

HISTORY OF CONSTRUCTION FOR EXISTING CCR SURFACE IMPOUNDMENT
PLANT SMITH ASH POND
40 CFR 257.73(c)(1)(i)-(xii)

(i) Site Name and Ownership Information:

Site Name: Lansing Smith Generating Plant

Site Location: Southport, Florida
Site Address: 4300 County Road 2300
Southport, FL 32409

Owner: Gulf Power Company
Owner Address: 1 Energy Place
Pensacola, FL 32520

CCR Impoundment Name: Plant Smith Ash Pond
NID ID: N/A

EPA's "Disposal of Coal Combustion Residuals from Electric Utilities" Final Rule (40 C.F.R. Part 257 and Part 261), §257.73(c)(1), requires the owner or operator of an existing CCR surface impoundment to compile a history of construction. To the extent feasible, the following information is provided:

(ii) CCR Unit Location Map:

30°15'58"N, 85°41'36"W
See Location Map in the Appendix

(iii) Purpose of CCR Impoundment: Plant Smith is a four unit electric generating facility including one combustion turbine, one combined cycle unit and two coal fire units. However, the coal-fired units at Plant Smith have been retired. The Plant Smith Ash Pond was designed to receive and store coal combustion residuals produced during the coal-fired electric generating process at Plant Smith. As the coal-fired units have been retired, no additional CCR is being placed in the Ash Pond. The only water that enters the pond currently is process water (low-volume waste), stormwater from various sumps located within the generating plant and rainwater that falls directly into the pond.

(iv) Watershed Description: Plant Smith is located within the Fanning Bayou-Warren Bayou Frontal HUC-12 watershed which has a total area of 22,576 acres. The Fanning Bayou-Warren Bayou Frontal watershed is located within the St. Andrew-St. Joseph Bays HUC-8 watershed which has a drainage area of 905,230 acres. However, there is no uncontrolled run-on into the Ash Pond from the surrounding watershed. The only water that enters the pond currently is process water (low-volume waste),

stormwater from various sumps located within the generating plant, rainwater that falls directly into the pond, and run-off from the adjacent 57 acre dry ash storage area..

(v) Description of physical and engineering properties of CCR impoundment foundation/abutments:

The upper dike structure consists of ash, sands and silty sands. The sands used as fill for the embankment are consistent with the natural sand deposits in the foundation. Additionally, some fat clays (highly plastic) are present.

(vi) Summary of Site Preparation and Construction Activities: The Ash Pond was originally constructed between 1963 and 1965 with an embankment system comprised of both incised sections and raised dike sections. The embankments were constructed to a maximum height of 15 ft. with side slopes ranging from 1.5(H):1(V) to 1(H):1(V) and crest widths between 20 ft. and 30 ft. Additionally, there are two internal dikes which create a three cell complex. In 1980, the crest widths were widened and the slopes were modified to 2.5(H):1(V). There are interior divider dikes that have been constructed for water management purposes, dividing the impoundment into smaller “cells” within the perimeter embankments.

(vii) Engineering Diagram:

The following drawings reflecting the construction of the Plant Smith Ash Pond can be found in the Appendix:

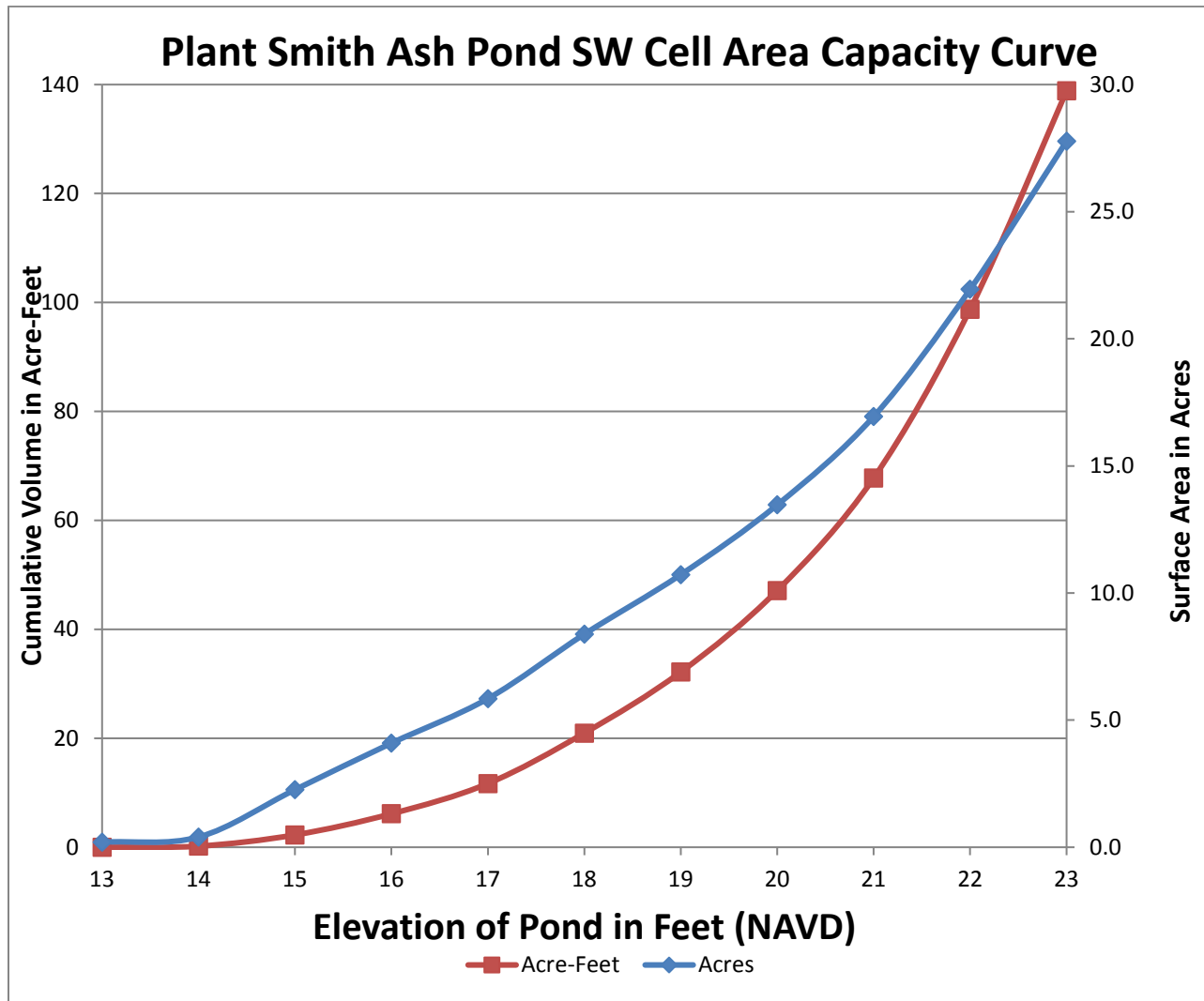
- Aerial Topo View Map
- D-13511 – General Arrangement, Plant Site
- D-31123 through D-31127 – Ash Pond Topographic Map Sheets 1 through 5
- Y-120 – General Arrangement, Plant Site

The normal pool elevation for the water in the ash pond is EL 17.9 ft. in the northwest cell, EL 17.6 ft. in the southwest cell, and EL 15.3 ft. in the east cell. The peak water elevation during the design storm is EL 21.9 ft. in the northwest cell.

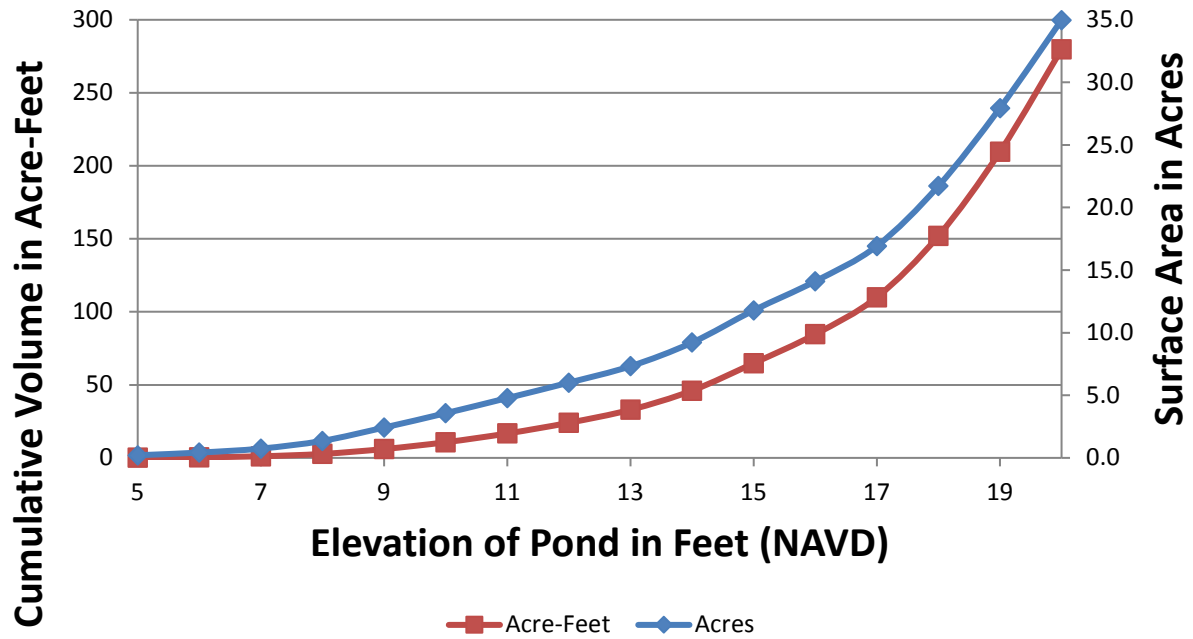
(viii) Description of Instrumentation:

A guided wave radar level transducer is located at the flume of the discharge structure of the ash pond.

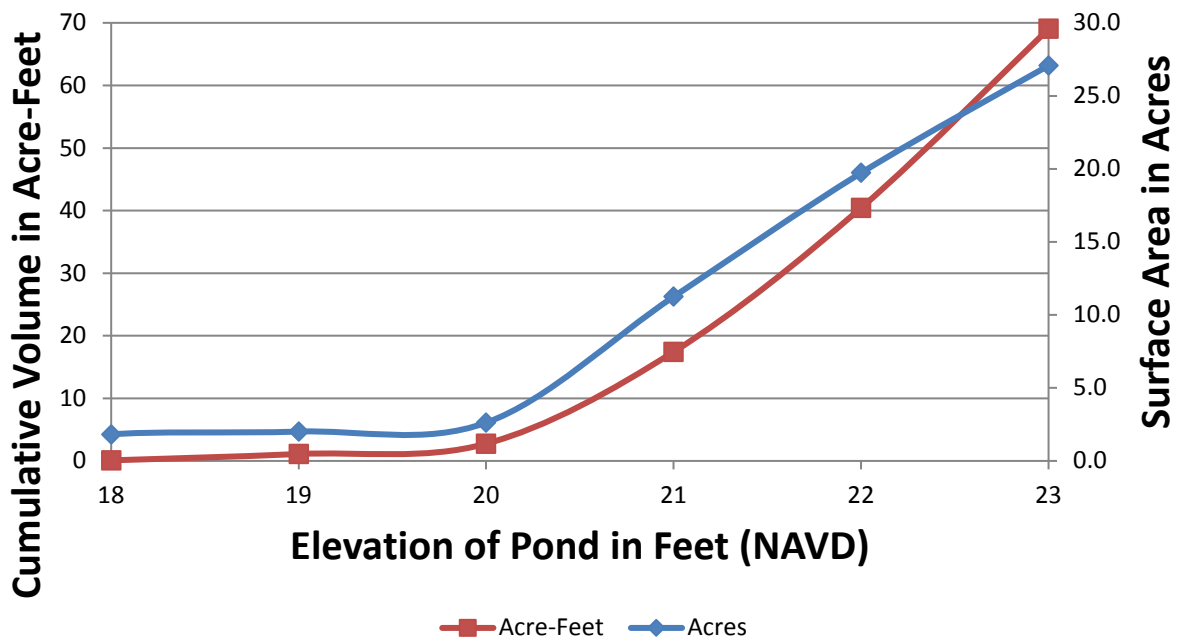
(ix) Area-capacity curves:

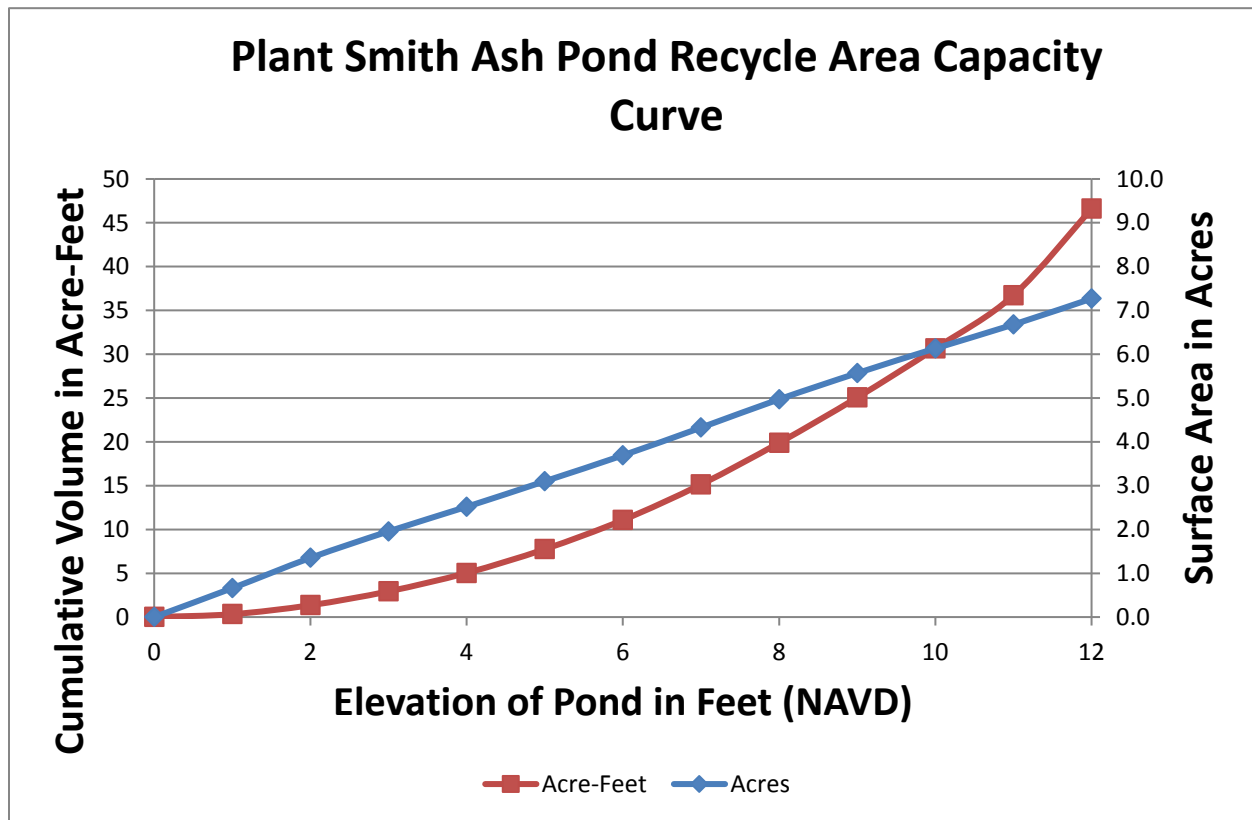


Plant Smith Ash Pond East Cell Area Capacity Curve



Plant Smith Ash Pond NW Cell Area Capacity Curve





(x) Spillway/Diversion design features and capacity calculations: The weir outlet structure of the East Pond contains three sections of stoplogs and two 14-in diameter pipes. The top of the stoplogs are at approximately EL 15.3 ft. The outlet pipe through the East Dike is a free outlet with no tailwater condition. The water flows over a weir before entering the recycle canal.

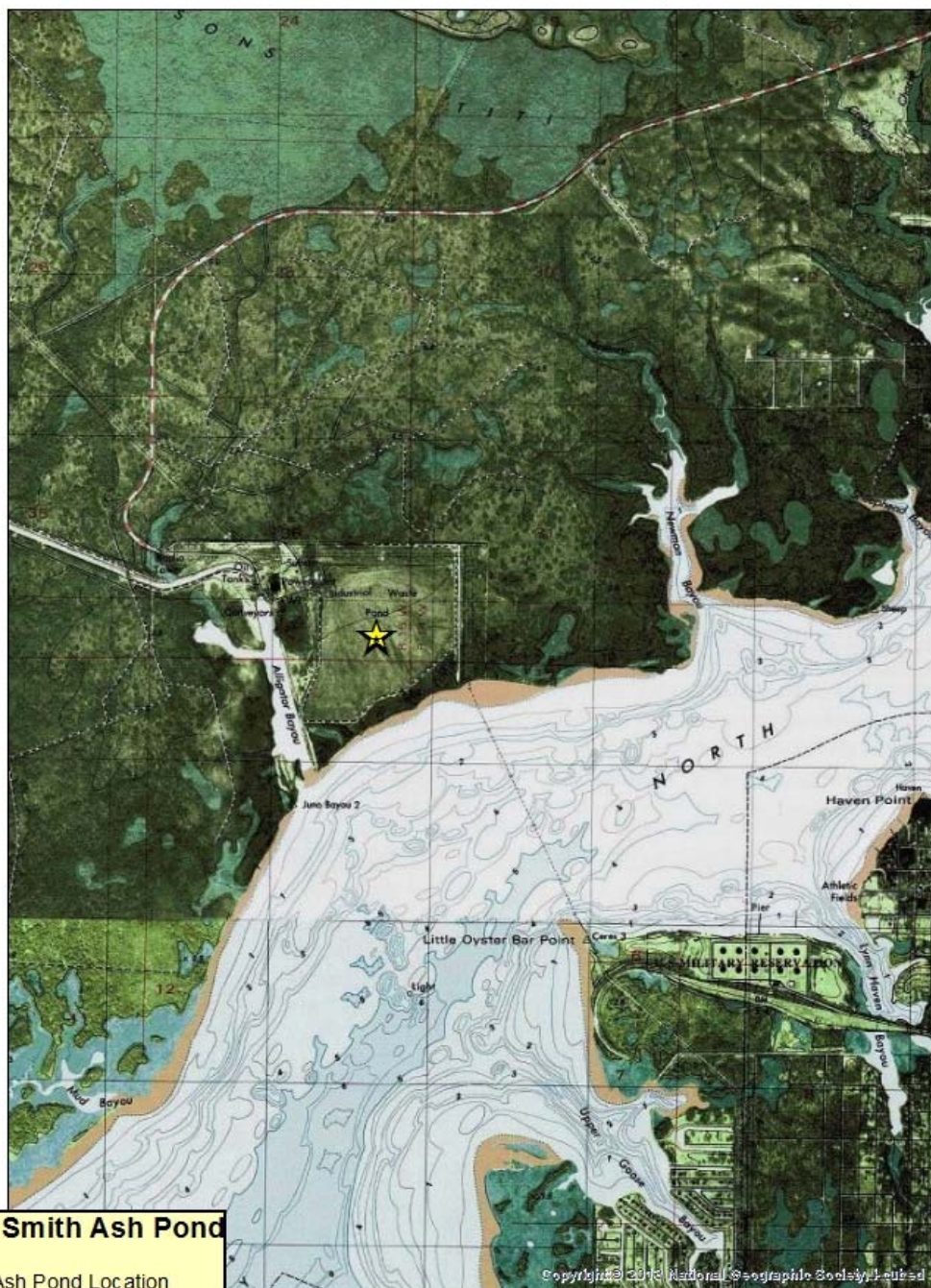
A hydrologic and hydraulic analyses indicates that the Ash Pond has the available capacity to handle the 100-year, 24-hour design storm while providing freeboard of 1.1 ft. below the top of the embankment.

