

HISTORY OF CONSTRUCTION
40 CFR 257.73(c)(1)(i)-(xii)
PLANT WANSLEY ASH POND (AP-1)
GEORGIA POWER COMPANY

(i) Site Name and Ownership Information:

Site Name:	Plant Wansley
Site Location:	Carrollton, Georgia
Site Address:	1371 Liberty Church Road Carrollton, Georgia 30116
Owner:	Georgia Power Company
Owner Address:	241 Ralph McGill Blvd Atlanta, GA 30308
CCR Impoundment Name:	Plant Wansley Ash Pond 1 (AP-1)
NID ID:	GA05448 (Separator Dike)

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) Ash Pond Location Map:

33°24'52"N, 85°03'00"W

See Location Map in the Appendix

(iii) Purpose of CCR Unit:

Plant Wansley is an electric generating facility with two coal fired units. The Plant Wansley Ash Pond (AP-1) is designed to receive and store coal combustion residuals and low volume waste streams produced during the coal burning electric generating process at Plant Wansley.

(iv) Watershed Description:

The Plant Wansley Ash Pond is located within the Yellowdirt Creek Watershed (HUC-12-031300020405). The Yellowdirt Creek Watershed has a total area of 16,470 acres. Based on the recent storm routing results for the Plant Wansley Ash Pond, the pond has approximately a 633-acre drainage basin including the area of AP-1.

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

The Plant Wansley Ash Pond is formed by an engineered cross-valley embankment on the northeast side of the impoundment. This embankment is also referred to as the "Separator Dike", as it separates the ash pond on its west side from the Plant Wansley Service Water Reservoir (Storage Pond) on its east side. There is also a small embankment located at the west end of the impoundment.

The Separator Dike is located in the Piedmont Physiographic Province of Georgia. The Piedmont is underlain by igneous and metamorphic rocks. The residual soils in the Piedmont are a result of

weathering of the underlying bedrock. Between the residual soils and the underlying bedrock a transitional layer of partially weathered rock is present. The bedrock beneath the Separator Dike consists of gneiss, schists, and quartzite.

The Separator Dike foundation and abutments are supported primarily by Piedmont residual soils with consistencies ranging from firm to hard and generally described as sandy micaceous silt. A localized terrace deposit of weathered in-place ancient alluvium consisting mainly of stiff to very stiff sandy clayey silt and a deposit of firm to very stiff alluvial silt and clay provide foundation support in the north-central portion of the dike.

The Separator dike was constructed of residual soils from within and adjacent to the AP-1. Engineering design parameters were obtained from soil samples collected and tested during pre-construction geotechnical investigations and borrow studies. Soils used for embankment fill were put through a series of laboratory tests and results indicated that they were satisfactory with respect to the design parameters.

(vi) Summary of Site Preparation and Construction Activities:

The Separator Dike was constructed to a maximum height of 105 feet with a crest width and elevation of 30 feet and 805 ft msl, respectively. Two 25-ft wide benches were constructed along the upstream and downstream slopes, one at elevation 745 ft and one at elevation 775 ft. The slopes between the upstream and downstream toes and the benches are inclined at 3H:1V and the upstream and downstream slopes between elevation 775 ft and the crest are inclined at 2.5H:1V. Refer to drawing H-12364, H-12365 and H-12366 for Separator Dike construction. The Separator Dike has an overall length of approximately 2,950 feet.

Initial construction on the Separator Dike began on May 17, 1973 and AP-1 was commissioned in 1975. The Separator Dike was constructed in phases as shown on Drawings H-12364 and H-12366. All alluvial soils, sand, and gravel were removed from the core area; alluvial soils were also removed from the embankment area. As part of the initial construction, a 48-in diameter CMP was installed for temporary diversion of the existing creek. The pipe was later plugged with concrete on May 2, 1974 as completion of dike construction.

The upstream and downstream slopes of the Separator Dike are protected from scour by a riprap blanket as depicted on drawing H12365. On the downstream side (Storage Pond Side), the blanket extends from the toe to elevation 745 ft and consists of 3-ft of riprap over 1-ft of bedding; from elevation 745 ft to 780 ft, 2-ft of riprap; and from elevation 780 ft to the crest of the Separator Dike, 2-ft of riprap over 1-ft of bedding. On the upstream side (Ash Pond Side), the blanket extends from the crest to elevation 790 ft and consists of 2-ft of riprap over 1-ft of bedding; from elevation 790 ft to 775 ft, 2-ft of riprap; no rock protection exists from elevation 775 ft to the toe. The riprap was supplied by on-site excavation of bedrock. The bedding material was manufactured from a mixture of crushed on-site materials and off-site sand. An internal drainage system consisting of horizontal blanket drains was installed within the downstream section of the embankment. The drains consist of a 12-in thick layer of sand placed on a 2 percent downward slope toward the downstream face of the dam. A total of three blankets were installed at elevations 780 ft, 750 ft, and 725 ft. The blanket drains are also shown on drawing H-12365.

In 2007, two temporary gypsum dewatering cells were added to the existing ash pond footprint. These cells are not lined and were constructed on the ash delta on the eastern end of the Ash Pond. The

purpose of these cells was for temporary gypsum storage and dewatering before being hauled to the on-site landfill.

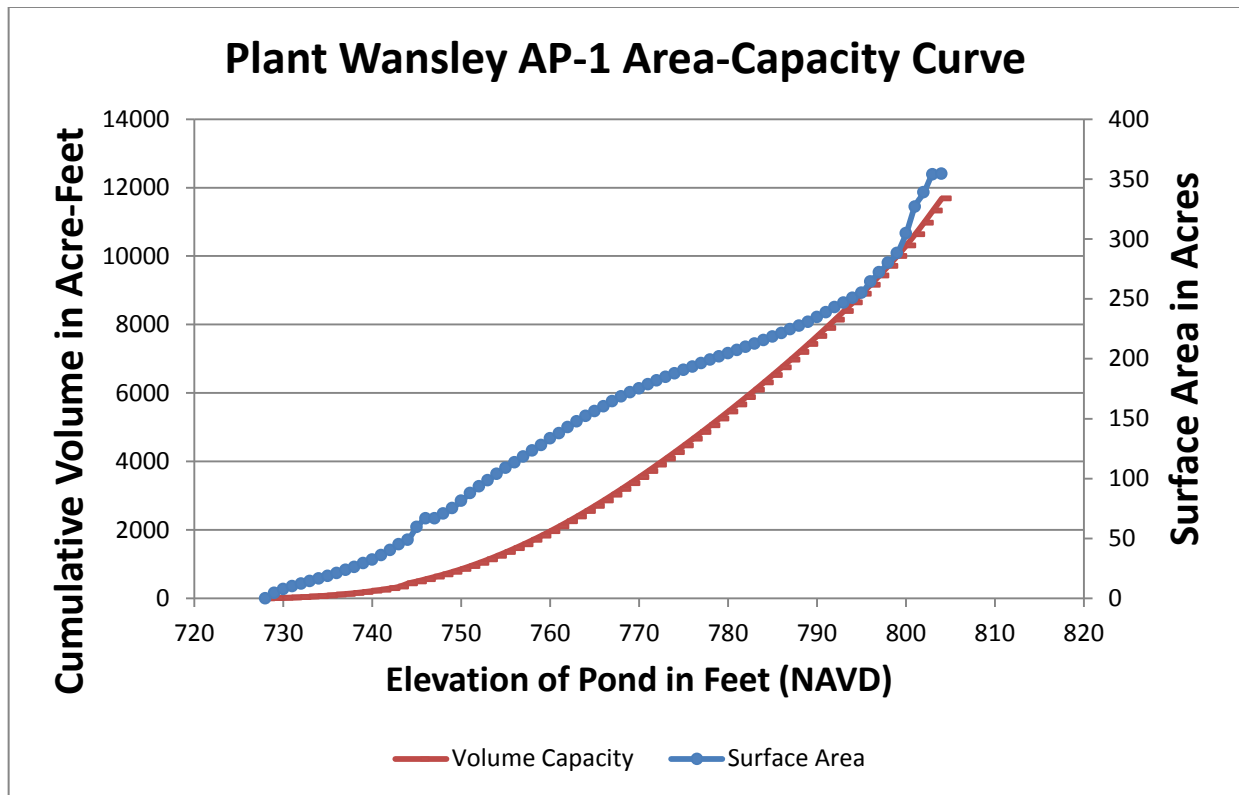
(vii) Engineering Diagram:

The following drawings reflecting the construction of AP-1 can be found in the Appendix:

- Aerial Topo Location Map
- E-10062 – Plant Wansley Surveillance Instrumentation Location
- H-10027 – Plant Wansley Project Location Map
- H-12363 – Ash Pond Discharge Structure General Arrangement
- H-12364 – Separation Dam Construction
- H-12365 – Separation Dam Section and Details
- H-12366 – Separation Dam Construction Diversion Scheme Stage DWGs
- H-12375 – Ash Pond Interceptor Channel Plan & Sections
- H-12396 – Separation Dike Stability Analysis
- H-12399 – Separation Dam-General Arrangement with Limits of Excavation
- H-12624 – Plant Wansley Unit 1 Outdoor Concrete Ash Pond Intake Structure

(viii) Description of Instrumentation: Three piezometers were installed along the Separator Dike for monitoring of the phreatic surface within the dike. The locations of the piezometers are shown on Drawing E10062. Piezometer CC is below the normal pool elevation of the Storage Pond and can only be measured during drought conditions.

