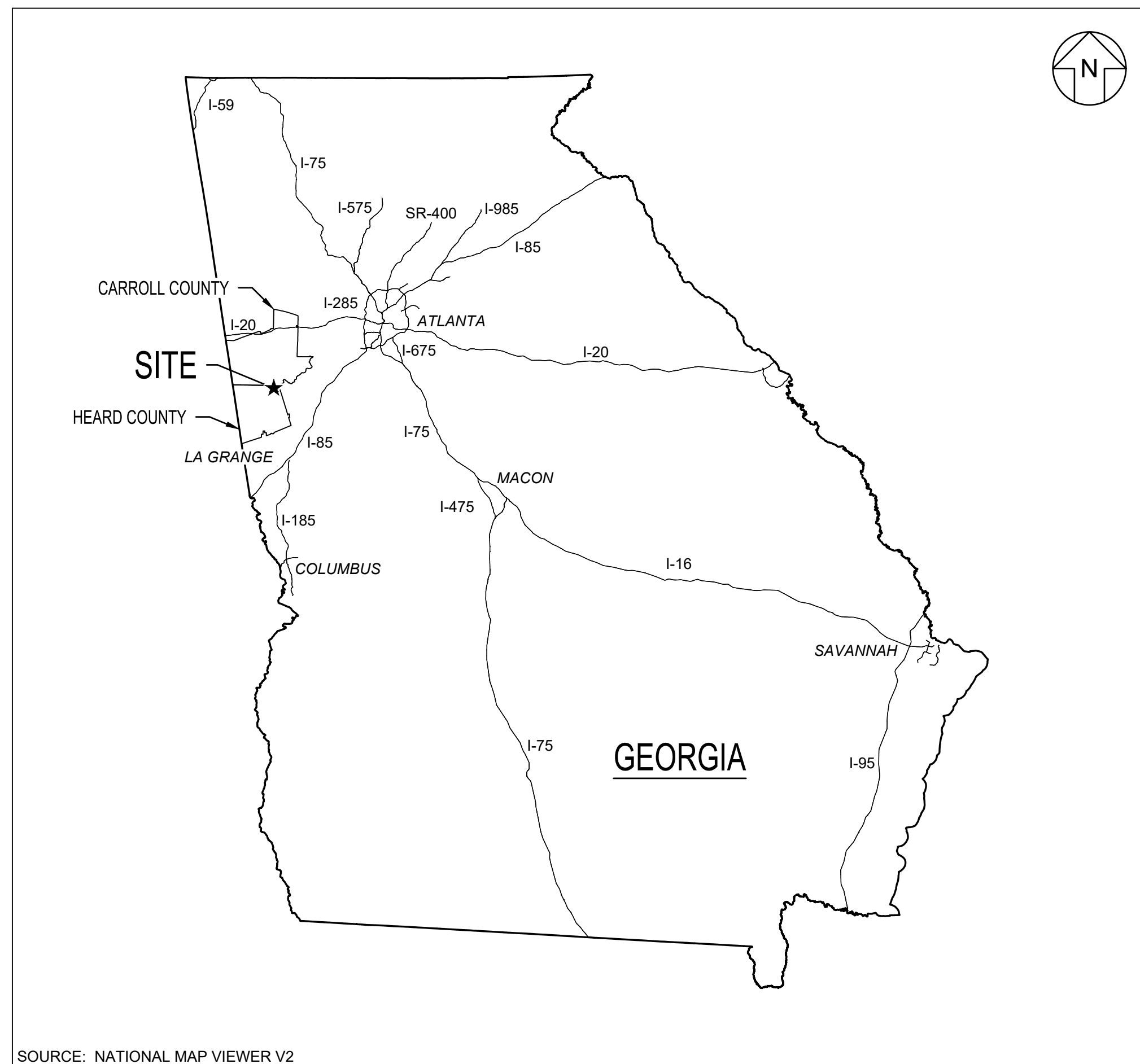


PLANT WANSLEY ASH POND 1 CLOSURE BY REMOVAL

HEARD AND CARROLL COUNTIES, GEORGIA

CCR PERMIT DRAWINGS

MARCH 2023



LOCATION MAP
SCALE: NTS

LIST OF SHEETS	
DRAWING NO	DRAWING TITLE
01	COVER SHEET
02	LEGENDS, SYMBOLS, AND ABBREVIATIONS
03	PROPERTY BOUNDARY SURVEY AND LEGAL DESCRIPTION
04	SITE GROUNDWATER MONITORING PLAN
05	EXISTING SITE CONDITIONS - TOPOGRAPHY AND AP-1 BATHYMETRY
06	CCR REMOVAL PLAN - OVERVIEW
07	CCR REMOVAL PLAN - I
08	CCR REMOVAL PLAN - II
09	CCR REMOVAL PLAN - III
10	CCR REMOVAL PLAN - IV
11	CCR REMOVAL PLAN - V
12	SITE RESTORATION GRADING PLAN
13	SEPARATOR DIKE PLAN
14	SITE SECTIONS - I
15	SITE SECTIONS - II
16	SEPARATOR DIKE SECTIONS
17	CONSTRUCTION SEQUENCING PLAN - I
18	CONSTRUCTION SEQUENCING PLAN - II
19	FINAL STORMWATER AND ESC PLAN
20	STORMWATER AND ESC DETAILS - I
21	STORMWATER AND ESC DETAILS - II
22	STORMWATER AND ESC DETAILS - III



VICINITY MAP
SCALE: 1" = 2,000'

PREPARED FOR:



GEORGIA POWER ENVIRONMENTAL AFFAIRS
241 RALPH MCGILL BOULEVARD NE
ATLANTA, GEORGIA 30308-3374
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EMAIL: GPCENV@SOUTHERNCO.COM

PHYSICAL SITE ADDRESS:
PLANT WANSLEY
1371 LIBERTY CHURCH ROAD
CARROLLTON, GA 30116

PREPARED BY:



1255 ROBERTS BOULEVARD NW, SUITE 200
KENNESAW, GEORGIA 30144-3694
TELEPHONE: 678.202.9500



1	03.10.23	CCR PERMIT DRAWINGS	DLJ	JMG
REV	DATE	DESCRIPTION	DRN	APP
COVER SHEET				
PLANT WANSLEY ASH POND CLOSURE BY REMOVAL HEARD AND CARROLL COUNTIES, GEORGIA				
Geosyntec consultants				
1255 ROBERTS BOULEVARD, NW, SUITE 200 KENNESAW, GEORGIA 30144 USA			PHONE: 678.202.9500 WWW.GEOSYNTEC.COM	
PROJ. NO.	GW9155	DWG. GW7306.13-C01	EDIT	3/7/23
SCALE	AS SHOWN		DRAWING 01 OF 22	
DATE	MARCH 2023			

LINETYPE LEGEND

EXISTING		PROPOSED FINAL
	BATHYMETRY	
	BAFFLE WALL	
	BOTTOM OF CCR	
	BOTTOM OF NATIVE SOIL (SAPROLITE)	
	BOTTOM OF PARTIALLY WEATHERED ROCK	
	FENCE	
	FINISHED GRADE	
	GEOMEMBRANE	
	GEOTEXTILE SEPARATOR/CUSHION	
	LIMIT OF EXISTING CCR	
	LIMIT OF WATER SURFACE	
	OVERHEAD POWER TRANSMISSION LINES	
	PERMIT BOUNDARY	
	PROPERTY BOUNDARY	
	POTENTIOMETRIC SURFACE	
	RAILROAD	
	SURFACE WATER PIPE	
	TURBIDITY CURTAIN	

HATCH PATTERN LEGEND

SYMBOL	COMPONENT
	CCR
	CONCRETE
	CONTRACTOR LAY DOWN AREA
	DEEP SOIL MIX ZONE
	HYDROSEED
	PROTECTIVE SOIL LAYER
	RIPRAP
	RIPRAP - SEEPAGE BERM
	SAND
	WATER SURFACE

ABBREVIATIONS

%	PERCENT OR PERCENTILE
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
AC	ACRES
AP-1	ASH POND 1
APP	APPROVED BY
APPROX	APPROXIMATE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
BMP	BEST MANAGEMENT PRACTICE
CCR	COAL COMBUSTION RESIDUALS
CQA	CONSTRUCTION QUALITY ASSURANCE
¢	CENTERLINE
DIA	DIAMETER
DRN	DRAWN BY
DWG	DRAWING
E	EASTING
E.G.	FOR EXAMPLE
EL	ELEVATION
FT	FEET
GA EPD	GEORGIA ENVIRONMENTAL PROTECTION DIVISION
GDOT	GEORGIA DEPARTMENT OF TRANSPORTATION
GPC	GEORGIA POWER COMPANY
GSWCC	GEORGIA SOIL AND WATER CONSERVATION COMMISSION
H:V	HORIZONTAL TO VERTICAL LENGTH RATIO FOR A SLOPE
HDPE	HIGH DENSITY POLYETHYLENE
HECP	HYDRAULIC EROSION CONTROL PRODUCTS
I.E.	THAT IS
ID	IDENTIFIER
IN.	INCH
INV	INVERT
LBS	POUNDS
LLDPE	LINEAR LOW DENSITY POLYETHYLENE
LOD	LIMITS OF DISTURBANCE
MAX	MAXIMUM
MIL	ONE-THOUSANDTH OF AN INCH
MIN	MINIMUM
N	NITROGEN / NORTH / NORTHING
NAD83	NORTH AMERICAN DATUM OF 1983
NAVD88	NORTH AMERICAN VERTICAL DATUM OF 1988
NO.	NUMBER
NPDES	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
N-P-K	NITROGEN-PHOSPHORUS-POTASSIUM
NSA	NATIONAL STONE ASSOCIATION
NTS	NOT TO SCALE
NW	NORTHWEST
OC	ON CENTER
PC	PERIMETER CHANNEL
PPM	PARTS PER MILLION
PROJ	PROJECT
PWR	PARTIALLY WEATHERED ROCK
PZ	PIEZOMETER
RECP	ROLLED EROSION CONTROL PRODUCTS
REV	REVISION
SCS	SOUTHERN COMPANY SERVICES
SF	SILT FENCE
SQ FT	SQUARE FEET
STA	STATION
TYP	TYPICAL
W.S.	WATER SURFACE

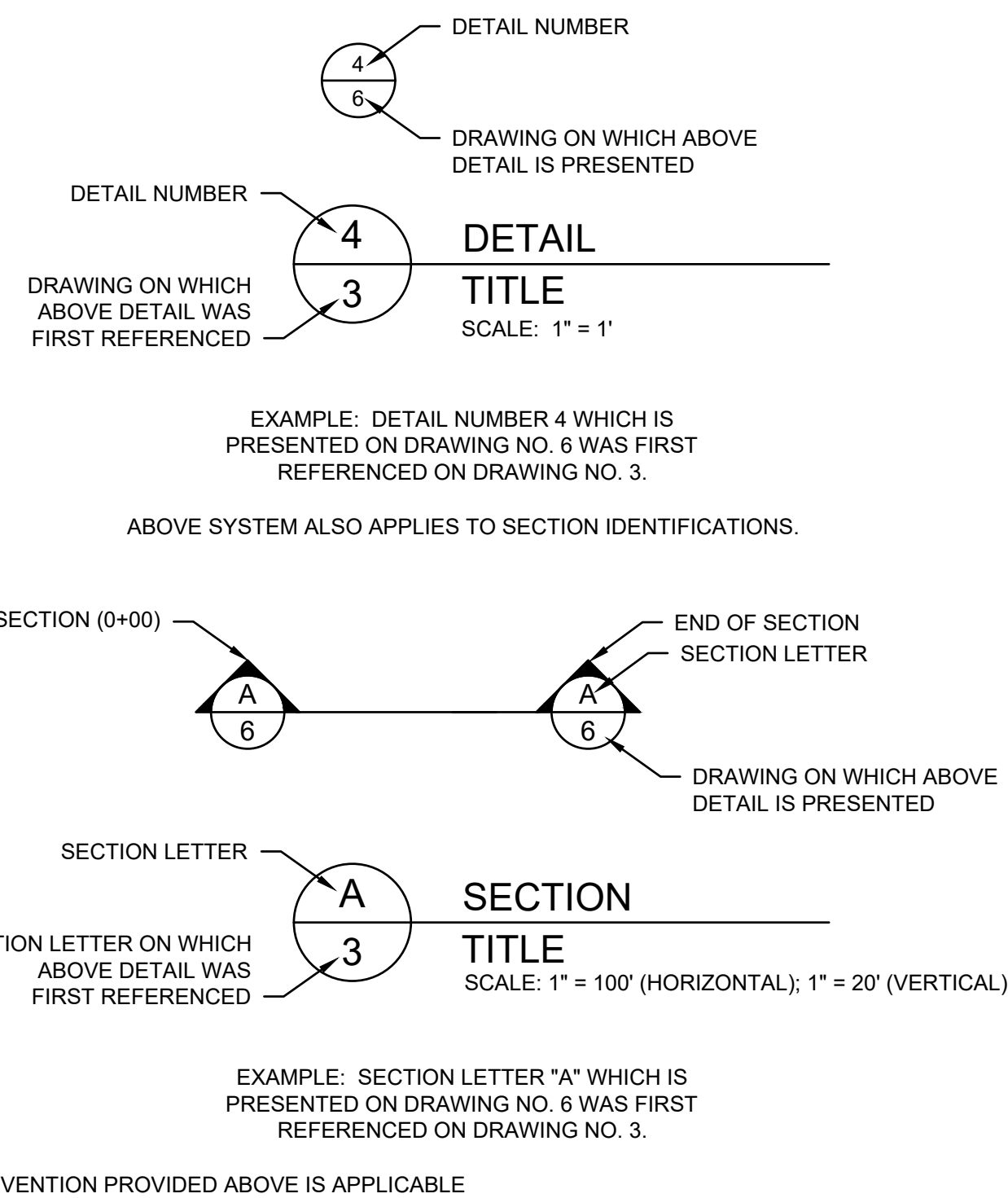
REFERENCE NOTES

- GENERAL NOTES:
- GRID COORDINATE SYSTEM CORRESPONDS TO NAD83, GEORGIA WEST ZONE.
 - ELEVATIONS PRESENTED ARE IN FEET, NAVD88.
 - TOPOGRAPHY (I.E., EXISTING GROUND CONTOURS) WAS OBTAINED BY LIDAR SURVEY. BATHYMETRY (I.E., BOTTOM OF POND CONTOURS) WAS OBTAINED BY MULTIBEAM HYDROGRAPHIC SURVEY COMPLETED IN AUGUST 2019. BOTH SURVEYS WERE COMPLETED AND PROVIDED BY ARC SURVEYING AND MAPPING IN NOVEMBER 2019.
 - BATHYMETRY REFLECTS THE CONDITIONS AT THE TIME OF THE SURVEY AND MAY NOT REFLECT CURRENT CONDITIONS.
 - PLANIMETRIC FEATURES AND PROPERTY BOUNDARY ARE APPROXIMATE AND WERE OBTAINED FROM ELECTRONIC FILES PROVIDED BY SCS IN NOVEMBER 2016.
 - THE LATERAL LIMIT OF CCR IS APPROXIMATE BASED ON DRAWINGS PROVIDED BY SCS AND FIELD DISCUSSIONS WITH PLANT WANSLEY STAFF. FIELD VERIFICATION OF THE ACTUAL LIMIT OF CCR DURING CONSTRUCTION WILL BE REQUIRED.
 - THE LATERAL LIMIT OF WATER SURFACE WITHIN AP-1 IS BASED ON A POOL ELEVATION OF 781.5 FT, WHICH MAY FLUCTUATE WITH SEASONAL VARIATIONS.
 - THE BOTTOM OF CCR SURFACE WAS APPROXIMATED BASED ON A TOPOGRAPHIC SURVEY, PERFORMED FOLLOWING THE CONSTRUCTION OF THE SEPARATOR DIKE AND PRIOR TO RECEIPT OF CCR IN THE SURFACE IMPOUNDMENT (SHEET G-10023, DATED 01 MARCH 1976, PROVIDED BY SCS). IN AREAS WHERE THE POST-CONSTRUCTION TOPOGRAPHIC SURFACE IS ABOVE THE 2019 BATHYMETRIC SURFACE, THE BOTTOM OF CCR SURFACE WAS ASSUMED TO BE THE ELEVATION OF THE BATHYMETRIC SURFACE. GEOTECHNICAL DATA FROM 24 BORINGS COLLECTED BY GEOSYNTEC IN SPRING 2017 AND 30 CPTS COLLECTED BY GEOSYNTEC IN SPRING 2019 ALONG THE PROPOSED CONTAINMENT STRUCTURE ALIGNMENT WERE INTEGRATED INTO THE BOTTOM OF CCR SURFACE. BOTTOM OF CCR IS TO BE FIELD VERIFIED WITHIN THE CLOSURE BY REMOVAL AREA.
 - TOP OF EXISTING CCR WAS ASSUMED AS THE BATHYMETRIC SURFACE IN AREAS COVERED BY WATER AND AS EXISTING GROUND IN DRY AREAS.
 - SUBGRADE SURFACES (NATIVE SOIL, PWR, AND ROCK) WERE DEVELOPED FROM HISTORICAL BORINGS AND SITE DATA: (I) COLLECTED BY GEOSYNTEC CONSULTANTS IN 2016, 2017, AND 2019; AND (II) PROVIDED BY SCS IN 2016.
 - NO WORK SHALL SIGNIFICANTLY IMPACT THE EXISTING SEPARATOR DIKE BETWEEN AP-1 AND THE STORAGE WATER POND.
 - DEWATERING OF CCR DURING CLOSURE CONSTRUCTION WILL BE PERFORMED IN ACCORDANCE WITH THE ASH POND WATER MANAGEMENT PLAN (SECTION 3 OF PART B WITHIN THIS PERMIT APPLICATION).
 - CONTACT WATER FROM AP-1 DURING CLOSURE CONSTRUCTION WILL BE TREATED PRIOR TO DISCHARGE THROUGH THE NPDES OUTFALL TO MEET SPECIFICATIONS PROVIDED IN THE ASH POND DEWATERING PLAN, NPDES PERMIT NO. GA0026778, WHICH WAS APPROVED BY GA EPD ON NOVEMBER 29, 2021.
 - DUST CONTROL WILL BE MANAGED AS SPECIFIED IN THE FUGITIVE DUST CONTROL PLAN SECTION OF THE CLOSURE PLAN (SECTION 7 OF PART A WITHIN THIS PERMIT APPLICATION).
 - PERMIT BOUNDARY WAS DEVELOPED BY ESTABLISHING A MINIMUM 200-FT OFFSET UPGRADIENT OF AP-1, WHICH INCORPORATES ALL DOWNGRADIENT MONITORING WELLS, AND GENERALLY FOLLOWS THE PLANT ROAD ALONG THE SOUTH SIDE OF AP-1.
 - MONITORING WELL AND PIEZOMETER COORDINATES WERE OBTAINED FROM THE GROUNDWATER MONITORING PLAN (SECTION 6 OF PART A WITHIN THIS PERMIT APPLICATION).
 - ACCESS ROADS, ACCESS RAMPS, AND ASSOCIATED STORMWATER FEATURES WILL BE EVALUATED AS PART OF THE DETAILED DESIGN.

SYMBOL LEGEND

EXISTING		PROPOSED FINAL
	FREE WATER SURFACE	
	WGWC-11 MONITORING WELL - ASSESSMENT	
	WGWC-11 MONITORING WELL - DOWNGRADIENT	
	WGWA-7 MONITORING WELL - UPGRADIENT	
	PZ-4 PIEZOMETER	
	SLOPE GRADE	
	SLOPE INDICATOR	
	SLOPE LABEL	
	TRAILER OR BUILDING	
	VEGETATION	
	WATER FLOW DIRECTION	

DETAIL AND SECTION IDENTIFICATION LEGEND



CONTOUR LEGEND

EXISTING		PROPOSED
	400	BATHYMETRIC ELEVATION (FEET)
	750	EXISTING GROUND ELEVATION (FEET)
	430	FINISHED GRADE ELEVATION (FEET)

REV	DATE	DESCRIPTION	DRN	APP
1	03.10.23	CCR PERMIT DRAWINGS	DLJ	JMG

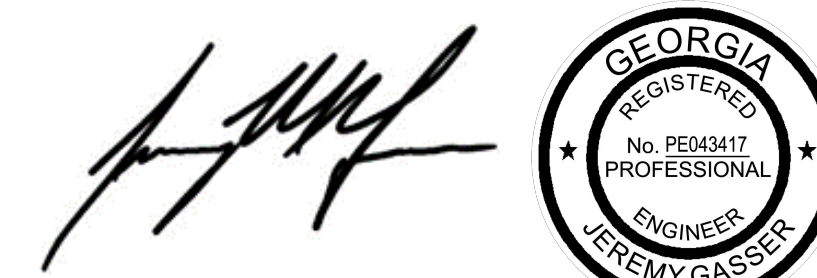
LEGENDS, SYMBOLS, AND ABBREVIATIONS

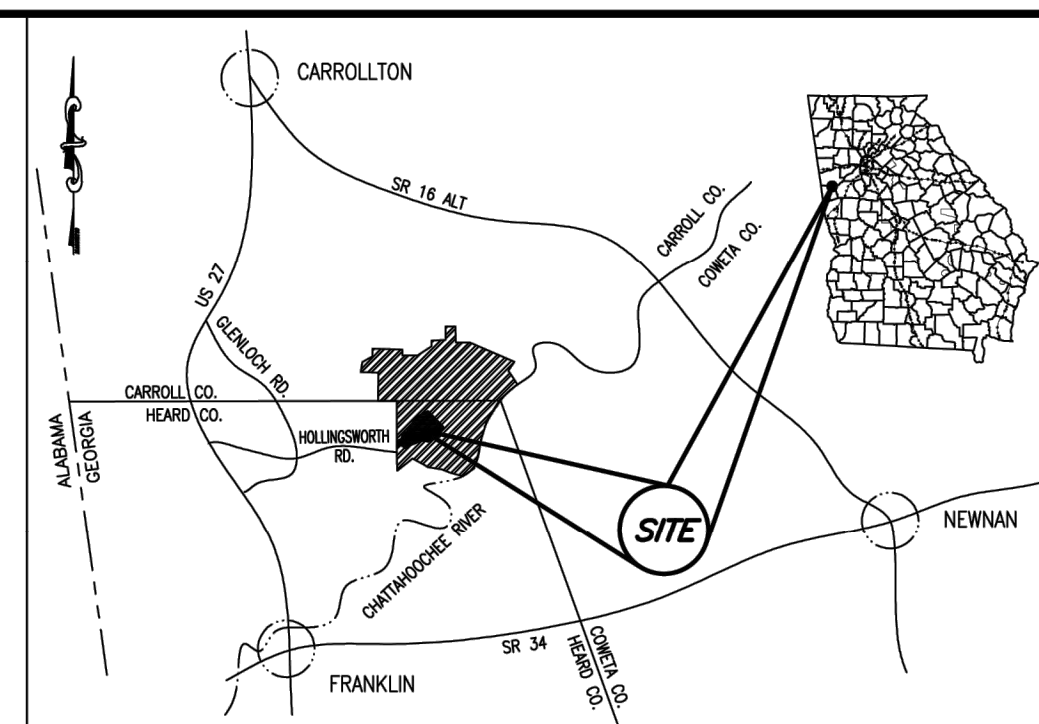
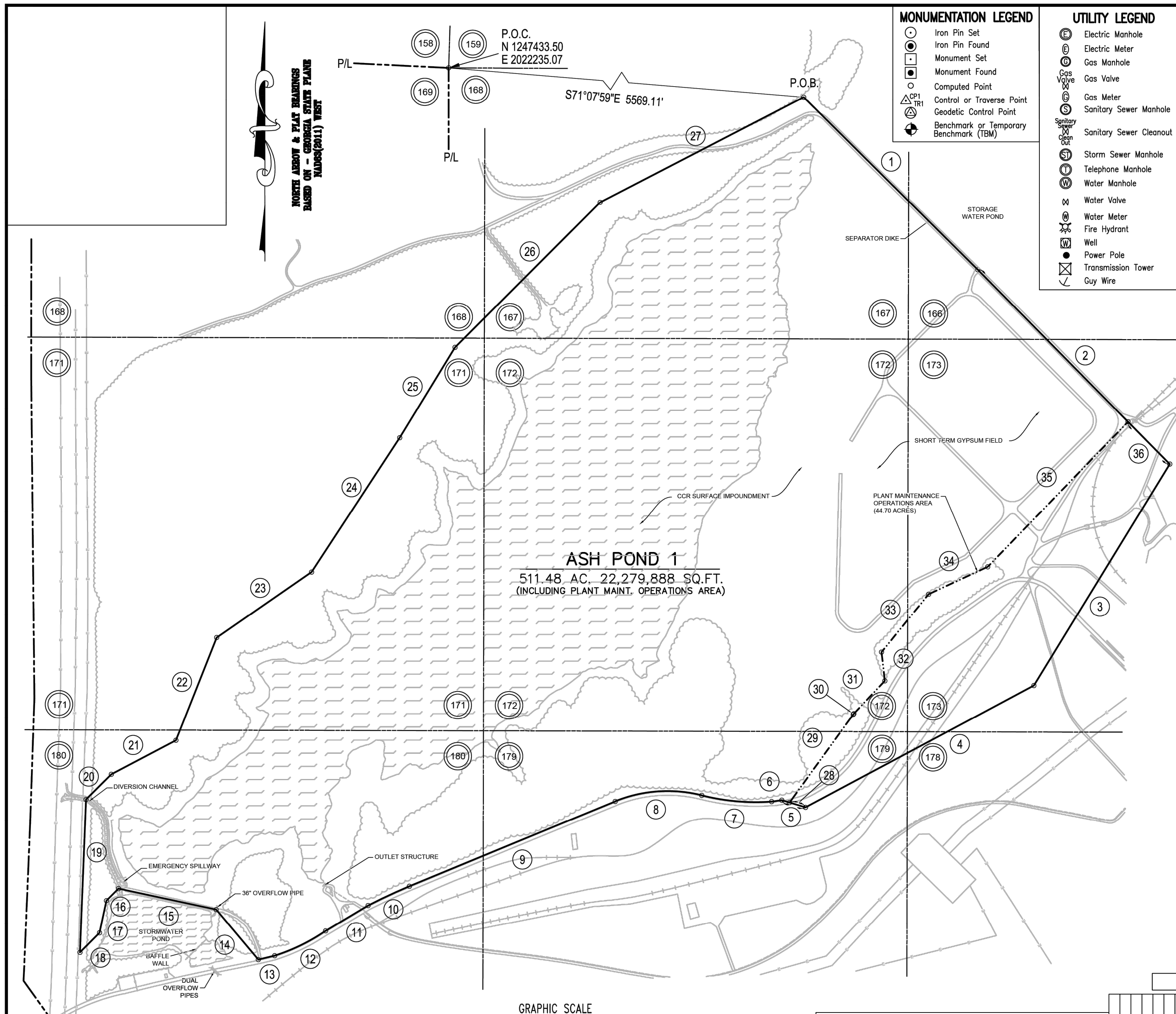
PLANT WANSLEY ASH POND CLOSURE BY REMOVAL
HEARD AND CARROLL COUNTIES, GEORGIA

Geosyntec
consultants

Georgia
Power

1255 ROBERTS BOULEVARD, NW, SUITE 200 KENNESAW, GEORGIA 30144 USA	PHONE: 678.202.8500 WWW.GEOSYNTEC.COM
PROJ. NO. GW9155	DWG. GW7306.13-C02
SCALE AS SHOWN	EDIT 3/7/23
DATE MARCH 2023	DRAWING 02 OF 22





REFERENCES - GPC DRAWINGS:

- GW 6372-004
- GW 6372-X010
- GW 6372-X011
- GW 6372-X015
- GW 6372-X023
- GW 6372-X030
- GW 6372-X054

MONUMENTATION LEGEND:

- Iron Pin Set
- Iron Pin Found
- Monument Set
- Monument Found
- Computed Point
- Control or Traverse Point
- Geodetic Control Point
- Benchmark or Temporary Benchmark (TBM)

UTILITY LEGEND:

- Electric Manhole
- Electric Meter
- Gas Manhole
- Gas Valve
- Gas Meter
- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- Storm Sewer Manhole
- Telephone Manhole
- Water Manhole
- Water Valve
- Water Meter
- Fire Hydrant
- Well
- Power Pole
- Transmission Tower
- Guy Wire

PLAT ABBREVIATIONS:

- MF - Map File No.
- N.T.S. - Not to Scale
- P.O.C. - Point of Commencement
- P.O.B. - Point of Beginning
- CGH - Geotechnical Bore Hole
- UGT - Underground Power
- OHU - Overhead Utilities
- GPC - Georgia Power Company
- Land Lot
- Land Lot Line
- Open Water / Ash Pond

Plant Wansley Ash Pond 1 Call Table

Course	Bearing	Distance	Arc	Radius
1	S 45°15'06" E	1872.89'		
2	S 44°38'02" E	1864.39'		
3	S 31°32'22" W	1773.10'		
4	S 61°51'36" W	1767.17'		
5	N 73°08'24" W	169.47'		
6	S 82°10'14" W	70.19'		
7	N 84°54'34" W	478.68'	480.70'	1511.09'
8	S 85°59'30" W	592.38'	602.47'	947.69'
9	S 67°34'27" W	1519.55'		
10	S 65°01'46" W	310.76'	310.83'	4332.68'
11	S 59°04'48" W	668.39'		
12	S 64°01'22" W	386.54'	387.93'	1320.98'
13	S 76°34'49" W	114.84'		
14	N 40°04'42" W	446.67'		
15	N 77°50'46" W	681.68'		
16	S 45°00'00" W	116.35'		
17	S 12°09'14" W	225.07'		
18	S 45°00'00" W	188.93'		
19	N 02°16'55" E	1045.84'		
20	N 45°04'24" E	243.29'		
21	N 62°11'18" E	498.70'		
22	N 21°37'19" E	754.92'		
23	N 55°23'23" E	786.67'		
24	N 33°17'46" E	1096.72'		
25	N 31°28'36" E	722.89'		
26	N 45°01'42" E	401.06'		
27	N 62°41'02" E	1563.49'		
28	N 73°08'24" W	114.06'		
29	N 35°43'58" E	743.44'		
30	N 39°33'31" E	6.61'	6.62'	50.00'
31	N 43°21'04" E	308.09'		
32	N 06°32'55" W	197.31'		
33	N 39°06'30" E	509.33'		
34	N 69°09'15" E	444.46'		
35	N 44°03'50" E	1377.22'		
36	S 44°38'02" E	405.33'		

SURVEY CLOSURE STATEMENT

The Field Data upon which this plot is based has a closure precision of one foot in N/A feet, and an angular error of N/A per angle point, and was adjusted using N/A method.

This plot has been calculated for closure and is found to be accurate within one foot in 955.334 feet.

Linear Measurement obtained using N/A
 Angular Measurement obtained using N/A
 Field Work completed N/A

NOTE: BACKGROUND IMPROVEMENTS PER GPC DRAWINGS GW 6372-X015 & GW 6372-X053

F.I.R.M. FLOOD NOTE:
 THIS PROPERTY IS LOCATED IN A 100 YR. F.I.R.M. FLOODPLAIN, (BY GRAPHIC PLOTTING ONLY) ACCORDING TO F.I.R.M. FLOOD MAP OF HEARD COUNTY, GA. COMMUNITY-PANEL NO. 13149C0070 D, DATED APRIL 19, 2017.

SURVEYOR: WILLIAM J. DANIEL III
 P.L.S. #2257
 LOWE ENGINEERS LLC
 990 HAMMOND DRIVE, SUITE 900
 ATLANTA, GA 30328
 PHONE (770) 857-8400

I hereby certify that this survey has been prepared in conformity with the Technical Standards for Property Surveys in Georgia as set forth in Chapter 150-2 on the Rules of the Georgia Board of Registration for Professional Engineers and Land Surveyors and as set forth in the Georgia Plat Act O.C.G.A. 15-6-67.

And further certify that according to Georgia Code Section 15-6-67(d), this plat is not required to be reviewed by any local governing authorities prior to recording. Per said section, "no approval shall be required if no new streets or roads are created or no new utility improvements are required or no new sanitary sewer or approval of a septic tank is required." No such improvements are required herein.

