STORM WATER POLLUTION PREVENTION PLAN

FOR

HAYWOOD COUNTY, TENNESSEE
MEMPHIS REGIONAL MEGASITE

RELATED TO

WASTEWATER TREATMENT PLANT, EMERGENCY EFFLUENT LAGOON, & DISPOSAL FACILITIES

JOB NUMBER 3679

May 2022

WAUFORD
60 Volunteer Blvd.
Jackson, Tennessee 38305
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3679
May 2022

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MEMPHIS REGION MEGASITE

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APPENDIX

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3679
May 2022

HAYWOOD COUNTY, TENNESSEE
MEMPHIS REGIONAL MEGASITE

STORM WATER POLLUTION PREVENTION PLAN
WASTEWATER TREATMENT PLANT, EMERGENCY EFFLUENT LAGOON, & DISPOSAL FACILITIES

I. Introduction

This Storm Water Pollution Prevention Plan is prepared as a condition of and in accordance with the Tennessee General National Pollutant Discharge Elimination System (NPDES) Permit for Discharges of Storm Water Associated with Construction Activity, Permit No. TNR 100000, which expires September 30, 2026. It is the intention and goal of this SWPPP that 1) construction activities will be carried out in such a manner as to prevent any discharge that causes a condition in which visible solids, bottom deposits or turbidity impairs the usefulness of water of the State for any of the uses designated for that water body, 2) storm water discharges shall not contain any distinctly visible floating scum, oil or other matter, 3) storm water discharges shall not cause any objectionable color contrast in the receiving water body, and 4) storm water discharges shall not result in materials being washed into waterways in concentrations sufficient to be hazardous or otherwise detrimental to humans, livestock, wildlife, plant life or fish and aquatic life in the water body.

This Storm Water Pollution Prevention Plan, and any subsequent revisions and/or amendments, shall be kept at the project site for the duration of the construction period. Construction will not be initiated prior to 30 days from the date of submittal

of this document or prior to receipt of a Notice of Coverage (NOC) from the Tennessee Department of Environment and Conservation (TDEC).

Copies of this Storm Water Pollution Prevention Plan have been submitted to the Tennessee Department of Environment and Conservation, Division of Water Resources via water.permits@tn.gov, the Jackson Environmental Field Office, and will be provided to the Contractor having operational control. Copies of the NOC will be posted at the project site.

The work to be performed is construction of a 1) wastewater treatment plant including headworks, sequencing batch reactors, sludge digesters, sludge processing, chlorine contact/effluent flow equalization basin, operations and maintenance building, electrical switchgear/blower building, filtration/chemical feed building, site piping, equalization lagoon and related small structures and 2) an earthen emergency effluent lagoon including a 12” thick compacted clay liner on the lagoon bottom and side slopes that are beneath a 6” topsoil layer, a designed outlet control structure, and a site post indicator valve (PIV) has been incorporated into the stormwater drain line to allow for outfall restriction at times when the lagoon is being filled to contain treated effluent from the wastewater treatment plant.

II. Purpose of Project

Provide wastewater treatment, emergency effluent storage, and disposal facilities for the Memphis Regional Megasite. The purpose of the emergency effluent storage

lagoon is to store up to 14 days of treated effluent from the wastewater treatment plant in an emergency situation to allow on-site tenants to continue normal activities.

III. Owner / Developer Information and Contractor Information

A. Owner / Developer Information

Megasite Authority of West Tennessee
Clay Bright, CEO
James K. Polk Building, Suite 700
505 Deaderick Street, Nashville, TN 37243
p. 615-430-0538

B. Contractor Information State of Tennessee SBC PROJ# 529/000-02-2010-04

To Be Determined

IV. Site Description

Most of the site is either currently farmed or wooded.

A. Sequence of Construction Activities

1. The general scope of work for the construction of the wastewater treatment plant and emergency effluent lagoon includes the following.

    - Constructing construction entrances for the site;
    - Constructing check dams in the ditch on the west side of the site;
    - Erecting silt fence around the site;
    - Construction of diversion ditches to prevent rain water from entering the disturbed area from upslope areas;

- Construction of sediment basin and other features to prevent sediment from leaving the site;
- Installation of signage as needed to protect area outside the areas of disturbance;
- Placing of construction waste containers are required;
- Construction of a concrete washout basin or installation of a pre-fabricated basin as needed;
- Construction of the wastewater treatment plant and emergency effluent lagoon;
- Construction of de-watering structures as needed;
- Re-establish vegetative cover including seeding and mulching with straw on all disturbed areas;

2. The Construction Manager/Superintendent of each contract shall post notices at the construction site accessible to the public with the following information.

- a copy of the notice of coverage (NOC) with the NPDES permit tracking number for the construction project;
- name, Contractor's company name, e-mail address (if available), telephone number, and address of the project site owner or a local contact person;
- a brief description of the project; and
- the location of the SWPPP if the site is inactive.

B. <u>Estimated Area to be Disturbed</u>

Approximately 39.01 acres will be disturbed for construction of the wastewater treatment plant and emergency effluent lagoon. Sedimentation basins will be designed to contain the 2-year 24-hour design storm at two

locations. The locations of outfalls on the project site are summarized in table IV-1:

TABLE IV-1
STORMWATER OUTFALL LOCATIONS
MEMPHIS REGIONAL MEGASITE WWTP AND EMERGENCY STORAGE LAGOON

Number	Outfall	Total Drainage Areas (Acres)	Longitude	Latitude
1	WWTP	17.00	-89.7428	35.4346
2	Lagoon NW	2.25	-89.4732	35.4329
3	Lagoon NE	3.35	-89.4712	35.4332
4	Lagoon E	0.33	-89.4709	35.4319
5	Lagoon SE	1.14	-89.4709	35.4290
6	Lagoon S	28.80	-89.4729	35.4276

Although Outfall No. 1 – WWTP has a local drainage area of 11.4 acres, rainfall from Outfall Nos. 2 and 3 on the lagoon site flow through Outfall No. 1 – WWTP before ultimately leaving the project site. A sedimentation basin will be constructed for Outfall No. 1 – WWTP as shown on the Erosion Control Drawings. Outfall No. 6 encompasses most of the lagoon project area. Due to the construction of the lagoon which serves as a sediment basin of its own with no outfall, a separate sediment basin for the storage lagoon has not been shown for Outfall No. 6 as the outfalls do not have a drainage of 10 acres or more when you consider the lagoon structure as its own sediment basin.

C. Identification of Surface Waters

The “Project Location Map” found in this SWPPP at Appendix A depicts the area of the proposed construction of the wastewater treatment plant and

emergency effluent lagoon. There are no water bodies or “blue line” streams within the areas of disturbance according to the USGS Map.

D. Discharge Associated with Industrial Activity

There will be no discharges associated with industrial activities.

V. Description of Storm Water Runoff Controls

A. Structural Practices

Erosion Prevention and Sediment Control Plans for the wastewater treatment plant and emergency effluent lagoon are included in Attachment No. 1. Erosion prevention and sediment controls to be utilized include but are not limited to:

- Construction entrance
- Check dams
- Silt fence
- Drainage Ditches
- Washout basins
- De-watering structures
- Sediment Basins
- Drainage Swales

The Contractor shall be responsible for installing all erosion prevention and sediment controls in order to comply with the requirements and conditions of

the permits for discharges of storm water associated with construction activity.

Temporary silt fencing shall be placed on the natural ground, perpendicular along slopes and at other areas where erosion is likely to occur. Detail found at Appendix A: "*Standard Temporary Silt Fence*"

Drainage swales and drainage ditches shall be used to direct surface drainage from disturbed areas to the sediment basins that would under normal flow conditions flow off-site.

Sediment basins shall be constructed at the locations depicted such that all runoff from disturbed areas is retained for a period to allow sufficient sedimentation. These basins shall remove enough sediment to protect the waters below from damage by excessive sedimentation and debris. Calculation of total drainage area and basin volumes are located in Appendix B "*Sediment Basin Calculations*" of this document.

If de-watering of excavations is necessary, the pumped water shall be diverted to an area for settling and filtration through vegetation or to de-watering structures.

B. Stabilization Practices

The following stabilization practices shall be utilized during the construction of the project: removal of excess topsoil and unsuitable backfill material,

seeding, straw, preservation of mature vegetation (where possible), and any other necessary practices determined during construction.

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 (7 days for slopes ≥35%). Soil stabilization (temporary or permanent) of those 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.

VI. Soil Conditions

The *"USDA Hydrologic Soil Group Map"* located in Appendix C of this SWPPP provides the hydrologic soil groups thought to be present on the site.

VII. Maintenance Procedures

A. General

Routine maintenance of temporary erosion and sediment control structures are the responsibility of the Contractor.

Routine maintenance of temporary erosion and sediment controls includes, but is not limited to, the following:

- Visually inspecting all structural practices twice weekly, in addition to before and after anticipated rainfall events, to ensure proper functioning
- Repair any silt fencing that was found deficient during any visual inspection which requires repairs as expeditiously as possible before the next forecasted storm event, but in no case more than seven (7) days after the need is identified
- Repairing any structural practices that are found during any visual inspection which requires repair
- Removing built-up sediment from silt fencing, check dams, or other measures when the design capacity of these measures have been reduced by 50 percent and properly dispose of the removed sediment
- Regular removal of silt from check dams, washout basins, and de-watering structures

Maintenance of the sedimentation basins should be completed before or after storms events or at least once every fourteen calendar days. A quality assurance site assessment is required to be performed within the first 30 days of construction and must continue every 30 days thereafter until the sediment basins are completed. Accumulated sediment shall be removed from the basin when it reaches the specified distance blow the top of the outfall structure.

B. Spill Prevention

- Fueling – any drippings or spillage of fuel onto soil shall be removed at the end of the day it is identified. Contaminated soil must be placed on heavy plastic and covered to prevent contact with storm water. All fuel tanks must be in a containment area.

- Chemicals – oils, solvents, and/or other vehicle fluids must be kept in a contained area. Any spill of more than two gallons shall be reported to an on-site superintendent of the Contractor and contained promptly. Oil cans and filters shall be stored on the site.

- Litter – the Contractor shall be responsible for litter control for trash generated by the construction crew. The Contractor shall perform litter control on a daily basis and prior to anticipated storm events.

Water used to wash equipment to remove mud shall be diverted to an area for settling and filtration through vegetation. The use of soaps will not be allowed.

The paved roads adjacent to the construction site shall be swept as required to remove any excess mud, dirt, and/or rock tracked from the site. If sediment escapes the construction site, off-site accumulations of sediment shall be removed within an appropriate time frame so that sediment is not washed into streams, streets, and/or storm drains. In the event sediment escapes the construction site and accumulates onto private property, the Contractor shall remove the accumulated sediment and shall be responsible for obtaining a written release from the property owner indicated that the property was restored to its original condition.

The Contractor shall ensure that all temporary sediment and erosion control measures, i.e., silt fence, is removed once vegetation has been restored.

VIII. Inspector Training and Certification

The Contractor shall have 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 shall be kept on site.

IX. Schedule of Inspections

A. Inspections described in the following paragraphs 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 weather conditions or suspended construction activities, such inspection only has to be conducted once per month until weather conditions indicate runoff or construction activity resumes. Inspection requirements do not apply to definable areas that have been finally stabilized. Written notification of the intent to change the inspection frequency and justification for such request must be submitted to the local Environmental Field Office.

B. Qualified personnel shall inspect the 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 identified by the SWPPP shall be observed to ensure that they are operating correctly.

D. Outfall points (where discharges leave the site 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 that are in disrepair shall be replaced, modified, or repaired as necessary, before the next rain event if possible, but in no case more than seven (7) days after the need is identified.

F. Based on the results of the inspection, the site description and pollution prevention measures identified in this SWPPP shall be revised as appropriate, but in no case later than seven (7) days following the inspection. Such modifications shall provide for timely implementation of any changes to the SWPPP, but in no case later than fourteen (14) days following the inspection.

G. All inspections shall be documented on the Construction Stormwater Inspection Certification form provided in Appendix D of Permit TNR100000 for all construction sites. An alternative inspection form may be used as long as the form contents and the inspection language are, at a minimum, equivalent to the division's form and the permittee has obtained written approval from the division to use the alternative form. Inspection documentation shall be maintained on site and made available upon request. Inspection reports must be submitted to the division within ten (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 signatory requirements.