(ix) Area-capacity curves:



(x) Spillway/Diversion design features and capacity calculations:

Stormwater is temporarily stored within the limits of the surface impoundment and discharged through a primary spillway located on the southwestern end of the pond that consists of a 42-in diameter corrugated metal pipe (CMP). The 42-in CMP splits downstream into two pipes: a 36-in diameter pipe which recycles water back to Plant Wansley, and the 10-in pipe which discharges water into a detention pond on the south end of the Plant. An auxiliary spillway system consisting of a 36-in diameter CMP and a 45-ft wide concrete broad crested weir is located on the west end of the impoundment on the western embankment. The Plant maintains the water surface elevation of AP-1 below the invert of the auxiliary spillway by the volume of water recycled back to the Plant. There is no record of the auxiliary spillway being engaged during a storm event at the Plant.

Stormwater inflows to the pond were developed by generating runoff volumes from the 100-year 24-hour storm event that falls on a watershed of approximately 633 acres. An interceptor channel is located on the northwest corner of AP-1 and diverts run-off from the watershed around AP-1. The combined flow to AP-1 developed from the design storm and plant process flows has been determined to be approximately 2,280 cfs. AP-1 is designed to safely pass this flow maintaining 5.4 feet of freeboard below the crest of the Separator Dike.

(xi) Provisions for surveillance, maintenance and repair:

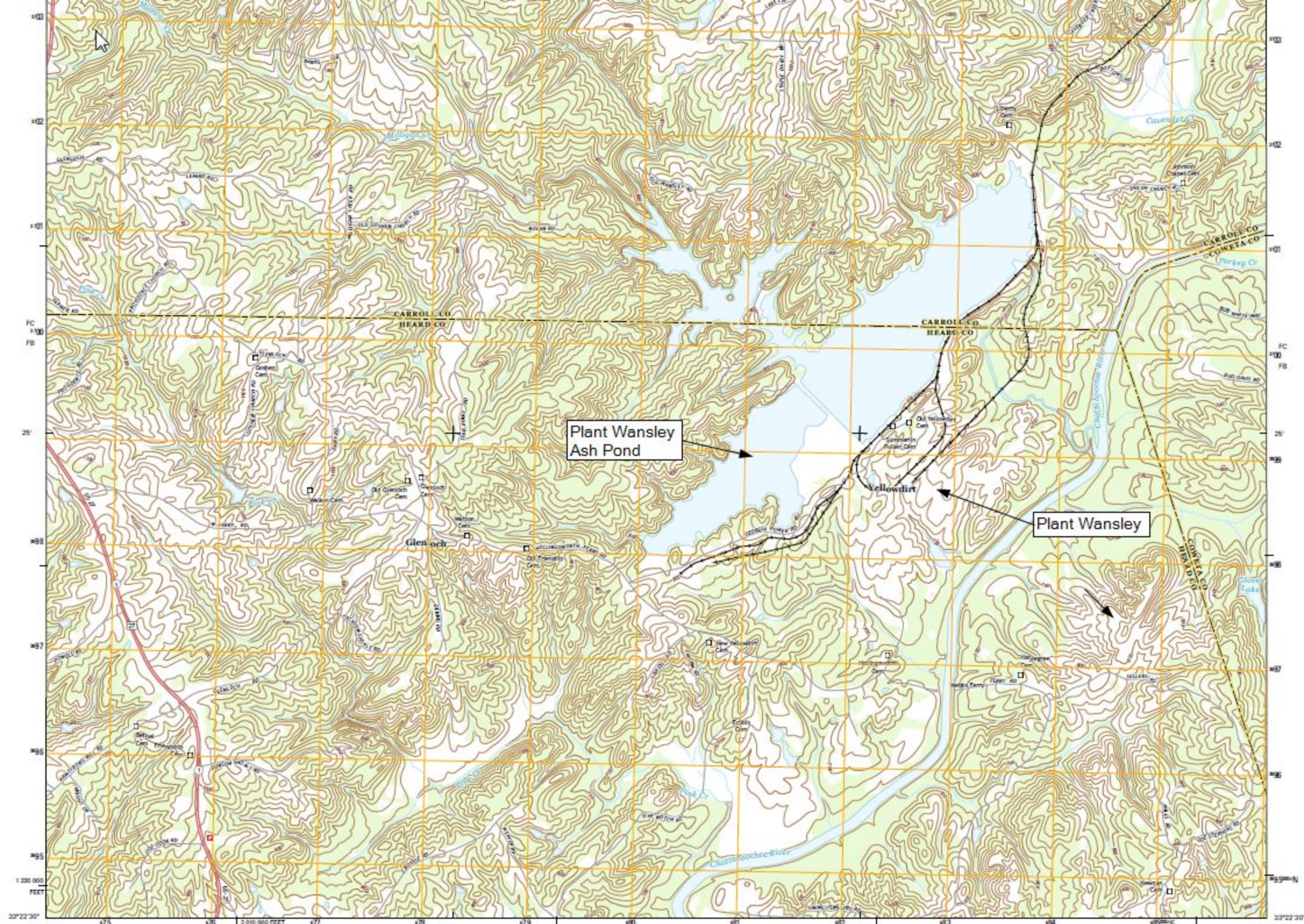
Inspections of dams and dikes are critical components and are conducted on a regular basis—at least annually by professional dam safety engineers and at least weekly by trained plant personnel. In addition, inspections are performed after unusual events such as severe storms. The inspections provide assurance that structures are sound. Action is taken, as needed, in the event that structural

deficiencies or other items/issues that may affect the integrity of the dam are discovered. Specific items vary from site to site but may include observations of such things as pond levels, weather conditions, rainfall since the prior inspection, instrument readings, conditions of slopes and drains, erosion, animal damage, ant hills, alignment of retaining structures and more. Dam safety engineers also assess instrument readings, inspect any maintenance or remediation performed since the previous inspection, check the status of work completed after prior inspections, ensure that the posting of emergency notification information is up to date, and evaluate any items noted during the weekly inspections.

(xii) Known record of structural instability:

There are no known instances of structural instability at the CCR unit.

Appendix



Plant Wansley Ash Pond

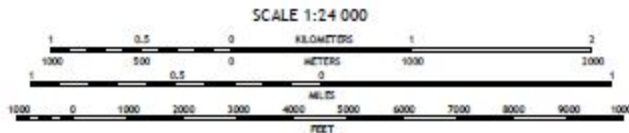
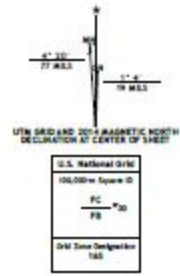
Yellowdirt

Plant Wansley

Produced by the United States Geological Survey
 North American Datum of 1983 (NAD83)
 World Geodetic System of 1984 (WGS84). Projection and
 1 000-meter grid: Universal Transverse Mercator, Zone 16S
 10 000-foot ticks: Georgia Coordinate System of 1983 (west
 zone)

This map is not a legal document. Boundaries may be
 generalized for this map scale. Private lands within government
 reservations may not be shown. Obtain permission before
 entering private lands.

Imagery.....NAIP, September 2010
 Roads.....HERE, ©2013
 Names.....GNS, 2013
 Hydrography.....National Hydrography Dataset, 2010
 Contours.....National Elevation Dataset, 2006
 Boundaries.....Multiple sources; see metadata file 1972 - 2013



SCALE 1:24 000
 CONTOUR INTERVAL 30 FEET
 NORTH AMERICAN DATUM OF 1983
 This map was produced to conform with the
 National Geospatial Program US Topo Product Standard, 2011.
 A metadata file associated with this product is draft version 0.6.16



ROAD CLASSIFICATION

Degateway	Local Connector
Secondary Hwy	Local Road
Ramp	4WD
Interstate Route	US Route
	State Route

