GEORGIA POWER COMPANY
PLANT BOWEN
COAL COMBUSTION RESIDUALS (CCR) LANDFILL
PERMIT APPLICATION
BARTOW COUNTY, GEORGIA
NOVEMBER 2018

TABLE of CONTENTS
PLANT BOWEN
CCR LANDFILL

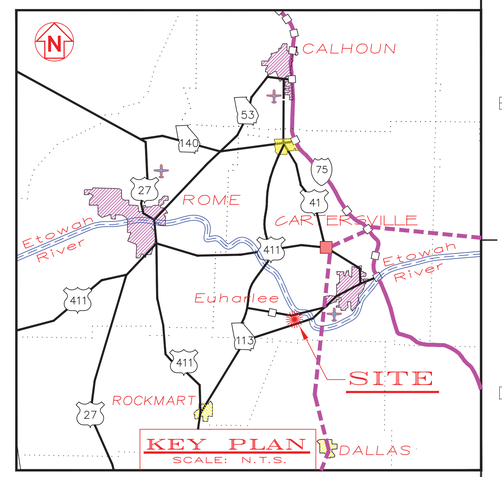
*1. H15061, Rev. 6 Site Plan
2. H15062, Rev. 0 Existing Site Topographic Map and Boring/Piezometer Locations
*3. H15063, Rev. 4 General Site Development Cell Layout
4. H15064, Rev. 1 Cell 1 & 2 Site Development–Excavation Plan, Sheet 1 of 2
5. H15065, Rev. 1 Cell 1 & 2 Site Development–Excavation Plan, Sheet 2 of 2
*6. H15066, Rev. 4 Cell 1 & 2 Site Development–Base Grade Plan
7. H15067, Rev. 2 Cell 1 & 2 Final Stacking Plan
*8. H15068, Rev. 4 Cell 3 Site Development Plan–Excavation Plan
*9. H15069, Rev. 5 Cell 3 Site Development Plan–Base Grade Plan
*10. H15070, Rev. 4 Cell 4 Site Development Plan–Excavation Plan
*11. H15071, Rev. 5 Cell 4 Site Development Plan–Base Grade Plan
*12. H15072, Rev. 5 Cell 5 Site Development Plan–Excavation Plan
*13. H15073, Rev. 5 Cell 5 Site Development Plan–Base Grade Plan
*14. H15074, Rev. 5 Cell 6 Site Development Plan–Excavation Plan
*15. H15075, Rev. 5 Cell 6 Site Development Plan–Base Grade Plan
*16. H15076, Rev. 4 Cell 7 Site Development Plan–Excavation Plan
*17. H15077, Rev. 4 Cell 7 Site Development Plan–Base Grade Plan
*18. H15078, Rev. 3 Cell 8 Site Development Plan–Excavation Plan
*19. H15079, Rev. 4 Cell 8 Site Development Plan–Base Grade Plan
*20. H15080, Rev. 3 Cell 3,4,5,6,7 & 8 Final Stacking Plan
21. H15081, NOT USED (SEE NOTE 2)
22. H15082, NOT USED (SEE NOTE 2)
23. H15083, NOT USED (SEE NOTE 2)
*24. H15084, Rev. 4 Misc. Sections & Details, Sheet 1 of 2
25. H15085, NOT USED (SEE NOTE 2)
26. H15086, NOT USED (SEE NOTE 2)
*27. H15087, Rev. 3 Section A–A
*28. H15088, Rev. 3 Sections B–B & C–C
*29. H15089, Rev. 2 Section D–D
30. H15090, NOT USED (SEE NOTE 2)
31. H15091, NOT USED (SEE NOTE 2)
32. H15092, Rev. 3 Section G–G & H–H
*33. H15093, Rev. 2 Section J–J
*34. H15094, Rev. 2 Section J–J (Continued)
*35. H15095, Rev. 3 Section K–K
36. H15096, Rev. 3 Sections L–L, M–M, N–N & P–P
*37. H15097, Rev. 5 Misc. Sections & Details, Sheet 2 of 2
*38. H15296, Rev. 1 Erosion & Sediment Control Details, Sheet 1 of 6
*39. H15297, Rev. 3 Erosion & Sediment Control Details, Sheet 2 of 6
40. H15298, Rev. 3 Erosion & Sediment Control Details, Sheet 3 of 6
41. H15299, Rev. 1 Erosion & Sediment Control Details, Sheet 4 of 6
42. H15300, Rev. 0 Erosion & Sediment Control Details, Sheet 5 of 6
43. H15301, Rev. 0 Erosion & Sediment Control Details, Sheet 6 of 6
44. H15302, NOT USED (SEE NOTE 2)
45. H15303, NOT USED (SEE NOTE 2)
46. H15304, NOT USED (SEE NOTE 2)
47. H15305, NOT USED (SEE NOTE 2)
48. H15306, NOT USED (SEE NOTE 2)
49. H15307, Rev. 0 Geological Cross–Section A–A
50. H15308, Rev. 0 Geological Cross–Section B–B
51. H15309, Rev. 0 Geological Cross–Section C–C
*52. H15310, Rev. 2 Typical Potentiometric Surface of Uppermost Bedrock Aquifer, Nov. 5, 2003
*53. H15311, Rev. 2 Typical Potentiometric Surface of Overburden Aquitard, Feb. 24, 2003
54. H15312, NOT USED (SEE NOTE 2)
*55. H15313, Rev. 1 Flood Zone Map
56. H15314, Rev. 0 Property Plat and Legal Description
*57. H15315, Rev. 3 Cell Down Drain Data
58. H52258, NOT USED (SEE NOTE 2)
59. H52259, NOT USED (SEE NOTE 2)
60. H52260, Rev. 0 Fence and Gate Details

APPENDED PERMIT DRAWINGS CELLS 9 AND 10 LINER RETROFIT

SHEET NO.	DESCRIPTION
–	TITLE SHEET
1	TOP OF CLAY LINER GRADING PLAN
2	LEACHATE COLLECTION PLAN
3	LEACHATE FORCE MAIN PLAN
4	FINAL GRADING PLAN
5	FINAL DRAINAGE PLAN
6	EROSION CONTROL PLAN
7	CROSS SECTION A
8–11	MISCELLANEOUS DETAILS

*DRAWINGS REVISED WITH THE CCR LANDFILL PERMIT APPLICATION





LEGEND:

- PROPERTY LINE (APPROXIMATE)
- BOWEN CCR LANDFILL SITE BOUNDARY
- SURFACE WATER FLOW

NOTES:

1. COAL COMBUSTION BY–PRODUCTS AND COAL COMBUSTION RESIDUALS HAVE THE SAME MEANING IN THIS PERMIT APPLICATION.
2. INFORMATION SHOWN IN THE ORIGINAL DRAWING WAS MOVED TO A REPORT OR A DIFFERENT PART OF THE PERMIT APPLICATION.
3. PROPERTY LINE IS APPROXIMATE.
4. GRID IS STATE PLANE GRID, NAD83, WEST ZONE. (APPROXIMATE).
5. TOPOGRAPHIC DATA OBTAINED FROM SOUTHERN GIS DIGITAL USGS, KINGSTON–TAYLORSVILLE 30 X 60 MINUTE QUADRANGLE.
6. GEORGIA POWER PROPERTY LINE DATA OBTAINED FROM EORGIA POWER COMPANY DRAWING E–1–e.

REFERENCE DRAWINGS:

1. GEORGIA POWER COMPANY, H–690–6–.10, REV. 1, DATED 04/07/05, PLANT BOWEN, COAL COMBUSTION BY–PRODUCT STORAGE FACILITY
2. GEORGIA POWER COMPANY, E–1–e COMPOSITE MAP OF PLANT BOWEN SITE.
3. FLOOD INSURANCE RATE MAP, BARTOW COUNTY, GEORGIA, PANEL 70 & 1100F 135 SEPTEMBER 29, 1989

RESPONSIBLE OFFICIAL

GENERAL MANAGER,
ENVIRONMENTAL AFFAIRS
GEORGIA POWER COMPANY
BIN 10221
241 RALPH McGILL BLVD.
ATLANTA, GA 30308
(404) 506–7777

PROPERTY OWNER

GEORGIA POWER COMPANY
241 RALPH McGILL BLVD.
ATLANTA, GEORGIA 30308

CONSULTANT

SOUTHERN COMPANY GENERATION
BIN 10185
241 RALPH McGILL BLVD.
ATLANTA, GEORGIA 30308
ATTN: GARY McWHORTER
TEL: (404) 506–7291
FAX: (404) 506–7070

CCR LANDFILL PERMIT APPLICATION

HODGES, HARBIN, NEWBERRY & TRIBBLE, INC
(HHNT, INC.)
3920 ARKWRIGHT RD, SUITE 101
MACON, GA 31210
(478) 743–7175

"ORIGINAL DRAWINGS AND REVISIONS MADE PRIOR TO THE CURRENT SUBMITTAL WERE PREPARED BY THE SOUTHERN COMPANY GENERATION ENGINEERING AND CONSTRUCTION SERVICES AND SEALED BY MR. GARY H. WHORTER, P.E. AS NOTED. THE ENTIRE SET OF DRAWINGS IS BEING SUBMITTED TO EPD AS PART OF THE APPLICATION FOR A CCR LANDFILL PERMIT REQUIRED BY THE NEW SOLID WASTE RULE 391–4–.10 (9) (a) FOR COAL COMBUSTION RESIDUALS (CCR) UNITS. DRAWINGS WITHOUT REVISIONS BY HHNT, INC. ARE THE LATEST VERSON OF THE DRAWINGS SUBMITTED AND APPROVED BY EPD UNDER THE CURRENT OPERATING PERMIT. R. BRANT LANE, P.E. AND CLAUDIA M. MOELLER, P.E. FROM HODGES, HARBIN, NEWBERRY, AND TRIBBLE, INC. (HHNT, INC.) ONLY CERTIFY THE SPECIFIC REVISIONS NOTED IN DRAWINGS THAT CONTAIN A REVISION BOX DESCRIBING THE REVISION MADE AND NOTED AS CCR LANDFILL PERMIT APPLICATION [BY HHNT, INC.]."

GEORGIA REGISTERED No. 17580 PROFESSIONAL ENGINEER 11-15-18 CLAUDIA M. MOELLER

GEORGIA REGISTERED NO. 27185 PROFESSIONAL ENGINEER 11/15/18 R. BRANT LANE

REVISION	DATE	DESCRIPTION	BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
6	11/14/2018	CCR LANDFILL PERMIT APPLICATION [BY HHNT, INC.] REVISED SHEETS NOTED ABOVE WITH AN "*".	VARIOUS	CMM	RBL				
5	11/7/14	"REV. 5 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JKB	GHM	RCB				KAM
4	8/29/14	"REV. 4 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JKB	GHM	RCB				KAM
3	7/3/13	"REV. 3 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JAB JKB	GHM MHL	RCB				KAM
2	7/22/08	"REV. 2 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." 1. ADDED "MINOR MODIFICATION" TO TITLE 2. REVISED REVISIONS NUMBERS FOR PAGES 1 & 54 REA: BN01217 EWO: 3156FJ	JSB	LLM	JCP				
0	6/6/06	ISSUED FOR PERMIT "REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." REA: BN01217 EWO: 3156FJ	THH JAA	GHM JDM	ELM				

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Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCR LANDFILL
SITE PLAN

SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
1"=3600'	10207	H-15061	1	FINAL	6

ANSI F: 28x40 Acad2002

CHORDS ALONG LEFT TOP BANK		
Course	Bearing	Distance
(L1 HAS BEEN DELETED)		
L2	N 83°45'43"E	297.92'
L3	N71°34'28"E	217.50'
L4	N56°17'48"E	191.67'
L5	N43°55'05"E	205.91'
L6	N44°11'48"E	271.01'
L7	N33°39'01"E	301.34'
L8	N31°01'57"E	260.68'
L9	N39°38'03"E	347.99'
L10	N26°38'48"E	213.50'
L11	N51°50'56"E	137.60'
L12	N23°54'26"E	251.33'
L13	N32°47'25"E	229.48'
L14	N23°15'10"E	384.59'
L15	N22°45'08"E	263.63'
L16	N20°42'42"E	65.34'
L17	N10°37'35"E	491.41'
L18	N52°20'51"E	172.35'
L19	N65°25'25"E	210.19'
L20	N82°08'45"E	249.90'
L21	S75°36'29"E	311.70'
L22	S59°34'46"E	132.57'
L23	S47°28'17"E	452.84'
L24	S58°24'52"E	170.98'
L25	S45°26'46"E	316.89'
L26	S49°13'43"E	181.40'
L27	S36°59'45"E	314.99'
L28	S33°08'44"E	296.76'
L29	S28°14'14"E	380.10'
L30	S31°31'27"E	568.21'
L31	S34°26'16"E	159.00'
L32	S28°03'05"E	471.04'
L33	S04°00'18"E	529.29'
L34	S17°12'34"W	382.01'
L35	S14°07'27"W	360.99'
L36	S12°45'38"W	278.11'
L37	S11°34'49"E	311.31'

CHORDS ALONG 200' BUFFER		
Course	Bearing	Distance
B1	N 83°45'43"E	153.34'
B2	N71°34'28"E	265.68'
B3	N56°17'48"E	240.19'
B4	N43°55'05"E	227.11'
B5	N44°11'48"E	288.98'
B6	N33°39'01"E	324.37'
B7	N31°01'57"E	250.21'
B8	N39°38'03"E	355.72'
B9	N26°38'48"E	191.56'
B10	N51°50'56"E	142.65'
B11	N23°54'26"E	285.55'
B12	N32°47'25"E	230.63'
B13	N23°15'10"E	402.15'
B14	N22°45'08"E	274.65'
B15	N20°42'42"E	260.75'
B16	N10°37'35"E	256.57'
B17	N52°20'51"E	68.04'
B18	N65°25'25"E	157.87'
B19	N82°08'45"E	181.18'
B20	S75°36'29"E	244.22'
B21	S59°34'46"E	83.20'
B22	S47°28'17"E	450.79'
B23	S58°24'52"E	167.41'
B24	S45°26'46"E	300.77'
B25	S49°13'43"E	166.57'
B26	S36°59'45"E	286.83'
B27	S33°08'44"E	281.47'
B28	S28°14'14"E	377.27'
B29	S31°31'27"E	579.04'
B30	S34°26'16"E	152.93'
B31	S28°03'05"E	417.28'
B32	S04°00'18"E	449.24'
B33	S17°12'34"W	349.94'
B34	S14°07'27"W	368.76'
B35	S12°45'38"W	323.63'
B36	S11°34'49"E	215.17'

WELL	NORTHING	EASTING	TOP OF WELL ELEV
BLFR1A	1503747.415	2071457.913	750.32
BLFR6	1503916.759	2072895.378	692.16
BLFR7	1505662.563	2075436.941	684.40
BLFR8	1504524.486	2073683.204	679.24
BLFR9	1502355.201	2073168.840	731.66
BLFR15	1502586.132	2072288.733	749.36
BLFR17	1505037.964	2073636.423	692.90
BLFR18	1506187.864	2074688.870	685.09
BLFR19	1505319.944	2073932.827	717.37
BLFR20	1506276.439	2075290.397	674.27
BLFR21	1505893.189	2074191.998	697.05
BLFR22	1505184.468	2073917.563	710.76
BLFR23	1505452.121	2074385.131	715.35
BLFR24	1505319.008	2074760.426	725.45
BLFR25	1505468.628	2074903.525	707.36
BLFR26	1505678.681	2073578.530	712.03
BLFR27	1505924.340	2073973.026	701.35
BLFR28	1504732.717	2075305.286	706.19
BLFR29	1502855.677	2074140.236	684.95
BLFR30	1502430.826	2073415.034	711.88
BLFR31	1501948.038	2072784.292	726.78
BLFR32	1502942.715	2073082.193	723.28
BLFR33	1502436.755	2072589.963	744.33
BLFR34	1502125.626	2072016.709	723.75
BLFR35	1503589.082	2073227.123	690.78
BLFR36	1503648.332	2072841.895	706.49
BLFR37	1503374.473	2072597.193	729.59
BLFR39	1503505.680	2071375.358	729.66
BLFR41	1504066.935	2071612.746	719.48
BLFR43	1504711.271	2071627.506	705.63
BLFR44	1504161.050	2071055.691	707.33
BLFR4515	1503190.866	2070534.570	NA
BLFR46	1503658.069	2073656.965	677.47
BLFR47	1504079.590	2073244.050	682.81
BLFR50	1506555.076	2073642.832	718.76
BLFR52	1503463.837	2071064.767	739.55
BLFR53	1506679.068	2073896.536	NA
BLFR54	1505548.468	2075738.316	NA
BLF55	1506056.821	2073931.645	708.27
BLFR56A	1505142.940	2075552.292	688.50
BLF57	1504099.693	2071983.698	723.61
BLF58	1502399.958	2073042.736	729.81

WELL	NORTHING	EASTING	TOP OF WELL ELEV
BLF1	1503782.930	2071478.672	NA
BLFS2	1502935.563	2072281.333	755.33
BLFS4	1502653.810	2071739.275	737.11
BLF5	1505279.230	2074593.486	NA
BLFS6	1503922.697	2072892.317	695.47
BLFS7	1505663.505	2075429.560	684.67
BLFS8	1504522.867	2073691.120	679.77
BLFS9	1502359.208	2073162.825	731.79
BLFS10	1503219.429	2071818.608	742.10
BLFS11	1503347.739	2073238.076	696.67
BLFS12	1502887.413	2073721.983	699.69
BLFS13	1502424.110	2071126.753	724.57
BLFS14	1502138.798	2072451.000	728.56
BLFS15	1502581.159	2072294.131	753.91
BLFS16	1503745.282	2070640.502	723.12
BLFS17	1505039.879	2073631.097	692.36
BLFS18	1506191.223	2074691.797	684.18
BLFS19	1505323.403	2073929.741	714.41
BLFS20	1506279.148	2075304.845	674.28
BLFS21	1505889.032	2074185.241	697.15
BLFS22	1505178.897	2073915.136	708.57
BLFS23	1505458.432	2074391.064	715.79
BLFS24	1505315.309	2074756.166	723.22
BLFS25	1505470.359	2074907.585	709.01
BLFS26	1505677.485	2073583.590	712.03
BLFS27	1505933.043	2073978.366	701.35
BLFS28	1504736.957	2075301.251	707.40
BLFS29	1502849.899	2074138.976	686.46
BLFS30	1502437.382	2073413.144	712.83
BLFS31	1501951.108	2072788.396	725.81
BLFS32	1502953.722	2073078.407	722.02
BLFS33	1502444.779	2072592.049	742.54
BLFS34	1502125.580	2072010.585	720.76
BLFS35	1503594.319	2073229.918	691.72
BLFS36	1503642.155	2072847.951	707.58
BLFS38	1503075.881	2072515.964	744.11
BLFS39	1503502.609	2071380.275	730.78
BLFS40	1504372.466	2072103.394	713.43
BLFS41	1504070.121	2071611.520	719.83
BLFS42	1503882.160	2071459.390	745.65
BLFS43	1504717.219	2071633.145	704.43
BLFS44	1504163.722	2071048.381	709.12
BLFS45	1504376.803	2072865.259	693.46
BLFS46	1503657.155	2073650.780	677.18
BLFS47	1504076.070	2073249.749	686.01
BLFS48	1504848.370	2074420.005	688.34
BLFS49	1505865.787	2072905.512	738.79
BLFS51	1502969.889	2071003.077	733.64

CONTROL FROM GPC LAND DEPARTMENT
STATE PLANE COORDINATES
GEORGIA WEST ZONE
N.A.D. 83

NC-5 = GPC-008-037
NORTHING: 1503911.29
EASTING: 2068882.49
NC-6 = GPC-008-036
NORTHING: 1502934.49
EASTING: 2069015.04

LEGEND:

PLAT ABBREVIATIONS

IPF – Iron Pin Found
IPS – 1/2" Rebar Set
CMF – Concrete Monument Found
FPS – Fence Post Set
OTP – Open Top Pipe
CTP – Crimp Top Pipe
Conc. – Concrete
Alumn. – Aluminum
P/L – Property Line
R/W – Right of Way
C/L – Centerline
F/L – Fenceline
T/L – Transmission Line
N/F – Now or Formerly
DB – Deed Book
PB – Plat Book
MF – Map File No.
GPC – Georgia Power Company

MONUMENTATION LEGEND

Depicts Iron Pin Set
Depicts Iron Pin Found
Depicts Monument Set
Depicts Monument Found
Depicts Unmonumented Point on Top of Bank
Survey Control Monument, Construction

UTILITY LEGEND

TOWER – Powerline Tower
PP – Power Pole

LINE LEGEND

Property Line
Site Boundary
Buffer Zone
Favorable/Unfavorable Area Delineation
Fence

BORING/PIEZOMETER LEGEND

BLFR – Top of Rock Boring/Piezometer
BLFS – Soil Boring/Piezometer
BLF – Deep Boring/Piezometer

CERTIFICATION:

THIS TOPOGRAPHIC MAP WAS PREPARED BY METRO ENGINEERING & SURVEYING CO., INC. FROM AERIAL PHOTOGRAPHY DATED FEBRUARY 26, 2005. BASED ON THE DESCRIBED MAPPING PARAMETERS AND PROCEDURES, I CERTIFY THAT THIS TOPOGRAPHIC MAP WAS GENERATED AT 1"= 50' WITH A CONTOUR ACCURACY OF 1 FT. BASED ON NATIONAL MAPPING STANDARDS.

GARY H. McHORTER, P.E.
GA. REG. NO. 012687

NOTES:

1. TOPOGRAPHIC SURVEY COMPLETED MAY 27, 2004.
2. HORIZONTAL AND VERTICAL CONTROL PROVIDED BY GEORGIA POWER COMPANY LAND DEPARTMENT.

GEORGIA
Environmental Protection Division
Solid Waste Management Program
MINOR MODIFICATION APPROVAL
SOLID WASTE PERMIT NO. 008-018D(L3)
APPROVED BY: GH DATE: 8/22/13

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.
2. COMPOSITE MAP OF PLANT BOWEN SITE LAND DEPARTMENT MAP FILE NO. E-1-e.
3. GEORGIA POWER COMPANY LAND DEPARTMENT PROPERTY PLAT H-690-6-.10, REV. 1, DATED 4/07/05.

GEORGIA REGISTERED No. 12687 PROFESSIONAL ENGINEER Gary McHorter

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Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCB DISPOSAL FACILITY
EXISTING SITE TOPOGRAPHIC MAP AND BORING/PIEZOMETER LOCATIONS

REVISION	DATE

REVISION	0	DATE	6/6/06

ISSUED FOR PERMIT

"REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

REA: BN01217 EWO: 3156FJ

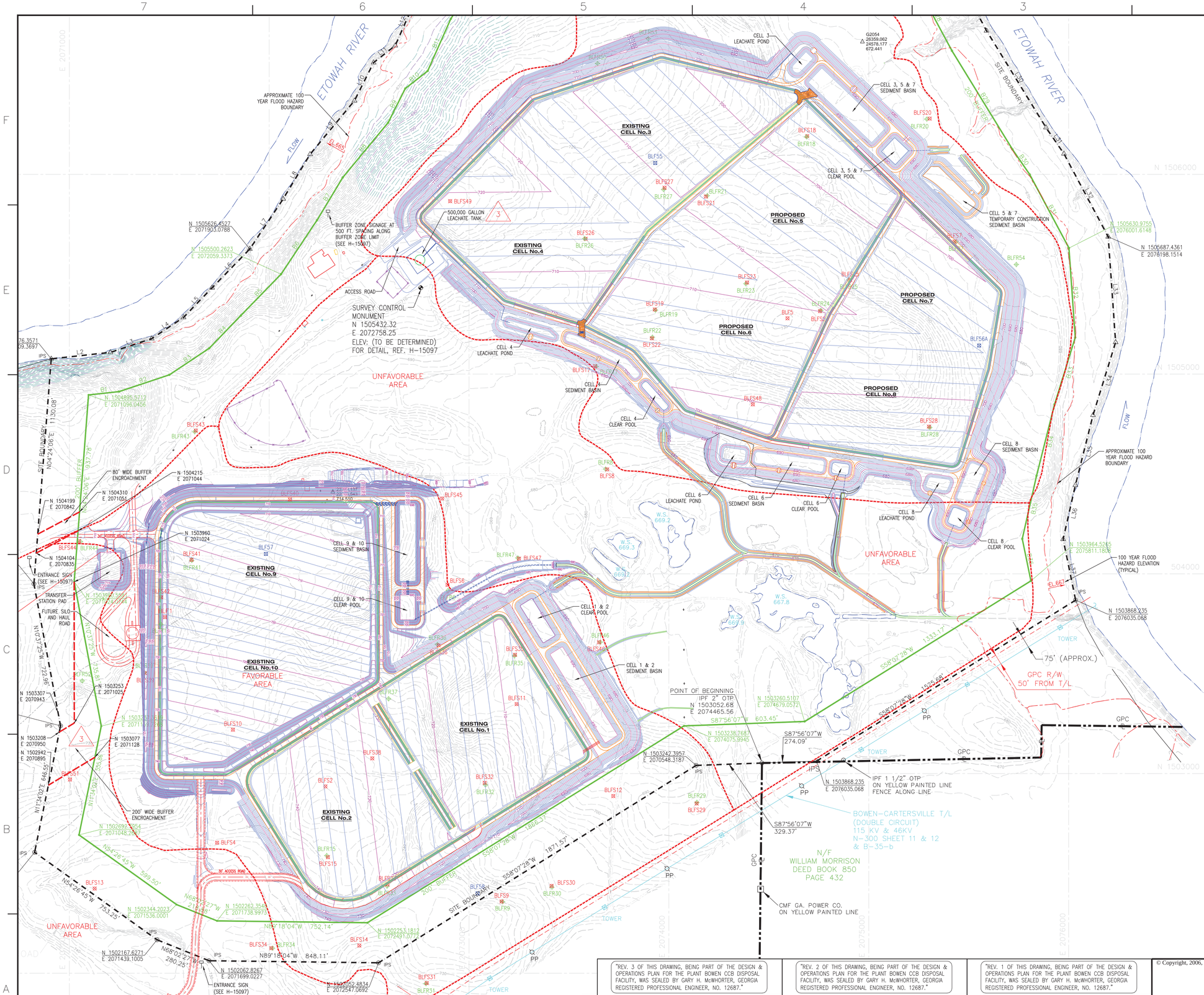
BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
THH	GHM	ELM				
JAA	JDM					

SCALE	PROJ I.D.	DRAWING NUMBER	SH.	CONT'D	REV.
1"=300'	10207	H-15062	1	FINAL	0

Drawing name: T:\ESEE MAJOR PROJECTS\PROJECTS\BOWEN\DESIGN AND OPERATIONS PLAN DRAWINGS\Bowen\H15062.dwg Mar 28, 2013 – 3:11pm

ANSI F: 28x40 Acad2002



GENERAL NOTES:

1. All land disturbing activities shall conform to the minimum requirements for conservation and engineering practices as published by the Georgia Soil and Water Conservation Commission in the latest edition of the Manual for Erosion and Sediment Control in Georgia.

2. Monitoring of surface waters during construction shall be in accordance with the NPDES General Permit for Stand Alone Projects (GAR 100001) for Construction Activities and the Guideline for Construction Monitoring contained in the EPD Guidance Document for Design and Operational Plans, Nov. 1993. A copy of this guideline is enclosed as part of the Supplemental Information Report for the Design and Operational Plan for this facility. The discharge from the clear pools during operation will be monitored under a NPDES General Permit for Storm Water Discharge Associated with Industrial Activities.

3. Areas designated for excavation, earth fill, ditches, and diversions shall be cleared, grubbed, and stripped of any trees, brush, stumps, and vegetation prior to excavation. Clearing limits shall be held at a minimum. No clearing will be performed in the 200' Buffer, except for direct ingress and egress and for access for monitoring well installation.

4. Trees, debris and other vegetation removed during the clearing, grubbing, and stripping operations shall not be disposed of inside the Site Boundary. This material shall be disposed of in accordance with local ordinances.

5. A borrow investigation shall be conducted to locate suitable material for compacted earth fill, clay liner, and final cover material.

6. All earthen structures are engineered to withstand a horizontal acceleration of 0.22g.

7. Existing site horizontal and vertical survey control monuments NC-5 and NC-6 are indicated on drawing H-15062. The proposed location of the Survey Control Monument for construction activities is shown on this drawing and on drawing H-15062.

8. The corners of the Site Boundary and Buffer Zone shall be established and identified by 3/4 inch iron pins (rebar). 4"x4" marker posts shall also be set in order to identify the corners. The limits of the Buffer Zone shall be visibly marked to ensure no construction activities will be performed in the Buffer Zone.

9. The control of CCR waste placement at the facility shall be established from the survey control monument.

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

LEGEND:

- TOP OF ROCK BORING/TEMPORARY PIEZOMETER LOCATION
- SOIL BORING/TEMPORARY PIEZOMETER LOCATION
- DEEP BORING/TEMPORARY PIEZOMETER LOCATION
- PROPERTY LINE
- SITE BOUNDARY
- 200' BUFFER
- FAVORABLE/UNFAVORABLE AREA DELINEATION
- 50 EXISTING GROUND CONTOURS
- 50 FINAL GRADE CONTOURS
- FENCE

NOTES:

1. TOPOGRAPHIC SURVEY COMPLETED MAY 27, 2004.
2. HORIZONTAL AND VERTICAL CONTROL PROVIDED BY GEORGIA POWER COMPANY LAND DEPARTMENT.
3. THE 100 YEAR FLOOD HAZARD BOUNDARY AND ELEVATIONS WERE OBTAINED FROM FEMA MAP NO. 13015C0245H, EFFECTIVE DATE, 10-05-2018.

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.

GEORGIA REGISTERED No. 17580 PROFESSIONAL ENGINEER CLAUDIA M. MCELLER 11-15-18

GEORGIA REGISTERED No. 27185 PROFESSIONAL ENGINEER R. BRANT LANE 11/15/18

"REV. 3 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

"REV. 2 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

"REV. 1 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

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REVISION	DATE	DESCRIPTION	BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
4	11/14/2018	CCR LANDFIILL PERMIT APPLICATION [BY HHNT, INC.] REMOVED REFERENCES TO DRAWINGS NOT USED. EXTENDED FARM ROAD SOUTH OF CELL 10. LABELED EXISTING AND PROPOSED CELLS. PROVIDED RETROFIT GRADES IN CELLS 9 AND 10. ADDED FLOODPLAIN INFORMATION.	VARIOUS	CMM	RBL					
3	11/7/14	ISSUED FOR MINOR MODIFICATION TO BUFFER ENCROACHMENT AND ADDITION OF LEACHATE TANK AND PIPING BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JKB	GHM	RCB					KAM
2	8/29/14	ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JKB	GHM	RCB					KAM
1	3/31/13	ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JAB JKB	GHM MHL	RCB					KAM
0	6/6/06	ISSUED FOR PERMIT "REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." REA: BNO1217 EWO: 3156FJ	THH	GHM JAA	JDM ELM					

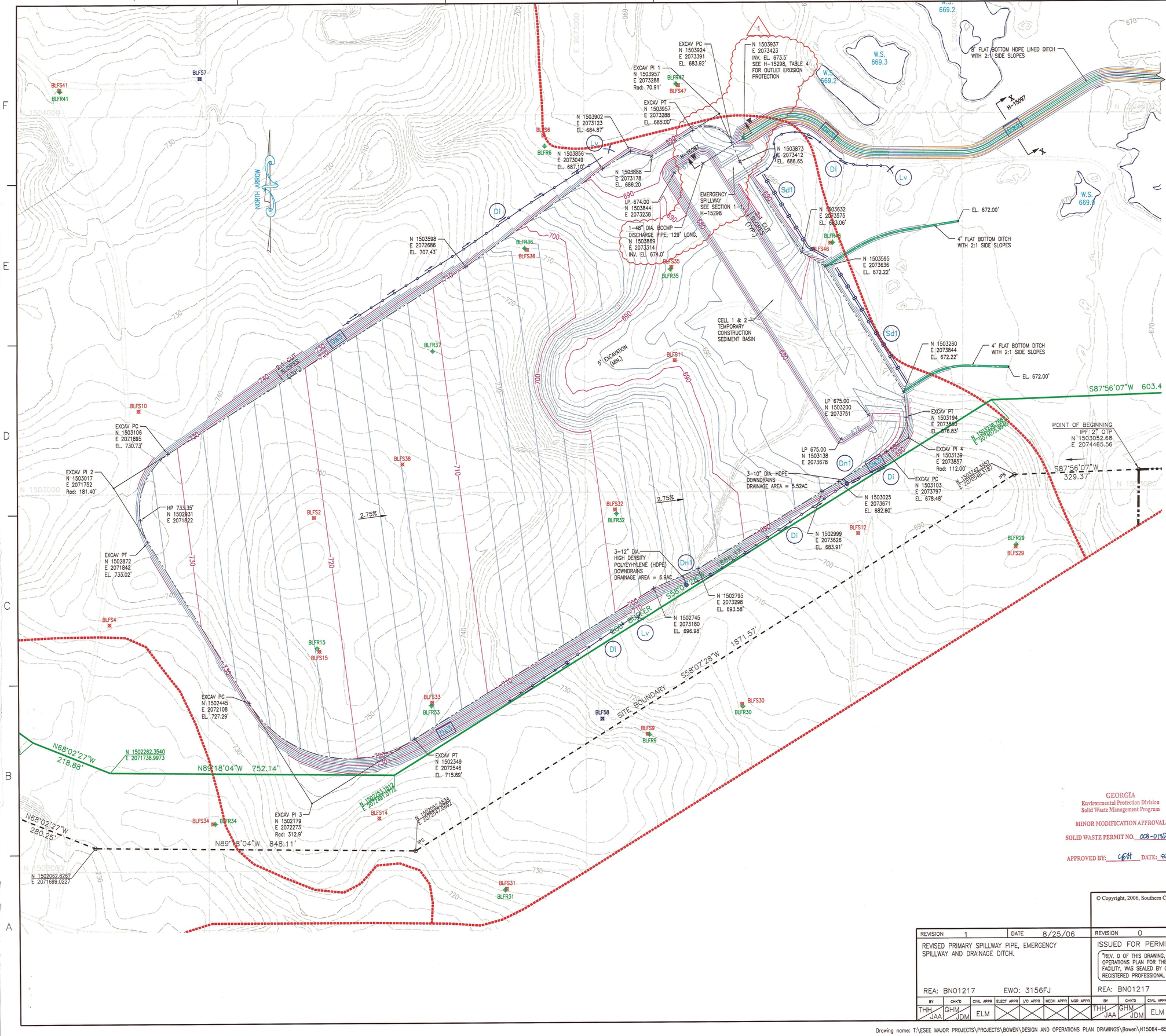
Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCR DISPOSAL FACILITY
GENERAL SITE DEVELOPMENT
CELL LAYOUT

SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
1"=200'	10207	**H-15063**	1	FINAL	3

Drawing name: B:\P - GPC - Bowen\Projects\CCR Major Mod\H15063_R4.dwg Nov 15, 2018 - 6:07pm

ANSI F: 28x40 Acad2002



GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

CELL 1 & 2
EARTHWORK QUANTITIES, CUBIC YARDS

CUT	FILL
1,219,848	1,061,552

LEGEND:

- TOP OF ROCK BORING/TEMPORARY PIEZOMETER LOCATION
- SOIL BORING/TEMPORARY PIEZOMETER LOCATION
- DEEP BORING/TEMPORARY PIEZOMETER LOCATION
- PROPERTY LINE
- SITE BOUNDARY
- 200' BUFFER
- FAVORABLE/UNFAVORABLE AREA DELINEATION
- EXCAVATION LAYOUT CONTROL
- 50 EXISTING GROUND CONTOURS
- 50 FINAL GRADE CONTOURS

EROSION CONTROL LEGEND

- Sd1 SILT FENCE (SEE H-15299)
- Di DIVERSION (SEE H-15299)
- Dn1 TEMPORARY DOWNDRAIN (SEE H-15296)
- Lv LEVEL SPREADER
- Ds3 DISTURBED AREA STABILIZATION (PERMANENT VEGETATION SEE H-15303)

NOTES:

1. ALL EARTHEN STRUCTURES ARE ENGINEERED TO WITHSTAND A MAXIMUM HORIZONTAL ACCELERATION OF 0.22g.

GEORGIA
Environmental Protection Division
Solid Waste Management Program
MINOR MODIFICATION APPROVAL
SOLID WASTE PERMIT NO. 008-018D(LF)
APPROVED BY: GM DATE: 8/26/13

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.
2. SEE SHEET H-15063 FOR GENERAL NOTES AND REFERENCES.
3. H-15065 CELL 1 & 2 SITE DEVELOPMENT EXCAVATION PLAN SH.2

GEORGIA REGISTERED No. 12687 PROFESSIONAL ENGINEER Gary H. McWhorter

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Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCB DISPOSAL FACILITY
CELL 1 & 2 SITE DEVELOPMENT
EXCAVATION PLAN
SHEET 1 OF 2

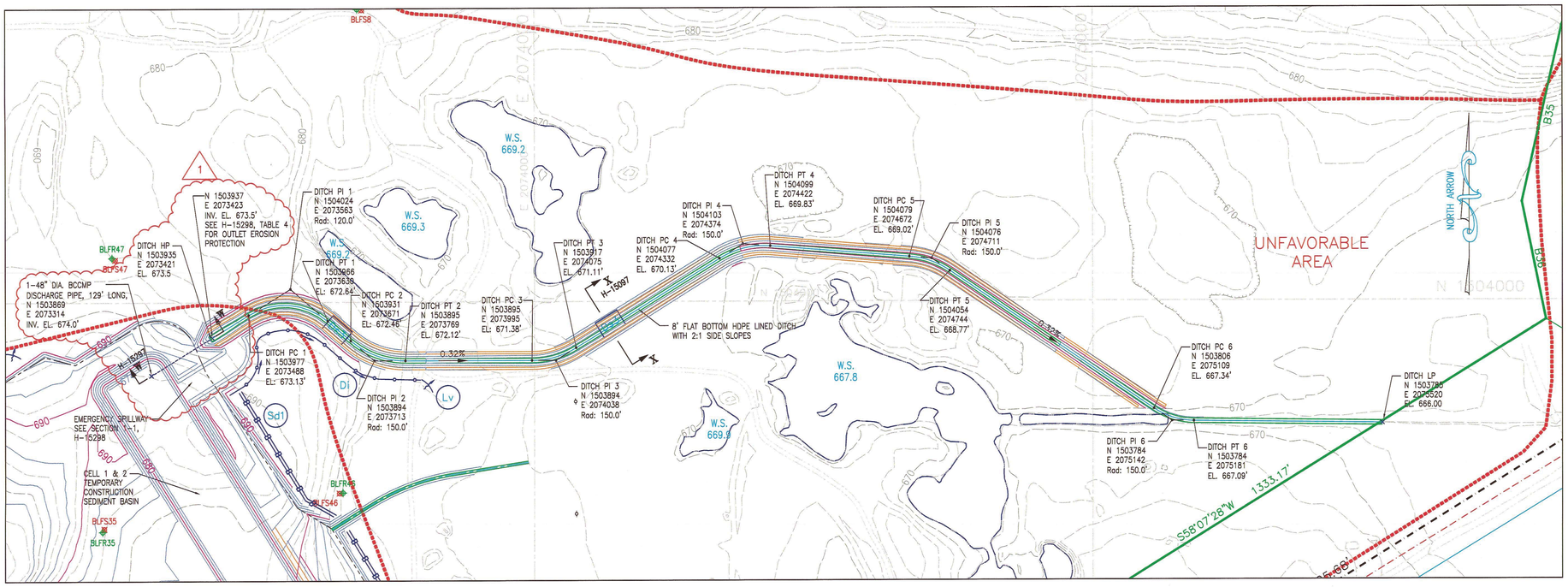
REVISION	DATE	DESCRIPTION
1	8/25/06	REVISED PRIMARY SPILLWAY PIPE, EMERGENCY SPILLWAY AND DRAINAGE DITCH. REA: BN01217 EWO: 3156FJ
0	6/6/06	ISSUED FOR PERMIT "REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." REA: BN01217 EWO: 3156FJ

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
THH JAA	GHM JDM	ELM				

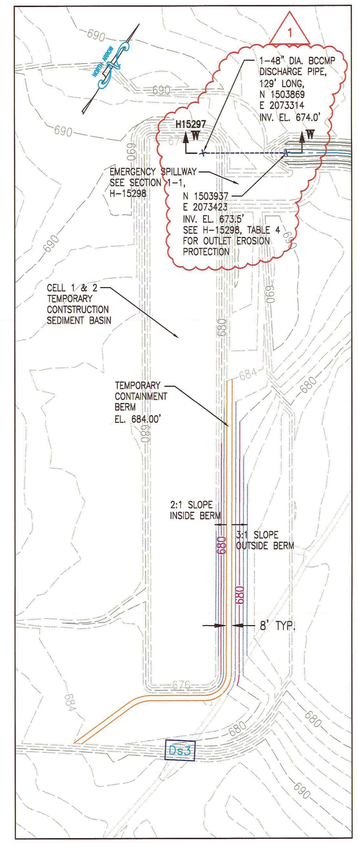
SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
1"=100'	10207	H-15064	1	FINAL	1

Drawing name: T:\ESEE MAJOR PROJECTS\PROJECTS\BOWEN\DESIGN AND OPERATIONS PLAN DRAWINGS\Bowen\H15064-65rev1.dwg Mar 28, 2013 - 3:08pm

ANSI F: 28x40 Acad2002



CELL No. 1 & 2 DRAINAGE DITCH
SCALE 1"= 100'



TEMPORARY CONTAINMENT BERM
SCALE 1"= 100'

LEGEND:

- TOP OF ROCK BORING/TEMPORARY PIEZOMETER LOCATION
- SOIL BORING/TEMPORARY PIEZOMETER LOCATION
- DEEP BORING/TEMPORARY PIEZOMETER LOCATION
- PROPERTY LINE
- SITE BOUNDARY
- 200' BUFFER
- FAVORABLE/UNFAVORABLE AREA DELINEATION
- EXCAVATION LAYOUT CONTROL
- 50 EXISTING GROUND CONTOURS
- 50 FINAL GRADE CONTOURS

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

CELL 1 & 2 EARTHWORK QUANTITIES, CUBIC YARDS	
CUT	FILL
1,219,848	1,061,552

EROSION CONTROL LEGEND

- Sd1 SILT FENCE (SEE H-15299)
- Di DIVERSION (SEE H-15299)
- Dn1 TEMPORARY DOWNDRAIN (SEE H-15296)
- Lv LEVEL SPREADER
- Ds3 DISTURBED AREA STABILIZATION (PERMANENT VEGETATION SEE H-15303)

GEORGIA
Environmental Protection Division
Solid Waste Management Program
MINOR MODIFICATION APPROVAL
SOLID WASTE PERMIT NO. 008-018D(LF)
APPROVED BY: CGH DATE: 8/26/13

NOTES:

1. ALL EARTHEN STRUCTURES ARE ENGINEERED TO WITHSTAND A MAXIMUM HORIZONTAL ACCELERATION OF 0.22g.

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.
2. SEE SHEET H-15063 FOR GENERAL NOTES AND REFERENCES.
3. H-15064 CELL 1 & 2 SITE DEVELOPMENT EXCAVATION PLAN SH.1

GEORGIA REGISTERED No. 12687 PROFESSIONAL ENGINEER C. McWHORTER 8/26/13

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Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCB DISPOSAL FACILITY
CELL 1 & 2 SITE DEVELOPMENT
EXCAVATION PLAN
SHEET 2 OF 2

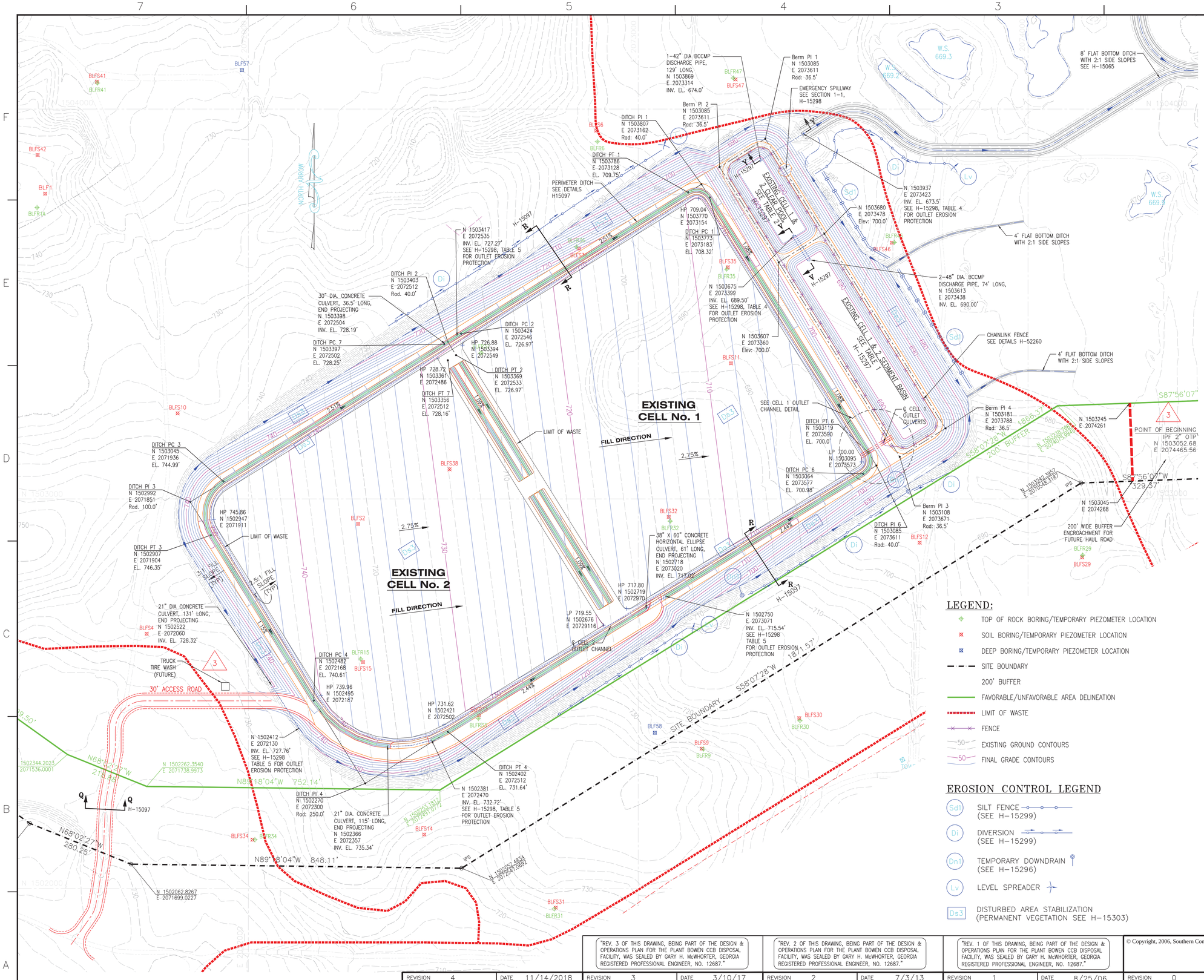
REVISION	DATE	DESCRIPTION
1	8/25/06	REVISED PRIMARY SPILLWAY PIPE, EMERGENCY SPILLWAY AND DRAINAGE DITCH. REA: BN01217 EWO: 3156FJ
0	6/6/06	ISSUED FOR PERMIT "REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." REA: BN01217 EWO: 3156FJ

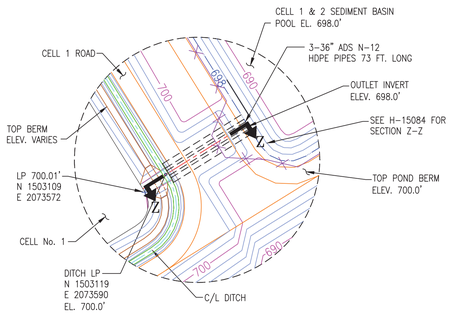
BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
THH JAA	GHM JDM	ELM				

SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
1"=100'	10207	H-15065	1	FINAL	1

Drawing name: T:\ESEE MAJOR PROJECTS\PROJECTS\BOWEN\DESIGN AND OPERATIONS PLAN DRAWINGS\Bowen\H15064-65rev1.dwg Mar 28, 2013 - 3:08pm

ANSI F: 28x40 Acad2002





CELL No. 1 OUTLET CHANNEL DETAIL

NOTE: DASHED CONTOURS INDICATE CLOSURE OF OUTLET CHANNEL AS THE CELL IS FILLED.

LEGEND:

- TOP OF ROCK BORING/TEMPORARY PIEZOMETER LOCATION
- SOIL BORING/TEMPORARY PIEZOMETER LOCATION
- DEEP BORING/TEMPORARY PIEZOMETER LOCATION
- SITE BOUNDARY
- 200' BUFFER
- FAVORABLE/UNFAVORABLE AREA DELINEATION
- LIMIT OF WASTE
- FENCE
- EXISTING GROUND CONTOURS
- FINAL GRADE CONTOURS

EROSION CONTROL LEGEND

- Sd1 SILT FENCE (SEE H-15299)
- Di DIVERSION (SEE H-15299)
- Dn1 TEMPORARY DOWNDRAIN (SEE H-15296)
- Lv LEVEL SPREADER
- DsJ DISTURBED AREA STABILIZATION (PERMANENT VEGETATION SEE H-15303)

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

CELL 1 & 2 EARTHWORK QUANTITIES, CUBIC YARDS

CUT	FILL
1,219,848	1,061,552

NOTES:

1. ALL EARTHEN STRUCTURES ARE ENGINEERED TO WITHSTAND A MAXIMUM HORIZONTAL ACCELERATION OF 0.22g.

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.
2. SEE SHEET H-15063 FOR GENERAL NOTES AND REFERENCES.

GEORGIA REGISTERED No. 17080 PROFESSIONAL ENGINEER CLAUDIA M. MOELLER 11-15-18

GEORGIA REGISTERED No. 27185 PROFESSIONAL ENGINEER R. BRANT LANE 11/15/18

REVISION	DATE	DESCRIPTION	BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
4	11/14/2018	CCR LANDFIILL PERMIT APPLICATION [BY HHNT, INC.] LABELED CELLS AS EXISTING.	VARIOUS	CMM	RBL				JMG
3	3/10/17	"REV. 3 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JKB	GHM	RCB				JMG
2	7/3/13	"REV. 2 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JAB	GHM JKB	MHL RCB				KAM
1	8/25/06	"REV. 1 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." REVISED PRIMARY SPILLWAY PIPES AND EMERGENCY SPILLWAY. REA: BN01217 EWO: 3156FJ	THH	GHM JAA	JDM ELM				
0	6/6/06	ISSUED FOR PERMIT "REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." REA: BN01217 EWO: 3156FJ	THH	GHM JAA	JDM ELM				

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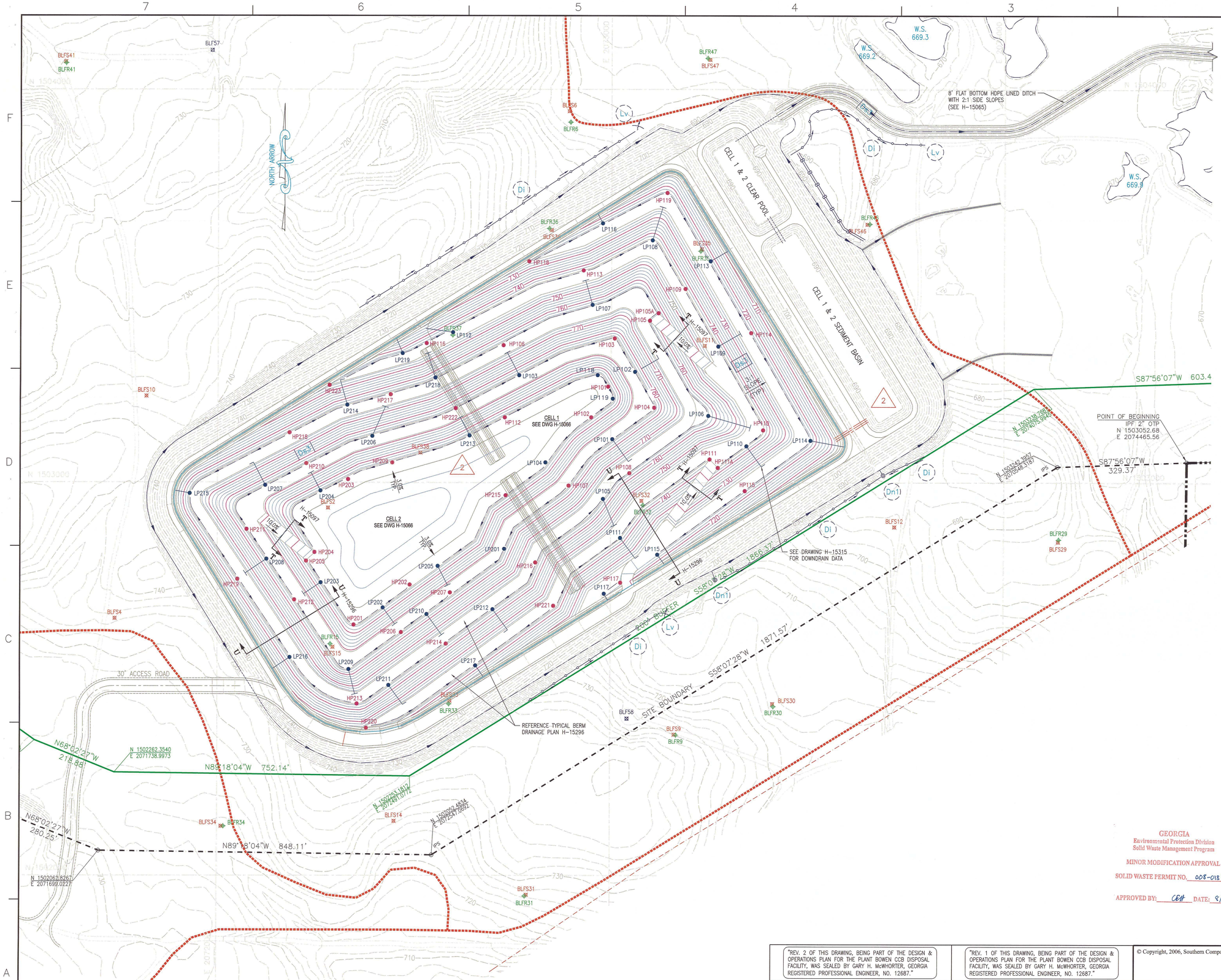
Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCR LANDFILL
CELL 1 & 2 SITE DEVELOPMENT
BASE GRADE PLAN

SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
1"=100'	10207	**H-15066**	1	FINAL	3

ANSI F: 28x40 Acad2002



GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

CELL 1 STACK, CUBIC YARDS	733,183
CELL 2 STACK, CUBIC YARDS	694,452
EARTHWORK QUANTITIES, CUBIC YARDS	
CUT	FILL
1,219,848	1,061,552

LEGEND:

- TOP OF ROCK BORING/TEMPORARY PIEZOMETER LOCATION
- SOIL BORING/TEMPORARY PIEZOMETER LOCATION
- DEEP BORING/TEMPORARY PIEZOMETER LOCATION
- SITE BOUNDARY
- 200' BUFFER
- FAVORABLE/UNFAVORABLE AREA DELINEATION
- EXCAVATION LAYOUT CONTROL
- FENCE
- 50 EXISTING GROUND CONTOURS
- 50 FINAL GRADE CONTOURS

EROSION CONTROL LEGEND

- (Sd1) SILT FENCE (SEE H-15299)
- (Di) DIVERSION (SEE H-15299)
- (Dn1) TEMPORARY DOWNDRAIN (SEE H-15296)
- (Lv) LEVEL SPREADER
- [Ds3] DISTURBED AREA STABILIZATION (PERMANENT VEGETATION SEE H-15303)
- LP114 DRAINAGE LOW POINT WITH DOWNDRAIN NUMBER
- HP110 DRAINAGE HIGH POINT/NUMBER

NOTES:

1. ALL EARTHEN STRUCTURES ARE ENGINEERED TO WITHSTAND A MAXIMUM HORIZONTAL ACCELERATION OF 0.22g.

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.
2. SEE SHEET H-15063 FOR GENERAL NOTES AND REFERENCES.

GEORGIA
Environmental Protection Division
Solid Waste Management Program
MINOR MODIFICATION APPROVAL
SOLID WASTE PERMIT NO. 008-018D(L3)
APPROVED BY: CEH DATE: 8/20/13

GEORGIA REGISTERED No. 12687 PROFESSIONAL ENGINEER 4/1/13

"REV. 2 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

"REV. 1 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

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REVISION	DATE	DESCRIPTION	BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
2	3/31/13	ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JAB JKB	GHM MHL	RCB				KAM
1	8/25/06	REVISED PRIMARY SPILLWAY PIPES AND EMERGENCY SPILLWAY. REA: BN01217 EWO: 3156FJ	THH JAA	GHM JDM	ELM				
0	6/6/06	ISSUED FOR PERMIT "REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." REA: BN01217 EWO: 3156FJ	THH JAA	GHM JDM	ELM				

Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCB DISPOSAL FACILITY
CELL 1 & 2 FINAL STACKING PLAN

SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
1"=100'	10207	**H-15067**	1	FINAL	2

ANSI F: 28x40 Acad2002

ETOWAH RIVER

NORTH ARROW

EXCAV PI 9
N 1506677
E 2073963
Rad: 120.85'

EXCAV PC 9
N 1506669
E 2073994
EL. 684.25'

EXCAV PT 9
N 1506666
E 2073931
EL. 685.22'

EXCAV PC 8
N 1506460
E 2073305
EL. 697.42'

EXCAV PI 8
N 1506451
E 2073279
Rad: 121.62'

EXCAV PT 8
N 1506433
E 2073261
EL. 698.45'

EXCAV PC 7
N 1506165
E 2073008
EL. 707.03'

HP 709.35
N 1506083
E 2072981

2.08%

2.11%
TO EL 705

EXISTING CELL No. 3

EXCAV PC 10
N 1506538
E 2074618
EL. 670.10'

EXCAV PT 10
N 1506526
E 2074583
EL. 675.27'

N 1506527
E 2074569
EL. 676.26'

EXCAV PT 11
N 1506606
E 2074682
EL. 670.10'

EXCAV PI 11
N 1506692
E 2074764
Rad: 119.2'

EXCAV PI 2
N 1506552
E 2074764
EL. 669.00'
Rad: 18.0'

G2054
26359.062
24578.177
672.441

EXCAV PC 11
N 1506610
E 2074850
EL. 669.48'

N 1506526
E 2074652
EL. 678.25'

EXCAV PI 10
N 1506525
E 2074605
Rad: 40.0'

EXCAV PI 1
N 1506450
E 2074667
EL. 669.00'
Rad: 18.0'

CELL 3
TEMPORARY CONSTRUCTION
SEDIMENT BASIN
(SEE DETAIL THIS DRAWING)

4-12"DIA. HDPE DOWNDRAINS
DRAINAGE AREA = 11.40 Ac.

