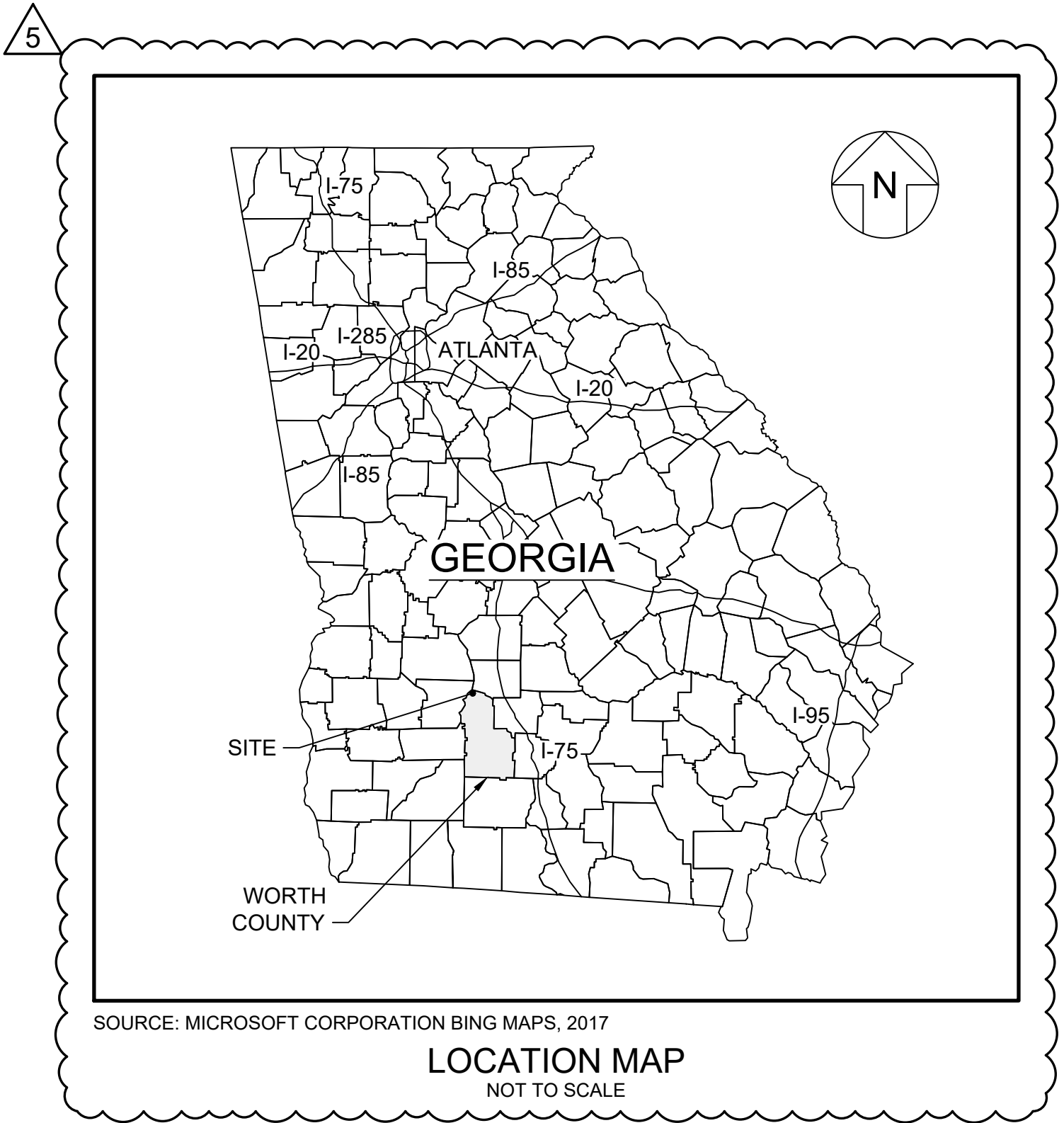
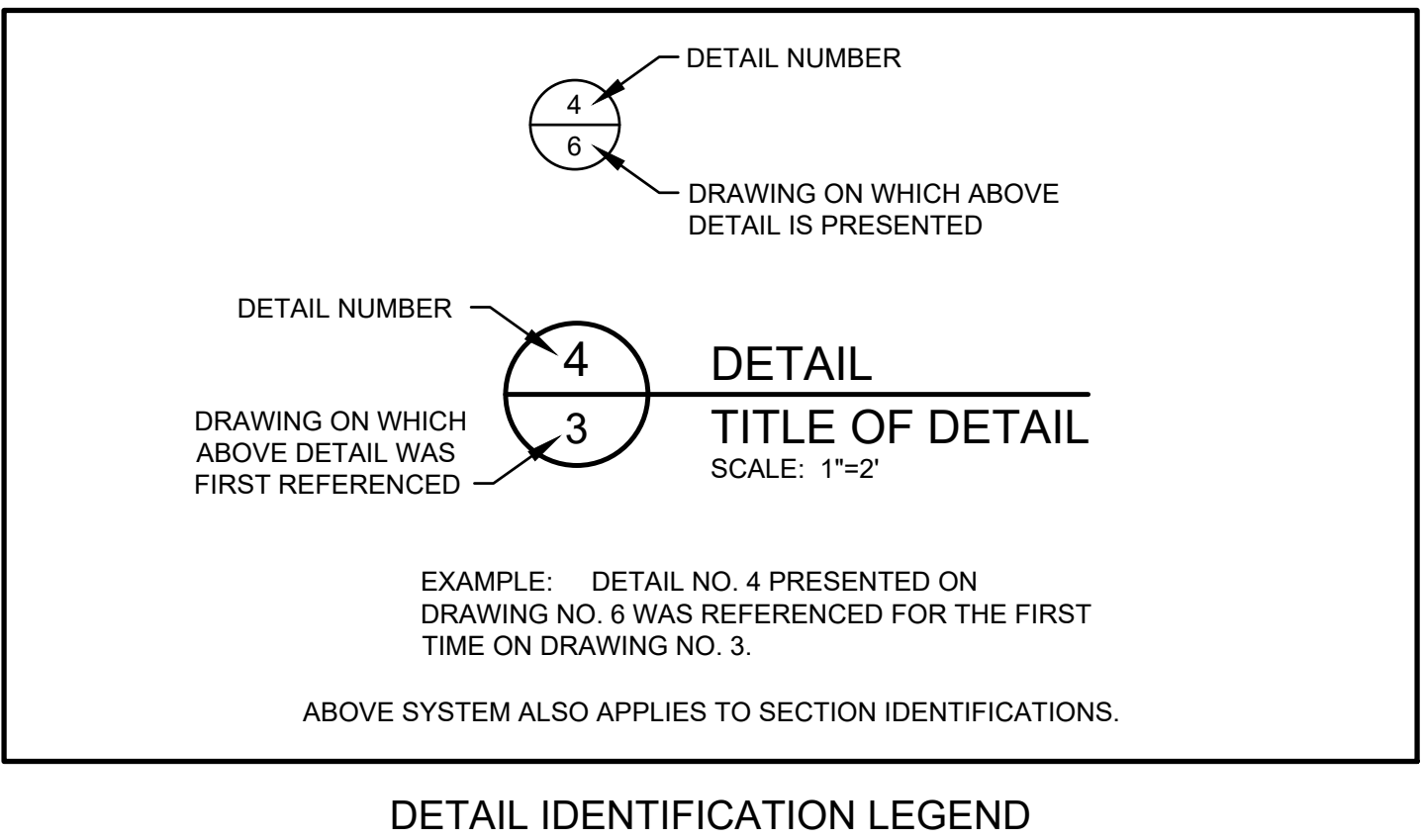
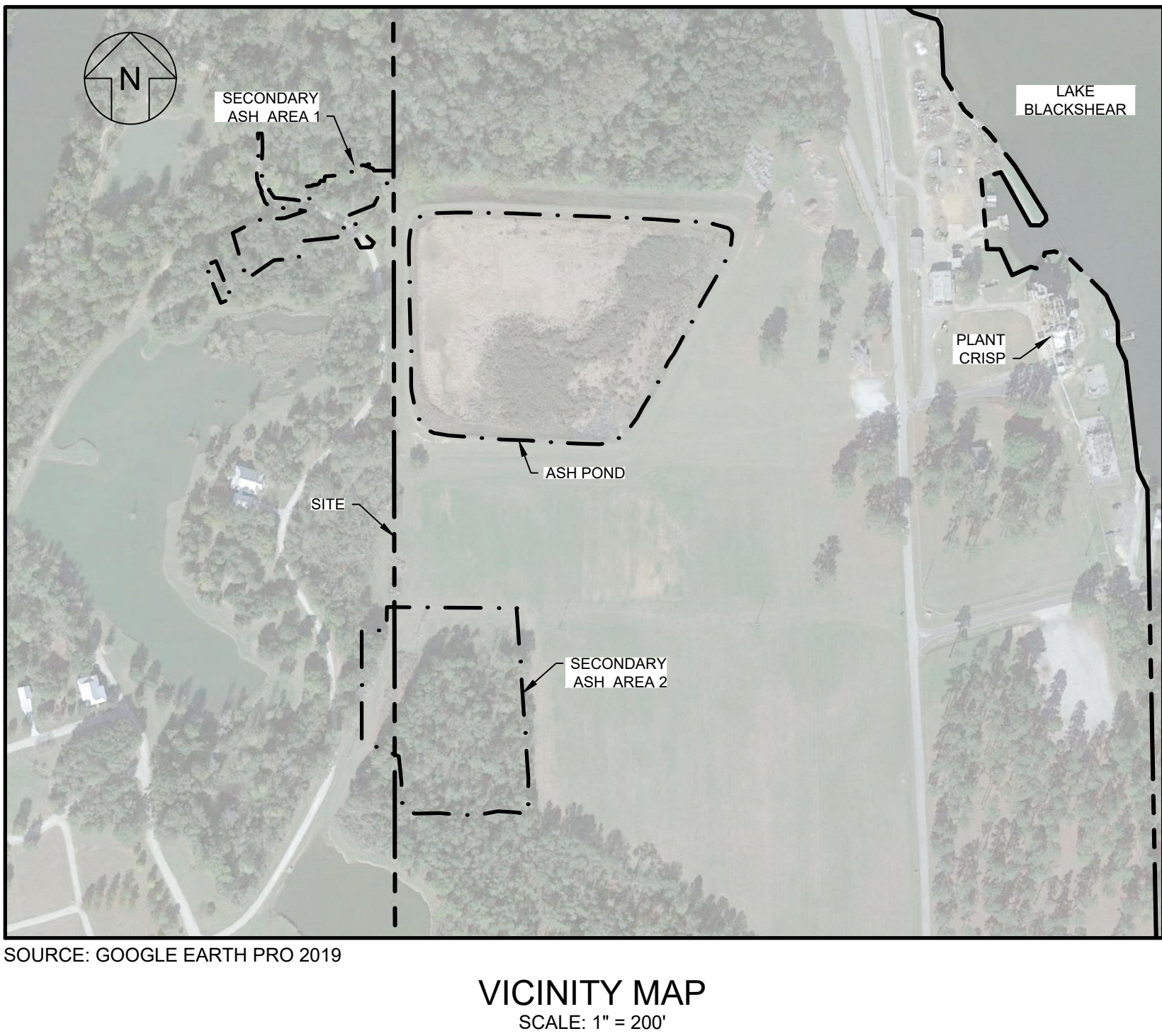


ASH POND AND SECONDARY ASH AREAS 1 AND 2 CLOSURE AND SITE RESTORATION
CRISP COUNTY POWER COMMISSION - PLANT CRISP
WARWICK, GEORGIA
FEBRUARY 2024



LIST OF DRAWINGS	
DRAWING NO.	TITLE
1	COVER SHEET
2	PROPERTY BOUNDARY SURVEY AND LEGAL DESCRIPTION
3	EXISTING SITE CONDITIONS - ASH POND
4	EXISTING SITE CONDITIONS - SECONDARY ASH AREAS 1 AND 2
5	ASH REMOVAL PLAN - ASH POND
6	ASH REMOVAL PLAN - SECONDARY ASH AREA 1 - PHASES 1A AND 1B
7	ASH REMOVAL PLAN - SECONDARY ASH AREA 2
8	INTERIM RESTORATION - ASH POND - PHASE 1
9	INTERIM RESTORATION - ASH POND - PHASE 2
10	INTERIM RESTORATION - SECONDARY ASH AREA 1
11	INTERIM RESTORATION - SECONDARY ASH AREA 2
12	ASH REMOVAL PLAN - SECONDARY ASH AREA 1 - PHASE 2
13	FINAL RESTORATION - ASH POND
14	FINAL RESTORATION - SECONDARY ASH AREAS 1 AND 2
15	CROSS-SECTIONS - ASH POND
16	CROSS-SECTIONS - SECONDARY ASH AREAS 1 AND 2
17	EROSION AND SEDIMENT CONTROL DETAILS I
18	EROSION AND SEDIMENT CONTROL DETAILS II
19	EROSION AND SEDIMENT CONTROL DETAILS III
20	EROSION AND SEDIMENT CONTROL DETAILS IV



PROJECT DESCRIPTION:

THE ASH POND AT PLANT CRISP, LOCATED AT 961 POWER DAM ROAD IN WARWICK, GEORGIA, WAS CONSTRUCTED IN THE 1970'S AS A SIDE-HILL IMPOUNDMENT AND OPERATED AS AN UNLINED, WET POND. THE ASH POND RECEIVED ASH SLUICE WATER WITH COAL COMBUSTION RESIDUALS (CCR) FROM THE COAL PLANT OPERATION, STORMWATER RUNOFF FROM THE COAL STOCKPILE, AND BLOWDOWN WATER FROM THE PLANT. DURING SITE INVESTIGATIONS, TWO ADDITIONAL AREAS WERE IDENTIFIED AS POTENTIALLY RECEIVING CCR DURING PLANT OPERATION—SECONDARY ASH AREA 1, AN AREA NORTHWEST OF THE ASH POND, AND SECONDARY ASH AREA 2, AN AREA SOUTH OF THE ASH POND. THE CLOSURE OF THE ASH POND AND SECONDARY ASH AREAS 1 AND 2 IS ASSOCIATED WITH THE REQUIREMENTS OF UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA) 40 CFR 257, TITLED "DISPOSAL OF COAL COMBUSTION RESIDUALS FROM ELECTRIC UTILITIES" (USEPA CCR RULE) AND GEORGIA ENVIRONMENTAL PROTECTION DIVISION, SOLID WASTE MANAGEMENT, CHAPTER 391-3-4-.10 TITLED "COAL COMBUSTION RESIDUALS" (GA EPD CCR RULE). TO CLOSE THE ASH POND AND SECONDARY ASH AREAS 1 AND 2 AND RESTORE THE SITE, THE PROJECT WILL INCLUDE: (I) REMOVAL OF CCR (I.E., ASH) AND A MINIMUM OF 6-INCH THICK LAYER OF NATIVE SOIL UNDERLYING THE ASH; (II) TRANSPORTATION AND DISPOSAL OF THE REMOVED MATERIAL TO THE PERMITTED CRISP COUNTY MUNICIPAL SOLID WASTE (MSW) LANDFILL; AND (III) SITE RESTORATION, INCLUDING REGRADING TO PROMOTE POSITIVE DRAINAGE; SELECTIVELY LOWERING, BREACHING, OR REMOVING THE CONTAINMENT DIKS AND BERMS; AND SEEDING OF AREA TO ESTABLISH VEGETATION. EROSION AND SEDIMENT CONTROLS WILL BE PUT IN-PLACE AND MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT TO ENHANCE STORMWATER CONVEYANCE AND TO MINIMIZE EROSION.

PREPARED FOR:



202 S. 7TH STREET
PO BOX 1218
CORDELE, GA 31010
OFFICE: 229.273.3811
CONTACT PERSON: CHRISTOPHER HEWITT

PREPARED BY:



1255 ROBERTS BOULEVARD, SUITE 200
KENNESAW, GEORGIA 30144
TELEPHONE: 678.202.9500
FAX: 678.202.9501
CONTACT PERSON: MEHMET ISCIMEN, P.E.

ISSUED FOR PERMIT

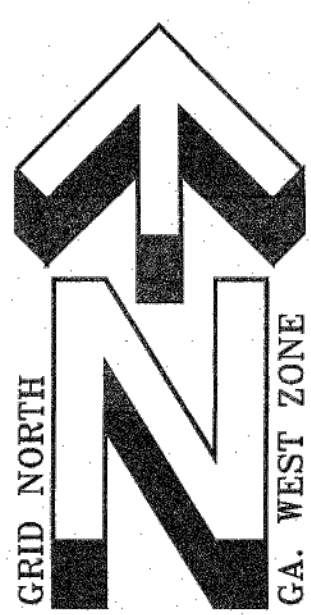


Know what's below.
Call before you dig.



5	02.23.24	REVISED FOR GA EPD SUBMITTAL	JO	MI
4	08.12.22	REVISED FOR GA EPD SUBMITTAL	RN	MI
REV	DATE	DESCRIPTION	DRN	APP
Geosyntec consultants		GEORGIA CERTIFICATION OF AUTHORIZATION (COA) NO. PEF000260, EXP. 06/30/2024 1255 ROBERTS BOULEVARD, N.W., SUITE 200 KENNESAW, GEORGIA 30144 USA PHONE: 678.202.9500		
TITLE: COVER SHEET				
PROJECT: CRISP COUNTY POWER COMMISSION ASH POND AND SECONDARY ASH AREAS 1 AND 2 CLOSURE AND SITE RESTORATION				
SITE: PLANT CRISP WARWICK, GEORGIA				
DESIGN BY: SH/OC		DATE: FEBRUARY 2024		1
DRAWN BY: RN/DJ		PROJECT NO.: GW 8836		
CHECKED BY: SH/OC		FILE: GW6152.02-01		
REVIEWED BY: JG		DRAWING NO.:		
APPROVED BY: MI				
02.23.2024				

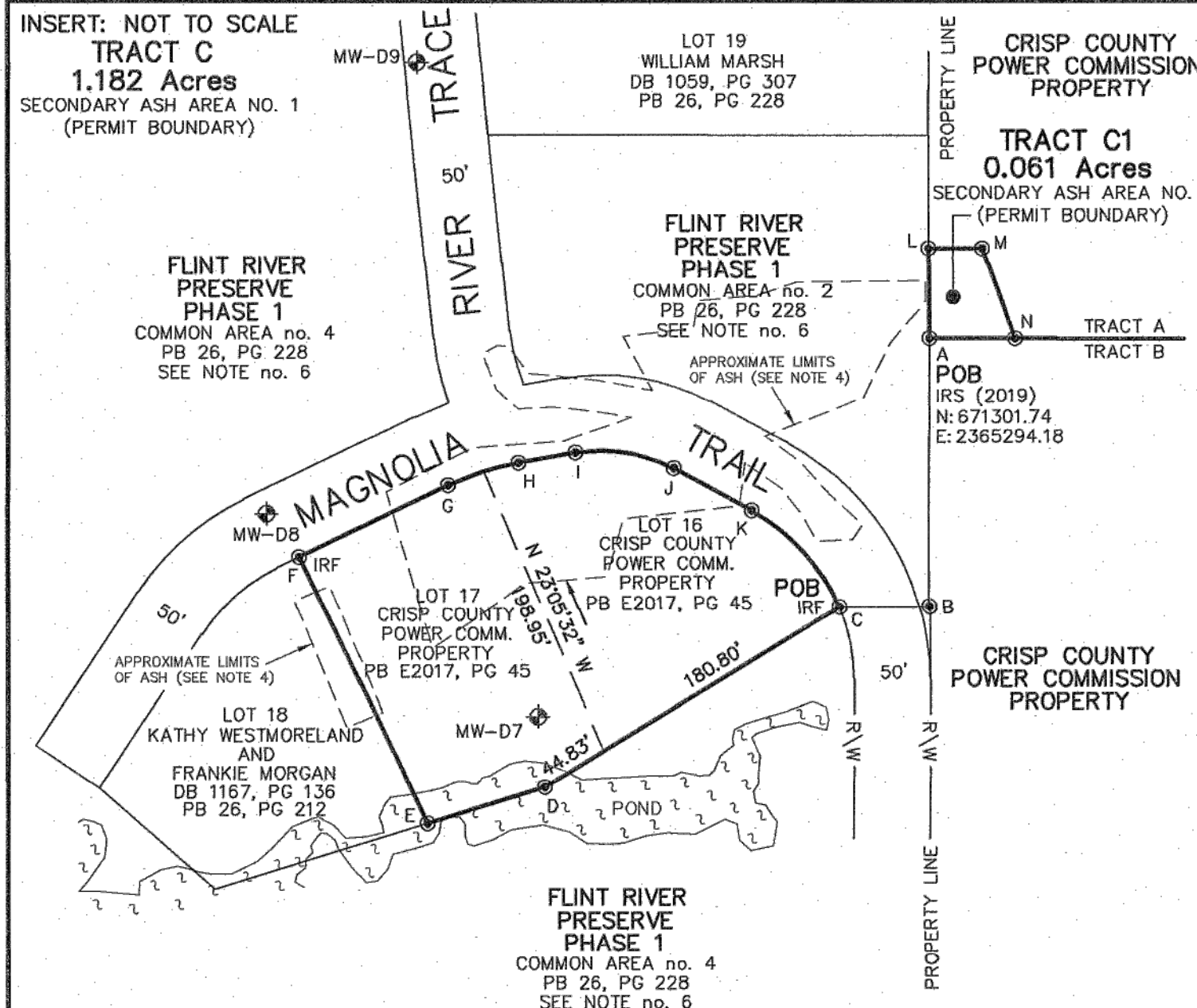
REFERENCE TO NORTH
BEARINGS SHOWN HEREON HAVE BEEN
CALCULATED FROM ANGLES TURNED AND ARE
BASED UPON GRID NORTH, GA. WEST ZONE.



NAD 83
(2011 HARN)

MONITORING WELL DATA

EX MW D1 MARK IN TOP OF PVC (TOP OF CASING) N: 670708.47 E: 2365315.12 EL. 241.77 EAST GROUND EL. 238.10	NEW MW D6 MARK IN TOP OF PVC (TOP OF CASING) N: 670393.04 E: 2365408.13 EL. 250.63 CONCRETE PAD EL. 250.05 EAST GROUND EL. 249.85	EX MW U1 MARK IN TOP OF PVC (TOP OF CASING) N: 669996.79 E: 2365420.55 EL. 248.52 NORTH GROUND EL. 246.28
EX MW D2 MARK IN TOP OF PVC (TOP OF CASING) N: 671291.61 E: 2365308.73 EL. 232.66 WEST GROUND EL. 229.14	NEW MW D7 MARK IN TOP OF PVC (TOP OF CASING) N: 671054.07 E: 2365247.89 EL. 230.18 CONCRETE PAD EL. 227.53 SOUTH GROUND EL. 227.21	NEW MW U2 MARK IN TOP OF PVC (TOP OF CASING) N: 669748.63 E: 2365247.85 EL. 248.79 CONCRETE PAD EL. 245.80 NORTH GROUND EL. 245.69
EX MW D3 MARK IN TOP OF PVC (TOP OF CASING) N: 671291.61 E: 2365308.73 EL. 232.66 WEST GROUND EL. 229.14	NEW MW D8 MARK IN TOP OF PVC (TOP OF CASING) N: 671186.85 E: 2364861.25 EL. 226.76 CONCRETE PAD EL. 224.06 SOUTH GROUND EL. 223.90	
NEW MW D4 MARK IN TOP OF PVC (TOP OF CASING) N: 669875.01 E: 2365444.95 EL. 246.51 CONCRETE PAD EL. 244.08 NORTH GROUND EL. 244.22	NEW MW D9 MARK IN TOP OF PVC (TOP OF CASING) N: 671482.27 E: 2364959.09 EL. 221.42 CONCRETE PAD EL. 218.94 NORTH GROUND EL. 218.99	
NEW MW D5 MARK IN TOP OF PVC (TOP OF CASING) N: 670216.49 E: 2365178.72 EL. 241.16 CONCRETE PAD EL. 238.50 WEST GROUND EL. 238.31		



TRACT C	LINE	BEARING	DISTANCE
	A-B	S 02°03'33" E	175.77
	B-C	S 89°53'37" W	58.22
TRACT C1	LINE	BEARING	DISTANCE
	A-B	S 02°03'33" E	175.77
	B-C	S 89°53'37" W	58.22
TRACT A1	LINE	BEARING	DISTANCE
	A-B	S 02°03'33" E	175.77
	B-C	S 89°53'37" W	58.22

NOTES

- BY A FULL AND ACCURATE TITLE SEARCH, INCLUDING BUT NOT LIMITED TO, ANY EASEMENTS OR RIGHTS OF WAY NOT SHOWN HEREON BUT WHICH MAY AFFECT THE PROPERTY HERE PLATTED.
- THIS SURVEY COMPLIES WITH BOTH THE RULES OF THE GEORGIA BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS AND THE OFFICIAL CODE OF GEORGIA ANNOTATED (OCCA) 15-6-67 AS AMENDED BY HB 1004 (2018), IN THAT WHERE A CONFLICT EXISTS BETWEEN THOSE TWO SETS OF SPECIFICATIONS, THE REQUIREMENTS OF LAW PREVAIL.
- JASON B. FAIRCLOTH, GA. RLS 2981, DECLARE THAT THIS MAP WAS PREPARED UNDER MY SUPERVISION FROM AN ACTUAL GPS SURVEY MADE UNDER MY SUPERVISION; THAT THIS SURVEY WAS PERFORMED TO A CATEGORY B RURAL CLASS SPECIFICATIONS; THAT I USED REAL-TIME KINEMATIC GPS FIELD PROCEDURES; AND COORDINATES WERE OBTAINED BY GPS SOLUTIONS, USING CHAMPION TWO AND ALL COORDINATES ARE BASED UPON NAD 83 (2011) HARN DATUM, ELEVATIONS BASED UPON NAVD 83 DATUM, AND THE RELATIVE POSITIONAL PRECISION (DEVIATION) OF 0.05' AT THE 95% CONFIDENCE LEVEL.
- LIMITS OF ASH SHOWN FOR SECONDARY ASH AREAS 1 AND 2 ARE APPROXIMATE AND WERE OBTAINED FROM "DELINEATION OF SECONDARY ASH AREA 1, REVISION 2" AND "DELINEATION OF SECONDARY ASH AREA 2, REVISION 3" PREPARED BY KEMRON ENVIRONMENTAL SERVICES, INC. DATED 17 JUNE 2022 AND "MAGNOLIA TRAIL DPT INVESTIGATION" PREPARED BY GEOSYNTEC CONSULTANTS, INC. DATED 13 JANUARY 2023.
- DEED REFERENCE DEED BOOK 1059, PAGE 307, REFERENCES PLAT RECORDED IN PLAT BOOK E2017, PAGE 45 IN ERROR AIRS SHOULD REFERENCE PLAT RECORDED IN PLAT BOOK 26, PAGE 228 WHICH IS THE FLINT RIVER PRESERVE, PHASE 1 FINAL PLAT.
- AREAS SHOWN HEREON AS FLINT RIVER PRESERVE, PHASE 1 COMMON AREAS ARE OWNED BY THE FLINT RIVER PRESERVE HOMEOWNERS ASSOC., INC. AS PER WORK COUNTY TAX RECORDS, REFERENCE DEED BOOK 1056, PAGE 178.

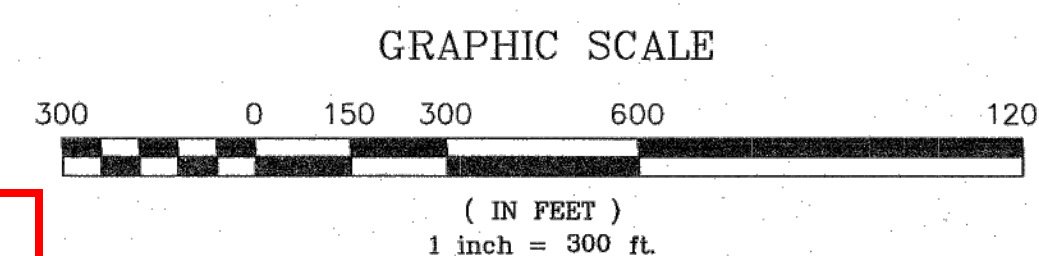
LINE	BEARING	DISTANCE
L-M	N 90°00'00" E	34.86
M-N	S 19°49'23" E	62.02

LINE	BEARING	DISTANCE
L1	N 02°50'32" W	180.22
L2	S 86°43'33" W	212.56
L3	N 00°05'13" W	114.01

LINE	BEARING	DISTANCE
L1	N 02°50'32" W	180.22
L2	S 86°43'33" W	212.56
L3	N 00°05'13" W	114.01

LINE	BEARING	DISTANCE
1-2	N 25°59'39" W	147.07
2-3	N 08°22'56" W	242.07
3-4	N 24°50'27" W	104.49
4-5	N 01°17'53" W	150.38
5-6	N 23°14'46" W	163.15
6-7	N 44°55'14" W	116.80
7-8	N 65°08'16" W	134.29
8-9	S 81°48'39" W	122.85
9-10	S 08°07'34" W	118.06
10-11	N 76°10'51" W	113.14
11-12	N 60°01'54" W	144.89
12-13	N 24°02'12" W	102.67
13-14	N 89°39'12" W	116.80
14-15	N 04°35'21" W	115.71
15-16	N 73°18'38" W	144.73
16-17	N 29°12'28" E	133.67
17-18	N 88°21'19" E	122.10
18-19	N 47°50'03" E	117.49
19-20	N 02°06'23" E	117.49
20-21	N 02°06'23" E	117.49
21-22	N 31°56'44" W	112.37
22-23	N 38°09'45" W	93.89
23-24	N 47°17'09" W	174.08
24-25	N 31°02'19" W	168.60
25-26	N 02°44'37" W	110.70
26-27	N 25°55'13" W	118.75
27-28	N 49°33'20" W	52.31
28-29	N 16°10'06" W	117.72
29-30	N 06°22'23" W	164.16
30-31	N 00°06'23" W	253.41
31-32	N 65°30'14" W	118.01
32-33	N 58°55'19" W	168.66
33-34	N 67°41'32" W	136.87
34-35	N 29°15'28" W	162.12
35-36	N 69°39'44" W	124.51
36-37	N 61°36'00" W	113.07
37-38	N 51°44'58" W	117.39

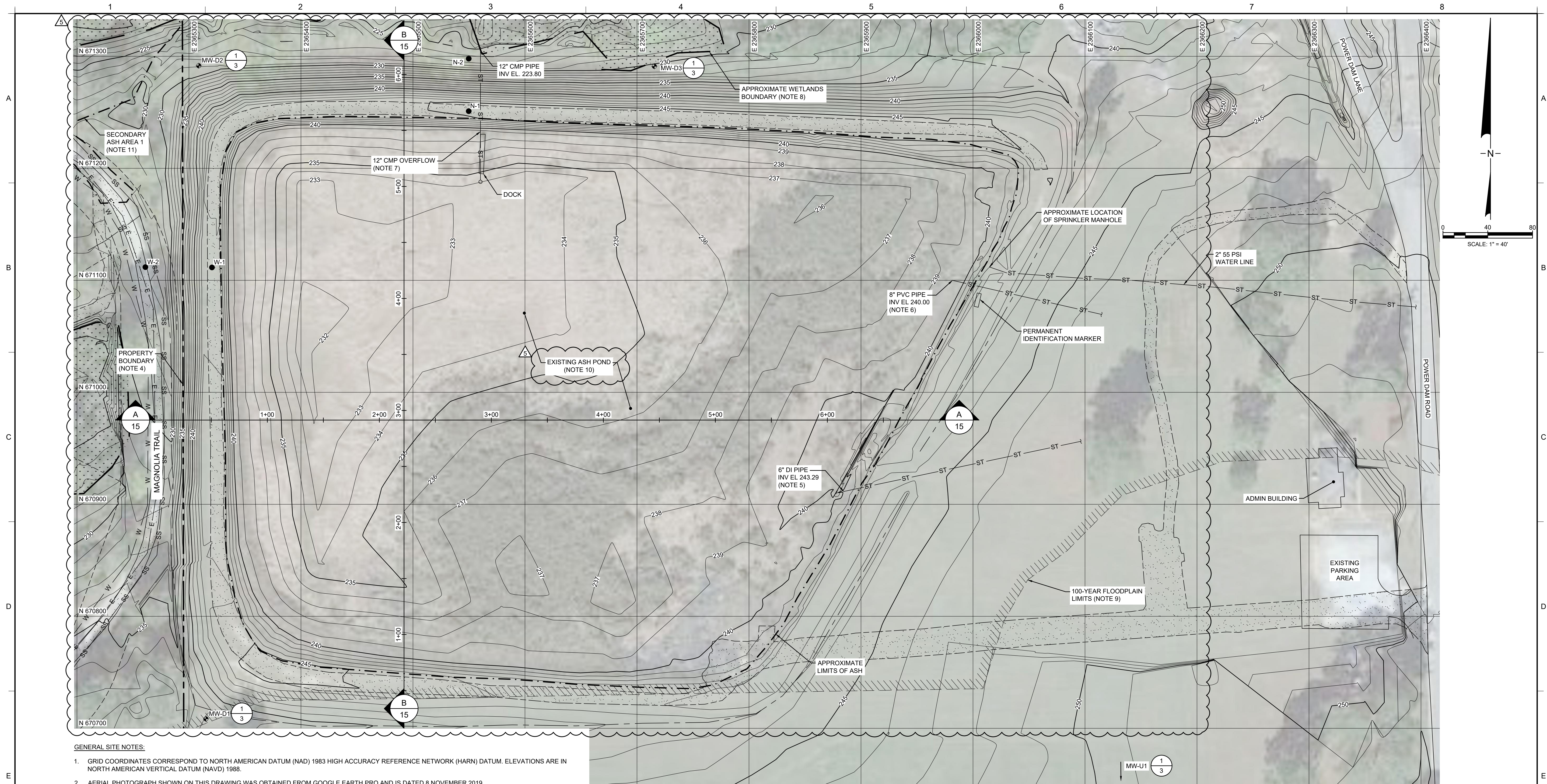
PROPERTY BOUNDARY SURVEY AND LEGAL DESCRIPTION CRISP COUNTY POWER COMMISSION ASH POND AND SECONDARY ASH AREAS 1 AND 2 CLOSURE AND SITE RESTORATION - DRAWING 2



