WITHIN 14 DAYS AFTER ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED IN THAT AREA. PERMANENT STABILIZATION WILL REPLACE TEMPORARY MEASURES AS SOON AS PRACTICABLE (3.5.3.2).
- 5.18. STEEP SLOPES (3.5.3.2): STEEP SLOPES ARE DEFINED AS A NATURAL OR CREATED SLOPE OF 35% GRADE OR STEEPER REGARDLESS OF HEIGHT. STEEP SLOPES SHALL BE TEMPORARILY STABILIZED NOT LATER THAN 7 DAYS

AFTER CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED.  
 5.19. THE STRUCTURAL EPSC MEASURES HAVE BEEN INCLUDED IN THE TOTAL PROJECT IMPACTS AND HAVE BEEN INCLUDED IN THE AQUATIC RESOURCE ALTERATION (ARAP) PERMIT OR SECTION 401 CERTIFICATION (3.5.1.i). REFER TO THE LIST OF APPLICABLE ENVIRONMENTAL PERMITS LOCATED ON SWPPP SHEET S-5. ALL PERMITS WILL BE MAINTAINED ON SITE IN THE "DOCUMENTATION AND PERMITS" BINDER.

6. CONSTRUCTION SUPPORT ACTIVITIES – BORROW AND WASTE AREAS (1.2.2)(3.5.3.1.g)

IF OFFSITE BORROW AND WASTE AREAS BECOME NECESSARY DURING THE LIFE OF THE PROJECT, THIS SUPPORT ACTIVITY SHALL BE ADDRESSED PER THE TDOT WASTE AND BORROW MANUAL AS INDICATED IN THE STATEWIDE STORMWATER MANAGEMENT PLAN (SSWMP).

7. MAINTENANCE AND INSPECTION

- 7.1. INSPECTION PRACTICES (3.5.8)
  - 7.1.1. INSPECTORS MUST HAVE SUCCESSFULLY COMPLETED THE TDEC FUNDAMENTALS OF EROSION AND SEDIMENT CONTROL COURSE (TDEC LEVEL I) AND MAINTAIN THE CERTIFICATION. A COPY OF THE INSPECTOR'S CERTIFICATION SHOULD BE KEPT ON SITE (3.5.8.1).
  - 7.1.2. INSPECTIONS WILL BE CONDUCTED AT LEAST TWICE EVERY CALENDAR WEEK AND AT LEAST 72 HOURS A PART (3.5.8.2.a).
  - 7.1.3. THE FREQUENCY OF EPSC INSPECTIONS MAY BE REDUCED TO ONCE A MONTH (I.E. EXTREME DROUGHT CONDITIONS, FROZEN GROUND, ETC.) WITH WRITTEN NOTIFICATION TO TDEC NASHVILLE CENTRAL OFFICE AND SUBSEQUENT TDEC APPROVAL. WRITTEN NOTIFICATION MUST INCLUDE THE INTENT TO CHANGE FREQUENCY AND JUSTIFICATION (3.5.8.2.a).
  - 7.1.4. ALL DISTURBED AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED, AREAS USED FOR MATERIAL STORAGE THAT ARE EXPOSED TO PRECIPITATION, STRUCTURAL CONTROL MEASURES, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE, AND EACH OUTFALL WILL BE INSPECTED (3.5.8.2.b).
  - 7.1.5. THE INSPECTOR WILL OVERSEE THE REQUIREMENTS OF OTHER CONSTRUCTION-RELATED WATER QUALITY PERMITS (I.E. TDEC ARAP, US COE AND TVA SECTION 26a PERMITS) FOR CONSTRUCTION ACTIVITIES AROUND WATERS OF THE STATE (10 "INSPECTOR").
  - 7.1.6. THE SWPPP WILL BE REVISED AS NECESSARY BASED ON THE RESULTS OF THE INSPECTION. REVISION(S) WILL BE RECORDED WITHIN 7 DAYS OF THE INSPECTION. REVISION(S) WILL BE IMPLEMENTED WITHIN 14 DAYS OF THE INSPECTION (3.8.5.2.e AND 3.8.5.2.f).
  - 7.1.7. THE INSPECTOR SHALL CONDUCT PRE-CONSTRUCTION INSPECTIONS TO VERIFY AREAS THAT ARE NOT TO BE DISTURBED HAVE BEEN MARKED IN THE SWPPP AND IN THE FIELD BEFORE LAND DISTURBANCE ACTIVITIES BEGIN AND INITIAL MEASURES HAVE BEEN INSTALLED (10 "INSPECTOR") (3.5.1.n).
  - 7.1.8. INSPECTIONS WILL BE DOCUMENTED ON THE TDOT EPSC INSPECTION REPORT (TDEC PRE-APPROVED) AND INCLUDE THE SCOPE OF THE INSPECTION, NAME(S), TITLE AND TN EPSC CERTIFICATION NUMBER OF PERSONNEL MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTION, CURRENT APPROXIMATE DISTURBED ACREAGE AT TIME OF INSPECTION, CHECKLIST (NOC, SWPPP, RAIN GAUGE, SITE CONTACT INFORMATION, ETC.) AND MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE SWPPP (3.5.8.2.g).
  - 7.1.9. DOCUMENTATION OF INSPECTIONS WILL BE MAINTAINED ON SITE IN THE "DOCUMENTATION AND PERMITS" BINDER. REPORTS WILL BE SUBMITTED TO THE TDOT PROJECT SUPERVISOR PER THE CONTRACT.
  - 7.1.10. THESE INSPECTION REQUIREMENTS DO NOT APPLY TO DEFINABLE AREAS OF THE SITE THAT HAVE MET FINAL STABILIZATION REQUIREMENTS AND HAVE BEEN NOTED IN THE SWPPP.
  - 7.1.11. TRAINED CERTIFIED INSPECTORS SHALL COMPLETE INSPECTION DOCUMENTATION TO THE BEST OF THEIR ABILITY. FALSIFYING INSPECTION RECORDS OR OTHER DOCUMENTATION OR FAILURE TO COMPLETE INSPECTION DOCUMENTATION SHALL RESULT IN A VIOLATION OF THIS PERMIT AND ANY OTHER APPLICABLE ACTS OR RULES (3.8.5.2.h).

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	HS1P/STP-H-NH-99(43)	S-3
P.E.	2015	60010-1216-94	

7.2. DULY AUTHORIZED REPRESENTATIVE (7.7.3)  
THE PROJECT SUPERVISOR MAY DELEGATE AN INDIVIDUAL AND/OR CONSULTANT TO SIGN EPSC INSPECTIONS REPORTS. FOR SATISFYING SIGNATORY REQUIREMENTS FOR EPSC INSPECTION REPORTS, THE PROJECT SUPERVISOR AND NEWLY AUTHORIZED INDIVIDUAL ACCEPTING RESPONSIBILITY MUST PERFORM THE FOLLOWING:

7.2.1. COMPLETE AND SIGN THE TDOT CONSTRUCTION DIVISION EPSC DELEGATION OF AUTHORITY.

7.2.2. SUBMIT THE EPSC DELEGATION OF AUTHORITY TO THE LOCAL TDEC EFO.

7.3. MAINTENANCE PRACTICES (3.5.3.1 AND 3.5.7)

7.3.1. ALL CONTROLS WILL BE MAINTAINED IN GOOD AND EFFECTIVE OPERATING ORDER. NECESSARY REPAIRS OR MAINTENANCE WILL BE ACCOMPLISHED BEFORE THE NEXT STORM EVENT AND IN NO CASE MORE THAN 24 HOURS AFTER THE NEED IS IDENTIFIED. IN A CASE WHERE THE ACTIVITY IS DEEMED IMPRACTICABLE, ANY SUCH CONDITIONS WILL BE DOCUMENTED (3.5.8.2.e).

7.3.2. ALL CONTROLS WILL BE MAINTAINED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS AND GOOD ENGINEERING PRACTICES. (3.5.3.1.b)

7.3.3. SEDIMENT WILL BE REMOVED FROM SEDIMENT TRAPS, SILT FENCE, SEDIMENT BASINS, AND OTHER CONTROLS WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 50% (3.5.3.1.e).

7.3.4. CHECK DAMS WILL BE INSPECTED FOR STABILITY. SEDIMENT WILL BE REMOVED WHEN DEPTH REACHES ONE-HALF (½) THE HEIGHT OF THE DAM.

7.3.5. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER WILL BE PICKED UP AND REMOVED FROM STORMWATER EXPOSURE PRIOR TO ANTICIPATED STORM EVENTS OR BEFORE BEING CARRIED OFF OF THE SITE BY WIND, OR OTHERWISE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORMWATER DISCHARGES. AFTER USE, MATERIALS USED FOR EROSION CONTROL WILL BE REMOVED (3.5.3.1.f).

7.3.6. ALL SEEDED AREAS WILL BE CHECKED FOR BARE SPOTS, EROSION WASHOUTS, AND VIGOROUS GROWTH FREE OF SIGNIFICANT WEED INFESTATIONS.

7.3.7. THE TDOT PROJECT SUPERVISOR OR THEIR DESIGNEE AND THE CONTRACTOR'S SITE SUPERINTENDENT ARE RESPONSIBLE FOR INSPECTIONS. MAINTENANCE AND REPAIR ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE TDOT PROJECT SUPERVISOR OR THEIR DESIGNEE WILL COMPLETE THE INSPECTION REPORTS AND DISTRIBUTE COPIES PER THE CONTRACT.

8. SITE ASSESSMENTS (3.1.2)  
QUALITY ASSURANCE SITE ASSESSMENTS OF EROSION PREVENTION AND SEDIMENT CONTROLS SHALL BE PERFORMED ACCORDING TO THE TDOT ENVIRONMENTAL DIVISION COMPREHENSIVE INSPECTIONS OFFICE GUIDELINES.

9. STORMWATER MANAGEMENT (3.5.4)

9.1. STORMWATER MANAGEMENT WILL BE HANDLED BY TEMPORARY CONTROLS OUTLINED IN THIS SWPPP AND ANY PERMANENT CONTROLS NEEDED TO MEET PERMANENT STORMWATER MANAGEMENT NEEDS IN THE POST CONSTRUCTION PERIOD. PERMANENT CONTROLS WILL BE SHOWN ON THE PLANS AND NOTED AS PERMANENT.

9.2. DESCRIBE ANY SPECIFIC POST-CONSTRUCTION MEASURES THAT WILL CONTROL VELOCITY, POLLUTANTS, AND/OR EROSION (3.5.1.F, 3.5.4): SOD TO BE PLACED ON SLOPES AND DITCHES.

9.3. OTHER ITEMS NEEDING CONTROL (3.5.5)

9.3.1. CONSTRUCTION MATERIALS: THE FOLLOWING MATERIALS OR SUBSTANCES ARE EXPECTED TO BE PRESENT ON THE SITE DURING THE CONSTRUCTION PERIOD. (CHECK ALL THAT APPLY).

9.3.1.1.  LUMBER, GUARDRAIL, TRAFFIC CONTROL DEVICES

9.3.1.2.  CONCRETE WASHOUT

9.3.1.3.  CONCRETE AND CORRUGATED METAL PIPES

9.3.1.4.  MINERAL AGGREGATES, ASPHALT

9.3.1.5.  EARTH

9.3.1.6.  LIQUID TRAFFIC STRIPING MATERIALS, PAINT

9.3.1.7.  ROCK

9.3.1.8.  CURING COMPOUND

9.3.1.9.  EXPLOSIVES

9.3.1.10.  OTHER

THESE MATERIALS WILL BE HANDLED AS NOTED IN THIS SWPPP.

9.3.2. WASTE MATERIALS (3.5.5.b)  
WASTE MATERIAL (EARTH, ROCK, ASPHALT, CONCRETE, ETC.) NOT REQUIRED FOR THE CONSTRUCTION OF THE PROJECT WILL BE DISPOSED OF BY THE CONTRACTOR. THE CONTRACTOR WILL OBTAIN ANY AND ALL NECESSARY PERMITS INCLUDING, BUT NOT LIMITED TO NPDES, AQUATIC RESOURCES ALTERATION PERMIT(S) CORPS OF ENGINEERS SECTION 404 PERMITS, AND TVA SECTION 26A PERMITS TO DISPOSE OF WASTE MATERIALS.

9.3.3. HAZARDOUS WASTE (3.5.5.c) (7.9)  
ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN A MANNER WHICH IS COMPLIANT WITH LOCAL OR STATE REGULATIONS. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES, AND THE INDIVIDUAL DESIGNATED AS THE CONTRACTOR'S ON-SITE REPRESENTATIVE WILL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED. THE CONTRACTOR WILL OBTAIN ANY AND ALL NECESSARY PERMITS TO DISPOSE OF HAZARDOUS MATERIAL.

9.3.4. SANITARY WASTE (3.5.5.b)  
PORTABLE SANITARY FACILITIES WILL BE PROVIDED ON ALL CONSTRUCTION SITES. SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS IN A TIMELY MANNER BY A LICENSED WASTE MANAGEMENT CONTRACTOR OR AS REQUIRED BY ANY LOCAL REGULATIONS. THE CONTRACTOR WILL OBTAIN ANY AND ALL NECESSARY PERMITS TO DISPOSE OF SANITARY WASTE.

9.3.5. OTHER MATERIALS  
THE FOLLOWING MATERIALS OR SUBSTANCES ARE EXPECTED TO BE PRESENT ON THE SITE DURING THE CONSTRUCTION PERIOD. (CHECK ALL THAT APPLY).

9.3.5.1.  FERTILIZERS AND LIME

9.3.5.2.  PESTICIDES AND/OR HERBICIDES

9.3.5.3.  DIESEL AND GASOLINE

9.3.5.4.  MACHINERY LUBRICANTS (OIL AND GREASE)

THESE MATERIALS WILL BE HANDLED AS NOTED THIS SWPPP.

10. NON-STORMWATER DISCHARGES (3.5.9)

10.1. THE FOLLOWING NON-STORMWATER DISCHARGES ARE ANTICIPATED DURING THE COURSE OF THIS PROJECT (CHECK ALL THAT APPLY):

10.1.1.  DEWATERING OF WORK AREAS OF COLLECTED STORMWATER AND GROUND WATER

10.1.2.  WATERS USED TO WASH VEHICLES (OF DUST AND SOIL) WHERE DETERGENTS ARE NOT USED AND DETENTION AND/OR FILTERING IS PROVIDED BEFORE THE WATER LEAVES SITE

10.1.3.  WATER USED TO CONTROL DUST (3.5.3.1.n)

10.1.4.  POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS FROM WHICH CHLORINE HAS BEEN REMOVED TO THE MAXIMUM EXTENT PRACTICABLE

10.1.5.  UNCONTAMINATED GROUNDWATER OR SPRING WATER

10.1.6.  FOUNDATION OR FOOTING DRAINS WHERE FLOWS ARE NOT CONTAMINATED WITH POLLUTANTS

10.1.7.  OTHER:

10.2. ALL ALLOWABLE NON-STORMWATER DISCHARGES WILL BE DIRECTED TO STABLE DISCHARGE STRUCTURES PRIOR TO LEAVING THE SITE. FILTERING OR CHEMICAL TREATMENT MAY BE NECESSARY PRIOR TO DISCHARGE.

10.3. THE DESIGN OF ALL IMPACTED EPSC MEASURES RECEIVING FLOW FROM ALLOWABLE NON-STORMWATER DISCHARGES MUST BE DESIGNED TO HANDLE THE VOLUME OF THE NON-STORMWATER COMPONENT.

10.4. WASH DOWN OR WASTE DISCHARGE OF CONCRETE TRUCKS WILL NOT BE PERMITTED ON-SITE UNLESS PROPER SETTLEMENT AREAS HAVE BEEN PROVIDED IN ACCORDANCE WITH BOTH STATE AND FEDERAL REGULATIONS.

10.5. ARE ANY DISCHARGES ASSOCIATED WITH INDUSTRIAL (NON-CONSTRUCTION STORMWATER) ACTIVITY EXPECTED (3.5.1.h)?

YES  NO  IF YES, SPECIFY THE LOCATION OF THE ACTIVITY AND ITS PERMIT NUMBER.

11. SPILL PREVENTION, MANAGEMENT AND NOTIFICATION (3.5.5.c, 5.1)

11.1. SPILL PREVENTION (3.5.5.c)

11.1.1. MATERIAL MANAGEMENT

11.1.1.1. HOUSEKEEPING  
ONLY NEEDED PRODUCTS WILL BE STORED ON-SITE BY THE CONTRACTOR. EXCEPT FOR BULK MATERIALS THE CONTRACTOR WILL STORE ALL MATERIALS UNDER COVER AND IN APPROPRIATE CONTAINERS. PRODUCTS MUST BE STORED IN ORIGINAL CONTAINERS AND LABELED. MATERIAL MIXING WILL BE CONDUCTED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. WHEN POSSIBLE, ALL PRODUCTS WILL BE USED COMPLETELY BEFORE PROPERLY DISPOSING OF THE CONTAINER OFF SITE. THE MANUFACTURER'S DIRECTIONS FOR DISPOSAL OF MATERIALS AND CONTAINERS WILL BE FOLLOWED. THE CONTRACTOR'S SITE SUPERINTENDENT WILL INSPECT MATERIALS STORAGE AREAS REGULARLY TO ENSURE PROPER USE AND DISPOSAL. DUST GENERATED WILL BE CONTROLLED IN AN ENVIRONMENTALLY SAFE MANNER. VEGETATION AREAS NOT ESSENTIAL TO THE CONSTRUCTION PROJECT WILL BE PRESERVED AND MAINTAINED AS NOTED ON THE PLANS.

11.1.1.2. HAZARDOUS MATERIALS  
PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THE CONTAINER IS NOT RESEALABLE. ORIGINAL LABELS AND MATERIAL SAFETY DATA SHEETS WILL BE RETAINED IN A SAFE PLACE TO RELAY IMPORTANT PRODUCT INFORMATION. IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S LABEL DIRECTIONS FOR DISPOSAL WILL BE FOLLOWED. MAINTENANCE AND REPAIR OF ALL EQUIPMENT AND VEHICLES INVOLVING OIL CHANGES, HYDRAULIC SYSTEM DRAIN DOWN, DE-GREASING OPERATIONS, FUEL TANK DRAIN DOWN AND REMOVAL, AND OTHER ACTIVITIES WHICH MAY RESULT IN THE ACCIDENTAL RELEASE OF CONTAMINANTS WILL BE CONDUCTED ON AN IMPERVIOUS SURFACE AND UNDER COVER DURING WET WEATHER TO PREVENT THE RELEASE OF CONTAMINANTS ONTO THE GROUND. WHEEL WASH WATER WILL BE COLLECTED AND ALLOWED TO SETTLE OUT SUSPENDED SOLIDS PRIOR TO DISCHARGE. WHEEL WASH WATER WILL NOT BE DISCHARGED DIRECTLY INTO ANY STORMWATER SYSTEM OR STORMWATER TREATMENT SYSTEM. POTENTIAL PH-MODIFYING MATERIALS SUCH AS: BULK CEMENT, CEMENT KILN DUST, FLY ASH, NEW CONCRETE WASHINGS AND CURING WATERS, CONCRETE PUMPING, AND MIXER WASHOUT WATERS WILL BE COLLECTED ON SITE AND MANAGED TO PREVENT CONTAMINATION OF STORMWATER RUNOFF.

11.1.1.3. PRODUCT SPECIFIC PRACTICES

11.1.1.3.1. PETROLEUM PRODUCTS: ALL ON-SITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED.

11.1.1.3.2. FERTILIZERS: FERTILIZERS WILL BE APPLIED ONLY IN THE AMOUNTS SPECIFIED BY TDOT. ONCE APPLIED, FERTILIZERS WILL BE WORKED INTO THE SOIL TO LIMIT THE EXPOSURE TO STORMWATER. FERTILIZERS WILL BE STORED IN AN ENCLOSED AREA UNDER COVER. THE CONTENTS OF PARTIALLY USED FERTILIZER BAGS WILL BE TRANSFERRED TO SEALABLE CONTAINERS TO AVOID SPILLS.

11.1.1.3.3. PAINTS: ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. THE EXCESS WILL BE DISPOSED OF

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11.1.1.3.4. CONCRETE TRUCKS: CONTRACTORS WILL PROVIDE DESIGNATED TRUCK WASHOUT AREAS ON THE SITE. THESE AREAS MUST BE SELF CONTAINED AND NOT CONNECTED TO ANY STORMWATER OUTLET OF THE SITE. UPON COMPLETION OF CONSTRUCTION WASHOUT AREAS WILL BE PROPERLY STABILIZED.

11.2. SPILL MANAGEMENT

11.2.1. IN ADDITION TO THE PREVIOUS HOUSEKEEPING AND MANAGEMENT PRACTICES, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP IF NECESSARY.

11.2.2. FOR ALL HAZARDOUS MATERIALS STORED ON SITE, THE MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEAN UP WILL BE CLEARLY POSTED. SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATIONS OF THE INFORMATION AND CLEANUP SUPPLIES.

11.2.3. APPROPRIATE CLEANUP MATERIALS AND EQUIPMENT WILL BE MAINTAINED BY THE CONTRACTOR IN THE MATERIALS STORAGE AREA ON-SITE AND UNDER COVER. AS APPROPRIATE, EQUIPMENT AND MATERIALS MAY INCLUDE ITEMS SUCH AS BOOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR CLEAN UP PURPOSES.

11.2.4. ALL SPILLS WILL BE CLEANED IMMEDIATELY AFTER DISCOVERY AND THE MATERIALS DISPOSED OF PROPERLY. THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

11.2.5. THE CONTRACTOR'S SITE SUPERINTENDENT WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE SITE SUPERINTENDENT HAS HAD APPROPRIATE TRAINING FOR HAZARDOUS MATERIALS HANDLING, SPILL MANAGEMENT, AND CLEANUP.

11.2.6. IF SPILLS REPRESENT AN IMMINENT THREAT OF ESCAPING THE SITE AND ENTERING RECEIVING WATERS, PERSONNEL WILL RESPOND IMMEDIATELY TO CONTAIN THE RELEASE AND NOTIFY THE SUPERINTENDENT AFTER THE SITUATION HAS BEEN STABILIZED.

11.2.7. IF OIL SHEEN IS OBSERVED ON SURFACE WATER (E.G. SETTLING PONDS, DETENTION PONDS, SWALES), ACTION WILL BE TAKEN IMMEDIATELY TO REMOVE THE MATERIAL CAUSING THE SHEEN. THE CONTRACTOR WILL USE APPROPRIATE MATERIALS TO CONTAIN AND ABSORB THE SPILL. THE SOURCE OF THE OIL SHEEN WILL ALSO BE IDENTIFIED AND REMOVED OR REPAIRED AS NECESSARY TO PREVENT FURTHER RELEASES.

11.2.8. IF A SPILL OCCURS THE SUPERINTENDENT OR THE SUPERINTENDENT'S DESIGNEE WILL BE RESPONSIBLE FOR COMPLETING THE SPILL REPORTING FORM AND FOR REPORTING THE SPILL TO THE TDOT PROJECT SUPERVISOR.

11.2.9. SPILL RESPONSE EQUIPMENT WILL BE INSPECTED AND MAINTAINED BY THE CONTRACTOR AS NECESSARY TO REPLACE ANY MATERIALS USED IN SPILL RESPONSE ACTIVITIES.

11.3. SPILL NOTIFICATION (5.1)

WHERE A RELEASE CONTAINING A HAZARDOUS SUBSTANCE IN AN AMOUNT EQUAL TO OR IN EXCESS OF A REPORTABLE QUANTITY ESTABLISHED UNDER EITHER 40 CFR 117 OR 40 CFR 302 OCCURS DURING A 24 HOUR PERIOD:

11.3.1. THE TDOT PROJECT SUPERVISOR IS RESPONSIBLE FOR NOTIFYING THE REGIONAL ENVIRONMENTAL COORDINATOR OR ASSISTANT REGIONAL ENVIRONMENTAL COORDINATOR AS SOON AS HE OR SHE HAS KNOWLEDGE OF THE DISCHARGE.

11.3.2. THE TDOT REGIONAL ENVIRONMENTAL COORDINATOR WILL NOTIFY THE LOCAL TDEC ENVIRONMENTAL FIELD OFFICE AND ANY OTHER APPLICABLE REGULATORY AGENCIES WITHIN 24 HOURS OF THE SPILL.

11.3.3. A WRITTEN DESCRIPTION OF THE RELEASE, DATE OF RELEASE AND CIRCUMSTANCES LEADING TO THE RELEASE, WHAT ACTIONS WERE TAKEN TO MITIGATE EFFECTS OF THE RELEASE, AND STEPS TAKEN TO MINIMIZE THE CHANCE OF FUTURE OCCURRENCES WILL BE SUBMITTED TO THE APPROPRIATE TDEC ENVIRONMENTAL FIELD OFFICE WITHIN 14 DAYS OF KNOWLEDGE OF THE RELEASE.

11.3.4. THE SWPPP MUST BE MODIFIED WITHIN 14 DAYS OF KNOWLEDGE OF THE RELEASE PROVIDING A DESCRIPTION OF THE RELEASE, CIRCUMSTANCES LEADING TO THE RELEASE, AND THE DATE OF RELEASE. THE SWPPP WILL BE REVIEWED AND MODIFIED AS NECESSARY TO IDENTIFY MEASURES TO PREVENT THE REOCCURRENCE OF SUCH RELEASES AND TO RESPOND TO SUCH RELEASES.

12. RECORD-KEEPING

12.1. REQUIRED RECORDS

TDOT OR THEIR DESIGNEE WILL MAINTAIN AT THE SITE THE FOLLOWING RECORDS OF CONSTRUCTION ACTIVITIES (3.5.3.1.m) (6.2.1):

12.1.1. THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR

12.1.2. THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE

12.1.3. THE DATES WHEN STABILIZATION MEASURES ARE INITIATED

12.1.4. RECORDS OF TWICE WEEKLY EPSC INSPECTION REPORTS AND CORRECTIVE MEASURES

12.1.5. RECORDS OF QUALITY ASSURANCE SITE ASSESSMENTS

12.1.6. COPY OF SITE EPSC INSPECTOR'S TDEC LEVEL 1 CERTIFICATION

12.1.7. RAINFALL MONITORING PLAN (3.5.3.1.o):

12.1.7.1. EQUIPMENT

AT A MINIMUM, THE CONTRACTOR WILL INSTALL A FENCE POST TYPE RAIN GAUGE TO MEASURE RAINFALL. THE STANDARD FENCE POST RAIN GAUGE WILL BE A WEDGE-SHAPED GAUGE THAT MEASURES UP TO 6 INCHES OF RAINFALL. AN ENGLISH SCALE WILL BE PROVIDED ON ONE FACE, WITH A METRIC SCALE ON THE OTHER FACE. GRADUATION WILL BE PERMANENTLY MOLDED IN DURABLE WEATHER-RESISTANT PLASTIC. THE MINIMUM GRADUATION WILL BE 0.01 INCH (OR 0.1MM). AN ALUMINUM BRACKET WITH SCREWS MAY BE USED TO MOUNT THE GAUGE ON A WOODEN SUPPORT.

12.1.7.2. LOCATION

THE RAIN GAUGE WILL BE LOCATED AT OR ALONG THE PROJECT SITE, AS DEFINED IN THE NOI OF THE NPDES PERMIT, IN AN OPEN AREA SUCH THAT THE MEASUREMENT WILL NOT BE INFLUENCED BY OUTSIDE FACTORS (I.E. OVERHANGS, GUTTER, TREES, ETC). AT LEAST ONE RAIN GAUGE PER LINEAR MILE IS REQUIRED ALONG (AS MEASURED ALONG THE CENTERLINE OF THE PRIMARY ALIGNMENT) THE PROJECT WHERE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING IS ACTIVELY PERFORMED, OR EXPOSED SOIL HAS NOT YET BEEN PERMANENTLY STABILIZED.

12.1.7.3. METHODS

12.1.7.3.1. RAINFALL MONITORING WILL BE INITIATED PRIOR TO CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING, OR FILLING, EXCEPT AS SUCH MINIMAL CLEARING MAY BE NECESSARY TO INSTALL A RAIN GAUGE IN AN OPEN AREA. THE RAIN GAUGE WILL BE CHECKED FOR OPERATIONAL SOUNDNESS DAILY (DURING NORMAL BUSINESS HOURS) IN WET TIMES AND WEEKLY IN DRY TIMES. GAUGES WILL BE REPAIRED OR REPLACED ON THE SAME DAY IF FOUND TO BE NON-OPERATIONAL OR MISSING.

12.1.7.3.2. EACH RAIN GAUGE WILL BE READ (FOR DETAILED RECORDS OF RAINFALL) AND EMPTIED AFTER EVERY RAINFALL EVENT OCCURRING ON THE PROJECT SITE AT APPROXIMATELY THE SAME TIME OF THE DAY (DURING NORMAL BUSINESS HOURS). DURING PERIODS OF DRY CONDITIONS, IT WILL NOT BE NECESSARY TO READ THE RAIN GAUGE EVERY DAY. IN LIEU OF THIS REQUIREMENT ON WEEKENDS AND ON STATE HOLIDAYS, THE RAIN GAUGES CAN BE EMPTIED THE NEXT BUSINESS DAY AND A REFERENCE

SITE USED FOR A RECORD OF DAILY AMOUNT OF PRECIPITATION FOR THOSE DAYS. A REFERENCE SITE IS THE DOCUMENTATION FROM THE CLOSEST GAUGE WITHIN PROXIMITY OF THE PROJECT FROM A RECOGNIZED SOURCE SUCH AS THE NOAA NATIONAL WEATHER SERVICE.

12.1.7.3.3. DETAILED RECORDS WILL BE RECORDED OF RAINFALL EVENTS INCLUDE DATES, AMOUNTS OF RAINFALL, AND THE APPROXIMATE DURATION (OR THE STARTING AND ENDING TIMES). THE RAINFALL RECORDS SHALL BE RECORDED ON THE TDOT RAINFALL RECORD SHEET AND SHALL BE MAINTAINED IN THE "DOCUMENTATION AND PERMITS" BINDER.

12.1.7.3.4. IF, IN THE EVENT THAT THE RAINFALL EVENT IS STILL IN PROGRESS AT THE DAILY RECORDING TIME, THE GAUGE WILL BE EMPTIED AND THE RECORD WILL INDICATE THAT THE STORM EVENT WAS STILL IN PROGRESS.

12.1.7.3.5. RAIN GAUGE INFORMATION (DETAILED RECORDS), INCLUDING THE LOCATION OF THE NEAREST OUTFALL, WILL BE RECORDED ON THE EPSC INSPECTION REPORT FORMS AT THE TIME OF MEASUREMENT.

12.2. KEEPING PLANS CURRENT (3.4)

TDOT OR THEIR DESIGNEE WILL MODIFY AND UPDATE THE SWPPP WHEN ANY OF THE FOLLOWING CONDITIONS APPLY:

12.2.1. WHENEVER THERE IS A CHANGE IN THE SCOPE OF THE PROJECT THAT WOULD BE EXPECTED TO HAVE A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO THE WATERS OF THE STATE AND WHICH HAS NOT OTHERWISE BEEN ADDRESSED IN THE SWPPP;

12.2.2. WHENEVER INSPECTIONS OR INVESTIGATIONS BY SITE OPERATORS, LOCAL, STATE, OR FEDERAL OFFICIALS INDICATE THE SWPPP IS PROVING INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING POLLUTANTS FROM CONSTRUCTION ACTIVITY SOURCES, OR IS OTHERWISE NOT ACHIEVING THE GENERAL OBJECTIVES OF CONTROLLING POLLUTANTS IN STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY; WHERE LOCAL, STATE, OR FEDERAL OFFICIALS DETERMINE THAT THE SWPPP IS INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING POLLUTANT SOURCES, A COPY OF ANY CORRESPONDENCE TO THAT EFFECT MUST BE RETAINED IN THE SWPPP;

12.2.3. WHEN ANY NEW OPERATOR AND/OR SUB-OPERATOR IS ASSIGNED OR RELIEVED OF THEIR RESPONSIBILITY TO IMPLEMENT A PORTION OF THE SWPPP;

12.2.4. TO PREVENT A NEGATIVE IMPACT TO LEGALLY PROTECTED STATE OR FEDERALLY LISTED OR PROPOSED THREATENED OR ENDANGERED AQUATIC FAUNA;

12.2.5. WHEN THERE IS A CHANGE IN CHEMICAL TREATMENT METHODS INCLUDING: USE OF DIFFERENT TREATMENT CHEMICALS, DIFFERENT DOSAGE OR APPLICATION RATES OR A DIFFERENT AREA OF APPLICATION NOT SPECIFIED ON THE EPSC PLANS; OR

12.2.6. WHEN A TMDL IS DEVELOPED FOR THE RECEIVING WATERS FOR A POLLUTANT OF CONCERN (SILTATION AND/OR HABITAT ALTERATION)

12.3. MAKING PLANS ACCESSIBLE

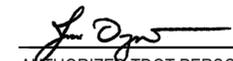
12.3.1. TDOT WILL RETAIN A COPY OF THIS SWPPP (INCLUDING A COPY OF THE "DOCUMENTATION AND PERMITS" BINDER AT THE CONSTRUCTION SITE (OR OTHER LOCATION ACCESSIBLE TO TDEC AND THE PUBLIC) FROM THE DATE CONSTRUCTION COMMENCES TO THE DATE OF FINAL STABILIZATION. TDOT WILL HAVE A COPY OF THE SWPPP AVAILABLE AT THE LOCATION WHERE WORK IS OCCURRING ON-SITE FOR THE USE OF OPERATORS AND THOSE IDENTIFIED AS HAVING RESPONSIBILITIES UNDER THE SWPPP WHENEVER THEY ARE ON THE CONSTRUCTION SITE (6.2).

12.3.2. PRIOR TO THE INITIATION OF LAND DISTURBING ACTIVITIES AND UNTIL THE SITE HAS MET THE FINAL STABILIZATION CRITERIA, TDOT OR THEIR DESIGNEE WILL POST A NOTICE NEAR THE MAIN ENTRANCE OF THE CONSTRUCTION SITE WITH THE FOLLOWING INFORMATION (3.3.3) (6.2.1):

- 12.3.2.1. A COPY OF THE NOTICE OF COVERAGE (NOC) WITH THE NPDES PERMIT NUMBER FOR THE PROJECT;
- 12.3.2.2. THE INDIVIDUAL NAME, COMPANY NAME, E-MAIL ADDRESS (IF APPLICABLE) AND TELEPHONE NUMBER OF THE LOCAL PROJECT SITE OWNER AND OPERATOR CONTACT;
- 12.3.2.3. A BRIEF DESCRIPTION OF THE PROJECT; AND
- 12.3.2.4. THE LOCATION OF THE SWPPP.
- 12.3.3. ALL INFORMATION DESCRIBED IN SECTION 10.3.2 MUST BE MAINTAINED IN LEGIBLE CONDITION. IF POSTING THIS INFORMATION NEAR A MAIN ENTRANCE IS INFEASIBLE DUE TO SAFETY CONCERNS, THE NOTICE SHALL BE POSTED IN A LOCAL BUILDING. THE NOTICE MUST BE PLACED IN A PUBLICLY ACCESSIBLE LOCATION WHERE CONSTRUCTION IS ACTIVELY UNDERWAY AND MOVED AS NECESSARY.
- 12.4. NOTICE OF TERMINATION (8.0)
  - 12.4.1. WHEN ALL STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES THAT ARE AUTHORIZED BY THE PERMIT ARE ELIMINATED BY FINAL STABILIZATION, TDOT WILL SUBMIT A NOTICE OF TERMINATION (NOT) THAT IS SIGNED IN ACCORDANCE WITH THE PERMIT TO THE TDEC CENTRAL OFFICE IN NASHVILLE, TN.
  - 12.4.2. FOR THE PURPOSES OF THE CERTIFICATION REQUIRED BY THE NOT, THE ELIMINATION OF STORMWATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITY MEANS THE FOLLOWING:
    - 12.4.2.1. ALL EARTH-DISTURBING ACTIVITIES ON THE SITE ARE COMPLETED AND ALL DISTURBED SOILS AT THE PORTION OF THE CONSTRUCTION SITE WHERE THE OPERATOR HAD CONTROL HAVE BEEN FINALLY STABILIZED; AND
    - 12.4.2.2. ALL CONSTRUCTION MATERIALS, WASTE AND WASTE HANDLING DEVICES, AND ALL EQUIPMENT, AND VEHICLES THAT WERE USED DURING CONSTRUCTION HAVE BEEN REMOVED AND PROPERLY DISPOSED; AND
    - 12.4.2.3. ALL STORMWATER CONTROLS THAT WERE INSTALLED AND MAINTAINED DURING CONSTRUCTION, EXCEPT THOSE THAT ARE INTENDED FOR LONG-TERM USE FOLLOWING TERMINATION OF PERMIT COVERAGE, HAVE BEEN REMOVED; AND
    - 12.4.2.4. ALL POTENTIAL POLLUTANTS AND POLLUTANT GENERATING ACTIVITIES ASSOCIATED WITH CONSTRUCTION HAVE BEEN REMOVED; AND
    - 12.4.2.5. THE PERMITTEE HAS IDENTIFIED WHO IS RESPONSIBLE FOR ONGOING MAINTENANCE OF ANY STORMWATER CONTROLS LEFT ON THE SITE FOR LONG-TERM USE FOLLOWING TERMINATION OF PERMIT COVERAGE; AND
    - 12.4.2.6. TEMPORARY EPSC MEASURES HAVE BEEN OR WILL BE REMOVED AT AN APPROPRIATE TIME TO ENSURE FINAL STABILIZATION IS MAINTAINED; AND
    - 12.4.2.7. ALL STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES FROM THE IDENTIFIED SITE THAT ARE AUTHORIZED BY A NPDES GENERAL PERMIT HAVE OTHERWISE BEEN ELIMINATED FROM THE PORTION OF THE CONSTRUCTION SITE WHERE THE OPERATOR HAD CONTROL.
- 12.5. RETENTION OF RECORDS (6.2)  
TDOT WILL RETAIN COPIES OF THE SWPPP, ALL REPORTS REQUIRED BY THE PERMIT, AND RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT FOR THE PROJECT FOR A PERIOD OF AT LEAST THREE (3) YEARS FROM THE DATE THE NOT WAS FILED.

**13. SITE WIDE PRIMARY PERMITTEE CERTIFICATION (7.7.5)**

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

  
 \_\_\_\_\_  
 AUTHORIZED TDOT PERSONNEL SIGNATURE (3.3.1)

JIM OZMENT  
 \_\_\_\_\_  
 PRINTED NAME

ENVIRONMENTAL DIVISION DIRECTOR  
 \_\_\_\_\_  
 TITLE

10-19-2015  
 \_\_\_\_\_  
 DATE

**14. SECONDARY PERMITTEE (OPERATOR) CERTIFICATION (7.7.6)**

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE REVIEWED THIS DOCUMENT, ANY ATTACHMENTS, AND THE SWPPP REFERENCED ABOVE. BASED ON MY INQUIRY OF THE CONSTRUCTION SITE OWNER/DEVELOPER IDENTIFIED ABOVE AND/OR MY INQUIRY OF THE PERSON DIRECTLY RESPONSIBLE FOR ASSEMBLING THIS NOI AND SWPPP, I BELIEVE THE INFORMATION SUBMITTED IS ACCURATE. I AM AWARE THAT THIS NOI, IF APPROVED, MAKES THE ABOVE-DESCRIBED CONSTRUCTION ACTIVITY SUBJECT TO NPDES PERMIT NUMBER TNR100000, AND THAT CERTAIN OF MY ACTIVITIES ON-SITE ARE THEREBY REGULATED. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS, AND FOR FAILURE TO COMPLY WITH THESE PERMIT REQUIREMENTS.

\_\_\_\_\_  
 AUTHORIZED OPERATOR (CONTRACTOR) SIGNATURE (3.3.1)

\_\_\_\_\_  
 PRINTED NAME

\_\_\_\_\_  
 TITLE

\_\_\_\_\_  
 DATE

**15. ENVIRONMENTAL PERMITS (9.0)**

LIST ALL ENVIRONMENTAL PERMITS AND EXPIRATION DATES FOR PROJECT (TO BE COMPLETED AT THE ENVIRONMENTAL PRECONSTRUCTION MEETING BY TDOT CONSTRUCTION OR THEIR DESIGNEE):

ENVIRONMENTAL PERMITS			
PERMIT	YES OR NO	PERMIT OR TRACKING NO.	EXPIRATION DATE *
TDEC ARAP			
CORPS OF ENGINEERS (COE)			
TVA 26A			
TDEC CGP			
OTHER:			

\*THE TDOT ENVIRONMENTAL DIVISION MUST BE NOTIFIED SIX MONTHS PRIOR TO PERMIT EXPIRATION DATE.

4.2.3 OUTFALL TABLE (3.5.1.d, 5.4.1.f)

EPSC STAGE	OUTFALL LABEL	SUB OUTFALL	STATION CL, LT OR RT	SLOPE WITHIN ROW (%)	STAGE 1 (P1) DRAINAGE AREA (AC)	STAGE 2 (P2) DRAINAGE AREA (AC)	STAGE 3 (P3) DRAINAGE AREA (AC)	SEDIMENT BASIN OR EQUIVALENT MEASURE(S) (YES, NO OR N/A)	RECEIVING NATURAL RESOURCE NAME OR LABEL	COMMENTS
1-2	OUT-1		68+15 LT	4.3	11	11		YES	STR-1	DISTURBED DRAINAGE AREA = 0.3 AC.
1-2	OUT-2		68+60 LT	5	14	14		YES	STR-1	DISTURBED DRAINAGE AREA = 0.5 AC.
1-2	OUT-3		67+57 RT	3.5	13	13		YES	STR-1	DISTURBED DRAINAGE AREA = 1.0 AC.

\* SEE COMMENTS SECTION FOR ADDITIONAL INFORMATION REGARDING DRAINAGE AREA.

ALL UNUSED FIELDS WITHIN THE OUTFALL TABLE ARE TO BE SHADED OR HATCHED TO INDICATE THEIR NON-USAGE.

Index Of Sheets

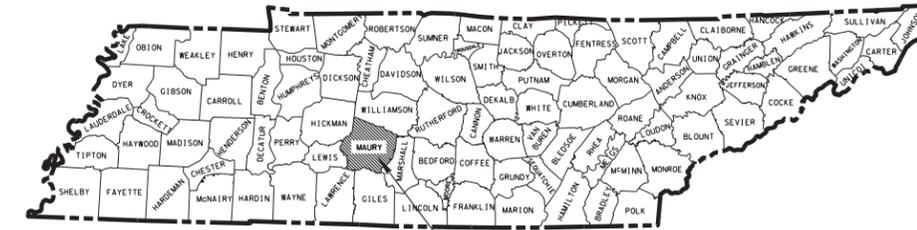
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	TYPICAL SECTIONS
3,3A	PROPERTY MAP AND RIGHT-OF-WAY ACQUISITION TABLE
4	PRESENT LAYOUT
4A	PROPOSED LAYOUT
4B	PROPOSED PROFILE
5	PROFILE OF SIDE ROADS AND STREETS
6	PRIVATE DRIVE PROFILES
7	DRAINAGE MAP
8	CULVERT CROSS-SECTIONS
9	EROSION PREVENTION AND SEDIMENT CONTROL NOTES
10-11	EROSION PREVENTION AND SEDIMENT CONTROL PLANS
12-21	ROADWAY CROSS SECTIONS
22-23	SIDE ROAD CROSS SECTIONS

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION  
BUREAU OF ENGINEERING

**MAURY COUNTY**

SR-99  
INTERSECTION AT PATTERSON DRIVE IN COLUMBIA

TENN.	YEAR 2015	SHEET NO. 1
FED. AID PROJ. NO.	HSIP/STP-H-NH-99(43)	
STATE PROJ. NO.	60010-2216-94	



PROJECT LOCATION

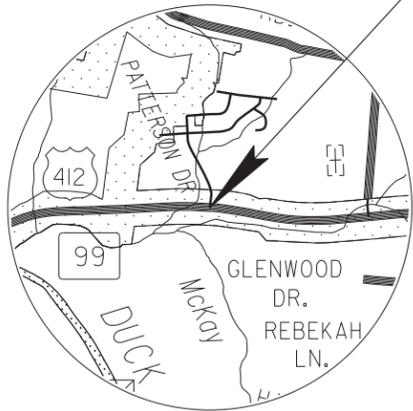
R.O.W.