EXCAV PI 5
N 1506295
E 2074725
Rad: 40.0'

EXCAV PC 5
N 1506274
E 2074697
EL. 674.84'

EXCAV PT 5
N 1506272
E 2074749
EL. 673.46'

N 1506244
E 2074657
EL. 676.72'

SEE TEMPORARY CONTAINMENT BERM DETAIL (THIS DRAWING)

N 1506198
E 2074601
EL. 678.64'

N 1506164
E 2074543
EL. 683.77'

2-10"DIA. HDPE DOWNDRAINS
DRAINAGE AREA = 3.11 Ac.

EXCAV PC 13
N 1505976
E 2075060
EL. 673.28'

EXCAV PI 4
N 1506016
E 2075123
EL. 668.00'
Rad: 18.0'

EXCAV PI 13
N 1505894
E 2075147
Rad: 119.2'

EXCAV PT 13
N 1505981
E 2075229
EL. 671.49'

N 1506121
E 2075314
EL. 669.41'

EXCAV PT 12
N 1506204
E 2075277
EL. 669.54'

EXCAV PI 3
N 1506119
E 2075220
EL. 668.00'
Rad: 18.0'

N 1506123
E 2075404
EL. 670.00'

EXCAV PI 12
N 1506122
E 2075363
Rad: 119.2'

EXCAV PC 12
N 1506036
E 2075281
EL. 669.27'

N 1505686
E 2073976
EL. 699.18'

MATCH LINE (H-15070)

H-15097

30' ACCESS ROAD

SURVEY CONTROL MONUMENT
N 1505432.32
E 2072758.25
ELEV: (TO BE DETERMINED)
FOR DETAIL, REF. H-15097

N 1505000

ETOWAH RIVER

200' BUFFER

SITE BOUNDARY

BLFS49 / BLFR49
BLFS55 / BLFR55
BLFS27 / BLFR27
BLFS21 / BLFR21
BLFS18 / BLFR18
BLFS20 / BLFR20
BLFS26 / BLFR26
BLFS23 / BLFR23
BLFS25 / BLFR25
BLFS7 / BLFR7
BLFS19 / BLFR19
BLFS22 / BLFR22
BLFS17 / BLFR17

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

CELL 3
EARTHWORK QUANTITIES, CUBIC YARDS

CUT	FILL
923,033	728,290

LEGEND:

- TOP OF ROCK BORING/TEMPORARY PIEZOMETER LOCATION
- SOIL BORING/TEMPORARY PIEZOMETER LOCATION
- DEEP BORING/TEMPORARY PIEZOMETER LOCATION
- SITE BOUNDARY
- 200' BUFFER
- FAVORABLE/UNFAVORABLE AREA DELINEATION
- EXCAVATION LAYOUT CONTROL
- FENCE
- 50 EXISTING GROUND CONTOURS
- 50 FINAL GRADE CONTOURS

EROSION CONTROL LEGEND

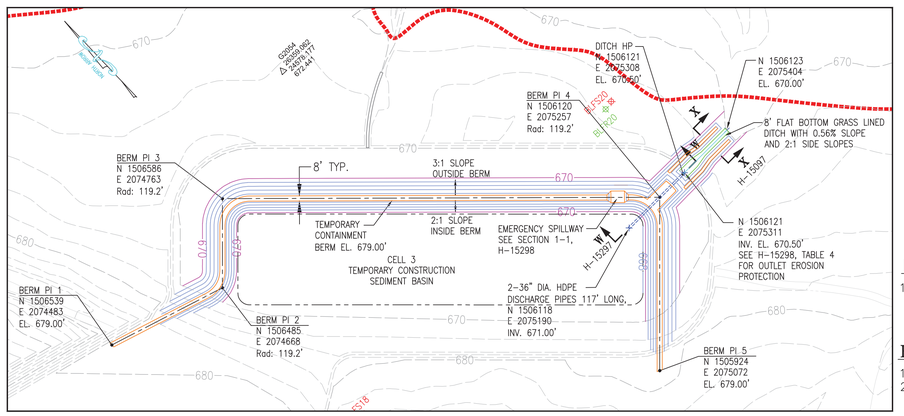
- Sd1 SILT FENCE (SEE H-15299)
- Di DIVERSION (SEE H-15299)
- Dn1 TEMPORARY DOWNDRAIN (SEE H-15296)
- Lv LEVEL SPREADER
- Ds3 DISTURBED AREA STABILIZATION (PERMANENT VEGETATION, SEE H-15303)

NOTES:

1. ALL EARTHEN STRUCTURES ARE ENGINEERED TO WITHSTAND A MAXIMUM HORIZONTAL ACCELERATION OF 0.22g.

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.
2. SEE SHEET H-15063 FOR GENERAL NOTES AND REFERENCES.



TEMPORARY CONTAINMENT BERM
SCALE 1"= 100'

"REV. 3 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

"REV. 2 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

"REV. 1 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

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REVISION	DATE	DESCRIPTION
4	11/14/2018	CCR LANDFIILL PERMIT APPLICATION [BY HHNT, INC.] — LABELED CELL 3 AS EXISTING.
3	8/29/14	ISSUED FOR MINOR MODIFICATION — BAGHOUSE PROJECT — MWO: GPC124110 MWO: GPC124131
2	3/31/13	ISSUED FOR MINOR MODIFICATION — BAGHOUSE PROJECT — MWO: GPC124110 MWO: GPC124131
1	8/25/06	REVISED PRIMARY SPILLWAY PIPES, TEMP CONTAINMENT BERM & LINER DETAIL. — REA: BN01217 EWO: 3156FJ
0	6/6/06	ISSUED FOR PERMIT — "REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." — REA: BN01217 EWO: 3156FJ

REV	BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
4	VARIOUS	CMM	RBL				
3	JKB	GHM	RCB				KAM
2	JAB JKB	GHM MHL	RCB				KAM
1	THH JAA	GHM JDM	ELM				
0	THH JAA	GHM JDM	ELM				

GEORGIA REGISTERED No. 17580 PROFESSIONAL ENGINEER 11-15-18 CLAUDIA M. MOELLER

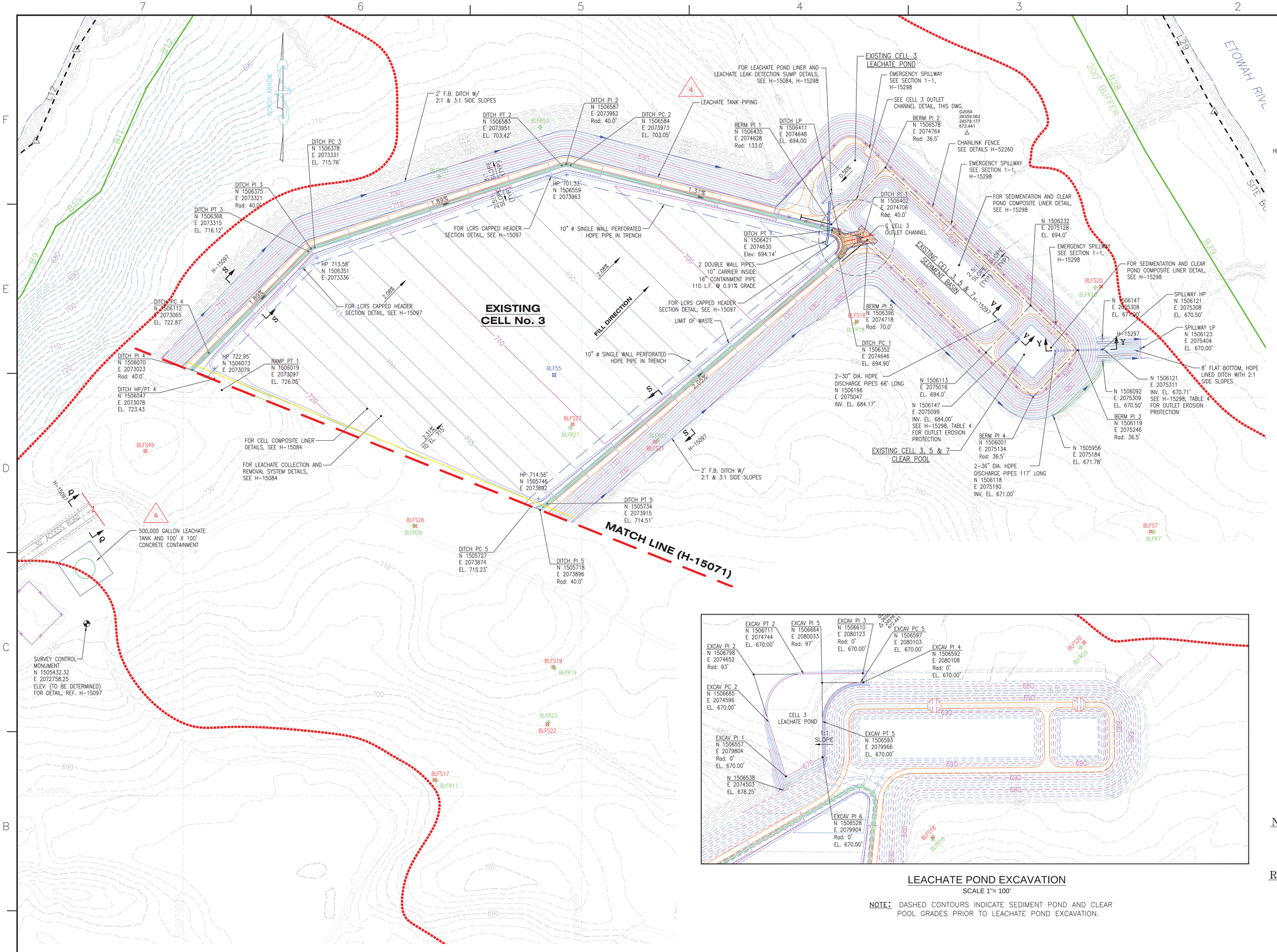
GEORGIA REGISTERED NO. 27185 PROFESSIONAL 11/15/18 ENGINEER R. BRANT LANE

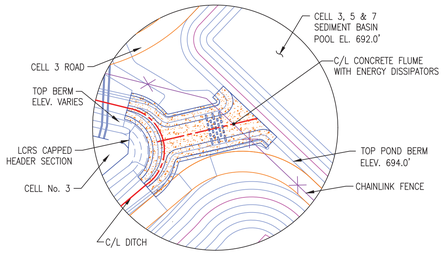
Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCR LANDFILL
CELL 3 SITE DEVELOPMENT
EXCAVATION PLAN

SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV.
1"=100'	10207	**H-15068**	1	FINAL	3

ANSI F: 28x40 Acad2002





CELL No. 3 OUTLET CHANNEL DETAIL

NOTE: DASHED CONTOURS INDICATE CLOSURE OF OUTLET CHANNEL AS THE CELL IS FILLED.

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

CELL 3
EARTHWORK QUANTITIES, CUBIC YARDS

CUT	FILL
923,033	728,290

LEGEND:

- TOP OF ROCK BORING/TEMPORARY PIEZOMETER LOCATION
- SOIL BORING/TEMPORARY PIEZOMETER LOCATION
- DEEP BORING/TEMPORARY PIEZOMETER LOCATION
- SITE BOUNDARY
- 200' BUFFER
- FAVORABLE/UNFAVORABLE AREA DELINEATION
- LIMIT OF WASTE
- FENCE
- 50 EXISTING GROUND CONTOURS
- 50 FINAL GRADE CONTOURS
- LCRS PIPES, 10" ø

EROSION CONTROL LEGEND

- Sd1 SILT FENCE (SEE H-15299)
- Di DIVERSION (SEE H-15299)
- Dn1 TEMPORARY DOWNDRAIN (SEE H-15296)
- Lv LEVEL SPREADER
- Ds3 DISTURBED AREA STABILIZATION (PERMANENT VEGETATION, SEE H-15303)

LEACHATE POND EXCAVATION

SCALE 1"= 100'

NOTE: DASHED CONTOURS INDICATE SEDIMENT POND AND CLEAR POOL GRADES PRIOR TO LEACHATE POND EXCAVATION.

NOTES:

1. ALL EARTHEN STRUCTURES ARE ENGINEERED TO WITHSTAND A MAXIMUM HORIZONTAL ACCELERATION OF 0.22g.

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.
2. SEE SHEET H-15063 FOR GENERAL NOTES AND REFERENCES.

GEORGIA REGISTERED No. 17583 PROFESSIONAL ENGINEER 11-13-18 CLAUDIA M. MOELLER

GEORGIA REGISTERED No. 27185 PROFESSIONAL ENGINEER 11/15/18 R. BRANT LANE

REVISION	DATE	DESCRIPTION	BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
5	11/14/2018	CCR LANDFILL PERMIT APPLICATION [BY HHNT, INC.] LABELED CELL 3 AS EXISTING.	VARIOUS	CMM	RBL				
4	11/7/14	"REV. 4 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." ISSUED FOR MINOR MODIFICATION FOR ADDITION OF LEACHATE TANK AND PIPING BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JKB	GHM	RCB				KAM
3	8/29/14	"REV. 3 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JKB	GHM	RCB				KAM
2	8/5/13	"REV. 2 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JAB JKB	GHM RCB	RCB				KAM
1	8/25/06	"REV. 1 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." REVISED PRIMARY SPILLWAY PIPES & ADDED DISCHARGE DITCH BELOW EMERGENCY SPILLWAY. REA: BN01217 EWO: 3156FJ	THH JAA	GHM JDM	ELM				
0	6/6/06	ISSUED FOR PERMIT "REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." REA: BN01217 EWO: 3156FJ	THH JAA	GHM JDM	ELM				

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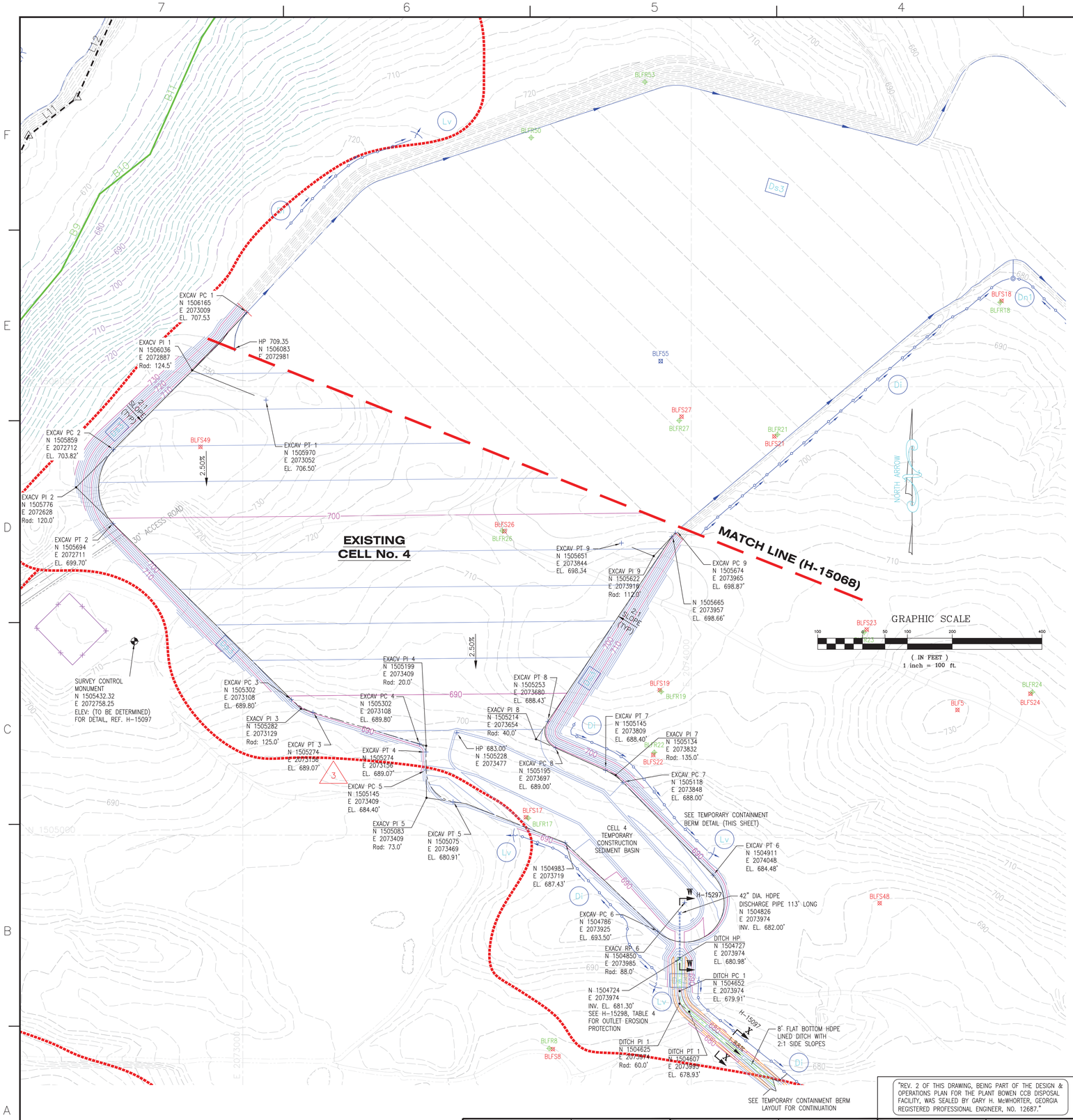
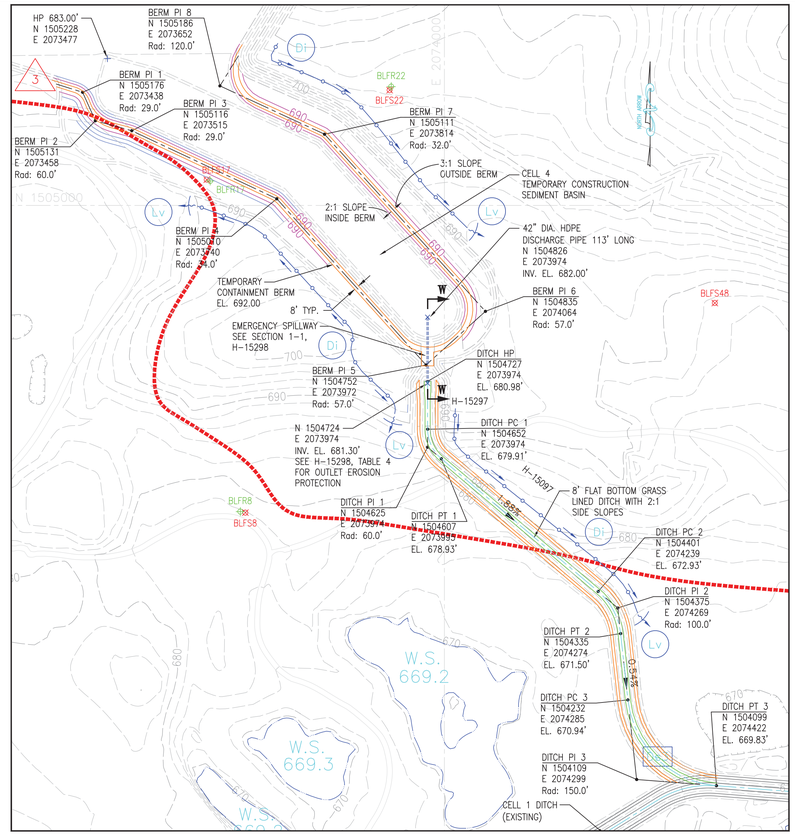
Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCR LANDFILL
CELL 3 SITE DEVELOPMENT
BASE GRADE PLAN

SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
1"=100'	10207	**H-15069**	1	FINAL	4

ANSI F: 28x40 Acad2002





TEMPORARY CONTAINMENT BERM

SCALE 1"= 100'

LEGEND:

- TOP OF ROCK BORING/TEMPORARY PIEZOMETER LOCATION
- SOIL BORING/TEMPORARY PIEZOMETER LOCATION
- DEEP BORING/TEMPORARY PIEZOMETER LOCATION
- SITE BOUNDARY
- 200' BUFFER
- FAVORABLE/UNFAVORABLE AREA DELINEATION
- EXCAVATION LAYOUT CONTROL
- FENCE
- 50 EXISTING GROUND CONTOURS
- 50 FINAL GRADE CONTOURS

EROSION CONTROL LEGEND

- Sd1 SILT FENCE (SEE H-15299)
- Di DIVERSION (SEE H-15299)
- Dn1 TEMPORARY DOWNDRAIN (SEE H-15296)
- Lv LEVEL SPREADER
- Ds3 DISTURBED AREA STABILIZATION (PERMANENT VEGETATION, SEE H-15303)
- LP308 DRAINAGE LOW POINT WITH DOWNDRAIN NUMBER
- HP307 DRAINAGE HIGH POINT WITH NUMBER

CELL 3 STACK, CUBIC YARDS 838,868

CELL 4
EARTHWORK QUANTITIES, CUBIC YARDS

CUT	FILL
510,172	402,027

NOTES:

1. ALL EARTHEN STRUCTURES ARE ENGINEERED TO WITHSTAND A MAXIMUM HORIZONTAL ACCELERATION OF 0.22g.

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.
2. SEE SHEET H-15063 FOR GENERAL NOTES AND REFERENCES.

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REVISION	DATE	DESCRIPTION
4	11/14/2018	CCR LANDFIILL PERMIT APPLICATION [BY HHNT, INC.] — LABELED CELL 4 AS EXISTING.
3	8/29/14	ISSUED FOR MINOR MODIFICATION — "REV. 3 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131
2	3/31/13	"REV. 2 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131
1	8/28/06	"REV. 1 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." REVISED PRIMARY SPILLWAY PIPES, TEMP CONTAINMENT BERM, EMERGENCY SPILLWAY & DRAINAGE DITCH. REA: BN01217 EWO: 3156FJ
0	6/6/06	ISSUED FOR PERMIT — "REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." REA: BN01217 EWO: 3156FJ

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
VARIOUS	CMM	RBL				
JKB	GHM	RCB				KAM
JAB JKB	GHM MHL	RCB				KAM
THH JAA	GHM JDM	ELM				
THH JAA	GHM JDM	ELM				

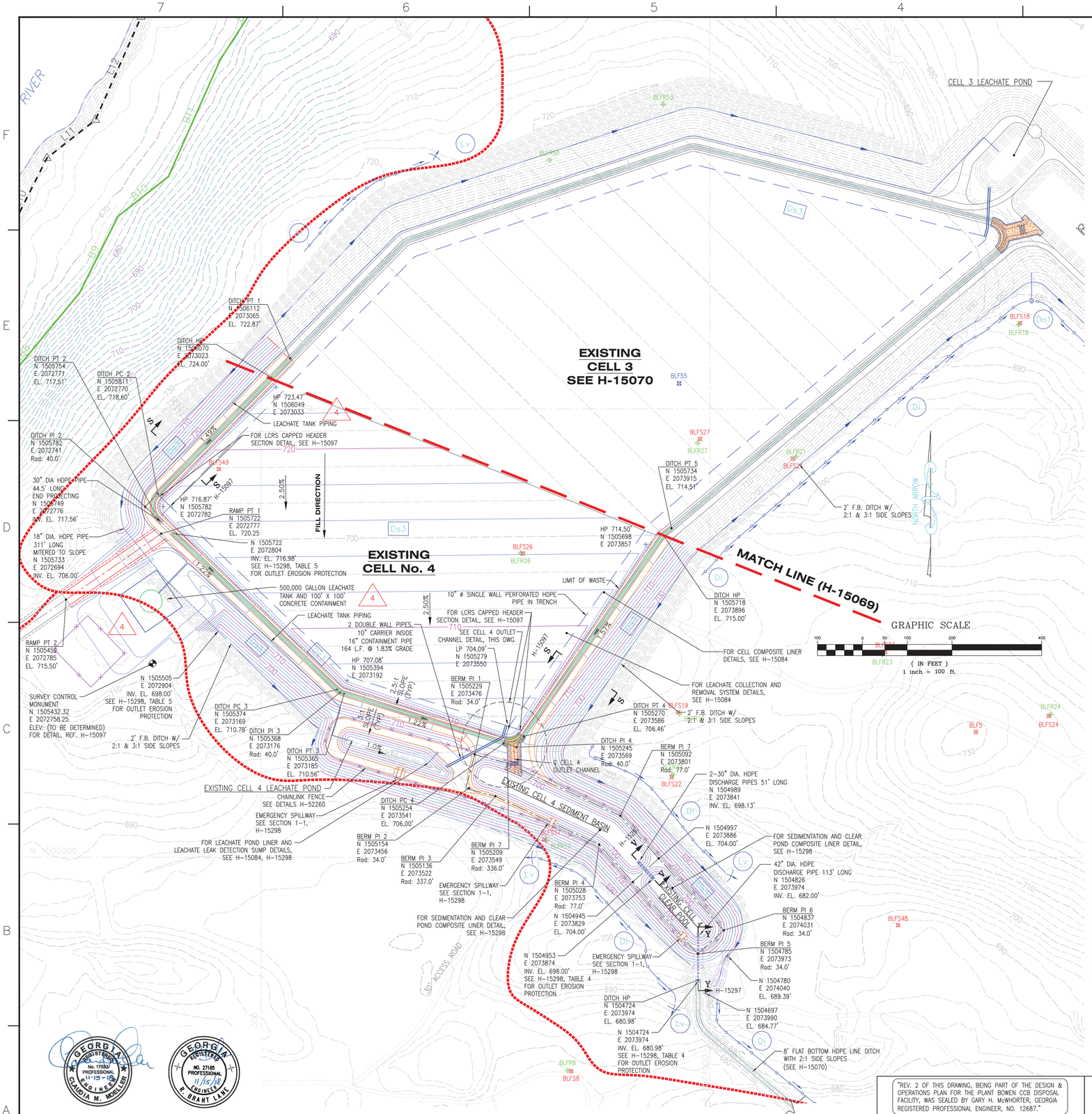
GEORGIA REGISTERED No. 17580 PROFESSIONAL ENGINEER 11-15-18 CLAUDIA M. MOELLER

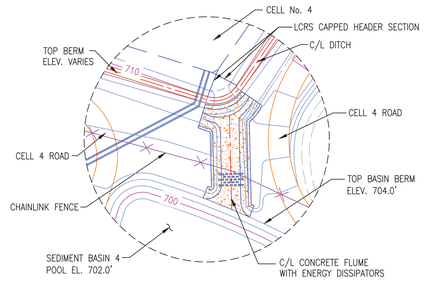
GEORGIA REGISTERED No. 27185 PROFESSIONAL ENGINEER 11/15/18 R. BRANT LANE

Southern Company Generation
FOR
GEORGIA POWER COMPANY
PLANT BOWEN
CCR LANDFILL
CELL 4 SITE DEVELOPMENT
EXCAVATION PLAN

SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
1"=100'	10207	**H-15070**	1	FINAL	3

ANSI F: 28x40 Acad2002





CELL No. 4 OUTLET CHANNEL DETAIL

NOTE: DASHED CONTOURS INDICATE CLOSURE OF OUTLET CHANNEL AS THE CELL IS FILLED.

CELL 3 STACK, CUBIC YARDS 838,868		
CELL 4 EARTHWORK QUANTITIES, CUBIC YARDS		
CUT	FILL	
510,172	402,027	

LEGEND:

- TOP OF ROCK BORING/TEMPORARY PIEZOMETER LOCATION
- SOIL BORING/TEMPORARY PIEZOMETER LOCATION
- DEEP BORING/TEMPORARY PIEZOMETER LOCATION
- PROPERTY LINE
- SITE BOUNDARY
- 200' BUFFER
- FAVORABLE/UNFAVORABLE AREA DELINEATION
- LIMIT OF WASTE
- FENCE
- 50 EXISTING GROUND CONTOURS
- 50 FINAL GRADE CONTOURS
- LCRS PIPES, 10" ø

EROSION CONTROL LEGEND

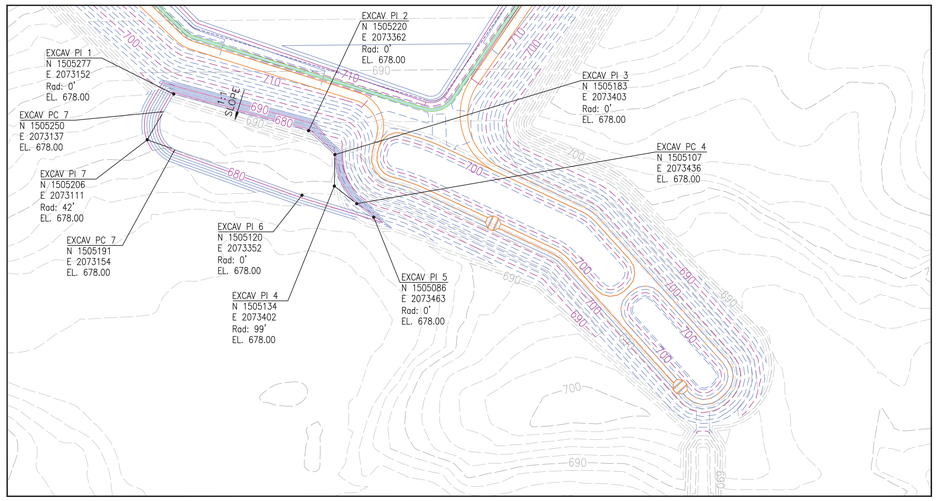
- Sd1 SILT FENCE (SEE H-15299)
- Di DIVERSION (SEE H-15299)
- Dn1 TEMPORARY DOWNDRAIN (SEE H-15296)
- Lv LEVEL SPREADER
- Ds3 DISTURBED AREA STABILIZATION (PERMANENT VEGETATION SEE H-15303)
- LP114 DRAINAGE LOW POINT WITH DOWNDRAIN NUMBER
- HP110 DRAINAGE HIGH POINT WITH NUMBER

NOTES:

1. ALL EARTHEN STRUCTURES ARE ENGINEERED TO WITHSTAND A MAXIMUM HORIZONTAL ACCELERATION OF 0.22g.

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.
2. SEE SHEET H-15063 FOR GENERAL NOTES AND REFERENCES.



LEACHATE POND EXCAVATION

SCALE 1"= 100'

NOTE: DASHED CONTOURS INDICATE SEDIMENT POND AND CLEAR POOL GRADES PRIOR TO LEACHATE POND EXCAVATION.

GEORGIA REGISTERED No. 17583 PROFESSIONAL 11-19-18 ENGINEER CLAUDIA M. MOELLER

GEORGIA REGISTERED NO. 27185 PROFESSIONAL 11/15/18 ENGINEER R. BRANT LANE

REVISION	DATE	DESCRIPTION	BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
5	11/14/2018	CCR LANDFILL PERMIT APPLICATION [BY HHNT, INC.] ADDED EXISTING AND PROPOSED LABELS.	VARIOUS	CMM	RBL				
4 (CONT.)		"REV. 4 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."							
4	11/7/14	ISSUED FOR MINOR MODIFICATION FOR ADDITION OF LEACHATE POND AND PIPING BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JKB	GHM	RCB				KAM
3	8/29/14	ISSUED FOR MINOR MODIFICATION "REV. 3 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JKB	GHM	RCB				KAM
2	7/3/13	ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JAB JKB	GHM MHL	RCB				KAM
1	8/28/06	REVISED PRIMARY SPILLWAY PIPES & DRAINAGE DITCH. 24" CONCRETE CULVERT WAS HDPE. REA: BN01217 EWO: 3156FJ	THH JAA	GHM JDM	ELM				
0	6/6/06	ISSUED FOR PERMIT "REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." REA: BN01217 EWO: 3156FJ	THH JAA	GHM JDM	ELM				

"REV. 2 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

"REV. 1 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

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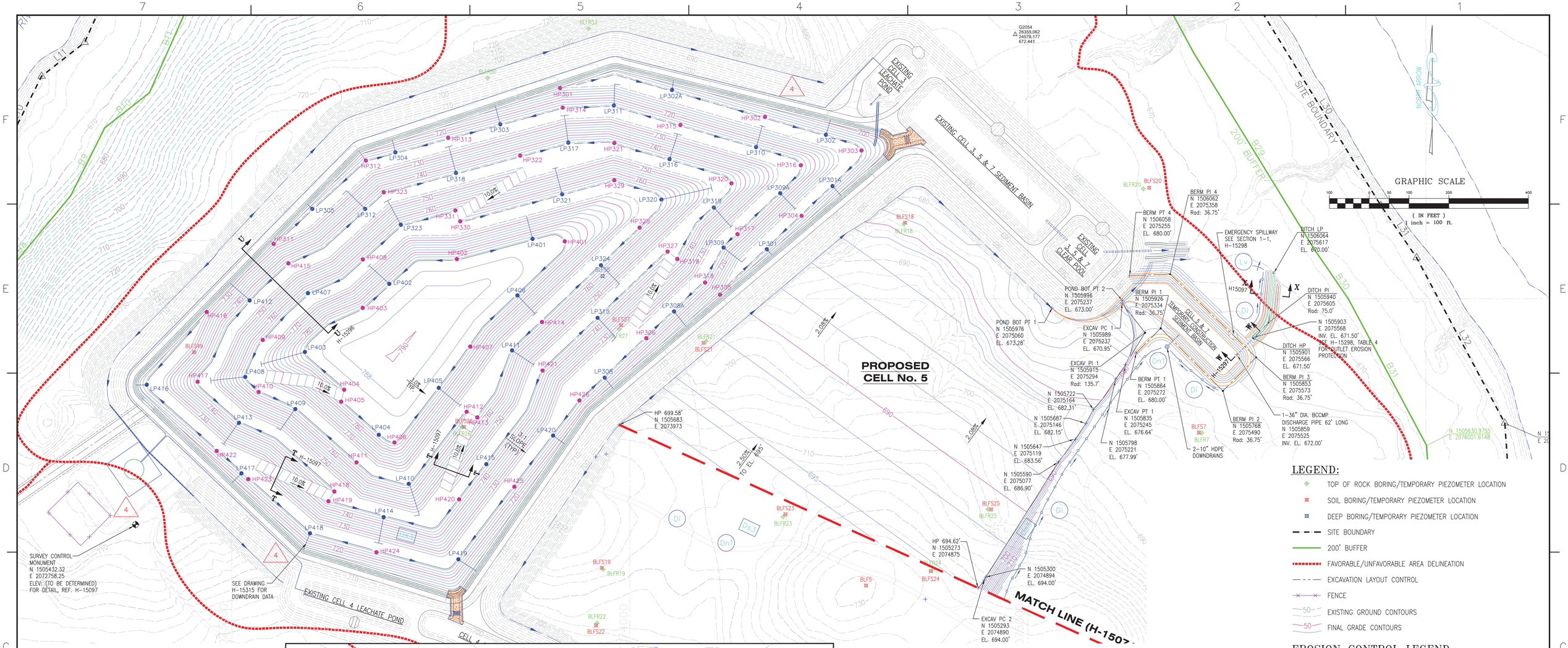
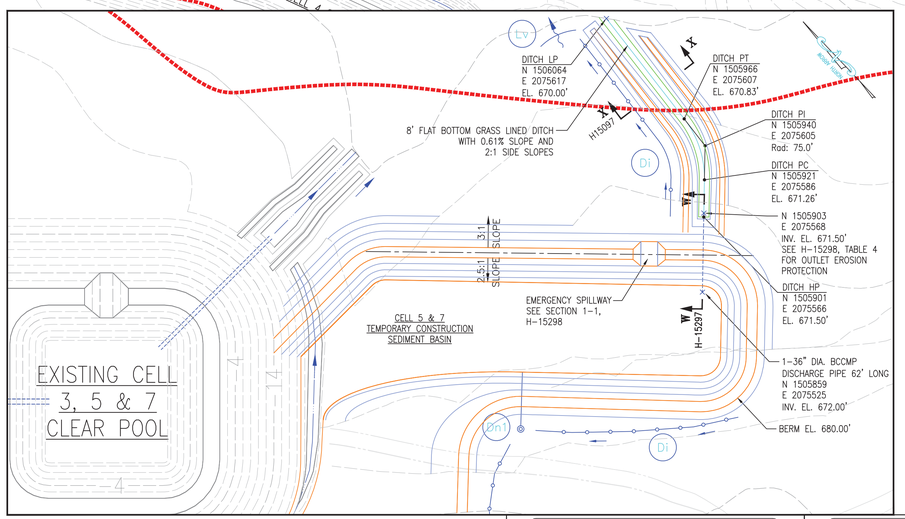
Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCR LANDFILL
CELL 4 SITE DEVELOPMENT
BASE GRADE PLAN

SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
1"=100'	10207	H-15071	1	FINAL	4

ANSI F: 28x40 Acad2002





CONSTRUCTION SEDIMENT BASIN DITCH DETAILS
SCALE 1"= 50'

CELL 4 STACK, CUBIC YARDS 884,303

CELL 5
EARTHWORK QUANTITIES, CUBIC YARDS

CUT	FILL
383,260	455,876

LEGEND:

- TOP OF ROCK BORING/TEMPORARY PIEZOMETER LOCATION
- SOIL BORING/TEMPORARY PIEZOMETER LOCATION
- DEEP BORING/TEMPORARY PIEZOMETER LOCATION
- SITE BOUNDARY
- 200' BUFFER
- FAVORABLE/UNFAVORABLE AREA DELINEATION
- EXCAVATION LAYOUT CONTROL
- FENCE
- 50 EXISTING GROUND CONTOURS
- 50 FINAL GRADE CONTOURS

EROSION CONTROL LEGEND

- Sdf SILT FENCE (SEE H-15299)
- Di DIVERSION (SEE H-15299)
- Dn1 TEMPORARY DOWNDRAIN (SEE H-15296)
- Lv LEVEL SPREADER
- Ds3 DISTURBED AREA STABILIZATION (PERMANENT VEGETATION SEE H-15303)
- LP114 DRAINAGE LOW POINT WITH DOWNDRAIN NUMBER
- HP110 DRAINAGE HIGH POINT/NUMBER

NOTES:

1. ALL EARTHEN STRUCTURES ARE ENGINEERED TO WITHSTAND A MAXIMUM HORIZONTAL ACCELERATION OF 0.22g.

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.
2. SEE SHEET H-15063 FOR GENERAL NOTES AND REFERENCES.

DRAFT
GEORGIA REGISTERED NO. PROFESSIONAL ENGINEER LINDA M. MOELLER
DRAFT
GEORGIA REGISTERED NO. PROFESSIONAL ENGINEER BRANT LANE

"REV. 3 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

"REV. 2 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

"REV. 2 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

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Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCR LANDFILL
CELL 5 SITE DEVELOPMENT
EXCAVATION PLAN

REVISION	DATE	DESCRIPTION	BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
5	11/14/2018	CCR LANDFIILL PERMIT APPLICATION [BY HHNT, INC.] ADDED EXISTING AND PROPOSED LABELS.	VARIOUS	CMM	RBL				
4 (CONT.)	DATE	"REV. 4 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."							
4	11/7/14	ISSUED FOR MINOR MODIFICATION FOR ADDITION OF LEACHATE TANK AND PIPING BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JKB	GHM	RCB				KAM
3	8/29/14	ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JKB	GHM	RCB				KAM
2	3/31/13	ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JAB	CHK'D JKB	GHM MHL	RCB			KAM
1	8/28/06	REVISED PRIMARY SPILLWAY PIPE & DRAINAGE DITCH. REA: BN01217 EWO: 3156FJ	THH	CHK'D JAA	GHM JDM	ELM			
0	6/6/06	ISSUED FOR PERMIT "REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." REA: BN01217 EWO: 3156FJ	THH	CHK'D JAA	GHM JDM	ELM			

SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
1"=100'	10207	H-15072	1	FINAL	4

ANSI F: 28x40 Acad2002

EXISTING CELL 3 LEACHATE POND

SEE CELL 5 OUTLET CHANNEL DETAIL

G2054
26359.062
24578.177
672.441

DITCH PT 1
N 1506411
E 2074648
EL. 694.00'

SEE CELL 5 OUTLET CHANNEL DETAIL, THIS DWG.

EXISTING CELL 3, 5 & 7 SEDIMENT BASIN

C CELL 5 OUTLET CHANNEL

LP 694.02'
N 1506346
E 2074683

FOR LCRS CAPPED HEADER SECTION DETAIL, SEE H-15097

2 DOUBLE WALL PIPES, 10" CARRIER INSIDE 16" CONTAINMENT PIPE 216 L.F. @ 0.50% GRADE

FOR COMPOSITE LINER TIE-IN AT BERM DETAIL, SEE H-15084

10" ø SINGLE WALL PERFORATED HDPE PIPE IN TRENCH

EXISTING CELL 3, 5 & 7 CLEAR POOL

PROPOSED CELL No. 5

DITCH PC 2
N 1505920
E 2075150
EL. 697.51'

HP 696.06'
N 1505894
E 2075136

CELL 5 & 7 TEMPORARY CONSTRUCTION SEDIMENT BASIN

DITCH PI 2
N 1505897
E 2075173
Rad: 40.0'

DITCH PT 2
N 1505870
E 2075156
EL. 698.24'

FOR CELL COMPOSITE LINER DETAILS, SEE H-15084

RAMP HP
N 1505760
E 2073894
EL. 726.00'

DITCH PI 4
N 1505718
E 2073896
Rad: 40.0'

DITCH PT 4
N 1505691
E 2073877
EL. 714.48'

30' RAMP WITH 10.0% SLOPE AND 3:1 SIDE SLOPES

RAMP LP
N 1505706
E 2074013
EL. 713.51'

DITCH PC 4
N 1505704
E 2073927
EL. 714.83'

HP 714.22'
N 1505720
E 2073946

FILL DIRECTION

LIMIT OF WASTE

FOR LEACHATE COLLECTION AND REMOVAL SYSTEM DETAILS, SEE H-15084

HP 709.55'
N 1505338
E 2074797

DITCH PT 3
N 1505319
E 2074775
EL. 710.18'

DITCH PI 3
N 1505304
E 2074807
Rad: 40.0'

DITCH PC 3
N 1505334
E 2074825
EL. 709.38'

MATCH LINE (H-15075)

SURVEY CONTROL MONUMENT
N 1505432.32
E 2072758.25
ELEV. (TO BE DETERMINED)
FOR DETAIL, REF. H-15097

EXISTING CELL 4 LEACHATE POND

30' ACCESS ROAD

EXISTING CELL 4 SEDIMENT BASIN

SITE BOUNDARY

200' BUFFER

NORTH ARROW E 2076001.6148

N 1505630.9755
E 2076001.6148

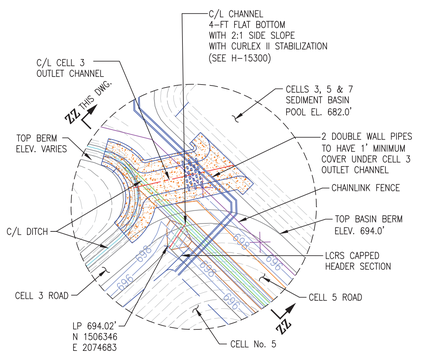
GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

LEGEND:

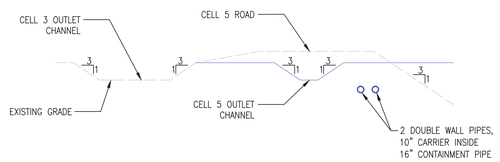
- TOP OF ROCK BORING/TEMPORARY PIEZOMETER LOCATION
- SOIL BORING/TEMPORARY PIEZOMETER LOCATION
- DEEP BORING/TEMPORARY PIEZOMETER LOCATION
- SITE BOUNDARY
- 200' BUFFER
- FAVORABLE/UNFAVORABLE AREA DELINEATION
- EXCAVATION LAYOUT CONTROL
- LIMIT OF WASTE
- FENCE
- 50 EXISTING GROUND CONTOURS
- 50 FINAL GRADE CONTOURS
- LCRS PIPES, 10" ø

EROSION CONTROL LEGEND

- Sd1 SILT FENCE (SEE H-15299)
- Di DIVERSION (SEE H-15299)
- Dn1 TEMPORARY DOWNDRAIN (SEE H-15296)
- Lv LEVEL SPREADER
- Ds3 DISTURBED AREA STABILIZATION (PERMANENT VEGETATION SEE H-15303)
- LP114 DRAINAGE LOW POINT WITH DOWNDRAIN NUMBER
- HP110 DRAINAGE HIGH POINT/NUMBER



CELL No. 5 OUTLET CHANNEL DETAIL



SECTION ZZ-ZZ

CELL 4 STACK, CUBIC YARDS 884,303	
CELL 5 EARTHWORK QUANTITIES, CUBIC YARDS	
CUT	FILL
383,260	455,876

NOTES:

1. ALL EARTHEN STRUCTURES ARE ENGINEERED TO WITHSTAND A MAXIMUM HORIZONTAL ACCELERATION OF 0.22g.

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.
2. SEE SHEET H-15063 FOR GENERAL NOTES AND REFERENCES.

GEORGIA REGISTERED No. 17580 PROFESSIONAL 11-15-18 ENGINEER CLAUDIA M. MOELLER

GEORGIA REGISTERED No. 27185 PROFESSIONAL 11/15/18 ENGINEER R. BRANT LANE

"REV. 4 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

"REV. 3 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

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"REV. 1 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

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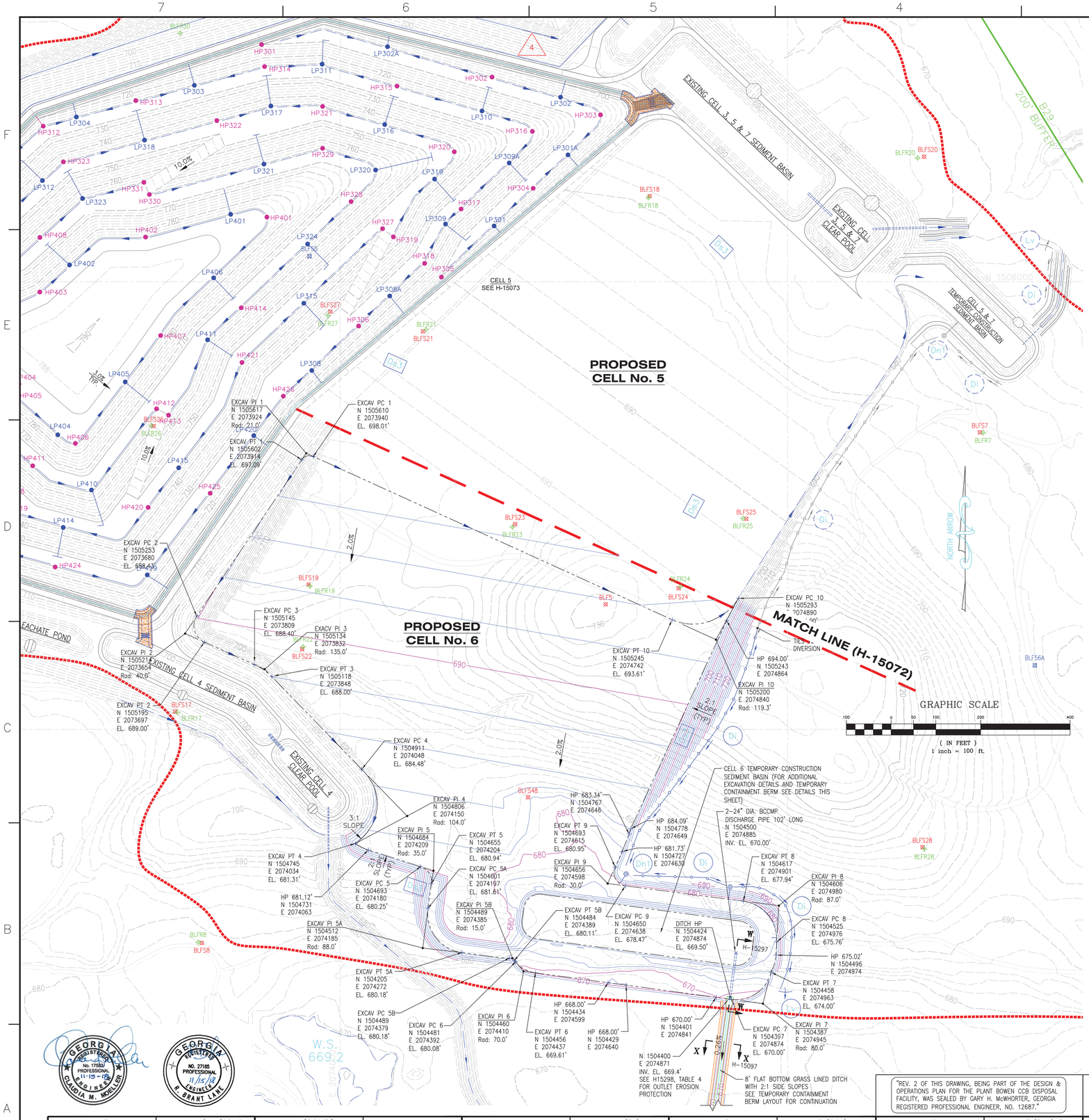
REVISION	DATE	DESCRIPTION	BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
5	11/14/2018	CCR LANDFILL PERMIT APPLICATION [BY HHNT, INC.] ADDED EXISTING AND PROPOSED LABELS. AMENDED LEACHATE COLLECTION LINE LOCATION AND SPACING.	VARIOUS	CMM	RBL				
4	11/7/14	ISSUED FOR MINOR MODIFICATION FOR ADDITION OF LEACHATE TANK AND PIPING BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JKB	GHM	RCB				KAM
3	8/29/14	ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JKB	GHM	RCB				KAM
2	7/3/13	ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JAB JKB	GHM MHL	RCB				KAM
1	8/28/06	REVISED PRIMARY SPILLWAY PIPE, DRAINAGE DITCH AND ADDED DRAINAGE DITCH BELOW EMERGENCY SPILLWAY. REA: BN01217 EWO: 3156FJ	THH JAA	GHM JDM	ELM				
0	6/6/06	ISSUED FOR PERMIT REA: BN01217 EWO: 3156FJ	THH JAA	GHM JDM	ELM				

Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCR LANDFILL
CELL 5 SITE DEVELOPMENT
BASE GRADE PLAN

SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
1"=100'	10207	**H-15073**	1	FINAL	4

ANSI F: 28x40 Acad2002



TEMPORARY CONTAINMENT BERM
SCALE 1"= 100'

CELL 5 STACK, CUBIC YARDS 1,334,151

CELL 6
EARTHWORK QUANTITIES, CUBIC YARDS

CUT	FILL
472,807	450,076

SECTION 1-1
SCALE H: 1"=50' V: 1"=10'

LEGEND:

- TOP OF ROCK BORING/TEMPORARY PIEZOMETER LOCATION
- SOIL BORING/TEMPORARY PIEZOMETER LOCATION
- DEEP BORING/TEMPORARY PIEZOMETER LOCATION
- PROPERTY LINE
- SITE BOUNDARY
- 200' BUFFER
- FAVORABLE/UNFAVORABLE AREA DELINEATION
- EXCAVATION LAYOUT CONTROL
- 50 EXISTING GROUND CONTOURS
- 50 FINAL GRADE CONTOURS

EROSION CONTROL LEGEND

- Sd1 SILT FENCE (SEE H-15299)
- Di DIVERSION (SEE H-15299)
- Dn1 TEMPORARY DOWNDRAIN (SEE H-15296)
- Lv LEVEL SPREADER
- Ds3 DISTURBED AREA STABILIZATION (PERMANENT VEGETATION SEE H-15303)
- LP114 DRAINAGE LOW POINT WITH DOWNDRAIN NUMBER
- HP110 DRAINAGE HIGH POINT/NUMBER

NOTES:

1. ALL EARTHEN STRUCTURES ARE ENGINEERED TO WITHSTAND A MAXIMUM HORIZONTAL ACCELERATION OF 0.22g.

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.
2. SEE SHEET H-15063 FOR GENERAL NOTES AND REFERENCES.

GEORGIA REGISTERED No. 17580 PROFESSIONAL ENGINEER CLAUDIA M. MOELLER 11-15-18

GEORGIA REGISTERED NO. 27185 PROFESSIONAL ENGINEER R. BRANT LANE 11/5/18

"REV. 2 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

"REV. 1 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

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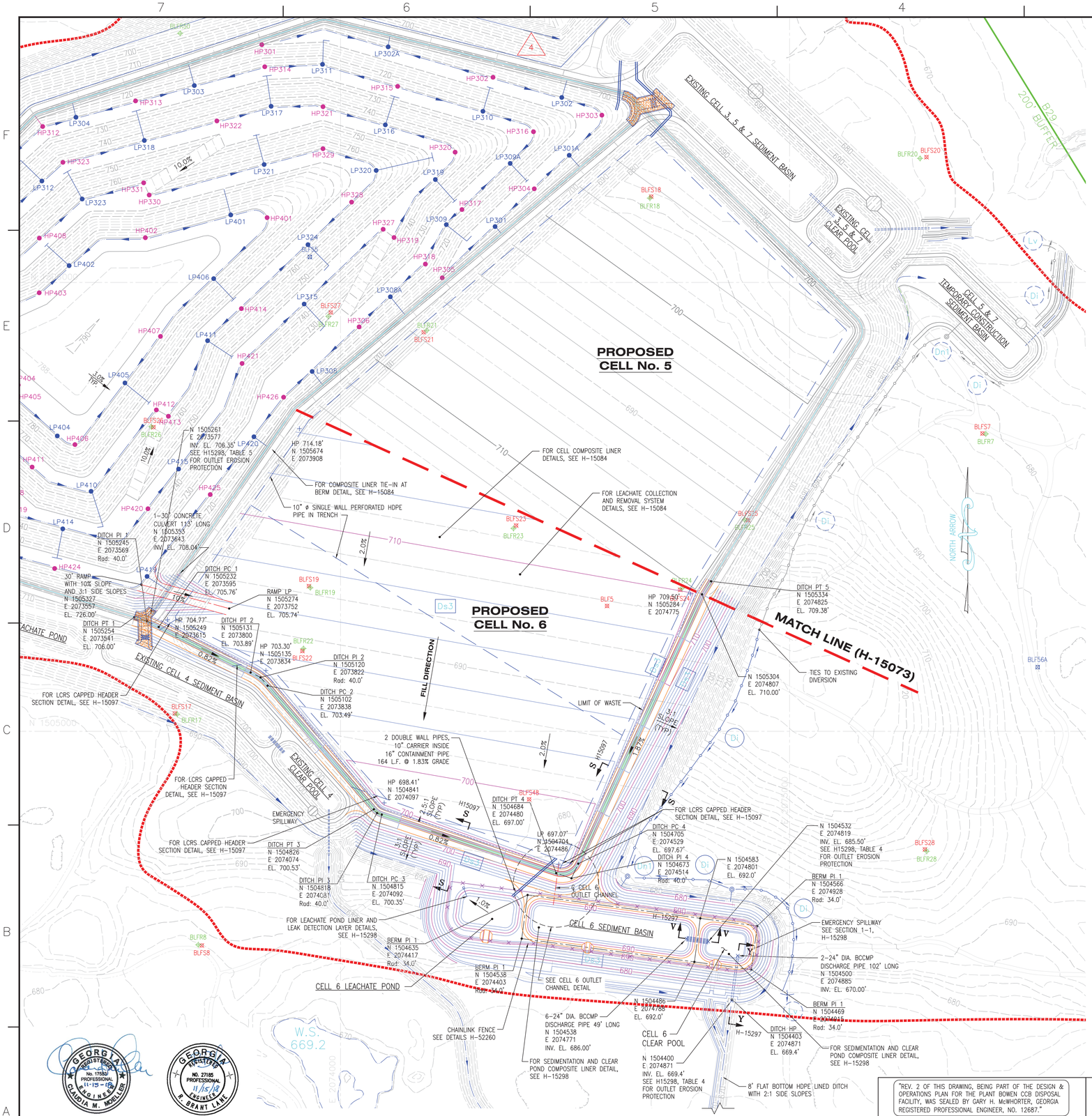
Southern Company Generation
FOR
GEORGIA POWER COMPANY

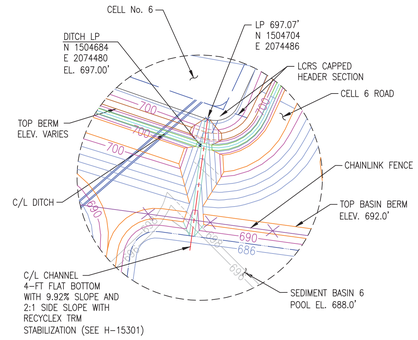
PLANT BOWEN
CCR LANDFILL
CELL 6 SITE DEVELOPMENT
EXCAVATION PLAN

REVISION	DATE		BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
5	11/14/2018	CCR LANDFIILL PERMIT APPLICATION [BY HHNT, INC.] ADDED EXISTING AND PROPOSED LABELS.	VARIOUS	CMM	RBL				
4 (CONT.)	DATE	"REV. 4 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."							
4	11/7/14	ISSUED FOR MINOR MODIFICATION FOR ADDITION OF LEACHATE TANK AND PIPING BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JKB	GHM	RCB				KAM
3	8/29/14	ISSUED FOR MINOR MODIFICATION "REV. 3 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JKB	GHM	RCB				KAM
2	3/31/13	ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JAB	GHM MHL	RCB				KAM
1	8/30/06	1A. REVISED PRIMARY SPILLWAY PIPES, EMERGENCY SPILLWAY, BERM, DRAINAGE DITCH & ADDED SECTION 1-1 1B. UPDATED TOPO TO REFLECT CELL 3, 4 & 5 REVISIONS. REA: BN01217 EWO: 3156FJ	THH	GHM JDM	ELM				
0	6/6/06	ISSUED FOR PERMIT "REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." REA: BN01217 EWO: 3156FJ	THH	GHM JDM	ELM				

SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
AS SHOWN	10207	H-15074	1	FINAL	4

ANSI F: 28x40 Acad2002





CELL No. 6 OUTLET CHANNEL DETAIL

NOTE: DASHED CONTOURS INDICATE CLOSURE OF OUTLET CHANNEL AS THE CELL IS FILLED.

CELL 5 STACK, CUBIC YARDS 1,334,151

CELL 6
EARTHWORK QUANTITIES, CUBIC YARDS

CUT	FILL
472,807	450,076

LEGEND:

- TOP OF ROCK BORING/TEMPORARY PIEZOMETER LOCATION
- SOIL BORING/TEMPORARY PIEZOMETER LOCATION
- DEEP BORING/TEMPORARY PIEZOMETER LOCATION
- SITE BOUNDARY
- 200' BUFFER
- FAVORABLE/UNFAVORABLE AREA DELINEATION
- LIMIT OF WASTE
- FENCE
- 50 EXISTING GROUND CONTOURS
- 50 FINAL GRADE CONTOURS
- LCRS PIPES, 10" ø

EROSION CONTROL LEGEND

- Sd1 SILT FENCE (SEE H-15299)
- Di DIVERSION (SEE H-15299)
- Dn1 TEMPORARY DOWNDRAIN (SEE H-15296)
- Lv LEVEL SPREADER
- Ds3 DISTURBED AREA STABILIZATION (PERMANENT VEGETATION SEE H-15303)
- LP114 DRAINAGE LOW POINT WITH DOWNDRAIN NUMBER
- HP110 DRAINAGE HIGH POINT/NUMBER

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

NOTES:

1. ALL EARTHEN STRUCTURES ARE ENGINEERED TO WITHSTAND A MAXIMUM HORIZONTAL ACCELERATION OF 0.22g.

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.
2. SEE SHEET H-15063 FOR GENERAL NOTES AND REFERENCES.