Date: September 6, 2018

PATH - T:\Working2\Ash\Wansley\20180906_CCR Permit Boundary Survey - AP1

GEORGIA POWER CO., ATLANTA, GA.
Land Department

Boundary Survey For:
CCR Permitted Lands - Plant Wansley
Ash Pond 1

LAND LOTS 166, 167, 168, 171, 172, 173, 178, 179, & 180, 4TH DISTRICT, HEARD COUNTY, GEORGIA

DR.	TR.	Checked
DE	TR.	WHB
SCALE 1" = 500'		
DATE 11.01.2018		
DRAWING NUMBER		
P467		
SHEET 1 OF 1		

LEGAL DESCRIPTION

PLANT WANSLEY - CCR PERMITTED LANDS - MAINTENANCE AREA

ALL THAT PARCEL OR TRACT OF LAND LYING AND BEING IN LAND LOTS 172, 173, 178, AND 179 OF THE 4TH DISTRICT, HEARD COUNTY, GEORGIA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

TO FIND THE POINT OF BEGINNING, COMMENCE AT A POINT, HAVING GEORGIA STATE PLANE, WEST ZONE, NAD83 COORDINATES OF: N 1245632.61 AND E 2027504.96; THENCE RUNNING SOUTH 45 DEGREES 16 MINUTES 06 SECONDS EAST A DISTANCE OF 1864.39 FEET TO A POINT; THENCE RUNNING SOUTH 31 DEGREES 32 MINUTES 22 SECONDS WEST A DISTANCE OF 1773.10 FEET TO A POINT; THENCE RUNNING SOUTH 61 DEGREES 51 MINUTES 36 SECONDS WEST A DISTANCE OF 1767.17 FEET TO A POINT; THENCE RUNNING NORTH 73 DEGREES 08 MINUTES 24 SECONDS WEST A DISTANCE OF 114.06 FEET TO A POINT; THENCE RUNNING NORTH 35 DEGREES 45 MINUTES 58 SECONDS EAST A DISTANCE OF 743.44 FEET TO A POINT; THENCE RUNNING ALONG A CURVE TO THE RIGHT AN ARC DISTANCE OF 480.70 FEET (SAID ARC HAVING A RADIUS OF 1511.09 FEET AND BEING SUBTENDED BY A CHORD 478.68 FEET IN LENGTH LYING TO THE NORTH OF SAID ARC AND BEARING NORTH 84 DEGREES 54 MINUTES 34 SECONDS WEST) TO A POINT; THENCE RUNNING ALONG A CURVE TO THE LEFT AN ARC DISTANCE OF 602.47 FEET (SAID ARC HAVING A RADIUS OF 947.69 FEET AND BEING SUBTENDED BY A CHORD 592.38 FEET IN LENGTH LYING TO THE SOUTH OF SAID ARC AND BEARING SOUTH 85 DEGREES 59 MINUTES 30 SECONDS WEST) TO A POINT; THENCE RUNNING SOUTH 67 DEGREES 34 MINUTES 49 SECONDS WEST A DISTANCE OF 114.84 FEET TO A POINT; THENCE RUNNING SOUTH 77 DEGREES 50 MINUTES 46 SECONDS WEST A DISTANCE OF 681.68 FEET TO A POINT; THENCE RUNNING SOUTH 45 DEGREES 00 MINUTES 00 SECONDS WEST A DISTANCE OF 116.35 FEET TO A POINT; THENCE RUNNING SOUTH 12 DEGREES 09 MINUTES 14 SECONDS WEST A DISTANCE OF 225.07 FEET TO A POINT; THENCE RUNNING SOUTH 45 DEGREES 00 MINUTES 00 SECONDS WEST A DISTANCE OF 188.93 FEET TO A POINT; THENCE RUNNING NORTH 02 DEGREES 16 MINUTES 55 SECONDS EAST A DISTANCE OF 1045.84 FEET TO A POINT; THENCE RUNNING NORTH 45 DEGREES 04 MINUTES 24 SECONDS EAST A DISTANCE OF 243.29 FEET TO A POINT; THENCE RUNNING NORTH 62 DEGREES 11 MINUTES 18 SECONDS EAST A DISTANCE OF 498.70 FEET TO A POINT; THENCE RUNNING NORTH 21 DEGREES 37 MINUTES 19 SECONDS EAST A DISTANCE OF 754.92 FEET TO A POINT; THENCE RUNNING NORTH 55 DEGREES 23 MINUTES 23 SECONDS EAST A DISTANCE OF 786.67 FEET TO A POINT; THENCE RUNNING NORTH 33 DEGREES 17 MINUTES 46 SECONDS EAST A DISTANCE OF 1096.72 FEET TO A POINT; THENCE RUNNING NORTH 31 DEGREES 26 MINUTES 36 SECONDS EAST A DISTANCE OF 722.89 FEET TO A POINT; THENCE RUNNING NORTH 45 DEGREES 01 MINUTES 42 SECONDS EAST A DISTANCE OF 1401.06 FEET TO A POINT; THENCE RUNNING NORTH 62 DEGREES 41 MINUTES 02 SECONDS EAST A DISTANCE OF 1563.49 FEET TO A POINT AND THE POINT OF BEGINNING; SAID TRACT CONTAINS 44.70 ACRES (1,947,155 SQUARE FEET).

LEGAL DESCRIPTION

PLANT WANSLEY - CCR PERMITTED LANDS - ASH POND 1

ALL THAT PARCEL OR TRACT OF LAND LYING AND BEING IN LAND LOTS 166, 167, 168, 171, 172, 173, 178, 179 AND 180 OF THE 4TH DISTRICT, HEARD COUNTY, GEORGIA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

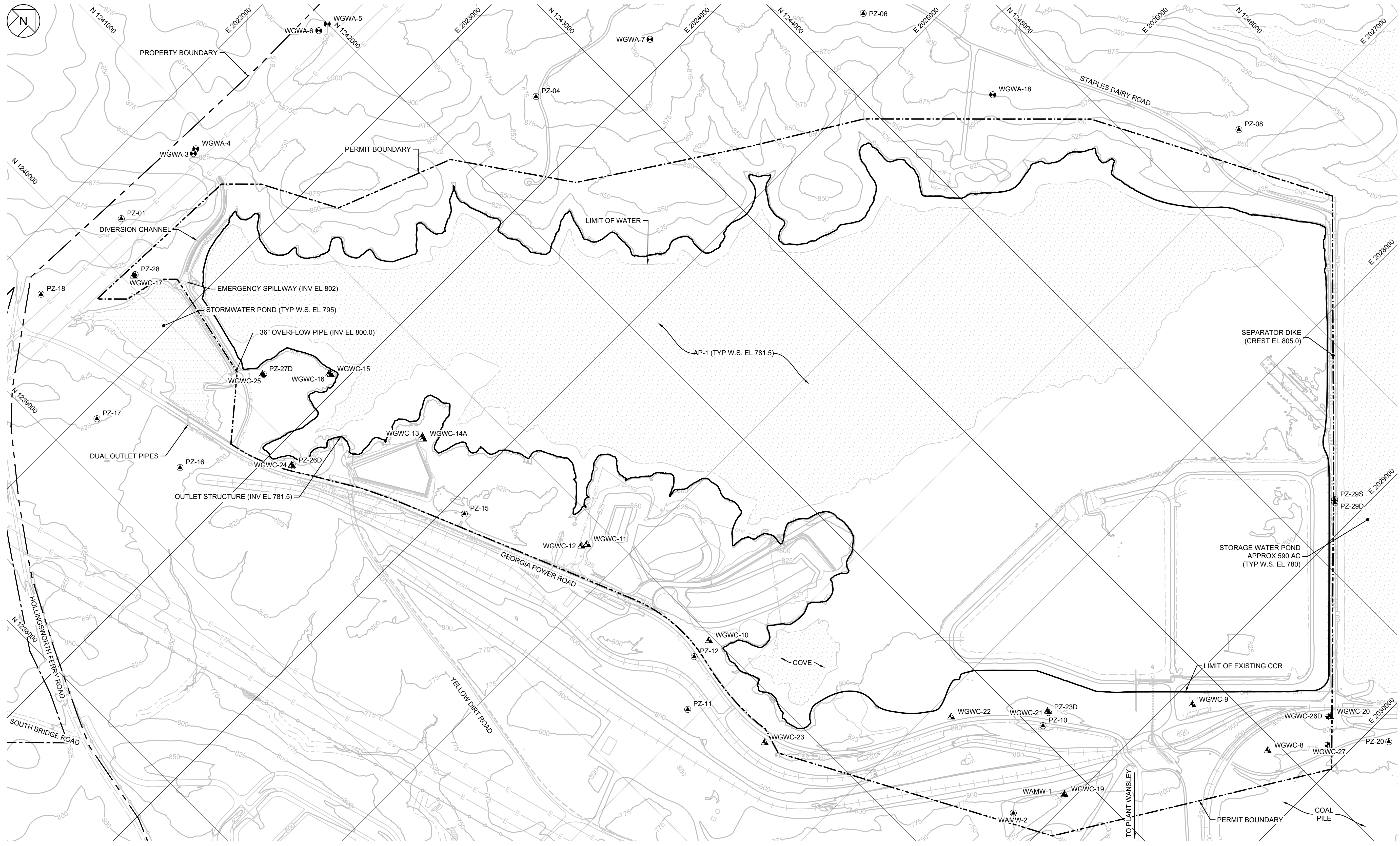
TO FIND THE POINT OF BEGINNING, COMMENCE AT THE CORNER COMMON TO LAND LOTS 158, 159, 168 AND 169, HAVING GEORGIA STATE PLANE, WEST ZONE, NAD83 COORDINATES OF: N 1247433.50 AND E 2022235.07; THENCE RUNNING SOUTH 71 DEGREES 07 MINUTES 59 SECONDS EAST A DISTANCE OF 5569.11 FEET TO A POINT AND THE POINT OF BEGINNING;

THENCE RUNNING SOUTH 45 DEGREES 16 MINUTES 06 SECONDS EAST A DISTANCE OF 1864.39 FEET TO A POINT; THENCE RUNNING SOUTH 31 DEGREES 32 MINUTES 22 SECONDS WEST A DISTANCE OF 1773.10 FEET TO A POINT; THENCE RUNNING SOUTH 61 DEGREES 51 MINUTES 36 SECONDS WEST A DISTANCE OF 1767.17 FEET TO A POINT; THENCE RUNNING NORTH 73 DEGREES 08 MINUTES 24 SECONDS WEST A DISTANCE OF 114.06 FEET TO A POINT; THENCE RUNNING ALONG A CURVE TO THE RIGHT AN ARC DISTANCE OF 480.70 FEET (SAID ARC HAVING A RADIUS OF 1511.09 FEET AND BEING SUBTENDED BY A CHORD 478.68 FEET IN LENGTH LYING TO THE NORTH OF SAID ARC AND BEARING NORTH 84 DEGREES 54 MINUTES 34 SECONDS WEST) TO A POINT; THENCE RUNNING ALONG A CURVE TO THE LEFT AN ARC DISTANCE OF 602.47 FEET (SAID ARC HAVING A RADIUS OF 947.69 FEET AND BEING SUBTENDED BY A CHORD 592.38 FEET IN LENGTH LYING TO THE SOUTH OF SAID ARC AND BEARING SOUTH 85 DEGREES 59 MINUTES 30 SECONDS WEST) TO A POINT; THENCE RUNNING SOUTH 67 DEGREES 34 MINUTES 49 SECONDS WEST A DISTANCE OF 114.84 FEET TO A POINT; THENCE RUNNING SOUTH 77 DEGREES 50 MINUTES 46 SECONDS WEST A DISTANCE OF 681.68 FEET TO A POINT; THENCE RUNNING SOUTH 45 DEGREES 00 MINUTES 00 SECONDS WEST A DISTANCE OF 116.35 FEET TO A POINT; THENCE RUNNING SOUTH 12 DEGREES 09 MINUTES 14 SECONDS WEST A DISTANCE OF 225.07 FEET TO A POINT; THENCE RUNNING SOUTH 45 DEGREES 00 MINUTES 00 SECONDS WEST A DISTANCE OF 188.93 FEET TO A POINT; THENCE RUNNING NORTH 02 DEGREES 16 MINUTES 55 SECONDS EAST A DISTANCE OF 1045.84 FEET TO A POINT; THENCE RUNNING NORTH 45 DEGREES 04 MINUTES 24 SECONDS EAST A DISTANCE OF 243.29 FEET TO A POINT; THENCE RUNNING NORTH 62 DEGREES 11 MINUTES 18 SECONDS EAST A DISTANCE OF 498.70 FEET TO A POINT; THENCE RUNNING NORTH 21 DEGREES 37 MINUTES 19 SECONDS EAST A DISTANCE OF 754.92 FEET TO A POINT; THENCE RUNNING NORTH 55 DEGREES 23 MINUTES 23 SECONDS EAST A DISTANCE OF 786.67 FEET TO A POINT; THENCE RUNNING NORTH 33 DEGREES 17 MINUTES 46 SECONDS EAST A DISTANCE OF 1096.72 FEET TO A POINT; THENCE RUNNING NORTH 31 DEGREES 26 MINUTES 36 SECONDS EAST A DISTANCE OF 722.89 FEET TO A POINT; THENCE RUNNING NORTH 45 DEGREES 01 MINUTES 42 SECONDS EAST A DISTANCE OF 1401.06 FEET TO A POINT; THENCE RUNNING NORTH 62 DEGREES 41 MINUTES 02 SECONDS EAST A DISTANCE OF 1563.49 FEET TO A POINT AND THE POINT OF BEGINNING;

SAID TRACT CONTAINS 511.48 ACRES (22,279,888 SQUARE FEET).

1	03.10.23	CCR PERMIT DRAWINGS	DLJ	JMG
REV	DATE	DESCRIPTION	DRN	APP
PROPERTY BOUNDARY SURVEY AND LEGAL DESCRIPTION				
PLANT WANSLEY ASH POND CLOSURE BY REMOVAL HEARD AND CARROLL COUNTIES, GEORGIA				
Geosyntec consultants			Georgia Power	
1255 ROBERTS BOULEVARD, NW, SUITE 200 KENNESAW, GEORGIA 30144 USA			PHONE: 678.202.8500 WWW.GEOSYNTEC.COM	
PROJ. NO.	GW9155	DWG.	GW7306.13-C03	EDIT
SCALE	AS SHOWN	DRAWING 03 OF 22		
DATE	MARCH 2023			

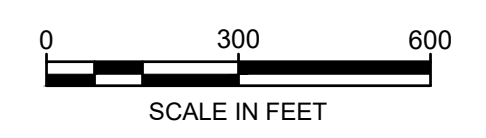
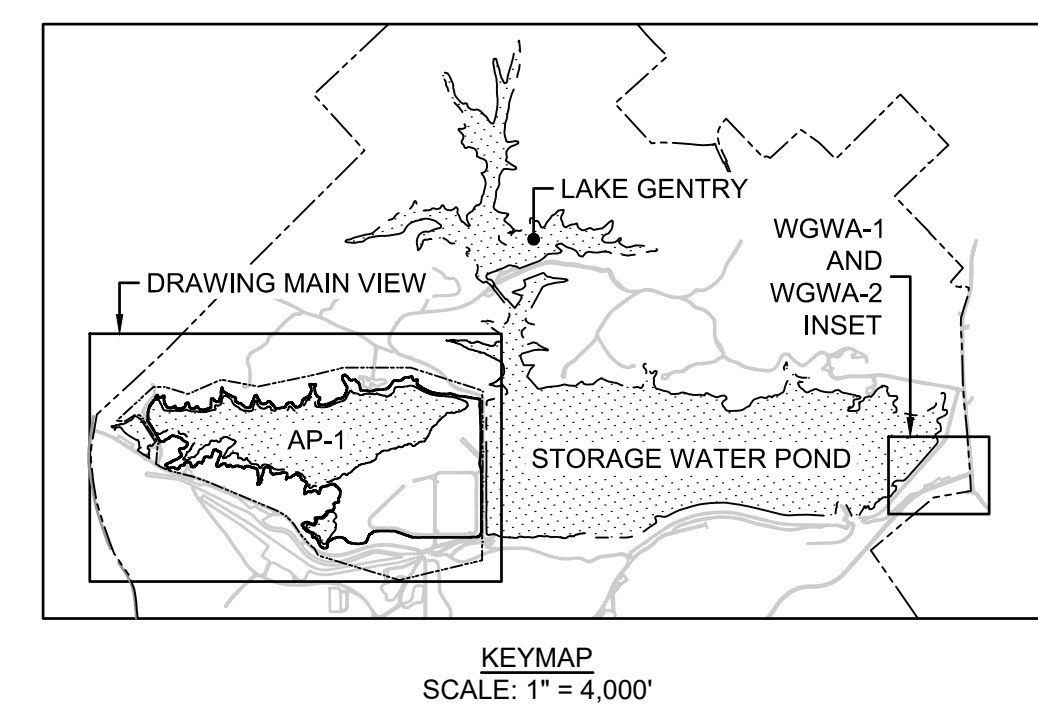
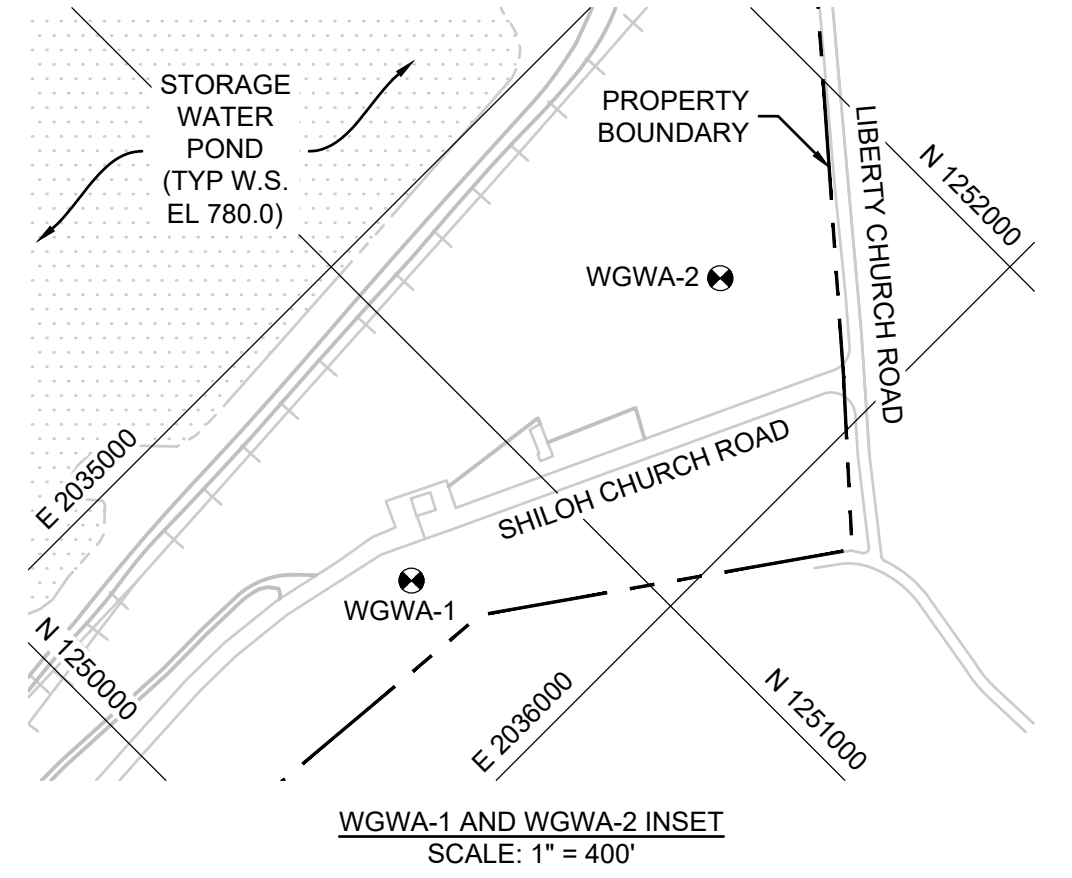
C:\GEP\WDS01\DM510653\GW7306.13-C03



- NOTES:
- SEE DRAWING 02 FOR LEGENDS, ABBREVIATIONS, AND GENERAL SITE NOTES.
 - PIEZOMETER LOCATIONS ARE FOR GROUNDWATER LEVEL MEASUREMENTS ONLY.
 - PZ-13 AND PZ-21 HAVE BEEN ABANDONED.

ID	NORTHING	EASTING	PURPOSE
PZ-01	1240249.86	2022319.93	PIEZOMETER
PZ-04	1242592.03	2023595.91	PIEZOMETER
PZ-06	1244382.89	2024661.39	PIEZOMETER
PZ-08	1245514.59	2028807.30	PIEZOMETER
PZ-10	1242058.41	2028554.29	PIEZOMETER
PZ-11	1240578.87	2028933.09	PIEZOMETER
PZ-12	1240837.96	2026731.01	PIEZOMETER
PZ-15	1240457.61	2025105.38	PIEZOMETER
PZ-16	1239419.77	2023662.22	PIEZOMETER
PZ-17	1239270.02	2023086.50	PIEZOMETER
PZ-18	1239569.52	2022299.20	PIEZOMETER
PZ-20	1243496.86	2030132.73	PIEZOMETER
PZ-23D	1242139.53	2028520.87	PIEZOMETER
PZ-26D	1239919.45	2024146.35	PIEZOMETER
PZ-27D	1240190.93	2023620.36	PIEZOMETER
PZ-28	1240066.02	2022624.73	PIEZOMETER
PZ-29S	1244317.13	2028839.68	PIEZOMETER
PZ-29D	1244304.90	2028853.29	PIEZOMETER
WAMW-1	1241843.66	2028944.63	PIEZOMETER
WAMW-2	1241547.56	2028806.27	PIEZOMETER
WGWA-1	1250656.10	2035580.71	UPGRADIENT
WGWA-2	1251556.40	2035590.11	UPGRADIENT
WGWA-3	1240848.21	2022350.10	UPGRADIENT
WGWA-4	1240879.58	2022339.66	UPGRADIENT
WGWA-5	1241997.94	2022368.85	UPGRADIENT
WGWA-6	1241932.02	2022360.58	UPGRADIENT
WGWA-7	1243338.63	2023843.81	UPGRADIENT
WGWA-18	1244592.56	2025580.71	UPGRADIENT
WGWC-8	1242929.40	2029644.58	DOWNGRAIENT
WGWC-9	1242801.12	2029115.75	DOWNGRAIENT
WGWC-10	1240971.96	2026725.61	DOWNGRAIENT
WGWC-11	1240860.18	2025773.39	DOWNGRAIENT
WGWC-12	1240827.68	2025755.99	DOWNGRAIENT
WGWC-13	1240610.93	2024585.91	DOWNGRAIENT
WGWC-14A	1240604.54	2024599.63	DOWNGRAIENT
WGWC-15	1240483.16	2023912.92	DOWNGRAIENT
WGWC-16	1240480.46	2023903.77	DOWNGRAIENT
WGWC-17	1240052.06	2022623.82	DOWNGRAIENT
WGWC-19	1241851.51	2028949.19	DOWNGRAIENT
WGWC-20	1243350.76	2029769.43	DOWNGRAIENT
WGWC-21	1242139.33	2028512.65	DOWNGRAIENT
WGWC-22	1241695.25	2028116.05	DOWNGRAIENT
WGWC-23	1240769.79	2027414.58	DOWNGRAIENT
WGWC-24	1239916.68	2024139.82	DOWNGRAIENT
WGWC-25	1240184.18	2023616.69	DOWNGRAIENT
WGWC-26D	1243343.66	2029758.85	ASSESSMENT
WGWC-27	1243215.51	2029878.92	ASSESSMENT

01 TABLE
04 GROUNDWATER MONITORING WELL LOCATIONS



1	03.10.23	CCR PERMIT DRAWINGS	DLJ	JMG
REV	DATE	DESCRIPTION	DRN	APP

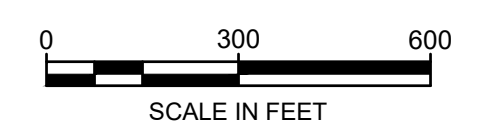
SITE GROUNDWATER MONITORING PLAN
PLANT WANSLEY ASH POND CLOSURE BY REMOVAL
HEARD AND CARROLL COUNTIES, GEORGIA

1255 ROBERTS BOULEVARD, NW, SUITE 200 KENNESAW, GEORGIA 30144 USA		PHONE: 678.202.8500 WWW.GEOSYNTEC.COM	
PROJ. NO.	GW9155	DWG.	GW7306.13-C04
SCALE	AS SHOWN	EDIT	3/7/23
DATE	MARCH 2023	DRAWING 04 OF 22	

C:\GEP\W\051\DM5\10653\GW7306.13-C04



- NOTES:
- SEE DRAWING 02 FOR LEGENDS, ABBREVIATIONS, AND GENERAL SITE NOTES.
 - ACREAGE PRESENTED WITHIN AP-1 REPRESENTS THE AREA WITHIN THE LIMIT OF EXISTING CCR.
 - WATER WITHIN THE STORAGE WATER POND IS NON-CONTACT WATER.
 - WATER WITHIN THE STORMWATER POND TO THE WEST OF AP-1 IS NON-CONTACT WATER. THIS POND IS FED AND DISCHARGES SURFACE WATER FROM OFFSITE.
 - CONCRETE OUTLET STRUCTURE CONTAINS ORIFICES CONTROLLED BY SLUICE GATES, WHICH WILL BE CLOSED DURING AP-1 CLOSURE CONSTRUCTION. IN ACCORDANCE WITH THE GA EPD APPROVED ASH POND DEWATERING PERMIT, DISCHARGES FROM AP-1 DURING CONSTRUCTION WILL BE ROUTED THROUGH THE WATER TREATMENT PLANT AND THEN CONVEYED BY THE 42-INCH PIPE TO THE PLANT PRIOR TO DISCHARGE INTO THE STORMWATER RETENTION POND. THE STORMWATER RETENTION POND IS SAMPLED IN ACCORDANCE WITH THE NPDES PERMIT (GA0026778) AND DISCHARGED THROUGH PERMITTED OUTFALL 01 TO THE CHATTAHOOCHEE RIVER.
 - PILOT STUDY AREA INCLUDES CCR THAT WAS PREVIOUSLY STABILIZED WITH PORTLAND CEMENT AS WELL AS GAB. BOTH WILL BE REMOVED DURING CONSTRUCTION.



1	03.10.23	CCR PERMIT DRAWINGS	DLJ	JMG
REV	DATE	DESCRIPTION	DRN	APP

EXISTING SITE CONDITIONS - TOPOGRAPHY AND AP-1 BATHYMETRY

PLANT WANSLEY ASH POND CLOSURE BY REMOVAL
HEARD AND CARROLL COUNTIES, GEORGIA

Geosyntec
consultants

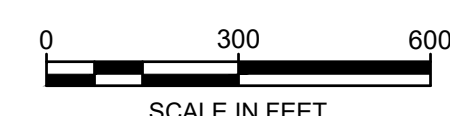
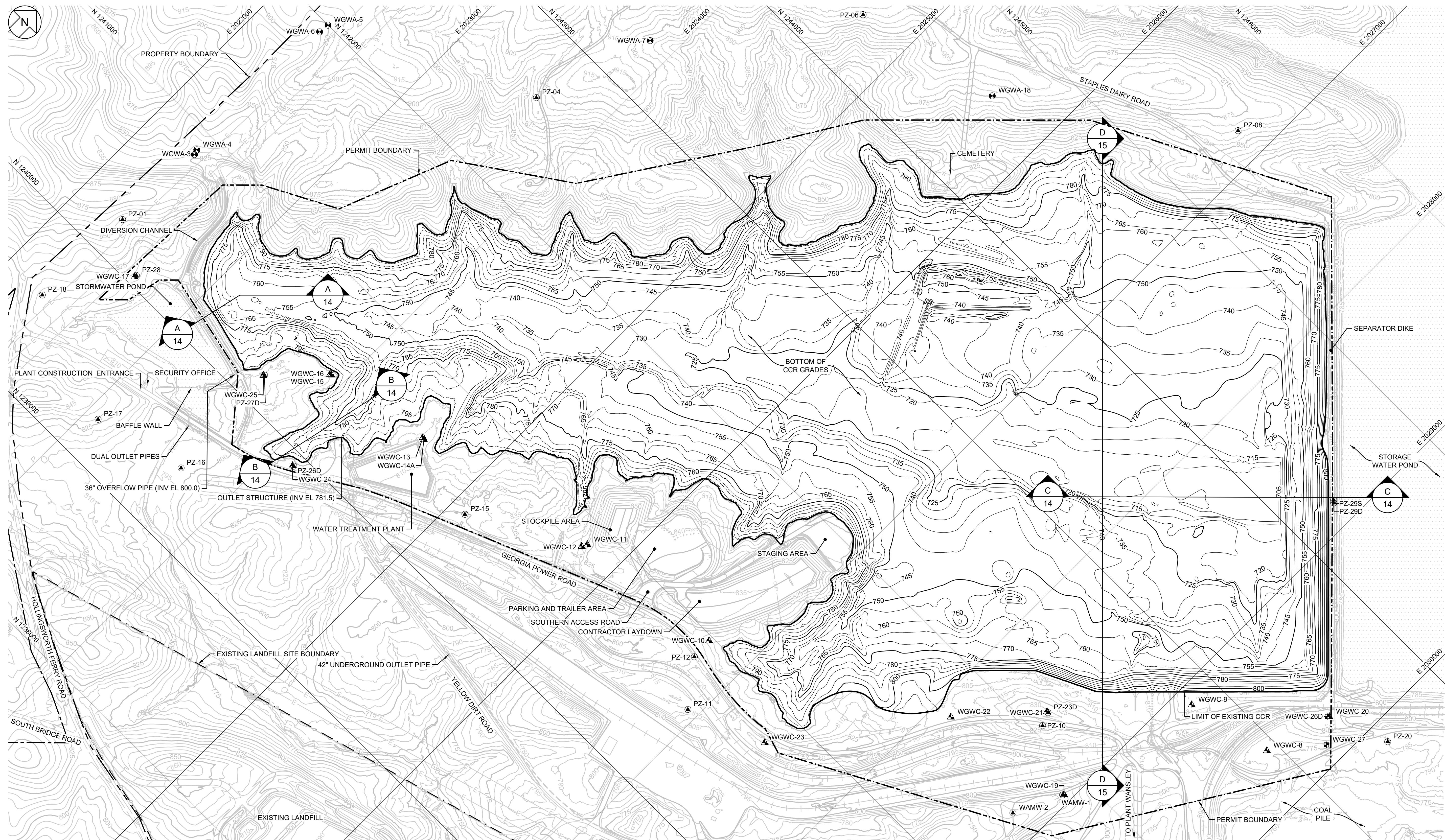


1255 ROBERTS BOULEVARD, NW, SUITE 200 KENNESAW, GEORGIA 30144 USA PHONE: 678.202.8500 WWW.GEOSYNTEC.COM

PROJ. NO.	GW9155	DWG.	GW7306.13-C05	EDIT	3/7/23
SCALE	AS SHOWN	DRAWING 05 OF 22			
DATE	MARCH 2023				

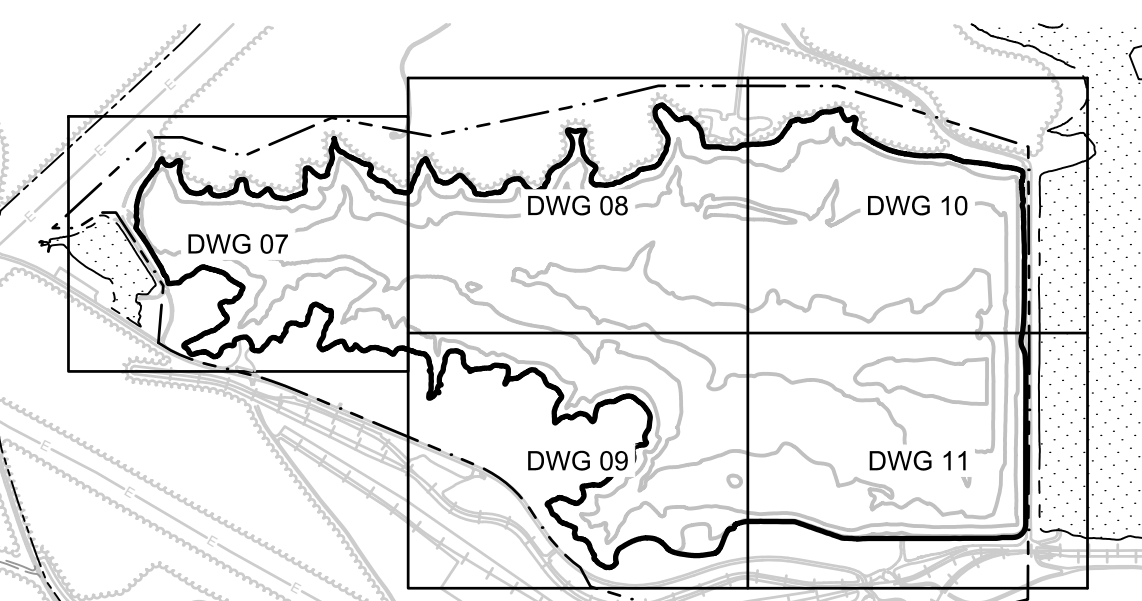
[Signature]
REGISTERED PROFESSIONAL ENGINEER
JEREMY GASSER

C:\GEO\PW\SD\1\DM\10653\GW7306.13-C05



NOTES:

- PRESENTED IN THIS PLAN VIEW IS THE BOTTOM OF CCR SURFACE WITHIN AP-1. ADDITIONAL 6-INCHES OF REMOVAL NOT SHOWN FOR CLARITY.
- LATERAL AND VERTICAL LIMIT OF THE BOTTOM OF CCR IS APPROXIMATE AND IS TO BE FIELD VERIFIED DURING CONSTRUCTION.
- BULK OF CCR REMOVAL MAY BE ACHIEVED BY CONTRACTOR MEANS AND METHODS (E.G. CONVENTIONAL EXCAVATION OR DREDGING). FINAL REMOVAL OF CCR AND VERIFICATION OF REMOVAL WILL BE COMPLETED IN THE DRY VIA CONVENTIONAL EXCAVATION.
- GRADING REQUIREMENTS FOR INTERIM CUT SLOPES TO MAINTAIN STABILITY OF CCR DURING CONSTRUCTION WILL BE ESTABLISHED AS PART OF THE DETAILED DESIGN AND CONTRACTOR WORK PLANS.
- CCR VERIFICATION OF REMOVAL WILL BE COMPLETED BY THE COA CONSULTANT ON A 100-FT BY 100-FT GRID SYSTEM. FOLLOWING VERIFICATION OF CCR REMOVAL, THE CONTRACTOR WILL REMOVE 6-INCHES OF NATIVE SOIL AND COA CONSULTANT WILL AGAIN COMPLETE THE VERIFICATION PROCESS TO CERTIFY CCR REMOVAL.
- 100-FT BY 100-FT GRID SYSTEM IS NOT SHOWN ON THIS DRAWING FOR CLARITY. SEE DRAWINGS 07 THROUGH 11.



