

Received
APR 15 2016
Division of Water Resources
Jackson Field Office

**ARAP PERMIT
FOR
A 60" HDPE PIPE INSTALLATION AND
FOUR OUTFALLS FROM THE SELMER 1 SOLAR FARM SITE
TO
OXFORD CREEK
IN
MCNAIRY COUNTY, TN**

Prepared by:

**Barge Waggoner Sumner & Cannon, Inc.
60 Germantown Court, Suite 100
Memphis, Tennessee 38018**

File 36268-01



TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

Division of Water Resources

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

1-888-891-8332 (TDEC)

Application for Aquatic Resource Alteration Permit (ARAP) & State §401 Water Quality Permit

OFFICIAL STATE USE ONLY | Site #: | Permit #: |

Section 1. Applicant Information (individual responsible for site, signs certification below)

Applicant Name: Scott Canada

Company: McCarthy Building Companies

Signatory's Title or Position: Vice President

Mailing Address: 6225 N. 24th Street, Suite 200

City: Phoenix

State: AZ

Zip: 85016

Phone: 480-449-4757

Fax:

E-mail:

Section 2. Alternate Contact/Consultant Information (a consultant is not required)

Alternate Contact Name: Chris Triplett

Company: Barge Waggoner Sumner & Cannon

Title or Position: Project Manager

Mailing Address: 60 Germantown Ct., Suite 100

City: Cordova

State: TN

Zip: 38018

Phone: 901-244-5512

Fax: 901-755-7844

E-mail: chris.triplett@bwsc.net

Section 3. Fee (check appropriate box and submit requisite fee with application)

[X] No Fee Submitted To Be Determined

[] Fee Submitted with Application

Amount Submitted: \$ _____

By TDEC

Current fee schedules for Aquatic Resource Alteration Permit processing may be found at the Division of Water Resources webpage at http://www.tn.gov/environment/permits/arap.shtml or by calling (615) 532-0625. Make checks payable to "Treasurer, State of Tennessee".

Section 4. Project Details (fill in information and check appropriate boxes)

Site or Project Name: Selmer 1 Solar Farm

Nearest City, Town or Major Landmark: Selmer, TN

Street Address or Location: SE Quadrant of TN Hwy. 142 and High School Road Intersection

County(ies): McNairy

MS4 Jurisdiction:

Latitude (dd.dddd): 35.14259

Longitude (dd.dddd): 88.53118

Resource Proposed for Alteration:

[X] Stream

[] Wetland

[] Reservoir

Name of Water Resource: Oxford Creek

Brief Project Description (a more detailed description is required under Section 8):

Installation of a 60" pipe on a lateral to Oxford Creek and four outfalls to Oxford Creek from the Selmer 1 Solar Farm site.

Does the proposed activity require approval from the U.S. Army Corps of Engineers, the Tennessee Valley Authority, or any other federal, state, or local government agency? [] Yes [X] No

If Yes, provide the permit reference numbers:

Is the proposed activity associated with a larger common plan of development? [X] Yes [] No

If Yes, submit site plans and identify the location and overall scope of the common plan of development.

Plans attached? [X] Yes [] No

If applicable, indicate any other federal, state, or local permit authorizations that the overall project site (common plan of development) has obtained in the past (i.e. construction general permit coverage and/or other ARAPs):

Section 5. Project Schedule (fill in information and check appropriate boxes)

Start date: July, 2016

Estimated end date: September, 2016

Is any portion of the activity complete now? [] Yes [X] No If yes, describe the extent of the completed portion:

Application for Aquatic Resource Alteration Permit (ARAP) & State §401 Water Quality Permit

The required information in Sections 6-11 must be submitted on a separate sheet(s) and submitted in the same numbered format as presented below. If any question is not applicable, state the reason why it is not applicable.

Section 6. Project Description		Attached	
		Yes	No
6.1	A narrative description of the scope of the project	<input type="checkbox"/>	<input type="checkbox"/>
6.2	USGS topographic map indicating the exact location of the project (<i>can be a photographic copy</i>)	<input type="checkbox"/>	<input type="checkbox"/>
6.3	Photographs of the resource(s) proposed for alteration with location description (<i>photo locations should be noted on map</i>)	<input type="checkbox"/>	<input type="checkbox"/>
6.4	A narrative description of the existing stream and/or wetland characteristics including, but not limited to, dimensions (e.g., depth, length, average width), substrate and riparian vegetation	<input type="checkbox"/>	<input type="checkbox"/>
6.5	A narrative description of the proposed stream and/or wetland characteristics including, but not limited to, dimensions (e.g., depth, length, average width), substrate and riparian vegetation	<input type="checkbox"/>	<input type="checkbox"/>
6.6	In the case of wetlands, include a wetland delineation with delineation forms and site map denoting location of data points	<input type="checkbox"/>	<input type="checkbox"/>
6.7	A copy of all hydrologic or jurisdictional determination documents issued for water resources on the project site	<input type="checkbox"/>	<input type="checkbox"/>

Section 7. Project Rationale	Attached	
	Yes	No
Describe the need for the proposed activity, including, but not limited to, the purpose, alternatives considered, and what will be done to avoid or minimize impacts to streams or wetlands.	<input type="checkbox"/>	<input type="checkbox"/>

Section 8. Technical Information		Attached	
		Yes	No
8.1	Detailed plans, specifications, blueprints, or legible sketches of present site conditions and the proposed activity. Plans must be 8.5.x 11 inches. Additional larger plans may also be submitted to aid in application review. The detailed plans should be superimposed on existing and new conditions (<i>e.g., stream cross sections where road crossings are proposed</i>)	<input type="checkbox"/>	<input type="checkbox"/>
2	For both the proposed activity and compensatory mitigation, provide a discussion regarding the sequencing of events and construction methods	<input type="checkbox"/>	<input type="checkbox"/>
8.3	Depiction and narrative on the location and type of erosion prevention and sediment control (EPSC) measures for the proposed alterations	<input type="checkbox"/>	<input type="checkbox"/>

Section 9. Water Resources Degradation (degree of proposed impact) <i>Note that in most cases, activities that exceed the scope of the General Permit limitations are considered greater than de minimis degradation to water quality.</i>
<p>My activity, as proposed:</p> <ul style="list-style-type: none"> a. <input checked="" type="checkbox"/> Will not cause measurable degradation to water quality b. <input type="checkbox"/> Will only cause de minimis degradation to water quality c. <input type="checkbox"/> Will cause more than de minimis degradation to water quality (<i>Complete additional sections 9-11</i>) d. <input type="checkbox"/> Unsure/need more information <p><i>For information and guidance on the definition of de minimis and degradation, refer to the Antidegradation Statement in Chapter 0400-40-03-.06 of the Tennessee Water Quality Criteria Rule: https://www.tn.gov/sos/rules/0400-40-03-20131216.pdf. For more information on specifics on what General Permits can cover, refer to the Natural Resources Unit webpage at http://www.tn.gov/environment/permits/arap.shtml</i></p>