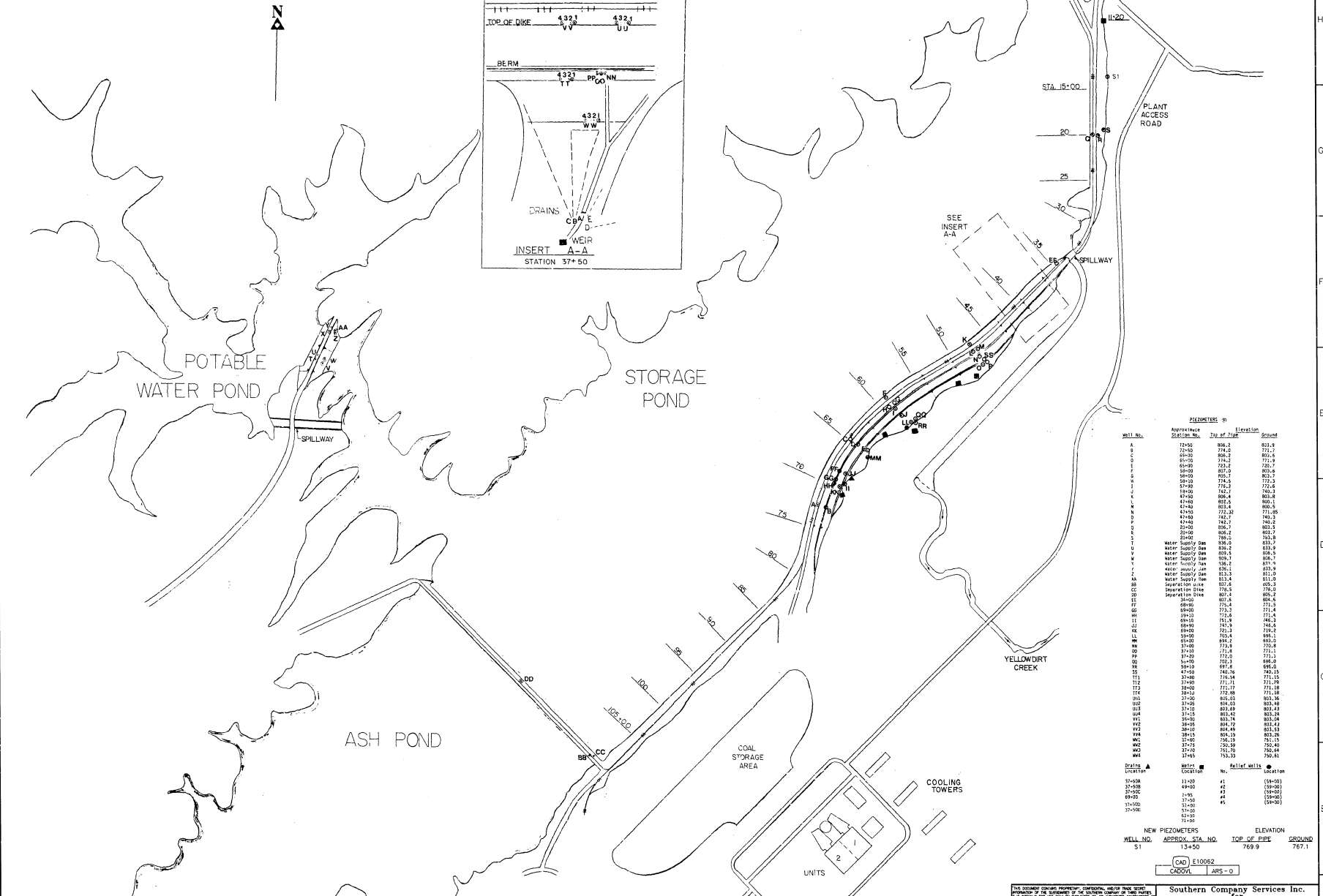
ADJOINING QUADRANGLES

1	2	3
4	5	6
7	8	

1 Bowdon East
 2 Carrollton
 3 Nalsett
 4 Roopville
 5 Whitburg
 6 Protons
 7 Franklin
 8 Newnan SW

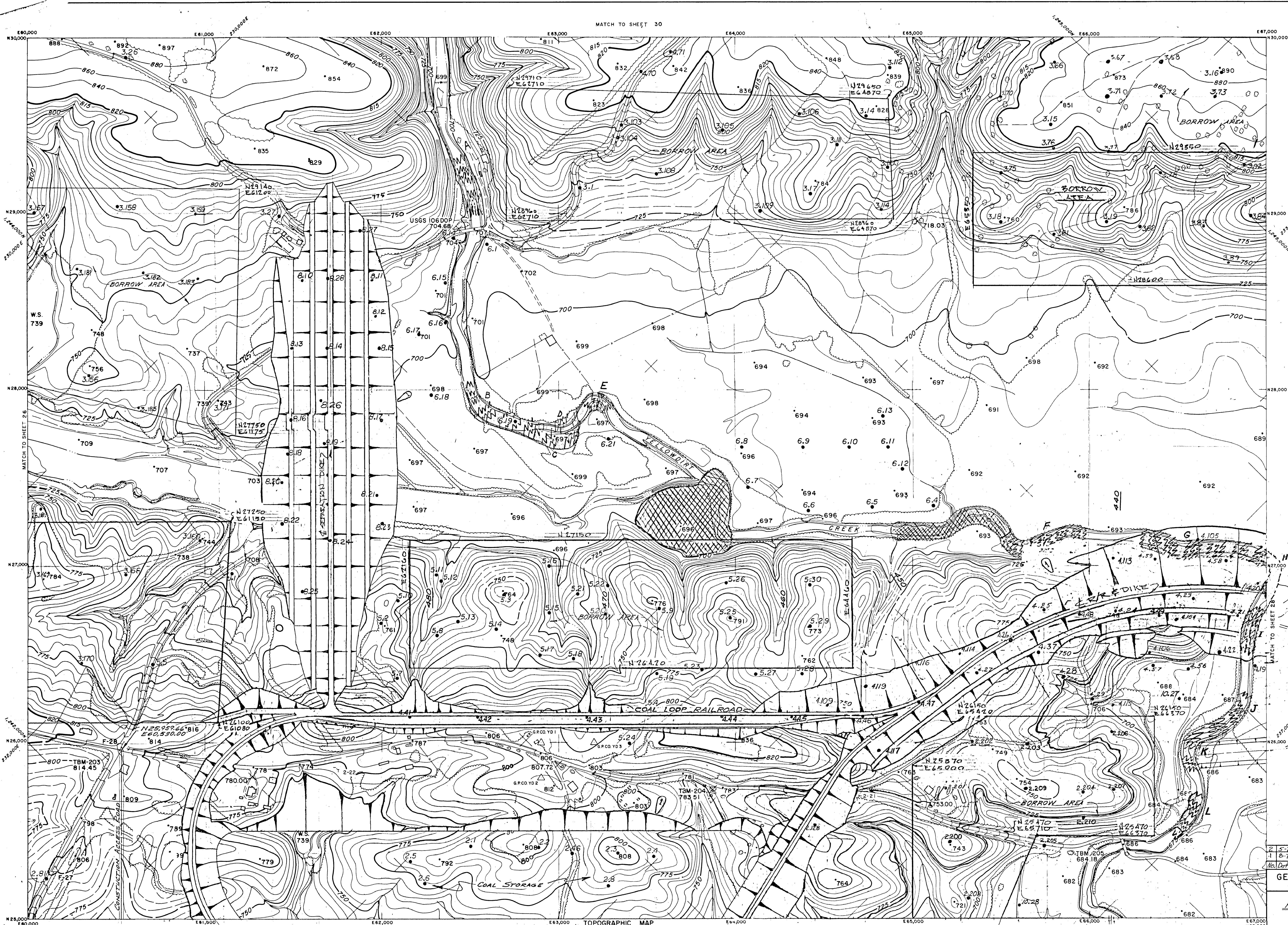
LOWELL, GA
 2014

790013



Well No.	Approx. Station No.	Dep. of Pipe	Elevation	Ground
A	72+50	806.2	802.9	
B	72+50	798.2	797.7	
C	85+00	806.2	802.6	
D	85+00	798.2	797.9	
E	85+00	806.2	802.6	
F	85+00	807.0	802.6	
G	85+00	807.5	802.7	
H	85+00	807.5	802.7	
I	85+00	807.5	802.7	
J	85+00	807.5	802.7	
K	85+00	807.5	802.7	
L	85+00	807.5	802.7	
M	85+00	807.5	802.7	
N	85+00	807.5	802.7	
O	85+00	807.5	802.7	
P	85+00	807.5	802.7	
Q	85+00	807.5	802.7	
R	85+00	807.5	802.7	
S	85+00	807.5	802.7	
T	85+00	807.5	802.7	
U	85+00	807.5	802.7	
V	85+00	807.5	802.7	
W	85+00	807.5	802.7	
X	85+00	807.5	802.7	
Y	85+00	807.5	802.7	
Z	85+00	807.5	802.7	
AA	85+00	807.5	802.7	
BB	85+00	807.5	802.7	
CC	85+00	807.5	802.7	
DD	85+00	807.5	802.7	
EE	85+00	807.5	802.7	
FF	85+00	807.5	802.7	
GG	85+00	807.5	802.7	
HH	85+00	807.5	802.7	
II	85+00	807.5	802.7	
JJ	85+00	807.5	802.7	
KK	85+00	807.5	802.7	
LL	85+00	807.5	802.7	
MM	85+00	807.5	802.7	
NN	85+00	807.5	802.7	
OO	85+00	807.5	802.7	
PP	85+00	807.5	802.7	
QQ	85+00	807.5	802.7	
RR	85+00	807.5	802.7	
SS	85+00	807.5	802.7	
TT	85+00	807.5	802.7	
UU	85+00	807.5	802.7	
VV	85+00	807.5	802.7	
WW	85+00	807.5	802.7	
XX	85+00	807.5	802.7	
YY	85+00	807.5	802.7	
ZZ	85+00	807.5	802.7	
AAA	85+00	807.5	802.7	
BBB	85+00	807.5	802.7	
CCC	85+00	807.5	802.7	
DDD	85+00	807.5	802.7	
EEE	85+00	807.5	802.7	
FFF	85+00	807.5	802.7	
GGG	85+00	807.5	802.7	
HHH	85+00	807.5	802.7	
III	85+00	807.5	802.7	
JJJ	85+00	807.5	802.7	
KKK	85+00	807.5	802.7	
LLL	85+00	807.5	802.7	
MMM	85+00	807.5	802.7	
NNN	85+00	807.5	802.7	
OOO	85+00	807.5	802.7	
PPP	85+00	807.5	802.7	
QQQ	85+00	807.5	802.7	
RRR	85+00	807.5	802.7	
SSS	85+00	807.5	802.7	
TTT	85+00	807.5	802.7	
UUU	85+00	807.5	802.7	
VVV	85+00	807.5	802.7	
WWW	85+00	807.5	802.7	
XXX	85+00	807.5	802.7	
YYY	85+00	807.5	802.7	
ZZZ	85+00	807.5	802.7	
AAA	85+00	807.5	802.7	
BBB	85+00	807.5	802.7	
CCC	85+00	807.5	802.7	
DDD	85+00	807.5	802.7	
EEE	85+00	807.5	802.7	
FFF	85+00	807.5	802.7	
GGG	85+00	807.5	802.7	
HHH	85+00	807.5	802.7	
III	85+00	807.5	802.7	
JJJ	85+00	807.5	802.7	
KKK	85+00	807.5	802.7	
LLL	85+00	807.5	802.7	
MMM	85+00	807.5	802.7	
NNN	85+00	807.5	802.7	
OOO	85+00	807.5	802.7	
PPP	85+00	807.5	802.7	
QQQ	85+00	807.5	802.7	
RRR	85+00	807.5	802.7	
SSS	85+00	807.5	802.7	
TTT	85+00	807.5	802.7	
UUU	85+00	807.5	802.7	
VVV	85+00	807.5	802.7	
WWW	85+00	807.5	802.7	
XXX	85+00	807.5	802.7	
YYY	85+00	807.5	802.7	
ZZZ	85+00	807.5	802.7	