REFERENCE: DEED BOOK 45, PAGE 152

CRISP COUNTY POWER COMMISSION			
PART OF LAND LOTS 92 & 39, 15th, LAND DISTRICT, WORTH COUNTY, GEORGIA			
SCALE: 1 INCH REPRESENTS 300 FEET	DATE OF SURVEY: OCT. 15, 2018	THIS PLAT HAS BEEN CALCULATED FOR CLOSURE AND IS FOUND TO BE ACCURATE	
REVISIONS: no. 1 APRIL 1, 2019 no. 2 MAY 2, 2022	DATE OF PLAT: OCT. 25, 2018	LINEAR PRECISION - 1" IN 42,366,456"	
THE FIELD DATA UPON WHICH THIS PLAT IS BASED HAS A CLOSURE PRECISION OF ONE FOOT IN 42,366,456 FEET AND AN ANGULAR ERROR OF PER ANGLE POINT, AND WAS ADJUSTED USING THE SEE NOTE NO. 3			
EQUIPMENT USED: SEE NOTE NO. 3			
PROJECT: CARLSON PROJECTS/2017/CCP/ASH Pond/CCPD Boundary Plat 2022 (REV KEMRON)-02-2023.DWG			
DRAWN BY: SMK FILE NO. 4137 PLAT NO. 1456 A [DATE OF ISSUANCE]			
J.B. FAIRCLOTH & ASSOCIATES, P.C. LAND SURVEYING, PLANNING AND MAPPING			
FIRM CERTIFICATE OF AUTHORIZATION NO. LSF00031			
1109 EAST 13th AVE. CORDELE, GEORGIA 31015		PHONE (229)-273-1282 FAX (229)-273-2340	





GENERAL SITE NOTES:

- GRID COORDINATES CORRESPOND TO NORTH AMERICAN DATUM (NAD) 1983 HIGH ACCURACY REFERENCE NETWORK (HARN) DATUM. ELEVATIONS ARE IN NORTH AMERICAN VERTICAL DATUM (NAVD) 1988.
- AERIAL PHOTOGRAPH SHOWN ON THIS DRAWING WAS OBTAINED FROM GOOGLE EARTH PRO AND IS DATED 8 NOVEMBER 2019.
- TOPOGRAPHY AND EXISTING SITE FEATURES WITHIN THE VICINITY OF THE ASH POND (I.E. BOREHOLES, DRAINAGE PIPES, ETC.) ARE APPROXIMATE AND BASED ON THE TOPOGRAPHIC SURVEY CONDUCTED BY J.B. FAIRCLOTH & ASSOCIATES, P.C. DATED 20 MAY 2014 AND MAY NOT REFLECT CURRENT SITE CONDITIONS. BOREHOLES WERE ABANDONED WITH GROUT AND/OR BENTONITE CHIPS BY RIZZO ASSOCIATES, AS DESCRIBED IN "DAM SAFETY ASSESSMENT REPORT" DATED 16 JANUARY 2015. TOPOGRAPHY AND EXISTING SITE FEATURES WERE SUPPLEMENTED WITH THE LIDAR SURVEY CONDUCTED BY J.B. FAIRCLOTH & ASSOCIATES, P.C. DATED 14 JUNE 2022.
- PROPERTY BOUNDARY, LOT BOUNDARIES, PERMIT BOUNDARY, AND MONITORING WELLS SHOWN ON THIS DRAWING SET ARE BASED UPON BOUNDARY SURVEYS PERFORMED BY J.B. FAIRCLOTH & ASSOCIATES, P.C. DATED 28 AUGUST 2023. SEE DRAWINGS 3 AND 4 FOR THE LOCATIONS OF THE MONITORING WELLS AND DRAWING 2 FOR ADDITIONAL PROPERTY OWNED BY CCPC THAT WAS NOT ENTIRELY CAPTURED IN THIS DRAWING.
- 6-INCH DUCTILE IRON PIPE WAS USED AS CCR SLUICE LINE DURING COAL BURNING OPERATIONS.
- 8-INCH PVC PIPE WAS USED TO CARRY MISCELLANEOUS RUNOFF AND PROCESS WATER FROM THE BAG HOUSE PUMP.
- 12-INCH CMP WAS USED AS A SPILLWAY FOR THE IMPOUNDMENT.
- WETLANDS BOUNDARIES SHOWN ARE APPROXIMATE AND BASED UPON THE WETLANDS DELINEATION STUDIES AND SITE VISITS COMPLETED BY GEOSYNTEC CONSULTANTS, INC. ON 22 MARCH 2019 AND 5 APRIL 2022.
- 100-YEAR FLOODPLAIN LIMITS SHOWN ARE BASED UPON FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) PANEL NO. 13321C0030D, EFFECTIVE 9/25/2009, AND LETTER OF MAP REVISION (LOMR) NO. 14-04-0919P, EFFECTIVE 2/19/2015. NO REDUCTIONS IN FLOODPLAIN VOLUME ARE ANTICIPATED AS PART OF THIS PROJECT. THE DASHED LINE REPRESENTS THE LIMIT OF FLOODPLAIN, AND THE HATCHED SIDE OF THE LINE REPRESENTS THE FLOODING SIDE.
- CCR REMOVAL AND RESTORATION ACTIVITIES WERE IN PROGRESS WHEN THIS PERMIT MODIFICATION PACKAGE WAS PREPARED. THEREFORE, TOPOGRAPHIC CONTOURS AND OTHER FEATURES MAY BE DIFFERENT THAN WHAT IS SHOWN IN THIS DRAWING.
- LIMITS OF ASH SHOWN FOR SECONDARY ASH AREAS 1 AND 2 ARE APPROXIMATE AND WERE OBTAINED FROM "DELINEATION OF SECONDARY ASH AREA 1, REVISION 2" AND "DELINEATION OF SECONDARY ASH AREA 2, REVISION 3" PREPARED BY KEMRON ENVIRONMENTAL SERVICES, INC. DATED 17 JUNE 2022 AND "MAGNOLIA TRAIL DPT INVESTIGATION" PREPARED BY GEOSYNTEC CONSULTANTS, INC. DATED 13 JANUARY 2023. ASH, IF IDENTIFIED OUTSIDE THE DELINEATION AREAS, WILL ALSO BE REMOVED UPON IDENTIFICATION.

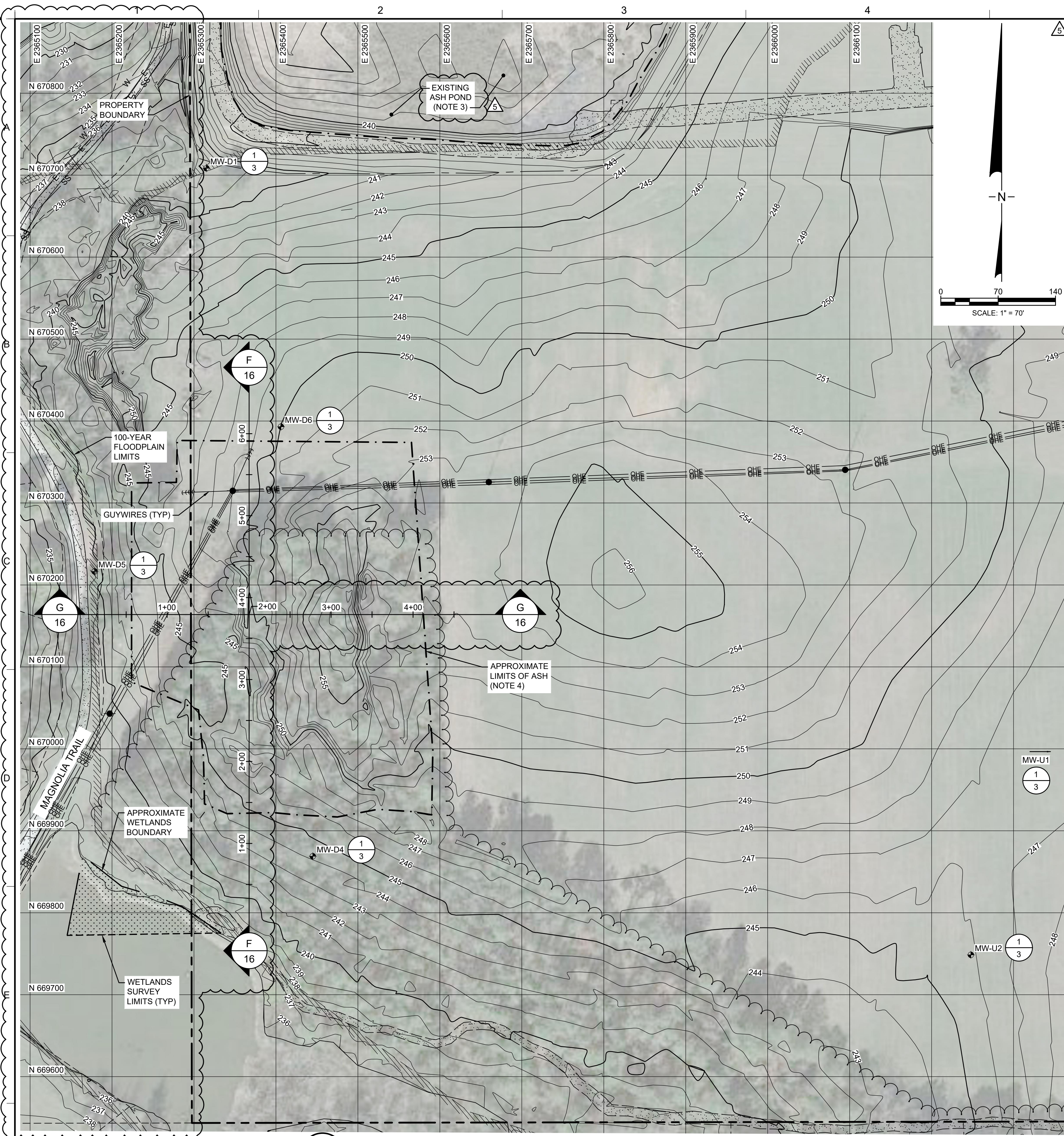
WELL ID	NORTHING (FT)	EASTING (FT)	GROUND SURFACE EL (FT NAVD 88)	TOP OF CASING EL (FT NAVD 88)
MW-D1	670708.47	2365315.12	238.10	241.77
MW-D2	671291.61	2365308.73	229.14	232.66
MW-D3	671291.07	2365715.53	229.77	233.78
MW-D4	669875.01	2365444.95	244.22	246.51
MW-D5	670216.49	2365178.72	238.31	241.16
MW-D6	670393.04	2365406.13	249.85	252.63
MW-D7	671054.07	2365037.89	227.21	230.18
MW-D8	671186.85	2364861.25	223.90	226.76
MW-D9	671482.27	2364959.09	218.99	221.42
MW-U1	669996.79	2366420.55	246.28	249.52
MW-U2	669748.63	2366247.88	245.69	248.79

1
3
TABLE
MONITORING WELLS
(NOTE 4)

LEGEND	
	EXISTING GROUND ELEVATION (FT NAVD 88) (NOTE 3)
	EXISTING DITCH
	PROPERTY BOUNDARY (NOTE 4)
	LOT BOUNDARY (NOTE 4)
	EXISTING PIPE
	APPROXIMATE LIMITS OF ASH
	WETLANDS (NOTE 8)
	100-YEAR FLOODPLAIN LIMITS (NOTE 9)
	EXISTING ROAD
	ABANDONED BOREHOLE (NOTE 3)
	EXISTING MONITORING WELL (NOTE 4)

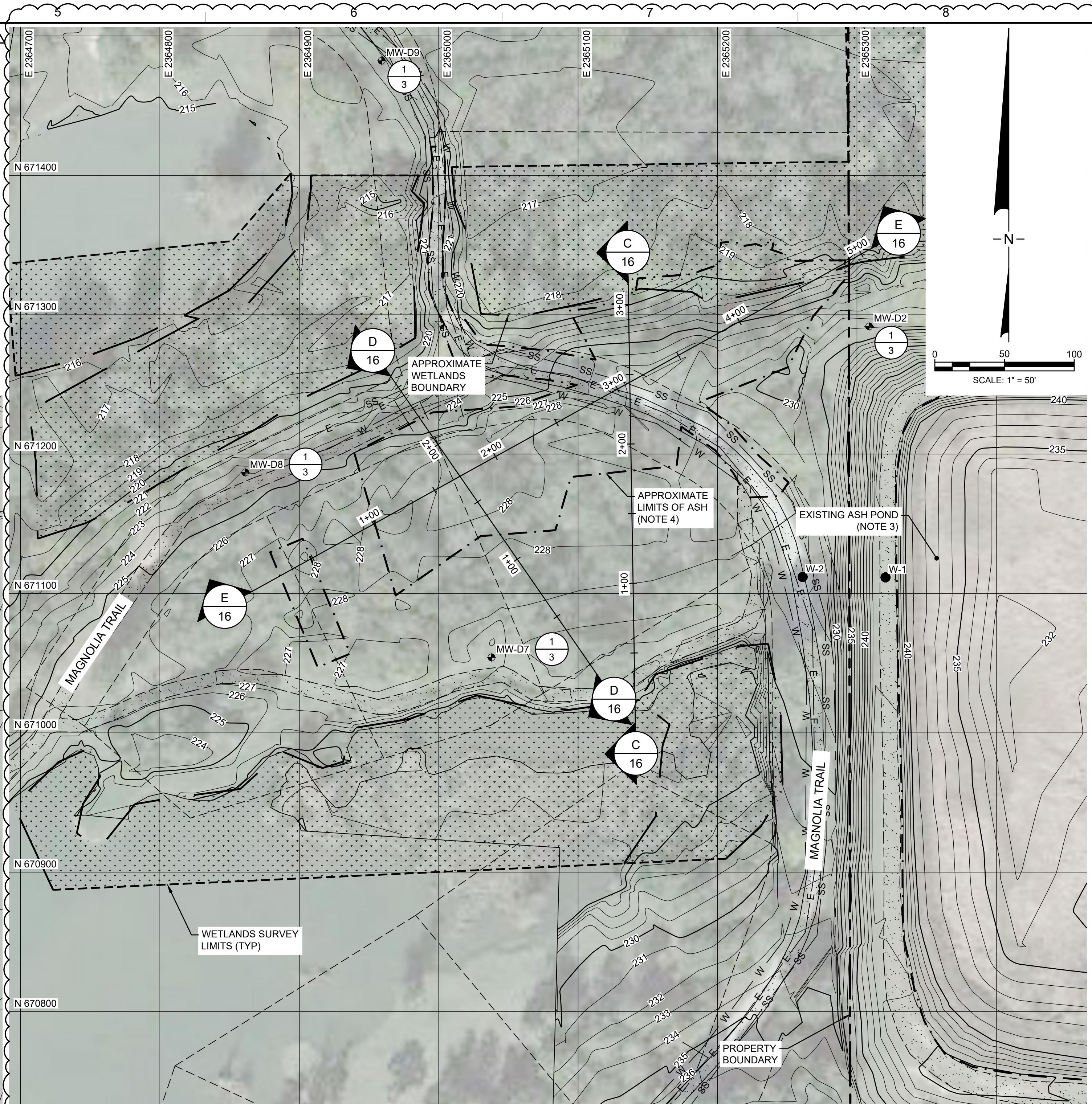
ISSUED FOR PERMIT

5 4	02/23/24 08.12.22	REVISED FOR GA EPD SUBMITTAL REVISED FOR GA EPD SUBMITTAL	JO RN	MI MI
REV	DATE	DESCRIPTION	DRN	APP
Geosyntec consultants		GEORGIA CERTIFICATION OF AUTHORIZATION (COA) NO. PEF000260, EXP. 06/30/2024 1255 ROBERTS BOULEVARD, N.W., SUITE 200 KENNESAW, GEORGIA 30144 USA PHONE: 678.202.9500		
TITLE:		EXISTING SITE CONDITIONS - ASH POND		
PROJECT:		CRISP COUNTY POWER COMMISSION ASH POND AND SECONDARY ASH AREAS 1 AND 2 CLOSURE AND SITE RESTORATION		
PLANT CRISP WARWICK, GEORGIA		DESIGN BY: SH/OC DATE: FEBRUARY 2024		
DRAWN BY: RN/DJ		PROJECT NO.: GW 8836		
CHECKED BY: SH/OC		FILE: GW6152.02-03		
REVIEWED BY: JG		DRAWING NO.:		
APPROVED BY: MI		3		
02.23.2024		REGISTERED PROFESSIONAL ENGINEER MEHNET ISC/MEN		



2 PLAN
4 EXISTING SITE CONDITIONS - SECONDARY ASH AREA 2
SCALE: 1" = 70'

- NOTES:
- SEE DRAWING 3 FOR GENERAL SITE NOTES.
 - SEE TABLE 1 ON DRAWING 3 FOR MONITORING WELL NORTHINGS, EASTINGS, GROUND SURFACE ELEVATIONS, AND TOP OF CASING ELEVATIONS.
 - CCR REMOVAL AND RESTORATION ACTIVITIES WERE IN PROGRESS WHEN THIS PERMIT MODIFICATION PACKAGE WAS PREPARED. THEREFORE, TOPOGRAPHIC CONTOURS AND OTHER FEATURES MAY BE DIFFERENT THAN WHAT IS SHOWN IN THIS DRAWING.
 - LIMITS OF ASH SHOWN FOR SECONDARY ASH AREAS 1 AND 2 ARE APPROXIMATE AND WERE OBTAINED FROM "DELINEATION OF SECONDARY ASH AREA 1, REVISION 2" AND "DELINEATION OF SECONDARY ASH AREA 2, REVISION 3" PREPARED BY KEMRON ENVIRONMENTAL SERVICES, INC. DATED 17 JUNE 2022 AND "MAGNOLIA TRAIL DPT INVESTIGATION" PREPARED BY GEOSYNTEC CONSULTANTS, INC. DATED 13 JANUARY 2023. ASH, IF IDENTIFIED OUTSIDE THE DELINEATION AREAS, WILL ALSO BE REMOVED UPON IDENTIFICATION.
 - LOCATIONS OF UNDERGROUND UTILITIES NEAR MAGNOLIA TRAIL WERE IDENTIFIED BY COLLIER GEOPHYSICS ON 2 DECEMBER 2022 USING RADIO-FREQUENCY ELECTROMAGNETIC SCANNING AND GROUND PENETRATION RADAR.
 - 0.08 ACRES OF WETLANDS IMPACTS WERE IDENTIFIED AND PERMITTED BY THE UNITED STATES ARMY CORPS OF ENGINEERS (USACE) AND AUTHORIZED UNDER NATIONWIDE PERMIT (NWP) NO. 38 - CLEANUP OF HAZARDOUS AND TOXIC WASTE. REFER TO THE APPROVED JURISDICTIONAL DETERMINATION SAS-2022-01069 DATED 10 OCTOBER 2023
 - ACCESS AGREEMENTS WITH FLINT RIVER PRESERVE HOMEOWNERS ASSOCIATION, INC. (DATED 29 MARCH 2022 AND RENEWED ON 5 JUNE 2023) AND KATHY WESTMORELAND AND FRANKIE MORGAN (DATED 24 MARCH 2022 AND RENEWED ON 27 MARCH 2023) HAVE BEEN OBTAINED TO REMOVE CCR FROM AREAS ADJACENT TO TRACTS A1, B, AND C PRESENTED ON DRAWING 2.



3 PLAN
4 EXISTING SITE CONDITIONS - SECONDARY ASH AREA 1
SCALE: 1" = 50'

- LEGEND**
- 230 — EXISTING GROUND ELEVATION (FT NAVD 88)
 - - - EXISTING DITCH
 - - - PROPERTY BOUNDARY
 - - - LOT BOUNDARY
 - - - APPROXIMATE LIMITS OF ASH (NOTE 4)
 - [Pattern] WETLANDS
 - [Pattern] 100-YEAR FLOODPLAIN LIMITS
 - [Pattern] EXISTING ROAD
 - N-1 ABANDONED BOREHOLE
 - MW-D1 EXISTING MONITORING WELL
 - EXISTING POWER POLE
 - OHE — EXISTING OVERHEAD POWER LINE
 - TREELINE
 - W — EXISTING WATER LINE (NOTE 5)
 - E — EXISTING ELECTRICAL LINE (NOTE 5)
 - SS — EXISTING SEWER LINE (NOTE 5)

REV	DATE	DESCRIPTION	DRN	APP
5	02/23/24	REVISED FOR GA EPD SUBMITTAL	JO	MI
4	08/12/23	REVISED FOR GA EPD SUBMITTAL	RN	MI

Geosyntec consultants

GEORGIA CERTIFICATION OF AUTHORIZATION
(COA) NO. PEF000250, EXP. 06/30/2024
1255 ROBERTS BOULEVARD, N.W., SUITE 200
KENNESAW, GEORGIA 30144 USA
PHONE: 678.202.9500

TITLE: **EXISTING SITE CONDITIONS - SECONDARY ASH AREAS 1 AND 2**

PROJECT: **CRISP COUNTY POWER COMMISSION
ASH POND AND SECONDARY ASH AREAS 1 AND 2 CLOSURE AND SITE RESTORATION**

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION
Approved
Solid Waste Management Program
Approved By: Keith Stevens

**PLANT CRISP
WARWICK, GEORGIA**

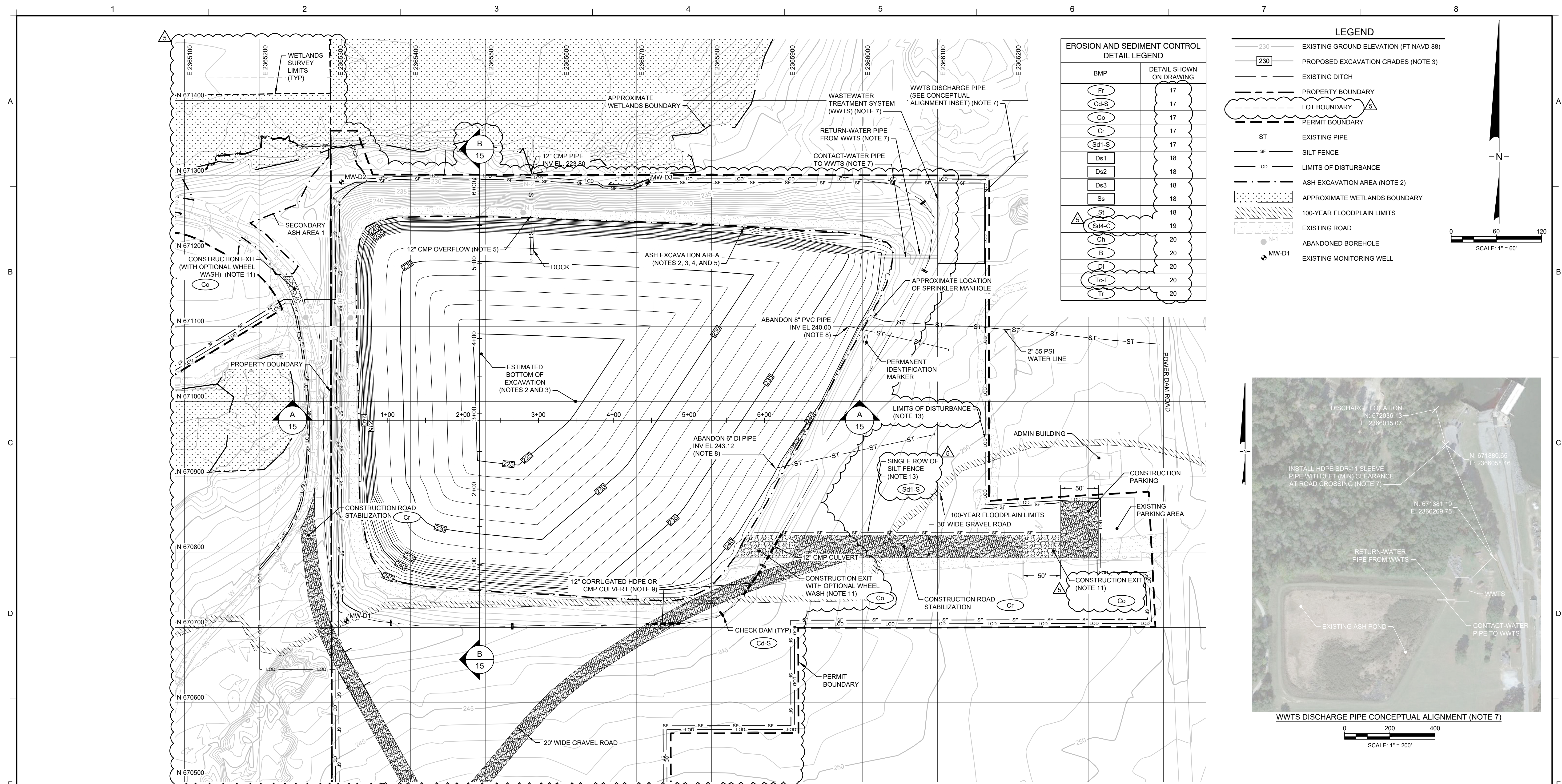
DESIGN BY:	SH/OC	DATE:	FEBRUARY 2024
DRAWN BY: <td>RN/DJ</td> <td>PROJECT NO.:</td> <td>GW 8836</td>	RN/DJ	PROJECT NO.:	GW 8836
CHECKED BY: <td>SH/OC</td> <td>FILE:</td> <td>GW6152.02-04</td>	SH/OC	FILE:	GW6152.02-04
REVIEWED BY: <td>JG</td> <td>DRAWING NO.:</td> <td></td>	JG	DRAWING NO.:	
APPROVED BY: <td>MI</td> <td></td> <td></td>	MI		

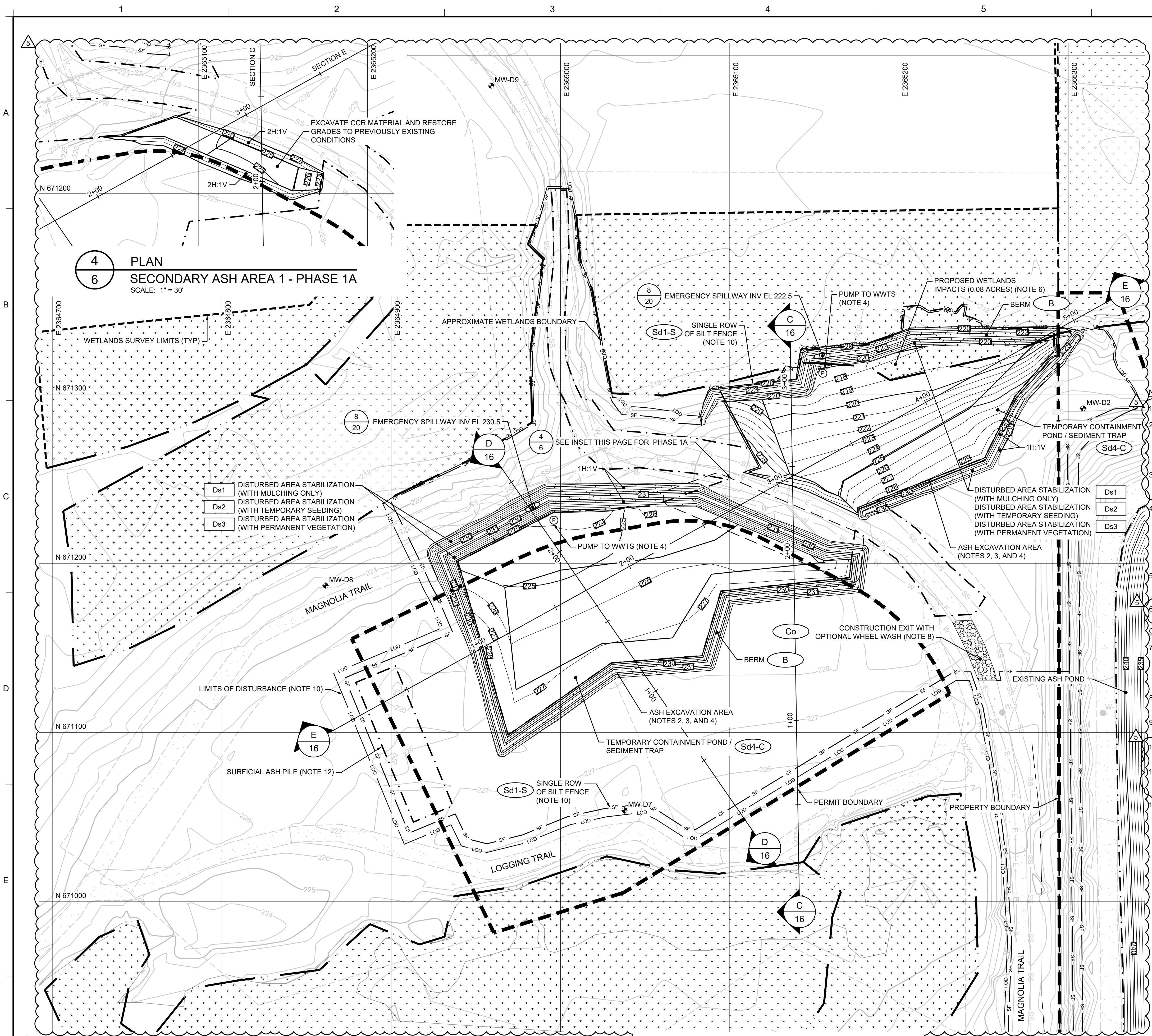
ISSUED FOR PERMIT

02/23/2024

REGISTERED PROFESSIONAL ENGINEER
No. 054198
Geosyntec
MEHNET/ISC/MEN

4





4 PLAN
6 SECONDARY ASH AREA 1 - PHASE 1A
SCALE: 1" = 30'

5 PLAN
6 SECONDARY ASH AREA 1 - PHASE 1B
SCALE: 1" = 30'

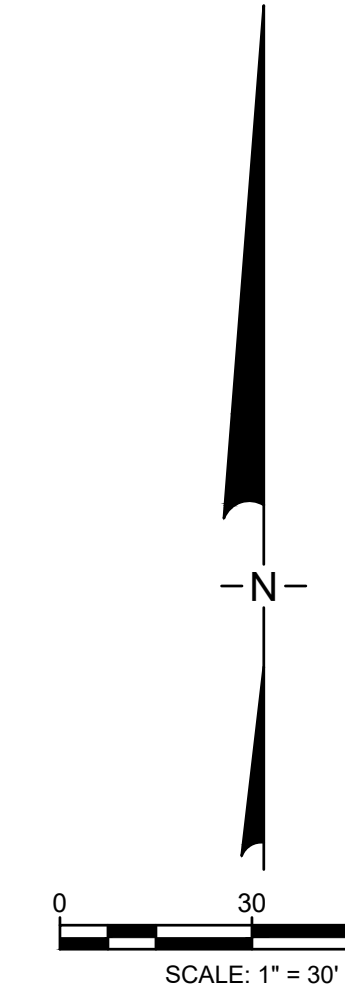
LEGEND

- 230 EXISTING GROUND ELEVATION (FT NAVD 88)
- 230 PROPOSED EXCAVATION GRADES (NOTE 3)
- EXISTING DITCH
- PROPERTY BOUNDARY
- LOT BOUNDARY
- PERMIT BOUNDARY
- SF SILT FENCE
- LOD LIMITS OF DISTURBANCE
- ASH EXCAVATION AREA (NOTE 2)
- APPROXIMATE WETLANDS BOUNDARY
- 100-YEAR FLOODPLAIN LIMITS
- EXISTING ROAD
- AREA TO BE STABILIZED
- ABANDONED BOREHOLE
- EXISTING MONITORING WELL
- PUMP (NOTE 4)
- W EXISTING WATER LINE (NOTE 11)
- E EXISTING ELECTRICAL LINE (NOTE 11)
- SS EXISTING SEWER LINE (NOTE 11)

EROSION AND SEDIMENT CONTROL DETAIL LEGEND	
BMP	DETAIL SHOWN ON DRAWING
Fr	17
Cd-S	17
Co	17
Cr	17
Sd1-S	17
Ds1	18
Ds2	18
Ds3	18
Ss	18
St	18
Sd4-C	19
Ch	20
B	20
Di	20
Tc-F	20
Tr	20