If you checked "c." above in Section 9, complete the following 2 sections, 10-11. N/A

Section 10. Detailed Alternative Analysis		Attached	
		Yes	No
10.1	Analyze all reasonable alternatives and describe the level of degradation caused by each of the feasible alternatives	<input type="checkbox"/>	<input type="checkbox"/>
10.2	Discuss the social and economic consequences of each alternative	<input type="checkbox"/>	<input type="checkbox"/>
10.3	Demonstrate that the degradation associated with the preferred alternative will not violate water quality criteria for uses designated in the receiving waters, and is necessary to accommodate important economic and social development in the area	<input type="checkbox"/>	<input type="checkbox"/>

Application for Aquatic Resource Alteration Permit (ARAP) & State §401 Water Quality Permit

Section 11. Compensatory Mitigation		N/A	Attached	
			Yes	No
11.1	A detailed discussion of the proposed compensatory mitigation		<input type="checkbox"/>	<input type="checkbox"/>
11.2	Describe how the compensatory mitigation would result in no net loss of resource value		<input type="checkbox"/>	<input type="checkbox"/>
11.3	Provide a detailed monitoring plan for the compensatory mitigation site		<input type="checkbox"/>	<input type="checkbox"/>
11.4	Describe the long-term protection measures for the compensatory mitigation site (e.g., deed restrictions, conservation easement)		<input type="checkbox"/>	<input type="checkbox"/>

Certification and Signature

An application submitted by a corporation must be signed by a principal executive officer; from a partnership or proprietorship, by the partner or proprietor respectively; from a municipal, state, federal or other public agency or facility, the application must be signed by either a principal executive officer, ranking elected official, or other duly authorized employee

"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."

 Printed Name	Senior Vice President Official Title	 Signature	3/7/16 Date
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Submitting the form and obtaining more information Note that this form must be signed by the principal executive officer, partner or proprietor, or a ranking elected official in the case of a municipality; for details see **Certification and Signature** statement above. For more information, contact your local EFO at the toll-free number 1-888-891-8332 (TDEC). Submit the completed ARAP Application form (keep a copy for your records) to the appropriate EFO for the county(ies) where the ARAP activity is located, addressed to **Attention: ARAP Processing**. You may also electronically submit the complete application and all associated attachments (e.g., maps, wetland delineations and narrative portions) to water_permits@tn.gov.

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 Pkwy., Ste. 206	37402
Nashville	711 R S Gass Boulevard	37243	Knoxville	3711 Middlebrook Pike	37921
Columbia	1421 Hampshire Pike	38401	Johnson City	2305 Silverdale Road	37601



OFFICIAL STATE USE ONLY

Received Date:	Permit Number:	Reviewer:	Field Office:
Fee amount paid:	T & F Aquatic Flora and Fauna:	Impaired Receiving Stream	Application Review:
Date:			<input type="checkbox"/> Deficient Date: _____
Check #:	Exceptional TN Water		<input type="checkbox"/> Complete Date: _____