KEYMAP

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REV	DATE	DESCRIPTION	DRN	APP
1	03.10.23	CCR PERMIT DRAWINGS	DLJ	JMG

CCR REMOVAL PLAN - OVERVIEW

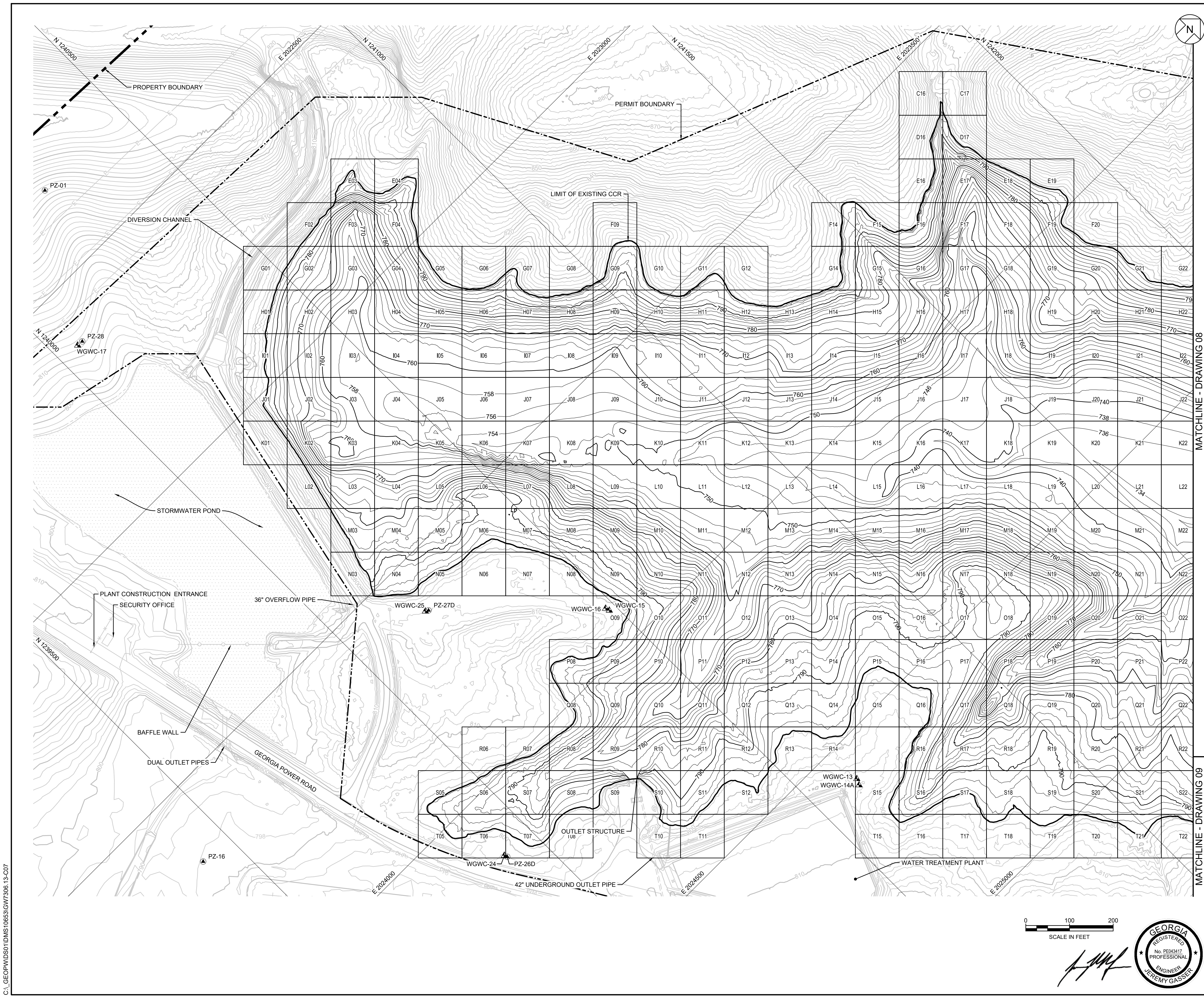
PLANT WANSLEY ASH POND CLOSURE BY REMOVAL
HEARD AND CARROLL COUNTIES, GEORGIA

Geosyntec
consultants

1255 ROBERTS BOULEVARD, NW, SUITE 200
KENNESAW, GEORGIA 30144 USA
PHONE: 678.202.8500
WWW.GEOSYNTEC.COM

Georgia Power

PROJ. NO.	GW9155	DWG.	GW7306.13-C06	EDIT	3/7/23
SCALE	AS SHOWN				
DATE	MARCH 2023	DRAWING 06 OF 22			



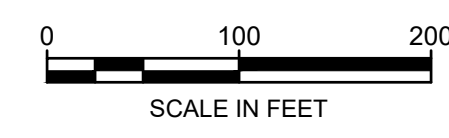
- NOTES:
1. PRESENTED IN THIS PLAN VIEW IS THE BOTTOM OF CCR SURFACE WITHIN AP-1. ADDITIONAL 6-INCHES OF REMOVAL NOT SHOWN FOR CLARITY.
 2. LATERAL AND VERTICAL LIMIT OF THE BOTTOM OF CCR IS APPROXIMATE AND IS TO BE FIELD VERIFIED DURING CONSTRUCTION.
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 4. GRADING REQUIREMENTS FOR INTERIM CUT SLOPES TO MAINTAIN STABILITY OF CCR DURING CONSTRUCTION WILL BE ESTABLISHED AS PART OF THE DETAILED DESIGN AND CONTRACTOR WORK PLANS.
 5. CCR VERIFICATION OF REMOVAL WILL BE COMPLETED BY THE COA CONSULTANT ON A 100-FT BY 100-FT GRID SYSTEM. FOLLOWING VERIFICATION OF CCR REMOVAL, THE CONTRACTOR WILL REMOVE 6-INCHES OF NATIVE SOIL AND COA CONSULTANT WILL AGAIN COMPLETE THE VERIFICATION PROCESS TO CERTIFY CCR REMOVAL.

REV	DATE	DESCRIPTION	DRN	APP
1	03.10.23	CCR PERMIT DRAWINGS	DLJ	JMG

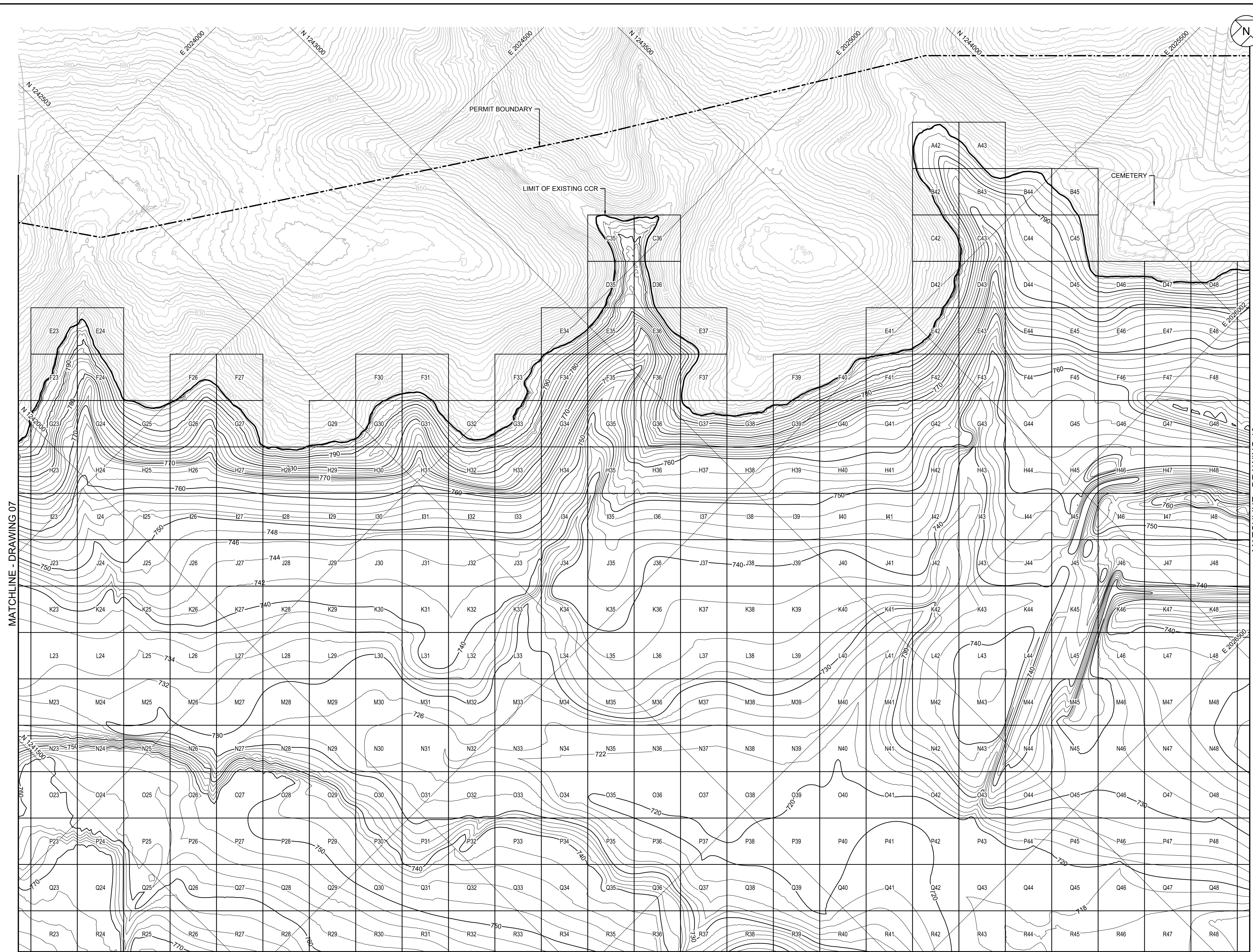
CCR REMOVAL PLAN - I

PLANT WANSLEY ASH POND CLOSURE BY REMOVAL
HEARD AND CARROLL COUNTIES, GEORGIA

<small>1255 ROBERTS BOULEVARD, NW, SUITE 200 KENNESAW, GEORGIA 30144 USA</small>		<small>PHONE: 678.202.8500 WWW.GEOSYNTEC.COM</small>	
PROJ. NO.	GW9155	DWG.	GW7306.13-C07
SCALE	AS SHOWN	EDIT	3/7/23
DATE	MARCH 2023	DRAWING 07 OF 22	



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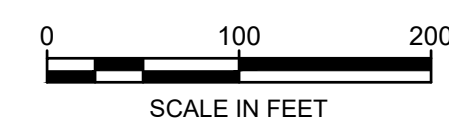
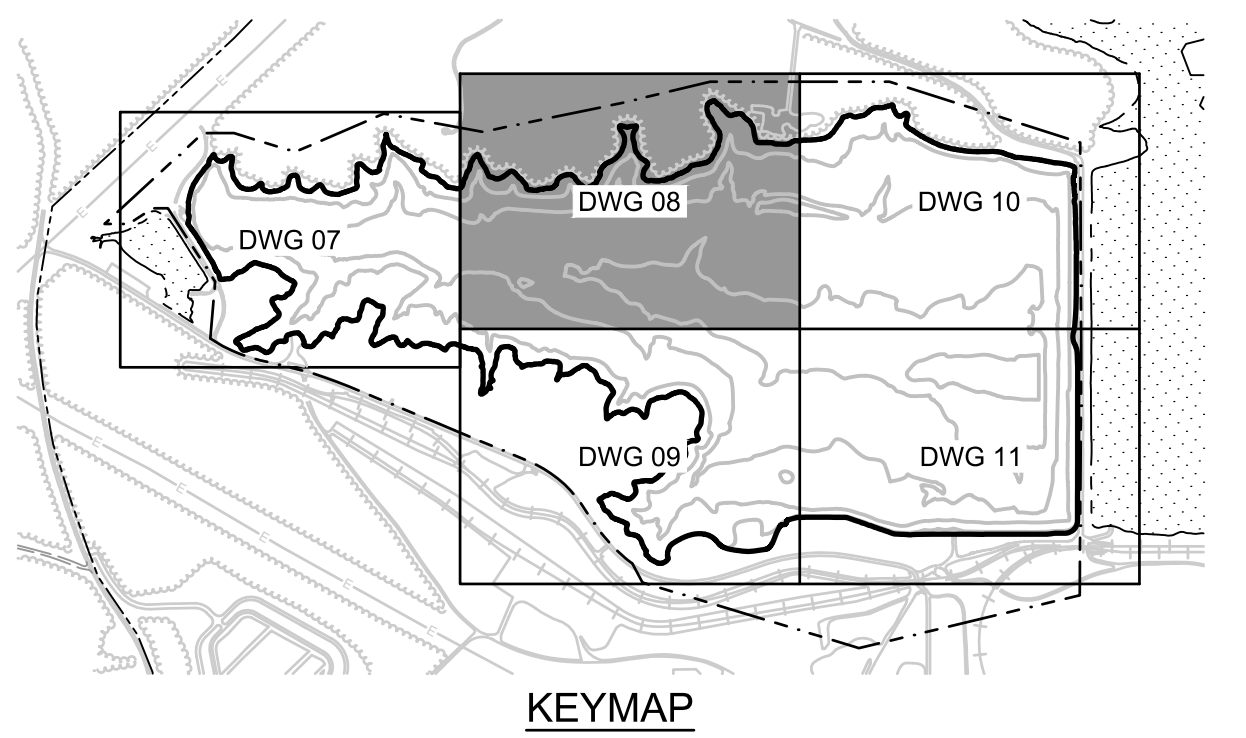


- NOTES:
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MATCHLINE - DRAWING 07

MATCHLINE - DRAWING 10

MATCHLINE - DRAWING 09



JMG



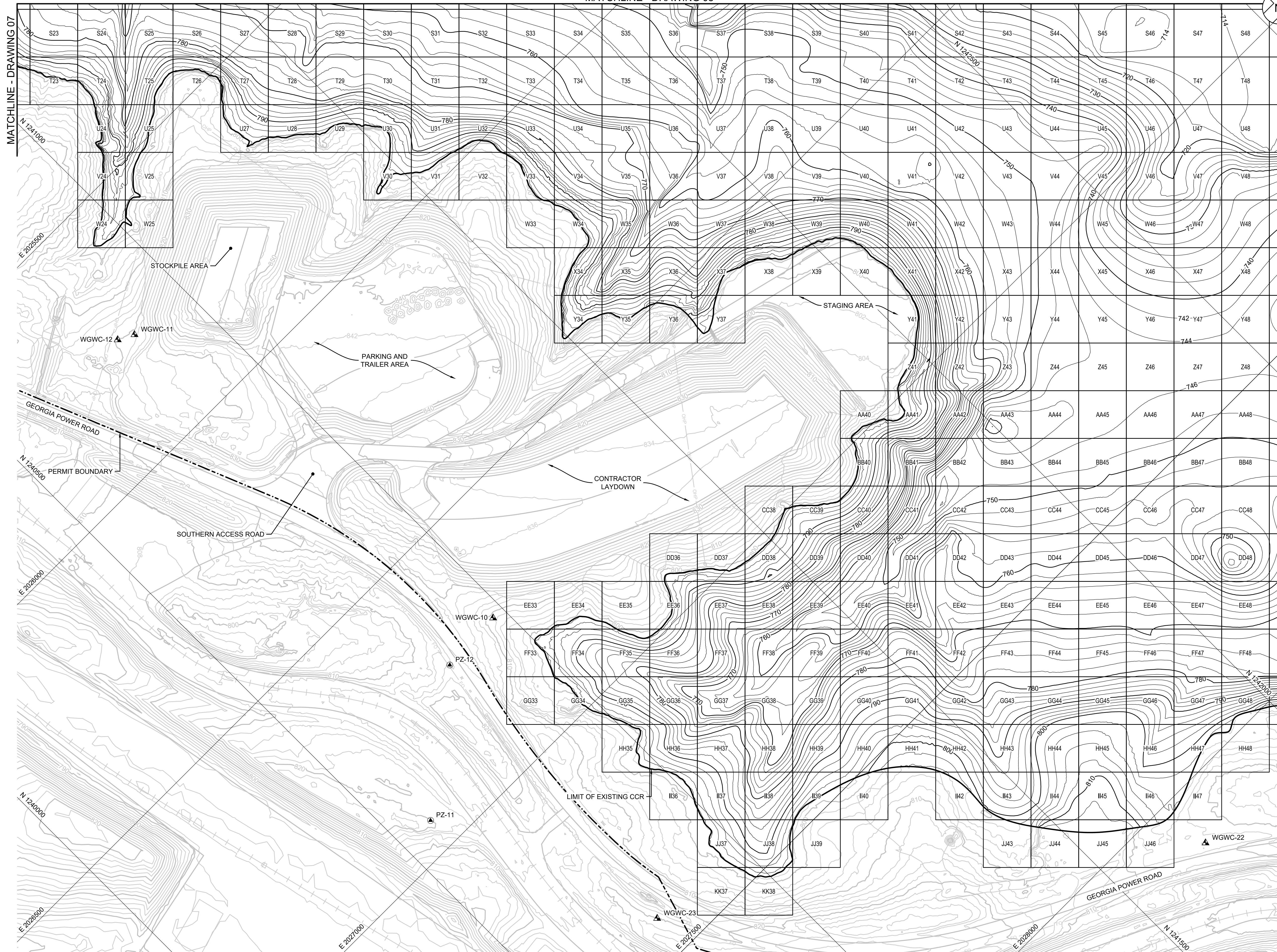
1	03.10.23	CCR PERMIT DRAWINGS	DLJ	JMG
REV	DATE	DESCRIPTION	DRN	APP

CCR REMOVAL PLAN - II
 PLANT WANSLEY ASH POND CLOSURE BY REMOVAL
 HEARD AND CARROLL COUNTIES, GEORGIA

1255 ROBERTS BOULEVARD, NW, SUITE 200 KENNESAW, GEORGIA 30144 USA		PHONE: 678.202.8500 WWW.GEOSYNTEC.COM	
PROJ. NO.	GW9155	DWG.	GW7306.13-C08
SCALE	AS SHOWN	EDIT	3/7/23
DATE	MARCH 2023	DRAWING 08 OF 22	

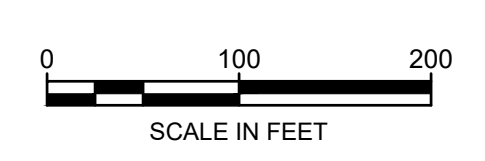
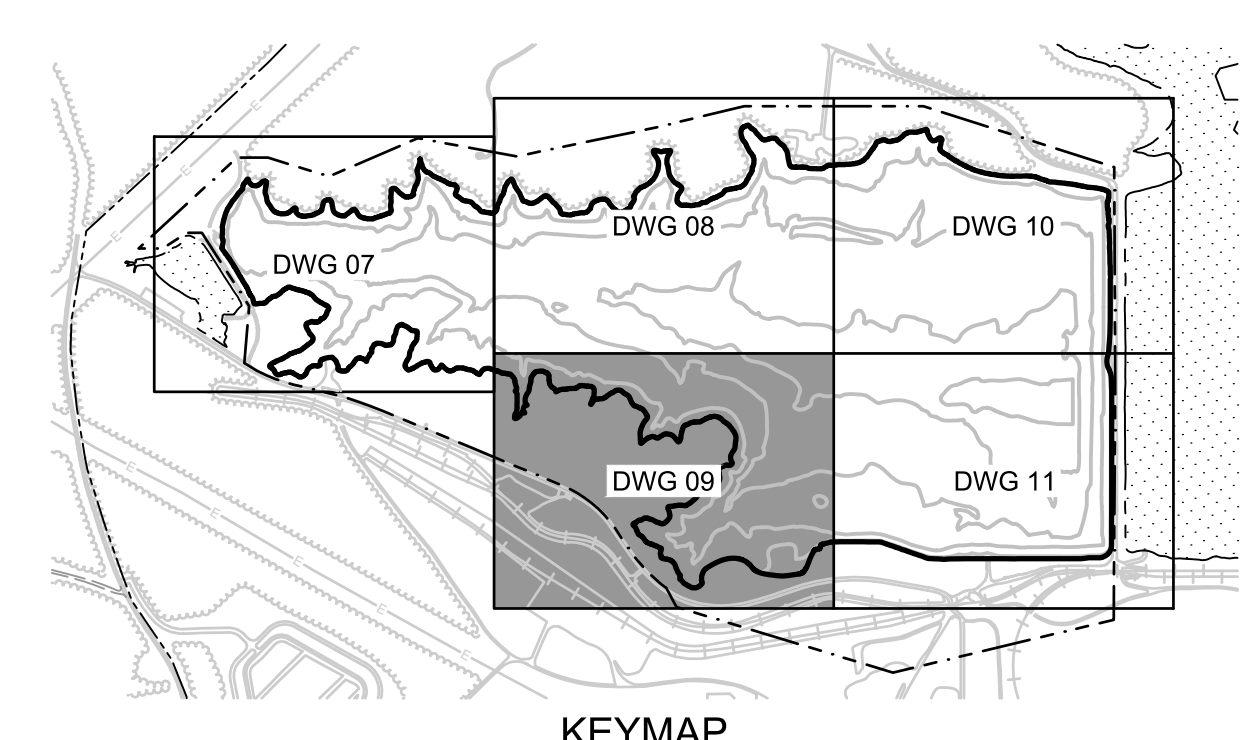
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MATCHLINE - DRAWING 08



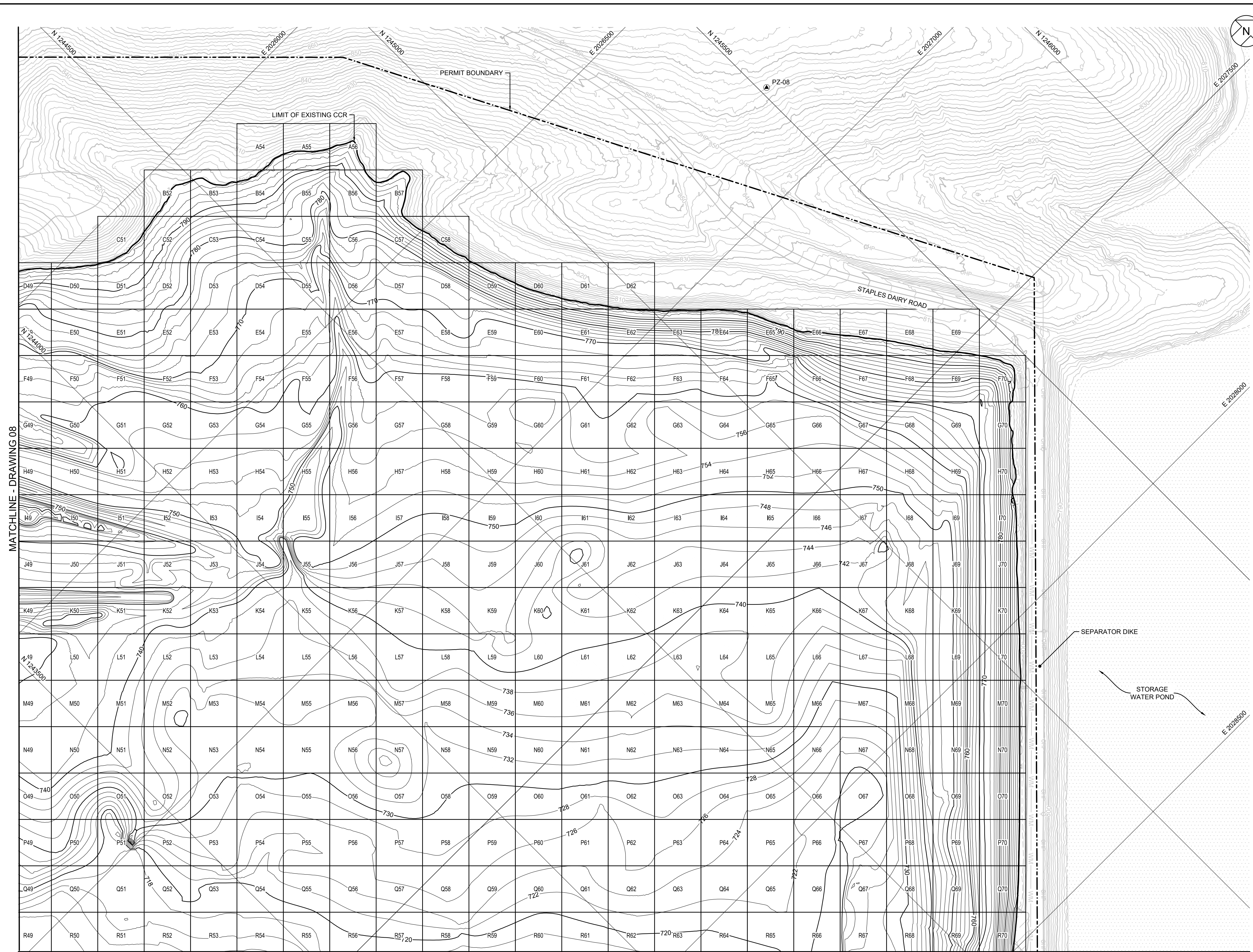
MATCHLINE - DRAWING 11

- NOTES:
1. PRESENTED IN THIS PLAN VIEW IS THE BOTTOM OF CCR SURFACE WITHIN AP-1. ADDITIONAL 6-INCHES OF REMOVAL NOT SHOWN FOR CLARITY.
 2. LATERAL AND VERTICAL LIMIT OF THE BOTTOM OF CCR IS APPROXIMATE AND IS TO BE FIELD VERIFIED DURING CONSTRUCTION.
 3. BULK OF CCR REMOVAL MAY BE ACHIEVED BY CONTRACTOR MEANS AND METHODS (E.G., CONVENTIONAL EXCAVATION OR DREDGING). FINAL REMOVAL OF CCR AND VERIFICATION OF REMOVAL WILL BE COMPLETED IN THE DRY VIA CONVENTIONAL EXCAVATION.
 4. GRADING REQUIREMENTS FOR INTERIM CUT SLOPES TO MAINTAIN STABILITY OF CCR DURING CONSTRUCTION WILL BE ESTABLISHED AS PART OF THE DETAILED DESIGN AND CONTRACTOR WORK PLANS.
 5. CCR VERIFICATION OF REMOVAL WILL BE COMPLETED BY THE COA CONSULTANT ON A 100-FT BY 100-FT GRID SYSTEM. FOLLOWING VERIFICATION OF CCR REMOVAL, THE CONTRACTOR WILL REMOVE 6-INCHES OF NATIVE SOIL AND COA CONSULTANT WILL AGAIN COMPLETE THE VERIFICATION PROCESS TO CERTIFY CCR REMOVAL.
 6. GRID Y37 WAS CERTIFIED FOR CCR REMOVAL DURING EARLY SITE WORK CONSTRUCTION IN 2021. SEE GEOSYNTEC'S CCR REMOVAL CERTIFICATION REPORT DATED 16 JULY 2021 FOR DETAILS.

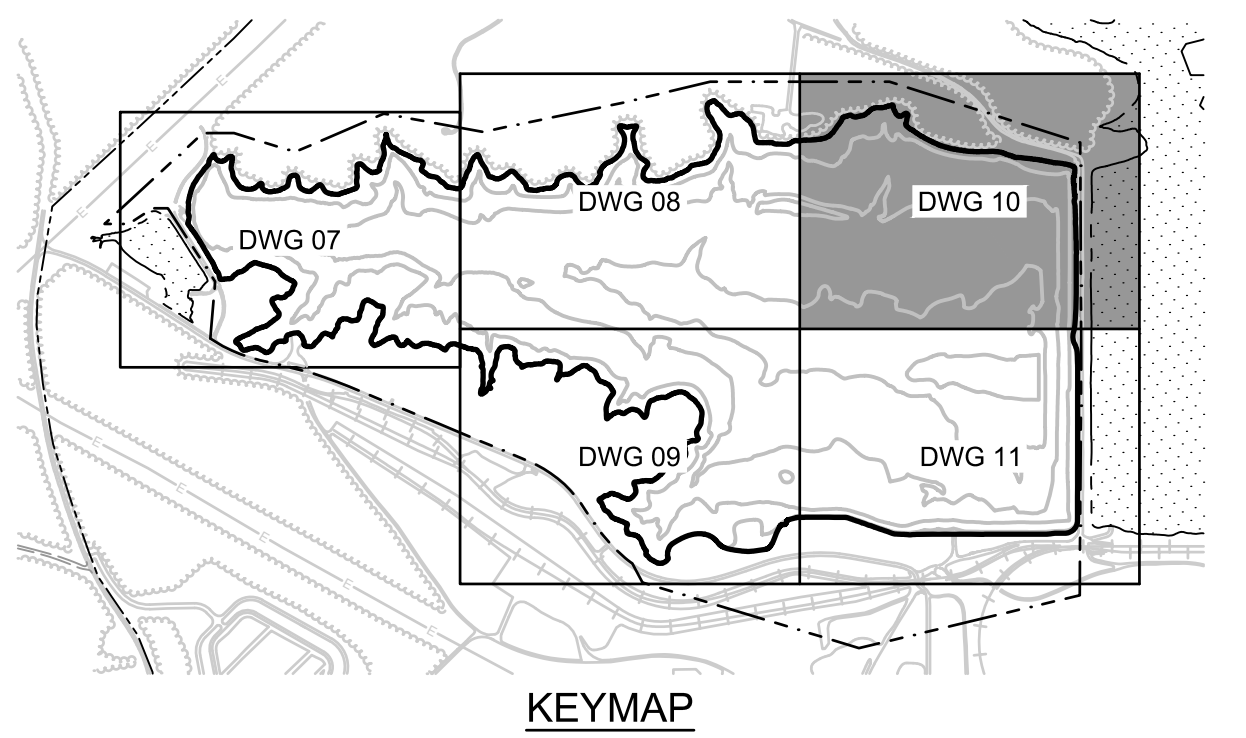


1	03.10.23	CCR PERMIT DRAWINGS	DLJ	JMG	
REV	DATE	DESCRIPTION	DRN	APP	
CCR REMOVAL PLAN - III					
PLANT WANSLEY ASH POND CLOSURE BY REMOVAL HEARD AND CARROLL COUNTIES, GEORGIA					
Geosyntec consultants		Georgia Power			
1255 ROBERTS BOULEVARD, NW, SUITE 200 KENNESAW, GEORGIA 30144 USA		PHONE: 678.202.8500 WWW.GEOSYNTEC.COM			
PROJ. NO.	GW9155	DWG.	GW7306.13-C09	EDIT	3/7/23
SCALE	AS SHOWN	DRAWING 09 OF 22			
DATE	MARCH 2023				

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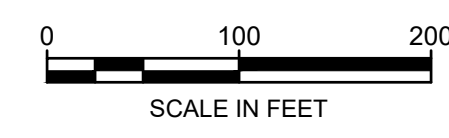
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 5. CCR VERIFICATION OF REMOVAL WILL BE COMPLETED BY THE COA CONSULTANT ON A 100-FT BY 100-FT GRID SYSTEM. FOLLOWING VERIFICATION OF CCR REMOVAL, THE CONTRACTOR WILL REMOVE 6-INCHES OF NATIVE SOIL AND COA CONSULTANT WILL AGAIN COMPLETE THE VERIFICATION PROCESS TO CERTIFY CCR REMOVAL.