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 permit TNR100000 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. The primary permittee is no longer required to conduct inspections of portions of the site that are covered by a subsequent primary permittee.

J. All inspections, investigations and correspondence related to this SWPPP shall be retained with this SWPPP and available for review.

X. Post-Construction Storm Water Management

Post-construction runoff will be controlled through the use of the sedimentation basin as a detention pond.

XI. Signatories

This Stormwater Pollution Prevention Plan (SWPPP) is developed in accordance with the Tennessee General NPDES Permit (TNR100000) for Stormwater Discharges Associated with Construction Activities (TNCGP) and is prepared in accordance with good engineering practices and the latest edition of the Tennessee Erosion and Sediment Control Handbook. The plan and its attachments are hereby submitted to TDEC along with the completed Notice of Intent (NOI) form. The complete application should be submitted at least 30 days prior to the projected date of commencement of construction activities. Construction shall not be initiated prior to receipt of a Notice of Coverage (NOC) from TDEC.

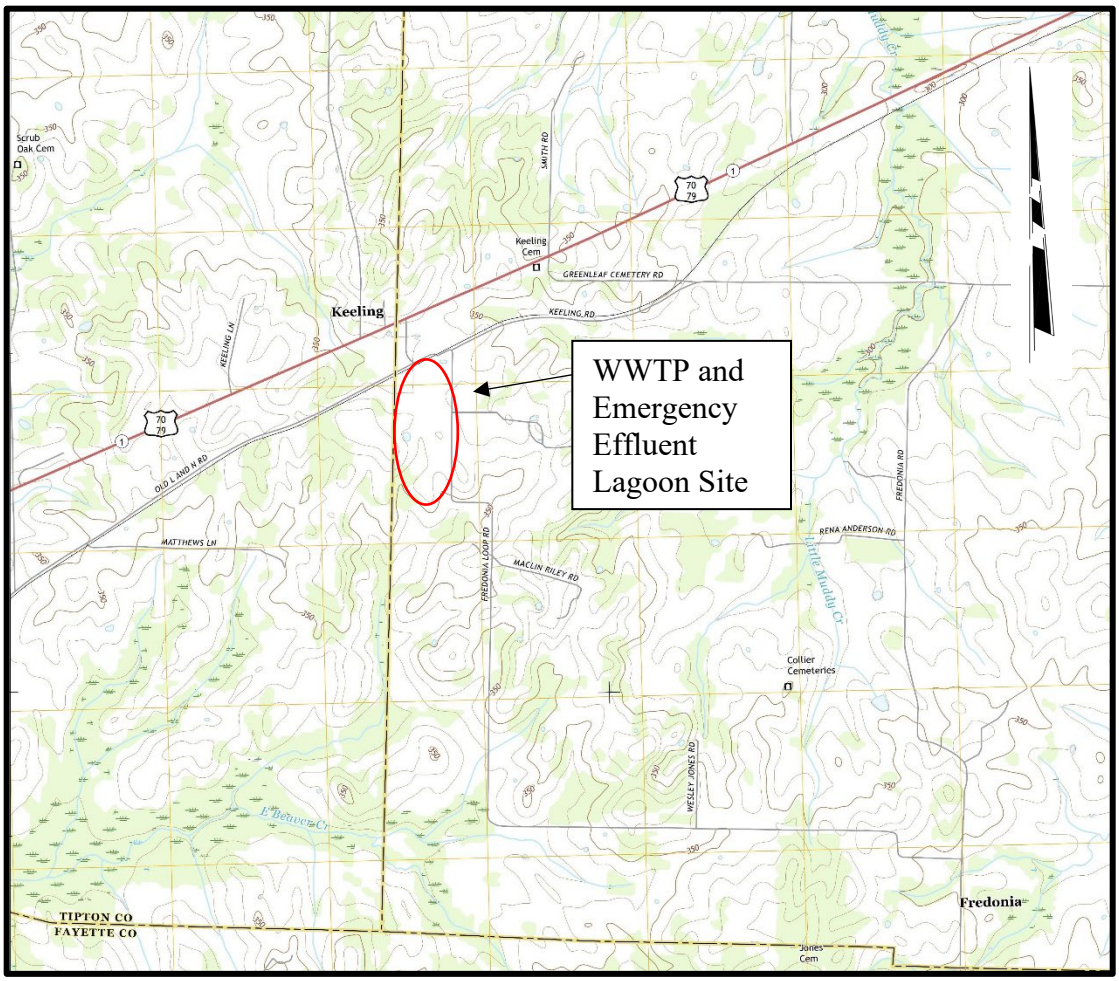
I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, 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.

Representative of owner/developer and title; print of type	*Signature (must be signed by president, V.P. or equivalent, or ranking elected official)*	*Date*
Clay Bright, CEO		5-4-22

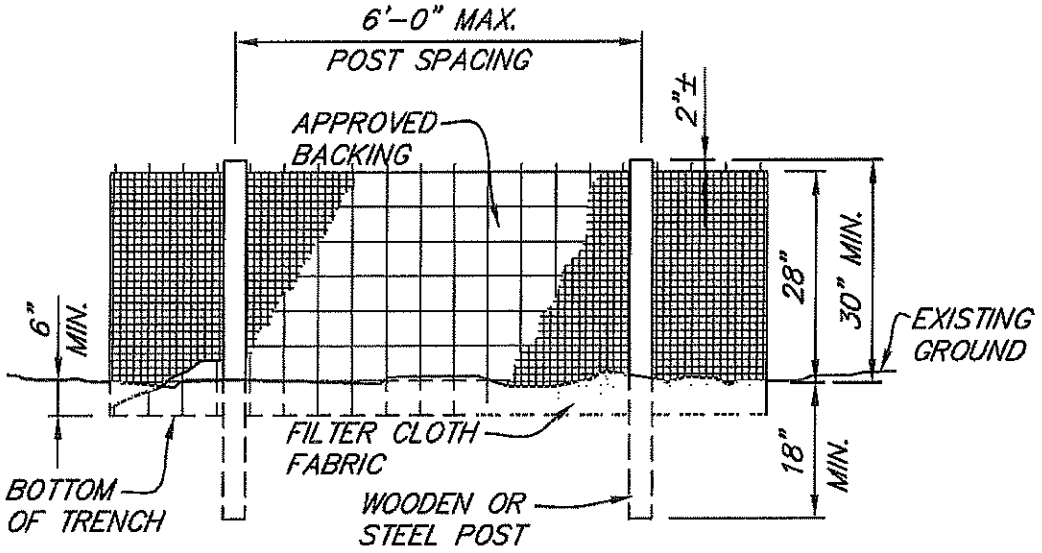
I certify under penalty of law that I have reviewed this document, any attachments, and the SWPPP referenced above. Based on my inquiry of the construction site owner/developer identified above and/or my inquiry of the person directly responsible for assembling this NOI and SWPPP, I believe the information 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 onsite 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. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Representative of owner/developer and title; print of type	*Signature (must be signed by president, V.P. or equivalent, or ranking elected official)*	*Date*

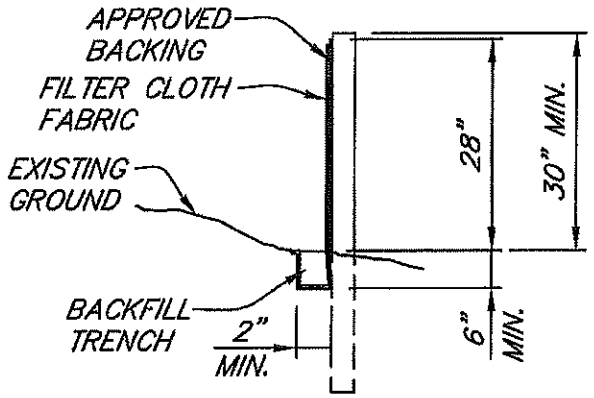
APPENDIX A



Project Location Map
1" = 2000'
Wastewater Treatment Plant, Emergency Effluent Lagoon & Disposal Facilities
Haywood County, Tennessee
Memphis Regional Megasite
Wauford Project No. 3679



ELEVATION



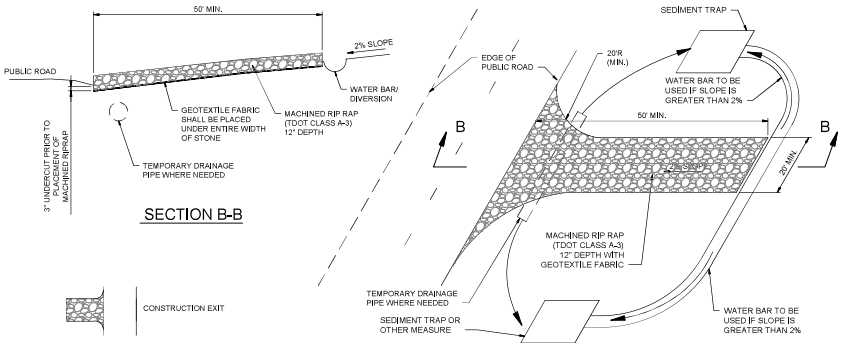
SECTION

NOTES:

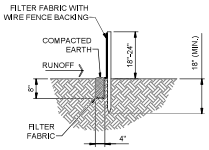
1. FILTER CLOTH SHALL HAVE APPROVED BACKING OR A BUILT-IN REINFORCED STRUCTURE AS RECOMMENDED BY THE MANUFACTURER TO SUPPORT THE FILTER CLOTH.

2. A PREASSEMBLED SILT FENCE MEETING THE REQUIREMENTS OF THIS DRAWING IS ACCEPTABLE IN LIEU OF A FIELD CONSTRUCTED SILT FENCE

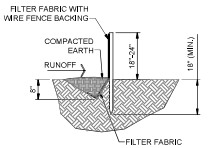
STANDARD TEMPORARY SILT FENCE



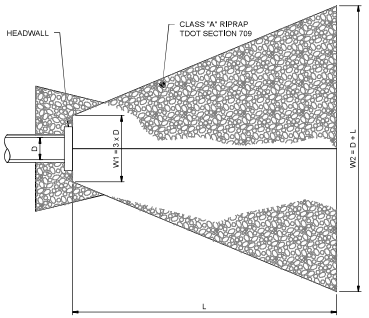
C1 CONSTRUCTION EXIT WITH WATER BAR — CE — NO SCALE



FLAT-BOTTOM TRENCH DETAIL



V-SHAPED TRENCH DETAIL



PLAN

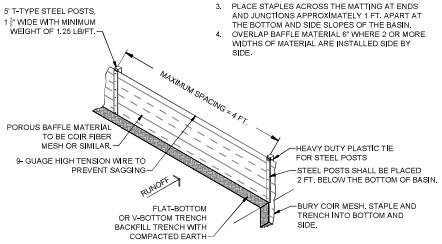
OUTLET PROTECTION DIMENSION

D (INCHES)	L (FEET)	W1	W2	D50 (INCHES)
12"	12'-0"	3'-0"	13'-0"	6,5
15"	15'-0"	3'-9"	16'-3"	6,5
16"	16'-0"	4'-0"	17'-4"	6,5
18"	18'-0"	4'-6"	19'-6"	8,5
24"	24'-0"	6'-0"	26'-0"	11
27"	27'-0"	6'-9"	29'-3"	12,5
30"	30'-0"	7'-6"	32'-6"	13,5
36"	36'-0"	9'-0"	39'-0"	15,5
42"	40'-0"	10'-6"	43'-6"	17
48"	40'-0"	12'-0"	44'-0"	18,5
60"	40'-0"	15'-0"	45'-6"	21,5

D50 = MEDIAN RIPRAP SIZE
DMAX = MAXIMUM RIPRAP SIZE = 1,5 X D50
DEPTH OF RIPRAP APRON = 1,5 X DMAX (MIN. DEPTH IS 1,5 FEET)

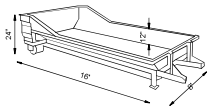
NOTES:
1. L = LENGTH OF RIPRAP APRON.
2. EXTEND THE APRON UP THE CHANNEL BANKS.
3. FILTER FABRIC SHALL BE INSTALLED BETWEEN THE RIPRAP AND SOIL FOUNDATION.
4. OUTLET PROTECTION SHOWN, INLET PROTECTION TO BE HALF OF HORIZONTAL DIMENSIONS SHOWN.
5. EXTEND RIP RAP AROUND BACK OF HEADWALL
6. AT DITCH 90° BEND OR TEE INTERSECTION, RIP RAP TO EXTEND TO TOP OF BANKS AND A MINIMUM OF 50' IN EACH DIRECTION, UNLESS SHOWN OTHERWISE ON THE DRAWINGS.