SECTION 6 PROJECT DESCRIPTION

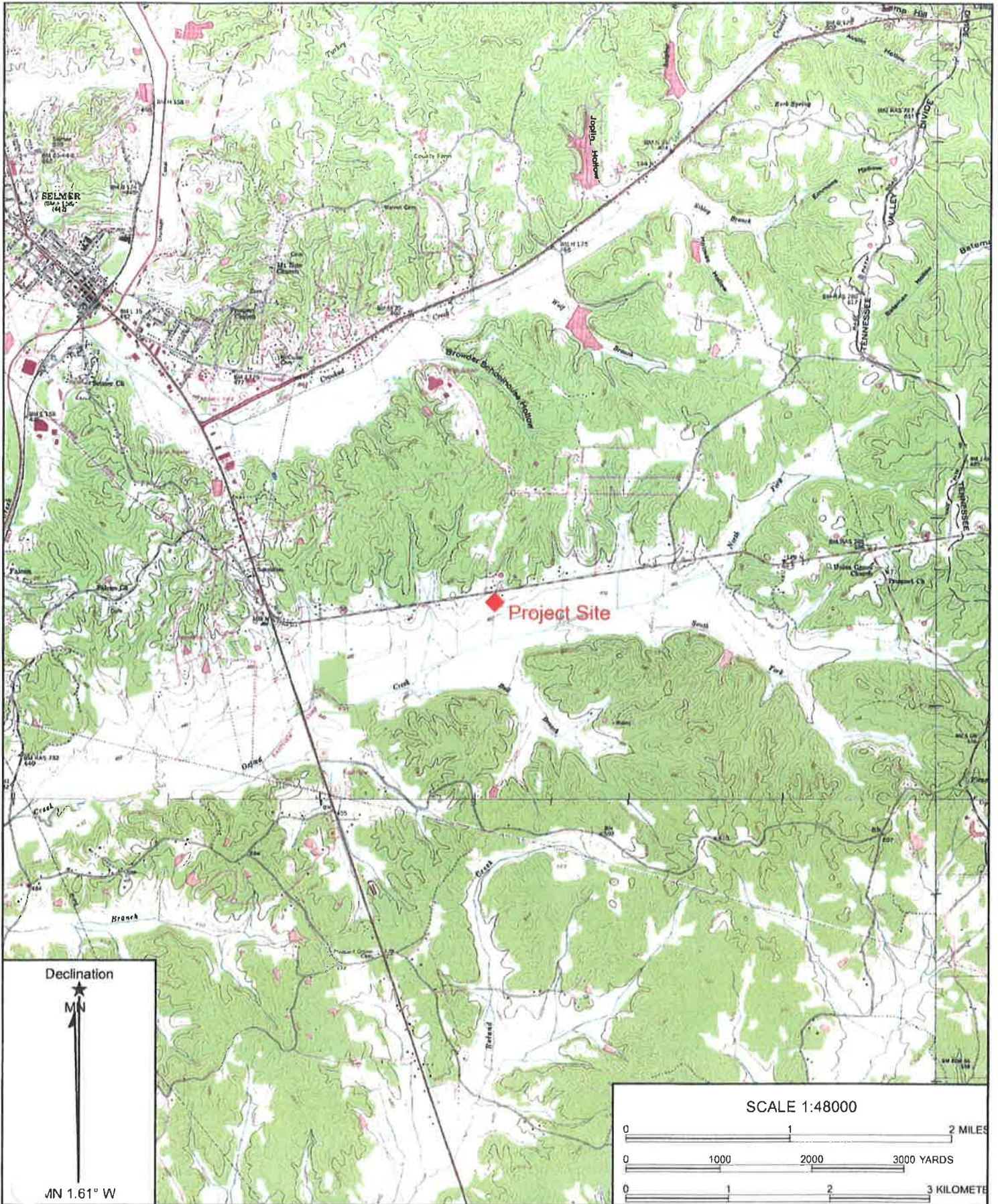
6.1 DESCRIPTION OF THE PROJECT

This project is the construction of a solar farm on the south side of 142 as shown on Sheets EPSC 4.6 and 4.7 in Section 8.1 of this application. As part of the project, the following activities will be required:

1. The installation of a 60" HDPE pipe in a north-south tributary to Oxford Creek. This is required to provide vehicular access to the property on both the east and west sides of the lateral to Oxford Creek.
2. As part of the SWPPP for the Solar Farm construction, there will be three (3) sedimentation basins. Each sedimentation basin will have an outfall that discharges into Oxford Creek. See Sheet EPSC 4, 6, & 7.
3. There will also be a ditch on the north and west side of the site which diverts water from the north side of Highway 142 so that it does not go into the sedimentation basins. See Sheet EPSC 4.

6.2 USGS TOPOGRAPHIC MAP

See Attached



Name: PURDY
 Date: 03/31/16
 Scale: 1 inch = 4,000 ft.