REVISION 1				REVISION 2				REVISION 1				REVISION 0				NEW PIEZOMETERS			
DATE				DATE 11-5-96				DATE 1-25-90				DATE 7-11-88				WELL NO. APPROX. STA. NO. TOP OF PIPE ELEVATION			
				ADD PIEZOMETER S1				ADD ADDITIONAL SURVEILLANCE				ISSUED FOR PLANT SURVEILLANCE				S1 13+50 769.9			
				REQD SURVEILLANCE LOCATION SYMBOLS				PER GEORGIA EPD REQUEST								GROUND 767.1			
				DATE 8-7-95												CAD E10062			
				JOB NO. WND96900												CADSVL ARS-0			
				AWM ASB FOR APPROVALS SEE EDRF 9611017				KMD AWM								Southern Company Services Inc.			
																GEORGIA POWER COMPANY			
																PLANT WANSLEY			
																SURVEILLANCE			
																INSTRUMENTATION			
																LOCATION			
																SHEET NO. 10209			
																DRAWING NUMBER E10062			
																REV. 2			



AVAILABLE SANDS AND GRAVELS MATERIAL

Area of Investigation

Potential Area

INDEX TO MAP SHEETS

	H10032	
H10029	H10030	H10031
H10026	H10027	H10028
H10023	H10024	H10025
H10021	H10022	

APPROXIMATE MAGNETIC DECLINATION
1971 = 1° EAST

PLANT GRID

GN TN
0°28'56"

Prepared By Stereophotogrammetric Methods
ALSTER & ASSOCIATES INC., MADISON, WIS.

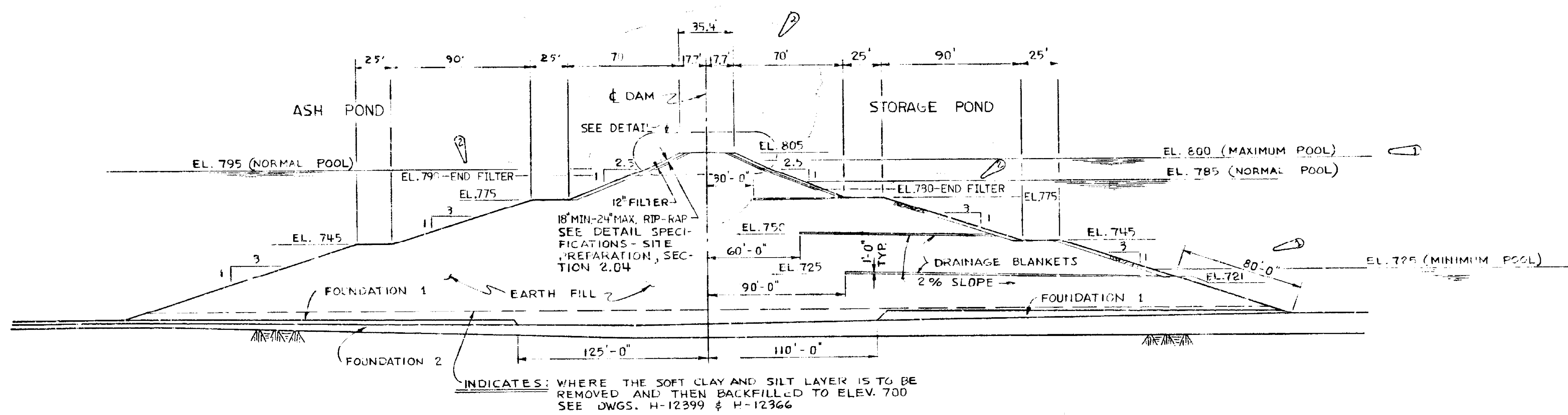
COWETA - HEARD - CARROLL COUNTIES
SCALE 1" = 200'
CONTOUR INTERVAL 5' @ 20'; NOTE CHANGE IN CONTOUR INTERVAL
CLYDE N. ELDRIDGE AERIAL SURVEYS - BARNESVILLE, GEORGIA
FEB. 23, 1971

2 5-7400 Added Flume
1 8-77 Added DEPRESSION DIKE, RIVER DIKE, ETC.
No Date by Revisions

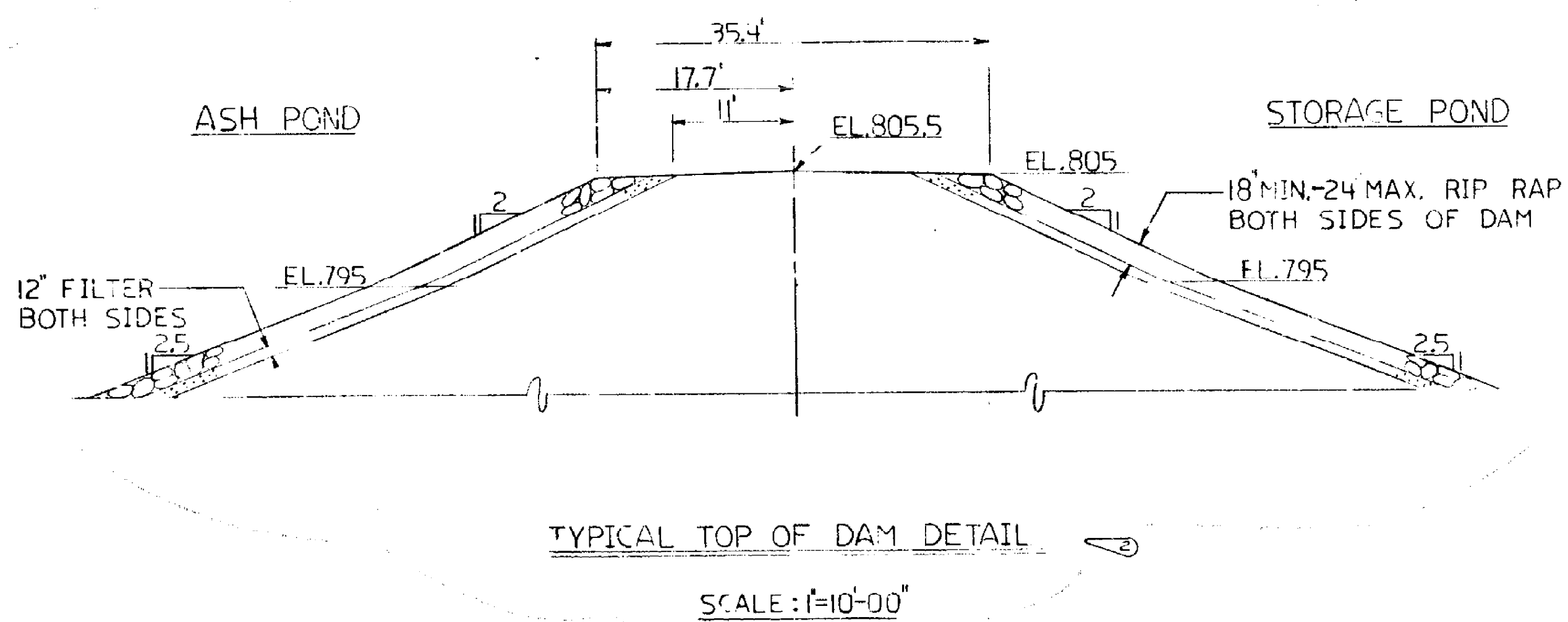
GEORGIA POWER CO., ATLANTA, GA.
GENERAL ENGINEERING DEPARTMENT

PLANT WANSLEY - UNIT NO. 1
PROJECT LOCATION MAP

DESIGNED BY	DATE
SCALE AS SHOWN	
DRAWING NUMBER	
LOCATION	SHEET NO.
10-209	H10027



SECTION G-G (H-12399)
1" = 40'-0"



TYPICAL TOP OF DAM DETAIL

SCALE: 1" = 10'-00"

SOIL DESCRIPTION

EARTH FILL	CLAYEY SANDY SILT
RIP-RAP	ROCK AGGREGATE
DRAINAGE BLANKET	SAND AND GRAVEL FROM BORROW PIT LOCATIONS SELECTED FOR HIGH PERMEABILITY
FOUNDATION 1	SAND AND GRAVEL (ALLUVIUM)
FOUNDATION 2	SANDY MICACEOUS SILT (RESIDUAL)

- NOTE:
- FOR THE LOCATION OF THE SECTION SHOWN, PLEASE REFER TO DWG. H-12399.
 - THIS DESIGN IS BASED ON THE ASSUMPTION THAT THE WATER LEVEL IN STORAGE POND SIDE ONLY WILL FLUCTUATE FROM EL. 785 TO EL. 720.
 - FOR ADDITIONAL NOTES CONCERNING SOIL MATERIALS TO BE USED IN DAM SEE DWG. H-12396.