(UTILITIES ONLY)

STATE HIGHWAY NO. 99 F.A.H.S. NO. 412

NO R.O.W. OR EASEMENT ACQUISITION IS REQUIRED

INSERT OF PROJECT LOCATION



SPECIAL NOTES

PROPOSALS MAY BE REJECTED BY THE COMMISSIONER IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED JANUARY 1, 2015 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

TDOT ROAD SP. SV. 2 ROBERT BRAUN, P.E.

DESIGNER KHUZAIMA MAHDI, P.E. CHECKED BY WAYNE HALL

P.E. NO. 60010-1216-94 (DESIGN)

PIN NO. 119066.00



PROJECT LENGTH

0.218 MILES

60010-2216-94  
PROJECT NO. HSIP/STP-H-NH-99(43)  
BEGIN PROJECT STA. 65+85.00(SR-99)  
N 475917.5542  
E 1672729.8802  
END PROJECT STA. 77+40.00(SR-99)  
N 475834.2069  
E 1673879.9553

**R.O.W. PLANS**  
(UTILITIES ONLY)



"RSAR PROJECT-PROJECT OF LIMITED SCOPE"

APPROVED: *Paul D. Degges*  
PAUL D. DEGGES, CHIEF ENGINEER

DATE:

APPROVED: *John Schroer*  
JOHN SCHROER, COMMISSIONER

NO EXCLUSIONS  
NO EQUATIONS

TRAFFIC DATA	
ADT (2015)	12690
ADT (2035)	13960
DHV (2035)	1431
D	55 - 45
T (ADT)	6 %
T (DHV)	4 %
V	55 MPH

SURVEY DATES:  
ORIGINAL 01/22/2014  
UPDATES

U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION

APPROVED: \_\_\_\_\_  
DIVISION ADMINISTRATOR DATE

Index Of Sheets  
SEE SHEET IA

# STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION BUREAU OF ENGINEERING

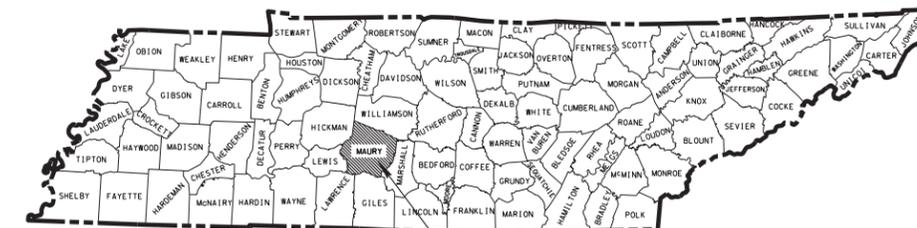
## MAURY COUNTY

SR-99  
INTERSECTION AT PATTERSON DRIVE IN COLUMBIA

### CONSTRUCTION

STATE HIGHWAY NO. 99 F.A.H.S. NO. 412

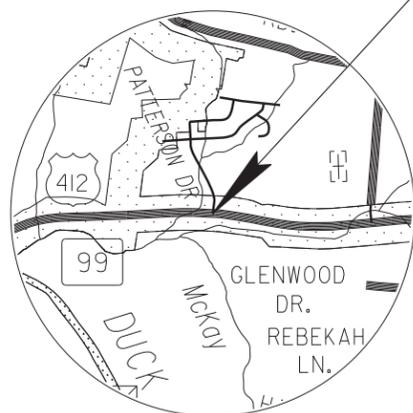
TENN.	YEAR 2015	SHEET NO. 1
FED. AID PROJ. NO.	HSIP/STP-H-NH-99(43)	
STATE PROJ. NO.	60010-3216-94	



PROJECT  
LOCATION

**NO R.O.W. OR EASEMENT  
ACQUISITION IS REQUIRED**

INSERT OF  
PROJECT LOCATION



#### SPECIAL NOTES

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TDOT C.E. MANAGER 1 ROBERT BRAUN, P.E.  
 DESIGNER KHUZAIMA MAHDI, P.E. CHECKED BY REUBEN BOWMAN  
 P.E. NO. 60010-1216-94 (DESIGN)  
 PIN NO. 119066.00



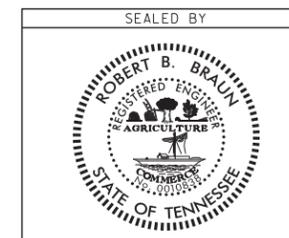
**ROADWAY LENGTH 0.218 MILES**  
**BRIDGE LENGTH 0.000 MILES**  
**BOX BRIDGE LENGTH 0.000 MILES**  
**PROJECT LENGTH 0.218 MILES**

60010-3216-94  
 PROJECT NO. HSIP/STP-H-NH-99(43)  
 BEGIN PROJECT STA. 65+85.00(SR-99)  
 N 475917.5542  
 E 1672729.8802  
 END PROJECT STA. 77+40.00(SR-99)  
 N 475834.2069  
 E 1673879.9553

**NO EXCLUSIONS**  
**NO EQUATIONS**

TRAFFIC DATA	
ADT (2015)	12690
ADT (2035)	13960
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D	55 - 45
T (ADT)	6 %
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V	55 MPH

SURVEY DATES:  
 ORIGINAL 01/22/2014  
 UPDATES 07/21/2015



"RSAR PROJECT-PROJECT OF LIMITED SCOPE"

APPROVED: Paul D. Degges  
 PAUL D. DEGGES, CHIEF ENGINEER

DATE: \_\_\_\_\_

APPROVED: John Schroer  
 JOHN SCHROER, COMMISSIONER

U.S. DEPARTMENT OF TRANSPORTATION  
 FEDERAL HIGHWAY ADMINISTRATION

APPROVED: \_\_\_\_\_  
 DIVISION ADMINISTRATOR DATE

# INDEX

# STANDARD ROADWAY DRAWINGS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	HSIP/STP-H-NH-99(43)	1A

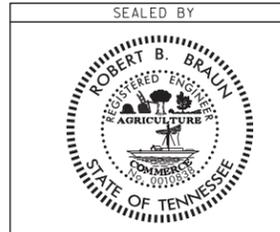
SHEET NAME	SHEET NO.
TITLE SHEET .....	1
ROADWAY INDEX AND STANDARD DRAWINGS INDEX.....	1A
ESTIMATED ROADWAY QUANTITIES .....	2
TYPICAL SECTIONS AND PAVING SCHEDULE .....	2A - 2B
GENERAL NOTES AND SPECIAL NOTES.....	2C - 2E
TABULATED QUANTITIES .....	2F
PROPERTY MAPS AND RIGHT-OF-WAY ACQUISITION TABLES.....	3, 3A
PRESENT LAYOUTS .....	4
PROPOSED LAYOUTS.....	4A
PROPOSED PROFILES.....	4B
PROFILE OF SIDE ROADS AND STREETS.....	5
PRIVATE DRIVE PROFILES.....	6
DRAINAGE MAPS .....	7
CULVERT CROSS-SECTIONS.....	8
EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) NOTES.....	9
EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) PLANS.....	10 - 11
TRAFFIC CONTROL NOTES & PLANS .....	12 - 12B
NOT USED.....	13
SOILS SHEETS .....	14, 14A - 14B
ROADWAY CROSS SECTIONS .....	15 - 24
SIDE ROAD CROSS SECTIONS.....	25 - 27
UTILITIES INDEX .....	U1-1
STORM WATER POLLUTION PREVENTION PLAN (SWPPP) INDEX.....	S-1
"NO PROJECT COMMITMENTS SHEET INCLUDED IN THIS SET OF PLANS."	

DWG. NO	REV.	DESCRIPTION
<b>ROADWAY DESIGN STANDARDS</b>		
RD-A-1	12-18-99	STANDARD ABBREVIATIONS
RD-L-1	10-26-94	STANDARD LEGEND
RD-L-2	09-05-01	STANDARD LEGEND FOR UTILITY INSTALLATIONS
RD-L-5	05-01-08	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-6	03-30-10	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-7	05-24-12	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD01-S-11	04-04-03	DESIGN AND CONSTRUCTION DETAILS FOR ROADSIDE SLOPE DEVELOPMENT
RD01-S-11A	10-15-02	ROADSIDE DITCH DETAILS FOR DESIGN AND CONSTRUCTION
RD01-SD-1		INTERSECTION SIGHT DISTANCE DESIGN AND GENERAL NOTES
RD01-SD-2		INTERSECTION SIGHT DISTANCE LANDSCAPE AND OBSTRUCTION
RD01-SD-3		INTERSECTION SIGHT DISTANCE 2-LANE ROADWAYS
RD01-SE-3	10-15-02	RURAL SUPERELEVATION DETAILS
RD01-TS-2	10-15-02	DESIGN STANDARDS FOR COLLECTOR ROADS AND STREETS
RD01-TS-3	10-15-02	DESIGN STANDARD FOR 2-LANE ARTERIAL HIGHWAYS
<b>DRAINAGE - CULVERTS AND ENDWALL</b>		
D-PB-1	01-02-13	STANDARD DETAILS FOR CONCRETE PIPE INSTALLATION
D-PB-3		INDUCED TRENCH SOIL EMBANKMENT FOR PIPE CULVERT INSTALLATION
D-PE-24A	01-06-15	24" CONCRETE ENDWALL CROSS DRAIN
D-PE-24B		24" CONCRETE ENDWALL CROSS DRAIN
<b>ROADWAY AND PAVEMENT APPURTENANCES</b>		
RP-I-5	12-18-96	EXAMPLES OF STREET AND ALLEY INTERSECTIONS
RP-R-1	05-27-01	STANDARD RAMPS TO SIDE ROADS
<b>SAFETY APPURTENANCES AND FENCE</b>		
S-F-1	05-24-12	HIGH VISIBILITY FENCE
S-CZ-1		CLEAR ZONE CRITERIA
S-PL-1		SAFETY PLAN AT ROADSIDE HAZARDS
S-PL-2		SAFETY PLAN AT SIDE ROADS OR PRIVATE DRIVES
S-PL-6	12-01-14	SAFETY PLAN SAFETY HARDWARE PLACEMENT
S-GR31-1	12-01-14	W-BEAM GUARDRAIL
S-GRS-2		SPECIAL CASE: GUARDRAIL ATTACHMENT TO CONCRETE DECKS
S-GRT-2	11-03-14	TYPE 38 GUARDRAIL TERMINAL
S-GRT-2P		EARTH PAD FOR TYPE 38 TERMINAL
<b>TRAFFIC CONTROL APPURTENANCES</b>		
T-FAB-1	05-27-97	FLASHING YELLOW ARROW BOARD
T-M-1	07-24-14	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS

DWG. NO	REV.	DESCRIPTION
T-M-2	07-24-14	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS
T-M-3	07-24-14	MARKING STANDARDS FOR TRAFFIC ISLANDS, MEDIANS & PAVED SHOULDERS ON CONVENTIONAL ROADS
T-M-4	07-24-14	STANDARD INTERSECTION PAVEMENT MARKINGS
T-M-15A	01-30-15	ASPHALT SHOULDER RUMBLE STRIP INSTALLATION DETAILS FOR NON-ACCESS CONTROLLED ROUTES
T-PBR-1	06-30-09	INTERCONNECTED PORTABLE BARRIER RAIL
T-PBR-2	11-01-11	DETAIL FOR VERTICAL PANELS AND FLEXIBLE DELINEATORS
<b>EROSION PREVENTION AND SEDIMENT CONTROL</b>		
EC-STR-3C	08-01-12	SILT FENCE WITH WIRE BACKING
EC-STR-3E	04-01-08	SILT FENCE FABRIC JOINING DETAILS
EC-STR-6	08-01-12	ROCK CHECK DAM
EC-STR-6A	08-01-12	ENHANCED ROCK CHECK DAM
EC-STR-11	08-01-12	CULVERT PROTECTION TYPE 1
EC-STR-25	08-01-12	TEMPORARY CULVERT CROSSING, CONSTRUCTION EXIT, CONSTRUCTION FORD
EC-STR-34	08-01-12	EROSION CONTROL BLANKET FOR SLOPE INSTALLATION
EC-STR-37	06-10-14	SEDIMENT TUBE

DWG. NO.	REV.	DESCRIPTION
<b>TRAFFIC OPERATION STANDARD DRAWINGS</b>		
<b>TRAFFIC SIGNS</b>		
T-S-9	06-10-14	STANDARD LAYOUT GROUND MOUNTED SIGNS
T-S-10	04-04-12	STANDARD MOUNTING DETAILS FLAT SHEET SIGNS ALUMINUM-STEEL DESIGN
T-S-11	06-06-11	DELINEATOR AND MILEPOST DETAILS
T-S-12	05-27-03	STANDARD STEEL GROUND MOUNTED SIGNS, BREAK-AWAY TYPE POST FOOTING DETAILS, SQUARE TUBES
T-S-13	07-20-12	STANDARD STEEL GROUND MOUNTED SIGNS, BREAK-AWAY TYPE POST FOOTING DETAILS, I-BEAMS
T-S-14	08-17-12	STANDARD STEEL GROUND MOUNTED SIGNS, BREAK-AWAY TYPE POST FOOTING DETAILS, WF-BEAMS
T-S-15	12-07-90	STANDARD CONDUIT & GROUND DETAILS FOR OVERHEAD & CANT LEVER SIGN STRUCTURES
T-S-16	06-05-14	GROUND MOUNTED ROADSIDE SIGN AND DETAILS
T-S-17	07-19-13	STANDARD GROUND MOUNTED SIGN USING PERFORATED/KNOCKOUT SQUARE TUBE
T-S-18	02-14-14	END OF ROADWAY AND DEAD END SIGNS, METAL BARRICADES (TYPE III) & WORK ZONE SPEED SIGNS
T-S-19	07-19-13	STANDARD STEEL SIGN SUPPORTS
T-S-20	11-01-11	SIGN DETAILS
T-WZ-10	04-02-12	ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS
T-WZ-18	03-13-09	SHOULDER CLOSURE DETAIL FOR FREEWAYS AND DIVIDED HIGHWAYS

22-SEP-2015 11:47  
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STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

INDEX  
AND  
STANDARD  
DRAWINGS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	HSIP/STP-H-NH-99(43)	2

### ESTIMATED ROADWAY QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
105-01	CONSTRUCTION STAKES, LINES AND GRADES	LS	1
201-01	CLEARING AND GRUBBING	LS	1
202-02.01	REMOVAL OF PIPE (SIZE 24" ,STA. 71+01.03, OFFSET 57.63' LT.)	L.F.	37
1.) 203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	3299
10.) 203-02.01	BORROW EXCAVATION (GRADED SOLID ROCK)	TON	4
203-04	PLACING AND SPREADING TOPSOIL	C.Y.	270
203-06	WATER	M.G.	31
9.) 204-06.01	FLOWABLE FILL (GENERAL)	C.Y.	5
209-05	SEDIMENT REMOVAL	C.Y.	38
2.) 209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	1730
2.) 209-08.07	ROCK CHECK DAM PER	EACH	16
2.) 209-08.08	ENHANCED ROCK CHECK DAM	EACH	3
303-01	MINERAL AGGREGATE, TYPE A BASE, GRADING D	TON	1841
11.) 303-10.01	MINERAL AGGREGATE (SIZE 57)	TON	17
307-02.01	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING A	TON	244
307-02.08	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING B-M2	TON	135
402-01	BITUMINOUS MATERIAL FOR PRIME COAT (PC)	TON	6
402-02	AGGREGATE FOR COVER MATERIAL (PC)	TON	22
403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	3
411-01.07	ACS MIX (PG64-22) GRADING E SHOULDER	TON	202
411-01.10	ACS MIX(PG64-22) GRADING D	TON	62
411-02.10	ACS MIX(PG70-22) GRADING D	TON	306
411-12.02	SCORING SHOULDERS (NON-CONTINUOUS) (16IN WIDTH)	L.M.	1
415-01.02	COLD PLANING BITUMINOUS PAVEMENT	S.Y.	4585
607-05.02	24" CONCRETE PIPE CULVERT (CLASS III)	L.F.	60
607-39.02	18" PIPE CULVERT (SIDE DRAIN)	L.F.	18
611-07.58	24IN ENDWALL (CROSS DRAIN) 4:1	EACH	2
705-01.04	METAL BEAM GUARD FENCE	L.F.	50
705-02.02	SINGLE GUARDRAIL (TYPE 2)	L.F.	325
705-04.07	TAN ENERGY ABSORBING TERM (NCHRP 350, TL3)	EACH	4
3.) 705-08.51	PORTABLE IMPACT ATTENUATOR NCHRP350 TL-3	EACH	3
707-08.11	HIGH-VISIBILITY CONSTRUCTION FENCE	L.F.	950
4.) 709-05.05	MACHINED RIP-RAP (CLASS A-3)	TON	100
5.) 709-05.06	MACHINED RIP-RAP (CLASS A-1)	TON	76
712-01	TRAFFIC CONTROL	LS	1
6.) 712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	L.F.	2800
712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	34
712-04.50	PORTABLE BARRIER RAIL DELINEATOR	EACH	140
712-06	SIGNS (CONSTRUCTION)	S.F.	192
712-08.03	ARROW BOARD (TYPE C)	EACH	2
712-09.02	REMOVABLE PAVEMENT MARKING (8" BARRIER LINE)	L.F.	3660
716-01.21	Snowplwble Pvmr Mrkrs (Bi-Dir)(1 Color)	EACH	84
716-01.22	Snowplwble Pvmr Mrkrs (Mono-Dir)(1 Color)	EACH	10
716-02.04	PLASTIC PAVEMENT MARKING(CHANNELIZATION STRIPING)	S.Y.	115
716-04.03	PLASTIC PAVEMENT MARKING (4" DOTTED LINE)	L.F.	110

### ESTIMATED ROADWAY QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
716-05.01	PAINTED PAVEMENT MARKING (4" LINE)	L.M.	1
716-05.05	PAINTED PAVEMENT MARKING (STOP LINE)	L.F.	40
716-05.06	PAINTED PAVEMENT MARKING (TURN LANE ARROW)	EACH	2
716-12.02	ENHANCED FLATLINE THERMO PVMR MRKNG (6IN LINE)	L.M.	1
717-01	MOBILIZATION	LS	1
7.) 740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL)	S.Y.	332
10.) 740-10.04	GEOTEXTILE (TYPE IV)(STABILIZATION)	S.Y.	8
740-11.03	TEMPORARY SEDIMENT TUBE 18IN (DESCRIPTION)	L.F.	850
801-01.07	TEMPORARY SEEDING (WITH MULCH)	UNIT	15
8.) 801-03	WATER (SEEDING & SODDING)	M.G.	19
803-01	SODDING (NEW SOD)	S.Y.	1700
805-12.01	EROSION CONTROL BLANKET (TYPE I)	S.Y.	900

- 1.) 15 C.Y. TO BE USED WITH TWO TEMPORARY CONSTRUCTION EXITS.
- 2.) SEE SUBSECTION 209.07 OF THE STANDARD SPECIFICATIONS FOR MAINTENANCE REPLACEMENT.
- 3.) THIS ITEM SHALL BE A PORTABLE ENERGY ABSORBING TERMINAL MEETING THE REQUIREMENTS OF NCHRP 350 FOR TEST LEVEL 3. EXAMPLE WOULD BE A QUAD-GUARD OR A REACT 350 OR A TRACC. THE PAY ITEM WILL INCLUDE FURNISHING AND INSTALLING ALL COMPONENTS AS SHOWN ON THE MANUFACTURER'S DRAWING.
- 4.) TO BE USED WITH TWO TEMPORARY CONSTRUCTION EXITS.
- 5.) 69 TONSTO BE USED WITH CULVERT PROTECTION TYPE I, 7 TONS TO BE USED AT THE OUTLET OF SPECIAL DITCH STA. 69+01.00
- 6.) REMOVING AND RELOCATING PORTABLE BARRIER RAIL WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE PAYMENT SHALL BE INCLUDED IN THE COST OF OTHER ITEMS.
- 7.) 161.4 S.Y. WITH CULVERT PROTECTION TYPE I, 171.6 S.Y. WITH TWO TEMPORARY CONSTRUCTION EXITS.
- 8.) INCLUDES 1.5 M.G. FOR EROSION PREVENTION SEDIMENT CONTROL.
- 9.) TO BE USED WITH EXISTING PIPE (SIZE 24", STA. 12+42.25 PATTERSON DR.)
- 10.) TO BE USED WITH SINKHOLE TREATMENT (SNK-2).
- 11.) 13 TONS TO BE USED WITH CULVERT PROTECTION TYPE I, AND 4 TONS WITH SINKHOLE TREATMENT (SNK-2).

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STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

ESTIMATED  
ROADWAY  
QUANTITIES

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	HS1P/STP-H-NH-99(43)	2C

# GENERAL NOTES

## GRADING

- ANY AREA THAT IS DISTURBED OUTSIDE LIMITS OF CONSTRUCTION DURING THE LIFE OF THIS PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.
- CERTIFICATION FOR ALL BORROW PITS MUST BE OBTAINED IN ACCORDANCE WITH SUBSECTION 107.06 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT DISPOSE OF ANY MATERIAL EITHER ON OR OFF STATE-OWNED R.O.W. IN A REGULATORY FLOOD WAY AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY WITHOUT APPROVAL BY SAME. ALL MATERIAL SHALL BE DISPOSED OF IN UPLAND (NON-WETLAND) AREAS AND ABOVE ORDINARY HIGH WATER OF ANY ADJACENT WATERCOURSE. THIS DOES NOT ELIMINATE THE NEED TO OBTAIN ANY OTHER LICENSES OR PERMITS THAT MAY BE REQUIRED BY ANY OTHER FEDERAL, STATE OR LOCAL AGENCY.

## SEEDING AND SODDING

- SOD SHALL BE PLACED AT LOCATIONS SHOWN ON THE PLANS TO PREVENT DAMAGE TO ADJACENT FACILITIES AND PROPERTY DUE TO EROSION ON ALL NEWLY GRADED CUT AND FILL SLOPES AS WORK PROGRESSES.
- ITEM NO. 803-01, SODDING (NEW SOD) SHALL BE USED ON SLOPES 3:1 OR STEEPER AND OTHER AREAS AS INDICATED IN THE PLANS THAT ARE INACCESSIBLE FOR MOWING.

## GUARDRAIL

- THE PROPOSED GUARDRAIL, INCLUDING ANY ANCHOR SYSTEM, SHALL BE INSTALLED QUICKLY TO MINIMIZE TRAFFIC EXPOSURE TO ANY HAZARD. NO PAYMENT WILL BE MADE FOR A SECTION OF PROPOSED GUARDRAIL, INCLUDING ANCHORS, UNTIL IT IS COMPLETE IN PLACE
- IF ANY APPROACH END OF A SECTION OF GUARDRAIL OR BRIDGE RAIL MUST TEMPORARILY BE LEFT INCOMPLETE AND EXPOSED TO TRAFFIC, THE CONTRACTOR SHALL USE TWO (2) TEMPORARY BARRICADES OR DRUMS WITH TYPE A LIGHTS AND ROUNDED END ELEMENTS AS MINIMUM MEASURES TO PROTECT TRAFFIC FROM THE HAZARD OF AN EXPOSED END. ALL COST OF FURNISHING AND INSTALLING A TEMPORARY ROUNDED END ELEMENT SHALL BE INCLUDED IN THE COST OF THE PROPOSED GUARDRAIL.

## DRAINAGE

- THE CONTRACTOR SHALL SHAPE DITCHES TO THE SPECIFIED DESIGN. THIS WORK WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN THE COST OF OTHER ITEMS.
- EXCAVATION FOR PIPE CULVERTS WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT WILL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF PIPE (PIPE CULVERTS, STORM SEWERS, CONDUITS, ALL OTHER CULVERTS AND MINOR STRUCTURES).
- THE CUTTING OF INLET AND OUTLET DITCHES WHERE SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER WILL BE MEASURED AND PAID FOR AS ITEM NO. 203-01 ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED).
- WHERE A CULVERT (PIPE, SLAB OR BOX) IS MOVED TO A NEW LOCATION OTHER THAN THAT SHOWN ON THE PLANS, INCREASING OR DECREASING THE AMOUNT OF CULVERT EXCAVATION, NO INCREASE OR DECREASE IN THE AMOUNT OF PAYMENT WILL BE MADE DUE TO SUCH CHANGE.
- DURING CONSTRUCTION OF DRAINAGE STRUCTURES ALL COST ASSOCIATED WITH MAINTAINING THE FLOW OF WATER AND TRAFFIC, AT THESE STRUCTURES, DURING THE PHASED CONSTRUCTION OF THIS PROJECT ARE TO BE INCLUDED IN THE UNIT PRICE OF THE DRAINAGE STRUCTURES AND TRAFFIC CONTROL ITEMS.

## UTILITIES (SEE SHEET NO. 3A)

## MISCELLANEOUS

- THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND RESET MAILBOXES WHERE AND AS DIRECTED BY THE ENGINEER
- NOTHING IN THE GENERAL NOTES OR SPECIAL PROVISIONS SHALL RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITIES TOWARD THE SAFETY AND CONVENIENCE OF THE GENERAL PUBLIC AND THE RESIDENTS ALONG THE PROPOSED CONSTRUCTION AREA

## RIGHT - OF - WAY (SEE SHEET NO. 3A)

## PAVEMENT MARKINGS

### FINAL PAVEMENT MARKING IF 6" ENHANCED FLATLINE THERMOPLASTIC IS USED

- PERMANENT PAVEMENT LINE MARKINGS SHALL BE 6" ENHANCED FLATLINE THERMOPLASTIC INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK. SHORT UNMARKED SECTIONS SHALL NOT BE ALLOWED. PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-12.02, ENHANCED FLATLINE THERMO PAVEMENT MARKING (6IN LINE), L.M. THE CONTRACTOR SHALL HAVE THE OPTION OF USING REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK AND THEN INSTALLING THE PERMANENT MARKINGS AFTER THE PAVING OPERATION IS COMPLETED. THE TEMPORARY MARKINGS FOR THE FINAL SURFACE WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR THE PERMANENT MARKINGS.

### FINAL PAVEMENT MARKING IF REFLECTORIZED PAINT IS USED

- PERMANENT PAVEMENT LINE MARKINGS SHALL BE REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK. SHORT, UNMARKED SECTIONS SHALL NOT BE ALLOWED. THESE MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-05.01 PAINTED PAVEMENT MARKING (4IN LINE), L.M.

## PAVEMENT

### PAVING

- THE CONTRACTOR SHALL BE REQUIRED TO COLD PLANE AND PAVE IN THE DIRECTION OF TRAFFIC.
- THE CONTRACTOR SHALL ATTACH A DEVICE TO THE SCREED OF THE PAVER SUCH THAT MATERIAL IS CONFINED AT THE END GATE AND EXTRUDES THE ASPHALT MATERIAL IN SUCH A WAY THAT RESULTS IN A CONSOLIDATED WEDGE-SHAPE PAVEMENT EDGE OF APPROXIMATELY 25 TO 30 DEGREES AS IT LEAVES THE PAVER (MEASURED FROM A LINE PARALLEL TO THE PAVEMENT SURFACE.) THE DEVICE SHALL MEET THE REQUIREMENTS THAT ARE CURRENTLY SET FORTH IN SPECIAL PROVISION 407SE.

## SIGNING

- AFTER THE SIGN LOCATIONS HAVE BEEN STAKED, BUT PRIOR TO ORDERING ANY MATERIAL FOR THE SUPPORTS, THERE SHALL BE A FIELD INSPECTION AND APPROVAL BY THE REGIONAL CONSTRUCTION OFFICE.
- ALL SIGNS MARKED "TO BE REMOVED" ARE TO BE REMOVED BY THE CONTRACTOR AND PAID FOR UNDER ITEM 713-15 AND BECOME THE PROPERTY OF THE CONTRACTOR.
- THE LETTERS, DIGITS, ARROWS, BORDERS, AND ALPHABET ACCESSORIES ON ALL FLAT SHEET SIGNS SHALL BE APPLIED BY SILK SCREENING PROCESS, EXCEPT THAT CUT-OUT DIRECT APPLIED COPY SHALL BE USED ON ALL FLAT SHEET SIGNS WITH A GREEN BACKGROUND, OR BROWN BACKGROUND.
- THE LENGTHS OF ALL SIGN SUPPORTS SHOWN ON THE SIGN SCHEDULE ARE APPROXIMATE AND ARE FOR ESTIMATING PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY ALL SUPPORT LENGTHS AT THE SITE PRIOR TO ERECTION.

## CONSTRUCTION WORK ZONE & TRAFFIC CONTROL

- ADVANCED WARNING SIGNS SHALL NOT BE DISPLAYED MORE THAN FORTY-EIGHT (48) HOURS BEFORE PHYSICAL CONSTRUCTION BEGINS. SIGNS MAY BE ERECTED UP TO ONE WEEK BEFORE NEEDED, IF THE SIGN FACE IS FULLY COVERED.
- IF THE CONTRACTOR MOVES OFF THE PROJECT, HE SHALL COVER OR REMOVE ALL UNNEEDED SIGNS AS DIRECTED BY THE ENGINEER. COSTS OF REMOVAL, COVERING, AND REINSTALLING SIGNS SHALL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT ALL COSTS SHALL BE INCLUDED IN THE ORIGINAL UNIT PRICE BID FOR ITEM NO 712-06, SIGNS (CONSTRUCTION) PER SQUARE FOOT.
- A LONG TERM BUT SPORADIC USE WARNING SIGN, SUCH AS A FLAGGER SIGN, MAY REMAIN IN PLACE WHEN NOT REQUIRED PROVIDED THE SIGN FACE IS FULLY COVERED.

- TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.
- USE OF BARRICADES, PORTABLE BARRIER RAILS, VERTICAL PANELS, AND DRUMS SHALL BE LIMITED TO THE IMMEDIATE AREAS OF CONSTRUCTION WHERE A HAZARD IS PRESENT. THESE DEVICES SHALL NOT BE STORED ALONG THE ROADWAY WITHIN THIRTY (30) FEET OF THE EDGE OF THE TRAVELED WAY BEFORE OR AFTER USE UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL INCREASE TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. THESE DEVICES SHALL BE REMOVED FROM THE CONSTRUCTION WORK ZONE WHEN THE ENGINEER DETERMINES THEY ARE NO LONGER NEEDED. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.
- THE CONTRACTOR SHALL NOT BE PERMITTED TO PARK ANY VEHICLES OR CONSTRUCTION EQUIPMENT DURING PERIODS OF INACTIVITY, WITHIN THIRTY (30) FEET OF THE EDGE OF PAVEMENT WHEN THE LANE IS OPEN TO TRAFFIC UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL BE INCREASED TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. PRIVATELY OWNED VEHICLES SHALL NOT BE ALLOWED TO PARK WITHIN THIRTY (30) FEET OF A OPEN TRAFFIC LANE AT ANY TIME UNLESS PROTECTED AS DESCRIBED ABOVE FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL BE INCREASED TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.
- ALL DETOUR AND CONSTRUCTION SIGNING SHALL BE IN STRICT ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- ALL DETOURS SHALL BE PAVED, STRIPED, SIGNED AND THE VERTICAL PANELS ARE TO BE IN PLACE BEFORE IT IS OPENED TO TRAFFIC.

## EROSION PREVENTION AND SEDIMENT CONTROL DISTURBED AREA

- AREAS TO BE UNDISTURBED SHALL BE CLEARLY MARKED IN THE FIELD BEFORE CONSTRUCTION ACTIVITIES BEGIN.
- PRE-CONSTRUCTION VEGETATIVE GROUND COVER SHALL NOT BE DESTROYED, REMOVED OR DISTURBED (I.E. CLEARING AND GRUBBING INITIATED) MORE THAN 15 CALENDAR DAYS PRIOR TO GRADING OR EARTH MOVING ACTIVITIES UNLESS THE AREA IS MULCHED, SEEDED WITH MULCH, OR OTHER TEMPORARY COVER IS INSTALLED.
- CLEARING, GRUBBING, AND OTHER DISTURBANCE TO RIPARIAN VEGETATION SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR SLOPE CONSTRUCTION AND EQUIPMENT OPERATIONS. EXISTING VEGETATION SHOULD BE PRESERVED TO THE MAXIMUM EXTENT POSSIBLE. UNNECESSARY VEGETATION REMOVAL IS PROHIBITED.
- ALL DISTURBED AREAS SHALL BE PROPERLY STABILIZED AS SOON AS PRACTICABLE. PRIORITY SHALL BE GIVEN TO FINISHING OPERATIONS AND PERMANENT EPSC MEASURES OVER TEMPORARY EPSC MEASURES ON ALL PROJECTS.
- CONSTRUCTION SHALL BE SEQUENCED AND STAGED TO MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED SOIL AREAS, PRESERVE TOPSOIL, AND MINIMIZE SOIL COMPACTION.
- NO MORE THAN 50 ACRES OF ACTIVE SOIL DISTURBANCE IS ALLOWED AT ANY TIME DURING THE CONSTRUCTION OF THE PROJECT. OFF-SITE BORROW OR WASTE AREAS ARE TO BE INCLUDED IN THE TOTAL DISTURBED AREA IF THE BORROW OR WASTE AREA IS EXCLUSIVE TO THE PROJECT PER TDOT'S WASTE AND BORROW MANUAL.

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STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

GENERAL  
NOTES

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	H51P/STP-H-NH-99(43)	20

**SEDIMENT CONTROL**

- (7) EPSC MEASURES SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS, AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
- (8) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT THE OFF-SITE MIGRATION OR DEPOSIT OF SEDIMENT ON ROADWAYS USED BY THE GENERAL PUBLIC. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT THAT HAVE NOT REACHED A STREAM MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS (E.G., FUGITIVE SEDIMENT THAT HAS ESCAPED THE CONSTRUCTION SITE AND HAS COLLECTED IN A STREET MUST BE REMOVED SO THAT IT IS NOT SUBSEQUENTLY WASHED INTO STORM SEWERS AND STREAMS BY THE NEXT RAIN AND/OR SO THAT IT DOES NOT POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS). ARRANGEMENTS CONCERNING REMOVAL OF SEDIMENT ON ADJOINING PROPERTY MUST BE SETTLED WITH THE ADJOINING PROPERTY OWNER BEFORE REMOVAL OF SEDIMENT.
- (9) WATER PUMPED FROM WORK AREAS AND EXCAVATION MUST BE HELD IN SETTLING BASINS OR TREATED BY FILTRATION OR CHEMICAL TREATMENT PRIOR TO ITS DISCHARGE INTO SURFACE WATERS. ALL PHYSICAL AND/OR CHEMICAL TREATMENT WILL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES AND FULLY DESCRIBED IN THE EPSC PLANS. WATER MUST BE HELD IN SETTLING BASINS UNTIL AT LEAST AS CLEAR AS THE RECEIVING WATERS. SETTLING BASINS SHALL NOT BE LOCATED CLOSER THAN 20 FEET FROM THE TOP BANK OF A STREAM. SETTLING BASINS AND SEDIMENT TRAPS SHALL BE PROPERLY DESIGNED ACCORDING TO THE SIZE OF THE DRAINAGE AREAS OR VOLUME OF WATER TO BE TREATED. TREATED WATER MUST BE DISCHARGED THROUGH A PIPE OR WELL-VEGETATED OR LINED CHANNEL, SO THAT THE DISCHARGE DOES NOT CAUSE EROSION OR SEDIMENT TRANSPORT. DISCHARGES FROM BASINS AND IMPOUNDMENTS SHALL UTILIZE OUTLET STRUCTURES THAT ONLY WITHDRAW WATER FROM NEAR THE SURFACE OF THE BASIN OR IMPOUNDMENT. DISCHARGES MUST NOT CAUSE AN OBJECTIONABLE COLOR CONTRAST WITH THE RECEIVING STREAM.
- (10) CHECK DAMS SHALL BE USED WHERE RUNOFF IS CONCENTRATED. CLEAN ROCK, BRUSH, GABION, OR SANDBAG CHECK DAMS SHALL BE PROPERLY CONSTRUCTED TO REDUCE VELOCITY AND CONTROL EROSION.
- (11) FOR AN OUTFALL IN A DRAINAGE AREA OF 10 ACRES OR MORE, A TEMPORARY (OR PERMANENT) SEDIMENT BASIN OR EQUIVALENT CONTROL MEASURES THAT PROVIDES STORAGE FOR A CALCULATED VOLUME OF RUNOFF FROM A MINIMUM 2-YEAR/ 24-HOUR STORM EVENT, SHALL BE PROVIDED UNTIL FINAL STABILIZATION OF THE SITE. THE ENVIRONMENTAL AND ROADWAY DESIGN DIVISIONS MAY BE CONTACTED TO REVIEW AND CONCUR WITH ANY REVISION OF THE SWPPP BEFORE DISTURBANCE OF THE OUTFALL PROCEEDS.
- (12) IF PERMANENT OR TEMPORARY VEGETATION IS TO BE USED AS AN EPSC MEASURE, THEN THE TIMING OF PLANTING OF VEGETATION SHALL BE SHOWN IN THE SWPPP. DELAYING PLANTING OF COVER VEGETATION UNTIL WINTER MONTHS OR DRY MONTHS SHOULD BE AVOIDED, IF POSSIBLE.
- (13) OFFSITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED. A STABILIZED CONSTRUCTION ACCESS (A POINT OF ENTRANCE/EXIT TO THE CONSTRUCTION PROJECT) SHALL BE PROVIDED, AS NEEDED, TO REDUCE THE TRACKING OF MUD AND DIRT ONTO PUBLIC ROADS BY CONSTRUCTION VEHICLES.
- (14) TEMPORARY EPSC MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY, BUT MUST BE REPLACED AT THE END OF THE WORKDAY.

**STREAM/WETLAND**

- (15) SOIL MATERIALS MUST BE PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. EPSC MEASURES TO PROTECT WATER QUALITY MUST BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. APPROPRIATE EPSC MEASURES MUST BE INSTALLED ALONG THE BASE OF ALL FILLS AND CUTS, ON THE DOWNHILL SIDE OF STOCKPILED SOIL, AND ALONG STREAM BANKS IN CLEARED AREAS TO PREVENT SEDIMENT MIGRATION INTO STREAMS IN ACCORDANCE WITH TDOT STANDARDS. THEY MUST BE INSTALLED ON THE CONTOUR, ENTRENCHED AND STAKED, AND EXTEND THE WIDTH OF THE AREA TO BE CLEARED.
- (16) NEW CHANNEL CONSTRUCTION SHALL BE COMPLETED IN THE DRY AND STABILIZED FOR AT LEAST 72 HOURS PRIOR TO DIVERTING WATER FROM THE EXISTING AND/OR TEMPORARY CHANNEL.
- (17) INSTREAM EPSC DEVICES REQUIRE THE ENVIRONMENTAL DIVISION'S PERMITS SECTION REVIEW AND MUST BE PROCESSED BY THE PERMITS SECTION TO OBTAIN TDEC, USACE, AND TVA PERMITS.
- (18) THE OPERATION OF EQUIPMENT IN WATERS OF THE STATE/U.S., INCLUDING WETLANDS, SHALL BE ONLY AS SHOWN ON THE PROJECT PLANS AND/OR

AS SO SPECIFIED IN THE ARAP/401, SECTION 404 PERMIT(S) AND/OR TVA26(A), IF APPLICABLE. ANY ADDITIONAL PERMITS REQUIRED BY THE CONTRACTOR'S METHOD OF OPERATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN, AFTER RECEIVING THE APPROVAL OF TDOT ENVIRONMENTAL DIVISION.

- (19) THE WIDTH OF THE FILL ASSOCIATED WITH TEMPORARY CROSSINGS SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR THE ACTUAL CROSSING.
- (20) STREAM BEDS SHALL NOT BE USED AS TRANSPORTATION ROUTES FOR CONSTRUCTION EQUIPMENT. TEMPORARY CROSSINGS MUST BE LIMITED TO ONE POINT PER STREAM AND EPSC MEASURES MUST BE USED WHERE THE STREAM BANKS ARE DISTURBED. WHERE THE STREAMBED IS NOT COMPOSED OF BEDROCK, A PAD OF CLEAN ROCK MUST BE USED AT THE CROSSING POINT AND CULVERTED TO PREVENT THE IMPOUNDMENT OF WATER FLOW. CLEAN ROCK IS ROCK OF VARIOUS TYPE AND SIZE, DEPENDING UPON APPLICATION, WHICH CONTAINS NO FINES, SOILS, OR OTHER WASTES OR CONTAMINANTS. OTHER MATERIALS USED FOR ALL TEMPORARY FILLS MUST BE COMPLETELY REMOVED IN THEIR ENTIRETY AFTER THE WORK IS COMPLETED AND THE AFFECTED AREAS RETURNED TO THEIR PREEXISTING ELEVATION. ALL TEMPORARY CROSSINGS MUST BE CONSTRUCTED IN ACCORDANCE WITH STD. DWG. EC-STR-25 UNLESS SPECIFICALLY ADDRESSED IN THE EPSC PLANS. ALTERNATIVELY, PLACING A TEMPORARY BRIDGE (BAILEY BRIDGE OR EQUIVALENT, TIMBERS, ETC.) FROM TOP OF BANK TO TOP OF BANK OR THE APPROPRIATE USE OF BARGES AT THE CROSSING TO AVOID DISTURBANCE OF THE STREAMBED IS AN ACCEPTABLE OPTION. .

**SPECIES**

- (21) NO ACTIVITY MAY SUBSTANTIALLY DISRUPT THE MOVEMENT OF THOSE SPECIES OF AQUATIC LIFE INDIGENOUS TO THE WATER BODY, INCLUDING THOSE SPECIES THAT NORMALLY MIGRATE THROUGH THE AREA. THE SWPPP SHALL BE MODIFIED TO INCLUDE EPSC MEASURES TO PREVENT NEGATIVE IMPACTS TO LEGALLY PROTECTED STATE OR FEDERAL FAUNA OR FLORA OR AS INDICATED IN THE ECOLOGICAL STUDIES OR ON THE PERMIT(S).

**INSPECTION, MAINTENANCE, REPAIR**

- (22) EPSC CONTROLS WILL BE MAINTAINED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS AND GOOD ENGINEERING PRACTICES.
- (23) INSPECTION, REPAIR, AND MAINTENANCE OF EPSC MEASURES/STRUCTURES IS TO BE PERFORMED ON A REGULAR BASIS. SEDIMENT SHALL BE REMOVED FROM SEDIMENT CONTROL STRUCTURES WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT (50%). DURING SEDIMENT REMOVAL, THE CONTRACTOR SHALL TAKE CARE TO ENSURE THAT STRUCTURAL COMPONENTS OF EPSC MEASURES ARE NOT DAMAGED AND THUS MADE INEFFECTIVE. IF DAMAGE DOES OCCUR, THE CONTRACTOR SHALL REPAIR THE STRUCTURES AT THE CONTRACTOR'S OWN EXPENSE.
- (24) SEDIMENT REMOVED FROM SEDIMENT CONTROL STRUCTURES SHALL BE PLACED AND BE TREATED IN A MANNER SO THAT THE SEDIMENT IS CONTAINED WITHIN THE PROJECT LIMITS AND DOES NOT MIGRATE INTO WATERS OF THE STATE/U.S. COST FOR THIS TREATMENT IS TO BE INCLUDED IN PRICE BID FOR ITEM NO. 209-05 SEDIMENT REMOVAL, C.Y.
- (25) THE CONTRACTOR SHALL INSTALL A RAIN GAUGE EVERY LINEAR MILE AT ALL SITES WHERE CLEARING, GRUBBING, EXCAVATION, GRADING CUTTING OR FILLING IS BEING ACTIVELY PERFORMED, OR EXPOSED SOIL HAS NOT YET BEEN PERMANENTLY STABILIZED. IF THE PROJECT LENGTH IS LESS THAN ONE LINEAR MILE, ONE RAIN GAUGE SHALL BE INSTALLED AT THE CENTER OF THE PROJECT OR AS INDICATED BY THE TDOT EPSC INSPECTOR. THE CONTRACTOR SHALL ENSURE THAT EACH GAUGE IS MAINTAINED IN GOOD WORKING CONDITION. TDOT AND/OR THE CONTRACTOR SHALL RECORD DAILY PRECIPITATION AND FORECASTED PERCENTAGE OF PRECIPITATION IN DETAILED RECORDS OF RAINFALL EVENTS INCLUDING DATES, AMOUNTS OF RAINFALL PER GAUGE, THE ESTIMATED DURATION (OR STARTING AND ENDING TIMES), AND FORECASTED PERCENTAGE OF PRECIPITATION FOR THE PROJECT. THIS INFORMATION SHALL BE PROVIDED TO THE ENGINEER ON A MONTHLY BASIS. THE COST FOR THE RAIN GAUGES IS TO BE INCLUDED IN THE UNIT BID PRICES FOR OTHER ITEMS. RAIN GAUGES SHALL BE AS SPECIFIED IN THE APPROVED TDOT RAINFALL MONITORING PLAN.
- (26) INSPECTION OF EPSC MEASURES SHALL BE DONE AT LEAST TWICE PER CALENDAR WEEK AT LEAST 72 HOURS APART. A CALENDAR WEEK IS DEFINED AS SUNDAY THROUGH SATURDAY. QUALITY ASSURANCE/QUALITY CONTROL SITE ASSESSMENT OF EPSC SHALL BE PERFORMED PER THE TDOT ENVIRONMENTAL DIVISION'S COMPREHENSIVE INSPECTION OFFICE GUIDELINES.
- (27) OUTFALL POINTS SHALL BE INSPECTED TO ASCERTAIN WHETHER EPSC MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO SURROUNDING WATERS. WHERE DISCHARGE LOCATIONS ARE

INACCESSIBLE, NEARBY DOWNSTREAM LOCATIONS SHALL BE INSPECTED. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE ROADWAY SEDIMENT TRACKING.