REV	DATE	DESCRIPTION	DRN	APP
1	03.10.23	CCR PERMIT DRAWINGS	DLJ	JMG

CCR REMOVAL PLAN - IV
PLANT WANSLEY ASH POND CLOSURE BY REMOVAL
 HEARD AND CARROLL COUNTIES, GEORGIA

<small>1255 ROBERTS BOULEVARD, NW, SUITE 200 KENNESAW, GEORGIA 30144 USA</small>		<small>PHONE: 678.202.8500 WWW.GEOSYNTEC.COM</small>	
PROJ. NO.	GW9155	DWG.	GW7306.13-C10
SCALE	AS SHOWN	EDIT	3/7/23
DATE	MARCH 2023	DRAWING 10 OF 22	



MATCHLINE - DRAWING 08

MATCHLINE - DRAWING 11

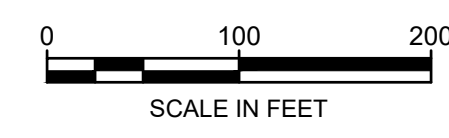
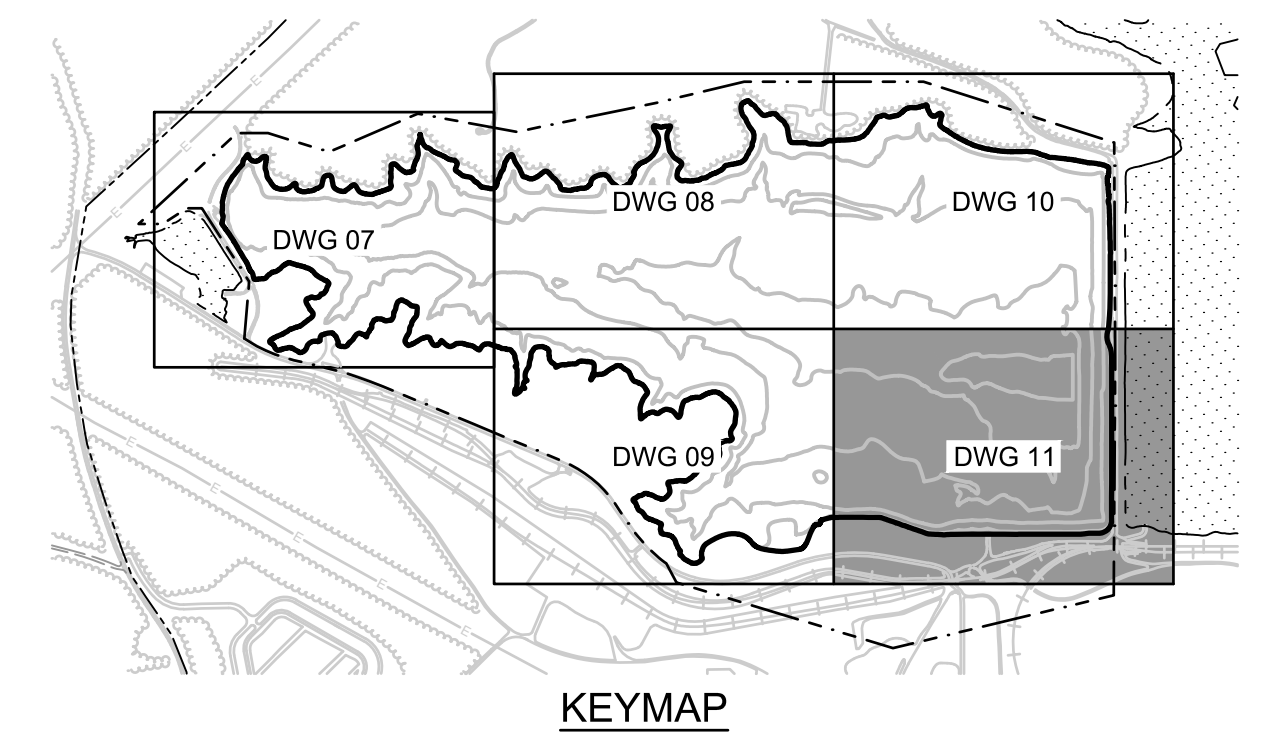
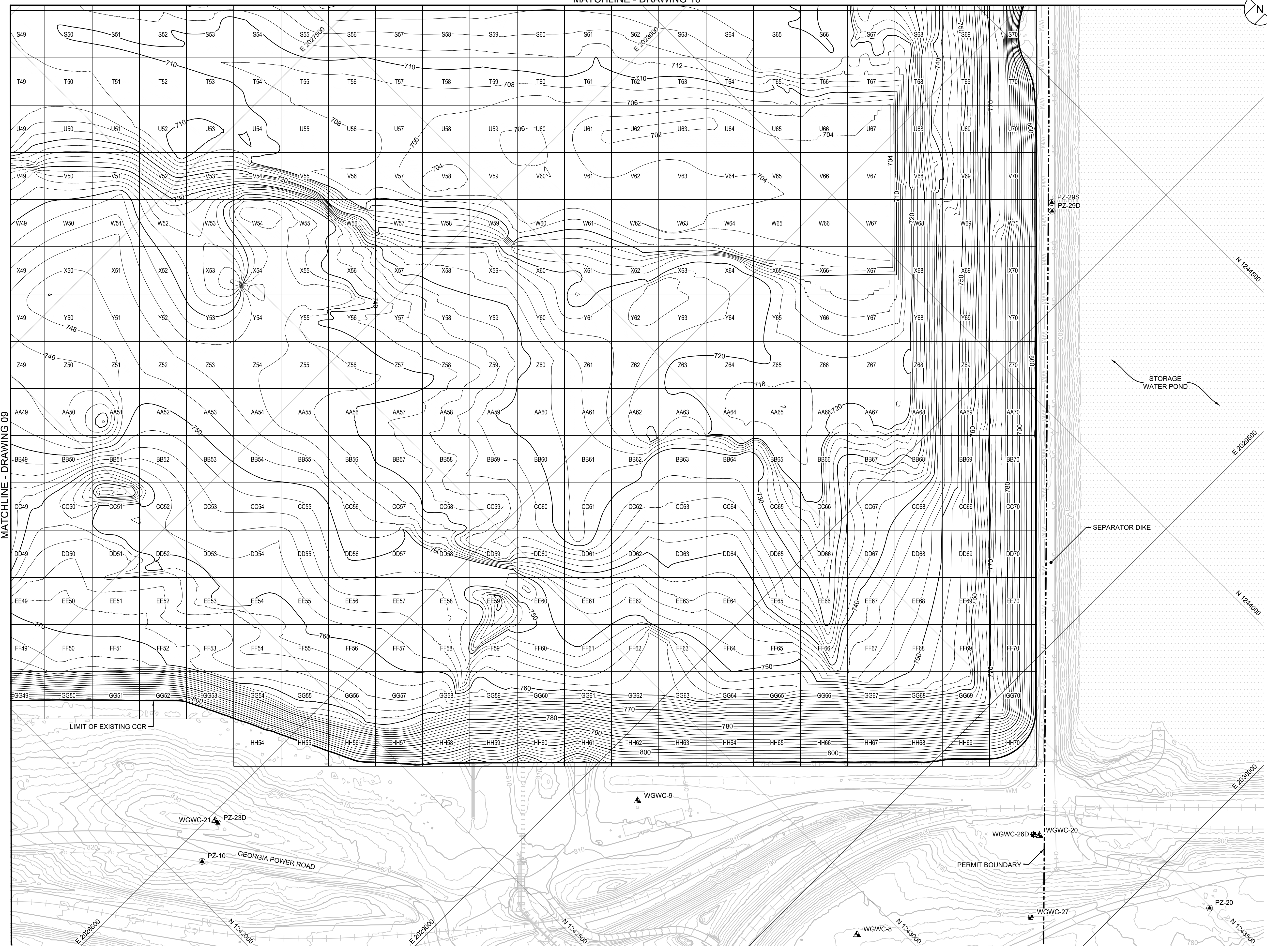
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MATCHLINE - DRAWING 10



- NOTES:
1. PRESENTED IN THIS PLAN VIEW IS THE BOTTOM OF CCR SURFACE WITHIN AP-1. ADDITIONAL 6-INCHES OF REMOVAL NOT SHOWN FOR CLARITY.
 2. LATERAL AND VERTICAL LIMIT OF THE BOTTOM OF CCR IS APPROXIMATE AND IS TO BE FIELD VERIFIED DURING CONSTRUCTION.
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MATCHLINE - DRAWING 09



REV	DATE	DESCRIPTION	DRN	APP
1	03.10.23	CCR PERMIT DRAWINGS	DLJ	JMG

CCR REMOVAL PLAN - V

PLANT WANSLEY ASH POND CLOSURE BY REMOVAL
HEARD AND CARROLL COUNTIES, GEORGIA

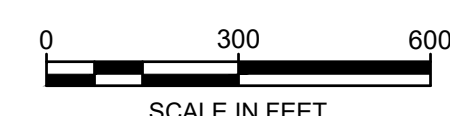
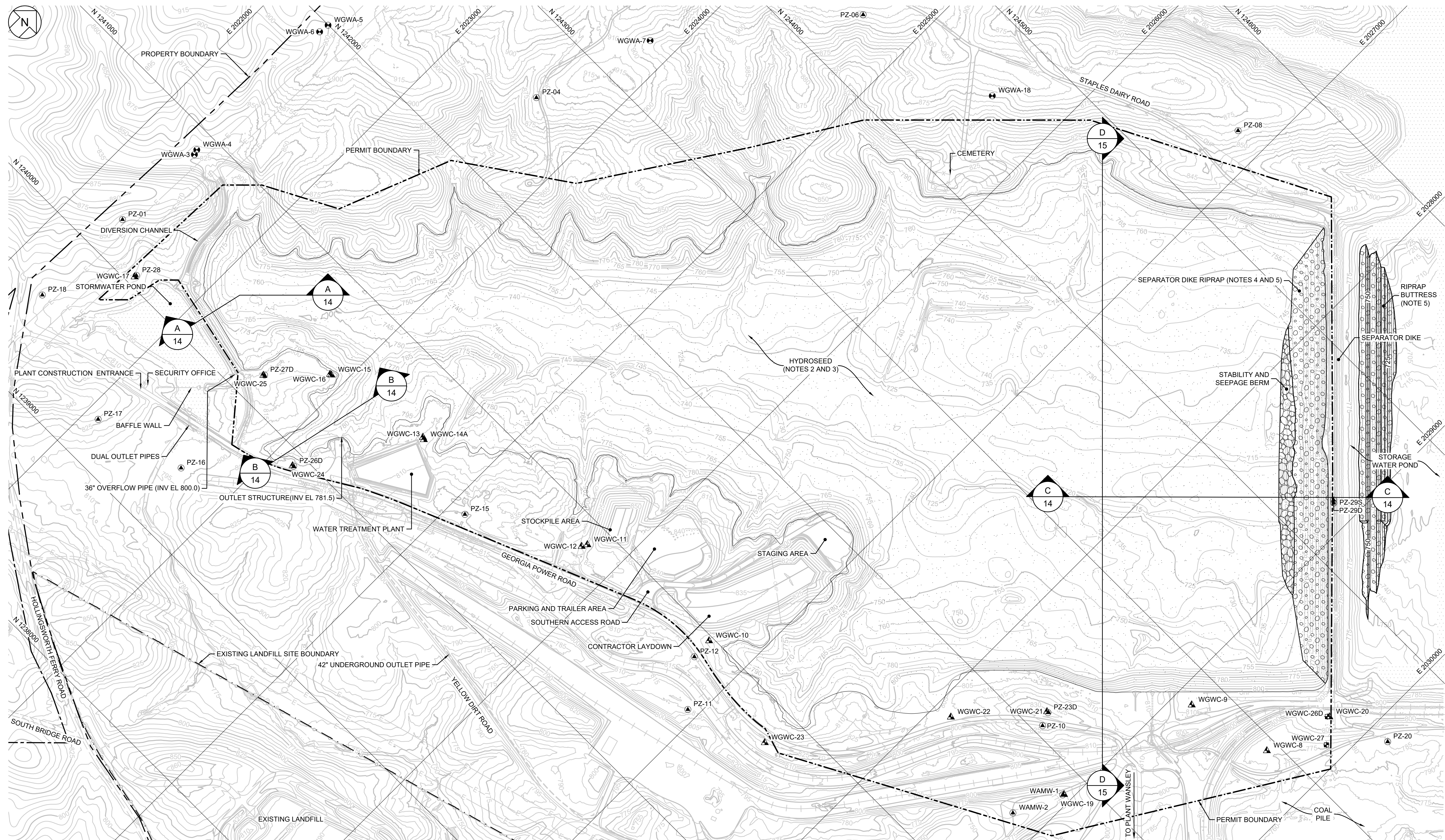
Geosyntec
consultants

1255 ROBERTS BOULEVARD, NW, SUITE 200
KENNESAW, GEORGIA 30144 USA

PHONE: 678.202.8500
WWW.GEOSYNTEC.COM

PROJ. NO.	GW9155	DWG.	GW7306.13-C11	EDIT	3/7/23
SCALE	AS SHOWN	DRAWING 11 OF 22			
DATE	MARCH 2023				

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NOTES:

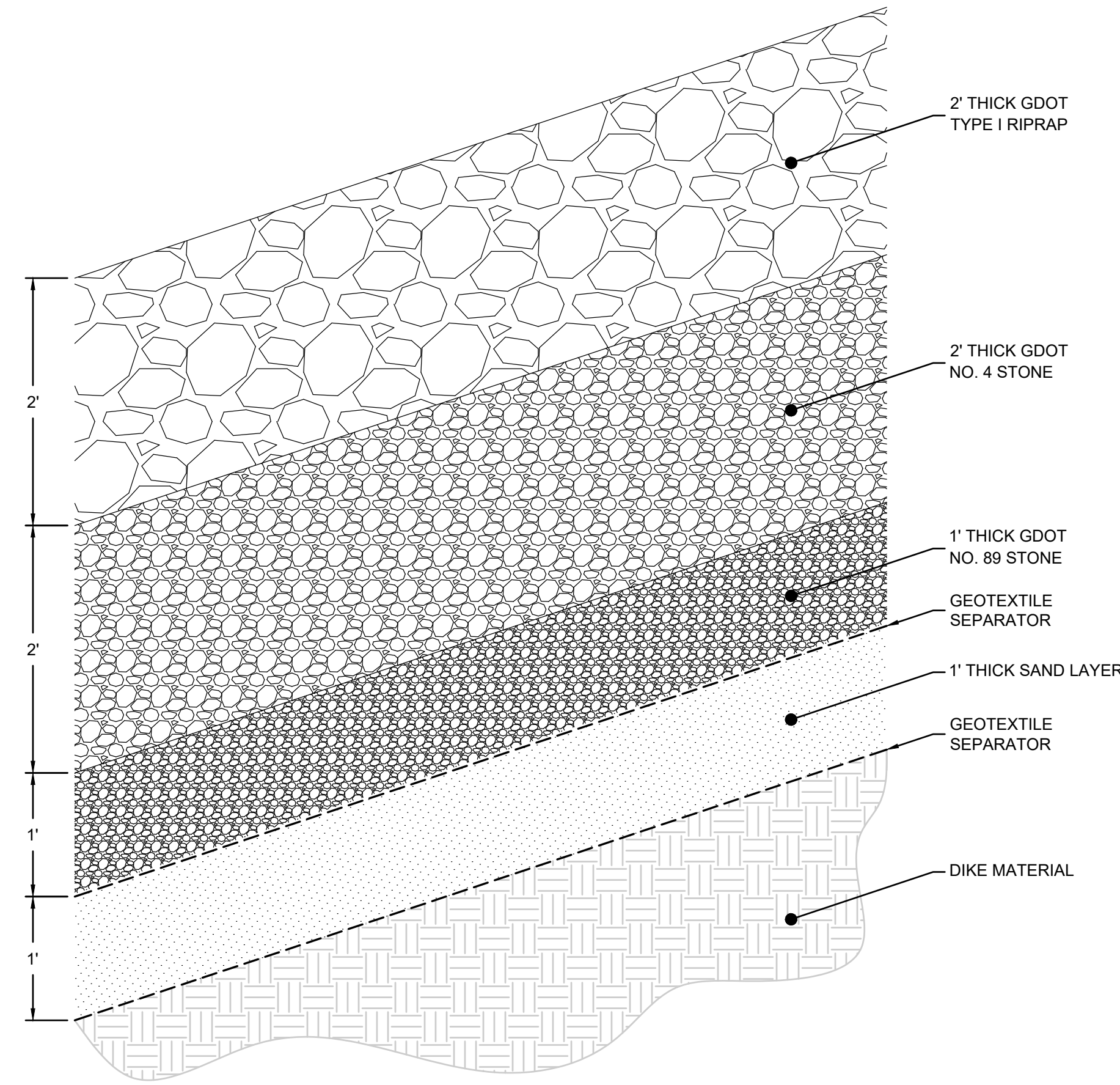
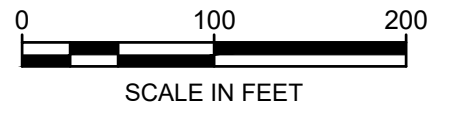
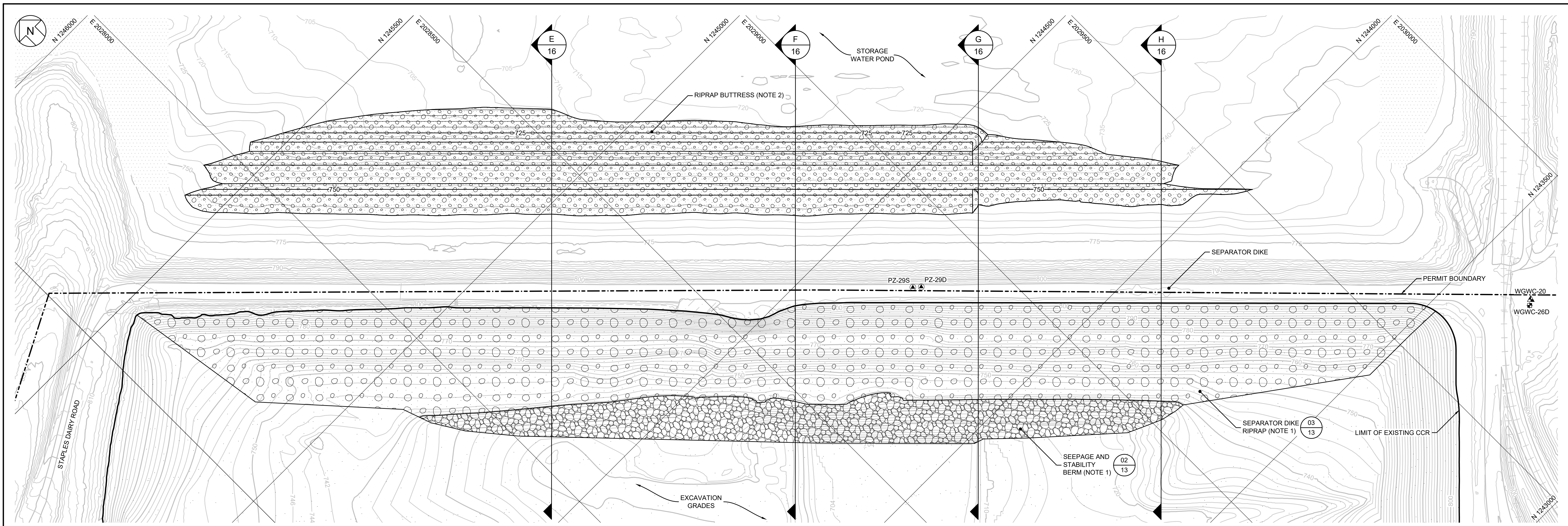
1. FOLLOWING COMPLETION OF CONTRACTOR'S WORK, THE FORMER AP-1 WILL NATURALLY REFILL WITH WATER TO A LEVEL OF 781.5 FT. ANY DIVERSION BERMS THAT THE CONTRACTOR CONSTRUCTS DURING CONSTRUCTION WILL NEED TO BE REMOVED OR BREACHED BY THE CONTRACTOR AS NECESSARY TO NOT CONTAIN WATER UPGRADIENT OF THE SEPARATOR DIKE.
2. MINOR EARTHWORK ACTIVITIES MAY BE PERFORMED IN LOCALIZED LOW OR STEEP SPOTS TO PROMOTE POSITIVE DRAINAGE AND MINIMIZE EROSION.
3. UPON VERIFICATION OF CCR REMOVAL AND ADDITIONAL 6 INCHES OF SOIL REMOVAL, CONTRACTOR SHALL HYDROSEED THE ENTIRE POND BOTTOM AND SLOPE TO FACILITATE VEGETATIVE GROWTH TO PREVENT EROSION AND FUGITIVE DUST. THIS PROCESS CAN BE COMPLETED IN PHASES AS THE VERIFICATION PROCESS IS COMPLETED.
4. UPON VERIFICATION OF CCR REMOVAL AND ADDITIONAL 6 INCHES OF SOIL REMOVAL FROM AP-1, CONTRACTOR SHALL PLACE RIPRAP DETAILED ALONG THE ENTIRETY OF THE UPSTREAM (AP-1) SIDE OF THE SEPARATOR DIKE.
5. SEE DRAWING 13 FOR DETAILS ON THE SEPARATOR DIKE RIPRAP.

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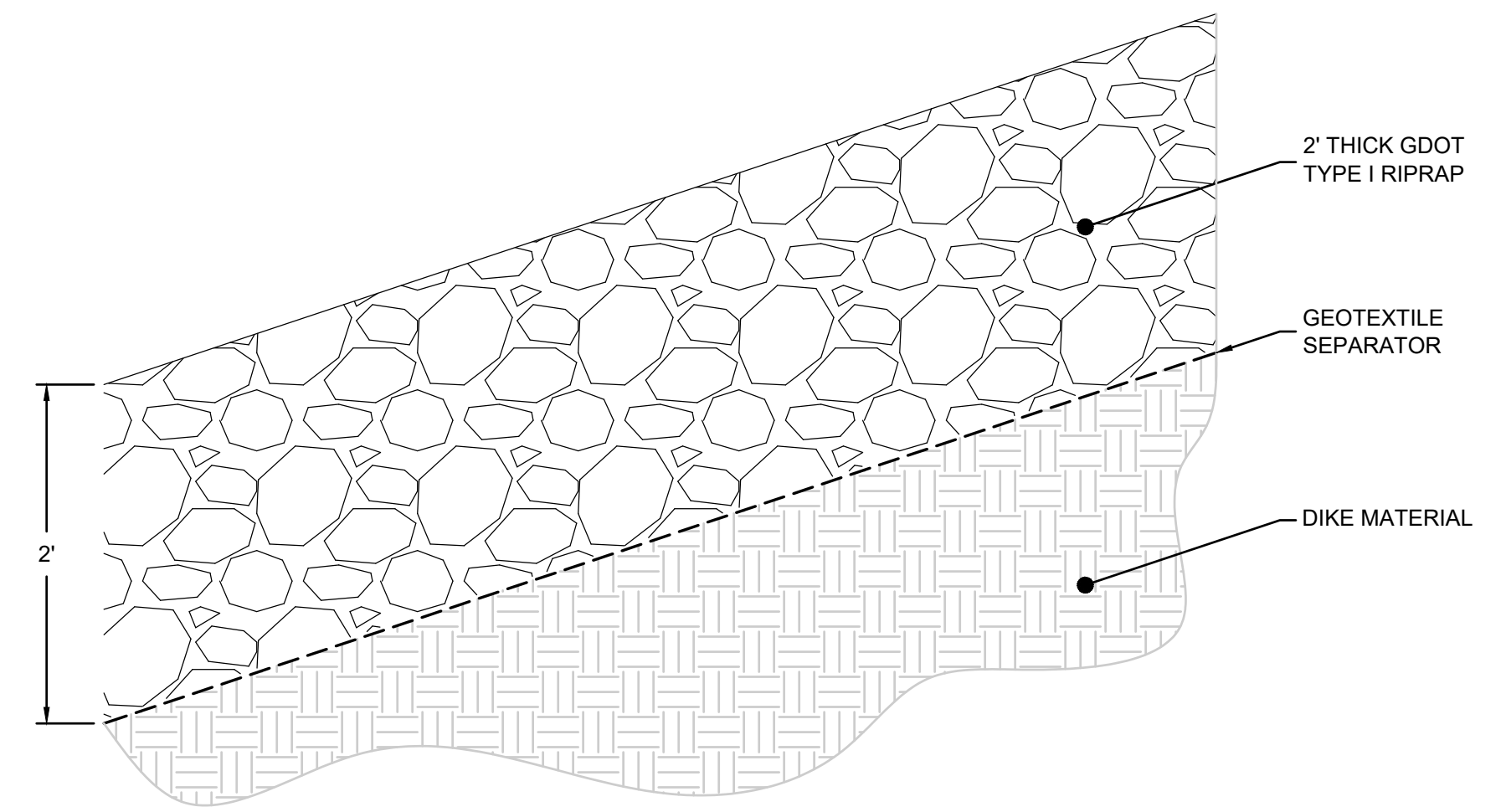


REV	DATE	DESCRIPTION	DRN	APP
1	03.10.23	CCR PERMIT DRAWINGS	DLJ	JMG

SITE RESTORATION GRADING PLAN					
PLANT WANSLEY ASH POND CLOSURE BY REMOVAL HEARD AND CARROLL COUNTIES, GEORGIA					
Geosyntec consultants			Georgia Power		
1255 ROBERTS BOULEVARD, NW, SUITE 200 KENNESAW, GEORGIA 30144 USA			PHONE: 678.202.8500 WWW.GEOSYNTEC.COM		
PROJ. NO.	GW9155	DWG.	GW7306.13-C12	EDIT	3/7/23
SCALE	AS SHOWN	DRAWING 12 OF 22			
DATE	MARCH 2023				



02
13 DETAIL
SEEPAGE AND STABILITY BERM
SCALE: 1" = 1'



03
13 DETAIL
SEPARATOR DIKE RIPRAP
SCALE: 1" = 1'

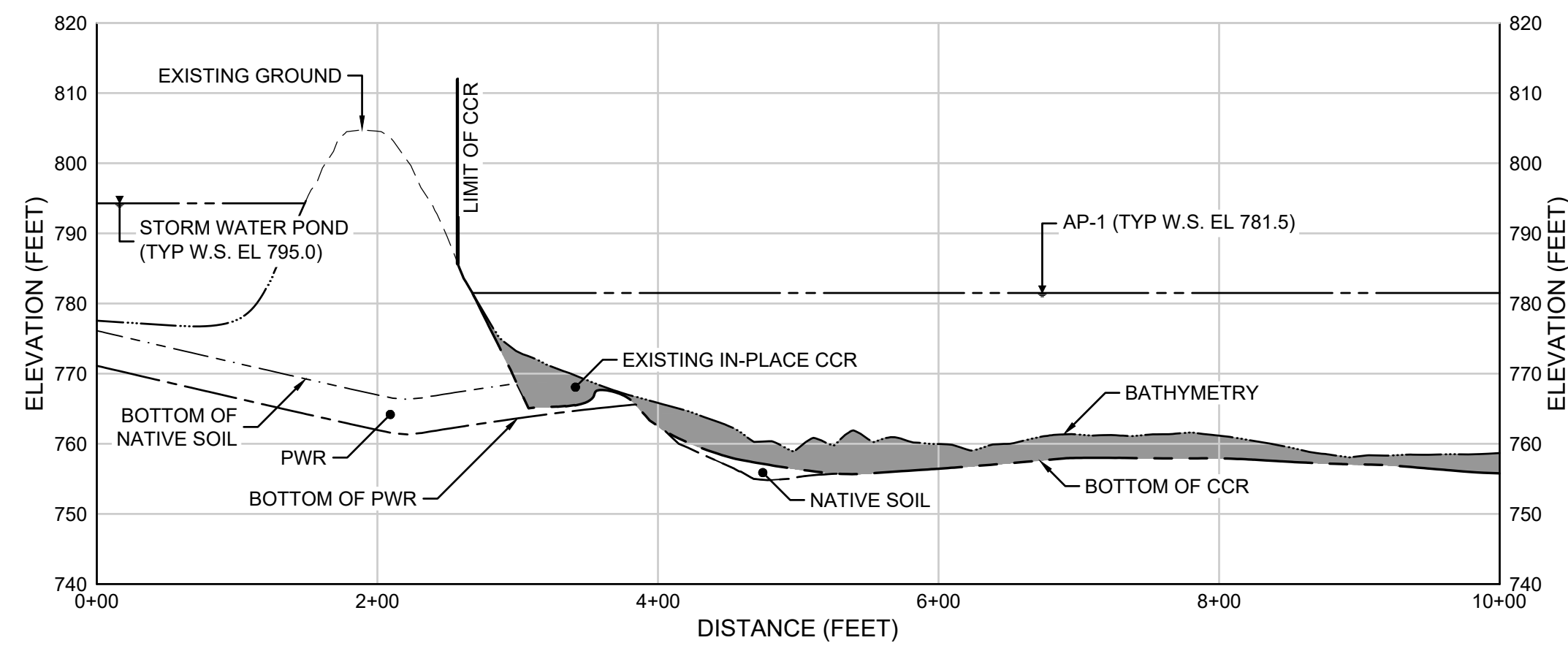
- NOTES:
- ON THE AP-1 SIDE OF THE SEPARATOR DIKE, FOLLOWING VERIFICATION OF CCR REMOVAL AND ADDITIONAL 6 INCHES OF SOIL REMOVAL, CONTRACTOR SHALL INSTALL SEEPAGE BERM AT THE BASE OF THE SEPARATOR DIKE AND RIPRAP ON THE TOP OF SEPARATOR DIKE.
 - AT ANY POINT PRIOR TO COMPLETION OF CONSTRUCTION RIPRAP BUTTRESS SHALL BE INSTALLED IN THE STORAGE WATER SIDE OF THE SEPARATOR DIKE. SEE DRAWING 16 FOR DETAILS ON THIS BUTTRESS.

REV	DATE	DESCRIPTION	DRN	APP
1	03.10.23	CCR PERMIT DRAWINGS	DLJ	JMG

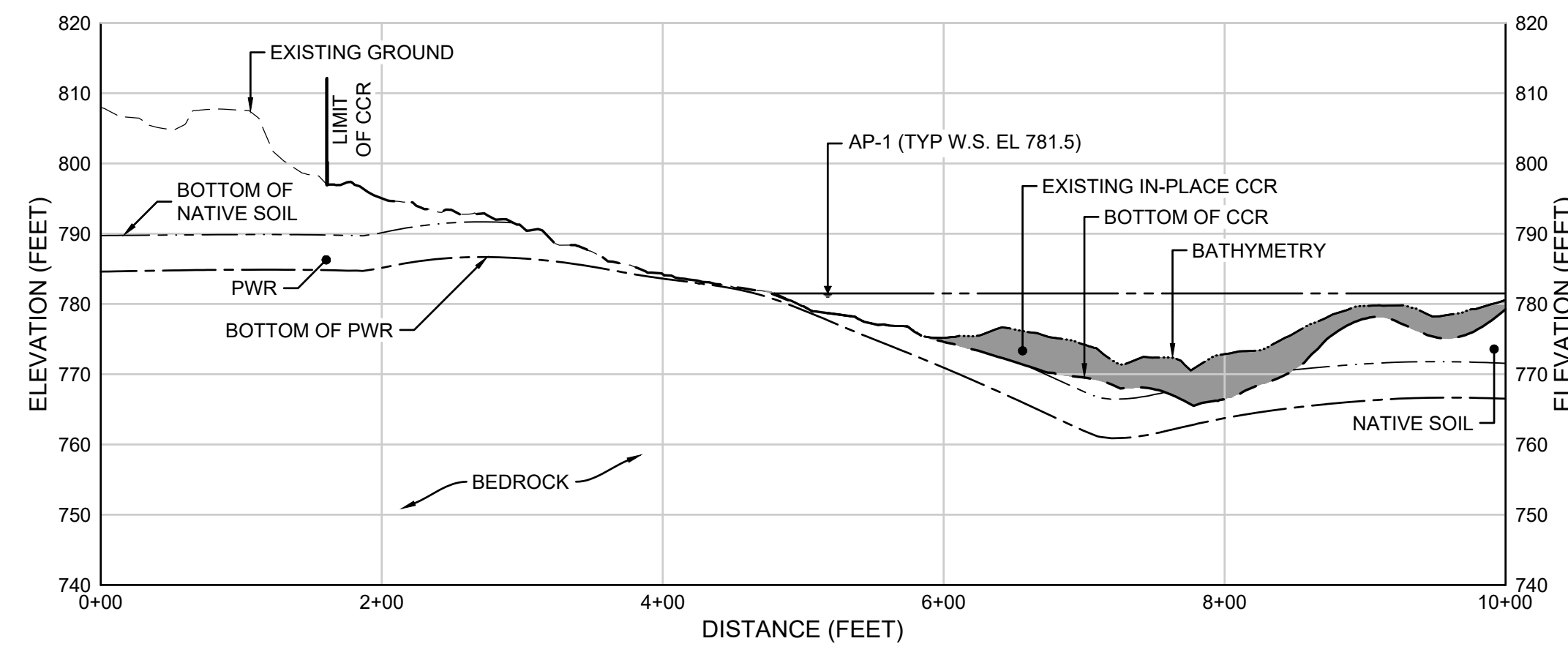
SEPARATOR DIKE PLAN				
PLANT WANSLEY ASH POND CLOSURE BY REMOVAL HEARD AND CARROLL COUNTIES, GEORGIA				
Geosyntec consultants		Georgia Power		
1255 ROBERTS BOULEVARD, NW, SUITE 200 KENNESAW, GEORGIA 30144 USA		PHONE: 678.202.8500 WWW.GEOSYNTEC.COM		
PROJ. NO.	GW9155	DWG.	GW7306.13-C13	EDIT
SCALE	AS SHOWN	DRAWING 13 OF 22		
DATE	MARCH 2023			

JMG

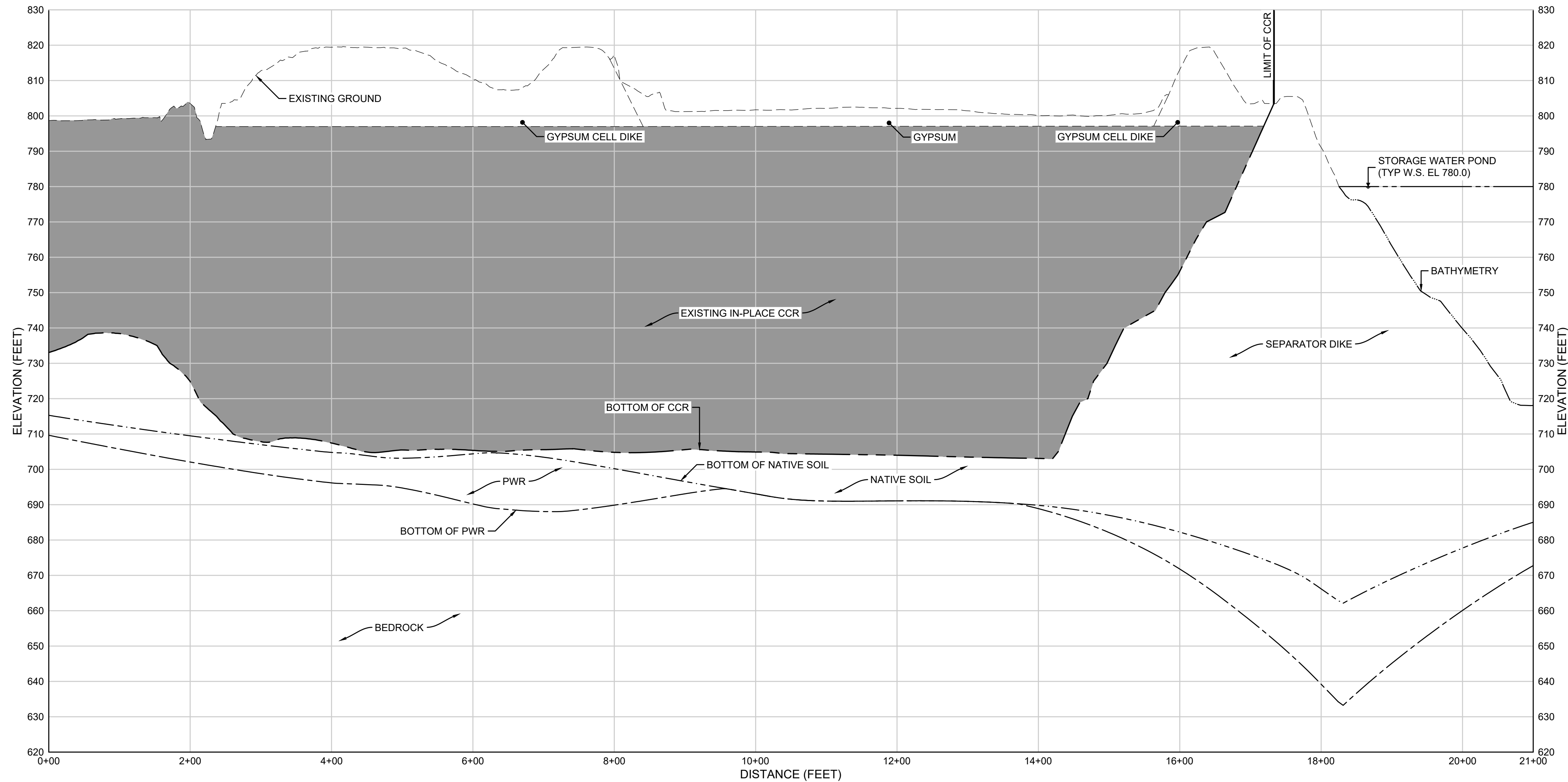
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A SECTION
06 SITE SECTION - A
SCALE: 1" = 100' (H); 1" = 20' (V)

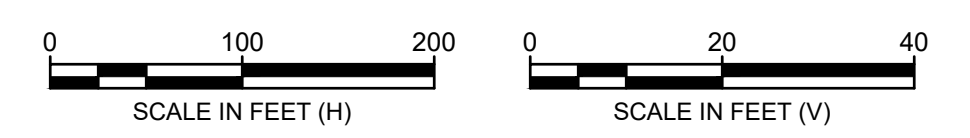


B SECTION
06 SITE SECTION - B
SCALE: 1" = 100' (H); 1" = 20' (V)



C SECTION
06 SITE SECTION - C
SCALE: 1" = 100' (H); 1" = 20' (V)