REFERENCES: SEPARATION DAM

- H-12364—DIVERSION SCHEME—STAGE DRAWINGS & SECTION
- H-12366—CONSTRUCTION DIVERSION SCHEME—STAGE DRAWINGS & PLANS
- H-12396—STABILITY ANALYSIS. SHEET 1 OF 3
- H-12497— " " " SHEET 2 OF 2
- H-12498— " " " SHEET 3 OF 3
- H-12399—GENERAL ARRANGEMENT WITH EXCAVATION LIMITS

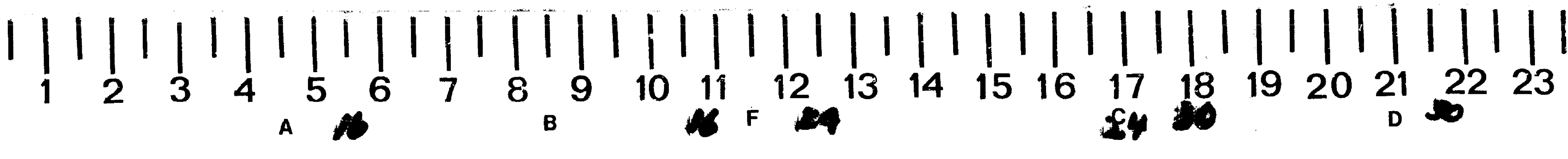
SOUTHERN SERVICES, INC.
FOR

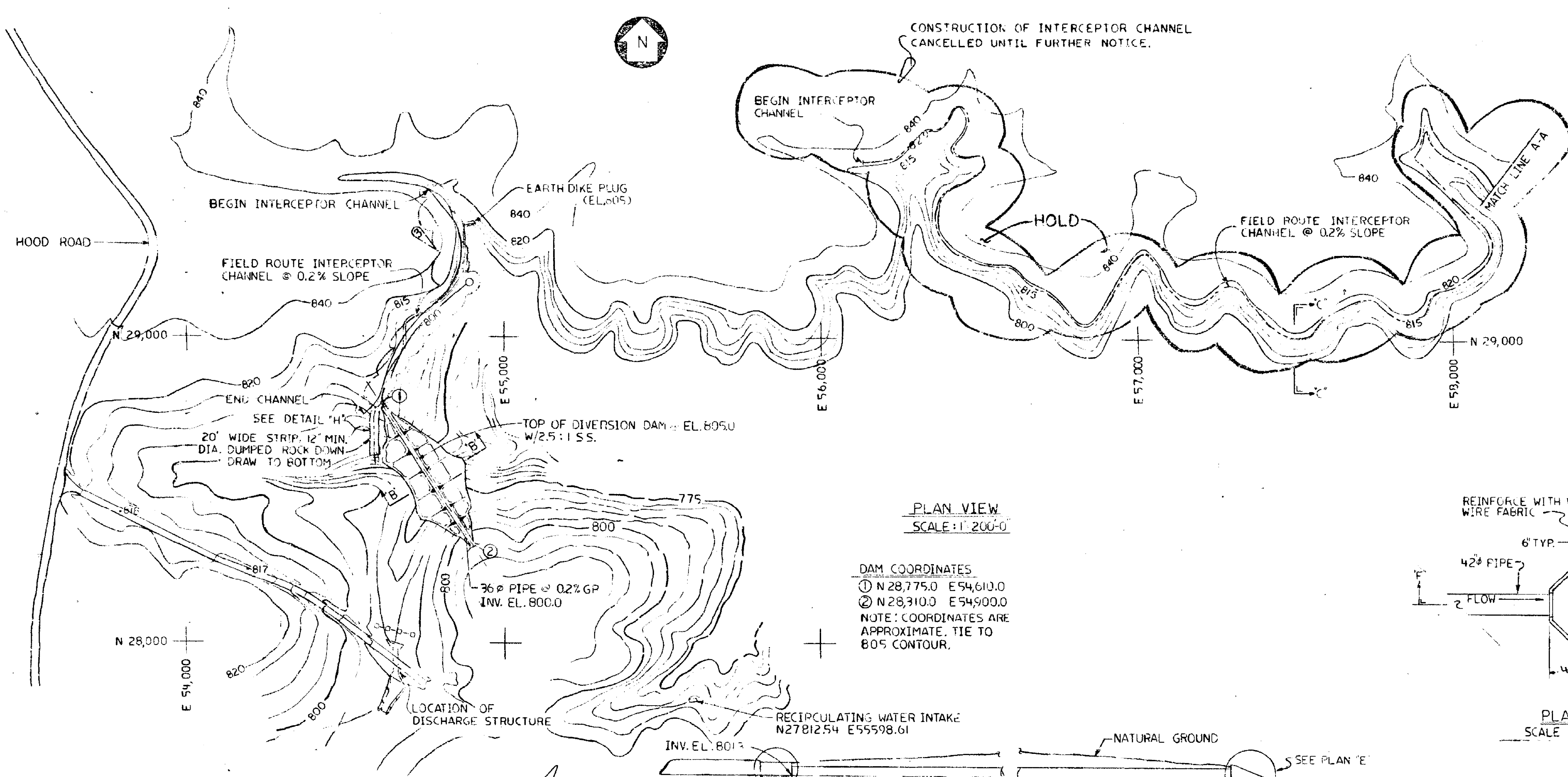
GEORGIA POWER CO., ATLANTA, GA.
GENERAL ENGINEERING DEPARTMENT

PLANT WANSLEY
SEPARATION DAM
SECTION & DETAILS

DESIGNED BY	DATE	SCALE	DATE
AS SHOWN	4/1/78	AS SHOWN	4-78
DRAWING NUMBER	10-209	SHEET NO.	H-12365

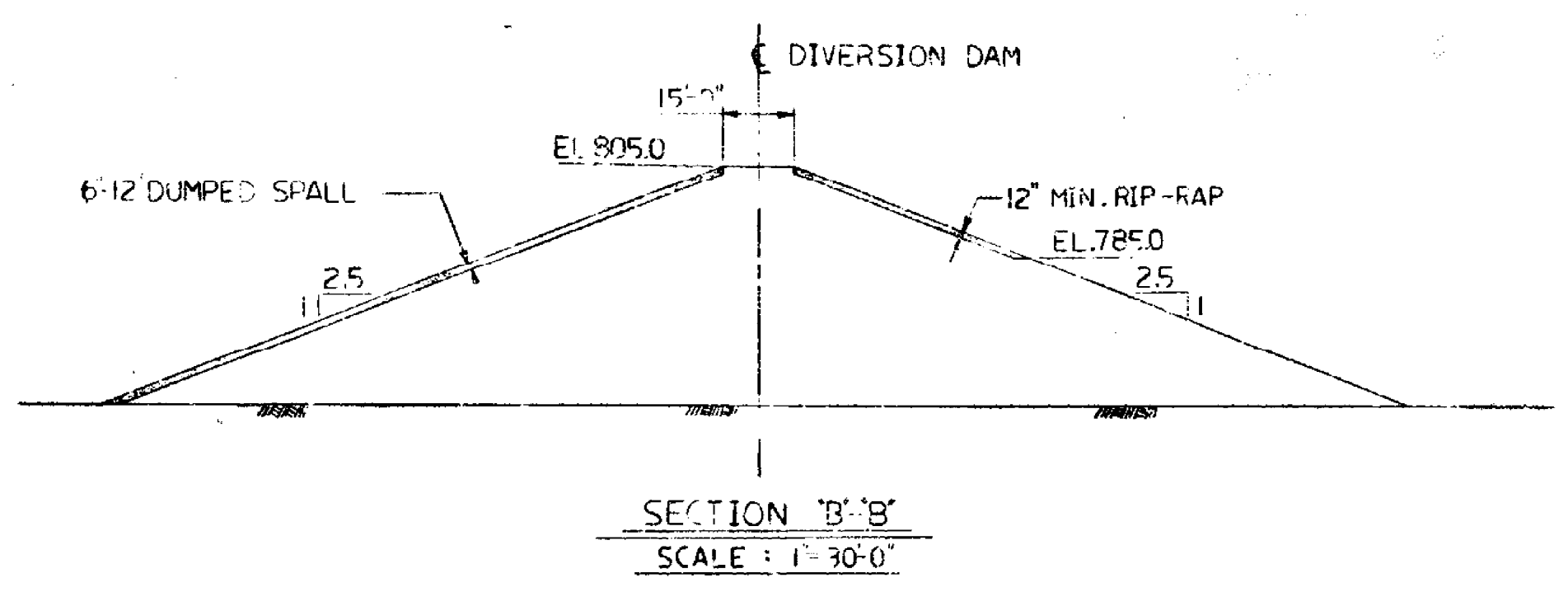
30X



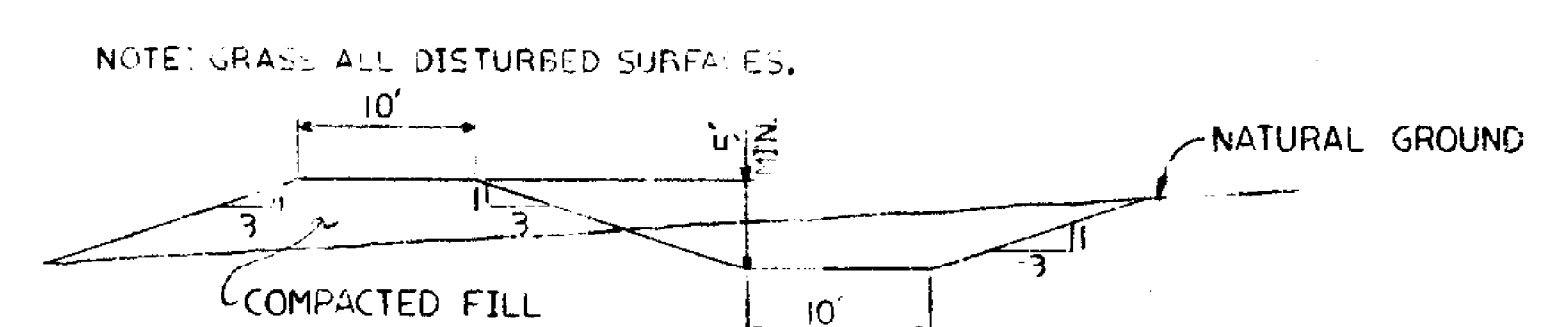


PLAN VIEW
SCALE: 1"=200'-0"