GEORGIA REGISTERED No. 17881 PROFESSIONAL 11-15-18 ENGINEER CLAUDIA M. MOELLER

GEORGIA REGISTERED NO. 27185 PROFESSIONAL 11/15/18 ENGINEER R. BRANT LANE

"REV. 2 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

"REV. 1 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

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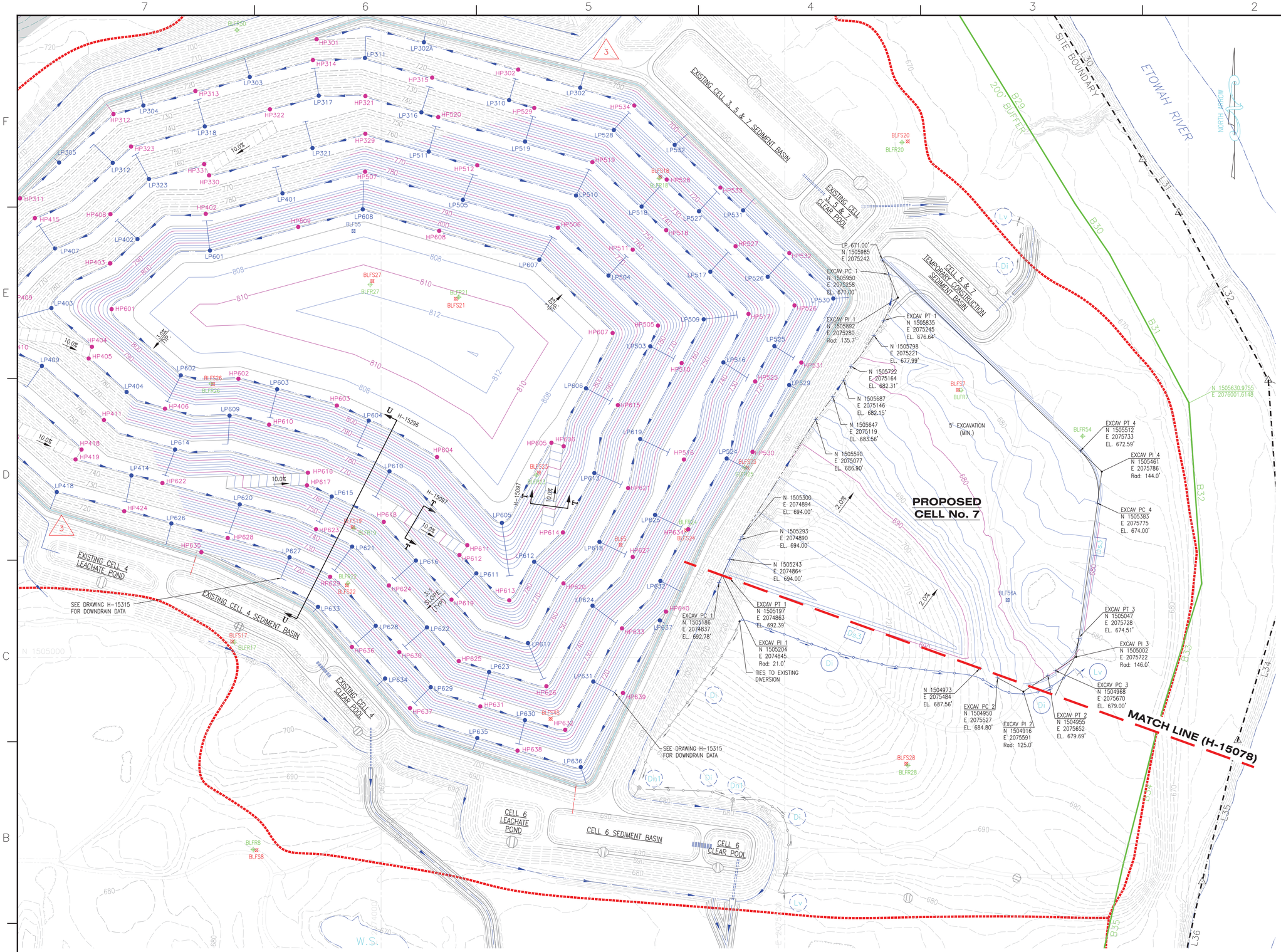
Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCR LANDFILL
CELL 6 SITE DEVELOPMENT
BASE GRADE PLAN

REVISION	DATE	BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
5	11/14/2018	VARIOUS	CMM	RBL				
CCR LANDFIILL PERMIT APPLICATION [BY HHNT, INC.] ADDED EXISTING AND PROPOSED LABELS.								
4 (CONT.)								
"REV. 4 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."								
4	11/7/14	JKB	GHM	RCB				KAM
ISSUED FOR MINOR MODIFICATION FOR ADDITION OF LEACHATE TANK AND PIPING. BAGHOUSE PROJECT								
3	8/29/14	JKB	GHM	RCB				KAM
ISSUED FOR MINOR MODIFICATION. "REV. 3 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131								
2	7/3/13	JAB JKB	GHM MHL	RCB				KAM
ISSUED FOR MINOR MODIFICATION. BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131								
1	8/30/06	THH JAA	GHM JDM	ELM				
1A. REVISED PRIMARY SPILLWAY PIPES, EMERGENCY SPILLWAY, BERM & DRAINAGE DITCH. 1B. UPDATED TOPO TO REFLECT CELL 3,4 & 5 REVISIONS. REA: BNO1217 EWO: 3156FJ								
0	6/6/06	THH JAA	GHM JDM	ELM				
ISSUED FOR PERMIT. "REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." REA: BNO1217 EWO: 3156FJ								

SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
1"=100'	10207	H-15075	1	FINAL	4

ANSI F: 28x40 Acad2002



GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

CELL 6 STACK, CUBIC YARDS 2,213,471

CELL 7
EARTHWORK QUANTITIES, CUBIC YARDS

CUT	FILL
472,807	450,076

LEGEND:

- TOP OF ROCK BORING/TEMPORARY PIEZOMETER LOCATION
- SOIL BORING/TEMPORARY PIEZOMETER LOCATION
- DEEP BORING/TEMPORARY PIEZOMETER LOCATION
- SITE BOUNDARY
- 200' BUFFER
- FAVORABLE/UNFAVORABLE AREA DELINEATION
- EXCAVATION LAYOUT CONTROL
- FENCE
- 50 EXISTING GROUND CONTOURS
- 50 FINAL GRADE CONTOURS

EROSION CONTROL LEGEND

- Sd1 SILT FENCE (SEE H-15299)
- Di DIVERSION (SEE H-15299)
- Dn1 TEMPORARY DOWNDRAIN (SEE H-15296)
- Lv LEVEL SPREADER
- Ds3 DISTURBED AREA STABILIZATION (PERMANENT VEGETATION SEE H-15303)
- LP114 DRAINAGE LOW POINT WITH DOWNDRAIN NUMBER
- HP110 DRAINAGE HIGH POINT/NUMBER

NOTES:

1. ALL EARTHEN STRUCTURES ARE ENGINEERED TO WITHSTAND A MAXIMUM HORIZONTAL ACCELERATION OF 0.22g.

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.
2. SEE SHEET H-15063 FOR GENERAL NOTES AND REFERENCES.

"REV. 3 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

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"REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

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REVISION	DATE	DESCRIPTION
4	11/14/2018	CCR LANDFIILL PERMIT APPLICATION [BY HHNT, INC.] — ADDED EXISTING AND PROPOSED LABELS.
3	11/7/14	ISSUED FOR MINOR MODIFICATION FOR ADDITION OF LEACHATE TANK AND PIPING — BAGHOUSE PROJECT — MWO: GPC124110 MWO: GPC124131
2	7/3/13	ISSUED FOR MINOR MODIFICATION — BAGHOUSE PROJECT — MWO: GPC124110 MWO: GPC124131
1	9/13/06	UPDATED TOPO TO REFLECT CELL 3,4,5 & 6 REVISIONS. — REA: BN01217 EWO: 3156FJ
0	6/6/06	ISSUED FOR PERMIT — REA: BN01217 EWO: 3156FJ

REVISION	BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
4	VARIOUS	CMM	RBL				
3	JKB	GHM	RCB				KAM
2	JAB JKB	GHM MHL	RCB				KAM
1	THH JAA	GHM JDM	ELM				
0	THH JAA	GHM JDM	ELM				

GEORGIA REGISTERED No. 17583 PROFESSIONAL ENGINEER 11-15-18 CLAUDIA M. MCELLIER

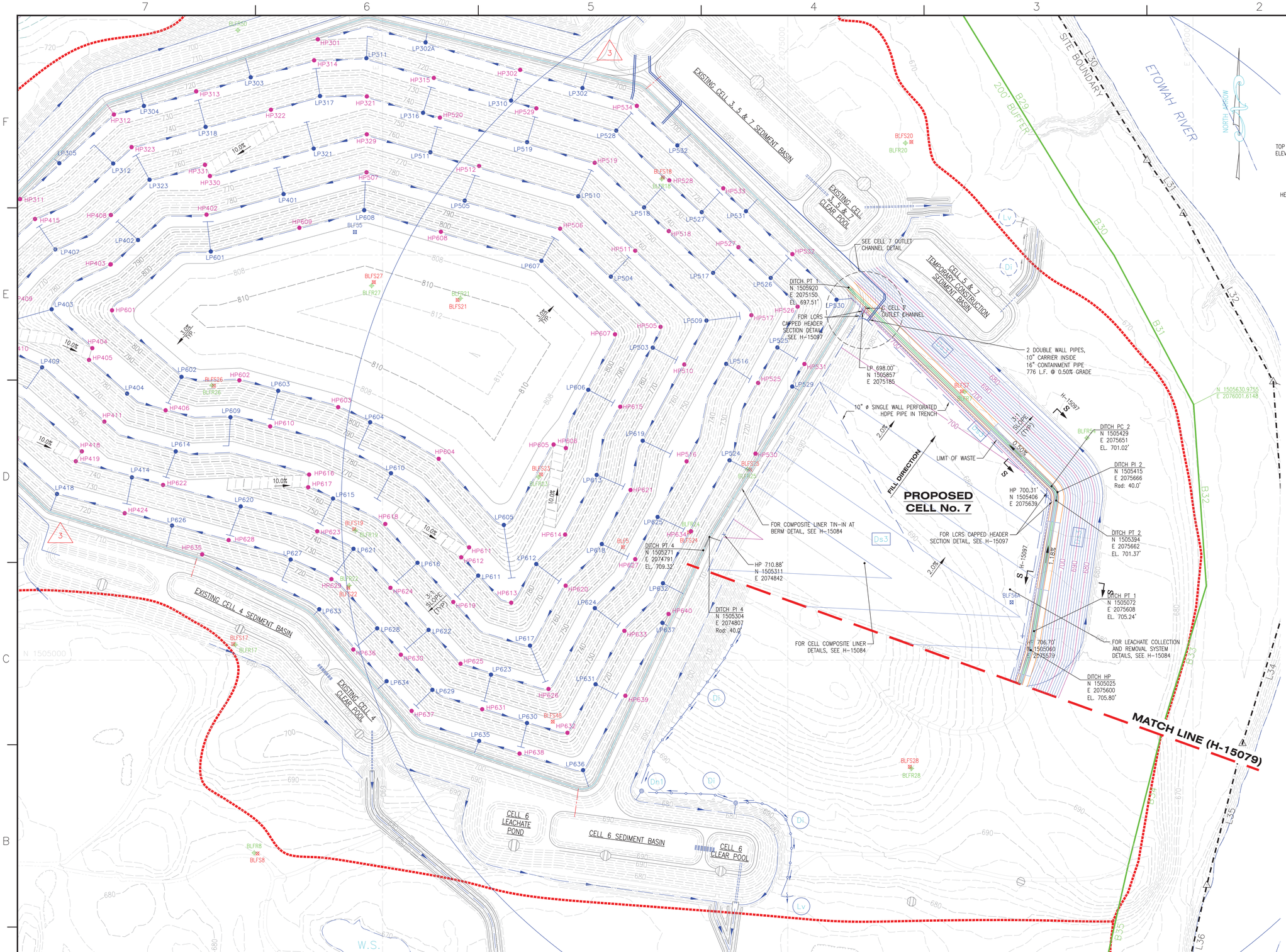
GEORGIA REGISTERED No. 27185 PROFESSIONAL ENGINEER 11/15/18 R. BRANT LINE

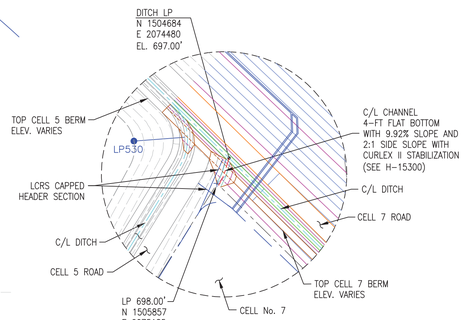
Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCR LANDFILL
CELL 7 SITE DEVELOPMENT
EXCAVATION PLAN

SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
1"=100'	10207	H-15076	1	FINAL	3

ANSI F: 28x40 Acad2002





CELL No. 7 OUTLET CHANNEL DETAIL

NOTE: DASHED CONTOURS INDICATE CLOSURE OF OUTLET CHANNEL AS THE CELL IS FILLED.

CELL 6 STACK, CUBIC YARDS 2,213,471	
CELL 7 EARTHWORK QUANTITIES, CUBIC YARDS	
CUT	FILL
472,807	450,076

LEGEND:

- TOP OF ROCK BORING/TEMPORARY PIEZOMETER LOCATION
- SOIL BORING/TEMPORARY PIEZOMETER LOCATION
- DEEP BORING/TEMPORARY PIEZOMETER LOCATION
- SITE BOUNDARY
- 200' BUFFER
- FAVORABLE/UNFAVORABLE AREA DELINEATION
- LIMIT OF WASTE
- FENCE
- 50 EXISTING GROUND CONTOURS
- 50 FINAL GRADE CONTOURS
- LCRS PIPES, 10" ø

EROSION CONTROL LEGEND

- Sd1 SILT FENCE (SEE H-15299)
- Di DIVERSION (SEE H-15299)
- Dn1 TEMPORARY DOWNDRAIN (SEE H-15296)
- Lv LEVEL SPREADER
- Ds3 DISTURBED AREA STABILIZATION (PERMANENT VEGETATION SEE H-15303)
- LP114 DRAINAGE LOW POINT WITH DOWNDRAIN NUMBER
- HP110 DRAINAGE HIGH POINT/NUMBER

NOTES:

1. ALL EARTHEN STRUCTURES ARE ENGINEERED TO WITHSTAND A MAXIMUM HORIZONTAL ACCELERATION OF 0.22g.

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.
2. SEE SHEET H-15063 FOR GENERAL NOTES AND REFERENCES.

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)

1 inch = 100 ft.

"REV. 3 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

"REV. 2 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

"REV. 1 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

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REVISION	DATE		BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
4	11/14/2018	CCR LANDFILL PERMIT APPLICATION [BY HHNT, INC.] ADDED EXISTING AND PROPOSED LABELS. AMENDED LEACHATE COLLECTION LINE LOCATION AND SPACING.	VARIOUS	CMM	RBL				
3	11/7/14	ISSUED FOR MINOR MODIFICATION FOR ADDITION OF LEACHATE TANK AND PIPING BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JKB	GHM	RCB				KAM
2	7/3/13	ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JAB JKB	GHM MHL	RCB				KAM
1	9/13/06	UPDATED TOPO TO REFLECT CELL 3,4,5 & 6 REVISIONS. REA: BN01217 EWO: 3156FJ	THH JAA	GHM JDM	ELM				
0	6/6/06	ISSUED FOR PERMIT "REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." REA: BN01217 EWO: 3156FJ	THH JAA	GHM JDM	ELM				

GEORGIA REGISTERED PROFESSIONAL No. 17583 ENGINEER 11-15-18 CLAUDIA M. MOELLER

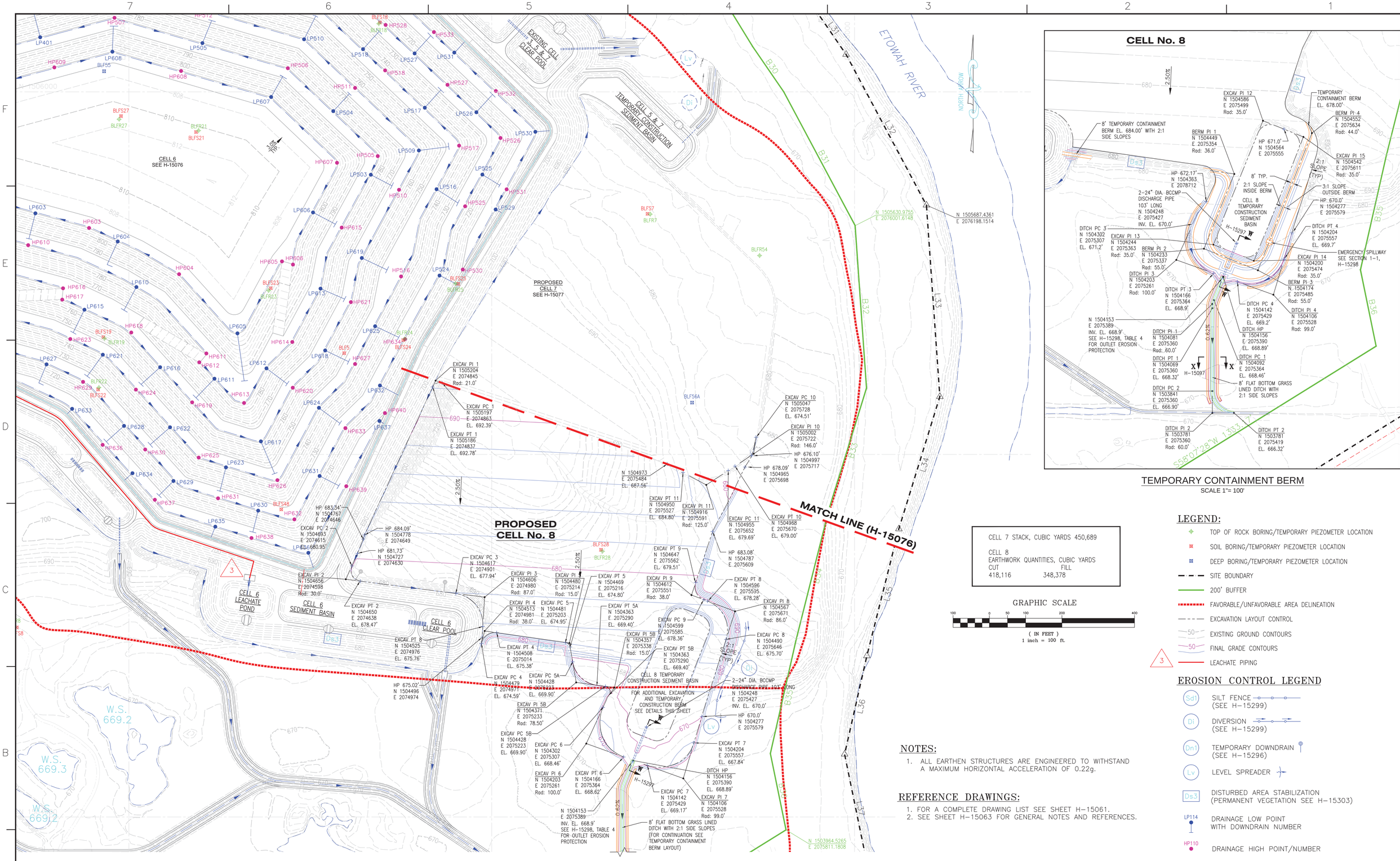
GEORGIA REGISTERED No. 27185 PROFESSIONAL ENGINEER 11/5/18 R. BRANT LANE

Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCR LANDFILL
CELL 7 SITE DEVELOPMENT
BASE GRADE PLAN

SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
1"=100'	10207	**H-15077**	1	FINAL	3

ANSI F: 28x40 Acad2002



TEMPORARY CONTAINMENT BERM
SCALE 1"= 100'

CELL 7 STACK, CUBIC YARDS 450,689

CELL 8
EARTHWORK QUANTITIES, CUBIC YARDS

CUT	FILL
418,116	348,378

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

LEGEND:

- TOP OF ROCK BORING/TEMPORARY PIEZOMETER LOCATION
- SOIL BORING/TEMPORARY PIEZOMETER LOCATION
- DEEP BORING/TEMPORARY PIEZOMETER LOCATION
- SITE BOUNDARY
- 200' BUFFER
- FAVORABLE/UNFAVORABLE AREA DELINEATION
- EXCAVATION LAYOUT CONTROL
- 50 EXISTING GROUND CONTOURS
- 50 FINAL GRADE CONTOURS
- 3 LEACHATE PIPING

EROSION CONTROL LEGEND

- Sd1 SILT FENCE (SEE H-15299)
- Di DIVERSION (SEE H-15299)
- Dn1 TEMPORARY DOWNDRAIN (SEE H-15296)
- Lv LEVEL SPREADER
- Ds3 DISTURBED AREA STABILIZATION (PERMANENT VEGETATION SEE H-15303)
- LP114 DRAINAGE LOW POINT WITH DOWNDRAIN NUMBER
- HP110 DRAINAGE HIGH POINT/NUMBER

NOTES:

1. ALL EARTHEN STRUCTURES ARE ENGINEERED TO WITHSTAND A MAXIMUM HORIZONTAL ACCELERATION OF 0.22g.

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.
2. SEE SHEET H-15063 FOR GENERAL NOTES AND REFERENCES.

"REV. 3 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

"REV. 2 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

"REV. 1 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

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REVISION	DATE		BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
4	11/14/2018	CCR LANDFIILL PERMIT APPLICATION [BY HHNT, INC.] ADDED EXISTING AND PROPOSED LABELS.	VARIOUS	CMM	RBL				
3	5/6/16	ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JKB	GHM	RCB				JMG
2	3/31/13	ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JAB	JKB / GHM / MHL	RCB				KAM
1	9/13/06	1A. REVISED PRIMARY SPILLWAY PIPE, EMERGENCY SPILLWAY, DRAINAGE DITCH & TEMP. CONTAINMENT BERM. 1B. UPDATED TOPO TO REFLECT CELL 3,4,5 & 6 REVISIONS. REA: BN01217 EWO: 3156FJ	THH / GHM	JAA / JDM	ELM				
0	6/6/06	ISSUED FOR PERMIT "REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." REA: BN01217 EWO: 3156FJ	THH / GHM	JAA / JDM	ELM				

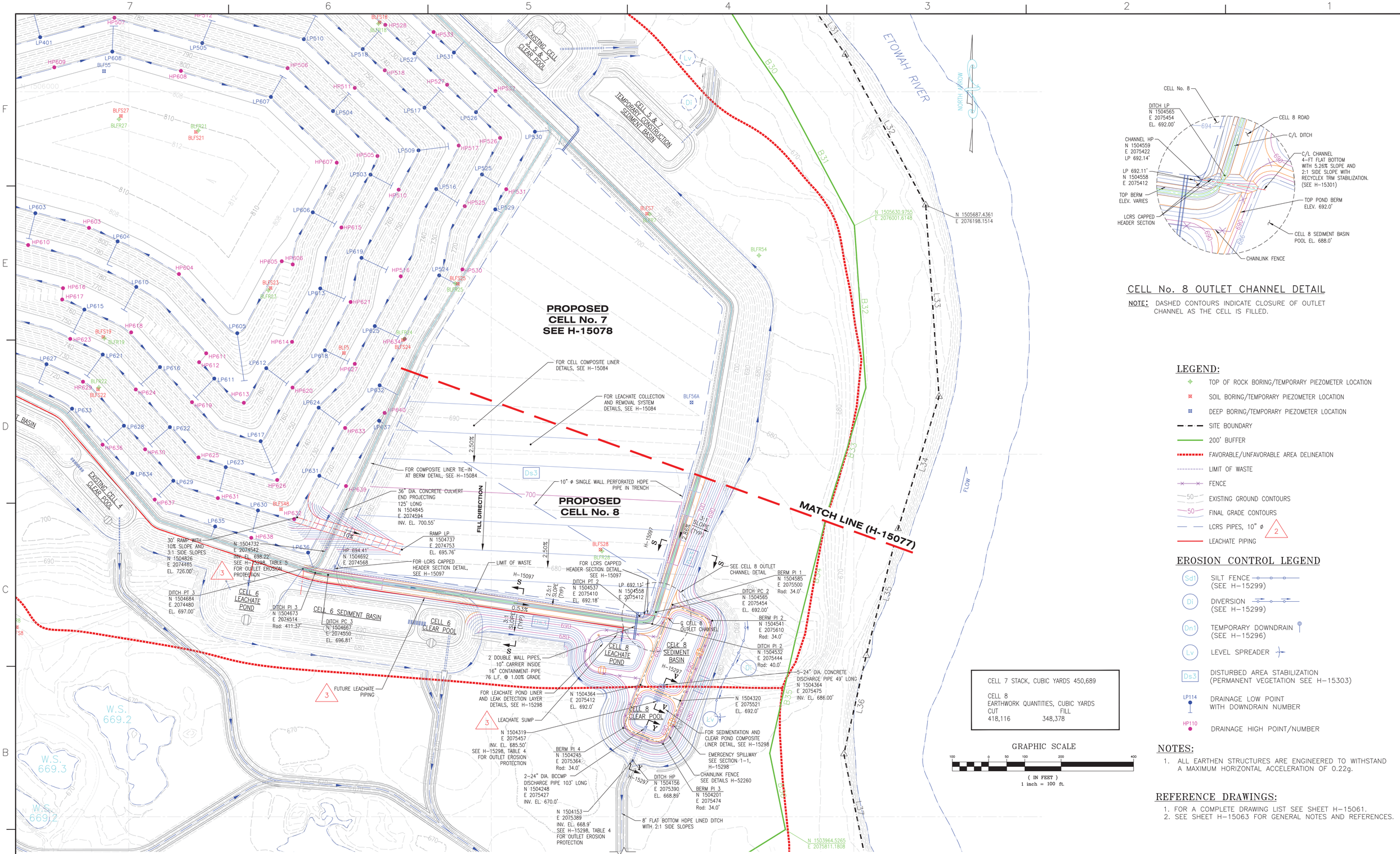
GEORGIA REGISTERED No. 17083 PROFESSIONAL ENGINEER 11-15-12 CLAUDIA M. MOELLER

GEORGIA REGISTERED NO. 27185 PROFESSIONAL 11/5/12 ENGINEER R. BRANT LANE

Southern Company Generation
FOR
GEORGIA POWER COMPANY
PLANT BOWEN
CCB DISPOSAL FACILITY
CELL 8 SITE DEVELOPMENT
EXCAVATION PLAN

SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
1"=100'	10207	**H-15078**	1	FINAL	3

ANSI F: 28x40 Acad2002



CELL No. 8 OUTLET CHANNEL DETAIL

NOTE: DASHED CONTOURS INDICATE CLOSURE OF OUTLET CHANNEL AS THE CELL IS FILLED.

LEGEND:

- TOP OF ROCK BORING/TEMPORARY PIEZOMETER LOCATION
- SOIL BORING/TEMPORARY PIEZOMETER LOCATION
- DEEP BORING/TEMPORARY PIEZOMETER LOCATION
- SITE BOUNDARY
- 200' BUFFER
- FAVORABLE/UNFAVORABLE AREA DELINEATION
- LIMIT OF WASTE
- FENCE
- 50 EXISTING GROUND CONTOURS
- 50 FINAL GRADE CONTOURS
- LCRS PIPES, 10" ø (2)
- LEACHATE PIPING

EROSION CONTROL LEGEND

- (Sd1) SILT FENCE (SEE H-15299)
- (Di) DIVERSION (SEE H-15299)
- (Dn1) TEMPORARY DOWNDRAIN (SEE H-15296)
- (Lv) LEVEL SPREADER
- (Ds3) DISTURBED AREA STABILIZATION (PERMANENT VEGETATION SEE H-15303)
- LP114 DRAINAGE LOW POINT WITH DOWNDRAIN NUMBER
- HP110 DRAINAGE HIGH POINT/NUMBER

CELL 7 STACK, CUBIC YARDS 450,689	
CELL 8 EARTHWORK QUANTITIES, CUBIC YARDS	
CUT	FILL
418,116	348,378

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

NOTES:

1. ALL EARTHEN STRUCTURES ARE ENGINEERED TO WITHSTAND A MAXIMUM HORIZONTAL ACCELERATION OF 0.22g.

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.
2. SEE SHEET H-15063 FOR GENERAL NOTES AND REFERENCES.

"REV. 3 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

"REV. 2 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

"REV. 1 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

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"REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

REVISION	DATE	DESCRIPTION	MWO / EWO
4	11/14/2018	CCR LANDFIILL PERMIT APPLICATION [BY HHNT, INC.] ADDED EXISTING AND PROPOSED LABELS. AMENDED LEACHATE LINE LOCATION AND SPACING.	
3	5/6/16	ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT	MWO: GPC124110 MWO: GPC124131
2	7/3/13	ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT	MWO: GPC124110 MWO: GPC124131
1	9/13/06	1A. REVISED PRIMARY SPILLWAY PIPE, EMERGENCY SPILLWAY & DRAINAGE DITCH. 1B. UPDATED TOPO TO REFLECT CELL 3,4,5 & 6 REVISIONS.	REA: BN01217 EWO: 3156FJ
0	6/6/06	ISSUED FOR PERMIT "REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."	REA: BN01217 EWO: 3156FJ

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
VARIOUS	CMM	RBL				
JKB	GHM	RCB				JMG
JAB / JKB	GHM / MHL	RCB				KAM
THH / JAA	GHM / JDM	ELM				
THH / JAA	GHM / JDM	ELM				

GEORGIA REGISTERED No. 17581 PROFESSIONAL ENGINEER 11-15-18 CLAUDIA M. MOELLER

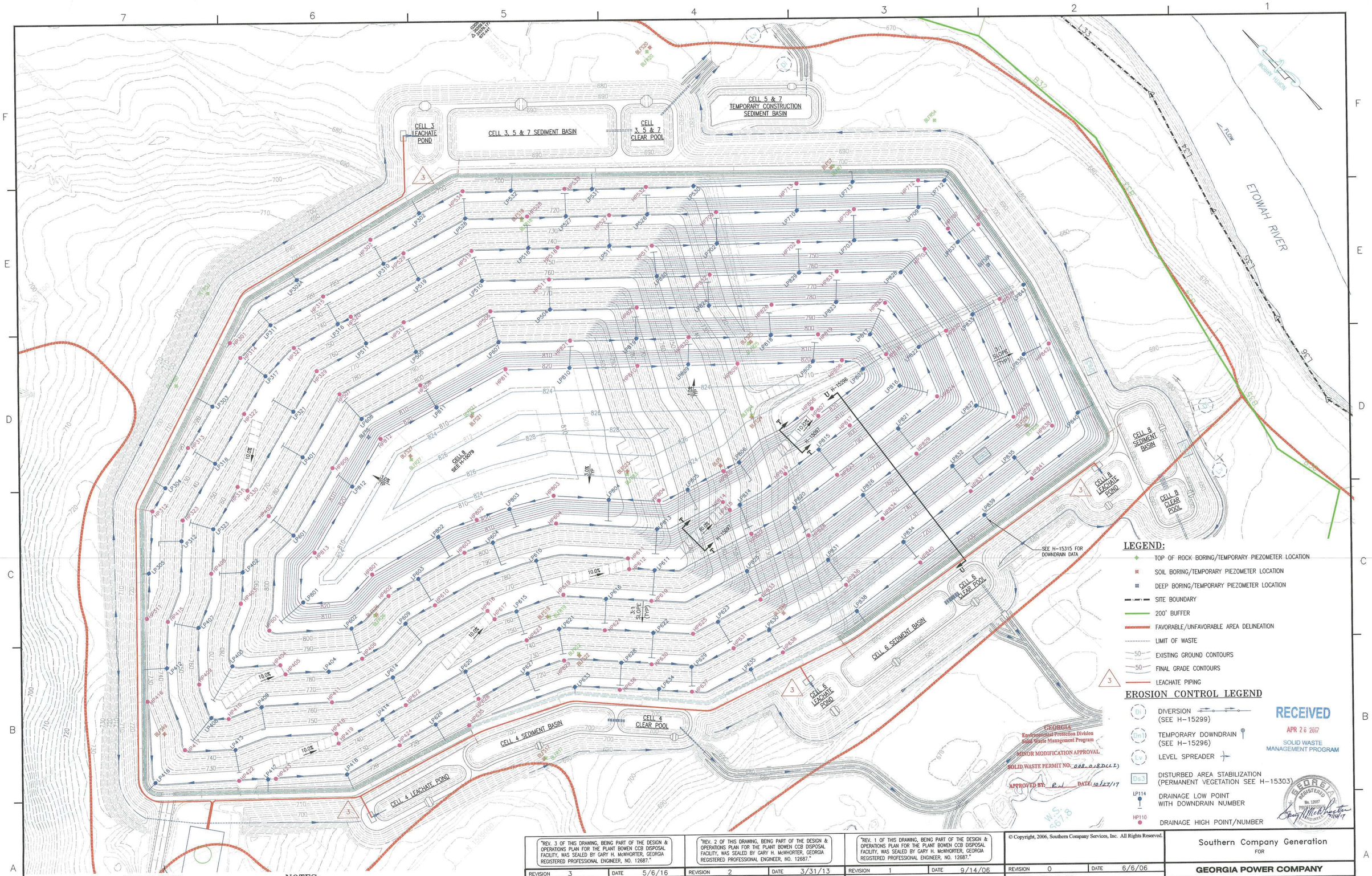
GEORGIA REGISTERED NO. 27185 PROFESSIONAL ENGINEER 11/15/18 R. BRANT LANE

Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCR LANDFILL
CELL 8 SITE DEVELOPMENT
BASE GRADE PLAN

SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
1"=100'	10207	**H-15079**	1	FINAL	3

ANSI F: 28x40 Acad2002



GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

CELL 8 STACK (FINAL), CUBIC YARDS 2,209,265

NOTES:

1. ALL EARTHEN STRUCTURES ARE ENGINEERED TO WITHSTAND A MAXIMUM HORIZONTAL ACCELERATION OF 0.22g.

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.
2. SEE SHEET H-15063 FOR GENERAL NOTES AND REFERENCES.
3. SEE SHEET H-15315 FOR DOWNDRAIN DATA.

"REV. 3 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

REVISION	DATE
3	5/6/16

ISSUED FOR MINOR MODIFICATION

BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
JKB	GHM	RCB				JMG

"REV. 2 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

REVISION	DATE
2	3/31/13

ISSUED FOR MINOR MODIFICATION

BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
JAB JKB	GHM MHL	RCB				KAM

"REV. 1 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

REVISION	DATE
1	9/14/06

UPDATED TOPO TO REFLECT CELL REVISIONS.

REA: BN01217 EWO: 3156FJ

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
THH JAA	GHM JDM	ELM				

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REVISION	DATE
0	6/6/06

ISSUED FOR PERMIT

"REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

REA: BN01217 EWO: 3156FJ

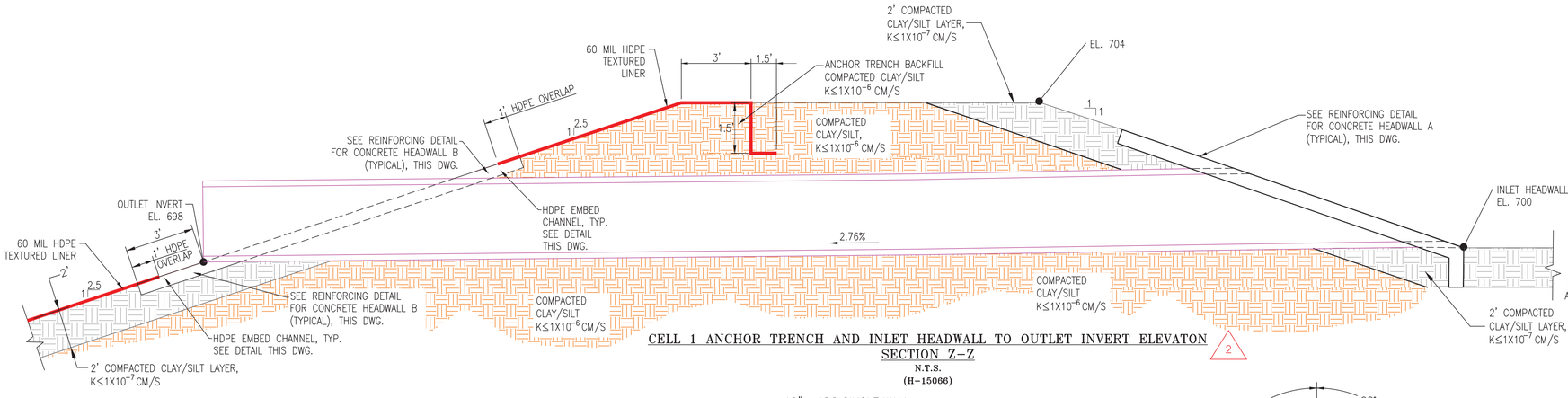
BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
THH JAA	GHM JDM	ELM				

Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCB DISPOSAL FACILITY
CELL 3, 4, 5, 6, 7 & 8 FINAL STACKING PLAN

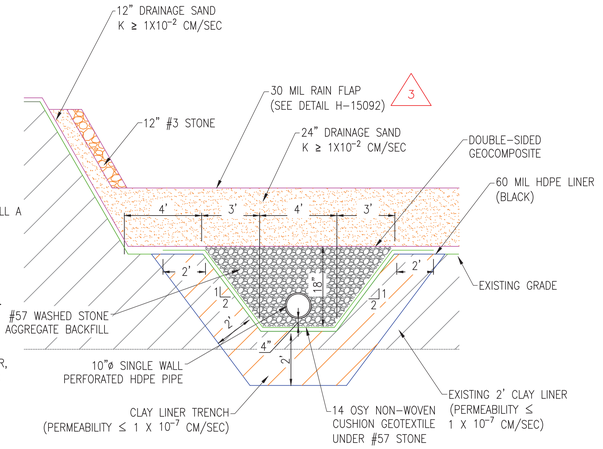
SCALE	PROJ I.D.	DRAWING NUMBER	SH.	CONT'D	REV.
1"=100'	10207	**H-15080**	1	FINAL	3

ANSI F: 28x40 Acad2002



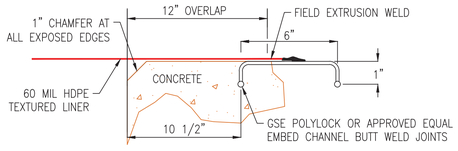
CELL 1 ANCHOR TRENCH AND INLET HEADWALL TO OUTLET INVERT ELEVATON SECTION Z–Z

N.T.S.
(H–15066)



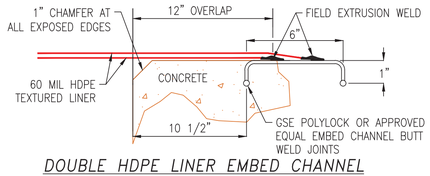
CELL 3–8 COMPOSITE LINER & LEACHATE COLLECTION & REMOVAL SYSTEM DETAIL

N.T.S.



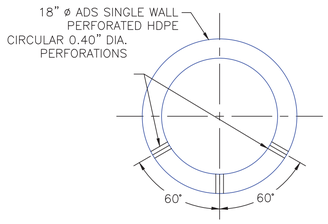
SINGLE HDPE LINER EMBED CHANNEL

N.T.S.



DOUBLE HDPE LINER EMBED CHANNEL

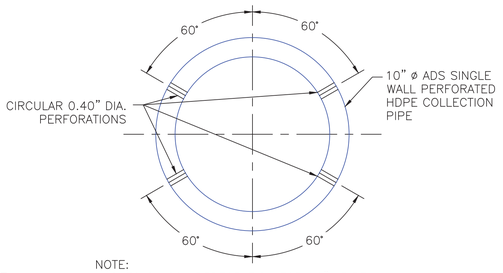
N.T.S.



NOTE:
AASHTO CLASS I PERFORATION FOR 6"ø PIPE– 6 ROWS OF PERFORATIONS REQ'D PER FT–OF–PIPE (TOTAL 24 PER FT OF PIPE. EACH PERFORATION 0.4"ø CIRCULAR.)

SUMP DRAIN PIPE DETAIL

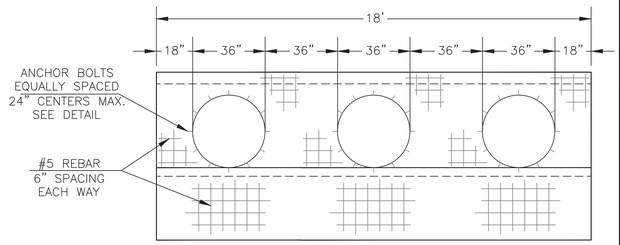
NOT TO SCALE



NOTE:
AASHTO CLASS I PERFORATION FOR 10"ø PIPE– 6 ROWS OF PERFORATIONS REQ'D PER FT–OF–PIPE (TOTAL 24 PER FT OF PIPE. EACH PERFORATION 0.4"ø CIRCULAR.)

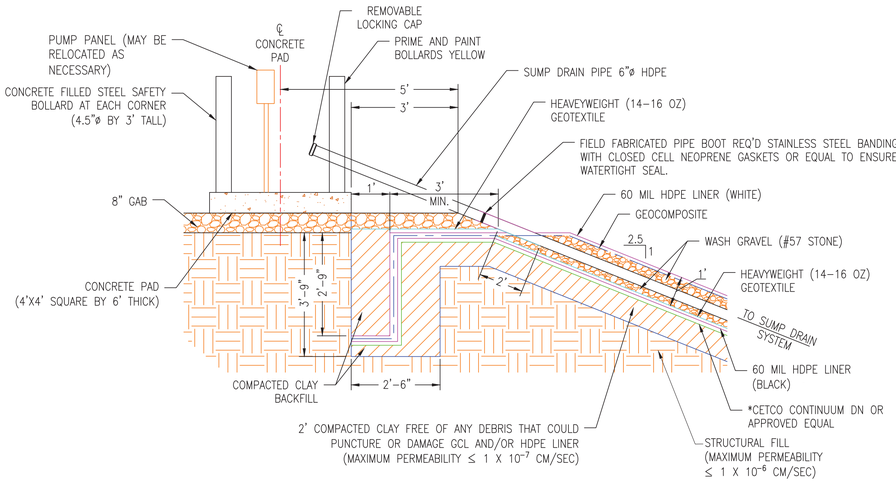
PERFORATED PIPE DETAIL

NOT TO SCALE



HEADWALL A FRONT ELEVATION

NOT TO SCALE
(H–15066)

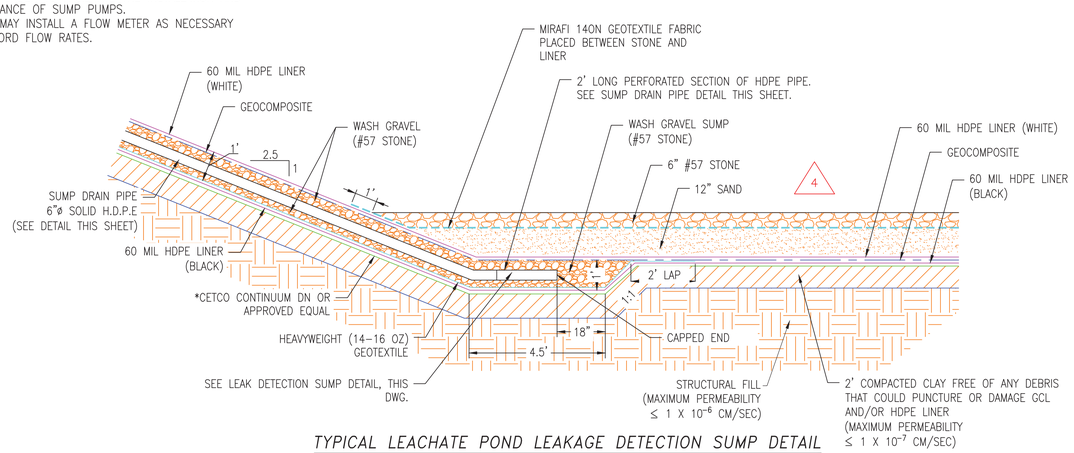


TYPICAL LEACHATE POND ANCHOR TRENCH WITH SUMP RISER PIPE DETAIL

NOT TO SCALE

NOTES:

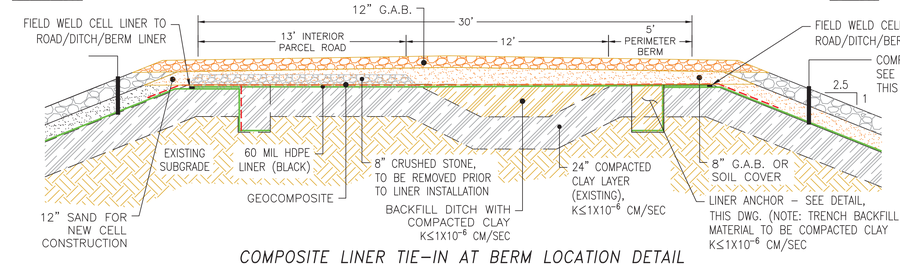
1. OWNER MAY INCREASE THE SIZE OF THE SUMP DRAIN PIPE IN ORDER TO FACILITATE THE INSTALLATION AND MAINTENANCE OF SUMP PUMPS.
2. OWNER MAY INSTALL A FLOW METER AS NECESSARY TO RECORD FLOW RATES.



TYPICAL LEACHATE POND LEAKAGE DETECTION SUMP DETAIL

NOT TO SCALE

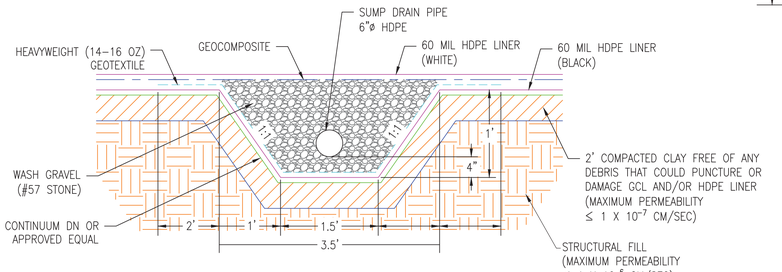
EXISTING CELL



NEW CELL

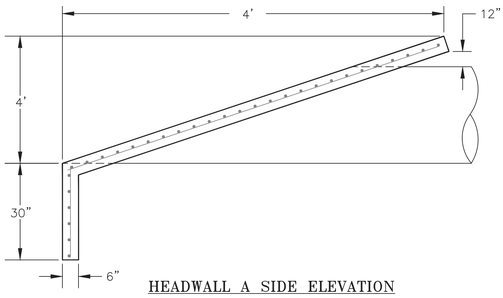
COMPOSITE LINER TIE–IN AT BERM LOCATION DETAIL

NOT TO SCALE



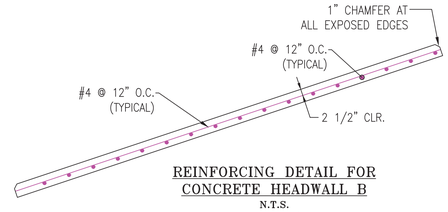
LEACHATE LEAK DETECTION SUMP DETAIL

NOT TO SCALE



HEADWALL A SIDE ELEVATION

NOT TO SCALE
(H–15066)



REINFORCING DETAIL FOR CONCRETE HEADWALL B

N.T.S.
(H–15066)

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H–15061.
2. SEE SHEET H–15063 FOR GENERAL NOTES AND REFERENCES.

GEORGIA REGISTERED No. 17553 PROFESSIONAL ENGINEER 11-15-18 CLAUDIA M. MOELLER

GEORGIA REGISTERED NO. 27185 PROFESSIONAL ENGINEER 11/15/18 R. BRANT LANE

"REV. 3 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

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Southern Company Generation
FOR
GEORGIA POWER COMPANY

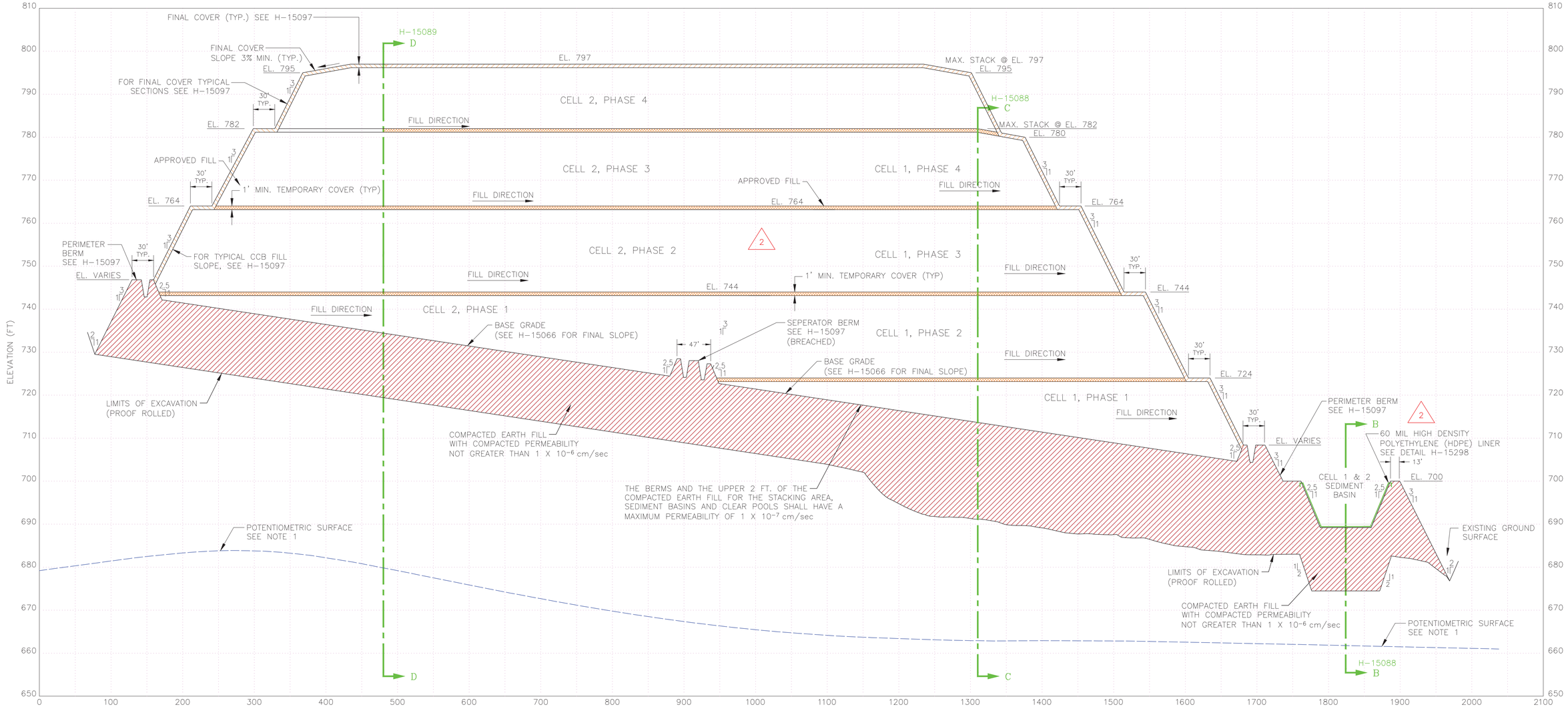
PLANT BOWEN
CCR LANDFILL
MISC. SECTIONS AND DETAILS
SHEET 1 OF 2

REVISION	DATE	DESCRIPTION
4	11/14/2018	CCR LANDFILL PERMIT APPLICATION [BY HHNT, INC.] — REMOVED ALTERNATIVE LINER SYSTEM. REMOVED GCL FROM CELLS 3–8 COMPOSITE LINER AND LEACHATE COLLECTION AND REMOVAL SYSTEM DETAIL. ADDED END PIECE TO SUMP DRAIN PIPE. ADDED NOTES 1 AND 2. ADDED PUMP PANEL TO TYPICAL LEAKAGE DETECTION SUMP DETAIL.
3	8/29/14	ISSUED FOR MINOR MODIFICATION — BAGHOUSE PROJECT — MWO: GPC124110 MWO: GPC124131
0	6/6/06	ISSUED FOR PERMIT — "REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." — REA: BN01217 EWO: 3156FJ

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
VARIOUS	CMM	RBL				
JKB	GHM	RCB				KAM
THH / JAA	GHM / JDM	ELM				

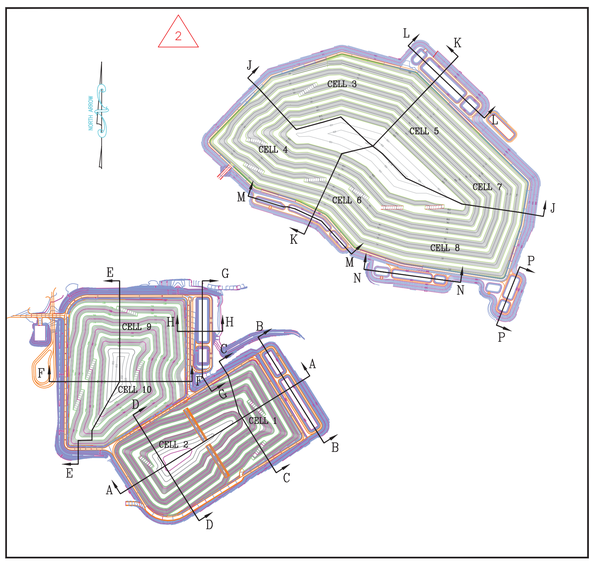
SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV.
1"=100'	10207	H-15084	1	FINAL	4

ANSI F: 28x40 Acad2002



SECTION A–A

SCALE H: 1"=60' V: 1"=10'



KEY PLAN

NOT TO SCALE

NOTES:

1. THE POTENTIOMETRIC SURFACE WAS TAKEN FROM THE WATER LEVEL ELEVATIONS SHOWN FOR THE DATE OF DECEMBER 18, 2002 IN PELA, INC.'S "TABLE 3-1; GROUNDWATER LEVELS AND TOP OF UNWEATHERED BEDROCK", DATED JANUARY 6, 2004, PROVIDED AS PART OF "ADDENDUM I, SITE ACCEPTABILITY REPORT, HYDROGEOLOGICAL ASSESSMENT AND DEMONSTRATION OF ENGINEERING MEASURES", DATED JULY 2004.

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.
2. SEE SHEET H-15063 FOR GENERAL NOTES AND REFERENCES.

GEORGIA REGISTERED No. 17583 PROFESSIONAL ENGINEER CLAUDIA M. MOELLER 11/15/18

GEORGIA REGISTERED NO. 27185 PROFESSIONAL ENGINEER R. BRANT LANE 11/15/18

"REV. 2 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

"REV. 1 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

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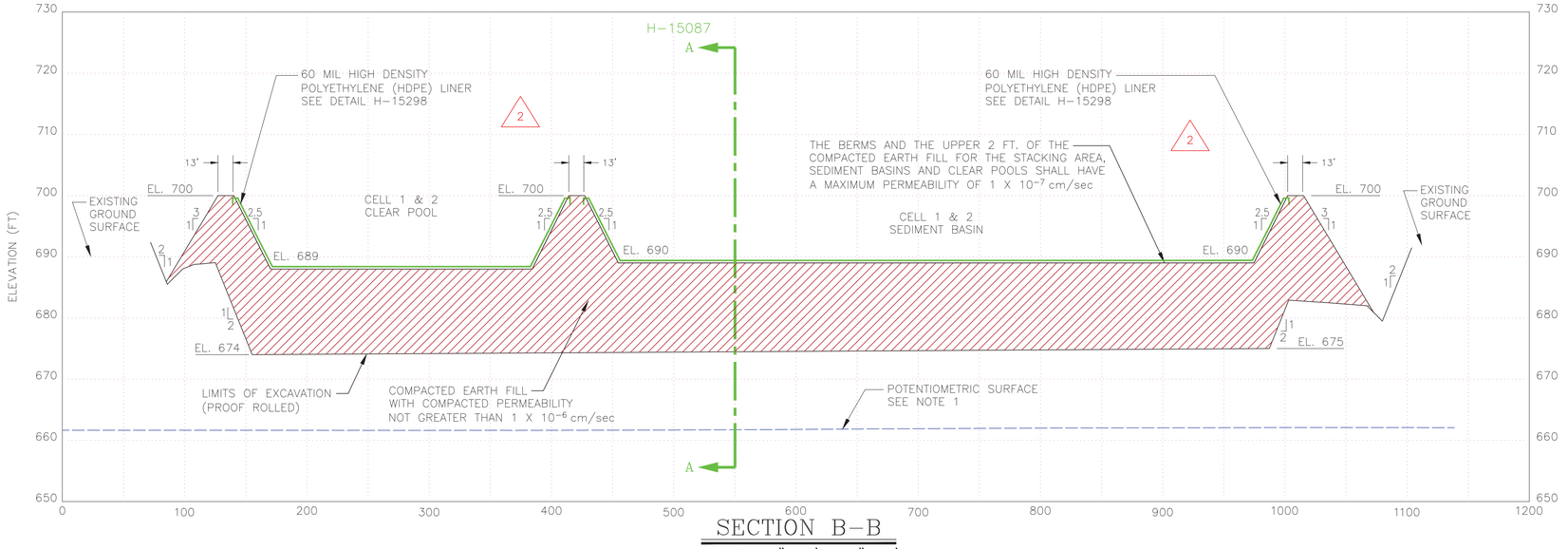
Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCR LANDFILL
SECTION A–A

REVISION	DATE	DESCRIPTION	BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
3	11/14/2018	CCR LANDFILL PERMIT APPLICATION [BY HHNT, INC.] REVISED FINAL COVER LABEL.	EAS	CMM	RBL				
2	3/31/13	ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JAB JKB	GHM MHL	RCB				KAM
1	9/12/06	REVISED CELL 1&2 SEDIMENT BASIN BOTTOM TO FINISH GRADE ELEVATION 690'. REA: BN1217 EWO: 3156FJ	THH JAA	GHM JDM	ELM				
0	6/6/06	ISSUED FOR PERMIT "REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." REA: BN1217 EWO: 3156FJ	THH JAA	GHM JDM	ELM				

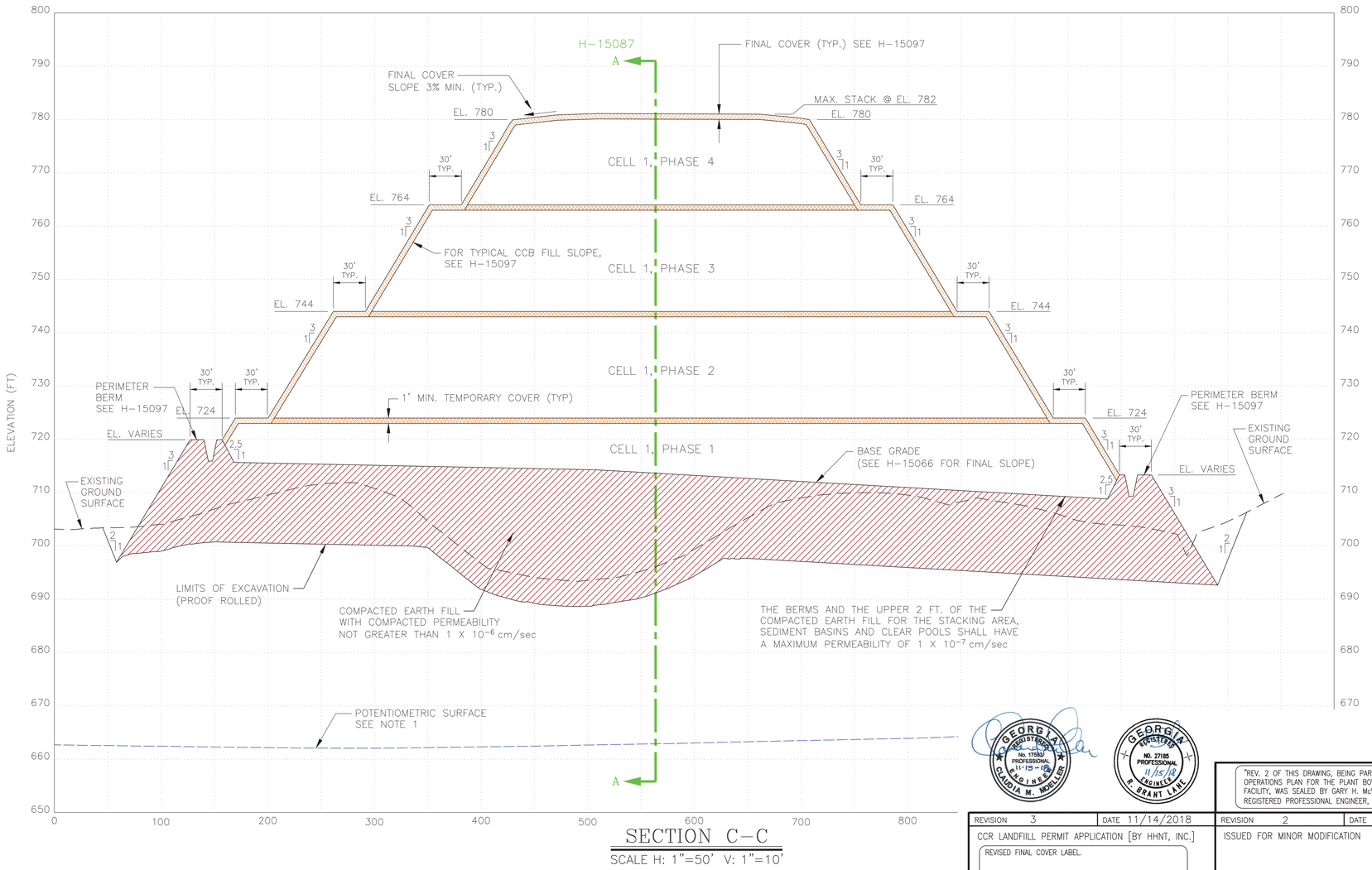
SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
AS SHOWN	10207	H-15087	1	FINAL	3

ANSI F: 28x40 Acad2004



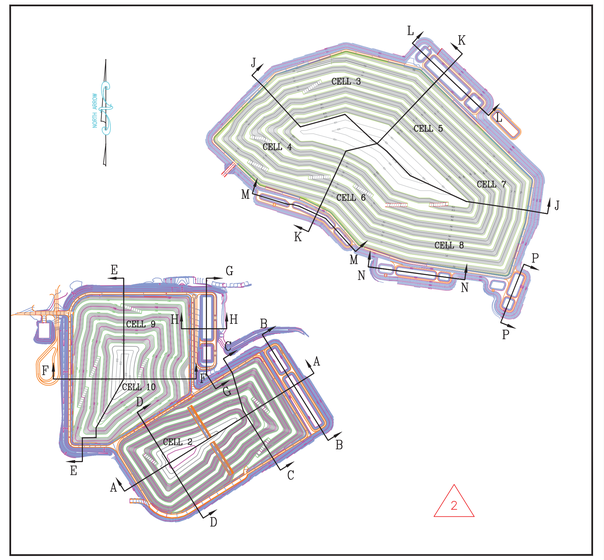
SECTION B–B

SCALE H: 1"=50' V: 1"=10'



SECTION C–C

SCALE H: 1"=50' V: 1"=10'



KEY PLAN

NOT TO SCALE

NOTES:

1. THE POTENTIOMETRIC SURFACE WAS TAKEN FROM THE WATER LEVEL ELEVATIONS SHOWN FOR THE DATE OF DECEMBER 18, 2002 IN PELA, INC.'S "TABLE 3-1; GROUNDWATER LEVELS AND TOP OF UNWEATHERED BEDROCK", DATED JANUARY 6, 2004, PROVIDED AS PART OF "ADDENDUM I, SITE ACCEPTABILITY REPORT, HYDROGEOLOGICAL ASSESSMENT AND DEMONSTRATION OF ENGINEERING MEASURES", DATED JULY 2004.