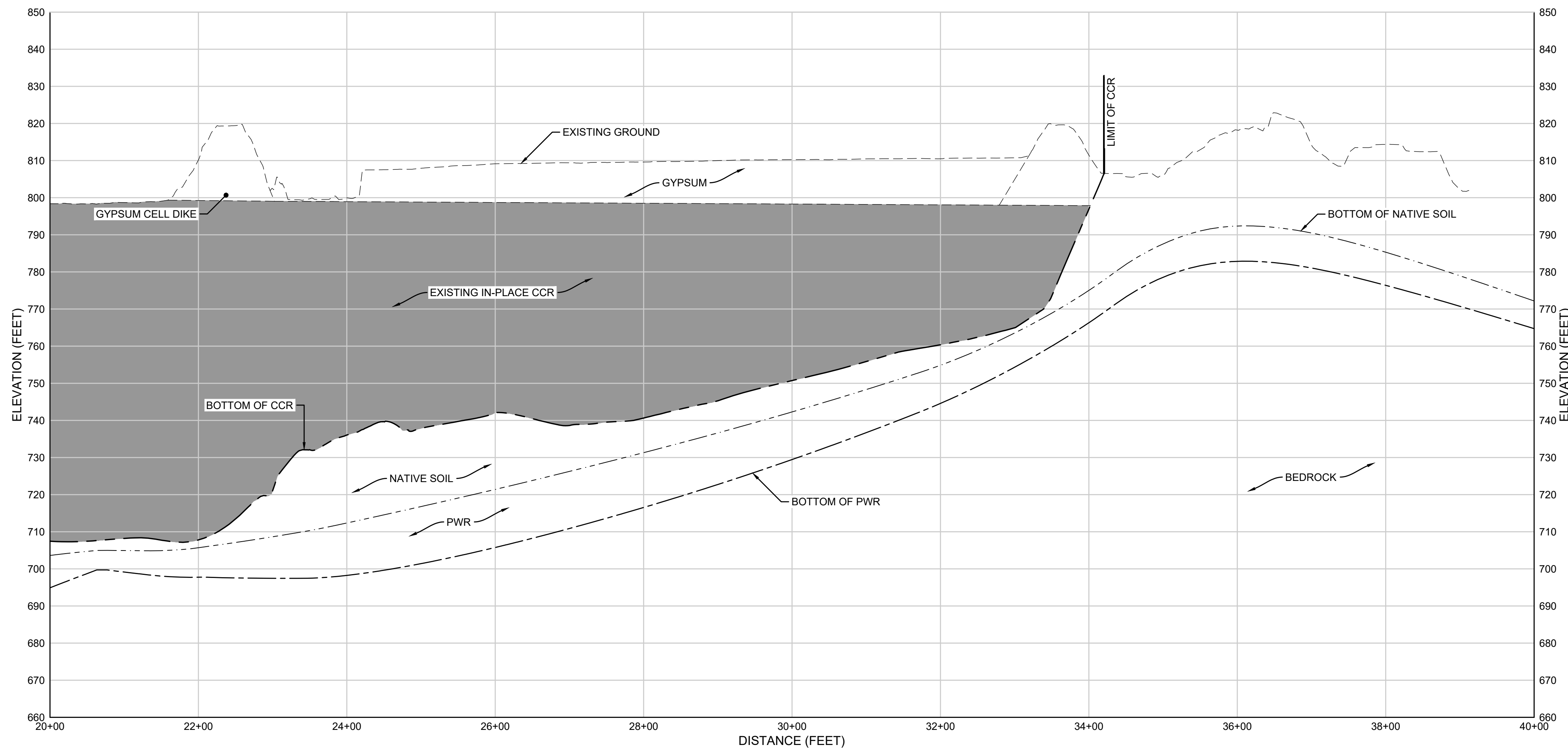
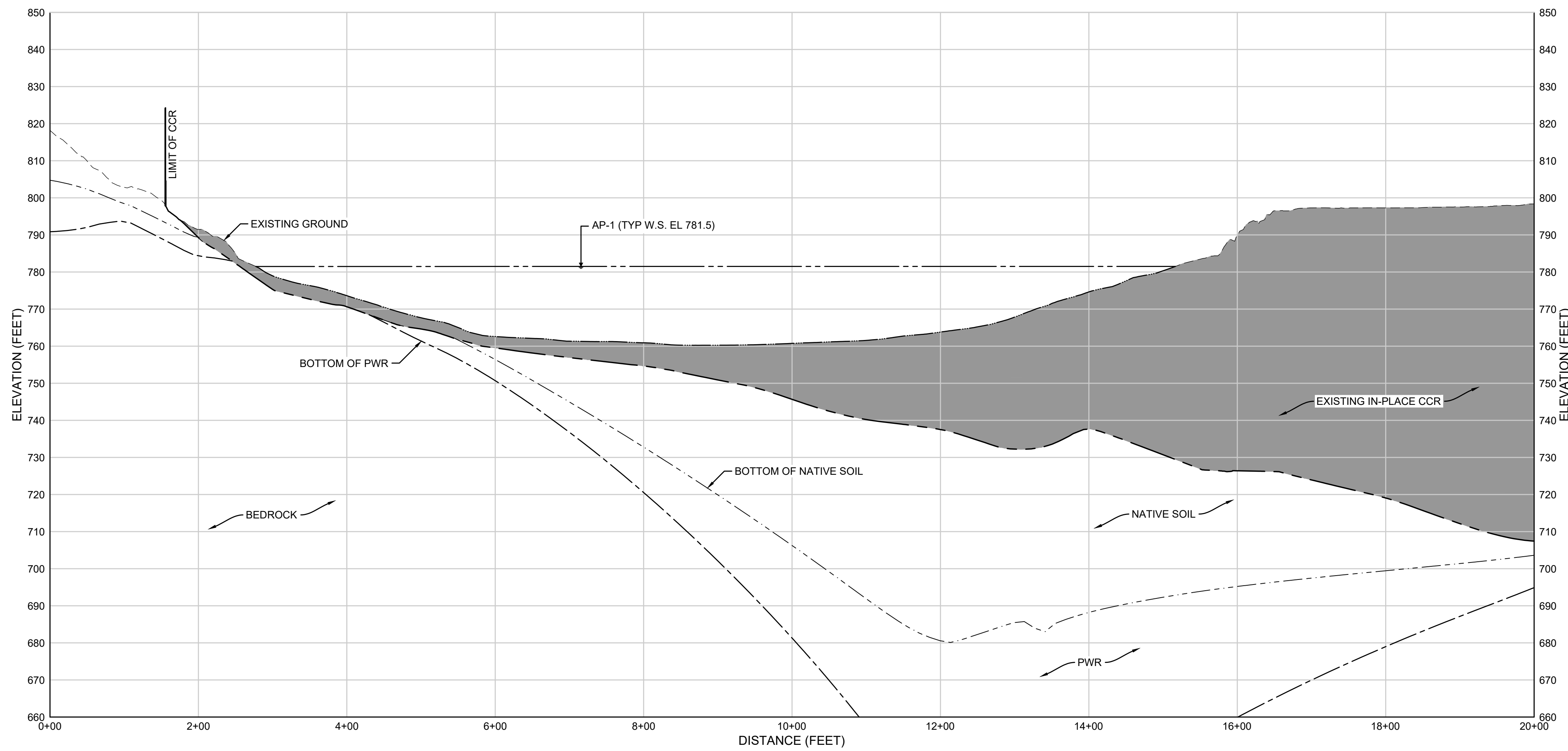
- NOTES:
1. BOTTOM OF CCR SURFACE IS SHOWN IN THESE SECTIONS. EXCAVATION SURFACE IS NOT SHOWN FOR CLARITY AND WILL BE 6 INCHES BELOW THE BOTTOM OF CCR SURFACE.
 2. BATHYMETRY WITHIN THE STORMWATER POND IS ESTIMATED AND NOT SURVEYED.



1	03.10.23	CCR PERMIT DRAWINGS	DLJ	JMG	
REV	DATE	DESCRIPTION	DRN	APP	
SITE SECTIONS - I					
PLANT WANSLEY ASH POND CLOSURE BY REMOVAL HEARD AND CARROLL COUNTIES, GEORGIA					
Geosyntec consultants		Georgia Power			
1255 ROBERTS BOULEVARD, NW, SUITE 200 KENNESAW, GEORGIA 30144 USA		PHONE: 678.202.9500 WWW.GEOSYNTEC.COM			
PROJ. NO.	GW9155	DWG.	GW7306.13-C14	EDIT	3/7/23
SCALE	AS SHOWN	DRAWING 14 OF 22			
DATE	MARCH 2023				

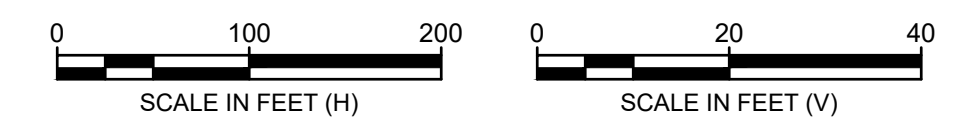
JMG

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D
06 SECTION
SITE SECTION - D
SCALE: 1" = 100' (H); 1" = 20' (V)

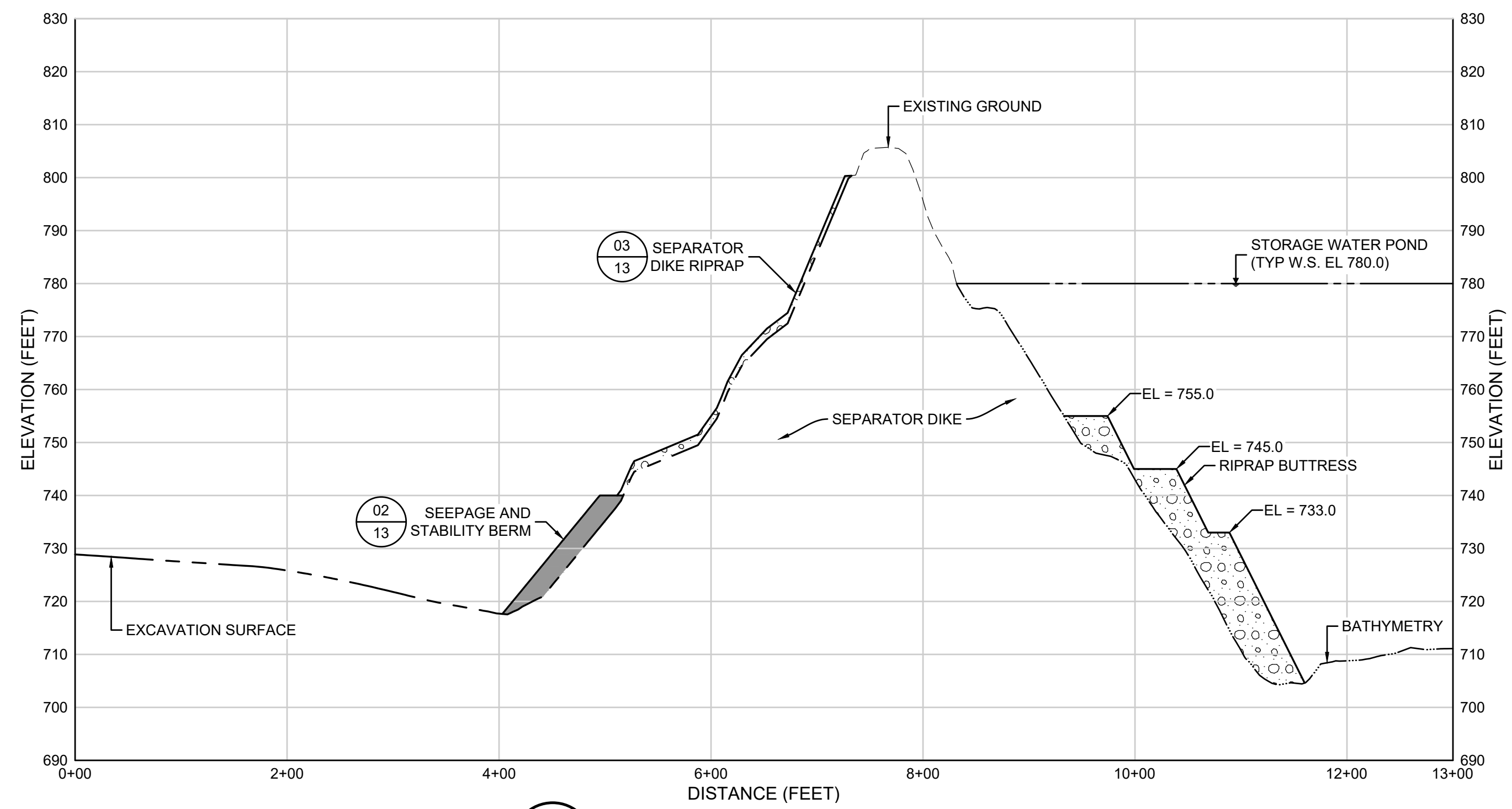
- NOTES:
1. BOTTOM OF CCR SURFACE IS SHOWN IN THESE SECTIONS. EXCAVATION SURFACE IS NOT SHOWN FOR CLARITY AND WILL BE 6 INCHES BELOW THE BOTTOM OF CCR SURFACE.



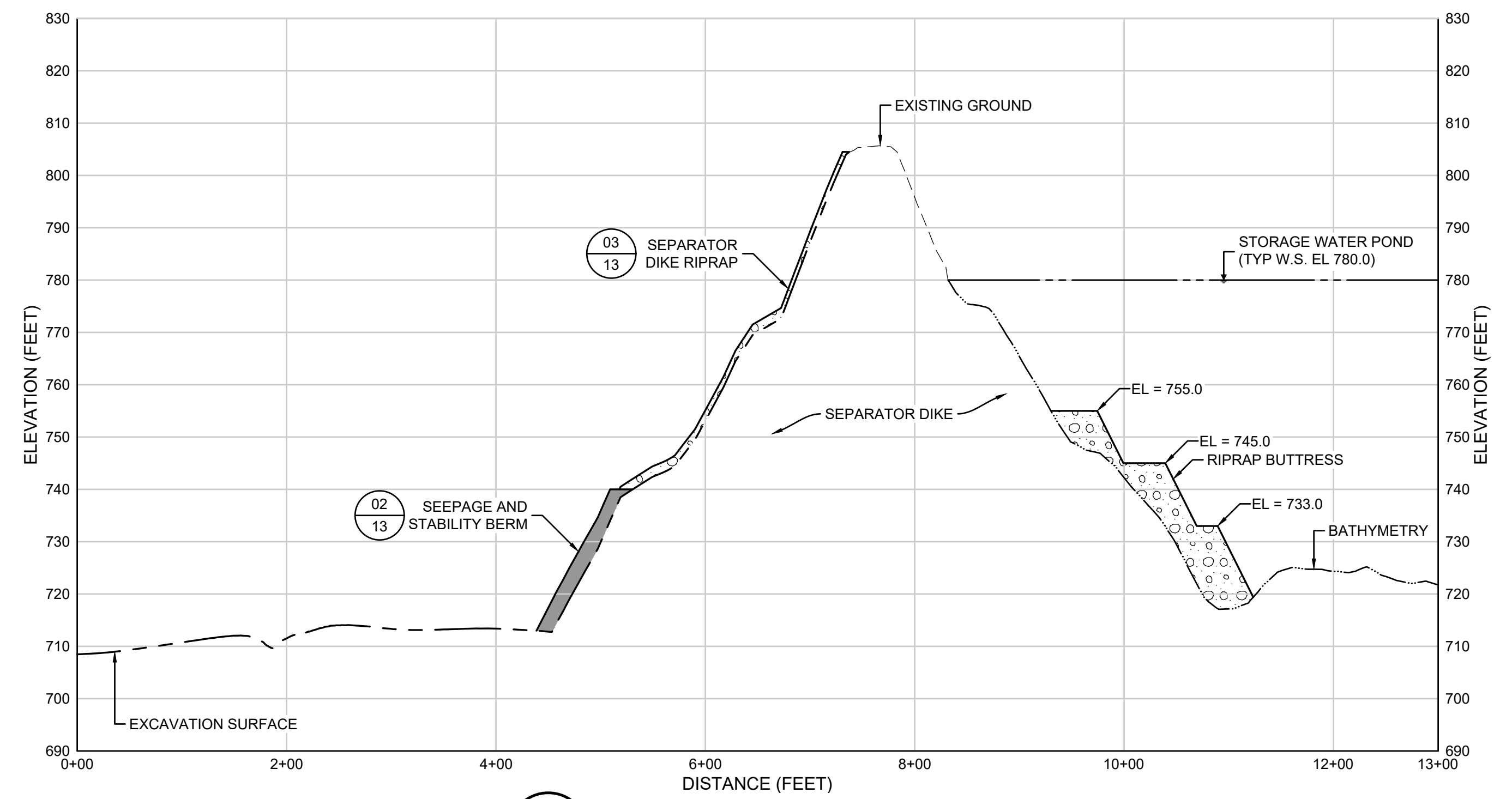
1	03.10.23	CCR PERMIT DRAWINGS	DLJ	JMG	
REV	DATE	DESCRIPTION	DRN	APP	
SITE SECTIONS - II					
PLANT WANSLEY ASH POND CLOSURE BY REMOVAL HEARD AND CARROLL COUNTIES, GEORGIA					
Geosyntec consultants		Georgia Power			
1255 ROBERTS BOULEVARD, NW, SUITE 200 KENNESAW, GEORGIA 30144 USA		PHONE: 678.202.9500 WWW.GEOSYNTEC.COM			
PROJ. NO.	GW9155	DWG.	GW7306.13-C15	EDIT	3/7/23
SCALE	AS SHOWN	DRAWING			15 OF 22
DATE	MARCH 2023				

[Handwritten Signature]
 REGISTERED PROFESSIONAL ENGINEER
 JEREMY GASSER

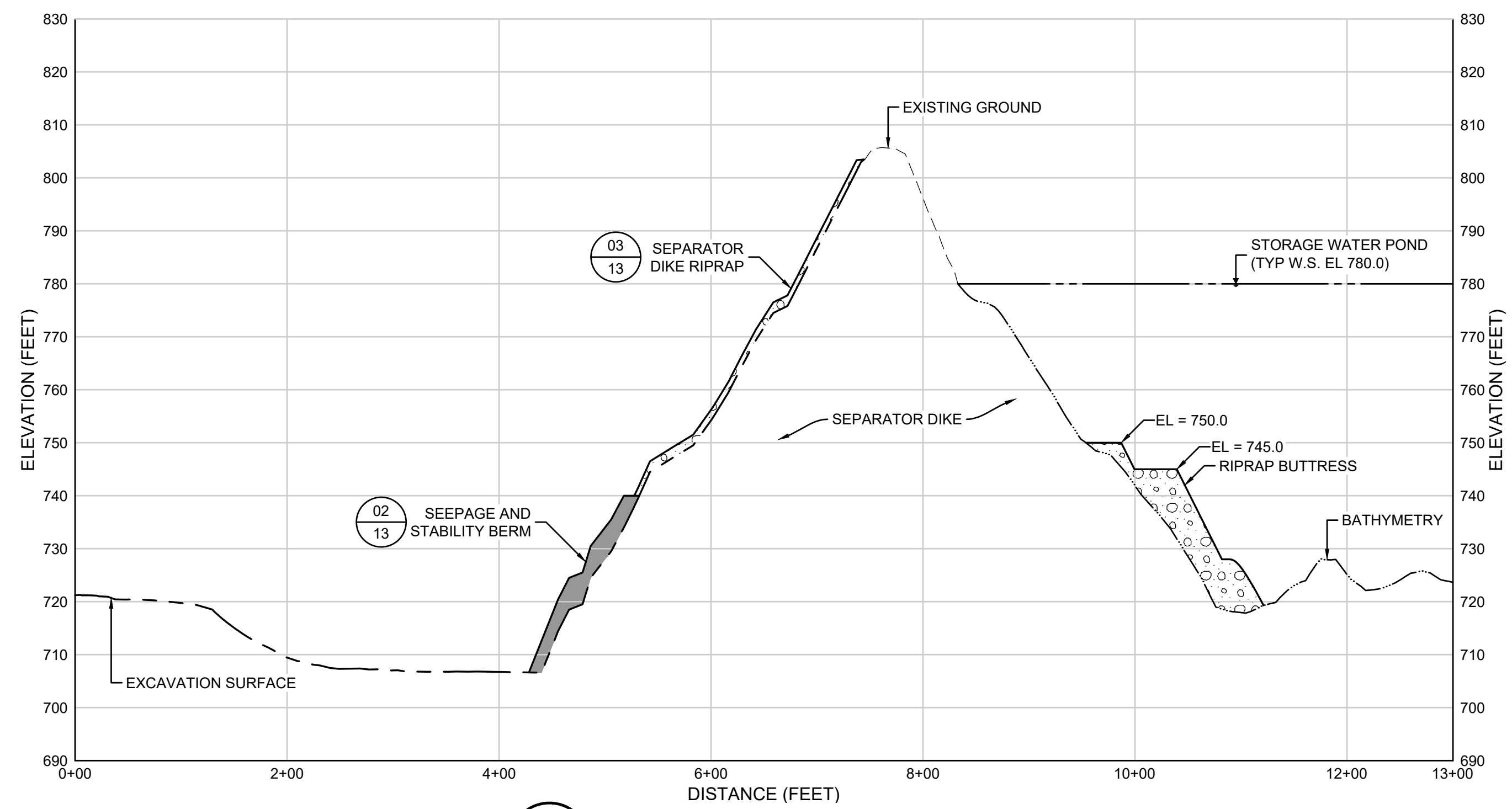
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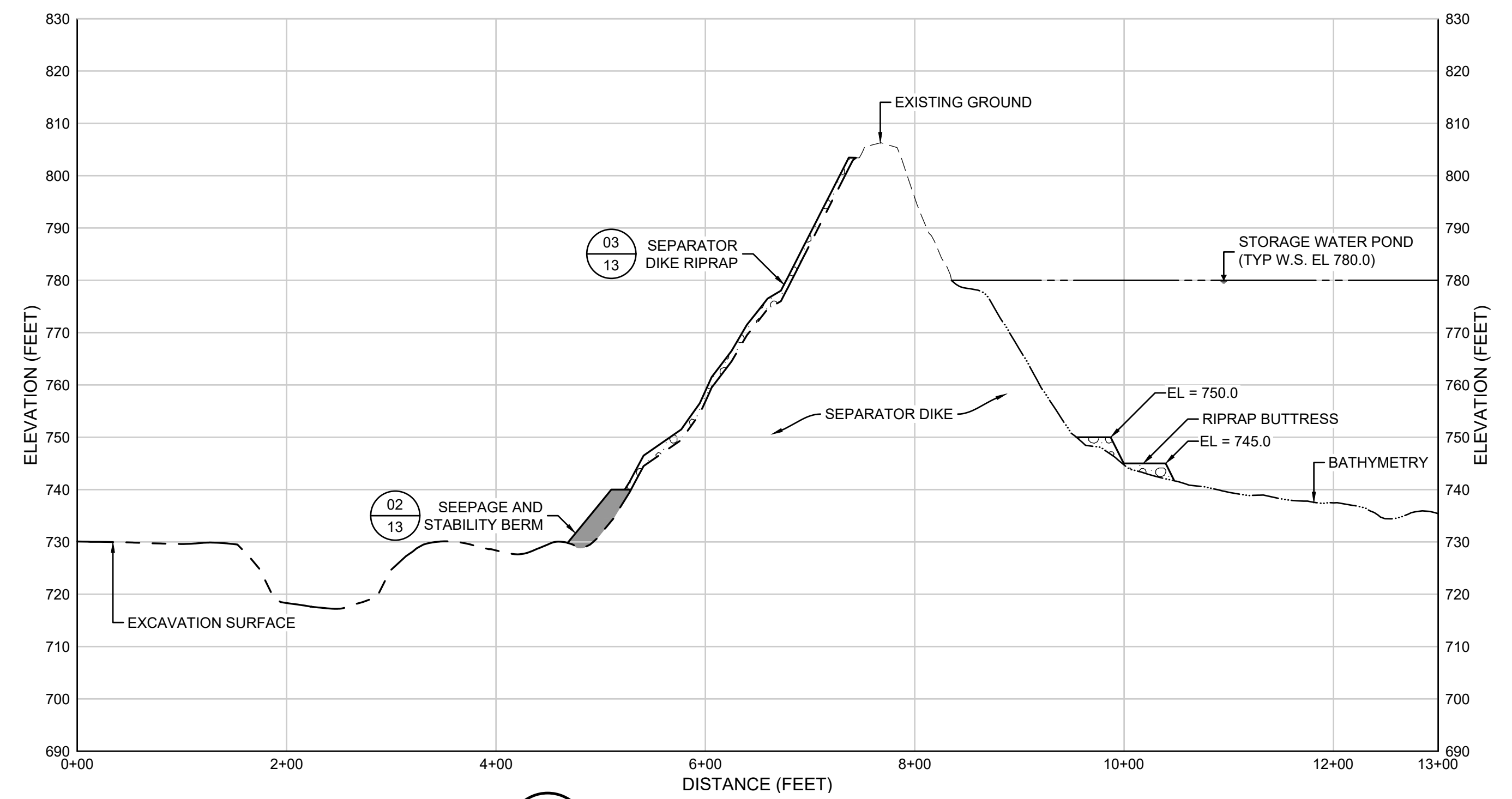
E SECTION
13 SEPARATOR DIKE SECTION - E
 SCALE: 1" = 100' (H); 1" = 20' (V)



F SECTION
13 SEPARATOR DIKE SECTION - F
 SCALE: 1" = 100' (H); 1" = 20' (V)



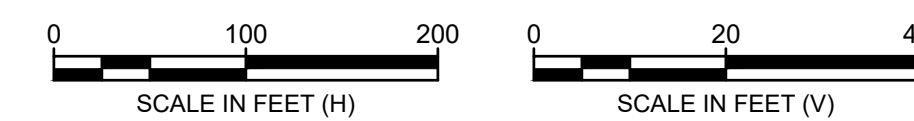
G SECTION
13 SEPARATOR DIKE SECTION - G
 SCALE: 1" = 100' (H); 1" = 20' (V)



H SECTION
13 SEPARATOR DIKE SECTION - H
 SCALE: 1" = 100' (H); 1" = 20' (V)

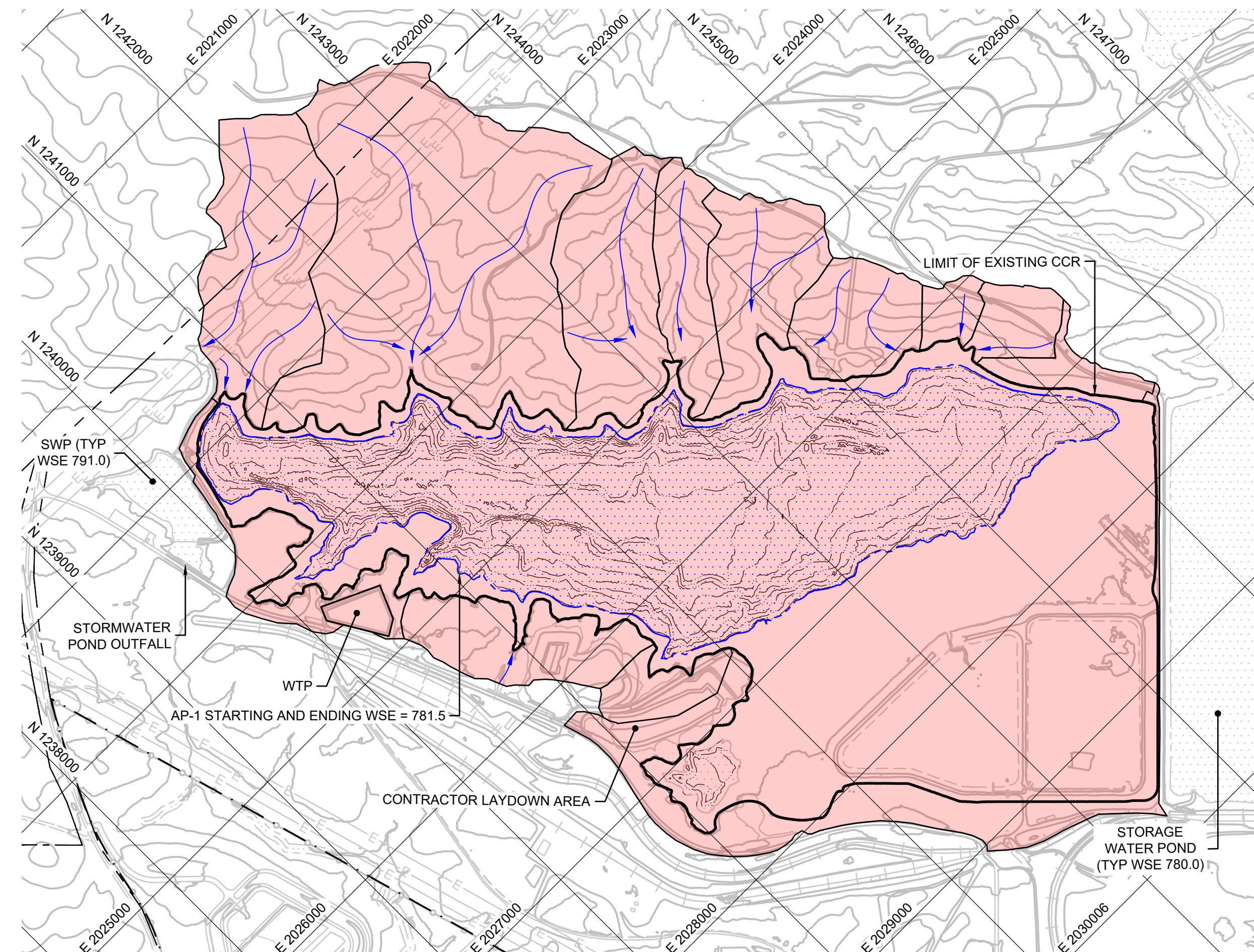
NOTES:

- SEE DETAILS ON DRAWING 13 FOR PLACEMENT OF MATERIALS ON THE AP-1 SIDE OF THE SEPARATOR DIKE.
- RIPRAP BUTTRESS SHALL CONSIST OF GDOT TYPE 1 RIPRAP.



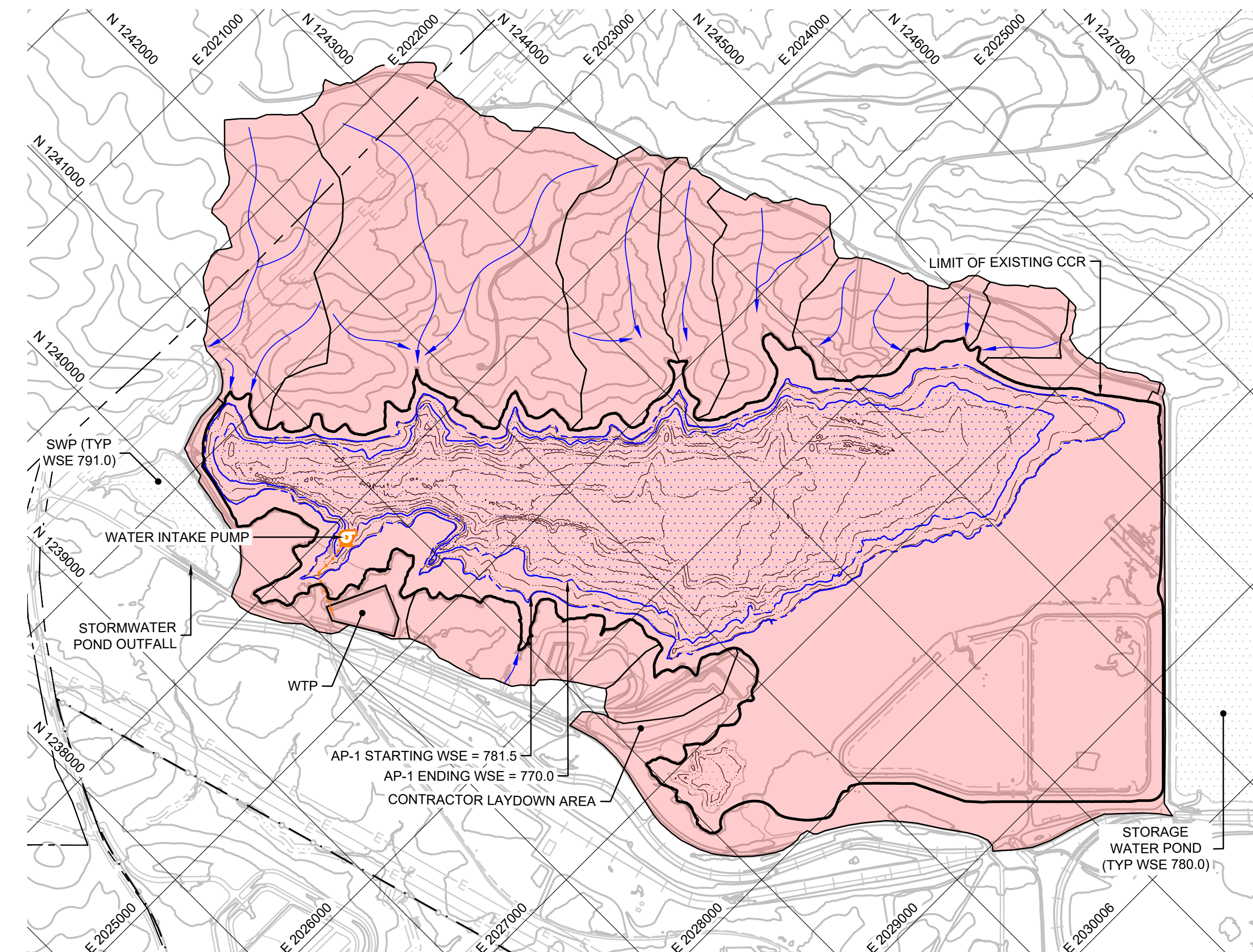
1	03.10.23	CCR PERMIT DRAWINGS	DLJ	JMG	
REV	DATE	DESCRIPTION	DRN	APP	
SEPARATOR DIKE SECTIONS					
PLANT WANSLEY ASH POND CLOSURE BY REMOVAL HEARD AND CARROLL COUNTIES, GEORGIA					
Geosyntec consultants		Georgia Power			
1255 ROBERTS BOULEVARD, NW, SUITE 200 KENNESAW, GEORGIA 30144 USA		PHONE: 678.202.8500 WWW.GEOSYNTEC.COM			
PROJ. NO.	GW9155	DWG.	GW7306.13-C16	EDIT	3/7/23
SCALE	AS SHOWN	DRAWING 16 OF 22			
DATE	MARCH 2023				

- STAGE 0 ACTIVITIES:**
PHASE I (WSE 781.5)
- INITIATE CLOSURE ACTIVITIES.
 - INSTALL EROSION AND SEDIMENT CONTROLS.
 - INSTALL WTP.