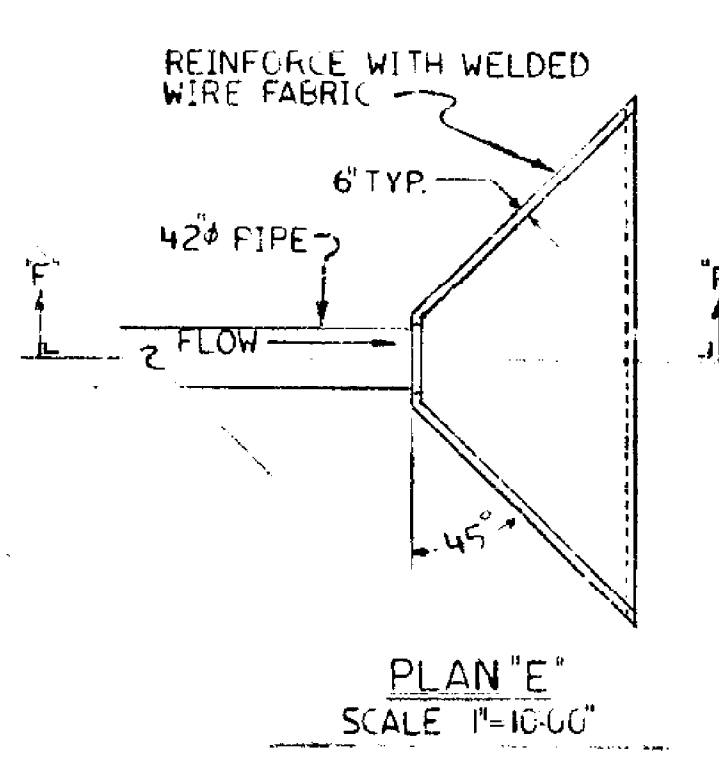
DAM COORDINATES
 ① N 28,775.0 E 54,610.0
 ② N 28,310.0 E 54,500.0
 NOTE: COORDINATES ARE APPROXIMATE. TIE TO 805 CONTOUR.



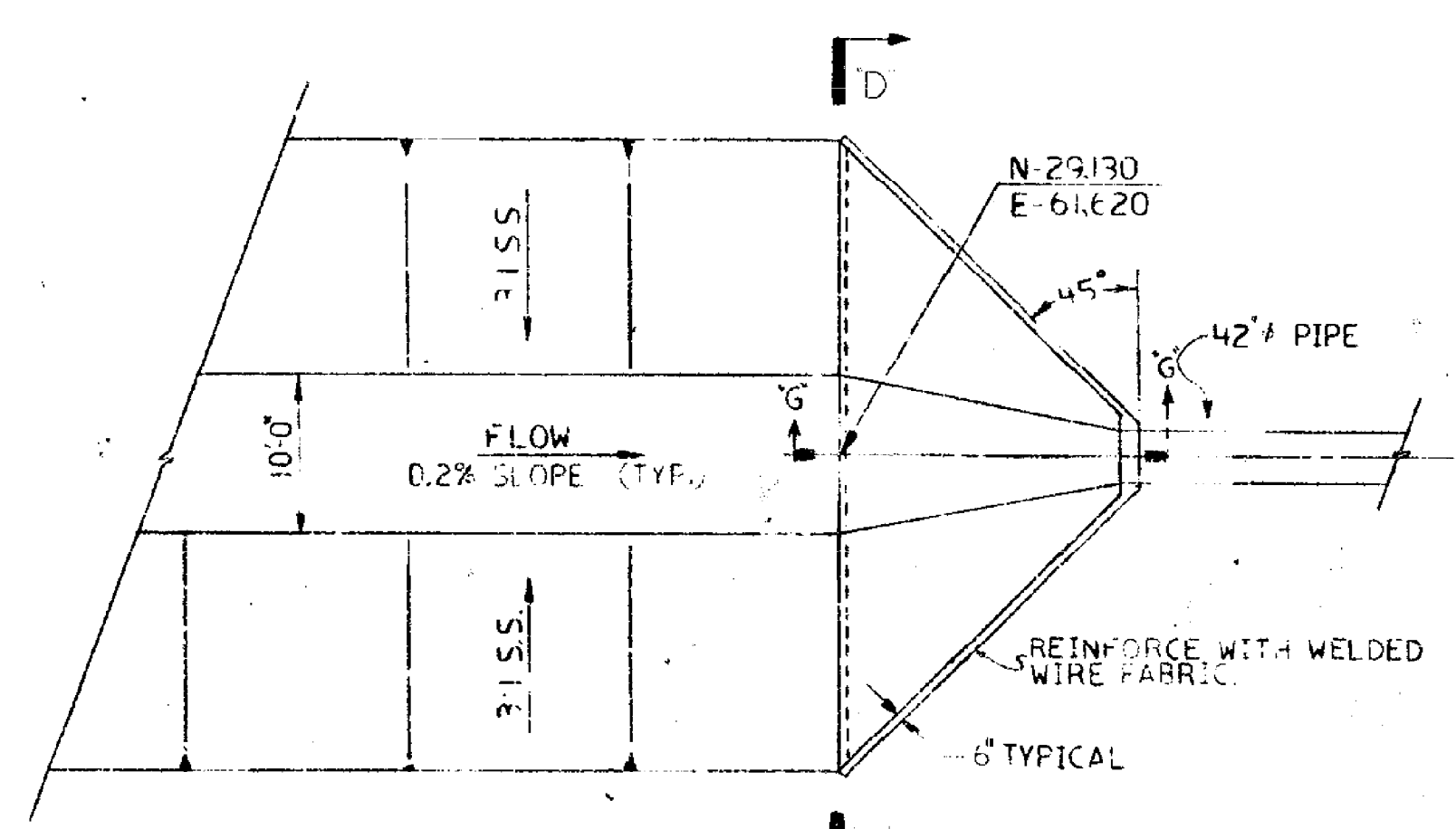
SECTION 'B-B'
SCALE: 1"=30'-0"



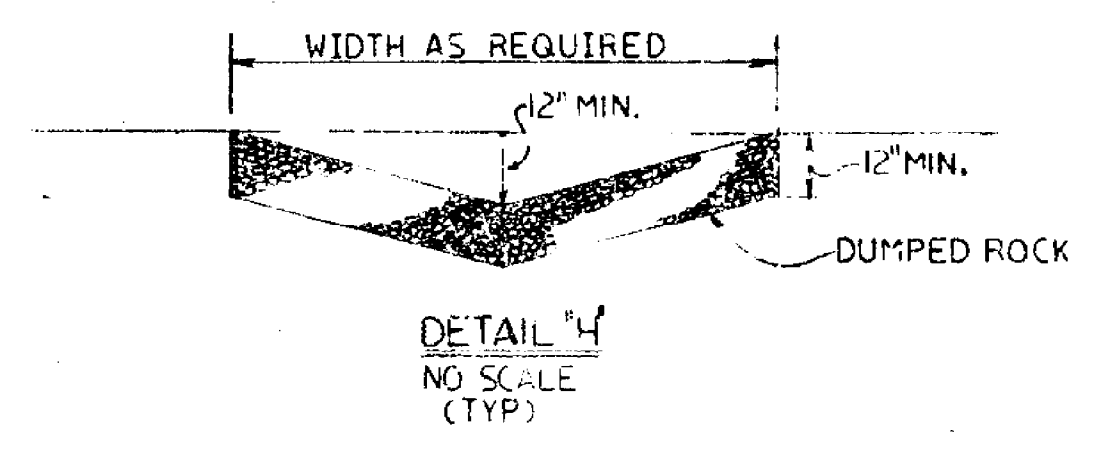
SECTION 'C-C' (TYP.)
(TYPICAL SECTION)
SCALE: 1"=10'-0"



PLAN 'E'
SCALE: 1"=10'-0"

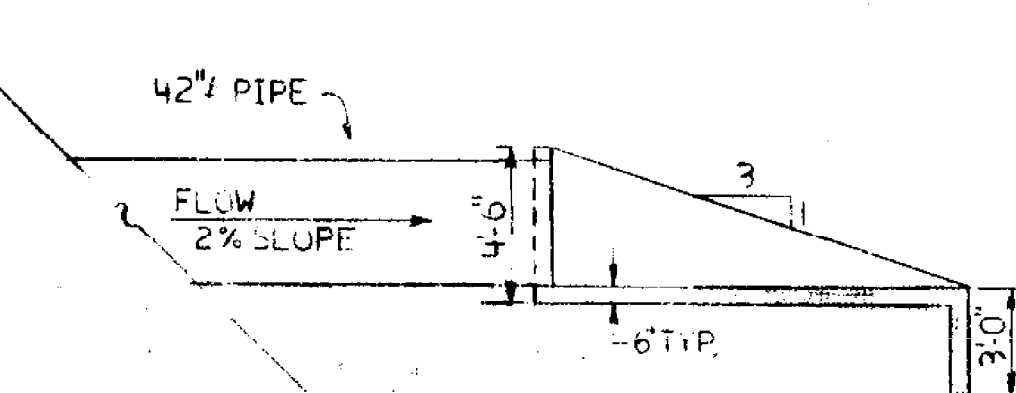


PLAN 'A'
SCALE: 1"=10'-0"