Location: 035° 08' 32.23" N 088° 32' 52.07" W

6.3 PHOTOGRAPHS

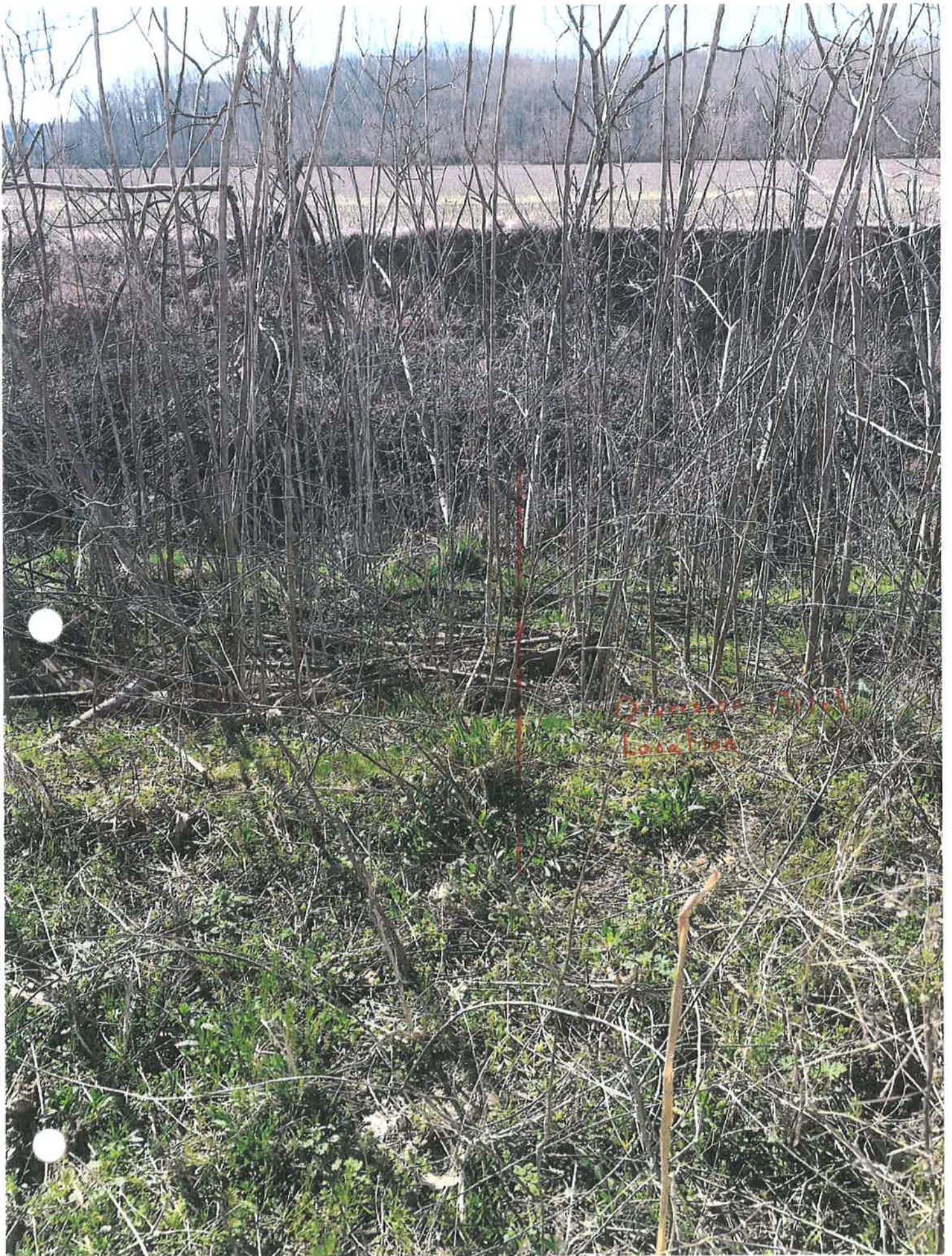
See Attached

Proposed Pipe Location
60" HDPE Pipe



Oxford Creek





Quercus tinctoria
Location

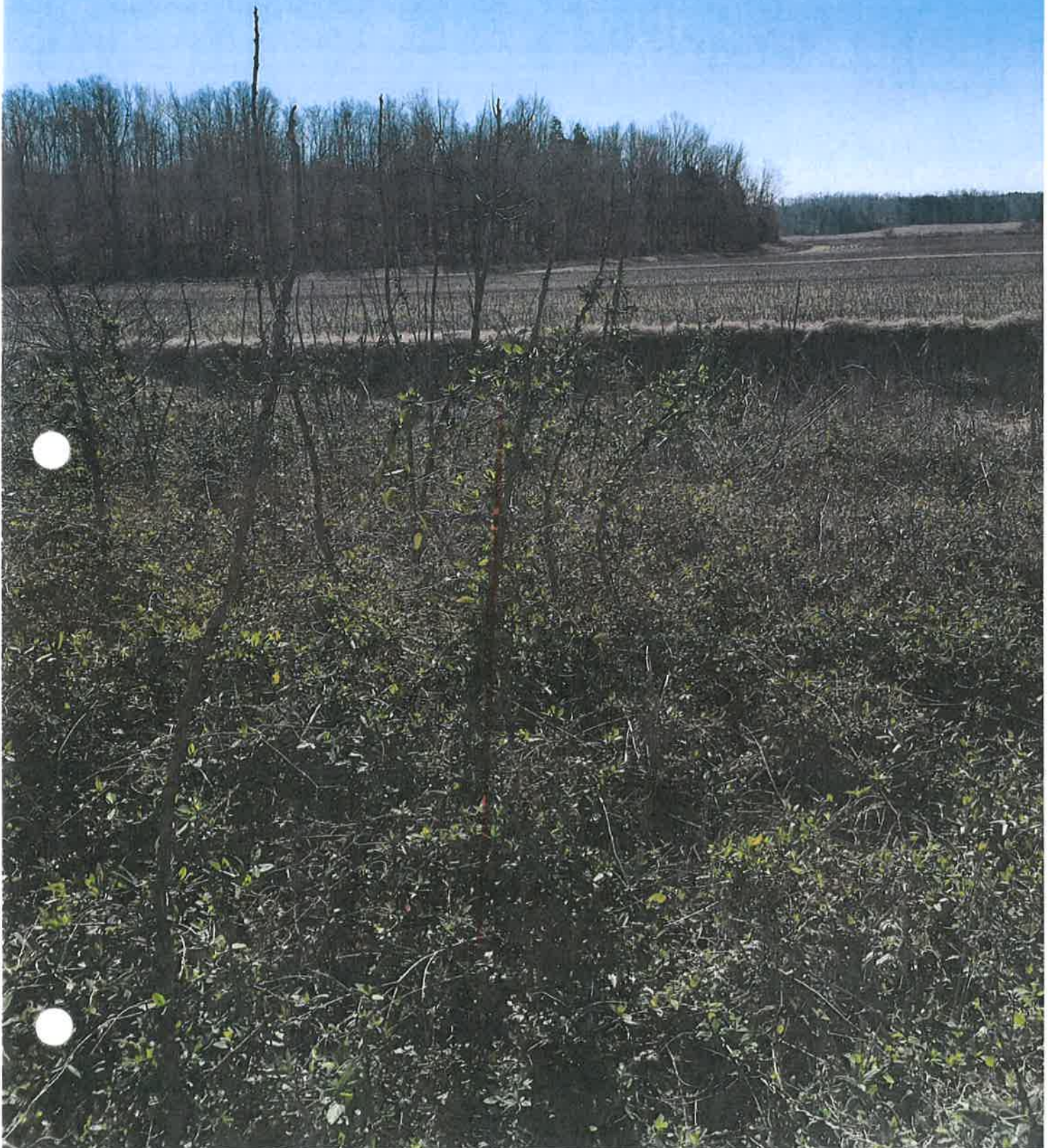
SW #1 Sedimentation Basin
Outfall Location



SW #2 Sedimentation Basin Outfall
Location



SE Sedimentation Basin Outfall Location



6.4 DESCRIPTION OF EXISTING STREAM

North-South Lateral to Oxford Creek

The existing stream at the proposed location of the 60" HDPE pipe is roughly a V-type ditch and is approximately 20' wide from top of bank to top of bank, and has an average depth of about 6 feet. The very bottom of the stream is elevation 457.5, while the top of bank is about 463.5. Both banks have approximately 2:1 side slopes.

Vegetation along the stream includes various grasses and vines, though in most places the banks are denuded.

Oxford Creek

Oxford Creek is about 10' to 12' deep. Top width ranges from 30' to 40'. The banks are relatively steep, with the bottom being relatively flat and ranging from 20' to 35' wide. The farmer who has been cultivating the land has constructed a 1' to 3' high berm along the north top of bank. The banks are heavily vegetated with weeds, bamboo, willows and birches. The bottom elevation varies from about 440 to 445.

Soils in this area are silt loams. Typically stream bottoms in this area are highly sandy.

6.5 DESCRIPTION OF PROPOSED STREAM

North-South Lateral to Oxford Creek

Since the existing stream is basically a V-type ditch, the bottom will be widened to approximately 8' to accommodate the 60" HDPE pipe. From that point, the slopes will cut to match the existing top of bank on each side. The pipe and headwalls will then be backfilled with compacted granular material. The disturbed areas will then be covered with topsoil, seeded, and mulched.

Detailed plans and section are shown in Section 8.1 of this Permit Application.

Oxford Creek

For each of the four outfalls, a v-notch ditch will be cut through the existing north bank at the location show. There will be no disturbance to the bottom or the south bank. Grading plans are shown on EPSC 4, 6, and 7.

6.6 WETLANDS

There are no wetlands associated with this project.

6.8 HYDROLOGIC OR JURISDICTIONAL DETERMINATION

There is no hydrologic or jurisdictional determination associated with this project.

SECTION 7. PROJECT RATIONAL

North-South Lateral to Oxford Creek

The site is essentially split into two halves by the existing ditch. Access to the site is off TN Hwy. 142. After grading for the installation of the solar panels, there will be a very steep slope south of TN Hwy. 142 on the eastern half. This slope will be too steep for vehicles to access TN Hwy. 142. Access to the site will have to be on the western half of the site. Thus, the only way to access the eastern half will be by way of a road crossing the existing ditch, which is why a 60" HDPE pipe is required.

Oxford Creek

All of the existing runoff is going to Oxford Creek now. With the construction of the diversion ditch and sedimentation basin outfalls, the flow will continue to discharge to Oxford Creek, but it will be concentrated at the four locations.

SECTION 8. TECHNICAL INFORMATION

8.1 PLANS

The following sheet shows the plan view and elevation view of the proposed road crossing and the 60' HDPE pipe. Sheets EPSC 4, 6, and 7 show the grading plans and sedimentation basins.

8.2 SEQUENCE OF EVENTS AND CONSTRUCTION METHOD

North-South Lateral to Oxford Creek

1. Clean the ditch sides and bottoms of vegetation.
2. Grade bottom and install bedding for 60" HDPE pipe.
3. Place 60" HDPE pipe in ditch.
4. Install precast headwalls on both ends of pipe.
5. Install and compact backfill.
6. Place gravel for maintenance road.
7. Seed and mulch all disturbed area.