INSTALLATION NOTES:
1. MATERIAL SHALL BE DRAPED OVER WIRE STRAND TO 3' MIN. OF MATERIAL ON EACH SIDE OF SUPPORT WIRE.
2. SECURE BAFFLE MATERIAL TO THE WIRE WITH PLASTIC TIES OR WIRE FASTENERS.
3. PLACE STAPLES ACROSS THE MATTING AT ENDS AND JUNCTIONS APPROXIMATELY 1 FT. APART AT THE BOTTOM AND SIDE SLOPES OF THE BASIN.
4. OVERLAP BAFFLE MATERIAL 6" WHERE 2 OR MORE WIDTHS OF MATERIAL ARE INSTALLED SIDE BY SIDE.



POROUS BAFFLE INSTALLATION

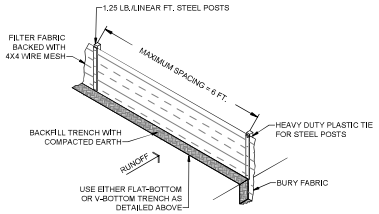
B1 POROUS BAFFLE — BA — NO SCALE



*DIMENSIONS ARE APPROXIMATE.

NOTES:
1. PROVIDE HEAVY DUTY STEEL, WATER-TIGHT AND LEAK-PROOF ROLL OFF STYLE CONCRETE WASHOUT PAN SPECIFICALLY MANUFACTURED FOR USE IN CONSTRUCTION SITE CONCRETE WASHOUT APPLICATIONS.
2. ALTERNATIVELY, PROVIDE AN OUTPAK(R) CORRUGATED, ALL-WEATHER WASHOUT OR EQUAL.
3. PROVIDE SUFFICIENT CAPACITY TO MEET PROJECT REQUIREMENTS FOR THE CONSTRUCTION SEQUENCE AND SCHEDULE.
4. MAINTAIN CONCRETE WASHOUT IN ACCORDANCE WITH INSTRUCTIONS OF THE MANUFACTURER BY REMOVING ACCUMULATED VOLUME AND PROPERLY DISPOSING OF OR RECYCLING MATERIAL AS REQUIRED.

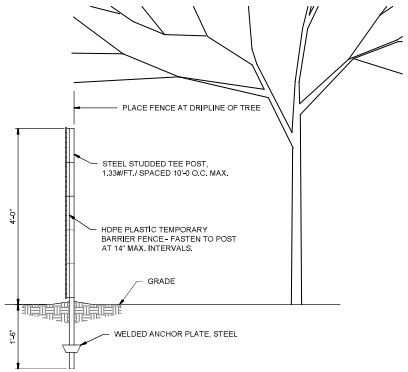
B2 CONCRETE WASHOUT AREA — CW — NO SCALE



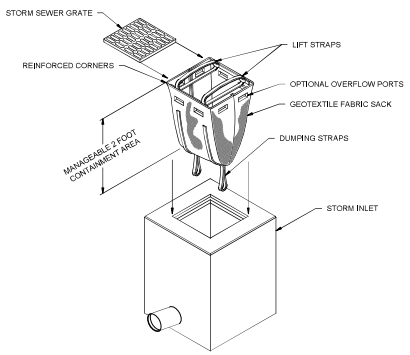
SILT FENCE INSTALLATION

B3 SILT FENCE — SF — NO SCALE

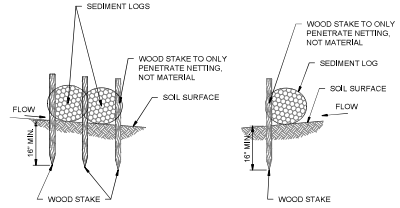
B4 OUTLET PROTECTION — OP — NO SCALE



A1 TREE PROTECTION FENCE — TP — NO SCALE

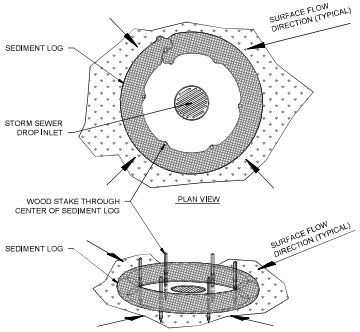


A2 SEDIMENT SACK INLET PROTECTION — IP — NO SCALE



MULTIPLE LOGS SINGLE LOG

A3 SEDIMENT LOG STAKING DETAIL — SF — NO SCALE



A4 SEDIMENT LOG INLET PROTECTION — IP — NO SCALE

SSOE®

SEAL ON THIS DOCUMENT AUTHORIZED BY:

PROJECT INFORMATION:
EMERGENCY EFFLUENT LAGOON
MEMPHIS REGIONAL MEGASITE
STATEWIDE, TENNESSEE

CLIENT INFORMATION:
STATE OF TN
SBC PROJECT
529/000-02-2010-04

NO.	DATE	SUBJECT
B	02-22-22	ISSUED FOR CDP
A	01-15-22	ISSUED FOR DDP

REVISION OR ISSUE

SSOE, Inc.
1001 Madison Ave.
Toledo, OH 43604
T 419-255-3830

PROJECT NO. 012-02080-21
PROJECT MANAGER: D. HIBDON
DESIGNED: D. FLYNN
CHECKED: C. HARTMAN

DRAWING TITLE:
EPSC DETAILS

DRAWING NO:
400-CE-850

TEMPORARY SEED MIXES

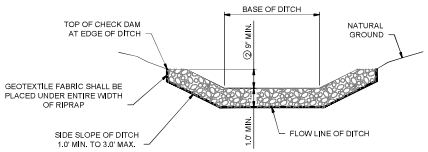
ZONE	SEASON	BEST DATES	RATE/MIX (LB/AC)
WEST	LATE WINTER AND EARLY SPRING	DEC. 1 - APR. 15	RYE 120
	SUMMER	APR. 15 - AUG. 15	OATS 60 BROWN TOP MILLET 30
	FALL	AUG. 15 - DEC 30	OATS 30 WINTER WHEAT 30

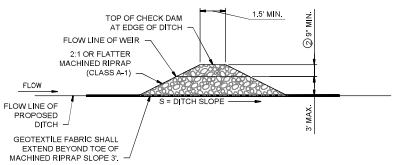
SEED MIXTURES AS SPECIFIED IN THE TDEC EROSION AND SEDIMENT CONTROL HANDBOOK.

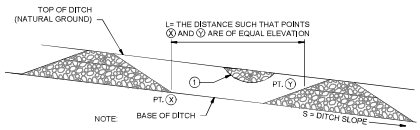
PERMANENT SEED MIXES

ZONE		BEST DATES	MARGINAL DATES	RATE/MIX (LB/AC PLS)	RATE/MIX (LB/AC PLS)
REGION I	POORLY DRAINED SOILS	FEB 1 - MAR 20 SEPT 1 - SEPT 30	MAR 20 - APR 30 SEPT 30 - OCT 31	15 BROWNTOP MILLET* (NURSE CROP) 2 SWITCH GRASS 4 LITTLE BLUESTEM 4 VIRGIIA WIELD RYE 4 PURPLETOP 2 PARTRIDGE PEA 2 BLACK-EYED SUSAN	80 PENSACOLA BAHIAGRASS 30 BERMUDAGRASS (HULLED) 20 KOREAN LESPEDEZA** 10 KOBE LESPEDEZA**
	WELL DRAINED SOILS	APR 1 - JUL 15		15 BROWNTOP MILLET* (NURSE CROP) 4 LITTLE BLUE STEM 4 PURPLETOP 2 SIDECOATS GRAMMA 2 PARTRIDGE PEA 2 BLACK-EYED SUSAN	50 PENSACOLA BAHIAGRASS 15 BERMUDAGRASS (HULLED) 30 KOREAN LESPEDEZA** 15 FOXTAIL MILLET**
	HIGH MAINTENANCE	APR 1 - JUL 15		15 BROWNTOP MILLET* (NURSE CROP) 2 PARTRIDGE PEA 45 RED FESCUE** 45 HARD FESCUE** 25 CHEWING FESCUE**	40 BERMUDAGRASS (HULLED)

C1 TEMPORARY AND PERMANENT SEED MIXES — NO SCALE — TS PS





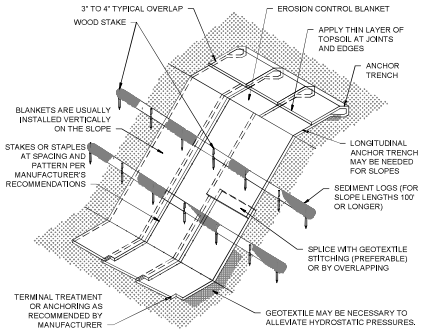


① FILL LOW AREAS ALONG TOP OF BANK TO PREVENT BACKWATER FROM EXISTING DITCH.

② WEIR FLOW DEPTH BASED UPON 2yr/24hr STORM EVENT OR 5yr/24hr STORM EVENT.

DETAIL FOR SPACING BETWEEN CHECK DAMS

A1 STONE FILTER CHECK DAM DETAIL — NO SCALE — CD



FASTENING AND PINNING FOR EROSION CONTROL BLANKET TO BE AS SHOWN ABOVE AS WELL AS PINNING IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS

A2 EROSION CONTROL BLANKET — NO SCALE — MA

SODDING SPECIFICATIONS

1. SITE PREPARATION

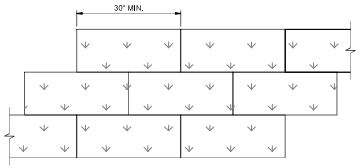
1.1. AREAS TO BE SODDED SHALL BE GRADED AND SMOOTHED TO A FIRM SURFACE.
1.2. THE AREA TO BE SODDED SHALL BE FREE OF STONES, ROOTS, AND OTHER DEBRIS.
1.3. THE AREA SHALL BE COVERED WITH A MINIMUM OF 6 INCHES OF TOPSOIL IF THE SUBSOIL IS NOT SUITABLE FOR THE ESTABLISHMENT OF SOD.
1.4. APPLY 500 POUNDS OF 20-10-10 FERTILIZER, OR EQUIVALENT, PER ACRE IN LIEU OF A SOIL TEST. MIX THE FERTILIZER WITH THE TOP 3 INCHES OF SOIL.
1.5. APPLY LIMING MATERIALS WHEN THE pH TEST IS BELOW 5.5
1.6. SURFACES WHICH ARE NOT MOIST MUST BE SPRINKLED PRIOR TO PLACING THE SOD.

2. SOD REQUIREMENTS

2.1. THE SOD TYPE SELECTED SHALL BE COMPOSED OF PLANTS ADAPTED TO BOTH THE SITE AND INTENDED PURPOSE. COMPLETE AND CURRENT LISTINGS OF SOD RECOMMENDATIONS CAN BE OBTAINED FROM SUPPLIERS OR THE STATE AGRICULTURAL EXTENSION OFFICE.
2.2. THE SOD SHALL CONSIST OF A DENSE GROWTH OF THE REQUIRED SPECIES, AND BE FREE OF NOXIOUS WEEDS.
2.3. THE SOD SHALL HAVE A UNIFORM MINIMUM THICKNESS OF 3/4 INCHES.
2.4. THE GRASS SHALL HAVE AN APPROXIMATE LENGTH OF 2 INCHES WHEN THE SOD IS CUT.
2.5. THE SOD SHALL BE CUT WITH SMOOTH SQUARE EDGES AND AT A UNIFORM WIDTH. THE SOD STRIP LENGTH SHALL NOT BE LESS THAN 30 INCHES.
2.6. IF THE SOD IS TOO DRY TO ROLL, IT WILL BE WATERED A FEW HOURS BEFORE CUTTING.