- NOTES:**
- SEE DRAWING 3 FOR GENERAL SITE NOTES.
 - ASH EXCAVATION AREA DEFINES THE EXTENT OF MATERIAL REMOVAL WITHIN SECONDARY ASH AREA 1. WITHIN THE ASH EXCAVATION AREA THE CONTRACTOR SHALL REMOVE CCR AND MINIMUM 6-INCHES OF UNDERLYING NATIVE SOIL. AN APPROXIMATE VOLUME OF 5,100 CY OF CCR AND AN APPROXIMATE VOLUME OF 1,800 CY OF UNDERLYING NATIVE SOIL WERE REMOVED FROM WITHIN THE ASH EXCAVATION AREA. VOLUME ESTIMATES ARE BASED ON BOTTOM OF CCR AND BOTTOM OF EXCAVATION (PLUS 6 INCHES) TOPOGRAPHIC SURVEYS CONDUCTED BY LAND ENGINEERING, INC. DATED 29 JANUARY 2024.
 - CONTOURS SHOWN WITHIN THE ASH EXCAVATION AREA REPRESENT SURFACE AFTER REMOVAL OF CCR AND 6 INCHES OF UNDERLYING NATIVE SOIL AND PLACEMENT OF WATER MANAGEMENT FEATURES (BERMS, CHANNELS, ETC.). THEY ARE APPROXIMATE AND BASED UPON LIMITED INFORMATION. ACTUAL DEPTHS TO BOTTOM OF CCR MATERIAL MAY VARY. CONTRACTOR SHALL VISUALLY VERIFY THAT ALL VISIBLE CCR MATERIAL HAS BEEN REMOVED.
 - ALL MATERIAL REMOVED FROM SECONDARY ASH AREA 1 FOR OFF-SITE DISPOSAL SHALL NOT CONTAIN FREE LIQUIDS AS EVIDENCED BY PASSING PAINT FILTER TESTS. MOISTURE CONDITIONING (E.G., WINDROWING, DISCING) OF REMOVED CCR AND SOIL SHALL BE PERFORMED AS NEEDED TO DRY THE MATERIAL SUFFICIENTLY TO PASS THE PAINT FILTER TEST. FREE LIQUIDS OR OTHER DEWATERING-ACTIVITY WATERS GENERATED AS A RESULT OF THE WORK WILL BE CONVEYED TO TEMPORARY CONTAINMENT PONDS/SEDIMENT TRAPS AND PUMPED TO WWTS FOR TREATMENT BUT MAY ALSO BE ALLOWED TO REMAIN AS STANDING WATER WITHIN SECONDARY ASH AREA 1 LIMITS, REMOVED BY NATURAL EVAPORATION, TO THE EXTENT THEY DO NOT BECOME A NUISANCE. RESTRICT WORK ACTIVITIES, OR RESULT IN DISCHARGE, FOR NUISANCE CONDITIONS OR WORK DISRUPTIONS, THE WATER SHALL BE REMOVED AND TREATED BY THE CONTRACTOR IN ACCORDANCE WITH THE SITE'S COAL ASH DEWATERING PERMIT.
 - CONSTRUCTION EXIT AND PARKING AREA AS WELL AS CONTRACTOR'S FACILITIES, MATERIAL STOCKPILES AND LAYDOWN, STAGING, AND TRAILER AREA SHALL BE LOCATED ONLY IN AREAS APPROVED BY THE CONSTRUCTION MANAGER. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL AREAS DURING CONSTRUCTION AND FOR CLEANUP/RESTORATION OF ALL SUCH AREAS TO THEIR ORIGINAL CONDITION AFTER CONSTRUCTION.
 - 0.08 ACRES OF WETLANDS IMPACTS WERE IDENTIFIED AND PERMITTED BY THE USACE AND AUTHORIZED UNDER NWFP NO. 38 - CLEANUP OF HAZARDOUS AND TOXIC WASTE. REFER TO THE APPROVED JURISDICTIONAL DETERMINATION SAS-2022-01069 DATED 10 OCTOBER 2023.
- GENERAL CONSTRUCTION NOTES:**
- SURVEYS SHALL BE COMPLETED BY A LAND SURVEYOR REGISTERED IN THE STATE OF GEORGIA FOR PURPOSES OF DEFINING THE REMOVAL GRADES AND VOLUME OF REMOVAL. IN ADDITION, PHOTOGRAPHIC DOCUMENTATION AND DOCUMENTING THE EXTENT OF REMOVAL ACTION WILL BE COMPLETED BY A THIRD PARTY COA CONSULTANT WORKING FOR THE OWNER. A TOTAL OF FOUR SURVEYS SHALL BE COMPLETED: (I) ONE SURVEY PRIOR TO CCR AND 6-INCHES OF UNDERLYING NATIVE SOIL REMOVAL, (II) ANOTHER SURVEY FOLLOWING REMOVAL OF CCR, (III) A THIRD SURVEY FOLLOWING REMOVAL OF 6-INCHES OF UNDERLYING NATIVE SOIL, AND (IV) A FINAL SURVEY UPON COMPLETION OF SITE RESTORATION.
 - CONSTRUCTION VEHICLES SHALL ENTER AND EXIT THE SITE VIA THE CONSTRUCTION EXITS. TRUCKS SHALL BE PROPERLY CLEANED (E.G., TIRE WASH AND INSPECTION) PRIOR TO LEAVING THE SITE.
 - CONTRACTOR SHALL MITIGATE DUST AS DIRECTED BY THE CONSTRUCTION MANAGER AND IN ACCORDANCE WITH THE FUGITIVE DUST CONTROL PLAN ISSUED BY CCPC, DATED SEPTEMBER 2016, AND ANY SUBSEQUENT AMENDMENT OF THE PLAN.
 - LIMITS OF DISTURBANCE DEFINES THE EXTENTS OF THE CONSTRUCTION AREA, AND NO CONSTRUCTION RELATED TASKS SHALL OCCUR OUTSIDE THESE LIMITS. LIMITS OF DISTURBANCE AND SILT FENCE ARE SHOWN OFFSET FOR CLARITY PURPOSES ONLY.
 - LOCATIONS OF UNDERGROUND UTILITIES NEAR MAGNOLIA TRAIL WERE IDENTIFIED BY COLLIER GEOPHYSICS ON 2 DECEMBER 2022 USING RADIO-FREQUENCY ELECTROMAGNETIC SCANNING AND GROUND PENETRATION RADAR. UTILITIES SHALL BE DISCONNECTED BY CCPC PRIOR TO ROAD EXCAVATION. CCPC SHALL RESTORE SERVICE UPON COMPLETION OF ROAD RESTORATION BY CONTRACTOR.
 - CONTRACTOR SHALL REMOVE SURFICIAL ASH PILE AND MINIMUM 6-INCHES OF UNDERLYING NATIVE SOIL DURING DRY CONDITIONS.

- ASH REMOVAL PHASE SEQUENCING**
- *DURING PHASES 1A AND 1B, NO CONTACT WATER / STORMWATER DISCHARGES FROM WITHIN SECONDARY ASH AREA 1 ARE PERMITTED. STORMWATER RUNOFF FROM DISTURBED AREAS SHALL BE CONTAINED WITHIN TEMPORARY CONTAINMENT PONDS/SEDIMENT TRAPS AND PUMPED TO THE WWTS. CONTRACTOR SHALL:
- INSTALL CONSTRUCTION EXIT. INSTALL A TIRE WASH FACILITY IF SEDIMENT AND ASH TRACKING CANNOT BE ELIMINATED AT THE CONSTRUCTION EXIT.
 - INSTALL SILT FENCE AS SHOWN.
 - EXCAVATE AND REMOVE CCR MATERIAL AS SHOWN IN PHASE 1A. RESTORE GRADES TO PREVIOUSLY EXISTING CONDITIONS.
 - INSTALL TEMPORARY CONTAINMENT POND/SEDIMENT TRAP IN THE NORTHERN AREA WITH AN EMERGENCY SPILLWAY AT EL 222.5 FT NAVD 88 AND TEMPORARY CONTAINMENT POND/SEDIMENT TRAP IN THE SOUTHERN AREA WITH AN EMERGENCY SPILLWAY AT EL 230.5 FT NAVD 88 AS SHOWN IN PHASE 1B. STABILIZE BERMS WITH MULCHING, TEMPORARY SEEDING, AND PERMANENT SEEDING.
 - EXCAVATE AND REMOVE CCR MATERIAL, GENERALLY BEGINNING FROM THE HIGHER ELEVATION AREAS. CONTINUE EXCAVATION MOVING TO LOWER ELEVATIONS.



5 02/23/24 REVISED FOR GA EPD SUBMITTAL JO MI
08/12/22 REVISED FOR GA EPD SUBMITTAL RN AP

REV	DATE	DESCRIPTION	DRN	APP
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Geosyntec consultants

GEORGIA CERTIFICATION OF AUTHORIZATION
(COA) NO. PEF000260, EXP. 06/30/2024
1255 ROBERTS BOULEVARD, N.W., SUITE 200
KENNESAW, GEORGIA 30144 USA
PHONE: 678.202.9500

TITLE: **ASH REMOVAL PLAN - SECONDARY ASH AREA 1 - PHASES 1A AND 1B**

PROJECT: **CRISP COUNTY POWER COMMISSION ASH POND AND SECONDARY ASH AREAS 1 AND 2 CLOSURE AND SITE RESTORATION**

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION
Approved
Solid Waste Management Program
Approved By: Keith Stevens (Solid Waste Management Program)

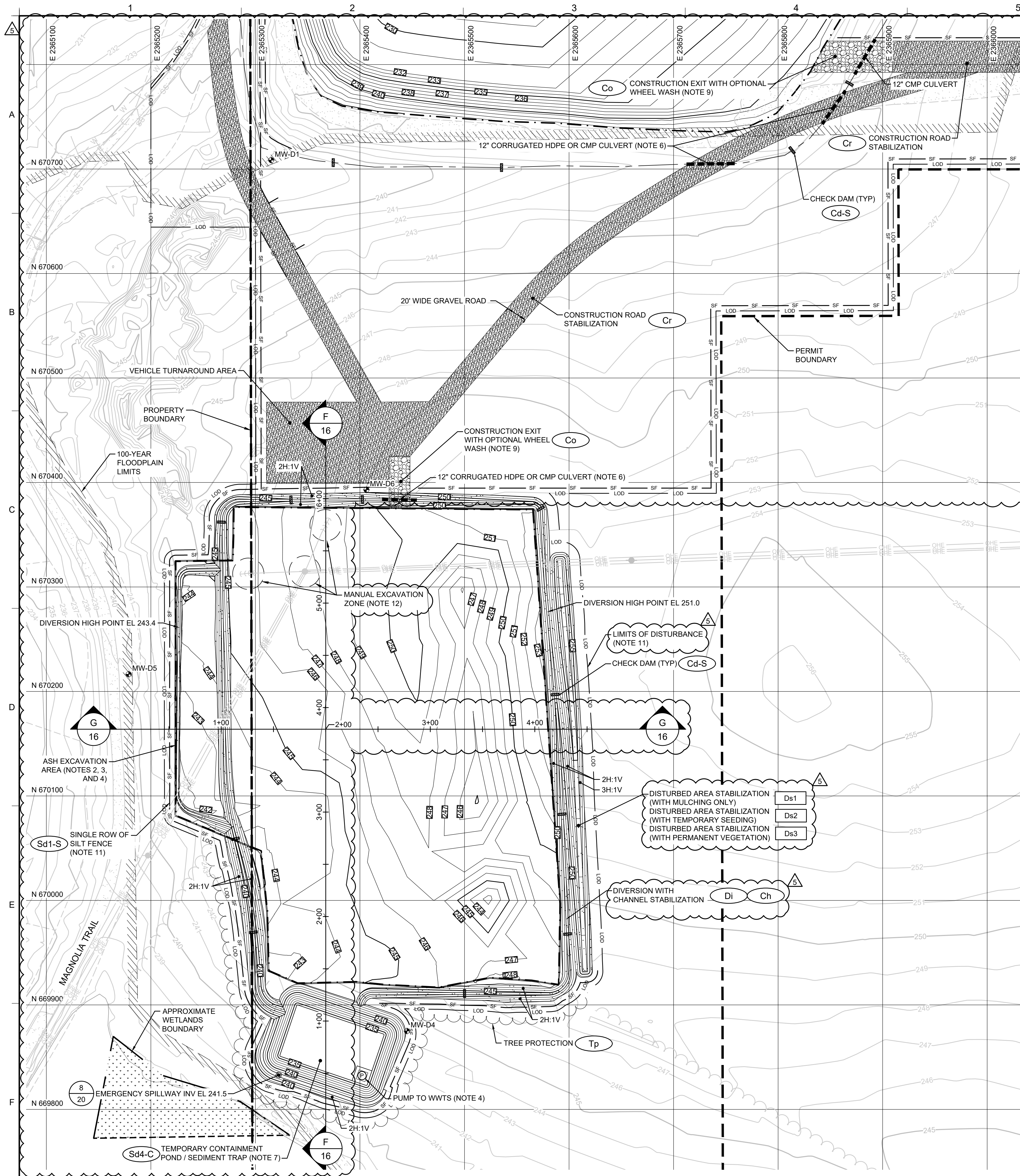
REGISTERED ENGINEER
No. 054196
02/23/2024

PLANT CRISP
WARWICK, GEORGIA

DESIGN BY:	SH/OC	DATE:	FEBRUARY 2024
DRAWN BY:	RN/DJ	PROJECT NO.:	GW 8836
CHECKED BY:	SH/OC	FILE:	GW16152.02-06
REVIEWED BY:	JG	DRAWING NO.:	
APPROVED BY:	MI		

02/23/2024

6

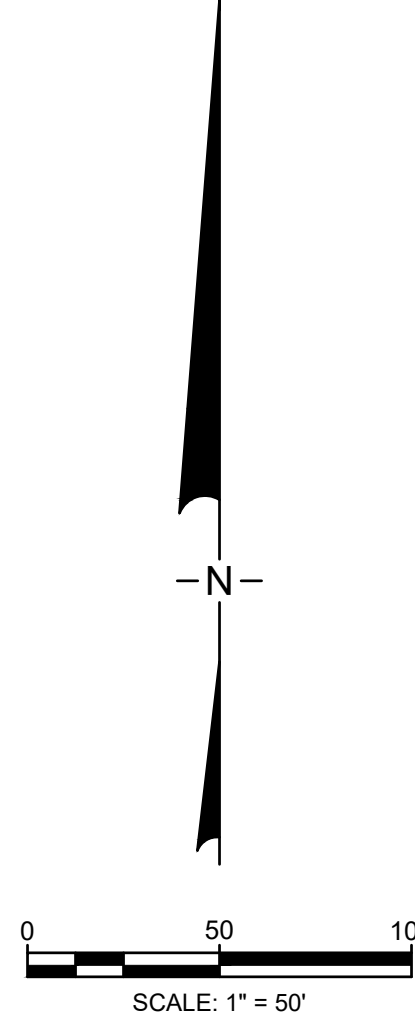


- NOTES:
- SEE DRAWING 3 FOR GENERAL SITE NOTES.
 - ASH EXCAVATION AREA DEFINES THE EXTENT OF MATERIAL REMOVAL WITHIN SECONDARY ASH AREA 2. WITHIN THE ASH EXCAVATION AREA THE CONTRACTOR SHALL REMOVE CCR AND MINIMUM 6-INCHES OF UNDERLYING NATIVE SOIL. AN APPROXIMATE VOLUME OF 16,300 CY OF CCR AND AN APPROXIMATE VOLUME OF 4,800 CY OF UNDERLYING NATIVE SOIL WERE REMOVED FROM WITHIN THE ASH EXCAVATION AREA. VOLUME ESTIMATES ARE BASED ON BOTTOM OF CCR AND BOTTOM OF EXCAVATION (PLUS 6 INCHES) TOPOGRAPHIC SURVEYS CONDUCTED BY LAND ENGINEERING, INC. DATED 29 JANUARY 2024.
 - CONTOURS SHOWN WITHIN THE ASH EXCAVATION AREA REPRESENT SURFACE AFTER REMOVAL OF CCR AND 6 INCHES OF UNDERLYING NATIVE SOIL AND PLACEMENT OF WATER MANAGEMENT FEATURES (BERMS, CHANNELS, ETC.); THEY ARE APPROXIMATE AND BASED UPON LIMITED INFORMATION. ACTUAL DEPTHS TO BOTTOM OF CCR MATERIAL MAY VARY. CONTRACTOR SHALL VISUALLY VERIFY THAT ALL VISIBLE CCR MATERIAL HAS BEEN REMOVED.
 - ALL MATERIAL REMOVED FROM SECONDARY ASH AREA 2 FOR OFF-SITE DISPOSAL SHALL NOT CONTAIN FREE LIQUIDS AS EVIDENCED BY PASSING PAINT FILTER TESTS. MOISTURE CONDITIONING (E.G., WINDROWING, DISCING) OF REMOVED CCR AND SOIL SHALL BE PERFORMED AS NEEDED TO DRY THE MATERIAL SUFFICIENTLY TO PASS THE PAINT FILTER TEST. FREE LIQUIDS OR OTHER DEWATERING-ACTIVITY WATERS GENERATED AS A RESULT OF THE WORK WILL BE CONVEYED TO TEMPORARY CONTAINMENT POND/SEDIMENT TRAP AND PUMPED TO WWTS FOR TREATMENT BUT MAY ALSO BE ALLOWED TO REMAIN AS STANDING WATER WITHIN SECONDARY ASH AREA 2 LIMITS, REMOVED BY NATURAL EVAPORATION, TO THE EXTENT THEY DO NOT BECOME A NUISANCE, RESTRICT WORK ACTIVITIES, OR RESULT IN DISCHARGE. FOR NUISANCE CONDITIONS OR WORK DISRUPTIONS, THE WATER SHALL BE REMOVED AND TREATED BY THE CONTRACTOR IN ACCORDANCE WITH THE SITE'S COAL ASH DEWATERING PERMIT.
 - CONSTRUCTION EXIT AND PARKING AREA AS WELL AS CONTRACTOR'S FACILITIES, MATERIAL STOCKPILES AND LAYDOWN, STAGING, AND TRAILER AREA SHALL BE LOCATED ONLY IN AREAS APPROVED BY THE CONSTRUCTION MANAGER. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL AREAS DURING CONSTRUCTION AND FOR CLEANUP/RESTORATION OF ALL SUCH AREAS TO THEIR ORIGINAL CONDITION AFTER CONSTRUCTION.
 - THE MINIMUM ALLOWABLE COVER FOR CMP SHALL BE 1.0 FT BASED ON GDOT STANDARD DETAIL NUMBER 1030D FOR CONCRETE AND METAL PIPE CULVERTS. THE MINIMUM ALLOWABLE COVER FOR HDPE SHALL BE 2.0 FT BASED ON GDOT STANDARD DETAIL NUMBER 1030P FOR THERMOPLASTIC PIPE.
 - THE TEMPORARY CONTAINMENT POND/SEDIMENT TRAP SHALL BE LINED WITH EXPOSED 30-MIL TEXTURED LLDPE GEOMEMBRANE OR AN ENGINEER APPROVED EQUIVALENT ANCHORED AT THE CREST OF THE BERMS. THE SUBGRADE SURFACE BENEATH THE GEOMEMBRANE SHALL BE FIRM, SMOOTH, UNYIELDING, AND UNIFORM AND FREE FROM ROCKS, ORGANIC MATTER, DELETERIOUS MATERIALS, OR OTHER DEBRIS. THE SURFACE ON WHICH THE GEOMEMBRANE IS TO BE INSTALLED SHALL CONTAIN NO LOOSE STONES OR RUTS OR PROTRUSIONS GREATER THAN 1/2-INCH. THE ANCHOR TRENCH SHALL BE 2-FT X 2-FT AND BACKFILLED WITH LOW PERMEABILITY BACKFILL AND COMPACTED USING CONSTRUCTION EQUIPMENT (E.G., THROUGH TRACKING, BUCKET TAMPING, ETC.) OR COMPACTION EQUIPMENT IN 9-IN MAXIMUM LOOSE LIFTS AND MINIMUM 92% DENSITY USING STANDARD PROCTOR TEST. THE EXPOSED GEOMEMBRANE SHALL BE HELD DOWN BY ULTRAVIOLET RESISTANT SANDBAGS WEIGHING 40 LBS EACH. THE SANDBAGS SHALL BE PLACED IN A 20-FT X 20-FT SQUARE PATTERN ON THE FLOOR OF THE POND AND AT THE TOE, MID-SLOPE, AND CREST OF THE SIDE SLOPES AND TIED TOGETHER WITH ULTRAVIOLET RESISTANT ROPES. THE SUMP SHALL BE LINED WITH AN ADDITIONAL 8-OZ NON-WOVEN GEOTEXTILE AND 1-FT THICK NO. 4 STONE OR SIMILAR. THE GEOMEMBRANE SHALL BE INSPECTED FOR DAMAGE AND TEARS DURING REGULAR SITE INSPECTIONS AND REPAIRED AS NEEDED AS SOON AS PRACTICAL.
- GENERAL CONSTRUCTION NOTES:
- SURVEYS SHALL BE COMPLETED BY A LAND SURVEYOR REGISTERED IN THE STATE OF GEORGIA FOR PURPOSES OF DEFINING THE REMOVAL GRADES AND VOLUME OF REMOVAL. IN ADDITION, PHOTOGRAPHIC DOCUMENTATION AND DOCUMENTING THE EXTENT OF REMOVAL ACTION WILL BE COMPLETED BY A THIRD PARTY COA CONSULTANT WORKING FOR THE OWNER. A TOTAL OF FOUR SURVEYS SHALL BE COMPLETED: (I) ONE SURVEY PRIOR TO CCR AND 6-INCHES OF UNDERLYING NATIVE SOIL REMOVAL, (II) ANOTHER SURVEY FOLLOWING REMOVAL OF CCR, (III) A THIRD SURVEY FOLLOWING REMOVAL OF 6-INCHES OF UNDERLYING NATIVE SOIL, AND (IV) A FINAL SURVEY UPON COMPLETION OF SITE RESTORATION.
 - CONSTRUCTION VEHICLES SHALL ENTER AND EXIT THE SITE VIA THE CONSTRUCTION EXITS. TRUCKS SHALL BE PROPERLY CLEANED (E.G., TIRE WASH AND INSPECTION) PRIOR TO LEAVING THE SITE.
 - CONTRACTOR SHALL MITIGATE DUST AS DIRECTED BY THE CONSTRUCTION MANAGER AND IN ACCORDANCE WITH THE FUGITIVE DUST CONTROL PLAN ISSUED BY CCPC, DATED SEPTEMBER 2016, AND ANY SUBSEQUENT AMENDMENT OF THE PLAN.
 - LIMITS OF DISTURBANCE DEFINES THE EXTENTS OF THE CONSTRUCTION AREA, AND NO CONSTRUCTION RELATED TASKS SHALL OCCUR OUTSIDE THESE LIMITS. LIMITS OF DISTURBANCE AND SILT FENCE ARE SHOWN OFFSET FOR CLARITY PURPOSES ONLY.
 - CONTRACTOR SHALL MANUALLY EXCAVATE MATERIAL WITHIN A 15-FOOT RADIUS OF THE POWER POLE AND GUY WIRES TO PROTECT THE OVERHEAD POWERLINE STRUCTURES. IF EXCAVATION EXCEEDS DEPTH OF 1.5 FEET, CONTRACTOR SHALL STOP EXCAVATION AND NOTIFY THE CONSTRUCTION MANAGER.
- ASH REMOVAL PHASE SEQUENCING
- *DURING THIS PHASE, NO CONTACT WATER / STORMWATER DISCHARGES FROM WITHIN SECONDARY ASH AREA 2 ARE PERMITTED. STORMWATER RUNOFF FROM DISTURBED AREAS SHALL BE CONTAINED WITHIN THE TEMPORARY CONTAINMENT POND/SEDIMENT TRAP AND PUMPED TO THE WWTS. CONTRACTOR SHALL:
- INSTALL CONSTRUCTION EXIT AND CONSTRUCTION ROAD STABILIZATION. INSTALL A TIRE WASH FACILITY IF SEDIMENT AND ASH TRACKING CANNOT BE ELIMINATED AT THE CONSTRUCTION EXIT.
 - INSTALL SILT FENCE AND TREE PROTECTION AS SHOWN.
 - INSTALL DIVERSIONS WITH CHECK DAMS AND TEMPORARY CONTAINMENT POND/SEDIMENT TRAP WITH AN EMERGENCY SPILLWAY AT EL 241.5 FT NAVD 88. STABILIZE DIVERSIONS AND BERM WITH MULCHING, TEMPORARY SEEDING, AND PERMANENT SEEDING.
 - EXCAVATE AND REMOVE CCR MATERIAL, GENERALLY BEGINNING FROM THE HIGHER ELEVATION AREAS. CONTINUE EXCAVATION MOVING TO LOWER ELEVATIONS.

LEGEND

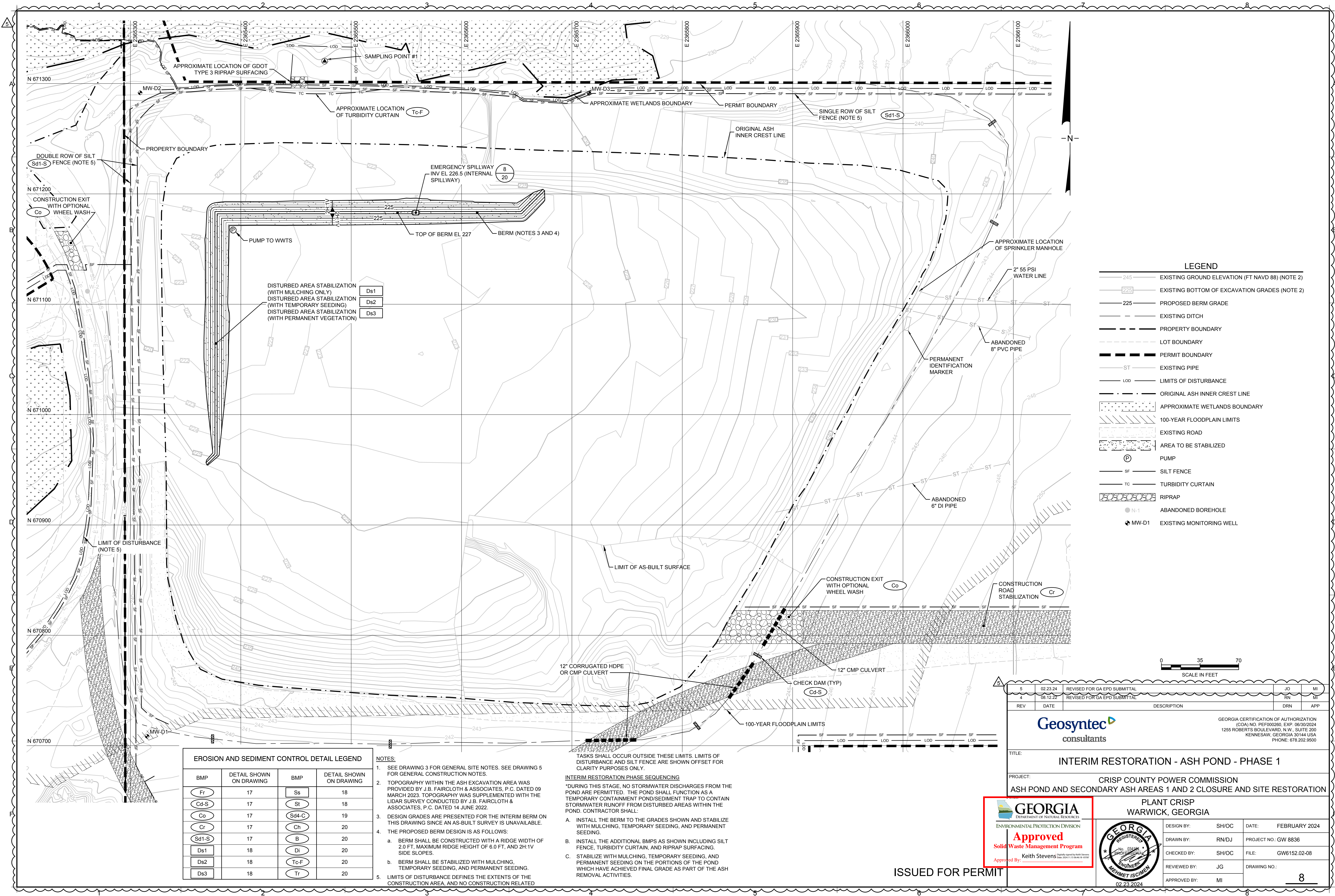
- EXISTING GROUND ELEVATION (FT NAVD 88)
- PROPOSED EXCAVATION GRADES (NOTE 3)
- EXISTING DITCH
- PROPERTY BOUNDARY
- LOT BOUNDARY
- PERMIT BOUNDARY
- SILT FENCE
- LIMITS OF DISTURBANCE
- ASH EXCAVATION AREA (NOTE 2)
- APPROXIMATE WETLANDS BOUNDARY
- 100-YEAR FLOODPLAIN LIMITS
- EXISTING ROAD
- AREA TO BE STABILIZED
- ABANDONED BOREHOLE
- EXISTING MONITORING WELL
- PUMP (NOTE 4)
- EXISTING POWER POLE
- EXISTING OVERHEAD POWER LINE
- TREELINE
- TREE PROTECTION

EROSION AND SEDIMENT CONTROL DETAIL LEGEND	
BMP	DETAIL SHOWN ON DRAWING
Fr	17
Cd-S	17
Co	17
Cr	17
Sd1-S	17
Ds1	18
Ds2	18
Ds3	18
Ss	18
St	18
Sd4-C	19
Ch	20
B	20
Di	20
Tc-F	20
Tr	20



5	02.23.24	REVISED FOR GA EPD SUBMITTAL	JO	MI
4	08.12.22	REVISED FOR GA EPD SUBMITTAL	RN	MI
REV	DATE	DESCRIPTION	DRN	APP
Geosyntec consultants				
GEORGIA CERTIFICATION OF AUTHORIZATION (COA) NO. PEF000260, EXP. 06/30/2024 1255 ROBERTS BOULEVARD, N.W., SUITE 200 KENNESAW, GEORGIA 30144 USA PHONE: 678.202.9500				
TITLE: ASH REMOVAL PLAN - SECONDARY ASH AREA 2				
PROJECT: CRISP COUNTY POWER COMMISSION ASH POND AND SECONDARY ASH AREAS 1 AND 2 CLOSURE AND SITE RESTORATION				
PLANT CRISP WARWICK, GEORGIA				
DESIGN BY:	SH/OC	DATE:	FEBRUARY 2024	
DRAWN BY:	RN/DJ	PROJECT NO.:	GW 8836	
CHECKED BY:	SH/OC	FILE:	GW6152.02-07	
REVIEWED BY:	JG	DRAWING NO.:		
APPROVED BY:	MI			
GEORGIA DEPARTMENT OF NATURAL RESOURCES ENVIRONMENTAL PROTECTION DIVISION Approved Solid Waste Management Program Approved By: Keith Stevens 02.23.2024				
REGISTERED ENGINEER MEHMET ISCIEN 02.23.2024				

ISSUED FOR PERMIT



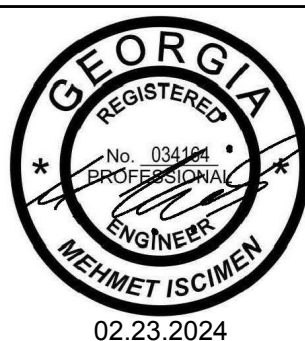
LEGEND	
	EXISTING GROUND ELEVATION (FT NAVD 88) (NOTE 2)
	EXISTING BOTTOM OF EXCAVATION GRADES (NOTE 2)
	PROPOSED BERM GRADE
	EXISTING DITCH
	PROPERTY BOUNDARY
	LOT BOUNDARY
	PERMIT BOUNDARY
	EXISTING PIPE
	LIMITS OF DISTURBANCE
	ORIGINAL ASH INNER CREST LINE
	APPROXIMATE WETLANDS BOUNDARY
	100-YEAR FLOODPLAIN LIMITS
	EXISTING ROAD
	AREA TO BE STABILIZED
	PUMP
	SILT FENCE
	TURBIDITY CURTAIN
	RIPRAP
	ABANDONED BOREHOLE
	EXISTING MONITORING WELL

EROSION AND SEDIMENT CONTROL DETAIL LEGEND			
BMP	DETAIL SHOWN ON DRAWING	BMP	DETAIL SHOWN ON DRAWING
Fr	17	Ss	18
Cd-S	17	St	18
Co	17	Sd4-C	19
Cr	17	Ch	20
Sd1-S	17	B	20
Ds1	18	Di	20
Ds2	18	Tc-F	20
Ds3	18	Tr	20

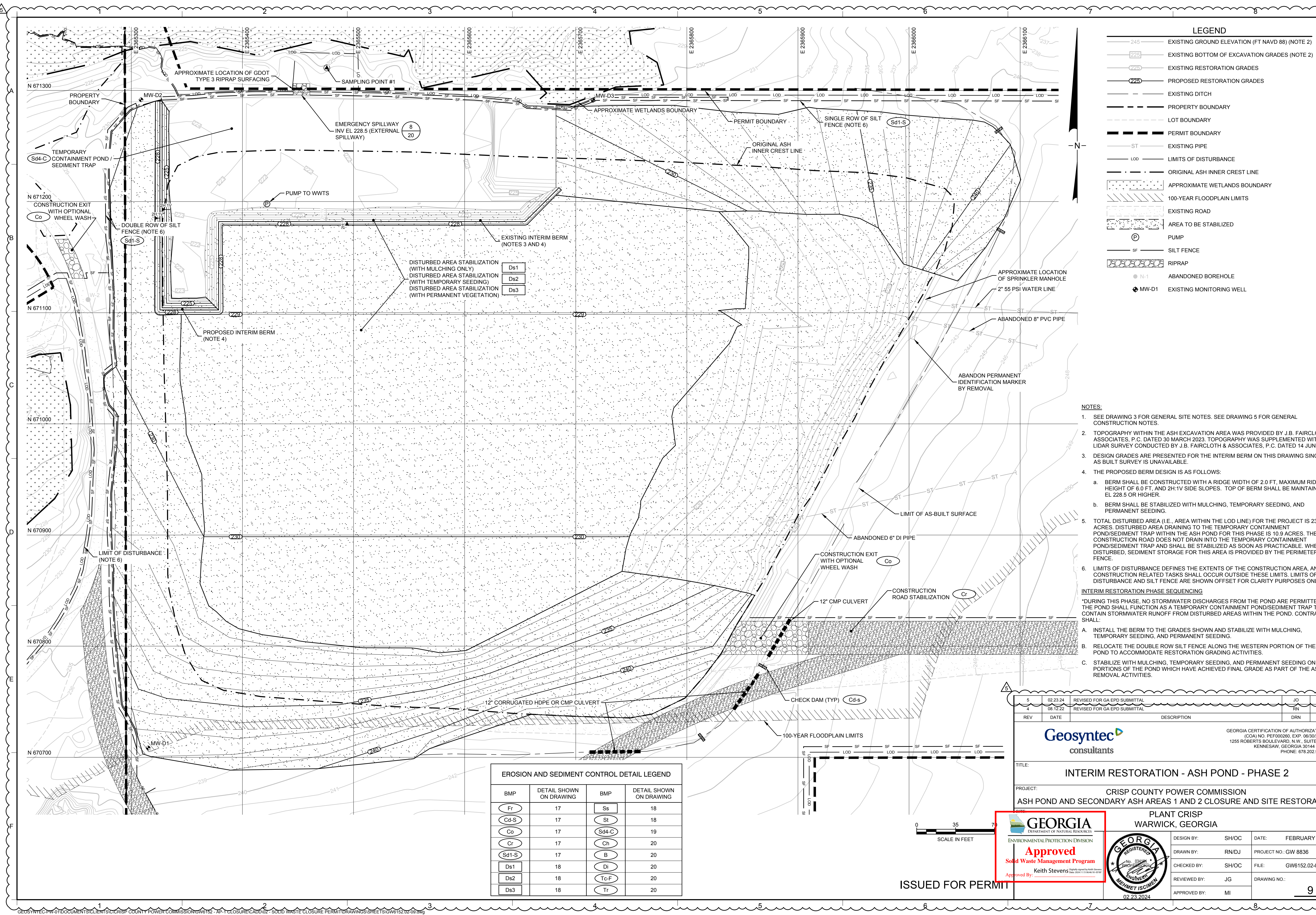
- NOTES:
- SEE DRAWING 3 FOR GENERAL SITE NOTES. SEE DRAWING 5 FOR GENERAL CONSTRUCTION NOTES.
 - TOPOGRAPHY WITHIN THE ASH EXCAVATION AREA WAS PROVIDED BY J.B. FAIRCLOTH & ASSOCIATES, P.C. DATED 09 MARCH 2023. TOPOGRAPHY WAS SUPPLEMENTED WITH THE LIDAR SURVEY CONDUCTED BY J.B. FAIRCLOTH & ASSOCIATES, P.C. DATED 14 JUNE 2022.
 - DESIGN GRADES ARE PRESENTED FOR THE INTERIM BERM ON THIS DRAWING SINCE AN AS-BUILT SURVEY IS UNAVAILABLE.
 - THE PROPOSED BERM DESIGN IS AS FOLLOWS:
 - BERM SHALL BE CONSTRUCTED WITH A RIDGE WIDTH OF 2.0 FT, MAXIMUM RIDGE HEIGHT OF 6.0 FT, AND 2H:1V SIDE SLOPES.
 - BERM SHALL BE STABILIZED WITH MULCHING, TEMPORARY SEEDING, AND PERMANENT SEEDING.
 - LIMITS OF DISTURBANCE DEFINES THE EXTENTS OF THE CONSTRUCTION AREA, AND NO CONSTRUCTION RELATED

- TASKS SHALL OCCUR OUTSIDE THESE LIMITS. LIMITS OF DISTURBANCE AND SILT FENCE ARE SHOWN OFFSET FOR CLARITY PURPOSES ONLY.
- INTERIM RESTORATION PHASE SEQUENCING
- *DURING THIS STAGE, NO STORMWATER DISCHARGES FROM THE POND ARE PERMITTED. THE POND SHALL FUNCTION AS A TEMPORARY CONTAINMENT POND/SEDIMENT TRAP TO CONTAIN STORMWATER RUNOFF FROM DISTURBED AREAS WITHIN THE POND. CONTRACTOR SHALL:
- INSTALL THE BERM TO THE GRADES SHOWN AND STABILIZE WITH MULCHING, TEMPORARY SEEDING, AND PERMANENT SEEDING.
 - INSTALL THE ADDITIONAL BMPs AS SHOWN INCLUDING SILT FENCE, TURBIDITY CURTAIN, AND RIPRAP SURFACING.
 - STABILIZE WITH MULCHING, TEMPORARY SEEDING, AND PERMANENT SEEDING ON THE PORTIONS OF THE POND WHICH HAVE ACHIEVED FINAL GRADE AS PART OF THE ASH REMOVAL ACTIVITIES.