Oxford Creek

1. Existing vegetation will be removed at the location of each outfall.
2. The bank will be graded to the proposed contours.
3. All disturbed areas will be seeded and mulched.

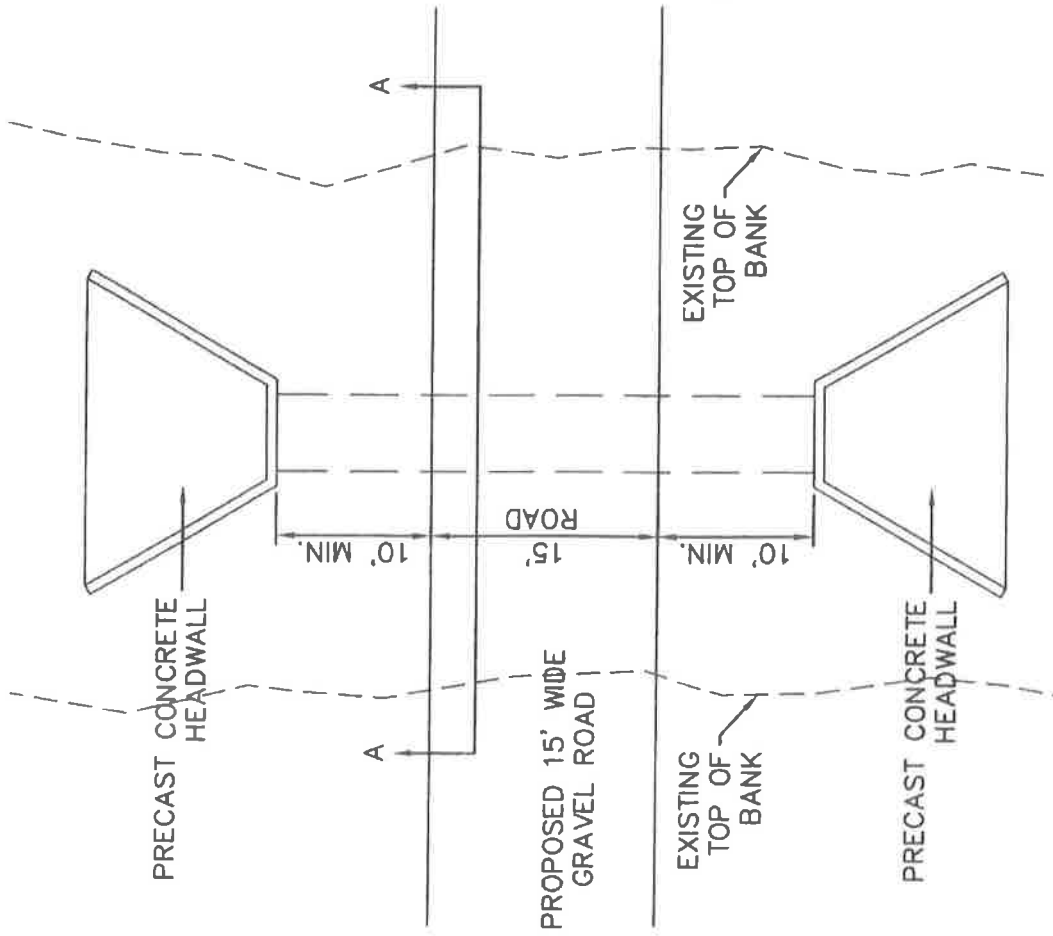
8.3 EROSION PREVENTION AND SEDIMENT CONTROL

North-South Lateral to Oxford Creek

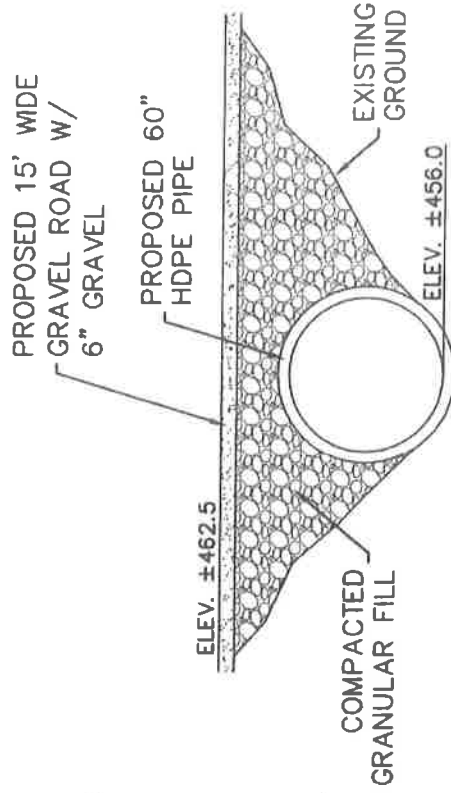
Installation of the pipe, headwalls and gravel road should take less than 2 days and will have to be done under dry conditions in order to get adequate compaction. Once construction is complete, all disturbed areas will be covered with topsoil, seeded, and mulched. The site will be fertilized and watered until there is an adequate stand of vegetation.

Oxford Creek

A detailed SWPPP has been submitted to TDEC for their review, which includes the diversion ditch, the sedimentation basins, and their respective outfalls.



PLAN VIEW



SECTION A-A

BWSC
 ENGINEERS ARCHITECTS PLANNERS
 LANDSCAPE ARCHITECTS AND SURVEYORS
 60 Germantown Court, Suite 100, Memphis, Tennessee 38018
 Phone (901)755-7166 Fax (901)755-7844

PROJECT:
SELMER 1 20 MW SITE
 SHEET NAME:
DRAINAGE CULVERT

DATE:
 03.03.16
 SHEET NAME:
D-1



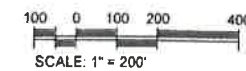
EROSION CONTROL NOTES:

- 1 ALL EROSION CONTROL SHALL BE FURNISHED AND MAINTAINED IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION "EROSION AND SEDIMENT CONTROL HANDBOOK".
- 2 IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL REQUIRED PERMITS INCLUDING TDEC NPDES STORM WATER CONSTRUCTION PERMIT HAVE BEEN OBTAINED PRIOR TO BEGINNING ANY CONSTRUCTION OR OTHER ACTIVITY ON THE SITE.
- 3 A SPECIFIC INDIVIDUAL SHALL BE DESIGNATED TO BE RESPONSIBLE FOR EROSION AND SEDIMENT CONTROLS ON EACH PROJECT SITE.
- 4 THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SOIL EROSION CONTROL MEASURES AS NOTED ON THE PLANS AND AS REQUESTED BY THE OWNER DURING CONSTRUCTION. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR SATISFYING THE REQUIREMENTS OF THE STATE OF TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION AS SET FORTH IN THE TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK. ALL SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE CONTRACT SO AS TO PREVENT ANY SEDIMENTATION FROM WASHING OFF THE SITE ONTO ADJACENT PROPERTY OR PUBLIC RIGHTS-OF-WAY. THE CONTRACTOR SHALL MAINTAIN A LOG OF ALL MAINTENANCE ACTIVITIES FOR THE EROSION CONTROL ELEMENTS AS REQUIRED BY THE STATE OF TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION.
- 5 A COPY OF THE EROSION CONTROL PLAN MUST BE AVAILABLE ON SITE FOR THE TDEC INSPECTOR ON REQUEST.
- 6 EROSION 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 WORK DAY, BUT MUST BE REPLACED AT THE END OF THE WORK DAY OR PRIOR TO RAINFALL EVENTS.
- 7 ALL CONTROL MEASURES SHALL BE INSPECTED AT LEAST TWICE A WEEK AND AT LEAST 72 HOURS APART. DURING PROLONGED RAINFALL, DAILY CHECKING AND REPAIRING MAY BE NECESSARY. THE PERMITTEE SHALL MAINTAIN RECORDS OF CHECKS AND REPAIRS.
- 8 ACTUAL LOCATION OF THE CONSTRUCTION EXIT PAD WILL BE DETERMINED BY THE CONTRACTOR.
- 9 ALL GRADED AREAS SHALL BE SEEDED UPON COMPLETION OF WORK IN THAT AREA.

NOTE:
SEED AND MULCH ALL DISTURBED AREAS. AN ACCEPTABLE STAND OF VEGETATION WILL BE ESTABLISHED BEFORE PROCEEDING WITH PHASE 5

LEGEND

- SEDIMENTATION BASINS
- CONSTRUCTION EXIT PAD
- SILT FENCE
- PROPOSED CONTOUR
- EXISTING CONTOUR



SURVEY NOTE
BWSC DID NOT PERFORM ANY EXISTING TOPOGRAPHIC OR BOUNDARY SURVEYING AS PART OF THIS DESIGN. ALL EXISTING SURVEY DATA WAS SUPPLIED BY THE OWNER.

BENCHMARK INFORMATION WILL BE SUPPLIED TO THE CONTRACTOR BY THE OWNER PRIOR TO CONSTRUCTION.



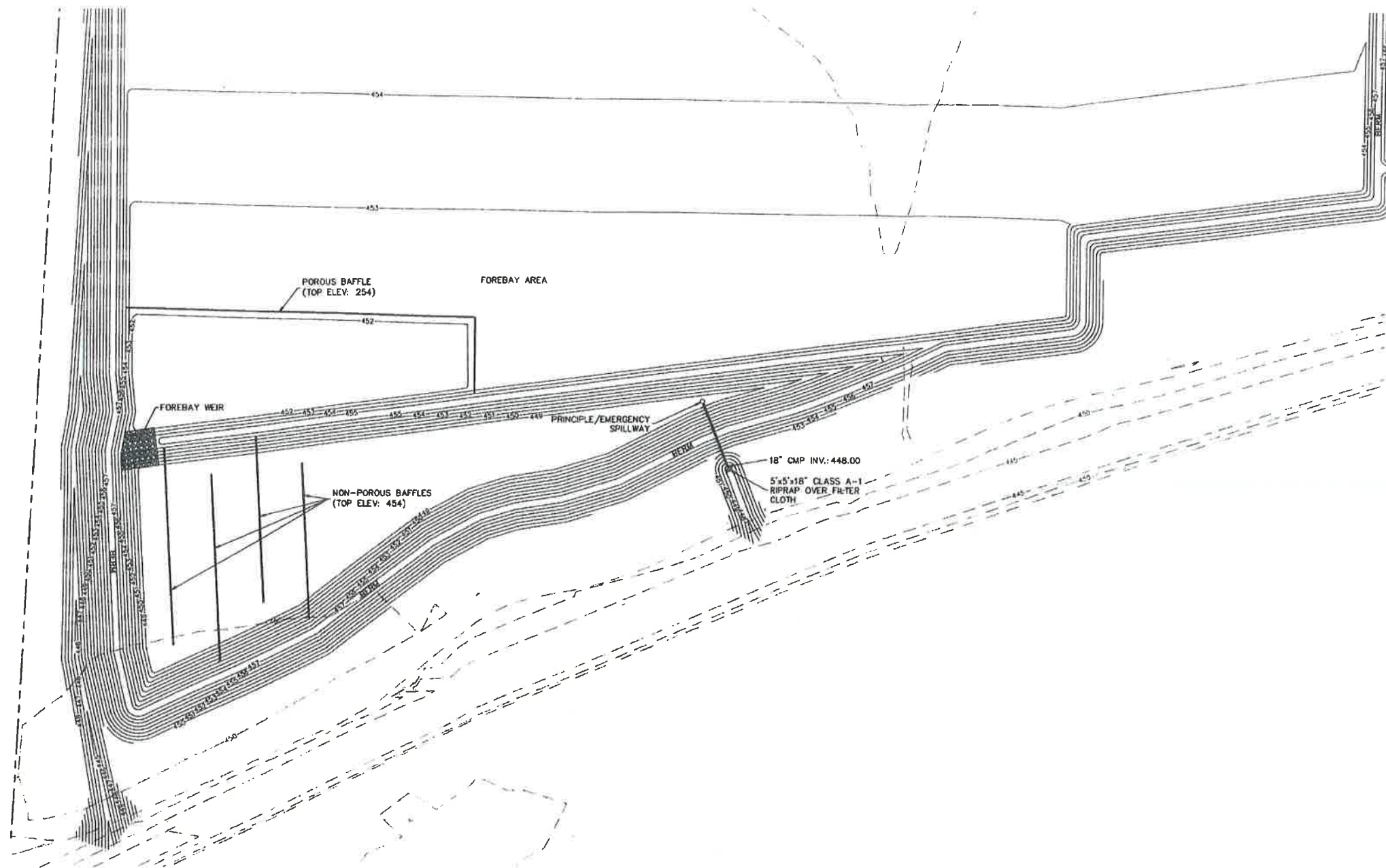
BWSC
BARBE WAGGNER SUMNER & CANNON, INC.
ENGINEERS ARCHITECTS PLANNERS
LANDSCAPE ARCHITECTS AND SURVEYORS
40 Germantown Court, Suite 100, Memphis, Tennessee 38118
Phone: (901) 750-7166 Fax: (901) 751-7944