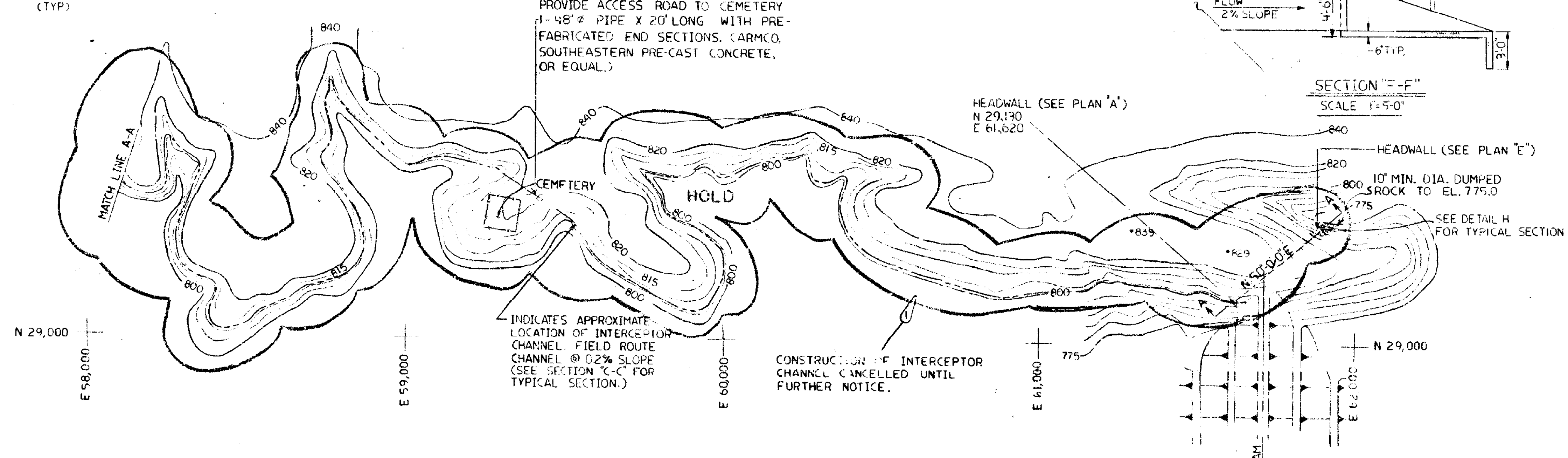


DETAIL 'H'
NO SCALE
(TYP.)

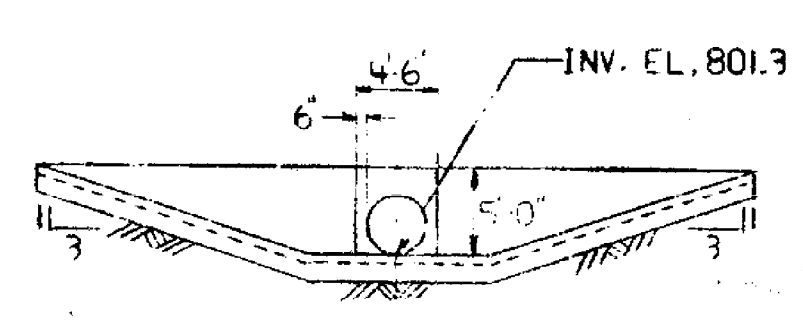
SECTION 'A-A'
SCALE: 1"=20'-0"



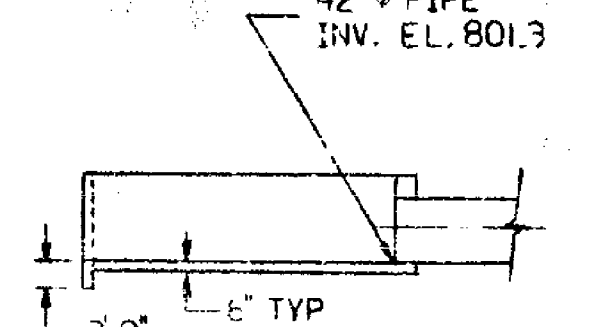
SECTION 'F-F'
SCALE: 1"=5'-0"



PLAN VIEW
SCALE: 1"=200'-0"



SECTION 'D-D'
SCALE: 1"=10'-0"



SECTION 'G-G'
SCALE: 1"=10'-0"

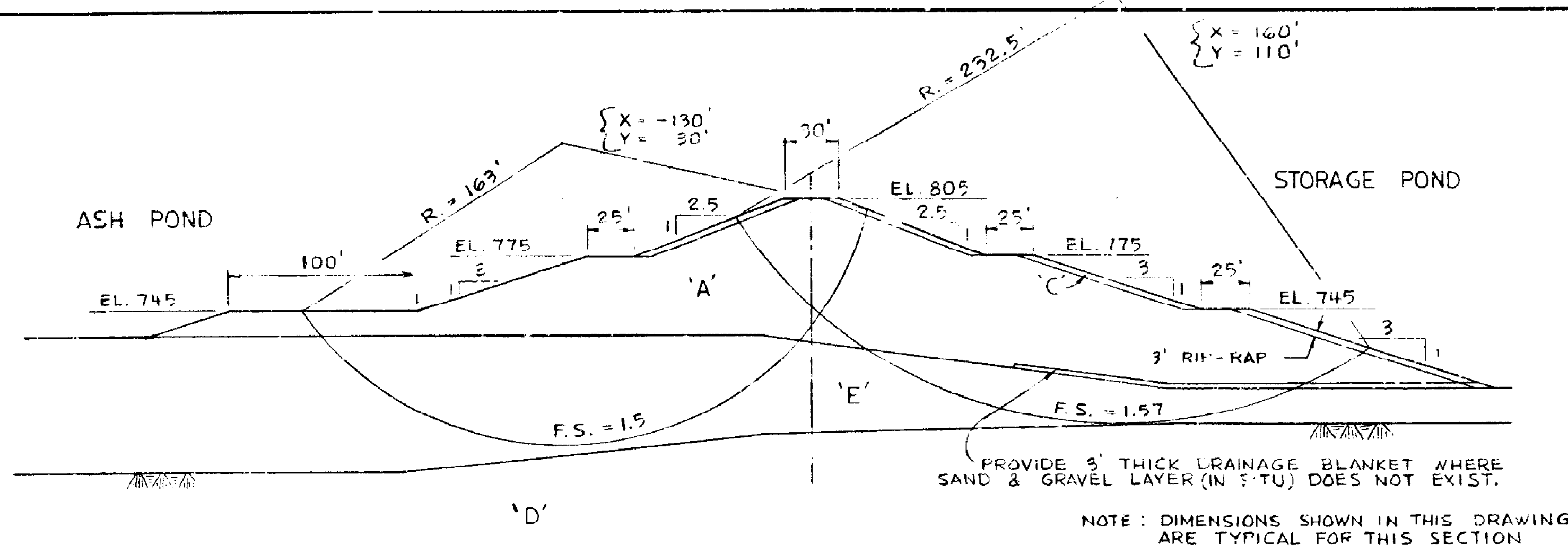
NOTES
 1. ALL PIPE TO BE FIELD FURNISHED.
 2. PIPE MAY BE B.C.C.M. OR CONCRETE.
 REFERENCES
 H-12824: OUTDOOR CONCRETS, ASH POND INTAKE STRUCTURE

SOUTHERN SERVICES, INC.
FOR

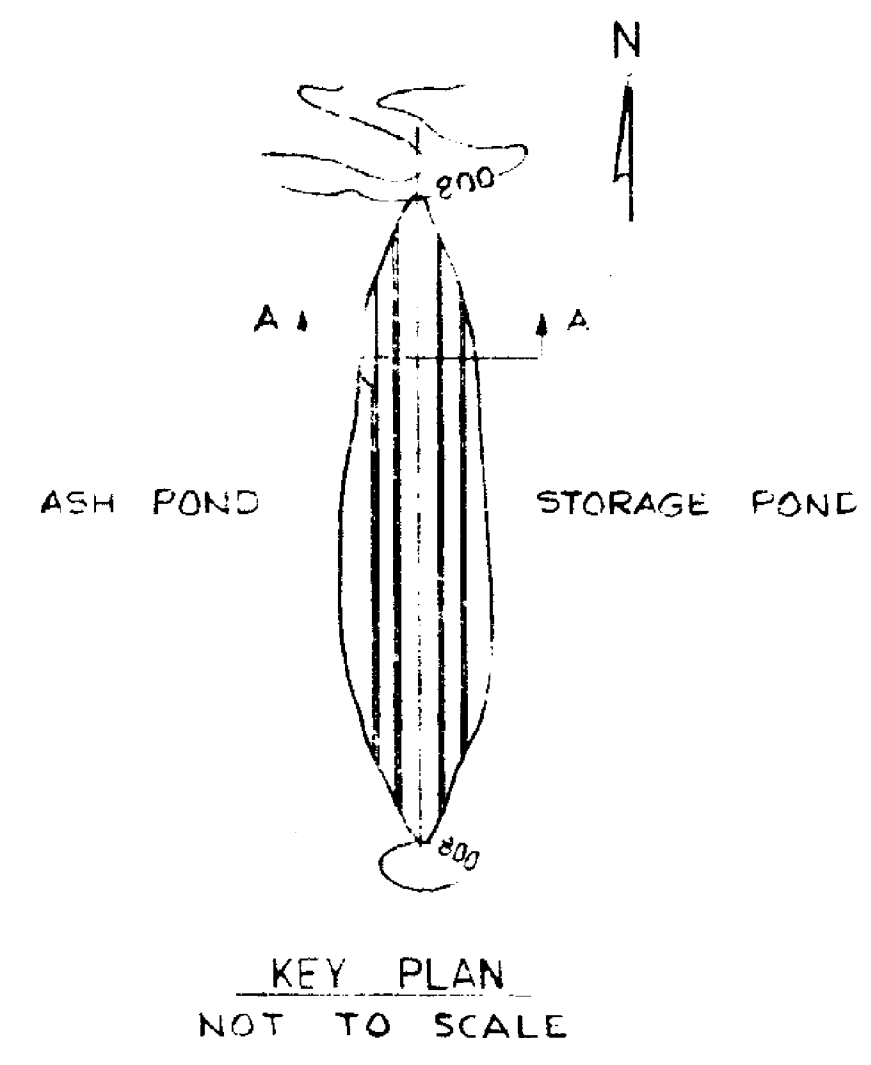
GEORGIA POWER CO., ATLANTA, GA.
GENERAL ENGINEERING DEPARTMENT

PLANT WANSLEY	
ASH POND INTERCEPTOR CHANNEL	
PLAN & SECTIONS	
DATE: 11-15-74	SCALE: AS SHOWN
DRAWING NUMBER: 10-209	SHEET NO.: H-12375

REVISION 3 BY RCB DATE 6-10-77	REVISION 1 BY JMS DATE 4-5-75
FIELD REVISION - DRAWING NUMBER FSC316 REV.3	PUT HOLD AND NOTE ON INTERCEPTOR CHANNEL
	REVISION 2 BY VAB DATE 2-4-76
	ADDED RECYCL. WATER INTAKE STRUC. AND GROUND CONTOURS.