5	02/23/24	REVISED FOR GA EPD SUBMITTAL	JO	MI
4	08/12/22	REVISED FOR GA EPD SUBMITTAL	RN	MI
REV	DATE	DESCRIPTION	DRN	APP
TITLE: INTERIM RESTORATION - ASH POND - PHASE 1				
PROJECT: CRISP COUNTY POWER COMMISSION ASH POND AND SECONDARY ASH AREAS 1 AND 2 CLOSURE AND SITE RESTORATION				
PLANT CRISP WARWICK, GEORGIA				
DESIGN BY:	SH/OC	DATE:	FEBRUARY 2024	
DRAWN BY:	RN/DJ	PROJECT NO.:	GW 8836	
CHECKED BY:	SH/OC	FILE:	GW6152.02-08	
REVIEWED BY:	JG	DRAWING NO.:	8	
APPROVED BY:	MI	02/23/2024		



ISSUED FOR PERMIT



LEGEND

245

EXISTING GROUND ELEVATION (FT NAVD 88) (NOTE 2)

225

EXISTING BOTTOM OF EXCAVATION GRADES (NOTE 2)

225

EXISTING RESTORATION GRADES

225

PROPOSED RESTORATION GRADES

EXISTING DITCH

PROPERTY BOUNDARY

LOT BOUNDARY

PERMIT BOUNDARY

EXISTING PIPE

LIMITS OF DISTURBANCE

ORIGINAL ASH INNER CREST LINE

APPROXIMATE WETLANDS BOUNDARY

100-YEAR FLOODPLAIN LIMITS

EXISTING ROAD

AREA TO BE STABILIZED

PUMP

SILT FENCE

RIPRAP

ABANDONED BOREHOLE

EXISTING MONITORING WELL

NOTES:

1. SEE DRAWING 3 FOR GENERAL SITE NOTES. SEE DRAWING 5 FOR GENERAL CONSTRUCTION NOTES.

2. TOPOGRAPHY WITHIN THE ASH EXCAVATION AREA WAS PROVIDED BY J.B. FAIRCLOTH & ASSOCIATES, P.C. DATED 30 MARCH 2023. TOPOGRAPHY WAS SUPPLEMENTED WITH THE LIDAR SURVEY CONDUCTED BY J.B. FAIRCLOTH & ASSOCIATES, P.C. DATED 14 JUNE 2022.

3. DESIGN GRADES ARE PRESENTED FOR THE INTERIM BERM ON THIS DRAWING SINCE AN AS BUILT SURVEY IS UNAVAILABLE.

4. THE PROPOSED BERM DESIGN IS AS FOLLOWS:

a. BERM SHALL BE CONSTRUCTED WITH A RIDGE WIDTH OF 2.0 FT. MAXIMUM RIDGE HEIGHT OF 6.0 FT. AND 2H:1V SIDE SLOPES. TOP OF BERM SHALL BE MAINTAINED AT EL. 228.5 OR HIGHER.

b. BERM SHALL BE STABILIZED WITH MULCHING, TEMPORARY SEEDING, AND PERMANENT SEEDING.

5. TOTAL DISTURBED AREA (I.E., AREA WITHIN THE LOD LINE) FOR THE PROJECT IS 23.8 ACRES. DISTURBED AREA DRAINING TO THE TEMPORARY CONTAINMENT POND/SEDIMENT TRAP WITHIN THE ASH POND FOR THIS PHASE IS 10.9 ACRES. THE CONSTRUCTION ROAD DOES NOT DRAIN INTO THE TEMPORARY CONTAINMENT POND/SEDIMENT TRAP AND SHALL BE STABILIZED AS SOON AS PRACTICABLE. WHEN DISTURBED, SEDIMENT STORAGE FOR THIS AREA IS PROVIDED BY THE PERIMETER SILT FENCE.

6. LIMITS OF DISTURBANCE DEFINES THE EXTENTS OF THE CONSTRUCTION AREA, AND NO CONSTRUCTION RELATED TASKS SHALL OCCUR OUTSIDE THESE LIMITS. LIMITS OF DISTURBANCE AND SILT FENCE ARE SHOWN OFFSET FOR CLARITY PURPOSES ONLY.

INTERIM RESTORATION PHASE SEQUENCING

*DURING THIS PHASE, NO STORMWATER DISCHARGES FROM THE POND ARE PERMITTED. THE POND SHALL FUNCTION AS A TEMPORARY CONTAINMENT POND/SEDIMENT TRAP TO CONTAIN STORMWATER RUNOFF FROM DISTURBED AREAS WITHIN THE POND. CONTRACTOR SHALL:

A. INSTALL THE BERM TO THE GRADES SHOWN AND STABILIZE WITH MULCHING, TEMPORARY SEEDING, AND PERMANENT SEEDING.

B. RELOCATE THE DOUBLE ROW SILT FENCE ALONG THE WESTERN PORTION OF THE ASH POND TO ACCOMMODATE RESTORATION GRADING ACTIVITIES.

C. STABILIZE WITH MULCHING, TEMPORARY SEEDING, AND PERMANENT SEEDING ON THE PORTIONS OF THE POND WHICH HAVE ACHIEVED FINAL GRADE AS PART OF THE ASH REMOVAL ACTIVITIES.

EROSION AND SEDIMENT CONTROL DETAIL LEGEND

BMP	DETAIL SHOWN ON DRAWING	BMP	DETAIL SHOWN ON DRAWING
Fr	17	Ss	18
Cd-S	17	St	18
Co	17	Sd4-C	19
Cr	17	Ch	20
Sd1-S	17	B	20
Ds1	18	Di	20
Ds2	18	Tc-F	20
Ds3	18	Tr	20

5

02/23/24

REVISED FOR GA EPD SUBMITTAL

4

08/12/22

REVISED FOR GA EPD SUBMITTAL

JO

MI

REV

DATE

DESCRIPTION

DRN

APP

Geosyntec

consultants

GEORGIA CERTIFICATION OF AUTHORIZATION
(COA) NO. PEF000260, EXP. 06/30/2024
1255 ROBERTS BOULEVARD, N.W., SUITE 200
KENNESAW, GEORGIA 30144 USA
PHONE: 678.202.9500

TITLE:

INTERIM RESTORATION - ASH POND - PHASE 2

PROJECT:

CRISP COUNTY POWER COMMISSION
ASH POND AND SECONDARY ASH AREAS 1 AND 2 CLOSURE AND SITE RESTORATION

PLANT CRISP
WARWICK, GEORGIA

DESIGN BY: SH/OC

DATE: FEBRUARY 2024

DRAWN BY: RN/DJ

PROJECT NO.: GW 8836

CHECKED BY: SH/OC

FILE: GW6152.02-09

REVIEWED BY: JG

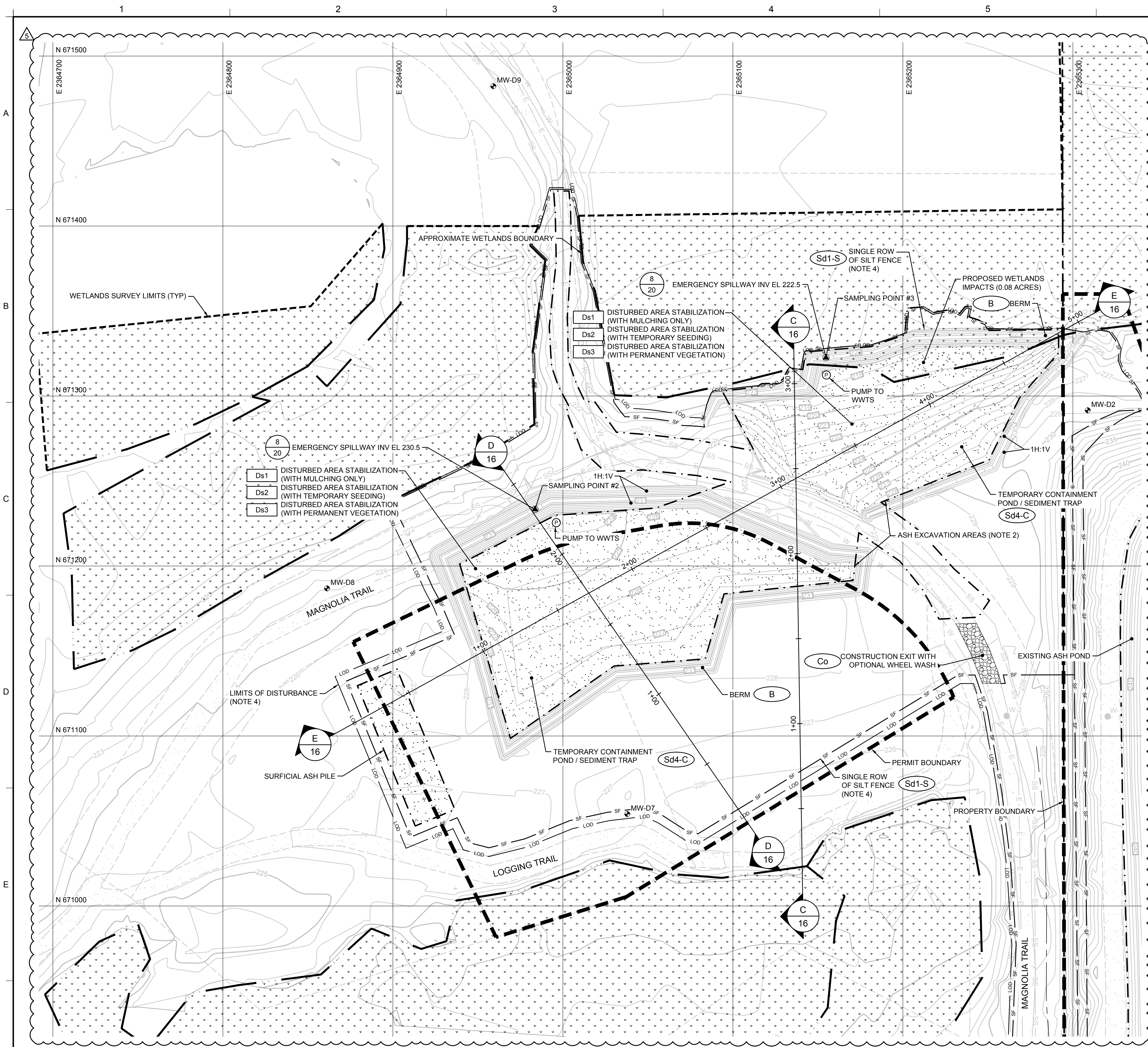
DRAWING NO.:

APPROVED BY: MI

02/23/2024

9

GEOSYNTEC-PW-010\DOCUMENTS\CLIENTS\CRISP COUNTY POWER COMMISSION\GW6152 - AP-1\CLOSURE\CA00\02 - SOLID WASTE CLOSURE PERMIT\DRAWINGS\SHEETS\GW6152.02-09.dwg



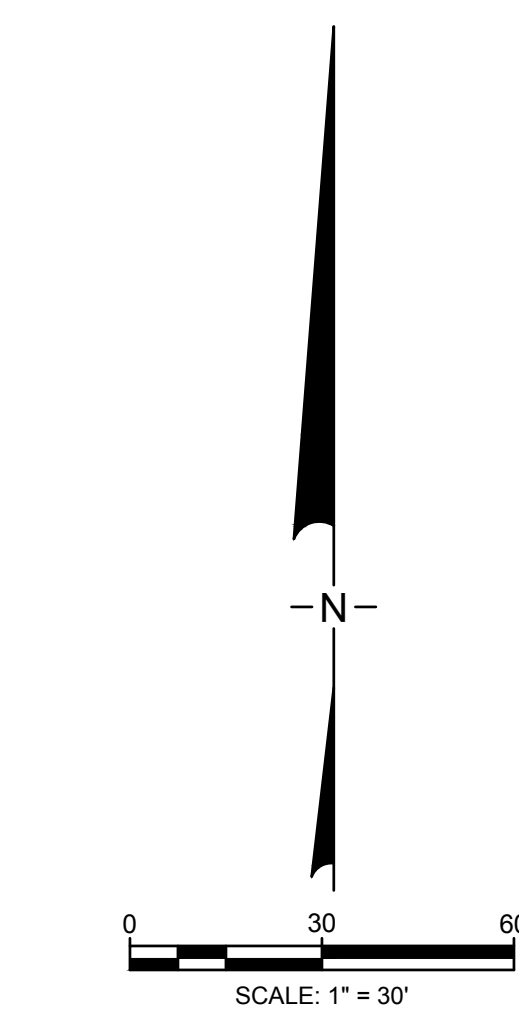
LEGEND

- 230 EXISTING GROUND ELEVATION (FT NAVD 88)
- 230 EXISTING EXCAVATION GRADES
- EXISTING DITCH
- PROPERTY BOUNDARY
- LOT BOUNDARY
- PERMIT BOUNDARY
- SILT FENCE
- LIMITS OF DISTURBANCE
- ASH EXCAVATION AREA
- APPROXIMATE WETLANDS BOUNDARY
- 100-YEAR FLOODPLAIN LIMITS
- EXISTING ROAD
- AREA TO BE STABILIZED
- ABANDONED BOREHOLE
- MW-D1 EXISTING MONITORING WELL
- EXISTING WATER LINE
- EXISTING ELECTRICAL LINE
- EXISTING SEWER LINE

EROSION AND SEDIMENT CONTROL DETAIL LEGEND

BMP	DETAIL SHOWN ON DRAWING
Fr	17
Cd-S	17
Co	17
Cr	17
Sd1-S	17
Ds1	18
Ds2	18
Ds3	18
Ss	18
St	18
Sd4-C	19
Ch	20
B	20
DI	20
Tc-F	20
Tr	20

- NOTES:**
- SEE DRAWING 3 FOR GENERAL SITE NOTES. SEE DRAWING 6 FOR GENERAL CONSTRUCTION NOTES.
 - EXISTING BOTTOM OF EXCAVATION CONTOURS SHOWN WITHIN SECONDARY ASH AREA 1 REPRESENT THE BOTTOM OF EXCAVATION GRADES WITHIN THE AREA AFTER REMOVAL OF CCR AND 6 INCHES OF UNDERLYING NATIVE SOIL AND PLACEMENT OF WATER MANAGEMENT FEATURES (BERMS, CHANNELS, ETC.); THEY ARE APPROXIMATE AND BASED ON "DELINEATION OF SECONDARY ASH AREA 1, REVISION 2" PREPARED BY KEMRON ENVIRONMENTAL SERVICES, INC. DATED 17 JUNE 2022 AND "MAGNOLIA TRAIL DPT INVESTIGATION" PREPARED BY GEOSYNTEC CONSULTANTS, INC. DATED 13 JANUARY 2023. ACTUAL DEPTHS TO BOTTOM OF CCR MAY VARY AND SHALL BE VERIFIED DURING CONSTRUCTION.
 - TOTAL DISTURBED AREA (I.E. AREA WITHIN THE LOD LINE) FOR THE PROJECT IS 23.8 ACRES. DISTURBED AREA DRAINING TO THE TEMPORARY CONTAINMENT PONDS/SEDIMENT TRAPS WITHIN SECONDARY ASH AREA 1 FOR THIS PHASE IS 0.81 ACRES. OUTBOARD SLOPES OF THE TEMPORARY CONTAINMENT PONDS/SEDIMENT TRAPS AND THE CONSTRUCTION ROAD DO NOT DRAIN INTO THE TEMPORARY CONTAINMENT PONDS/SEDIMENT TRAPS AND SHALL BE STABILIZED AS SOON AS PRACTICABLE. WHEN DISTURBED, SEDIMENT STORAGE FOR THESE AREAS IS PROVIDED BY THE PERIMETER SILT FENCE.
 - LIMITS OF DISTURBANCE DEFINES THE EXTENTS OF THE CONSTRUCTION AREA, AND NO CONSTRUCTION RELATED TASKS SHALL OCCUR OUTSIDE THESE LIMITS. LIMITS OF DISTURBANCE AND SILT FENCE ARE SHOWN OFFSET FOR CLARITY PURPOSES ONLY.
- INTERIM RESTORATION PHASE SEQUENCING
- *DURING THIS PHASE, THE TEMPORARY CONTAINMENT PONDS/SEDIMENT TRAPS SHALL CONTAIN STORMWATER RUNOFF FROM DISTURBED AREAS. CONTRACTOR SHALL:
- STABILIZE AREAS WHICH HAVE ACHIEVED FINAL GRADE AS PART OF THE ASH REMOVAL ACTIVITIES WITH MULCHING, TEMPORARY SEEDING, AND PERMANENT SEEDING.



5	02.23.24	REVISED FOR GA EPD SUBMITTAL	JO	MI
4	08.12.22	REVISED FOR GA EPD SUBMITTAL	RN	MI
REV	DATE	DESCRIPTION	DRN	APP

GEORGIA CERTIFICATION OF AUTHORIZATION
(COA) NO. PEF000260, EXP. 06/30/2024
1255 ROBERTS BOULEVARD, N.W., SUITE 200
KENNESAW, GEORGIA 30144 USA
PHONE: 678.202.9500

TITLE: **INTERIM RESTORATION - SECONDARY ASH AREA 1**

PROJECT: **CRISP COUNTY POWER COMMISSION
ASH POND AND SECONDARY ASH AREAS 1 AND 2 CLOSURE AND SITE RESTORATION**

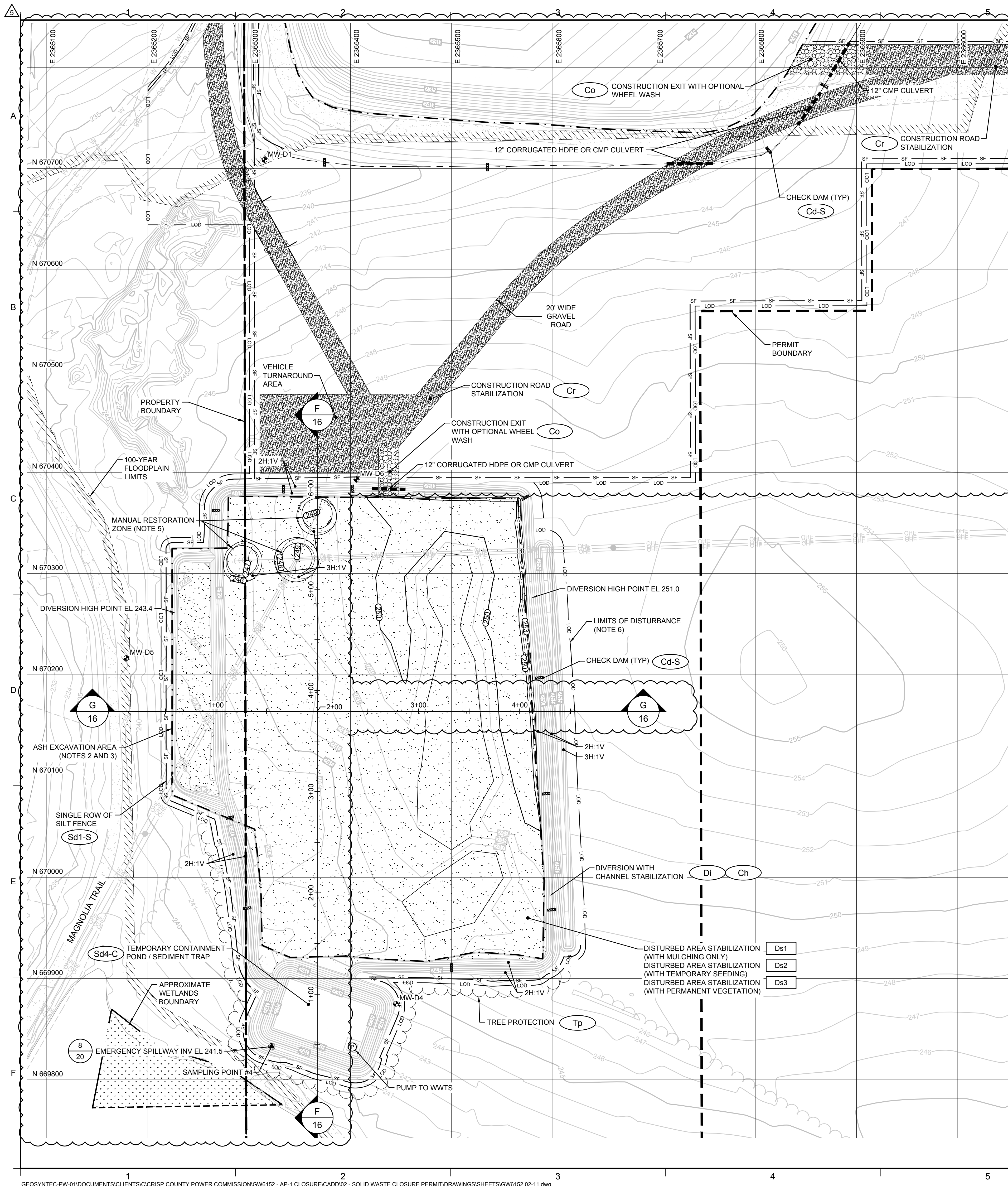
Approved
Solid Waste Management Program
Approved By: Keith Stevens

**PLANT CRISP
WARWICK, GEORGIA**

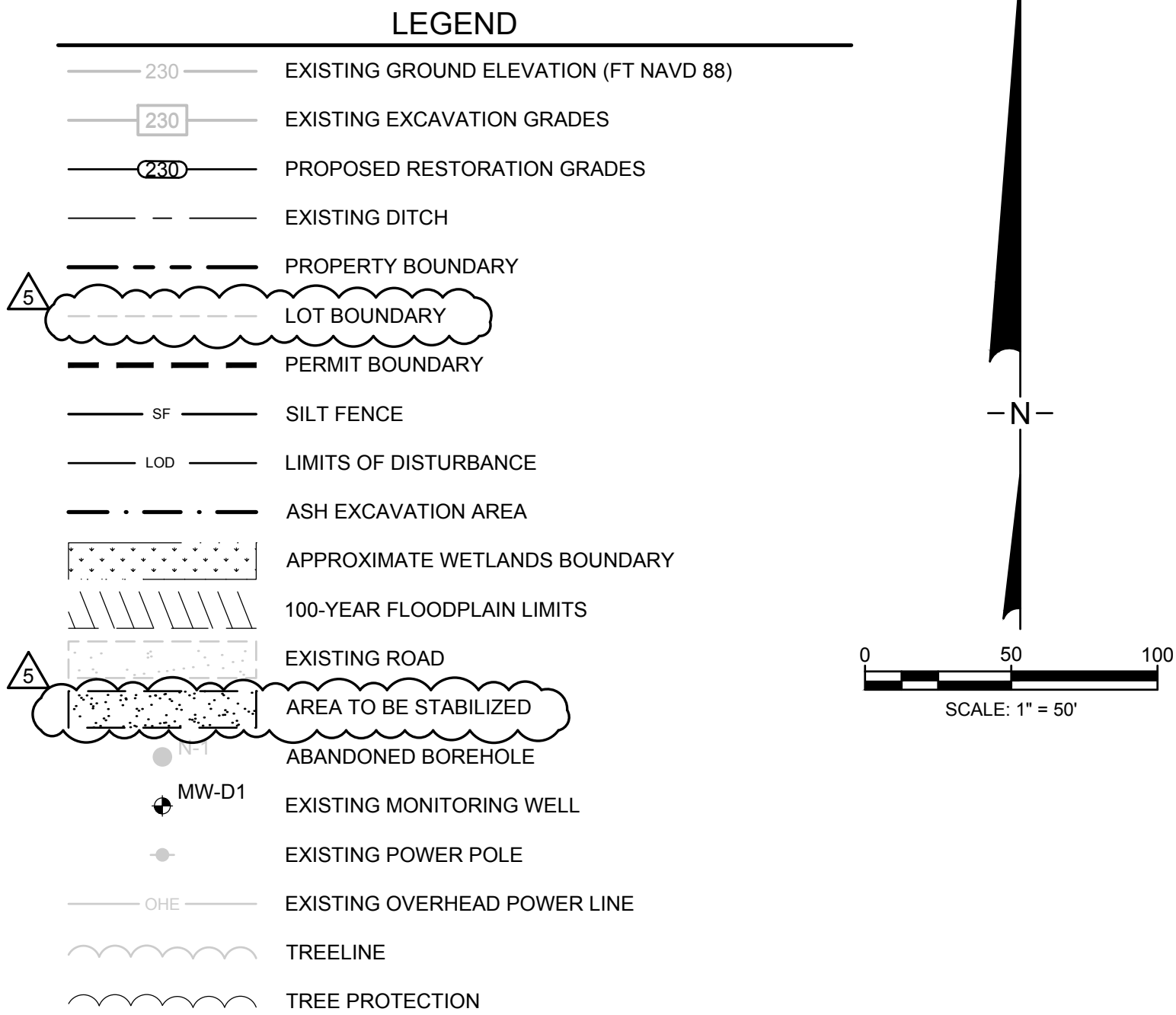
DESIGN BY:	SH/OC	DATE:	FEBRUARY 2024
DRAWN BY:	RN/DJ	PROJECT NO.:	GW 8836
CHECKED BY:	SH/OC	FILE:	GW6152.02-10
REVIEWED BY:	JG	DRAWING NO.:	
APPROVED BY:	MI		

10



ISSUED FOR PERMIT

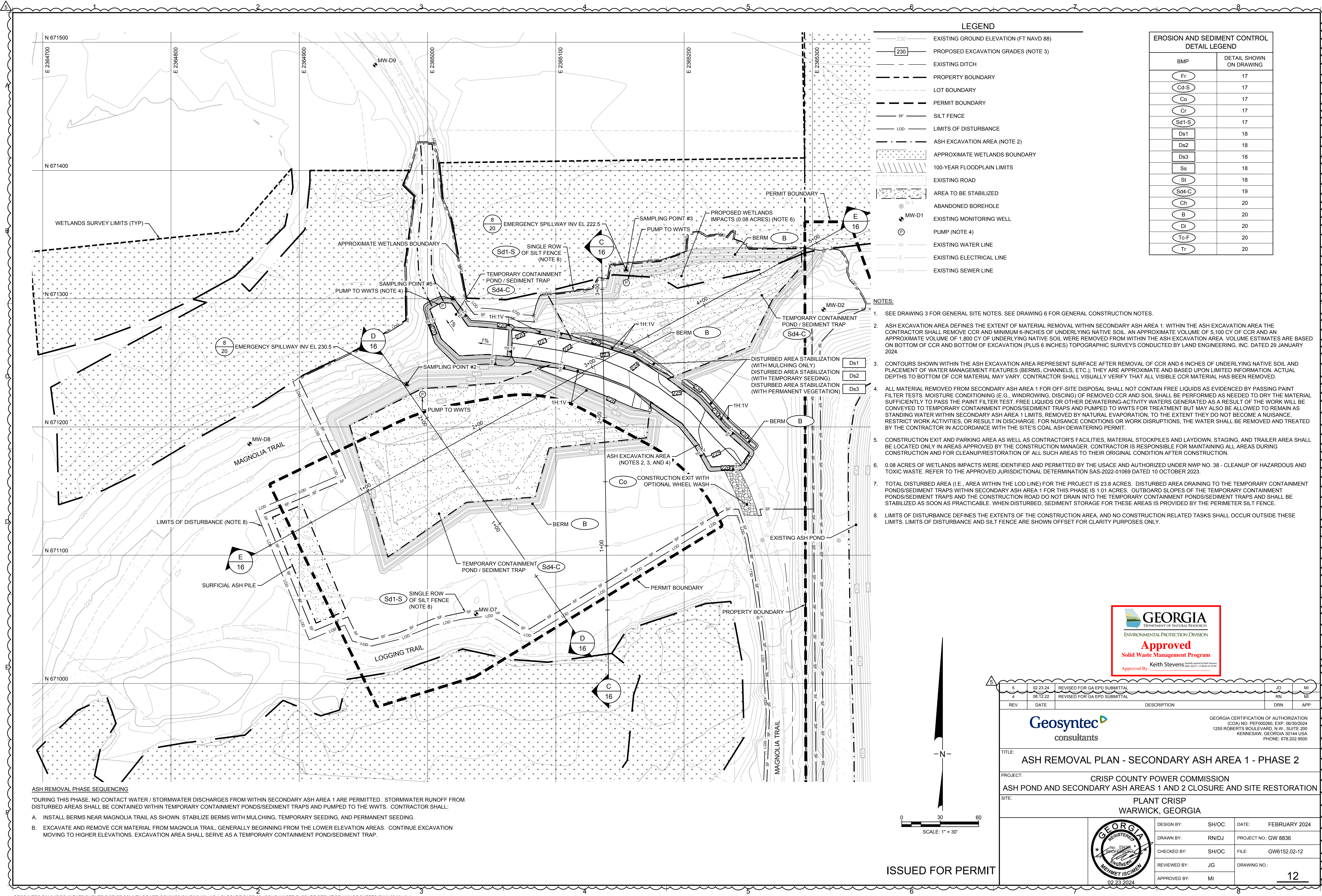


EROSION AND SEDIMENT CONTROL DETAIL LEGEND	
BMP	DETAIL SHOWN ON DRAWING
	17
	17
	17
	17
	17
	18
	18
	18
	18
	18
	19
	20
	20
	20
	20
	20



- NOTES:**
1. SEE DRAWING 3 FOR GENERAL SITE NOTES. SEE DRAWING 7 FOR GENERAL CONSTRUCTION NOTES.
 2. EXISTING BOTTOM OF EXCAVATION CONTOURS SHOWN WITHIN SECONDARY ASH AREA 2 REPRESENT THE BOTTOM OF EXCAVATION GRADES WITHIN THE AREA AFTER REMOVAL OF CCR AND 6 INCHES OF UNDERLYING NATIVE SOIL AND PLACEMENT OF WATER MANAGEMENT FEATURES (BERMS, CHANNELS, ETC.); THEY ARE APPROXIMATE AND BASED ON "DELINEATION OF SECONDARY ASH AREA 2, REVISION 3" PREPARED BY KEMRON ENVIRONMENTAL SERVICES, INC. DATED 17 JUNE 2022. ACTUAL DEPTHS TO BOTTOM OF CCR MAY VARY AND SHALL BE VERIFIED DURING CONSTRUCTION.
 3. FINAL RESTORATION GRADES WERE DEVELOPED IN CONSIDERATION OF EXISTING GROUND SURFACE, APPROXIMATE BOTTOM OF EXCAVATION SURFACE, AND BERM DECONSTRUCTION. ACTUAL FIELD CONDITIONS MAY VARY BASED ON ACTUAL BOTTOM OF EXCAVATION SURFACE. AS-BUILT FINAL RESTORATION GRADES SHALL BE (I) GENERALLY SLOPED TO DRAIN TOWARDS THE SOUTHWEST OF SECONDARY ASH AREA 2 AND (II) SLOPED IN THE RANGE OF ONE PERCENT (MIN) TO TEN PERCENT (MAX), AS PRACTICABLE.
 4. TOTAL DISTURBED AREA (I.E., AREA WITHIN THE LOD LINE) FOR THE PROJECT IS 23.8 ACRES. DISTURBED AREA DRAINING TO THE TEMPORARY CONTAINMENT POND/SEDIMENT TRAP WITHIN SECONDARY ASH AREA 2 FOR THIS PHASE IS 4.17 ACRES. OUTBOARD SLOPES OF THE TEMPORARY CONTAINMENT POND/SEDIMENT TRAP, THE STOCKPILE AREA, AND THE CONSTRUCTION ROADS DO NOT DRAIN INTO THE TEMPORARY CONTAINMENT POND/SEDIMENT TRAP AND SHALL BE STABILIZED AS SOON AS PRACTICABLE. WHEN DISTURBED, SEDIMENT STORAGE FOR THESE AREAS IS PROVIDED BY THE PERIMETER SILT FENCE.
 5. CONTRACTOR SHALL MANUALLY BACKFILL MATERIAL WITHIN 15-FOOT RADIUS OF THE POWER POLES AND GUY WIRES AS SOON AS REMOVAL OF CCR AND 6 INCHES OF UNDERLYING NATIVE SOILS HAS BEEN VERIFIED.
 6. LIMITS OF DISTURBANCE DEFINES THE EXTENTS OF THE CONSTRUCTION AREA, AND NO CONSTRUCTION RELATED TASKS SHALL OCCUR OUTSIDE THESE LIMITS. LIMITS OF DISTURBANCE AND SILT FENCE ARE SHOWN OFFSET FOR CLARITY PURPOSES ONLY.
- INTERIM RESTORATION PHASE SEQUENCING**
- *DURING THIS PHASE, THE TEMPORARY CONTAINMENT POND/SEDIMENT TRAP SHALL CONTAIN STORMWATER RUNOFF FROM DISTURBED AREAS. CONTRACTOR SHALL:
- A. STABILIZE AREAS WHICH HAVE ACHIEVED FINAL GRADE AS PART OF THE ASH REMOVAL ACTIVITIES WITH MULCHING, TEMPORARY SEEDING, AND PERMANENT SEEDING.