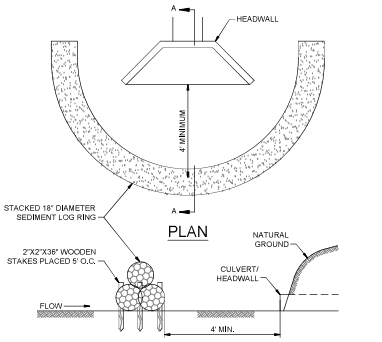
3. SOD PLACEMENT

3.1. SOD SHALL BE LAID AS SOON AS POSSIBLE AFTER CUTTING, NORMALLY WITHIN 2 DAYS.
3.2. THE SOD SHALL BE LAID AT RIGHT ANGLES TO THE DIRECTION OF WATER FLOW.
3.3. THE SOD WILL BE LAID STARTING AT THE BASE OF SLOPES AND PROCEED UPWARD.
3.4. THE SOD STRIPS SHALL NOT BE STRETCHED.
3.5. THE UPPER EDGE OF THE SOD STRIP SHALL BE TURNED DOWN SLIGHTLY AT THE TOP OF SLOPES TO HELP CONDUCT WATER ONTO THE SODDED AREA.
3.6. THE SOD SHALL BE PLACED SO THAT NO OPEN JOINTS ARE LEFT BETWEEN STRIPS OR ENDS OF STRIPS. JOINTS SHALL BE STAGGERED.
3.7. APPLY A THIN LAYER OF TOPSOIL TO ALL OPEN JOINTS AND AROUND ALL OPEN EXPOSED EDGES.
3.8. THE SOD SHALL BE HELD IN PLACE, WHEN NEEDED, BY WOODEN PEGS OR OTHER MEANS UNTIL THE SOD IS ESTABLISHED AND FIRMLY ROOTED.
3.9. ROLL OR TAMP FIRMLY AND THOROUGHLY SOAK THE SOD AFTER PLACEMENT
3.10. WATERING OF THE SODDED AREA SHALL BE CONTINUED AS NEEDED TO PREVENT THE SOD FROM DRYING OUT FOR 30 DAYS AFTER THE SODDING IS COMPLETE.



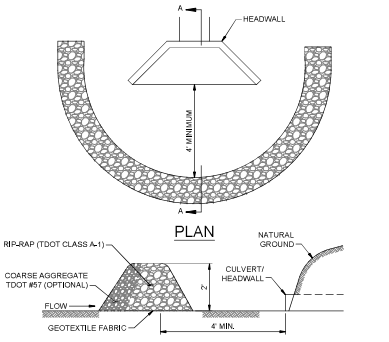
PLAN

C3 SOD DETAIL — NO SCALE — SO



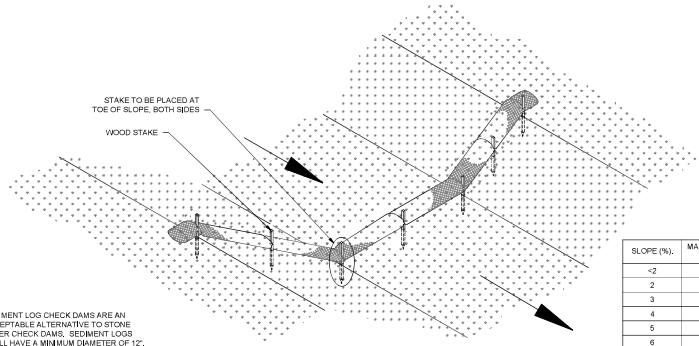
SECTION A-A

B3 SEDIMENT LOG RING HEADWALL INLET PROTECTION — NO SCALE — FR



SECTION A-A

B4 STONE FILTER RING HEADWALL INLET PROTECTION — NO SCALE — FR



SEDIMENT LOG CHECK DAMS ARE AN ACCEPTABLE ALTERNATIVE TO STONE FILTER CHECK DAMS. SEDIMENT LOGS SHALL HAVE A MINIMUM DIAMETER OF 12".

SLOPE (%).	MAXIMUM SPACING (FEET)
<2	125
2	100
3	75
4	50
5	40
6	30
>6	25

A3 SEDIMENT LOG CHECK DAM DETAIL — NO SCALE — CD

SSOE®

SEAL ON THIS DOCUMENT AUTHORIZED BY:

PROJECT INFORMATION:

EMERGENCY EFFLUENT LAGOON

MEMPHIS REGIONAL MEGASITE

STATEWIDE, TENNESSEE

CLIENT INFORMATION:

STATE OF TN

SBC PROJECT

529/000-02-2010-04

NO.	DATE	SUBJECT
B	02-22-22	ISSUED FOR CDP
A	01-15-22	ISSUED FOR DDP

REVISION OR ISSUE

SSOE, Inc.
1001 Madison Ave.
Toledo, OH 43604
T 419-255-3830

PROJECT NO. 012-02080-21

PROJECT MANAGER: D. HIBDON

DESIGNED: D. FLYNN

CHECKED: C. HARTMAN

DRAWING TITLE:

EPSC DETAILS

DRAWING NO:

400-CE-851

APPENDIX B

WWTP Sediment Basin Calculations

Drainage area above sediment trap = 17.0 acres

Storage volume required: 17.0 acres x 134 C.Y./acre = 2,279 C.Y.

Wet Storage Volume:

$$V_W = \frac{(34' \times 112') + (56' \times 134')}{2} \times (5.5') \div 27 = 1{,}152 \text{ C.Y.}$$

Dry Storage Volume:

$$V_D = \frac{(70' \times 148') + (56' \times 134')}{2} \times (3.5') \div 27 = 1{,}158 \text{ C.Y.}$$

Total Storage = 2,310 C.Y.

Dimensions:	Top of dry pool:	70' x 148'	3.5' deep
	Top of wet pool:	56' x 134'	5.5'deep
	Bottom of wet pool:	34' x 112'	

APPENDIX C

Soil Map—Haywood County, Tennessee, and Tipton County, Tennessee
(Memphis Megasite)

Map Scale: 1:6,350 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Haywood County, Tennessee
Survey Area Data: Version 21, Sep 14, 2021

Soil Survey Area: Tipton County, Tennessee
Survey Area Data: Version 19, Sep 15, 2021

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 9, 2019—Sep 15, 2019

MAP LEGEND

MAP INFORMATION

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ad	Adler silt loam, 0 to 2 percent slopes, frequently flooded	29.8	13.9%
FcB2	Feliciana silt loam, 2 to 5 percent slopes, moderately eroded, northern phase	11.0	5.2%
FcC3	Feliciana silt loam, 5 to 8 percent slopes, severely eroded, northern phase	11.8	5.5%
LoB2	Loring silt loam, 1 to 5 percent slopes, eroded	76.8	35.9%
LoC3	Loring silt loam, 5 to 8 percent slopes, severely eroded	45.4	21.2%
LoD3	Loring silt loam, 8 to 12 percent slopes, severely eroded	27.5	12.9%
Ro	Routon silt loam	1.9	0.9%
W	Water	1.6	0.7%
Subtotals for Soil Survey Area		**205.8**	**96.3%**
Totals for Area of Interest		**213.9**	**100.0%**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ad	Adler silt loam, 0 to 2 percent slopes, frequently flooded	0.4	0.2%
FcB2	Feliciana silt loam, 1 to 5 percent slopes, moderately eroded, northern phase	0.0	0.0%
GrC3	Grenada silt loam, 5 to 8 percent slopes, severely eroded	1.0	0.5%
LoC3	Loring silt loam, 5 to 8 percent slopes, severely eroded	5.1	2.4%
Rp	Routon silt loam, 0 to 2 percent slopes	1.4	0.7%
Subtotals for Soil Survey Area		**8.0**	**3.7%**
Totals for Area of Interest		**213.9**	**100.0%**

APPENDIX D

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
Toll Free Number: 1-888-891-8332 (TDEC)

NOTICE OF INTENT (NOI) FOR GENERAL NPDES PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES (TNR100000)

Site or Project Name:		**NPDES Tracking Number: TNR**
Street Address including city or zip code or Location:		Construction Start Date:
		Estimated End Date:
Site Description:		Latitude (dd.dddd):
		Longitude (-dd.dddd):
County(ies):	MS4 Jurisdiction (if applicable):	Acres Disturbed:
		Total Acres:
Are there any streams ☐ and/or wetlands ☐ on or adjacent to the construction site? No 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 Number:		
Receiving waters:		
Include the SWPPP with the NOI ☐ SWPPP Included	Include a site location map ☐ Map Included	

Name of Site Owner or Developer (Site-Wide Permittee): (correct legal name of person, company, or entity that has operational or design control over construction plans and specifications)			
For corporate entities only, provide the Tennessee Secretary of State (SOS) Control Number:			
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:	E-mail:		

Optional Contact Name:	Title or Position:		
Mailing Address:	City:	State:	Zip:
Phone:	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 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):	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. 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. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.		
Primary contractor name, address, and SOS control number (if applicable): (print or type)	Signature:	Date:
Primary contractor name, address, and SOS control number (if applicable): (print or type)	Signature:	Date:
Primary contractor name, address, and SOS control number (if applicable): (print or type)	Signature:	Date:

NOTICE OF INTENT (NOI) FOR GENERAL NPDES PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES (TNR100000)

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.

The appropriate permit application fee 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):

(i) Projects equal to or greater than 150 acres	$10,000
(ii) Projects equal to or greater than 50 acres and less than 150 acres	$6,000
(iii) Projects equal to or greater than 20 acres and less than 50 acres	$3,000
(iv) Projects equal to or greater than 5 acres and less than 20 acres	$1,000
(v) Projects equal to or greater than 1 acre and less than 5 acres	$250
(vi) Projects seeking subsequent coverage under an actively covered larger common plan of development or sale	$100

There is no fee for sites less than 1 acre. A separate annual maintenance fee is also required for construction activities that exceed 1 year under general permit coverage. Tennessee Rules, Chapter 0400-40-11-.02(b)(12)).

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 landowner 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 separate or subsequent NOI submittals must include the site's previously assigned permit tracking number and the project name. The site-wide site-specific SWPPP shall be prepared in accordance with the requirements of part 5 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. Artificial entities (e.g., corporations or partnerships excluding entities not required to register) must submit the TN Secretary of State, Division of Business Services, control number. The Division reserves the right to deny coverage to artificial entities that are not properly registered and in good standing with the TN Secretary of State.

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 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 topographic map, a city map, or a county 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.

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.

An ARAP 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, 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** or use MyTDEC Forms for electronic submittal.

EFO	Street Address	Zip Code	EFO	Street Address	Zip Code
Memphis	8383 Wolf Lake Drive, Bartlett	38133-4119	Cookeville	1221 South Willow Ave.	38506
Jackson	1625 Hollywood Drive	38305-4316	Chattanooga	1301 Riverfront Parkway, Suite 206	37402-2013
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 ENVIRONMENT AND CONSERVATION (TDEC)

DIVISION OF WATER RESOURCES (DWR)
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. Specifically, this means that all disturbed soils at the portion of the construction site where the operator had control have been permanently 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. Submission of this form shall in no way relieve the permittee of permit obligations required prior to submission of this form.

Submit this form to the local DWR Environmental Field Office (EFO) address (see table below) or using MyTDEC Forms electronic submittal process. For more information, contact your local EFO at the toll-free number 1-888-891-8332 (TDEC).

Site or Project Name:	**NPDES Tracking Number: TNR**
Street Address or Location:	County(ies):

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: (check only one)

☐	Primary permittee termination: all requirements for termination under Permit Part 9.1.1. a) through c) have been met. This includes, but is not limited to, for areas the primary permittee has control all earth-disturbing activities at the site are complete and permanent stabilization as defined in Part 10 of the CGP has been achieved. (attach photo documentation)
	When applicable, and you are a primary permittee seeking termination, list who is responsible for ongoing maintenance of stormwater controls left on the site subject for long-term use following termination of coverage:
☐	Secondary permittee termination: all requirements for termination under Permit Part 9.2.1. have been met (no longer an operator at the construction site).

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 state is unlawful under the Tennessee Water Quality Control 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 Tennessee Water Quality Control Act. 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.