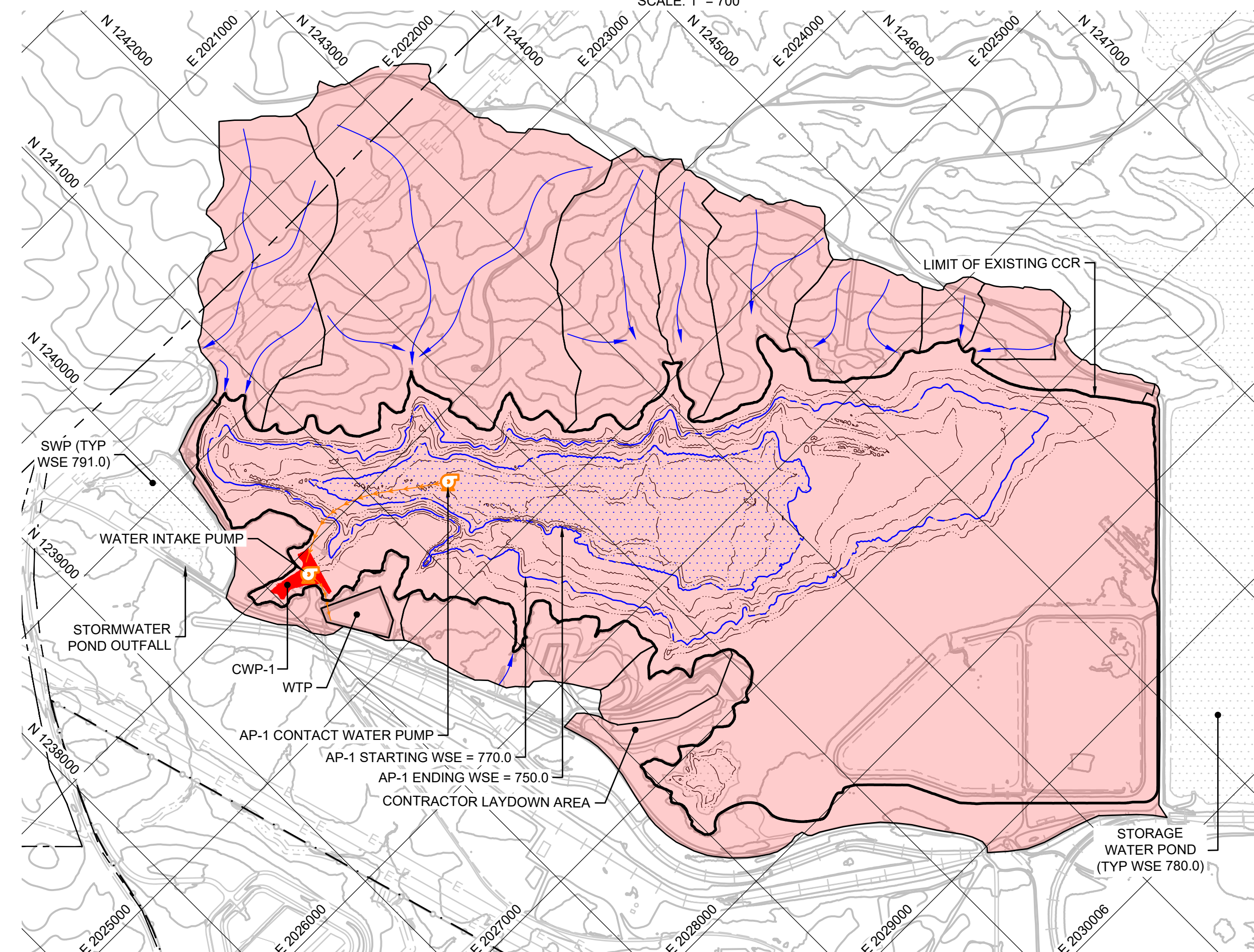
04 PLAN
17 STAGE 0
SCALE: 1" = 700'

- STAGE 1 ACTIVITIES:**
INITIAL DRAWDOWN (WSE 781.5 TO 770.0)
- CONSTRUCT WTP INTAKE FORCEMAIN AND PUMP SYSTEM.
 - COMMENCE INSTALLATION OF TEMPORARY DEWATERING SYSTEM FOR CONSTRUCTION PURPOSES.
 - COMMENCE REMOVAL OF FREE WATER FROM ASH POND.
 - COMMENCE DEMOLITION OF PIPING AND ANCILLARY ITEMS WITHIN THE POND FOOTPRINT.
 - CLEAR AND GRUB CCR CONTACT MATERIALS ALONG THE ASH POND PERIMETER AND WITHIN THE POND FOOTPRINT.
 - CONTINUE TO CONSTRUCT AND MAINTAIN EROSION AND SEDIMENT CONTROLS.



05 PLAN
17 STAGE 1
SCALE: 1" = 700'

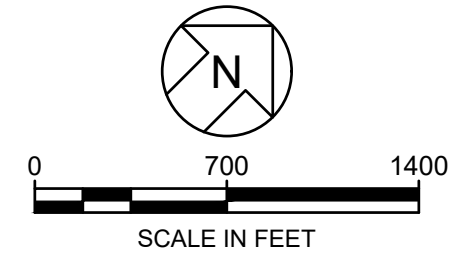
- STAGE 2 ACTIVITIES:**
DRAWDOWN (WSE 770.0 TO 750.0)
- CONTINUE TO REMOVE FREE WATER FROM ASH POND TO AN ELEVATION OF 750.0 FEET.
 - COMMENCE REMOVAL OF CCR.
 - CONSTRUCT CONTACT WATER POND 1.
 - CONTINUE TEMPORARY DEWATERING ACTIVITIES FOR CONSTRUCTION PURPOSES.
 - CONTINUE TO CONSTRUCT AND MAINTAIN EROSION AND SEDIMENT CONTROLS.



06 PLAN
17 STAGE 2
SCALE: 1" = 700'

LEGEND

- CONTACT WATER GENERATION AREA
- CONTACT WATER LINED POND
- NON-CONTACT WATER GENERATION AREA
- NON-CONTACT WATER UNLINED POND
- AP-1 WATER LEVEL
- FLOW DIRECTION
- CONTACT WATER PUMPING DIRECTION
- NON-CONTACT WATER PUMPING DIRECTION
- LIMIT OF EXISTING CCR

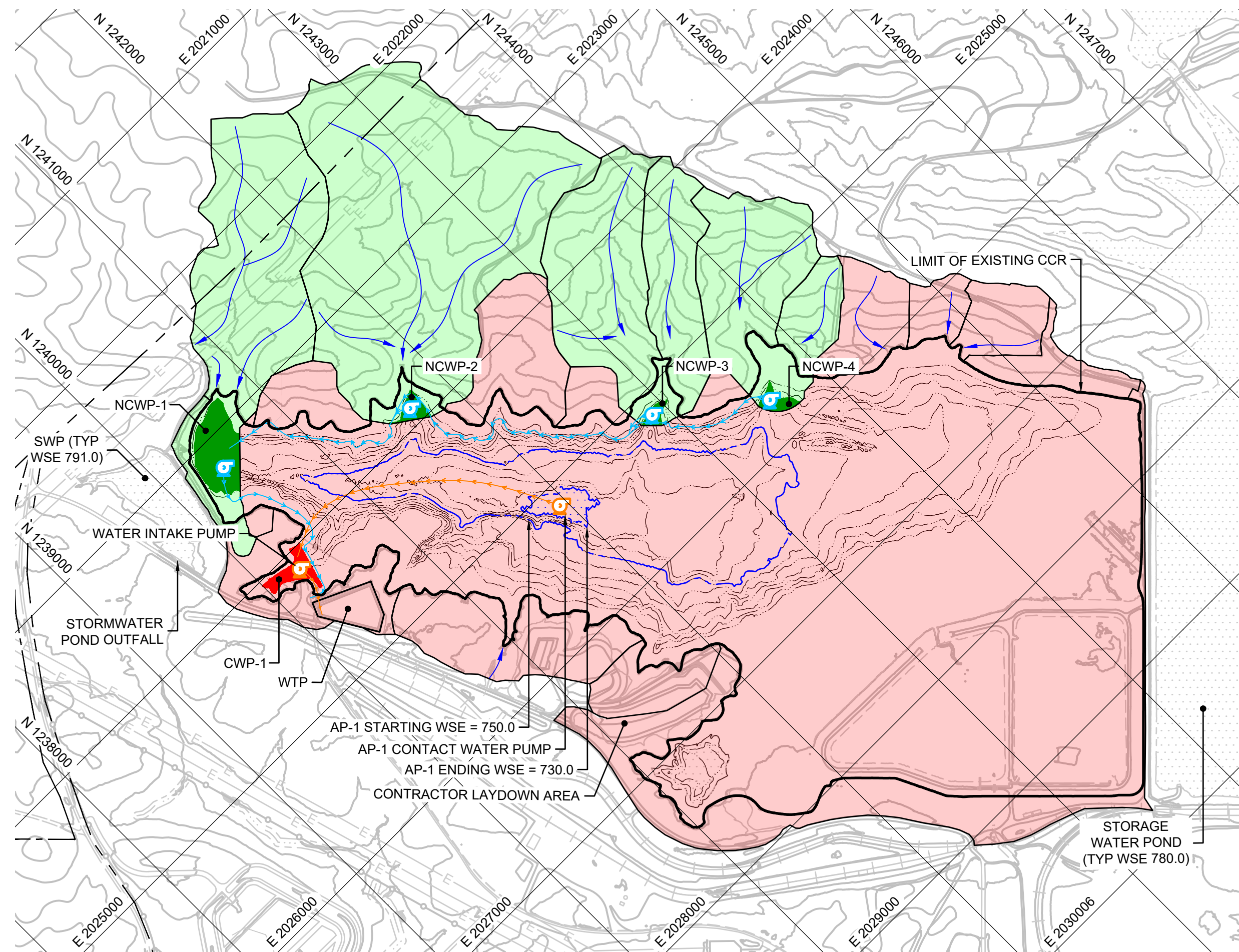


1	03.10.23	CCR PERMIT DRAWINGS	DLJ	JMG	
REV	DATE	DESCRIPTION	DRN	APP	
CONSTRUCTION SEQUENCING PLAN - I					
PLANT WANSLEY ASH POND CLOSURE BY REMOVAL HEARD AND CARROLL COUNTIES, GEORGIA					
Geosyntec consultants			Georgia Power		
1255 ROBERTS BOULEVARD, NW, SUITE 200 KENNESAW, GEORGIA 30144 USA			PHONE: 678.202.8500 WWW.GEOSYNTEC.COM		
PROJ. NO.	GW9155	DWG.	GW7306.13-C17	EDIT	3/7/23
SCALE	SCALE: 1" = 700'		DRAWING 17 OF 22		
DATE	MARCH 2023				

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STAGE 3 ACTIVITIES:

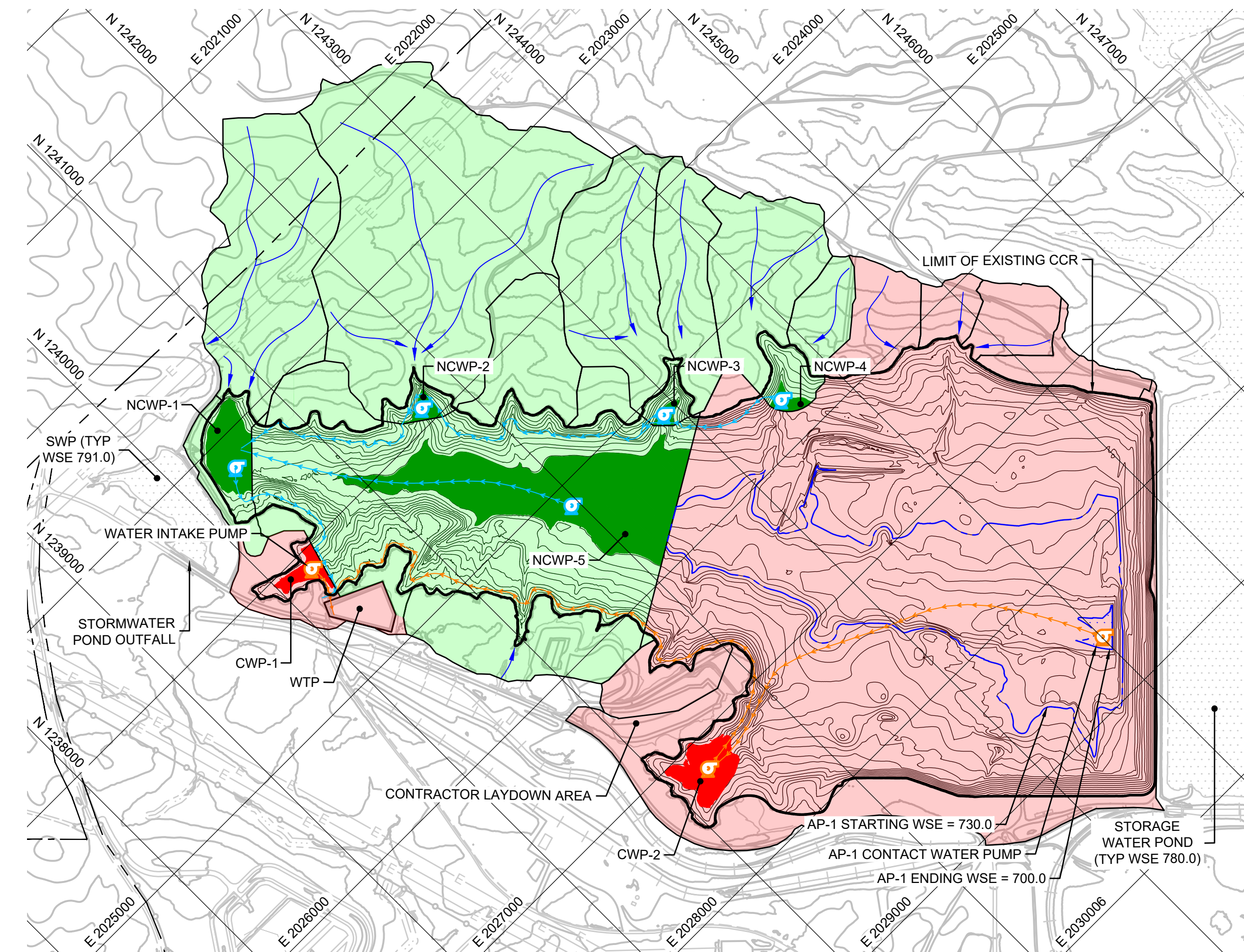
- DRAWDOWN CONTINUED (WSE 750.0 TO 730.0)**
- CONTINUE TO REMOVE FREE WATER FROM ASH POND TO AN ELEVATION OF 730.0 FEET.
 - CONSTRUCT NON-CONTACT WATER PONDS (NCWP) 1, 2, 3 AND 4. ENSURE MAXIMUM BERM HEIGHTS OF 25 FT AND STORAGE CAPACITIES OF LESS THAN 100 AC-FT.
 - CONSTRUCT FORCEMAINS TO CONVEY NON-CONTACT STORMWATER FROM NCWPS 2, 3 AND 4 TO NCWP 1, AND FROM NCWP 1 TO THE WESTERN STORMWATER POND.
 - CONTINUE REMOVAL OF CCR AND CERTIFY.
 - CONTINUE TEMPORARY DEWATERING ACTIVITIES FOR CONSTRUCTION PURPOSES.
 - CONTINUE TO CONSTRUCT AND MAINTAIN EROSION AND SEDIMENT CONTROLS.



07 PLAN
18 STAGE 3
SCALE: 1" = 700'

STAGE 4 ACTIVITIES:

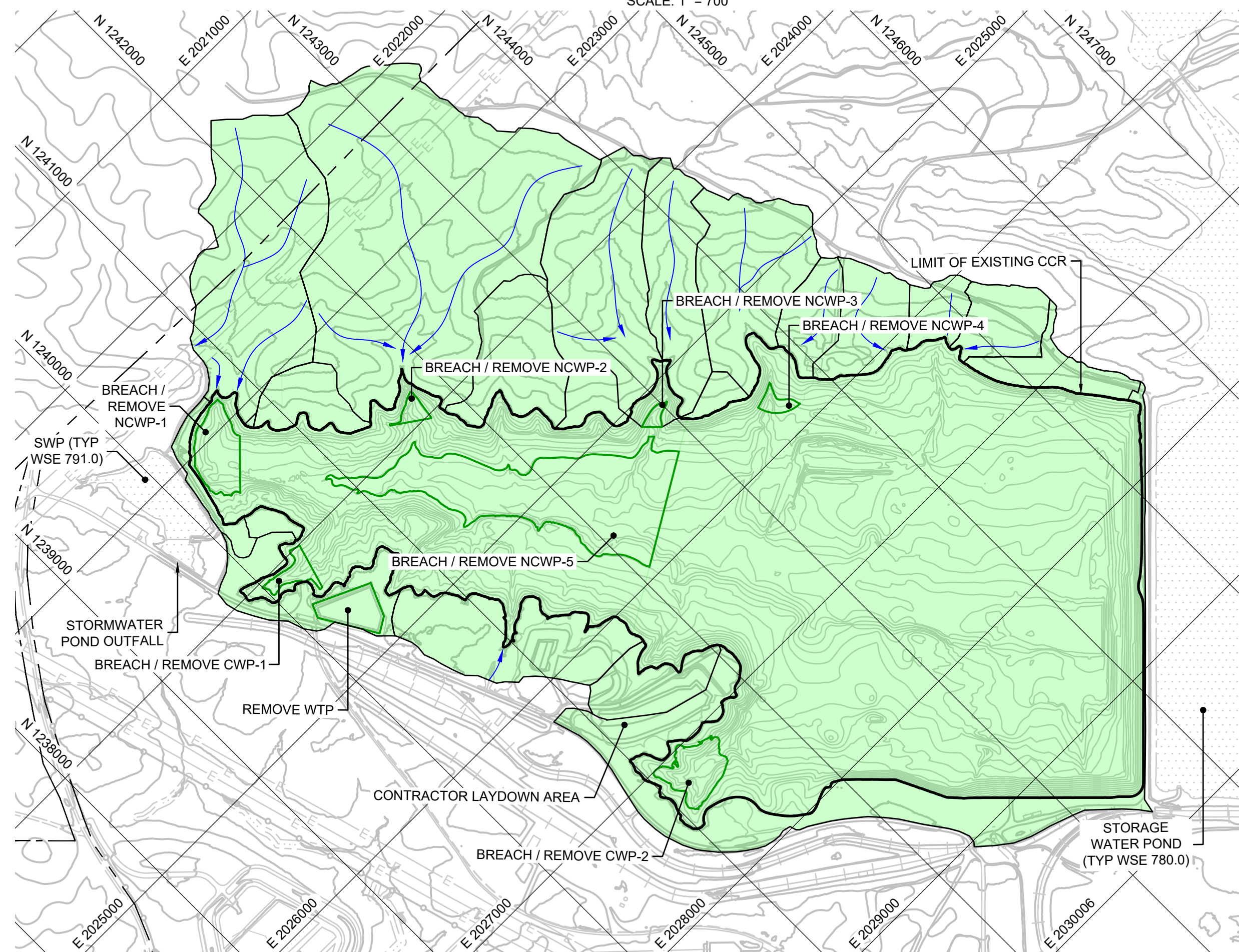
- CCR REMOVAL (WSE 730.0 TO 700.0)**
- COMPLETE FREE WATER REMOVAL WITHIN THE ASH POND.
 - CONSTRUCT NCWP 5. ENSURE MAXIMUM BERM HEIGHTS OF 25 FT AND STORAGE CAPACITIES OF LESS THAN 100 AC-FT.
 - CONSTRUCTION CWP-2.
 - COMPLETE REMOVAL OF CCR AND CERTIFY.
 - COMMENCE CONTACT WATER MANAGEMENT WITHIN THE ASH POND.
 - CONTINUE TO CONSTRUCT AND MAINTAIN EROSION AND SEDIMENT CONTROLS.
 - COMPLETE PLACEMENT OF CHANNEL BEDDING AND ARMORING MATERIALS FOR EROSION PROTECTION IN EXPOSED CHANNELS.
 - COMPLETE SEPARATOR DIKE SLOPE ARMORING FOR EROSION PROTECTION.



08 PLAN
18 STAGE 4
SCALE: 1" = 700'

STAGE 5 ACTIVITIES:

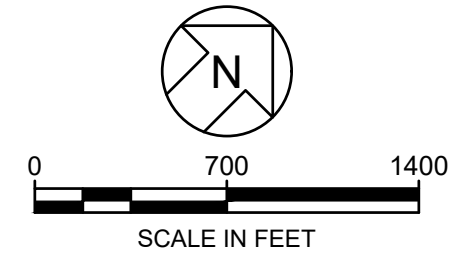
- STABILIZATION AND REFILL (WSE 700.0 TO 781.5)**
- BREACH/REMOVE NON-CONTACT WATER PONDS/BERMS.
 - CLOSE AND REMOVE WTP.
 - REMOVE TEMPORARY CONSTRUCTION FACILITIES.
 - CONTINUE TO MAINTAIN EROSION AND SEDIMENT CONTROLS.
 - PERFORM VEGETATION MANAGEMENT AND RESEEDING AS NEEDED FOR STABILIZATION.
 - PLACE RIPRAP AND SEEPAGE BERM ON THE AP-1 SIDE OF THE SEPARATOR DIKE.
 - PLACE RIPRAP BUTTRESS ON THE STORAGE WATER POND OF THE SEPARATOR DIKE.
 - ASH POND 1 CLOSURE ACTIVITIES ARE COMPLETE.



09 PLAN
18 STAGE 5
SCALE: 1" = 700'

LEGEND

- CONTACT WATER GENERATION AREA
- CONTACT WATER LINED POND
- NON-CONTACT WATER GENERATION AREA
- NON-CONTACT WATER UNLINED POND
- AP-1 WATER LEVEL
- FLOW DIRECTION
- CONTACT WATER PUMPING DIRECTION
- NON-CONTACT WATER PUMPING DIRECTION
- LIMIT OF EXISTING CCR

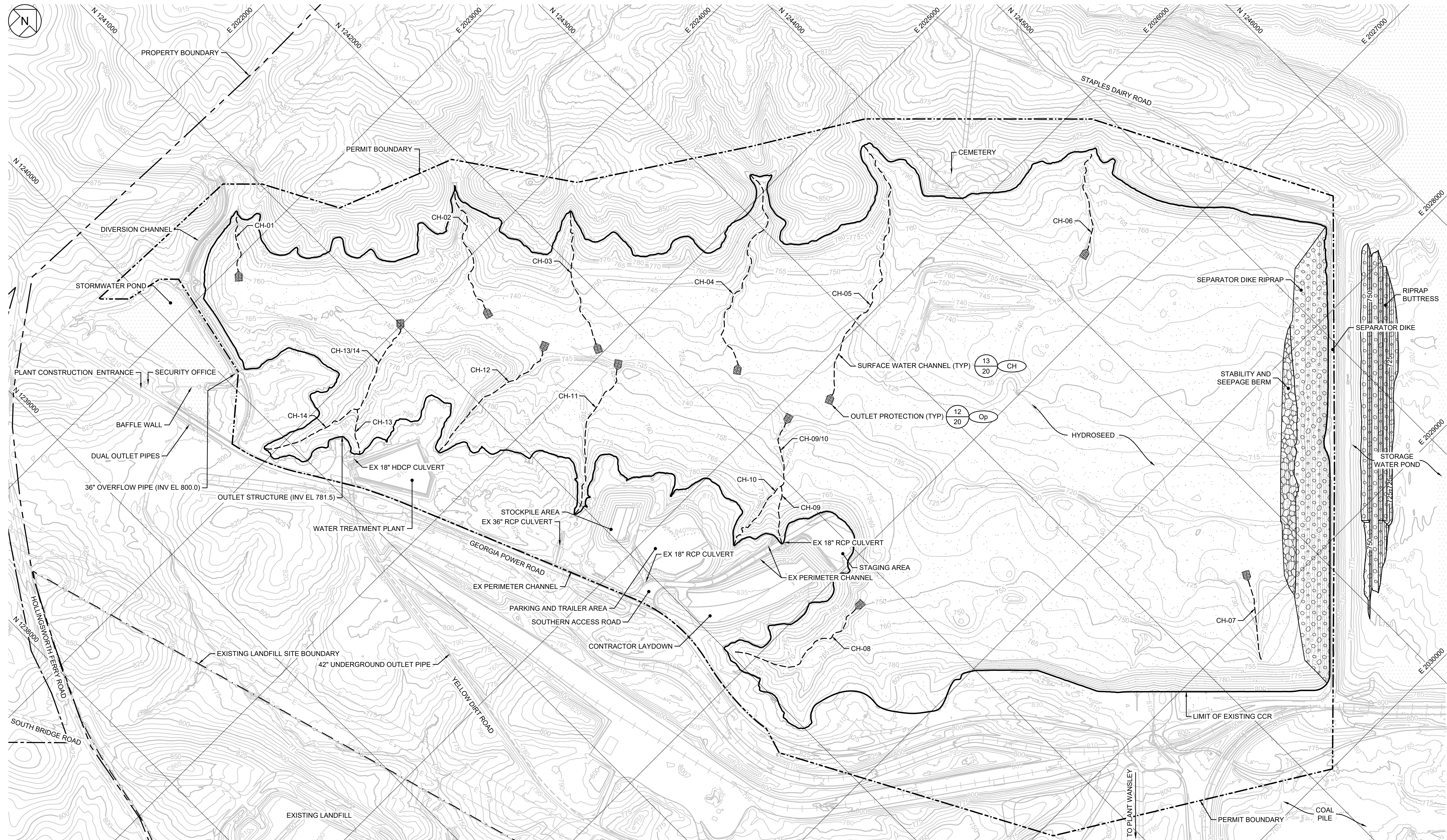


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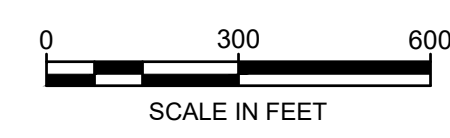
GEORGIA REGISTERED PROFESSIONAL ENGINEER
JEREMY GASSER

1	03.10.23	CCR PERMIT DRAWINGS	DLJ	JMG	
REV	DATE	DESCRIPTION	DRN	APP	
CONSTRUCTION SEQUENCING PLAN - II					
PLANT WANSLEY ASH POND CLOSURE BY REMOVAL HEARD AND CARROLL COUNTIES, GEORGIA					
Geosyntec consultants		Georgia Power			
1255 ROBERTS BOULEVARD, NW, SUITE 200 KENNESAW, GEORGIA 30144 USA		PHONE: 678.202.8500 WWW.GEOSYNTEC.COM			
PROJ. NO.	GW9155	DWG.	GW7306.13-C18	EDIT	3/7/23
SCALE	SCALE: 1" = 700'	DRAWING 18 OF 22			
DATE	MARCH 2023				

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NOTES:
 1. SEE DRAWING 02 FOR LEGENDS, ABBREVIATIONS, AND GENERAL SITE NOTES.



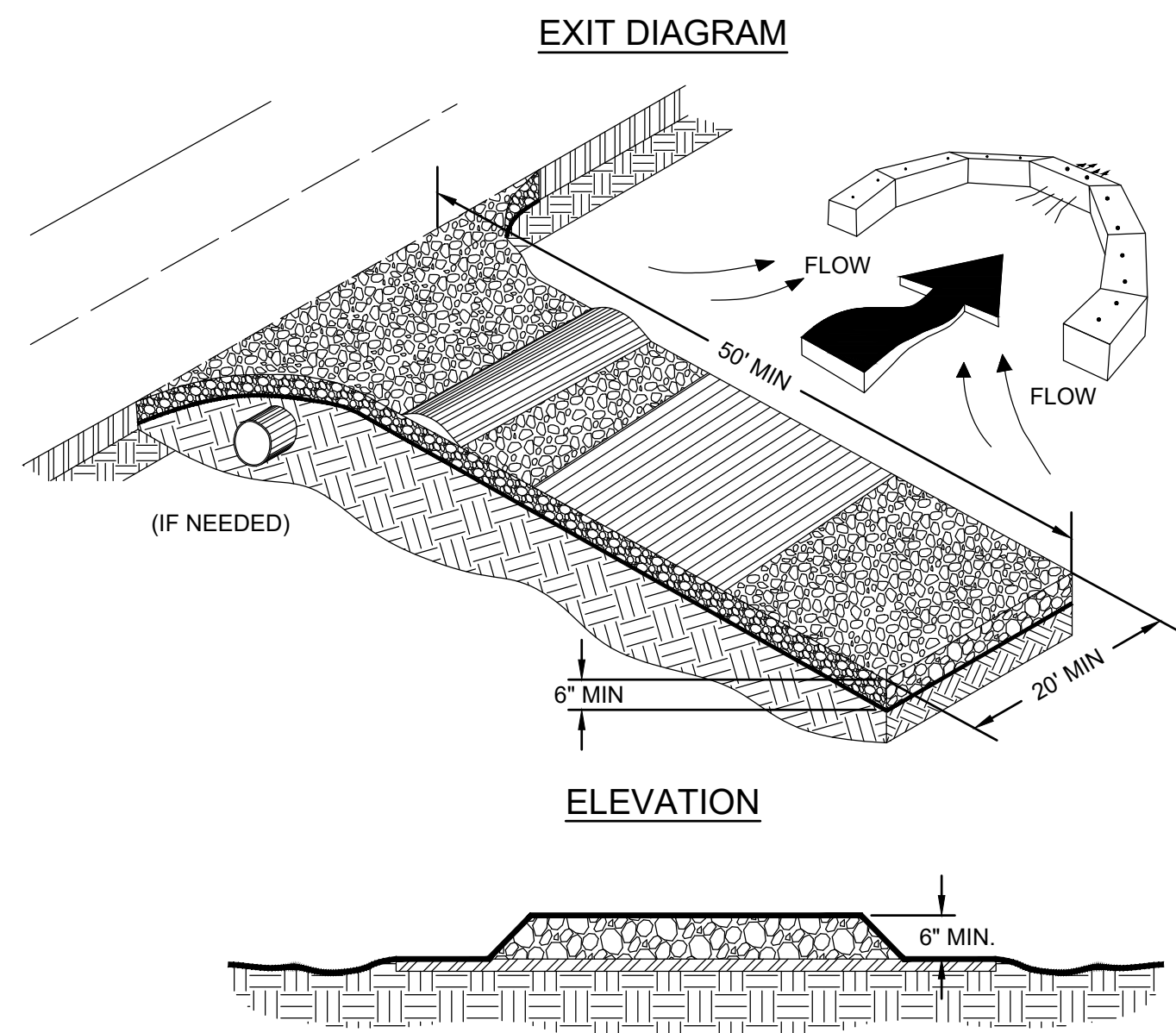
1	03.10.23	CCR PERMIT DRAWINGS	DLJ	JMG
REV	DATE	DESCRIPTION	DRN	APP

FINAL STORMWATER AND ESC PLAN
 PLANT WANSLEY ASH POND CLOSURE BY REMOVAL
 HEARD AND CARROLL COUNTIES, GEORGIA

1255 ROBERTS BOULEVARD, NW, SUITE 200 KENNESAW, GEORGIA 30144 USA		PHONE: 678.202.8500 WWW.GEOSYNTEC.COM	
PROJ. NO.	GW9155	DWG.	GW7306.13-C19
SCALE	AS SHOWN	EDIT	3/7/23
DATE	MARCH 2023	DRAWING 19 OF 22	

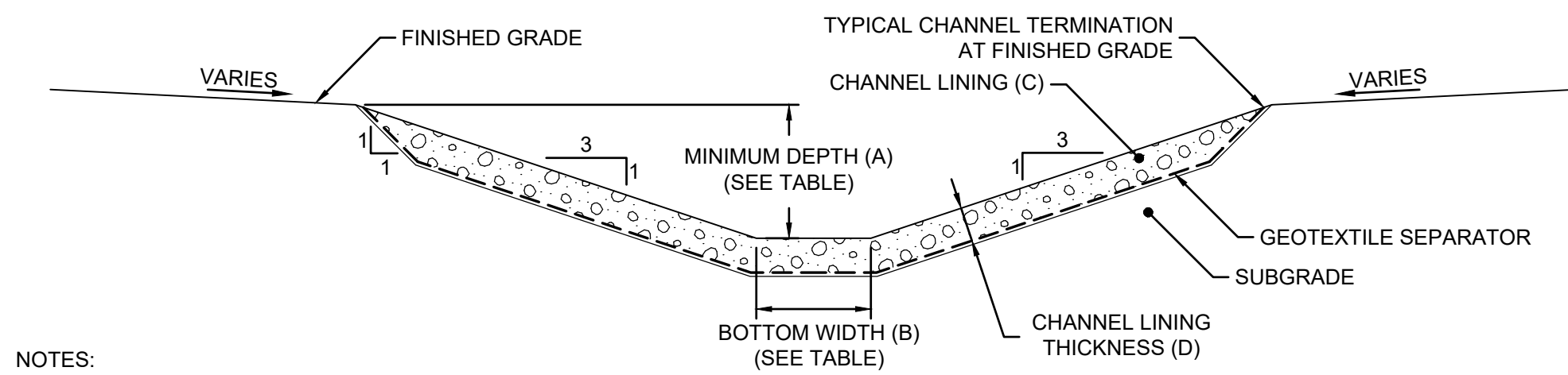
JMG
 REGISTERED PROFESSIONAL ENGINEER
 JEREMY GASSER

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- NOTES:**
1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.
 2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
 3. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION (NSA) R-2 (1.5"-3.5" STONE).
 4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6".
 5. PAD WIDTH SHALL 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 OR SEDIMENT BASIN (DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE).
 9. WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL SUITABLE FOR TRUCK TRAFFIC THAT REMOVES MUD AND DIRT.
 10. MAINTAIN AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR, AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

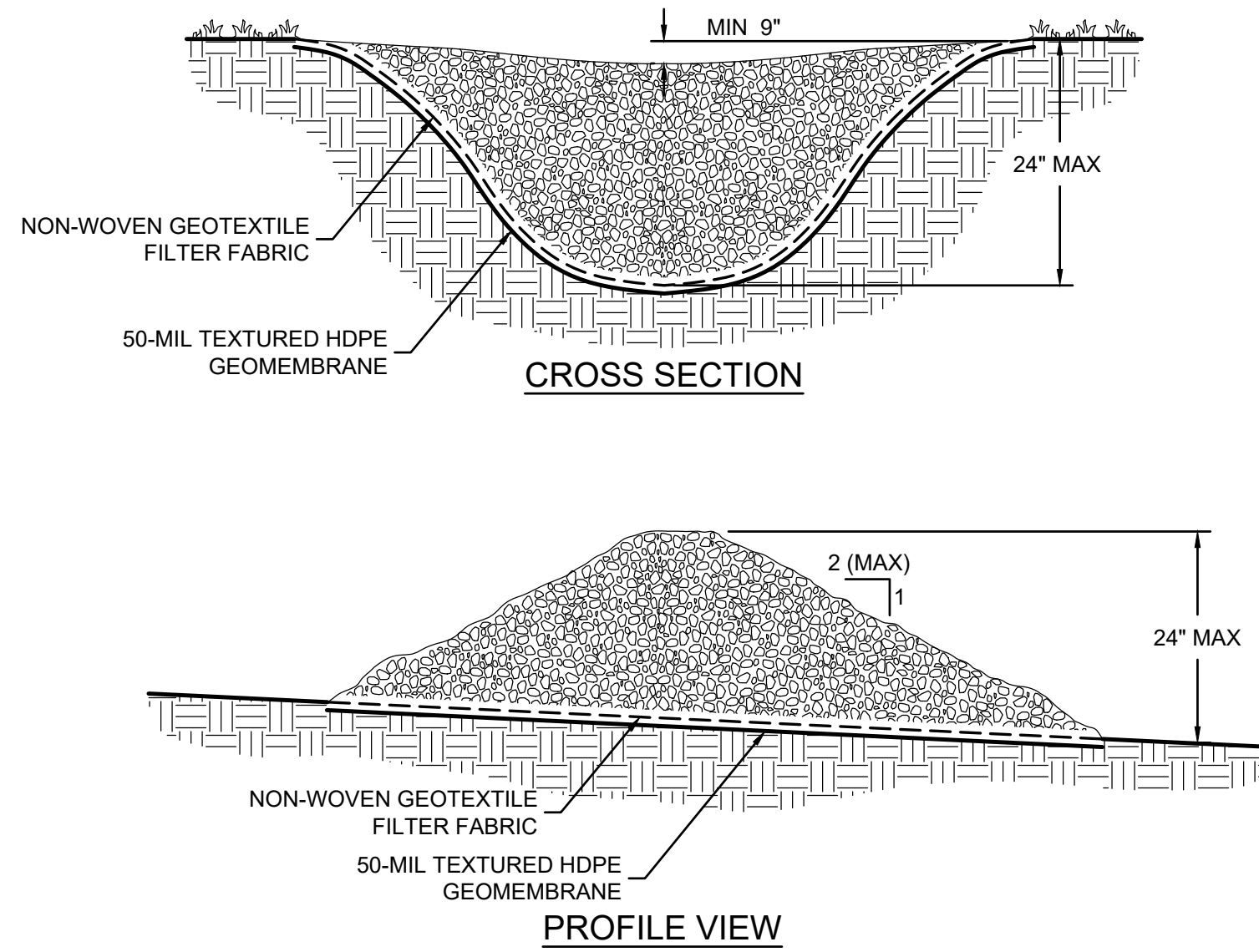
Co **10** **19** **DETAIL**
CONSTRUCTION EXIT
SCALE: NTS



- NOTES:**
1. CHANNEL STABILIZATION (CH-1)
 - 1.1. VEGETATED LINING: VELOCITIES OF LESS THAN 5FT/SEC.
 - 1.2. EROSION CONTROL BLANKETS/SOD REQUIRED TO ESTABLISH VEGETATION.
 2. CHANNEL STABILIZATION (CH-2):
 - 2.1. RIP RAP: VELOCITIES BETWEEN 5-10 FT/SEC.
 - 2.2. FILTER BLANKET LAYER REQUIRED - SAND/GRAVEL OR GEOTEXTILE. SELECTED GEOTEXTILE SHOULD MEET AASH-TO M2288-96 SECTION 7.5.