5	02.23.24	REVISED FOR GA EPD SUBMITTAL	JO
4	06.12.22	REVISED FOR GA EPD SUBMITTAL	RN
REV	DATE	DESCRIPTION	DRN
			MI
		GEORGIA CERTIFICATION OF AUTHORIZATION (COA) NO. PEF000260, EXP. 06/30/2024 1255 ROBERTS BOULEVARD, N.W., SUITE 200 KENNESAW, GEORGIA 30144 USA PHONE: 678.202.9500	
TITLE:			
INTERIM RESTORATION - SECONDARY ASH AREA 2			
PROJECT: CRISP COUNTY POWER COMMISSION			
ASH POND AND SECONDARY ASH AREAS 1 AND 2 CLOSURE AND SITE RESTORATION			
SITE: PLANT CRISP			
WARWICK, GEORGIA			
	DESIGN BY:	SH/OC	DATE: FEBRUARY 2024
	DRAWN BY:	RN/DJ	PROJECT NO.: GW 8836
	CHECKED BY:	SH/OC	FILE: GW6152.02-11
	REVIEWED BY:	JG	DRAWING NO.:
	APPROVED BY:	MI	
02.23.2024		11	



LEGEND	
	EXISTING GROUND ELEVATION (FT NAVD 88)
	PROPOSED EXCAVATION GRADES (NOTE 3)
	EXISTING DITCH
	PROPERTY BOUNDARY
	LOT BOUNDARY
	PERMIT BOUNDARY
	SILT FENCE
	LIMITS OF DISTURBANCE
	ASH EXCAVATION AREA (NOTE 2)
	APPROXIMATE WETLANDS BOUNDARY
	100-YEAR FLOODPLAIN LIMITS
	EXISTING ROAD
	AREA TO BE STABILIZED
	ABANDONED BOREHOLE
	EXISTING MONITORING WELL
	PUMP (NOTE 4)
	EXISTING WATER LINE
	EXISTING ELECTRICAL LINE
	EXISTING SEWER LINE

EROSION AND SEDIMENT CONTROL DETAIL LEGEND	
BMP	DETAIL SHOWN ON DRAWING
Fr	17
Cd-S	17
Co	17
Cr	17
Sd1-S	17
Ds1	18
Ds2	18
Ds3	18
Ss	18
St	18
Sd4-C	19
Ch	20
B	20
Di	20
Tc-F	20
Tr	20

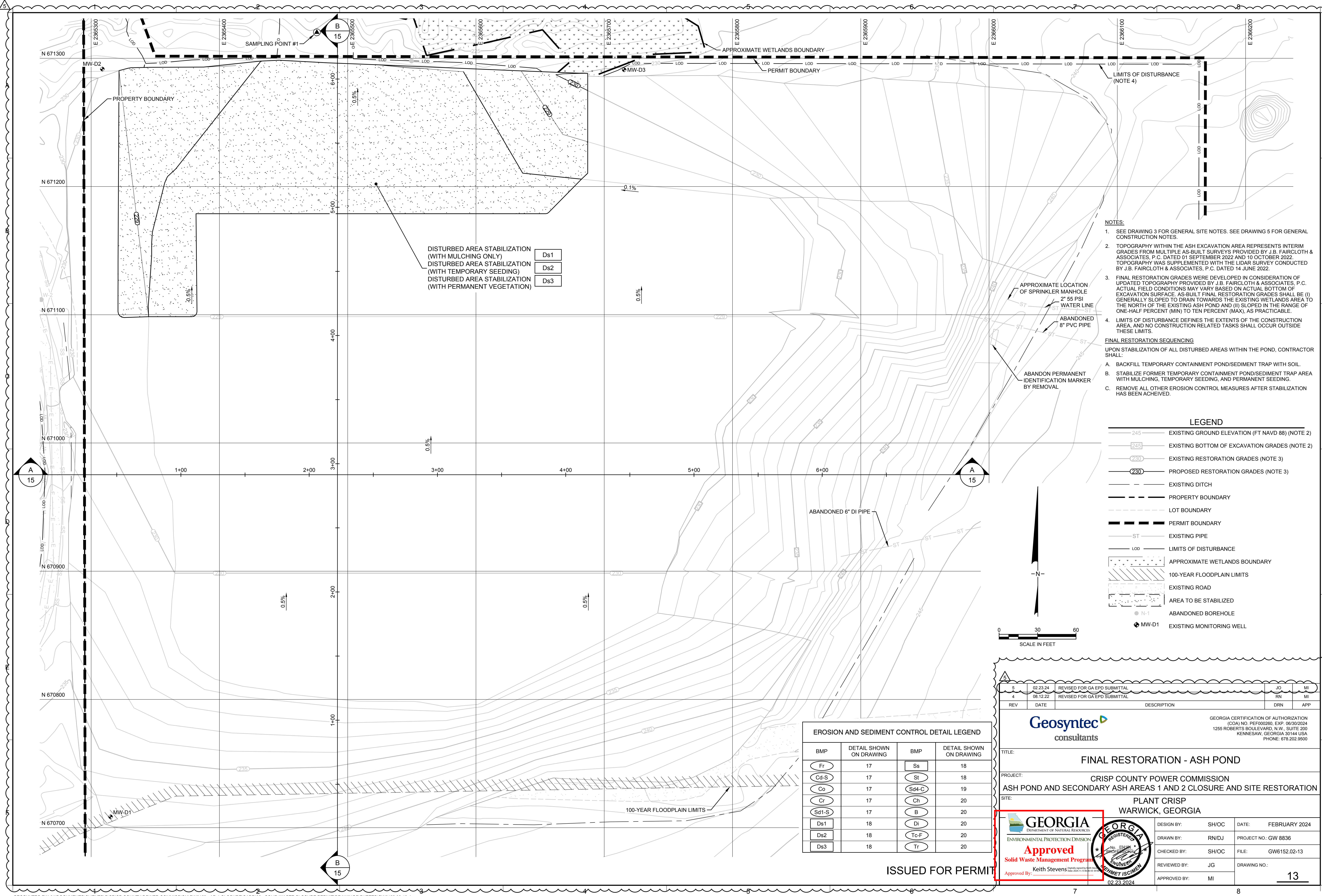
- NOTES:
- SEE DRAWING 3 FOR GENERAL SITE NOTES. SEE DRAWING 6 FOR GENERAL CONSTRUCTION NOTES.
 - ASH EXCAVATION AREA DEFINES THE EXTENT OF MATERIAL REMOVAL WITHIN SECONDARY ASH AREA 1. WITHIN THE ASH EXCAVATION AREA THE CONTRACTOR SHALL REMOVE CCR AND MINIMUM 6-INCHES OF UNDERLYING NATIVE SOIL. AN APPROXIMATE VOLUME OF 5,100 CY OF CCR AND AN APPROXIMATE VOLUME OF 1,800 CY OF UNDERLYING NATIVE SOIL WERE REMOVED FROM WITHIN THE ASH EXCAVATION AREA. VOLUME ESTIMATES ARE BASED ON BOTTOM OF CCR AND BOTTOM OF EXCAVATION (PLUS 6 INCHES) TOPOGRAPHIC SURVEYS CONDUCTED BY LAND ENGINEERING, INC. DATED 29 JANUARY 2024.
 - CONTOURS SHOWN WITHIN THE ASH EXCAVATION AREA REPRESENT SURFACE AFTER REMOVAL OF CCR AND 6 INCHES OF UNDERLYING NATIVE SOIL AND PLACEMENT OF WATER MANAGEMENT FEATURES (BERMS, CHANNELS, ETC.). THEY ARE APPROXIMATE AND BASED UPON LIMITED INFORMATION. ACTUAL DEPTHS TO BOTTOM OF CCR MATERIAL MAY VARY. CONTRACTOR SHALL VISUALLY VERIFY THAT ALL VISIBLE CCR MATERIAL HAS BEEN REMOVED.
 - ALL MATERIAL REMOVED FROM SECONDARY ASH AREA 1 FOR OFF-SITE DISPOSAL SHALL NOT CONTAIN FREE LIQUIDS AS EVIDENCED BY PASSING PAINT FILTER TESTS. MOISTURE CONDITIONING (E.G., WINDROWING, DISCING) OF REMOVED CCR AND SOIL SHALL BE PERFORMED AS NEEDED TO DRY THE MATERIAL SUFFICIENTLY TO PASS THE PAINT FILTER TEST. FREE LIQUIDS OR OTHER DEWATERING-ACTIVITY WATERS GENERATED AS A RESULT OF THE WORK WILL BE CONVEYED TO TEMPORARY CONTAINMENT PONDS/SEDIMENT TRAPS AND PUMPED TO WWTS FOR TREATMENT BUT MAY ALSO BE ALLOWED TO REMAIN AS STANDING WATER WITHIN SECONDARY ASH AREA 1 LIMITS, REMOVED BY NATURAL EVAPORATION, TO THE EXTENT THEY DO NOT BECOME A NUISANCE, RESTRICT WORK ACTIVITIES, OR RESULT IN DISCHARGE. FOR NUISANCE CONDITIONS OR WORK DISRUPTIONS, THE WATER SHALL BE REMOVED AND TREATED BY THE CONTRACTOR IN ACCORDANCE WITH THE SITE'S COAL ASH DEWATERING PERMIT.
 - CONSTRUCTION EXIT AND PARKING AREA AS WELL AS CONTRACTOR'S FACILITIES, MATERIAL STOCKPILES AND LAYDOWN, STAGING, AND TRAILER AREA SHALL BE LOCATED ONLY IN AREAS APPROVED BY THE CONSTRUCTION MANAGER. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL AREAS DURING CONSTRUCTION AND FOR CLEANUP/RESTORATION OF ALL SUCH AREAS TO THEIR ORIGINAL CONDITION AFTER CONSTRUCTION.
 - 0.08 ACRES OF WETLANDS IMPACTS WERE IDENTIFIED AND PERMITTED BY THE USAGE AND AUTHORIZED UNDER NWP NO. 38 - CLEANUP OF HAZARDOUS AND TOXIC WASTE. REFER TO THE APPROVED JURISDICTIONAL DETERMINATION SAS-2022-01069 DATED 10 OCTOBER 2023.
 - TOTAL DISTURBED AREA (I.E., AREA WITHIN THE LOD LINE) FOR THE PROJECT IS 23.8 ACRES. DISTURBED AREA DRAINING TO THE TEMPORARY CONTAINMENT PONDS/SEDIMENT TRAPS WITHIN SECONDARY ASH AREA 1 FOR THIS PHASE IS 1.01 ACRES. OUTBOARD SLOPES OF THE TEMPORARY CONTAINMENT PONDS/SEDIMENT TRAPS AND THE CONSTRUCTION ROAD DO NOT DRAIN INTO THE TEMPORARY CONTAINMENT PONDS/SEDIMENT TRAPS AND SHALL BE STABILIZED AS SOON AS PRACTICABLE. WHEN DISTURBED, SEDIMENT STORAGE FOR THESE AREAS IS PROVIDED BY THE PERIMETER SILT FENCE.
 - LIMITS OF DISTURBANCE DEFINES THE EXTENTS OF THE CONSTRUCTION AREA, AND NO CONSTRUCTION RELATED TASKS SHALL OCCUR OUTSIDE THESE LIMITS. LIMITS OF DISTURBANCE AND SILT FENCE ARE SHOWN OFFSET FOR CLARITY PURPOSES ONLY.



5	02/23/24	REVISED FOR GA EPD SUBMITTAL	JO	MI
4	08/12/22	REVISED FOR GA EPD SUBMITTAL	RN	MI
REV	DATE	DESCRIPTION	DRN	APP
GEORGIA CERTIFICATION OF AUTHORIZATION (COA) NO. PEF000260, EXP. 06/30/2024 1255 ROBERTS BOULEVARD, N.W., SUITE 200 KENNESAW, GEORGIA 30144 USA PHONE: 678.202.9500				
TITLE: ASH REMOVAL PLAN - SECONDARY ASH AREA 1 - PHASE 2				
PROJECT: CRISP COUNTY POWER COMMISSION ASH POND AND SECONDARY ASH AREAS 1 AND 2 CLOSURE AND SITE RESTORATION				
SITE: PLANT CRISP WARWICK, GEORGIA				
DESIGN BY: SH/OC		DATE: FEBRUARY 2024		
DRAWN BY: RN/DJ		PROJECT NO.: GW 8836		
CHECKED BY: SH/OC		FILE: GW6152.02-12		
REVIEWED BY: JG		DRAWING NO.:		
APPROVED BY: MI		12		



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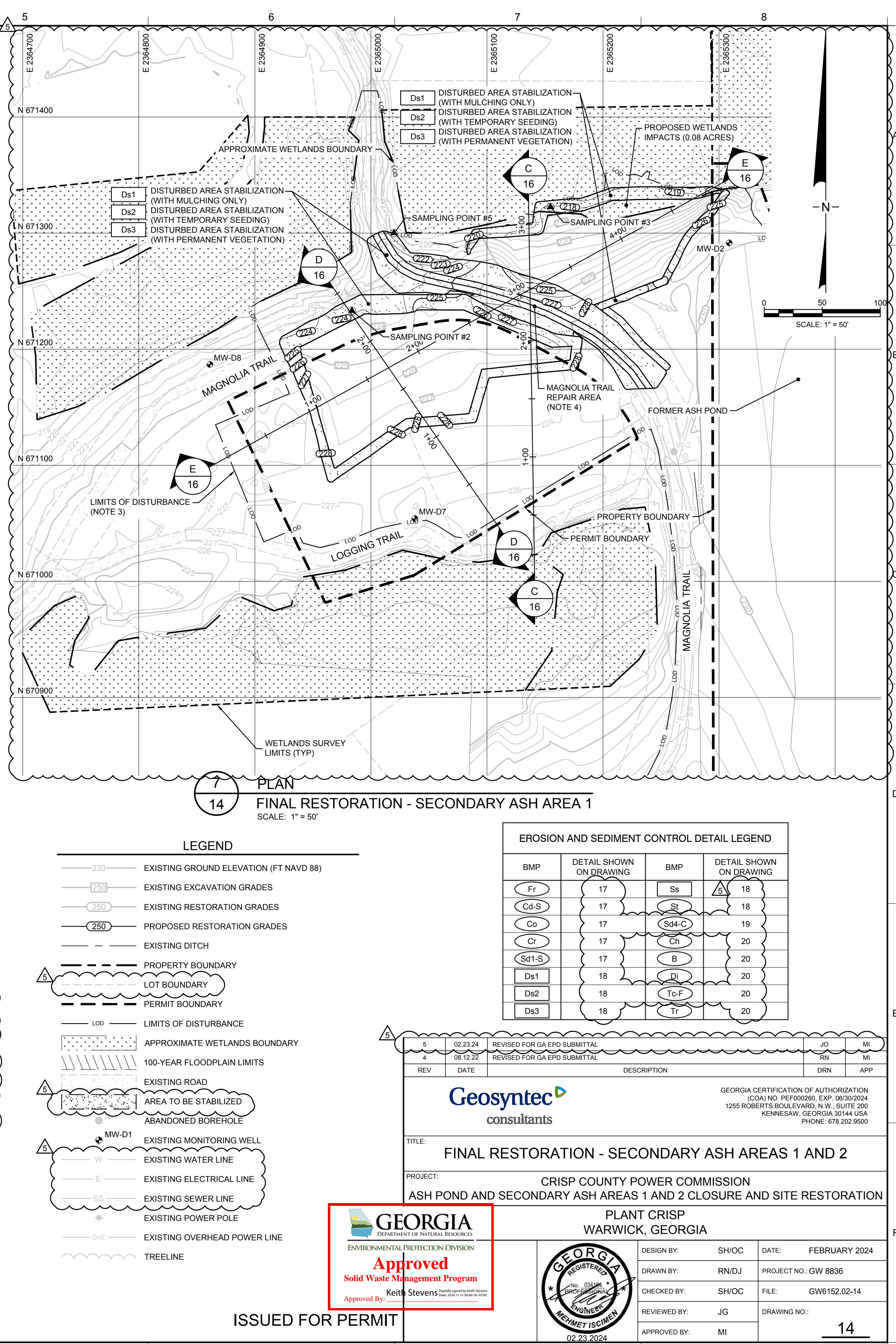
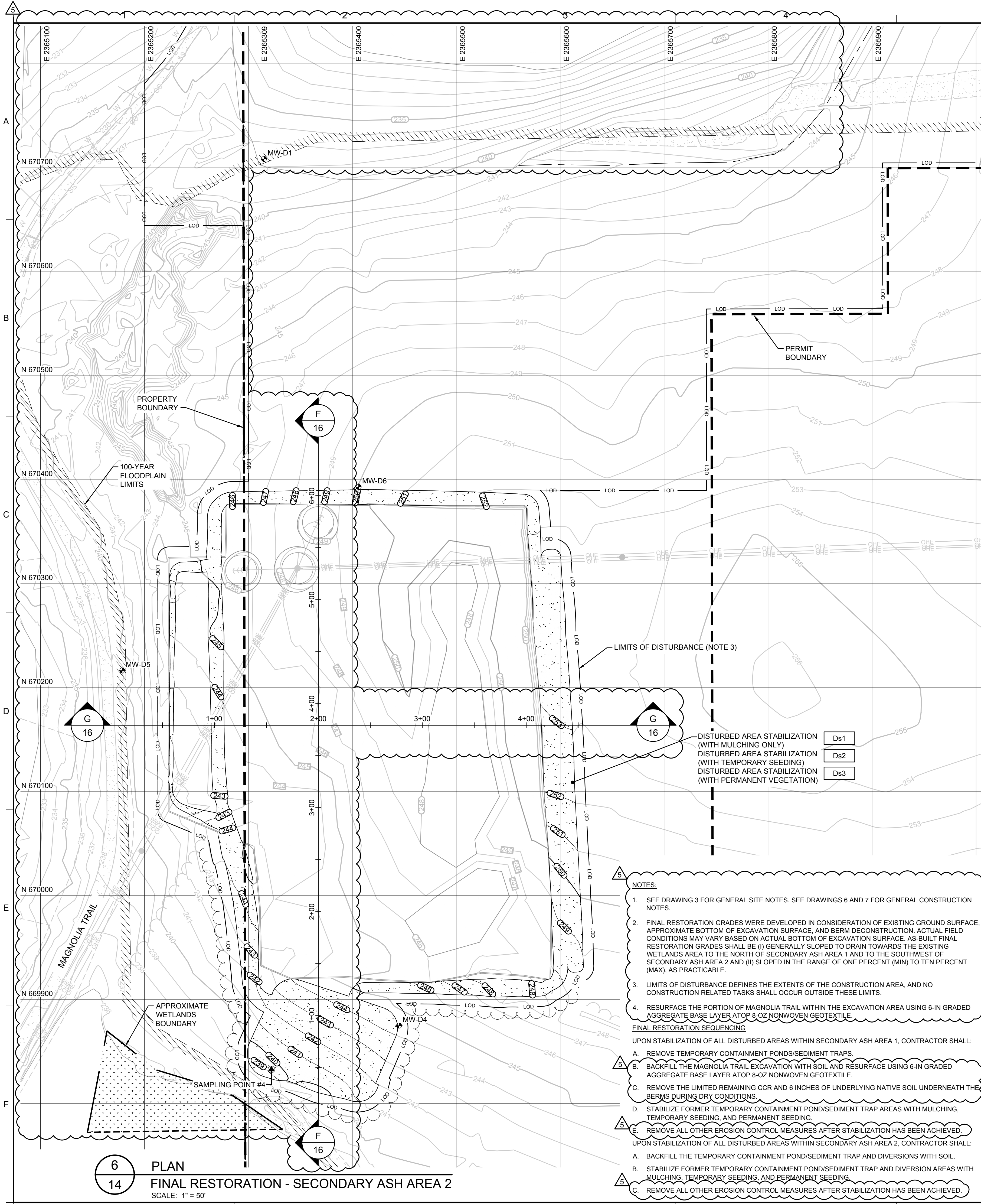


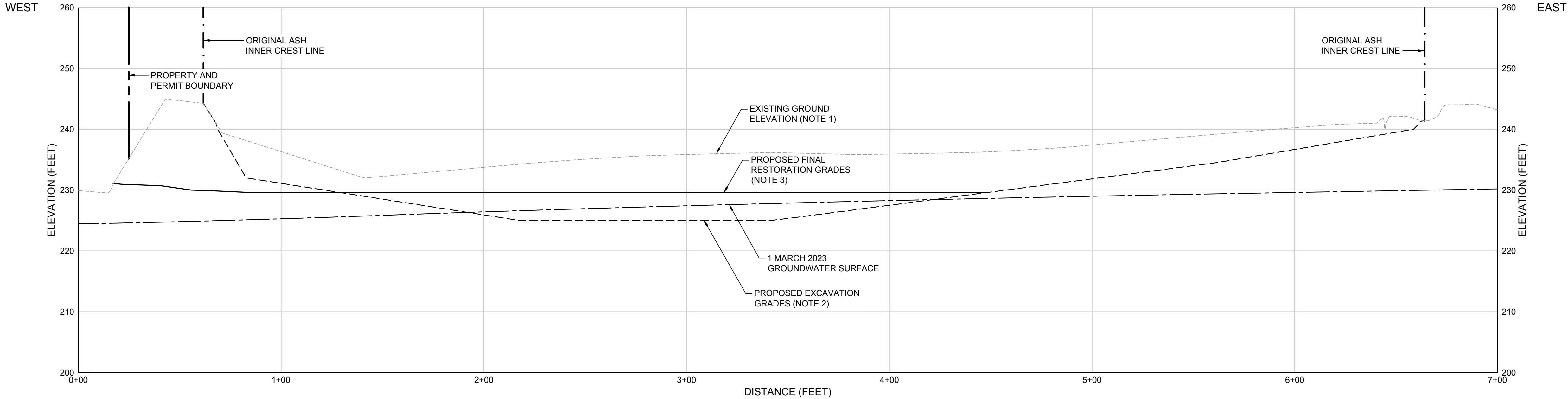
- NOTES:
- SEE DRAWING 3 FOR GENERAL SITE NOTES. SEE DRAWING 5 FOR GENERAL CONSTRUCTION NOTES.
 - TOPOGRAPHY WITHIN THE ASH EXCAVATION AREA REPRESENTS INTERIM GRADES FROM MULTIPLE AS-BUILT SURVEYS PROVIDED BY J.B. FAIRCLOTH & ASSOCIATES, P.C. DATED 01 SEPTEMBER 2022 AND 10 OCTOBER 2022. TOPOGRAPHY WAS SUPPLEMENTED WITH THE LIDAR SURVEY CONDUCTED BY J.B. FAIRCLOTH & ASSOCIATES, P.C. DATED 14 JUNE 2022.
 - FINAL RESTORATION GRADES WERE DEVELOPED IN CONSIDERATION OF UPDATED TOPOGRAPHY PROVIDED BY J.B. FAIRCLOTH & ASSOCIATES, P.C. ACTUAL FIELD CONDITIONS MAY VARY BASED ON ACTUAL BOTTOM OF EXCAVATION SURFACE. AS-BUILT FINAL RESTORATION GRADES SHALL BE (I) GENERALLY SLOPED TO DRAIN TOWARDS THE EXISTING WETLANDS AREA TO THE NORTH OF THE EXISTING ASH POND AND (II) SLOPED IN THE RANGE OF ONE-HALF PERCENT (MIN) TO TEN PERCENT (MAX), AS PRACTICABLE.
 - LIMITS OF DISTURBANCE DEFINES THE EXTENTS OF THE CONSTRUCTION AREA, AND NO CONSTRUCTION RELATED TASKS SHALL OCCUR OUTSIDE THESE LIMITS.
- FINAL RESTORATION SEQUENCING**
- UPON STABILIZATION OF ALL DISTURBED AREAS WITHIN THE POND, CONTRACTOR SHALL:
- BACKFILL TEMPORARY CONTAINMENT POND/SEDIMENT TRAP WITH SOIL.
 - STABILIZE FORMER TEMPORARY CONTAINMENT POND/SEDIMENT TRAP AREA WITH MULCHING, TEMPORARY SEEDING, AND PERMANENT SEEDING.
 - REMOVE ALL OTHER EROSION CONTROL MEASURES AFTER STABILIZATION HAS BEEN ACHIEVED.

LEGEND	
	EXISTING GROUND ELEVATION (FT NAVD 88) (NOTE 2)
	EXISTING BOTTOM OF EXCAVATION GRADES (NOTE 2)
	EXISTING RESTORATION GRADES (NOTE 3)
	PROPOSED RESTORATION GRADES (NOTE 3)
	EXISTING DITCH
	PROPERTY BOUNDARY
	LOT BOUNDARY
	PERMIT BOUNDARY
	EXISTING PIPE
	LIMITS OF DISTURBANCE
	APPROXIMATE WETLANDS BOUNDARY
	100-YEAR FLOODPLAIN LIMITS
	EXISTING ROAD
	AREA TO BE STABILIZED
	ABANDONED BOREHOLE
	EXISTING MONITORING WELL

EROSION AND SEDIMENT CONTROL DETAIL LEGEND			
BMP	DETAIL SHOWN ON DRAWING	BMP	DETAIL SHOWN ON DRAWING
Fr	17	Ss	18
Cd-S	17	St	18
Co	17	Sd4-C	19
Cr	17	Ch	20
Sd1-S	17	B	20
Ds1	18	Di	20
Ds2	18	Tc-F	20
Ds3	18	Tr	20

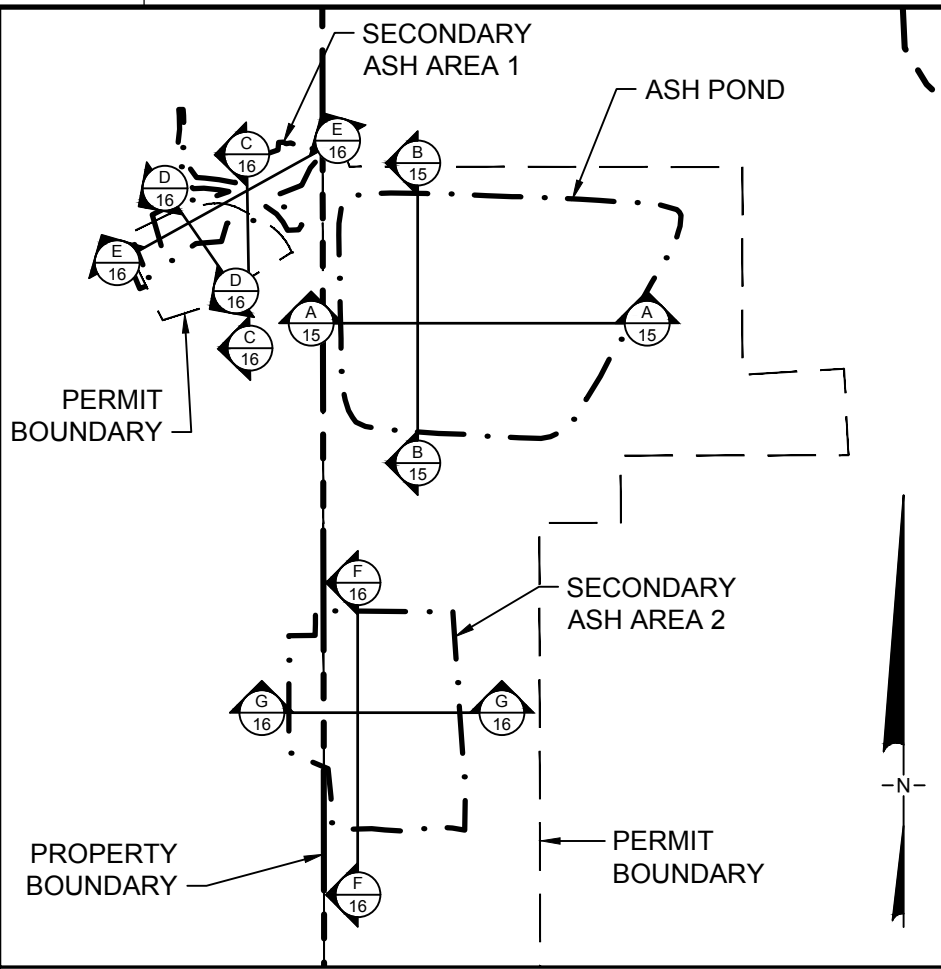
5	02/23/24	REVISED FOR GA EPD SUBMITTAL	JO	MI
4	08/12/22	REVISED FOR GA EPD SUBMITTAL	RN	MI
REV	DATE	DESCRIPTION	DRN	APP
<div><div>Geosyntec consultants</div></div> <div>GEORGIA CERTIFICATION OF AUTHORIZATION (COA) NO. PEF000260, EXP. 06/30/2024 1255 ROBERTS BOULEVARD, N.W., SUITE 200 KENNESAW, GEORGIA 30144 USA PHONE: 678.202.9500</div>				
TITLE: FINAL RESTORATION - ASH POND				
PROJECT: CRISP COUNTY POWER COMMISSION ASH POND AND SECONDARY ASH AREAS 1 AND 2 CLOSURE AND SITE RESTORATION				
SITE: PLANT CRISP WARWICK, GEORGIA				
<div><div>GEORGIA DEPARTMENT OF NATURAL RESOURCES ENVIRONMENTAL PROTECTION DIVISION</div></div> <div>Approved Solid Waste Management Program Approved By: Keith Stevens</div>		DESIGN BY: SH/OC DRAWN BY: RN/DJ CHECKED BY: SH/OC REVIEWED BY: JG APPROVED BY: MI	DATE: FEBRUARY 2024 PROJECT NO.: GW 8836 FILE: GW6152.02-13 DRAWING NO.: 13	