- (28) UPON CONCLUSION OF THE INSPECTIONS, EPSC MEASURES FOUND TO BE INEFFECTIVE SHALL BE REPAIRED, REPLACED, OR MODIFIED BEFORE THE NEXT RAIN EVENT, IF POSSIBLE, BUT IN NO CASE MORE THAN 24 HOURS AFTER THE INSPECTION OR WHEN THE CONDITION IS IDENTIFIED. IF THE REPAIR, REPLACEMENT OR MODIFICATION IS NOT PRACTICAL WITHIN THE TIMEFRAME, WRITTEN DOCUMENTATION MUST BE PROVIDED IN THE FIELD BOOK AND AN ESTIMATED REPAIR, REPLACEMENT OR MODIFICATION SCHEDULE SHALL BE DOCUMENTED WITHIN 24 HOURS AFTER IDENTIFICATION.
- (29) THE TDOT PROJECT SUPERVISOR (OR THEIR DESIGNEE) AND THE CONTRACTOR'S SITE SUPERINTENDENT ARE RESPONSIBLE FOR INSPECTIONS. MAINTENANCE AND REPAIR ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE TDOT PROJECT SUPERVISOR OR THEIR DESIGNEE WILL COMPLETE THE INSPECTION REPORTS AND DISTRIBUTE COPIES PER THE CONTRACT.

**MATERIALS**

- (30) WASTE AND BORROW AREAS SHALL BE LOCATED IN NON-WETLAND AREAS AND ABOVE THE 100-YEAR, FEDERAL EMERGENCY MANAGEMENT AGENCY FLOODPLAIN. BORROW AND WASTE DISPOSAL AREAS SHALL NOT AFFECT ANY WATERS OF THE STATE/U.S. UNLESS THESE AREAS ARE SPECIFICALLY COVERED BY AN ARAP, 404, OR NPDES PERMIT, OBTAINED SOLELY BY THE CONTRACTOR.

**SWPPP, PERMITS, PLANS, RECORDS**

- (31) THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR AND OBTAIN ANY NECESSARY ENVIRONMENTAL PERMITS OR APPROVALS, INCLUDING BUT NOT LIMITED TO TDEC ARAP/401, USACE SECTION 404, TVA SECTION 26A, AND TDEC NPDES PERMITS, FROM FEDERAL, STATE AND/OR LOCAL AGENCIES REGARDING THE OPERATION OF ANY PROJECT-DEDICATED ASPHALT AND/OR CONCRETE PLANTS.
- (32) ANY DISAGREEMENT BETWEEN THE PROJECT PLANS, THE PROJECT AS CONSTRUCTED, AND THE PERMIT(S) ISSUED FOR THE PROJECT, SHALL BE BROUGHT TO THE ATTENTION OF THE TDOT PROJECT ENGINEER. THE ENVIRONMENTAL DIVISION, ROADWAY DESIGN DIVISION, AND HEADQUARTERS CONSTRUCTION OFFICE SHALL BE CONTACTED IN THESE INSTANCES AND DECIDE WHICH HAS PRECEDENCE AND WHETHER PERMIT OR PLANS REVISIONS ARE NEEDED. IN GENERAL, PERMIT CONDITIONS WILL PREVAIL.
- (33) THE FOLLOWING INFORMATION SHALL BE MAINTAINED ON OR NEAR THE SITE: DATES THAT MAJOR GRADING ACTIVITIES OCCUR, DATES WHERE CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE, DATES WHEN STABILIZATION MEASURES ARE INITIATED, EPSC INSPECTION RECORDS, QUALITY ASSURANCE SITE ASSESSMENT RECORDS, PRECIPITATION RECORDS, SWPPP, PROJECT ENVIRONMENTAL PERMITS, AND A COPY OF THE PROJECT EPSC INSPECTOR'S TDEC LEVEL 1 CERTIFICATION.
- (34) ALL WATER QUALITY AND STORM WATER PERMITS, INCLUDING A COPY OF THE NOC WITH NPDES PERMIT TRACKING NUMBER AND THE LOCATION OF THE SWPPP, SHALL BE POSTED NEAR THE MAIN ENTRANCE OF THE CONSTRUCTION SITE ACCESSIBLE TO THE PUBLIC. THE NAME, COMPANY NAME, EMAIL ADDRESS, TELEPHONE NUMBER AND ADDRESS OF THE PROJECT SITE OWNER, OPERATOR, OR A LOCAL CONTACT PERSON WITH A BRIEF DESCRIPTION OF THE PROJECT SHALL ALSO BE POSTED. IF POSTING THIS INFORMATION NEAR A MAIN ENTRANCE IS INFEASIBLE, THE INFORMATION SHALL BE PLACED IN A PUBLICLY ACCESSIBLE LOCATION NEAR WHERE THE CONSTRUCTION IS ACTIVELY UNDERWAY AND MOVED AS NECESSARY. THIS LOCATION SHALL BE POSTED AT THE CONSTRUCTION SITE. ALL POSTINGS SHALL BE MAINTAINED IN LEGIBLE CONDITION.
- (35) IF A CHANGE IN PROJECT SCOPE OCCURS DURING CONSTRUCTION, INCLUDING VALUE ENGINEERING, THE ENVIRONMENTAL DIVISION SHALL BE CONTACTED TO DETERMINE WHETHER PERMIT REVISIONS OR MODIFICATIONS OF THE SWPPP ARE NEEDED. THE ROADWAY DESIGN DIVISION SHALL BE CONTACTED TO DETERMINE IF ANY PLAN REVISIONS ARE NEEDED.
- (36) THE SWPPP SHALL BE UPDATED BY CONSTRUCTION WHENEVER EPSC INSPECTIONS INDICATE, OR WHERE STATE OR FEDERAL OFFICIALS DETERMINE EPSC MEASURES ARE PROVING INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING POLLUTANT SOURCES OR ARE OTHERWISE NOT ACHIEVING THE GENERAL OBJECTIVES OF CONTROLLING POLLUTANTS IN STORM WATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITY. THE ENVIRONMENTAL DIVISION SHALL BE CONTACTED WHEN MAJOR DESIGN REVISIONS ARE REQUESTED BY CONSTRUCTION. THE ENVIRONMENTAL DIVISION MAY BE CONTACTED FOR GUIDANCE ON SPECIFIC SWPPP NEEDS. A COPY OF ANY CORRESPONDENCE REGARDING

22-SEP-2015 11:50 CA\Projects\Maury County\SR-99atPatterson Drive\SR99atPattersonDrive\_8-11-15\GradingQuantities&Const\Plans\19066-00-Const\Location\MU5R99\_020Center.dwg\Notes-Const.sht



STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

**GENERAL NOTES**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	HSIP/STP-H-NH-99(43)	2E

THE EFFECTIVENESS OF THE SWPPP OR EPSC CONTROLS SHALL BE RETAINED IN THE SWPPP.

- (37) THE SWPPP SHALL BE UPDATED BY CONSTRUCTION WHENEVER A CHANGE IN CHEMICAL TREATMENT METHODS IS MADE INCLUDING USE OF A DIFFERENT CHEMICAL, DIFFERENT DOSAGE OR APPLICATION RATE, OR A DIFFERENT AREA OF APPLICATION.
- (38) IF A TMDL IS DEVELOPED FOR THE RECEIVING WATERS FOR A POLLUTANT OF CONCERN (SILTATION AND/OR HABITAT ALTERATION) THE SWPPP SHALL BE MODIFIED OR UPDATED.
- (39) PROJECT INSPECTORS AND SUPERVISORS (INCLUDING TDOT STAFF, CONSULTANTS AND CONTRACTOR STAFF) RESPONSIBLE FOR THE IMPLEMENTATION AND MAINTENANCE OF EPSC PLANS SHALL SUCCESSFULLY COMPLETE THE TDEC "LEVEL 1 - FUNDAMENTALS OF EROSION PREVENTION AND SEDIMENT CONTROL FOR CONSTRUCTION SITES" COURSE AND ANY REFRESHER COURSES AS REQUIRED TO MAINTAIN CERTIFICATION. A COPY OF CERTIFICATION RECORDS FOR THE COURSES SHALL BE KEPT ON SITE AND AVAILABLE UPON REQUEST.

**LITTER, DEBRIS, WASTE, PETROLEUM**

- (40) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION WASTES FROM ENTERING WATERS OF THE STATE/U.S. THESE MATERIALS WILL BE PICKED UP AND REMOVED FROM STORMWATER EXPOSURE PRIOR TO ANTICIPATED STORM EVENTS. AFTER USE, MATERIALS USED FOR EPSC WILL BE REMOVED FROM THE SITE.
- (41) THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS TO ENSURE THAT PETROLEUM PRODUCTS OR OTHER CHEMICAL POLLUTANTS ARE PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. ALL EQUIPMENT REFUELING, SERVICING, AND STAGING AREAS SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS, RULES, REGULATIONS, AND ORDINANCES, INCLUDING THOSE OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) APPROPRIATE CONTAINMENT MEASURES FOR THESE AREAS SHALL BE USED. ALL SPILLS MUST BE REPORTED TO THE APPROPRIATE AGENCY, AND MEASURES SHALL BE TAKEN IMMEDIATELY TO PREVENT THE POLLUTION OF WATERS OF THE STATE/U.S., INCLUDING GROUNDWATER, SHOULD A SPILL OCCUR.

**SPECIAL NOTES**

**GRADING**

- (1) THE GRADING TABULATIONS AND RESULTING EARTHWORK ASSOCIATED BID QUANTITIES WERE PREPARED UTILIZING AVAILABLE GEOTECHNICAL INFORMATION AND/OR REPORTS PREPARED FOR THIS PROJECT. THIS INFORMATION IS PROVIDED FOR GENERAL INFORMATION AND ESTIMATION GUIDANCE ONLY.
- (2) BORING DEPICTIONS SHOWN ON THE FOUNDATION DATA SHEETS, SOILS SHEETS, PLANS, AND CROSS-SECTIONS INDICATE SOIL AND ROCK CONDITIONS AT THE SPECIFIC BORING LOCATIONS. ANY SOIL PROFILE AND/OR ROCK LINE IS INTERPRETIVE BASED ON THE JUDGMENT OF THE GEOTECHNICAL ENGINEER/GEOLOGIST. THE TRANSITION BETWEEN BORINGS AND LAYERS MAY VARY SIGNIFICANTLY DEPENDING ON THE GEOLOGIC FORMATIONS ENCOUNTERED.
- (3) TO ASSIST IN BID PREPARATION FOR EARTHWORK AND FOUNDATION CONSTRUCTION, DETAIL ROCK AND SOIL DESCRIPTION AND ON SOME PROJECTS, ROCK CORE SAMPLES ARE AVAILABLE FOR INSPECTION AT THE MATERIALS AND TESTS HEADQUARTERS AT 6601 CENTENNIAL BOULEVARD, NASHVILLE, TN OR AT THE TDOT REGION 1 BUILDING IN KNOXVILLE, TN.
- (4) THE CONTRACTOR SHALL UTILIZE ALL INFORMATION PROVIDED IN THE PLANS, CROSS-SECTIONS AND CONTRACT DOCUMENTS INCLUDING ANY SPECIAL PROVISIONS AS WELL AS UTILIZING HIS PAST EXPERIENCE WITH PROJECTS OF SIMILAR NATURE, SCOPE AND LOCATION IN PREPARATION OF HIS BID FOR EARTHWORK ITEMS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE AND PROVIDE EQUIPMENT AND MEANS NECESSARY TO CONDUCT THE EXCAVATION ACTIVITIES IN ACCORDANCE WITH PLANS AND SPECIFICATIONS.
- (5) EARTHWORK IS PAID FOR UNDER ITEM 203-01, ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED). NO ADDITIONAL PAYMENT WILL BE MADE FOR EARTHWORK QUANTITIES BASED SOLELY ON A CLAIM THAT THE QUANTITIES SHOWN IN THE GRADING TABULATION OR ELSEWHERE IN THE PLANS ARE INACCURATE WITH RESPECT TO THE TYPE OF MATERIALS ENCOUNTERED DURING CONSTRUCTION EXCEPT AS PROVIDED FOR BY SECTION 104.02 IN THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OR AS AMENDED IN SUPPLEMENTAL SPECIFICATIONS.

**EROSION PREVENTION AND SEDIMENT CONTROL**

**NPDES**

- (1) REFER TO THE EROSION PREVENTION AND SEDIMENT CONTROL PLAN, SHEET 9 , FOR NOTES REGARDING SEASONAL WORK LIMITATION OR LIMITATION ON THE TOTAL AREA OF EXPOSED SOIL.

**ENVIRONMENTAL**

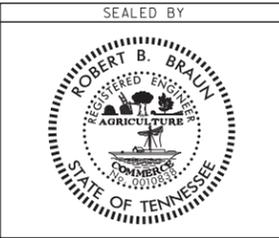
**ECOLOGY**

- (1) ANY MAJOR CHANGES TO THE PLANS, CONSTRUCTION METHODOLOGY, OR ROW WILL VOID TWRA'S COMMENTS AND REQUIRE ANOTHER REVIEW OF THE CHANGES BY THE AGENCY

**GEOTECH**

THE PRESENT LAYOUT SHEET OF THE ROW PLANS SHOW THAT A POTENTIAL SINKHOLE IS LOCATED WITHIN THE TOE OF THE CUT SLOPE NEAR STATION 69+30, APPROXIMATELY 50 FEET LEFT OF CENTERLINE. HOWEVER THIS DEPRESSION IS DIRECTLY ABOVE SEWER LINE. THIS DROPOUT MAY BE RESULT OF A DAMAGED UTILITY PIPE. IT IS RECOMMENDED TO CAREFULLY EXCAVATE THE DROPOUT AREA TO DETERMINE THE TRUE SOURCE OF THIS DEPRESSION. IF THE SEWER PIPE IS DAMAGED, IT IS RECOMMENDED THAT THE PIPE BE PROPERLY REPAIRED OR REPLACE THEN THE EXCAVATION CAN BE BACKFILLED WITH COMMON ROADWAY EMBANKMENT. IF THE DEPRESSION IS INDEED A SINKHOLE, USING A TEMPORARAY CONSTRUCTION SLOPE OF 1:1, IT IS RECOMMENDED THAT THIS SINKHOLE BE EXCAVATED TO A DEFINED OPENING IN BEDROCK, MAKING SURE TO REMOVE ALL SOIL AND DEBRIS FROM THE OPENING OR THROAT OF THE SINKHOLE. TO MAINTAIN VENTILATION, THE THROAT SHALL BE PARTIALLY BLOCKED WITH LARGE KEYSTONE ROCKS. THESE ROCKS SHALL BE LARGE ENOUGH TO LOCK IN PLACE, BUT SHALL NOT PROVIDE AN AIRLOCK THAT WOULD PREVENT SUBSURFACE DRAINAGE. A LAYER OF GEOTEXTILE FABRIC (TYPE IV, ITEM NO. 740-10.04) SHALL THEN LINE THE EXCAVATED SURFACE. FOLLOWING THE PLACEMENT OF THE GEOTEXTILE FABRIC, GRADED SOLID ROCK SHALL BE BACKFILLED TO A MAXIMUM OF ONE FOOT OF THE EXISTING GROUNDLINE. NO. 57 STONE OR RIP RAP SHALL BE USED TO BRING THE EXCAVATED UP TO GRADE. REFER TO THE ATTACHED SOIL SHEETS FOR FURTHER INFORMATION ON THIS REPAIR. FOR QUANTITY ESTIMATION AND BIDDING PURPOSES, IT IS RECOMMENDED THAT THIS DEPRESSION BE ASSUMED TO BE A SINKHOLE AND REQUIRE REPAIR UTILIZING SINKHOLE TREATMENT 1, ACTIVE. THIS REPAIR MAY REQUIRE THE RELOCATION OF THE SEWER LINE THROUGH THIS AREA.

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STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES  
AND  
SPECIAL NOTES

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2015	HSIP/STP-H-NH-99(43)	7
CONST.	2015	HSIP/STP-H-NH-99(43)	7

# DRAINAGE/ HYDRAULIC DATA FOR BRIDGE

STATION 67+74.20 STREAM NAME BEAR CREEK BRANCH

STREAM BED LINING: ROCK/EARTH

DIRECTION OF FLOW RIGHT

DRAINAGE AREA 1.15 SQ MI HILLY

PRESENT STRUCTURE: SPAN 10.0' HEIGHT 9.1' STRUCTURE BOX CULVERT SUPERSTRUCTURE \_\_\_\_\_

BEGIN STATION-OFFSET 67+40.91, 34.06 (RT) END STATION-OFFSET 68+09.56, 36.79 (LT)

LOW BEAM ELEV. 610.32 LOCATION. NW CORNER

INLET INVERT ELEV. 601.22 OUTLET INVERT. 600.57

NORMAL WATER ELEV. \_\_\_\_\_ EXTREME HIGHWATER ELEV. \_\_\_\_\_ DATE. \_\_\_\_\_

HOW OBTAINED. \_\_\_\_\_

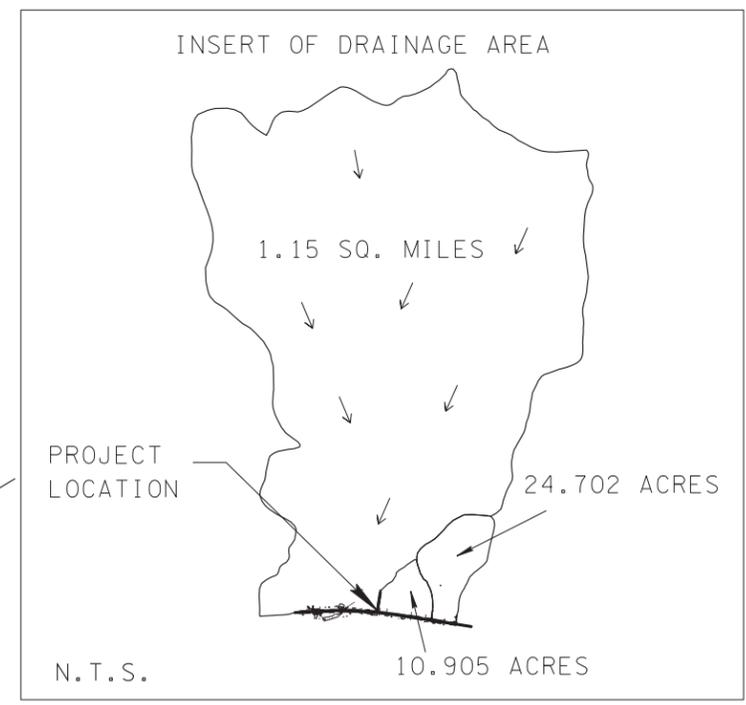
BACKWATER FROM WHAT STREAM (IF APPLICABLE): BEAR CREEK

EXISTING STRUCTURE CONDITION: GOOD

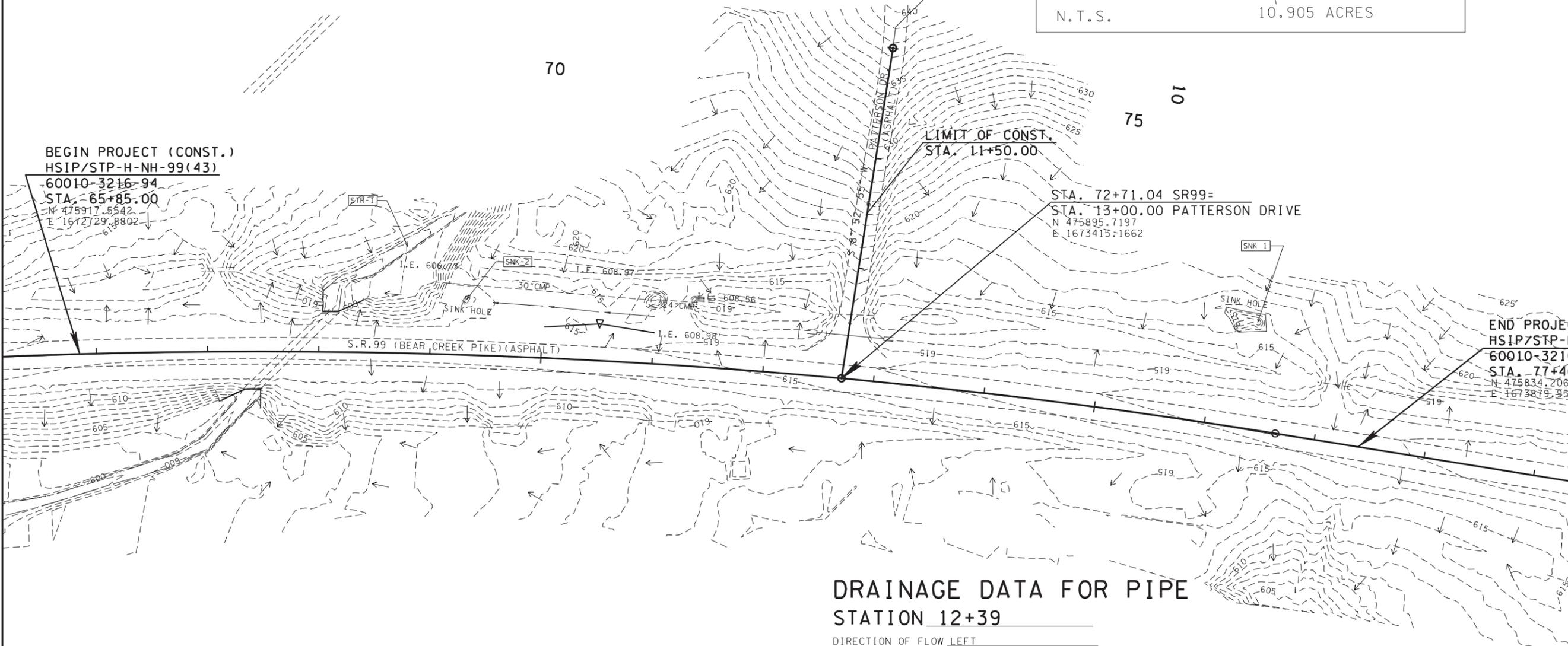
SEE STREAM CROSS-SECTIONS FOR VEGETATIVE COVER, SEE PRESENT LAYOUT (LEVEL 40) FOR STREAM ALIGNMENT AND CROSS-SECTION LOCATIONS.

SEE CENTERLINE PROFILE OR FIELD BOOK FOR EXISTING BRIDGE OPENING SKETCHES.

REMARKS: \_\_\_\_\_



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**BEGIN PROJECT (CONST.)**  
**HSIP/STP-H-NH-99(43)**  
**60010-3216-94**  
**STA. 65+85.00**  
 N 475917.5542  
 E 1672729.8802

**END PROJECT (CONST.)**  
**HSIP/STP-H-NH-99(43)**  
**60010-3216-94**  
**STA. 77+40.00**  
 N 475834.2069  
 E 1673879.9553

## DRAINAGE DATA FOR PIPE

STATION 12+39

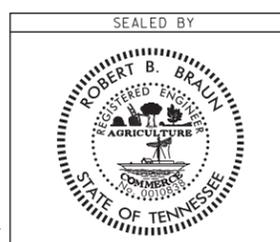
DIRECTION OF FLOW LEFT

DRAINAGE AREA 10.905 AC HILLY

PRESENT STRUCTURE: 24" CMP

EXISTING STRUCTURE CONDITION: GOOD

REMARKS: \_\_\_\_\_



COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00007 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

**DRAINAGE MAP**

STA. 65+85 TO STA. 77+40  
 SCALE: 1" = 50'



TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2015	HSIP/STP-H-NH-99(43)	10
CONST.	2015	HSIP/STP-H-NH-99(43)	10

OUTFALL NO.	DISTURBED DRAINAGE AREA AC.	TOTAL DRAINAGE AREA AC.	AVG. SLOPE OF D.A. %
1	0.3	11	4.3
2	0.5	14	5
3	1.0	13	3.5



SFB & HVF  
STREAM BUFFER

70  
EXISTING CONTOURS

10  
75

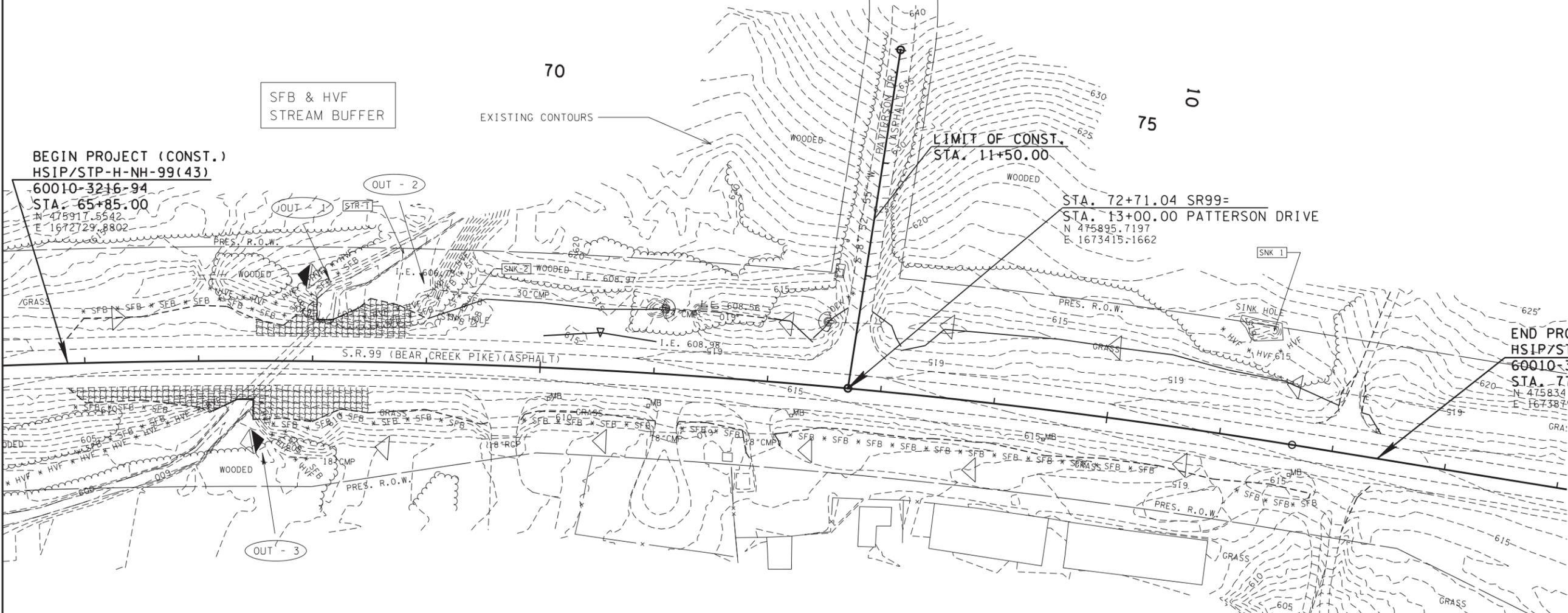
BEGIN PROJECT (CONST.)  
HSIP/STP-H-NH-99(43)  
60010-3216-94  
STA. 65+85.00  
N 475917.5542  
E 1672729.8802

LIMIT OF CONST.  
STA. 11+50.00

STA. 72+71.04 SR99=  
STA. 13+00.00 PATTERSON DRIVE  
N 475895.7197  
E 1673415.1662

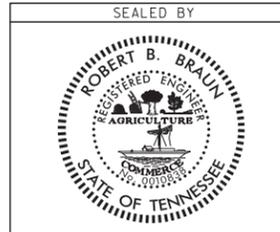
END PROJECT (CONST.)  
HSIP/STP-H-NH-99(43)  
60010-3216-94  
STA. 77+40.00  
N 475834.2069  
E 1673879.9553

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NOTE: SILT FENCE TO HAVE J-HOOKS  
ACROSS CONTOURS.

NOTE: EXISTING CONTOURS SHOWN



COORDINATES ARE NAD/83(1995),  
ARE DATUM ADJUSTED BY THE  
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STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

**EROSION  
PREVENTION  
AND SEDIMENT  
CONTROL PLAN**

STAGE I  
SCALE: 1" = 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2015	HSIP/STP-H-NH-99(43)	11
CONST.	2015	HSIP/STP-H-NH-99(43)	11

OUTFALL NO.	DISTURBED DRAINAGE AREA AC.	TOTAL DRAINAGE AREA AC.	AVG. SLOPE OF D.A. %
1	0.3	11	4.3
2	0.5	14	5
3	1.0	13	3.5



65

70

75

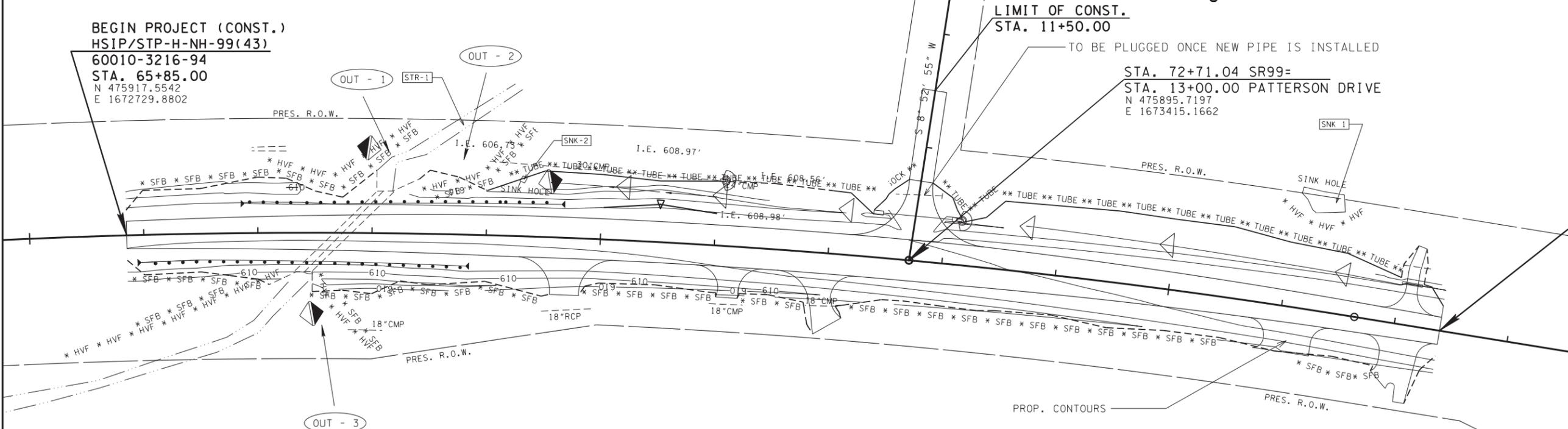
10

BEGIN PROJECT (CONST.)  
HSIP/STP-H-NH-99(43)  
60010-3216-94  
STA. 65+85.00  
N 475917.5542  
E 1672729.8802

LIMIT OF CONST.  
STA. 11+50.00

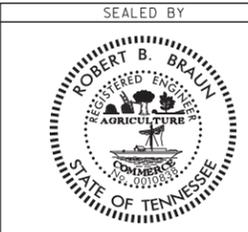
STA. 72+71.04 SR99=  
STA. 13+00.00 PATTERSON DRIVE  
N 475895.7197  
E 1673415.1662

END PROJECT (CONST.)  
HSIP/STP-H-NH-99(43)  
60010-3216-94  
STA. 77+40.00  
N 475834.2069  
E 1673879.9553



NOTE: SILT FENCE TO HAVE J-HOOKS  
ACROSS CONTOURS.

NOTE: PROPOSED CONTOURS SHOWN



COORDINATES ARE NAD/83(1995),  
ARE DATUM ADJUSTED BY THE  
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STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

EROSION  
PREVENTION  
AND SEDIMENT  
CONTROL PLAN

STAGE II  
SCALE: 1" = 50'



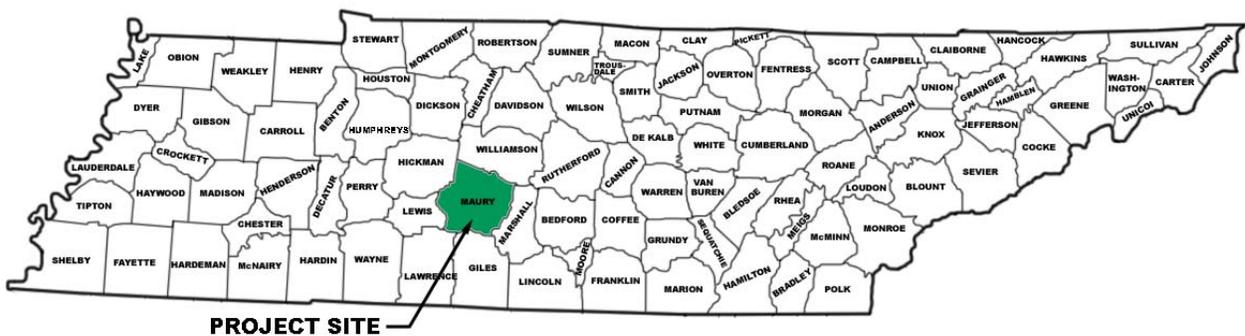
# Documentation and Permits Binder

**Project Name: SR-99 Intersection at Patterson Drive in Columbia**

**Project No.: 60010-0216-94; HSIP/STP-H-NH-99(43)**

**PIN: 119066.00**

**Maury County, Tennessee**



*Prepared by:*  
**Tennessee Department of Transportation**

*Prepared by:*  
**Palmer Engineering Company**

**Consultant Reference No.: 11055.01**

**Content Checklist**

## DOCUMENTS AND PERMITS BINDER

### CHECKLIST

PROJECT NAME: SR-99 INTERSECTION AT PATTERSON DRIVE IN COLUMBIA

PIN: 119066.00

PROJECT NO. : 60010-0216-94; HSIP/STP-H-NH-99(43)

COUNTY: MAURY

1.  INDEX OF REVISIONS
2.  RAINFALL RECORD SHEETS
3.  EPSC INSPECTION REPORTS
4.  NOI AND  NOC
5.  BLANK NOT
6.  CONSTRUCTION GENERAL PERMIT (CGP)
7. ENVIRONMENTAL PERMITS
  - 7.1  PERMIT APPLICATION LETTER
  - 7.2 PERMITS
    - a.  TDEC ARAP
    - b.  CORPS OF ENGINEERS (COE)
    - c.  TVA 26A
    - d.  OTHER
8.  ECOLOGY REPORT
9. TRAINING CERTIFICATIONS
  - TDEC LEVEL I
    - a.  EPSC INSPECTOR
    - b.  TDOT PROJECT SUPERVISOR
    - c.  TDOT PROJECT SUPERVISOR MANAGER
    - d.  CONTRACTOR PROJECT SUPERVISOR
  - TDEC LEVEL II
    - e.  TDOT PROJECT SUPERVISOR MANAGER
10. TMDL INFORMATION REQUIRED
  - a.  Yes
  - b.  No

## 1. Index of Revisions





## 2. Rainfall Record Sheets



### TDOT EPSC Inspection Monthly Rainfall Data Log

Month \_\_\_\_\_ Year \_\_\_\_\_

Date	Day of Week <sup>1</sup>	Predicted Precipitation (%) <sup>2</sup>	Rainfall Gage 1 (in)	Rainfall Gage 2 (in)	Rainfall Gage 3 (in)	Rainfall Gage 4 (in)	Rainfall Gage 5 (in)	Duration (hr)
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								

<sup>1</sup> Day of Week= Su,M,Tu,W,Th,F,Sa

<sup>2</sup> Predicted Precipitation Source: \_\_\_\_\_



NOAA Atlas 14, Volume 2, Version 3  
 Location name: Columbia, Tennessee, US\*  
 Latitude: 35.6366°, Longitude: -86.9931°  
 Elevation: 619 ft\*  
 \* source: Google Maps



**POINT PRECIPITATION FREQUENCY ESTIMATES**

G.M. Bonnin, D. Martin, B. Lin, T. Parzybok, M.Yekta, and D. Riley

NOAA, National Weather Service, Silver Spring, Maryland

[PF\\_tabular](#) | [PF\\_graphical](#) | [Maps\\_&\\_aerials](#)

**PF tabular**

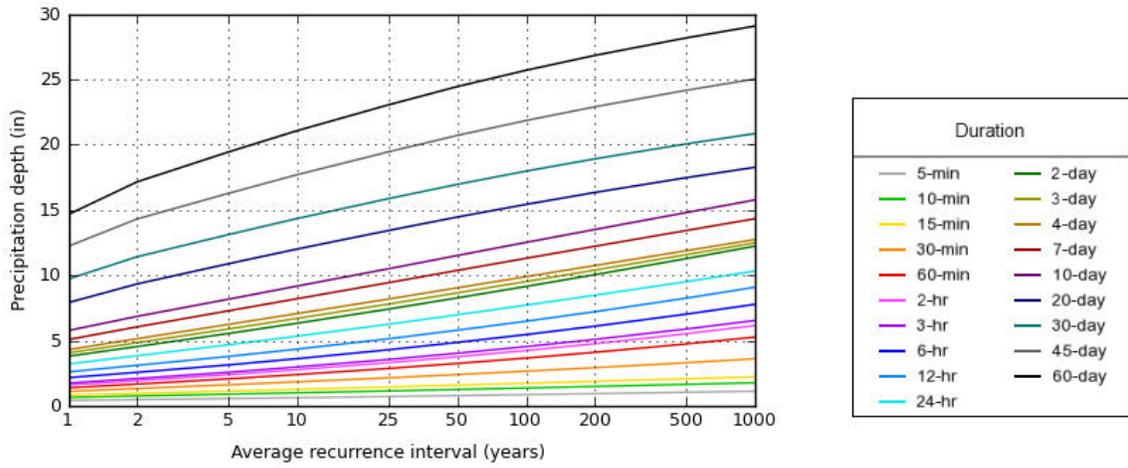
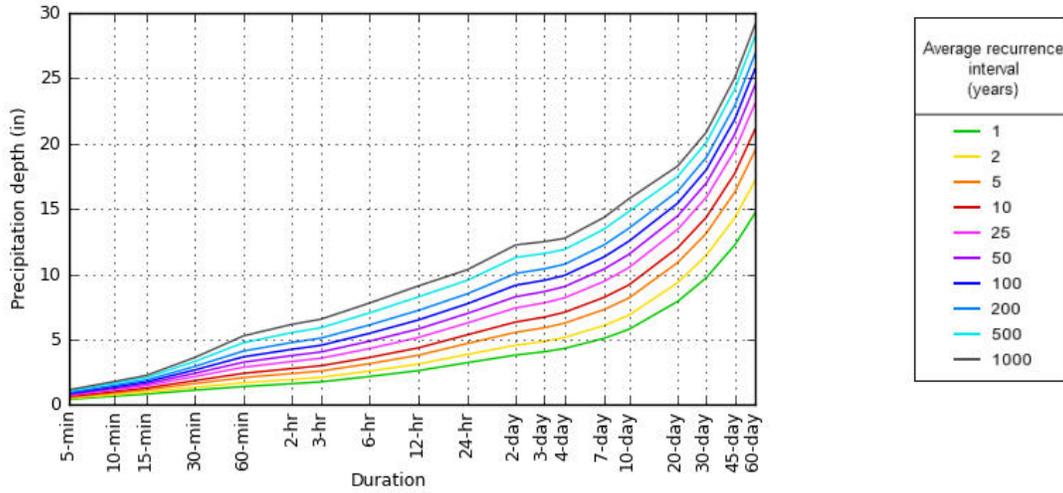
<b>PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)<sup>1</sup></b>										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.407 (0.376-0.444)	0.481 (0.444-0.525)	0.562 (0.517-0.614)	0.629 (0.578-0.685)	0.720 (0.656-0.784)	0.791 (0.716-0.860)	0.865 (0.777-0.940)	0.941 (0.838-1.02)	1.04 (0.917-1.14)	1.13 (0.979-1.23)
10-min	0.651 (0.600-0.710)	0.769 (0.710-0.840)	0.900 (0.828-0.983)	1.01 (0.924-1.10)	1.15 (1.05-1.25)	1.26 (1.14-1.37)	1.37 (1.24-1.49)	1.49 (1.33-1.62)	1.65 (1.45-1.80)	1.78 (1.54-1.94)
15-min	0.813 (0.751-0.887)	0.966 (0.892-1.06)	1.14 (1.05-1.24)	1.27 (1.17-1.39)	1.45 (1.33-1.58)	1.59 (1.45-1.73)	1.74 (1.56-1.89)	1.88 (1.68-2.05)	2.08 (1.83-2.27)	2.23 (1.94-2.44)
30-min	1.12 (1.03-1.22)	1.34 (1.23-1.46)	1.62 (1.49-1.77)	1.84 (1.69-2.01)	2.15 (1.96-2.35)	2.40 (2.18-2.61)	2.66 (2.39-2.89)	2.93 (2.61-3.19)	3.31 (2.90-3.61)	3.61 (3.13-3.95)
60-min	1.39 (1.28-1.52)	1.68 (1.55-1.83)	2.07 (1.91-2.26)	2.40 (2.21-2.62)	2.87 (2.61-3.12)	3.25 (2.95-3.54)	3.66 (3.29-3.99)	4.11 (3.66-4.47)	4.74 (4.17-5.18)	5.27 (4.58-5.76)
2-hr	1.61 (1.48-1.77)	1.94 (1.78-2.12)	2.39 (2.19-2.62)	2.77 (2.53-3.04)	3.31 (3.00-3.62)	3.77 (3.39-4.11)	4.25 (3.79-4.64)	4.77 (4.22-5.21)	5.53 (4.82-6.06)	6.16 (5.31-6.77)
3-hr	1.75 (1.61-1.91)	2.09 (1.93-2.30)	2.58 (2.37-2.82)	2.98 (2.73-3.26)	3.55 (3.23-3.88)	4.04 (3.64-4.41)	4.55 (4.07-4.96)	5.10 (4.52-5.57)	5.89 (5.15-6.44)	6.55 (5.66-7.17)
6-hr	2.16 (1.99-2.37)	2.58 (2.37-2.83)	3.14 (2.89-3.44)	3.62 (3.32-3.96)	4.30 (3.91-4.70)	4.86 (4.39-5.31)	5.47 (4.90-5.96)	6.11 (5.43-6.67)	7.03 (6.16-7.69)	7.78 (6.75-8.54)
12-hr	2.61 (2.41-2.85)	3.11 (2.87-3.40)	3.79 (3.48-4.14)	4.35 (3.99-4.75)	5.14 (4.68-5.61)	5.80 (5.25-6.31)	6.49 (5.83-7.07)	7.22 (6.45-7.88)	8.25 (7.28-9.02)	9.09 (7.94-9.96)
24-hr	3.22 (3.00-3.46)	3.84 (3.58-4.14)	4.68 (4.36-5.05)	5.35 (4.97-5.75)	6.25 (5.80-6.73)	6.98 (6.45-7.49)	7.72 (7.12-8.29)	8.48 (7.79-9.10)	9.52 (8.69-10.2)	10.3 (9.39-11.1)
2-day	3.80 (3.54-4.10)	4.55 (4.23-4.91)	5.55 (5.15-5.99)	6.34 (5.88-6.83)	7.41 (6.86-7.99)	8.27 (7.63-8.90)	9.15 (8.41-9.84)	10.1 (9.20-10.8)	11.3 (10.3-12.1)	12.2 (11.1-13.2)
3-day	4.06 (3.79-4.36)	4.85 (4.53-5.22)	5.89 (5.50-6.33)	6.71 (6.25-7.21)	7.80 (7.25-8.37)	8.66 (8.02-9.29)	9.53 (8.80-10.2)	10.4 (9.58-11.2)	11.6 (10.6-12.4)	12.5 (11.4-13.4)
4-day	4.31 (4.04-4.62)	5.15 (4.83-5.52)	6.24 (5.84-6.68)	7.08 (6.62-7.58)	8.19 (7.63-8.76)	9.05 (8.42-9.68)	9.90 (9.18-10.6)	10.8 (9.95-11.5)	11.9 (10.9-12.7)	12.7 (11.7-13.7)
7-day	5.08 (4.79-5.40)	6.06 (5.71-6.44)	7.28 (6.86-7.74)	8.21 (7.73-8.72)	9.44 (8.87-10.0)	10.4 (9.73-11.0)	11.3 (10.6-12.0)	12.2 (11.4-13.0)	13.4 (12.5-14.3)	14.3 (13.3-15.3)
10-day	5.77 (5.45-6.12)	6.86 (6.48-7.28)	8.17 (7.71-8.66)	9.18 (8.66-9.73)	10.5 (9.90-11.1)	11.5 (10.8-12.2)	12.5 (11.8-13.3)	13.5 (12.6-14.3)	14.8 (13.8-15.7)	15.8 (14.6-16.7)
20-day	7.91 (7.49-8.35)	9.35 (8.85-9.87)	10.9 (10.3-11.5)	12.0 (11.4-12.7)	13.4 (12.7-14.2)	14.5 (13.7-15.3)	15.4 (14.6-16.3)	16.4 (15.4-17.3)	17.5 (16.4-18.5)	18.3 (17.1-19.3)
30-day	9.72 (9.24-10.2)	11.4 (10.9-12.0)	13.1 (12.5-13.8)	14.4 (13.6-15.1)	15.9 (15.1-16.7)	17.0 (16.1-17.8)	18.0 (17.0-18.9)	18.9 (17.9-19.9)	20.1 (18.9-21.1)	20.9 (19.7-22.0)
45-day	12.2 (11.6-12.8)	14.3 (13.6-15.0)	16.3 (15.5-17.1)	17.7 (16.9-18.6)	19.5 (18.5-20.4)	20.7 (19.7-21.7)	21.9 (20.8-22.9)	22.9 (21.7-24.0)	24.2 (22.9-25.4)	25.0 (23.7-26.3)
60-day	14.7 (14.0-15.4)	17.2 (16.4-18.0)	19.4 (18.5-20.4)	21.1 (20.1-22.1)	23.1 (21.9-24.2)	24.5 (23.3-25.7)	25.7 (24.4-27.0)	26.8 (25.5-28.2)	28.2 (26.7-29.6)	29.1 (27.5-30.6)

<sup>1</sup> Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).  
 Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.  
 Please refer to NOAA Atlas 14 document for more information.