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.
2. SEE SHEET H-15063 FOR GENERAL NOTES AND REFERENCES.

GEORGIA REGISTERED No. 17580 PROFESSIONAL ENGINEER 11-15-18 CLAUDIA M. MOELLER

GEORGIA REGISTERED No. 27185 PROFESSIONAL 11/15/18 ENGINEER R. BRANT LANE

"REV. 2 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

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Southern Company Generation
FOR
GEORGIA POWER COMPANY

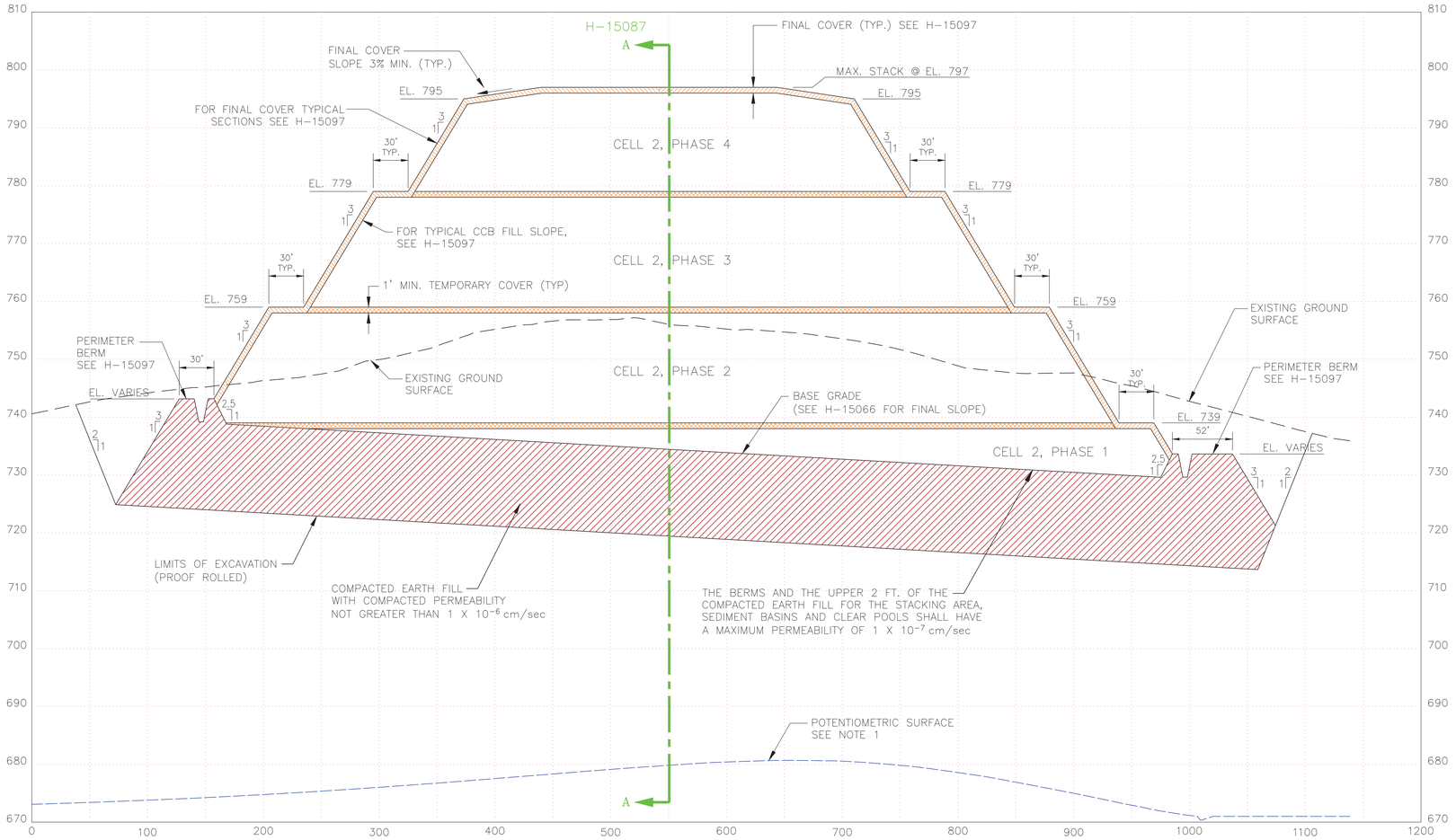
PLANT BOWEN
CCR LANDFILL
SECTIONS B–B & C–C

REVISION	DATE	
3	11/14/2018	CCR LANDFIILL PERMIT APPLICATION [BY HHNT, INC.] REVISED FINAL COVER LABEL.
2	3/31/13	ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131
0	6/6/06	ISSUED FOR PERMIT "REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." REA: BN1217 EWO: 3156FJ

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
EAS	CMM	RBL				
JAB JKB	GHM MHL	RCB				KAM
THH JAA	GHM JDM	ELM				

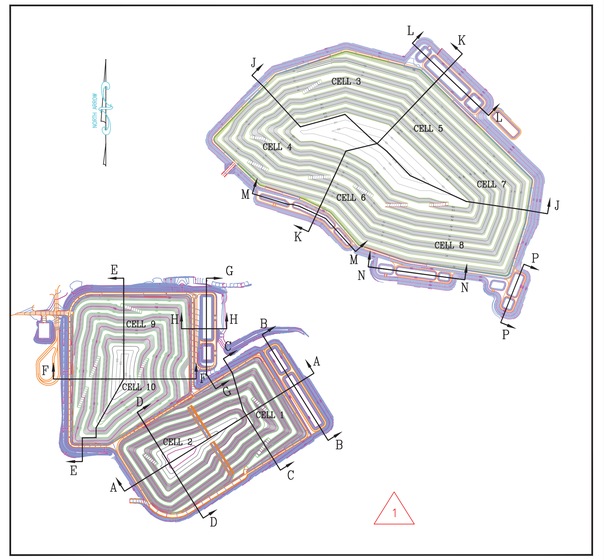
SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
AS SHOWN	10207	H-15088	1	FINAL	3

ANSI F: 28x40 Acad2004



SECTION D–D

SCALE H: 1"=50' V: 1"=10'



KEY PLAN

NOT TO SCALE

NOTES:

1. THE POTENTIOMETRIC SURFACE WAS TAKEN FROM THE WATER LEVEL ELEVATIONS SHOWN FOR THE DATE OF DECEMBER 18, 2002 IN PELA, INC.'S "TABLE 3–1; GROUNDWATER LEVELS AND TOP OF UNWEATHERED BEDROCK", DATED JANUARY 6, 2004, PROVIDED AS PART OF "ADDENDUM I, SITE ACCEPTABILITY REPORT, HYDROGEOLOGICAL ASSESSMENT AND DEMONSTRATION OF ENGINEERING MEASURES", DATED JULY 2004.

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H–15061.
2. SEE SHEET H–15063 FOR GENERAL NOTES AND REFERENCES.

GEORGIA REGISTERED No. 17551 PROFESSIONAL ENGINEER CLAUDIA M. MOELLER 11-15-18

GEORGIA REGISTERED NO. 27185 PROFESSIONAL 11/15/18 ENGINEER R. BRANT LANE

"REV. 1 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

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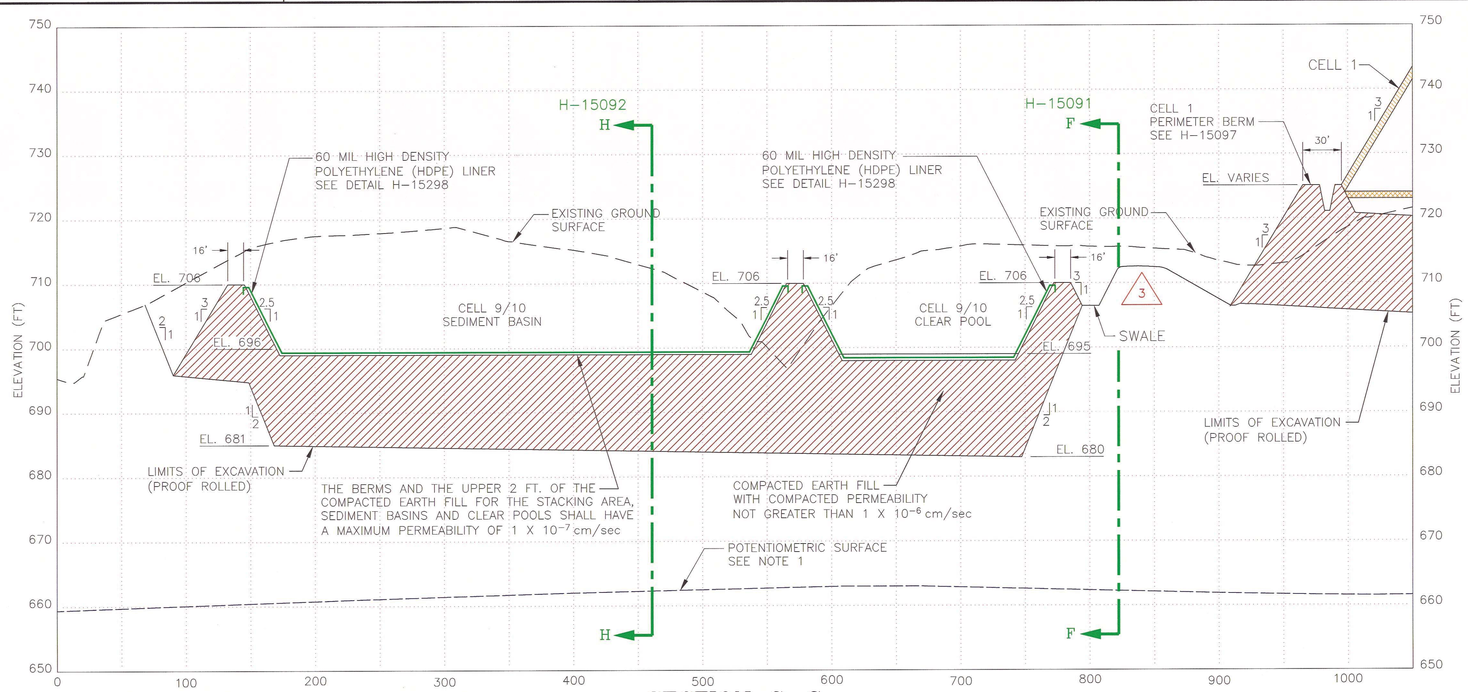
Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCR LANDFILL
SECTION D–D

REVISION	DATE	DESCRIPTION	BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
2	11/14/2018	CCR LANDFIILL PERMIT APPLICATION [BY HHNT, INC.] REVISED FINAL COVER LABEL.	EAS	CMM	RBL				
1	3/31/13	ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	EEJ JKB	GHM MHL	RCB				KAM
0	6/6/06	ISSUED FOR PERMIT "REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." REA: BN1217 EWO: 3156FJ	THH JAA	GHM JDM	ELM				

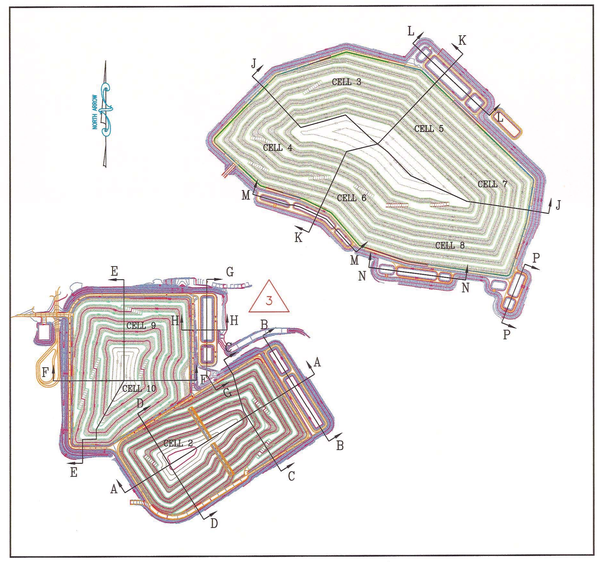
SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV.
AS SHOWN	10207	**H-15089**	1	FINAL	2

ANSI F: 28x40 Acad2004



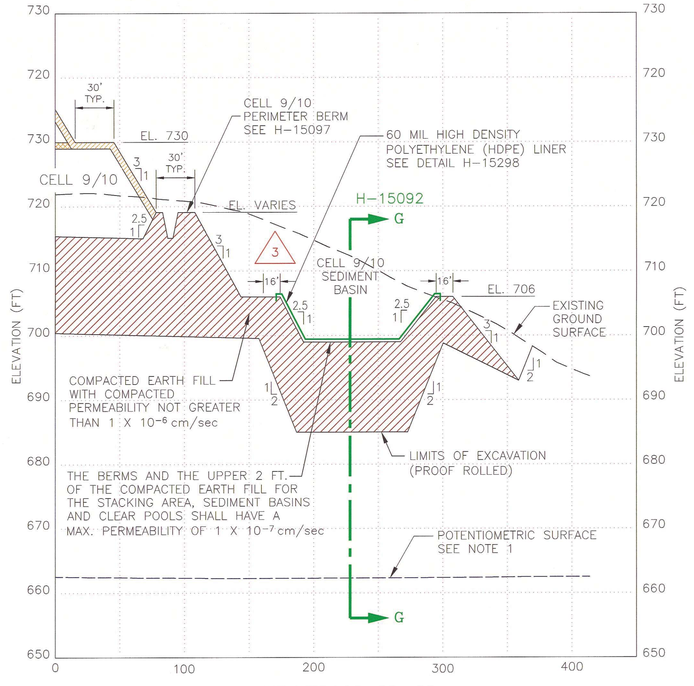
SECTION G–G

SCALE H: 1"=50' V: 1"=10'



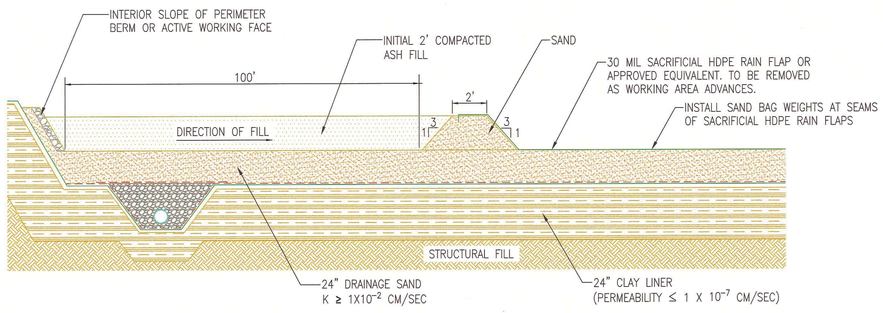
KEY PLAN

NOT TO SCALE



SECTION H–H

SCALE H: 1"=50' V: 1"=10'



3 RAIN FLAP DETAIL

N.T.S.

GEORGIA
Environmental Protection Division
Solid Waste Management Program

MINOR MODIFICATION APPROVAL

SOLID WASTE PERMIT NO. 008-018D(LI)

APPROVED BY: CBH DATE: 9/12/14

NOTES:

1. THE POTENTIOMETRIC SURFACE WAS TAKEN FROM THE WATER LEVEL ELEVATIONS SHOWN FOR THE DATE OF DECEMBER 18, 2002 IN PELA, INC.'S "TABLE 3-1; GROUNDWATER LEVELS AND TOP OF UNWEATHERED BEDROCK", DATED JANUARY 6, 2004, PROVIDED AS PART OF "ADDENDUM I, SITE ACCEPTABILITY REPORT, HYDROGEOLOGICAL ASSESSMENT AND DEMONSTRATION OF ENGINEERING MEASURES", DATED JULY 2004.

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.
2. SEE SHEET H-15063 FOR GENERAL NOTES AND REFERENCES.

GEORGIA REGISTERED No. 12687 PROFESSIONAL ENGINEER Gary H. McWhorter 9/12/14

"REV. 3 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

REVISION	DATE	ISSUED FOR MINOR MODIFICATION	MWO: GPC124110 MWO: GPC124131
3	8/29/14	BAGHOUSE PROJECT	

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
JKB	GHM	RCB				KAM

"REV. 2 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

REVISION	DATE	ISSUED FOR MINOR MODIFICATION	MWO: GPC124110 MWO: GPC124131
2	3/31/13	BAGHOUSE PROJECT	

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
JAB JKB	GHM MHL	RCB				KAM

"REV. 1 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

REVISION	DATE	REVISED CELL 9&10 SEDIMENT BASIN & CLEAR POOL FINAL GRADE.	REA: BN1217 EWO: 3156FJ
1	9/12/06		

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
THH JAA	GHM JDM	ELM				

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REVISION	DATE	ISSUED FOR PERMIT	REA: BN1217 EWO: 3156FJ
0	6/6/06	"REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."	

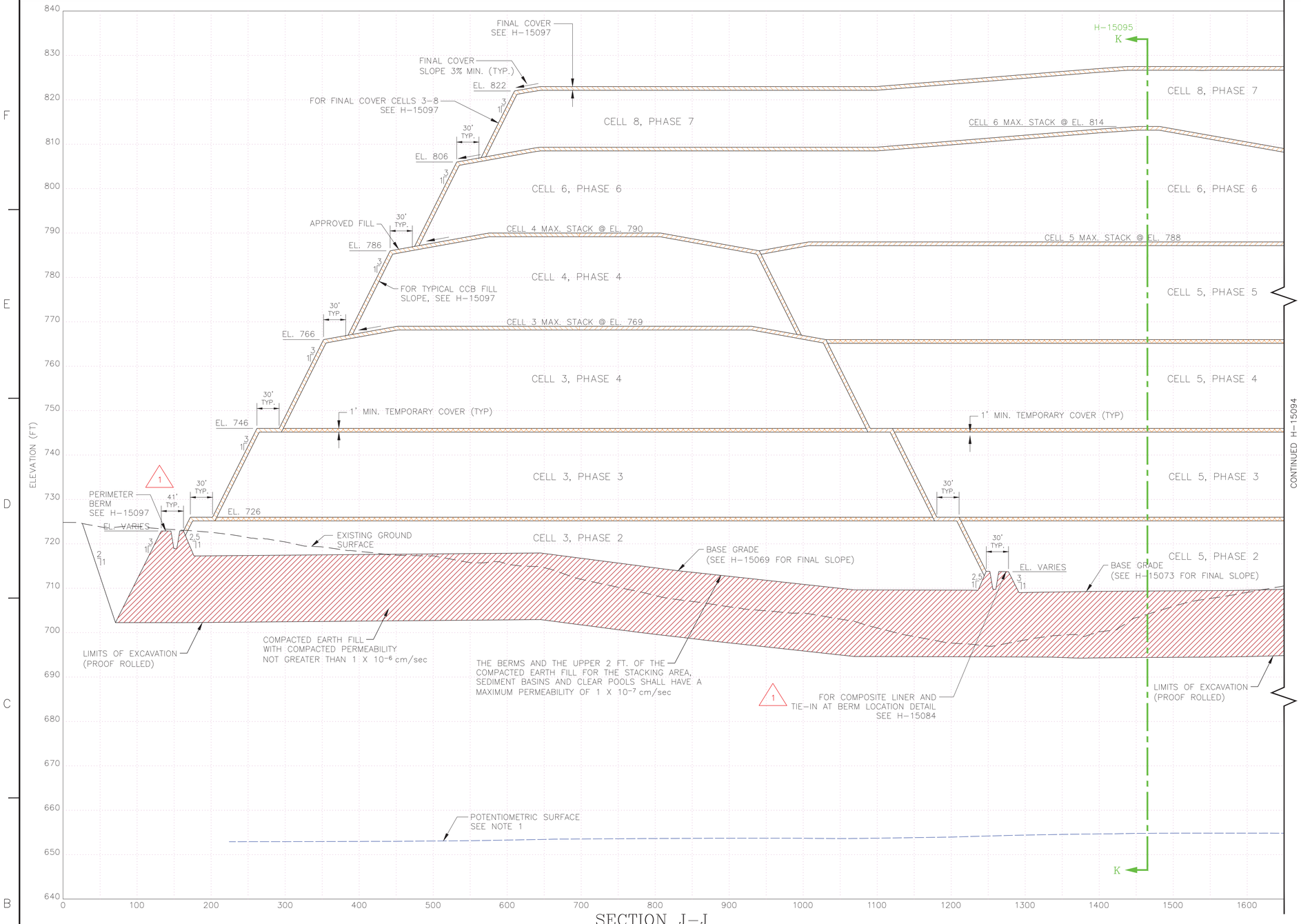
BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
THH JAA	GHM JDM	ELM				

Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCB DISPOSAL FACILITY
SECTIONS G–G & H–H

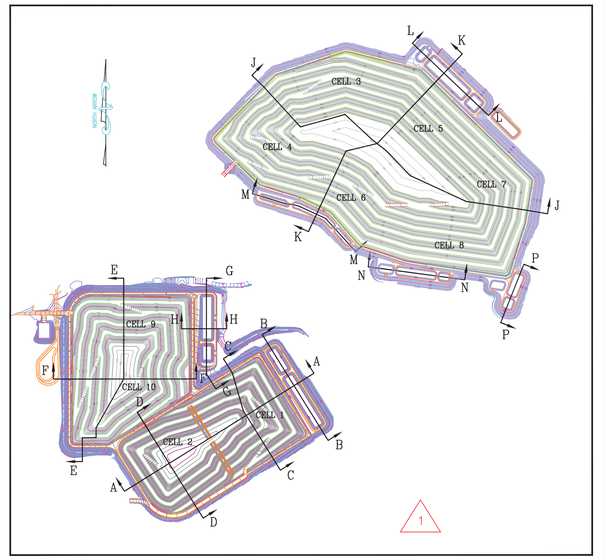
SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
AS SHOWN	10207	**H-15092**	1	FINAL	3

ANSI F: 28x40 Acad2004



SECTION J-J

SCALE H: 1"= 60' V: 1"= 10'



KEY PLAN

NOT TO SCALE

CONTINUED H-15094

NOTES:

1. THE POTENTIOMETRIC SURFACE WAS TAKEN FROM THE WATER LEVEL ELEVATIONS SHOWN FOR THE DATE OF DECEMBER 18, 2002 IN PELA, INC.'S "TABLE 3-1; GROUNDWATER LEVELS AND TOP OF UNWEATHERED BEDROCK", DATED JANUARY 6, 2004, PROVIDED AS PART OF "ADDENDUM I, SITE ACCEPTABILITY REPORT, HYDROGEOLOGICAL ASSESSMENT AND DEMONSTRATION OF ENGINEERING MEASURES", DATED JULY 2004.

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.
2. SEE SHEET H-15063 FOR GENERAL NOTES AND REFERENCES.

GEORGIA REGISTERED No. 17550 PROFESSIONAL ENGINEER 11-15-18 CLAUDIA M. MOELLER

GEORGIA REGISTERED NO. 27185 PROFESSIONAL 11/15/18 ENGINEER R. BRANT LANE

"REV. 2 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

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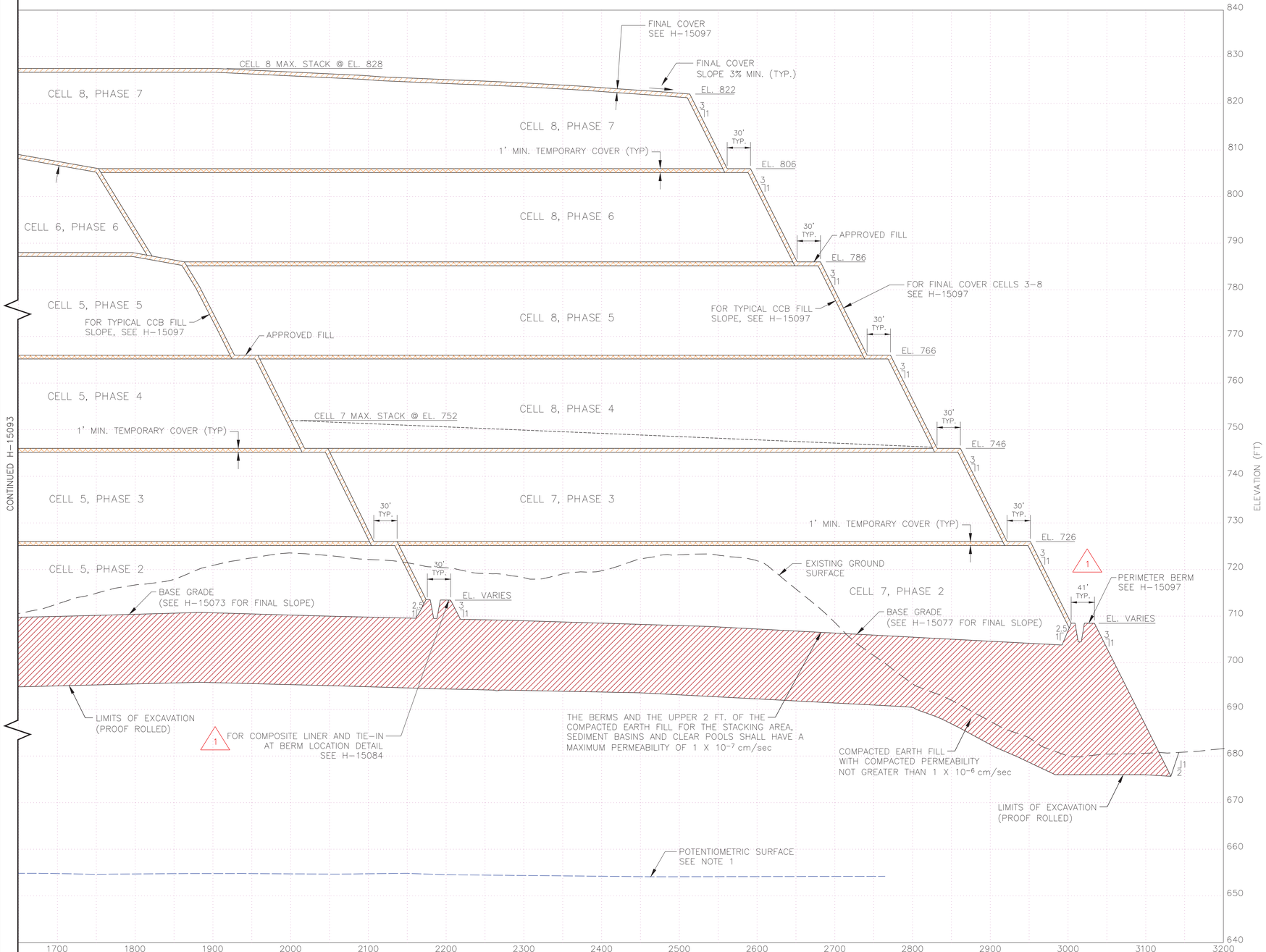
Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCR LANDFILL
SECTION J-J

REVISION	DATE	DESCRIPTION	BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
2	11/14/2018	CCR LANDFIILL PERMIT APPLICATION [BY HHNT, INC.] REVISED FINAL COVER LABEL.	EAS	CMM	RBL				
1	8/5/13	ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT	JKB	GHM / RCB	RCB				KAM
0	6/6/06	ISSUED FOR PERMIT "REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." REA: BN1217 EWO: 3156FJ	THH / JAA	GHM / JDM	ELM				

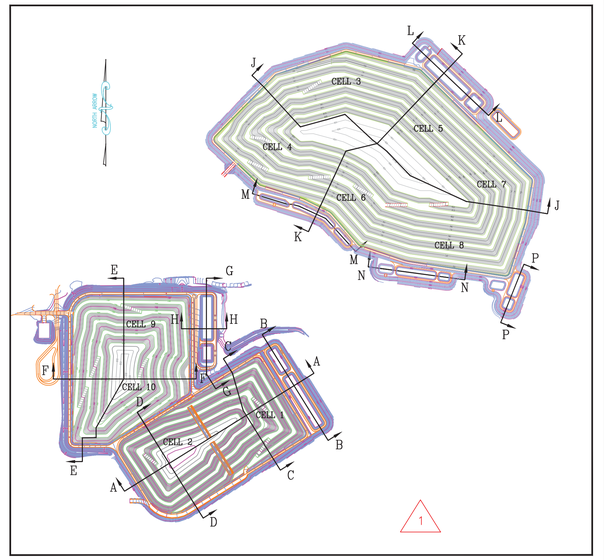
SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
AS SHOWN	10207	**H-15093**	1	FINAL	2

ANSI F: 28x40 Acad2004



SECTION J–J (CONTINUED)

SCALE H: 1"= 60' V: 1"= 10'



KEY PLAN

NOT TO SCALE

NOTES:

1. THE POTENTIOMETRIC SURFACE WAS TAKEN FROM THE WATER LEVEL ELEVATIONS SHOWN FOR THE DATE OF DECEMBER 18, 2002 IN PELA, INC.'S "TABLE 3–1; GROUNDWATER LEVELS AND TOP OF UNWEATHERED BEDROCK", DATED JANUARY 6, 2004, PROVIDED AS PART OF "ADDENDUM I, SITE ACCEPTABILITY REPORT, HYDROGEOLOGICAL ASSESSMENT AND DEMONSTRATION OF ENGINEERING MEASURES", DATED JULY 2004.

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H–15061.
2. SEE SHEET H–15063 FOR GENERAL NOTES AND REFERENCES.

GEORGIA REGISTERED No. 17593 PROFESSIONAL ENGINEER CLAUDIA M. MOELLER 11-15-18

GEORGIA REGISTERED NO. 27185 PROFESSIONAL ENGINEER R. BRANT LINE 11/6/18

"REV. 2 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

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Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCR LANDFILL
SECTION J–J (CONTINUED)

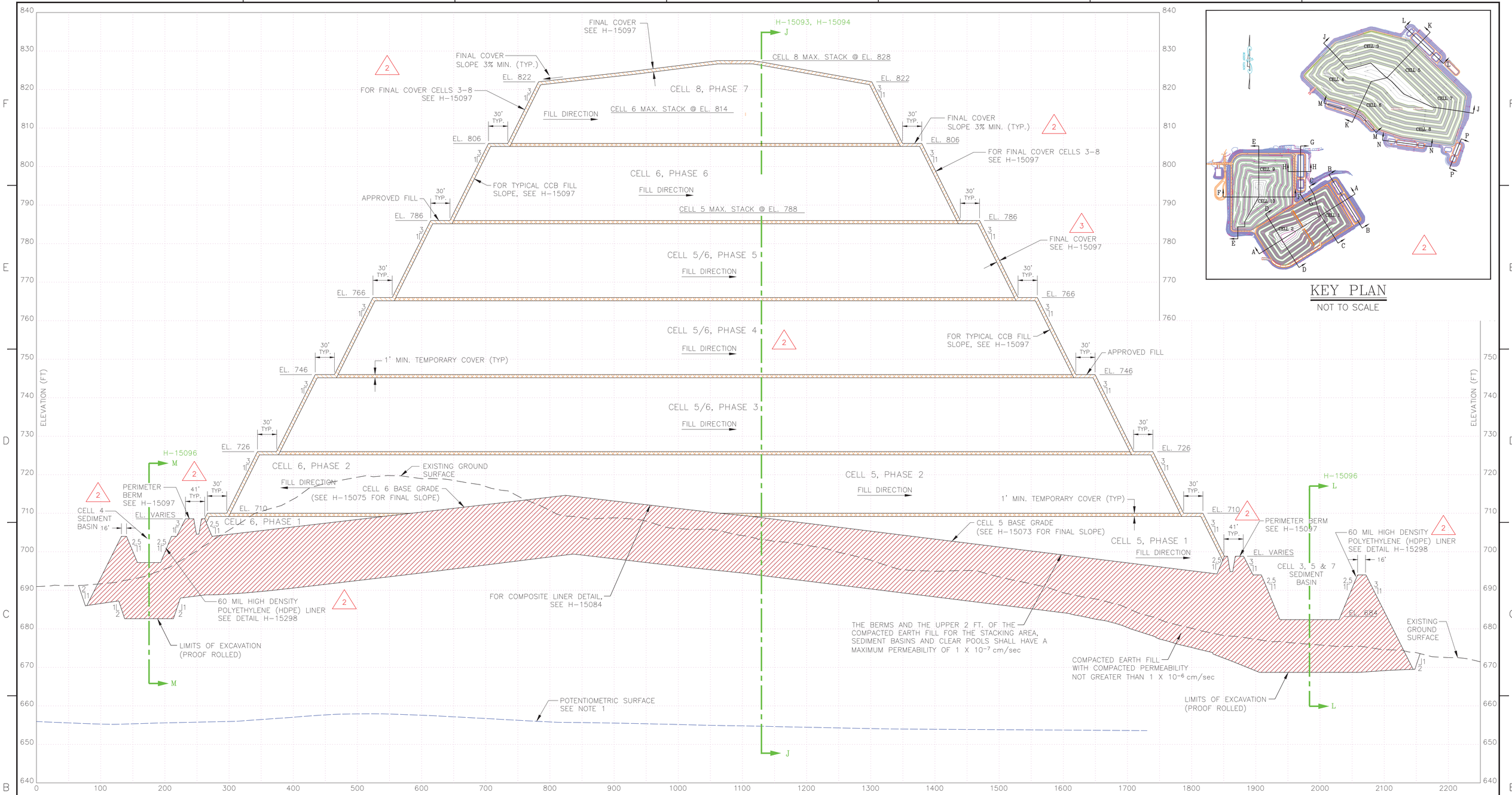
REVISION	DATE	DESCRIPTION
2	11/14/2018	CCR LANDFIILL PERMIT APPLICATION [BY HHNT, INC.] — REVISED FINAL COVER LABEL.
1	8/5/13	ISSUED FOR MINOR MODIFICATION — BAGHOUSE PROJECT
0	6/6/06	ISSUED FOR PERMIT — "REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

REA: BN1217 EWO: 3156FJ

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
EAS	CMM	RBL				
JKB	GHM RCB	RCB				KAM
THH JAA	GHM JDM	ELM				

SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV.
AS SHOWN	10207	H-15094	1	FINAL	2

ANSI F: 28x40 Acad2004



KEY PLAN
NOT TO SCALE

SECTION K-K
SCALE H: 1"= 60' V: 1"= 10'

NOTES:

1. THE POTENTIOMETRIC SURFACE WAS TAKEN FROM THE WATER LEVEL ELEVATIONS SHOWN FOR THE DATE OF DECEMBER 18, 2002 IN PELA, INC.'S "TABLE 3-1; GROUNDWATER LEVELS AND TOP OF UNWEATHERED BEDROCK", DATED JANUARY 6, 2004, PROVIDED AS PART OF "ADDENDUM I, SITE ACCEPTABILITY REPORT, HYDROGEOLOGICAL ASSESSMENT AND DEMONSTRATION OF ENGINEERING MEASURES", DATED JULY 2004.

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.
2. SEE SHEET H-15063 FOR GENERAL NOTES AND REFERENCES.

GEORGIA REGISTERED No. 17593 PROFESSIONAL 11-15-18 ENGINEER CLAUDIA M. MOELLER

GEORGIA REGISTERED NO. 27185 PROFESSIONAL 11/15/18 ENGINEER R. BRANT LANE

"REV. 2 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

"REV. 1 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

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"REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

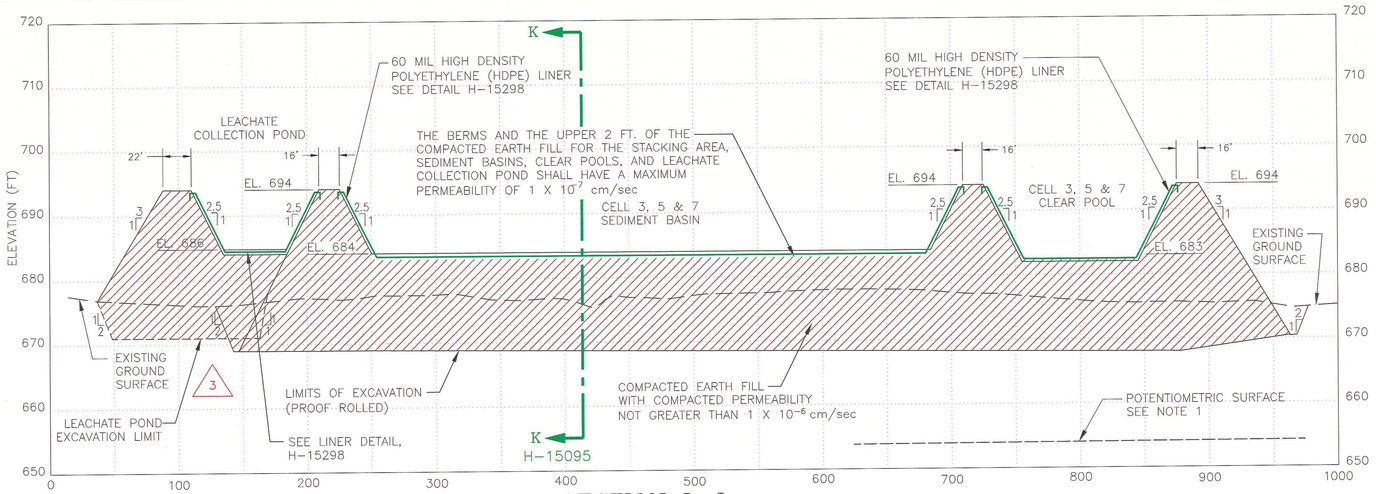
REVISION	DATE	DESCRIPTION	BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
3	11/14/2018	CCR LANDFIILL PERMIT APPLICATION [BY HHNT, INC.] REVISED FINAL COVER LABEL.	EAS	CMM	RBL				
2	8/5/13	ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JAB JKB	GHM RCB	RCB				KAM
1	9/12/06	REVISED SEDIMENT BASIN FINAL GRADE. REA: BN1217 EWO: 3156FJ	THH JAA	GHM JDM	ELM				
0	6/6/06	ISSUED FOR PERMIT REA: BN1217 EWO: 3156FJ	THH JAA	GHM JDM	ELM				

Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCR LANDFILL
SECTION K-K

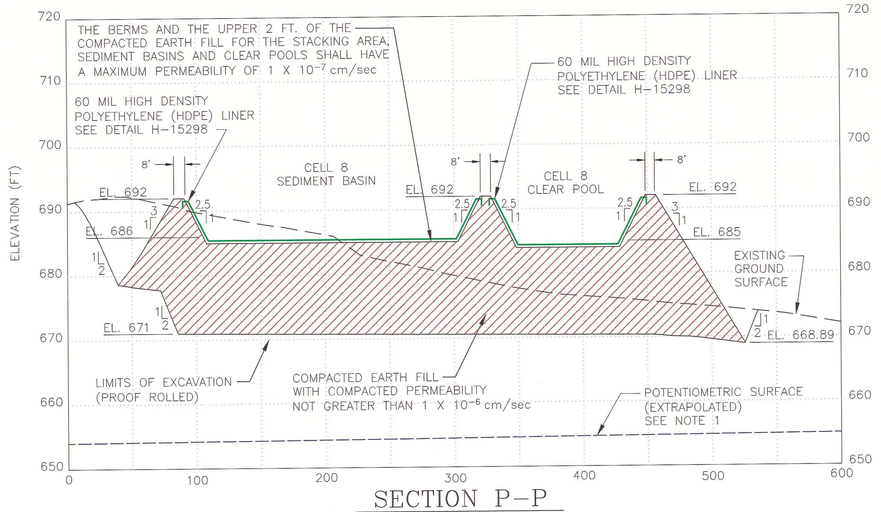
SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
NONE	10207	**H-15095**	1	FINAL	3

ANSI F: 28x40 Acad2004



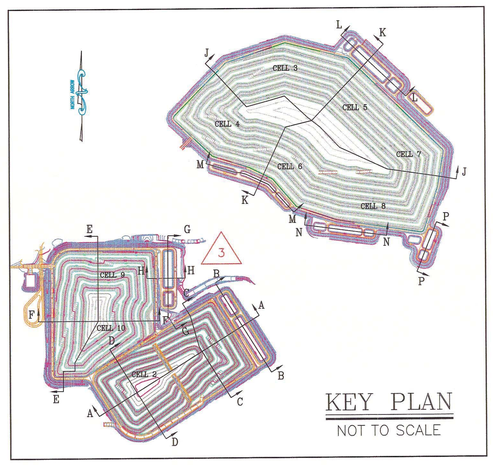
SECTION L–L

SCALE H: 1"=50' V: 1"=10'



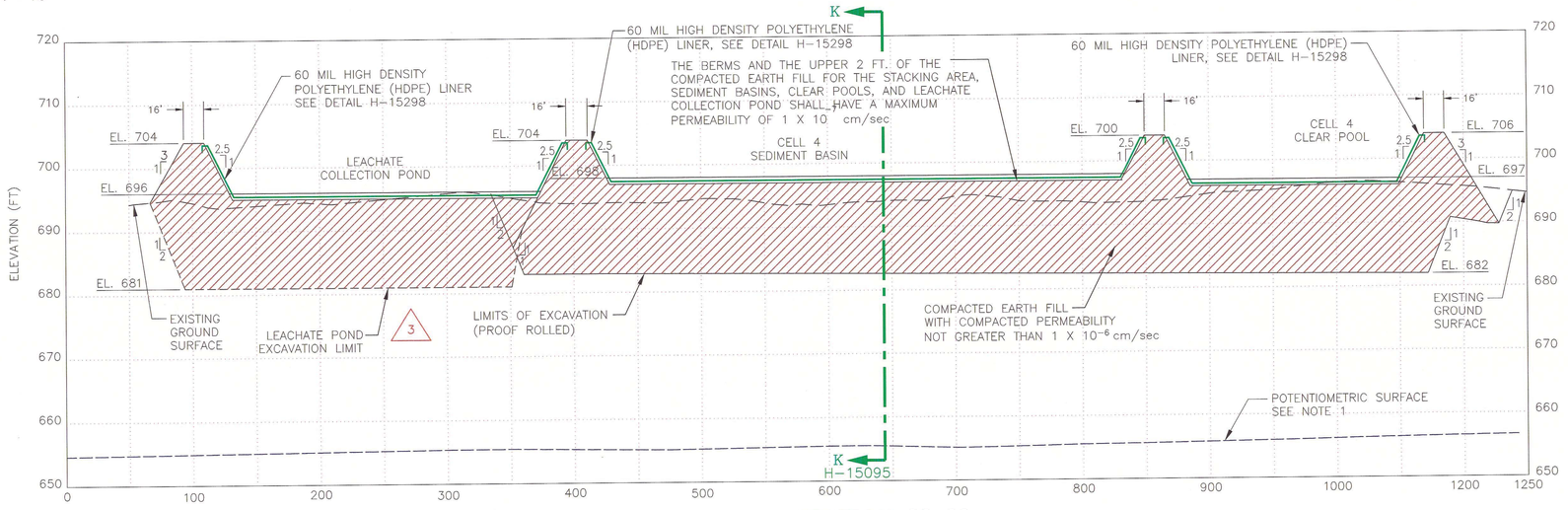
SECTION P–P

SCALE H: 1"=50' V: 1"=10'



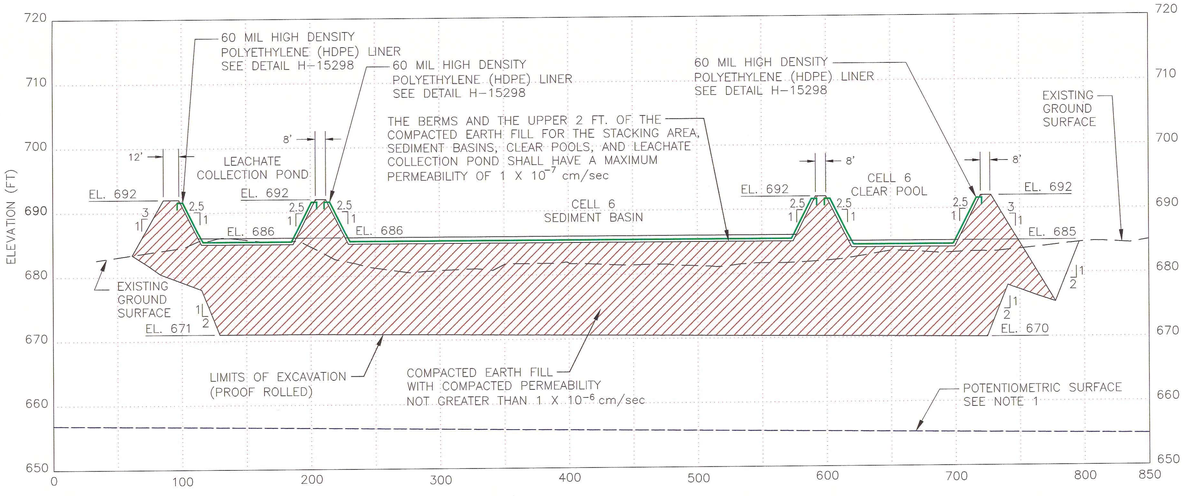
KEY PLAN

NOT TO SCALE



SECTION M–M

SCALE H: 1"=50' V: 1"=10'



SECTION N–N

SCALE H: 1"=50' V: 1"=10'

GEORGIA
Environmental Protection Division
Solid Waste Management Program

MINOR MODIFICATION APPROVAL

SOLID WASTE PERMIT NO. 008-018D(LF)

APPROVED BY: _____ DATE: 9/29/14

NOTES:

1. THE POTENTIOMETRIC SURFACE WAS TAKEN FROM THE WATER LEVEL ELEVATIONS SHOWN FOR THE DATE OF DECEMBER 18, 2002 IN PELA, INC.'S "TABLE 3-1; GROUNDWATER LEVELS AND TOP OF UNWEATHERED BEDROCK", DATED JANUARY 6, 2004, PROVIDED AS PART OF "ADDENDUM I, SITE ACCEPTABILITY REPORT, HYDROGEOLOGICAL ASSESSMENT AND DEMONSTRATION OF ENGINEERING MEASURES", DATED JULY 2004.

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.
2. SEE SHEET H-15063 FOR GENERAL NOTES AND REFERENCES.

GEORGIA REGISTERED PROFESSIONAL No. 12687 ENGINEER — Gary H. McWhorter — 9/29/14

REVISION	DATE	DESCRIPTION	BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
3	8/29/14	ISSUED FOR MINOR MODIFICATION. "REV. 3 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." MWO: GPC124110 MWO: GPC124131 BAGHOUSE PROJECT	JKB	GHM	RCB				KAM
2	8/5/13	"REV. 2 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." ISSUED FOR MINOR MODIFICATION MWO: GPC124110 MWO: GPC124131 BAGHOUSE PROJECT	JAB / JKB	GHM / RCB	RCB				KAM
1	9/12/06	"REV. 1 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." REVISED SEDIMENT BASIN & CLEAR POOL FINAL GRADES. REA: BN1217 EWO: 3156FJ	THH / JAA	GHM / JDM	ELM				
0	6/6/06	ISSUED FOR PERMIT "REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." REA: BN1217 EWO: 3156FJ	THH / JAA	GHM / JDM	ELM				

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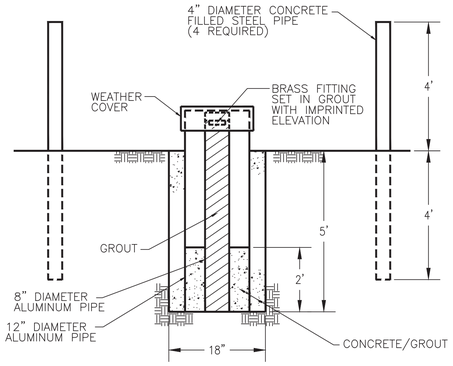
Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCB DISPOSAL FACILITY
SECTIONS L–L, M–M, N–N & P–P

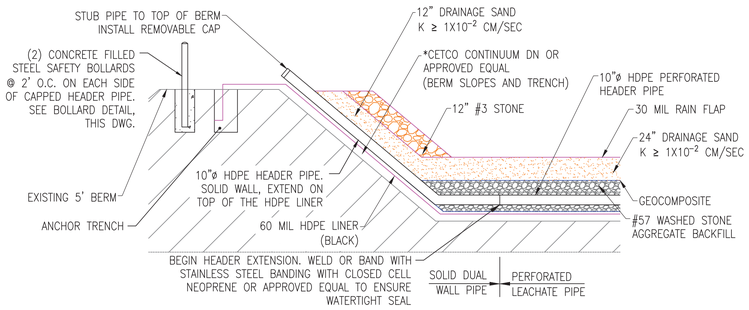
SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
AS SHOWN	10207	H-15096	1	FINAL	3

ANSI F: 28x40 Acad2004



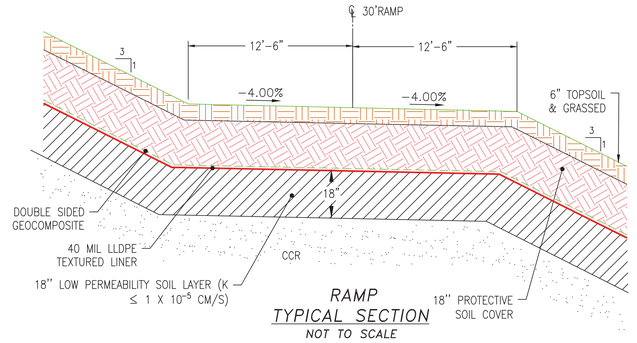
SURVEY CONTROL MONUMENT

NOT TO SCALE
(H–15062)



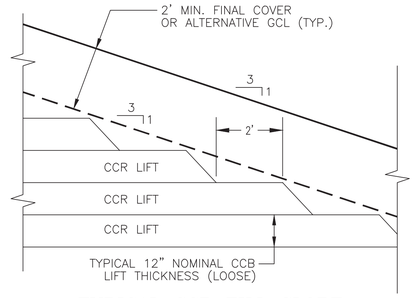
LEACHATE COLLECTION AND REMOVAL SYSTEM (LCRS) CAPPED HEADER SECTION

NOT TO SCALE
(H–15069, H–15071, H–15073, H–15075, H–15077, H–15079)



RAMP TYPICAL SECTION

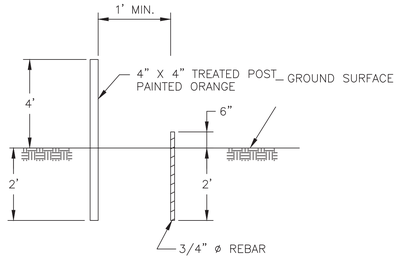
NOT TO SCALE



TYPICAL CCR FILL SLOPE

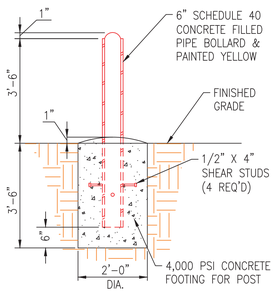
NOT TO SCALE
(H–15087, H–15088, H–15089, H–15090, H–15091, H–15093, H–15094, H–15095)

NOTE: CCB SLOPE SURFACE TO BE STEPPED AS SHOWN OR SURFACE ROUGHENED TO MINIMIZE EROSION



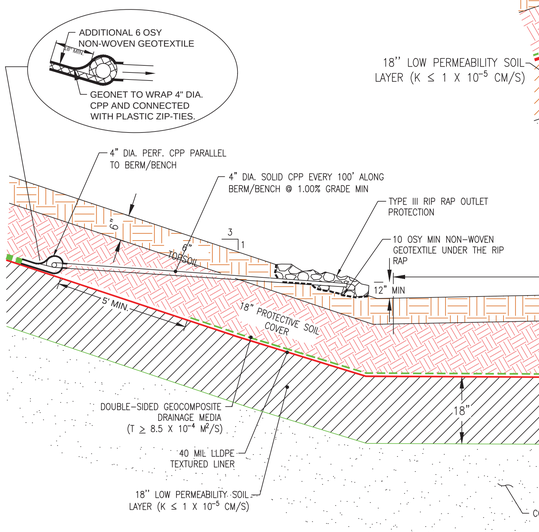
TYPICAL DISPOSAL FACILITY BOUNDARY AND BUFFER ZONE PIN AND MARKER DETAIL

NOT TO SCALE
(H–15062)



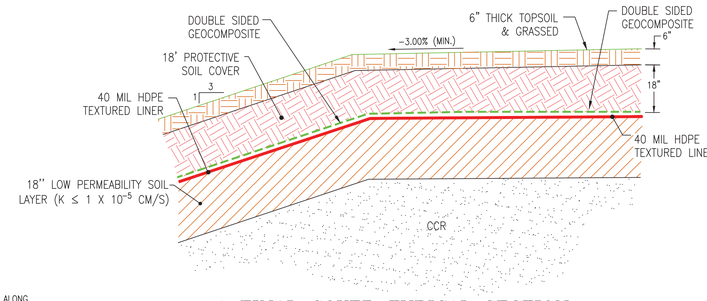
BOLLARD DETAIL

N.T.S.



TYPICAL FINAL COVER SECTION V–V AT OUTLET LOCATIONS

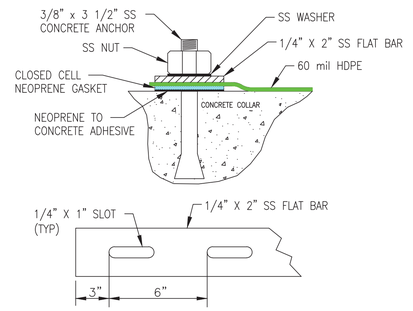
N.T.S.
(THIS DWG.)