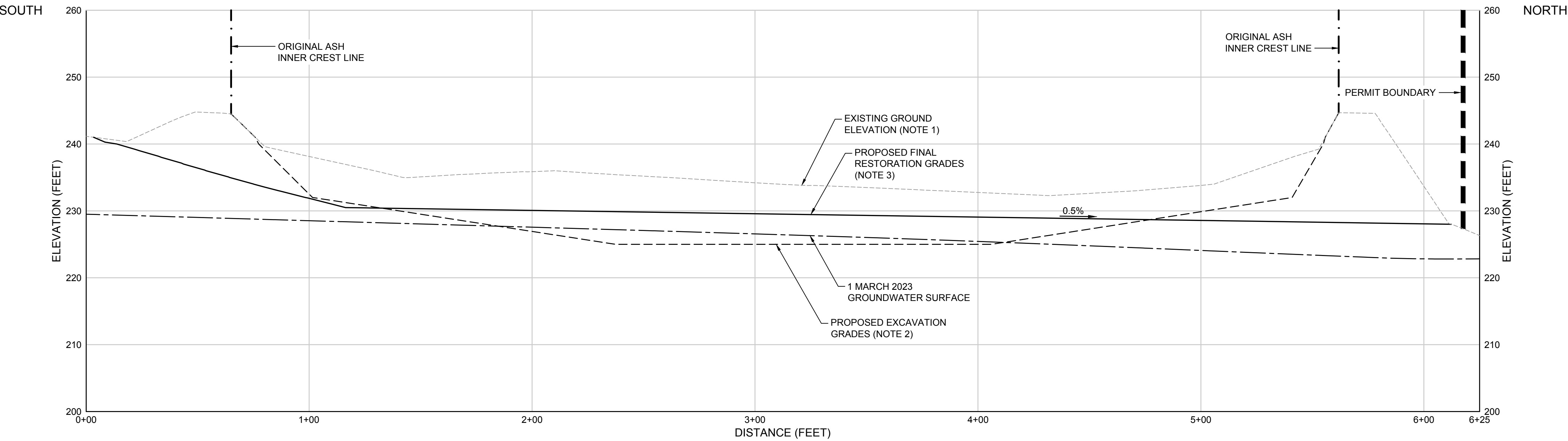


A
3

SECTION
ASH POND - WEST TO EAST



KEY MAP
SCALE: 1" = 400'



B
3

SECTION
ASH POND - SOUTH TO NORTH

LEGEND

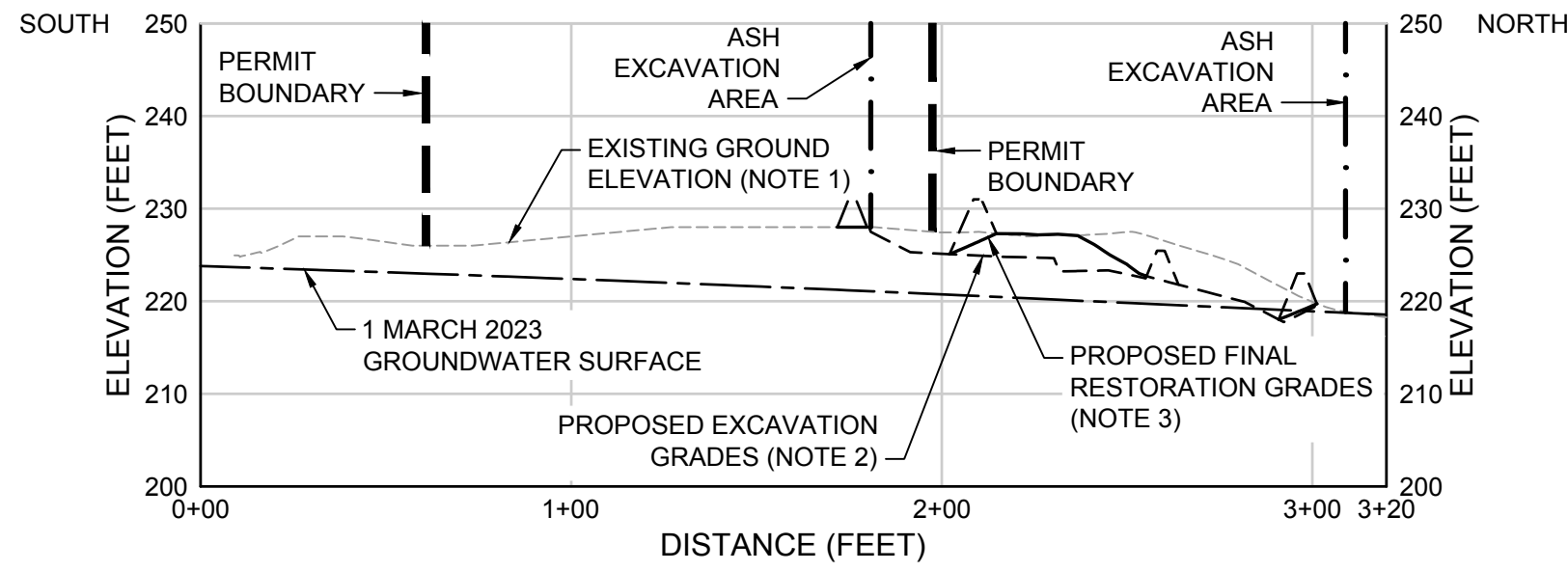
---	EXISTING GROUND ELEVATION (NOTE 1)
---	PROPOSED EXCAVATION GRADES (NOTE 2)
---	PROPOSED FINAL RESTORATION GRADES (NOTE 3)
---	1 MARCH 2023 GROUNDWATER SURFACE
---	PROPERTY BOUNDARY
---	PERMIT BOUNDARY
---	ORIGINAL ASH INNER CREST LINE

- NOTES:
- EXISTING GROUND TOPOGRAPHY WITHIN THE VICINITY OF THE ASH POND WAS OBTAINED FROM THE TOPOGRAPHIC SURVEY CONDUCTED BY J.B. FAIRCLOTH & ASSOCIATES, P.C. DATED 20 MAY 2014 AND SUPPLEMENTED WITH THE LIDAR SURVEY CONDUCTED BY J.B. FAIRCLOTH & ASSOCIATES, P.C. DATED 14 JUNE 2022.
 - PROPOSED EXCAVATION GRADES REPRESENT SURFACE WITHIN THE ASH POND AFTER REMOVAL OF CCR AND 6 INCHES OF UNDERLYING NATIVE SOIL; THEY ARE APPROXIMATE AND BASED UPON LIMITED INFORMATION. CCR REMOVAL AND RESTORATION ACTIVITIES WERE IN PROGRESS WHEN THIS PERMIT MODIFICATION PACKAGE WAS PREPARED. THEREFORE, AS-BUILT EXCAVATION GRADES, MATERIAL VOLUMES, TOPOGRAPHIC CONTOURS, AND OTHER FEATURES WITHIN THE ASH POND MAY BE DIFFERENT THAN WHAT IS SHOWN IN THIS DRAWING.
 - PROPOSED FINAL RESTORATION GRADES WERE DEVELOPED IN CONSIDERATION OF UPDATED TOPOGRAPHY PROVIDED BY J.B. FAIRCLOTH & ASSOCIATES, P.C. ACTUAL FIELD CONDITIONS MAY VARY BASED ON ACTUAL BOTTOM OF EXCAVATION SURFACE. AS-BUILT FINAL RESTORATION GRADES SHALL BE (I) GENERALLY SLOPED TO DRAIN TOWARDS THE EXISTING WETLANDS AREA TO THE NORTH OF THE EXISTING ASH POND AND (II) SLOPED IN THE RANGE OF ONE-HALF PERCENT (MIN) TO TEN PERCENT (MAX), AS PRACTICABLE.

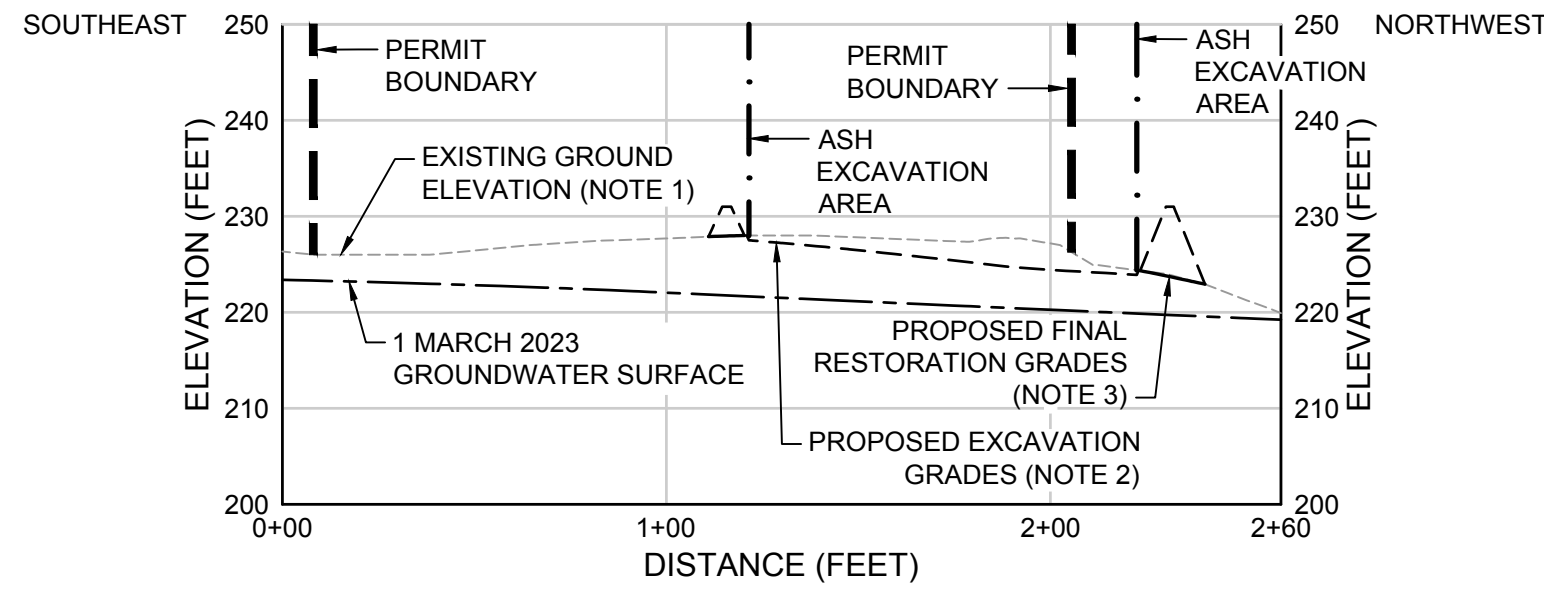


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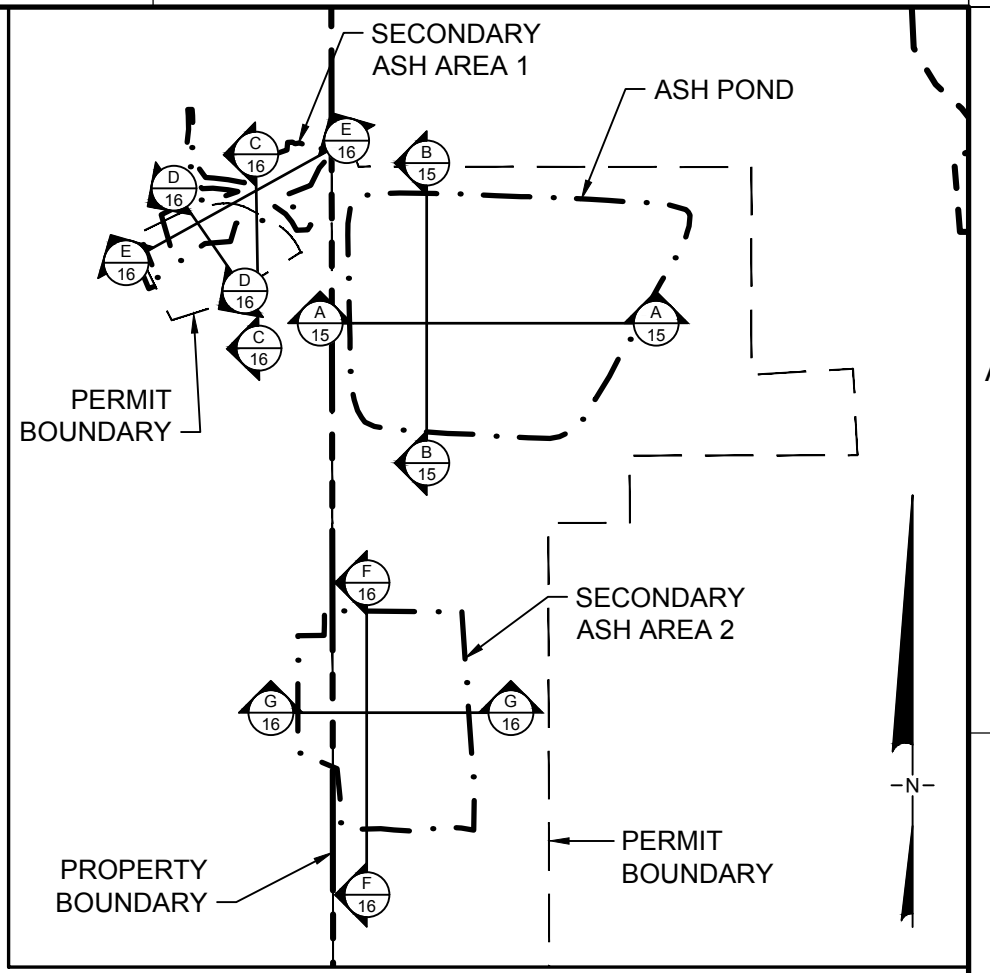
5	02.23.24	REVISED FOR GA EPD SUBMITTAL	JO	MI
4	08.12.22	REVISED FOR GA EPD SUBMITTAL	RN	MI
REV	DATE	DESCRIPTION	DRN	APP
<div>Geosyntec consultants</div> <div>GEORGIA CERTIFICATION OF AUTHORIZATION (COA) NO. PEF000260, EXP. 06/30/2024 1255 ROBERTS BOULEVARD, N.W., SUITE 200 KENNESAW, GEORGIA 30144 USA PHONE: 678.202.9500</div>				
TITLE: CROSS-SECTIONS - ASH POND				
PROJECT: CRISP COUNTY POWER COMMISSION ASH POND AND SECONDARY ASH AREAS 1 AND 2 CLOSURE AND SITE RESTORATION				
SITE: PLANT CRISP WARWICK, GEORGIA				
<div>GEORGIA REGISTERED ENGINEER MEHMET ISCIVEN 02.23.2024</div>		DESIGN BY:	SH/OC	DATE: FEBRUARY 2024
		DRAWN BY:	RN/DJ	PROJECT NO.: GW 8836
		CHECKED BY:	SH/OC	FILE: GW6152.02-15
		REVIEWED BY:	JG	DRAWING NO.:
		APPROVED BY:	MI	15



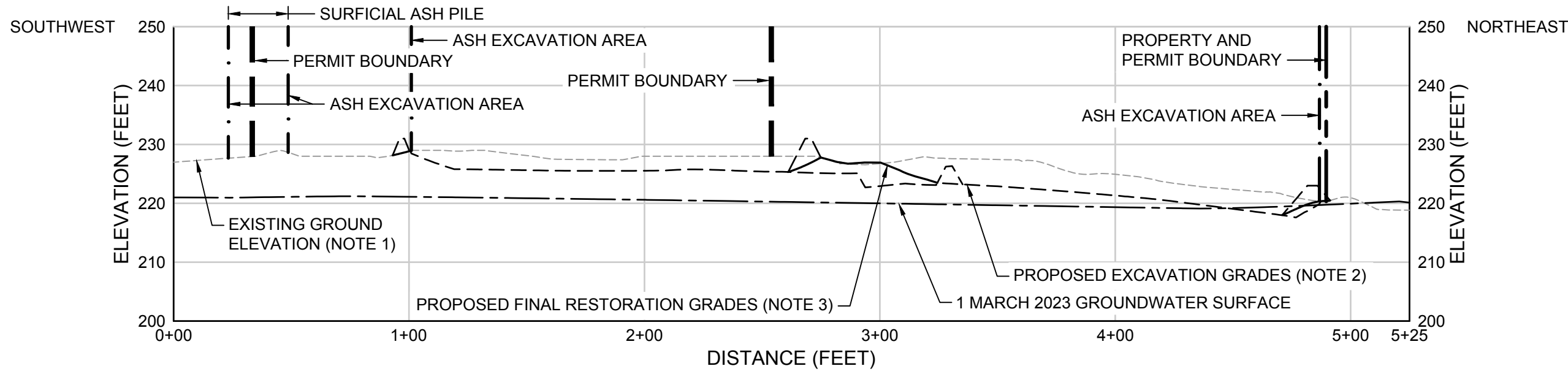
C
4 SECTION
SECONDARY ASH AREA 1 - SOUTH TO NORTH



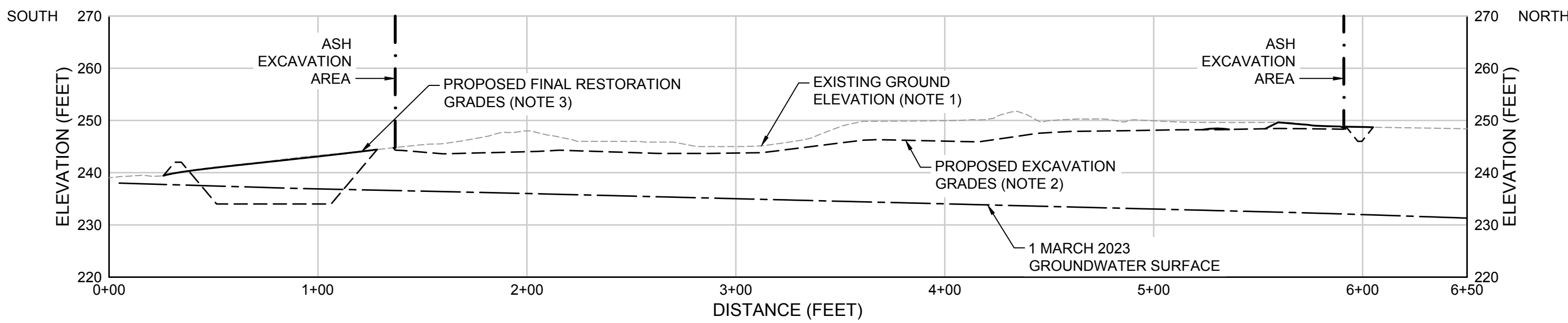
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4 SECTION
SECONDARY ASH AREA 1 - SOUTHEAST TO NORTHWEST



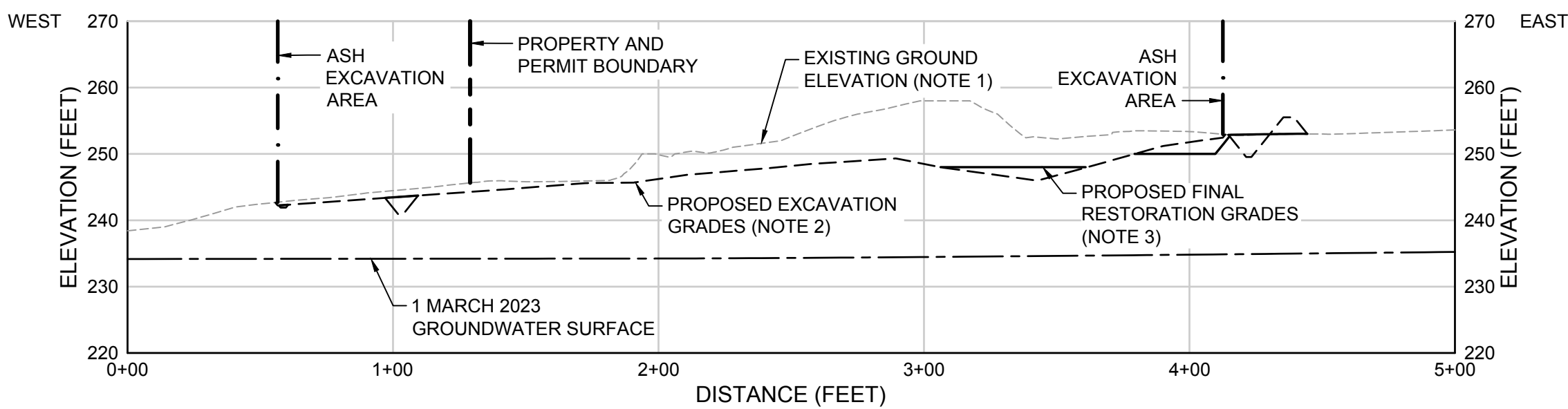
KEY MAP
SCALE: 1" = 400'



E
4 SECTION
SECONDARY ASH AREA 1 - SOUTHWEST TO NORTHEAST



F
4 SECTION
SECONDARY ASH AREA 2 - SOUTH TO NORTH



G
4 SECTION
SECONDARY ASH AREA 2 - WEST TO EAST



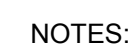
NOTES:

- EXISTING GROUND TOPOGRAPHY WITHIN THE VICINITY OF THE ASH POND WAS OBTAINED FROM THE TOPOGRAPHIC SURVEY CONDUCTED BY J.B. FAIRCLOTH & ASSOCIATES, P.C. DATED 20 MAY 2014 AND SUPPLEMENTED WITH THE LIDAR SURVEY CONDUCTED BY J.B. FAIRCLOTH & ASSOCIATES, P.C. DATED 14 JUNE 2022.
- PROPOSED EXCAVATION GRADES REPRESENT SURFACES WITHIN SECONDARY ASH AREAS 1 AND 2 AFTER REMOVAL OF CCR AND 6 INCHES OF UNDERLYING NATIVE SOIL AND PLACEMENT OF WATER MANAGEMENT FEATURES (BERMS, CHANNELS, ETC.); THEY ARE APPROXIMATE AND BASED UPON LIMITED INFORMATION. ACTUAL DEPTHS TO BOTTOM OF CCR MATERIAL MAY VARY.
- PROPOSED FINAL RESTORATION GRADES WERE DEVELOPED IN CONSIDERATION OF EXISTING GROUND SURFACE, APPROXIMATE BOTTOM OF EXCAVATION SURFACES, AND BERM DECONSTRUCTION. ACTUAL FIELD CONDITIONS MAY VARY BASED ON ACTUAL BOTTOM OF EXCAVATION SURFACES. AS-BUILT FINAL RESTORATION GRADES SHALL BE (I) GENERALLY SLOPED TO DRAIN TOWARDS THE EXISTING WETLANDS AREA TO THE NORTH OF SECONDARY ASH AREA 1 AND TO THE SOUTHWEST OF SECONDARY ASH AREA 2 AND (II) SLOPED IN THE RANGE OF ONE PERCENT (MIN) TO TEN PERCENT (MAX), AS PRACTICABLE.

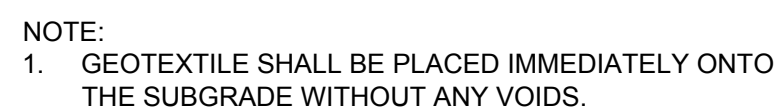


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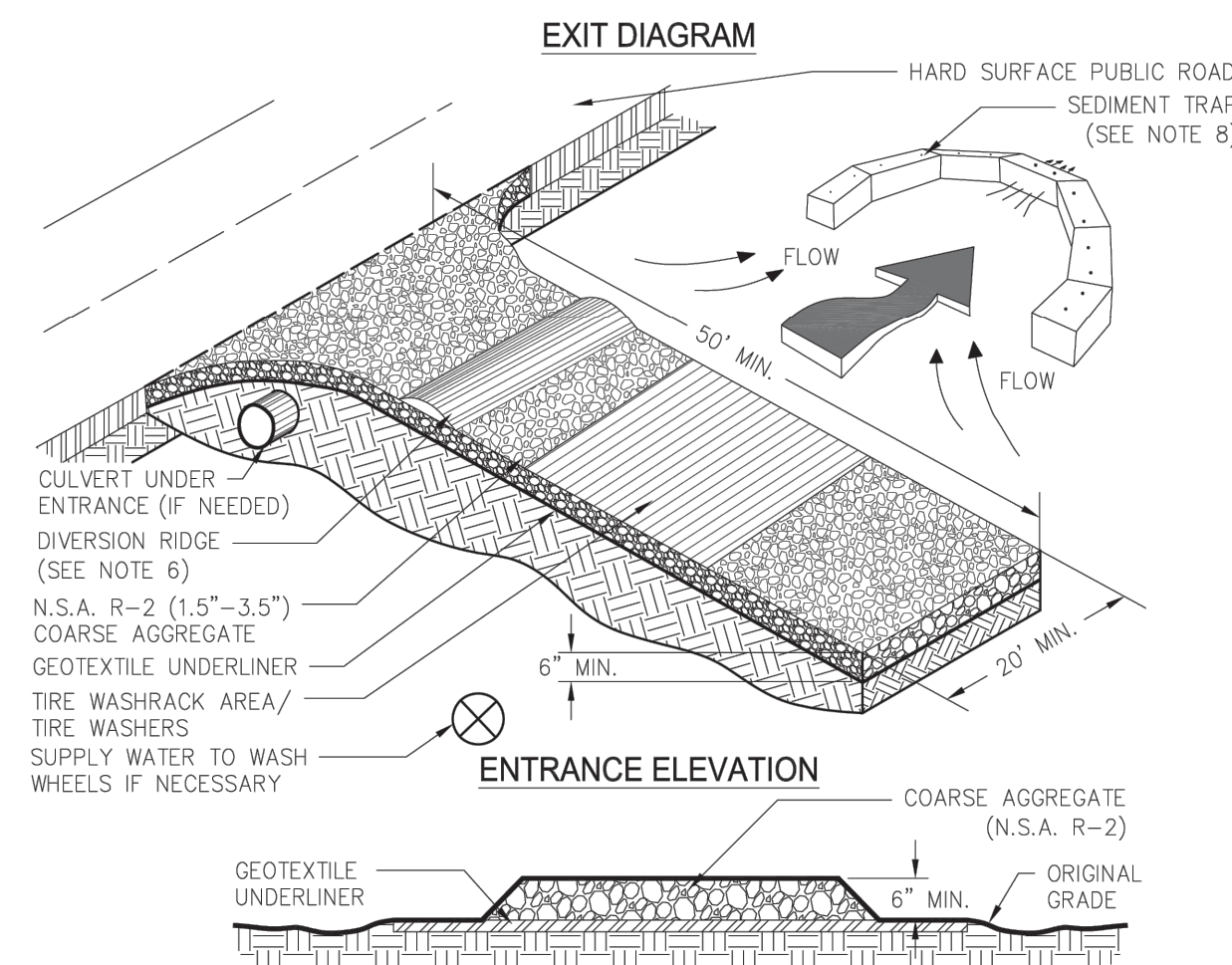
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4	08/12/22	REVISED FOR GA EPD SUBMITTAL	RN	MI
REV	DATE	DESCRIPTION	DRN	APP
Geosyntec consultants				
GEORGIA CERTIFICATION OF AUTHORIZATION (COA) NO. PEF000260, EXP. 06/30/2024 1255 ROBERTS BOULEVARD, N.W., SUITE 200 KENNESAW, GEORGIA 30144 USA PHONE: 678.202.9500				
TITLE: CROSS-SECTIONS - SECONDARY ASH AREAS 1 AND 2				
PROJECT: CRISP COUNTY POWER COMMISSION ASH POND AND SECONDARY ASH AREAS 1 AND 2 CLOSURE AND SITE RESTORATION				
SITE: PLANT CRISP WARWICK, GEORGIA				
DESIGN BY: SH/OC		DATE: FEBRUARY 2024		
DRAWN BY: RN/DJ		PROJECT NO.: GW 8836		
CHECKED BY: SH/OC		FILE: GW6152.02-16		
REVIEWED BY: JG		DRAWING NO.:		
APPROVED BY: MI		16		
02/23/2024				



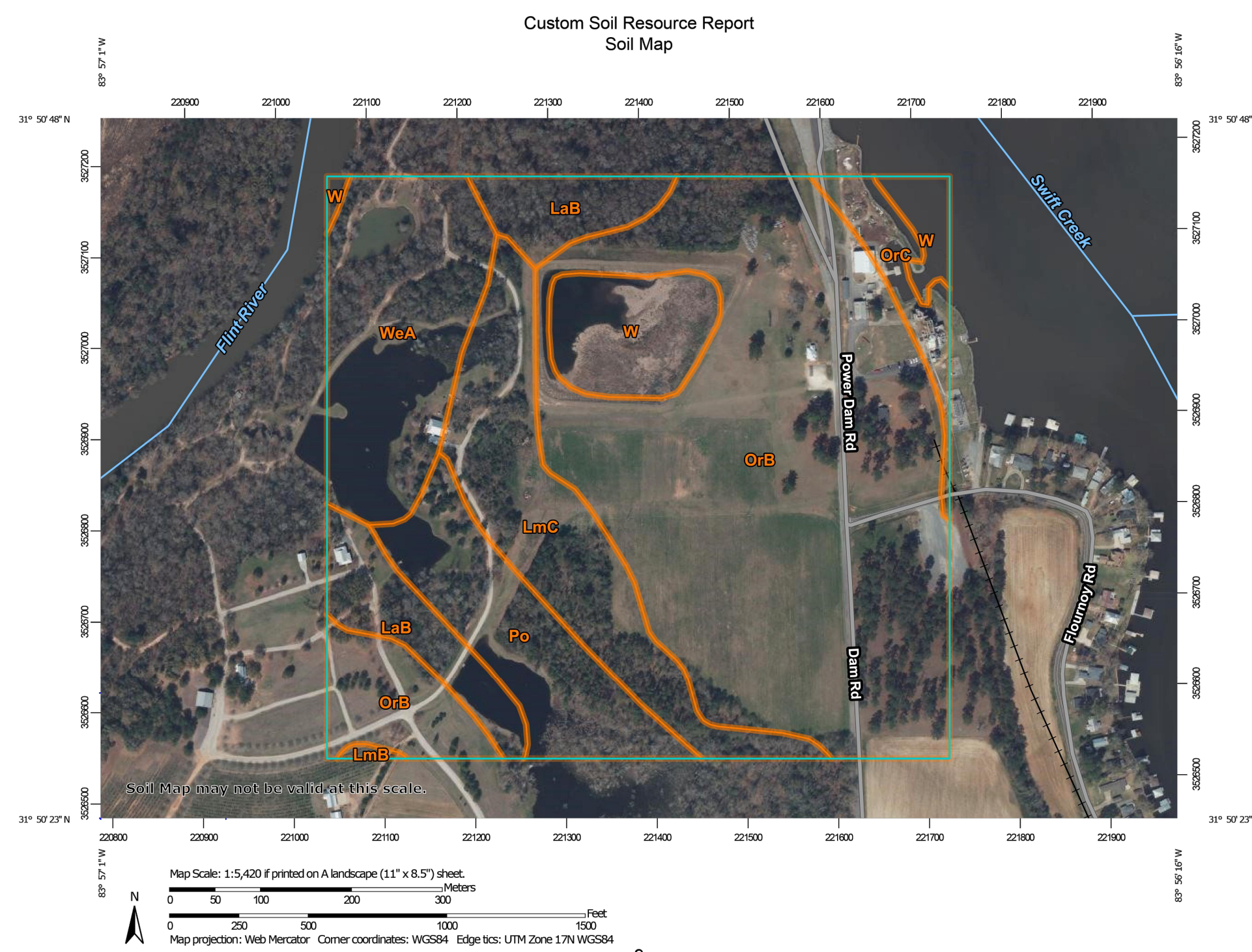
1. STONE CHECK DAM SHALL BE CONSTRUCTED OF GRADED SIZE 2-10 INCH STONE.
2. GEOTEXTILE SHALL BE PLACED IMMEDIATELY ONTO THE SUBGRADE WITHOUT ANY VOIDS.



dropped, washed, or tracked from vehicles or site onto roadways or into storm drains must be removed immediately.