Permittee name (print or type):	Signature:	Date:

EFO	Address	EFO	Street Address
Memphis	8383 Wolf Lake Drive, Bartlett, TN 38133	Cookeville	1221 South Willow Ave., TN 38506
Jackson	1625 Hollywood Drive, TN 38305	Chattanooga	1301 Riverfront Parkway, Ste. 206, TN 37402
Nashville	711 R S Gass Boulevard, TN 37243	Knoxville	3711 Middlebrook Pike, TN 37921
Columbia	1421 Hampshire Pike, TN 38401	Johnson City	2305 Silverdale Road, TN 37601

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
1-888-891-8332 (TDEC)

General NPDES Permit for Stormwater Discharges from Construction Activities (CGP)
Construction Stormwater Inspection Certification (Inspection Form)

Site or Project Name:		**NPDES Tracking Number: TNR**
Primary Permittee Name:		Date of Inspection:
Current approximate <u>disturbed</u> acreage:	Has rainfall been checked/documented daily? ☐ Yes ☐ No	Name of Inspector:
Current weather/ground conditions:	Rainfall total since last inspection:	Inspector's TNEPSC Certification Number:
Site Assessment ☐ Yes ☐ No	Assessor's TN PE registration number:	Assessor's TNEPSC Level II/CPESC number:

Check the box if the following items are on-site:	
☐	Notice of Coverage (NOC)
☐	Stormwater Pollution Prevention Plan (SWPPP)
☐	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? If "No," describe below in Comment Section				
1.	Are all applicable EPSCs installed and maintained per the SWPPP per the current phase?		☐ Yes	☐ No
2.	Are EPSCs functioning correctly at all disturbed areas/material storage areas? (permit section 5.5.3)		☐ Yes	☐ No
3.	Are EPSCs functioning correctly at outfall/discharge points such that there is no objectionable color contrast in the receiving stream, and no other water quality impacts? (permit section 5.5.3.5 and 6.3.2)		☐ Yes	☐ No
4.	Are EPSCs functioning correctly at ingress/egress points such that there is no evidence of track-out? (permit section 5.5.3.1)		☐ Yes	☐ No
5.	If applicable, have discharges from dewatering activities been managed by appropriate controls? (permit section 4.1.3) If "No," describe below the measure to be implemented to address deficiencies.	☐ N/A	☐ Yes	☐ No
6.	If construction activity at any location on-site has temporarily/permanently ceased, was the area stabilized within 14 days? (permit section 5.5.3.4) If "No," describe below each location and measures taken to stabilize the area(s).	☐ N/A	☐ Yes	☐ No
7.	Have pollution prevention measures been installed, implemented, and maintained to minimize the discharge of pollutants from wash waters, exposure of materials and discharges from spills and leaks per section 4.1.4? If "No," describe below the measure to be implemented to address deficiencies.	☐ N/A	☐ Yes	☐ No

Owner or Developer Certification: (must be signed by president, vice-president or equivalent, or ranking elected official) (Primary Permittee) Megasite Authority of West Tennessee		
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): Clay Bright, CEO	Signature:	Date: 5-4-22

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. 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. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.		
Primary contractor name, address, and SOS control number (if applicable): (print or type)	Signature:	Date:
Primary contractor name, address, and SOS control number (if applicable): (print or type)	Signature:	Date:
Primary contractor name, address, and SOS control number (if applicable): (print or type)	Signature:	Date:

Construction Stormwater Inspection Certification Form (Inspection Form)

Purpose of this form / Instructions

An inspection, as described in subsection 5.5.3.9. of the General Permit for Stormwater Discharges from Construction Activities ("Permit"), shall be performed at the specified frequency 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.

Inspections can be performed by:

a) a person with a valid certification from the "Fundamentals of Erosion Prevention and Sediment Control Level I" course,
b) a licensed professional engineer or landscape architect,
c) a Certified Professional in Erosion and Sediment Control (CPESC), or
d) a person who has successfully completed the "Level II Design Principles for Erosion Prevention and Sediment Control for Construction Sites" course.

Qualified personnel, as defined in subsection 5.5.3.10 of the Permit (provided by the permittee or cooperatively by multiple permittees) shall inspect disturbed areas of the construction site that have not been permanently 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.

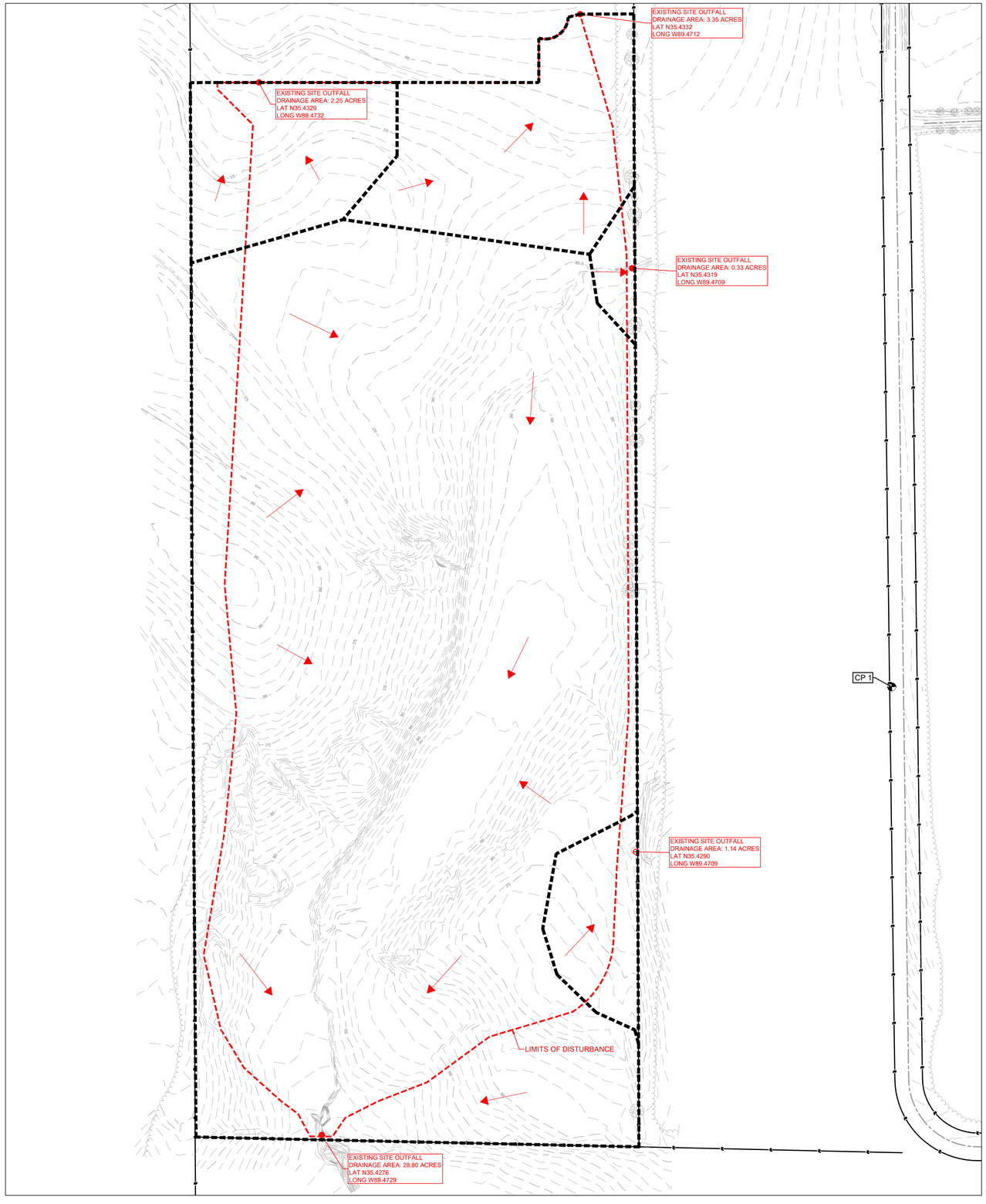
Based on the results of the inspection, any inadequate control measures or control measures in disrepair shall be replaced or modified, or repaired as necessary, before the next rain event if possible, but in no case more than 7 days after the need is identified.

Based on the results of the inspection, the site description identified in the SWPPP in accordance with section 5.5.1 of the Permit and pollution prevention measures identified in the SWPPP in accordance with section 5.5.2 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.

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.

ATTACHMENT NO. 1



NORTH

0' 100' 200' 300'

GRAPHIC SCALE : 1" = 100'

811 Know what's **below.** **Call** before you dig.

ssoe®

SEAL ON THIS DOCUMENT AUTHORIZED BY:

DAVID E FLYNN
REGISTERED ENGINEER
No. 120949
STATE OF TENNESSEE
05-24-2022

PROJECT INFORMATION:

EMERGENCY EFFLUENT LAGOON

MEMPHIS REGIONAL MEGASITE

STATEWIDE, TENNESSEE

CLIENT INFORMATION:

STATE OF TN

SBC PROJECT

529/000-02-2010-04

NO.	DATE	SUBJECT
D	05-24-22	PERMIT REVIEW

REVISION OR ISSUE

SSOE, Inc.
1001 Madison Ave.
Toledo, OH 43604
T 419-255-3830

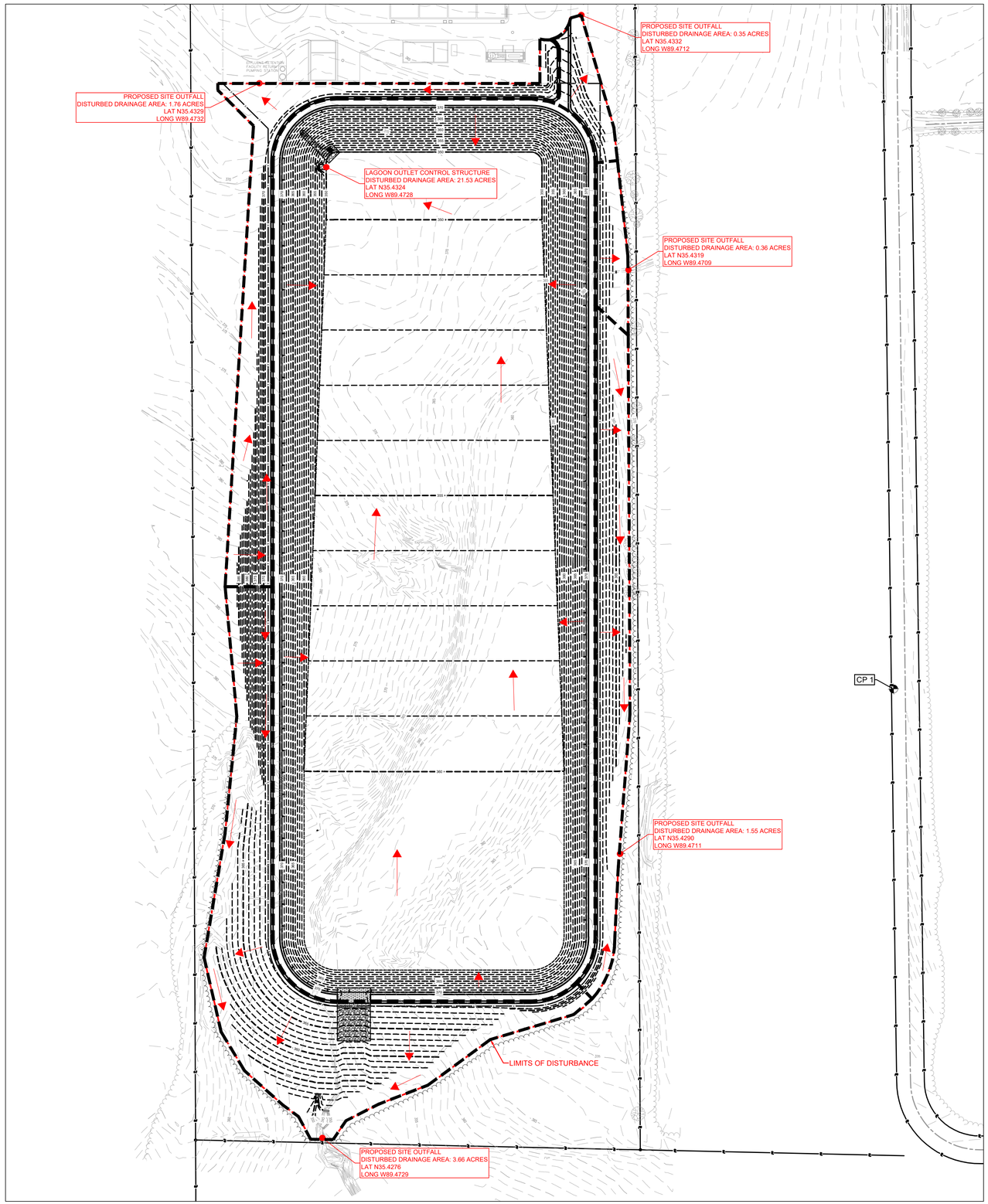
PROJECT NO:	012-02080-21
PROJECT MANAGER:	D. HIBDON
DESIGNED:	D. FLYNN
CHECKED:	C. HARTMAN