FINAL COVER TYPICAL SECTION

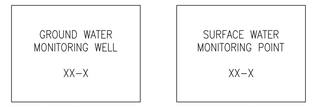
5

NOT TO SCALE

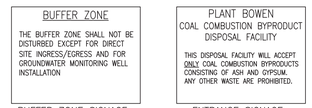


BAR & ANCHOR DETAIL

NOT TO SCALE



GROUND WATER & SURFACE WATER MONITORING POINT SIGNAGE
YELLOW BACKGROUND WITH BLACK LETTERING 18" X 24"

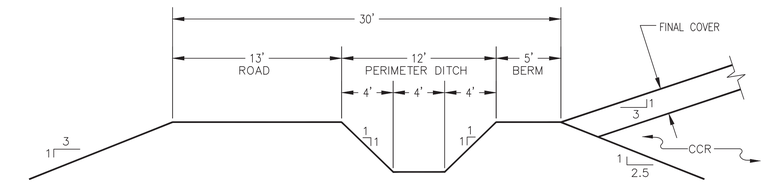


BUFFER ZONE SIGNAGE
YELLOW BACKGROUND WITH BLACK LETTERING
18" X 24"

ENTRANCE SIGNAGE
WHITE BACKGROUND WITH BLACK LETTERING
4'X 6'

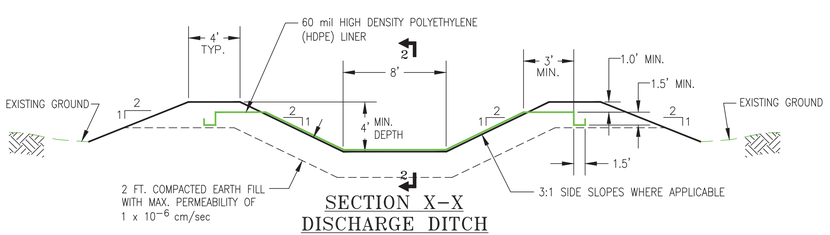
SIGNAGE

NOT TO SCALE



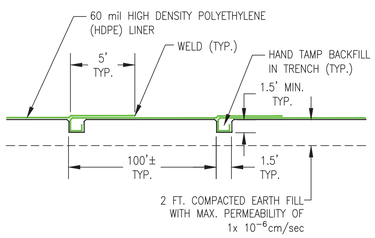
SECTION R–R
TYPICAL PERIMETER BERM FOR CELLS 1 & 2

NOT TO SCALE
(H–15066)



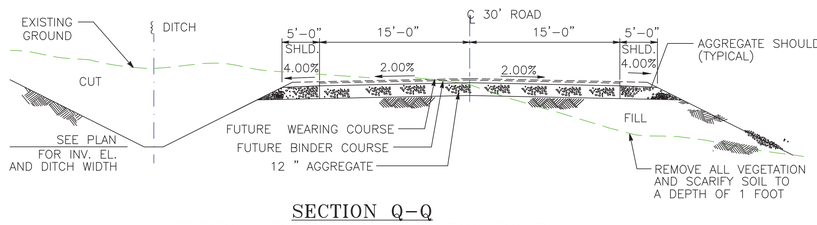
SECTION X–X
DISCHARGE DITCH

NOT TO SCALE
(H–15064, H–15065, H–15068, H–15070, H–15072, H–15074, H–15078, H–15084)



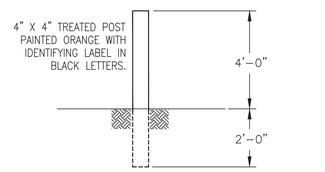
SECTION 2–2

NOT TO SCALE



SECTION Q–Q
TYPICAL PERMANENT ACCESS ROAD

NOT TO SCALE
(H–15066, H–15068)

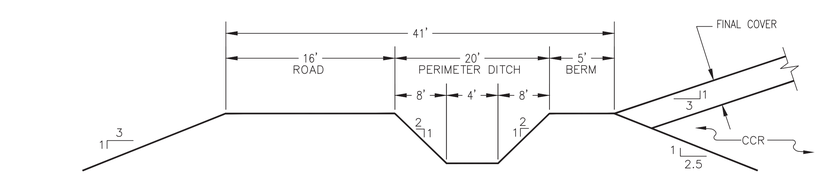


TYPICAL MONITORING WELL MARKER

NOT TO SCALE
(H–15312)

NOTES:

1. GEOCOMPOSITE DRAINAGE LAYER TO CONSIST OF TENAX® TENFLOW 70–2 GEOCOMPOSITE OR EQUAL.



SECTION S–S
TYPICAL PERIMETER BERM FOR CELLS 3–8

NOT TO SCALE
(H–15069, H–15071, H–15073, H–15075, H–15077, H–15079)

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H–15061.
2. SEE SHEET H–15063 FOR GENERAL NOTES AND REFERENCES.

GEORGIA REGISTERED No. 17583 PROFESSIONAL ENGINEER CLAUDIA M. MCMILLER 11-15-18

GEORGIA REGISTERED NO. 27185 PROFESSIONAL ENGINEER R. BRANT LAHR 11/15/18

"REV. 4 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

"REV. 3 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

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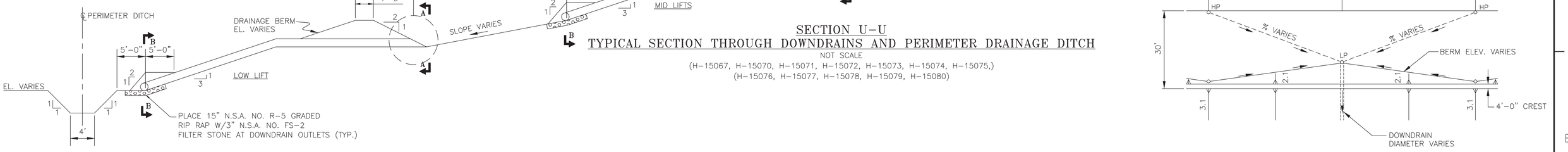
Southern Company Services, Inc.
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCR LANDFILL
MISC. SECTIONS AND DETAILS
SHEET 2 OF 2

REVISION	DATE	DESCRIPTION	BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
5	11/14/2018	CCR LANDFIILL PERMIT APPLICATION [BY HHNT, INC.] REVISED FINAL COVER CROSS–SECTIONS TO INCLUDE 18" OF 1X10–5 CM/S SOIL, A 40 MIL LLDPE, A GDM, 18" OF PROTECTIVE SOIL COVER, AND 6" OF TOPSOIL. REMOVED BRAND NAME OF GCL AND RELABELED ALL CCR'S (FROM CCB'S). REVISED OUTLET IN SECTION V–V. MODIFIED SHEET REFERENCES.	EAS	CMM	RBL				
4	5/6/16	ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT MWO: GPC124110 MWO: GPC124131	JKB	GHM	RCB				JMG
3	8/29/14	ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT	JKB	GHM	RCB				KAM
0	6/6/06	ISSUED FOR PERMIT "REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." REA: BN1217 EWO: 3156FJ	THH	GHM / JAA	JDM	ELM			

SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
NONE	10207	H-15097	1	FINAL	5

ANSI F: 28x40 Acad2004



SECTION U–U
TYPICAL SECTION THROUGH DOWNDRAINS AND PERIMETER DRAINAGE DITCH

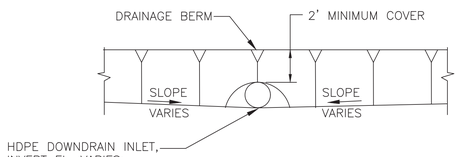
NOT SCALE

(H–15067, H–15070, H–15071, H–15072, H–15073, H–15074, H–15075,)
(H–15076, H–15077, H–15078, H–15079, H–15080)

TYPICAL BERM DRAIN PLAN

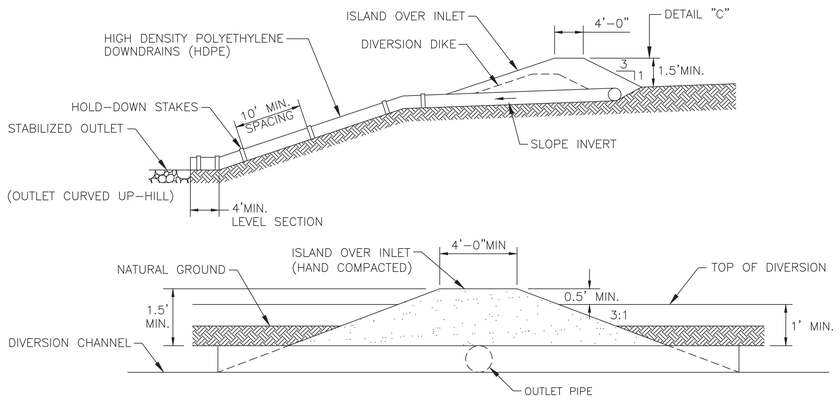
NOT TO SCALE

TYPICAL PLAN ALONG 30' BERM



SECTION A–A

NOT TO SCALE



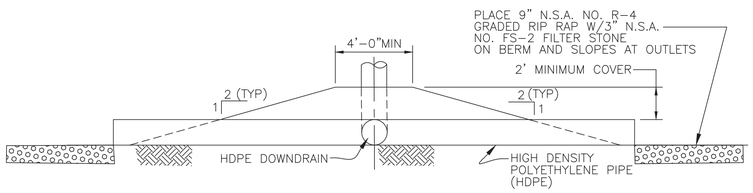
TEMPORARY DOWNDRAIN AND INLET DETAILS

NOT TO SCALE

(FOR EXCAVATION PHASE)

TABLE 3 – DOWN DRAIN DIAMETERS (IN)

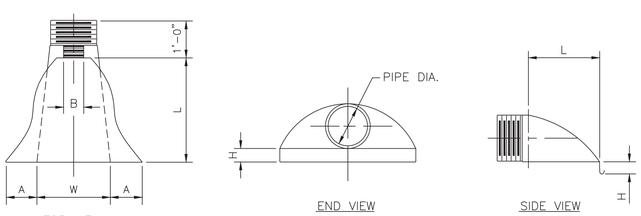
	LIFT 7	LIFT 6	LIFT 5	LIFT 4	LIFT 3	LIFT 2	LIFT 1
CELL 1	N/A	N/A	N/A	4"	8"	12"	15"
CELL 2	N/A	N/A	N/A	4"	8"	10"	15"
CELL 3	N/A	N/A	N/A	12"	15"	12"	15"
CELL 4	N/A	N/A	N/A	10"	8"	12"	10"
CELL 5	N/A	N/A	12"	12"	12"	15"	15"
CELL 6	N/A	10"	12"	15"	15"	15"	18"
CELL 7	N/A	N/A	N/A	10"	15"	15"	15"
CELL 8	6"	10"	10"	12"	15"	15"	15"
CELL 9	N/A	N/A	N/A	N/A	10"	12"	12"
CELL 10	N/A	N/A	6"	8"	10"	12"	4"



SECTION B–B

NOT TO SCALE

NOTES:
1. PLACE SLOPE DRAINS ON UNDISTURBED SOIL OR WELL–COMPACTED FILL AT LOCATIONS AND ELEVATIONS SHOWN ON THE PLAN.
2. SLIGHTLY SLOPE THE SECTION OF PIPE UNDER THE DIKE TOWARDS ITS OUTLET.
3. HAND TAMP THE SOIL UNDER AND AROUND THE ENTRANCE SECTION IN LIFTS NOT TO EXCEED 6 INCHES.
4. ENSURE THAT FILL OVER THE DRAIN AT THE TOP OF THE SLOPE HAS MINIMUM DIMENSIONS SHOWN.
5. ENSURE THAT ALL SLOPE DRAIN CONNECTIONS ARE WATER–TIGHT.
6. ENSURE THAT ALL FILL MATERIAL IS WELL COMPACTED. SECURELY FASTEN THE EXPOSED SECTION OF THE DRAIN WITH GROMMETS OR STAKES SPACED NO MORE THAN 10 FEET APART.
7. PLACE THE DRAIN SLIGHTLY DIAGONALLY ACROSS THE SLOPE, EXTENDING THE DRAIN BEYOND THE TOE OF THE SLOPE. CURVE THE OUTLET UPHILL AND ADEQUATELY PROTECT THE OUTLET FROM EROSION.
8. DIRECT ALL FLOWS INTO A SEDIMENT TRAP OR SEDIMENT BASIN.
9. MAKE THE SETTLED, COMPACTED DIKE RIDGE NO LESS THAN ONE FOOT ABOVE THE TOP OF THE PIPE AT EVERY POINT.
10. IMMEDIATELY STABILIZE ALL DISTURBED AREAS FOLLOWING CONSTRUCTION.
11. INSPECT THE SLOPE DRAIN AND SUPPORTING DIVERSION AFTER EVERY RAINFALL AND PROMPTLY MAKE NECESSARY REPAIRS.
12. WHEN THE PROTECTED AREA HAS BEEN PERMANENTLY STABILIZED AND THE PERMANENT STORMWATER DISPOSAL SYSTEM IS FULLY FUNCTIONAL, TEMPORARY MEASURES MAY BE REMOVED, MATERIALS DISPOSED OF PROPERLY, AND ALL DISTURBED AREAS STABILIZED APPROPRIATELY.

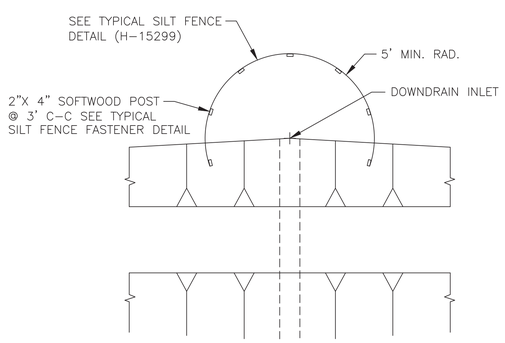


PIPE DIAMETER	A (1±)	B MAX	H (1±)	L (1/2±)	W (2±)
12"	6.5	10	6.5	25	29
15"	6.5	10	6.5	25	29
18"	7.5	15	6.5	32	35
24"	7.5	18	6.5	36	45

ALL DIMENSION ARE IN INCHES

END SECTION DIMENSIONS

NOT TO SCALE



DETAIL "C" TYPICAL DOWNDRAIN INLET PROTECTION

NOT TO SCALE

REFERENCE DRAWINGS:
1. FOR A COMPLETE DRAWING LIST SEE SHEET H–15061.
2. SEE SHEET H–15063 FOR GENERAL NOTES AND REFERENCES.

GEORGIA REGISTERED No. 17583 PROFESSIONAL 11-15-18 ENGINEER CLAUDIA M. MOELLER

GEORGIA REGISTERED NO. 27185 PROFESSIONAL 11/15/18 ENGINEER R. BRANT LANE

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Southern Company Generation
FOR
GEORGIA POWER COMPANY

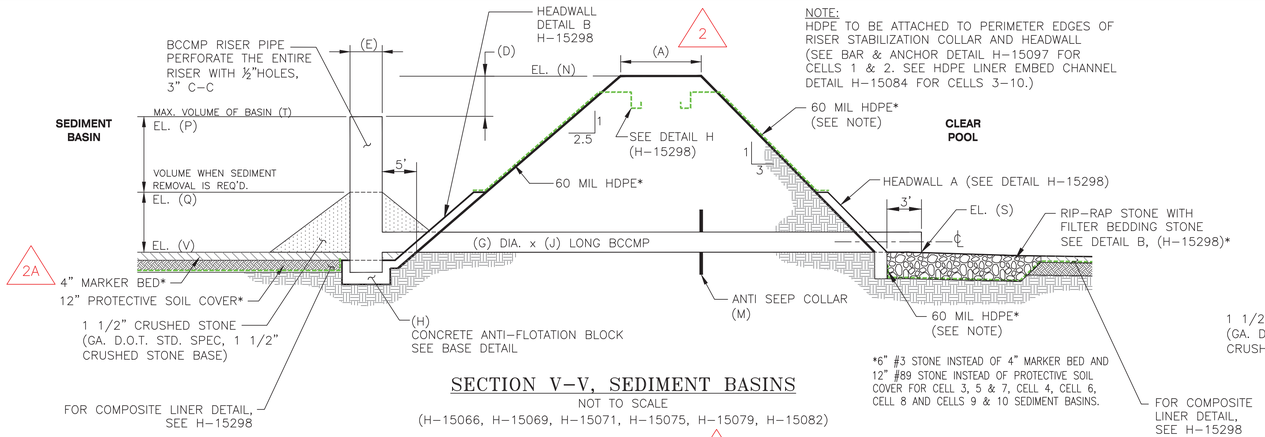
PLANT BOWEN
CCB DISPOSAL FACILITY
EROSION CONTROL SECTIONS & DETAILS
SHEET 1 OF 6

REVISION	DATE	DESCRIPTION
1	11/14/2018	CCR LANDFILL PERMIT APPLICATION [BY HHNT, INC.] MODIFIED SHEET REFERENCES.
0	6/6/06	ISSUED FOR PERMIT "REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." REA: BN1217 EWO: 3156FJ

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
VARIOUS	CMM	RBL				
THH	GHM	ELM				
JAA	JDM					

SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
NONE	10207	H-15296	1	FINAL	0

ANSI F: 28x40 Acad2004

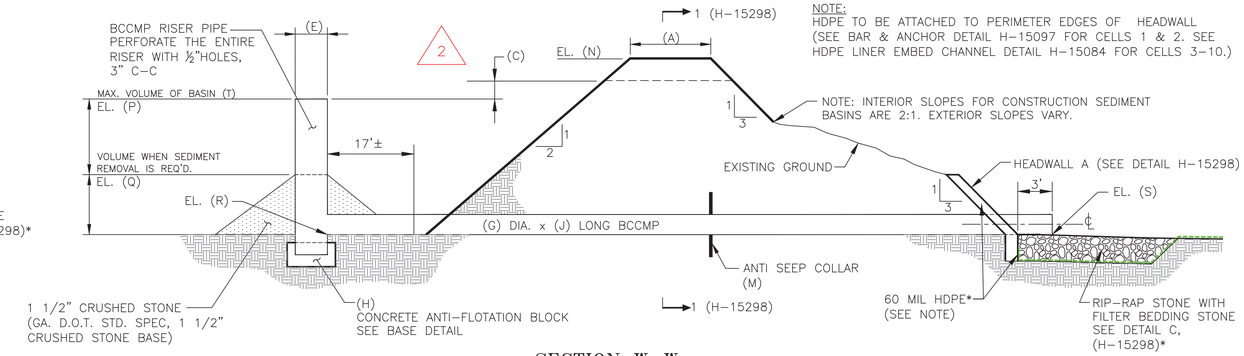


*6" #3 STONE INSTEAD OF 4" MARKER BED AND 12" #89 STONE INSTEAD OF PROTECTIVE SOIL COVER FOR CELL 3, 5 & 7, CELL 4, CELL 6, CELL 8 AND CELLS 9 & 10 SEDIMENT BASINS.

SECTION V-V, SEDIMENT BASINS

NOT TO SCALE

(H-15066, H-15069, H-15071, H-15075, H-15079, H-15082)



*NO HEADWALL, HDPE LINER, OR RIP RAP FOR CELL 3, 5 & 7 OR CELL 4 CONSTRUCTION SEDIMENT BASINS.

SECTION W-W, CONSTRUCTION SEDIMENT BASINS

NOT TO SCALE

(H-15064, H-15065, H-15068, H-15070, H-15072)
(H-15074, H-15078, H-15081, H-15084)

TABLE 1 – SEDIMENT BASIN DETAILS

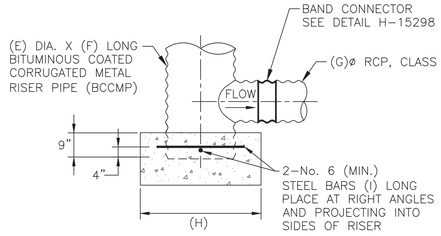
		CELL 1&2 BASIN	CELL 3-5-7 BASIN	CELL 4 BASIN	CELL 6 BASIN	CELL 8 BASIN	CELL 9&10 BASIN
Top Width of Berm	A	13'	16'	16'	13'	13'	16'
Emergency Spillway Flow Depth	B	NA	NA	NA	NA	NA	NA
Storage Level – Difference Between Riser and Emer. Spillway	C	NA	NA	NA	NA	NA	NA
Freeboard	D	2'	1'	1'	2'	2'	1'
Riser Diameter	E	72"	2-48"	2-48"	36"	36"	54"
Riser Length (Includes 9" into antiflotation block)	F	9'-1"	5'-0"	3'-0"	5'-1"	5'-1"	6'-3"
Principal Spillway Pipe Diameter	G	2-48"	2-30"	2-30"	6-24"	5-24"	1-36"
Concrete Antiflotation Block	H	252"x 96"x 30"	73"x 73"x 18"	65"x 65"x 18"	288"x 72"x 18"	240"x 72"x 18"	85"x 85"x 18"
Length of Riser Anchoring Bars (rebar)	I	246"/90"	67"/67"	59"/59"	282"/66"	234"/66"	79"/79"
Length of Principal Spillway Pipe	J	74'	66'	51'	49'	49'	66'
Emergency Spillway Bottom Width	K	NA	NA	NA	NA	NA	NA
Emergency Spillway Top Width	L	NA	NA	NA	NA	NA	NA
Antiseep Collar	M	84" x 84"	18" x 18"	18" x18"	60" x 60"	60" x 60"	18" x 18"
Elevation of Top of Berm, ft msl	N	700.0 ft msl	694.0 ft msl	704.0 ft msl	692.0 ft msl	692.0 ft msl	706.0 ft msl
Elevation of Emergency Spillway Crest, ft msl	O	NA	NA	NA	NA	NA	NA
Elevation of Top of Riser, ft msl	P	698.0 ft msl	689.0 ft msl	701.0 ft msl	690.0 ft msl	690.0 ft msl	701.5 ft msl
Elevation of Clean Out, ft msl	Q	693.0 ft msl	685.0 ft msl	698.50 ft msl	697.0 ft msl	697.0 ft msl	697.0 ft msl
Elevation of Principal Spillway at Inlet, ft msl (Bottom Pond El.)	R	690.0 ft msl	684.0 ft msl	698.0 ft msl	686.0 ft msl	686.0 ft msl	696.2 ft msl
Elevation of Principal Spillway at Outlet, ft msl	S	689.5 ft msl	684.0 ft msl	698.0 ft msl	685.5 ft msl	685.5 ft msl	696.0 ft msl
Maximum Volume of Basin, cubic feet	T	410,799	344,942	91,845	99,168	73,964	201,542
Clean Out Volume, cubic feet	U	136,933	45,340	34,751	33,056	24,655	65,183

TABLE 2 – CLEAR POOL DETAILS

		CELL 1&2 POOL	CELL 3-5-7 POOL	CELL 4 POOL	CELL 6 POOL	CELL 8 POOL	CELL 9&10 POOL
Top Width of Berm	A	13'	16'	16'	13'	13'	16'
Emergency Spillway Flow Depth	B	3'	3.5'	2'	1.5'	1.5'	2.5'
Storage Level – Difference Between Riser and Emer. Spillway	C	1.5'	1.5'	1.5'	1.5'	1.5'	2'
Freeboard	D	1'	1'	1'	1'	1'	1'
Riser Diameter	E	72"	2-54"	66"	36"	36"	66"
Riser Length (Includes 9" into antiflotation block)	F	21'-7"	18'-3"	19'-3"	19'-1"	19'-1"	22'-3"
Principal Spillway Pipe Diameter	G	1-48"	2-36"	42"	2-24"	2-24"	1-42"
Concrete Antiflotation Block	H	127"x 127"x 18"	101"x 101"x 18"	97"x 97"x 18"	96"x 60"x 18"	96"x 66"x 18"	142"x 142"x 18"
Length of Riser Anchoring Bars (rebar)	I	121"	95"/95"	91"/91"	90"/54"	90"/60"	136"/136"
Length of Principal Spillway Pipe	J	129'	2-117'	2-113'	102'	103'	200'
Emergency Spillway Bottom Width	K	8'	20'	18'	8'	8'	24'
Emergency Spillway Top Width	L	32'	62'	42'	23'	23'	54'
Antiseep Collar	M	84" x 84"	18" x 18"	18" x 18"	60" x 60"	60" x 60"	18" x 18"
Elevation of Top of Berm, ft msl	N	700.0 ft msl	694.0 ft msl	704.0 ft msl	692.0 ft msl	692.0 ft msl	706.0 ft msl
Elevation of Emergency Spillway Crest, ft msl	O	696.0 ft msl	690.5 ft msl	702.0 ft msl	689.5 ft msl	689.5 ft msl	703.5 ft msl
Elevation of Top of Riser, ft msl	P	694.5 ft msl	689.0 ft msl	700.5 ft msl	688.0 ft msl	688.0 ft msl	701.5 ft msl
Elevation of Clean Out, ft msl	Q	693.0 ft msl	684.0 ft msl	698.0 ft msl	697.0 ft msl	697.0 ft msl	697.0 ft msl
Elevation of Principal Spillway at Inlet, ft msl (Bottom Pond El.)	R	674.0 ft msl	671.0 ft msl	682.0 ft msl	670.0 ft msl	670.0 ft msl	680.0 ft msl
Elevation of Principal Spillway at Outlet, ft msl	S	673.5 ft msl	670.71 ft msl	680.98 ft msl	669.4 ft msl	668.9 ft msl	679.0 ft msl

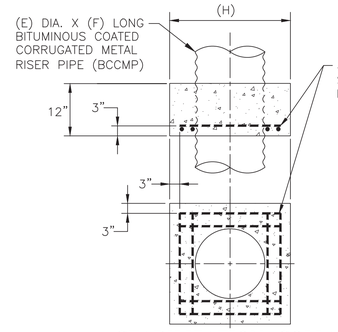
TABLE 3 – CONSTRUCTION SEDIMENT BASIN DETAILS

		CELL 1&2 CONSTR. BASIN	CELL 3 CONSTR. BASIN	CELL 4 CONSTR. BASIN	CELL 5&7 CONSTR. BASIN	CELL 6 CONSTR. BASIN	CELL 8 CONSTR. BASIN	CELL 9 & 10 CONSTR. BASIN
Top Width of Berm	A	8'	10'	8'	8'	8'	8'	10'
Emergency Spillway Flow Depth	B	1'	3'	2'	1'	1'	1'	7'
Storage Level – Difference Between Riser and Emer. Spillway	C	1.5'	1.5'	1.3'	1.5'	1.5'	1'	3'
Freeboard	D	1'	1'	1'	1'	1'	1'	1'
Riser Diameter	E	72"	2-54"	66"	54"	36"	36"	66"
Riser Length (Includes 9" into antiflotation block)	F	7'-7"	7'-3"	5'-5"	5'-7"	5'-7"	6'-1"	10'-9"
Principal Spillway Pipe Diameter	G	1-48"	2-36"	42"	1-36"	2-24"	2-24"	1-42"
Concrete Antiflotation Block	H	127"x127"x18"	101"x101"x18"	97"x97"x18"	80"x80"x18"	96"x60"x18"	96"x66"x18"	142"x142"x18"
Length of Riser Anchoring Bars (rebar)	I	121"/121"	95"/95"	91"/91"	74"/74"	90"/54"	90"/60"	136"/136"
Length of Principal Spillway Pipe	J	129'	117'	113'	62'	102'	103'	200'
Emergency Spillway Bottom Width	K	28'	22'	30'	8'	8'	8'	24'
Emergency Spillway Top Width	L	40'	58'	54'	20'	20'	20'	108'
Antiseep Collar	M	84"x84"	18"x18"	18"x18"	72"x72"	60"x60"	60"x60"	18"x18"
Elevation of Top of Berm, ft msl	N	684.0 ft msl	680.0 ft msl	690.0 ft msl	680.0 ft msl	680.0 ft msl	678.0 ft msl	700.0 ft msl
Elevation of Emergency Spillway Crest, ft msl	O	682.0 ft msl	677.0 ft msl	688.0 ft msl	678.0 ft msl	676.0 ft msl	676.0 ft msl	693.0 ft msl
Elevation of Top of Riser, ft msl	P	680.5 ft msl	675.5 ft msl	686.70 ft msl	676.5 ft msl	674.5 ft msl	675.0 ft msl	690.0 ft msl
Elevation of Clean Out, ft msl	Q	675.0 ft msl	669.0 ft msl	683.0 ft msl	675.5 ft msl	671.5 ft msl	671.5 ft msl	681.0 ft msl
Elevation of Principal Spillway at Inlet, ft msl (Bottom Pond El.)	R	674.0 ft msl	668.0 ft msl	682.0 ft msl	672.0 ft msl	670.0 ft msl	670.0 ft msl	680.0 ft msl
Elevation of Principal Spillway at Outlet, ft msl	S	673.5 ft msl	670.71 ft msl	680.98 ft msl	671.5 ft msl	669.5 ft msl	669.5 ft msl	679.0 ft msl
Maximum Volume of Basin, cubic feet	T	744,174	1,225,537	504,429	309,520	252,274	231,501	1,203,350
Clean Out Volume, cubic feet	U	248,058	130,358	16,328	103,173	84,091	77,167	73,253



CONCRETE RISER BASE DETAIL

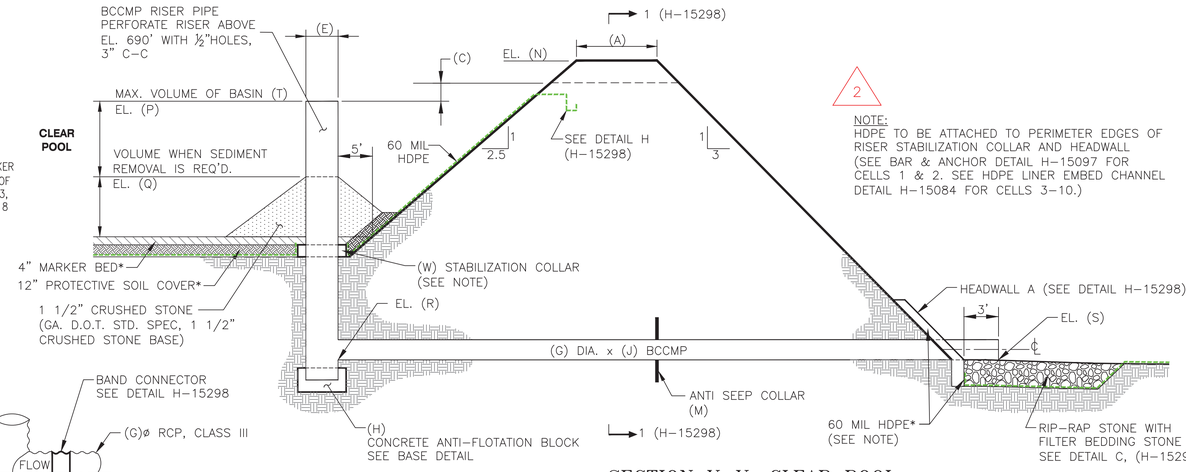
NOT TO SCALE



STABILIZATION COLLAR

NOT TO SCALE

FLOTATION BLOCK WITH MULTIPLE RISERS ARE RECTANGULAR



SECTION Y-Y, CLEAR POOL

NOT TO SCALE

(H-15066, H-15069, H-15071, H-15075, H-15079)

GENERAL NOTES:

1. THE AREA TO RECEIVE THE PIPE SHALL BE HAND COMPACTED AND ANY SOFT OR UNSUITABLE MATERIAL REMOVED, THE AREA BACKFILLED, AND COMPACTED.
2. THE PIPE AND RISER SHALL BE PLACED ON FIRM, SMOOTH FOUNDATION.
3. THE BACKFILL MATERIAL SHALL BE CLEAN SOIL, FREE OF ROOTS, VEGETATION, OVERSIZED ROCKS, STONES OR OTHER OBJECTIONABLE MATERIAL.
4. AREAS ON WHICH FILL IS TO PLACED SHALL BE SCARIFIED PRIOR TO FILL PLACEMENT.
5. FILL MATERIAL SHALL BE CONDITIONED, PLACED AND COMPACTED IN ACCORDANCE WITH THE CONSTRUCTION QUALITY CONTROL/QUALITY ASSURANCE PLAN.
6. THE RISER SHALL BE SECURELY ATTACHED TO THE PIPE OR STUB BY WELDING THE FULL CIRCUMFERENCE MAKING A WATERTIGHT STRUCTURAL CONNECTION.
7. THE CONNECTION BETWEEN THE RISER AND THE RISER BASE SHALL BE WATERTIGHT.
8. ALL CONNECTIONS BETWEEN PIPE SECTIONS SHALL BE WATERTIGHT, ACHIEVED BY APPROVED WATERTIGHT BAND ASSEMBLIES.
9. THE FILL MATERIAL AROUND THE PIPE SHALL BE PLACED IN 4 INCH LAYERS AND HAND COMPACTED UNDER AND AROUND THE PIPE TO AT LEAST THE SAME DENSITY AS THE ADJACENT FILL MATERIAL.
10. CARE MUST BE TAKEN TO NOT RAISE THE PIPE FROM FIRM CONTACT WITH ITS FOUNDATION WHEN COMPACTING UNDER THE PIPE HAUNCHES.
11. A MINIMUM DEPTH OF 2 FT. OF HAND COMPACTED FILL SHALL BE PLACED OVER THE PIPE BEFORE PLACING AND COMPACTING FILL WITH CONSTRUCTION EQUIPMENT.
12. ALL DISTURBED SOIL AREAS SHALL BE GRASSED UPON REACHING FINAL GRADE IN ACCORDANCE WITH THE GEORGIA MANUAL FOR EROSION AND SEDIMENT CONTROL.

REFERENCE DRAWINGS

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.
2. SEE DRAWING H-15063 FOR GENERAL NOTES AND REFERENCES.
3. SEE DRAWING H-15298 FOR OUTLET PROTECTION.
4. SEE DRAWING H-15301 FOR EMERGENCY SPILLWAY EROSION PROTECTION RECYCLEX DETAILS.

"REV. 2 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

"REV. 1 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

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Southern Company Generation
FOR
GEORGIA POWER COMPANY
PLANT BOWEN
CCB DISPOSAL FACILITY
EROSION CONTROL SECTIONS & DETAILS
SHEET 2 OF 6

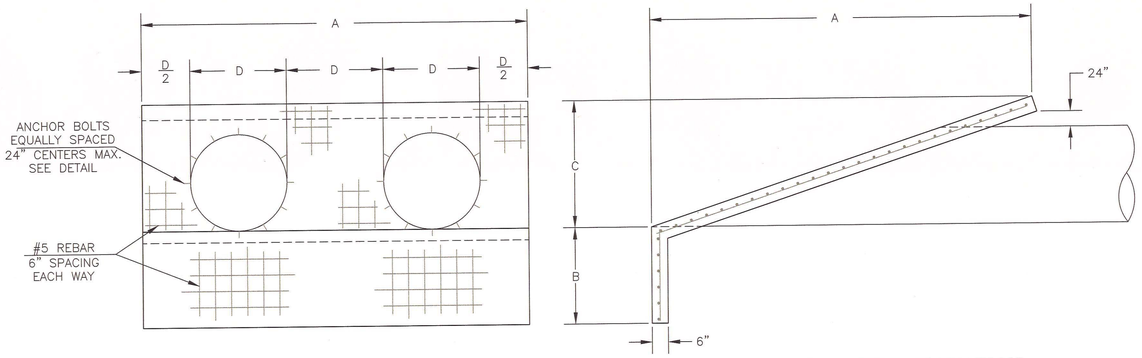
REVISION	DATE	DESCRIPTION	BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
3	11/14/2018	CCR LANDFILL PERMIT APPLICATION [BY HHNT, INC.] MODIFIED SHEET REFERENCES.	VARIOUS	CMM	RBL				
2	8/5/13	ISSUED FOR MINOR MODIFICATION BAGHOUSE PROJECT	JAB JKB	GHM RCB	RCB				KAM
1	9/12/06	MOVED SECTION I-I TO H-15298. DELETED DETAIL A REVISED SECTIONS WW-WW & V-V ADDED SECTION Y-Y REVISED TABLES ADDED STABILIZATION COLLAR REA: BN1217 EWO: 3156FJ	THH JAA	GHM JDM	ELM				
0	6/6/06	ISSUED FOR PERMIT "REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." REA: BN1217 EWO: 3156FJ	THH JAA	GHM JDM	ELM				

GEORGIA REGISTERED No. 17553 PROFESSIONAL 11-15-18 ENGINEER CLAUDIA M. MOELLER

GEORGIA REGISTERED NO. 27185 PROFESSIONAL 11/15/18 R. BRANT LAKE

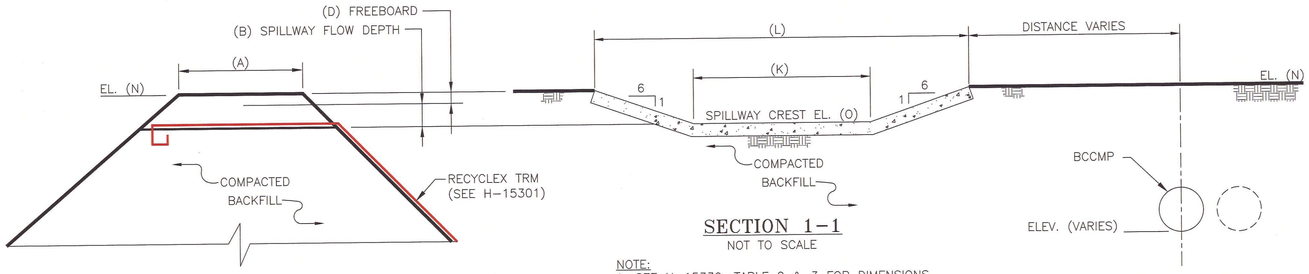
SCALE: NONE | PROJ I.D.: 10207 | DRAWING NUMBER: H-15297 | SH: 1 | CONT'D: FINAL | REV: 2

ANSI F: 28x40 Acad2004



HEADWALL A FRONT ELEVATION
NOT TO SCALE

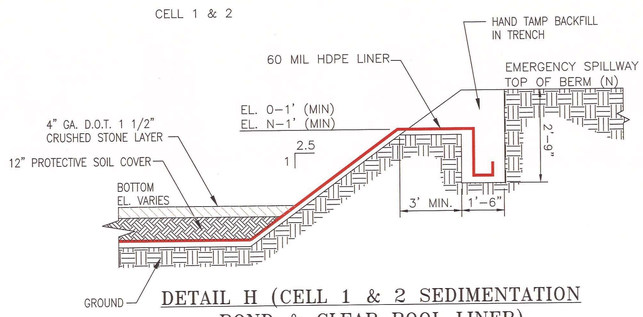
HEADWALL A SIDE ELEVATION
NOT TO SCALE



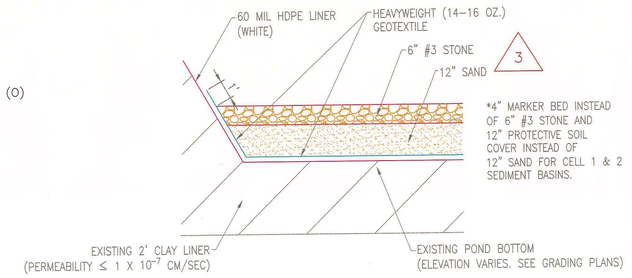
SECTION 1-1
NOT TO SCALE

NOTE:
1. SEE H-15339, TABLE 2 & 3 FOR DIMENSIONS.
2. VEGETATED SPILLWAY FOR CELLS 1 & 2 WITH 3:1 SIDE SLOPES.

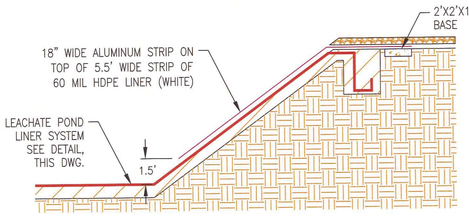
CELL 1 & 2

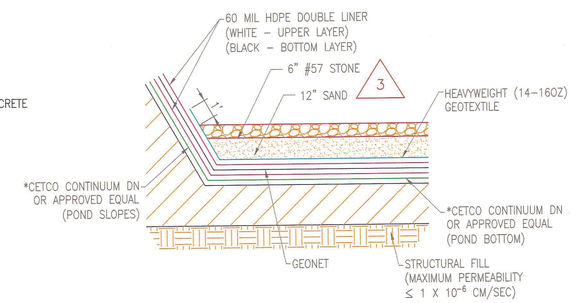


DETAIL H (CELL 1 & 2 SEDIMENTATION POND & CLEAR POOL LINER)
NOT TO SCALE
(H-15087, H-15088, H-15095, H-15096, H-15097)
NOTE: FOR SEAL OF HDPE LINER AROUND RISER PIPES FOR CELLS 1, 2, 9 & 10, SEE DETAIL J, H-15097



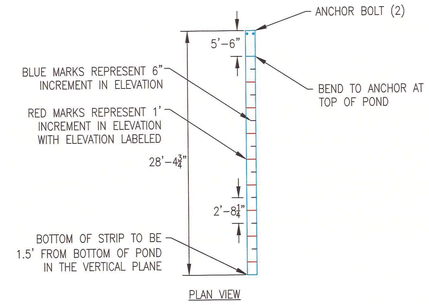
SEDIMENTATION POND/CLEAR POOL LINER DETAIL CELLS 3-8
NOT TO SCALE





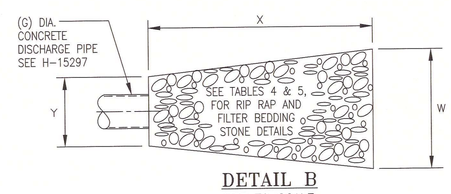
LEACHATE POND LINER DETAIL
NOT TO SCALE

*NOTE: THE GCL IS DELETED FOR THE ALTERNATIVE LINER SYSTEM FOR CELLS 3-8. SEE ALTERNATIVE COMPOSITE LINER DETAIL CELLS 3-8, DWG. H-15084.

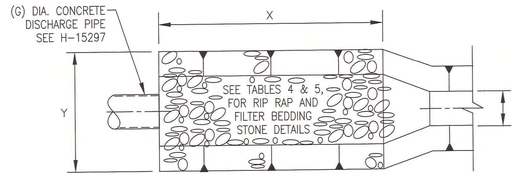


PLAN VIEW

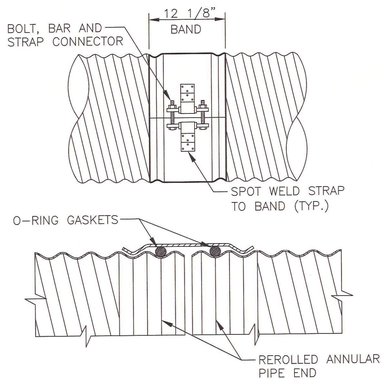
WATER LEVEL MARKER POST DETAIL
NOT TO SCALE



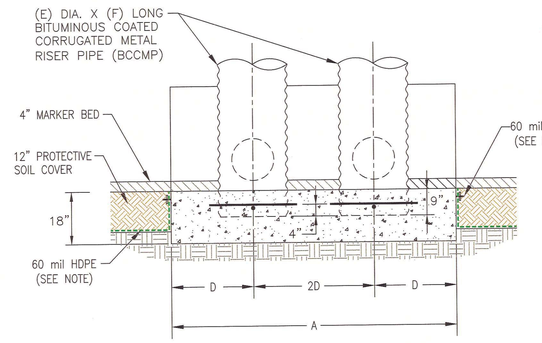
DETAIL B
NOT TO SCALE
(H-15297)
NOTE: NUMBER OF SPILLWAY PIPES VARIES



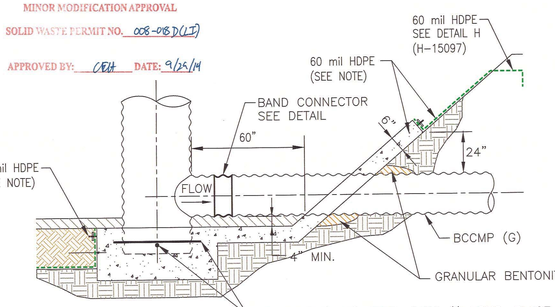
DETAIL C
NOT TO SCALE
(H-15297)
NOTE: NUMBER OF SPILLWAY PIPES VARIES



BAND CONNECTOR DETAIL
NOT TO SCALE



HEADWALL B BASE DETAIL
NOT TO SCALE



NOTE:
HDPE TO BE ATTACHED TO PERIMETER EDGES OF RISER BASE AND HEADWALL (SEE BAR & ANCHOR DETAIL H-15340)

GEORGIA
Environmental Protection Division
Solid Waste Management Program
MINOR MODIFICATION APPROVAL
SOLID WASTE PERMIT NO. 008-018D(LI)
APPROVED BY: CEH DATE: 9/25/14

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.
2. SEE DRAWING H-15063 FOR GENERAL NOTES AND REFERENCES.

TABLE 4 - SEDIMENT BASIN AND CLEAR POOL RIPRAP DETAILS

LOCATION	# PIPES	Y	X	W	THICKNESS	RIP RAP	FILTER BEDDING STONE N.S.A. NO.
CELL 1 & 2 POND	2	20'	26'	34'	18"	N.S.A. # R-5	N.S.A. # FS-2
CELL 3-5-7 POND	2	NA	NA	NA	NA	NA	NA
CELL 4 POND	4	NA	NA	NA	NA	NA	NA
CELL 6 POND	6	26'	13'	25'	12"	N.S.A. # R-4	N.S.A. # FS-2
CELL 8 POND	5	22'	13'	23'	12"	N.S.A. # R-4	N.S.A. # FS-2
CELL 9 &10 POND	2	17.5'	22'	29'	18"	N.S.A. # R-5	N.S.A. # FS-2
CELL 1 & 2 POOL/CONSTRUCTION BASIN	1	12'	44'	48'	27"	N.S.A. # R-5	N.S.A. # FS-2
CELL3-5-7 POOL/CONSTRUCTION BASIN	2	NA	NA	NA	NA	NA	NA
CELL 5-7 CONSTRUCTION BASIN	1	9'	22'	25'	18"	N.S.A. # R-5	N.S.A. # FS-2
CELL 4 POOL/CONSTRUCTION BASIN	2	NA	NA	NA	NA	NA	NA
CELL 6 POOL/CONSTRUCTION BASIN	2	10'	23'	27'	18"	N.S.A. # R-5	N.S.A. # FS-2
CELL 8 POOL/CONSTRUCTION BASIN	2	10'	23	27'	18"	N.S.A. # R-5	N.S.A. # FS-2
CELL 9 & 10 POOL/CONSTRUCTION BASIN	1	9'	34'	37'	27"	N.S.A. # R-5	N.S.A. # FS-2
CELL 10/CONSTRUCTION BASIN	1	NA	NA	NA	NA	NA	NA

TABLE 5-CULVERT OUTLET RIPRAP DETAILS

LOCATION	PIPE SIZE	3Do	La	W	THICKNESS	RIP RAP	FILTER BEDDING STONE N.S.A. NO.
CELL 1-2 # 1 NORTH DITCH	30"	4'	19.5'	4'	9"	N.S.A. # R-3	N.S.A. # FS-2
CELL 1-2 #2 SOUTH DITCH	32" x 50"	4'	36.5'	4'	9"	N.S.A. # R-3	N.S.A. # FS-2
CELL 1-2 # 3 SOUTH ENTRANCE ROAD	38" x 60"	4'	44'	4'	9"	N.S.A. # R-3	N.S.A. # FS-2
CELL 2 # 5 WEST ENTRANCE ROAD	21"	4'	12.5'	4'	4.5"	N.S.A. # R-2	N.S.A. # FS-1
CELL 2 # 4 SOUTHWEST CORNER	21"	4'	12.5'	4'	9"	N.S.A. # R-3	N.S.A. # FS-2
CELL 3 # 1 SOUTH ENTRANCE ROAD	18"	4'	9.5'	4'	4.5"	N.S.A. # R-2	N.S.A. # FS-1
CELL 3 # 2 SOUTH RAMP DITCH	15"	4'	8'	4'	4.5"	N.S.A. # R-2	N.S.A. # FS-1
CELL3-8 # # 1 SOUTH ROAD	30"	4'	19.5'	4'	9"	N.S.A. # R-3	N.S.A. # FS-2
CELL 4 # 2 EAST ROAD	30"	4'	19.5'	4'	9"	N.S.A. # R-3	N.S.A. # FS-2
CELL 6 # 3 EAST ROAD	36"	4'	25'	4'	9"	N.S.A. # R-3	N.S.A. # FS-2
CELL 9-10 # 1 NORTH ROAD	29" x 45"	4'	33.5'	4'	9"	N.S.A. # R-3	N.S.A. # FS-2
CELL 9-10 # 2 SOUTH ROAD	15"	4'	8'	4'	2.25"	N.S.A. # R-1	N.S.A. # FS-1
CELL 9-10 # 3 NORTH ROAD ENTRANCE	24"	4'	15'	4'	27"	N.S.A. # R-5	N.S.A. # FS-2
WEST MAIN ACCESS ROAD	24"	4'	15'	4'	27"	N.S.A. # R-5	N.S.A. # FS-2

TABLE 6-HEADWALL DETAILS

LOCATION	# PIPE	D SPILLWAY DIAMETER	INBOARD HEADWALL A	INBOARD HEADWALL B	INBOARD HEADWALL C	OUTBOARD HEADWALL A	OUTBOARD HEADWALL B	OUTBOARD HEADWALL C
CELL 1-2 CONSTRUCTION BASIN	1	48"	NA	NA	NA	8'	36"	72"
CELL 3 CONSTRUCTION BASIN	2	36"	NA	NA	NA	NA	NA	NA
CELL 4 CONSTRUCTION BASIN	1	42"	NA	NA	NA	NA	NA	NA
CELL 5-7 CONSTRUCTION BASIN	2	24"	NA	NA	NA	8'	36"	48"
CELL 6 CONSTRUCTION BASIN	2	24"	NA	NA	NA	8'	36"	48"
CELL 8 CONSTRUCTION BASIN	2	24"	NA	NA	NA	8'	36"	48"
CELL 9 & 10 CONSTRUCTION BASIN	1	36"	NA	NA	NA	6'	36"	60"
CELL 10 CONSTRUCTION BASIN	1	30"	NA	NA	NA	5'	36"	54"
CELL 1 & 2 POND	2	48"	16'	24"	72"	16'	36"	72"
CELL 3-5-7 POND	2	36"	NA	NA	NA	NA	NA	NA
CELL 4 POND	1	42"	NA	NA	NA	NA	NA	NA
CELL 6 POND	6	24"	24'	24"	48"	24'	24"	48"
CELL 8 POND	5	24"	20'	24"	48"	20'	24"	48"
CELL 9 & 10 POND	2	42"	14'	24"	66"	14'	36"	66"
CELL 1 & 2 POOL	1	48"	8'	36"	72"	SEE CONSTRUCTION BASIN		
CELL 3-5-7 POOL	2	30"	NA	NA	NA	NA		
CELL 4 POOL	1	30"	NA	NA	NA	NA		
CELL 6 POOL	2	24"	8'	36"	48"	SEE CONSTRUCTION BASIN		
CELL 8 POOL	2	24"	8'	36"	48"	SEE CONSTRUCTION BASIN		
CELL 9 & 10 POOL	1	36"	6'	36"	60"	SEE CONSTRUCTION BASIN		

"REV. 3 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

REVISION	DATE
3	8/29/13

ISSUED FOR MINOR MODIFICATION

BAGHOUSE PROJECT

CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
JKB	GHM	RCB			KAM

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REVISION	DATE
2	8/5/13

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BAGHOUSE PROJECT

CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
JAB, JKB / GHM, RCB	RCB				KAM

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REVISION	DATE
1	9/12/06

REVISED TABLES
ADDED BAND CONNECTOR DETAIL
ADDED SECTION 1-1
ADDED HEADWALL ELEVATIONS
ADDED SEDIMENT BASIN RISER BAR DETAIL

REA: BN1217 EWO: 3156FJ

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
THH / JAA	GHM / JDM	ELM				

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REVISION	DATE
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REA: BN1217 EWO: 3156FJ

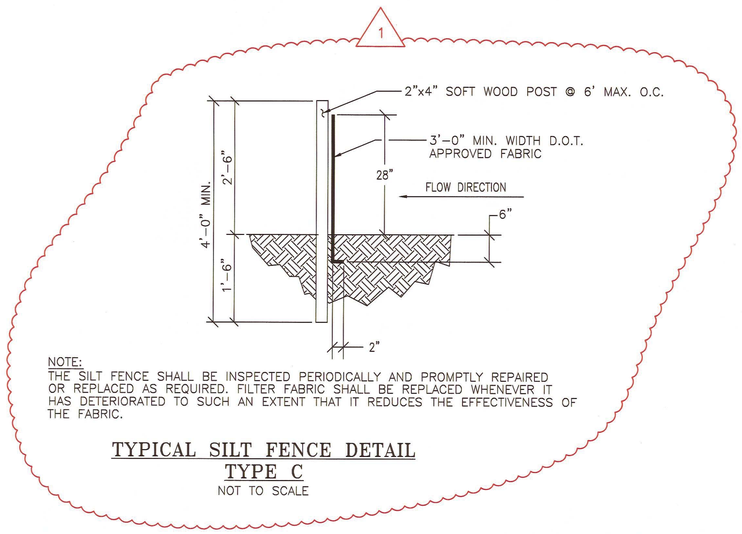
BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
THH / JAA	GHM / JDM	ELM				

Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCB DISPOSAL FACILITY
EROSION CONTROL SECTIONS & DETAILS
SHEET 3 OF 6

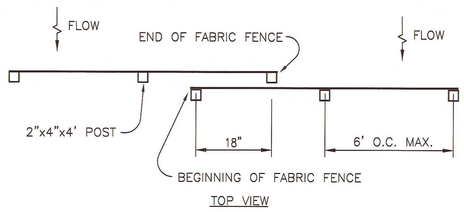
SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
NONE	10207	H-15298	1	FINAL	3

ANSI F: 28x40 Acad2004



NOTE:
THE SILT FENCE SHALL BE INSPECTED PERIODICALLY AND PROMPTLY REPAIRED OR REPLACED AS REQUIRED. FILTER FABRIC SHALL BE REPLACED WHENEVER IT HAS DETERIORATED TO SUCH AN EXTENT THAT IT REDUCES THE EFFECTIVENESS OF THE FABRIC.

TYPICAL SILT FENCE DETAIL TYPE C
NOT TO SCALE



TOP VIEW

TYPICAL SILT FENCE-OVERLAP DETAIL
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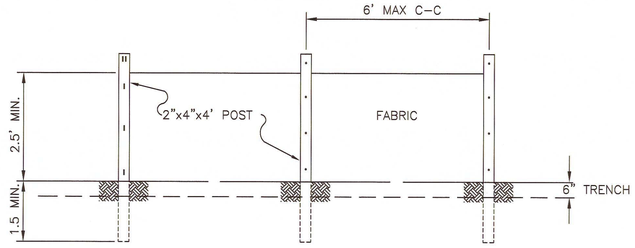


FRONT VIEW

WOOD POST WITH STAPLES WOOD POST WITH NAILS

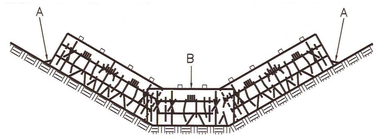
NOTE:
USE 36" D.O.T. APPROVED FABRIC
USE WOOD OR STEEL POLES

FASTENERS FOR WOOD POSTS

	GAUGE	CROWN	LEGS	STAPLES/POST
WIRE STAPLES	17 MIN.	3/4" WIRE	1/2" LONG	5 MIN.

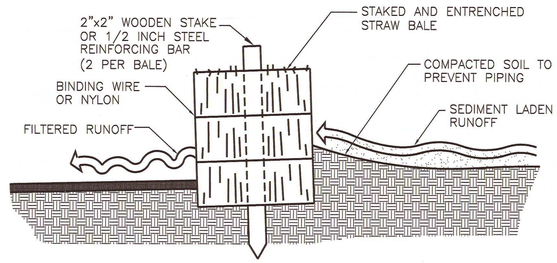
	GAUGE	LENGTH	BUTTON HEADS	NAILS/POST
NAILS	14 MIN.	1" WIRE	3/4"	5 MIN.

TYPICAL SILT FENCE-FASTENER DETAIL
NOT TO SCALE



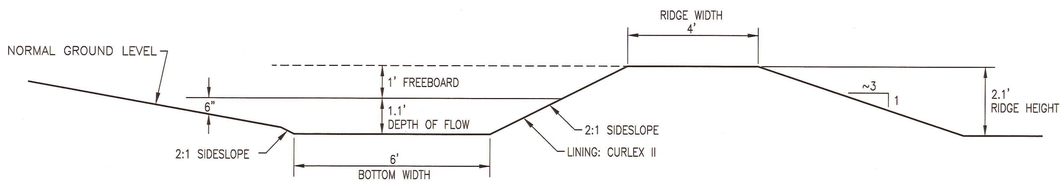
PLACEMENT OF HAY BALE BARRIER IN DRAINAGE WAY
NOT TO SCALE

NOTES:
1. POINTS "A" SHOULD BE HIGHER THAN POINT "B".
2. EMBED HAY BALES A MINIMUM OF 4 INCHES.
3. HAY BALES ARE TO BE BOUND WITH WIRE OR NYLON.
4. EACH BALE SHALL BE CONSTRAINED BY TWO 2"x 2" WOODEN STAKES OR TWO 1/2" ø STEEL REINFORCING BARS EMBEDDED 2 FT. IN THE GROUND.
5. HAY BALE CHECK DAMS SHALL BE INSPECTED PERIODICALLY AND PROMPTLY REPAIRED OR REPLACED AS REQUIRED.
6. SEDIMENT BEHIND CHECK DAM SHALL BE REMOVED WHEN IT REACHES A DEPTH OF ONE-HALF THE ORIGINAL DEPTH OF CHECK DAM OR BEFORE.



NOTE: EMBED HAY BALE A MINIMUM OF 4 INCHES.

CROSS SECTION OF INSTALLED HAY BALE
NOT TO SCALE



NOTES:
1. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE DIVERSION.
2. THE DIVERSION SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND FREE OF IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
3. ALL FILLS SHALL BE MACHINE COMPACTED AS NEEDED TO PREVENT UNEQUAL SETTLEMENT THAT WOULD CAUSE DAMAGE IN THE COMPLETED DIVERSION.
4. ALL EARTH REMOVED AND NOT NEEDED IN CONSTRUCTION SHALL BE SPREAD OR DISPOSED OF SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE DIVERSION.
5. DIVERSION CHANNEL SHALL BE STABILIZED IN ACCORDANCE WITH DRAWING H-15303.