1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.
2. REMOVE ALL VEGETATION AND ANY UNDESIRABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
3. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"-3.5" STONE).
4. GRIESEL PIPES SHALL HAVE A MINIMUM THICKNESS OF 6".
5. PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'.
6. A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%.
7. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES.
8. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP R SEDIMENT BASIN (DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE).
9. WHEN WASHING PIPES, WASHERS MAY BE REQUIRED DEPENDING ON THE SCALE AND THE CIRCUMSTANCE. IF NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL SUITABLE FOR TRUCK AND TRAFFIC THAT REMOVE MUD AND DIRT.
10. MAINTAIN AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

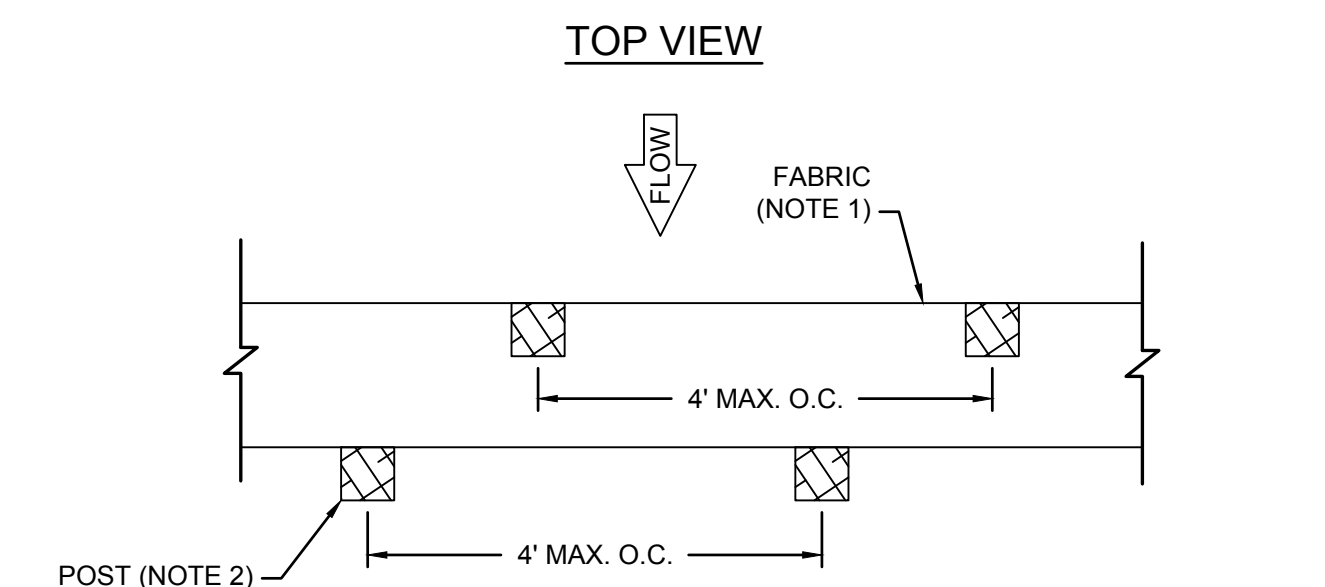
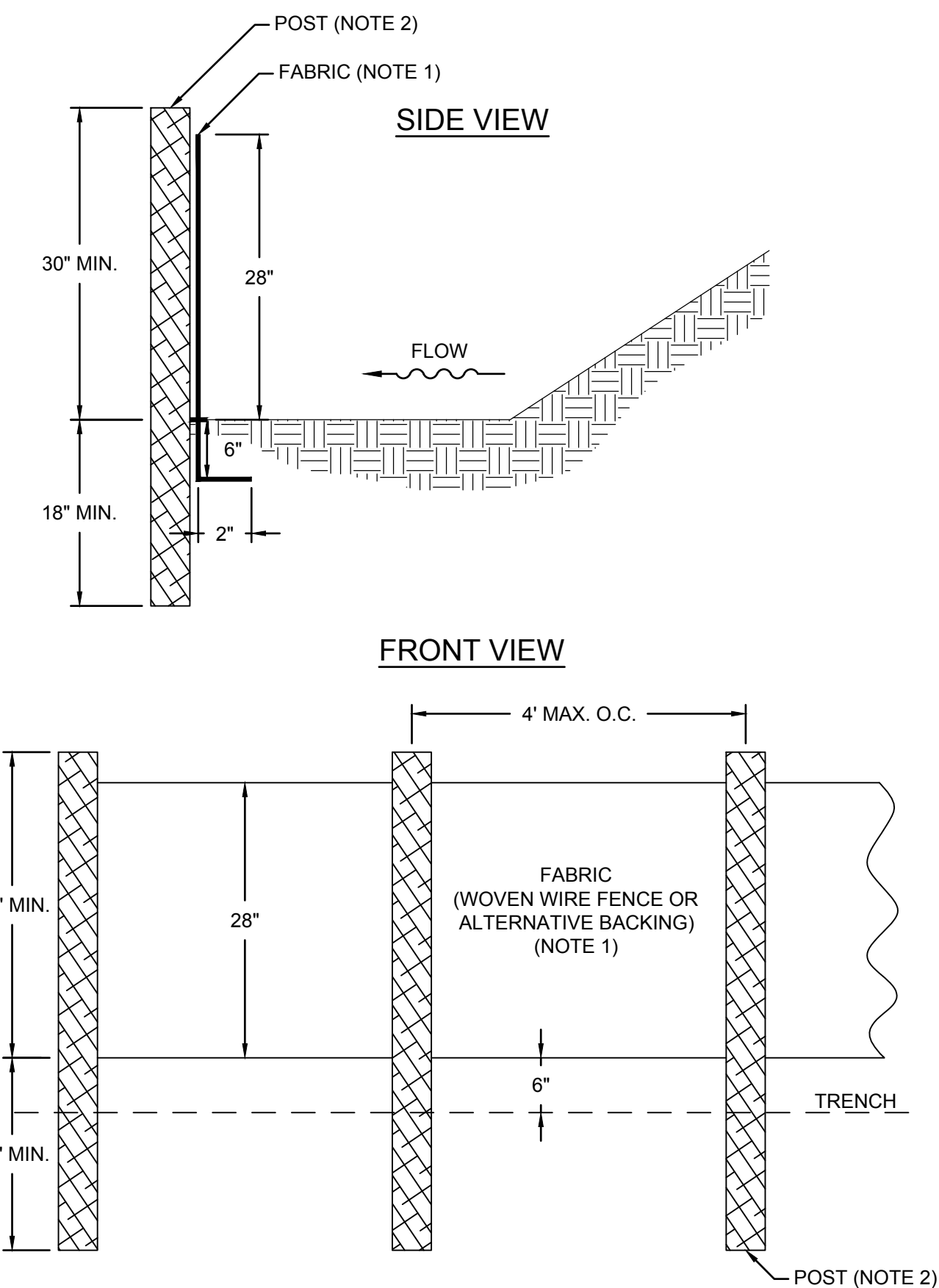


SOIL SURVEY MAP
SCALE: AS SHOWN

MAP UNIT SYMBOL	MAP UNIT NAME
LAB	LAKELAND SAND, 0 TO 5 PERCENT SLOPES
LMB	LUCY LOAMY SAND, 0 TO 5 PERCENT SLOPES
LMC	LUCY LOAMY SAND, 5 TO 8 PERCENT SLOPES
ORB	ORANGEBURG LOAMY SAND, 2 TO 5 PERCENT SLOPES
ORC	ORANGEBURG LOAMY SAND, 5 TO 8 PERCENT SLOPES
PO	PELHAM LOAMY SAND, OCCASIONALLY FLOODED
WEA	WAHEE FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES, FREQUENTLY FLOODED
W	WATER



ISSUED FOR PERMIT




- NOTES:

1. SILT FENCE FABRIC SHALL BE APPROVED FABRIC OR ALTERNATE TECHNOLOGY LISTED ON THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION APPROVED PRODUCT LIST. PRIOR TO ISSUANCE OF THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION APPROVED PRODUCTS LIST, SILT FENCE FABRIC SHALL BE APPROVED FABRIC OR ALTERNATE TECHNOLOGY LISTED ON THE GEORGIA DEPARTMENT OF TRANSPORTATION QUALIFIED PRODUCTS LIST #36 (QPL-36) FOR TYPE C SILT FENCE.
2. USE STEEL OR WOOD POSTS, WITH POST SIZE 1.25 LB/FT MINIMUM.
3. THE FABRIC AND WIRE SHALL BE SECURELY FASTENED TO POSTS AND FABRIC ENDS MUST BE OVERLAPPED A MINIMUM OF 18" OR WRAPPED AROUND A POST TO PROVIDE A CONTINUOUS FABRIC BARRIER.




5	02.23.24 08.12.22	REVISED FOR GA EPD SUBMITTAL REVISED FOR GA EPD SUBMITTAL	JO RN	MI MI
REV	DATE	DESCRIPTION	DRN	APP



GEORGIA CERTIFICATION OF AUTHORIZATION
(COA) NO. PEF000260, EXP. 06/30/2024
1255 ROBERTS BOULEVARD, N.W., SUITE 200
KENNESAW, GEORGIA 30144 USA
PHONE: 678.202.9500

TITLE:	<h2 style="margin: 0;">EROSION AND SEDIMENT CONTROL DETAILS I</h2>
PROJECT:	<p style="text-align: center;">CRISP COUNTY POWER COMMISSION ASH POND AND SECONDARY ASH AREAS 1 AND 2 CLOSURE AND SITE RESTORATION</p>
SITE:	<p style="text-align: center;">PLANT CRISP WARWICK, GEORGIA</p>



DESIGN BY:	SH/OC	DATE:	FEBRUARY 2024
DRAWN BY:	RN/DJ	PROJECT NO.:	GW 8836
CHECKED BY:	SH/OC	FILE:	GW6152.02-17
REVIEWED BY:	JG	DRAWING NO.:	
APPROVED BY:	MI		

17

UNIFORMLY SPREAD ORGANIC MULCHES BY HAND OR WITH A MULCH BLOWER AT A RATE WHICH PROVIDES ABOUT 75% GROUND COVER. WHEN SPREADING STRAW MULCH BY HAND, DIVIDE THE AREA TO BE MULCHED INTO SECTIONS OF APPROXIMATELY 1000 SQUARE FT. AND PLACE 70-80 POUNDS OF STRAW (1 1/2 TO BALES) IN EACH SECTION TO FACILITATE UNIFORM DISTRIBUTION. THIS WILL BE 1 1/2 TO 2 TONS OF STRAW PER ACRE. IN HYDROSEEDING OPERATIONS A GREEN DYE MAY BE ADDED TO THE SLURRY, TO ASSURE A UNIFORM APPLICATION.

WHEN STRAW MULCH IS SUBJECT TO BE BLOWN AWAY BY WIND, IT MUST BE ANCHORED IMMEDIATELY AFTER SPREADING. IT CAN BE ANCHORED WITH A MULCH ANCHORING TOOL OR A REGULAR FARM DISK, BY SETTING THE DISK TO RUN STRAIGHT AND ADDING WEIGHT TO THE DISK. THE DISK SHOULD NOT BE SHARP ENOUGH TO CUT THE STRAW. DISKS CAN GENERALLY NOT BE USED ON LAND WITH STEEP SLOPES.

Material	Rate Per Acre and (Per 1000 ft. ²)	Notes
Straw with Seed	1 1/2-2 tons (70 lbs-90 lbs)	Spread by hand or machine; anchor when subject to blowing.
Straw Alone (no seed)	2 1/2-3 tons (115 lbs-160 lbs)	Spread by hand or machine; anchor when subject to blowing.
Wood Chips	5-6 tons (225 lbs-270 lbs)	Treat with 12 lbs. nitrogen/ton.

WOOD FIBER REFERS TO SHORT CELLULOSE FIBERS APPLIED AS A SLURRY IN HYDROSEEDING OPERATIONS. WOOD FIBER HYDROSEEDER SLURRIES MAY BE USED TO TACK STRAW MULCH ON STEEP SLOPES, CRITICAL AREAS, AND WHERE HARSH CLIMATIC CONDITIONS EXIST.

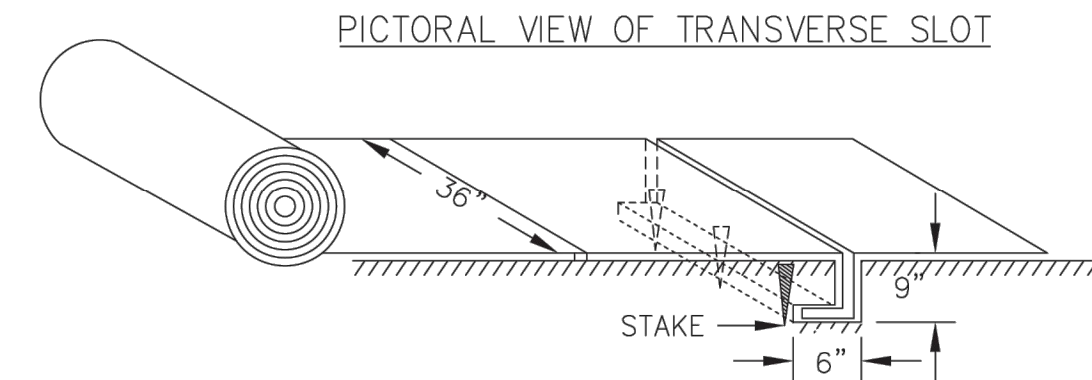
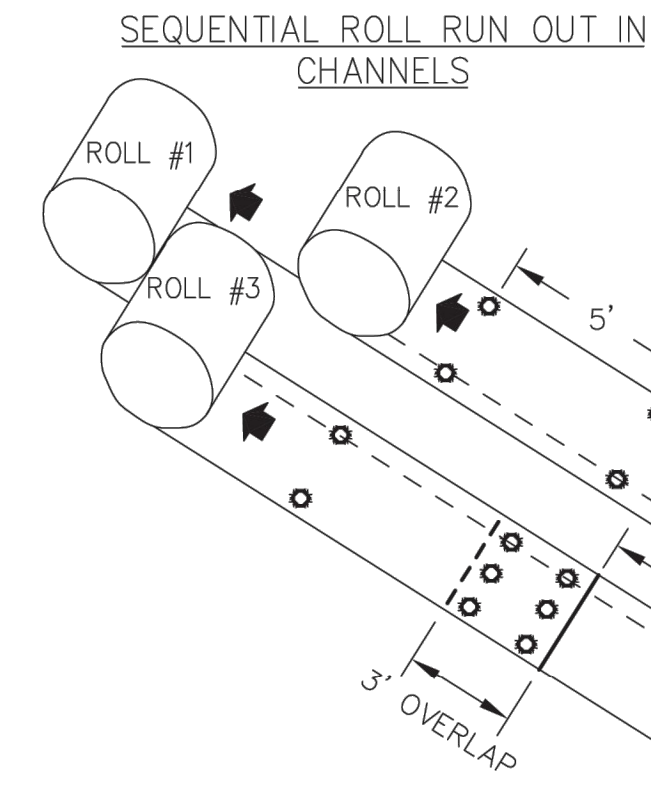
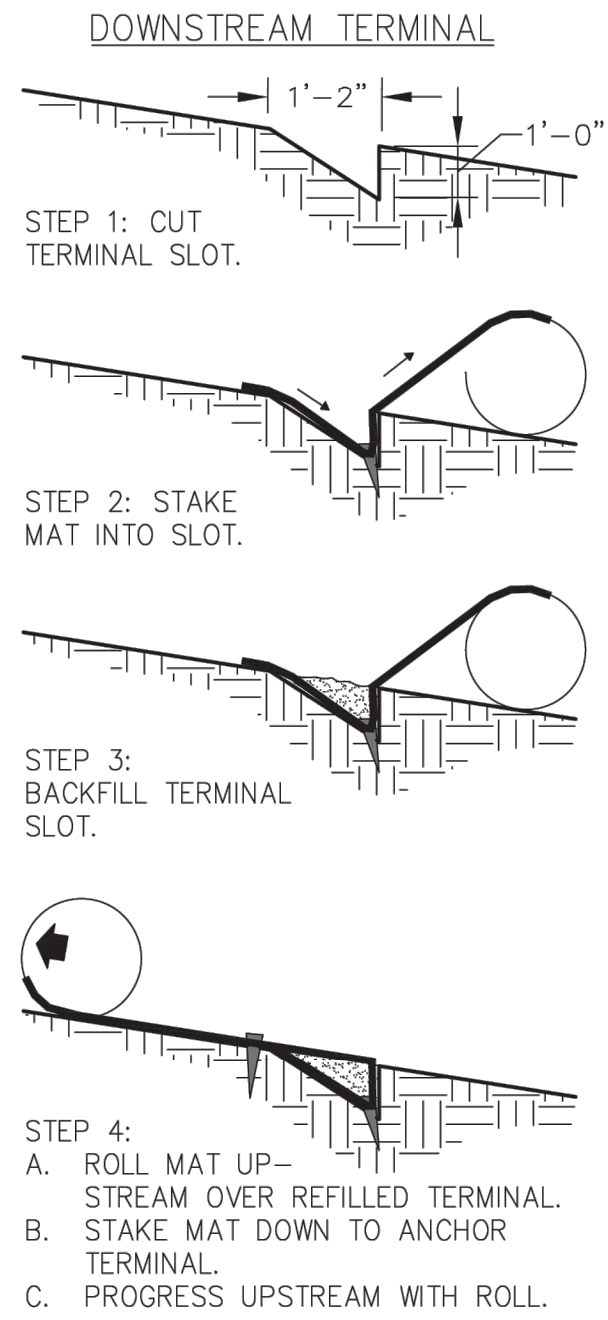
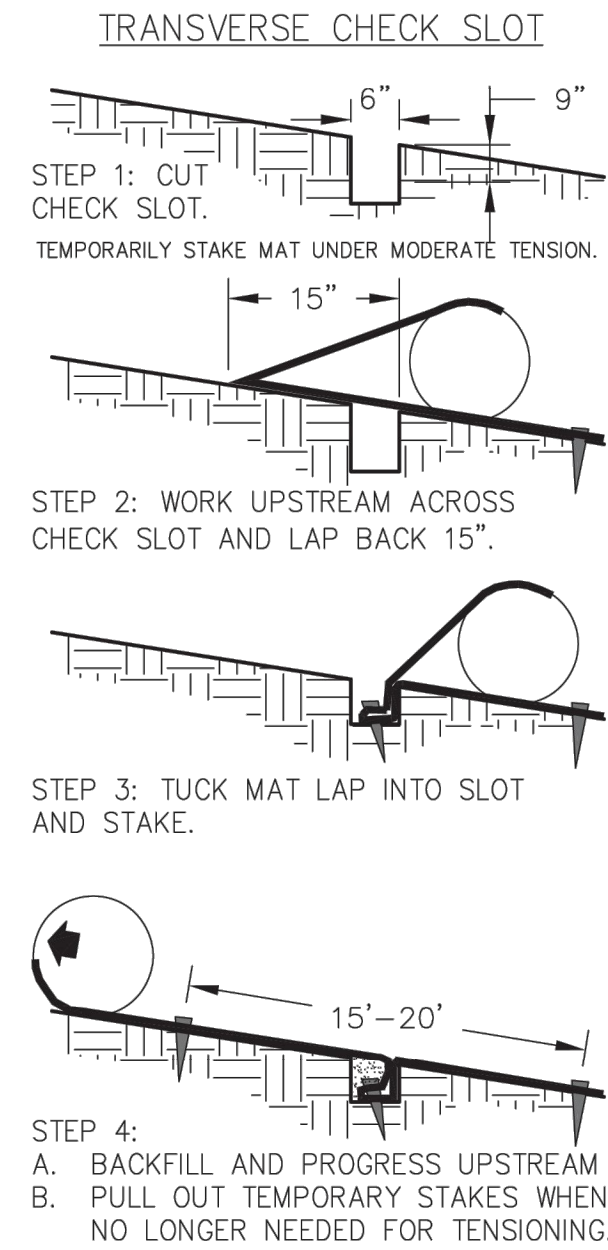
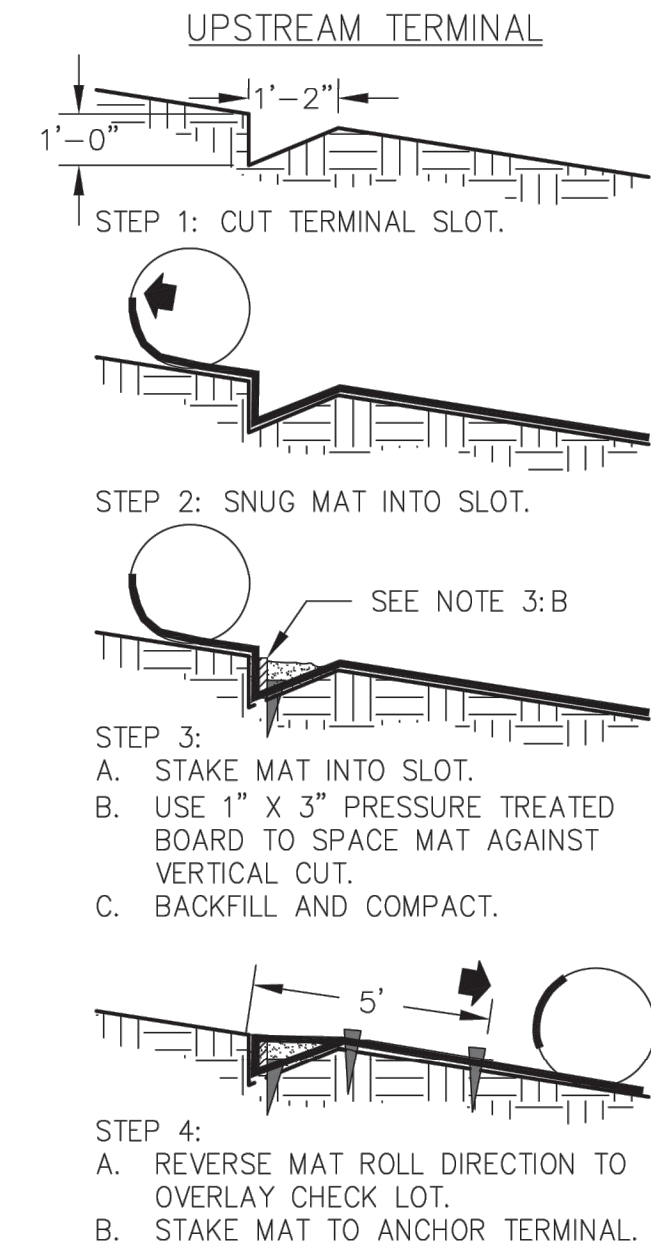
Ds1

DETAIL
DISTURBED AREA STABILIZATION
(MULCHING ONLY)

Ds2

DETAIL
DISTURBED AREA STABILIZATION
(TEMPORARY SEEDING)

Species	Broadcast Rates		Resource Area	Planting Dates by Resource Area												Remarks
	Rate Per Acre	Pure Live Seed (PLS) Per 1000 sqft		Solid lines indicate optimum dates, dotted lines indicate permissible but marginal dates.												
				J	F	M	A	M	J	J	A	S	O	N	D	
LESPEDEZA, ANNUAL <i>Lespedeza striata</i>																
alone	40 lbs	0.9 lb	M-L													200,000 seed per pound. May volunteer for several years. Use inoculant EL.
in mixture	10 lbs	0.2 lb	P C													
LOVEGRASS, WEEPING <i>Eragrostis curvula</i>																
alone	4 lbs	0.1 lb	M-L													1,500,000 seed per pound. May last for several years. Mix with <i>Sericea lespedeza</i> .
in mixture	2 lbs	0.05 lb	P C													
MILLET, PEARL <i>Pennisetum glaucum</i>																
alone	50 lbs	1.1 lbs	M-L P C													88,000 seed per pound. Quick dense cover. May reach 5 feet in height. Not recommended for mixtures.
RYEGRASS, ANNUAL <i>Lolium temulentum</i>																
alone	40 lbs	0.9 lb	M-L P C													227,000 seed per pound. Dense cover. Very competitive and is not to be used in mixtures.

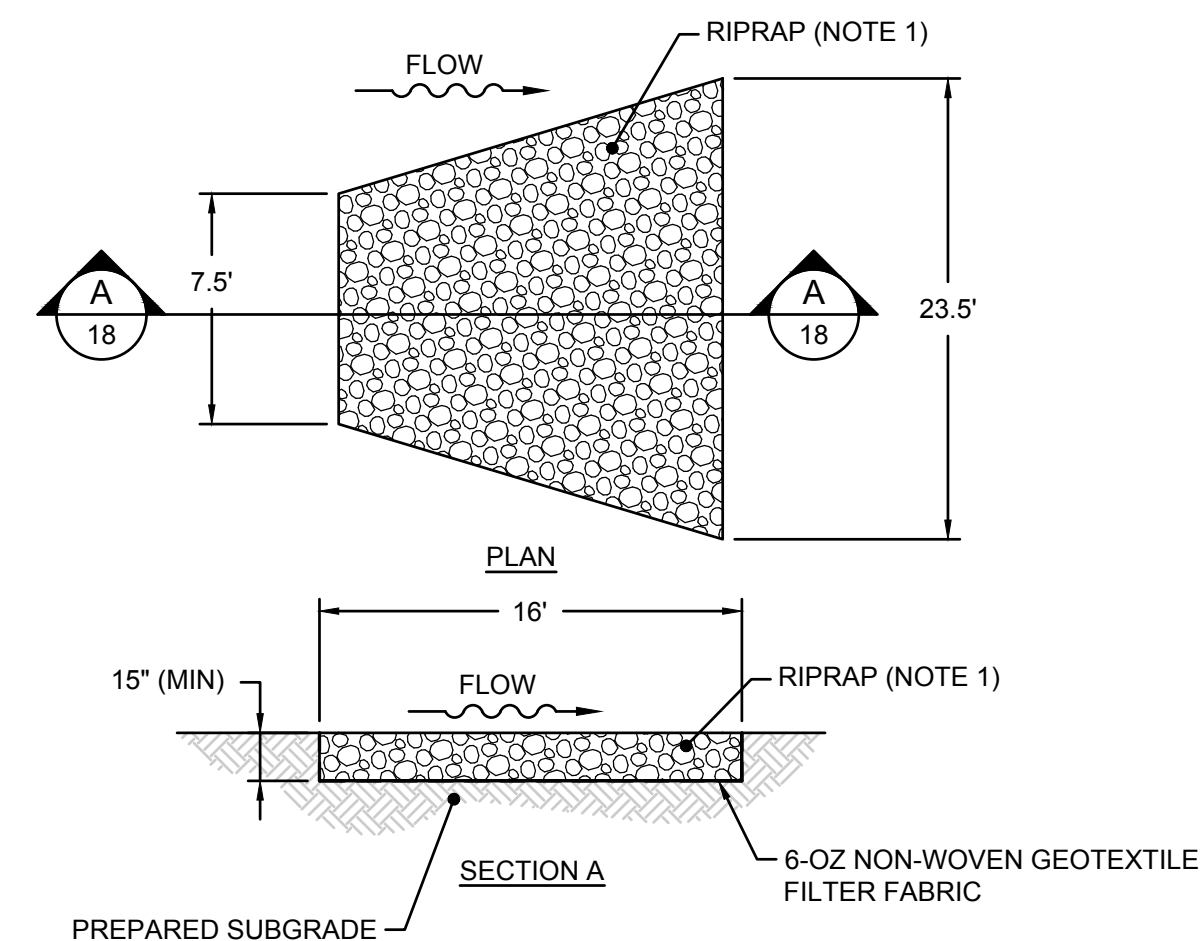


- NOTES:
1. START AT DOWNSTREAM TERMINAL AND PROGRESS UPSTREAM.
 2. FIRST ROLL IS CENTERED LONGITUDINALLY IN MID-CHANNEL AND PINNED WITH TEMPORARY STAKES TO MAINTAIN ALIGNMENT.
 3. SUBSEQUENT ROLLS FOLLOW IN STAGGERED SEQUENCE BEHIND THE FIRST ROLL. USE THE CENTER ROLL FOR ALIGNMENT TO THE CHANNEL CENTER.
 4. WORK OUTWARDS FROM THE CHANNEL CENTER TO THE EDGE.
 5. USE 3" OVERLAPS AND STAKE AT 5' INTERVALS ALONG THE SEAMS.
 6. USE 3' OVERLAPS AND SHINGLE DOWNSTREAM TO CONNECT THE LINING AT THE ROLL ENDS.

- NOTE:
1. USE EROSION CONTROL MATTING/BLANKETS ON SLOPES 3H:1V OR STEEPER.

Ss

DETAIL
SLOPE STABILIZATION
SCALE: NTS



- NOTE:
1. RIPRAP SHALL HAVE AN AVERAGE DIAMETER OF 6-INCHES AND A MAXIMUM DIAMETER OF 9-INCHES.

St

DETAIL
STORM DRAIN OUTLET PROTECTION
SCALE: NTS

ISSUED FOR PERMIT

FERTILIZER REQUIREMENTS				
TYPE OF SPECIES	YEAR	ANALYSIS OR EQUIVALENT N-P-K	RATE	N TOP DRESSING RATE
1. Cool season grasses	First Second Maintenance	6-12-12 6-12-12 10-10-10	1500 lbs./ac. 1000 lbs./ac. 400 lbs./ac.	50-100 lbs./ac. 1/2/ 30
2. Cool season grasses and legumes	First Second Maintenance	6-12-12 0-10-10 0-10-10	1500 lbs./ac. 1000 lbs./ac. 400 lbs./ac.	0-50 lbs./ac. 1/ —
3. Ground covers	First Second Maintenance	10-10-10 10-10-10 10-10-10	1300 lbs./ac. 3/ 1300 lbs./ac. 3/ 1100 lbs./ac.	— — —
4. Pine seedlings	First	20-10-5	one 21-gram pellet per seedling placed in the closing hole	—
5. Shrub Lespedeza	First Maintenance	0-10-10 0-10-10	700 lbs./ac. 700 lbs./ac. 4/	—
6. Temporary cover crops seeded alone	First	10-10-10	500 lbs./ac.	30 lbs./ac. 5/
7. Warm season grasses	First Second Maintenance	6-12-12 6-12-12 10-10-10	1500 lbs./ac. 800 lbs./ac. 400 lbs./ac.	50-100 lbs./ac. 2/6/ 50-100 lbs./ac. 2/ 30 lbs./ac.
8. Warm season grasses and legumes	First Second Maintenance	6-12-12 0-10-10 0-10-10	1500 lbs./ac. 1000 lbs./ac. 400 lbs./ac.	50 lbs./ac./6/

Ds3

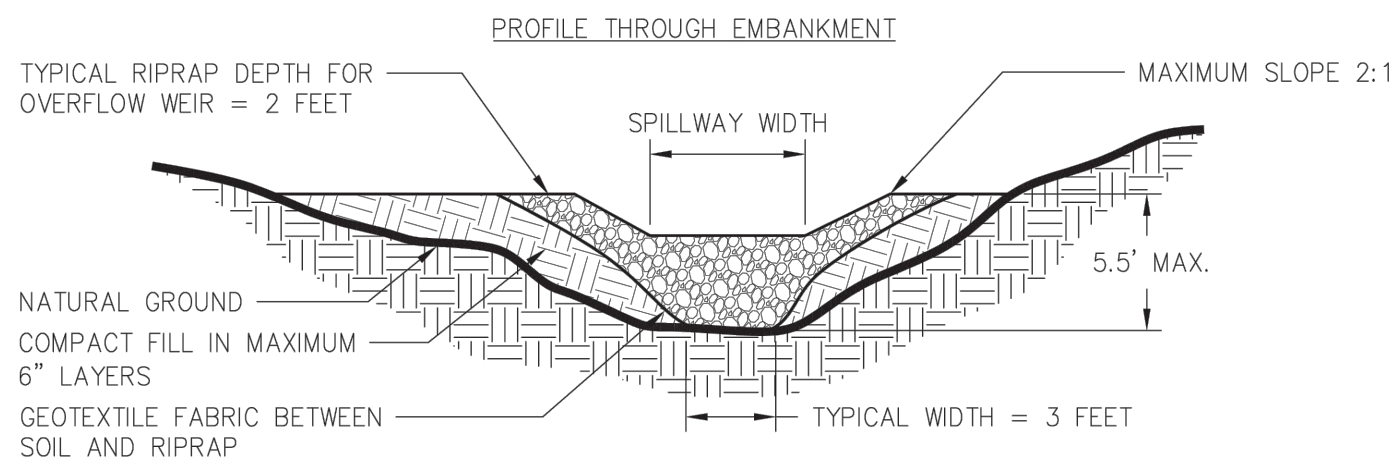
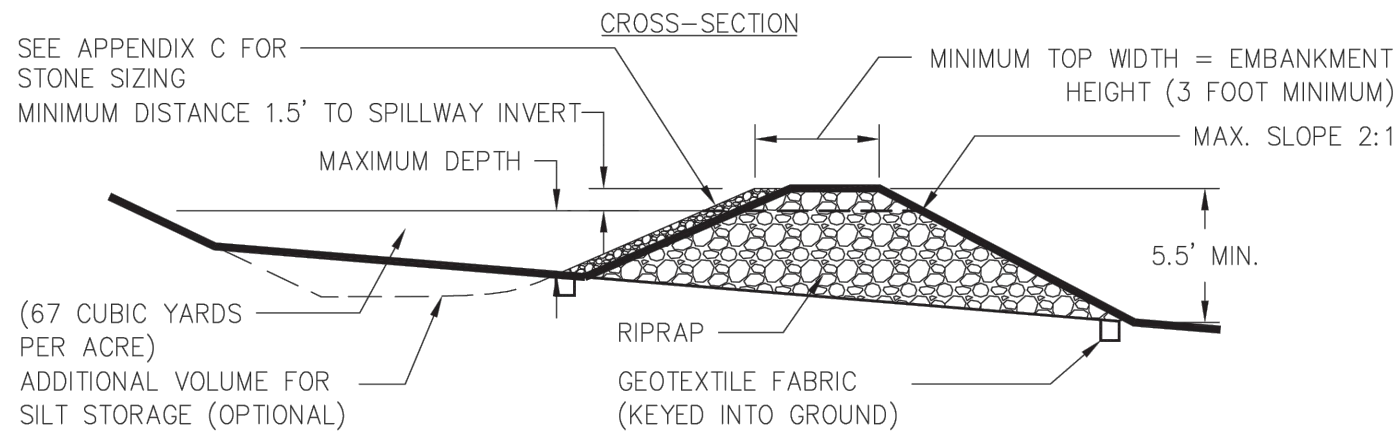
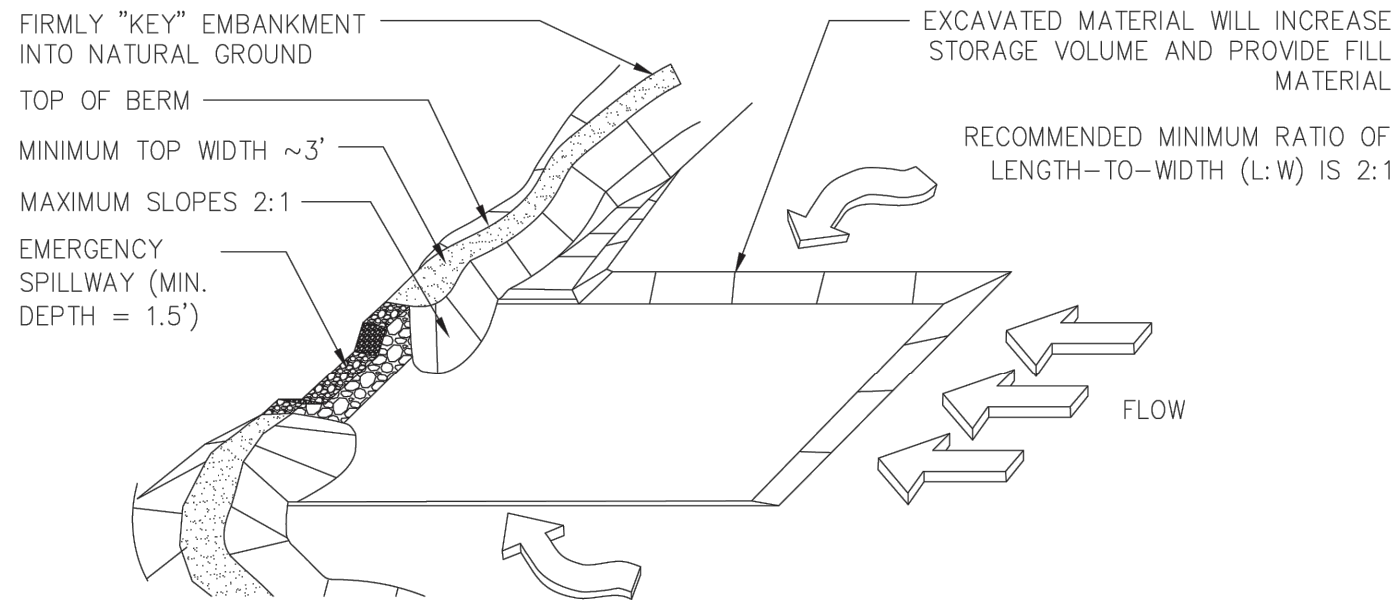
DETAIL
DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)