DRAWING TITLE:

PRE-DEVELOPMENT DRAINAGE AREA

DRAWING NO:

400-CE-PRE



NORTH

0' 100' 200' 300'

GRAPHIC SCALE : 1" = 100'

811 Know what's below. Call before you dig.

ssoe®

SEAL ON THIS DOCUMENT AUTHORIZED BY:

DAVID E FLYNN
REGISTERED ENGINEER
No. 120849
AGRICULTURE
COMMERCE
STATE OF TENNESSEE
05-24-2022

PROJECT INFORMATION:

EMERGENCY EFFLUENT LAGOON

MEMPHIS REGIONAL MEGASITE

STATEWIDE, TENNESSEE

CLIENT INFORMATION:

STATE OF TN

SBC PROJECT

529/000-02-2010-04

NO.	DATE	SUBJECT
D	05-24-22	PERMIT REVIEW

REVISION OR ISSUE

SSOE, Inc.
1001 Madison Ave.
Toledo, OH 43604
T 419-255-3830

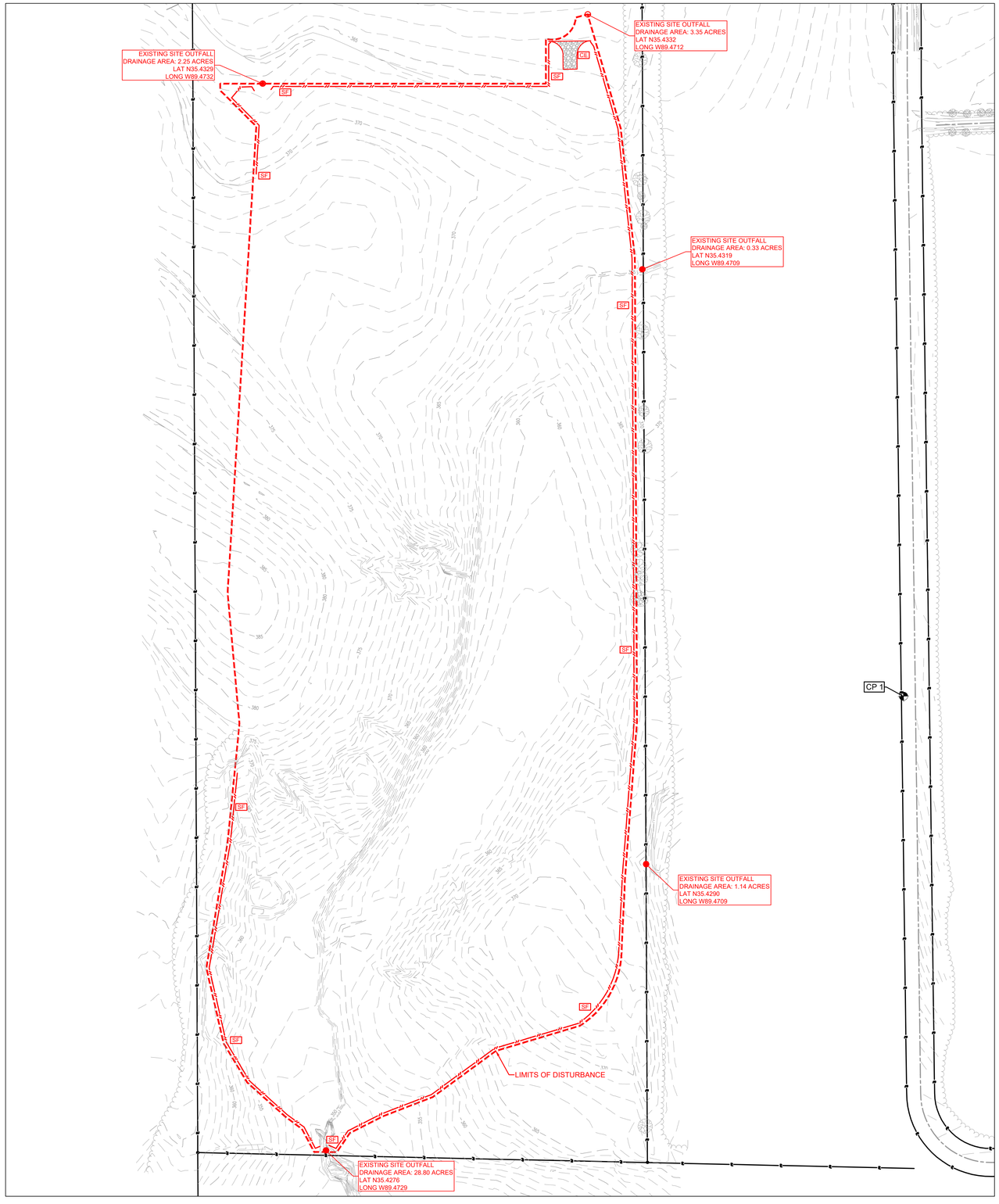
PROJECT NO:	012-02080-21
PROJECT MANAGER:	D. HIBDON
DESIGNED:	D. FLYNN
CHECKED:	C. HARTMAN

DRAWING TITLE:

POST DEVELOPMENT DRAINAGE AREA

DRAWING NO:

400-CE-POST



EPSC LEGEND		
	CE	CONSTRUCTION EXIT
	SF	SILT FENCE OR SEDIMENT LOGS

REFER TO THE TDEC EROSION AND SEDIMENT CONTROL HANDBOOK AS WELL AS DRAWINGS 400-CE-850 AND 400-CE-851 FOR EPSC DETAILS AND ADDITIONAL INFORMATION.

NORTH

0' 100' 200' 300'

GRAPHIC SCALE : 1" = 100'

Know what's **below.** **Call** before you dig.

ssoe®

SEAL ON THIS DOCUMENT AUTHORIZED BY:

DAVID E. FLYNN
REGISTERED ENGINEER
STATE OF TENNESSEE
AGRICULTURE
COMMERCE
No. 120949
05-24-2022

PROJECT INFORMATION:

EMERGENCY EFFLUENT LAGOON

MEMPHIS REGIONAL MEGASITE

STATEWIDE, TENNESSEE

CLIENT INFORMATION:

STATE OF TN

SBC PROJECT

529/000-02-2010-04

NO.	DATE	REVISION OR ISSUE
D	05-24-22	PERMIT REVIEW
B	02-22-22	ISSUED FOR CDP
A	01-15-22	ISSUED FOR DDP

SSOE, Inc.
1001 Madison Ave.
Toledo, OH 43604
T 419-255-3830

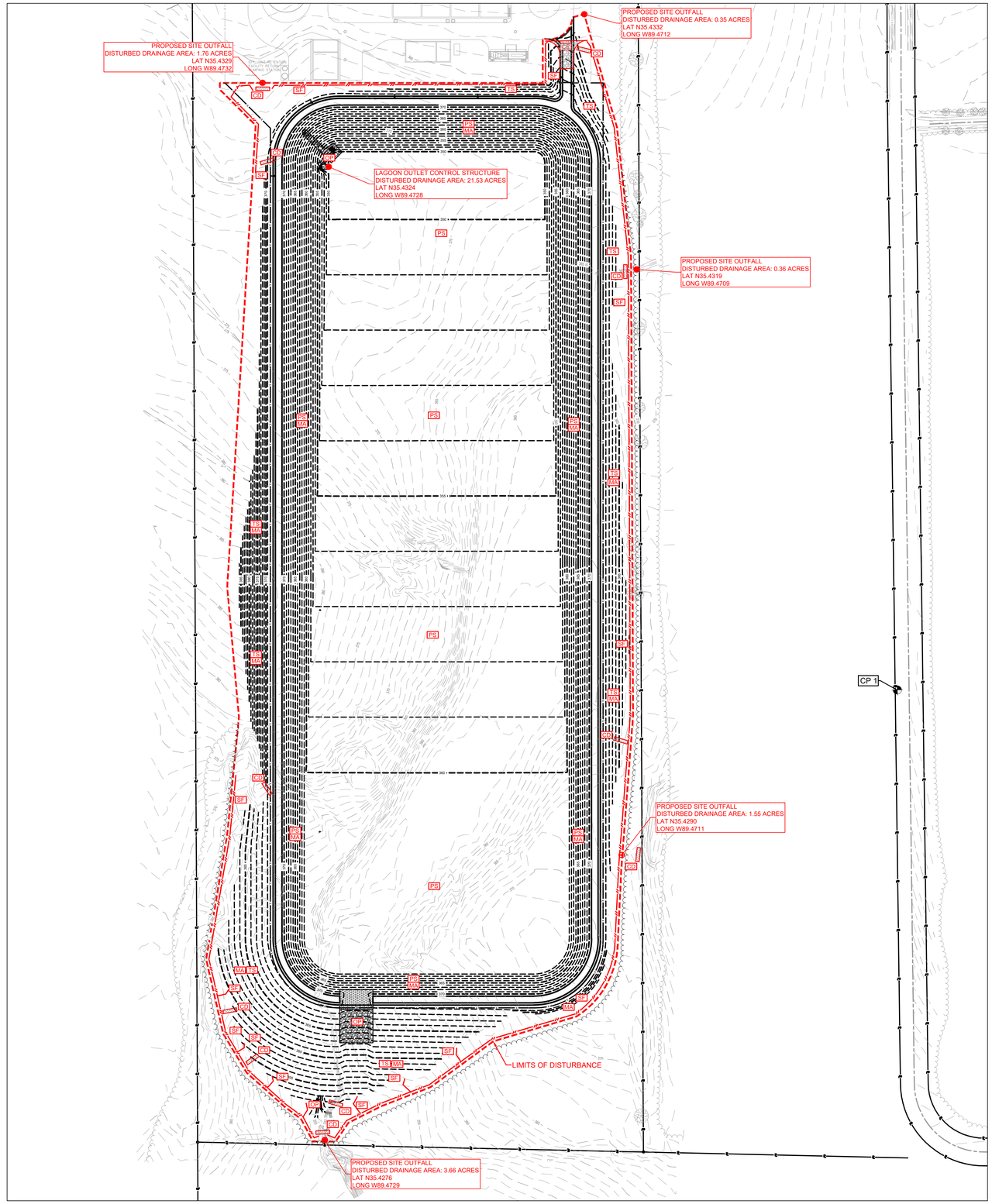
PROJECT NO:	012-02080-21
PROJECT MANAGER:	D. HIBDON
DESIGNED:	D. FLYNN
CHECKED:	C. HARTMAN

DRAWING TITLE:

INITIAL EPSC PLAN

DRAWING NO:

400-CE-700



EPSC LEGEND

	CE	CONSTRUCTION EXIT
	SF	SILT FENCE OR SEDIMENT LOGS
	CD	CHECK DAM
	OP	RIP RAP
	PS	PERMANENT STABILIZATION
	TS	TEMPORARY STABILIZATION
	MA	MATTING/EROSION CONTROL BLANKET

REFER TO THE TDEC EROSION AND SEDIMENT CONTROL HANDBOOK AS WELL AS DRAWINGS 400-CE-850 AND 400-CE-851 FOR EPSC DETAILS AND ADDITIONAL INFORMATION.