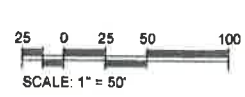
PHASE 4
SELMER 1 20MW SITE
Selmer TN

DR.	CHK.	DATE	DESCRIPTION
MD	JH/BS	2-23-16	ISSUED FOR CONSTRUCTION

EPSC-4
FILE NO. 3626801



SW #1 SEDIMENTATION BASIN



SW #1 Sedimentation Basin	
Total Disturbed Area Draining to Basin	40.2 Ac
Q for 5-Year, 24-Hour Storm	7.7 CFS
Q for 25-Year, 24-Hour Storm	10.4 CFS
Basin L:W Ratio	4 1:1 w/baffles
Required Wet Storage Volume	145,444 CF
Provided Wet Storage Volume	156,798 CF
Bottom of Wet Storage Volume	449
Top of Wet Storage Volume	452
Required Dry Storage Volume	145,444 CF
Provided Dry Storage Volume	371,736 CF
Bottom of Dry Storage Volume	452
Top of Dry Storage Volume	454
Required Forebay Storage Volume	36,361 CF
Provided Forebay Storage Volume	244,320 CF
Time for Dewatering Dry Storage Volume	3 Days
Required Dewatering Discharge Rate	123,912 CF/Day
Provided Dewatering Discharge Rate	195,956 CF/Day
Forebay Spillway Elevation	453.5
Water Elevation Over Spillway for 5-Year, 24-Hour Storm	453.90
Principal/Emergency Spillway Elevation	454
Water Elevation Over Spillway for 25-Year, 24-Hour Storm	454.67
Top of Outer Berm Elevation	457
Note: *Based on two 8" Faircloth Skimmers	

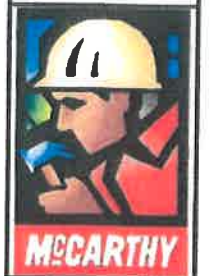
NOTE: SEE SHEETS EPSC-8 & EPSC-9 FOR DETAILS

SURVEY NOTE
 BWSC DID NOT PERFORM ANY EXISTING TOPOGRAPHIC OR BOUNDARY SURVEYING AS PART OF THIS DESIGN. ALL EXISTING SURVEY DATA WAS SUPPLIED BY THE OWNER.

BENCHMARK INFORMATION WILL BE SUPPLIED TO THE CONTRACTOR BY THE OWNER PRIOR TO CONSTRUCTION.



BWSC
BARBE WAGNER SUMNER & CANNON, INC.
 ENGINEERS, ARCHITECTS AND LANDSCAPE ARCHITECTS
 60 Germantown Court, Suite 100, Memphis, Tennessee 38108
 Phone: (901) 750-7100 Fax: (901) 750-7104



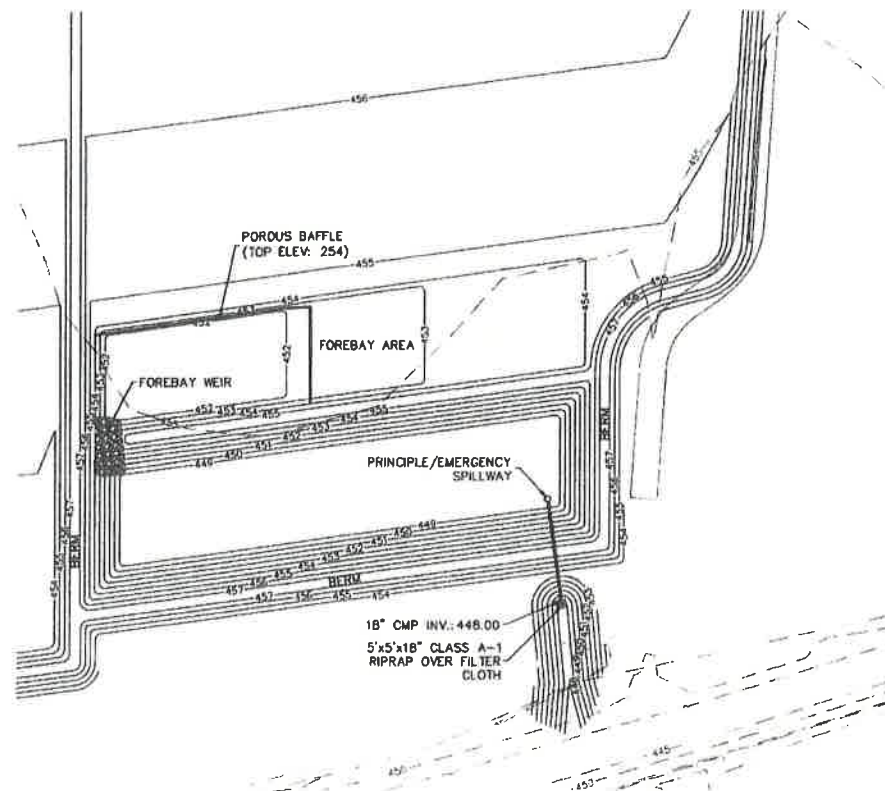
SEDIMENTATION BASIN
SELMER 1 20MW SITE
 Selmer TN

NO.	CHK.	DATE	DESCRIPTION
1	HW/BE	2-23-16	ISSUED FOR CONSTRUCTION

EPSC-6
 FILE NO 3626801

SW #2 Sedimentation Basin	
Total Disturbed Area Draining to Basin	13.8 Ac
Q for 5-Year, 24-Hour Storm	2.65 CFS
Q for 25-Year, 24-Hour Storm	3.56 CFS
Basin L:W Ratio	4.9:1
Required Wet Storage Volume	49,298 CF
Provided Wet Storage Volume	53,184 CF
Bottom of Wet Storage Volume	449
Top of Wet Storage Volume	452
Required Dry Storage Volume	49,298 CF
Provided Dry Storage Volume	65,508 CF
Bottom of Dry Storage Volume	452
Top of Dry Storage Volume	454
Required Forebay Storage Volume	12,482 CF
Provided Forebay Storage Volume	20,952 CF
Time for Dewatering Dry Storage Volume	3 Days
Required Dewatering Discharge Rate	21,896 CF/Day
Provided Dewatering Discharge Rate	32,892 CF/Day*
Forebay Spillway Elevation	453.5
Water Elevation Over Spillway for 5-Year, 24-Hour Storm	453.81
Principal/Emergency Spillway Elevation	454
Water Elevation Over Spillway for 25-Year, 24-Hour Storm	454.33
Top of Outer Berm Elevation	457