(xi) Provisions for surveillance, maintenance and repair: Inspections of dams and dikes are critical components and are conducted on a regular basis—at least annually by professional dam safety engineers and at least weekly by trained plant personnel. In addition, inspections are performed after unusual events such as storms. The inspections provide assurance that structures are sound and that action is taken, as needed, based on the findings. Safety inspections include observations of such things as pond levels, weather conditions, rainfall since the prior inspection, conditions of slopes and drains, erosion, animal damage, ant hills, alignment of retaining structures and more. Dam safety engineers inspect any maintenance or remediation performed since the previous inspection, check the status of work recommended at prior inspections, ensure that the posting of emergency notification information is up to date and evaluate any items noted during plant personnel inspections.

Construction specifications: No construction specifications are available for this facility.

(xii) Known record of structural instability: There are no known instances of structural instability at the CCR unit.

Appendix



Plant Smith Ash Pond

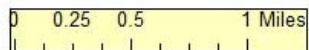


Ash Pond Location



WBDHU12

USA Topo Maps





N 1000

N 500

0

S 500

S 1000

W 1000

E 500

E 1000

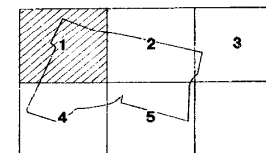
E 1500

E 2000



40 0 40 80 120
SCALE 1"=40'
CONTOUR INTERVAL 1'

SHEET INDEX



GULF POWER COMPANY	
JOB LANSING SMITH ELECTRIC GENERATING PLANT	
DETAIL ASH POND TOPOGRAPHIC MAP	
SHEET 1 OF 5	
SCALE 1"=40'	JOB NO. SM85794
REV 0 11-13-85	DRAWN R.C.B. CHECKED E.E.P. DATE 11-13-85
APPROVED FOR CONSTRUCTION	APPROVED E.E.P. DATE 11-13-85
SUPERSEDES	
D-31123	