NORTH

0' 100' 200' 300'

GRAPHIC SCALE : 1" = 100'

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SEAL ON THIS DOCUMENT AUTHORIZED BY:

DAVID E. FLYNN
REGISTERED ENGINEER
No. 120849
AGRICULTURE
COMMERCE
STATE OF TENNESSEE
05-24-2022

PROJECT INFORMATION:

EMERGENCY EFFLUENT LAGOON

MEMPHIS REGIONAL MEGASITE

STATEWIDE, TENNESSEE

CLIENT INFORMATION:

STATE OF TN

SBC PROJECT

529/000-02-2010-04

NO.	DATE	SUBJECT
D	05-24-22	PERMIT REVIEW
C	04-18-22	ADDENDUM 1
B	02-22-22	ISSUED FOR CDP
A	01-15-22	ISSUED FOR DDP

REVISION OR ISSUE

SSOE, Inc.
1001 Madison Ave.
Toledo, OH 43604
T 419-255-3830

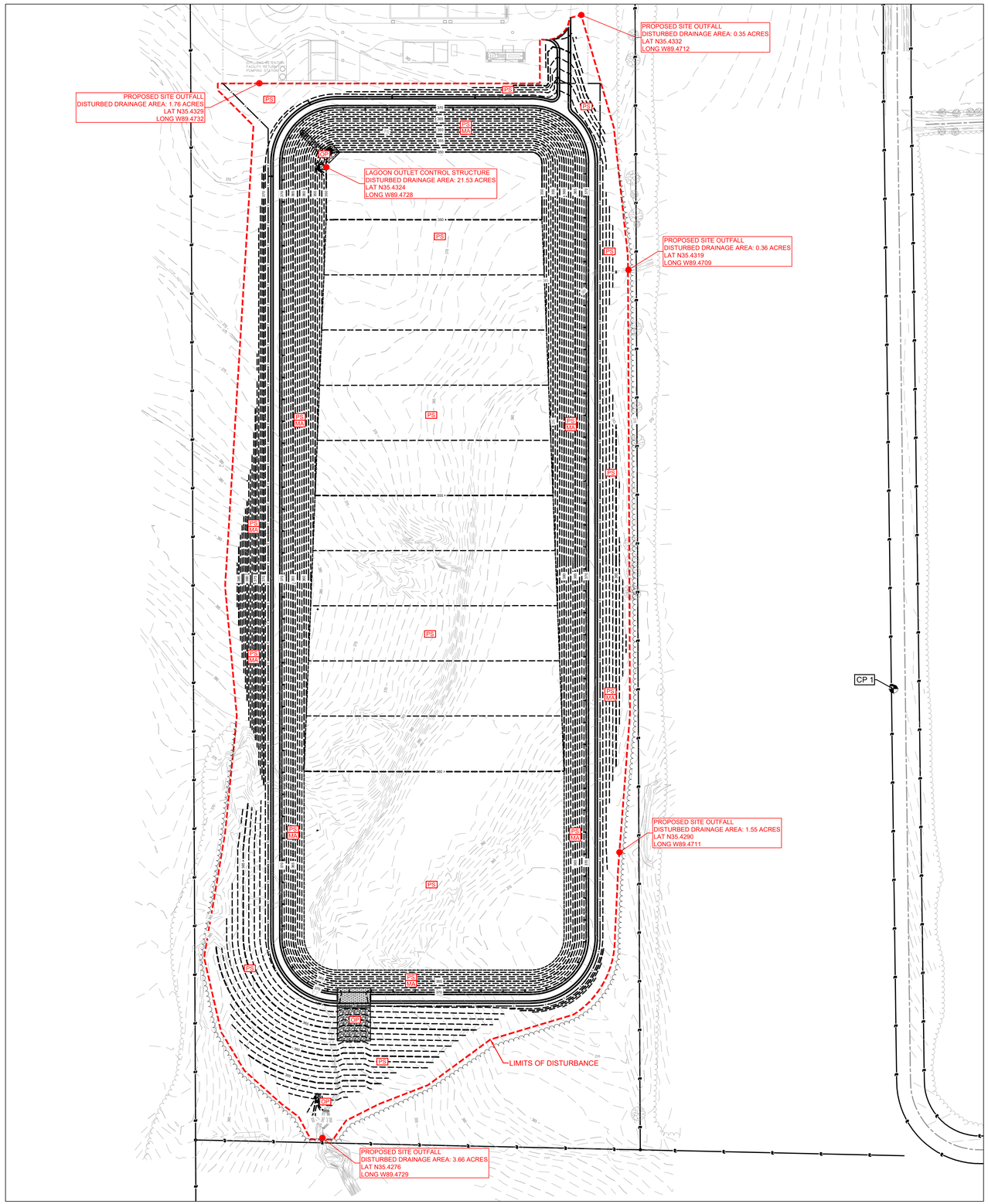
PROJECT NO:	012-02080-21
PROJECT MANAGER:	D. HIBDON
DESIGNED:	D. FLYNN
CHECKED:	C. HARTMAN

DRAWING TITLE:

INTERMEDIATE EPSC PLAN

DRAWING NO:

400-CE-710



EPSC LEGEND		
	RIP RAP	RIP
	PERMANENT STABILIZATION	PS
	MATTING/EROSION CONTROL BLANKET	MA

REFER TO THE TDEC EROSION AND SEDIMENT CONTROL HANDBOOK AS WELL AS DRAWINGS 400-CE-850 AND 400-CE-851 FOR EPSC DETAILS AND ADDITIONAL INFORMATION.

NORTH

0' 100' 200' 300'

GRAPHIC SCALE : 1" = 100'

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DAVID E. FLYNN
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No. 120849
AGRICULTURE
COMMERCE
STATE OF TENNESSEE
05-24-2022

PROJECT INFORMATION:

EMERGENCY EFFLUENT LAGOON

MEMPHIS REGIONAL MEGASITE

STATEWIDE, TENNESSEE

CLIENT INFORMATION:

STATE OF TN

SBC PROJECT

529/000-02-2010-04

NO.	DATE	SUBJECT
D	05-24-22	PERMIT REVIEW
C	04-18-22	ADDENDUM 1
B	02-22-22	ISSUED FOR CDP
A	01-15-22	ISSUED FOR DDP

REVISION OR ISSUE

SSOE, Inc.
1001 Madison Ave.
Toledo, OH 43604
T 419-255-3830

PROJECT NO:	012-02080-21
PROJECT MANAGER:	D. HIBDON
DESIGNED:	D. FLYNN
CHECKED:	C. HARTMAN

DRAWING TITLE:

FINAL EPSC PLAN

DRAWING NO:

400-CE-720

SURVEY CONTROL (BY OTHERS)
MAG NAIL FOUND
N 419213.22
E 913943.42
ELEV. 364.93

OUTFALL NO. 1
LAT. N35.4346
LONG. W89.4728
AREA = 11.4 ACRES (LOCAL)
AREA = 17.0 ACRES (TOTAL)

PROPERTY OF
STATE OF TENNESSEE

SILT FENCE

LIMITS OF DISTURBANCE

CONCEPTUAL LOCATION OF RAILROAD SPUR

LIMITS OF DISTURBANCE

SILT FENCE

PROPERTY OF
COULSTON, ETAL

EXISTING POWER LINE TO BE RELOCATED

PROPERTY OF
STATE OF TENNESSEE

SILT FENCE

CONSTRUCTION ENTRANCE

SURVEY CONTROL (BY OTHERS)
MAG NAIL FOUND
N 418700.17
E 935200.59
ELEV. 375.62

OUTFALL NO. 3
LAT. N35.4332
LONG. W89.4712
SEE EMERGENCY EFFLUENT
LAGOON DRAWINGS

PROPERTY OF
ELIZABETH M. TATE

LIMITS OF DISTURBANCE

FREEDOM LOOP ROAD

PROPERTY OF
STATE OF TENNESSEE

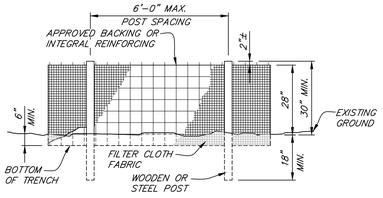
OUTFALL NO. 2
LAT. N35.4329
LONG. W89.4732
SEE EMERGENCY EFFLUENT
LAGOON DRAWINGS

SILT FENCE

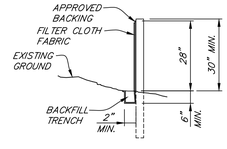
LIMITS OF DISTURBANCE

EMERGENCY EFFLUENT LAGOON
(NOT IN THIS CONTRACT)

PROPERTY OF
STATE OF TENNESSEE



ELEVATION



SECTION

NOTES:

1. FILTER CLOTH SHALL HAVE APPROVED BACKING OR AN INTEGRAL REINFORCING AS RECOMMENDED BY THE MANUFACTURER TO SUPPORT THE FILTER CLOTH.
2. A PREASSEMBLED SILT FENCE MEETING THE REQUIREMENTS OF THIS DRAWING IS ACCEPTABLE IN LIEU OF A FIELD CONSTRUCTED SILT FENCE.

STANDARD TEMPORARY SILT FENCE

CONSTRUCTION NOTES

1. SEE "GENERAL NOTES" ON SHEET C-001.
2. THE CONTRACTOR SHALL CONSTRUCT TEMPORARY WATER POLLUTION CONTROL MEASURES AS DEPICTED ON THESE PLANS, AS RECOMMENDED BY THE ENGINEER AND/OR AS STIPULATED IN THE DETAILED SPECIFICATIONS TO PREVENT THE TRANSPORT OF SEDIMENT FROM THE PROJECT SITE.

LEGEND

- EXISTING STRUCTURES TO BE RAZED
- PROPOSED CONSTRUCTION ENTRANCE
- EXISTING GRAVEL
- EXISTING CULVERT
- EXISTING CONTOURS
- PROPERTY LINE
- LIMITS OF DISTURBANCE
- SILT FENCE
- OUTFALL BOUNDARY
- STONE CHECK DAM
- PS — PERMANENT VEGETATION

EROSION CONTROL SITE PLAN – EXISTING SITE

SCALE: 1" = 50'

ssoe

CONSULTANTS:

WAUFORD
Jackson, Tennessee
(731) 668-1953
www.jrwauford.com

THE SEAL ON THIS DOCUMENT WAS AUTHORIZED BY:

W. SCOTT DANIEL
REGISTERED
ENGINEER
AGRICULTURE
COMMERCE
No. 104405
STATE OF TENNESSEE

SEAL ID:
DATE:

MEMPHIS REGIONAL MEGASITE

WASTEWATER TREATMENT AND DISPOSAL FACILITIES

STATE OF TN
SBC PROJ #
529/000-02-2010-04

CLIENT PROJECT NO:

NO.	DATE	SUBJECT
E	5/23/22	REVISED FOR PERMIT REVIEW
D	4/18/22	ISSUED FOR CDP/SFM REVIEW
C	2/25/22	ISSUE FOR THIRD DDP REVIEW
B	1/26/22	ISSUE FOR SECOND DDP REVIEW
A	11/05/21	ISSUE FOR DDP REVIEW

REVISION OR ISSUE

SSOE, Inc.
320 Seven Springs Way, Suite 350
Brentwood, TN 37027
T 615-661-7585
© 2011

SSOE PROJECT NO:	012-02080-16
WAUFORD PROJECT NO:	3679
PROJECT MANAGER:	D. HIBDON
DESIGNED:	S. DANIEL
CHECKED:	G. DAVENPORT