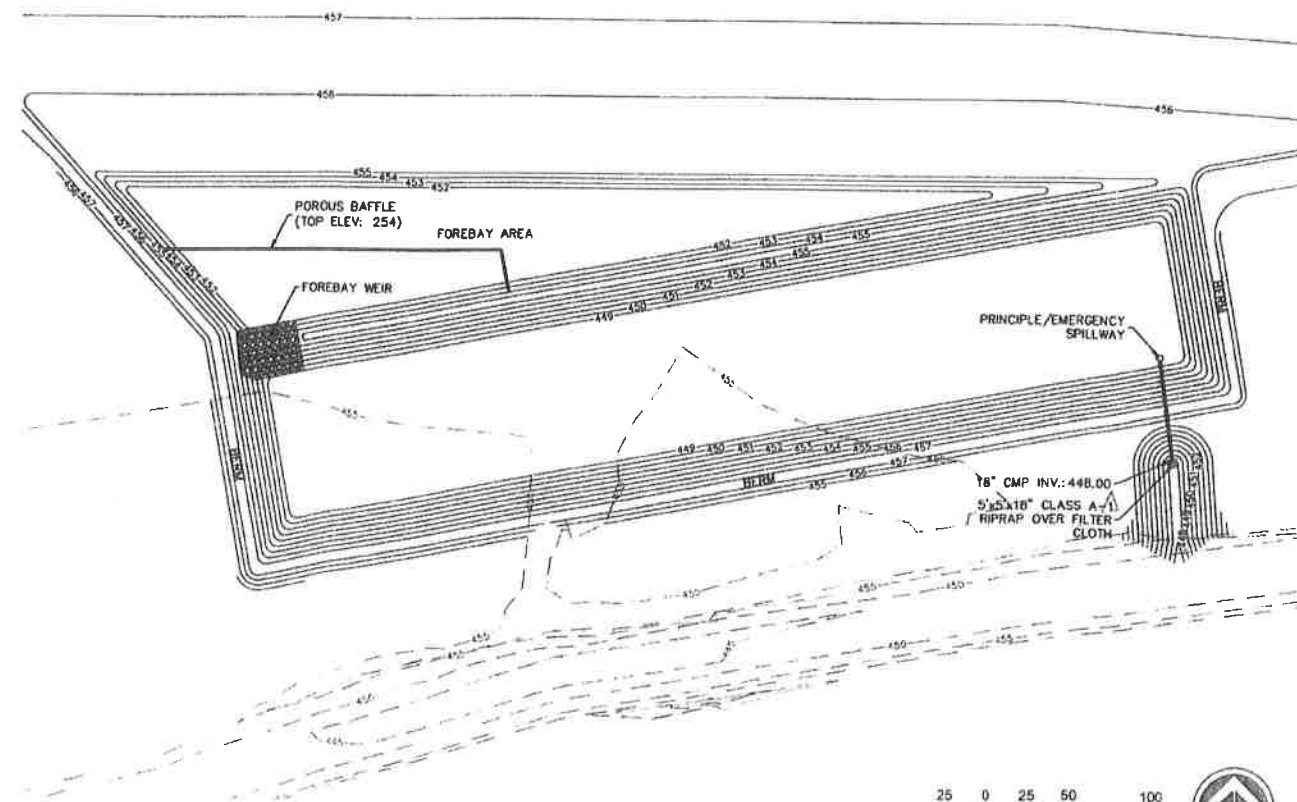
Note: *Based on 5" Faircloth Skimmer
NOTE: SEE SHEETS EPSC-8 & EPSC-9 FOR DETAILS



SW #2 SEDIMENTATION BASIN

SE Sedimentation Basin	
Total Disturbed Area Draining to Basin	44
Q for 5-Year, 24-Hour Storm	8.45 CFS
Q for 25-Year, 24-Hour Storm	11.34 CFS
Basin L:W Ratio	6.4:1
Required Wet Storage Volume	159,192 CF
Provided Wet Storage Volume	161,025 CF
Bottom of Wet Storage Volume	449
Top of Wet Storage Volume	452
Required Dry Storage Volume	159,192 CF
Provided Dry Storage Volume	167,398 CF
Bottom of Dry Storage Volume	452
Top of Dry Storage Volume	454
Required Forebay Storage Volume	39,798 CF
Provided Forebay Storage Volume	47,500 CF
Time for Dewatering Dry Storage Volume	3 Days
Required Dewatering Discharge Rate	55,799 CF/Day
Provided Dewatering Discharge Rate	97,978 CF/Day
Forebay Spillway Elevation	453.5
Water Elevation Over Spillway for 5-Year, 24-Hour Storm	453.93
Principal/Emergency Spillway Elevation	454
Water Elevation Over Spillway for 25-Year, 24-Hour Storm	454.71
Top of Outer Berm Elevation	457

Note: *Based on 8" Faircloth Skimmer
NOTE: SEE SHEETS EPSC-8 & EPSC-9 FOR DETAILS



SE SEDIMENTATION BASIN

BWSC
ENGINEERS ARCHITECTS PLANNERS
LANDSCAPE ARCHITECTS AND SURVEYORS
160 Commerce Center, Suite 100, Memphis, Tennessee 38102
Phone: (901) 755-7700 Fax: (901) 755-7804



MCCARTHY



SEDIMENTATION BASIN

SELMER 1 20MW SITE

Selmer TN

REV.	DATE	DESCRIPTION
MD	JUN/2015	ISSUED FOR CONSTRUCTION

SURVEY NOTE
BWSC DID NOT PERFORM ANY EXISTING TOPOGRAPHIC OR BOUNDARY SURVEYING AS PART OF THIS DESIGN. ALL EXISTING SURVEY DATA WAS SUPPLIED BY THE OWNER.

BENCHMARK INFORMATION WILL BE SUPPLIED TO THE CONTRACTOR BY THE OWNER PRIOR TO CONSTRUCTION.

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

EPSC-7
FILE NO. 3626801

SECTION 10. DETAILED ALTERNATIVE ANALYSIS

Not Applicable (Section 9c. was not checked)

SECTION 11. COMPENSATORY MITIGATION

Not Applicable (No mitigation required)