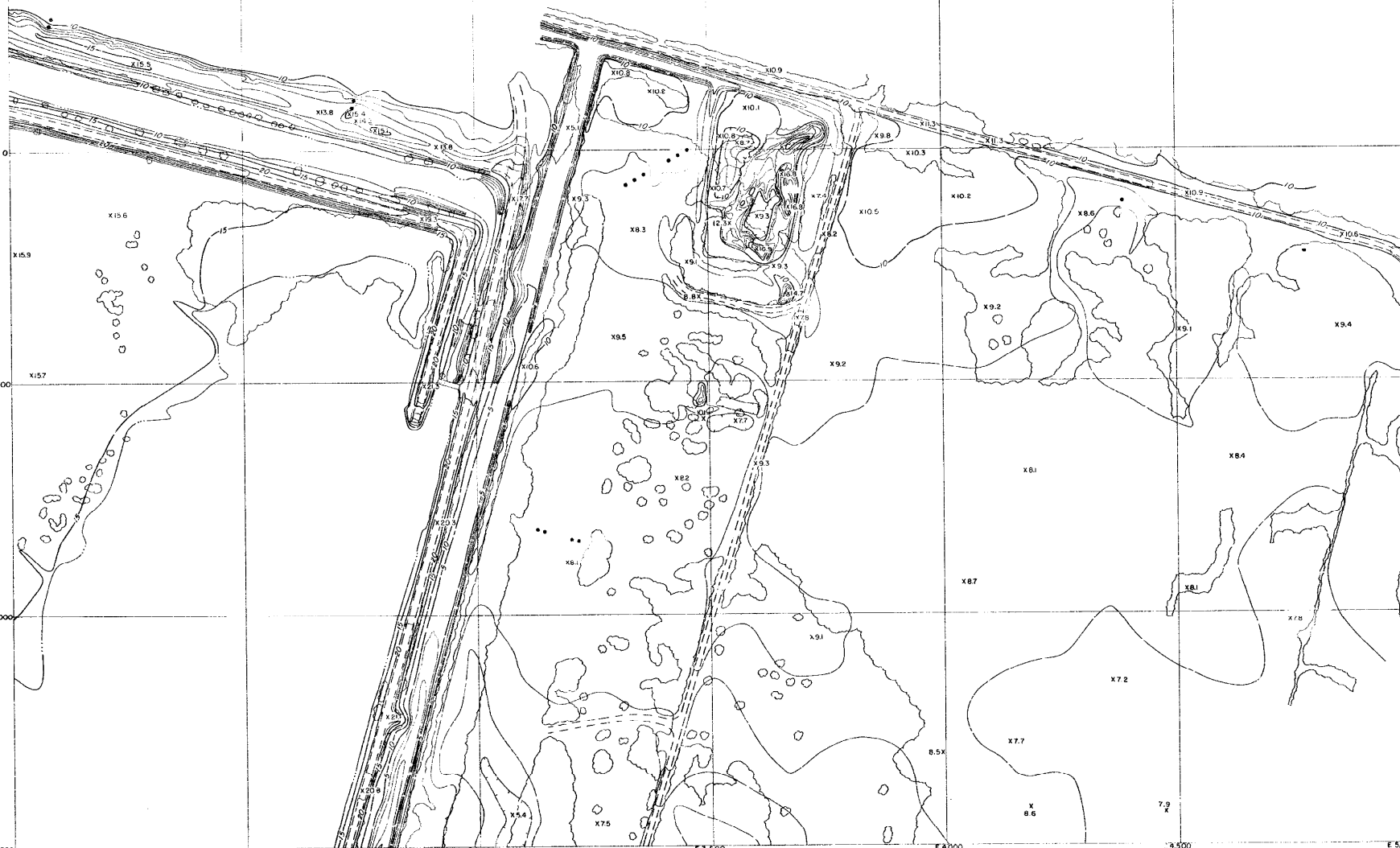
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S 500

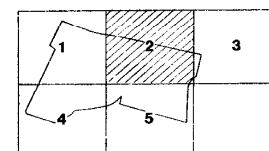
S 1,000

S 1,500 E 2,000 E 2,500 E 3,000 E 3,500 E 4,000 E 4,500 E 5,000



40 0 40 80 120
SCALE 1"=40'
CONTOUR INTERVAL 1'

SHEET INDEX



GULF POWER COMPANY	
FOR LANSING SMITH ELECTRIC GENERATING PLANT	
DETAIL ASH POND TOPOGRAPHIC MAP	
SHEET 2 OF 5	
SCALE 1"=40'	D/M/JOR NO. 5M85794
SHEET OF SHEETS	D-31124
SUPERSIDES	

REV. 0	11-13-85	DRAWN R.C.B.	CHECKED E.E.R.	DESIGN R.C.B.
APPROVED FOR CONSTRUCTION		APPROVED E.E.R.	DATE 11-13-85	
		APPROVED	DATE 11-13-85	



N 500

0

S 500

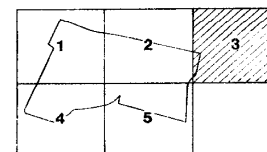
S 1,000

E 1,500 E 5,000 E 6,000 E 6,500 E 7,000 E 7,500 E 8,000

40 0 40 80 120

SCALE 1"=40'
CONTOUR INTERVAL 1'