DIVERSION DETAIL (EXCAVATION PHASE)
NOT TO SCALE

8'

GEORGIA
Environmental Protection Division
Solid Waste Management Program

MINOR MODIFICATION APPROVAL

SOLID WASTE PERMIT NO. 008-018D(LF)

APPROVED BY: GGH DATE: 8/26/13

REFERENCE DRAWINGS:
1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.
2. SEE DRAWING H-15063 FOR GENERAL NOTES AND REFERENCES.
3. MANUAL FOR EROSION & SEDIMENT CONTROL IN GEORGIA, LATEST EDITION

GEORGIA REGISTERED No. 12687 PROFESSIONAL ENGINEER G. H. McWHORTER

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REVISION	DATE	BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
1	9/12/06	THH JAA	GHM JDM	ELM				

REVISED TYP. SILT FENCE

REA: BN1217 EWO: 3156FJ

REVISION	DATE	BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
0	6/6/06	THH JAA	GHM JDM	ELM				

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REA: BN1217 EWO: 3156FJ

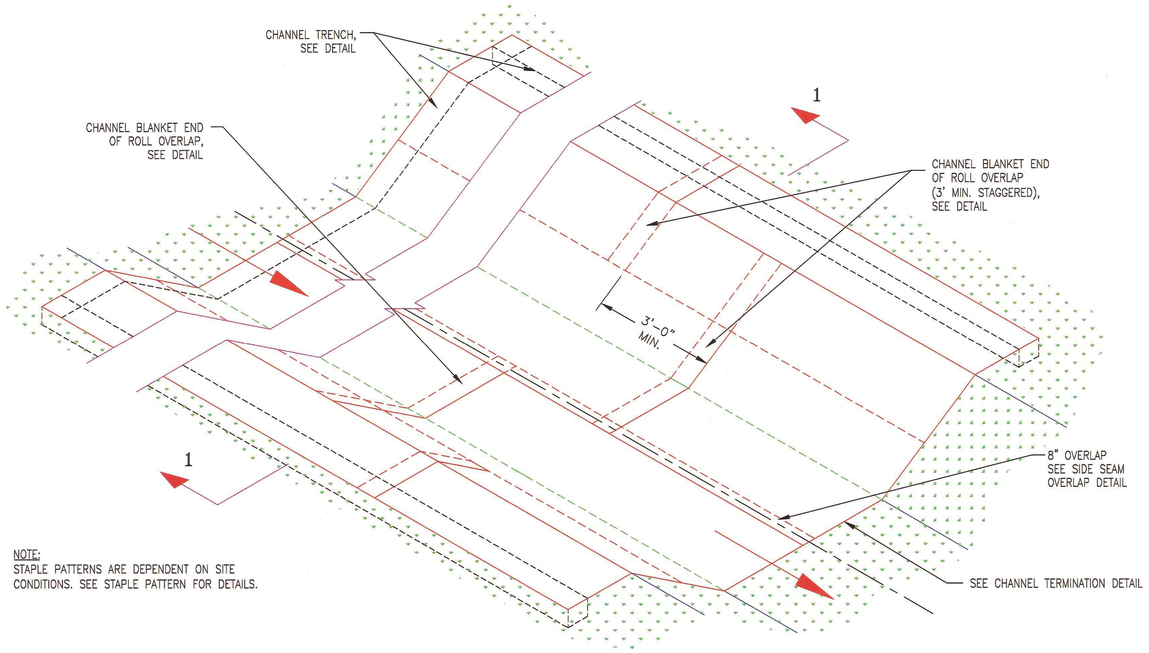
Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCB DISPOSAL FACILITY
EROSION CONTROL SECTIONS & DETAILS
SHEET 4 OF 6

SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
NONE	10207	**H-15299**	1	FINAL	1

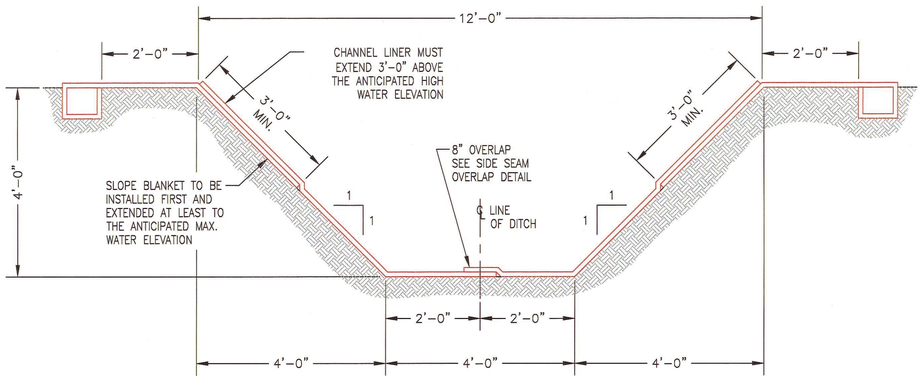
Drawing name: T:\ESEE MAJOR PROJECTS\PROJECTS\BOWEN\DESIGN AND OPERATIONS PLAN DRAWINGS\Bowen\H15296-301.dwg Mar 29, 2013 - 9:40am

ANSI F: 28x40 Acad2004

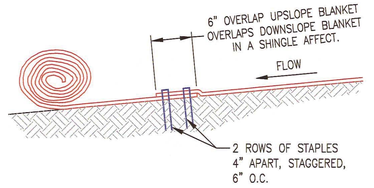


NOTE:
STAPLE PATTERNS ARE DEPENDENT ON SITE CONDITIONS. SEE STAPLE PATTERN FOR DETAILS.

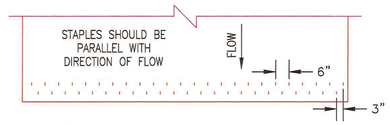
PERIMETER DITCH LINER DETAIL
NOT TO SCALE



SECTION 1-1
NOT TO SCALE



CHANNEL BLANKET END OF ROLL OVERLAP
NOT TO SCALE



CHANNEL TERMINATION PLAN
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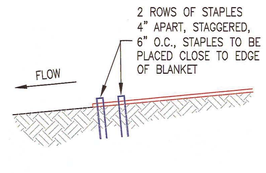

CHANNEL TERMINATION
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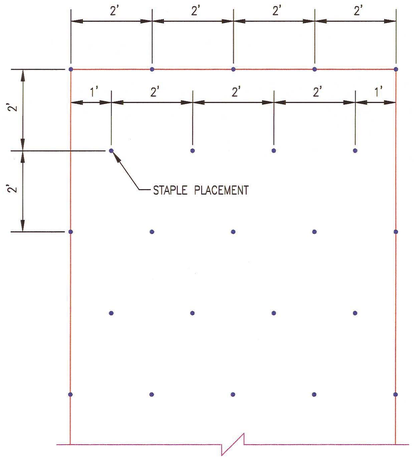
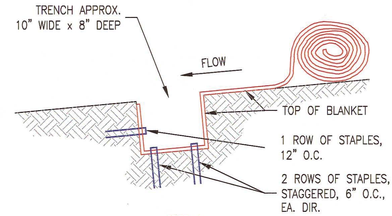


NOTE:
FOR COHESIVE SOIL USE A 6"x1"x6" 11 GAUGE WIRE STAPLE AND FOR NON-COHESIVE SOIL USE A 8"x2"x8" 11 GAUGE WIRE STAPLE.

BLANKET STAPLE PATTERN
NOT TO SCALE



CHANNEL TRENCH
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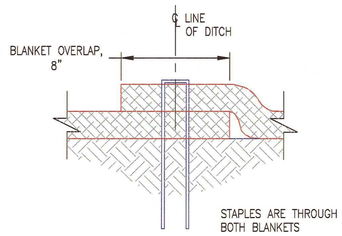

SIDE SEAM OVERLAP STAPLE DETAIL
NOT TO SCALE

GEORGIA
Environmental Protection Division
Solid Waste Management Program

MINOR MODIFICATION APPROVAL

SOLID WASTE PERMIT NO. 008-018D(L3)

APPROVED BY: CBH DATE: 8/26/13

REFERENCE DRAWINGS:
1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.
2. SEE SHEET H-15063 FOR GENERAL NOTES AND REFERENCES.

CURLEX II STABILIZATION INSTALLATION DETAILS

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Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCB DISPOSAL FACILITY
EROSION CONTROL SECTIONS & DETAILS
SHEET 5 OF 6

REVISION	DATE

REVISION	0	DATE	6/6/06

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REA: BN1217 EWO: 3156FJ

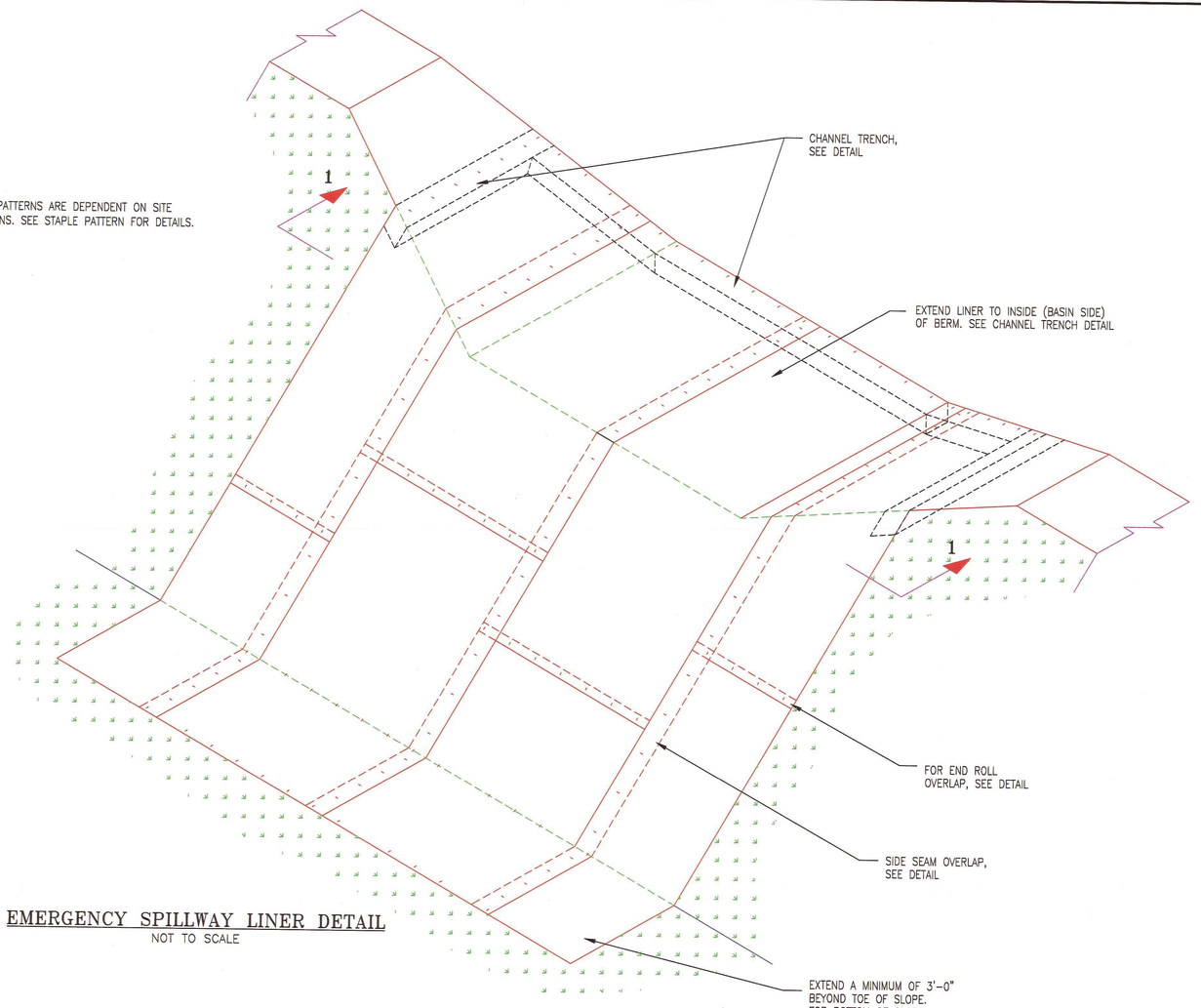
BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
THH / JAA	GHM / JDM	ELM				

SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
NONE	10207	H-15300	1	FINAL	0

Drawing name: T:\ESEE MAJOR PROJECTS\PROJECTS\BOWEN\2005\ES1345 Plant Bowen Coal Combustion By-Product Storage Facility\dwg\H15296-301.dwg Aug 10, 2006 - 11:47am ANSI F: 28x40 Acad2004

NOTE:
STAPLE PATTERNS ARE DEPENDENT ON SITE CONDITIONS. SEE STAPLE PATTERN FOR DETAILS.



EMERGENCY SPILLWAY LINER DETAIL
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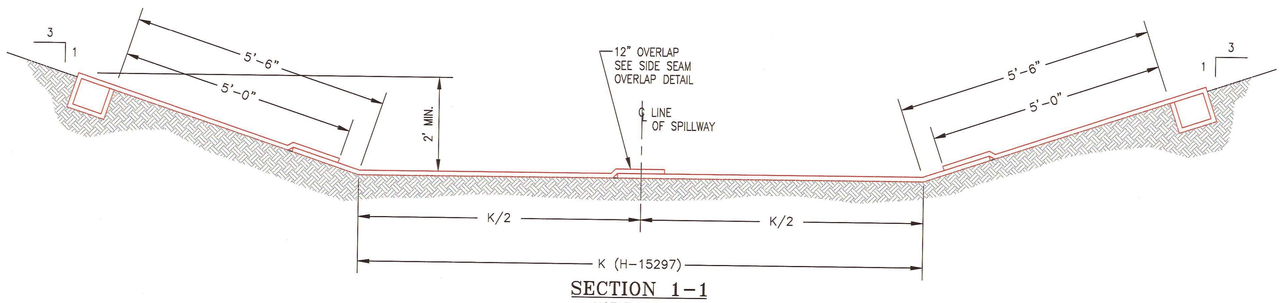

SECTION 1-1
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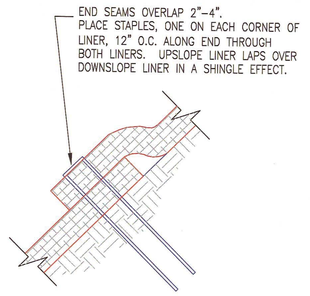
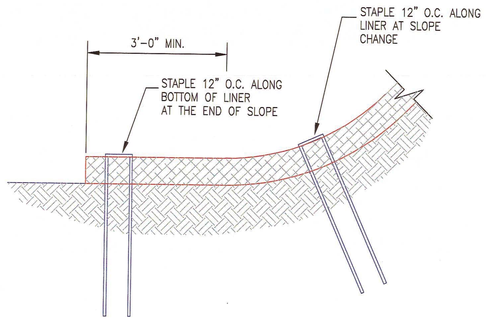
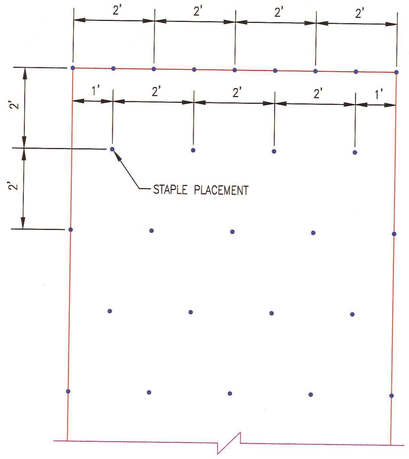


END OF ROLL OVERLAP
NOT TO SCALE

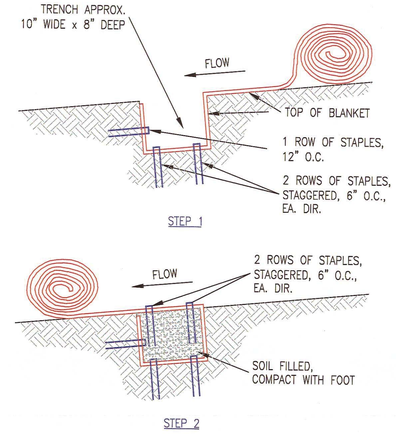


BOTTOM OF SLOPE TERMINATION
NOT TO SCALE



NOTE:
FOR COHESIVE SOIL USE A 6"x1"x6" 11 GAUGE WIRE STAPLE AND FOR NON-COHESIVE SOIL USE A 8"x2"x8" 11 GAUGE WIRE STAPLE.

STAPLE PATTERN
NOT TO SCALE



SLOPE TRENCH
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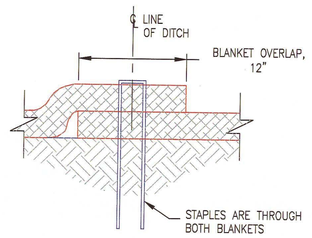

SIDE SEAM OVERLAP STAPLE DETAIL
NOT TO SCALE

GEORGIA
Environmental Protection Division
Solid Waste Management Program

MINOR MODIFICATION APPROVAL

SOLID WASTE PERMIT NO. 088-018D(LF)

APPROVED BY: CBH DATE: 8/16/13

REFERENCE DRAWINGS:
1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061
2. SEE SHEET H-15063 FOR GENERAL NOTES AND REFERENCES

GEORGIA REGISTERED No. 12687 PROFESSIONAL ENGINEER

RECYCLEX TRM STABILIZATION INSTALLATION DETAILS

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REVISION	DATE

REVISION	0	DATE	6/6/06

ISSUED FOR PERMIT

"REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

REA: BN1217 EWO: 3156FJ

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
THH JAA	GHM JDM	ELM				

Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCB DISPOSAL FACILITY
EROSION CONTROL SECTIONS & DETAILS
SHEET 6 OF 6

SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
NONE	10207	**H-15301**	1	FINAL	0

Drawing name: T:\ESEE_MAJOR_PROJECTS\PROJECTS\BOWEN\2005\E01505_Final_Design\

SW

A

FAVORABLE AREA

UNFAVORABLE AREA

BLFR-4515

BLFR-52

BLFR-39

BLFR-1A

BLFR-41

BLFR-57

BLF-45

TERRACE DEPOSITS

OVERBURDEN

CLAY, WEATHERED CHERT

INTERVAL OF SOLUTION FEATURES

DOLOMITE/CALCAREOUS DOLOMITE

DOLOMITIC LIMESTONE

DOLOMITE

CONTINUED BELOW

APPROXIMATE ELEVATION IN FEET

750 700 650 600 550 500 450 400 350 300 250

BLFR-26

BLFR-55

CLAY, WEATHERED CHERT, WEATHERED DOLOMITE

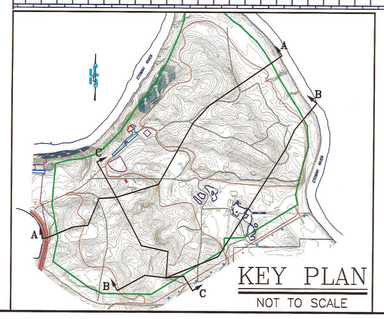
LIMESTONE

CONTINUED FROM ABOVE

NE

A

ETOWAH RIVER



KEY PLAN

NOT TO SCALE

GEOLOGIC CROSS-SECTION A-A

SCALE H: 1"=100' V: 1"=50'

NOTES:

1. WATER LEVELS MEASURED 11/05/03
   RIVER STAGE DATA (11/05/03) FROM ONSITE STAFF GAUGE.
2. WATER-LEVEL AND RIVER STAGE DATA PROVIDED BY GEORGIA POWER.

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.

GEORGIA
Environmental Protection Division
Solid Waste Management Program

MINOR MODIFICATION APPROVAL

SOLID WASTE PERMIT NO. 008-015D(LF)

APPROVED BY: LEA DATE: 8/26/13
(no changes)

LEGEND:

WATER LEVEL

SCREEN

JOHN DAVID PUGH
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
4-1-13

GEORGIA REGISTERED No. 12687 PROFESSIONAL ENGINEER H. McWHORTER 4/1/13

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REVISION	DATE

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR

REVISION	0	DATE	6/6/06

ISSUED FOR PERMIT

"REV. 1 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

REA: BN01217 EWO: 3156FJ

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
ASF	JCR	ELM				

Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCB DISPOSAL FACILITY
GEOLOGIC CROSS-SECTION A-A

SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
AS SHOWN	10207	**H-15307**	1	FINAL	0

Drawing name: T:\ESEE_MAJOR_PROJECTS\PROJECTS\BOWEN\DESIGN_AND_OPERATIONS_PLAN_DRAWINGS\Bowen\H15307_R_0Rev0.dwg Mar 26, 2013 - 11:37am

SW

B

FAVORABLE AREA

UNFAVORABLE AREA

BLFR-34

BLFR-33

BLFR-58

BLFR-29

TERRACE DEPOSITS

OVERBURDEN

APPROXIMATE ELEVATION IN FEET

750 700 650 600 550 500 450 400 350 300 250

CONTINUED BELOW

NE

B

ETOWAH RIVER

FAVORABLE AREA

UNFAVORABLE AREA

BLFR-28

TERRACE DEPOSITS

BLFR-56A

BLFR-54

POND

OVERBURDEN

CLAY, WEATHERED CHERT, AND WEATHERED DOLOMITE

UPPER INTERVAL OF SOLUTION FEATURES

DOLOMITE

DOLOMITIC LIMESTONE

LIMESTONE

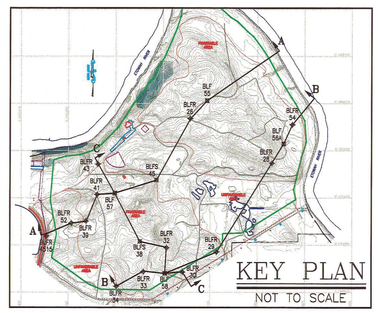
CONTINUED FROM ABOVE

APPROXIMATE ELEVATION IN FEET

750 700 650 600 550 500 450 400 350 300 250

GEOLOGIC CROSS-SECTION B-B

SCALE H: 1"=100' V: 1"=50'



GEORGIA
Environmental Protection Division
Solid Waste Management Program

MINOR MODIFICATION APPROVAL

SOLID WASTE PERMIT NO. 008-018D(LF)

APPROVED BY: GBH DATE: 8/26/13
(no changes)

LEGEND:

- WATER LEVEL
- SCREEN

NOTES:

1. WATER LEVELS MEASURED 11/05/03
   RIVER STAGE DATA (11/05/03) FROM ONSITE STAFF GAUGE.
2. WATER-LEVEL AND RIVER STAGE DATA PROVIDED BY GEORGIA POWER.

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15306

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 12687 — 8/1/13

JOHN DAVID PUGH No. 1954 — 8-1-13 — GEORGIA REGISTERED PROFESSIONAL GEOLOGIST

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Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCB DISPOSAL FACILITY
GEOLOGIC CROSS-SECTION B-B

REVISION	DATE

REVISION 0 DATE 6/6/06

ISSUED FOR PERMIT

"REV. 1 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

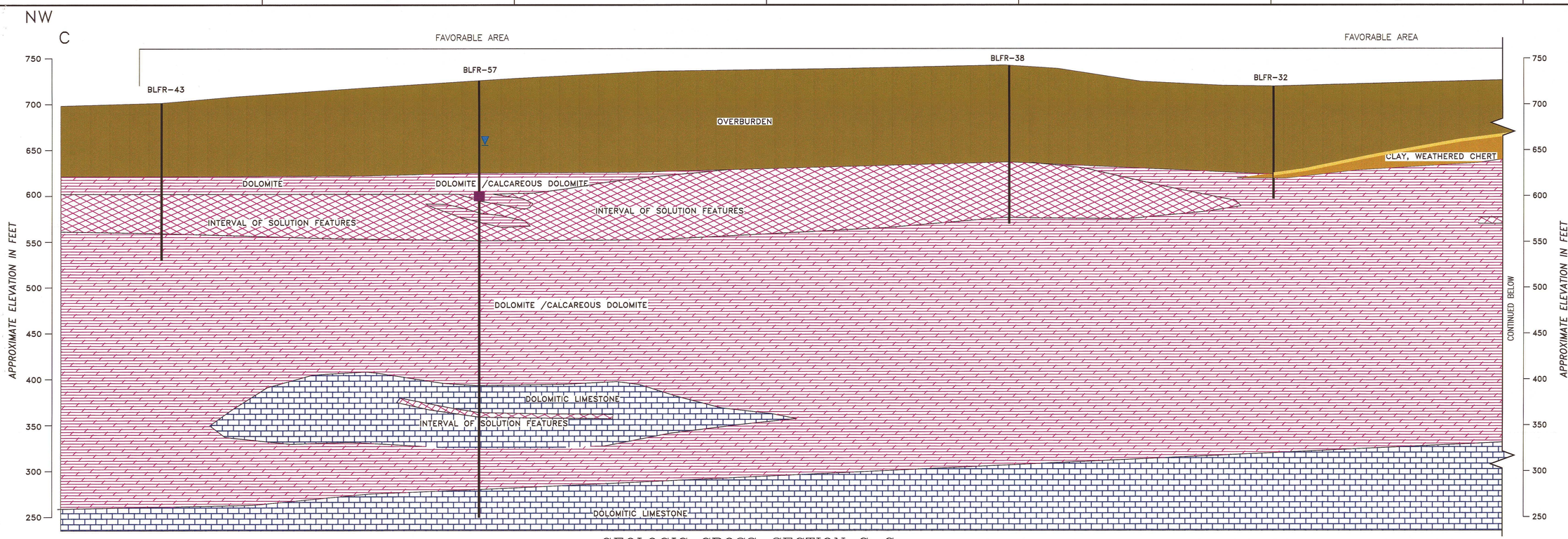
REA: BN01217 EWO: 3156FJ

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
ASF	JCR	ELM				

SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
AS SHOWN	10207	H-15308	1	FINAL	0

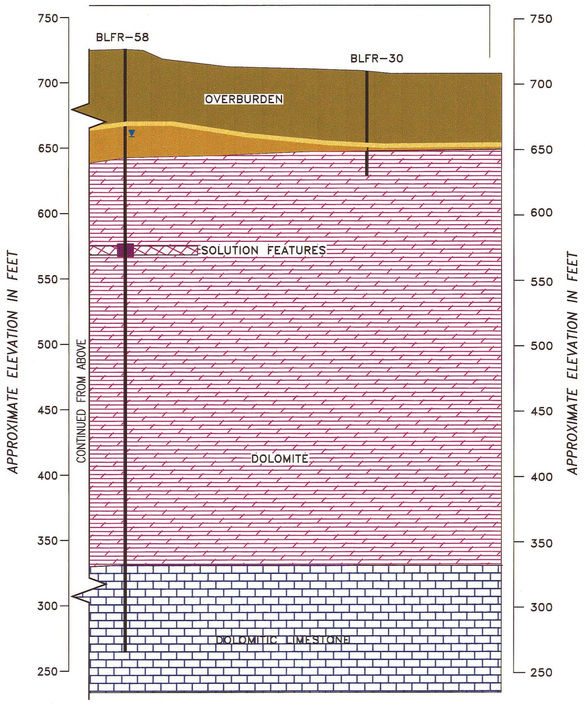
Drawing name: T:\ESEE MAJOR PROJECTS\PROJECTS\BOWEN\DESIGN AND OPERATIONS PLAN DRAWINGS\Bowen\H15307-8-9Rev0.dwg Mar 26, 2013 - 11:28am

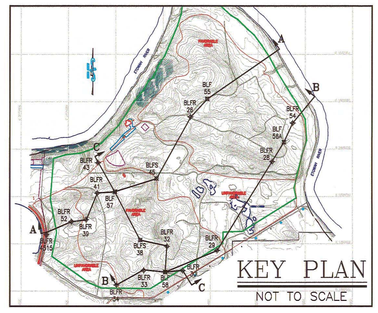
ANSI F: 28x40 Acad2002



GEOLOGIC CROSS-SECTION C-C

SCALE H: 1"=100' V: 1"=50'





KEY PLAN

NOT TO SCALE

LEGEND:

- WATER LEVEL
- SCREEN

GEORGIA
Environmental Protection Division
Solid Waste Management Program
MINOR MODIFICATION APPROVAL
SOLID WASTE PERMIT NO. 008-08D(L1)
APPROVED BY: LEH DATE: 8/26/13
(no changes)

NOTES:

1. WATER LEVELS MEASURED 11/05/03 RIVER STAGE DATA (11/05/03) FROM ONSITE STAFF GAUGE.
2. WATER-LEVEL AND RIVER STAGE DATA PROVIDED BY GEORGIA POWER.

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.

JOHN DAVID PUGH
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. 1954
4-1-13

GEORGIA REGISTERED PROFESSIONAL ENGINEER
No. 12687
Gary H. McWhorter
9/2/13

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Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCB DISPOSAL FACILITY
GEOLOGIC CROSS-SECTION C-C

REVISION	DATE	REVISION 0	DATE 6/6/06
		ISSUED FOR PERMIT	

"REV. 1 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

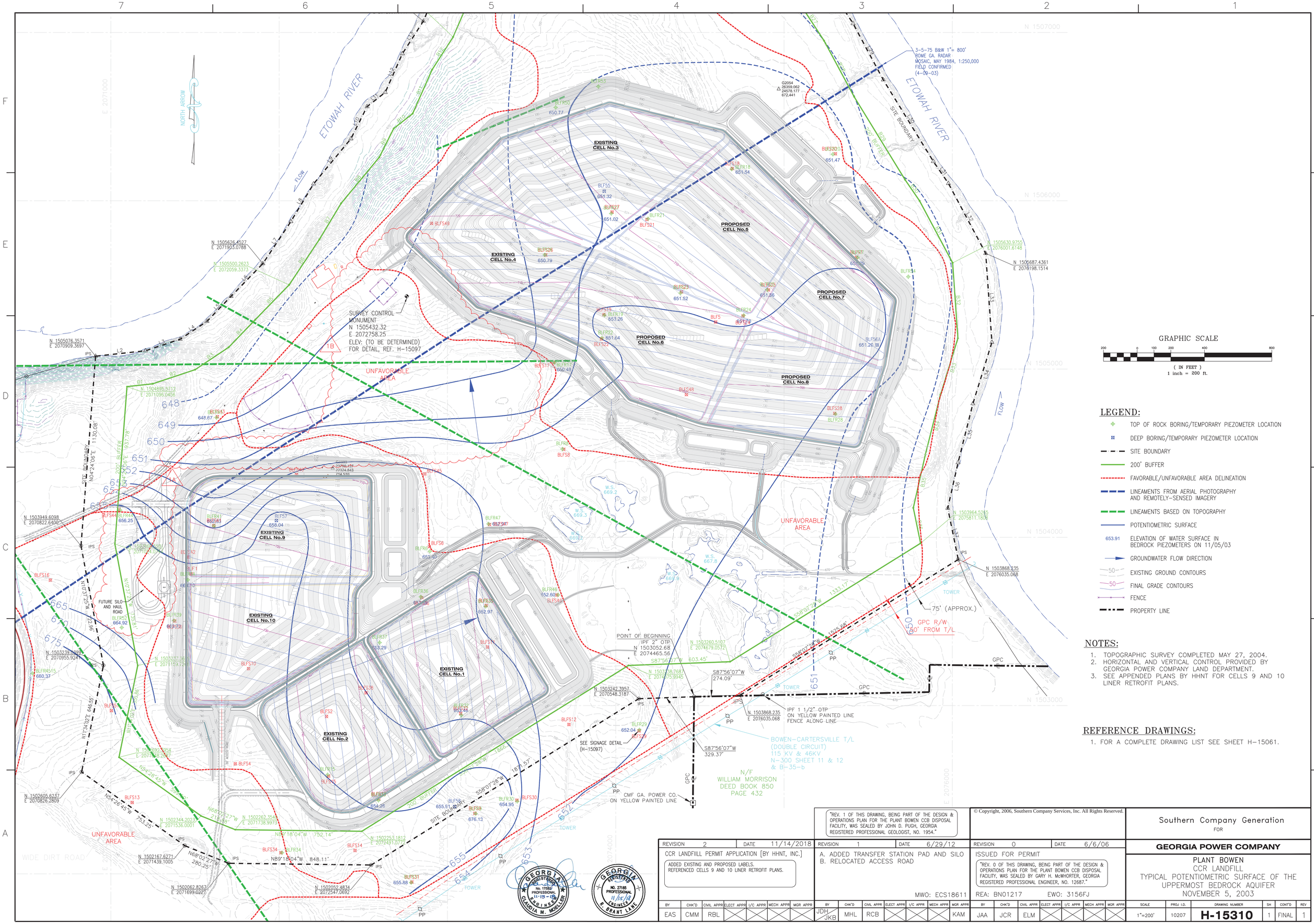
REA: BN01217 EWO: 3156FJ

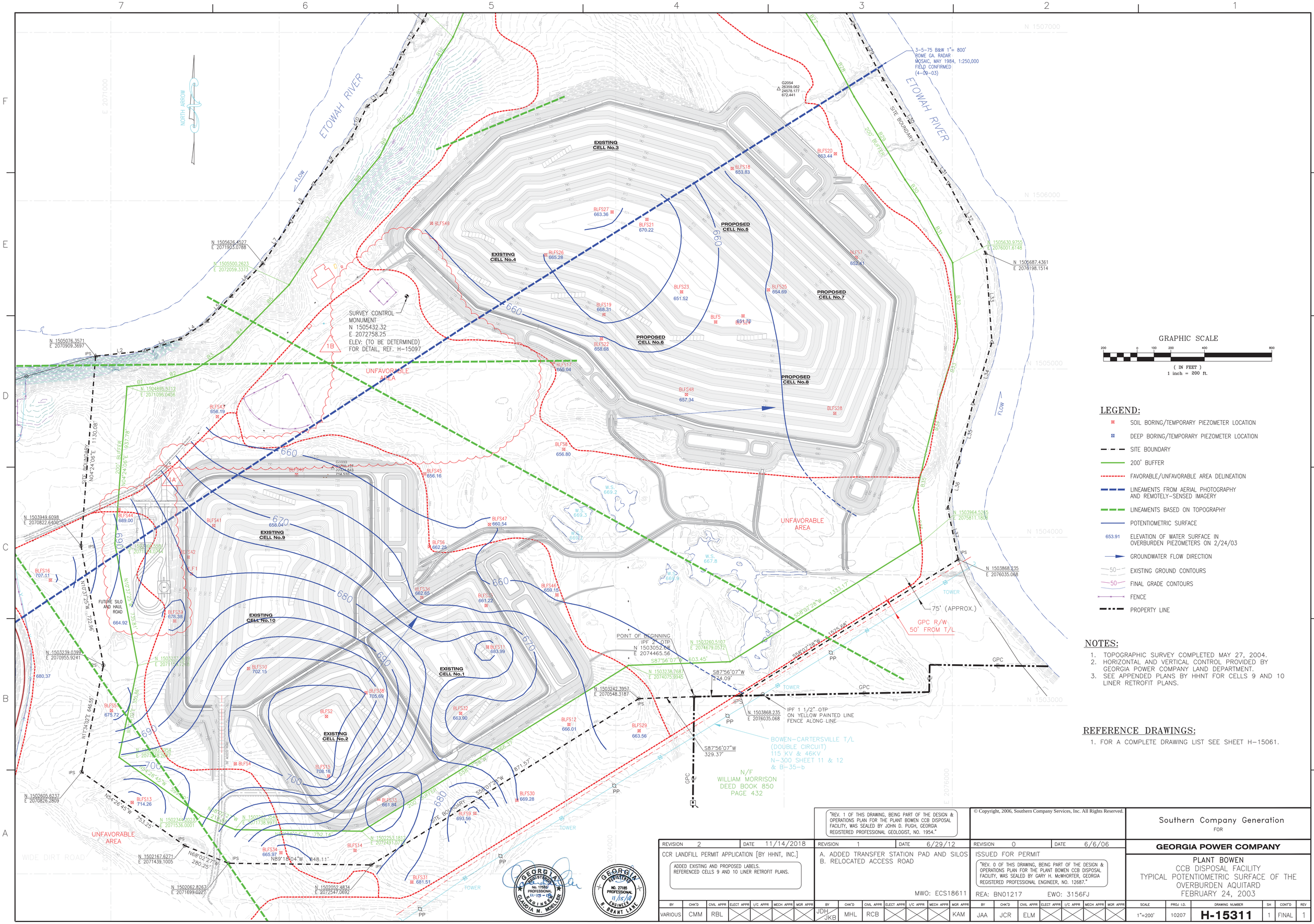
BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR	BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
							ASF	JCR	ELM				

SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
AS SHOWN	10207	H-15309	1	FINAL	0

Drawing name: T:\ESEE MAJOR PROJECTS\PROJECTS\BOWEN\DESIGN AND OPERATIONS PLAN DRAWINGS\Bowen\H15307-8-9Rev0.dwg Mar 26, 2013 - 11:33am

ANSI F: 28x40 Acad2002


ETOWAH RIVER
NORTH ARROW
SURVEY CONTROL MONUMENT
N 1505432.32
E 2072758.25
ELEV: (TO BE DETERMINED)
FOR DETAIL, REF. H-15097
EXISTING CELL No.1
EXISTING CELL No.2
EXISTING CELL No.3
EXISTING CELL No.4
EXISTING CELL No.9
EXISTING CELL No.10
PROPOSED CELL No.5
PROPOSED CELL No.6
PROPOSED CELL No.7
PROPOSED CELL No.8
UNFAVORABLE AREA
SITE BOUNDARY
200' BUFFER
FLOW
POINT OF BEGINNING
IPF 2" OTP
N 1503052.68
E 2074465.56
IPF 1 1/2" OTP ON YELLOW PAINTED LINE FENCE ALONG LINE
CMF GA. POWER CO. ON YELLOW PAINTED LINE
SEE SIGNAGE DETAIL (H-15097)
FUTURE SILO AND HAUL ROAD
WIDE DIRT ROAD
BOWEN-CARTERSVILLE T/L (DOUBLE CIRCUIT) 115 KV & 46KV N-300 SHEET 11 & 12 & B-35-b
N/F WILLIAM MORRISON DEED BOOK 850 PAGE 432
GPC R/W 150' FROM T/L
75' (APPROX.)
TOWER
GPC
PP
IPS
3-5-75 B&W 1"= 800' ROME GA. RADAR MOSAIC, MAY 1984, 1:250,000 FIELD CONFIRMED (4-09-03)
G2054 26359.062 24578.177 672.441
N 1505626.4527 E 2071903.0788
N 1505500.2623 E 2072059.3373
N 1505076.3571 E 2070909.3697
N 1504895.5712 E 2071096.0456
N 1503949.6098 E 2070822.6400
N 1503239.1083 E 2070955.9241
N 1502605.6237 E 2070826.2809
N 1502167.6271 E 2071439.1005
N 1502062.8267 E 2071699.0267
N 1502262.3549 E 2071738.9973
N 1502344.2021 E 2071536.0001
N 1502933.1812 E 2072431.0777
N 1502952.4834 E 2072547.0692
N 1503964.5265 E 2075811.1806
N 1503868.235 E 2076035.068
N 1503260.5107 E 2074679.0572
N 1503238.7687 E 2074675.9945
N 1503242.3957 E 2070548.3187
N 1505630.9755 E 2076001.6148
N 1505687.4361 E 2076198.1514
N 1503237.56 E 2071159.72
N 1502892.3954 E 2071435.2637
S87°56'07"W 603.45'
S87°56'07"W 274.09'
S87°56'07"W 329.37'
S58°07'28"W 1333.17'
S58°07'28"W 1325.58'
S58°07'28"W 187.57'
S58°07'28"W 1845.11'
N89°18'04"W 752.14'
N89°18'04"W 848.11'
N68°02'27"W 215.48'
N68°02'27"W 280.25'
N54°26'45"W 753.25'
N11°34'02"E 646.55'
N04°24'06"E 1130.08'
N10°07'51"W 937.78'
N10°07'51"W 722.36'
N10°07'51"W 1030.68'
N10°07'51"W 1045.25'
N10°07'51"W 1045.25'
N10°07'51"W 1045.25



LEGEND:

- SOIL BORING/TEMPORARY PIEZOMETER LOCATION
- DEEP BORING/TEMPORARY PIEZOMETER LOCATION
- SITE BOUNDARY
- 200' BUFFER
- FAVORABLE/UNFAVORABLE AREA DELINEATION
- LINEAMENTS FROM AERIAL PHOTOGRAPHY AND REMOTELY-SENSED IMAGERY
- LINEAMENTS BASED ON TOPOGRAPHY
- POTENTIOMETRIC SURFACE
- 653.91 ELEVATION OF WATER SURFACE IN OVERBURDEN PIEZOMETERS ON 2/24/03
- GROUNDWATER FLOW DIRECTION
- 50 EXISTING GROUND CONTOURS
- 50 FINAL GRADE CONTOURS
- FENCE
- PROPERTY LINE

NOTES:

1. TOPOGRAPHIC SURVEY COMPLETED MAY 27, 2004.
2. HORIZONTAL AND VERTICAL CONTROL PROVIDED BY GEORGIA POWER COMPANY LAND DEPARTMENT.
3. SEE APPENDED PLANS BY HHNT FOR CELLS 9 AND 10 LINER RETROFIT PLANS.

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061.

"REV. 1 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY JOHN D. PUGH, GEORGIA REGISTERED PROFESSIONAL GEOLOGIST, NO. 1954."

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REVISION	DATE	DESCRIPTION
2	11/14/2018	CCR LANDFILL PERMIT APPLICATION [BY HHNT, INC.] ADDED EXISTING AND PROPOSED LABELS. REFERENCED CELLS 9 AND 10 LINER RETROFIT PLANS.
1	6/29/12	A. ADDED TRANSFER STATION PAD AND SILOS B. RELOCATED ACCESS ROAD MWO: ECS18611
0	6/6/06	ISSUED FOR PERMIT "REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687." REA: BN01217 EWO: 3156FJ

REVISION	BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
2	VARIOUS	CMM	RBL				
1	JDH JKB	MHL	RCB				KAM
0	JAA	JCR	ELM				

GEORGIA REGISTERED No. 17687 PROFESSIONAL ENGINEER 11-15-18 CLAUDIA M. MOELLER

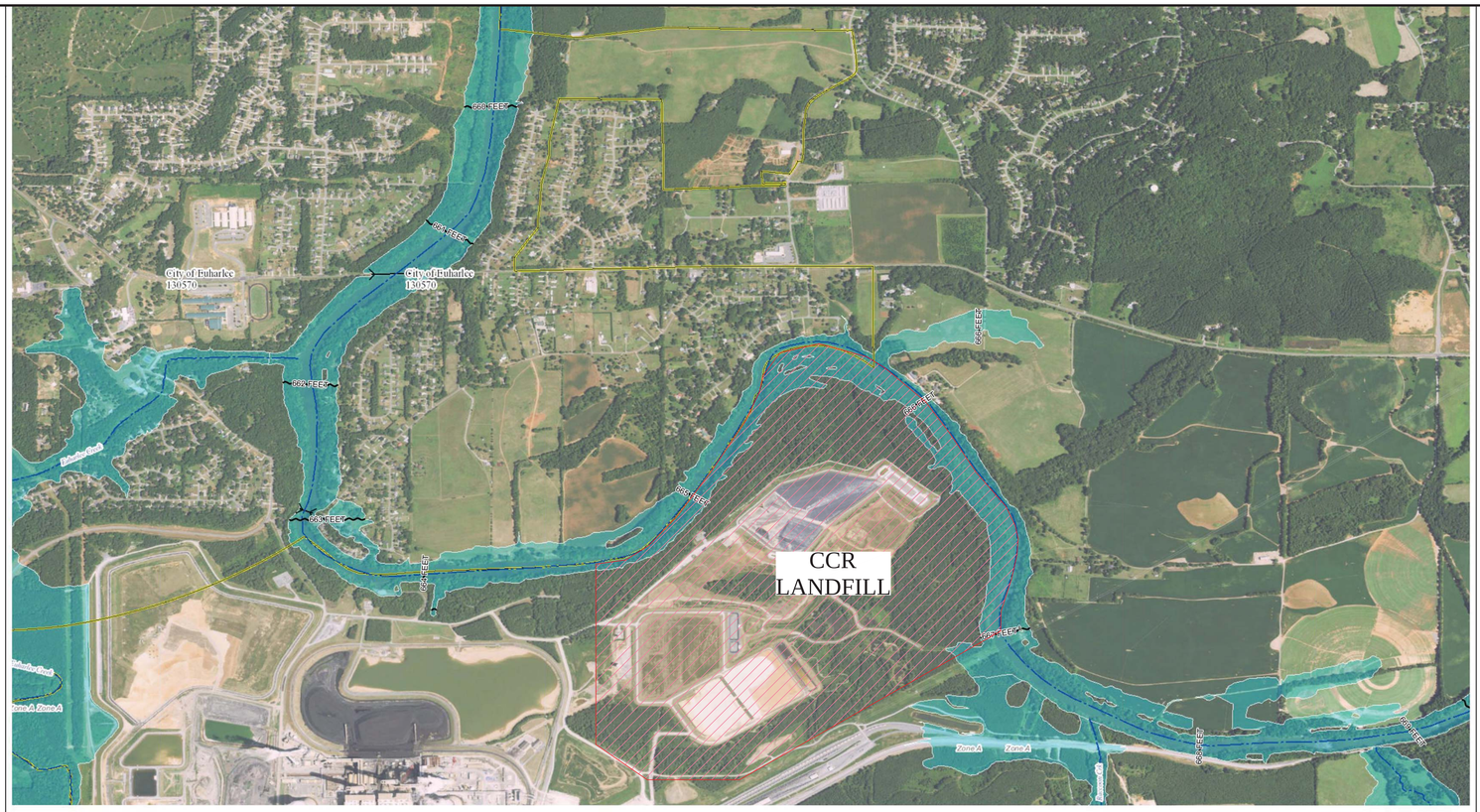
GEORGIA REGISTERED No. 27185 PROFESSIONAL 11/15/18 ENGINEER R. BRANT LANE

Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCB DISPOSAL FACILITY
TYPICAL POTENTIOMETRIC SURFACE OF THE OVERBURDEN AQUITARD
FEBRUARY 24, 2003

SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
1"=200'	10207	**H-15311**	1	FINAL	1

ANSI F: 28x40 Acad2002



USGS The National Map: Orthoimagery. Data refreshed October 2017.

34°7'16.73"N

84°52'28.15"W

MAGNETIC

FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN — Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 — Cross Sections with 1% Annual Chance
- 17.5 — Water Surface Elevation
- Coastal Transect
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature
- 513 — Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary

NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at http://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can beordered or obtained directly from the website.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates refer to the Flood Insurance Study Report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Basemap information shown on this FIRM was provided in digital format by USDA, Farm Service Agency (FSA). This information was derived from NAIP, dated April 11, 2018.

This map was exported from FEMA's National Flood Hazard Layer (NFHL) on **11/15/2018 10:56:38 AM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time. For additional information, please see the Flood Hazard Mapping Updates Overview Fact Sheet at https://www.fema.gov/media-library/assets/documents/118418

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date.

SCALE

N

Map Projection:
GCS, Geodetic Reference System 1980;
Vertical Datum: NAVD88
For information about the specific vertical datum for elevation features, datum conversions, or vertical monuments used to create this map please see the Flood Insurance Study(FIS) Report for your community at https://msc.fema.gov

1 inch = 1,000 feet 1:12,000

0 500 1,000 2,000 3,000 4,000 Feet

0 105 210 420 630 840 Meters



NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP

BARTOW_CO_GA_PMR_FY12, GEORGIA AND INCORPORATED AREAS

PANEL **245** OF **385**

Panel Contains:

COMMUNITY	NUMBER	PANEL
CITY OF EUHARLEE GEORGIA	130570	0245
BARTOW COUNTY GEORGIA	130463	0245

MAP NUMBER
13015C0245H
EFFECTIVE DATE
10/05/2018

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Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCB DISPOSAL FACILITY
FLOOD ZONE MAP

REVISION	DATE	DESCRIPTION
1	11/14/2018	CCR LANDFIILL PERMIT APPLICATION [BY HHNT, INC.] — UPDATED THE FEMA FLOOD MAP.
0	6/6/06	ISSUED FOR PERMIT — "REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

REA: BN1217 EWO: 3156FJ

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
OKB	CMM	RBL				
THH / KDB	GHM / JDM	ELM				

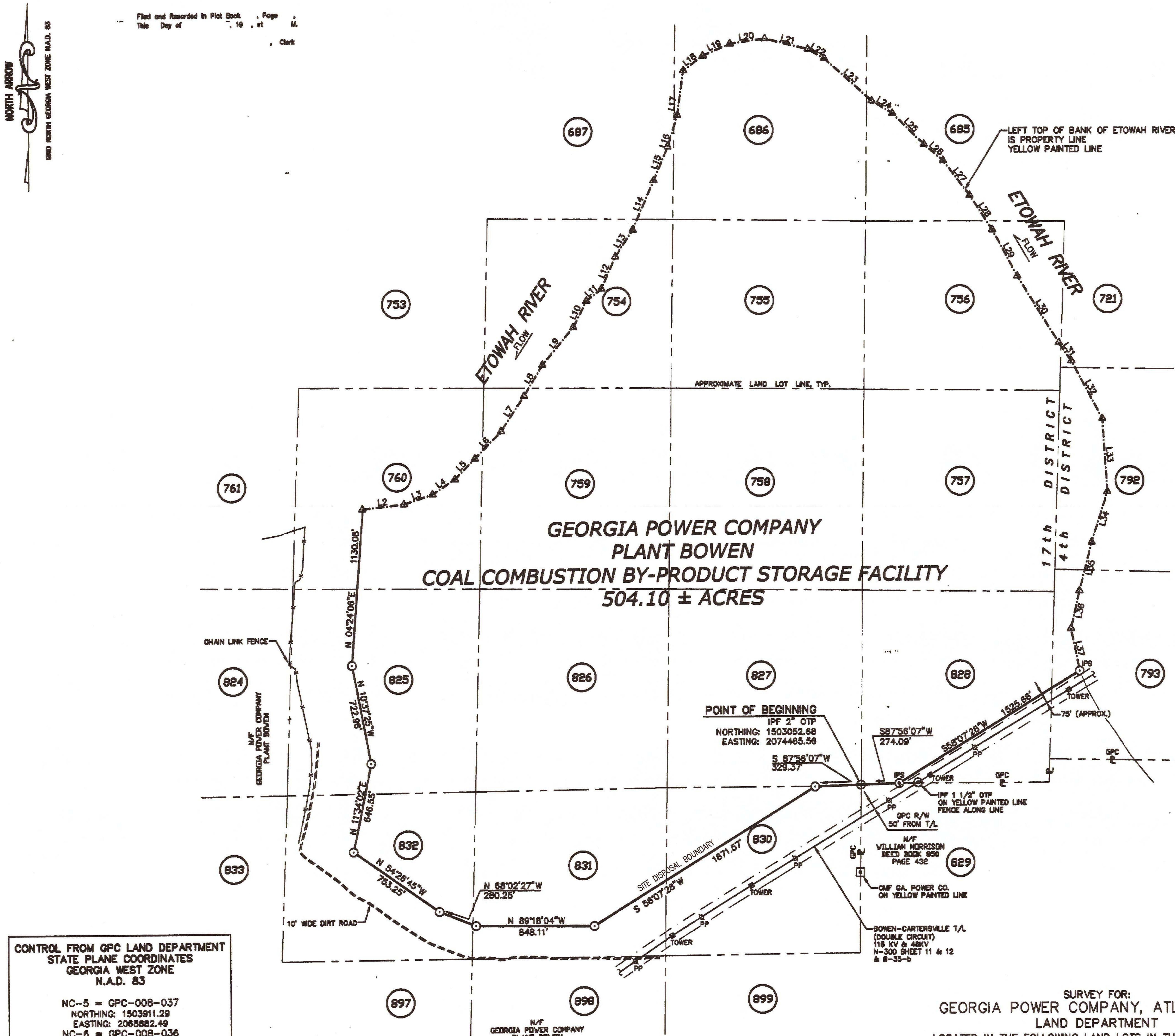
SCALE	PROJ I.D.	DRAWING NUMBER	SH.	CONT'D	REV.
1"= 1000'	10207	H-15313	1	FINAL	0

GEORGIA REGISTERED No. 17550 PROFESSIONAL 11-15-18 ENGINEER CLAUDIA M. MOELLER

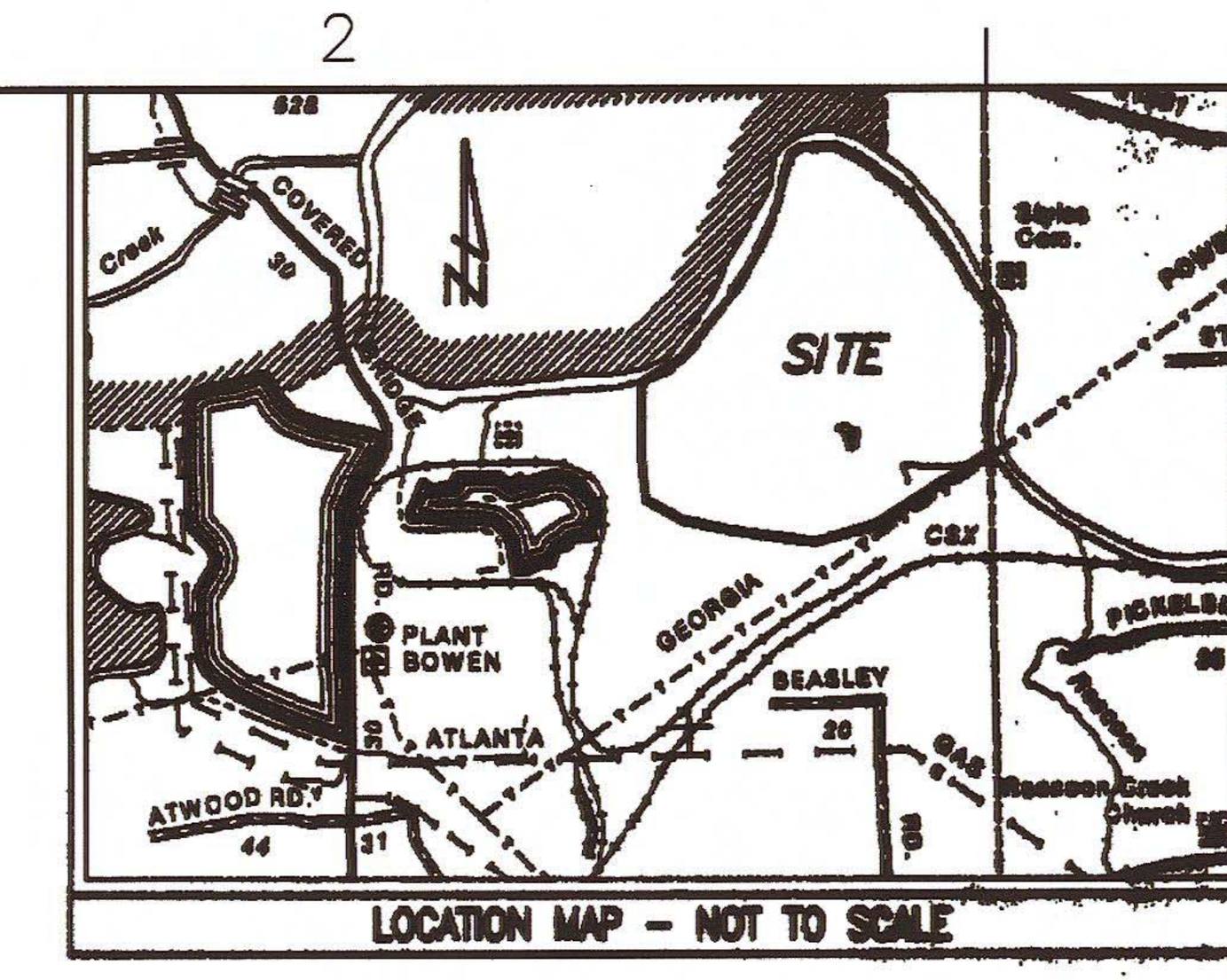
GEORGIA REGISTERED NO. 27185 PROFESSIONAL 11/15/18 ENGINEER R. BRANT LANE

ANSI F: 28x40 Acad2004

Filed and Recorded in Plat Book , Page ,
This Day of , 19 , at M.
, Clerk



CHORDS ALONG LEFT TOP BANK		
Course	Bearing	Distance
(L1 HAS BEEN DELETED)		
L2	N 83°45'43"E	297.92'
L3	N71°34'28"E	217.50'
L4	N56°17'48"E	191.67'
L5	N43°55'05"E	205.91'
L6	N44°11'48"E	271.01'
L7	N33°39'01"E	301.34'
L8	N31°01'57"E	260.68'
L9	N39°38'03"E	347.99'
L10	N26°38'48"E	213.50'
L11	N51°50'56"E	137.60'
L12	N23°54'26"E	251.33'
L13	N32°47'25"E	229.48'
L14	N23°15'10"E	384.59'
L15	N22°45'08"E	263.63'
L16	N20°42'42"E	65.34'
L17	N10°37'35"E	491.41'
L18	N52°20'51"E	172.35'
L19	N65°25'25"E	210.19'
L20	N82°08'45"E	249.90'
L21	S75°36'29"E	311.70'
L22	S59°34'46"E	132.57'
L23	S47°28'17"E	452.84'
L24	S58°24'52"E	170.98'
L25	S45°26'46"E	316.89'
L26	S49°13'43"E	181.40'
L27	S36°59'45"E	314.99'
L28	S33°08'44"E	296.76'
L29	S28°14'14"E	380.10'
L30	S31°31'27"E	568.21'
L31	S34°26'16"E	159.00'
L32	S28°03'05"E	471.04'
L33	S04°00'18"E	529.29'
L34	S17°12'34"W	382.01'
L35	S14°07'27"W	360.99'
L36	S12°45'38"W	278.11'
L37	S11°34'49"E	311.31'



LOCATION MAP – NOT TO SCALE

MONUMENTATION LEGEND

- ⊙ Depicts Iron Pin Set
- ◎ Depicts Iron Pin Found
- ▣ Depicts Monument Set
- ▣ Depicts Monument Found
- △ Depicts Unmonumented Point on Top of Bank

PLAT ABBREVIATIONS

IPF – Iron Pin Found
IPS – 1/2" Rebar Set
CMF – Concrete Monument Found
FPS – Fence Post Set
OTP – Open Top Pipe
CTP – Crimp Top Pipe
Conc. – Concrete
Alumn. – Aluminum
P/L – Property Line
R/W – Right of Way
C/L – Centerline
F/L – Fenceline
T/L – Transmission Line
N/F – Now or Formerly
DB – Deed Book
PB – Plat Book
MF – Map File No.
GPC – Georgia Power Company

UTILITY LEGEND

TOWER – Powerline Tower
PP – Power Pole
(832) – Land Lot Number

REFERENCE:

1. COMPOSITE MAP OF PLANT BOWEN SITE LAND DEPARTMENT MAP FILE NO. E-1-e.

GRAPHIC SCALE
400 0 200 400 800 1600
(In Feet)
1 inch = 400 feet

CONTROL FROM GPC LAND DEPARTMENT STATE PLANE COORDINATES GEORGIA WEST ZONE N.A.D. 83

NC-5 = GPC-008-037
NORTHING: 1503911.29
EASTING: 2068882.49
NC-6 = GPC-008-036
NORTHING: 1502934.49
EASTING: 2069015.04

SURVEY CLOSURE STATEMENT

The Field Data upon which this plat is based has a closure precision of one foot in 27,000' feet, and an angular error of 0.5 SECONDS per angle point, and was adjusted using LEAST SQUARES rule.

This plat has been calculated for closure and is found to be accurate within one foot in 800,000'+ feet.

Linear Measurement obtained using TOPCON 313
Angular Measurement obtained using TOPCON 313
Field Work completed APRIL 30, 2003

GENERAL NOTES

1. FIELD CLOSURE: A TOPCON 313 ELECTRONIC TOTAL STATION WAS USED TO GATHER THE INFORMATION USED IN THE PREPARATION OF THIS PLAT. THE ANGULAR ERROR FOR THIS TRAVERSE WAS 0.5 SECONDS PER ANGLE POINT AND THE CLOSURE PRECISION WAS 1' IN 27,000' AND WAS ADJUSTED USING LEAST SQUARES RULE
2. PLAT CLOSURE: THIS PLAT HAS BEEN CALCULATED FOR CLOSURE AND HAS BEEN FOUND TO HAVE A PRECISION OF CLOSURE IN EXCESS OF 1' IN 800,000+ FEET.
3. STATE PLANE COORDINATES FROM CONTROL FURNISHED BY GEORGIA POWER COMPANY LAND DEPARTMENT.
4. INFORMATION REGARDING THE REPUTED PRESENCE, SIZE, CHARACTER, AND LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES SHOWN HEREON MAY BE INACCURATE. UTILITY LOCATION SERVICES SHOULD BE CONTACTED BEFORE ANY EXCAVATION.
5. RIGHT-OF-WAYS ARE BASED ON CENTERLINES OF EXISTING PATHS OF TRAVEL, UNLESS NOTED OTHERWISE.
6. ALL MATTERS PERTAINING TO TITLE ARE EXCEPTED.