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## PF graphical

PDS-based depth-duration-frequency (DDF) curves  
Latitude: 35.6366°, Longitude: -86.9931°

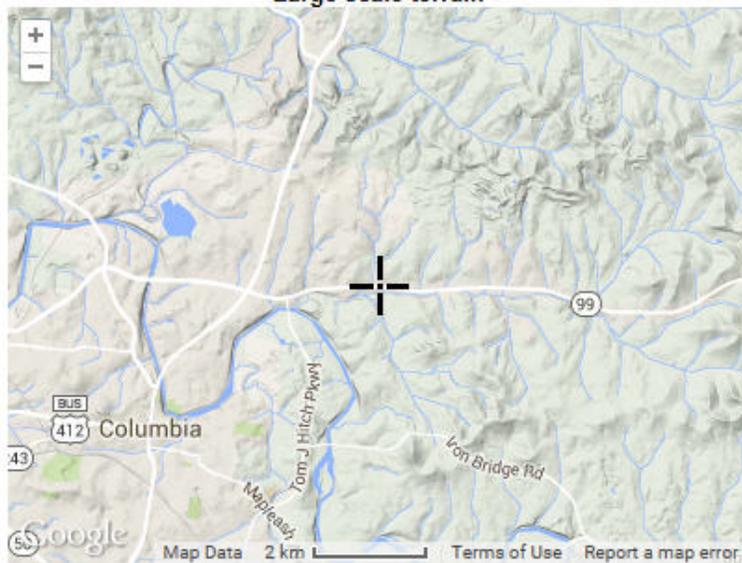


# Maps & aerials

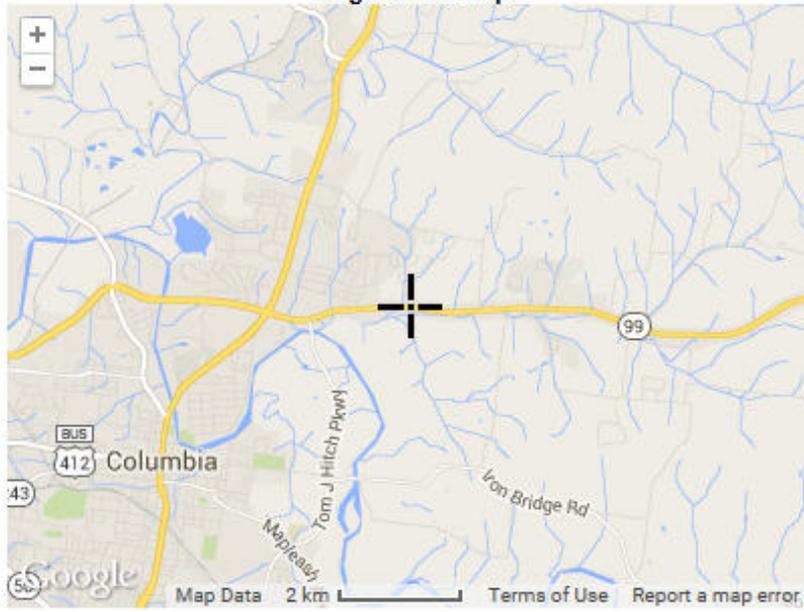
## Small scale terrain



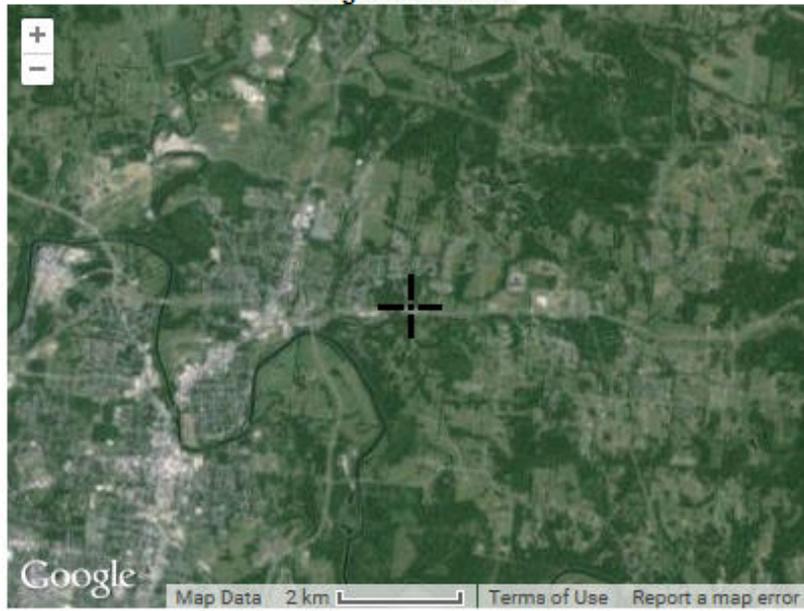
## Large scale terrain



Large scale map



Large scale aerial



### 3. EPSC Inspection Reports



**CONSTRUCTION DIVISION  
EPSC DELEGATION OF AUTHORITY**

In accordance with Section 7.7.3 (Duly Authorized Representative) of the *Tennessee General NPDES Permit for Discharges of Stormwater Associated with Construction Activities*, I \_\_\_\_\_  
 (print name of TDOT project supervisor), delegate the reporting responsibility of coordination with the erosion prevention and sediment control (EPSC) inspection services consultant for TDOT contract # \_\_\_\_\_  
 to:

Name: \_\_\_\_\_ (print name of TDOT delegate)

Title: \_\_\_\_\_

Address: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Phone No.: \_\_\_\_\_

Email Address: \_\_\_\_\_

I am providing delegation of authority as stated above and confirm that the TDOT delegate stated above has direct knowledge of the subject project and the ability to discuss the reports and recommendations from the EPSC inspection services consultant on the subject project directly to the contractor.

\_\_\_\_\_ (signature of TDOT Project Supervisor)

\_\_\_\_\_ (signature of TDOT delegate)

\_\_\_\_\_ (date)

The EPSC Delegation of Authority shall be submitted to the local TDEC WPC Environmental Field Office (EFO) address (see table below) for record keeping. A copy shall be placed within the on-site SWPPP Documentation and Permits Binder.

EFO	Street Address	Zip Code	EFO	Street Address	Zip Code
Memphis	8383 Wolf Lake Drive, Bartlett	38133	Cookeville	1221 South Willow Ave.	38506
Jackson	1625 Hollywood Drive	38305	Chattanooga	540 McCallie Avenue STE 550	37402
Nashville	711 R S Gass Boulevard	37243	Knoxville	3711 Middlebrook Pike	37921
Columbia	1421 Hampshire Pike	38401	Johnson City	2305 Silverdale Road	37601





**TENNESSEE DEPARTMENT OF TRANSPORTATION  
EROSION PREVENTION & SEDIMENT CONTROL (EPSC) INSPECTION REPORT**

EPSC Inspection Schedule (circle one): 1<sup>st</sup> Weekly or 2<sup>nd</sup> Weekly

Date of Inspection: \_\_\_\_\_

Site or Project Name (State Route (SR) / US Route or Road Name and Description):			Are corrective actions required by this inspection report (Yes /No):			Current approximate disturbed acreage:
County(ies):	TDOT PIN:	NPDES Tracking Number: TNR	Number of New Corrective Actions/Deficiencies:	Number of Recurring Corrective Actions/Deficiencies:	Number of New Sediment Releases:	Number of Un-Corrected Sediment Releases:
TDOT Project No.:	TDOT Contract No.:	Contractor:				

**Please check the box if the following items are on-site:**

- Notice of Coverage (NOC)     
  Stormwater Pollution Prevention Plan (SWPPP)     
  Twice Weekly Inspection Documentation     
  Site Contact Information     
  Rain Gauge(s)
- Off-site Reference Rain Gauge Location: \_\_\_\_\_     
 Has daily rainfall been checked/documented on the TDOT Monthly Rainfall Log?  Yes  No

<b>Best Management Practices (BMPs)</b>	<b>TDOT/Contractor Agrees with EPSC Inspection Report: NO or YES. If No, Explain and initial comment:</b>
<b>Are the Erosion Prevention and Sediment Controls (EPSCs) functioning correctly:</b> If "No," see attached page(s) for description.	
1. Are all applicable (EPSCs) installed and maintained per the SWPPP? <input type="checkbox"/> Yes <input type="checkbox"/> No	
2. Are EPSC's functioning correctly at all disturbed areas/material storage areas per section 4.1.5 of the CGP? <input type="checkbox"/> Yes <input type="checkbox"/> No	
3. Are EPSC's functioning correctly at outfall/discharge points such that there is no objectionable color contrast in the receiving stream, and no other water quality impacts per section 5.3.2 of the CGP? <input type="checkbox"/> Yes <input type="checkbox"/> No	
4. Are EPSC's functioning correctly at ingress/egress points such that there is no evidence of track out? <input type="checkbox"/> Yes <input type="checkbox"/> No	
5. If construction activity at any location on-site has temporarily/permanently ceased, was the area stabilized within 14 days per section 3.5.3.2 of the CGP? If, "No," refer to the attached page(s) for each location and measures taken to stabilize the area(s). <input type="checkbox"/> Yes <input type="checkbox"/> No	
6. Have pollution prevention measures been installed, implemented, and maintained to minimize the discharge of pollutants from equipment and vehicle washing, wheel and wash water and other wash waters per section 4.1.5 of the CGP? If "No," refer to the attached page(s) for measures to be implemented to address deficiencies. <input type="checkbox"/> Yes <input type="checkbox"/> No	
7. If applicable, have discharges from dewatering activities been managed by appropriate controls per Section 4.1.4 of the CGP? If "No," refer to the attached page(s) for measures to be implemented to address deficiencies. <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	
8. If a concrete washout facility is located on site, is it clearly identified on the project and maintained? If "No," refer to the attached page(s) for measures to be implemented to address deficiencies. <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	

(Additional pages may be attached, if needed)

**Certification and Signature (must be signed by the certified inspector and the permittees per Sections 3.5.8.2 (g) and 7.7.2 of the CGP)**

This document was prepared in accordance with a system designed to assure that qualified personnel properly gathered and evaluated information presented. Based on my inquiry of the person(s) who manage the system, or those persons directly responsible for gathering the information, I certify that inspections of storm water discharge points (outfalls) and of erosion and sediment controls have been performed and recorded. I certify that erosion and sediment controls in the drainage area of the identified outfall were installed as planned and designed in working order as recorded in the table above. I certify, under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code annotated section 39-16-702(a) (4), this declaration is made under penalty of perjury.	EPSC Inspector Name, Title and Company (print or type):	Signature:	Date:
	TN EPSC Certification No.:		
	Contractor (Secondary Permittee) Name and Title (print or type):	Signature:	Date:
	TDOT Project Supervisor or Designee (Primary Permittee) Name and Title (print or type):	Signature:	Date:



#### 4. NOI & NOC



TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

Division of Water Resources

William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor, Nashville, TN 37243

1-888-891-8332 (TDEC)

Notice of Intent (NOI) for General NPDES Permit for Stormwater Discharges from Construction Activities (TNR100000)

Site or Project Name: PIN 119066.00; PROJECT # 60010-1216-94; HSIP/STP-H-NH-99(43) Existing NPDES Tracking Number: TNR
Street Address or SR-99 Location: Start date: Dec 2015 Estimated end date: Dec 2020
Site Activity SR-99 Intersection at Patterson Drive in Columbia which includes adding a left turn Description: lane, grade, drain, and guardrail. Latitude (dd.dddd): 35.6363 ° N Longitude (dd.dddd): -86.9931 ° W
County(ies): Maury MS4 Jurisdiction: TDOT Acres Disturbed: 2.65 Total Acres: 5.10
Does a topographic map show dotted or solid blue lines and/or wetlands on or adjacent to the construction site?
If wetlands are located on-site and may be impacted, attach wetlands delineation report.
If an Aquatic Resource Alteration Permit has been obtained for this site, what is the permit number? ARAP permit No.:
Receiving waters: Bear Creek within the Lower Duck River watershed
Attach the SWPPP with the NOI SWPPP Attached Attach a site location map Map Attached

Site Owner/Developer Entity (Primary Permittee): (person, company, or legal entity that has operational or design control over construction plans and specifications): Tennessee Department of Transportation
Site Owner/Developer Signatory (V.P. level/higher - signs certification below): (individual responsible for site): Jim Ozment Signatory's Title or Position (V.P. level/higher - signs certification below): Environmental Division Director
Mailing Address: 900 James K. Polk Building 505 Deaderick Street City: Nashville State: TN Zip: 37243-0334
Phone: ( 615 ) 741-5373 Fax: ( ) N/A E-mail: Environmental.NPDES.TDOT@tn.gov
Optional Contact: Anthony Myers Title or Position: Senior Transportation Project Specialist
Mailing Address: 900 James K. Polk Building 505 Deaderick Street City: Nashville State: TN Zip: 37243-0334
Phone: ( 615 ) 532-9945 Fax: ( ) N/A E-mail: Anthony.Myers@tn.gov

Owner or Developer Certification (must be signed by president, vice-president or equivalent, or ranking elected official) (Primary Permittee)
I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.
Owner or Developer Name; (print or type) Jim Ozment Signature: Date: 10-19-2015

Contractor(s) Certification (must be signed by president, vice-president or equivalent, or ranking elected official) (Secondary Permittee)
I certify under penalty of law that I have reviewed this document, any attachments, and the SWPPP referenced above. Based on my inquiry of the construction site owner/developer identified above and/or my inquiry of the person directly responsible for assembling this NOI and SWPPP, I believe the information submitted is accurate. I am aware that this NOI, if approved, makes the above-described construction activity subject to NPDES permit number TNR100000, and that certain of my activities on-site are thereby regulated.
Contractor company name (print or type):
Contractor signatory (print/type): (V.P. level or higher) Signature: Date:
Mailing Address: City: State: Zip:
Phone: ( ) Fax: ( ) E-mail:

Other Contractor company name (print or type):
Other Contractor signatory (print/type): (V.P. level or higher) Signature: Date:
Mailing Address: City: State: Zip:
Phone: ( ) Fax: ( ) E-mail:

OFFICIAL STATE USE ONLY

Received Date: Reviewer: Field Office: Permit Number TNR Exceptional TN Water:
Fee(s): T & E Aquatic Flora and Fauna: Impaired Receiving Stream: Notice of Coverage Date:

**Notice of Intent (NOI) for General NPDES Permit for Stormwater Discharges from Construction Activities (TNR10000)**

**Purpose of this form** A completed notice of intent (NOI) must be submitted to obtain coverage under the Tennessee General NPDES Permit for Discharges of Stormwater Associated with Construction Activity (permit). **Requesting coverage under this permit means that an applicant has obtained and examined a copy of this permit, and thereby acknowledges applicant’s claim of ability to be in compliance with permit terms and conditions.** This permit is required for stormwater discharge(s) from construction activities including clearing, grading, filling and excavating (including borrow pits) of one or more acres of land. This form should be submitted at least 30 days prior to the commencement of land disturbing activities, or no later than 48 hours prior to when a new operator assumes operational control over site specifications or commences work at the site.

**Permit fee** (see table below) must accompany the NOI and is based on total acreage to be disturbed by an entire project, including any associated construction support activities (e.g. equipment staging yards, material storage areas, excavated material disposal areas, borrow or waste sites).

<b>Acres Disturbed</b>	<b>= or &gt; 150 acres</b>	<b>= or &gt; 50 &lt; 150 acres</b>	<b>= or &gt; 20 &lt; 50 acres</b>	<b>= or &gt; 5 &lt; 20 acres</b>	<b>= or &gt; 1 &lt; 5 acres</b>	<b>Subsequent coverage*</b>
<b>Fee</b>	\$10,000	\$6,000	\$3,000	\$1,000	\$250	\$100

\* Subsequent Primary Operators seeking coverage under an actively covered larger common plan of development or sale

**Who must submit the NOI form?** Per Section 2 of the permit, all site operators must submit an NOI form. “Operator” for the purpose of this permit and in the context of stormwater associated with construction activity means any person associated with a construction project who meets either or both of the following two criteria: (1) The person has operational or design control over construction plans and specifications, including the ability to make modifications to those plans and specifications. This person is typically the owner or developer of the project or a portion of the project (e.g. subsequent builder), or the person that is the current land owner of the construction site. This person is considered the primary permittee; or (2) The person has day-to-day operational control of those activities at a project which are necessary to ensure compliance with a SWPPP for the site or other permit conditions. This person is typically a contractor or a commercial builder who is hired by the primary permittee, and is considered a secondary permittee.

Owners, developers and all contractors that meet the definition of the operator in subsection 2.2 of the permit shall apply for permit coverage on the same NOI, insofar as possible. After permit coverage has been granted to the primary permittee, any subsequent NOI submittals must include the site’s previously assigned permit tracking number and the project name. The comprehensive site-specific SWPPP shall be prepared in accordance with the requirements of part 3 of the permit and must be submitted with the NOI unless the NOI being submitted is to only add a contractor (secondary permittee) to an existing coverage.

**Notice of Coverage** The division will review the NOI for completeness and accuracy and prepare a notice of coverage (NOC). Stormwater discharge from the construction site is authorized as of the effective date of the NOC.

**Complete the form** Type or print clearly, using ink and not markers or pencil. Answer each item or enter “NA,” for not applicable, if a particular item does not fit the circumstances or characteristics of your construction site or activity. If you need additional space, attach a separate piece of paper to the NOI form. **The NOI will be considered incomplete without a permit fee, a map, and the SWPPP.**

**Describe and locate the project** Use the legal or official name of the construction site. If a construction site lacks street name or route number, give the most accurate geographic information available to describe the location (reference to adjacent highways, roads and structures; e.g. intersection of state highways 70 and 100). Latitude and longitude (expressed in decimal degrees) of the center of the site can be located on USGS quadrangle maps. The quadrangle maps can be obtained at the USGS World Wide Web site: <http://www.usgs.gov/>; latitude and longitude information can be found at numerous other web sites. Attach a copy of a portion of a 7.5 minute quad map, showing location of site, with boundaries at least one mile outside the site boundaries. Provide estimated starting date of clearing activities and completion date of the project, and an estimate of the number of acres of the site on which soil will be disturbed, including borrow areas, fill areas, stockpiles and the total acres. For linear projects, give location at each end of the construction area.

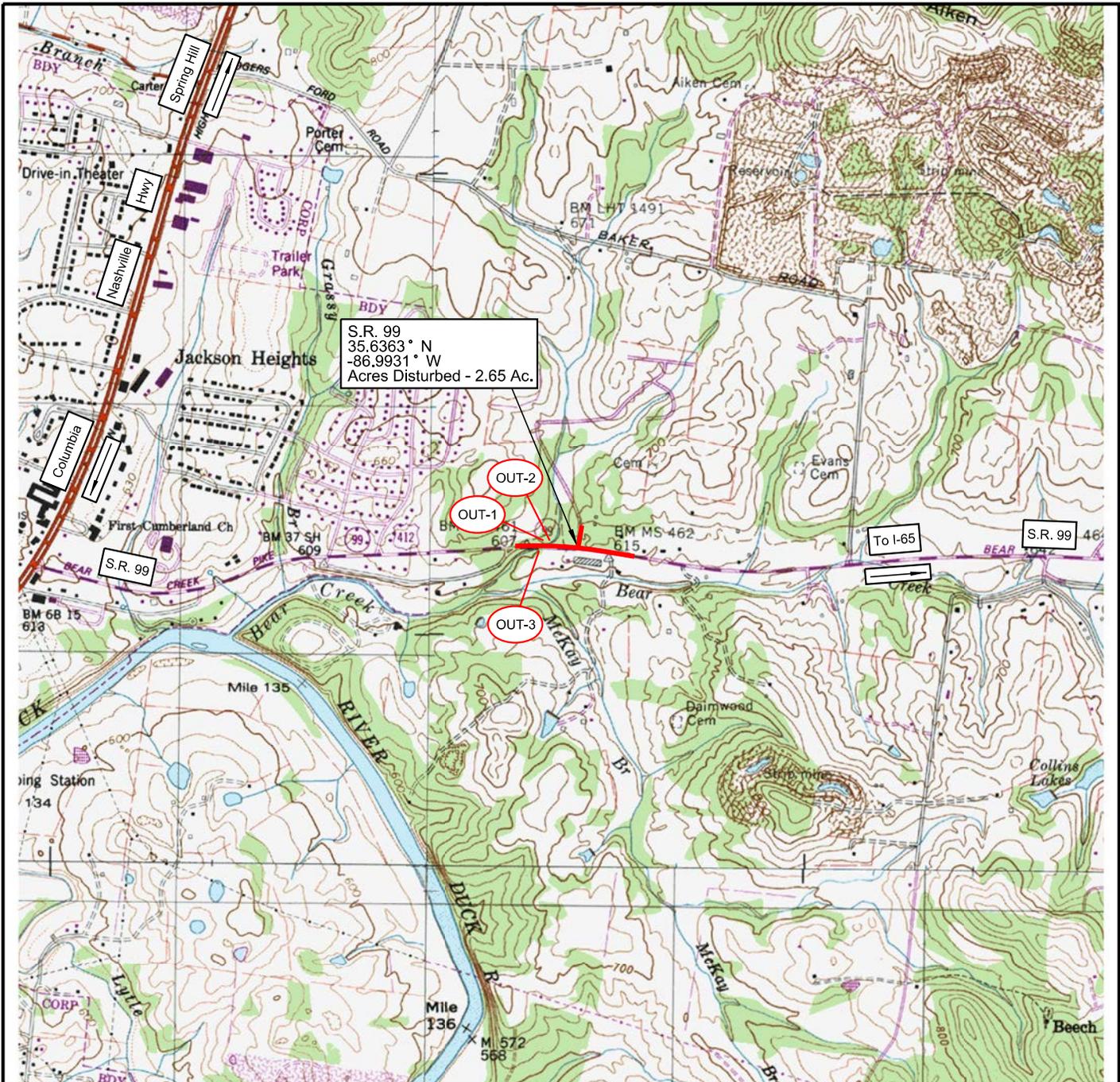
**MS4 Jurisdiction:** If this construction site is located within a Municipal Separate Storm Sewer System (MS4), please list name of MS4. A current list of MS4s in Tennessee may be found at [http://www.state.tn.us/environment/water/water-quality\\_storm-water.shtml](http://www.state.tn.us/environment/water/water-quality_storm-water.shtml)

**Give name of the receiving waters** Trace the route of stormwater runoff from the construction site and determine the name of the river(s), stream(s), creek(s), wetland(s), lake(s) or any other water course(s) into which the stormwater runoff drains. Note that the receiving water course may or may not be located on the construction site. If the first water body receiving construction site runoff is unnamed (“unnamed tributary”), determine the name of the water body that the unnamed tributary enters.

**ARAP permit may be required** **If your work will disturb or cause alterations of a stream or wetland, you must obtain an appropriate Aquatic Resource Alteration Permit (ARAP).** If you have a question about the ARAP program or permits, contact your local Environmental Field Office (EFO).

**Submitting the form and obtaining more information** Note that this form must be signed by the company President, Vice-President, or a ranking elected official in the case of a municipality, for details see subpart 2.5. For more information, contact your local EFO at the toll-free number 1-888-891-8332 (TDEC). Submit the completed NOI form (keep a copy for your records) to the appropriate EFO for the county(ies) where the construction activity is located, addressed to **Attention: Stormwater NOI Processing.**

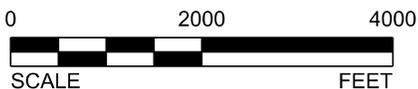
Tennessee Department of Environment and Conservation  
 Division of Water Pollution Control, Permit Section  
 Attn: Storm Water NOI Processing  
 William R. Snodgrass Tennessee Tower  
 312 Rosa L. Parks Avenue, 11th Floor  
 Nashville, TN 37243



# TOPOGRAPHIC MAP



OUT-1 Approximate Outfall Location



SOURCE: USGS Quad Map, U.S. Geological Survey 7.5 Minute Topographic Map, Carters Creek (64 NW), Columbia (57 SE), Glendale (64 SW), Godwin (57 NE) Tennessee Quadrangles



Tennessee Department of Transportation  
Nashville, Tennessee

## Stormwater Pollution Prevention Plan

SR-99  
Intersection at Patterson Drive  
in Columbia

Maury County, Tennessee

Drawn By:

DAH

TDOT P.E. No.

60010-1216-94

FED. No.

HSIP/STP-H-NH-99(43)

Checked By:

JBL

TDOT PIN

119066.00

Figure

1

5. Blank NOT



TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC)

Division of Water Resources

William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243
1-888-891-TDEC (8332)

Notice of Termination (NOT) for General NPDES Permit for Stormwater Discharges from Construction Activities (CGP)

This form is required to be submitted when requesting termination of coverage from the CGP. The purpose of this form is to notify the TDEC that either all stormwater discharges associated with construction activity from the portion of the identified facility where you, as an operator, have ceased or have been eliminated; or you are no longer an operator at the construction site. Submission of this form shall in no way relieve the permittee of permit obligations required prior to submission of this form. Please submit this form to the local DWR Environmental Field Office (EFO) address (see table below). For more information, contact your local EFO at the toll-free number 1-888-891-8332 (TDEC).

Type or print clearly, using ink.

Form with fields: Site or Project Name, NPDES Tracking Number: TNR, Street Address or Location, County(ies)

Form with fields: Name of Permittee Requesting Termination of Coverage, Permittee Contact Name, Title or Position, Mailing Address, City, State, Zip, Phone, E-mail

Check the reason(s) for termination of permit coverage:

Form with checkboxes for reasons: Stormwater discharge associated with construction activity is no longer occurring... OR has equivalent measures...; You are no longer the operator at the construction site...

Certification and Signature: (must be signed by president, vice-president or equivalent ranking elected official)

Certification text: I certify under penalty of law that either: (a) all stormwater discharges associated with construction activity from the portion of the identified facility where I was an operator have ceased or have been eliminated or (b) I am no longer an operator at the construction site. I understand that by submitting this notice of termination, I am no longer authorized to discharge stormwater associated with construction activity under this general permit, and that discharging pollutants in stormwater associated with construction activity to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by a NPDES permit. I also understand that the submittal of this notice of termination does not release an operator from liability for any violations of this permit or the Clean Water Act. For the purposes of this certification, elimination of stormwater discharges associated with construction activity means that all stormwater discharges associated with construction activities from the identified site that are authorized by a NPDES general permit have been eliminated from the portion of the construction site where the operator had control. Specifically, this means that all disturbed soils at the portion of the construction site where the operator had control have been finally stabilized, the temporary erosion and sediment control measures have been removed, and/or subsequent operators have obtained permit coverage for the site or portions of the site where the operator had control. I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury. Form with fields: Permittee name (print or type), Signature, Date

Tennessee Department of Environment and Conservation
Division of Water Pollution Control, Permit Section
Attn: Storm Water NOT Processing
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, TN 37243

## 6. Construction General Permit



**GENERAL NPDES PERMIT**  
**FOR DISCHARGES OF STORMWATER**  
**ASSOCIATED WITH CONSTRUCTION ACTIVITIES**

**PERMIT NO. TNR100000**

Under authority of the Tennessee Water Quality Control Act of 1977 ([T.C.A. 69-3-101](#) et seq.) and the authorization by the United States Environmental Protection Agency under the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 ([33 U.S.C. 1251](#), et seq.) and the [Water Quality Act of 1987, P.L. 100-4](#), including special requirements as provided in part 5.4 (Discharges into Impaired or Exceptional Tennessee Waters) of this general permit, operators of point source discharges of stormwater associated with construction activities into waters of the State of Tennessee, are authorized to discharge stormwater associated with construction activities in accordance with the following permit monitoring and reporting requirements, effluent limitations, and other provisions as set forth in parts 1 through 10 herein, from the subject outfalls to waters of the State of Tennessee.

This permit is issued on: **May 23, 2011**

This permit is effective on: **May 24, 2011**

This permit expires on: **May 23, 2016**

A handwritten signature in blue ink, appearing to read "P. Davis", is written over a horizontal line.

for Paul E. Davis, P.E., Director  
Division of Water Pollution Control

**Tennessee General Permit No. TNR100000**  
**Stormwater Discharges Associated with Construction Activities**

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- APPENDIX A – Notice of Intent (NOI) Form**
- APPENDIX B – Notice of Termination (NOT) Form**
- APPENDIX C – Inspection Report Form**
- APPENDIX D – Stormwater Monitoring Report Form**

## 1. COVERAGE UNDER THIS GENERAL PERMIT

### 1.1. Permit Area

This construction general permit (CGP) covers all areas of the State of Tennessee.

### 1.2. Discharges Covered by this Permit

#### 1.2.1. Stormwater discharges associated with construction activities

This permit authorizes point source discharges of stormwater from construction activities including clearing, grading, filling and excavating (including borrow pits and stockpile/material storage areas containing erodible material), or other similar construction activities that result in the disturbance of one acre or more of total land area. Projects or developments of less than one acre of land disturbance are required to obtain authorization under this permit if the construction activities at the site are part of a larger common plan of development or sale that comprise at least one acre of land disturbance. One or more site [operators](#) must maintain coverage under this permit for all portions of a site that have not been finally stabilized.

Projects or developments of less than one acre of total land disturbance may also be required to obtain authorization under this permit if:

- a) the director has determined that the stormwater discharge from a site is causing, contributing to, or is likely to contribute to a violation of a state water quality standard;
- b) the director has determined that the stormwater discharge is, or is likely to be a significant contributor of pollutants to [waters of the state](#), or
- c) changes in state or federal rules require sites of less than one acre that are not part of a larger common plan of development or sale to obtain a stormwater permit.

Note: Any discharge of stormwater or other fluid to an improved sinkhole or other injection well, as defined, must be authorized by permit or rule as a Class V underground injection well under the provisions of TDEC Rules, Chapter [1200-4-6](#).

#### 1.2.2. Stormwater discharges associated with construction support activities

This permit also authorizes stormwater discharges from support activities associated with a permitted construction site (e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, borrow areas) provided all of the following are met:

- a) the support activity is primarily related to a construction site that is covered under this general permit;
- b) the [operator](#) of the support activity is the same as the [operator](#) of the construction site;
- c) the support activity is not a commercial operation serving multiple unrelated construction projects by different [operators](#);
- d) the support activity does not operate beyond the completion of the construction activity of the last construction project it supports; and

- e) support activities are identified in the Notice of Intent (NOI) and the Stormwater Pollution Prevention Plan (SWPPP). The appropriate erosion prevention and sediment controls and measures applicable to the support activity shall be described in a comprehensive SWPPP covering the discharges from the support activity areas.

TDOT projects shall be addressed in the [Waste and Borrow Manual](#) per the [Statewide Stormwater Management Plan \(SSWMP\)](#). Stormwater discharges associated with support activities that have been issued a separate individual permit or an alternative general permit are not authorized by this general permit. This permit does not authorize any process wastewater discharges from support activities. Process wastewater discharges from support activities must be authorized by an individual permit or other appropriate general permit.

#### 1.2.3. Non-stormwater discharges authorized by this permit

The following non-stormwater discharges from active construction sites are authorized by this permit provided the non-stormwater component of the discharge is in compliance with section 3.5.9 below (Pollution prevention measures for non-stormwater discharges):

- a) dewatering of work areas of collected stormwater and ground water (filtering or chemical treatment may be necessary prior to discharge);
- b) waters used to wash vehicles (of dust and soil, not process materials such as oils, asphalt or concrete) where detergents are not used and detention and/or filtering is provided before the water leaves site;
- c) water used to control dust in accordance with section 3.5.5 below;
- d) potable water sources including waterline flushings from which chlorine has been removed to the maximum extent practicable;
- e) routine external building washdown that does not use detergents or other chemicals;
- f) uncontaminated groundwater or spring water; and
- g) foundation or footing drains where flows are not contaminated with pollutants (process materials such as solvents, heavy metals, etc.).

All non-stormwater discharges authorized by this permit must be free of sediment or other solids and must not cause erosion of soil or the stream bank, or result in sediment impacts to the receiving stream.

#### 1.2.4. Other NPDES-permitted discharges

Discharges of stormwater or wastewater authorized by and in compliance with a different NPDES permit (other than this permit) may be mixed with discharges authorized by this permit.

### 1.3. **Limitations on Coverage**

Except for discharges from support activities, as described in section 1.2.2 above and certain non-stormwater discharges listed in section 1.2.3 above, all discharges covered by this permit shall be composed entirely of stormwater. This permit does not authorize the following discharges:

- a) Post-Construction Discharges (Permanent Stormwater Management) - Stormwater discharges associated with construction activity that originate from the construction site

- after construction activities have been completed, the site has undergone final stabilization, and the coverage under this permit has been terminated.
- b) Discharges Mixed with Non-Stormwater - Discharges that are mixed with sources of non-stormwater, other than discharges which are identified in section 1.2.4 above (Other NPDES-permitted discharges) and in compliance with section 3.5.9 below (Pollution prevention measures for non-stormwater discharges) of this permit.
  - c) Discharges Covered by Another Permit - Stormwater discharges associated with construction activity that have been issued an individual permit in accordance with subpart 7.12 below (Requiring an Individual Permit).
  - d) Discharges Threatening Water Quality - Stormwater discharges from construction sites, that the director determines will cause, have the reasonable potential to cause, or contribute to violations of water quality standards. Where such determination has been made, the discharger will be notified by the director in writing that an individual permit application is necessary as described in subpart 7.12 below (Requiring an Individual Permit). However, the division may authorize coverage under this permit after appropriate controls and implementation procedures have been included in the **SWPPP** that are designed to bring the discharge into compliance with water quality standards.
  - e) Discharges into Impaired Streams – This permit does not authorize discharges that would add loadings of a pollutant that is identified as causing or contributing to the impairment of a water body on the list of **impaired waters**. **Impaired waters** means any segment of surface waters that has been identified by the division as failing to support its designated classified uses. Compliance with the additional requirements set forth in sub-part 5.4 is not considered as contributing to loadings to **impaired waters** or degradation unless the division determines upon review of the SWPPP that there is a reason to limit coverage as set forth in paragraph d) above and the SWPPP cannot be modified to bring the site into compliance.
  - f) Discharges into Outstanding National Resource Waters - The director shall not grant coverage under this permit for discharges into waters that are designated by the Water Quality Control Board as Outstanding National Resource Waters (ONRWs). Designation of ONRWs are made according to TDEC Rules, [Chapter 1200-4-3-.06](#).
  - g) Discharges into Exceptional Quality Waters - The director shall not grant coverage under this permit for potential discharges of pollutants which would cause degradation to waters designated by TDEC as exceptional quality waters (see sub-part 5.4 (Discharges into Impaired or Exceptional Tennessee Waters for additional permit requirements). Compliance with the additional requirements set forth in sub-part 5.4 is not considered as contributing to loadings to exceptional quality waters or degradation unless the division determines upon review of the SWPPP that there is a reason to limit coverage as set forth in paragraph d) above and the SWPPP cannot be modified to bring the site into compliance. Identification of exceptional quality waters is made according to TDEC Rules, [Chapter 1200-4-3-.06](#).
  - h) Discharges Not Protective of Federal or State listed Threatened and Endangered Species, Species Deemed in Need of Management or Special Concern Species - Stormwater discharges and stormwater discharge-related activities that are not protective of legally protected listed or proposed threatened or endangered aquatic fauna or flora (or species proposed for such protection) in the receiving stream(s); or discharges or activities that would result in a “take” of a state or federal listed endangered or threatened aquatic or wildlife species deemed in need of management or special concern species, or such species’ habitat. If the division finds that stormwater discharges or stormwater related activities are likely to result in any of the above effects, the director will deny the

coverage under this general permit unless and until project plans are changed to adequately protect the species.

- i) Discharges from a New or Proposed Mining Operation - This permit does not cover discharges from a new or proposed mining operation.
- j) Discharges Negatively Affecting a Property on the National Historic Register - Stormwater discharges that would negatively affect a property that is listed or is eligible for listing in the [National Historic Register](#) maintained by the Secretary of Interior.
- k) Discharging into Receiving Waters With an Approved Total Maximum Daily Load Analysis - Discharges of pollutants of concern to waters for which there is an EPA-approved total maximum daily load (TMDL) for the same pollutant are not covered by this permit unless measures or controls that are consistent with the assumptions and requirements of such TMDL are incorporated into the SWPPP. If a specific wasteload allocation has been established that would apply to the discharge, that allocation must be incorporated into the SWPPP and steps necessary to meet that allocation must be implemented. In a situation where an EPA-approved or established TMDL has specified a general wasteload allocation applicable to construction stormwater discharges, but no specific requirements for construction sites have been identified, the permittee should consult with the division to confirm that adherence to a SWPPP that meets the requirements of this permit will be consistent with the approved TMDL. Where an EPA-approved or established TMDL has not specified a wasteload allocation applicable to construction stormwater discharges, but has not specifically excluded these discharges, adherence to a SWPPP that meets the requirements of the CGP will generally be assumed to be consistent with the approved TMDL. If the EPA-approved or established TMDL specifically precludes construction stormwater discharges, the operator is not eligible for coverage under the CGP.

#### 1.4. Obtaining Permit Coverage

Submitting a complete NOI, a SWPPP and an appropriate permitting application fee are required to obtain coverage under this general permit. Requesting coverage under this permit means that an applicant has obtained and examined a copy of this permit, and thereby acknowledges applicant's claim of ability to comply with permit terms and conditions. Upon completing NOI review, the division will:

- a) issue a notice of coverage (NOC) to the operator identified as a primary permittee on the NOI form (see subpart 1.5 below - Effective Date of Coverage); or
- b) notify the applicant of needed changes to their NOI submittal (see section 2.6.3 below - Application completeness); or
- c) deny coverage under this general permit (see subpart 7.12 below - Requiring an Individual Permit).

##### 1.4.1. Notice of Intent (NOI)

Operators wishing to obtain coverage under this permit must submit a completed NOI in accordance with requirements of part 2 below, using the NOI form provided in Appendix A of this permit (or a copy thereof). The division will review NOIs for completeness and accuracy and, when deemed necessary, investigate the proposed project for potential impacts to the [waters of the state](#).

#### 1.4.2. Stormwater Pollution Prevention Plan (SWPPP)

**Operators** wishing to obtain coverage under this permit must develop and submit a site-specific **SWPPP** with the NOI. The initial, comprehensive **SWPPP**, developed and submitted by the site-wide permittee (typically owner/developer who applied for coverage at project commencement<sup>1</sup>), should address all construction-related activities from the date construction commences to the date of termination of permit coverage, to the maximum extent practicable. The **SWPPP** must be developed, implemented and updated according to the requirements in part 3 below (SWPPP Requirements) and subpart 2.3 below (Responsibilities of Operators). The **SWPPP** must be implemented prior to commencement of construction activities.

If the initial, comprehensive **SWPPP** does not address all activities until final stabilization of the site, an updated **SWPPP** or addendums to the plan addressing all aspects of current site disturbance must be prepared. An active, updated **SWPPP** must be in place for all disturbed portions of a site until each portion has been completed and finally stabilized.

Preparation and implementation of the comprehensive **SWPPP** may be a cooperative effort with all **operators** at a site. New **operators** with design and operational control of their portion of the construction site are expected to adopt, modify, update and implement a comprehensive **SWPPP**. Primary permittees at the site may develop a **SWPPP** addressing only their portion of the project, as long as the proposed **Best Management Practices (BMPs)** are compatible with the comprehensive **SWPPP** and complying with conditions of this general permit.

#### 1.4.3. Permit application fees

The permit application fee should accompany the site-wide permittee's NOI form. The fee is based on the total acreage planned to be disturbed by an entire construction project for which the site-wide permittee is requesting coverage, including any associated construction support activities (see section 1.2.2 above). The disturbed area means the total area presented as part of the development (and/or of a larger common plan of development) subject to being cleared, graded, or excavated during the life of the development. The area cannot be limited to only the portion of the total area that the site-wide owner/developer initially disturbs through the process of various land clearing activities and/or in the construction of roadways, sewers and water utilities, stormwater drainage structures, etc., to make the property marketable. The site-wide owner/developer may present documentation of common areas in the project that will not be subject to disturbance at anytime during the life of the project and have these areas excluded from the fee calculation.

The application fees shall be as specified in the TDEC Rules, [Chapter 1200-4-11](#). The application will be deemed incomplete until the appropriate application fee is paid in full. Checks for the appropriate fee should be made payable to "Treasurer, State of Tennessee." There is no additional fee for subsequent owner/**operator** to obtain permit coverage (see section 2.4.3 below - New operator), as long as the site-wide primary permittee has active permit coverage at the time of receipt of the subsequent **operator's** application, because the site-wide primary permittee paid the appropriate fee for the entire area of site disturbance. If a project was previously permitted, but permit coverage was terminated (see section 8.1.1 below - Termination process for primary permittees), and subsequent site disturbance or re-development occurs, the new **operator** must obtain coverage and pay the appropriate fee for the disturbed acreage.