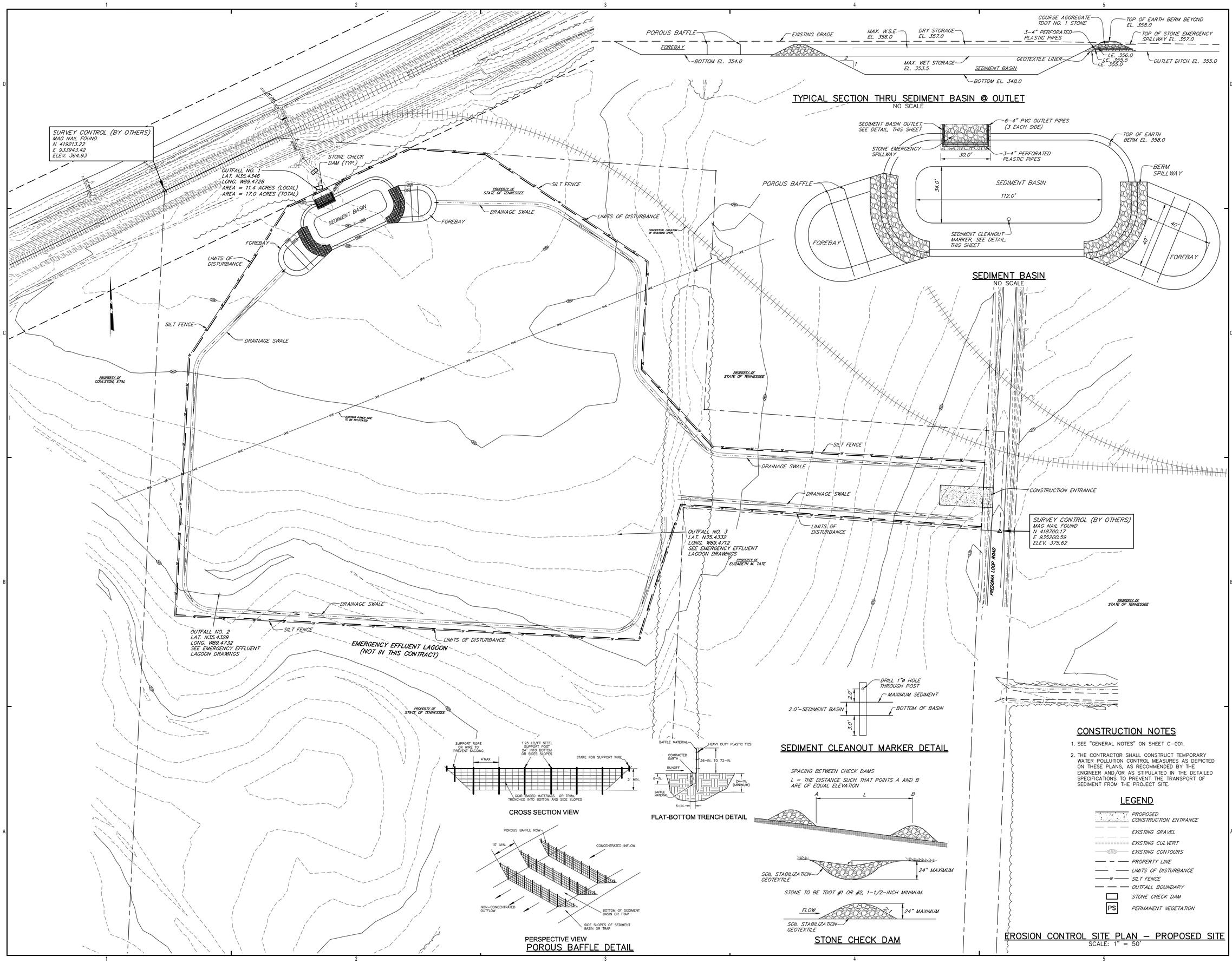
DRAWING TITLE:

EROSION CONTROL PLAN - INTERIM SITE AND DETAILS

DRAWING NO:

100-C-005

C:\Users\AlanRaybourn\J R WAUFORD & CO\3679 - Drawings\EROSION CONTROL\EC PHASE I PLOT SHEET.dwg
DATE: May 24, 2022 - 9:23am USER: AlanRaybourn



TYPICAL SECTION THRU SEDIMENT BASIN @ OUTLET
NO SCALE

SEDIMENT BASIN
NO SCALE

CROSS SECTION VIEW

FLAT-BOTTOM TRENCH DETAIL

PERSPECTIVE VIEW
POROUS BAFFLE DETAIL

SEDIMENT CLEANOUT MARKER DETAIL

STONE CHECK DAM

CONSTRUCTION NOTES

1. SEE "GENERAL NOTES" ON SHEET C-001.
2. THE CONTRACTOR SHALL CONSTRUCT TEMPORARY WATER POLLUTION CONTROL MEASURES AS DEPICTED ON THESE PLANS, AS RECOMMENDED BY THE ENGINEER AND/OR AS STIPULATED IN THE DETAILED SPECIFICATIONS TO PREVENT THE TRANSPORT OF SEDIMENT FROM THE PROJECT SITE.

LEGEND

- PROPOSED CONSTRUCTION ENTRANCE
- EXISTING GRAVEL
- EXISTING CULVERT
- EXISTING CONTOURS
- PROPERTY LINE
- LIMITS OF DISTURBANCE
- SILT FENCE
- OUTFALL BOUNDARY
- STONE CHECK DAM
- PS — PERMANENT VEGETATION

EROSION CONTROL SITE PLAN – PROPOSED SITE
SCALE: 1" = 50'

ssoe

CONSULTANTS:

WAUFORD
Jackson, Tennessee
(731) 668-1953
www.jrwauford.com

THE SEAL ON THIS DOCUMENT WAS AUTHORIZED BY:

W. SCOTT DANIEL — REGISTERED ENGINEER — 104455 — STATE OF TENNESSEE

SEAL ID:
DATE:

MEMPHIS REGIONAL MEGASITE

WASTEWATER TREATMENT AND DISPOSAL FACILITIES

STATE OF TN
SBC PROJ #
529/000-02-2010-04

CLIENT PROJECT NO:

NO.	DATE	SUBJECT
E	6/7/22	REVISED FOR PERMIT REVIEW
D	4/18/22	ISSUED FOR CDP/SFM REVIEW
C	2/25/22	ISSUE FOR THIRD DDP REVIEW
B	1/26/22	ISSUE FOR SECOND DDP REVIEW
A	11/05/21	ISSUE FOR DDP REVIEW

REVISION OR ISSUE

SSOE, Inc.
320 Seven Springs Way, Suite 350
Brentwood, TN 37027
T 615-661-7585

SSOE PROJECT NO:	012-02080-16
WAUFORD PROJECT NO:	3679
PROJECT MANAGER:	D. HIBDON
DESIGNED:	S. DANIEL
CHECKED:	G. DAVENPORT

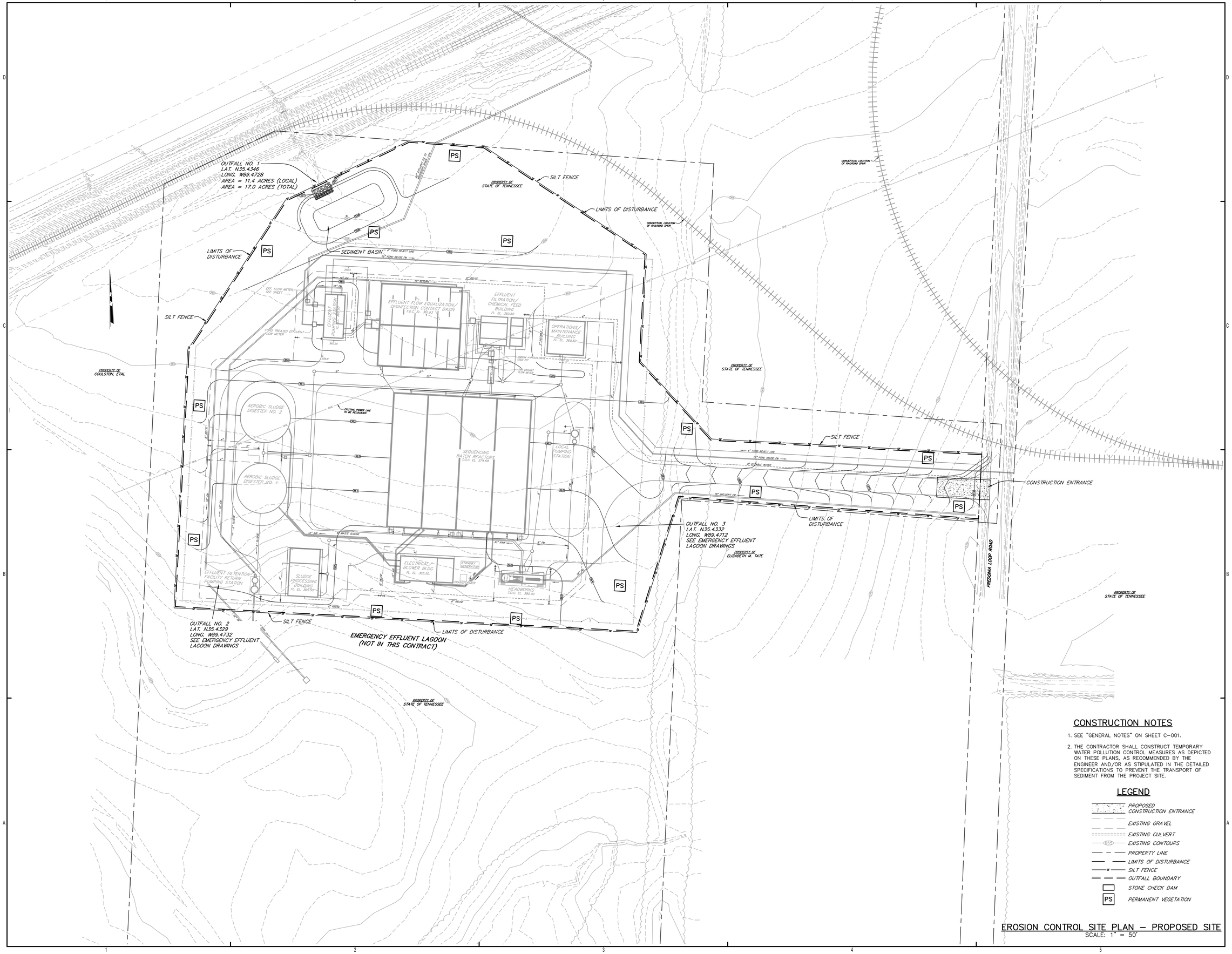
DRAWING TITLE:

EROSION CONTROL PLAN - INTERMEDIATE SITE AND DETAILS

DRAWING NO:

100-C-005A

C:\Users\AlanRaybourn\J R WAUFORD & CO\3679 - Drawings\EROSION CONTROL\EC PHASE II PLOT SHEET.dwg
DATE: Jun 07, 2022 - 3:41pm USER: AlanRaybourn



CONSTRUCTION NOTES

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2. THE CONTRACTOR SHALL CONSTRUCT TEMPORARY WATER POLLUTION CONTROL MEASURES AS DEPICTED ON THESE PLANS, AS RECOMMENDED BY THE ENGINEER AND/OR AS STIPULATED IN THE DETAILED SPECIFICATIONS TO PREVENT THE TRANSPORT OF SEDIMENT FROM THE PROJECT SITE.

LEGEND

- PROPOSED CONSTRUCTION ENTRANCE
- EXISTING GRAVEL
- EXISTING CULVERT
- EXISTING CONTOURS
- PROPERTY LINE
- LIMITS OF DISTURBANCE
- SILT FENCE
- OUTFALL BOUNDARY
- STONE CHECK DAM
- PS — PERMANENT VEGETATION

EROSION CONTROL SITE PLAN – PROPOSED SITE

SCALE: 1" = 50'

ssoe

CONSULTANTS:

WAUFORD
Jackson, Tennessee
(731) 668-1953
www.jrwauford.com

THE SEAL ON THIS DOCUMENT WAS AUTHORIZED BY:

W. SCOTT DANIEL — REGISTERED ENGINEER — AGRICULTURE — COMMERCE — 104425 — STATE OF TENNESSEE

SEAL ID:
DATE:

MEMPHIS REGIONAL MEGASITE

WASTEWATER TREATMENT AND DISPOSAL FACILITIES

STATE OF TN

SBC PROJ # 529/000-02-2010-04

CLIENT PROJECT NO:

NO.	DATE	SUBJECT
E	5/23/22	REVISED FOR PERMIT REVIEW
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REVISION OR ISSUE

SSOE, Inc.
320 Seven Springs Way, Suite 350
Brentwood, TN 37027
T 615-661-7585

SSOE PROJECT NO:	012-02080-16
WAUFORD PROJECT NO:	3679
PROJECT MANAGER:	D. HIBDON
DESIGNED:	S. DANIEL
CHECKED:	G. DAVENPORT

DRAWING TITLE:
EROSION CONTROL PLAN - FINAL SITE

DRAWING NO:
100-C-006

C:\Users\AlanRaybourn\J R WAUFORD & CO\3679 - Drawings\EROSION CONTROL\EC PHASE III PLOT SHEET.dwg
DATE: May 24, 2022 - 9:31am USER: AlanRayborn