SURVEY FOR:
GEORGIA POWER COMPANY, ATLANTA, GA.
LAND DEPARTMENT
LOCATED IN THE FOLLOWING LAND LOTS IN THE 17th DISTRICT:
685, 686, 687, 754, 755, 756, 757, 758, 759, 760, 825, 826, 827, 828, 830, 831, 832
AND THE FOLLOWING LAND LOTS IN THE 4th DISTRICT:
721, 792, 793
IN THE 3rd SECTION
BARTOW COUNTY, GEORGIA
DATE OF SURVEY: APRIL 22–30, 2003
DATE OF PLAT: MAY 1, 2003
DATE OF REVISION 1 : APRIL 7, 2005
BY:
RHODES ENGINEERING SERVICES, INC.
645 HENDERSON DRIVE, SUITE 2
CARTERSVILLE, GEORGIA 30120
PHONE: (770)386-7616, FAX: (770)386-7617
E-MAIL ADDRESS: rhodeseng@yahoo.com

GEORGIA REGISTERED LAND SURVEYOR No. 2303 PAUL K. RHODES
4-07-05

REV. 1–CHANGED SOUTH AND WEST LINE 4/7/05
REVISION BLOCK
APPROVALS

GEORGIA POWER CO., ATLANTA, GA.
Land Department
PLANT BOWEN
COAL COMBUSTION BY-PRODUCT STORAGE FACILITY
PROPERTY PLAT
BARTOW COUNTY, GEORGIA
DR. [drafter] TR. CHECKED
SCALE 1" = 400'. DATE MAY 1, 2003
DRAWING NUMBER H-690-6 - .10

GEORGIA
Environmental Protection Division
Solid Waste Management Program
MINOR MODIFICATION APPROVAL
SOLID WASTE PERMIT NO. 008-018D(L7)
APPROVED BY: CEH DATE: 8/26/13

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 12687 GARY H. McWHORTER
4/2/13

Exhibit "A"

All that parcel of land lying and being in Bartow County, Georgia in Land Lots 685, 686, 687, 754, 755, 756, 757, 758, 759, 760, 825, 826, 827, 828, 830, 831 and 832 of the 17th District – 3rd Section containing 504.10 acres, more or less and being more particularly described as follows:

Beginning at a 2" open top pipe at the Land Lot corner common to Land Lots 827, 282, 829 and 830 and from said POINT OF BEGINNING thence, south 87° 56' 07" west for a distance of 329.37 feet to an iron pin. Thence south 58° 07' 28" west for a distance of 1871.57 feet to an iron pin. Thence north 89° 18' 04" west for a distance of 848.11 feet to an iron pin. Thence, north 68° 02' 27" west for a distance of 280.25 feet to an iron pin. Thence, north 54° 26' 45" west for a distance of 753.25 feet to an iron pin. Thence, north 11° 34' 02" east for a distance of 646.55 feet to an iron pin. Thence, north 10° 37' 25" west for a distance of 722.96 feet to an iron pin. Thence, north 04° 24' 06" east for a distance of 1130.08 feet to a point on a line at the top bank of the Etowah River. Thence running along the top bank of the Etowah River the following courses and distances;

north 83° 45' 43" east for a distance of 297.92 feet, north 71° 34' 28" east for a distance of 217.50 feet, north 56° 17' 48" east for a distance of 191.67 feet, north 43° 55' 05" east for a distance of 205.90 feet, north 44° 11' 48" east for a distance of 271.01 feet, north 33° 39' 01" east for a distance of 301.34 feet, north 31° 01' 57" east for a distance of 260.68 feet, north 39° 38' 03" east for a distance of 347.99 feet, north 26° 38' 48" east for a distance of 213.50 feet, north 51° 50' 56" east for a distance of 137.60 feet, north 23° 54' 26" east for a distance of 251.33 feet, north 32° 47' 25" east for a distance of 229.48 feet, north 23° 15' 10" east for a distance of 384.59 feet, north 22° 45' 08" east for a distance of 263.63 feet, north 20° 42' 42" east for a distance of 65.34 feet, north 10° 37' 35" east for a distance of 491.41 feet, north 52° 20' 51" east for a distance of 172.35 feet, north 65° 25' 25" east for a distance of 210.19 feet, north 82° 08' 45" east for a distance of 249.90 feet, south 75° 36' 29" east for a distance of 311.70 feet, south 59° 34' 46" east for a distance of 132.57 feet, south 47° 28' 17" east for a distance of 452.84 feet, south 58° 24' 52" east for a distance of 170.98 feet, south 45° 26' 46" east for a distance of 316.89 feet, south 49° 13' 43" east for a distance of 181.40 feet, south 36° 59' 45" east for a distance of 314.99 feet, south 33° 08' 44" east for a distance of 296.76 feet, south 28° 14' 14" east for a distance of 380.10 feet, south 31° 31' 27" east for a distance of 568.21 feet, south 34° 26' 16" east for a distance of 159.00 feet, south 28° 03' 05" east for a distance of 471.04 feet, south 04° 00' 18" east for a distance of 529.29 feet, south 17° 12' 34" west for a distance of 382.01 feet, south 14° 07' 27" west for a distance of 360.99 feet, south 12° 45' 38" west for a distance of 278.11 feet, south 11° 34' 49" east for a distance of 311.31 feet to an iron pin. Thence from said pin, south 58° 07' 28" west for a distance of 1525.68 feet to an iron pin. Thence south 87° 56' 07" west a distance of 274.09 feet to the POINT OF BEGINNING.

THIS DRAWING WAS COMPILED FROM INFORMATION PROVIDED BY THE LAND ENGINEERING DEPARTMENT OF GEORGIA POWER COMPANY.

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REVISION 0 DATE 6/6/06
ISSUED FOR PERMIT
"REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."
REA: BN01217 EWO: 3156FJ

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
THH/KDB	GHM/JDM	ELM				

Southern Company Generation
FOR
GEORGIA POWER COMPANY
PLANT BOWEN
CCB DISPOSAL FACILITY
SITE DISPOSAL BOUNDARY,
PROPERTY PLAT AND LEGAL DESCRIPTION

SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
AS SHOWN	10207	H-15314	1	FINAL	0

Drawing name: T:\ESEE MAJOR PROJECTS\PROJECTS\BOWEN\DESIGN AND OPERATIONS PLAN DRAWINGS\Bowen\H15314.dwg Mar 29, 2013 – 9:50am
ANSI F: 28x40 Acad2002

CELL 1			
Drain #	Northing	Easting	Inlet Elev.
LP101	1502657	2072978	724.0
LP102	1503561	2073248	724.0
LP103	1503107	2073503	724.0
LP104	1502902	2073234	724.0
LP105	1502711	2072987	724.0
LP106	1503387	2072589	744.0
LP107	1503614	2073104	744.0
LP108	1503344	2073270	744.0
LP109	1503093	2073344	744.0
LP110	1502857	2073020	744.0
LP111	1503449	2072952	764.0
LP112	1503169	2073246	764.0
LP113	1502957	2072982	764.0
LP114	1503264	2072773	764.0
LP115	1503282	2073063	784.0
LP116	1503264	2072773	784.0
LP117	1503282	2073063	804.0
LP118	1503205	2072985	804.0
LP119	1503051	2072827	804.0
High Points	Northing	Easting	Elev
HP101	1503558	2072788	724.0
HP102	1503734	2073141	724.0
HP103	1503380	2073353	724.0
HP104	1503020	2073396	724.0
HP105	1502787	2073076	724.0
HP106	1503355	2072528	744.0
HP107	1503536	2072930	744.0
HP108	1503491	2073185	744.0
HP109	1503133	2073385	744.0
HP110	1503040	2073271	744.0
HP111	1503061	2073249	744.0
HP112	1503355	2072722	764.0
HP113	1503430	2073120	764.0
HP114	1503411	2073098	764.0
HP115	1503025	2073046	764.0
HP116	1503366	2073008	744.0
HP117	1503190	2073108	784.0
HP118	1502990	2072894	784.0
HP119	1503148	2072777	804.0
HP120	1503243	2072982	804.0
HP121	1503132	2072887	804.0

CELL 2			
Drain #	Northing	Easting	Inlet Elev.
LP201	1503307	2072437	744.0
LP202	1503536	2072630	744.0
LP203	1503703	2072859	744.0
LP204	1503266	2072553	764.0
LP205	1503146	2072322	764.0
LP206	1502968	2071946	764.0
LP207	1502570	2072195	764.0
LP208	1502532	2072471	764.0
LP209	1502697	2072699	764.0
LP210	1503123	2072473	784.0
LP211	1502978	2072129	784.0
LP212	1502815	2072139	784.0
LP213	1502574	2072363	784.0
LP214	1502678	2072519	784.0
LP215	1502888	2072757	784.0
LP216	1503094	2072673	784.0
LP217	1502927	2072292	784.0
LP218	1502760	2072285	784.0
LP219	1502703	2072400	784.0
High Point	Northing	Easting	Elev
HP201	1503138	2072112	744.0
HP202	1503202	2072429	764.0
HP203	1503625	2072752	744.0
HP204	1502758	2071884	744.0
HP205	1502057	2072087	764.0
HP206	1502764	2072066	764.0
HP207	1502484	2072375	764.0
HP208	1502605	2072571	764.0
HP209	1502799	2072803	764.0
HP210	1503152	2072529	784.0
HP210A	1503131	2072550	784.0
HP211	1502241	2073002	784.0
HP212	1502891	2072089	784.0
HP213	1502716	2072205	784.0
HP214	1502631	2072454	784.0
HP215	1503769	2072644	784.0
HP216	1503045	2072519	784.0
HP217	1502678	2072348	784.0
HP218	1502897	2072618	784.0
HP219	1502878	2072641	784.0

CELL 3			
Drain #	Northing	Easting	Inlet Elev.
LP301	1506124	2074344	709.2
LP301A	1506283	2074509	709.4
LP302	1506412	2074492	709.2
LP302A	1506525	2074107	708.5
LP303	1506439	2073675	725.2
LP304	1506368	2073411	725.3
LP305	1506226	2073202	725.1
LP308	1505802	2073937	725.3
LP308A	1505968	2074111	725.5
LP309	1506129	2074236	725.5
LP309A	1506265	2074378	725.3
LP310	1506381	2074317	725.0
LP311	1506486	2073961	725.1
LP312	1506226	2073335	745.0
LP315	1505952	2073920	744.8
LP316	1506352	2074100	745.2
LP317	1506392	2073845	745.4
LP318	1506317	2073564	745.1
LP319	1506229	2074211	745.2
LP320	1506250	2074080	765.4
LP321	1506263	2073830	764.7
LP323	1506186	2073425	765.3
LP324	1506084	2073928	765.2
High Point	Northing	Easting	Elev
HP301	1506529	2073825	710.0
HP302	1506457	2074339	710.0
HP303	1506373	2074582	710.0
HP304	1506209	2074432	710.0
HP305	1506010	2074227	710.0
HP306	1505901	2074041	726.0
HP311	1506138	2073105	726.0
HP312	1506347	2073337	726.0
HP313	1506404	2073543	726.0
HP314	1506481	2073831	726.0
HP315	1506437	2074127	726.0
HP316	1506336	2074429	726.0
HP317	1506162	2074271	726.0
HP318	1506041	2074188	726.0
HP319	1506100	2074119	746.0
HP320	1506290	2074255	746.0
HP321	1506392	2073961	746.0
HP322	1506360	2073725	746.0
HP323	1506266	2073382	746.0
HP327	1506118	2074095	746.0
HP328	1506179	2074025	766.0
HP329	1506298	2073961	766.0
HP330	1506195	2073574	766.0
HP331	1506222	2073562	766.0

CELL 4			
Drain #	Northing	Easting	Inlet Elev.
LP401	1506151	2073756	785.0
LP402	1506037	2073396	785.0
LP403	1505866	2073183	785.1
LP404	1505658	2073370	785.3
LP407	1506014	2073192	765.2
LP408	1505803	2073034	765.5
LP409	1505723	2073160	765.0
LP412	1505996	2073045	744.8
LP413	1505689	2073018	744.5
LP414	1505451	2073381	744.8
LP416	1505783	2072787	724.8
LP417	1505561	2073025	725.6
LP418	1505410	2073197	725.0
High Point	Northing	Easting	Elev
HP401	1506144	2073837	786.0
HP402	1506100	2073565	786.0
HP403	1505937	2073243	786.0
HP404	1505771	2073282	786.0
HP405	1505742	2073275	786.0
HP408	1506099	2073329	766.0
HP409	1505896	2073079	766.0
HP410	1505765	2073067	766.0
HP411	1505588	2073313	766.0
HP415	1506089	2073142	746.0
HP416	1505966	2072937	726.0
HP417	1505792	2072914	746.0
HP418	1505516	2073258	746.0
HP419	1505491	2073243	746.0
HP422	1505617	2072962	726.0
HP423	1505546	2073042	726.0
HP424	1505363	2073364	726.0

CELL 5			
Drain #	Northing	Easting	Inlet Elev.
LP504	1505946	2074563	785.1
LP508	1505618	2074677	764.9
LP510	1506146	2074483	764.7
LP511	1506254	2074118	765.2
LP516	1505731	2074848	744.7
LP517	1505956	2074816	745.2
LP518	1506117	2074645	745.2
LP519	1506277	2074356	744.9
LP524	1505494	2074857	725.0
LP525	1505772	2074974	725.4
LP526	1505944	2074958	725.4
LP527	1506106	2074788	725.4
LP528	1506306	2074575	725.0
LP529	1505675	2075011	709.1
LP530	1505889	2075121	709.1
LP531	1506108	2074898	709.2
LP532	1506270	2074728	709.2
High Point	Northing	Easting	Elev
HP506	1506065	2074438	786.0
HP507	1506204	2073960	786.0
HP510	1505730	2074745	766.0
HP511	1506011	2074623	766.0
HP512	1506220	2074238	766.0
HP517	1505852	2074910	746.0
HP518	1506059	2074706	746.0
HP519	1506228	2074523	746.0
HP520	1506339	2074141	746.0
HP525	1505684	2074927	726.0
HP526	1505873	2075024	726.0
HP527	1506022	2074876	726.0
HP528	1506183	2074705	726.0
HP529	1506363	2074387	726.0
HP530	1505514	2074920	710.0
HP531	1505731	2075041	710.0
HP532	1506002	2075011	710.0
HP533	1506165	2074841	710.0
HP534	1506368	2074627	710.0

CELL 7			
Drain #	Northing	Easting	Inlet Elev.
LP702	1505742	2075038	744.8
LP703	1505468	2075325	745.0
LP709	1505404	2075523	725.1
LP710	1505646	2075269	724.8
LP712	1505591	2075442	709.2
LP713	1505591	2075444	709.1
High Point	Northing	Easting	Elev
HP702	1505575	2075213	746.0
HP703	1505309	2075451	746.0
HP707	1505299	2075542	726.0
HP708	1505531	2075389	726.0
HP709	1505807	2075101	726.0
HP710	1505128	2075341	710.0
HP711	1505246	2075612	710.0
HP712	1505459	2075579	710.0
HP713	1505702	2075324	710.0

CELL 6			
Drain #	Northing	Easting	Inlet Elev.
LP601	1506008	2073576	804.5
LP602	1505699	2073503	804.8
LP603	1505664	2073742	805.2
LP604	1505587	2073969	805.0
LP607	1505985	2074392	804.7
LP608	1506110	2073954	805.0
LP609	1505600	2073624	785.2
LP610	1505462	2074021	784.4
LP611	1505209	2074236	785.5
LP614	1505515	2073489	764.3
LP615	1505399	2073878	765.3
LP616	1505240	2074086	765.3
LP619	1505542	2074642	764.9
LP620	1505380	2073650	745.0
LP621	1505275	2073928	745.3
LP622	1505075	2074113	745.3
LP623	1504964	2074267	745.3
LP626	1505332	2073480	725.3
LP627	1505248	2073773	725.2
LP628	1505079	2073987	725.2
LP629	1504927	2074123	725.3
LP630	1504845	2074356	725.4
LP633	1505126	2073844	704.4
LP634	1504948	2074010	705.4
LP635	1504801	2074238	705.1
High Point	Northing	Easting	Elev
HP601	1505864	2073332	806.0
HP602	1505691	2073646	806.0
HP603	1505625	2073890	806.0
HP604	1505497	2074138	806.0
HP608	1506057	2074144	806.0
HP609	1506067	2073795	806.0
HP610	1505577	2073722	786.0
HP611	1505278	2074213	786.0
HP612	1505254	2074194	786.0
HP616	1505458	2073814	766.0
HP617	1505427	2073816	766.0
HP618	1505336	2074007	766.0
HP619	1505144	2074174	766.0
HP622	1505433	2073458	746.0
HP623	1505318	2073839	746.0
HP624	1505179	2074019	746.0
HP625	1504991	2074192	746.0
HP628	1505296	2073620	726.0
HP629	1505200	2073874	726.0
HP630	1505014	2074045	726.0
HP631	1504879	2074246	726.0

CELL 8			
Drain #	Northing	Easting	Inlet Elev.
LP801	1505852	2073459	820.9
LP802	1505710	2073869	820.9
LP803	1505621	2074073	821.3
LP804	1505439	2074296	821.2
LP805	1505298	2074477	821.4
LP806	1505249	2074638	820.7
LP807	1505187	2075083	821.0
LP808	1505304	2074996	820.9
LP809	1505552	2074734	821.3
LP810	1505788	2074484	821.0
LP811	1505980	2074131	820.9
LP812	1505989	2073797	820.9
LP813	1505279	2074333	804.5
LP814	1505160	2074553	805.2
LP815	1505111	2074827	805.4
LP816	1505077	2075124	805.1
LP817	1505242	2075169	805.2
LP818	1505444	2074963	804.8
LP819	1505711	2074680	805.0
LP820	1505043	2074658	785.2
LP821	1504992	2075033	784.9
LP822	1505117	2075241	785.2
LP823	1505378	2075164	785.1
LP824	1505630	2074897	785.0
LP825	1505011	2074431	764.5
LP826	1504929	2074825	765.0
LP827	1504880	2075240	764.8
LP828	1505307	2075359	764.9
LP829	1505514	2075150	764.7
LP830	1505798	2074850	764.4
LP831	1504866	2074621	744.9
LP832	1504804	2075067	744.7
LP833	1505073	2075420	744.4
LP834	1504750	2074811	724.8
LP835	1504696	2075212	725.2
LP836	1504887	2075443	724.9
LP837	1504887	2075443	725.0
LP838	1504703	2074575	708.8
LP839	1504640	2075033	708.8
LP840	1504659	2075433	708.7
LP841	1505031	2075583	708.9
High Point	Northing	Easting	Elev
HP801	1505768	2073657	822.0
HP802	1505667	2073983	822.0
HP803	1505559	2074190	822.0
HP804	1505334	2074396	822.0
HP805	1505262	2074588	822.0
HP806	1505210	2074897	822.0
HP807	1505182	2074895	822.0
HP808	1505247	2075057	822.0
HP809	1505453	2074837	822.0
HP810	1505653	2074628	822.0
HP811	1505916	2074351	822.0
HP812	1506029	2073953	822.0
HP813	1505930	2073584	822.0
HP814	1505200	2074524	806.0
HP815	1505170	2074522	806.0
HP816	1505130	2074709	806.0
HP817	1505098	2074940	806.0
HP818	1505169	2075160	806.0
HP819	1505348	2075061	806.0
HP820	1505607	2074790	806.0
HP821	1505842	2074541	806.0
HP822	1505077	2074516	786.0
HP823	1505022	2074813	786.0
HP824	1504978	2075179	786.0
HP825	1505276	2075263	786.0
HP826	1505504	2075027	786.0
HP827	1505774	2074745	786.0
HP828	1504957	2074630	766.0

REFERENCE DRAWINGS:

1. FOR A COMPLETE DRAWING LIST SEE SHEET H-15061

"REV. 2 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

"REV. 1 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

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REVISION	DATE	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR
3	11/14/2018	CMM	RBL				
CCR LANDFILL PERMIT APPLICATION [BY HHNT, INC.]							
REMOVED COORDINATES FOR CELLS 9 AND 10.							
2	8/21/15	GHM MHL	RCB				KAM
ISSUED FOR MINOR MODIFICATION							
BAGHOUSE PROJECT							
1	3/31/13	JAB JKB	GHM MHL	RCB			KAM
ISSUED FOR MINOR MODIFICATION							
BAGHOUSE PROJECT							
0	6/6/06	THH JAA	GHM JDM	ELM			KAM
ISSUED FOR PERMIT							
"REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."							
REA: BN01217		EWO: 3156FJ					

Southern Company Generation
FOR
GEORGIA POWER COMPANY

PLANT BOWEN
CCB DISPOSAL FACILITY
CELL DOWN DRAIN DATA

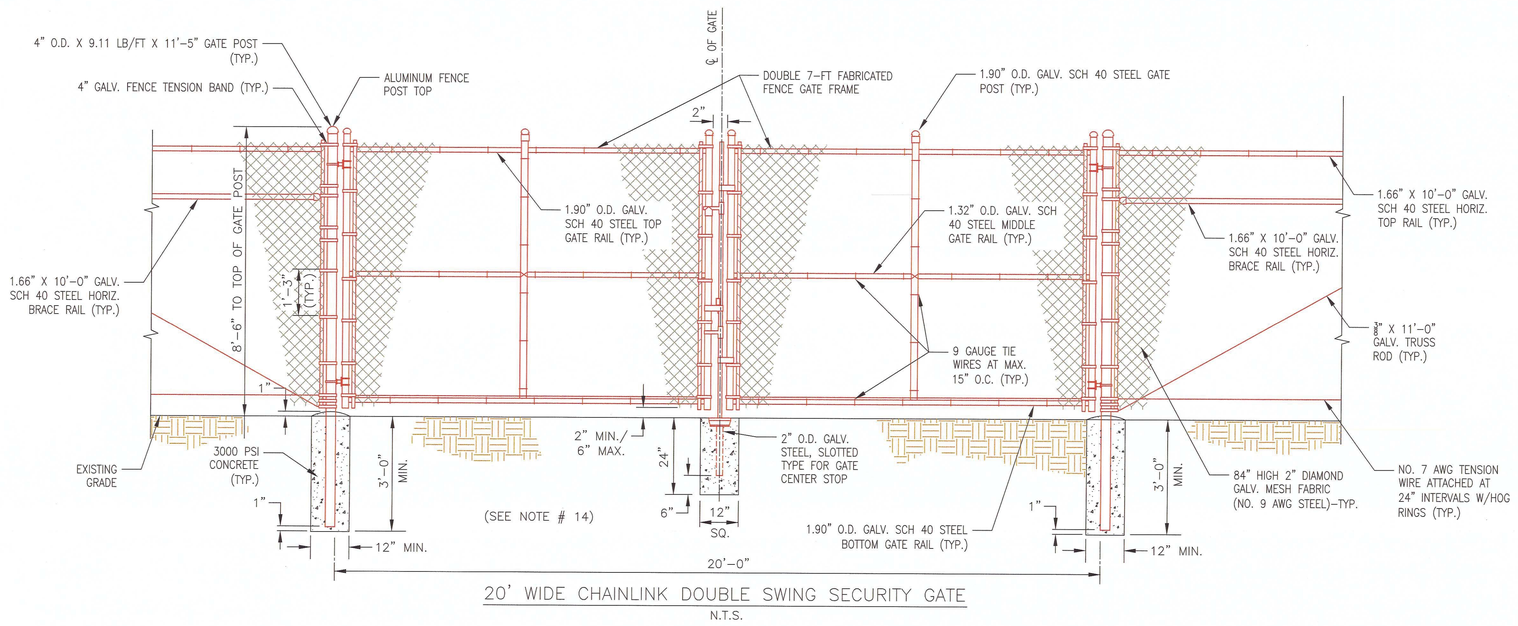
SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
NONE	10207	H-15315	1	FINAL	2

GEORGIA REGISTERED No. 17053 PROFESSIONAL 11-15-18 ENGINEER CLAUDIA M. MOELLER

GEORGIA REGISTERED No. 27185 PROFESSIONAL 11/15/18 ENGINEER R. BRANT LANE

RANT L

ANSI F: 28x40 Acad2004

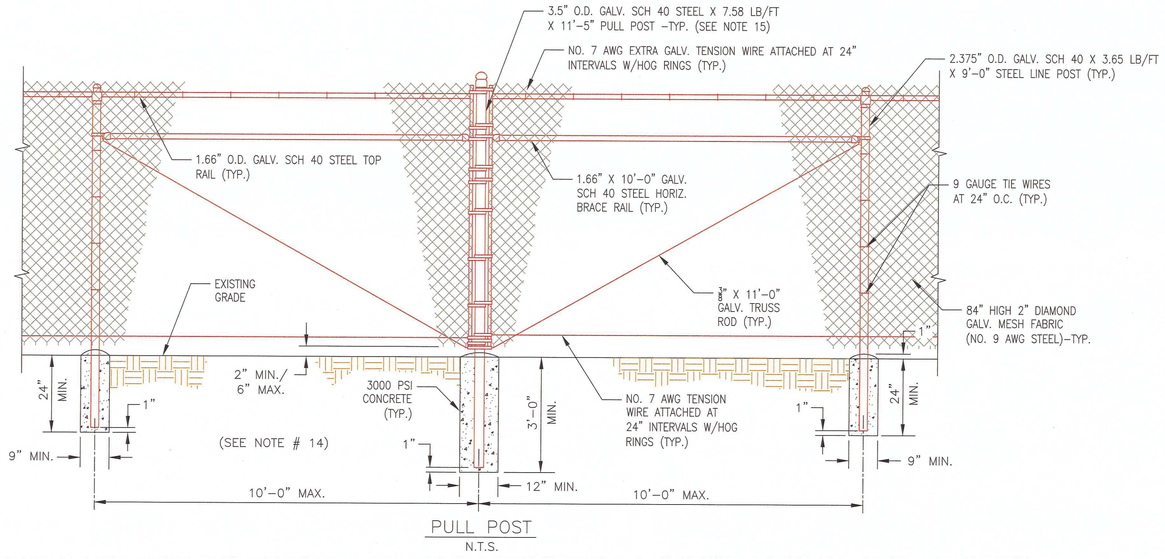


20' WIDE CHAINLINK DOUBLE SWING SECURITY GATE

N.T.S.

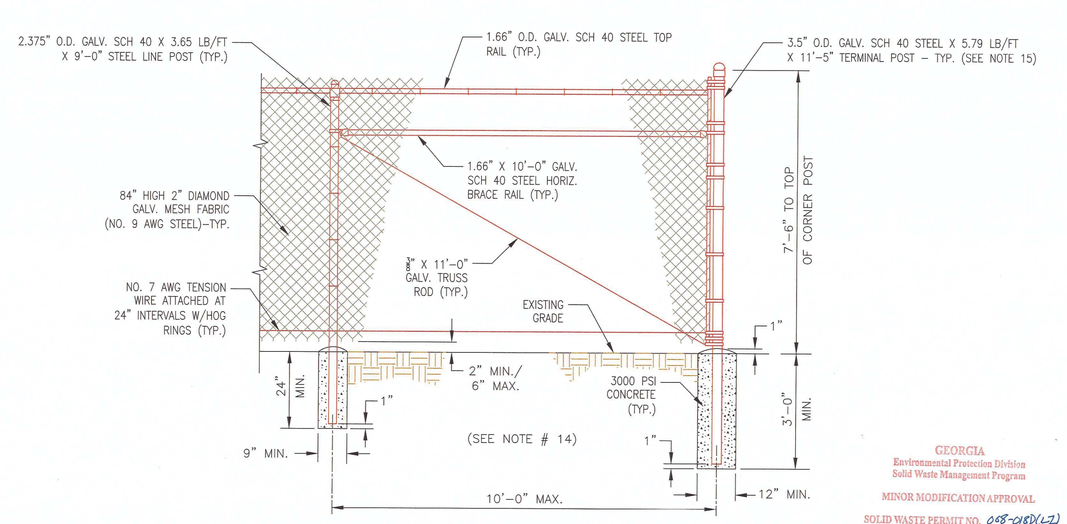
NOTES:

1. FENCE MATERIALS AND ERECTION SHALL BE IN ACCORDANCE WITH THE SOUTHERN COMPANY GENERAL PROVISIONS FOR CHAIN LINK FENCE SPECIFICATION 32 31 13.
2. TIE FENCE FABRIC TO SPIRALED TENSION WIRE BETWEEN POSTS WITH GALVANIZED STEEL HOG RINGS TOP AND BOTTOM AT INTERVALS OF TWO FEET.
3. LIMIT TENSION IN FABRIC AND WIRE TO PREVENT BENDING OF GATE POSTS AND CORNER POSTS.
4. WHEN GATE PANEL IS INSTALLED ON A CORNER POST, THE LATCH SHOULD BE INSTALLED ON THE OPPOSITE PANEL.
5. PULL POSTS WILL BE INSTALLED AT APPROXIMATELY MID-SPAN WHERE SPACING BETWEEN CORNER POSTS OR TERMINAL POSTS EXCEEDS 100 FEET TO PROVIDE FENCE GROUNDING POINT PER NESC, OR WHERE IT IS NECESSARY TO TERMINATE THE FENCE DUE TO A CHANGE IN GRADE. MATERIAL FOR PULL POSTS TO BE SAME AS CORNER POSTS.
6. HINGE TO BE INSTALLED WITH GALVANIZED STEEL BOLT WITH TWO NUTS OR A PREFERRED SELF-LOCKING TYPE NUT TO LOCK BOLT IN PLACE.
7. CHAIN FOR GATE TO BE ONE PIECE; ¼" GALVANIZED STEEL, WELDED, SIZE 5/0, INSERTED BETWEEN GATE FRAME AND TENSION BAR, SUCH THAT A TIGHT FIT IS OBTAINED WITH LOCK INSTALLED FROM OUTSIDE GATE. EXCESS LINKS SHOULD BE REMOVED.
8. FENCE FABRIC TO BE INSTALLED WITH TWIST SELVAGES AT BOTTOM.
9. GATE HINGE TO BE INSTALLED FOR ¼" OR LESS GAP BETWEEN GATE POST AND FRAME TO PREVENT ACCESS WHEN CLOSED AND TO ALLOW APPROX. 180-DEGREES INWARD OPENING.
10. GATE KEEPER TO BE INSTALLED FOR EACH PANEL OF DOUBLE GATES AT MAXIMUM OPEN POSITION.
11. TRUSS RODS ARE NOT REQUIRED WHEN ONLY ONE LINE POST IS IN A CONTINUOUS SPAN OF FABRIC.
12. BOTTOM OF CHAIN LINK FABRIC TO BE INSTALLED A MINIMUM OF 2" TO A MAXIMUM OF 6" ABOVE FINISHED GRADE.
13. USE 3½" O.D. X 11'-5" POST FOR CORNER AND PULL POSTS REQUIRING BARBED WIRE TO BE HELD BY 45-DEGREE ARMS, CUT 12" OFF POST FOR A HEIGHT OF 10'-5".
14. DOUBLE DRIVE GATES TO BE INSTALLED TO MINIMIZE OPENING TO 2" MAXIMUM. (CHAIN SHOULD NOT BE SLACK.)
15. CONCRETE TO BE POURED WITH A 1" DOME TO PREVENT PUDDLING NEAR POST.



PULL POST

N.T.S.



TYPICAL CORNER

N.T.S.

GEORGIA
Environmental Protection Division
Solid Waste Management Program

MINOR MODIFICATION APPROVAL

SOLID WASTE PERMIT NO. 068-018D(LF)

APPROVED BY: GSH DATE: 8/26/13

GEORGIA REGISTERED No. 12687 PROFESSIONAL ENGINEER GARY H. McWHORTER

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Southern Company Generation
FOR
GEORGIA POWER COMPANY

REVISION 0 DATE 7/3/13

ISSUED FOR MINOR MODIFICATION

"REV. 0 OF THIS DRAWING, BEING PART OF THE DESIGN & OPERATIONS PLAN FOR THE PLANT BOWEN CCB DISPOSAL FACILITY, WAS SEALED BY GARY H. McWHORTER, GEORGIA REGISTERED PROFESSIONAL ENGINEER, NO. 12687."

BOWEN BAGHOUSE

MWO: GPC124110
MWO: GPC124131

PLANT BOWEN
CCB DISPOSAL FACILITY
FENCE AND GATE DETAILS

BY	CHK'D	CIVIL APPR	ELECT APPR	I/C APPR	MECH APPR	MGR APPR	SCALE	PROJ I.D.	DRAWING NUMBER	SH	CONT'D	REV
THH JAA	GHM JDM	ELM					NONE	10207	H-52260	1	FINAL	0

CELLS 9 AND 10 LINER RETROFIT
PLANT BOWEN - CCR LANDFILL
PERMIT NO. 008-018D (LI)
FOR
GEORGIA POWER COMPANY
BARTOW COUNTY, GEORGIA
SEPTEMBER 2018

Georgia Power

OPERATOR

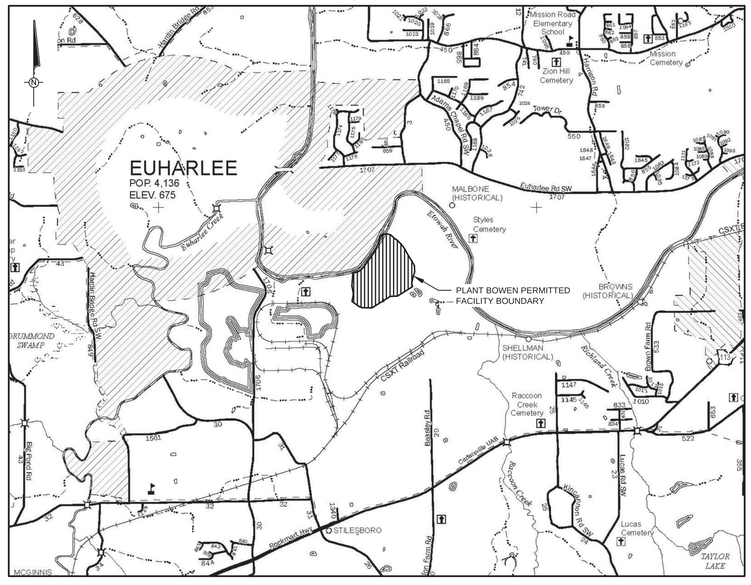
GEORGIA POWER COMPANY
317 COVERED BRIDGE RD
CARTERSVILLE, GA 30120
(770) 606-6331

OWNER

VICE PRESIDENT
ENVIRONMENTAL AND NATURAL RESOURCES
GEORGIA POWER COMPANY
241 RALPH McGILL BOULEVARD
ATLANTA, GEORGIA 30308
(404) 506-7777

INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
-	TITLE SHEET
1	TOP OF CLAY LINER GRADING PLAN
2	LEACHATE COLLECTION PLAN
3	LEACHATE FORCE MAIN PLAN
4	FINAL GRADING PLAN
5	FINAL DRAINAGE PLAN
6	EROSION CONTROL PLAN
7	CROSS SECTION A
8 - 11	MISCELLANEOUS DETAILS



BARTOW COUNTY, GEORGIA
PROJECT SITE LOCATION

LEGEND

- SITE BOUNDARY
- 200' BUFFER LINE
- BUFFER ENCROACHMENT
- FAVORABLE / UNFAVORABLE AREA BOUNDARY
- INTERNAL CELL BOUNDARY
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING UNPAVED ROAD
- EXISTING PAVED ROAD
- EXISTING GRAVEL ROAD
- EXISTING STORM DRAINAGE PIPE
- EXISTING OUTFALL STRUCTURE
- EXISTING CONCRETE HEADWALL
- EXISTING WATER SUPPLY LINE
- EXISTING ASH TRANSFER LINE
- EXISTING OVERHEAD POWER LINE
- EXISTING POWER POLE
- PROPOSED ANCHOR TRENCH
- PROPOSED LIMIT OF WASTE
- PROPOSED 1' CONTOUR
- PROPOSED 5' CONTOUR
- PROPOSED SOLID LEACHATE PIPE
- PROPOSED PERFORATED LEACHATE PIPE
- PROPOSED LEACHATE CLEANOUT
- PROPOSED LEACHATE SUMP
- PROPOSED AIR RELEASE VALVE VAULT
- PROPOSED GRAVEL ACCESS ROAD
- PROPOSED DOWNDRAIN PIPE AND INLET
- PROPOSED SIDE SLOPE BENCH FLOW LINE
- PROPOSED STORMWATER DIVERSION BERM
- PROPOSED CONCRETE HEADWALL

GEORGIA REGISTERED No. 27185 PROFESSIONAL 11/15/18 ORIGINAL R. BRANT LANE

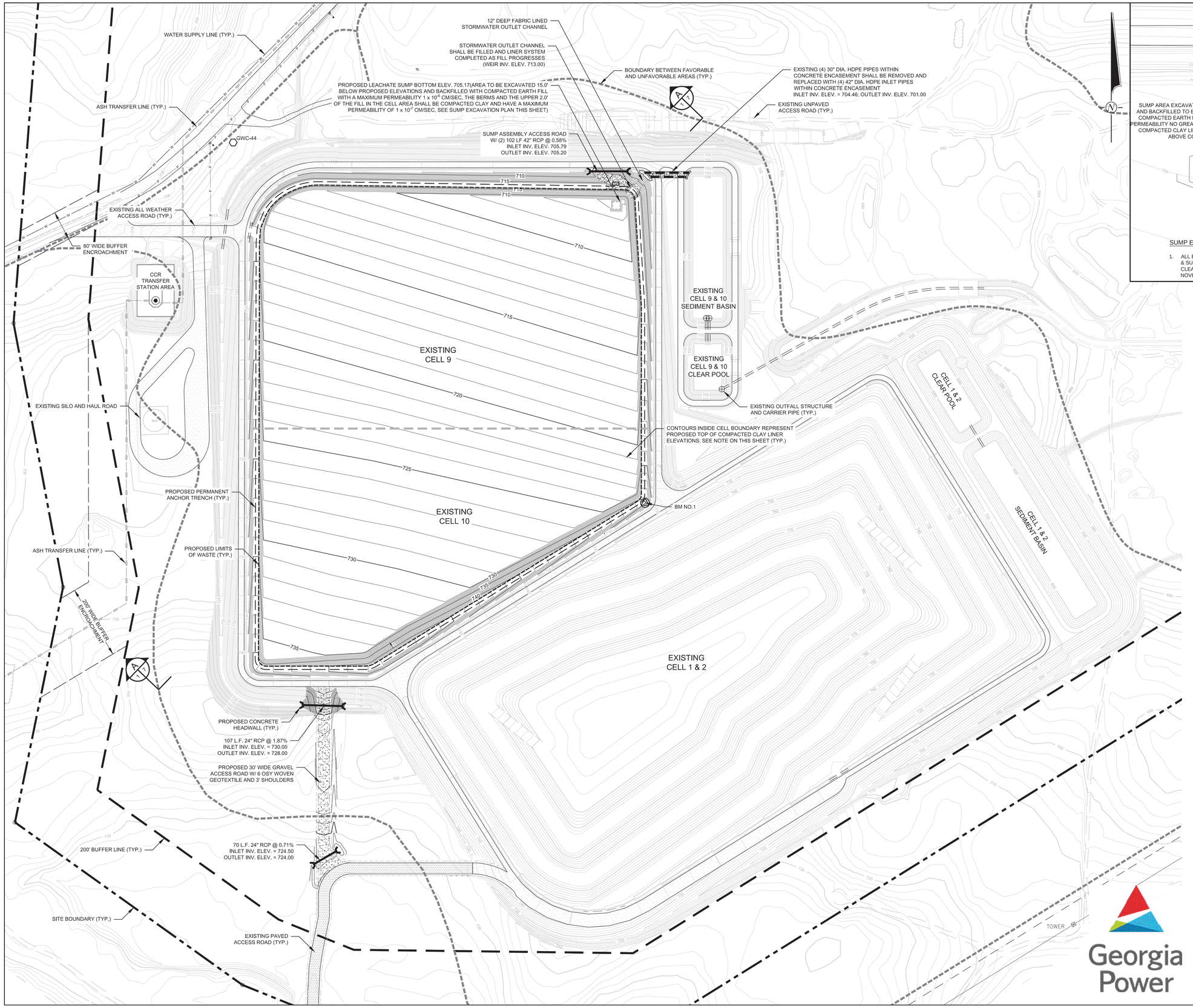
HHNT
HODGES, HARBIN, NEWBERRY & TRIBBLE, INC.
Consulting Engineers

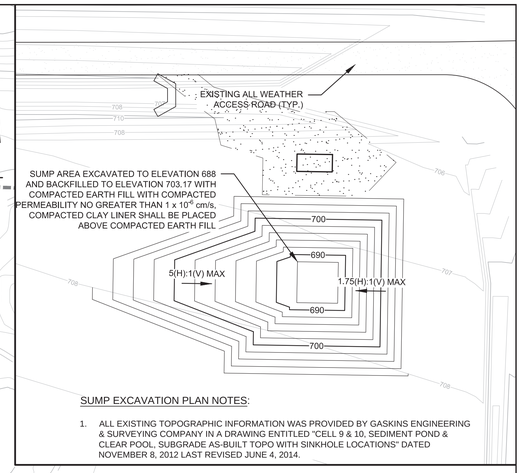
GEORGIA REGISTERED No. 17552 PROFESSIONAL 11-15-18 CLAUDIA M. MOELLER

3920 ARKWRIGHT ROAD, SUITE 101 - MACON, GEORGIA 31210
(478) 743-7175
FAX: (478) 743-1703

REVISION HISTORY

DATE	SHEET	REQUESTED BY:





SUMP EXCAVATION PLAN

SCALE: 1" = 30'

SUMP EXCAVATION PLAN NOTES:

1. ALL EXISTING TOPOGRAPHIC INFORMATION WAS PROVIDED BY GASKINS ENGINEERING & SURVEYING COMPANY IN A DRAWING ENTITLED "CELL 9 & 10, SEDIMENT POND & CLEAR POOL, SUBGRADE AS-BUILT TOPO WITH SINKHOLE LOCATIONS" DATED NOVEMBER 8, 2012 LAST REVISED JUNE 4, 2014.

BM NO.	NORTHING	EASTING	ELEV.	DESCRIPTION
1	1503465.76	2072523.60	730.90	PK NAIL
2	1505086.82	2072040.25	702.38	PK NAIL
3	1505155.49	2072111.58	702.30	PK NAIL

SEE "LEACHATE FORCE MAIN PLAN AND PROFILE" SHEET 5 OF 12 FOR LOCATIONS OF BM NO. 2 AND BM NO. 3

REFERENCE NOTES:

1. ALL EXISTING TOPOGRAPHIC INFORMATION, STORMWATER STRUCTURES, BOUNDARY LINE AND BUFFER INFORMATION WAS TAKEN FROM THE PERMITTED DESIGN AND OPERATION PLAN FOR THE FACILITY.
2. EXISTING TOPOGRAPHIC INFORMATION ALONG THE ROUTE OF THE LEACHATE FORCE MAIN FROM THE CELL 9 SUMP TO THE STORAGE TANK WAS PROVIDED BY THE OWNER IN A DRAWING ENTITLED "BOWEN LEACHATE FORCE MAIN", DATE OF SURVEY: APRIL 10, 2018.

TOP OF CLAY LINER GRADING PLAN NOTES:

1. EXISTING VEGETATION WILL BE STRIPPED FROM THE EXISTING CLAY LINER IN CELLS 9 AND 10. AFTER STRIPPING, THE CLAY LINER WILL BE CONSTRUCTED TO MEET THE PROPOSED GRADES SHOWN ON THIS SHEET. THE CLAY LINER WILL BE COMPACTED IN LIFTS AND TESTED AS DESCRIBED IN THE FACILITY CQA PLAN..
2. PROPOSED CONTOURS WITHIN THE LINED CELL AREA REPRESENTS THE TOP OF THE COMPACTED CLAY LINER SYSTEM.
3. ALL SLOPES WITHIN THE LINED CELL AREA SHALL BE CONSTRUCTED WITH A MAXIMUM 3(H):1(V) SLOPE.

GEORGIA REGISTERED No. 17880 PROFESSIONAL 11-15-18 ENGINEER CLAUDIA M. MOELLER

GEORGIA REGISTERED No. 27185 PROFESSIONAL 11/15/18 ENGINEER R. BRANT LANE

100 50 0 100 200
GRAPHIC SCALE IN FEET

TOP OF CLAY LINER GRADING PLAN

CELLS 9 & 10 LINER RETROFIT
PLANT BOWEN - CCB DISPOSAL FACILITY

PERMIT NO. 008-018D (LI)

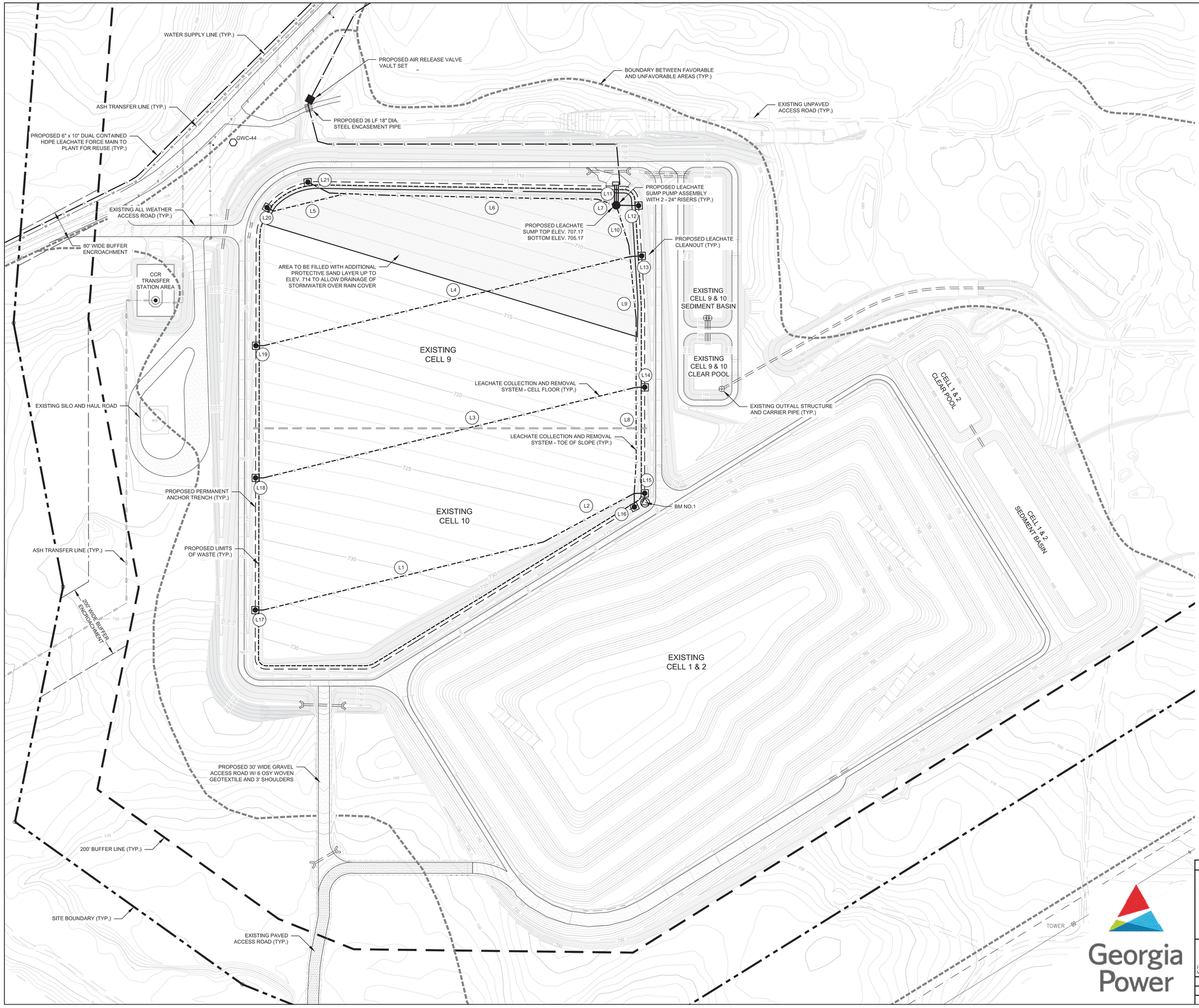
FOR

GEORGIA POWER COMPANY

BARTOW COUNTY, GEORGIA

HHNT
HODGES, HARBIN, NEWBERRY & TRIBBLE, INC.
3920 ARKWRIGHT RD. SUITE 101 MACON, GEORGIA 31210
(478) 743-7175 WWW.HHNT.COM

PROJ. NO.	3030-022-01	DWG.	BWN-CELL 9-10-Retrofit
SCALE	1" = 100'	SHEET	1 OF 11
DATE	NOVEMBER 2018		



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1	1503465.76	2072523.60	730.90	PK NAIL
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3	1505155.49	2072111.58	702.30	PK NAIL

SEE "LEACHATE FORCE MAIN PLAN AND PROFILE" SHEET 5 OF 12 FOR LOCATIONS OF BM NO. 2 AND BM NO. 3

LEACHATE COLLECTION SYSTEM

PIPE NO.	LEACHATE PIPE			
	SOLID PIPE DIAMETER			PERFORATED PIPE DIA.
	2"	8"	24"	*8"
L1	-	-	-	778' @ 0.83%
L2	-	-	-	277' @ 1.33%
L3	-	-	-	1,033' @ 0.99%
L4	-	-	-	1,016' @ 1.02%
L5	-	-	-	199' @ 1.11%
L6	-	-	-	722' @ 0.53%
L7	-	-	-	54' @ 2.45%
L8	-	-	-	286' @ 2.29%
L9	-	-	-	353' @ 1.99%
L10	-	-	-	144' @ 1.80%
L11	57'	57'	(2) 57'	-
L12	-	60'	-	-
L13	-	31'	-	-
L14	-	23'	-	-
L15	-	28'	-	-
L16	-	37'	-	-
L17	-	21'	-	-
L18	-	21'	-	-
L19	-	21'	-	-
L20	-	20'	-	-
L21	-	65'	-	-

* SLOPES SHOWN IN TABLE ARE THE AVERAGE PIPE SLOPES; THE ACTUAL SLOPE WILL FOLLOW THE AS-BUILT TOP OF CLAY GRADES

REFERENCE NOTES:

1. SEE TOP OF CLAY LINER GRADING PLAN, SHEET 1 OF 11, FOR ALL REFERENCE NOTES.

LEACHATE COLLECTION PLAN NOTES:

1. ALL LEACHATE COLLECTION PIPING SHALL BE INSTALLED WITH A MINIMUM SLOPE OF 0.50%.

GEORGIA REGISTERED No. 17593 PROFESSIONAL 11-15-18 ENGINEER CLAUDIA M. MOELLER

GEORGIA REGISTERED No. 27185 PROFESSIONAL 11/5/18 ENGINEER R. BRANT LANE

100 50 0 100 200
GRAPHIC SCALE IN FEET

LEACHATE COLLECTION PLAN

CELLS 9 & 10 LINER RETROFIT
PLANT BOWEN - CCB DISPOSAL FACILITY

PERMIT NO. 008-018D (LI)

FOR

GEORGIA POWER COMPANY

BARTOW COUNTY, GEORGIA

HHNT
HODGES, HARBIN, NEWBERRY & TRIBBLE, INC.
3920 ARKWRIGHT RD. SUITE 101 MACON, GEORGIA 31210
(478) 743-7175 WWW.HHNT.COM

PROJ. NO.	3030-022-01	DWG.	BWN-CELL 9-10-Retrofit
SCALE	1" = 100'	SHEET	2 OF 11
DATE	NOVEMBER 2018		

EXISTING RECREATION BUILDING

EXISTING LEACHATE STORAGE TANK AND SECONDARY CONTAINMENT

GWC-38

LEACHATE FORCE MAIN TO BE ROUTED INTO TOP OF LEACHATE STORAGE TANK

PROPOSED LEACHATE TRANSFER PUMPS TO TRANSPORT LEACHATE TO THE PLANT FOR REUSE OR TREATMENT

EXISTING CONCRETE LOADOUT PAD

PROPOSED 130 LF 12" DIA. STEEL ENCASEMENT PIPE

EXISTING BUILDING / RESTROOMS (NOT IN USE)

EXISTING PAVED AREA (TYP.)

EXISTING SCALES

EXISTING CONNEX STORAGE BUILDING

EXISTING SCALE HOUSE OFFICE

PROPOSED 2,554 LF 4" x 8" DUAL CONTAINED HDPE LEACHATE FORCE MAIN (TYP.)

WATER SUPPLY LINE (TYP.)

PROPOSED AIR RELEASE VALVE VAULT SET

BOUNDARY BETWEEN FAVORABLE AND UNFAVORABLE AREAS (TYP.)

EXISTING UNPAVED ACCESS ROAD (TYP.)

ASH TRANSFER LINE (TYP.)

PROPOSED 26 LF 18" DIA. STEEL ENCASEMENT PIPE

PROPOSED 6" x 10" DUAL CONTAINED HDPE LEACHATE FORCE MAIN TO PLANT FOR REUSE (TYP.)

GWC-44

EXISTING ALL WEATHER ACCESS ROAD (TYP.)

PROPOSED LEACHATE SUMP PUMP ASSEMBLY WITH 2 - 24" RISERS (TYP.)

PROPOSED LEACHATE SUMP TOP ELEV. 707.17 BOTTOM ELEV. 705.17

PROPOSED LEACHATE CLEANOUT (TYP.)

80' WIDE BUFFER ENCROACHMENT

CCR TRANSFER STATION AREA

AREA TO BE FILLED WITH ADDITIONAL PROTECTIVE SAND LAYER UP TO ELEV. 714 TO ALLOW DRAINAGE OF STORMWATER OVER RAIN COVER

EXISTING CELL 9 & 10 SEDIMENT BASIN

EXISTING CELL 9

EXISTING CELL 9 & 10 CLEAR POOL

LEACHATE COLLECTION AND REMOVAL SYSTEM - CELL FLOOR (TYP.)

EXISTING OUTFALL STRUCTURE AND CARRIER PIPE (TYP.)

CELL 1 & 2 CLEAR POOL

EXISTING SILO AND HAUL ROAD

LEACHATE COLLECTION AND REMOVAL SYSTEM - TOE OF SLOPE (TYP.)

PROPOSED PERMANENT ANCHOR TRENCH (TYP.)

EXISTING CELL 10

CELL 1 & 2 SEDIMENT BASIN

ASH TRANSFER LINE (TYP.)

PROPOSED LIMITS OF WASTE (TYP.)

200' WIDE BUFFER ENCROACHMENT

N

REFERENCE NOTES:

1. SEE TOP OF CLAY LINER GRADING PLAN, SHEET 1 OF 11, FOR ALL REFERENCE NOTES.

LEACHATE FORCE MAIN PLAN NOTES:

1. PORTIONS OF THE LEACHATE FORCE MAIN WILL BE INSTALLED ABOVE GROUND AND CONTAINED WITH BOLLARDS OR SIMILAR BARRIERS .

GEORGIA REGISTERED No. 17582 PROFESSIONAL 11-15-18 ENGINEER CLAUDIA M. MOELLER

GEORGIA REGISTERED NO. 27185 PROFESSIONAL 11/15/18 ENGINEER R. BRANT LANE

100 50 0 100 200

GRAPHIC SCALE IN FEET

Georgia Power

LEACHATE FORCE MAIN PLAN

CELLS 9 & 10 LINER RETROFIT
PLANT BOWEN - CCB DISPOSAL FACILITY

PERMIT NO. 008-018D (LI)

FOR

GEORGIA POWER COMPANY

BARTOW COUNTY, GEORGIA

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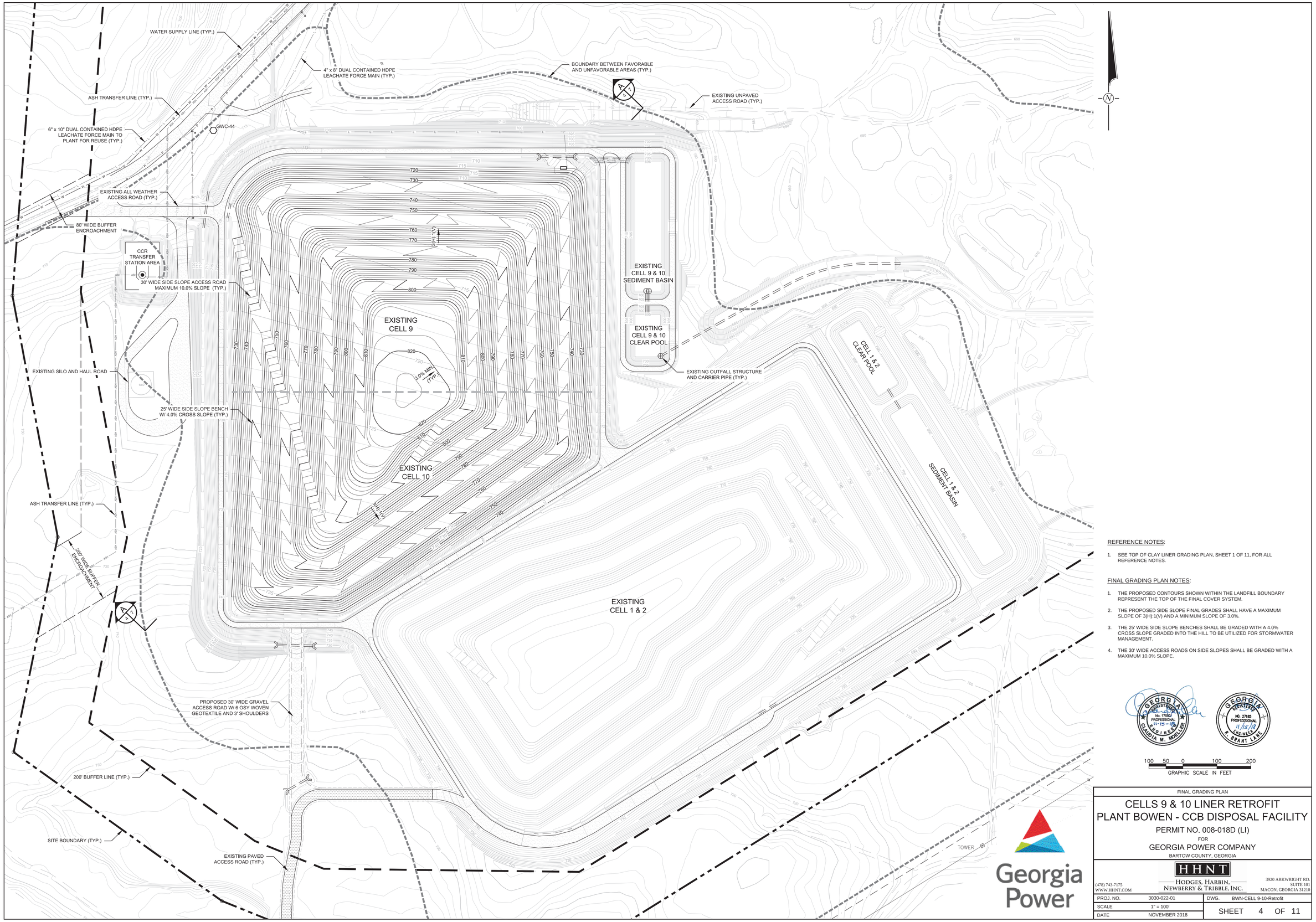
MACON, GEORGIA 31210

PROJ. NO.	3030-022-01	DWG.	BWN-CELL 9-10-Retrofit
SCALE	1" = 100'	SHEET	3 OF 11
DATE	NOVEMBER 2018		



REFERENCE NOTES:

1. SEE TOP OF CLAY LINER GRADING PLAN, SHEET 1 OF 11, FOR ALL REFERENCE NOTES.

FINAL GRADING PLAN NOTES:

1. THE PROPOSED CONTOURS SHOWN WITHIN THE LANDFILL BOUNDARY REPRESENT THE TOP OF THE FINAL COVER SYSTEM.
2. THE PROPOSED SIDE SLOPE FINAL GRADES SHALL HAVE A MAXIMUM SLOPE OF 3(H):1(V) AND A MINIMUM SLOPE OF 3.0%.
3. THE 25' WIDE SIDE SLOPE BENCHES SHALL BE GRADED WITH A 4.0% CROSS SLOPE GRADED INTO THE HILL TO BE UTILIZED FOR STORMWATER MANAGEMENT.
4. THE 30' WIDE ACCESS ROADS ON SIDE SLOPES SHALL BE GRADED WITH A MAXIMUM 10.0% SLOPE.