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<sup>1</sup> See sub-part 2.1 on page 7 for a definition of an site-wide permittee.

1.4.4. Submittal of a copy of the NOC and NOT to the local MS4

Permittees who discharge stormwater through an NPDES-permitted municipal separate storm sewer system ([MS4](#)) who are not exempted in section 1.4.5 below (Permit Coverage through Qualifying Local Program) must submit a courtesy copy of the notice of coverage (NOC), and at project completion, a copy of the signed notice of termination (NOT) to the [MS4](#) upon their request. Permitting status of all permittees covered (or previously covered) under this general permit as well as the most current list of all [MS4](#) permits is available at the division's DataViewer web site<sup>2</sup>.

1.4.5. Permit Coverage through Qualifying Local Program

Coverage equivalent to coverage under this general permit may be obtained from a qualifying local erosion prevention and sediment control Municipal Separate Storm Sewer System ([MS4](#)) program. A qualifying local program (QLP) is a municipal stormwater program for stormwater discharges associated with construction activity that has been formally approved by the division. More information about Tennessee's QLP program and MS4 participants can be found at: <http://tn.gov/environment/wpc/stormh2o/qlp.shtml>.

If a construction site is within the jurisdiction of and has obtained a notice of coverage from a QLP, the [operator](#) of the construction activity is authorized to discharge stormwater associated with construction activity under this general permit without the submittal of an NOI to the division. The permittee is also not required to submit a [SWPPP](#), a notice of termination or a permit fee to the division. At the time of issuance of this permit, there were no qualifying local erosion prevention and sediment control [MS4](#) programs in Tennessee. Permitting of stormwater runoff from construction sites from federal or state agencies (including, but not limited to the Tennessee Department of Transportation (TDOT) and Tennessee Valley Authority (TVA)) and the local [MS4](#) program itself will remain solely under the authority of TDEC.

The division may require any owner/developer or [operator](#) located within the jurisdiction of a QLP to obtain permit coverage directly from the division. The [operator](#) shall be notified in writing by the division that coverage by the QLP is no longer applicable, and how to obtain coverage under this permit.

**1.5. Effective Date of Coverage**

1.5.1. Notice of Coverage (NOC)

The NOC is a notice from the division to the primary permittee, which informs the primary permittee that the NOI, the [SWPPP](#) and the appropriate fee were received and accepted, and stormwater discharges from a specified area of a construction activity have been approved under this general permit. The permittee is authorized to discharge stormwater associated with construction activity as of the effective date listed on the NOC.

Assigning a permit tracking number by the division to a proposed discharge from a construction site does not confirm or imply an authorization to discharge under this permit. Correspondence

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<sup>2</sup> <http://www.tn.gov/environment/wpc/dataviewer/>

with the permittee is maintained through the Site Owner or Developer listed in the NOI, not the optional contact or the secondary permittee.

If any [Aquatic Resource Alteration Permits](#) (ARAP) are required for a site in areas proposed for active construction, the NOC will not be issued until ARAP application(s) are submitted and deemed by TDEC to be complete. The treatment and disposal of wastewater (including, but not limited to sanitary wastewater) generated during and after the construction must be also addressed. The issuance of the NOC may be delayed until adequate wastewater treatment and accompanying permits are issued.

#### 1.5.2. Permit tracking numbers

Construction sites covered under this permit will be assigned permit tracking numbers in the sequence TNR100001, TNR100002, etc. An [operator](#) presently permitted under a previous construction general permit shall be granted coverage under this new general permit. Permit tracking numbers assigned under a previous construction general permit will be retained (see section 2.4.1 below). An [operator](#) receiving new permit coverage will be assigned a new permit tracking number (see section 2.4.2 below).

## 2. NOTICE OF INTENT (NOI) REQUIREMENTS

### 2.1. Who Must Submit an NOI?

All site [operators](#) must submit an NOI form. “[Operator](#)” for the purpose of this permit and in the context of stormwater associated with construction activity means any person associated with a construction project who meets either or both of the following two criteria:

- a) The person has operational or design control over construction plans and specifications, including the ability to make modifications to those plans and specifications. This person is typically the owner or developer of the project or a portion of the project (e.g. subsequent builder), or the person that is the current land owner of the construction site. This person is considered the primary permittee; or
- b) The person has day-to-day operational control of those activities at a project which are necessary to ensure compliance with a [SWPPP](#) for the site or other permit conditions. This person is typically a contractor or a commercial builder who is hired by the primary permittee, and is considered a secondary permittee.

The site-wide permittee is the first primary permittee to apply for coverage at the site. There may be other primary permittees for a project, but there is only one site-wide permittee. Where there are multiple operators associated with the same project, all operators are required to obtain permit coverage. Once covered by a permit, all such operators are to be considered as co-permittees if their involvement in the construction activities affects the same project site, and are held jointly and severally responsible for complying with the permit.

## 2.2. Typical Construction Site Operators

### 2.2.1. Owner/Developer

An owner or developer(s) of a project is a primary permittee. This person has operational or design control over construction plans and specifications, including the ability to make modifications to those plans and specifications. This person may include, but is not limited to a developer, landowner, realtor, commercial builder, homebuilder, etc. An owner or developer's responsibility to comply with requirements of this permit extends until permit coverage is terminated in accordance with requirements of part 8 below.

### 2.2.2. Commercial builders

A commercial builder can be a primary or secondary permittee at a construction site.

A commercial builder who purchases one or more lots from an owner/developer (site-wide permittee) for the purpose of constructing and selling a structure (e.g., residential house, non-residential structure, commercial building, industrial facility, etc.) and has design or operational control over construction plans and specifications is a primary permittee for that portion of the site. A commercial builder may also be hired by the end user (e.g., a lot owner who may not be a permittee). In either case the commercial builder is considered a new [operator](#) and must submit a new NOI following requirements in section 2.4.3 below.

The commercial builder may also be hired by the primary permittee or a lot owner to build a structure. In this case, the commercial builder signs the primary permittee's NOI and [SWPPP](#) as a contractor (see section 2.2.3 below) and is considered a secondary permittee.

### 2.2.3. Contractors

A contractor is considered a secondary permittee. This person has day-to-day operational control of those activities at a project which are necessary to ensure compliance with a [SWPPP](#) for the site or other permit conditions (e.g., contractor is authorized to direct workers at a site to carry out activities required by the [SWPPP](#) or comply with other permit conditions).

A contractor may be, but is not limited to a general contractor, grading contractor, erosion control contractor, sub-contractor responsible for any land disturbing activities and/or erosion prevention and sediment control (EPSC) implementation/maintenance, commercial builder hired by the owner/developer, etc. The contractor may need to include in their contract with the party that hired them specific details for the contractor's responsibilities concerning EPSC measures. This includes the ability of the contractor to make EPSC modifications. The contractor should sign the NOI and [SWPPP](#) associated with the construction project at which they will be an operator.

## 2.3. Responsibilities of Operators

A permittee may meet one or more of the operational control components in the definition of "operator" found in subpart 2.1 above. Either section 2.3.1 or 2.3.2 below, or both, will apply depending on the type of operational control exerted by an individual permittee.

2.3.1. Permittee(s) with design control (owner/developer)

Permittee(s) with design control (i.e., operational control over construction plans and specifications) at the construction site, including the ability to make modifications to those plans and specifications (e.g., owner/developer) must:

- a) Ensure the project specifications they develop meet the minimum requirements of part 3 below (stormwater pollution prevention plan - [SWPPP](#)) and all other applicable conditions;
- b) Ensure that the [SWPPP](#) indicates the areas of the project where they have design control (including the ability to make modifications in specifications), and ensure all other permittees implementing and maintaining portions of the [SWPPP](#) impacted by any changes they make to the plan are notified of such modifications in a timely manner;
- c) Ensure that all common facilities (i.e., sediment treatment basin and drainage structures) that are necessary for the prevention of erosion or control of sediment are maintained and effective until all construction is complete and all disturbed areas in the entire project are stabilized, unless permit coverage has been obtained and responsibility has been taken over by a new (replacement) owner/operator.
- d) If parties with day-to-day operational control of the construction site have not been identified at the time the comprehensive [SWPPP](#) is initially developed, the permittee with design control shall be considered to be the responsible person until such time the supplemental NOI is submitted, identifying the new [operator\(s\)](#) (see section 2.4.3 below). These new [operators](#) (e.g., general contractor, utilities contractors, sub-contractors, erosion control contractors, hired commercial builders) are considered secondary permittees. The [SWPPP](#) must be updated to reflect the addition of new [operators](#) as needed to reflect operational or design control.
- e) Ensure that all [operators](#) on the site have permit coverage, if required, and are complying with the [SWPPP](#).

2.3.2. Permittee(s) with day-to-day operational control (contractor – secondary permittee)

Permittee(s) with day-to-day operational control of those activities at a project which are necessary to ensure compliance with the [SWPPP](#) for the site or other permit conditions (e.g., general contractor, utilities contractors, sub-contractors, erosion control contractors, hired commercial builders) must:

- a) Ensure that the [SWPPP](#) for portions of the project where they are operators meets the minimum requirements of part 3 below ([SWPPP Requirements](#)) and identifies the parties responsible for implementation of control measures identified in the plan;
- b) Ensure that the [SWPPP](#) indicates areas of the project where they have operational control over day-to-day activities;
- c) Ensure that measures in the [SWPPP](#) are adequate to prevent erosion and control any sediment that may result from their earth disturbing activity;
- d) Permittees with operational control over only a portion of a larger construction project are responsible for compliance with all applicable terms and conditions of this permit as it relates to their activities on their portion of the construction site. This includes, but is not limited to, implementation of [Best Management Practices \(BMPs\)](#) and other controls required by the [SWPPP](#). Permittees shall ensure either directly or through coordination with other permittees, that their activities do not render another person's pollution control ineffective. All permittees must implement their portions of a comprehensive [SWPPP](#).

## 2.4. NOI Submittal

### 2.4.1. Existing site

An [operator](#) presently permitted under the 2005 construction general permit shall be granted coverage under this new general permit. There will be no additional fees associated with an extension of coverage for existing sites under the new permit. The division may, at its discretion, require permittees to confirm their intent to be covered under this new general permit following its effective date through submission of an updated NOI. Should the confirmation be required and is not received, coverage under the new general permit will be terminated. Should a site with terminated coverage be unstable or construction continues, a new NOI, [SWPPP](#) and an appropriate fee must be submitted.

### 2.4.2. Application for new permit coverage

Except as provided in section 2.4.3 below, [operators](#) must submit a complete NOI, [SWPPP](#) and an appropriate fee in accordance with the requirements described in subpart 1.4 above. The complete application should be submitted at least 30 days prior to commencement of construction activities. The permittee is authorized to discharge stormwater associated with construction activity as of the effective date listed on the NOC. The land disturbing activities shall not start until a NOC is prepared and written approval by the division staff is obtained according to subpart 1.5 above.

### 2.4.3. New operator

For stormwater discharges from construction sites or portions of the sites where the [operator](#) changes (new owner), or projects where an [operator](#) is added (new contractor) after the initial NOI and comprehensive [SWPPP](#) have been submitted, the supplemental (submitted by a new contractor) or additional (submitted by a new owner) NOI should be submitted as soon as practicable, and always before the new [operator](#) commences work at the site. The supplemental NOI must reference the project name and tracking number assigned to the primary permittee's NOI.

If the site under the control of the new owner is inactive and all areas disturbed are completely stabilized, the NOI may not need to be submitted immediately upon assuming operational control. However, the division should be notified if a new [operator](#) obtains operational control at a site, but commencement of construction under the direction of the [operator](#) at the site is going to be delayed.

If upon the sale or transfer of the site's ownership does not change the signatory requirements for the NOI (see section 7.7.1 below), but the site's owner or developer's company name has changed, a new, updated NOI should be submitted to the division within 30 days of the name change. If the new [operator](#) agrees to comply with an existing comprehensive [SWPPP](#) already implemented at the site, a copy of the supplemental or modified [SWPPP](#) does not have to be submitted with the NOI. There will be no additional fees associated with the sale or transfer of ownership for existing permitted sites.

If the transfer of ownership is due to foreclosure or a permittee filing for bankruptcy proceedings, the new owner (including but not limited to a lending institution) must obtain permit coverage if the property is inactive, but is not stabilized sufficiently. If the property is sufficiently stabilized permit coverage may not be necessary, unless and until construction activity at the site resumes.

#### 2.4.4. Late NOIs

Dischargers are not prohibited from submitting late NOIs. When a late NOI is submitted, and if the division authorizes coverage under this permit, such authorization is only for future discharges; any prior, unpermitted, discharges or permit noncompliances are subject to penalties as described in section 7.1.2 below.

### 2.5. **Who Must Sign the NOI?**

All construction site [operators](#) as defined in subsection 2.2 above (Typical Construction Site Operators) must sign the NOI form. Signatory requirements for a NOI are described in section 7.7.1 below. All signatures must be original. An NOI that does not bear an original signature will be deemed incomplete. The division recommends that signatures be in blue ink.

### 2.6. **NOI Form**

#### 2.6.1. Contents of the NOI form

NOI for construction projects shall be submitted on the form provided in Appendix A of this permit, or on a copy thereof. This form and its instructions set forth the required content of the NOI. The NOI form must be filled in completely. If sections of the NOI are left blank, a narrative explaining the omission must be provided as an attachment.

Owners, developers and all contractors that meet the definition of the [operator](#) in subsection 2.2 above (Typical Construction Site Operators) shall apply for permit coverage on the same NOI, insofar as possible. The NOI is designed for more than one contractor (secondary permittee). The division may accept separate NOI forms from different [operators](#) for the same construction site when warranted.

After permit coverage has been granted to the primary permittee, any subsequent NOI submittals must include the site's previously assigned permit tracking number and the project name. The comprehensive site-specific [SWPPP](#) shall be prepared in accordance with the requirements of part 3 below, and must be submitted with the NOI unless the NOI being submitted is to only add a contractor (secondary permittee) to an existing coverage.

#### 2.6.2. Construction site map

An excerpt (8 ½" by 11" or 11" by 17") from the appropriate 7.5 minute [United States Geological Survey](#) (USGS) topographic map, with the proposed construction site centered, must be included with the NOI. The entire proposed construction area must be clearly identified (outlined) on this map. The total area to be disturbed (in acres) should be included on the map. The map should outline the boundaries of projects, developments and the construction site in relation to major roads, streams or other landmarks. All outfalls where runoff will leave the property should be identified. Stream(s) receiving the discharge, and storm sewer system(s)

conveying the discharge from all site outfalls should be clearly identified and marked on the map. The map should also list and indicate the location of EPSCs that will be used at the construction site. NOIs for [linear projects](#) must specify the location of each end of the construction area and all areas to be disturbed. Commercial builders that develop separate [SWPPPs](#) that cover only their portion of the project shall also submit a site or plat map that clearly indicates the lots which they purchased and for which they are applying for permit coverage and the location of EPSCs that will be used at each lot.

2.6.3. Application completeness

Based on a review of the NOI or other available information, the division shall:

1. prepare a notice of coverage (NOC) for the construction site (see subpart 1.5 above); or
2. prepare a deficiency letter stating additional information must be provided before the NOC can be issued; or
3. deny coverage under this general permit and require the discharger to obtain coverage under an individual NPDES permit (see subpart 7.12 below).

**2.7. Where to Submit the NOI, SWPPP and Permitting Fee?**

The applicant shall submit the NOI, [SWPPP](#) and permitting fee to the appropriate TDEC Environmental Field Office (EFO) for the county(ies) where the construction activity is located and where stormwater discharges enters [waters of the state](#). If a site straddles a county line of counties that are in areas of different EFOs, the [operators](#) shall send NOIs to each EFO. The permitting fee should be submitted to the EFO that provides coverage for the majority of the proposed construction activity.

A list of counties and the corresponding EFOs is provided in subpart 2.8 below. The division’s Nashville Central Office will serve as a processing office for NOIs submitted by federal or state agencies (including, but not limited to the Tennessee Department of Transportation (TDOT), Tennessee Valley Authority (TVA) and the local [MS4](#) programs).

**2.8. List of the TDEC Environmental Field Offices (EFOs) and Corresponding Counties**

<a href="#">EFO Name</a>	List of Counties
<a href="#">Chattanooga</a>	Bledsoe, Bradley, Grundy, Hamilton, Marion, McMinn, Meigs, Polk, Rhea, Sequatchie
<a href="#">Columbia</a>	Bedford, Coffee, Franklin, Giles, Hickman, Lawrence, Lewis, Lincoln, Marshall, Maury, Moore, Perry, Wayne
<a href="#">Cookeville</a>	Cannon, Clay, Cumberland, De Kalb, Fentress, Jackson, Macon, Overton, Pickett, Putnam, Smith, Van Buren, Warren, White
<a href="#">Jackson</a>	Benton, Carroll, Chester, Crockett, Decatur, Dyer, Gibson, Hardeman, Hardin, Haywood, Henderson, Henry, Lake, Lauderdale, Madison, McNairy, Obion, Weakley
<a href="#">Johnson City</a>	Carter, Greene, Hancock, Hawkins, Johnson, Sullivan, Unicoi, Washington
<a href="#">Knoxville</a>	Anderson, Blount, Campbell, Claiborne, Cocke, Grainger, Hamblen, Jefferson, Knox, Loudon, Monroe, Morgan, Roane, Scott, Sevier, Union
<a href="#">Memphis</a>	Fayette, Shelby, Tipton
<a href="#">Nashville</a>	Cheatham, Davidson, Dickson, Houston, Humphreys, Montgomery, Robertson, Rutherford, Stewart, Sumner, Trousdale, Williamson, Wilson

TDEC may be reached by telephone at the toll-free number 1-888-891-8332 (TDEC). Local EFOs may be reached directly when calling this number from the construction site, using a land line.

### **3. STORMWATER POLLUTION PREVENTION PLAN (SWPPP) REQUIREMENTS**

#### **3.1. The General Purpose of the SWPPP**

A comprehensive [SWPPP](#) must be prepared and submitted along with the NOI as required in section 1.4.2 above. The primary permittee must implement the [SWPPP](#) as written from commencement of construction activity until final stabilization is complete, or until the permittee does not have design or operational control of any portion of the construction site. Requirements for termination of site coverage are provided in part 8 below.

A site-specific [SWPPP](#) must be developed for each construction project or site covered by this permit. The design, inspection and maintenance of [Best Management Practices \(BMPs\)](#) described in [SWPPP](#) must be prepared in accordance with good engineering practices. At a minimum, [BMPs](#) shall be consistent with the requirements and recommendations contained in the current edition of the [Tennessee Erosion and Sediment Control Handbook](#) (the handbook). The handbook is designed to provide information to planners, developers, engineers, and contractors on the proper selection, installation, and maintenance of [BMPs](#). This permit allows the use of innovative or alternative [BMPs](#), whose performance has been documented to be equivalent or superior to conventional [BMPs](#) as certified by the [SWPPP](#) designer.

Once a definable area has been finally stabilized, the permittee may identify this area on the site-specific [SWPPP](#). No further [SWPPP](#) or inspection requirements apply to that portion of the site (e.g., earth-disturbing activities around one of three buildings in a complex are done and the area is finally stabilized, one mile of a roadway or pipeline project is done and finally stabilized, etc).

For more effective coordination of [BMPs](#) a cooperative effort by the different [operators](#) at a site to prepare and participate in a comprehensive [SWPPP](#) is expected. Primary permittees at a site may develop separate [SWPPPs](#) that cover only their portion of the project. In instances where there is more than one [SWPPP](#) for a site, the permittees must ensure the stormwater discharge controls and other measures are compatible with one another and do not prevent another [operator](#) from complying with permit conditions. The comprehensive [SWPPP](#) developed and submitted by the primary permittee must assign responsibilities to subsequent (secondary) permittees and coordinate all [BMPs](#) at the construction site. Assignment and coordination can be done by name or by job title.

##### **3.1.1. Registered engineer or landscape architect requirement**

The narrative portion of the [SWPPP](#) may be prepared by an individual that has a working knowledge of erosion prevention and sediment controls, such as a Certified Professional in Erosion and Sediment Control ([CPESC](#)) or a person that successfully completed the “[Level II Design Principles for Erosion Prevention and Sediment Control for Construction Sites](#)” course. Plans and specifications for any building or structure, including the design of sediment basins or other sediment controls involving structural, hydraulic, hydrologic or other engineering calculations shall be prepared by a licensed professional engineer or landscape architect and

stamped and certified in accordance with the [Tennessee Code Annotated](#), Title 62, Chapter 2 (see part 10 below) and the rules of the [Tennessee Board of Architectural and Engineering Examiners](#). Engineering design of sediment basins and other sediment controls must be included in SWPPPs for construction sites involving drainage to an outfall totaling 10 or more acres (see subsection 3.5.3.3 below) or 5 or more acres if draining to an impaired or exceptional quality waters (see subsection 5.4.1 below).

### 3.1.2. Site Assessment

Quality assurance of erosion prevention and sediment controls shall be done by performing site assessment at a construction site. The site assessment shall be conducted at each outfall involving drainage totaling 10 or more acres (see subsection 3.5.3.3 below) or 5 or more acres if draining to an impaired or exceptional quality waters (see subsection 5.4.1 below), within a month of construction commencing at each portion of the site that drains the qualifying acreage of such portion of the site. The site assessment shall be performed by individuals with following qualifications:

- a licensed professional engineer or landscape architect;
- a Certified Professional in Erosion and Sediment Control ([CPESC](#)) or
- a person that successfully completed the “[Level II Design Principles for Erosion Prevention and Sediment Control for Construction Sites](#)” course.

As a minimum, site assessment should be performed to verify the installation, functionality and performance of the EPSC measures described in the [SWPPP](#). The site assessment should be performed with the inspector (as defined in part 10 below – Definitions), and should include a review and update (if applicable) of the [SWPPP](#). Modifications of plans and specifications for any building or structure, including the design of sediment basins or other sediment controls involving structural, hydraulic, hydrologic or other engineering calculations shall be prepared by a licensed professional engineer or landscape architect and stamped and certified in accordance with the [Tennessee Code Annotated](#), Title 62, Chapter 2 (see part 10 below) and the rules of the [Tennessee Board of Architectural and Engineering Examiners](#).

The site assessment findings shall be documented and the documentation kept with the [SWPPP](#) at the site. At a minimum, the documentation shall include information included in the inspection form provided in Appendix C of this permit. The documentation must contain the printed name and signature of the individual performing the site assessment and the following certification:

“I certify under penalty of law that this report and all attachments are, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

The site assessment can take the place of one of the twice weekly inspections requirement from subsection 3.5.8.2 below.

The division may require additional site assessment(s) to be performed if site inspection by division’s personnel reveals site conditions that have potential of causing pollution to the [waters of the state](#).

## **3.2. SWPPP Preparation and Compliance**

### **3.2.1. Existing site**

Operator(s) of an existing site presently permitted under the division's previous construction general permit shall maintain full compliance with the current SWPPP. The current SWPPP should be modified, if necessary, to meet requirements of this new general permit, and the SWPPP changes implemented no later than 12 months following the new permit effective date (**Error! Reference source not found.**), excluding the buffer zone requirements as stated in section 4.1.2 below. The permittee shall make the updated SWPPP available for the division's review upon request.

### **3.2.2. New site**

For construction stormwater discharges not authorized under an NPDES permit as of the effective date of this permit, a SWPPP that meets the requirements of subpart 3.5 below of this permit shall be prepared and submitted along with the NOI and an appropriate fee for coverage under this permit.

## **3.3. Signature Requirements, Plan Review and Making Plans Available**

### **3.3.1. Signature Requirements for a SWPPP**

The SWPPP shall be signed by the operator(s) in accordance with subpart 7.7 below, and if applicable, certified according to requirements in section 3.1.1 above. All signatures must be original. A SWPPP that does not bear an original signature will be deemed incomplete. The division recommends that signatures be in blue ink.

### **3.3.2. SWPPP Review**

The permittee shall make updated plans and inspection reports available upon request to the director, local agency approving erosion prevention and sediment control plan, grading plans, land disturbance plans, or stormwater management plans, or the operator of an MS4.

### **3.3.3. Making plans available**

A copy of the SWPPP shall be retained on-site at the location which generates the stormwater discharge in accordance with part 6 below of this permit. If the site is inactive or does not have an onsite location adequate to store the SWPPP, the location of the SWPPP, along with a contact phone number, shall be posted on-site. If the SWPPP is located offsite, reasonable local access to the plan, during normal working hours, must be provided.

### 3.4. Keeping Plans Current

#### 3.4.1. SWPPP modifications

The permittee must modify and update the [SWPPP](#) if any of the following are met:

- a) whenever there is a change in the scope of the project, which would be expected to have a significant effect on the discharge of pollutants to the [waters of the state](#) and which has not otherwise been addressed in the [SWPPP](#). If applicable, the SWPPP must be modified or updated whenever there is a change in chemical treatment methods, including the use of different treatment chemical, different dosage or application rate, or different area of application;
- b) whenever inspections or investigations by site [operators](#), local, state or federal officials indicate the [SWPPP](#) is proving ineffective in eliminating or significantly minimizing pollutants from sources identified under section 3.5.2 below of this permit, or is otherwise not achieving the general objectives of controlling pollutants in stormwater discharges associated with construction activity. Where local, state or federal officials determine that the SWPPP is ineffective in eliminating or significantly minimizing pollutant sources, a copy of any correspondence to that effect must be retained in the SWPPP;
- c) to identify any new [operator](#) (typically contractor and/or subcontractor) as needed to reflect operational or design control that will implement a measure of the [SWPPP](#) (see subparts 2.1 and 2.2 above for further description of which [operators](#) must be identified); and
- d) to include measures necessary to prevent a negative impact to legally protected state or federally listed fauna or flora (or species proposed for such protection – see subpart 1.3 above). Amendments to the [SWPPP](#) may be reviewed by the division, a local [MS4](#), the EPA or an authorized regulatory agency; and
- e) a TMDL is developed for the receiving waters for a pollutant of concern (siltation and/or habitat alteration).

### 3.5. Components of the SWPPP

The [SWPPP](#) shall include the following items, as described in sections 3.5.1 to 3.5.10 below: site description, description of stormwater runoff controls, erosion prevention and sediment controls, stormwater management, description of other items needing control, approved local government sediment and erosion control requirements, maintenance, inspections, pollution prevention measures for non-stormwater discharges, and documentation of permit eligibility related to Total Maximum Daily Loads ([TMDL](#)). The [SWPPP](#) must:

- a) identify all potential sources of pollution which are likely to affect the quality of stormwater discharges from the construction site;
- b) describe practices to be used to reduce pollutants in stormwater discharges from the construction site; and
- c) assure compliance with the terms and conditions of this permit.

3.5.1. Site description

Each plan shall provide a description of pollutant sources and other information as indicated below:

- a) a description of all construction activities at the site (not just grading and street construction);
- b) the intended sequence of major activities which disturb soils for major portions of the site (e.g., grubbing, excavation, grading, utilities and infrastructure installation, etc.);
- c) estimates of the total area of the site and the total area that is expected to be disturbed by excavation, grading, filling, or other construction activities;
- d) a description of the topography of the site including an estimation of the percent slope and the variation in percent slope found on the site; such estimation should be on a basis of a drainage area serving each outfall, rather than an entire project;
- e) any data describing the soil (data may be referenced or summarized) and how the soil type will dictate the needed control measures and how the soil may affect the expected quality of runoff from the site;
- f) an estimate of the runoff coefficient of the site after construction activities are completed and how the runoff will be handled to prevent erosion at the permanent outfall and receiving stream, as well as the estimate of the percentage of impervious area before and after construction;
- g) an erosion prevention and sediment control plan of the site with the proposed construction area clearly outlined. The plan should indicate the boundaries of the permitted area, drainage patterns and approximate slopes anticipated after major grading activities, areas of soil disturbance, an outline of areas which are not to be disturbed, the location of major structural and nonstructural controls identified in the [SWPPP](#), the location of areas where stabilization practices are expected to occur, surface waters including wetlands, sinkholes, and careful identification on the site plan of outfall points intended for coverage under the general permit for stormwater discharges from the site. The erosion control plan must meet requirements stated in section 3.5.2 below;
- h) a description of any discharge associated with industrial activity other than construction stormwater that originates on site and the location of that activity and its permit number;
- i) identification of any stream or wetland on or adjacent to the project, a description of any anticipated alteration of these waters and the permit number or the tracking number of the [Aquatic Resources Alteration Permit](#) (ARAP) or Section 401 Certification issued for the alteration;
- j) the name of the receiving water(s), and approximate size and location of affected wetland acreage at the site;
- k) if applicable, clearly identify and outline the [buffer zones](#) established to protect [waters of the state](#) located within the boundaries of the project;
- l) some construction projects, such as residential or commercial subdivisions and/or developments or industrial parks are subdivided. Subdivided lots are sometimes sold to new owners prior to completion of construction. The site-wide developer/owner must describe EPSC measures implemented at those lots. Once the property is sold, the new operator must obtain coverage under this permit;
- m) for projects of more than 50 acres, the construction phases must be described (see subsection 3.5.3.1 below); and
- n) if only a portion of the total acreage of the construction site is to be disturbed, then the protections employed to limit the disturbance must be discussed, i.e., caution fence, stream side [buffer zones](#), etc. Limits of disturbance shall be clearly marked in the

**SWPPP** and areas to be undisturbed clearly marked in the field before construction activities begin.

### 3.5.2. Description of stormwater runoff controls

The **SWPPP** shall include a description of appropriate erosion prevention and sediment controls and other **Best Management Practices (BMPs)** that will be implemented at the construction site. The **SWPPP** must clearly describe each major activity which disturbs soils for major portions of the site (e.g., grubbing, excavation, grading, utilities and infrastructure installation, etc.):

- a) appropriate control measures and the general timing for the measures to be implemented during construction activities; and
- b) which permittee is responsible for implementation of which controls.

The **SWPPP** must include erosion prevention and sediment control (EPSC) plans showing the approximate location of each control measure along with a description of the timing during the construction process for implementing each measure (e.g., prior to the start of earth disturbance, as the slopes are altered and after major grading is finished). The different stages of construction (initial/major grading, installation of infrastructure, final contours, etc.) and the erosion preventions and sediment control measures that will be utilized during each stage should be depicted on multiple plan sheets (see paragraphs below). Half sheets are acceptable. One sheet showing all EPSCs that will be used during the life of the multi-phase project implementing different EPSC controls at each stage will not be considered complete.

For site disturbances less than 5 acres, at least two separate EPSC plan sheets shall be developed. At least two stages shall be identified, with associated EPSC measures addressed. The plan stages shall be addressed separately in plan sheets, with each stage reflecting the conditions and EPSC measures necessary to manage stormwater runoff, erosion and sediment during the initial land disturbance (initial grading) and the conditions and EPSC measures necessary to manage stormwater, erosion and sediment at final grading.

For site disturbances more than 5 acres, at least 3 separate EPSC plan sheets shall be developed. Three stages shall be identified. The first plan sheet should reflect the conditions and EPSC measures necessary to manage stormwater runoff, during the initial land disturbance (initial grading). The second plan sheet shall reflect the conditions and the EPSC measures necessary to manage stormwater runoff from interim land disturbance activities. The third plan sheet shall reflect the conditions and EPSC measures necessary to manage stormwater runoff, erosion and sediment at final grading.

The description and implementation of controls shall address the following minimum components, as described in sections 3.5.3, 3.5.4 and 3.5.5 below. Additional controls may be necessary to comply with section 5.3.2 below.

### 3.5.3. Erosion prevention and sediment controls

#### 3.5.3.1. General criteria and requirements

- a) The construction-phase erosion prevention controls shall be designed to eliminate (or minimize if complete elimination is not possible) the dislodging and suspension of soil in

water. Sediment controls shall be designed to retain mobilized sediment on site to the maximum extent practicable.

- b) The design, inspection and maintenance of [Best Management Practices \(BMPs\)](#) described in [SWPPP](#) must be prepared in accordance with good engineering practices and, at a minimum, shall be consistent with the requirements and recommendations contained in the current edition of the [Tennessee Erosion and Sediment Control Handbook](#). In addition, all control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications (where applicable). All control measures selected must be able to slow runoff so that rill and gully formation is prevented. When [steep slopes](#) and/or fine particle soils are present at the site, additional physical or chemical treatment of stormwater runoff may be required. Proposed physical and/or chemical treatment must be researched and applied according to the manufacturer's guidelines and fully described in the SWPPP. If periodic inspections or other information indicates a control has been used inappropriately, or incorrectly, the permittee must replace or modify the control for relevant site situations.
- c) If permanent or temporary vegetation is to be used as a control measure, then the timing of the planting of the vegetation cover must be discussed in the [SWPPP](#). Planning for planting cover vegetation during winter months or dry months should be avoided.
- d) If sediment escapes the permitted area, off-site accumulations of sediment that have not reached a stream must be removed at a frequency sufficient to minimize offsite impacts (e.g., fugitive sediment that has escaped the construction site and has collected in a street must be removed so that it is not subsequently washed into storm sewers and streams by the next rain and/or so that it does not pose a safety hazard to users of public streets). Permittees shall not initiate remediation/restoration of a stream without consulting the division first. This permit does not authorize access to private property. Arrangements concerning removal of sediment on adjoining property must be settled by the permittee with the adjoining landowner.
- e) Sediment should be removed from sediment traps, silt fences, sedimentation ponds, and other sediment controls as recommended in the [Tennessee Erosion and Sediment Control Handbook](#), and must be removed when design capacity has been reduced by 50%.
- f) Litter, construction debris, and construction chemicals exposed to stormwater shall be picked up prior to anticipated storm events or before being carried off of the site by wind (e.g., forecasted by local weather reports), or otherwise prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, daily pick-up, etc.). After use, materials used for erosion prevention and sediment control (such as silt fence) should be removed or otherwise prevented from becoming a pollutant source for stormwater discharges.
- g) Erodible material storage areas (including but not limited to overburden and stockpiles of soil etc.) and borrow pits used primarily for the permitted project and which are contiguous to the site are considered a part of the site and shall be identified on the NOI, addressed in the [SWPPP](#) and included in the fee calculation. TDOT projects shall be addressed in the [Waste and Borrow Manual](#) per the [Statewide Stormwater Management Plan \(SSWMP\)](#).
- h) Pre-construction vegetative ground cover shall not be destroyed, removed or disturbed more than 15 days prior to grading or earth moving unless the area is seeded and/or mulched or other temporary cover is installed.
- i) Clearing and grubbing must be held to the minimum necessary for grading and equipment operation. Existing vegetation at the site should be preserved to the maximum extent practicable.

- j) Construction must be sequenced to minimize the exposure time of graded or denuded areas.
- k) Construction phasing is required on all projects regardless of size as a major practice for minimizing erosion and limiting sedimentation. Construction must be phased to keep the total disturbed area less than 50 acres at any one time. Areas of the completed phase must be stabilized within 15 days (see subsection 3.5.3.2 below). No more than 50 acres of active soil disturbance is allowed at any time during the construction project. This includes off-site borrow or disposal areas that meet the conditions of section 1.2.2 above of this general permit.

The 50 acre limitation does not apply to [linear construction projects](#) (such as roadway, pipeline, and other infrastructure construction activities) if the following conditions are met:

- Where no one area of active soil disturbance is greater than 50 acres and the various areas of disturbance have distinct receiving waters; or
- Where contiguous disturbances amount to greater than 50 acres, but no one distinct water is receiving run off from more than 50 disturbed acres; or
- With the department's written concurrence, where more than 50 acres of disturbance is to occur and where one receiving water will receive run-off from more than 50 acres; or
- Where no one area of active soil disturbance is greater than 50 acres and the various areas of disturbance are more than 5 miles apart.

In order for a [linear project](#) to take advantage of the 50 acre rule exemption outlined in this paragraph, the contractor shall conduct monthly site assessments as described in section 3.1.2 above until the site is permanently stabilized.

- l) Erosion prevention and sediment control measures must be in place and functional before earth moving operations begin, and must be constructed and maintained throughout the construction period. Temporary measures may be removed at the beginning of the workday, but must be replaced at the end of the workday.
- m) The following records shall be maintained on or near site: the dates when major grading activities occur; the dates when construction activities temporarily or permanently cease on a portion of the site; the dates when stabilization measures are initiated; inspection records and rainfall records.
- n) Off-site vehicle tracking of sediments and the generation of dust shall be minimized. A stabilized construction access (a point of entrance/exit to a construction site) shall be described and implemented, as needed, to reduce the tracking of mud and dirt onto public roads by construction vehicles.
- o) Permittees shall maintain a rain gauge and daily rainfall records at the site, or use a reference site for a record of daily amount of precipitation.

#### 3.5.3.2. Stabilization practices

The [SWPPP](#) shall include a description of interim and permanent stabilization practices, including site-specific scheduling of the implementation of the practices. Site plans should ensure that existing vegetation is preserved where attainable and that disturbed portions of the site are stabilized. Site plans should comply with [buffer zone](#) requirements (see sections 4.1.2

and 5.4.2 below), if applicable, in which construction activities, borrow and/or fill are prohibited. Stabilization practices may include: temporary seeding, permanent seeding, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures. Use of impervious surfaces for final stabilization in lieu of a permanent vegetative cover should be avoided where practicable. No stabilization, erosion prevention and sediment control measures are to be installed in a stream without obtaining a Section 404 permit and an [Aquatic Resources Alteration Permit](#) (ARAP), if such permits are required and appropriate.

Stabilization measures shall 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 a phase of the project) must be completed no later than 15 days after the construction activity in that portion of the site has temporarily or permanently ceased. In the following situations, [temporary stabilization](#) measures are not required:

- a) where the initiation of stabilization measures is precluded by snow cover or frozen ground conditions or adverse soggy ground conditions, stabilization measures shall be initiated as soon as practicable; or
- b) where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 15 days.

[Steep slopes](#) shall be temporarily stabilized not later than 7 days after construction activity on the slope has temporarily or permanently ceased.

Permanent stabilization with perennial vegetation (using native herbaceous and woody plants where practicable) or other permanently stable, non-eroding surface shall replace any temporary measures as soon as practicable. Unpacked gravel containing fines (silt and clay sized particles) or crusher runs will not be considered a non-eroding surface.

### 3.5.3.3. Structural practices

The [SWPPP](#) shall include a description of structural practices to divert flows from exposed soils, store flows or otherwise limit runoff and discharge of pollutants from exposed areas of the site. Such practices may include silt fences, earth dikes, drainage swales, sediment traps, check dams, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins. Structural controls shall not be placed in streams or wetlands except as authorized by a section 404 permit and/or [Aquatic Resources Alteration Permit](#) (ARAP).

Erosion prevention and sediment control measures must be prepared in accordance with good engineering practices and the latest edition of the [Tennessee Erosion and Sediment Control Handbook](#). In addition, erosion prevention and sediment controls shall be designed to minimize erosion and maximize sediment removal resulting from a [2-year, 24-hour storm](#) (the design storm – see part 10 below: “2-year and 5-year design storm depths and intensities”), as a minimum, either from total rainfall in the designated period or the equivalent intensity as specified on the following website [http://hdsc.nws.noaa.gov/hdsc/pfds/orb/tn\\_pfds.html](http://hdsc.nws.noaa.gov/hdsc/pfds/orb/tn_pfds.html). When clay and other fine particle soils are present at the construction site, chemical treatment may be used to minimize amount of sediment being discharged.

For an on-site outfall which receives drainage from 10 or more acres, a minimum sediment basin volume that will provide treatment for a calculated volume of runoff from a [2 year, 24 hour storm](#) and runoff from each acre drained, or equivalent control measures as specified in the [Tennessee Erosion and Sediment Control Handbook](#), shall be provided until final stabilization of the site. A drainage area of 10 or more acres includes both disturbed and undisturbed portions of the site or areas adjacent to the site, all draining through the common outfall. Where an equivalent control measure is substituted for a sediment retention basin, the equivalency must be justified to the division. Runoff from any undisturbed acreage should be diverted around the disturbed area and the sediment basin. Diverted runoff can be omitted from the volume calculation. Sediment storage expected from the disturbed areas must be included.

All calculations of drainage areas, runoff coefficients and basin volumes must be provided in the [SWPPP](#). The discharge structure from a sediment basin must be designed to retain sediment during the lower flows. Muddy water to be pumped from excavation and work areas must be held in settling basins or filtered or chemically treated prior to its discharge into surface waters. Water must be discharged through a pipe, well-grassed or lined channel or other equivalent means so that the discharge does not cause erosion and sedimentation. Discharged water must not cause an objectionable color contrast with the receiving stream.

#### 3.5.4. Stormwater management

The [SWPPP](#) shall include a description of any measures that will be installed during the construction process to control pollutants in stormwater discharges that will occur after construction operations have been completed.

For projects discharging to waters considered impaired by sediment or habitat alteration due to in-channel erosion, the [SWPPP](#) shall include a description of measures that will be installed during the construction process to control pollutants and any increase in the volume of stormwater discharges that will occur after construction operations have been completed. For [steep slope](#) sites, the [SWPPP](#) shall also include a description of measures that will be installed to dissipate the volume and energy of the stormwater runoff to pre-development levels.

This permit only addresses the installation of stormwater management measures, and not the ultimate operation and maintenance of such structures after the construction activities have been completed, the site has undergone final stabilization, and the permit coverage has been terminated. Permittees are only responsible for the installation and maintenance of stormwater management measures prior to final stabilization of the site, and are not responsible for maintenance after stormwater discharges associated with construction activity have been eliminated from the site. All permittees are encouraged to limit the amount of post construction runoff, if not required by local building regulations or local [MS4](#) program requirements, in order to minimize in-stream channel erosion in the receiving stream.

Construction stormwater runoff management practices may include: stormwater detention structures (including ponds with a permanent pool); stormwater retention structures; flow attenuation by use of open vegetated swales and natural depressions; infiltration of runoff onsite; and sequential systems (which combine several practices).

Velocity dissipation devices shall be placed at discharge locations and along the length of any outfall channel to provide a non-erosive velocity flow from the structure to the receiving stream so that the natural physical and biological characteristics and functions of the stream are

maintained and protected (e.g., there should be no significant changes in the hydrological regime of the receiving water). The [SWPPP](#) shall include an explanation of the technical basis used to select the velocity dissipation devices to control pollution where flows exceed pre-development levels. The [Tennessee Erosion and Sediment Control Handbook](#) provides measures that can be incorporated into the design or implemented on site to decrease erosive velocities. An [Aquatic Resources Alteration Permit](#) (ARAP) may be required if such velocity dissipation devices installed would alter the receiving stream and/or its banks.

#### 3.5.5. Other items needing control

- a) No solid materials, including building materials, shall be placed in [waters of the state](#), except as authorized by a section 404 permit and/or [Aquatic Resources Alteration Permit](#) (ARAP)(see part 9 below).
- b) For installation of any waste disposal systems on site, or sanitary sewer or septic system, the [SWPPP](#) shall identify these systems and provide for the necessary EPSC controls. Permittees must also comply with applicable state and/or local waste disposal, sanitary sewer or septic system regulations for such systems to the extent these are located within the permitted area.
- c) The [SWPPP](#) shall include a description of construction and waste materials expected to be stored on-site. The [SWPPP](#) shall also include a description of controls used to reduce pollutants from materials stored on site, including storage practices to minimize exposure of the materials to stormwater, and spill prevention and response.
- d) A description of stormwater sources from areas other than construction and a description of controls and measures that will be implemented at those sites.
- e) A description of measures necessary to prevent “taking” of legally protected state or federal listed threatened or endangered aquatic fauna and/or critical habitat (if applicable). The permittee must describe and implement such measures to maintain eligibility for coverage under this permit.

#### 3.5.6. Approved local government sediment and erosion control requirements

Permittees must comply with any additional erosion prevention, sediment controls and stormwater management measures required by a local municipality or permitted [MS4](#) program.

#### 3.5.7. Maintenance

The [SWPPP](#) shall describe procedures to ensure that vegetation, erosion and sediment control measures, [buffer zones](#), and other protective measures identified in the site plan are kept in good and effective operating condition. Maintenance needs identified in inspections or by other means shall be accomplished before the next storm event, but in no case more than 7 days after the need is identified.