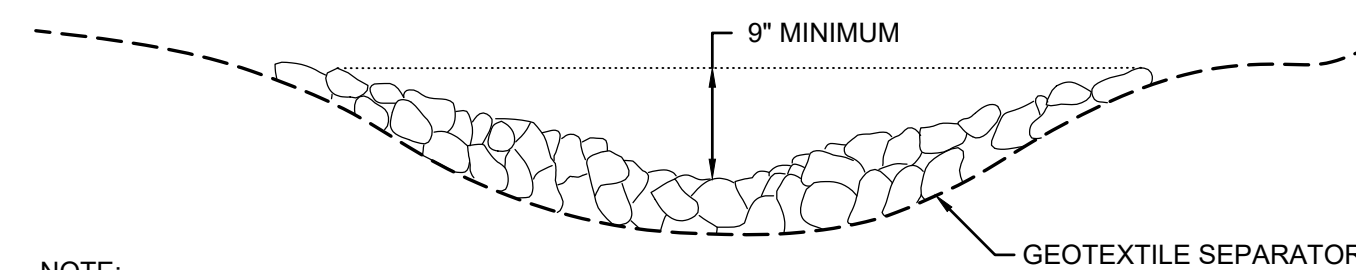
ID	UPSTREAM ELEV (FT)	DOWNSTREAM ELEV (FT)	LENGTH (FT)	SLOPE	MIN DEPTH (FT)	BOTTOM WIDTH (FT)	LINING	RIPRAP TYPE (D50)	LINING THICKNESS (FT)
CH-01	800.0	755.0	455.0	0.099	2.50	3.00	CH-2	GDOT TYPE 1	3
CH-02	800.0	734.0	923.0	0.072	3.00	4.00	CH-2	GDT TYPE 1	3
CH-03	800.0	729.0	941.0	0.075	2.50	3.00	CH-2	GDOT TYPE 3	1.5
CH-04	800.0	720.0	1425.0	0.056	3.00	4.00	CH-2	GDOT TYPE 3	1.5
CH-05	800.0	718.0	1795.0	0.046	3.00	4.00	CH-2	GDOT TYPE 1	3
CH-06	798.0	746.0	718.2	0.072	2.50	3.00	CH-2	GDOT TYPE 3	1.5
CH-07	810.0	728.0	552.6	0.148	3.00	3.00	CH-2	GDOT TYPE 3	3
CH-08	780.0	744.0	891.2	0.040	3.00	3.00	CH-2	GDOT TYPE 3	1.5
CH-09	800.0	760.0	525.0	0.076	3.00	3.00	CH-2	GDOT TYPE 3	1.5
CH-10	800.0	760.0	667.0	0.060	2.00	3.00	CH-2	GDOT TYPE 3	1.5
CH-09/10	760.0	724.0	435.2	0.083	2.50	3.00	CH-2	GDOT TYPE 1	3
CH-11	800.0	727.0	1050.0	0.070	2.50	3.00	CH-2	GDOT TYPE 3	3
CH-12	800.0	731.0	995.0	0.069	2.50	3.00	CH-2	GDOT TYPE 3	3
CH-13	800.0	766.0	285.0	0.119	2.50	3.00	CH-2	GDOT TYPE 3	3
CH-14	780.0	766.0	657.6	0.021	2.00	3.00	CH-2	GDOT TYPE 3	1.5
CH-13/14	766.0	741.0	568.2	0.044	2.50	3.00	CH-2	GDOT TYPE 3	1.5

CH **13** **19** **DETAIL**
SURFACE WATER CHANNEL
SCALE: NTS

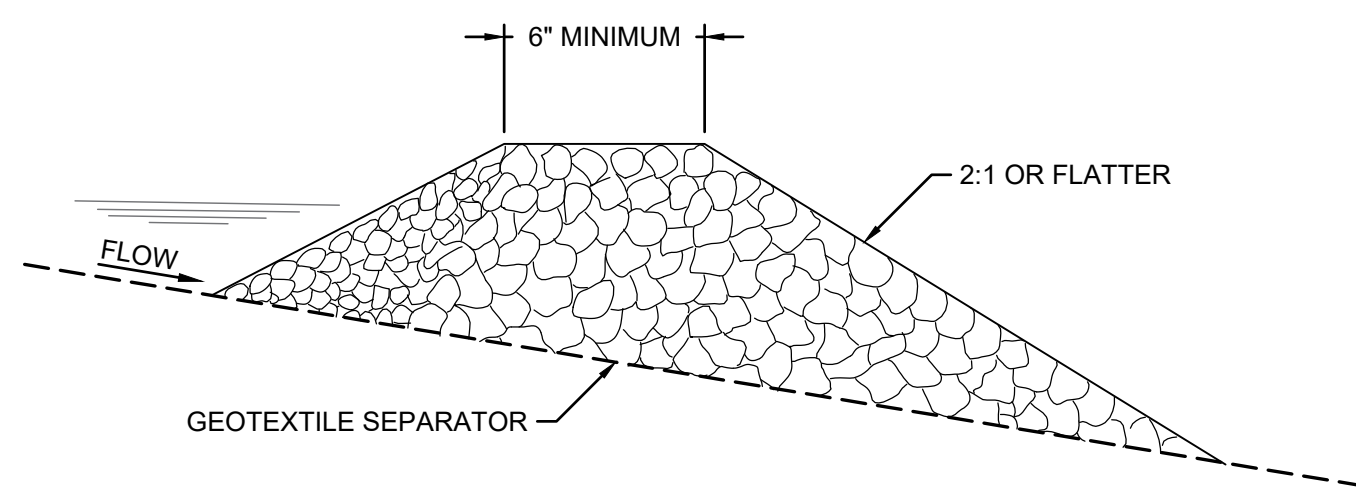


- NOTES:**
1. CHECK DAMS ARE TO BE USED ONLY IN SMALL OPEN CHANNELS (THEY ARE NOT TO BE USED IN LIVE STREAMS).
 2. THE DRAINAGE AREA FOR STONE CHECK DAMS SHALL NOT EXCEED TWO ACRES.
 3. THE CENTER OF THE CHECK DAM MUST BE AT LEAST 9 INCHES LOWER THAN THE OUTER EDGES.
 4. THE DAM HEIGHT SHOULD BE A MAXIMUM OF 2 FEET FROM CENTER TO RIM EDGE.
 5. THE SIDE SLOPES OF THE CHECK DAM SHALL NOT EXCEED A 2:1 SLOPE.
 6. GEOTEXTILE SHALL BE USED TO PREVENT THE MITIGATION OF SUBGRADE SOIL PARTICLES INTO THE STONES (REFER TO AASHTO M288-96, SECTION 7.3, TABLE 3).
 7. CHECK DAMS SHALL BE SPACED 200 FT APART IN ALL PERIMETER CHANNELS.
 8. CHECK DAMS SHALL BE PLACED ON BOTH SIDES OF THE OUTFLOW WEIRS AND SPACED 3 FEET FROM THE EDGES OF THE WEIR.

Cd-S **11** **19** **DETAIL**
STONE CHECK DAM
SCALE: NTS

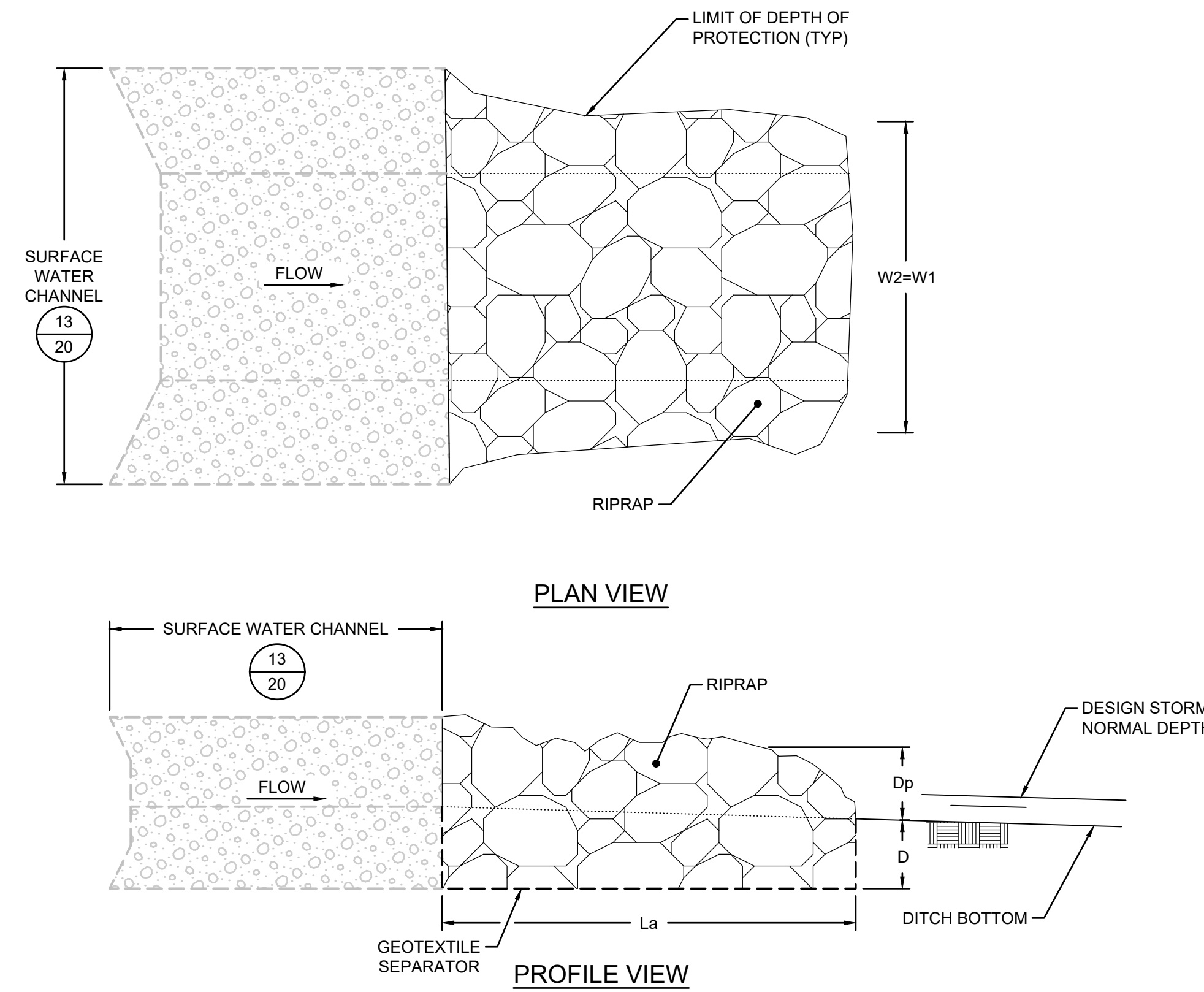


NOTE: ROCK FILTER DAM IS TO BE CLEANED OUT WHEN VOLUME BECOMES HALF FULL.



NOTE: ROCK SIZE DETERMINED ACCORDING TO SPECIFICATIONS SET FORTH IN APPENDIX C.

Rd **14** **19** **DETAIL**
ROCK FILTER DAM
SCALE: NTS



- GENERAL NOTES:**
1. RIPRAP OUTLET PROTECTION SHOULD BE USED TO REDUCE A DRAINAGE STRUCTURE'S DISCHARGE VELOCITY. RIPRAP OUTLET PROTECTION IS SHOWN FOR GEORGIA STANDARD 1120, BUT IS INSTALLED SIMILARLY FOR OTHER DRAINAGE OUTLET STRUCTURES. RIPRAP OUTLET PROTECTION IS SHOWN FOR A CONCRETE DITCH, BUT IS INSTALLED SIMILARLY TO TRANSITION FROM OTHER CHANNEL LININGS.
 2. RIPRAP OUTLET PROTECTION SHALL BE DESIGNED IN ACCORDANCE WITH THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA". THE DESIGNER SHALL PROVIDE THE FOLLOWING IN THE PLANS: CHANNEL DEPTH, FLOW RATE OF DESIGN STORM (Q), VELOCITY (V), TAILWATER CONDITION (Tw), APRON LENGTH (La), APRON WIDTH AT DRAINAGE STRUCTURE (W1), APRON WIDTH DOWNSTREAM (W2), AVERAGE STONE DIAMETER (d50), INSTALLATION DEPTH (D), AND TYPE OF RIPRAP WITH QUANTITY.
 3. THE MINIMUM DESIGN FOR RIPRAP OUTLET PROTECTION SHALL BE THE 25 YEAR STORM EVENT.
 4. THE APRON WIDTHS SHALL BE THE SAME WHEN THE DRAINAGE STRUCTURE DISCHARGES PARALLEL INTO A WELL-DEFINED CHANNEL. THE APRON WIDTHS IN THIS CASE SHALL REPRESENT THE WIDTH AT THE DEPTH OF PROTECTION. THE RIPRAP SHALL BE INSTALLED TO THE TOP OF THE CHANNEL OR 1-FOOT ABOVE THE NORMAL DEPTH OF THE CHANNEL'S DESIGN STORM (WHICHEVER IS LESS). THE DESIGNER SHALL PROVIDE THE DEPTH OF PROTECTION (Dp) IF THE RIPRAP SHOULD NOT BE INSTALLED TO THE TOP OF THE CHANNEL. RIPRAP SHOULD ALSO BE INSTALLED TO ARMOR CHANNEL CORNER AT THE OUTLET STRUCTURE.
 5. STONE SIZE SHALL BE AS SPECIFIED IN THE TABLE.
 6. PLASTIC FILTER FABRIC IS REQUIRED UNDERNEATH RIPRAP APRON.

ID	W1 (FT)	W2 (FT)	APRON LENGTH (FT)	RIPRAP TYPE (D50)	APRON THICKNESS (IN)
CH-01	13	13	30	GDOT TYPE 1	36
CH-02	14	14	28	GDOT TYPE 1	36
CH-03	10	10	10	GDOT TYPE 3	18
CH-04	14	14	30	GDOT TYPE 3	18
CH-05	18	18	10	GDOT TYPE 1	36
CH-06	10	10	16	GDOT TYPE 3	18
CH-07	16	16	14	GDOT TYPE 3	36
CH-08	17	17	12	GDOT TYPE 3	18
CH-09	N/A	N/A	N/A	N/A	N/A
CH-10	N/A	N/A	N/A	N/A	N/A
CH-09/10	11	11	18	GDOT TYPE 1	36
CH-11	11	11	12	GDOT TYPE 3	18
CH-12	11	11	10	GDOT TYPE 3	18
CH-13	N/A	N/A	N/A	N/A	N/A
CH-14	N/A	N/A	N/A	N/A	N/A
CH-13/14	12	12	12	GDOT TYPE 3	18

- DIMENSIONS**
- Q = DESIGN STORM FLOW RATE
 - V = DESIGN STORM VELOCITY
 - Tw = TAILWATER CONDITION/DESIGN STORM NORMAL DEPTH
 - La = APRON LENGTH
 - W1 = APRON WIDTH UPSTREAM AT DEPTH OF PROTECTION
 - W2 = APRON WIDTH DOWNSTREAM AT DEPTH OF PROTECTION
 - d50 = AVERAGE STONE DIAMETER
 - D = INSTALLATION DEPTH
 - Dp = DEPTH OF PROTECTION

Op **12** **19** **DETAIL**
OUTLET PROTECTION
SCALE: NTS

1	03.10.23	CCR PERMIT DRAWINGS	DLJ	JMG
REV	DATE	DESCRIPTION	DRN	APP
STORMWATER AND ESC DETAILS - I				
PLANT WANSLEY ASH POND CLOSURE BY REMOVAL HEARD AND CARROLL COUNTIES, GEORGIA				
Geosyntec consultants			Georgia Power	
1255 ROBERTS BOULEVARD, NW, SUITE 200 KENNESAW, GEORGIA 30144 USA			PHONE: 678.202.8500 WWW.GEOSYNTEC.COM	
PROJ. NO.	GW9155	DWG.	GW7306.13-C20	EDIT
SCALE	AS SHOWN	DRAWING 20 OF 22		
DATE	MARCH 2023			

PLANT, PLANTING RATE & PLANTING DATE FOR TEMPORARY SEEDING														
SPECIES	RATES	PLANTING DATES												
		J	F	M	A	M	J	J	A	S	O	N	D	
BARLEY ALONE	144 LBS/AC													WINTER HARDY, USE ON PRODUCTIVE SOILS
BARLEY IN MIXTURE	24 LBS/AC													
LESPEDEZA, ANNUAL ALONE	40 LBS/AC													MAY VOLUNTEER FOR SEVERAL YEARS. USE INOCULANT TYPE EL.
LESPEDEZA, ANNUAL IN MIXTURE	10 LBS/AC													
LOVEGRASS, WEEPING ALONE	4 LBS/AC													MAY LAST FOR SEVERAL YEARS. MIX WITH SERICEA LESPEDEZA.
LOVEGRASS, WEEPING IN MIXTURE	2 LBS/AC													
MILLET, BROWNTOP ALONE	40 LBS/AC													QUICK DENSE COVER. WILL PROVIDE TOO MUCH COMPETITION IN MIXTURES IF SEED AT HIGH RATES.
MILLET, BROWNTOP IN MIXTURE	10 LBS/AC													
MILLET, PEARL ALONE	50 LBS/AC													QUICK DENSE COVER. MAY REACH 5 FEET IN HEIGHT. NOT RECOMMENDED FOR MIXTURES.
OATS ALONE	128 LBS/AC													USE ON PRODUCTIVE SOILS. NOT AS WINTER HARDY AS RYE OR BARLEY.
OATS IN MIXTURE	32 LBS/AC													
RYE ALONE	168 LBS/AC													QUICK COVER. DROUGHT TOLERANT AND WINTER HARDY.
RYE IN MIXTURE	28 LBS/AC													
RYEGRASS, ANNUAL ALONE	40 LBS/AC													DENSE COVER. VERY COMPETITIVE AND NOT TO BE USED IN MIXTURES.
SUDANGRASS ALONE	60 LBS/AC													GOOD ON DROUGHTY SITES. NOT RECOMMENDED FOR MIXTURES.
TRITICALE ALONE	144 LBS/AC													USE ON LOWER PART OF SOUTHERN COASTAL PLAIN AND IN ATLANTIC COASTAL FLATWOODS ONLY.
TRITICALE IN MIXTURE	24 LBS/AC													
WHEAT ALONE	180 LBS/AC													WINTER HARDY.
WHEAT WITH OTHER PERENNIALS	30 LBS/AC													

SOLID LINES INDICATE OPTIMUM DATES, DOTTED LINES INDICATE PERMISSIBLE BUT MARGINAL DATES.

DEFINITION

THE ESTABLISHMENT OF TEMPORARY VEGETATION COVER WITH FAST GROWING SEEDINGS FOR SEASONAL PROTECTION ON DISTURBED OR DENUDED AREAS.

CONDITIONS

TEMPORARY VEGETATIVE MEASURES SHOULD BE COORDINATED WITH PERMANENT MEASURES TO ASSURE ECONOMICAL AND EFFECTIVE STABILIZATION. MOST TYPES OF TEMPORARY VEGETATION ARE IDEAL TO USE AS COMPANION CROPS UNTIL THE PERMANENT VEGETATION IS ESTABLISHED. NOTE: SOME SPECIES OF TEMPORARY VEGETATION ARE NOT APPROPRIATE FOR COMPANION CROP PLANTINGS BECAUSE OF THEIR POTENTIAL TO OUT-COMPETE THE DESIRED SPECIES (E.G. ANNUAL RYEGRASS). CONTACT NATURAL RESOURCE CONSERVATION SERVICE OR THE LOCAL SOIL WATER CONSERVATION DISTRICT FOR MORE INFORMATION.

SPECIFICATIONS

GRADING AND SHAPING
EXCESSIVE WATER RUNOFF SHALL BE REDUCED BY PROPERLY DESIGNED AND INSTALLED EROSION CONTROL PRACTICES SUCH AS CLOSED DRAINS, DITCHES, DIKES, DIVERSIONS, SEDIMENT BARRIERS AND OTHERS. NO SHAPING OR GRADING IS REQUIRED IF SLOPES CAN BE STABILIZED BY HAND-SEEDING VEGETATION OR IF HYDRAULIC SEEDING EQUIPMENT IS TO BE USED.

SEEDBED PREPARATION

WHEN A HYDRAULIC SEEDER IS USED, SEEDBED PREPARATION IS NOT REQUIRED. WHEN USING CONVENTIONAL OR HAND-SEEDING, SEEDBED PREPARATION IS NOT REQUIRED IF THE SOIL MATERIAL IS LOOSE AND NOT SEALED BY RAINFALL. WHEN SOIL HAS BEEN SEALED BY RAINFALL OR CONSISTS OF SMOOTH CUT SLOPES, THE SOIL SHALL BE PITTED, TRENCHED, OR OTHERWISE SCARIFIED TO PROVIDE A PLACE FOR SEED TO LEDGE AND GERMINATE.

LIME AND FERTILIZER

AGRICULTURAL LIME IS REQUIRED UNLESS SOIL TESTS INDICATE OTHERWISE. APPLY AGRICULTURAL LIME AT A RATE DETERMINED BY SOIL TEST FOR pH.

QUICK ACTING LIME SHOULD BE INCORPORATED TO MODIFY pH DURING THE GERMINATION PERIOD. BIO STIMULANTS SHOULD ALSO BE CONSIDERED WHEN THERE IS LESS THAN 3% ORGANIC MATTER IN THE SOIL. GRADED AREAS REQUIRE LIME APPLICATION. SOILS MUST BE TESTED TO DETERMINE REQUIRED AMOUNTS OF FERTILIZER AND AMENDMENTS. FERTILIZER SHOULD BE APPLIED BEFORE LAND PREPARATION AND INCORPORATED WITH A DISK, RIPPER, OR CHISEL. ON SLOPES TOO STEEP FOR OR INACCESSIBLE TO EQUIPMENT, FERTILIZER SHALL BE HYDRAULICALLY APPLIED, PREFERABLY IN THE FIRST PASS WITH SEED AND SOME HYDRAULIC MULCH, THEN TOPPED WITH THE REMAINING REQUIRED APPLICATION RATE.

SEEDING

SELECT A GRASS OR GRASS-LEGUME MIXTURE SUITABLE TO THE AREA AND SEASON OF THE YEAR. SEED SHALL BE APPLIED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER-SEEDER, OR HYDRAULIC SEEDER (SLURRY INCLUDING SEED AND FERTILIZER). DRILL OR CULTIPACKER SEEDERS SHOULD NORMALLY PLACE SEED ONE-QUARTER TO ONE-HALF INCH DEEP. APPROPRIATE DEPTH OF PLANTING IS TEN TIMES THE SEED DIAMETER. SOIL SHOULD BE "RAKED" LIGHTLY TO COVER SEED WITH SOIL IF SEED BY HAND. SEE THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION, FOR MORE INFORMATION.

MULCHING

TEMPORARY VEGETATION CAN, IN MOST CASES, BE ESTABLISHED WITHOUT THE USE OF MULCH, PROVIDED THERE IS LITTLE TO NO EROSION POTENTIAL. HOWEVER, THE USE OF MULCH CAN OFTEN ACCELERATE AND ENHANCE GERMINATION AND VEGETATION ESTABLISHMENT. MULCH WITHOUT SEEDING SHOULD BE CONSIDERED FOR SHORT TERM PROTECTION. REFER TO Ds1-DISTURBED AREA STABILIZATION (WITH MULCHING ONLY) IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION, FOR MORE INFORMATION.

IRRIGATION

DURING TIMES OF DROUGHT, WATER SHALL BE APPLIED AT A RATE NOT CAUSING RUNOFF AND EROSION. THE SOIL SHALL BE THOROUGHLY WETTED TO A DEPTH THAT WILL ENSURE GERMINATION OF THE SEED. SUBSEQUENT APPLICATIONS SHOULD BE MADE WHEN NEEDED.

Ds2 15 **DETAIL**
19 **DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)**
SOURCE: GSWCC

DEFINITION

TACKIFIERS ARE USED AS A TIE-DOWN FOR SOIL, COMPOST, SEED, STRAW, HAY OR MULCH. TACKIFIERS HYDRATE IN WATER AND READILY BLEND WITH OTHER SLURRY MATERIALS TO FORM A HOMOGENOUS SLURRY.

PURPOSE

TO REDUCE SOIL EROSION FROM WIND AND WATER ON CONSTRUCTION SITES. OTHER BENEFITS INCLUDE SOIL INFILTRATION, SOIL FERTILITY, ENHANCED SEED GERMINATION, INCREASED SOIL COHESION, ENHANCED SOIL STABILIZATION, REDUCED STORMWATER RUNOFF TURBIDITY, AND REDUCTION IN LOSS OF TOPSOIL.

CONDITIONS

THIS PRACTICE IS INTENDED FOR DIRECT SOIL SURFACE APPLICATION TO SITES WHERE THE TIMELY ESTABLISHMENT OF VEGETATION MAY NOT BE FEASIBLE OR WHERE VEGETATION COVER IS ABSENT OR INADEQUATE. SUCH AREAS INCLUDE CONSTRUCTION AREAS, WHERE PLANT RESIDUES ARE INADEQUATE TO PROTECT THE SOIL SURFACE, AND WHERE LAND DISTURBING ACTIVITIES PREVENT THE ESTABLISHMENT OR MAINTENANCE OF A VEGETATIVE COVER.

Tac 17 **DETAIL**
19 **TACKIFIER**
SCALE: NTS
SOURCE: GSWCC

TYPICAL INSTALLATION GUIDELINES FOR ROLLED EROSION CONTROL PRODUCTS (RECP)

BLANKET AND MATTING CROSS-SECTIONS

UPSTREAM TERMINAL

STEP 1: CUT TERMINAL SLOT.

STEP 2: SNUG MAT INTO SLOT.

STEP 3:

A. STAKE MAT INTO SLOT.
B. USE 1" X 3" PRESSURE TREATED BOARD TO SPACE MAT AGAINST VERTICAL CUT.
C. BACKFILL AND COMPACT.

STEP 4:

A. REVERSE MAT ROLL DIRECTION TO OVERLAY CHECK LOT.
B. STAKE MAT TO ANCHOR TERMINAL.

TRANSVERSE CHECK SLOT

STEP 1: CUT CHECK SLOT. TEMPORARILY STAKE MAT UNDER MODERATE TENSION.

STEP 2: WORK UPSTREAM ACROSS CHECK SLOT AND LAP BACK 15'.

STEP 3: TUCK MAT LAP INTO SLOT AND STAKE.

STEP 4:

A. BACKFILL AND PROGRESS UPSTREAM.
B. PULL OUT TEMPORARY STAKES WHEN NO LONGER NEEDED FOR TENSIONING.

DOWNSTREAM TERMINAL

STEP 1: CUT TERMINAL SLOT.

STEP 2: STAKE MAT INTO SLOT.

STEP 3: BACKFILL TERMINAL SLOT.

STEP 4:

A. ROLL MAT UP. STREAM OVER REFILLED TERMINAL.
B. STAKE MAT DOWN TO ANCHOR TERMINAL.
C. PROGRESS UPSTREAM WITH ROLL.

SEQUENTIAL ROLL RUN OUT IN CHANNELS

PICTORIAL VIEW OF TRANSVERSE SLOT

CONDITIONS
SLOPE STABILIZATION CAN BE APPLIED TO FLAT AREAS OR SLOPES WHERE THE EROSION HAZARD IS HIGH AND SLOPE PROTECTION IS NEEDED DURING THE ESTABLISHMENT OF VEGETATION.

PERFORMANCE EVALUATION
FOR A PRODUCT OR PRACTICE TO BE APPROVED AS SLOPE STABILIZATION, THAT PRODUCT OR PRACTICE MUST HAVE A DOCUMENTED C-FACTOR OF 0.080, AS SPECIFIED BY GSWCC. FOR COMPLETE TEST PROCEDURES AND APPROVED PRODUCTS LIST PLEASE VISIT WWW.GASWCC.GEORGIA.GOV.

PLANNING CONSIDERATIONS
CARE MUST BE TAKEN TO CHOOSE THE TYPE OF SLOPE STABILIZATION PRODUCT WHICH IS MOST APPROPRIATE FOR THE SPECIFIC NEEDS OF A PROJECT. TWO GENERAL TYPES OF SLOPE STABILIZATION PRODUCTS ARE DISCUSSED WITHIN THIS SPECIFICATION.

ROLLED EROSION CONTROL PRODUCTS (RECP)
A NATURAL FIBER BLANKET WITH SINGLE OR DOUBLE PHOTODEGRADABLE OR BIODEGRADABLE NETS.

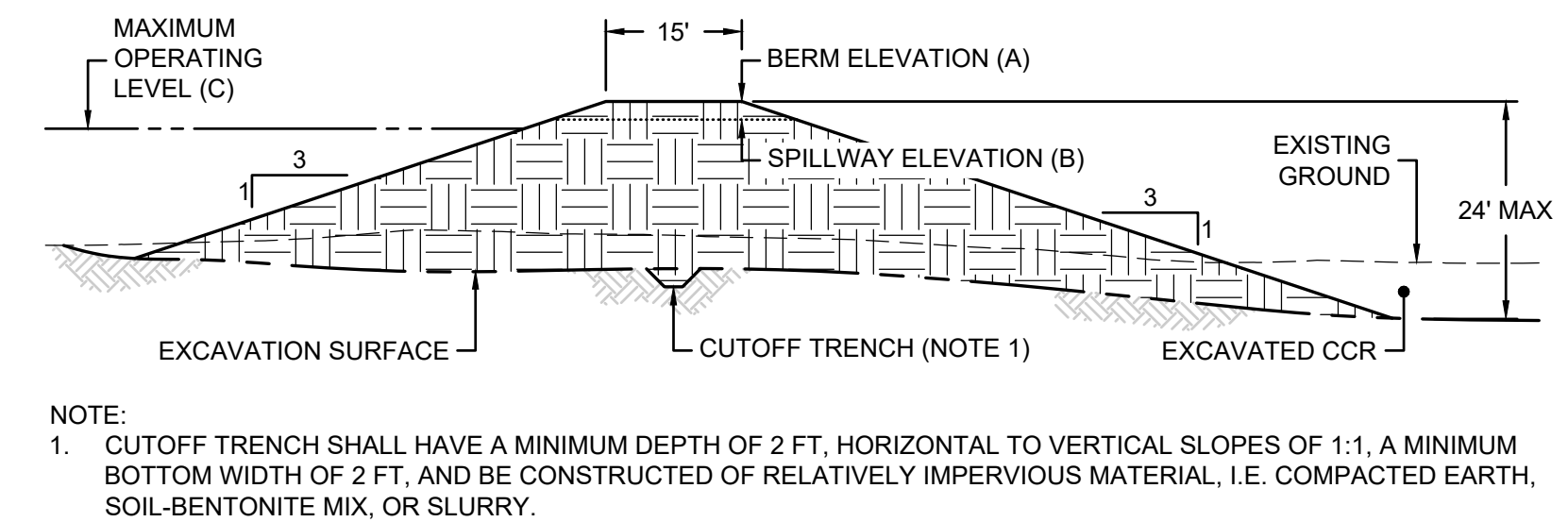
HYDRAULIC EROSION CONTROL PRODUCTS (HECP)
HECP SHALL UTILIZE STRAW, COTTON, WOOD OR OTHER NATURAL BASED FIBERS HELD TOGETHER BY A SOIL BINDING AGENT WHICH WORKS TO STABILIZE SOIL PARTICLES. PAPER MULCH SHOULD NOT BE USED FOR EROSION CONTROL.