GEORGIA REGISTERED No. 17580 PROFESSIONAL 11-15-18 ENGINEER CLAUDIA M. MOELLER

GEORGIA REGISTERED NO. 27185 PROFESSIONAL 11/15/18 ENGINEER R. BRANT LINE

100 50 0 100 200
GRAPHIC SCALE IN FEET

FINAL GRADING PLAN

CELLS 9 & 10 LINER RETROFIT
PLANT BOWEN - CCB DISPOSAL FACILITY

PERMIT NO. 008-018D (LI)

FOR

GEORGIA POWER COMPANY

BARTOW COUNTY, GEORGIA

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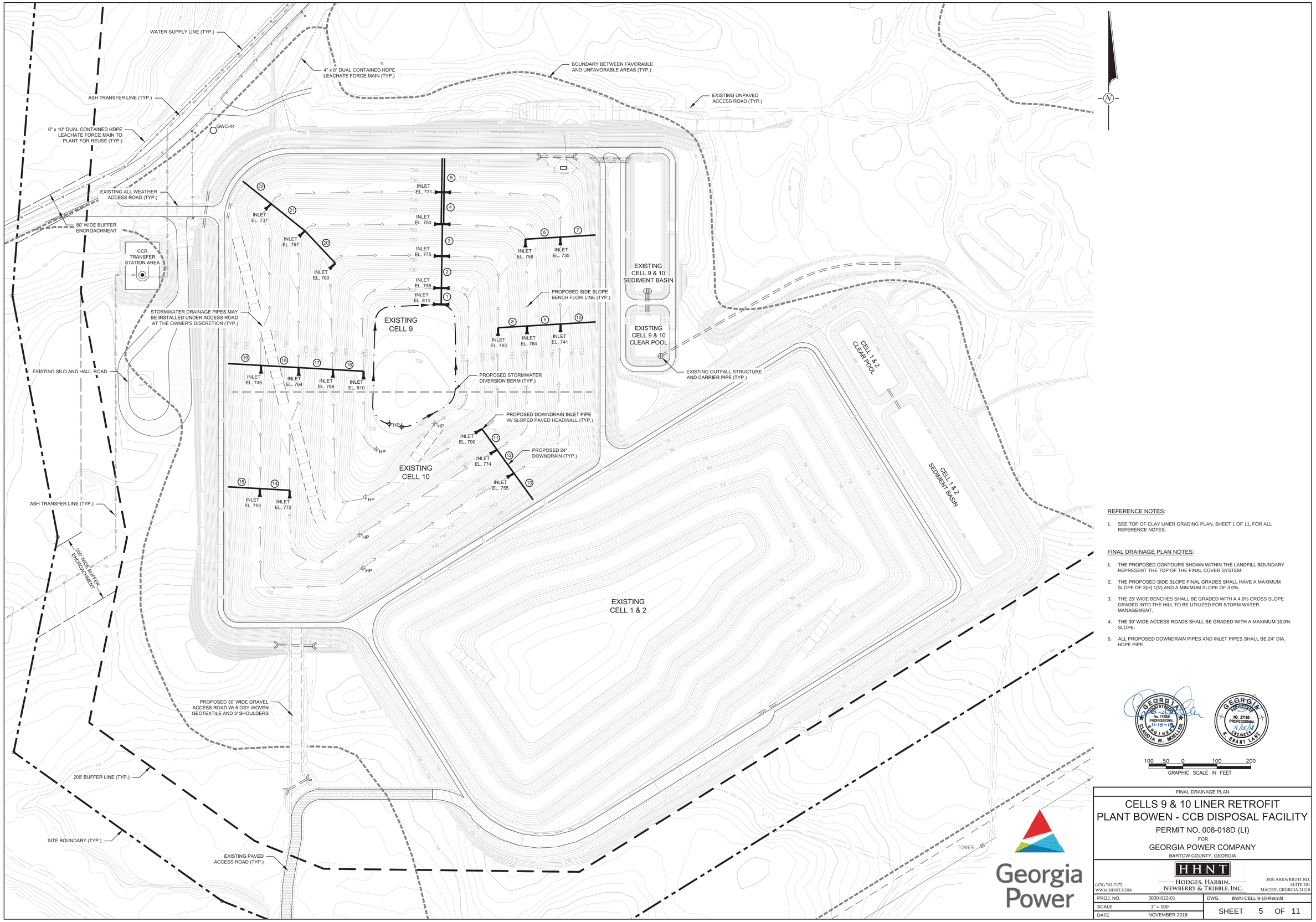
3920 ARKWRIGHT RD. SUITE 101 MACON, GEORGIA 31210
(478) 743-7175 WWW.HHNT.COM

PROJ. NO.	3030-022-01	DWG.	BWN-CELL 9-10-Retrofit
SCALE	1" = 100'	SHEET	4 OF 11
DATE	NOVEMBER 2018		



REFERENCE NOTES:

1. SEE TOP OF CLAY LINER GRADING PLAN, SHEET 1 OF 11, FOR ALL REFERENCE NOTES.

FINAL DRAINAGE PLAN NOTES:

1. THE PROPOSED CONTOURS SHOWN WITHIN THE LANDFILL BOUNDARY REPRESENT THE TOP OF THE FINAL COVER SYSTEM.
2. THE PROPOSED SIDE SLOPE FINAL GRADES SHALL HAVE A MAXIMUM SLOPE OF 3(H):1(V) AND A MINIMUM SLOPE OF 3.0%.
3. THE 25' WIDE BENCHES SHALL BE GRADED WITH A 4.0% CROSS SLOPE GRADED INTO THE HILL TO BE UTILIZED FOR STORM WATER MANAGEMENT.
4. THE 30' WIDE ACCESS ROADS SHALL BE GRADED WITH A MAXIMUM 10.0% SLOPE.
5. ALL PROPOSED DOWNDRAIN PIPES AND INLET PIPES SHALL BE 24" DIA. HDPE PIPE.

GEORGIA REGISTERED No. 17583 PROFESSIONAL 11-15-18 ENGINEER CLAUDIA M. MOELLER

GEORGIA REGISTERED No. 27185 PROFESSIONAL 11/15/18 ENGINEER R. BRANT LANE

100 50 0 100 200
GRAPHIC SCALE IN FEET

Georgia Power

FINAL DRAINAGE PLAN

CELLS 9 & 10 LINER RETROFIT
PLANT BOWEN - CCB DISPOSAL FACILITY

PERMIT NO. 008-018D (LI)

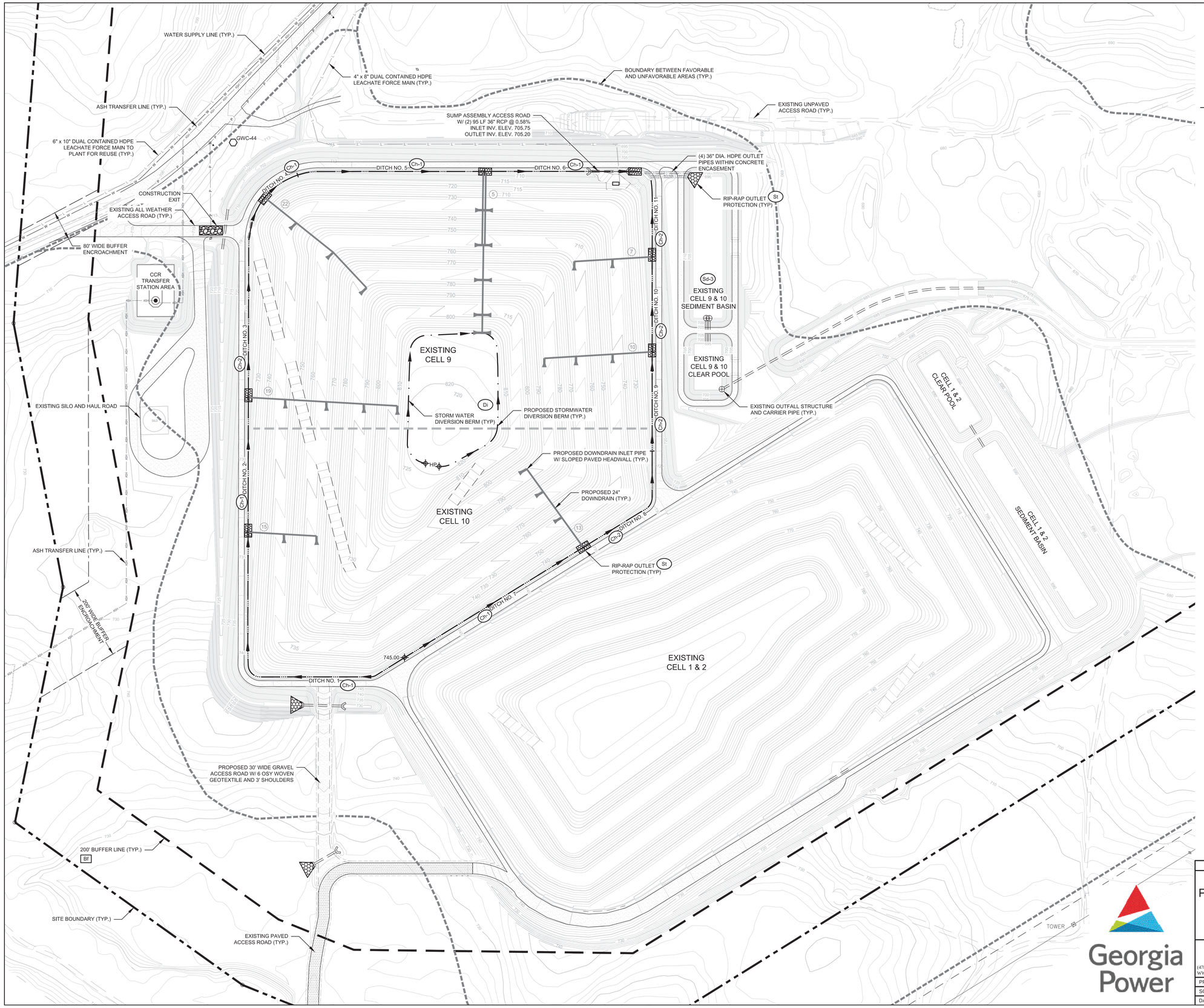
FOR

GEORGIA POWER COMPANY

BARTOW COUNTY, GEORGIA

HHNT
HODGES, HARBIN, NEWBERRY & TRIBBLE, INC.
(478) 743-7175
WWW.HHNT.COM
3920 ARKWRIGHT RD.
SUITE 101
MACON, GEORGIA 31210

PROJ. NO.	3030-022-01	DWG.	BWN-CELL 9-10-Retrofit
SCALE	1" = 100'		
DATE	NOVEMBER 2018	SHEET	5 OF 11



EROSION CONTROL DEVICES

	CONSTRUCTION EXIT	Co
	STORMWATER DIVERSION BERM	Di
	DRAINAGE DITCH	Ch-#

RIP-RAP OUTLET PROTECTION

DOWNDRAIN NO.	RIP-RAP SIZE	L	W1	W2
5	6"	20'	25'	25'
7	6"	8'	25'	25'
10	6"	8'	25'	25'
13	6"	8'	25'	25'
15	6"	8'	25'	25'
19	6"	8'	25'	25'
22	6"	8'	25'	25'

PIPE	RIP-RAP SIZE	L	W1	W2
(2) 36"	12"	34'	25'	25'
(4) 36"	15"	40'	18'	58'

NOTE: ALL RIP-RAP OUTLET PROTECTION SHALL BE GROUTED IN PLACE

GRASSED LINED DITCH WITH EXCELSIOR MATTING (Ch-1)

DITCH NO.	LENGTH	SLOPE
1	806'	1.74%
2	363'	1.93%
4	187'	1.07%
5	505'	0.59%
6	417'	0.48%
7	570'	2.11%

RIP-RAP LINED DITCH (Ch-2)

DITCH NO.	LENGTH	SLOPE	RIP-RAP SIZE
3	547'	2.01%	6"
8	360'	3.33%	6"
9	267'	1.87%	6"
10	256'	2.34%	6"
11	205'	1.95%	6"

EROSION CONTROL SYMBOL LEGEND

St	OUTLET PROTECTION	Bf	BUFFER ZONE
Ch-#	CHANNEL STABILIZATION -1 VEGETATED LINING -2 RIP-RAP LINING	Sd3	SEDIMENT BASIN
		Di	STORMWATER DIVERSION BERM

REFERENCE NOTES:

1. SEE TOP OF CLAY LINER GRADING PLAN, SHEET 1 OF 11, FOR ALL REFERENCE NOTES.

EROSION CONTROL PLAN NOTES:

1. EROSION AND SEDIMENTATION CONTROL DEVICES ARE TO BE INSTALLED PRIOR TO BEGINNING ANY LAND DISTURBING ACTIVITIES.
2. IN PLACE OF RIP-RAP LINED DITCHES THE OPERATOR MAY USE A MORE RESISTANT LINING MATERIAL SUCH AS CONCRETE LINED DITCHES.
3. EXCELSIOR MATTING SHALL BE PLACED ON THE FINAL COVER SYSTEM IN ALL AREAS WITH SLOPES 3:1 OR STEEPER.

GEORGIA REGISTERED No. 17880 PROFESSIONAL 11-15-18 ENGINEER CLAUDIA M. MOELLER

GEORGIA REGISTERED NO. 27185 PROFESSIONAL 11/15/18 ENGINEER R. BRANT LANE

100 50 0 100 200
GRAPHIC SCALE IN FEET

EROSION CONTROL PLAN

CELLS 9 & 10 LINER RETROFIT
PLANT BOWEN - CCB DISPOSAL FACILITY

PERMIT NO. 008-018D (LI)

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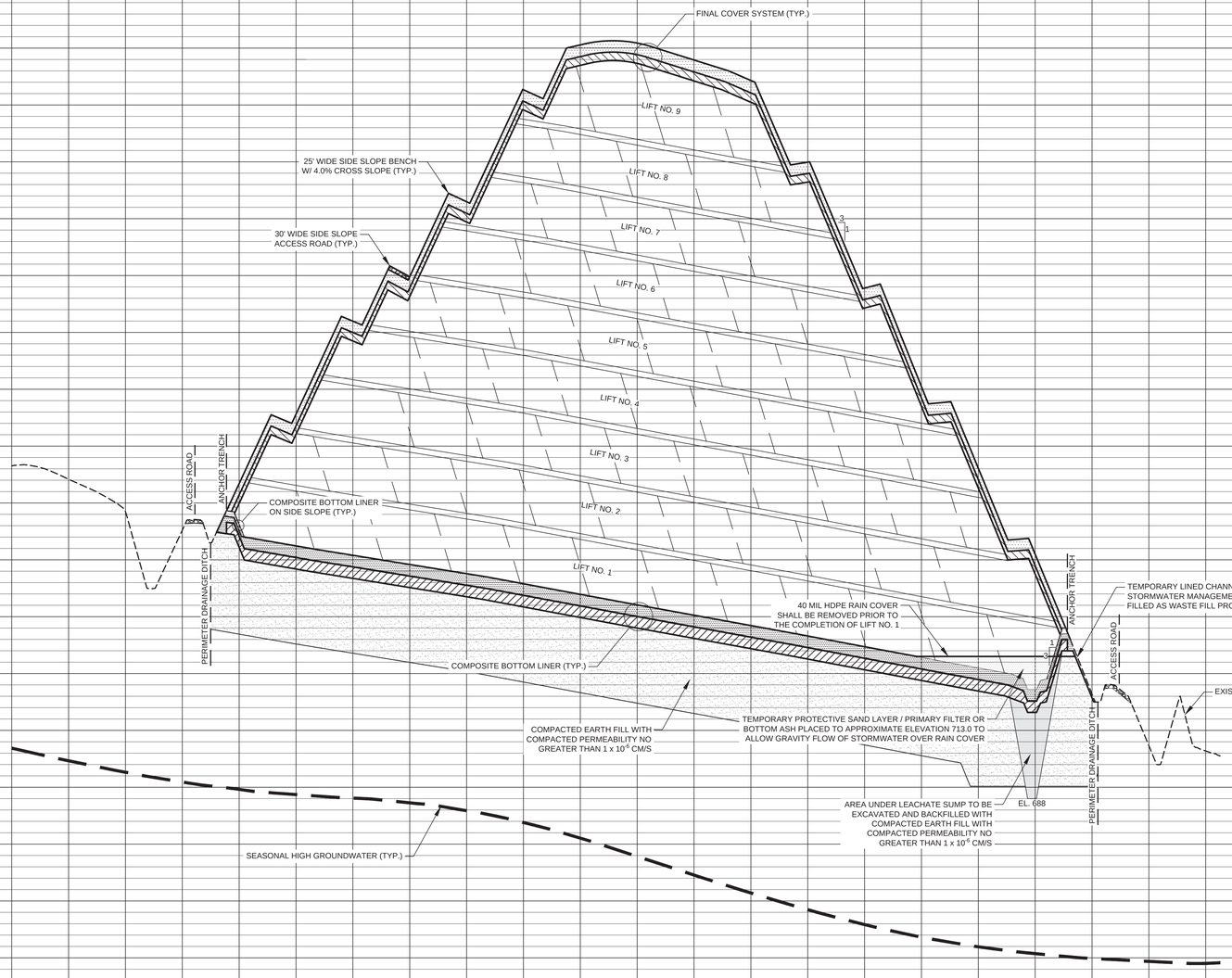
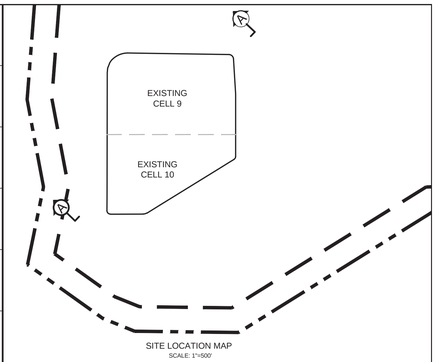
PROJ. NO.	3030-022-01	DWG.	BWN-CELL 9-10-Retrofit
SCALE	1" = 100'		
DATE	NOVEMBER 2018	SHEET	6 OF 11

Georgia Power





SITE LOCATION MAP
SCALE: 1"=500'

GENERAL NOTES:

1. ALL EXISTING TOPOGRAPHIC INFORMATION, BOUNDARY LINE AND BUFFER INFORMATION WAS TAKEN FROM THE PERMITTED DESIGN AND OPERATION PLAN FOR THE FACILITY.
2. SEASONAL HIGH GROUNDWATER WAS TAKEN FROM THE PERMITTED DESIGN AND OPERATION PLAN FOR THE FACILITY.

100 50 0 100 200
HORIZONTAL GRAPHIC SCALE IN FEET

10 5 0 10 20
VERTICAL GRAPHIC SCALE IN FEET

GEORGIA REGISTERED No. 17582 PROFESSIONAL 11-15-18 ENGINEER CLAUDIA M. MOELLER

GEORGIA REGISTERED No. 27185 PROFESSIONAL 11/15/18 ENGINEER R. BRANT LANE

CROSS SECTION A

CELLS 9 & 10 LINER RETROFIT
PLANT BOWEN - CCB DISPOSAL FACILITY

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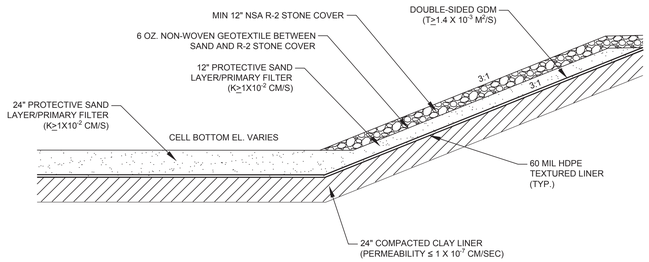
(478) 743-7175 WWW.HHNT.COM

PROJ. NO.	3030-022-01	DWG.	BWN-Cell 9-10-7-X Sec
SCALE	1"=100' HOR. 1"=10' VERT.	SHEET	7 OF 11
DATE	NOVEMBER 2018		

1

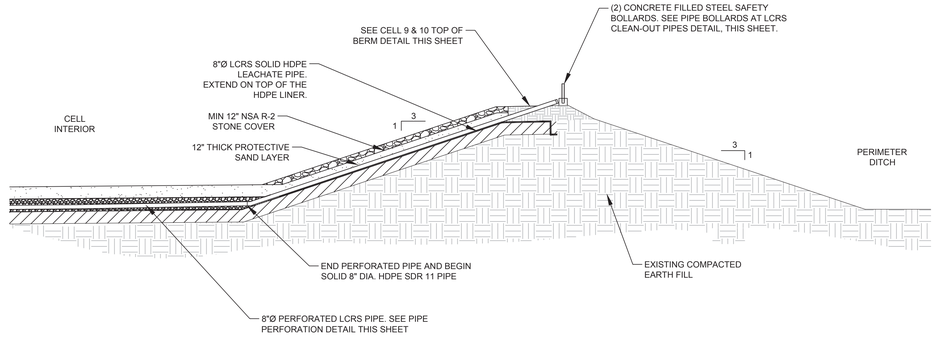


NOTE:
1. OPERATOR MAY INSTALL RAIN COVER OR OTHER GEOSYNTHETIC OVER SURFACE OF PROTECTIVE SAND LAYER FOR EROSION CONTROL AND STORMWATER MANAGEMENT.

COMPOSITE BOTTOM LINER

NTS

2

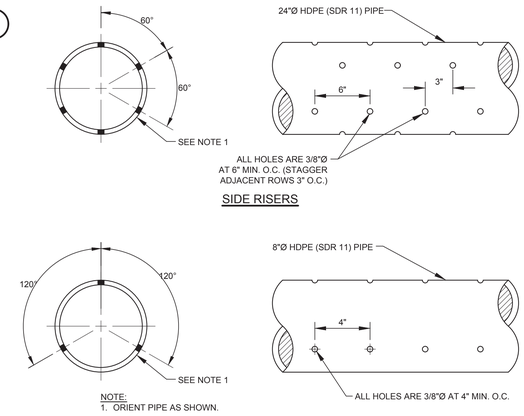


NOTE:
1. OPERATOR MAY INSTALL RAIN FLAP OR OTHER GEOSYNTHETIC OVER SURFACE OF PROTECTIVE SAND LAYER FOR EROSION CONTROL AND STORMWATER MANAGEMENT.

LEACHATE CLEANOUT

SCALE: N.T.S.

3



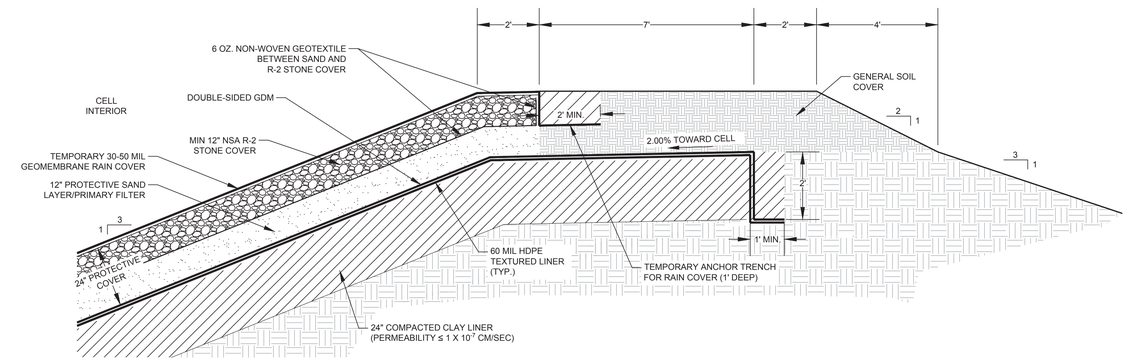
NOTE:
1. ORIENT PIPE AS SHOWN.

LEACHATE COLLECTION PIPING

HDPE PIPE PERFORATIONS

SCALE: N.T.S.

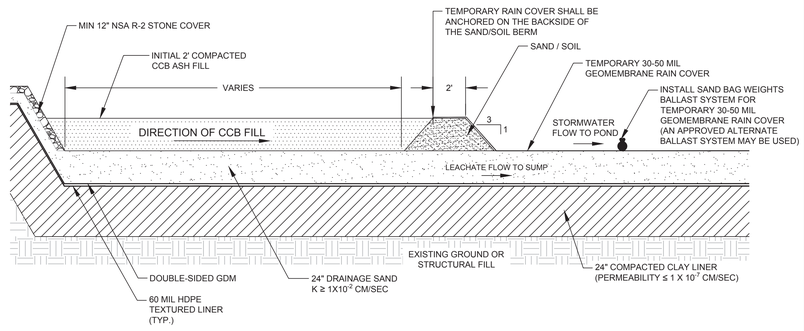
4



CELL 9 AND 10 TOP OF BERM

SCALE: N.T.S.

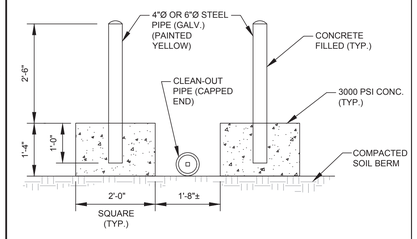
5



RAIN FLAP

SCALE: N.T.S.

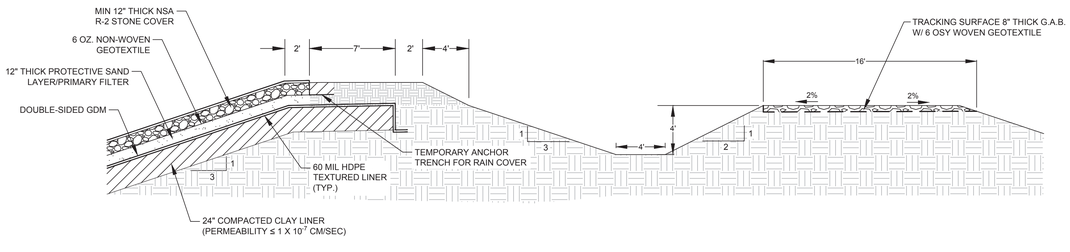
6



PIPE BOLLARDS AT LEACHATE CLEANOUT PIPES

SCALE: N.T.S.

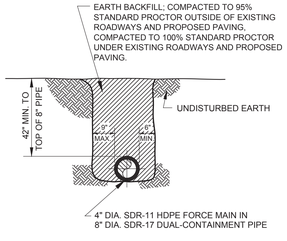
7



PERMANENT ACCESS ROAD, PERMIETER DITCH, AND BERM TYPICAL SECTION

SCALE: 1" = 5'

8

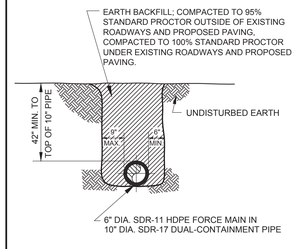


NOTE:
FORCE MAIN PIPING SHALL BE DUAL CONTAINMENT AND BE INSTALLED ACCORDING TO MANUFACTURERS RECOMMENDATIONS AND SPECIFICATIONS.

4"X8" DUAL CONTIANED FORCE MAIN

SCALE: NTS

9



NOTE:
FORCE MAIN PIPING SHALL BE DUAL CONTAINMENT AND BE INSTALLED ACCORDING TO MANUFACTURERS RECOMMENDATIONS AND SPECIFICATIONS.

6"X10" DUAL CONTIANED FORCE MAIN

SCALE: NTS



Georgia Power

MISCELLANEOUS DETAILS

CELLS 9 & 10 LINER RETROFIT
PLANT BOWEN - CCB DISPOSAL FACILITY

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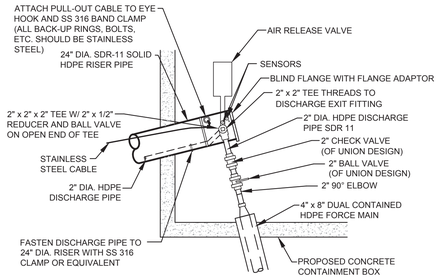
PROJ. NO.	3030-022-01	DWG.	BWN-Cell 9-10-8-D1
SCALE	AS SHOWN	SHEET	8 OF 11
DATE	NOVEMBER 2018		

10

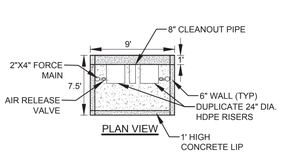


NOTE:
1. WRAP DISCHARGE PIPE AND FITTINGS WITH INSULATION AND HEAT TAPE.
2. THE ENDS OF ALL PIPES SHALL BE SEALED.

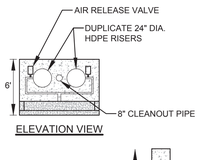
FORCE MAIN FITTINGS W/ FREEZE PROTECTION

SCALE: NTS

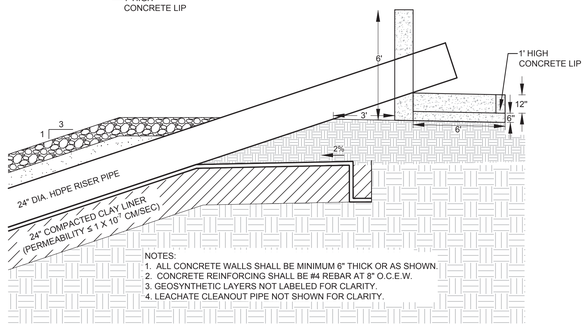
12



PLAN VIEW



ELEVATION VIEW

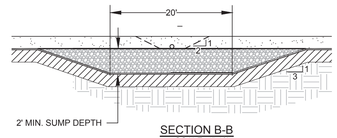


NOTES:
1. ALL CONCRETE WALLS SHALL BE MINIMUM 6" THICK OR AS SHOWN.
2. CONCRETE REINFORCING SHALL BE #4 REBAR AT 8" O.C.E.W.
3. GEOSYNTHETIC LAYERS NOT LABELED FOR CLARITY.
4. LEACHATE CLEANOUT PIPE NOT SHOWN FOR CLARITY.

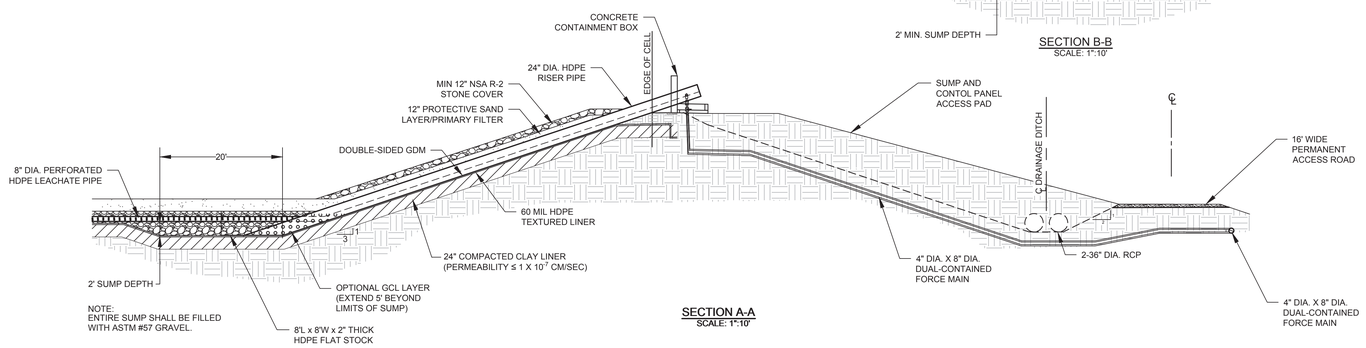
CONCRETE CONTAINMENT BOX

SCALE: NTS

11

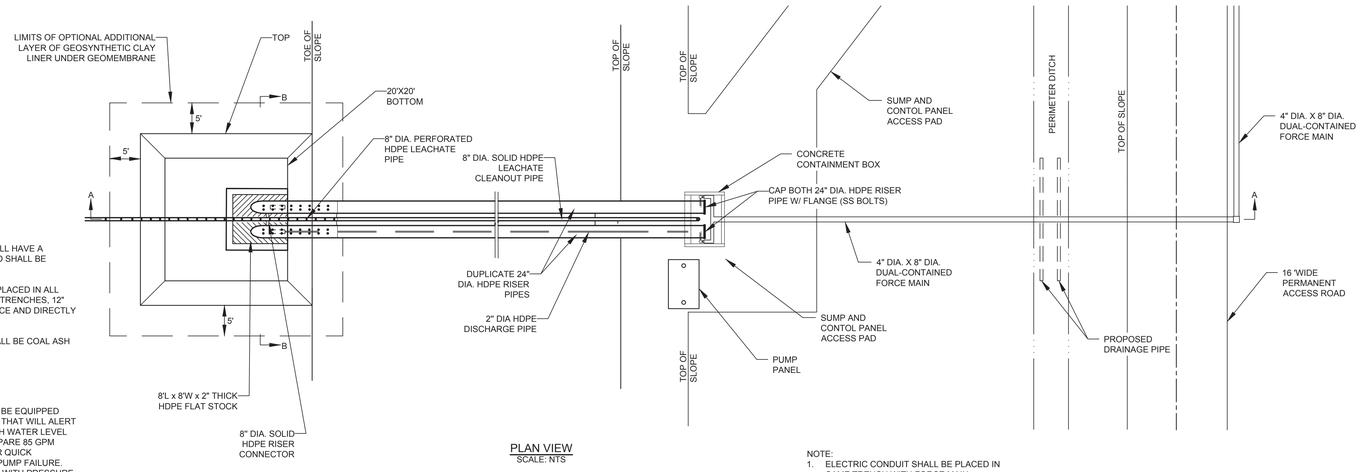


SECTION B-B
SCALE: 1":10'



NOTE:
ENTIRE SUMP SHALL BE FILLED WITH ASTM #57 GRAVEL.

SECTION A-A
SCALE: 1":10'



PLAN VIEW
SCALE: NTS

NOTES:

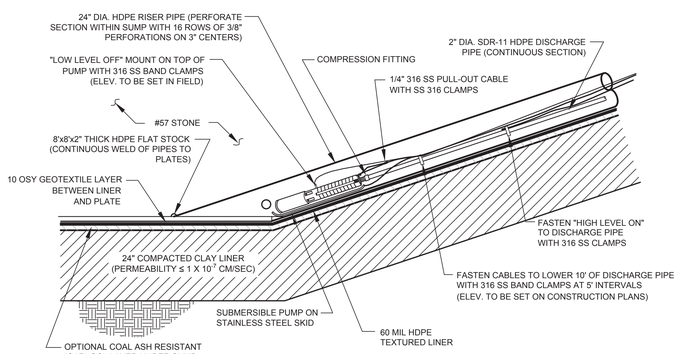
1. 4" DIA. FORCE MAIN SHALL HAVE A MINIMUM 24" COVER AND SHALL BE DUAL-CONTAINED.
2. TRACE TAPE SHALL BE PLACED IN ALL LEACHATE FORCE MAIN TRENCHES, 12" BELOW GROUND SURFACE AND DIRECTLY ABOVE PIPE.
3. ALL GCL INSTALLED SHALL BE COAL ASH RESISTANT (CAR).

PUMP CONTROLS:
SUMP PUMP SYSTEM SHALL BE EQUIPPED WITH A HIGH WATER ALARM THAT WILL ALERT ONSITE PERSONNEL TO HIGH WATER LEVEL IN SUMP. AT A MINIMUM, 1 SPARE 85 GPM PUMP SHALL BE ONSITE FOR QUICK REPLACEMENT IN CASE OF PUMP FAILURE. PUMPS SHALL BE EQUIPPED WITH PRESSURE TRANSDUCERS FOR AUTOMATIC CONTROL.

NOTE:
1. ELECTRIC CONDUIT SHALL BE PLACED IN SAME TRENCH WITH FORCE MAIN.

LEACHATE SUMP ASSEMBLY

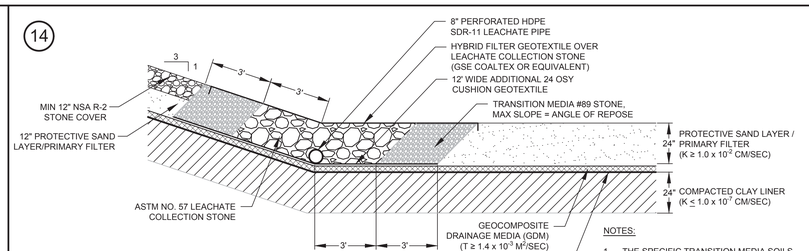
13



LEACHATE SUMP PUMP

SCALE: N.T.S.

14



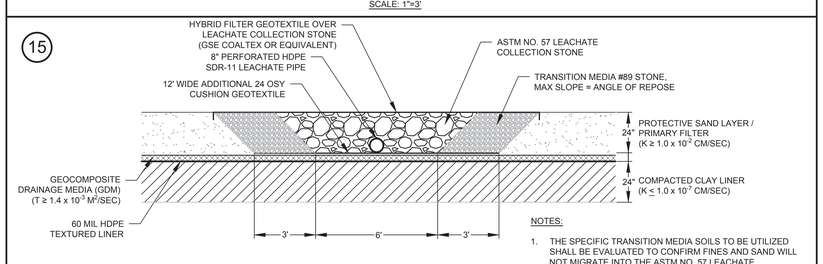
NOTES:

1. THE SPECIFIC TRANSITION MEDIA SOILS TO BE UTILIZED SHALL BE EVALUATED TO CONFIRM FINES AND SAND WILL NOT MIGRATE INTO THE ASTM NO. 57 LEACHATE COLLECTION STONE.

LEACHATE COLLECTION AND REMOVAL SYSTEM - TOE OF SLOPE

SCALE: 1"=3'

15



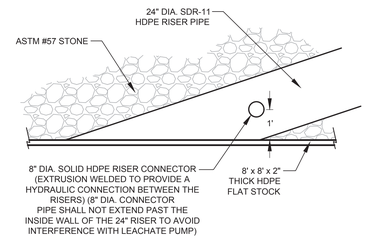
NOTES:

1. THE SPECIFIC TRANSITION MEDIA SOILS TO BE UTILIZED SHALL BE EVALUATED TO CONFIRM FINES AND SAND WILL NOT MIGRATE INTO THE ASTM NO. 57 LEACHATE COLLECTION STONE.

LEACHATE COLLECTION AND REMOVAL SYSTEM - CELL FLOOR

SCALE: 1"=3'

16



8" DIA. SOLID HDPE RISER CONNECTOR

SCALE: 1"=2'





Georgia Power

MISCELLANEOUS DETAILS

CELLS 9 & 10 LINER RETROFIT
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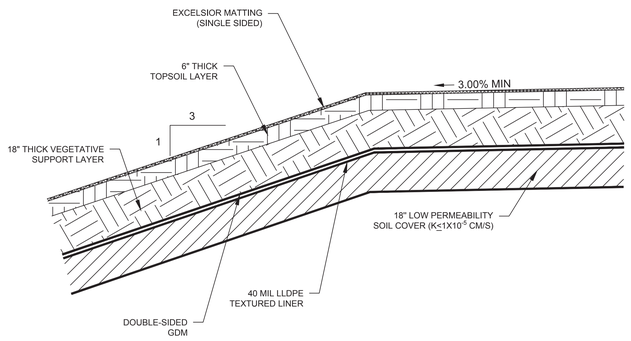
PROJ. NO.	3030-022-01	DWG.	BWN-Cell 9-10-9-D2
SCALE	AS SHOWN		
DATE	NOVEMBER 2018	SHEET	9 OF 11

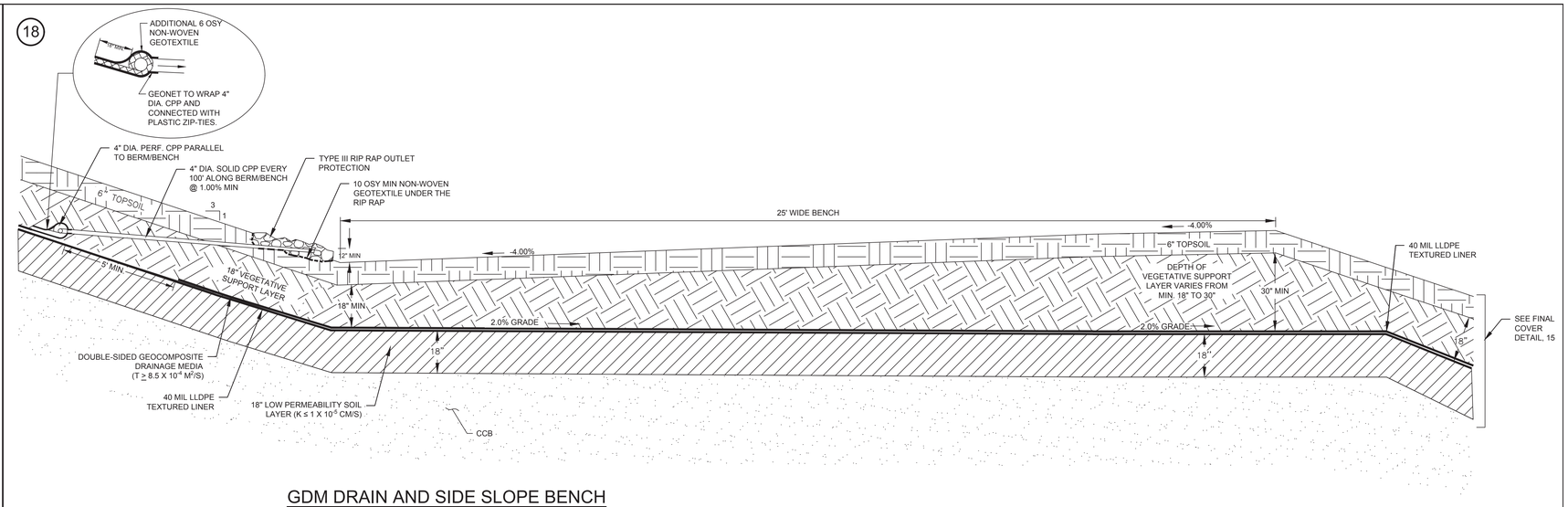
17



FINAL COVER SYSTEM

SCALE: N.T.S.

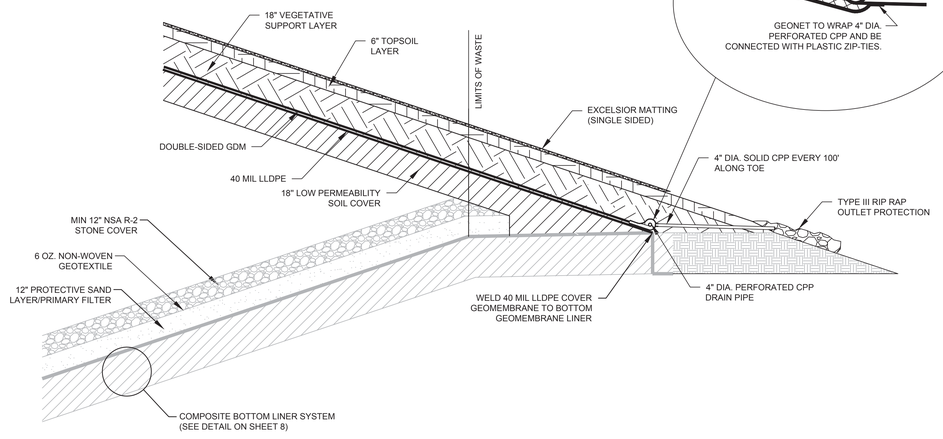
18

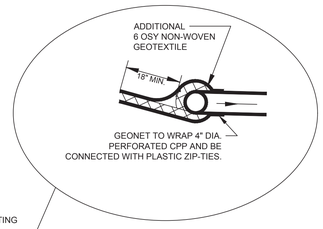


GDM DRAIN AND SIDE SLOPE BENCH

SCALE: N.T.S

19

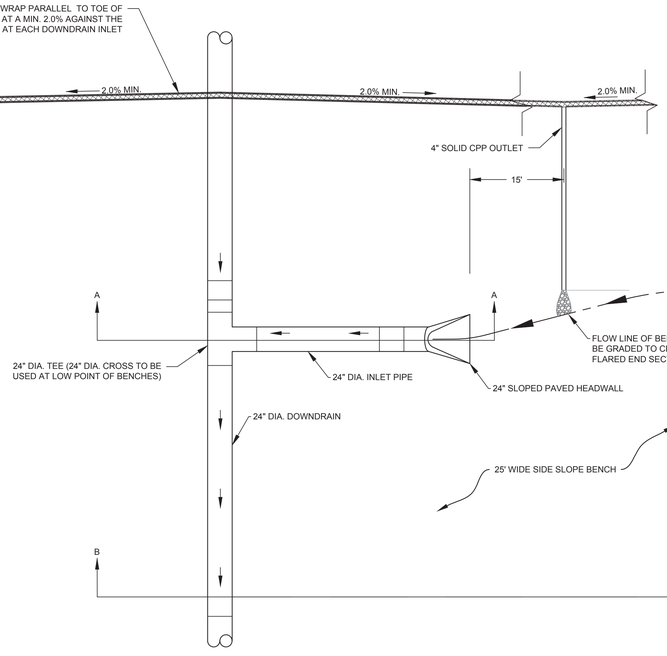




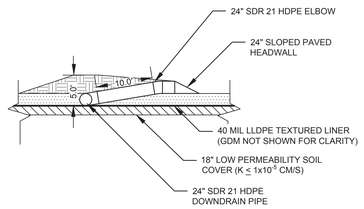
FINAL COVER TIE IN

SCALE: 1" = 3'

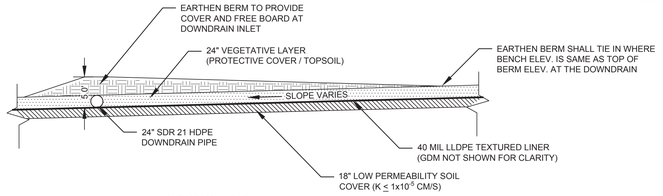
20



PLAN VIEW



SECTION A-A



SECTION B-B

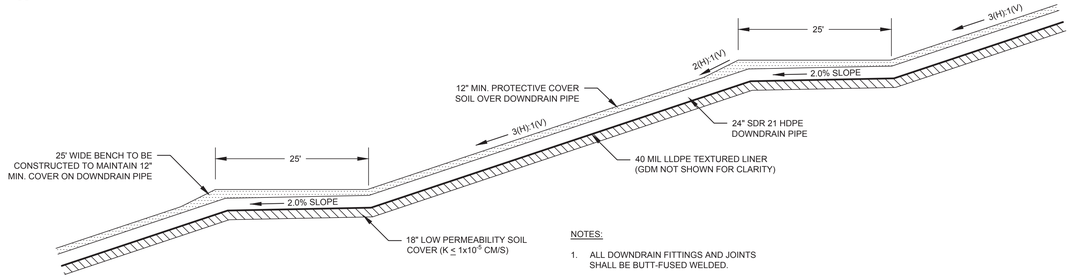
NOTES:

1. ALL DOWNDRAIN FITTINGS AND JOINTS SHALL BE BUTT-FUSED WELDED.

DOWNDRAIN INLET AND DOWNDRAIN FOR SIDE SLOPE BENCH

SCALE: N.T.S

21



NOTES:

1. ALL DOWNDRAIN FITTINGS AND JOINTS SHALL BE BUTT-FUSED WELDED.

DOWNDRAIN AND SIDE SLOPE BENCH CROSS SECTION

SCALE: N.T.S

GEORGIA REGISTERED No. 17583 PROFESSIONAL ENGINEER CLAUDIA M. MCELLER

GEORGIA REGISTERED NO. 27185 PROFESSIONAL ENGINEER R. BRANT LANE

Georgia Power

MISCELLANEOUS DETAILS

CELLS 9 & 10 LINER RETROFIT
PLANT BOWEN - CCB DISPOSAL FACILITY

PERMIT NO. 008-018D (LI)

FOR

GEORGIA POWER COMPANY

BARTOW COUNTY, GEORGIA

HHNT
HODGES, HARBIN, NEWBERRY & TRIBBLE, INC.
(478) 743-7175
WWW.HHNT.COM
3920 ARKWRIGHT RD.
SUITE 101
MACON, GEORGIA 31210

PROJ. NO.	3030-022-01	DWG.	BWN-Cell 9-10-10-D3
SCALE	AS SHOWN		
DATE	NOVEMBER 2018	SHEET	10 OF 11

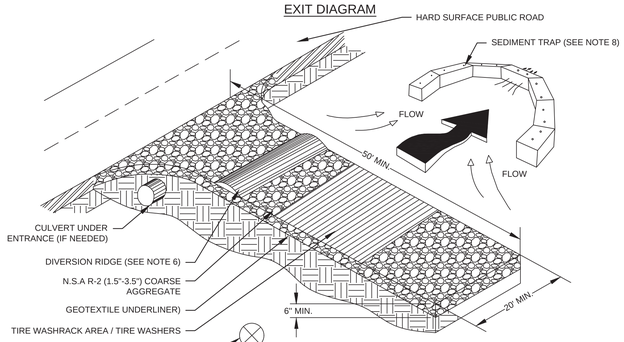
22

MAINTENANCE

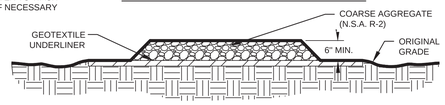
THE EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 1.5-3.5 INCH STONE, AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY STRUCTURES TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES OR SITE ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

CRUSHED STONE CONSTRUCTION EXIT

EXIT DIAGRAM



ENTRANCE ELEVATION



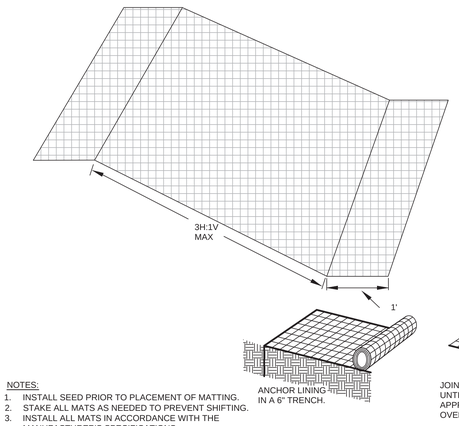
NOTES:

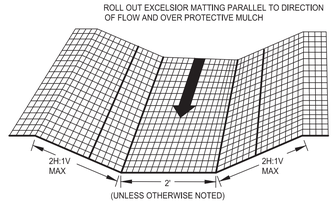
1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.
2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
3. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"-3.5") STONE).
4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6".
5. PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'.
6. A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%.
7. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES.
8. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT POND (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.

CONSTRUCTION EXIT (Co)

SCALE: N.T.S

23





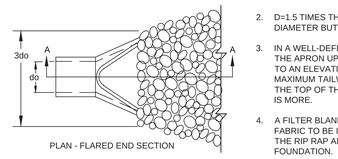
NOTES:

1. INSTALL SEED PRIOR TO PLACEMENT OF MATTING.
2. STAKE ALL MATS AS NEEDED TO PREVENT SHIFTING.
3. INSTALL ALL MATS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
4. FLEXIBLE GROWTH MEDIUM OR BONDED FIBER MATRIX MAY BE USED ON SLOPES IN PLACE OF EXCELSIOR MATTING.

EXCELSIOR (WOOD FIBER) MATTING (Ss-RECP)

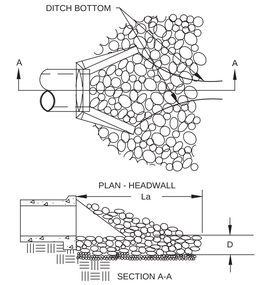
SCALE: 1" = 1'

24



NOTE(S):

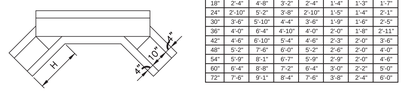
1. La IS THE LENGTH OF THE RIPRAP APRON.
2. D=1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6".
3. IN A WELL-DEFINED DITCH, EXTEND THE APRON UP IN THE DITCH BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM TAILWATER DEPTH OR TO THE TOP OF THE BANK, WHICHEVER IS MORE.
4. A FILTER BLANKET OR FILTER FABRIC TO BE INSTALLED BETWEEN THE RIP RAP AND SOIL FOUNDATION.



OUTLET PROTECTION (SI)

SCALE: N.T.S

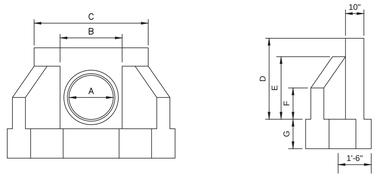
25



"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"
12"	1'-8"	4'-0"	2'-6"	1'-8"	1'-2"	1'-3"	1'-7"
15"	2'-0"	4'-4"	2'-10"	2'-0"	1'-3"	1'-3"	1'-7"
18"	2'-4"	4'-8"	3'-2"	2'-4"	1'-4"	1'-3"	1'-7"
24"	2'-10"	5'-2"	3'-8"	2'-10"	1'-5"	1'-4"	2'-1"
30"	3'-6"	5'-10"	4'-4"	3'-6"	1'-9"	1'-6"	2'-5"
36"	4'-0"	6'-4"	4'-10"	4'-0"	2'-0"	1'-8"	2'-11"
42"	4'-6"	6'-10"	5'-4"	4'-6"	2'-3"	2'-0"	3'-6"
48"	5'-2"	7'-6"	6'-0"	5'-2"	2'-6"	2'-0"	4'-0"
54"	5'-9"	8'-1"	6'-7"	5'-9"	2'-9"	2'-0"	4'-6"
60"	6'-4"	8'-8"	7'-2"	6'-4"	3'-0"	2'-2"	5'-0"
72"	7'-6"	9'-1"	8'-4"	7'-6"	3'-8"	2'-4"	6'-0"

NOTE(S):
PRECAST CONSTRUCTION

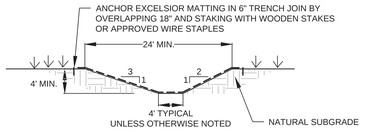
1. SHALL MEET THE REQUIREMENTS OF THE SC D.O.T. AND ASTM C-478.
2. REINFORCING STEEL SHALL BE A MINIMUM OF #4 @ 6" O.C.E.W.
3. FOR TWIN PIPES, DOUBLE DIMENSIONS "B" AND "C."



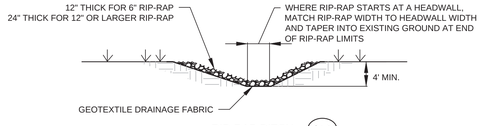
CONCRETE HEADWALL

SCALE: N.T.S.

26



GRASS LINED DITCH WITH EXCELSIOR MATTING (Ch-1)

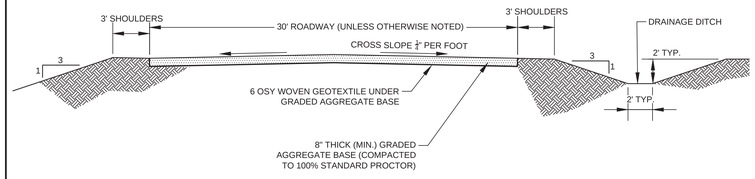


RIP-RAP DITCH (Ch-2)

DRAINAGE DITCH SECTIONS

SCALE: 1"=10'

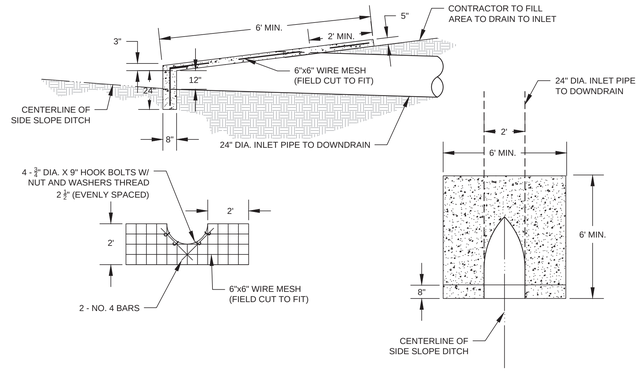
27



30' WIDE GRAVEL ACCESS ROAD SECTION

SCALE: 1"=5'

28



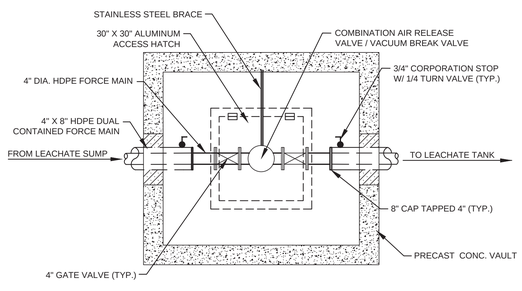
NOTE(S):

1. FILL SHALL BE PLACED AND FINISHED AND ALL SHORING REMOVED PRIOR TO THE PLACEMENT OF ANY CONCRETE ON SLOPES.

SLOPE PAVED HEADWALL

SCALE: 1" = 3'

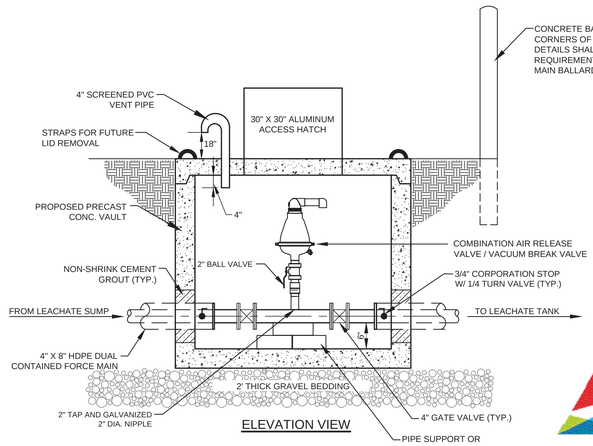
29



PLAN VIEW

NOTE(S):

1. PROVIDE BOLLARDS ON EITHER SIDE OF VAULT TO PROTECT FROM VEHICLE TRAFFIC.
2. ALL VALVES SHALL BE FLANGED.
3. PIPE ENTRANCES INTO VAULT SHALL BE GROUTED OR CAST HDPE BOOTS (KOR-N-SEAL) INTO CONCRETE WALLS.
4. DIMENSION OF VAULT WILL BE DETERMINED BY CONTRACTOR BASED ON REQUIRED DIMENSIONS TO ACCOMMODATE AND INSTALL VALVES AND FITTINGS.



AIR RELEASE VALVE VAULT

SCALE: N.T.S.





Georgia Power

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