SHEET INDEX



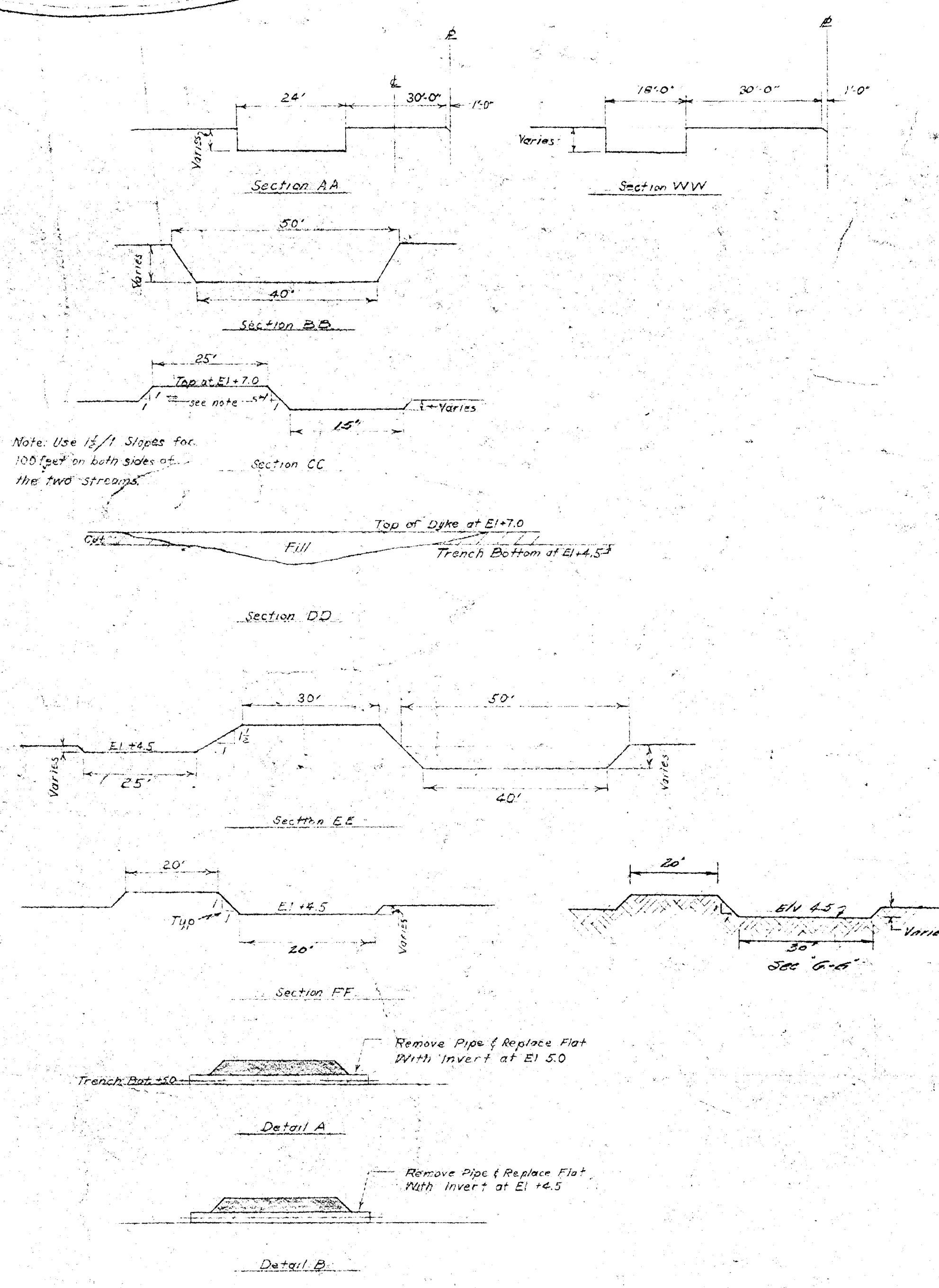
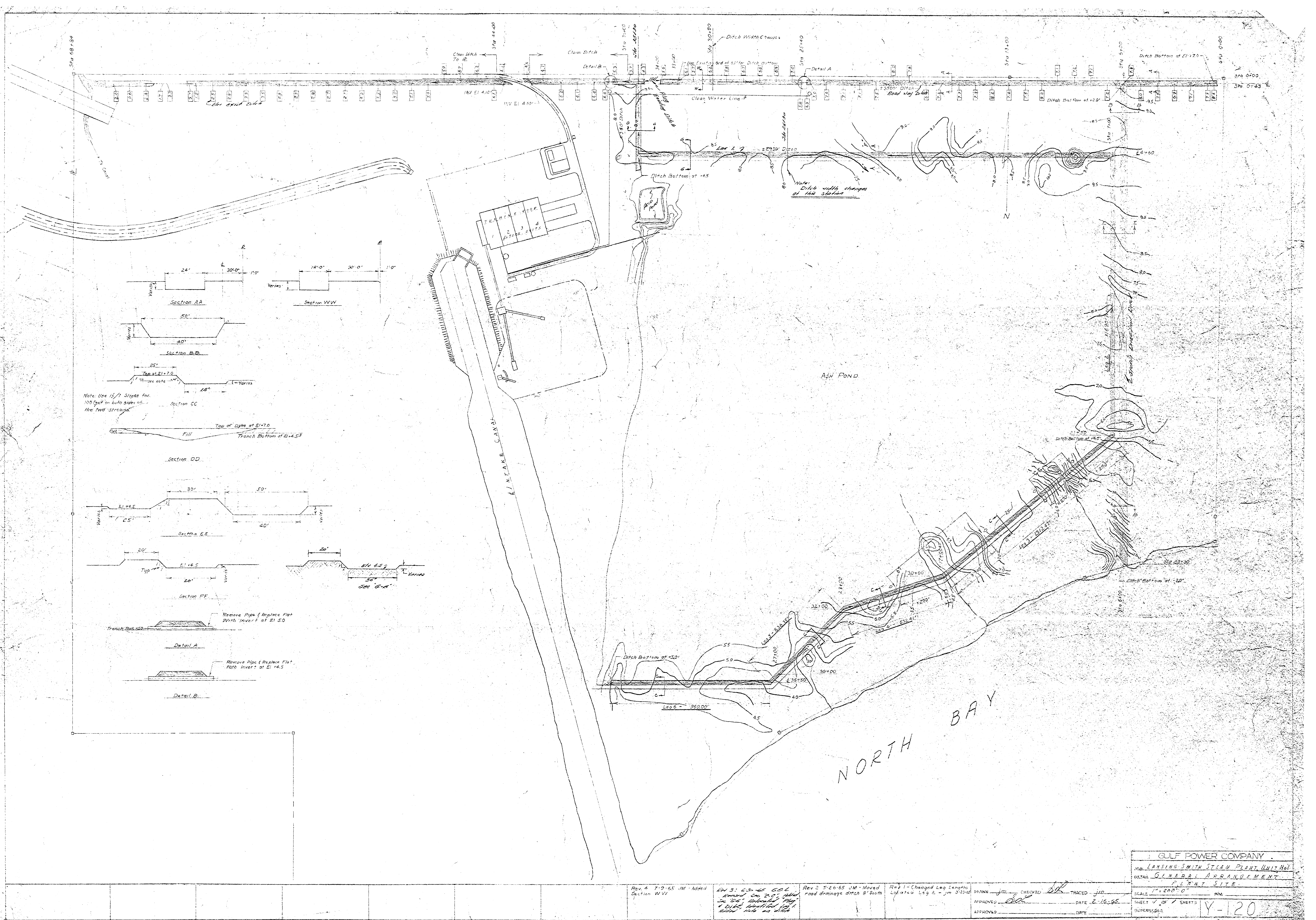
GULF POWER COMPANY	
FOR LANSING SMITH ELECTRIC GENERATING PLANT	
DETAIL ASH POND TOPOGRAPHIC MAP	
SHEET 3 OF 5	
SCALE 1"=40'	JOB NO. 5M85794
DRAWN R.C.B.	CHECKED S.E.R.
DATE 11-13-85	DATE 11-13-85
APPROVED FOR CONSTRUCTION	APPROVED
SUPERSEDES	

D-31125



REV 0	11-13-85	DRAWN R.C.B.	CHECKED E.E.P.	DESIGN R.C.B.	SHEET 4 OF 5
APPROVED FOR CONSTRUCTION		APPROVED E.E.S.	DATE 11-13-85	SCALE 1" = 40'	JOB NO. SM857-4
		APPROVED (D.L.)	DATE 11-13-85	SHEET 00 SHEETS	D-31126
				SUPERSEDES	





Rev. 4 T-2-65 JM - Added Section WVI				Rev. 3 6-3-65 G.C.L. Revised Sta 2+00 to Sta 4+00. Relocated Pipe & Ditch Identified Leg 1. Note on ditch				Rev. 2 5-26-65 JM - Moved road drainage ditch 8' South				Rev. 1 - Changed Leg Lengths Location Leg 2 - JM 3-23-65			
DRAWN <i>[Signature]</i>				CHECKED <i>[Signature]</i>				TRACED <i>[Signature]</i>				DATE 2-16-95			
APPROVED <i>[Signature]</i>				APPROVED <i>[Signature]</i>				DATE				DATE			
SCALE 1" = 200' 0"				SHEET 1 OF 1 SHEETS				SUPERSEDES				Y-120			