#### 3.5.8. Inspections

##### 3.5.8.1. Inspector training and certification

Inspectors performing the required twice weekly inspections must have an active certification by completing the “[Fundamentals of Erosion Prevention and Sediment Control Level I](#)” course. A copy of the certification or training record for inspector certification should be kept on site.

### 3.5.8.2. Schedule of inspections

- a) Inspections described in paragraphs b, c and d below, shall be performed at least twice every calendar week. Inspections shall be performed at least 72 hours apart. Where sites or portion(s) of construction sites have been temporarily stabilized, or runoff is unlikely due to winter conditions (e.g., site covered with snow or ice) or due to extreme drought, such inspection only has to be conducted once per month until thawing or precipitation results in runoff or construction activity resumes. Inspection requirements do not apply to definable areas that have been finally stabilized, as described in subpart 3.1 above. Written notification of the intent to change the inspection frequency and the justification for such request must be submitted to the local Environmental Field Office, or the division's Nashville Central Office for projects of the Tennessee Department of Transportation (TDOT) and the Tennessee Valley Authority (TVA). Should the division discover that monthly inspections of the site are not appropriate due to insufficient stabilization measures or otherwise, twice weekly inspections shall resume. The division may inspect the site to confirm or deny the notification to conduct monthly inspections.
- b) Qualified personnel, as defined in section 3.5.8.1 above (provided by the permittee or cooperatively by multiple permittees) shall inspect disturbed areas of the construction site that have not been finally stabilized, areas used for storage of materials that are exposed to precipitation, structural control measures, locations where vehicles enter or exit the site, and each outfall.
- c) Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the site's drainage system. Erosion prevention and sediment control measures shall be observed to ensure that they are operating correctly.
- d) Outfall points (where discharges leave the site and/or enter [waters of the state](#)) shall be inspected to determine whether erosion prevention and sediment control measures are effective in preventing significant impacts to receiving waters. Where discharge locations are inaccessible, nearby downstream locations shall be inspected. Locations where vehicles enter or exit the site shall be inspected for evidence of offsite sediment tracking.
- e) Based on the results of the inspection, any inadequate control measures or control measures in disrepair shall be replaced or modified, or repaired as necessary, before the next rain event, but in no case more than 7 days after the need is identified.
- f) Based on the results of the inspection, the site description identified in the [SWPPP](#) in accordance with section 3.5.1 above and pollution prevention measures identified in the [SWPPP](#) in accordance with section 3.5.2 above shall be revised as appropriate, but in no case later than 7 days following the inspection. Such modifications shall provide for timely implementation of any changes to the [SWPPP](#), but in no case later than 14 days following the inspection.
- g) All inspections shall be documented on the Construction Stormwater Inspection Certification form provided in Appendix C of this permit for all construction sites. An alternative inspection form may be used as long as the form contents and the inspection certification language are, at a minimum, equivalent to the division's form (Appendix C) and the permittee has obtained a written approval from the division to use the alternative form. Inspection documentation will be maintained on site and made available to the division upon request. Inspection reports must be submitted to the division within 10 days of the request. If the division requests the Construction Stormwater Inspection Certification form to be submitted, the submitted form must contain the printed name and

signature of the trained certified inspector and the person who meets the signatory requirements of section 7.7.2 below of this permit.

- h) Trained certified inspectors shall complete inspection documentation to the best of their ability. Falsifying inspection records or other documentation or failure to complete inspection documentation shall result in a violation of this permit and any other applicable acts or rules.
- i) Subsequent **operator(s)** (primary permittees) who have obtained coverage under this permit should conduct twice weekly inspections, unless their portion(s) of the site has been temporarily stabilized, or runoff is unlikely due to winter conditions or due to extreme drought as stated in paragraph a) above. The primary permittee (such as a developer) is no longer required to conduct inspections of portions of the site that are covered by a subsequent primary permittee (such as a home builder).

### 3.5.9. Pollution prevention measures for non-stormwater discharges

Sources of non-stormwater listed in section 1.2.3 above of this permit that are combined with stormwater discharges associated with construction activity must be identified in the **SWPPP**. The plan shall identify and ensure the implementation of appropriate pollution prevention measures for the non-stormwater component(s) of the discharge. Any non-stormwater must be discharged through stable discharge structures. Estimated volume of the non-stormwater component(s) of the discharge must be included in the design of all impacted control measures.

### 3.5.10. Documentation of permit eligibility related to Total Maximum Daily Loads (TMDL)

The **SWPPP** must include documentation supporting a determination of permit eligibility with regard to waters that have an approved **TMDL** for a pollutant of concern, including:

- a) identification of whether the discharge is identified, either specifically or generally, in an approved **TMDL** and any associated wasteload allocations, site-specific requirements, and assumptions identified for the construction stormwater discharge;
- b) summaries of consultation with the division on consistency of **SWPPP** conditions with the approved **TMDL**, and
- c) measures taken to ensure that the discharge of **TMDL** identified pollutants from the site is consistent with the assumptions and requirements of the approved **TMDL**, including any specific wasteload allocation that has been established that would apply to the construction stormwater discharge.

## **4. CONSTRUCTION AND DEVELOPMENT EFFLUENT GUIDELINES**

### **4.1. Non-Numeric Effluent Limitations**

Any point source authorized by this general permit must achieve, at a minimum, the effluent limitations representing the degree of effluent reduction attainable by application of best practicable control technology (BPT) currently available and is described in sections 4.1.1 through 4.1.7 below.

#### 4.1.1. Erosion Prevention and Sediment Controls

Design, install and maintain effective erosion prevention and sediment controls to minimize the discharge of pollutants. At a minimum, such controls must be designed, installed and maintained to:

- (1) Control stormwater volume and velocity within the site to minimize soil erosion;
- (2) Control stormwater discharges, including both peak flow rates and total stormwater volume, to minimize erosion at outlets and to minimize downstream channel and streambank erosion;
- (3) Minimize the amount of soil exposed during construction activity;
- (4) Minimize the disturbance of [steep slopes](#);
- (5) Eliminate (or minimize if complete elimination is not possible) sediment discharges from the site. The design, installation and maintenance of erosion prevention and sediment controls must address factors such as the design storm (see sub-section 3.5.3.3 above) and soil characteristics, including the range of soil particle sizes expected to be present on the site;
- (6) Provide and maintain natural buffers around surface waters, direct stormwater to vegetated areas to increase sediment removal and maximize stormwater infiltration, unless infeasible (see section 4.1.2 below); and
- (7) Minimize soil compaction and, unless infeasible, preserve topsoil.

#### 4.1.2. Buffer zone requirements

[Buffer zone](#) requirements in this section apply to all streams adjacent to construction sites, with an exception for streams designated as impaired or Exceptional Tennessee waters (see section 5.4.2 below). A 30-foot natural riparian [buffer zone](#) adjacent to all streams at the construction site shall be preserved, to the maximum extent practicable, during construction activities at the site. The water quality [buffer zone](#) is required to protect [waters of the state](#) (e.g., perennial and intermittent streams, rivers, lakes, wetlands) located within or immediately adjacent to the boundaries of the project, as identified using methodology from Standard Operating Procedures for Hydrologic Determinations (see rules to implement a certification program for Qualified Hydrologic Professionals, [TN Rules Chapter 0400-40-17](#)). [Buffer zones](#) are not primary sediment control measures and should not be relied on as such. Rehabilitation and enhancement of a natural [buffer zone](#) is allowed, if necessary, for improvement of its effectiveness of protection of the [waters of the state](#). The [buffer zone](#) requirement only applies to new construction sites, as described in section 2.4.2 above.

The riparian [buffer zone](#) should be preserved between the top of stream bank and the disturbed construction area. The 30-foot criterion for the width of the [buffer zone](#) can be established on an average width basis at a project, as long as the minimum width of the [buffer zone](#) is more than 15 feet at any measured location.

Every attempt should be made for construction activities not to take place within the [buffer zone](#). [BMPs](#) providing equivalent protection to a receiving stream as a natural riparian zone may be used at a construction site. Such equivalent [BMPs](#) shall be designed to be as effective in protecting the receiving stream from effects of stormwater runoff as a natural riparian zone. A justification for use and a design of equivalent [BMPs](#) shall be included in the [SWPPP](#). Such equivalent [BMPs](#) are expected to be routinely used at construction projects typically located adjacent to surface waters. These projects include, but are not limited to: sewer line construction,

roadway construction, utility line or equipment installation, greenway construction, construction of a permanent outfall or a velocity dissipating structure, etc.

This requirement does not apply to any valid [Aquatic Resources Alteration Permit](#) (ARAP), or equivalent permits issued by federal authorities. Additional [buffer zone](#) requirements may be established by the local [MS4](#) program.

#### 4.1.2.1. Buffer zone exemption based on existing uses

[Buffer zones](#) as described in section 4.1.2 above shall not be required to portions of the buffer where certain land uses exist and are to remain in place according to the following:

1. A use shall be considered existing if it was present within the [buffer zone](#) as of the date of the Notice of Intent for coverage under the CGP. Existing uses shall include, but not be limited to, buildings, parking lots, roadways, utility lines and on-site sanitary sewage systems. Only the portion of the [buffer zone](#) that contains the footprint of the existing land use is exempt from [buffer zones](#). Activities necessary to maintain uses are allowed provided that no additional vegetation is removed from the [buffer zone](#).
2. If an area with an existing land use is proposed to be converted to another use or the impervious surfaces located within the buffer area are being removed [buffer zone](#) requirements shall apply.

#### 4.1.2.2. Pre-Approved Sites

Construction activity at sites that have been pre-approved before February 1, 2010, are exempt from the buffer requirements of section 4.1.2 above. Evidence of pre-approval for highway projects shall be a final right-of-way plan and for other construction projects, the final design drawings with attached dated, written approval by the local, state or federal agency with authority to approve such design drawings for construction.

#### 4.1.3. Soil stabilization

Stabilization of disturbed areas must, at a minimum, be initiated immediately whenever any clearing, grading, excavating or other earth disturbing activities have temporarily or permanently ceased on any portion of the site, and will not resume for a period exceeding 14 calendar days. Soil stabilization (temporary or permanent) of those of disturbed areas must be completed as soon as possible, but not later than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. In arid, semiarid, and drought-stricken areas where initiating vegetative stabilization measures immediately is infeasible, alternative stabilization measures (such as, but not limited to: properly anchored mulch, soil binders, matting) must be employed.

#### 4.1.4. Dewatering

Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, are prohibited unless managed by appropriate controls. Appropriate controls include, but are not limited to: weir tank, dewatering tank, gravity bag filter, sand media particulate filter, pressurized bag filter, cartridge filter or other control units providing the level of treatment necessary to comply with permit requirements.

#### 4.1.5. Pollution prevention measures

The permittee must design, install, implement, and maintain effective pollution prevention measures to minimize the discharge of pollutants. At a minimum, such measures must be designed, installed, implemented and maintained to:

- (1) 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;
- (2) Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials present on the site to precipitation and to stormwater; and
- (3) Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures.

#### 4.1.6. Prohibited discharges

The following discharges are prohibited:

- (1) Wastewater from washout of concrete, unless managed by an appropriate control;
- (2) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;
- (3) Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and
- (4) Soaps or solvents used in vehicle and equipment washing.

#### 4.1.7. Surface outlets

When discharging from basins and impoundments, utilize outlet structures that only withdraw water from near the surface of the basin or impoundment, unless infeasible.

## **5. SPECIAL CONDITIONS, MANAGEMENT PRACTICES, AND OTHER NON-NUMERIC LIMITATIONS**

### **5.1. Releases in Excess of Reportable Quantities**

The discharge of hazardous substances or oil in the stormwater discharge(s) from a facility shall be prevented or minimized in accordance with the applicable stormwater pollution prevention plan for the facility. This permit does not relieve the permittee of the reporting requirements of [40 CFR 117](#) and [40 CFR 302](#). Where a release containing a hazardous substance in an amount

equal to or in excess of a reportable quantity established under either [40 CFR 117](#) or [40 CFR 302](#) occurs during a 24 hour period:

- a) the permittee is required to notify the National Response Center (NRC) (800-424-8802) and the Tennessee Emergency Management Agency (emergencies: 800-262-3300; non-emergencies: 800-262-3400) in accordance with the requirements of [40 CFR 117](#) or [40 CFR 302](#) as soon as he or she has knowledge of the discharge;
- b) the permittee shall submit, within 14 days of knowledge of the release, a written description of: the release (including the type and estimate of the amount of material released), the date that such release occurred, the circumstances leading to the release, what actions were taken to mitigate effects of the release, and steps to be taken to minimize the chance of future occurrences, to the appropriate Environmental Field Office (see subpart 2.8 above); and
- c) the [SWPPP](#) required under part 3 above of this permit must be updated within 14 days of knowledge of the release: to provide a description of the release, the circumstances leading to the release, and the date of the release. This can be accomplished by including a copy of a written description of the release as described in the paragraph b) above. In addition, the [SWPPP](#) must be reviewed to identify measures to prevent the reoccurrence of such releases and to respond to such releases, and the plan must be modified where appropriate.

## **5.2. Spills**

This permit does not authorize the discharge of hazardous substances or oil resulting from an on-site spill.

## **5.3. Discharge Compliance with State Water Quality Standards**

### **5.3.1. Violation of Water Quality Standards**

This permit does not authorize stormwater or other discharges that would result in a violation of a state water quality standard (the TDEC Rules, Chapters [1200-4-3](#), [1200-4-4](#)). Such discharges constitute a violation of this permit.

Where a discharge is already authorized under this permit and the division determines the discharge to cause or contribute to the violation of applicable state water quality standards, the division will notify the [operator](#) of such violation(s). The permittee shall take all necessary actions to ensure future discharges do not cause or contribute to the violation of a water quality standard and shall document these actions in the [SWPPP](#).

### 5.3.2. Discharge quality

- a) The construction activity shall be carried out in such a manner that will prevent violations of water quality criteria as stated in the TDEC Rules, [Chapter 1200-4-3-.03](#). This includes but is not limited to the prevention of any discharge that causes a condition in which visible solids, bottom deposits, or [turbidity](#) impairs the usefulness of [waters of the state](#) for any of the uses designated for that water body by TDEC Rules, [Chapter 1200-4-4](#). Construction activity carried out in the manner required by this permit shall be considered compliance with the TDEC Rules, [Chapter 1200-4-3-.03](#).
- b) There shall be no distinctly visible floating scum, oil or other matter contained in the stormwater discharge.
- c) The stormwater discharge must not cause an objectionable color contrast in the receiving stream.
- d) The stormwater discharge must result in no materials in concentrations sufficient to be hazardous or otherwise detrimental to humans, livestock, wildlife, plant life, or fish and aquatic life in the receiving stream. This provision includes species covered under subpart 1.3 above.

## 5.4. **Discharges into Impaired or Exceptional Tennessee Waters**

### 5.4.1. Additional SWPPP/BMP Requirements for discharges into impaired or exceptional TN Waters

Discharges that would add loadings of a pollutant that is identified as causing or contributing to an impairment of a water body on the list of [impaired waters](#), or which would cause degradation to waters designated by TDEC as Exceptional Tennessee waters are not authorized by this permit (see subpart 1.3 above). To be eligible to obtain and maintain coverage under this permit, the [operator](#) must satisfy, at a minimum, the following additional requirements for discharges into waters impaired by siltation (or discharges upstream of such waters and because of the proximity to the impaired segment and the nature of the discharge is likely to contribute pollutants of concern in amounts measurable in the impaired segment that may affect the [impaired waters](#)) and for discharges to waters identified by TDEC as Exceptional Tennessee waters (or discharges upstream of such waters and because of the proximity to the exceptional segment and the nature of the discharge is likely to contribute pollutants of concern in amounts measurable in the exceptional segment that may affect the Exceptional Tennessee waters):

- a) The [SWPPP](#) must certify that erosion prevention and sediment controls used at the site are designed to control storm runoff generated by a [5-year, 24-hour storm](#) event (the design storm - see part 10 below: “2-year and 5-year design storm depths and intensities”), as a minimum, either from total rainfall in the designated period or the equivalent intensity as specified on the following website [http://hdsc.nws.noaa.gov/hdsc/pfds/orb/tn\\_pfds.html](http://hdsc.nws.noaa.gov/hdsc/pfds/orb/tn_pfds.html). When clay and other fine particle soils are found on sites, additional physical or chemical treatment of stormwater runoff may be used.
- b) The [SWPPP](#) must be prepared by a person who, at a minimum, has completed the department’s [Level II Design Principles for Erosion Prevention and Sediment Control for Construction Sites](#) course. This requirement goes in effect 24 months following the new permit effective date. A copy of the certification or training record for inspector certification should be included with the [SWPPP](#).

- c) The permittee shall perform inspections described in section 3.5.8 above at least twice every calendar week. Inspections shall be performed at least 72 hours apart.
- d) The permittee must certify on the form provided in Appendix C of this permit whether or not all planned and designed erosion prevention and sediment controls are installed and in working order. The form must contain the printed name and signature of the inspector and the certification must be executed by a person who meets the signatory requirements of section 7.7.2 below of this permit. The record of inspections must be kept at the construction site with a copy of the [SWPPP](#). For record retention requirements, see part 6 below.
- e) In the event the division finds that a discharger is complying with the [SWPPP](#), but contributing to the impairment of receiving stream, then the discharger will be notified by the director in writing that the discharge is no longer eligible for coverage under the general permit. The permittee may update the [SWPPP](#) and implement the necessary changes designed to eliminate further impairment of the receiving stream. If the permittee does not implement the [SWPPP](#) changes within 7 days of receipt of notification, the permittee will be notified in writing that continued discharges must be covered by an individual permit (see subpart 7.12 below). To obtain the individual permit, the [operator](#) must file an individual permit application (EPA Forms 1 and 2F). The project must be stabilized immediately until the [SWPPP](#) is updated and the individual permit is issued. Only discharges from earth disturbing activities necessary for stabilization are authorized to continue until the individual permit is issued.
- f) For an on-site outfall in a drainage area of a total of 5 or more acres, a minimum temporary (or permanent) sediment basin volume that will provide treatment for a calculated volume of runoff from a [5 year, 24 hour storm](#) and runoff from each acre drained, or equivalent control measures as specified in the [Tennessee Erosion and Sediment Control Handbook](#), shall be provided until final stabilization of the site. A drainage area of 5 or more acres includes both disturbed and undisturbed portions of the site or areas adjacent to the site, all draining through the common outfall. Where an equivalent control measure is substituted for a sediment retention basin, the equivalency must be justified. Runoff from any undisturbed acreage should be diverted around the disturbed area and the sediment basin and, if so, can be omitted from the volume calculation. Sediment storage expected from the disturbed areas must be included and a marker installed signifying a cleanout need.
- g) The director may require revisions to the [SWPPP](#) necessary to prevent a negative impact to legally protected state or federally listed aquatic fauna, their habitat, or the receiving waters.

#### 5.4.2. Buffer zone requirements for discharges into impaired or exceptional TN waters

For sites that contain and/or are adjacent to a receiving stream designated as impaired or Exceptional Tennessee waters a 60-foot natural riparian [buffer zone](#) adjacent to the receiving stream shall be preserved, to the maximum extent practicable, during construction activities at the site. The water quality [buffer zone](#) is required to protect [waters of the state](#) (e.g., perennial and intermittent streams, rivers, lakes, wetlands) located within or immediately adjacent to the boundaries of the project, as identified using methodology from Standard Operating Procedures for Hydrologic Determinations (see rules to implement a certification program for Qualified Hydrologic Professionals , [TN Rules Chapter 0400-40-17](#)). [Buffer zones](#) are not primary sediment control measures and should not be relied on as such. Rehabilitation and enhancement of a natural [buffer zone](#) is allowed, if necessary, for improvement of its effectiveness of

protection of the [waters of the state](#). The [buffer zone](#) requirement only applies to new construction sites, as described in section 2.4.2 above.

The natural [buffer zone](#) should be established between the top of stream bank and the disturbed construction area. The 60-foot criterion for the width of the [buffer zone](#) can be established on an average width basis at a project, as long as the minimum width of the [buffer zone](#) is more than 30 feet at any measured location.

Every attempt should be made for construction activities not to take place within the [buffer zone](#). [BMPs](#) providing equivalent protection to a receiving stream as a natural riparian zone may be used at a construction site. Such equivalent [BMPs](#) shall be designed to be as effective in protecting the receiving stream from effects of stormwater runoff as a natural [buffer zone](#). A justification for use and a design of equivalent [BMPs](#) shall be included in the [SWPPP](#). Such equivalent [BMPs](#) are expected to be routinely used at construction projects typically located adjacent to surface waters. These projects include, but are not limited to: sewer line construction, roadway construction, utility line or equipment installation, greenway construction, construction of a permanent outfall or a velocity dissipating structure, etc.

This requirement does not apply to an area that is being altered under the authorization of a valid [Aquatic Resources Alteration Permit](#) (ARAP), or equivalent permits issued by federal authorities. Additional natural [buffer zone](#) requirements may be established by the local [MS4](#) program.

#### 5.4.2.1. Buffer zone exemption based on existing uses

[Buffer zones](#) as described in section 5.4.2 above shall not be required to portions of the buffer where certain land uses exist and are to remain in place according to the following:

1. A use shall be considered existing if it was present within the [buffer zone](#) as of the date of the Notice of Intent for coverage under the CGP. Existing uses shall include, but not be limited to, buildings, parking lots, roadways, utility lines and on-site sanitary sewage systems. Only the portion of the [buffer zone](#) that contains the footprint of the existing land use is exempt from [buffer zones](#). Activities necessary to maintain uses are allowed provided that no additional vegetation is removed from the [buffer zone](#).
2. If an area with an existing land use is proposed to be converted to another use or the impervious surfaces located within the buffer area are being removed [buffer zone](#) requirements shall apply.

#### 5.4.3. Pre-Approved sites

Construction activity at sites that have been pre-approved before June 16, 2005, are exempt from the design storm requirements of section 5.4.1 a) and e) above and the buffer requirements of section 5.4.2 above. Evidence of pre-approval for highway projects shall be a final right-of-way plan and for other construction projects, the final design drawings with attached dated, written approval by the local, state or federal agency with authority to approve such design drawings for construction.

## 6. RETENTION, ACCESSIBILITY AND SUBMISSION OF RECORDS

### 6.1. Documents

The permittee shall retain copies of stormwater pollution prevention plans and all reports required by this permit, and records of all data used to complete the NOI and the NOT to be covered by this permit, for a period of at least three years from the date the notice of termination is submitted. This period may be extended by written request of the director.

### 6.2. Accessibility and Retention of Records

The permittee shall retain a copy of the [SWPPP](#) required by this permit (including a copy of the permit) at the construction site (or other local location accessible to the director and the public) from the date construction commences to the date of termination of permit coverage. Permittees with day-to-day operational control over pollution prevention plan implementation shall have a copy of the [SWPPP](#) available at a central location onsite for the use of all [operators](#) and those identified as having responsibilities under the plan whenever they are on the construction site. Once coverage is terminated, the permittee shall maintain a copy of all records for a period of three years.

#### 6.2.1. Posting information at the construction site

The permittee shall post a notice near the main entrance of the construction site accessible to the public with the following information:

- a) a copy of the NOC with the NPDES permit tracking number for the construction project;
- b) name, company name, E-mail address (if available), telephone number and address of the project site owner/operator or a local contact person;
- c) a brief description of the project; and
- d) the location of the [SWPPP](#) (see section 3.3.3 above).

The notice must be maintained in a legible condition. If posting this information near a main entrance is infeasible due to safety concerns, or not accessible to the public, the notice shall be posted in a local public building. If the construction project is a [linear construction project](#) (e.g., pipeline, highway, etc.), the notice must be placed in a publicly accessible location near where construction is actively underway and moved as necessary. This permit does not provide the public with any right to trespass on a construction site for any reason, including inspection of a site. This permit does not require that permittees allow members of the public access to a construction site.

The permittee shall also retain following items/information in an appropriate location on-site:

- a) a rain gauge;
- b) a copy of twice weekly inspection reports;
- c) a documentation of quality assurance site assessments, if applicable (see section 3.1.2 above); and
- d) a copy of the site inspector's [Fundamentals of Erosion Prevention and Sediment Control Level 1](#) certification.

### 6.3. Electronic Submission of NOIs, NOTs and Reports

If the division notifies dischargers (directly by mail or E-mail, by public notice, or by making information available on the world wide web) of electronic forms or other report options that become available at a later date (e.g., electronic submission of forms), the [operators](#) may take advantage of those options to satisfy the NOI, NOT and other report notification requirements.

## 7. STANDARD PERMIT CONDITIONS

### 7.1. Duty to Comply

#### 7.1.1. Permittee's duty to comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Tennessee Water Quality Control Act (TWQCA) and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

#### 7.1.2. Penalties for violations of permit conditions

Pursuant to [T.C.A. § 69-3-115](#) of The Tennessee Water Quality Control Act of 1977, as amended:

- a) any person who violates an effluent standard or limitation or a water quality standard established under this part ([T.C.A. § 69-3-101](#), et. seq.); violates the terms or conditions of this permit; fails to complete a filing requirement; fails to allow or perform an entry, inspection, monitoring or reporting requirement; violates a final determination or order of the board, panel or commissioner; or violates any other provision of this part or any rule or regulation promulgated by the board, is subject to a civil penalty of up to ten thousand dollars (\$10,000) per day for each day during which the act or omission continues or occurs;
- b) any person unlawfully polluting the [waters of the state](#) or violating or failing, neglecting, or refusing to comply with any of the provisions of this part ([T.C.A. § 69-3-101](#), et. seq.) commits a Class C misdemeanor. Each day upon which such violation occurs constitutes a separate offense;
- c) any person who willfully and knowingly falsifies any records, information, plans, specifications, or other data required by the board or the commissioner, or who willfully and knowingly pollutes the [waters of the state](#), or willfully fails, neglects or refuses to comply with any of the provisions of this part ([T.C.A. § 69-3-101](#), et. seq.) commits a Class E felony and shall be punished by a fine of not more than twenty-five thousand dollars (\$25,000) or incarceration, or both.

#### 7.1.3. Civil and criminal liability

Nothing in this permit shall be construed to relieve the discharger from civil or criminal penalties for noncompliance. Notwithstanding this permit, the discharger shall remain liable for any damages sustained by the State of Tennessee, including but not limited to fish kills and losses of aquatic life and/or wildlife, as a result of the discharge to any surface or subsurface waters. Additionally, notwithstanding this permit, it shall be the responsibility of the discharger to

conduct stormwater discharge activities in a manner such that public or private nuisances or health hazards will not be created. Furthermore, nothing in this permit shall be construed to preclude the State of Tennessee from any legal action or relieve the discharger from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or the Federal Water Pollution Control Act.

7.1.4. Liability under state law

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable local, state or federal law.

**7.2. Continuation of the Expired General Permit**

Permittees shall maintain coverage under this general permit until a new general permit is issued. Permittees who choose not to maintain coverage under the expired general permit, or are required to obtain an individual permit, must submit an application (U.S. EPA NPDES Forms [1](#) and [2F](#) and any other [applicable forms](#)) at least 180 days prior to expiration of this general permit. Permittees who are eligible and choose to be covered by the new general permit must submit an NOI by the date specified in that permit. Facilities that have not obtained coverage under this permit by the permit expiration date cannot become authorized to discharge under the continued permit.

[Operator\(s\)](#) of an existing site permitted under the division's 2005 construction general permit shall maintain full compliance with the existing [SWPPP](#). The existing [SWPPP](#) should be modified, if necessary, to meet requirements of this new general permit, and the [SWPPP](#) changes implemented no later than 12 months following the new permit effective date. The permittee shall make the updated [SWPPP](#) available for the division's review upon request.

**7.3. Need to Halt or Reduce Activity Not a Defense**

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

**7.4. Duty to Mitigate**

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

**7.5. Duty to Provide Information**

The permittee shall furnish to the division or an authorized representative of the division, within a time specified by the division, any information that the division may request to determine compliance with this permit or other information relevant to the protection of the [waters of the state](#). The permittee shall also furnish to the division, upon request, copies of records required to be kept by this permit.

## 7.6. Other Information

When the permittee becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in the Notice of Intent or in any other report to the director, he or she shall promptly submit such facts or information.

## 7.7. Signatory Requirements

All Notices of Intent (NOIs), stormwater pollution prevention plans (SWPPPs), requests for termination of permit coverage (NOTs), Construction Stormwater Inspection Certifications, Construction Stormwater Monitoring Report forms, reports, certifications or information either submitted to the director or the operator of a large or medium municipal separate storm sewer system and/or any other information either submitted to the division, or that this permit requires be maintained by the permittee, shall be signed as described in sections 7.7.1 and 7.7.2 below and dated.

### 7.7.1. Signatory requirements for a Notice of Intent (NOI)<sup>3</sup>

NOI shall be signed as follows:

- a) For a corporation, by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
  - (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or
  - (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated site including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

NOTE: The division does not require specific assignments or delegations of authority to responsible corporate officers. The division will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the director to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions rather than to specific individuals.

- b) For a partnership or sole proprietorship, by a general partner or the proprietor, respectively.

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<sup>3</sup> As specified in 40 CFR 122.22(a)(1)-(3) [48 FR 14153, Apr. 1, 1983, as amended at 48 FR 39619, Sept. 1, 1983; 49 FR 38047, Sept. 29, 1984; 50 FR 6941, Feb. 19, 1985; 55 FR 48063, Nov. 16, 1990; 65 FR 30907, May 15, 2000]

- c) For a municipality, state, federal, or other public agency, by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
  - (i) the chief executive officer of the agency, or
  - (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

7.7.2. Signatory requirements for reports and other items

**SWPPPs**, Construction Stormwater Inspection Certification forms, reports, certifications or other information submittals required by the permit and other information requested by the division, including but not limited to Notice of Violation responses, shall be signed by a person described in section 7.7.1 above, or by a duly authorized representative of that person.

7.7.3. Duly authorized representative

For a purpose of satisfying signatory requirements for reports (see section 7.7.2 above), a person is a duly authorized representative only if:

- a) the authorization is made in writing by a person described in section 7.7.1 above;
- b) the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated site or activity such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company; a duly authorized representative may thus be either a named individual or any individual occupying a named position and,
- c) the written authorization is submitted to the director or an appropriate EFO (see section 2.8 above). The written authorization shall be a written document including the name of the newly authorized person and the contact information (title, mailing address, phone number, fax number and E-mail address) for the authorized person. The written authorization shall be signed by the newly authorized person accepting responsibility and by the person described in section 7.7.1 above delegating the authority.

7.7.4. Changes to authorization

If an authorization under sections 7.7.1 above or 7.7.3 above is no longer accurate because a different individual or position has responsibility as the primary or secondary permittee, but the company name (permittee name) remains the same, a new NOI and **SWPPP** certification shall be submitted to an appropriate EFO (see section 2.8 above) and signed by the new party who meets signatory authority satisfying the requirements of sections 7.7.1 above or 7.7.3 above. The NOI shall include the new individual's information (title, mailing address, phone number, fax number and E-mail address), the existing tracking number and the project name.

7.7.5. Signatory requirements for primary permittees

Primary permittees required to sign an NOI and [SWPPP](#) because they meet the definition of an [operator](#) (see subpart 2.2 above) shall sign the following certification statement on the NOI and [SWPPP](#):

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

7.7.6. Signatory requirements for secondary permittees

Secondary permittees (typically construction contractors) required to sign an NOI and [SWPPP](#) because they meet the definition of an [operator](#) but who are not primarily responsible for preparing an NOI and [SWPPP](#), shall sign the following certification statement on the NOI and [SWPPP](#):

*“I certify under penalty of law that I have reviewed this document, any attachments, and the SWPPP referenced above. Based on my inquiry of the construction site owner/developer identified above and/or my inquiry of the person directly responsible for assembling this NOI and SWPPP, I believe the information submitted is accurate. I am aware that this NOI, if approved, makes the above-described construction activity subject to NPDES permit number TNR100000, and that certain of my activities on-site are thereby regulated. I am aware that there are significant penalties, including the possibility of fine and imprisonment for knowing violations, and for failure to comply with these permit requirements.”*

**7.8. Penalties for Falsification of Reports**

Knowingly making any false statement on any report or form required by this permit may result in the imposition of criminal penalties as provided for in [Section 309 of the Clean Water Act](#) and in [T.C.A. §69-3-115](#) of the Tennessee Water Quality Control Act.

**7.9. Oil and Hazardous Substance Liability**

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to [Section 311 of the Clean Water Act](#) or [Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act](#) of 1980 (CERCLA).

## **7.10. Property Rights**

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. The issuance of this permit does not authorize trespassing or discharges of stormwater or non-stormwater across private property.

## **7.11. Severability**

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

## **7.12. Requiring an Individual Permit**

### **7.12.1. Director can require a site to obtain an individual permit**

The director may require any person authorized by this permit to apply for and/or obtain an individual NPDES permit in order to obtain adequate protection of designated uses of a receiving stream. Any interested person may petition the director in writing to take action under this paragraph, but must include in their petition the justification for such an action. Where the director requires a discharger authorized to discharge under this permit to apply for an individual NPDES permit, the director shall notify the discharger in writing that an individual permit application is required. This notification will include a brief statement of the reasons for this decision, an application form, a statement setting a deadline for the discharger to file the application, and a statement that coverage under this general permit shall terminate upon the effective date of an individual NPDES permit or denial of coverage under an individual permit. The notification may require stabilization of the site and suspend coverage under this general permit until the individual permit is issued. Individual permit applications shall be submitted to the appropriate Environmental Field Office of the division as indicated in subpart 2.8 above of this permit. The director may grant additional time to submit the application upon request of the applicant. If a discharger fails to submit in a timely manner an individual NPDES permit application as required by the director under this paragraph, then the applicability of this permit to the discharger will be terminated at the end of the day specified by the director for application submittal.

If the decision to require an individual NPDES permit precedes the issuance of coverage under this general permit, earth disturbing activities cannot begin until the individual permit is issued.

7.12.2. Permittee may request individual permit instead of coverage under this general permit

Any discharger authorized by this permit may request to be excluded from the coverage of this permit by applying for an individual permit. Any discharger that knowingly cannot abide by the terms and conditions of this permit must apply for an individual permit. In such cases, the permittee shall submit an individual application in accordance with the requirements of [40 CFR 122.26\(c\)\(1\)\(ii\)](#), with reasons supporting the request, to the appropriate division's Environmental Field Office. The request may be granted by issuance of an individual permit, or alternative general permit, if the reasons cited by the permittee are adequate to support the request.

7.12.3. Individual permit terminates general permit

When an individual NPDES permit is issued to a discharger otherwise subject to this permit, or the discharger is authorized to discharge under an alternative NPDES general permit, the applicability of this permit to the discharger is terminated on the effective date of the individual permit or the date of authorization of coverage under the alternative general permit, whichever the case may be. When an individual NPDES permit is denied to an owner or [operator](#) otherwise subject to this permit, or the owner or [operator](#) is denied for coverage under an alternative NPDES general permit, the applicability of this permit to the individual NPDES permittee is terminated on the date of such denial, unless otherwise specified by the director. Coverage under the [Tennessee Multi-Sector General Permit for the Discharge of Stormwater from an Industrial Activity](#) (TMSP) will not be considered as an alternative general permit under this section without being specified by the director.

**7.13. Other, Non-Stormwater, Program Requirements**

No condition of this permit shall release the permittee from any responsibility or requirements under other environmental statutes or regulations.

**7.14. Proper Operation and Maintenance**

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related equipment) which are installed or used by the permittee to achieve compliance with the conditions of this permit and with the requirements of stormwater pollution prevention plans.

Proper operation and maintenance also includes adequate laboratory quality assurance and quality control procedures. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed by a permittee, when determined by the permittee or the division to be necessary to achieve compliance with the conditions of the permit.

**7.15. Inspection and Entry**

The permittee shall allow authorized representatives of the Environmental Protection Agency, the director or an authorized representative of the commissioner of TDEC, or, in the case of a construction site which discharges through a municipal separate storm sewer, an authorized representative of the [MS4](#) receiving the discharge, upon the presentation of credentials and other documents as may be required by law:

- a) to enter upon the permittee's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;
- b) to have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and
- c) to inspect any facilities or equipment (including monitoring and control equipment).

## **7.16. Permit Actions**

This permit may be issued, modified, revoked, reissued or terminated for cause in accordance with this permit and the applicable requirements of [T.C.A. § 69-3-108](#). The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

8.1.1. Termination of builder and contractor coverage

## **8. REQUIREMENTS FOR TERMINATION OF COVERAGE**

### **8.1. Termination of Developer and Builder Coverage**

#### **8.1.1. Termination process for primary permittees**

Primary permittees wishing to terminate coverage under this permit must submit a completed notice of termination (NOT) form, provided in Appendix B of this permit (or copy thereof). Primary permittees who abandon the site and fail to submit the NOT will be in violation of this permit. Signs notifying the public of the construction activity shall be in place until the NOT form has been submitted. Primary permittees may terminate permit coverage only if the conditions described in items 1, 2 or 3 below occur at the site:

1. All earth-disturbing activities at the site are completed and, if applicable, construction support activities permitted under section 1.2.2 above, and the following requirements are met:
  - (a) For any areas that
    - were disturbed during construction,
    - are not covered over by permanent structures, and
    - over which the permittee had control during the construction activitiesthe requirements for final vegetative or non-vegetative stabilization described in subsection 3.5.3.2 above are met;
  - (b) The permittee has removed and properly disposed of all construction materials, waste and waste handling devices, and have removed all equipment and vehicles that were used during construction, unless intended for long-term use following termination of permit coverage;
  - (c) The permittee has removed all stormwater controls that were installed and maintained during construction, except those that are intended for long-term use following termination of permit coverage;

(d) The permittee has removed all potential pollutants and pollutant-generating activities associated with construction, unless needed for long-term use following termination of permit coverage; and

(e) The permittee must identify who is responsible for ongoing maintenance of any stormwater controls left on the site for long-term use following termination of permit coverage; or

2. The permittee has transferred control of all areas of the site for which he is responsible (including, but not limited to, infrastructure, common areas, stormwater drainage structures, sediment control basin, etc.) under this permit to another operator, and that operator has submitted an NOI and obtained coverage under this permit; or
3. The permittee obtains coverage under an individual or alternative general NPDES permit.

#### 8.1.2. NOT review

The division will review NOTs for completeness and accuracy and, when necessary, investigate the proposed site for which the NOT was submitted. Upon completing the NOT review, the division will:

- 1) prepare and transmit a notification that a NOT form was received;
- 2) notify the applicant of needed changes to their NOT submittal; or
- 3) deny a request for termination of coverage under this general permit.

The division retains the right to deny termination of coverage under this general permit upon receipt of the NOT. If the local Environmental Field Office has information indicating that the permit coverage is not eligible for termination, written notification will be provided that permit coverage has not been terminated. The notification will include a summary of existing deficiencies. When the site meets the termination criteria, the NOT should be re-submitted.

If any permittee files for bankruptcy or the site is foreclosed on by the lender, the permittee should notify the division of the situation so that the division may assess the site to determine if permit coverage should be obtained by any other person or whether other action is needed.

## 8.2. **Termination of Builder and Contractor Coverage**

### 8.2.1. Termination process for secondary permittees

Secondary permittees (builders/contractors) must request termination of coverage under this permit by submitting an NOT when they are no longer an operator at the construction site. Secondary permittees receive coverage under this permit, but are not normally mailed a Notice of Coverage. Consequently, the division may, but is not required to, notify secondary permittees that their notice of termination has been received. If the division has reason to believe that the secondary permittee's NOT should not have been submitted, the division will deny the secondary permittee's NOT in writing, with specific reasons as to why the NOT should not have been submitted.

### 8.3. NOT certification

The NOT and the following certification must be signed in accordance with subpart 7.7 above (Signatory Requirements) of this permit:

“I certify under penalty of law that either: (a) all stormwater discharges associated with construction activity from the portion of the identified facility where I was an operator have ceased or have been eliminated or (b) I am no longer an operator at the construction site. I understand that by submitting this notice of termination, I am no longer authorized to discharge stormwater associated with construction activity under this general permit, and that discharging pollutants in stormwater associated with construction activity to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by a NPDES permit. I also understand that the submittal of this notice of termination does not release an operator from liability for any violations of this permit or the Clean Water Act.”

### 8.4. Where to Submit a Notice of Termination (NOT)?

The NOT shall be submitted to the Environmental Field Office (EFO) which issued the NOC to the primary permittee. A list of counties and the corresponding EFOs is provided in subpart 2.8 above. The appropriate permit tracking number must be clearly printed on the form.

## 9. Aquatic Resource Alteration Permits (ARAP)

Alterations to channels or waterbodies (stream, wetland and/or other [waters of the state](#)) that are contained on, traverse through or are adjacent to the construction site, may require an [Aquatic Resources Alteration Permit](#) (ARAP) (<http://www.tn.gov/environment/permits/arap.shtml>). It is the responsibility of the developer to provide a determination of the water’s status<sup>4</sup>. This determination must be conducted using methodology from Standard Operating Procedures for Hydrologic Determinations (see rules to implement a certification program for Qualified Hydrologic Professionals , [TN Rules Chapter 0400-40-17](#)). The permittee can make an assumption that streams/wetlands are present at the site in order to expedite the permit process. In some cases, issuance of coverage under the CGP may be delayed or withheld if the appropriate ARAP has not been obtained. At a minimum, any delay in obtaining an ARAP for water body alteration associated with the proposed project must be adequately addressed in the [SWPPP](#) prior to issuance of an NOC. Failure to obtain an ARAP prior to any actual alteration may result in enforcement action for the unauthorized alteration.

## 10. DEFINITIONS

“**2-year and 5-year design storm depths and intensities**” The estimated design rainfall amounts, for any return period interval (i.e., 2-yr, 5-yr, 25-yr, etc.) in terms of either 24-hour depths or intensities for any duration, can be found by accessing the following NOAA National Weather Service Atlas 14 data for Tennessee:

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<sup>4</sup> The EPA considers inventorying a site’s natural features is a technique called fingerprinting. More info can be found in EPA’s document - EPA’s Developing Your SWPPP – A Guide for Construction Sites (EPA-833-R-06-004 May 2007)

[http://hdsc.nws.noaa.gov/hdsc/pfds/orb/tn\\_pfds.html](http://hdsc.nws.noaa.gov/hdsc/pfds/orb/tn_pfds.html). Other data sources may be acceptable with prior written approval by TDEC Water Pollution Control.

**“Best Management Practices”** (“BMPs”) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to [waters of the state](#). BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

**“Borrow Pit”** is an excavation from which erodible material (typically soil) is removed to be fill for another site. There is no processing or separation of erodible material conducted at the site. Given the nature of activity and pollutants present at such excavation, a borrow pit is considered a construction activity for the purpose of this permit.

**“Buffer Zone”** is a strip of dense undisturbed perennial native vegetation, either original or re-established, that borders streams and rivers, ponds and lakes, wetlands, and seeps. Buffer zones are established for the purposes of slowing water runoff, enhancing water infiltration, and minimizing the risk of any potential nutrients or pollutants from leaving the upland area and reaching surface waters. Buffer zones are most effective when stormwater runoff is flowing into and through the buffer zone as shallow sheet flow, rather than in concentrated form such as in channels, gullies, or [wet weather conveyances](#). Therefore, it is critical that the design of any development include management practices, to the maximum extent practical, that will result in stormwater runoff flowing into and through the buffer zone as shallow sheet flow. Buffer zones are established for the primary purpose of protecting water quality and maintaining a healthy aquatic ecosystem in receiving waters.

**“Clearing”** in the definition of discharges associated with construction activity, typically refers to removal of vegetation and disturbance of soil prior to grading or excavation in anticipation of construction activities. Clearing may also refer to wide area land disturbance in anticipation of non-construction activities; for instance, clearing forested land in order to convert forestland to pasture for wildlife management purposes. Clearing, grading and excavation do not refer to clearing of vegetation along existing or new roadways, highways, dams or power lines for sight distance or other maintenance and/or safety concerns, or cold planing, milling, and/or removal of concrete and/or bituminous asphalt roadway pavement surfaces. The clearing of land for agricultural purposes is exempt from federal stormwater NPDES permitting in accordance with Section 401(1)(1) of the 1987 Water Quality Act and state stormwater NPDES permitting in accordance with the Tennessee Water Quality Control Act of 1977 ([T.C.A. 69-3-101](#) et seq.).