CRITERIA
ROLLED EROSION CONTROL PRODUCTS (RECPs) AND HYDRAULIC EROSION CONTROL PRODUCTS (HECPs)

- INSTALLATION AND STAPLING OF RECPs AND APPLICATION RATES FOR THE HECPs SHALL CONFORM TO MANUFACTURER'S GUIDELINES FOR APPLICATION
- PRODUCTS SHALL HAVE A MAXIMUM C-FACTOR (ASTM D6459) FOR THE FOLLOWING GRADE:
 - SLOPE (H/V) 3:1 OR GREATER
 - C-FACTOR (MAX) 0.080

SITE PREPARATION
AFTER THE SITE HAS BEEN SHAPED AND GRADED TO THE APPROVED DESIGN, PREPARE A FRIABLE SEEDBED RELATIVELY FREE FROM CLODS AND ROCKS MORE THAN ONE INCH IN DIAMETER, AND ANY FOREIGN MATERIAL THAT WILL PREVENT CONTACT OF THE SOIL STABILIZATION MAT WITH THE SOIL SURFACE. SURFACE MUST BE SMOOTH TO ENSURE PROPER CONTACT OF BLANKETS OR MATTING TO THE SOIL SURFACE. IF NECESSARY, REDIRECT ANY RUNOFF FROM THE DITCH OR SLOPE DURING INSTALLATION.

Ss 16 **DETAIL**
19 **SLOPE PROTECTION**
SCALE: NTS
SOURCE: GSWCC



ID	BERM ELEV (A)	SPILLWAY ELEV (B)	MAX OPERATING LEVEL (C)	VOLUME (AC-FT)
CWP-1	791.0	789.0	788.0	87.0
NCWP-1	777.0	775.0	774.0	239.4
NCWP-2	782.0	770.0	769.0	2.8
NCWP-3	763.0	761.0	760.0	10.2
NCWP-4	766.0	764.0	763.0	22.9
NCWP-5	745.0	743.0	742.0	141.2

18 **DETAIL**
17 **STORMWATER PONDS**
SCALE: NTS

METHODS AND MATERIALS

A. TEMPORARY METHODS

MULCHES. SEE STANDARD Ds1 - DISTURBED AREA STABILIZATION (WITH MULCHING ONLY). SYNTHETIC RESINS MAY BE USED INSTEAD OF ASPHALT TO BIND MULCH MATERIAL. REFER TO SPECIFICATION TAC-TACKIFIERS IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION. RESINS SUCH AS CURASOL OR TERRATAK SHOULD BE USED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

VEGETATIVE COVER. REFER TO Ds2 - DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING).

B. PERMANENT METHODS

PERMANENT VEGETATION. SEE SPECIFICATION Ds3 - DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION) IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION. EXISTING TREES AND LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.

TOPSOILING. THIS ENTAILS COVERING THE SURFACE WITH LESS EROSION SOIL MATERIAL. SEE SPECIFICATION TP - TOPSOILING IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION.

CONDITIONS
THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO SURFACE AND AIR MOVEMENT OF DUST WHERE ON AND OFF-SITE DAMAGE MAY OCCUR WITHOUT TREATMENT.

Du 19 **DETAIL**
19 **DUST CONTROL ON DISTURBED AREAS**
SCALE: NTS
SOURCE: GSWCC

1	03.10.23	CCR PERMIT DRAWINGS	DLJ	JMG
REV	DATE	DESCRIPTION	DRN	APP

STORMWATER AND ESC DETAILS - II

PLANT WANSLEY ASH POND CLOSURE BY REMOVAL
HEARD AND CARROLL COUNTIES, GEORGIA

Geosyntec
consultants

1255 ROBERTS BOULEVARD, NW, SUITE 200
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Georgia Power

PROJ. NO. GW9155 DWG. GW7306.13-C21 EDIT 3/7/23

SCALE AS SHOWN

DATE MARCH 2023

DRAWING 21 OF 22

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CUBIC YARDS OF TOPSOIL REQUIRED FOR APPLICATION TO VARIOUS DEPTHS

	PER 1,000 SQUARE FEET	PER ACRE
1	3.1	134
2	6.2	268
3	9.3	403
4	12.4	537
5	15.5	672
6	18.6	806

CONDITIONS

- THIS PRACTICE IS RECOMMENDED FOR SITES OF 2:1 OR FLATTER SLOPES WHERE:
- THE TEXTURE OF THE EXPOSED SUBSOIL OR PARENT MATERIAL IS NOT SUITABLE TO PRODUCE ADEQUATE VEGETATIVE GROWTH.
 - THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS WITH CONTINUING SUPPLIES OF MOISTURE AND FOOD.
 - THE SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.

SPECIFICATIONS

MATERIALS
TOPSOIL SHOULD BE FRIABLE AND LOAMY, FREE OF DEBRIS, OBJECTIONABLE WEEDS AND STONES, AND CONTAIN NO TOXIC SUBSTANCE THAT MAY BE HARMFUL TO PLANT GROWTH. A pH RANGE OF 5.0-7.5 IS ACCEPTABLE. SOLUBLE SALTS SHOULD NOT EXCEED 500 PPM.

TESTING

FIELD EXPLORATION SHOULD BE MADE TO DETERMINE WHETHER THE QUANTITY AND QUALITY OF SURFACE SOIL JUSTIFIES STRIPPING.

STRIPPING

STRIPPING SHOULD BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA. A 4 TO 6 INCH STRIPPING DEPTH IS COMMON, BUT MAY VARY DEPENDING ON THE PARTICULAR SOIL.

TOPSOIL pH

IF pH VALUE IS LESS THAN 6.0, LIME SHALL BE APPLIED AND INCORPORATED WITH THE TOPSOIL TO ADJUST THE pH TO 6.5 OR HIGHER. TOPSOILS CONTAINING SOLUBLE SALTS GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.

SITE PREPARATION (WHERE TOPSOIL IS TO BE ADDED)

TOPSOILING - WHEN TOPSOILING, MAINTAIN NEEDED EROSION CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, BERMS, DIKES, LEVEL SPREADERS, WATERWAYS, SEDIMENT BASINS, ETC.

GRADING - GRADES ON THE AREAS TO BE TOPSOILED WHICH HAVE BEEN PREVIOUSLY ESTABLISHED SHALL BE MAINTAINED.

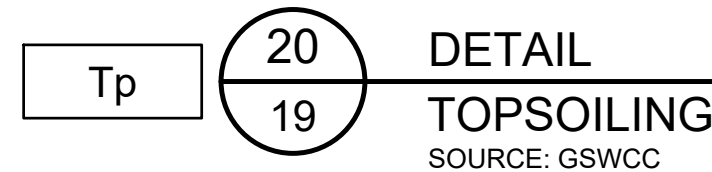
LIMING - SOIL TESTS SHOULD BE USED TO DETERMINE THE pH OF THE SOIL. WHERE THE pH OF THE SUBSOIL IS 5.0 OR LESS OR COMPOSED OF HEAVY CLAYS, AGRICULTURAL LIMESTONE SHALL BE SPREAD AT THE RATE OF 100 POUNDS PER 1,000 SQUARE FEET. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURE.

BONDING - USE ONE OF THE FOLLOWING METHODS TO INSURE BONDING OF TOPSOIL AND SUBSOIL:

- TILLING. AFTER THE AREAS TO BE TOPSOILED HAVE BEEN BROUGHT TO GRADE, AND IMMEDIATELY PRIOR TO DUMPING AND SPREADING THE TOPSOIL, THE SUBGRADE SHALL BE LOOSENED BY DISCING OR SCARIFYING TO A DEPTH OF AT LEAST 3 INCHES TO PERMIT BONDING OF THE TOPSOIL TO THE SUBSOIL.
- TRACKING. PASSING A BULLDOZER OVER THE ENTIRE SURFACE AREA OF THE SLOPE TO LEAVE HORIZONTAL DEPRESSIONS.

APPLYING TOPSOIL

- TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE.
- A UNIFORM APPLICATION OF 6 INCHES (UNSETTLED) IS RECOMMENDED, BUT MAY BE ADJUSTED AT THE DISCRETION OF THE ENGINEER OR LANDSCAPE ARCHITECT.



DEFINITION

APPLYING PLANT RESIDUES OR OTHER SUITABLE MATERIALS, PRODUCED ON THE SITE IF POSSIBLE, TO THE SOIL SURFACE.

CONDITIONS

MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 14 DAYS OF DISTURBANCE. MULCH CAN BE USED AS A SINGULAR EROSION CONTROL DEVICE FOR UP TO SIX MONTHS, BUT IT SHALL BE APPLIED AT THE APPROPRIATE DEPTH (DEPENDING ON THE MATERIAL USED), ANCHORED, AND HAVE A CONTINUOUS 90% COVER OR GREATER OF THE SOIL SURFACE.

MAINTENANCE SHALL BE REQUIRED TO MAINTAIN APPROPRIATE DEPTH AND 90% COVER. TEMPORARY VEGETATION MAY BE EMPLOYED INSTEAD OF MULCH IF THE AREA WILL REMAIN UNDISTURBED FOR LESS THAN SIX MONTHS.

IF ANY AREA WILL REMAIN UNDISTURBED FOR GREATER THAN SIX MONTHS, PERMANENT VEGETATIVE TECHNIQUES SHALL BE EMPLOYED. REFER TO Ds2-DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING), AND Ds3 - DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION).

SPECIFICATIONS

MULCHING WITHOUT SEEDING:

THIS STANDARD APPLIES TO GRADED OR CLEARED AREAS WHERE SEEDINGS MAY NOT HAVE A SUITABLE GROWING SEASON TO PRODUCE AN EROSION RETARDANT COVER, BUT CAN BE STABILIZED WITH A MULCH COVER.

SITE PREPARATION

- GRADE TO PERMIT THE USE OF EQUIPMENT FOR APPLYING AND ANCHORING MULCH.
- INSTALL NEEDED EROSION CONTROL MEASURES AS REQUIRED SUCH AS DIKES, DIVERSIONS, BERMS, TERRACES, AND SEDIMENT BARRIERS.
- LOOSEN COMPACT SOIL TO A MINIMUM DEPTH OF 3 INCHES.

MULCHING MATERIALS

SELECT ONE OF THE FOLLOWING MATERIALS AND APPLY AT THE DEPTH INDICATED:

- DRY STRAW OR HAY SHALL BE APPLIED AT A DEPTH OF 2 TO 4 INCHES PROVIDING COMPLETE SOIL COVERAGE. ONE ADVANTAGE OF THIS MATERIAL IS EASY APPLICATION.
- WOOD WASTE (CHIPS, SAWDUST OR BARK) SHALL BE APPLIED AT A DEPTH OF 2 TO 3 INCHES. ORGANIC MATERIAL FROM THE CLEARING STAGE OF DEVELOPMENT REMAINING ON SITE CAN BE CHIPPED AND APPLIED AS MULCH. THIS METHOD OF MULCHING CAN GREATLY REDUCE EROSION CONTROL COSTS.
- POLYETHYLENE FILM SHALL BE SECURED OVER BANKS OR STOCKPILED SOIL MATERIAL FOR TEMPORARY PROTECTION. THIS MATERIAL CAN BE SALVAGED AND RE-USED.

APPLYING MULCH

WHEN MULCH IS USED WITHOUT SEEDING, MULCH SHALL BE APPLIED TO PROVIDE FULL COVERAGE OF THE EXPOSED AREA

- DRY STRAW OR HAY MULCH AND WOOD CHIPS SHALL BE APPLIED UNIFORMLY BY HAND OR BY MECHANICAL EQUIPMENT.
- IF THE AREA WILL EVENTUALLY BE COVERED WITH PERENNIAL VEGETATION, 20-30 POUNDS OF NITROGEN PER ACRE, IN ADDITION TO THE NORMAL AMOUNT, SHALL BE APPLIED TO OFFSET THE UPTAKE OF NITROGEN CAUSED BY THE DECOMPOSITION OF THE ORGANIC MULCHES.

ANCHORING MULCH

- STRAW OR HAY MULCH CAN BE PRESSED INTO THE SOIL WITH A DISK HARROW WITH THE DISK SET STRAIGHT OR WITH A SPECIAL "PACKER DISK." DISKS MAY BE SMOOTH OR SERRATED AND SHOULD BE 20 INCHES OR MORE IN DIAMETER AND 8 TO 12 INCHES APART. THE EDGES OF THE DISK SHOULD BE DULL ENOUGH NOT TO CUT THE MULCH BUT TO PRESS IT INTO THE SOIL LEAVING MUCH OF IT IN AN ERECT POSITION. STRAW OR HAY MULCH SHALL BE ANCHORED IMMEDIATELY AFTER APPLICATION. STRAW OR HAY MULCH SPREAD WITH SPECIAL BLOWER-TYPE EQUIPMENT MAY BE ANCHORED. TACKIFIERS, BINDERS, AND HYDRAULIC MULCH WITH TACKIFIER SPECIFICALLY DESIGNED FOR TACKING STRAW CAN BE SUBSTITUTED FOR EMULSIFIED ASPHALT. REFER TO MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION, SPECIFICATION TAC-TACKIFIERS. PLASTIC MESH OF NETTING WITH MESH NO LARGER THAN ONE INCH BY ONE INCH SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
- NETTING OF THE APPROPRIATE SIZE SHALL BE USED TO ANCHOR WOOD WASTE. OPENINGS OF THE NETTING SHALL NOT BE LARGER THAN THE AVERAGE SIZE OF THE WOOD WASTE CHIPS.



FERTILIZER REQUIREMENTS

WARM SEASON GRASSES				
YEAR	EQUIVALENT N-P-K	ANALYSIS OR RATE	N	TOP DRESSING
FIRST	6-12-12	1500 LBS/AC	50-100 LBS/AC 2#/	
SECOND	6-12-12	800 LBS/AC	50-100 LBS/AC 2/	
MAINTENANCE	10-10-10	400 LBS/AC	30 LBS/AC	
COOL SEASON GRASSES				
YEAR	EQUIVALENT N-P-K	ANALYSIS OR RATE	N	TOP DRESSING
FIRST	6-12-12	1500 LBS/AC	50 LBS/AC#/	
SECOND	6-12-12	1000 LBS/AC	---	
MAINTENANCE	0-10-10	400 LBS/AC	---	

PLANT, PLANTING RATE & PLANTING DATE FOR PERMANENT COVER

SPECIES	BROADCAST RATES	PLANTING DATES												PLANTING DATE REMARKS		
		J	F	M	A	M	J	J	A	S	O	N	D			
LESPEDEZA SERICEA SCARIFIED	60 LBS/AC															WIDELY ADAPTED. LOW MAINTENANCE. MIX WITH COMMON BERMUDA OR TALL FESCUE. INOCULATE SEED WITH EL INOCULANT.
LESPEDEZA SERICEA UNSCARIFIED	75 LBS/AC															MIX WITH TALL FESCUE.
PENSACOLA BAHIA ALONE OR WITH TEMPORARY COVER	60 LBS/AC															LOW GROWING. SOD FORMING. SLOW TO ESTABLISH. PLANT WITH A COMPANION CROP. WILL SPREAD INTO BERMUDA PASTURES AND LAWNS. MIX WITH SERICEA LESPEDEZA.
WILMINGTON BAHIA WITH OTHER PERENNIALS	30 LBS/AC															
TALL FESCUE ALONE	50 LBS/AC															USE ALONE ONLY ON BETTER SITES. MIX WITH PERENNIAL LESPEDEZA OR CROWN VETCH. APPLY TOP DRESSING IN SPRING FOLLOWING FALL PLANTINGS. NOT FOR HEAVY USE AREAS OR ATHLETIC FIELDS.
TALL FESCUE WITH OTHER PERENNIALS	30 LBS/AC															
REED CANARY GRASS ALONE	50 LBS/AC															
REED CANARY GRASS WITH OTHER PERENNIALS	30 LBS/AC															GROWS SIMILAR TO TALL FESCUE.
COMMON BERMUDA UNHULLED SEED WITH TEMPORARY COVER	10 LBS/AC															PLANT WITH WINTER ANNUALS.
COMMON BERMUDA UNHULLED SEED WITH OTHER PERENNIALS	6 LBS/AC															PLANT WITH TALL FESCUE.

SOLID LINES INDICATE OPTIMUM DATES, DOTTED LINES INDICATE PERMISSIBLE BUT MARGINAL DATES.

DEFINITION

THE PLANTING OF PERENNIAL VEGETATION SUCH AS TREES, SHRUBS, VINES, GRASSES, OR LEGUMES ON EXPOSED AREAS FOR FINAL PERMANENT STABILIZATION. PERMANENT PERENNIAL VEGETATION SHALL BE USED TO ACHIEVE FINAL STABILIZATION.

CONDITIONS

PERMANENT PERENNIAL VEGETATION IS USED TO PROVIDE A PROTECTIVE COVER FOR EXPOSED AREAS INCLUDING CUTS, FILLS, DAMS, AND OTHER DENuded AREAS.

SPECIFICATIONS

GRADING AND SHAPING
GRADING AND SHAPING MAY NOT BE REQUIRED WHERE HYDRAULIC SEEDING AND FERTILIZING EQUIPMENT IS TO BE USED. VERTICAL BANKS SHALL BE SLOPED TO ENABLE PLANT ESTABLISHMENT. WHEN CONVENTIONAL SEEDING AND FERTILIZING ARE TO BE DONE, GRADE AND SHAPE WHERE FEASIBLE AND PRACTICAL, SO THAT EQUIPMENT CAN BE USED SAFELY AND EFFICIENTLY DURING SEEDBED PREPARATION, SEEDING, MULCHING AND MAINTENANCE OF THE VEGETATION. CONCENTRATIONS OF WATER THAT WILL CAUSE EXCESSIVE SOIL EROSION SHALL BE DIVERTED TO A SAFE OUTLET. DIVERSIONS AND OTHER TREATMENT PRACTICES SHALL CONFORM WITH THE APPROPRIATE STANDARDS AND SPECIFICATIONS.

SEEDBED PREPARATION

SEEDBED PREPARATION MAY NOT BE REQUIRED WHERE HYDRAULIC SEEDING AND FERTILIZING EQUIPMENT IS TO BE USED (BUT IS STRONGLY RECOMMENDED FOR ANY SEEDING PROCESS, WHEN POSSIBLE). WHEN CONVENTIONAL SEEDING IS TO BE USED, SEEDBED PREPARATION WILL BE DONE AS FOLLOWS:

BROADCAST PLANTINGS

- TILLAGE, AT A MINIMUM, SHALL ADEQUATELY LOOSEN THE SOIL TO A DEPTH OF 4 TO 6 INCHES; ALLEVIATE COMPACTION, INCORPORATE LIME AND FERTILIZER; SMOOTH AND FIRM THE SOIL; ALLOW FOR THE PROPER PLACEMENT OF SEED, SPRIGS, OR PLANTS; AND ALLOW FOR THE ANCHORING OF STRAW OR HAY MULCH IF A DISK IS TO BE USED.
- TILLAGE MAY BE DONE WITH SUITABLE EQUIPMENT.
- TILLAGE SHOULD BE DONE ON THE CONTOUR WHERE FEASIBLE.
- ON SLOPES TOO STEEP FOR THE SAFE OPERATION OF TILLAGE EQUIPMENT, THE SOIL SURFACE SHALL BE PITTED OR TRENCHED ACROSS THE SLOPE WITH APPROPRIATE HAND TOOLS TO PROVIDE TWO PLACES 6 TO 8 INCHES APART IN WHICH SEED MAY LODGE AND GERMINATE. HYDRAULIC SEEDING MAY ALSO BE USED.

INDIVIDUAL PLANTS

- WHERE INDIVIDUAL PLANTS ARE TO BE SET, THE SOIL SHALL BE PREPARED BY EXCAVATING HOLES, OPENING FURROWS, OR DIBBLE PLANTING.
- FOR NURSERY STOCK PLANTS, HOLES SHALL BE LARGE ENOUGH TO ACCOMMODATE ROOTS WITHOUT CROWDING.
- WHERE PINE SEEDLINGS ARE TO BE PLANTED, SUBSOIL UNDER THE ROW 36 INCHES DEEP ON THE CONTOUR FOUR TO SIX MONTHS PRIOR TO PLANTING. SUBSOILING SHOULD BE DONE WHEN THE SOIL IS DRY, PREFERABLY IN AUGUST OR SEPTEMBER.

PLANTING

HYDRAULIC SEEDING
MIX THE SEED (INOCULATED IF NEEDED), FERTILIZER, AND WOOD CELLULOSE OR WOOD PULP FIBER MULCH WITH WATER AND APPLY IN A SLURRY UNIFORMLY OVER THE AREA TO BE TREATED. APPLY WITHIN ONE HOUR AFTER THE MIXTURE IS MADE.
CONVENTIONAL SEEDING
SEEDING WILL BE DONE ON A FRESHLY PREPARED AND FIRMED SEEDBED. FOR BROADCAST PLANTING, USE A CULTIPACKER-SEEDER, DRILL ROTARY SEEDER, OTHER MECHANICAL SEEDER, OR HAND SEEDING TO DISTRIBUTE THE SEED UNIFORMLY OVER THE AREA TO BE TREATED. COVER THE SEED LIGHTLY WITH 1/8 TO 1/4 INCH OF SOIL FOR SMALL SEED AND 1/2 TO 1 INCH FOR LARGE SEED WHEN USING A CULTIPACKER OR OTHER SUITABLE EQUIPMENT.
NO-TILL SEEDING
NO-TILL SEEDING IS PERMISSIBLE INTO ANNUAL COVER CROPS WHEN PLANTING IS DONE FOLLOWING MATURITY OF THE COVER CROP OR IF THE TEMPORARY COVER STAND IS SPARSE ENOUGH TO ALLOW ADEQUATE GROWTH OF THE PERMANENT (PERENNIAL) SPECIES. NO-TILL SEEDING SHALL BE DONE WITH APPROPRIATE NO-TILL SEEDING EQUIPMENT. THE SEED MUST BE UNIFORMLY DISTRIBUTED AND PLANTED AT THE PROPER DEPTH.

INDIVIDUAL PLANTS

SHRUBS, VINES AND SPRIGS MAY BE PLANTED WITH APPROPRIATE PLANTERS OR HAND TOOLS. PINE TREES SHALL BE PLANTED MANUALLY IN THE SUBSOIL FURROW. EACH PLANT SHALL BE SET IN A MANNER THAT WILL AVOID CROWDING THE ROOTS.

NURSERY STOCK PLANTS SHALL BE PLANTED AT THE SAME DEPTH OR SLIGHTLY DEEPER THAN THEY GREW AT THE NURSERY. THE TIPS OF VINES AND SPRIGS MUST BE AT OR SLIGHTLY ABOVE THE GROUND SURFACE.

WHERE INDIVIDUAL HOLES ARE DUG, FERTILIZER SHALL BE PLACED IN THE BOTTOM OF THE HOLE, TWO INCHES OF SOIL SHALL BE ADDED, AND THE PLANT SHALL BE SET IN THE HOLE.



MULCHING

MULCH IS REQUIRED FOR ALL PERMANENT VEGETATION APPLICATIONS. MULCH APPLIED TO SEEDED AREAS SHALL RECEIVE 75% TO 100% SOIL COVER. WHEN SELECTING A MULCHING MATERIAL, PROFESSIONALS SHOULD CONSIDER THE MULCH'S FUNCTIONAL LONGEVITY, VEGETATION ESTABLISHMENT ENHANCEMENT, AND EROSION CONTROL EFFECTIVENESS. SELECT THE MULCHING MATERIAL FROM THE FOLLOWING AND APPLY AS INDICATED:

- DRY STRAW OR DRY HAY OF GOOD QUALITY AND FREE OF WEED SEEDS CAN BE USED. DRY STRAW SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE. DRY HAY SHALL BE APPLIED AT A RATE OF 2 1/2 TONS PER ACRE.
- WOOD CELLULOSE MULCH OR WOOD PULP FIBER SHALL BE USED WITH HYDRAULIC SEEDING. IT SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE. DRY STRAW OR DRY HAY SHALL BE APPLIED (AT THE RATE INDICATED ABOVE) AFTER HYDRAULIC SEEDING.
- ONE THOUSAND POUNDS OF WOOD CELLULOSE OR WOOD PULP FIBER, WHICH INCLUDES A TACKIFIER, SHALL BE USED WITH HYDRAULIC SEEDING ON SLOPES 1/4:1 OR STEEPER. SERICEA LESPEDEZA HAY CONTAINING MATURE SEED SHALL BE APPLIED AT A RATE OF THREE TONS PER ACRE.
- PINE STRAW OR PINE BARK SHALL BE APPLIED AT A THICKNESS OF 3 INCHES FOR BEDDING PURPOSES. OTHER SUITABLE MATERIALS IN SUFFICIENT QUANTITY MAY BE USED WHERE ORNAMENTALS OR OTHER GROUND COVERS ARE PLANTED. THIS IS NOT APPROPRIATE FOR SEEDED AREAS.
- WHEN USING TEMPORARY EROSION CONTROL BLANKETS OR BLOCK SOD, MULCH IS NOT REQUIRED.
- BITUMINOUS TREATED ROVING MAY BE APPLIED ON PLANTED AREAS, SLOPES, IN DITCHES, OR DRY WATERWAYS TO PREVENT EROSION. BITUMINOUS TREATED ROVING SHALL BE APPLIED WITHIN 24 HOURS AFTER AN AREA HAS BEEN PLANTED. APPLICATION RATES AND MATERIALS MUST MEET GEORGIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS. WOOD CELLULOSE AND WOOD PULP FIBERS SHALL NOT CONTAIN GERMINATION OR GROWTH INHIBITING FACTORS. THEY SHALL BE EVENLY DISPERSED WHEN AGITATED IN WATER. THE FIBERS SHALL CONTAIN A DYE TO ALLOW VISUAL METERING AND AID IN UNIFORM APPLICATION DURING SEEDING.

APPLYING MULCH

STRAW OR HAY MULCH WILL BE SPREAD UNIFORMLY WITHIN 24 HOURS AFTER SEEDING AND/OR PLANTING. THE MULCH MAY BE SPREAD BY BLOWER-TYPE SPREADING EQUIPMENT, OTHER SPREADING EQUIPMENT, OR BY HAND. MULCH SHALL BE APPLIED TO COVER 75% OF THE SOIL SURFACE. WOOD CELLULOSE OR WOOD FIBER MULCH SHALL BE APPLIED UNIFORMLY WITH HYDRAULIC SEEDING EQUIPMENT.

ANCHORING MULCH

ANCHOR STRAW OR HAY MULCH IMMEDIATELY AFTER APPLICATION BY ONE OF THE FOLLOWING METHODS:

- HAY AND STRAW MULCH SHALL BE PRESSED INTO THE SOIL IMMEDIATELY AFTER THE MULCH IS SPREAD. A SPECIAL "PACKER DISK" OR DISK HARROW WITH THE DISKS SET STRAIGHT MAY BE USED. THE DISKS MAY BE SMOOTH OR SERRATED AND SHOULD BE 2 INCHES OR MORE IN DIAMETER AND 8 TO 12 INCHES APART. THE EDGES OF THE DISKS SHALL BE DULL ENOUGH TO PRESS THE MULCH INTO THE GROUND WITHOUT CUTTING IT, LEAVING MUCH OF IT IN AN ERECT POSITION. MULCH SHALL NOT BE PLOWED INTO THE SOIL.
- SYNTHETIC TACKIFIERS, FINDERS, OR HYDRAULIC MULCH SPECIFICALLY DESIGNED TO TACK STRAW SHALL BE APPLIED IN CONJUNCTION WITH OR IMMEDIATELY AFTER THE MULCH IS SPREAD. SYNTHETIC TACKIFIERS SHALL BE MIXED AND APPLIED ACCORDING TO MANUFACTURER'S SPECIFICATIONS. ALL TACKIFIERS, FINDERS, OR HYDRAULIC MULCH SPECIFICALLY DESIGNED TO TACK STRAW SHOULD BE VERIFIED NONTOXIC THROUGH EPA 2021.0 TESTING. REFER TO TACKIFIERS-TAC IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION.
- RYE OR WHEAT CAN BE INCLUDED WITH FALL AND WINTER PLANTINGS TO STABILIZE THE MULCH. THEY SHALL BE APPLIED AT A RATE OF ONE-QUARTER TO ONE-HALF BUSHELS PER ACRE.
- PLASTIC MESH OR NETTING WITH MESH NO LARGER THAN ONE INCH BY ONE INCH MAY BE NEEDED TO ANCHOR STRAW OR HAY MULCH ON UNSTABLE SOILS AND CONCENTRATED FLOW AREAS. THESE MATERIALS SHALL BE INSTALLED AND ANCHORED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

LIME AND FERTILIZER APPLICATION

WHEN HYDRAULIC SEEDING EQUIPMENT IS USED, THE INITIAL FERTILIZER SHALL BE MIXED WITH SEED, INOCULANT (IF NEEDED), AND WOOD CELLULOSE OR WOOD PULP FIBER MULCH AND APPLIED IN A SLURRY. THE INOCULANT, IF NEEDED, SHALL BE MIXED WITH THE SEED PRIOR TO BEING PLACED INTO THE HYDRAULIC SEEDER. THE SLURRY MIXTURE WILL BE AGITATED DURING APPLICATION TO KEEP THE INGREDIENTS THOROUGHLY MIXED. THE MIXTURE WILL BE SPREAD UNIFORMLY OVER THE AREA WITHIN ONE HOUR AFTER BEING PLACED IN THE HYDROSEEDER. FINELY GROUND LIMESTONE CAN BE APPLIED IN THE MULCH SLURRY OR IN COMBINATION WITH THE TOP DRESSING. WHEN CONVENTIONAL PLANTING IS TO BE DONE, LIME AND FERTILIZER SHALL BE APPLIED UNIFORMLY IN ONE OF THE FOLLOWING WAYS:

- APPLY BEFORE LAND PREPARATION SO THAT IT WILL BE MIXED WITH THE SOIL DURING SEEDBED REPARATION.
- MIX WITH THE SOIL USED TO FILL THE HOLES. DISTRIBUTE IN FURROWS.
- BROADCAST AFTER STEEP SURFACES ARE SCARIFIED, PITTED, OR TRENCHED.
- A FERTILIZER PELLETT SHALL BE PLACED AT ROOT DEPTH IN THE CLOSING HOLE BESIDE EACH PINE TREE SEEDLING.

PLANT SELECTION

REFER TO THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION, FOR APPROVED SPECIES. SPECIES NOT LISTED SHALL BE APPROVED BY THE STATE RESOURCE CONSERVATIONIST OF THE NATURAL RESOURCES CONSERVATION SERVICE BEFORE THEY ARE USED. PLANTS SHALL BE SELECTED ON THE BASIS OF SPECIES CHARACTERISTICS; SITE AND SOIL CONDITIONS; PLANNED USE AND MAINTENANCE OF THE AREA; TIME OF YEAR OF PLANTING; METHOD OF PLANTING; AND THE NEEDS AND DESIRES OF THE LAND USER. SOME PERENNIAL SPECIES ARE EASILY ESTABLISHED AND CAN BE PLANTED ALONE. EXAMPLES OF THESE ARE COMMON BERMUDA, TALL FESCUE, AND WEEPING LOVEGRASS. OTHER PERENNIALS, SUCH AS BAHIA GRASS AND SERICEA LESPEDEZA, ARE SLOW TO BECOME ESTABLISHED AND SHOULD BE PLANTED WITH ANOTHER PERENNIAL SPECIES. THE ADDITIONAL SPECIES WILL PROVIDE QUICK COVER AND AMPLE SOIL PROTECTION UNTIL THE TARGET PERENNIAL SPECIES BECOME ESTABLISHED. FOR EXAMPLE, COMMON SEEDING COMBINATIONS ARE 1) WEEPING LOVEGRASS WITH SERICEA LESPEDEZA (SCARIFIED) AND 2) TALL FESCUE WITH SERICEA LESPEDEZA (UNSPECIFIED). PLANT SELECTION MAY ALSO INCLUDE ANNUAL COMPANION CROPS. ANNUAL COMPANION CROPS SHOULD BE USED ONLY WHEN THE PERENNIAL SPECIES ARE NOT PLANTED DURING THEIR OPTIMUM PLANTING PERIOD. A COMMON MIXTURE IS BROWN TOP MILLET WITH COMMON BERMUDA IN MID SUMMER. CARE SHOULD BE TAKEN IN SELECTING COMPANION CROP SPECIES AND SEEDING RATES BECAUSE ANNUAL CROPS WILL COMPETE WITH PERENNIAL SPECIES FOR WATER, NUTRIENTS, AND GROWING SPACE. A HIGH SEEDING RATE OF THE COMPANION CROP MAY PREVENT THE ESTABLISHMENT OF PERENNIAL SPECIES. RYEGRASS SHALL NOT BE USED IN ANY SEEDING MIXTURES CONTAINING PERENNIAL SPECIES DUE TO ITS ABILITY TO OUT-COMPETE DESIRED SPECIES CHOSEN FOR PERMANENT PERENNIAL COVER.

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1	03.10.23	CCR PERMIT DRAWINGS	DLJ	JMG
REV	DATE	DESCRIPTION	DRN	APP
STORMWATER AND ESC DETAILS - III				
PLANT WANSLEY ASH POND CLOSURE BY REMOVAL HEARD AND CARROLL COUNTIES, GEORGIA				
1255 ROBERTS BOULEVARD, NW, SUITE 200 KENNESAW, GEORGIA 30144 USA		PHONE: 678.202.8500 WWW.GEOSYNTEC.COM		
PROJ. NO.	GW9155	DWG.	GW7306.13-C22	EDIT
SCALE	AS SHOWN	DRAWING 22 OF 22		
DATE	MARCH 2023			