5	02/23/24	REVISED FOR GA EPD SUBMITTAL	JO	MI
4	08/12/22	REVISED FOR GA EPD SUBMITTAL	RN	MI
REV	DATE	DESCRIPTION	DRN	APP
Geosyntec consultants				
GEORGIA CERTIFICATION OF AUTHORIZATION (COA) NO. PEF000260, EXP. 06/30/2024 1255 ROBERTS BOULEVARD, N.W., SUITE 200 KENNESAW, GEORGIA 30144 USA PHONE: 678.202.9500				
TITLE: EROSION AND SEDIMENT CONTROL DETAILS II				
PROJECT: CRISP COUNTY POWER COMMISSION ASH POND AND SECONDARY ASH AREAS 1 AND 2 CLOSURE AND SITE RESTORATION				
SITE: PLANT CRISP WARWICK, GEORGIA				
		DESIGN BY: SH/OC	DATE: FEBRUARY 2024	
		DRAWN BY: RN/DJ	PROJECT NO.: GW 8836	
		CHECKED BY: SH/OC	FILE: GW6152.02-18	
		REVIEWED BY: JG	DRAWING NO.:	
		APPROVED BY: MI	18	

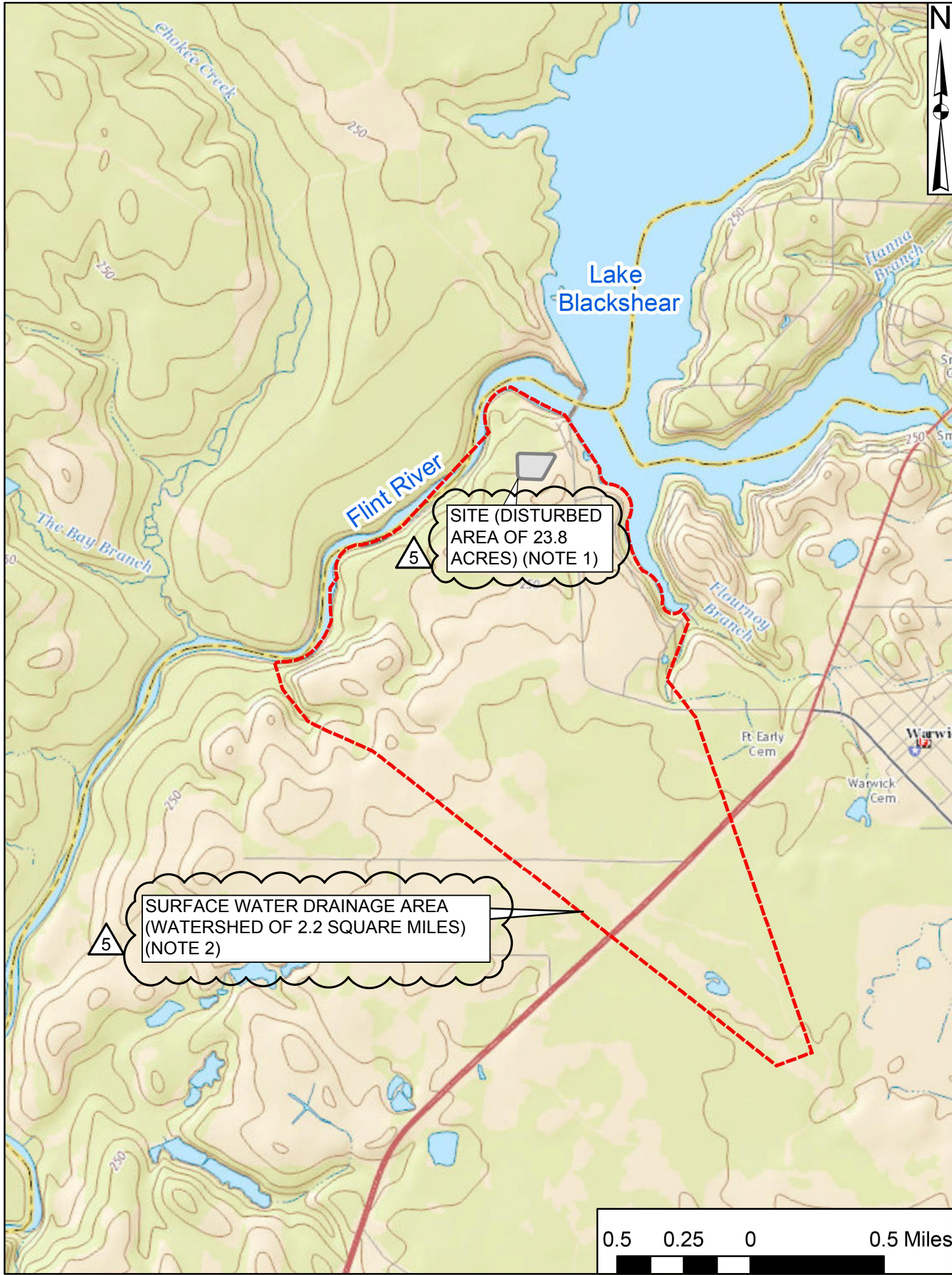
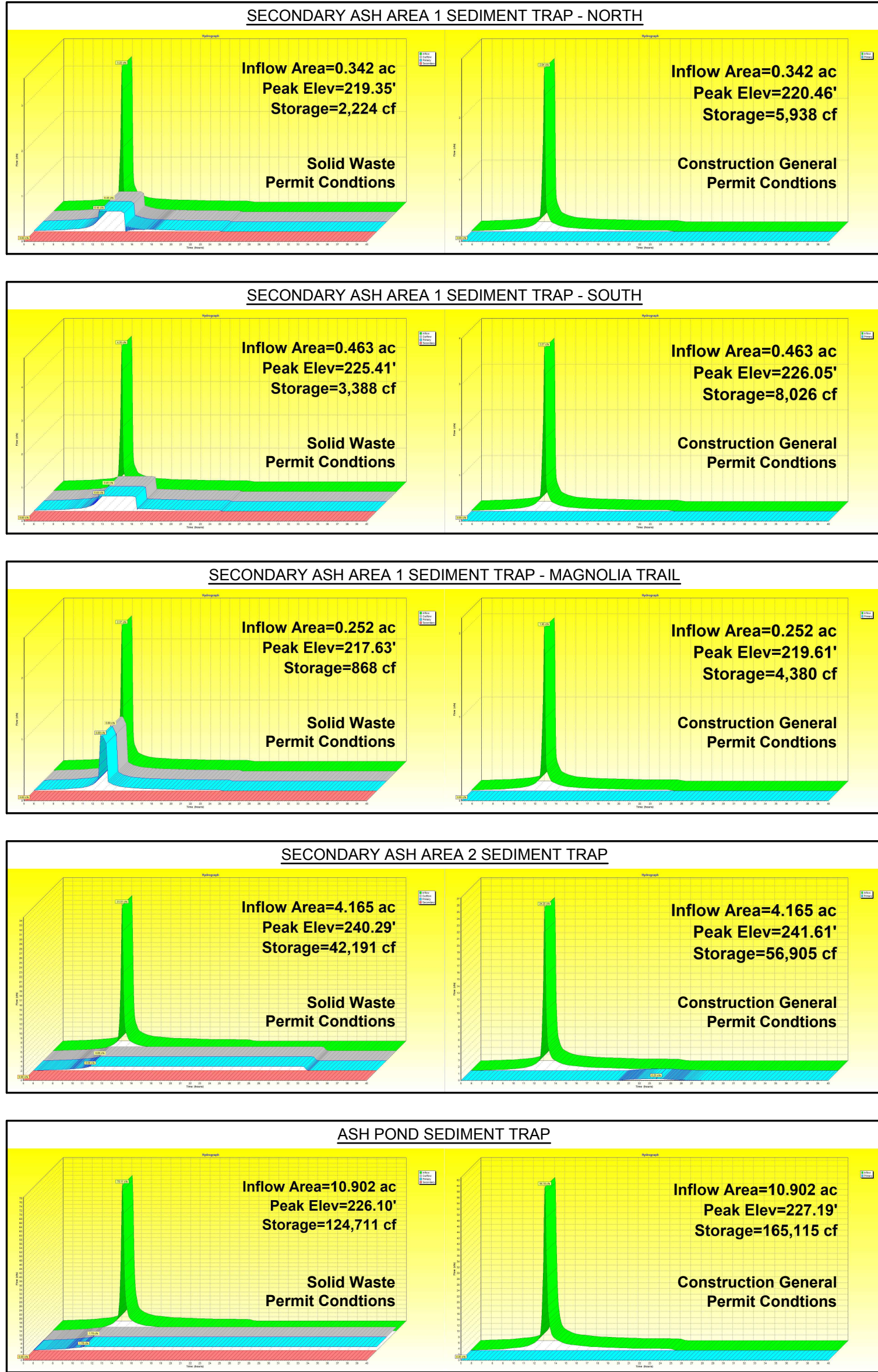
TEMPORARY SEDIMENT TRAP

COURTESY OF CITY OF KNOXVILLE BMP EROSION AND SEDIMENT
ROCK OUTLET



MAINTENANCE:

- CLEANOUT VOLUME SHALL BE 1/3 OF THE SEDIMENT STORAGE VOLUME.



WATERSHED MAP FOR NTU LIMITS AT SAMPLING POINTS

SCALE: AS SHOWN

NOTES:

- TOTAL DISTURBED AREA FOR THE PROJECT IS 23.8 ACRES. MAXIMUM DISTURBED AREA DRAINING TO THE TEMPORARY CONTAINMENT POND/SEDIMENT TRAP AT THE ASH POND IS 10.9 ACRES, AS SHOWN ON DRAWING 9. MAXIMUM DISTURBED AREA DRAINING TO THE TEMPORARY CONTAINMENT PONDS/SEDIMENT TRAPS AT SECONDARY ASH AREA 1 IS 1.01 ACRES, AS SHOWN ON DRAWING 12, AND MAXIMUM DISTURBED AREA DRAINING TO THE TEMPORARY CONTAINMENT POND/SEDIMENT TRAP AT SECONDARY ASH AREA 2 IS 4.17 ACRES, AS SHOWN ON DRAWING 11. OUTBOARD SLOPES OF THE BERMS AND THE CONSTRUCTION ROAD DO NOT DRAIN INTO THE TEMPORARY CONTAINMENT PONDS/SEDIMENT TRAPS AND WILL BE STABILIZED AS SOON AS PRACTICABLE. WHEN DISTURBED, SEDIMENT STORAGE FOR THESE AREAS IS PROVIDED BY THE PERIMETER SILT FENCE.
- SURFACE WATER DRAINAGE AREA CORRESPONDS TO THE OVERALL WATERSHED IN WHICH THE ASH POND AND SECONDARY ASH AREAS 1 AND 2 ARE LOCATED.

DESCRIPTION	UNITS	ASH POND SEDIMENT TRAP	SECONDARY ASH AREA 1 SEDIMENT TRAP - NORTH	SECONDARY ASH AREA 1 SEDIMENT TRAP - SOUTH	SECONDARY ASH AREA 1 SEDIMENT TRAP - MAGNOLIA TRAIL	SECONDARY ASH AREA 2 SEDIMENT TRAP
TOTAL DRAINAGE AREA	AC	10.9	0.34	0.46	0.25	4.17
MINIMUM REQUIRED STORAGE VOLUME	CY	730	23	31	17	279
LOWEST BOTTOM ELEVATION	FT	221.0	217.0	224.0	217.0	234.0
MINIMUM EMBANKMENT CREST ELEVATION	FT	229.0	223.0	231.0	221.0	242.0
MINIMUM DEPTH OF SEDIMENT TRAP	FT	8.0	6.0	7.0	4.0	8.0
AVAILABLE STORAGE VOLUME TO EMBANKMENT	CY	8,816	762	3,243	269	2,277
EMERGENCY SPILLWAY INVERT ELEVATION	FT	228.5	222.5	230.5	220.3	241.5
EMERGENCY SPILLWAY WIDTH	FT	15.0	3.0	3.0	5.9	3.00
SURFACE AREA AT EMERGENCY SPILLWAY INVERT	SF	41,161	6,714	18,527	2,084	11,597
CLEANOUT VOLUME	CY	2,939	254	1,081	90	759
CLEANOUT ELEVATION	FT	224.8	220.7	227.7	218.6	237.6
SOLID WASTE PERMIT CONDITIONS WITH PUMP DISCHARGE TO WWTS						
PUMP FLOW RATE	CFS	1.78	0.45	0.45	0.89	0.89
PEAK ELEVATION FOR 25-YR, 24-HR STORM EVENT	FT	226.1	219.4	225.4	217.6	240.3
PEAK DISCHARGE FROM EMERGENCY SPILLWAY FOR 25-YR, 24-HR STORM EVENT	CFS	0.0	0.0	0.0	0.0	0.0
STAGE ON EMERGENCY SPILLWAY FOR 25-YR, 24-HR STORM EVENT	FT	0.0	0.0	0.0	0.0	0.0
VELOCITY THROUGH EMERGENCY SPILLWAY FOR 25-YR, 24-HR STORM EVENT	FPS	0.0	0.0	0.0	0.0	0.0
MINIMUM EMERGENCY SPILLWAY RIPRAP SIZE	-	N.S.A. NO. R-1	N.S.A. NO. R-1	N.S.A. NO. R-1	N.S.A. NO. R-1	N.S.A. NO. R-1
CONSTRUCTION GENERAL PERMIT CONDITIONS WITH DIRECT DISCHARGE TO RECEIVING WATERS						
PEAK ELEVATION FOR 10-YR, 24-HR STORM EVENT	FT	227.2	220.5	226.1	219.6	241.6
PEAK DISCHARGE FROM EMERGENCY SPILLWAY FOR 10-YR, 24-HR STORM EVENT	CFS	0.0	0.0	0.0	0.0	0.25
STAGE ON EMERGENCY SPILLWAY FOR 10-YR, 24-HR STORM EVENT	FT	0.0	0.0	0.0	0.0	0.1
VELOCITY THROUGH EMERGENCY SPILLWAY FOR 10-YR, 24-HR STORM EVENT	FPS	0.0	0.0	0.0	0.0	0.8
MINIMUM EMERGENCY SPILLWAY RIPRAP SIZE	-	N.S.A. NO. R-1	N.S.A. NO. R-1	N.S.A. NO. R-1	N.S.A. NO. R-1	N.S.A. NO. R-1

Sd4-C

DETAIL

TEMPORARY SEDIMENT TRAP WITH ROCK OUTLET

SCALE: NTS

SOURCE: GEORGIA SOIL AND WATER CONSERVATION COMMISSION



ISSUED FOR PERMIT

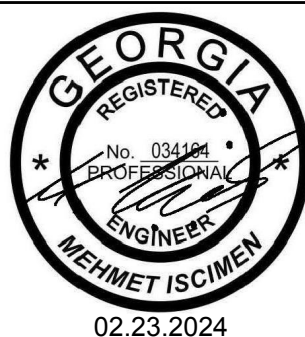
Geosyntec
consultants

GEORGIA CERTIFICATION OF AUTHORIZATION
(COA) NO. PEF000260, EXP. 06/30/2024
1255 ROBERTS BOULEVARD, N.W., SUITE 200
KENNESAW, GEORGIA 30144 USA
PHONE: 678.202.9500

TITLE: EROSION AND SEDIMENT CONTROL DETAILS III

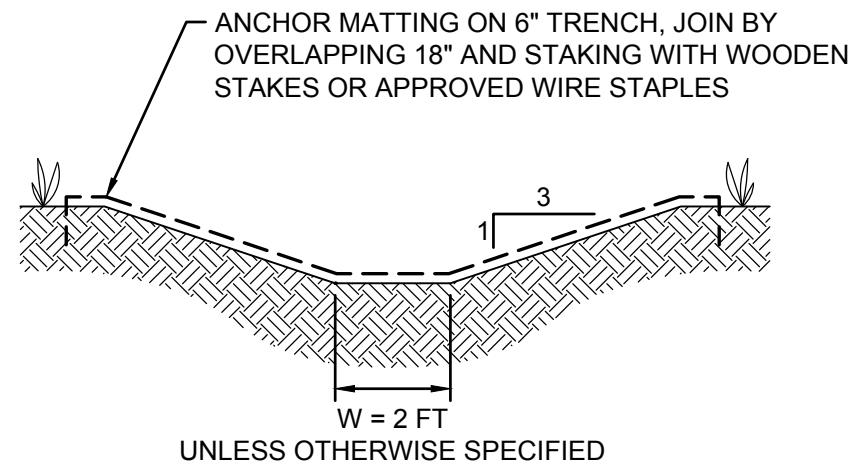
PROJECT: CRISP COUNTY POWER COMMISSION
ASH POND AND SECONDARY ASH AREAS 1 AND 2 CLOSURE AND SITE RESTORATION

SITE: PLANT CRISP
WARWICK, GEORGIA



DESIGN BY:	SH/OC	DATE:	FEBRUARY 2024
DRAWN BY:	RN/DJ	PROJECT NO.:	GW 8836
CHECKED BY:	SH/OC	FILE:	GW6152.02-19
REVIEWED BY:	JG	DRAWING NO.:	
APPROVED BY:	MI		

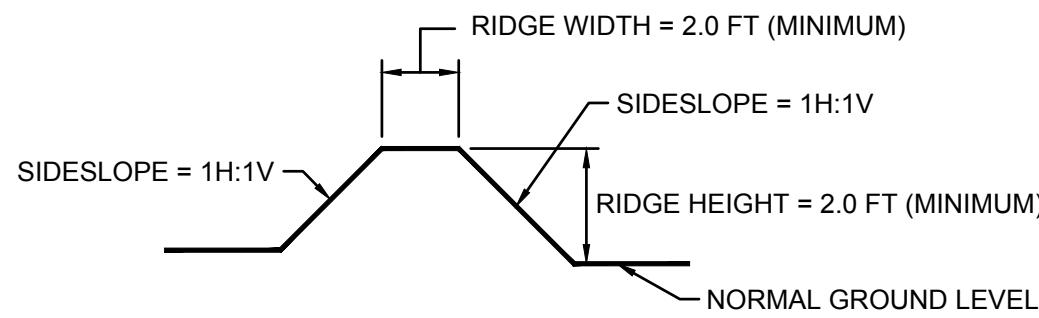
19



NOTE:

1. VEGETATION FOR STABILIZATION SHALL BE CHOSEN BASED ON THE DISTURBED AREA STABILIZATION WITH TEMPORARY SEEDING (Ds2) OR PERMANENT SEEDING (Ds3) PRESENTED HEREIN.

Ch **DETAIL**
CHANNEL STABILIZATION
SCALE: NTS



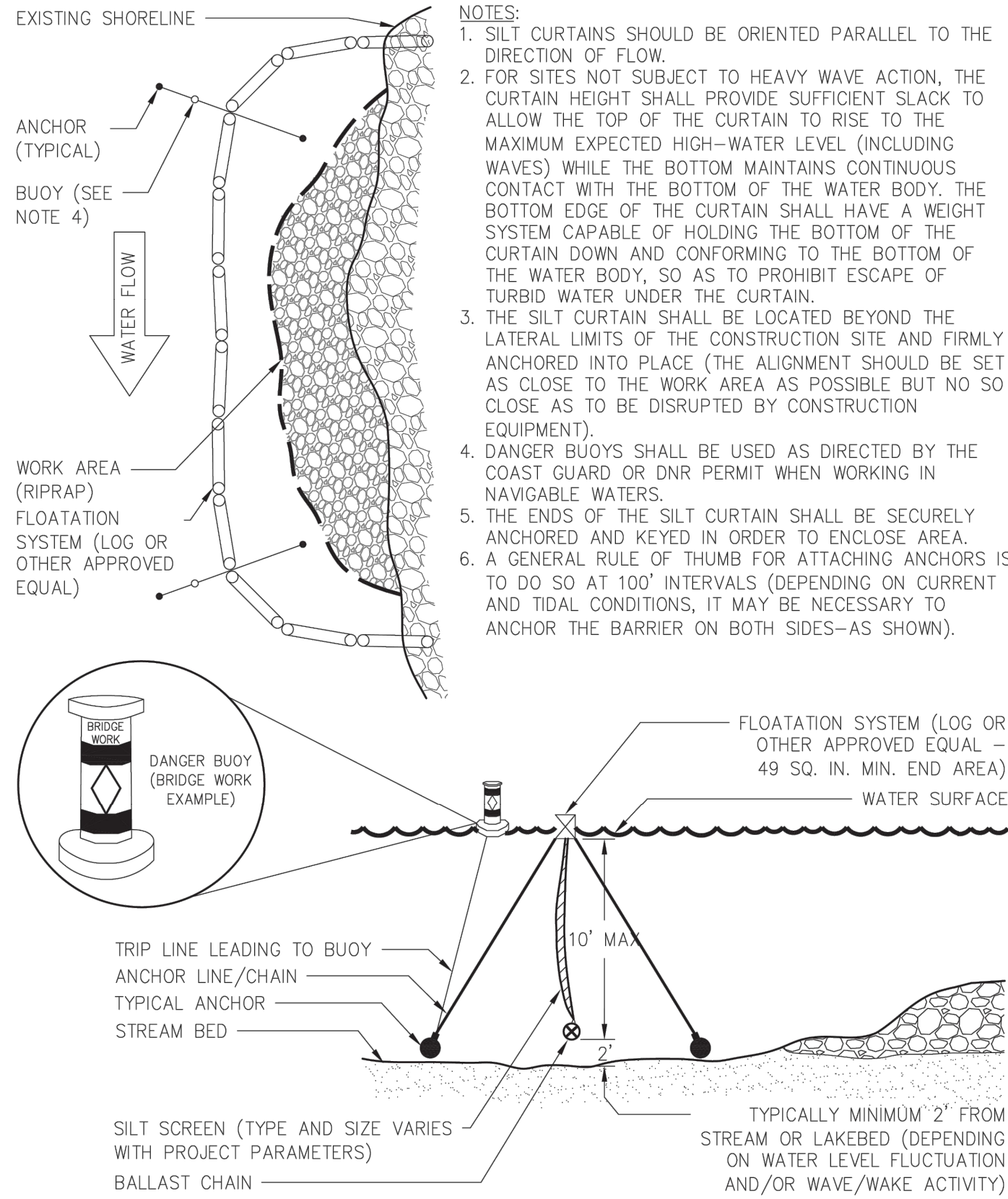
NOTE:

1. BERMS SHALL BE STABILIZED IN ACCORDANCE WITH CHANNEL STABILIZATION DETAIL.

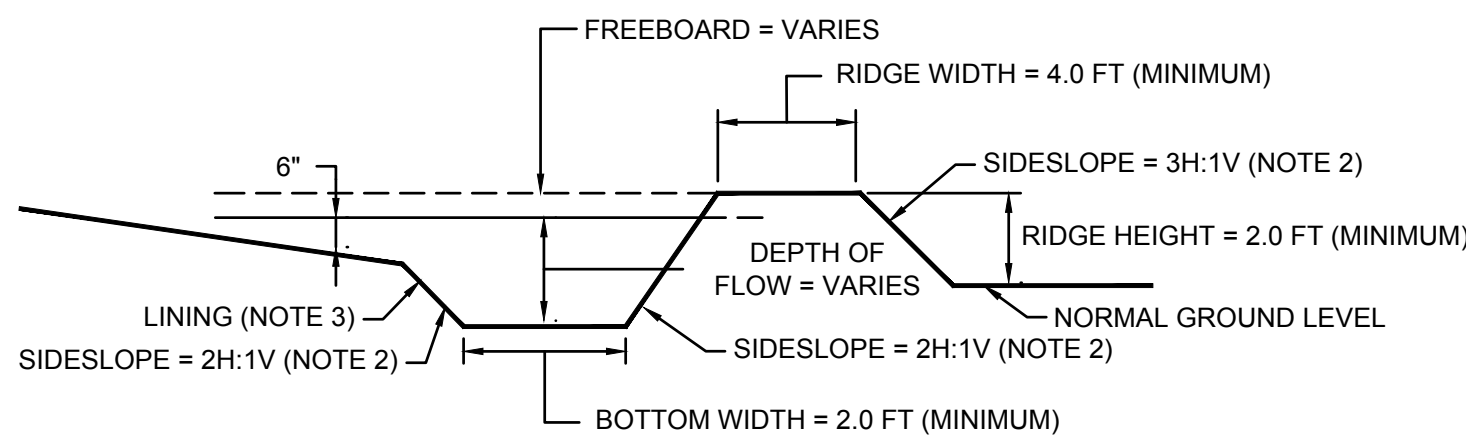
B **DETAIL**
BERM
SCALE: NTS

TEMPORARY CONTAINMENT POND/SEDIMENT TRAP LOCATION	EMERGENCY SPILLWAY ELEVATION (FT NAVD 88)
ASH POND	226.5 (INTERNAL SPILLWAY) 228.5 (EXTERNAL SPILLWAY)
SECONDARY ASH AREA 1 - NORTH	222.5
SECONDARY ASH AREA 1 - SOUTH	230.5
SECONDARY ASH AREA 1 - MAGNOLIA TRAIL	220.3
SECONDARY ASH AREA 2	241.5

8 **TABLE**
6 **EMERGENCY SPILLWAY**



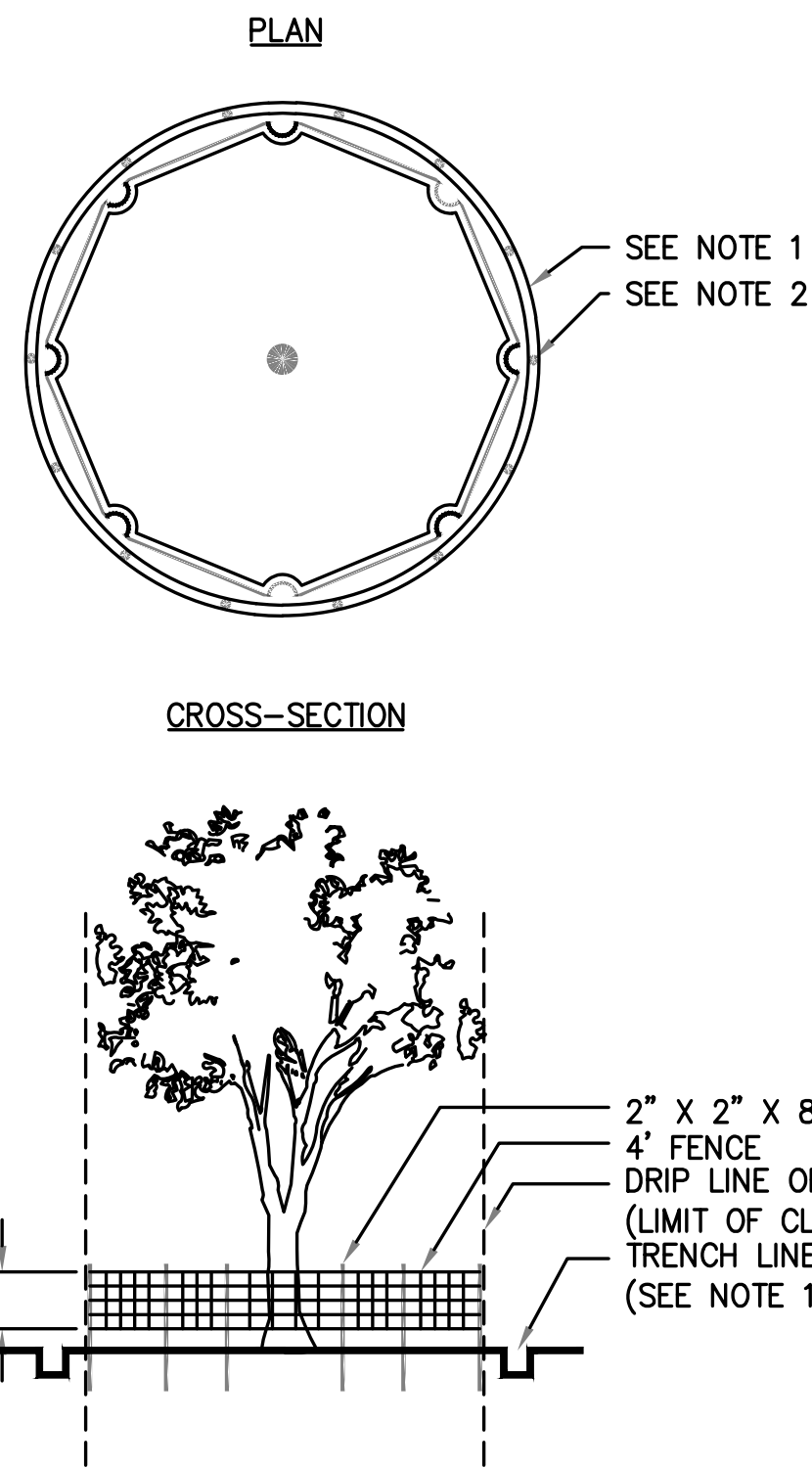
Tc-F **DETAIL**
FLOATING TURBIDITY CURTAIN
SCALE: NTS
SOURCE: GEORGIA SOIL AND WATER CONSERVATION COMMISSION



NOTES:

1. DIVERSIONS SHALL BE CONSTRUCTED TO MEET DESIGN CRITERIA IDENTIFIED WITHIN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA (GSWCC).
2. SIDE SLOPES SHALL NOT BE STEEPER THAN 2H:1V.
3. DIVERSIONS SHALL BE STABILIZED IN ACCORDANCE WITH CHANNEL STABILIZATION DETAIL.

Di **DETAIL**
DIVERSION
SCALE: NTS
SOURCE: GEORGIA SOIL AND WATER CONSERVATION COMMISSION



NOTES:

1. USE TRENCHER (I.E. DITCH WITCH) TO CUT A 4"-5"W X 18"D TRENCH ALONG DRIP LINE (LIMIT OF CLEARING) AND BACKFILL WITH SAND AND LIGHTLY COMPACT.
2. SPACE STAKES AT INTERVALS SUFFICIENT TO MAINTAIN ALL FENCING OUT OF DRIP LINE OR AS SHOWN BY ENGINEER (SET STAKES NO GREATER THAN 6 FEET ON CENTER - REBAR IS NOT TO BE USED FOR STAKES).
3. MAINTAIN FENCE BY REPAIRING AND/OR REPLACING DAMAGED FENCE. DO NOT REMOVE FENCING PRIOR TO LANDSCAPING OPERATIONS.
4. DO NOT STORE OR STACK MATERIALS, EQUIPMENT, OR VEHICLES WITHIN FENCED AREA.
5. FENCE SHALL BE ORANGE VINYL "SNOW FENCE" 4' HIGH MINIMUM.

Tr **DETAIL**
TREE PROTECTION
SCALE: NTS
SOURCE: GEORGIA SOIL AND WATER CONSERVATION COMMISSION



ISSUED FOR PERMIT

5	02.23.24	REVISED FOR GA EPD SUBMITTAL	JO	MI
4	08.12.22	REVISED FOR GA EPD SUBMITTAL	RN	MI
REV	DATE	DESCRIPTION	DRN	APP
Geosyntec consultants				
GEORGIA CERTIFICATION OF AUTHORIZATION (COA) NO. PEF000260, EXP. 06/30/2024 1255 ROBERTS BOULEVARD, N.W., SUITE 200 KENNESAW, GEORGIA 30144 USA PHONE: 678.202.9500				
TITLE: EROSION AND SEDIMENT CONTROL DETAILS IV				
PROJECT: CRISP COUNTY POWER COMMISSION ASH POND AND SECONDARY ASH AREAS 1 AND 2 CLOSURE AND SITE RESTORATION				
SITE: PLANT CRISP WARWICK, GEORGIA				
DESIGN BY: SH/OC		DATE: FEBRUARY 2024		
DRAWN BY: RN/DJ		PROJECT NO.: GW 8836		
CHECKED BY: SH/OC		FILE: GW6152.02-20		
REVIEWED BY: JG		DRAWING NO.:		
APPROVED BY: MI		20		
02.23.2024				