**“Commencement of construction”** The initial disturbance of soils associated with clearing, grading, or excavating activities or other construction activities.

**“Common plan of development or sale”** is broadly defined as any announcement or documentation (including a sign, public notice or hearing, sales pitch, advertisement, drawing, permit application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating construction activities may occur on a specific plot. A common plan of development or sale identifies a situation in which multiple areas of disturbance are occurring on contiguous areas. This applies because the activities may take place at different times, on different schedules, by different [operators](#).

**“Control measure”** As used in this permit, refers to any Best Management Practice (BMP) or other method used to prevent or reduce the discharge of pollutants to [waters of the state](#).

**“CWA”** means the Clean Water Act of 1977 or the Federal Water Pollution Control Act ([33 U.S.C. 1251](#), et seq.)

**“Department”** means the Department of Environment and Conservation.

**“Director”** means the director, or authorized representative, of the Division of Water Pollution Control of the State of Tennessee, Department of Environment and Conservation.

**“Discharge of stormwater associated with construction activity”** As used in this permit, refers to stormwater point source discharges from areas where soil disturbing activities (e.g., clearing, grading, excavation, etc.), or construction materials or equipment storage or maintenance (e.g., earth fill piles, fueling, waste material etc.) are located.

**“Division”** means the Division of Water Pollution Control of the State of Tennessee, Department of Environment and Conservation.

**“Final Stabilization”** means that all soil disturbing activities at the site have been completed and one of the three following criteria is met:

- a. A uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover with a uniform density of at least 70 percent of the (preferably) native vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, and all slopes and channels have been permanently stabilized against erosion, or
- b. Equivalent permanent stabilization measures (such as the use of riprap; permanent geotextiles, hardened surface materials including concrete, asphalt, gabion baskets, or Reno mattresses) have been employed, or
- c. For construction projects on land used for agricultural or silvicultural purposes, final stabilization may be accomplished by returning the disturbed land to its preconstruction agricultural or silvicultural use.

**“Exceptional Tennessee waters”** are surface waters of the State of Tennessee that satisfy characteristics of exceptional Tennessee waters as listed [Chapter 1200-4-3-.06](#) of the official compilation - Rules and Regulations of the State of Tennessee. Characteristics include waters designated by the Water Quality Control Board as Outstanding National Resource Waters (ONRW); waters that provide habitat for ecologically significant populations of certain aquatic or semi-aquatic plants or animals; waters that provide specialized recreational opportunities; waters that possess outstanding scenic or geologic values; or waters where existing conditions are better than water quality standards.

**“Impaired waters”** (unavailable conditions waters) means any segment of surface waters that has been identified by the division as failing to support one or more classified uses. For the purpose of this permit, pollutants of concern include, but are not limited to: siltation (silt/sediment) and habitat alterations. Based on the most recent assessment information available

to staff, the division will notify applicants and permittees if their discharge is into, or is affecting, impaired waters. Resources to be used in making this determination include biennial compilations of impaired waters, databases of assessment information, updated [GIS](#) coverages (<http://tnmap.tn.gov/wpc/>), and the results of recent field surveys. [GIS](#) coverages of the streams and lakes not meeting water quality standards, plus the biennial list of impaired waters, can be found at <http://tn.gov/environment/wpc>.

**“Improved sinkhole”** is a natural surface depression that has been altered in order to direct fluids into the hole opening. Improved sinkhole is a type of injection well regulated under the [Underground Injection Control](#) (UIC) program. Underground injection constitutes an intentional disposal of waste waters in natural depressions, open fractures, and crevices (such as those commonly associated with weathering of limestone).

**“Inspector”** An inspector is a person that has successfully completed (has a valid certification from) the [“Fundamentals of Erosion Prevention and Sediment Control Level I”](#) course or equivalent course. An inspector performs and documents the required inspections, paying particular attention to time-sensitive permit requirements such as stabilization and maintenance activities. An inspector may also have the following responsibilities:

- a) oversee the requirements of other construction-related permits, such as [Aquatic Resources Alteration Permit](#) (ARAP) or Corps of Engineers permit for construction activities in or around [waters of the state](#);
- b) update field [SWPPPs](#);
- c) conduct pre-construction inspection to verify that undisturbed areas have been properly marked and initial measures have been installed; and
- d) inform the permit holder of activities that may be necessary to gain or remain in compliance with the CGP and other environmental permits.

**“Linear Project”** – is a land disturbing activity as conducted by an underground/overhead utility or highway department, including but not limited to any cable line or wire for the transmission of electrical energy; any conveyance pipeline for transportation of gaseous or liquid substance; any cable line or wire for communications; or any other energy resource transmission ROW or utility infrastructure, e.g., roads and highways. Activities include the construction and installation of these utilities within a corridor. Linear project activities also include the construction of access roads, staging areas, and borrow/spoil sites associated with the linear project. Land disturbance specific to the development of a residential and/or commercial subdivision or high-rise structures is not considered a linear project.

**“Monthly”** refers to calendar months.

**“Municipal Separate Storm Sewer System”** or **“MS4”** is defined at [40 CFR §122.26\(b\)\(8\)](#) to mean a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):

1. Owned and operated by a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section [208 of the CWA](#) that discharges to waters of the United States;

2. Designed or used for collecting or conveying stormwater;
3. Which is not a combined sewer; and
4. Which is not part of a Publicly Owned Treatment Works (POTW) as defined at [40 CFR §122.2](#).

“**NOI**” means notice of intent to be covered by this permit (see part 2 above of this permit.)

“**NOT**” means notice of termination (see part 8 above of this permit).

“**Operator**” for the purpose of this permit and in the context of stormwater associated with construction activity, means any person associated with a construction project that meets either of the following two criteria:

- a) This person has operational or design control over construction plans and specifications, including the ability to make modifications to those plans and specifications. This person is typically the owner or developer of the project or a portion of the project, and is considered the primary permittee; or
- b) This person has day-to-day operational control of those activities at a project which are necessary to ensure compliance with a [SWPPP](#) for the site or other permit conditions. This person is typically a contractor or a commercial builder who is hired by the primary permittee, and is considered a secondary permittee.

It is anticipated that at different phases of a construction project, different types of parties may satisfy the definition of “operator.”

“**Point source**” means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include introduction of pollutants from non point-source agricultural and silvicultural activities, including stormwater runoff from orchards, cultivated crops, pastures, range lands, and forest lands or return flows from irrigated agriculture or agricultural stormwater runoff.

“**Qualifying State, Tribal, or local erosion and sediment control program**” is one that includes, as defined in [40 CFR 122.44\(s\)](#):

- (i) Requirements for construction site operators to implement appropriate erosion and sediment control best management practices;
- (ii) Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;
- (iii) Requirements for construction site operators to develop and implement a stormwater pollution prevention plan. (A stormwater pollution prevention plan includes site descriptions, descriptions of appropriate control measures, copies of approved State, Tribal or local requirements, maintenance procedures, inspection procedures, and identification of non-stormwater discharges); and
- (iv) Requirements to submit a site plan for review that incorporates consideration of potential water quality impacts.

**“Quality Assurance Site Assessment”** means documented site inspection to verify the functionality and performance of the [SWPPP](#) and for determining if construction, operation and maintenance accurately comply with permit requirements, as presented in the narrative, engineering specifications; maps, plans and drawings; and details for erosion prevention, sediment control and stormwater management.

**“Registered Engineer”** and **“Registered Landscape Architect”** An engineer or landscape architect certified and registered by the [State Board of Architectural and Engineer Examiners](#) pursuant to [Section 62-202, Tennessee Code Annotated](#), to practice in Tennessee.

**“Runoff coefficient”** means the fraction of total rainfall that will appear at the conveyance as runoff. Runoff coefficient is also defined as the ratio of the amount of water that is NOT absorbed by the surface to the total amount of water that falls during a rainstorm.

**“Sediment”** means solid material, both inorganic (mineral) and organic, that is in suspension, is being transported, or has been moved from the site of origin by wind, water, gravity, or ice as a product of erosion.

**“Sediment basin”** A temporary basin consisting of an embankment constructed across a wet weather conveyance, or an excavation that creates a basin or by a combination of both. A sediment basin typically consists of a forebay cell, dam, impoundment, permanent pool, primary spillway, secondary or emergency spillway, and surface dewatering device. The size and shape of the basin depends on the location, size of drainage area, incoming runoff volume and peak flow, soil type and particle size, land cover, and receiving stream classification (i.e., impaired, HQ, or unimpaired).

**“Sedimentation”** means the action or process of forming or depositing sediment.

**“Significant contributor of pollutants to waters of the state”** means any discharge containing pollutants that are reasonably expected to cause or contribute to an impairment of receiving stream water quality or designated uses.

**“Soil”** means the unconsolidated mineral and organic material on the immediate surface of the earth that serves as a natural medium for the growth of plants.

**“Steep Slope”** A natural or created slope of 35% grade or greater. Designers of sites with steep slopes must pay attention to stormwater management in the [SWPPP](#) to engineer runoff non-erosively around or over a steep slope. In addition, site managers should focus on erosion prevention on the slope(s) and stabilize the slope(s) as soon as practicable to prevent slope failure and/or sediment discharges from the project.

**“Stormwater”** means rainfall runoff, snow melt runoff, and surface runoff and drainage.

**“Stormwater associated with industrial activity”** is defined at [40 CFR 122.26\(b\)\(14\)](#) and incorporated here by reference. Most relevant to this permit is [40 CFR 122.26\(b\)\(14\)\(x\)](#), which relates to construction activity including clearing, grading, filling and excavation activities (including borrow pits containing erodible material). Disturbance of soil for the purpose of crop production is exempted from permit requirements, but stormwater discharges from agriculture-

related activities which involve construction of structures (e.g., barn construction, road construction, pond construction, etc.) are considered associated with industrial activity. Maintenance performed to maintain the original line and grade, hydraulic capacity, or original purpose of the facility, e.g. re-clearing, minor excavation performed around an existing structure necessary for maintenance or repair, and repaving of an existing road, is not considered a construction activity for the purpose of this permit.

**“Stormwater discharge-related activities”** include: activities which cause, contribute to, or result in point source stormwater pollutant discharges, including but not limited to: excavation, site development, grading and other surface disturbance activities; and measures to control stormwater including the siting, construction and operation of best management practices (BMPs) to control, reduce or prevent stormwater pollution.

**“Stormwater Pollution Prevention Plan”(SWPPP):** A written plan required by this permit that includes site map(s), an identification of construction/contractor activities that could cause pollutants in the stormwater, and a description of measures or practices to control these pollutants. It must be prepared and approved before construction begins. In order to effectively reduce erosion and sedimentation impacts, Best Management Practices (BMPs) must be designed, installed, and maintained during land disturbing activities. The SWPPP should be prepared in accordance with the [Tennessee Erosion and Sediment Control Handbook](#). The handbook is designed to provide information to planners, developers, engineers, and contractors on the proper selection, installation, and maintenance of BMPs. The handbook is intended for use during the design and construction of projects that require erosion and sediment controls to protect [waters of the state](#). It also aids in the development of SWPPPs and other reports, plans, or specifications required when participating in Tennessee's water quality regulations.

**“Take”** of an endangered species means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct.

**“Temporary stabilization”** is achieved when vegetation and/or a non-erodible surface have been established on the area of disturbance and construction activity has temporarily ceased. Under certain conditions, temporary stabilization is required when construction activities temporarily cease. However, if future construction activity is planned, permit coverage continues.

**“Total maximum daily load” (TMDL)** The sum of the individual wasteload allocations for point sources and load allocations for nonpoint sources and natural background ([40 CFR 130.2\(I\)](#)). TMDL is a study that: quantifies the amount of a pollutant in a stream, identifies the sources of the pollutant, and recommends regulatory or other actions that may need to be taken in order for the stream to cease being polluted. Some of the actions that might be taken are:

- 1.) Re-allocation of limits on the sources of pollutants documented as impacting streams. It might be necessary to lower the amount of pollutants being discharged under NPDES permits or to require the installation of other control measures, if necessary, to ensure that water quality standards will be met.
- 2.) For sources over which the division does not have regulatory authority, such as ordinary agricultural or forestry activities, provide information and technical assistance to other state and federal agencies that work directly with these groups to install appropriate Best Management Practices (BMPs).

Even for impacted streams, TMDL development is not considered appropriate for all bodies of water: if enforcement has already been taken and a compliance schedule has been developed; or if best management practices have already been installed for non-regulated activities, the TMDL is considered not applicable. In cases involving pollution sources in other states, the recommendation may be that another state or EPA perform the TMDL. TMDLs can also be described by the following equation:

TMDL = sum of non point sources (LA)+ sum of point sources (WLA)+ margin of safety

A list of completed TMDLs that have been approved by EPA can be found at our web site:

<http://tn.gov/environment/wpc/tmdl/approved.shtml>

**“Turbidity”** is the cloudiness or haziness of a fluid caused by individual particles (suspended solids) that are generally invisible to the naked eye, similar to smoke in air.

**“Waters”** or **“waters of the state”** means any and all water, public or private, on or beneath the surface of the ground, which are contained within, flow through, or border upon Tennessee or any portion thereof except those bodies of water confined to and retained within the limits of private property in single ownership which do not combine or effect a junction with natural surface or underground waters.

**“Waste site”** is an area where material from a construction site is disposed of. When the material is erodible, such as soil, the site must be treated as a construction site.

**“Wet weather conveyances”** are man-made or natural watercourses, including natural watercourses that have been modified by channelization that flow only in direct response to precipitation runoff in their immediate locality; whose channels are at all times above the ground water table; that are not suitable for drinking water supplies; and in which hydrological and biological analyses indicate that, under normal weather conditions, due to naturally occurring ephemeral or low flow there is not sufficient water to support fish or multiple populations of obligate lotic aquatic organisms whose life cycle includes an aquatic phase of at least two months. (Rules and Regulations of the State of Tennessee, Chapter [1200-4-3-.04\(3\)](#)).

## 11. LIST OF ACRONYMS

ARAP	Aquatic Resource Alteration Permit
BMP	Best Management Practice
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CGP	Construction General Permit
CWA	Clean Water Act
EFO	Environmental Field Office
EPA	(U.S.) Environmental Protection Agency
EPSC	Erosion Prevention and Sediment Control
MS4	Municipal Separate Storm Sewer System
NOC	Notice of Coverage
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
ONRW	Outstanding National Resource Waters

Tennessee General Permit No. TNR100000  
Stormwater Discharges from Construction Activities

POTW	Publicly Owned Treatment Works
SWPPP	Stormwater Pollution Prevention Plan
TDEC	Tennessee Department of Environment and Conservation
TDOT	Tennessee Department of Transportation
TMDL	Total Maximum Daily Load
TMSP	Tennessee Multi-Sector General Permit for the Discharge of Stormwater from an Industrial Activity
TVA	Tennessee Valley Authority
TWQCA	Tennessee Water Quality Control Act
UIC	Underground Injection Control
USGS	United States Geological Survey

(End of body of permit; appendices follow.)

**APPENDIX A – Notice of Intent (NOI) Form**  
(next page)



TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

Division of Water Pollution Control

6th Floor Annex, L&C Tower, 401 Church Street, Nashville, Tennessee 37243

1-888-891-8332 (TDEC)

Notice of Intent (NOI) for General NPDES Permit for Stormwater Discharges from Construction Activities (TNR100000)

Form section containing Site or Project Name, NPDES Tracking Number, Street Address or Location, Construction Start Date, Site Description, Latitude/Longitude, County/Jurisdiction, Acres Disturbed, and receiving waters information.

Name of Site Owner or Developer (Site-Wide Permittee): (person, company, or legal entity that has operational or design control over construction plans and specifications)

Site Owner or Developer Contact Name: (individual responsible for site) Title or Position: (the party who signs the certification below):

Mailing Address: City: State: Zip:

Phone: Fax: E-mail:

Optional Contact: Title or Position:

Mailing Address: City: State: Zip:

Phone: Fax: E-mail:

Owner or Developer Certification: (must be signed by president, vice-president or equivalent, or ranking elected official) (Primary Permittee)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Owner or Developer Name: (print or type) Signature: Date:

Contractor(s) Certification: (must be signed by president, vice-president or equivalent, or ranking elected official) (Secondary Permittee)

I certify under penalty of law that I have reviewed this document, any attachments, and the SWPPP referenced above. Based on my inquiry of the construction site owner/developer identified above and/or my inquiry of the person directly responsible for assembling this NOI and SWPPP, I believe the information submitted is accurate.

Primary contractor name and address: (print or type) Signature: Date:

Other contractor name and address: (print or type) Signature: Date:

Other contractor name and address: (print or type) Signature: Date:

OFFICIAL STATE USE ONLY

Form section for official state use only, including Received Date, Reviewer, Field Office, Permit Number TNR, Exceptional TN Water, Fee(s), T & E Aquatic Flora and Fauna, Impaired Receiving Stream, and Notice of Coverage Date.

**APPENDIX B – Notice of Termination (NOT) Form**  
(next page)



**TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC)**

Division of Water Pollution Control (WPC)

6<sup>th</sup> Floor Annex, L&C Tower, 401 Church Street, Nashville, Tennessee 37243

1-888-891-TDEC (8332)

**Notice of Termination (NOT) for General NPDES Permit for Stormwater Discharges from Construction Activities (CGP)**

This form is required to be submitted when requesting termination of coverage from the CGP. The purpose of this form is to notify the TDEC that either all stormwater discharges associated with construction activity from the portion of the identified facility where you, as an operator, have ceased or have been eliminated; or you are no longer an operator at the construction site. Submission of this form shall in no way relieve the permittee of permit obligations required prior to submission of this form. Please submit this form to the local WPC Environmental Field Office (EFO) address (see table below). For more information, contact your local EFO at the toll-free number 1-888-891-8332 (TDEC).

**Type or print clearly, using ink and not markers or pencil.**

<b>Site or Project Name:</b>	<b>NPDES Tracking Number: TNR</b>
Street Address or Location:	County(ies):

<b>Name of Permittee Requesting Termination of Coverage:</b>			
Permittee Contact Name :		Title or Position:	
Mailing Address:	City:	State:	Zip:
Phone: (      )	E-mail:		

**Check the reason(s) for termination of permit coverage:**

<input type="checkbox"/>	Stormwater discharge associated with construction activity is no longer occurring and the permitted area has a uniform 70% permanent vegetative cover OR has equivalent measures such as rip rap or geotextiles, in areas not covered with impervious surfaces.
<input type="checkbox"/>	You are no longer the operator at the construction site (i.e., termination of site-wide, primary or secondary permittee coverage).

**Certification and Signature:** (must be signed by president, vice-president or equivalent ranking elected official)

I certify under penalty of law that either: (a) all stormwater discharges associated with construction activity from the portion of the identified facility where I was an operator have ceased or have been eliminated or (b) I am no longer an operator at the construction site. I understand that by submitting this notice of termination, I am no longer authorized to discharge stormwater associated with construction activity under this general permit, and that discharging pollutants in stormwater associated with construction activity to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by a NPDES permit. I also understand that the submittal of this notice of termination does not release an operator from liability for any violations of this permit or the Clean Water Act.

For the purposes of this certification, elimination of stormwater discharges associated with construction activity means that all disturbed soils at the portion of the construction site where the operator had control have been finally stabilized, the temporary erosion and sediment control measures have been removed, and/or the site or portions of the site have obtained permit coverage by subsequent operators or that all stormwater discharges associated with construction activities from the identified site that are authorized by a NPDES general permit have otherwise been eliminated from the portion of the construction site where the operator had control.

Permittee name (print or type):	Signature:	Date:
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EFO	Street Address	Zip Code	EFO	Street Address	Zip Code
Memphis	8383 Wolf Lake Drive, Bartlett, TN	38133	Cookeville	1221 South Willow Ave.	38506
Jackson	1625 Hollywood Drive	38305	Chattanooga	540 McCallie Avenue STE 550	37402
Nashville	711 R S Gass Boulevard	37243	Knoxville	3711 Middlebrook Pike	37921
Columbia	1421 Hampshire Pike	38401	Johnson City	2305 Silverdale Road	37601

**APPENDIX C – Twice-Weekly Inspection Report Form**  
(next page)



**TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC)**

Division of Water Pollution Control (WPC)

6<sup>th</sup> Floor Annex, L&C Tower, 401 Church Street, Nashville, Tennessee 37243

1-888-891-8332 (TDEC)

**General NPDES Permit for Stormwater Discharges from Construction Activities (CGP)**

**CGP Inspection Worksheet for Twice-Weekly Inspections of Erosion Prevention and Sediment Controls**

<b>Site or Project Name:</b>		<b>NPDES Tracking Number: TNR</b>
Primary Permittee Name:		Date of Inspection:
Current approximate disturbed acreage:	Has daily rainfall been documented? <input type="checkbox"/> Yes <input type="checkbox"/> No	Name of Inspector:
Current weather/site conditions:		Inspector's TNEPSC Certification Number:

**Please check the box if the following items are on-site:**

- Notice of Coverage (NOC)     
  Stormwater Pollution Prevention Plan (SWPPP)     
  Twice weekly inspection documentation  
 Site contact information     
  Rain Gage     
  Off-site Reference Rain Gage Location: \_\_\_\_\_

**Best Management Practices (BMPs):**

**Are the Erosion Prevention and Sediment Controls (EPSCs) functioning correctly in the following locations:**

1.	Disturbed areas/material storage areas	<input type="checkbox"/> Yes	<input type="checkbox"/> No
2.	Outfall points (or nearest accessible downstream point if an outfall is inaccessible)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
3.	Construction ingress/egress points	<input type="checkbox"/> Yes	<input type="checkbox"/> No

If the answer is "No" for any of the above, please describe the problem and corrective actions to be taken. Otherwise, describe any pertinent observations:

4.	Are (EPSCs) installed and maintained in the field per SWPPP? If "No", describe below.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
5.	Have site discharges caused an objectionable color contrast in the receiving stream (Permit section 5.3.2)? If "Yes", describe below the measures implemented to eliminate contrast.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
6.	Have discharges from dewatering activities been managed by appropriate controls per Section 4.1.4 of the Permit? If "No", describe below the measures to be implemented to achieve compliance.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
7.	If construction activity at any location on-site has temporarily/permanently ceased, was the area stabilized within 15 days per Section 3.5.3.2? If "No", describe below each location and measures taken to stabilize the area(s).	<input type="checkbox"/> Yes	<input type="checkbox"/> No
8.	Are non-stormwater discharges (per Section 1.2.3) and housekeeping measures such as storing chemicals, construction related debris litter, oils, fuels, building products, truck wash (per Section 3.5.3.1 (f) and (g)) being properly managed? If "No", describe below the measures to be implemented to achieve compliance.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
9.	If a concrete washout facility is located on site, is it clearly identified on the project and maintained? If "No", describe below the measures to be implemented to achieve compliance.	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No
10.	Have all previous deficiencies been addressed? If not, describe the remaining deficiencies. <input type="checkbox"/> Check if deficiencies/corrective measures have been reported on a previous form.	<input type="checkbox"/> Yes	<input type="checkbox"/> No

**Certification and Signature** (must be signed by the certified inspector and the permittee per Sections 3.5.8.2 (g) and 7.7.2 of the CGP)

I certify under penalty of law that this report and all attachments are, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Inspector Name and Title (print or type):	Signature:	Date:
Permittee Name and Title (print or type):	Signature:	Date:

## CGP Inspection Worksheet for Twice-Weekly Inspections of Erosion Prevention and Sediment Controls

### Purpose of this form/ Instructions

An inspection, as described in section 3.5.8.2. of the General Permit for Stormwater Discharges from Construction Activities ("Permit"), shall be performed at least twice every calendar week and documented on this form. Inspections shall be performed at least 72 hours apart. Where sites or portion(s) of construction sites have been temporarily stabilized, or runoff is unlikely due to winter conditions (e.g., site covered with snow or ice), such inspection only has to be conducted once per month until thawing results in runoff or construction activity resumes.

Inspectors performing the required twice weekly inspections must have an active certification by completing the "Fundamentals of Erosion Prevention and Sediment Control Level I" course. (<http://www.tnepsc.org/>). A copy of the certification or training record for inspector certification should be kept on site.

Qualified personnel, as defined in section 3.5.8.1 of the Permit (provided by the permittee or cooperatively by multiple permittees) shall inspect disturbed areas of the construction site that have not been finally stabilized, areas used for storage of materials that are exposed to precipitation, structural control measures, locations where vehicles enter or exit the site, and each outfall.

Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the site's drainage system. Erosion prevention and sediment control measures shall be observed to ensure that they are operating correctly.

Outfall points (where discharges leave the site and/or enter waters of the state) shall be inspected to determine whether erosion prevention and sediment control measures are effective in preventing significant impacts to receiving waters. Where discharge locations are inaccessible, nearby downstream locations shall be inspected. Locations where vehicles enter or exit the site shall be inspected for evidence of offsite sediment tracking.

Based on the results of the inspection, any inadequate control measures or control measures in disrepair shall be replaced or modified, or repaired as necessary, before the next rain event if possible, but in no case more than 7 days after the need is identified.

Based on the results of the inspection, the site description identified in the SWPPP in accordance with section 3.5.1 of the Permit and pollution prevention measures identified in the SWPPP in accordance with section 3.5.2 of the Permit, shall be revised as appropriate, but in no case later than 7 days following the inspection. Such modifications shall provide for timely implementation of any changes to the SWPPP, but in no case later than 14 days following the inspection.

All inspections shall be documented on this Construction Stormwater Inspection Certification form. Alternative inspection forms may be used as long as the form contents and the inspection certification language are, at a minimum, equivalent to the division's form and the permittee has obtained a written approval from the division to use the alternative form. Inspection documentation will be maintained on site and made available to the division upon request. Inspection reports must be submitted to the division within 10 days of the request. If the division requests the Construction Stormwater Inspection Certification form to be submitted, the submitted form must contain the printed name and signature of the trained certified inspector and the person who meets the signatory requirements of section 7.7.2 of the Permit.

Trained certified inspectors shall complete inspection documentation to the best of their ability. Falsifying inspection records or other documentation or failure to complete inspection documentation shall result in a violation of this permit and any other applicable acts or rules.

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## 7. Environmental Permits



**STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION**

**ENVIRONMENTAL DIVISION**  
SUITE 900, JAMES K. POLK BUILDING  
505 DEADERICK STREET  
NASHVILLE, TENNESSEE 37243-1402  
(615) 741-3655

**JOHN C. SCHROER**  
COMMISSIONER

**BILL HASLAM**  
GOVERNOR

September 2, 2015

Mr. Scotty Sorrells  
Tennessee Department of Environment and Conservation  
Division of Water Supply  
11th Floor William R. Snodgrass Tennessee Tower  
312 Rosa L. Parks Avenue  
Nashville, Tennessee 37243

Subject: Project # 60010-1216-94  
Fed # STP-H-NH-99(43)  
PIN 119066.00  
State Route 99 / US-412  
Intersection at Patterson Drive in Columbia  
Maury County

Dear Mr. Sorrells:

In accordance with Tennessee Department of Environment and Conservation's Rule 1200-4-6 regarding Class V Injection Wells, this office is providing a portion of the USGS quad map for Carters Creek, TN (64-NW) showing the location of two sinkholes, and an application for the Authorization for Class V Underground Injection Well and a half-size set of plan sheets showing the sinkhole location and treatment plan.

The attached application is for two (2) sinkholes located on the subject project. The treatment plan for sinkhole #2 is included in the Geotechnical report and in the plan sheets. Sinkhole #1 does not require a sinkhole treatment plan.

The Department does not intend to utilize these sinkholes as drainage structures, other than for water currently flowing toward them under existing conditions.

If the authorization will contain any special conditions other than those contained in the enclosed materials, please provide us with a draft copy for our review, prior to your final issuance.

This project is currently scheduled for the December 4, 2015 letting. We would greatly appreciate your initial review and request for any additional information needed, within 30 days of receipt of our application; and issuance of the permit as soon as possible.

Mr. Scotty Sorrells  
September 2, 2015  
Page 2

Please advise us if you have any questions or if we can be of any assistance.

Sincerely,



Anthony R. Myers  
Senior Transportation Project Specialist, Environmental Permits Section

Enclosures

ARM: BCS: pc

cc: Mr. Jay Norris, HQ Construction Office (via email)  
Mr. Jamie Fitzpatrick, HQ Construction Office (via email)  
Mr. Jason Blankenship, HQ Construction Office (via email)  
Ms. Lori Lange, Region 3 Project Development (via email)  
Ms. Rachel Gentry, Region 3 Project Development (via email)  
Mr. Mike Brown, Region 3 Construction (via email)  
Ms. Kim Bramlett, Region 3 Construction (via email)  
Mr. David Sizemore, Region 3 Environmental Coordinator (via email)  
Mr. Shane Hester, Region 3 Design Manager (via email)  
Ms. DJ Wiseman, Natural Resources Office (via email)  
Mr. Brian Lee, Palmer Engineering, SWPPP Consultant (via email)  
Permit File



**TENNESSEE DEPARTMENT OF ENVIRONMENT & CONSERVATION  
DIVISION OF WATER SUPPLY 6<sup>th</sup> Floor, 401 Church Street Nashville, Tennessee 37243**

**APPLICATION FOR AUTHORIZATION TO OPERATE A CLASS V UNDERGROUND INJECTION WELL OR  
STORM WATER DISCHARGE TO THE SUBSURFACE OR MODIFICATION OF A KARST FEATURE**

In accordance with the provisions of Tennessee Code Annotated Section 69-3-105 and Regulations of the Tennessee Water Quality Control Board, application is hereby made to operate:

- Class V Underground Injection Well       Discharge of Storm Water into the Subsurface       Modification of Existing Karst Feature

**Part A - General Information**

Project PIN 119066.00

Name and Address and of Facility/Well <b>SR-99 / US-412, Intersection at Patterson Drive in Columbia</b>		Name and Address of Operator/Owner/Contractor <b>Tennessee Department of Transportation (see below for address)</b>					
State <b>Tennessee</b>	County <b>Maury</b>	Telephone Number <b>(615) 741-2612</b>					
Location (decimal degrees) for additional points attach on separate sheet <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">Latitude</td> <td><b>35.6367(SNK-2), 35.6367(SNK-1)</b></td> </tr> <tr> <td>Longitude</td> <td><b>-86.9944(SNK-2), -86.9922(SNK-1)</b></td> </tr> </table>		Latitude	<b>35.6367(SNK-2), 35.6367(SNK-1)</b>	Longitude	<b>-86.9944(SNK-2), -86.9922(SNK-1)</b>	Describe the activities conducted by the applicant which require it to obtain a Class V permit authorization  <b>Roadway widening requires that sinkhole #2 be excavated and repaired during roadway construction. Sinkhole #1 is within TDOT ROW but does not require a treatment plan. However, roadway storm water could enter sinkhole #1.</b>	
Latitude	<b>35.6367(SNK-2), 35.6367(SNK-1)</b>						
Longitude	<b>-86.9944(SNK-2), -86.9922(SNK-1)</b>						
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Quadrangle Name <b>Carters Creek 64-NW</b></td> <td style="width:50%;">Ground elevation at well location <b>613 (both sinkholes)</b></td> </tr> </table>		Quadrangle Name <b>Carters Creek 64-NW</b>	Ground elevation at well location <b>613 (both sinkholes)</b>	Type of Business <input type="checkbox"/> Federal <input type="checkbox"/> Public <input type="checkbox"/> Government <input checked="" type="checkbox"/> State <input type="checkbox"/> Private <input type="checkbox"/> Other			
Quadrangle Name <b>Carters Creek 64-NW</b>	Ground elevation at well location <b>613 (both sinkholes)</b>						
List up to four North American Industry Classification System (NAICS) codes which best reflect the principal products or services provided by the facility  <b>23411</b>		Nature of Business: <b>Highway system for public use.</b>					
Is the facility located on Indian Lands? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  Mode of operation <input type="checkbox"/> continuous <input type="checkbox"/> intermittent <input checked="" type="checkbox"/> repair		Name, address, telephone number of legal contact or person responsible for the operation of the Class V injection well or facility:  <b>Jim Ozment 505 Deaderick Street, Suite 900 James K Polk Building Nashville, TN 37243-0334 (615) 741-2612</b>					
Permit Status: <input type="checkbox"/> a. new well or facility <input checked="" type="checkbox"/> b. modification of existing well or facility <input type="checkbox"/> c. reapplication for previously permitted well or facility		List all other permits or construction approvals received or applied for under any of the following programs					
		Type	Date Issued	Permit Number			
a	<input type="checkbox"/>	Hazardous waste management program under federal or state law					
b	<input type="checkbox"/>	UIC program under federal or state law					
c	<input checked="" type="checkbox"/>	NPDES program under federal or state law	<b>Pending</b>	<b>Pending</b>			
d	<input type="checkbox"/>	Prevention of Significant Deterioration (PSD) program under federal or state law					
e	<input type="checkbox"/>	Nonattainment area program under federal or state law					
f	<input type="checkbox"/>	National Emission Standards for Hazardous Pollutants (NESHAPS) preconstruction approval under federal or state law					
g	<input type="checkbox"/>	Ocean dumping permits under the Marine Protection Research and Sanctuaries Act					
h	<input type="checkbox"/>	Dredge and fill permits under Section 404 of the Clean Water Act, 33 U.S.C. 1344					
i	<input type="checkbox"/>	Comprehensive Environmental Response, Compensation and Liability Act (Federal Superfund) or Tennessee Hazardous Waste Management Act (Tennessee Superfund)					
j	<input type="checkbox"/>	UST program under federal or state law					
k	<input type="checkbox"/>	Groundwater Protection permits from Tennessee Division of Ground Water Protection					
l	<input type="checkbox"/>	Other relevant environmental permits					

**Part B - Facility Description**

Nature, type or purpose of injection well: <b>No discharge to subsurface is proposed</b>	Description of injection well or facility, including monitoring wells and other associated structures (attach additional information or diagrams, if necessary) <b>N/A</b>												
Depth of injection zone: <b>N/A</b> feet below ground level	Operating status of well or facility <input checked="" type="checkbox"/> proposed <input type="checkbox"/> active <input type="checkbox"/> inactive <input type="checkbox"/> abandoned												
Date injection began (if not in operation, projected date of beginning) _____  If inactive or abandoned well, approximate date injection ceased <b>N/A</b>	Operating parameters of injection well <table border="1"> <tr> <td>a.</td> <td>fluid flow</td> <td>_____ gpm</td> </tr> <tr> <td>b.</td> <td>fluid pressure</td> <td>_____ psig</td> </tr> <tr> <td>c.</td> <td>fluid temperature</td> <td>_____ Celsius</td> </tr> <tr> <td>d.</td> <td>other significant operating information (attach additional information or diagrams, if necessary):</td> <td>_____</td> </tr> </table>	a.	fluid flow	_____ gpm	b.	fluid pressure	_____ psig	c.	fluid temperature	_____ Celsius	d.	other significant operating information (attach additional information or diagrams, if necessary):	_____
a.	fluid flow	_____ gpm											
b.	fluid pressure	_____ psig											
c.	fluid temperature	_____ Celsius											
d.	other significant operating information (attach additional information or diagrams, if necessary):	_____											
For previously active facilities, give history of injection or operation <b>N/A</b>	Nature of injected fluid, including physical, chemical, biological and/or radiological properties <b>N/A</b>												
Volume of injected fluid/amount of fill material per well or feature _____ gallons    _____ cubic yards _____ per day    _____ per month    _____ per year	Type of injection <input type="checkbox"/> pump <input type="checkbox"/> gravity <input type="checkbox"/> fill only Description of pump(s): <b>N/A</b>												
Origin of injected fluid or fill material <b>N/A</b>	Description of treatment of fluid or fill prior to injection <b>N/A</b>												

**Part C - Description of Area of Review**

The area of review (AOR) for each authorized or permitted Class V injection well shall, unless otherwise specified by the Department, consist of the area lying within and below a one mile radius of the injection well pump site or facility, and shall include, but not be limited to surface geographic features, subsurface geology, and demographic and cultural features within the area. Attach to this part of the application a complete characterization of the AOR, including the following:

- Description of all past and present uses of groundwater within the AOR, as documented by public record.  
 Commercial     Residential     Agriculture     Industrial
- Description of general direction of groundwater movement in the AOR. \_\_\_\_\_
- Description of the population and cultural development within the AOR, including the number of persons living within one mile of the well or facility, land uses within the AOR, and the existence of any community, state, regional or national parks, wildlife refuges, natural or wilderness areas, recreational or other public-use areas, or any other environmentally sensitive features within the area of review.  Commercial     Residential     Agriculture     Industrial     Mixed
- Identify all sources of publicly-supplied drinking water for persons living or working within the AOR. \_\_\_\_\_
- Identify any single or multi-family residences, churches, schools, businesses or other inhabited structures within the AOR which do not have access to a public drinking water supply system locate on Attachment 1.
- If groundwater is used for drinking water within the area of review, then identify and locate on Attachment 1, all groundwater withdrawal points within the AOR which supply public or private drinking water systems.
- Identify any surface water bodies or features within the area of review which may be impacted by groundwater discharge to surface waters locate on Attachment 1.
- Identify any surface water intake which supplies a public water distribution system and is located within the AOR or within three miles topographically down gradient from the well or facility. If any such intake(s) exist, then locate on Attachment 1.

**Attachments**

- USGS topographic quadrangle map showing the location of the Class V injection well or facility and a one-mile radius area surrounding the well or facility.

2. Schematic diagram of the injection well showing construction details and materials of the injection well.
3. Chemical analysis data of injection fluid, if required.
4. Process description of the treatment or other process which is the source of the injection fluid, if required.
5. Procedure for operation and maintenance of the injection well or facility, if required.
6. Geologic/hydrogeologic information collected during the planning, construction and design phases of the facility and injection well.
7. Blueprints from the facility showing the injection well and portions of the facility which will or may contribute injectate to the injection well, including storm runoff waters.
8. Construction diagrams depicting erosion and sediment controls.

**Part D - Signature and Certification**

This application should be signed by a person having responsibility for the operation of the injection well or facility as follows:

1. For a corporation, by a responsible corporate officer (i.e., president, secretary, treasurer, vice-president, or equivalent person) who performs policy or decision making functions; or
2. The manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million if authority to sign documents has been assigned or delegated to the manager in accordance with operating procedures; or
3. For a partnership, by a general partner or the proprietor; or
4. By a duly authorized representative (a duly authorized representative may be either a named individual or any individual occupying a named position) only if:
  - a. The authorization is made in writing by a person described in (1), (2), or (3) above;
  - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or well field, superintendent, or position of equivalent responsibility, or
  - c. For municipality, state, federal, or other public agency by either a principal executive officer or ranking elected official.
5. The owner of the property or facility on which the injection well is located.

I certify under penalty of law I have personally examined and am familiar with the information submitted in the attached document; and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Jim Ozment, Environmental Division Director

\_\_\_\_\_  
Name & Title (print or type)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
License No.

09-02-2015

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name & Title (print or type)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
License No.

\_\_\_\_\_  
Date



Approximate Location  
Sinkhole #2  
Long: -86.9944W  
Lat: 35.6367N  
SR-99, US-412  
Maury County

Approximate Location  
Sinkhole #1  
Long: -86.9922W  
Lat: 35.6367N  
SR-99, US-412  
Maury County

CARTERS CREEK QUADRANGLE 64-NW  
APPLICATION BY:  
TENNESSEE DEPARTMENT OF TRANSPORTATION

Project #60010-1216-94  
PIN 119066.00  
SR 99 / US 412  
Sinkhole Mitigation  
Maury County  
Near: Columbia, Tennessee

0 2,000 4,000 6,000 8,000 Feet

**GEOTECHNICAL ENGINEERING**  
**DIVISION OF MATERIALS AND TESTS**



**SOILS AND GEOLOGY REPORT**  
**STATE ROUTE 99**  
**INTERSECTION AT PATTERSON DRIVE**  
**IN COLUMBIA**  
**L.M. 18.14 TO L.M. 18.34**  
**STATE PROJECT NO. 60010-0216-94**  
**PIN NO. 119066.00**  
**MAURY COUNTY**



**GEOTECHNICAL REPORT**  
S.R.99  
Intersection at Patterson Drive  
In Columbia L.M. 18.14 to L.M. 18.34  
State Project No. 60010-0216-94  
Pin No. 119066.00  
Maury County

Executive Summary

Summarized in this report are the results of a geotechnical investigation for the above project located in Maury County. This investigation was conducted to determine the geologic setting and conditions for the improvements of the existing intersection. These improvements consist of widening S.R.99 within the project limits to include a center turn lane to facilitate the entrance onto Patterson Drive. Geotechnical recommendations are also provided for design.

The present layout sheet of the ROW plans show that a sinkhole is located within the toe of the cut slope near Station 69+30, approximately 50 feet left of centerline. However this depression is directly above an existing sewer line and may be the result of a damaged utility pipe. If the depression is indeed a sinkhole, the approximate sinkhole location shall be excavated and repaired by using Sinkhole treatment 1, Active as shown in the attached soil sheets. This repair may require the relocation of the sewer line through this area. There is another sinkhole located near Station 76+20 approximately 100 feet left of centerline. This sinkhole is outside the limits of construction, therefore no mitigation treatment is recommended.

A CBR value of 5.0 is recommended for pavement design provided the subgrade is compacted according to specifications.

## Introduction

This report presents the results of a geotechnical investigation conducted to determine the geologic setting and conditions for the improvements of the S.R. 99 intersection at Patterson Drive in Maury County. These improvements consist of widening S.R.99 within the project limits to include a center turn lane to facilitate the entrance to Patterson Drive. Ditchline cuts reach a depth of five feet and the embankment slopes reach a maximum of two feet on this project.

## Geology of Area

The project is located in the city of Columbia, which lies within the Interior Low Plateau province, in the terraces and bottom lands of the Duck River Valley. The underlying material in this area is made up of Ordovician aged limestone from the Carters Formation. This limestone is medium light-gray to brownish-gray in color, very fine-grained to crypto-crystalline and is thin-bedded with shale partings. The project area has both residential and commercial establishments.

## Soil/Rock Conditions

Because of the shallow depths and heights of the proposed slopes, no borings were drilled at this project location.

A sinkhole is shown in the present layout of the Right-Of-Way plans at station 69+30 left of centerline, near the toe of the cut slope. Visual observation revealed that the depression is associated with karst or sinkhole activity, or possibly a damaged sewer line. The sinkhole is approximately 2 feet long, 3 feet wide and 1.5 feet deep.

The project area was dry at the time of the investigation. There was no sign of drainage problems or erosion in the immediate area. Difficulties during roadway construction are believed to be minimal along the present right-of-way.

## Recommendations

### Station 65+85 to Station 69+50

This portion of the proposed intersection consists of embankment fills up to 2 feet in height. The recommended slope design for this project is 3:1 or flatter as shown in the cross-sections of the R.O.W. plans.

A sliver fill is located left of centerline near station 68+50. Pre-benching of the existing slope is required prior to fill placement for existing slopes steeper than 4:1. This pre-benching shall occur left of centerline from Station 68+25 to Station 69+00. Refer to cross-section Station 68+50.00.

The present layout sheet of the ROW plans show that a potential sinkhole is located within the toe of the cut slope near Station 69+30, approximately 50 feet left of centerline. However this depression is directly above a sewer line. This dropout may be the result of a damaged utility pipe. It is recommended to carefully excavate the dropout area to determine the true source of this depression. If the sewer pipe is damaged, it is recommended that the pipe be properly repaired or replaced then the excavation can be backfilled with common roadway embankment. If the depression is indeed a sinkhole, using a temporary construction slope of 1:1, it is recommended that this sinkhole be excavated to a defined opening in bedrock, making sure to remove all soil and debris from the opening or throat of the sinkhole. To maintain ventilation, the throat shall be partially blocked with large keystone rocks. These rocks shall be large enough to lock in place, but shall not provide an airlock that would prevent subsurface drainage. A layer of geotextile fabric (Type IV, Item No. 740-10.04) shall then line the excavated surface. Following the placement of the geotextile fabric, Graded Solid Rock shall be backfilled to a maximum of one foot of the existing groundline. No. 57 stone or Rip Rap shall be used to bring the excavation up to grade. Refer to the attached soil sheets for further information on this repair. For quantity estimation and bidding purposes, it is recommended that this depression be assumed to be a sinkhole and require repair utilizing Sinkhole treatment 1, active. This repair may require the relocation of the sewer line through this area.

Station 69+50 to Station 77+40

This section of the proposed project contains ditch cuts left of centerline as deep as 5 feet and sliver fills right of centerline as high as 2 feet. Pre-benching of the existing slope is required prior to fill placement for existing slopes steeper than 4:1. This pre-benching shall occur right of centerline at Station 70+50 and from Station 72+50 to Station 75+00. Refer to cross-section Station 73+00. A maximum slope ratio of 3:1 or flatter as shown in the cross-sections of the R.O.W plans is recommended.

Patterson Drive Station 12+30 to Station 12+82

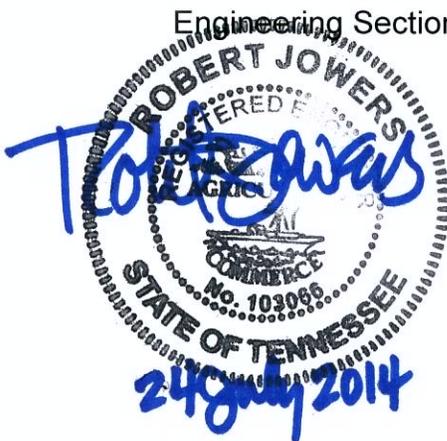
This portion of the proposed intersection contains ditch cuts left and right of centerline as deep as 5 feet and embankment fill as high as 2 feet. The recommended slope design ratio for the cut and fill slopes on this portion of the project is 3:1 or flatter as shown in the cross-sections of the R.O.W. plans.

Sliver fills are located left and right of centerline from station 12+40 to Station 12+60. Pre-benching of the existing slope is required prior to fill placement for existing slopes steeper than 4:1. This pre-benching shall occur left and right of centerline within this station interval. Refer to cross-section Station 12+50.00.

Pavement Design Recommendations

A CBR value of 5.0 is recommended for pavement design provided the subgrade is compacted according to specifications.

If there are questions concerning this report, please contact the Geotechnical Engineering Section.



Chilyere Anglin Smith  
Geologist 4

Robert Jowers, P.E.  
Civil Engineering Manager 1

RJ:CAS:CW  
July 22, 2014

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2014	STP-H-NH-99(43)	



65

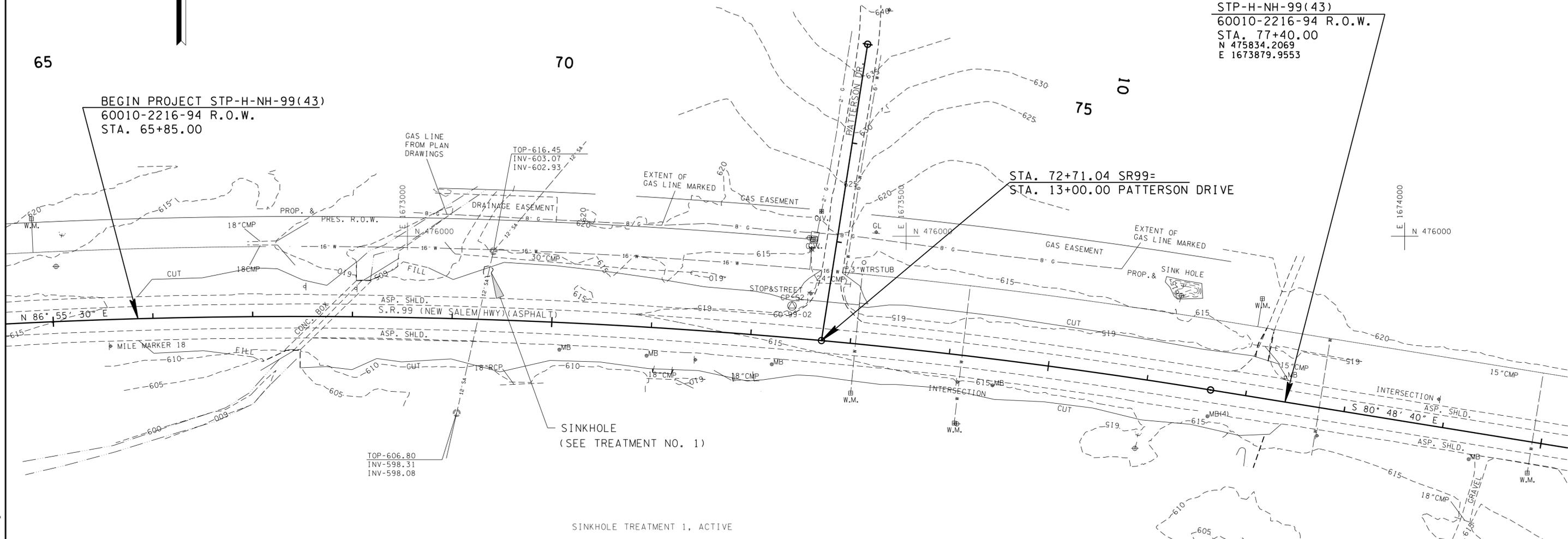
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75

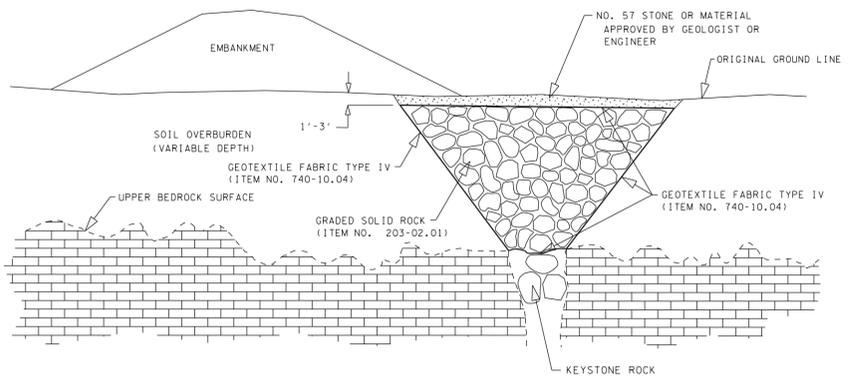
10

BEGIN PROJECT STP-H-NH-99(43)  
60010-2216-94 R.O.W.  
STA. 65+85.00

END PROJECT  
STP-H-NH-99(43)  
60010-2216-94 R.O.W.  
STA. 77+40.00  
N 475834.2069  
E 1673879.9553



SINKHOLE  
(SEE TREATMENT NO. 1)



SINKHOLE TREATMENT 1  
STATION 69+30  
APPROXIMATE 50' LEFT OF CENTERLINE

SINKHOLE TREATMENT 1, ACTIVE

NOTE: AFTER EXCAVATION IS COMPLETE AND ROCK OPENING IS EXPOSED, THE SITE AND TREATMENT METHOD SHALL BE APPROVED BY A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEERING SECTION OF THE DIVISION OF MATERIALS AND TESTS. THE TOP 1-3 FT. OF MATERIAL SHALL BE APPROVED BY A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEERING SECTION OF THE DIVISION OF MATERIALS AND TESTS.

SEQUENCE OF CONSTRUCTION:

1. EXCAVATE SINKHOLE TO DEFINE OPENING IN BEDROCK MAKING SURE TO REMOVE ALL SOIL AND DEBRIS.
2. FIT THE OPENING WITH KEYSTONE ROCK, WHICH SHALL BE OF SUFFICIENT SIZE TO LOCK IN PLACE WITHOUT CREATING AN AIRBLOCK TO SUBSURFACE DRAINAGE.
3. PLACE THE GEOTEXTILE FABRIC TYPE IV ON EXCAVATED SLOPES AND BASE OF SINKHOLE.
4. BACKFILL TO A MAXIMUM OF 1 FT. OF THE SPECIFIED GRADE WITH GRADED SOLID ROCK (CLASSIFICATION 203-02.01, BORROW EXCAVATION).
5. BACKFILL TO GRADE WITH A MINIMUM OF 1 FT. OF NO.57 STONE ON TOP OF THE GRADED SOLID ROCK AND GEOTEXTILE FABRIC TYPE IV.

EQUATION FOR ESTIMATING SINKHOLE VOLUME, WHERE THE SIDES OF THE SINKHOLE ARE AT 1:1 SLOPES.

$$VOL. 1:1 \approx 0.13D^3 - (0.5D - h)^3$$



SEALED BY

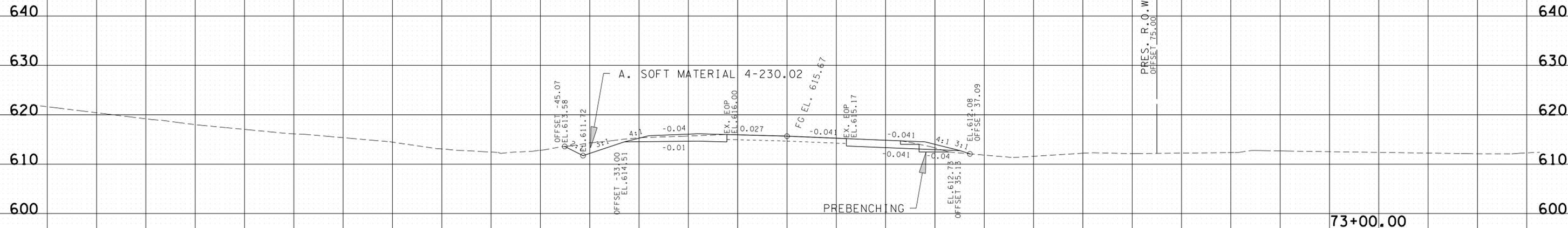
STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

**SOILS**  
STATE ROUTE 99  
SINKHOLE AREA  
MAURY COUNTY

7/22/2014 2:18:01PM N:\Geotech\Files\Region 3\60-Maury\FY2013\601813\cadd Files\1966-00-Soils&Geot 6018131.dgn

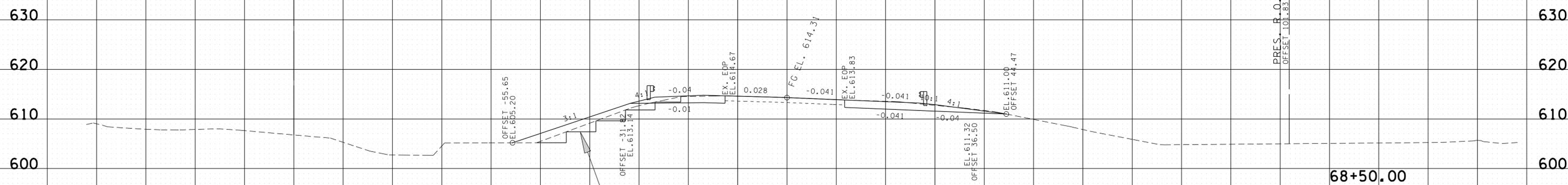
TYPE	YEAR	PROJECT NO.	SHEET NO.
	2014	STP-H-NH-99(43)	

REPRESENTATIVE OF STATION 72+50.00 TO STATION 75+00.00



NOTE:  
EXISTING EMBANKMENT TO BE PREBENCHED ACCORDING TO TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SUB SECTION 205.03 PARAGRAPH 6 (MARCH 1, 2006).

REPRESENTATIVE OF STATION 68+50.00 TO STATION 69+00.00



4-203.02  
A. SOIL MATERIAL  
SOIL MATERIAL IS MATERIAL THAT IS PREDOMINANTLY MADE UP OF NATURALLY OCCURRING MINERAL PARTICLES WHICH ARE FAIRLY READILY SEPARATED INTO RELATIVELY SMALL PIECES, AND IN WHICH THE MASS MAY CONTAIN AIR, OR ORGANIC MATERIALS. THIS MATERIAL MAY CONTAIN ROCK PIECES IN THE FORM OF DISCONNECTED SLABS, LENSES, OR BOULDERS OF LESS THAN APPROXIMATELY 0.5 CUBIC YARDS. THE MAIN SOIL GROUPS CONSIST OF CLAY, SILT, SAND, GRAVEL, COBBLES, BOULDERS (LESS THAN 0.5 CUBIC YARD VOLUME) OR A COMBINATION OF ANY OF THE CONSTITUENTS. FOR CONSTRUCTION PURPOSES, THIS MATERIAL WOULD TYPICALLY BE CONSIDERED TO BE EXCAVATABLE BY CONVENTIONAL EXCAVATION MACHINERY SUCH AS PANS, TRACK HOES, OR FRONT END EXCAVATORS/LOADERS. THIS MATERIAL WOULD HAVE A SHRINK FACTOR AS GIVEN IN THE SHRINK FACTORS SHOWN IN SECTION 2-145.10 OF THE DESIGN GUIDELINES OR AS RECOMMENDED BY THE GEOTECHNICAL ENGINEERING SECTION OF THE MATERIALS AND TESTS DIVISION.

SEALED BY

**SOILS**  
STATE ROUTE 99  
MAURY COUNTY

7/22/2014 2:19:25 PM N:\GeoTech\Files\Region 3\60-Maury\FY2013\601813\cadd Files\1966-00-Soils&Geot 601813.dgn

TENNESSEE D.O.T.  
DESIGN DIVISION

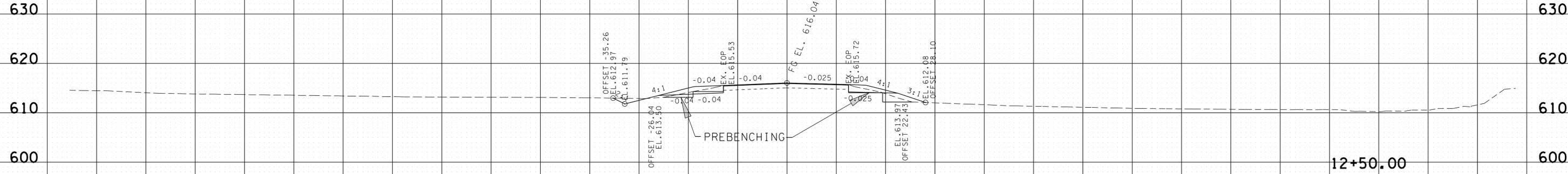
FILE NO.

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2014	STP-H-NH-99(43)	

FILE NO.  
DESIGN DIVISION  
TENNESSEE D.O.T.

REPRESENTATIVE OF STATION 12+40.00 TO STATION 12+60.00



NOTE:  
EXISTING EMBANKMENT TO BE PREBENCHED ACCORDING TO TDOT  
STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION  
SUB SECTION 205.03 PARAGRAPH 6 (MARCH 1, 2006).

SEALED BY

**SOILS**  
PATTERSON DR.  
MAURY COUNTY

7/3/2014 9:30:31AM N:\GeoTech\Files\Region 3\60-Maury\FY2013\601813\cadd files\sinkhole layout 601813.dgn

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

RECEIVED

OCT 16 2015

TDOT Environmental Division  
Permits section



STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
DIVISION OF WATER RESOURCES

William R. Snodgrass - Tennessee Tower  
312 Rosa L. Parks Avenue, 11<sup>th</sup> Floor  
Nashville, Tennessee 37243-1102

October 8, 2015

Mr. Jim Ozment  
505 Deaderick Street Suite 900  
James K. Polk Building  
Nashville, Tennessee 37243-0334

RE: State Route 99/ US 412 TDOT Project # 60010-1216-94  
UIC Number MAU 0000051

Dear Mr. Ozment:

Thank you for submitting information required to obtain an Authorization By Rule for a Class V Injection Well. Enclosed you will find the approval for the State Route 99/ US 412 TDOT Project # 60010-1216-94.

Please feel free to contact Scotty Sorrells at (615) 532-9224 or me at (615) 532-0159 regarding this correspondence.

Thank you for your cooperation.

Sincerely,

A handwritten signature in blue ink that reads "Anna R. Sartors".

Anna R. Sartors  
Drinking Water Unit Manager  
c.c. file



**STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
DIVISION OF WATER RESOURCES  
William R. Snodgrass - Tennessee Tower  
312 Rosa L. Parks Avenue, 11<sup>th</sup> Floor  
Nashville, Tennessee 37243-1102**

Authorization No. MAU 0000051

**Authorization By Rule  
For the operation of a Class V Injection System**

---

In accordance with the provision of Tennessee Code Annotated section 69-3-108 and Regulations promulgated pursuant thereto:

**PERMISSION IS HEREBY GRANTED TO**

Mr. Jim Ozment  
State route 99/US 412 TDOT Project 60010-1216-94  
505 Deaderick Street Suite 900 James K. Polk Building  
Nashville, Davidson County, Tennessee

**FOR THE OPERATION OF**

Description of system

This authorization is for two Class V Injection Wells located in the shoulder of the roadway. The Latitude and Longitude for each injection well is recorded in Part III (I) of this authorization. The applicant wishes to use the pre-approved TDOT Sinkhole Treatment 2 on one sinkhole and allow the second sinkhole to continue to accept stormwater. This is an acceptable plan for the remediation or modification of the sinkhole(s). The Division agrees with your approach to using approved erosion and sediment control procedures as contained in the Tennessee Erosion and Sediment Control Handbook.

This authorization by rule is issued as a result of the application filed on September 3, 2015, in the office of the Tennessee Division of Water Resources (DWR) Water Quality Branch, Drinking Water Unit and in conformity with approved plans, specifications and other data submitted to the Section in support of the above application, all of which are filed with and considered as a part of this authorization together with the following named conditions and requirements.

**This authorization by rule shall become effective on: October 8, 2015**

**This authorization by rule shall expire on: October 8, 2020**

**Issuance date: October 8, 2015**

**Anna R. Sartors  
Division Of Water Resources  
Water Quality Branch-Drinking Water Unit Manager**

## PART I

### A. GENERAL REQUIREMENTS

All sinkholes shall be protected from sediment and contaminated surface water runoff during construction. While the area is being stabilized, sediment control and erosion protection measures should be designed, installed and maintained according to the guidelines in the Tennessee Erosion and Sediment Control Handbook.

At no time can a karst feature be used as a sediment trap. All sinkholes and other karst features are to remain free from silt and protected from erosion.

This authorization allows the operation of a Class V Underground Injection Well. The operation should be such that there is no contamination of any subsurface stream. Any runoff due to improper operation must be reported in writing to the Division of Water Resources within five (5) days of the incident. In addition, the Class V Underground Injection Well system must be operated in a manner preventing the creation of a public health hazard or a public/private nuisance.

The Division requires a minimum of seven (7) working days written advance notice before construction on any of the karst area to allow for Division personnel to be present. Failure to do so could cause the Division to seek enforcement actions toward the owner/developer.

If other karst features are discovered at any time during the clearing or construction of the property, all work around the area is to cease. Erosion control devices are to be placed and the Division is to be notified within twenty-four (24) hours of the discovery.

All groundwater discharge activities must operate in such a manner that they do not present a hazard to groundwater.

### B. MONITORING PROCEDURES

#### 1. Representative Sampling

Samples and measurements taken in compliance with the monitoring requirements specified above shall be representative of the volume and nature of the monitored discharge, and shall be taken at the following location(s):

**No samples are required for this project. The application is to fill one sinkhole and to direct all stormwater from this facility to surface water and thereby not allowing stormwater to be directed to any structure that discharges to a sinkhole or the subsurface. The second sinkhole will continue to collect storm water.**

## **C. DEFINITIONS AS PER DIVISION RULE**

An "Injection well" means structure or device which is used for the emplacement of fluids into a subsurface stratum including, but not limited to:

- a. A well used for the emplacement of fluids;
- b. A subsurface fluid distribution system;
- c. An improved sinkhole; or
- d. Infiltration cell and any other structures or devices designed, constructed or used to emplace fluids into the subsurface, except as provided in rule 0400-45-06-.03(3).

"Pollution" means such alteration of the physical, chemical, biological, bacteriological, or radiological properties of waters of this State including, but not limited to, changes in temperature, taste, color, turbidity, or odor of the waters:

- a. As will result or will likely result in harm, potential harm or detriment of the public health, safety, or welfare;
- b. As will result or will likely result in harm, potential harm or detriment to the health of animals, birds, fish, or aquatic life;
- c. As will render or will likely render the waters substantially less useful to domestic, municipal, industrial, agricultural, recreational, or other reasonable uses; or
- d. As will leave or will likely leave the waters in such condition as to violate any standards of water quality established by Water Quality, Oil and Gas Board.

A "Sinkhole" means a naturally occurring closed depression in a karst area characterized by inward drainage (inlets) accepting runoff from the surrounding area and having no visible surface outlet.

**D. REPORTING**

Operation reports and any communication regarding compliance with the conditions of this authorization must be sent to:

STATE OF TENNESSEE  
**DEPARTMENT OF ENVIRONMENT AND CONSERVATION**  
**DIVISION OF WATER RESOURCES**  
**Drinking Water Unit**

William R. Snodgrass - Tennessee Tower  
312 Rosa L. Parks Avenue, 11<sup>th</sup> Floor  
Nashville, Tennessee 37243-1102

The first operation report is due on the 15<sup>th</sup> of the month following authorization effectiveness.

**No operation reports are due at this time.**

1. Additional Monitoring by Permittee

If the owner/operator monitors any pollutant at the location(s) designated herein more frequently than required by this authorization, using an approved analytical methods and laboratory from the approved certified laboratory list (list found at [http://www.state.tn.us/environment/water/docs/water-supply/micro\\_labs.pdf](http://www.state.tn.us/environment/water/docs/water-supply/micro_labs.pdf).) the results of such monitoring shall be included in the calculation and reporting of the values required in the Quarterly Operation Report. Such increased frequency shall also be indicated.

2. Falsifying Reports

Knowingly making any false statement on any report required by this authorization may result in the imposition of criminal penalties as provided for in Section 69-3-115 of the Tennessee Water Quality Control Act.

**E. SCHEDULE OF COMPLIANCE**

Full operational level shall be attained from the effective date of this authorization.

## PART II

### A. GENERAL PROVISIONS

#### 1. Duty to Reapply

The owner/operator is not authorized to discharge or modify any karst feature after the expiration date of this authorization. In order to receive authorization to discharge or modify any karst feature beyond the expiration date, the owner/operator shall submit such information and forms as are required to the Director of Water Resources (hereinafter the "Director") no later than 180 days prior to the expiration date.

#### 2. Right of Entry

The owner/operator shall allow the Director, or authorized representatives, upon the presentation of credentials:

- a. To enter upon the recipient's premises where an effluent source is located or where records are required to be kept under the terms and conditions of this authorization, and at reasonable times to copy these records;
- b. To inspect at reasonable times any monitoring equipment or method or any collection, treatment, pollution management, or discharge facilities required under this authorization; and
- c. To sample at reasonable times any discharge of pollutants.

#### 3. Availability of Reports

All reports prepared in accordance with the terms of this authorization shall be available for public inspection at the offices of the Division of Water Resources.

#### 4. Proper Operation and Maintenance

- a. The owner/operator shall at all times properly operate and maintain all facilities and systems (and related appurtenances) for collection and treatment which are installed or used by the owner/operator to achieve compliance with the terms and conditions of this authorization. Proper operation and maintenance also includes adequate laboratory and process controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by an owner/operator only when the operation is necessary to achieve compliance with the conditions of the authorization. Backup continuous pH and flow monitoring equipment are not required.

The monitoring frequency stated in this authorization shall not be construed as specifying a minimum level of operator attention to the facility. It is anticipated that visits to the facility by the operator will occur at intervals frequent enough to assure proper operation and maintenance, but in no case less than one visit per month. If discharge monitoring reports, DWR inspection reports, or other information indicates a problem with the facility, the owner/operator may be subject to enforcement action and/or the authorization may be modified to include increased parameter monitoring, increased monitoring frequency or other requirements as deemed necessary by the division to correct the problem.

- b. Dilution water shall not be added to comply with discharge requirements.

## 5. Property Rights

The issuance of this authorization does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

## 6. Severability

The provisions of this authorization are severable. If any provision of this authorization due to any circumstance, is held invalid, then the application of such provision to other circumstances and to the remainder of this authorization shall not be affected thereby.

## 7. Other Information

If the owner/operator becomes aware that he failed to submit relevant facts in an authorization application, or submitted incorrect information in a authorization application or in any report to the Director, then he shall promptly submit such facts or information.

## **B. CHANGES AFFECTING THE AUTHORIZATION**

### 1. Planned Changes

The owner/operator shall give notice in writing to the Director as soon as possible of any planned physical alterations or additions to the permitted facility.

### 2. Authorization Modification, Revocation, or Termination

- a. This authorization may be modified, revoked and reissued, or terminated for cause as described in section 69-03-108-(h) of the Tennessee Water Quality Control Act as amended.

- b. The owner/operator shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this authorization, or to determine compliance with this authorization. The owner/operator shall also furnish to the Director, upon request, copies of records required to be kept by this authorization.

3. Change of Ownership

This authorization may be transferred to another person by the permittee if:

- a. The owner/operator notifies the Director of the proposed transfer at least 30 days in advance of the proposed transfer date;
- b. The notice includes a written agreement between the existing and new owner/operator containing a specified date for transfer of authorization responsibility, coverage, and liability between them; and
- c. The Director, within thirty (30) days, does not notify the current owner/operator and the new owner/operator of his intent to modify, revoke or reissue, or terminate the authorization and to require that a new application be filed rather than agreeing to the transfer of the authorization.

4. Change of Mailing Address

The owner/operator shall promptly provide to the Director written notice of any change of mailing address. In the absence of such notice the original address of the owner/operator will be assumed to be correct.

## C. NONCOMPLIANCE

If at any time the Division learns that a ground water discharge system may be in violation of The Tennessee Water Quality Control Act, the Division shall:

- a. Require the injector to apply for an individual permit;
- b. Order the injector to take such actions including, where required, closure of the injection well as may be necessary to prevent the violation; or
- c. Take enforcement action.

1. Effect of Noncompliance

Any authorization noncompliance constitutes a violation of applicable State laws and is grounds for enforcement action, authorization termination, authorization modification, or denial of authorization reissuance.

## 2. Reporting of Noncompliance

### a. 24-Hour Reporting

In the case of any noncompliance which could cause a threat to public drinking supplies, or any other discharge which could constitute a threat to human health or the environment, the required notice of non-compliance shall be provided to the appropriate Division environmental assistance center within twenty-four (24) hours from the time the owner/operator becomes aware of the circumstances. (The environmental field office should be contacted for names and phone numbers of emergency response personnel.)

A written submission must be provided within five (5) days of the time the owner/operator becomes aware of the circumstances unless this requirement is waived by the Director on a case-by-case basis. The owner/operator shall provide the Director with the following information:

- i. A description of the discharge and cause of noncompliance;
- ii. The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and
- iii. The actions being taken to reduce, eliminate, and prevent recurrence of the non complying discharge.

### b. Scheduled Reporting

For such instances of noncompliance which are not reported under subparagraph 2.a., the report shall contain all information concerning the steps taken, or planned, to reduce, eliminate, and prevent recurrence of the violation and the anticipated time the violation is expected to continue.

## 3. Adverse Impact

The owner/operator shall take all reasonable steps to minimize any adverse impact to the waters of Tennessee resulting from noncompliance with this authorization, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge. It shall not be a defense for the owner/operator in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this authorization.

**D. LIABILITIES**

1. Civil and Criminal Liability

Nothing in this authorization shall be construed to relieve the owner/operator from civil or criminal penalties for noncompliance. Notwithstanding this authorization, the owner/operator shall remain liable for any damages sustained by the State of Tennessee, including but not limited to fish kills and losses of aquatic life and/or wildlife, as a result of the discharge of wastewater to any surface or subsurface waters. Additionally, notwithstanding this authorization, it shall be the responsibility of the owner/operator to conduct its wastewater treatment and/or discharge activities in a manner such that public or private nuisances or health hazards will not be created.

2. Liability Under State Law

Nothing in this authorization shall be construed to preclude the institution of any legal action or relieve the owner/operator from any responsibilities, liabilities, or penalties established pursuant to any applicable State law.

**E. PLUGGING AND ABANDONMENT PLAN**

The plugging and abandonment of this injection well shall be accomplished by redirection of the stormwater into a stormsewer system that will transport the stormwater away from the drainage well (sinkhole). At the time of the completion and use of the stormsewer system, the drainage well (sinkhole) shall be excavated to competent material and closed with a combination of filter fabric, large rock and compacted clay in order to not allow any subsurface discharge.

**F. UPKEEP AND MAINTENANCE OF SYSTEM**

The owner/operator shall be responsible for the upkeep of the treatment system. This includes, but is not limited to, the removal of silt from basins, debris removal, mowing to control excess vegetation, repairing bear spots and drop outs, and general maintenance.

**PART III  
OTHER REQUIREMENTS**

**A. GENERAL COMMENT**

Extreme caution should be used in the filling and construction of commercial or residential properties on or in a sinkhole. A sinkhole by nature is an unstable geologic area, which has no permanent means of stabilization and is subject to times of movement and settling. This uncontrollable movement may cause some damage to any permanent structure placed on or around the karst feature. The State of Tennessee assumes no responsibility in potential consequences of building on or around filled depressions of any kind at any time.

**B. STORMWATER AND LOCAL FLOODING**

It should be noted that the Division's review of this authorization application was limited to water quality issues. The review did not include an evaluation of the property's potential to flood or of possible flooding impacts on adjacent properties due to modification of drainage patterns on karst features. The storm water management and drainage requirements of local zoning regulations should be followed.

**C. LOCAL ORDINANCES**

Please note that several counties and municipal governments have imposed stricter regulations on the use and treatment of karst features. Check with the local planning and zoning departments for these regulations. This authorization does not convey any authority over county or municipal governments that hold stricter regulations on karst features.

**D. OWNERSHIP OF THE INJECTION POINT AND ASSOCIATED TREATMENT FACILITIES**

The owner/operator shall own the injection points. A perpetual easement (properly recorded) may be accepted in lieu of ownership. Evidence of ownership of the injection point(s) and/or a copy of the perpetual easement(s) must be furnished to the division for approval prior to construction of the injection system.

The owner/operator shall at all times properly operate and maintain all facilities and systems of treatment and control which are installed or used by the owner/operator to achieve compliance with the conditions of this authorization. Proper operation and maintenance included effective performance, adequate funding, and appropriate quality assurance procedures. This includes monitoring of all closed karst features, and any devices designed to place fluid into the subsurface and any repair to the feature or structure in the future to ensure water quality standards are being met.

**E. ADDITIONAL DISCHARGES**

The authorization to discharge is limited to the two sinkholes and to the development area as shown on the application. Routing of drainage to the sinkhole from any additional development in this area will require a separate application.

**F. COMPLETION OF PROJECT**

According to Underground Injection Control (UIC) Rule 0400-45-6-.14 (8)(d) "Upon completion of the well, the owner or operator must certify to the Department that the well has been completed in accordance with the approved construction plan, and must submit any other additional information required". The certification must be submitted in writing to the UIC Program within (30) thirty days upon the completion/closure of the Class V well.

**G. LOCATION OF AUTHORIZATION**

A copy of this authorization must be kept on site until the development has been completed and must be made available to inspection personnel.

**H. LOCATION OF ENVIRONMENTALLY SENSITIVE AREAS**

Please be advised that this project is located within the Source Water Protection Area for Columbia Water System. Also, there are water distribution and sewer collection lines in the area to be considered if there is to be any blasting or excavating done. Blasting may also affect the local private water wells and springs and caves in the area.

**I. LOCATION OF INDIVIDUAL SINKHOLES AND OTHER KARST FEATURES**

<b>Identifier</b>	<b>Station</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Quadrangle Name</b>	<b>Sinkhole Treatment Plan</b>
SNK-1	75+30 left of center	35.6367	-86.9922	Carters Creek	Sediment and Erosion Control
SNK-2	69+30 left of centerline	35.6367	-86.9944	Carters Creek	TDOT Pre-Approved Treatment 2

## 8. Ecology Report



**STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION  
ENVIRONMENTAL DIVISION  
SUITE 900 - JAMES K. POLK BUILDING  
505 DEADERICK STREET  
NASHVILLE, TENNESSEE 37243-0334**

**MEMORANDUM**

To: Robert Braun  
Design Division

From: Jennifer Thompson  
Environmental Division

Date: August 26, 2014

Subject: ENVIRONMENTAL BOUNDARIES AND MITIGATION DESIGN FOR:  
Maury County, SR-99 Intersection @ Patterson Ln. from LM 18.14 to 18.34  
PIN Number: 119066.00 P. E. Number: 60010-0216-94

An ecological evaluation of the subject project has been conducted with the following results:

There is one stream, an unnamed tributary to Bear Creek (STR-1). The proposed project as shown in the plans does not include structure replacement. No other streams, springs, seeps, wetlands or other water resources were identified.

There are two sinkholes which have been surveyed. These will require Class V injection well permits.

A search of the TDEC rare species database was done on August 25, 2014. The FWS and TWRA responses are included with this report. TWRA requests that the following notes be added to the plans:

Any major changes to the plans, construction methodology, or ROW will void TWRA's comments and require another review of the changes by the Agency.

Your assistance is appreciated. If you have any questions or comments, please contact me at 615-532-3878 or Jennifer.Thompson@tn.gov.

xc: Anthony Myers  
John Hewitt  
Laura Chandler  
Olivia Epps









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## Maury Co., SR-99 Intersection @ Patterson Ln.

July 24, 2014

P.E. Number: 60010-0216-94 PIN: 119066.00

Environmental Features Map





Photo 1: Facing west from the side of SR-99 near end of project (Station 77+40)



Photo 2: SNK-2



Photo 3: STR-1 facing downstream (southwest) from approximately Station 68+25



Photo 4: STR-1 facing downstream inside box culvert



Photo 5: STR-1, downstream of culvert facing upstream



Photo 6: STR-1, approximately 5 feet downstream of box culvert



Photo 7: SR-99 facing west near Station 70+75



Photo 8: STR-1 facing downstream from top of bridge



Photo 9: Facing east along SR-99 near Station 70+00



Photo 10: SR-99 Facing east near Station 72+50

HABITAT ASSESSMENT FIELD DATA SHEET—HIGH GRADIENT STREAMS

STREAM NAME <u>Unnamed tributary to Bear Cr.</u>		LOCATION <u>Mary 5R99 @ Peterson Ln</u>	
SITE ID # _____	REACH ID _____	STREAM CLASS _____	
UTM N _____	UTM E _____	RIVER BASIN <u>Duck</u>	
STORET # _____		AGENCY <u>TDOT</u>	
INVESTIGATORS <u>J. Shoppson</u>			
FORM COMPLETED BY <u>Jennifer Shoppson</u>		DATE <u>7-18-14</u> TIME _____ AM	REASON FOR SURVEY <u>Env. Boundaries</u>

Habitat Parameter	Condition Category			
	Optimal	Suboptimal	Marginal	Poor
1. Epifaunal Substrate/ Available Cover	Greater than 70% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are <u>not</u> new fall and not transient).	40-70% mix of stable habitat; well-suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale).	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lack of habitat is obvious; substrate unstable or lacking.
SCORE	20 19 18 17 16	15 14 13 12 11	10 9 8 <u>7</u> 6	5 4 3 2 1 0
2. Embeddedness	Gravel, cobble, and boulder particles are 0-25% surrounded by fine sediment. Layering of cobble provides diversity of niche space.	Gravel, cobble, and boulder particles are 25-50% surrounded by fine sediment.	Gravel, cobble, and boulder particles are 50-75% surrounded by fine sediment.	Gravel, cobble, and boulder particles are more than 75% surrounded by fine sediment.
SCORE	20 19 18 17 16	15 14 13 12 <u>11</u>	10 9 8 7 6	5 4 3 2 1 0
3. Velocity/Depth Regime	All four velocity/depth regimes present (slow-deep, slow-shallow, fast-deep, fast-shallow). (Slow is < 0.3 m/s, deep is > 0.5 m.)	Only 3 of the 4 regimes present (if fast-shallow is missing, score lower than if missing other regimes).	Only 2 of the 4 habitat regimes present (if fast-shallow or slow-shallow are missing, score low).	Dominated by 1 velocity/depth regime (usually slow-deep).
SCORE	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 <u>1</u> 0
4. Sediment Deposition	Little or no enlargement of islands or point bars and less than 5% of the bottom affected by sediment deposition.	Some new increase in bar formation, mostly from gravel, sand or fine sediment; 5-30% of the bottom affected; slight deposition in pools.	Moderate deposition of new gravel, sand or fine sediment on old and new bars; 30-50% of the bottom affected; sediment deposits at obstructions, constrictions, and bends; moderate deposition of pools prevalent.	Heavy deposits of fine material, increased bar development; more than 50% of the bottom changing frequently; pools almost absent due to substantial sediment deposition.
SCORE	20 19 18 17 <u>16</u>	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
5. Channel Flow Status	Water reaches base of both lower banks, and minimal amount of channel substrate is exposed.	Water fills >75% of the available channel; or <25% of channel substrate is exposed.	Water fills 25-75% of the available channel, and/or riffle substrates are mostly exposed.	Very little water in channel and mostly present as standing pools.
SCORE	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 <u>1</u> 0

Parameters to be evaluated in sampling reach

HABITAT ASSESSMENT FIELD DATA SHEET—HIGH GRADIENT STREAMS

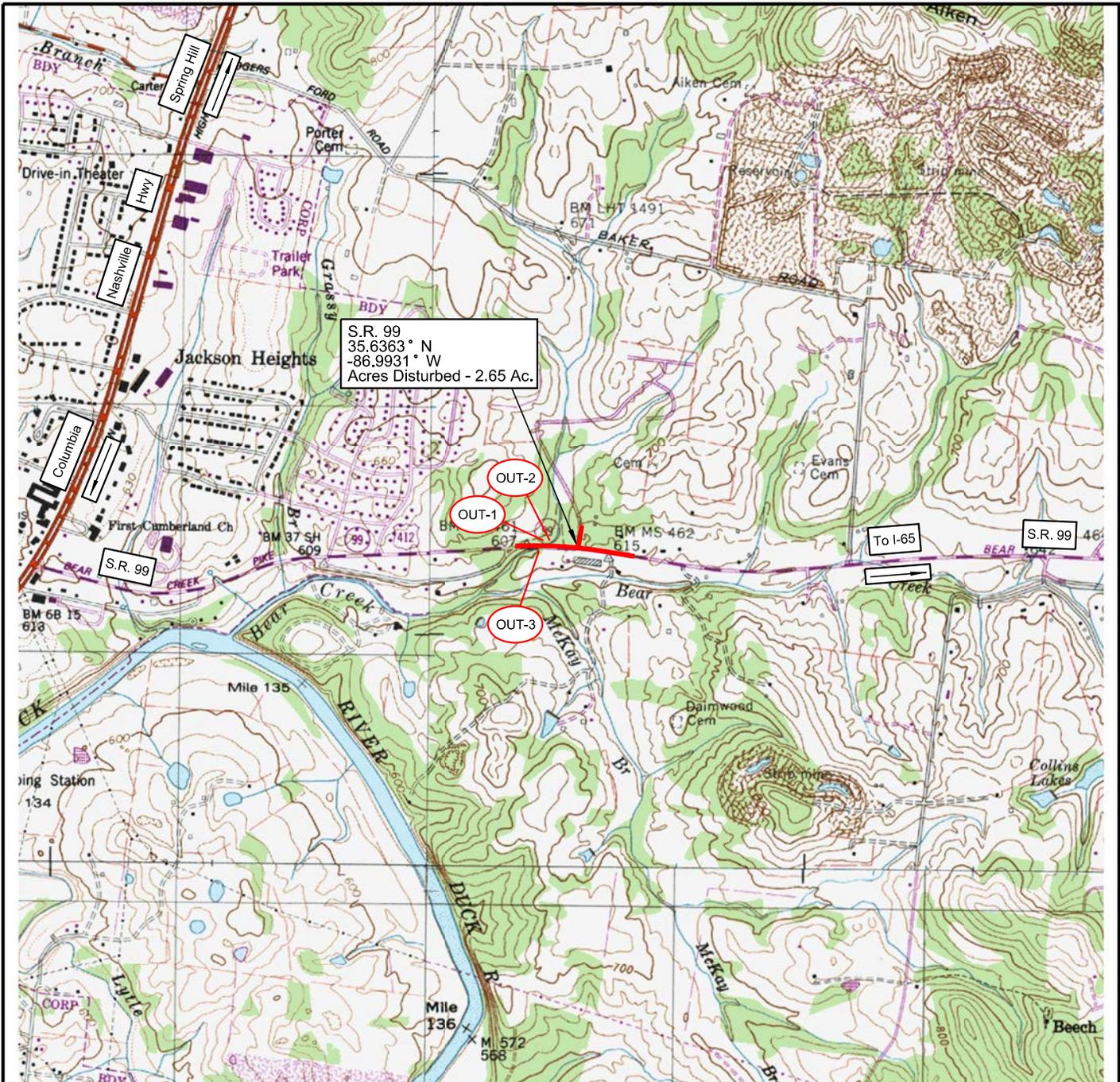
Habitat Parameter	Condition Category																				
	Optimal				Suboptimal				Marginal				Poor								
6. Channel Alteration	Channelization or dredging absent or minimal; stream with normal pattern.				Some channelization present, usually in areas of bridge abutments; evidence of past channelization, i.e., dredging, (greater than past 20 yr) may be present, but recent channelization is not present.				Channelization may be extensive; embankments or shoring structures present on both banks; and 40 to 80% of stream reach channelized and disrupted.				Banks shored with gabion or cement; over 80% of the stream reach channelized and disrupted. Instream habitat greatly altered or removed entirely.								
SCORE	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
7. Frequency of Riffles (or bends)	Occurrence of riffles relatively frequent; ratio of distance between riffles divided by width of the stream <7:1 (generally 5 to 7); variety of habitat is key. In streams where riffles are continuous, placement of boulders or other large, natural obstruction is important.				Occurrence of riffles infrequent; distance between riffles divided by the width of the stream is between 7 to 15.				Occasional riffle or bend; bottom contours provide some habitat; distance between riffles divided by the width of the stream is between 15 to 25.				Generally all flat water or shallow riffles; poor habitat; distance between riffles divided by the width of the stream is a ratio of >25.								
SCORE	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
8. Bank Stability (score each bank)	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. <5% of bank affected.				Moderately stable; infrequent, small areas of erosion mostly healed over. 5-30% of bank in reach has areas of erosion.				Moderately unstable; 30-60% of bank in reach has areas of erosion; high erosion potential during floods.				Unstable; many eroded areas; "raw" areas frequent along straight sections and bends; obvious bank sloughing; 60-100% of bank has erosional scars.								
Note: determine left or right side by facing downstream.																					
SCORE LB)	Left Bank	10	9			8	7	6	5	4	3	2	1	0							
SCORE RB)	Right Bank	10	9			8	7	6	5	4	3	2	1	0							
9. Vegetative Protection (score each bank)	More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.				70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.				50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.				Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.								
SCORE LB)	Left Bank	10	9			8	7	6	5	4	3	2	1	0							
SCORE RB)	Right Bank	10	9			8	7	6	5	4	3	2	1	0							
10. Riparian Vegetative Zone Width (score each bank riparian zone)	Width of riparian zone >18 meters; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, or crops) have not impacted zone.				Width of riparian zone 12-18 meters; human activities have impacted zone only minimally.				Width of riparian zone 6-12 meters; human activities have impacted zone a great deal.				Width of riparian zone <6 meters; little or no riparian vegetation due to human activities.								
SCORE LB)	Left Bank	10	9			8	7	6	5	4	3	2	1	0							
SCORE RB)	Right Bank	10	9			8	7	6	5	4	3	2	1	0							

Total Score 93

9. Training Certifications

10. TMDL Information

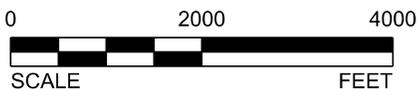
**TMDL Information Not Required**



# TOPOGRAPHIC MAP



OUT-1 Approximate Outfall Location



SOURCE: USGS Quad Map, U.S. Geological Survey 7.5 Minute Topographic Map, Carters Creek (64 NW), Columbia (57 SE), Glendale (64 SW), Godwin (57 NE) Tennessee Quadrangles



Tennessee Department of Transportation  
Nashville, Tennessee

## Stormwater Pollution Prevention Plan

SR-99  
Intersection at Patterson Drive  
in Columbia

Maury County, Tennessee

Drawn By:

DAH

TDOT P.E. No.

60010-1216-94

FED. No.

HSIP/STP-H-NH-99(43)

Checked By:

JBL

TDOT PIN

119066.00

Figure

1