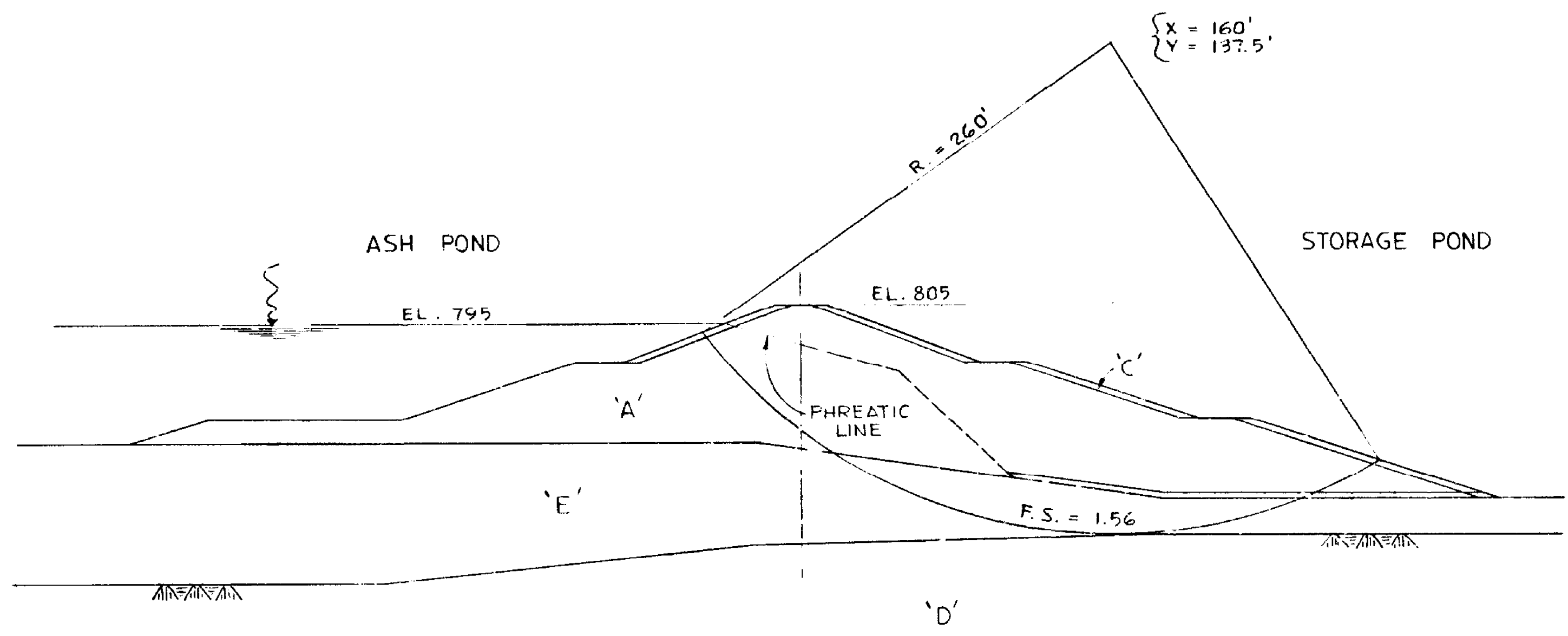


UNDER CONSTRUCTION



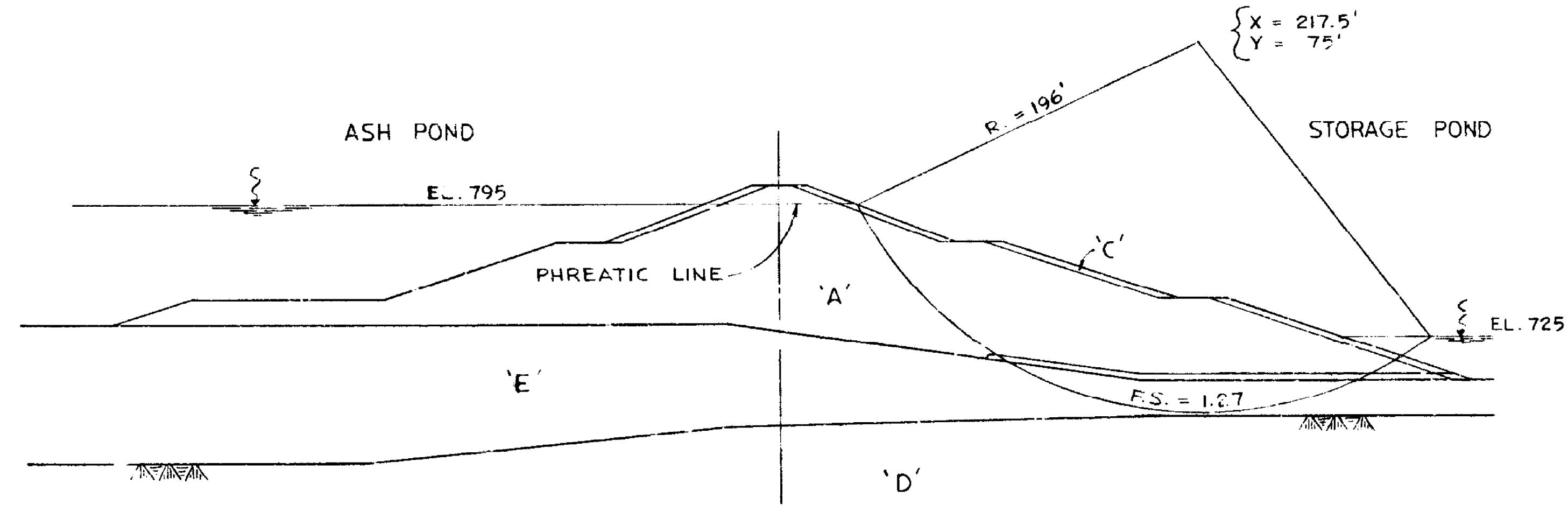
TOTAL STRESS SOIL CHARACTERISTICS

TYPE SOIL	CONSTRUCTIVE		STEADY SEEPAGE		DRAWDOWN	
	THICKNESS (FEET)	PERCENT	THICKNESS (FEET)	PERCENT	THICKNESS (FEET)	PERCENT
EMB. FILL (A)	12.4	26.5	12.00	1.4	19	14.00
FILTER (B)	130	4.0	0	130	4.0	0
RIP-RAP (C)	130	3.8	0	130	3.8	0
BERELOCK (D)	150	4.0	3000	150	40	3000
FILL-1 (E)	112	8	550	112	12	700



STEADY SEEPAGE

- NOTES:
- SAFETY FACTORS SHOWN ARE THE MINIMUM FOR EACH CONDITION. COMPLETE COMPUTER RESULTS AVAILABLE FROM SOUTHERN SERVICE, INC.
 - SAFETY FACTORS DO NOT INCLUDE BENEFIT FROM DEPOSIT OF ASH.
 - SOIL CHARACTERISTICS FROM LAW ENGINEERING AND TESTING CO. THROUGH GEORGIA POWER CO.
 - MATERIALS RECOMMENDED BY LETCO FOR EMBANKMENT FILLS ARE: a. FINE TO MEDIUM SANDY SILT (WEST BORROW); b. STIFF TO HARD FINE TO MEDIUM SANDY MICACEOUS SILT (NORTH BORROW); c. PARTIALLY WEATHERED ROCK (LETCO REPORT NO. 40, OCT. 1972). USE OF FINE TO COARSE SAND AND HIGHLY MICACEOUS SOILS IN THE EMBANKMENT SHOULD BE AVOIDED. HOWEVER, SAND CAN BE USED IN THE DRAINS.
 - EMBANKMENT FILLS SHALL BE COMPACTED AT LEAST TO SECURE THE DESIGN STRENGTH CHARACTERISTICS USED IN THE ANALYSIS OF SLOPES. FIELD CONTROL SHOULD ENSURE THE DESIGN STRENGTH OF THE MATERIALS USED IN THE DESIGN.

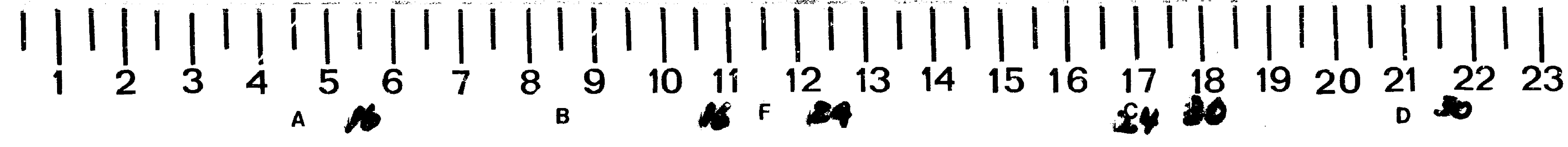


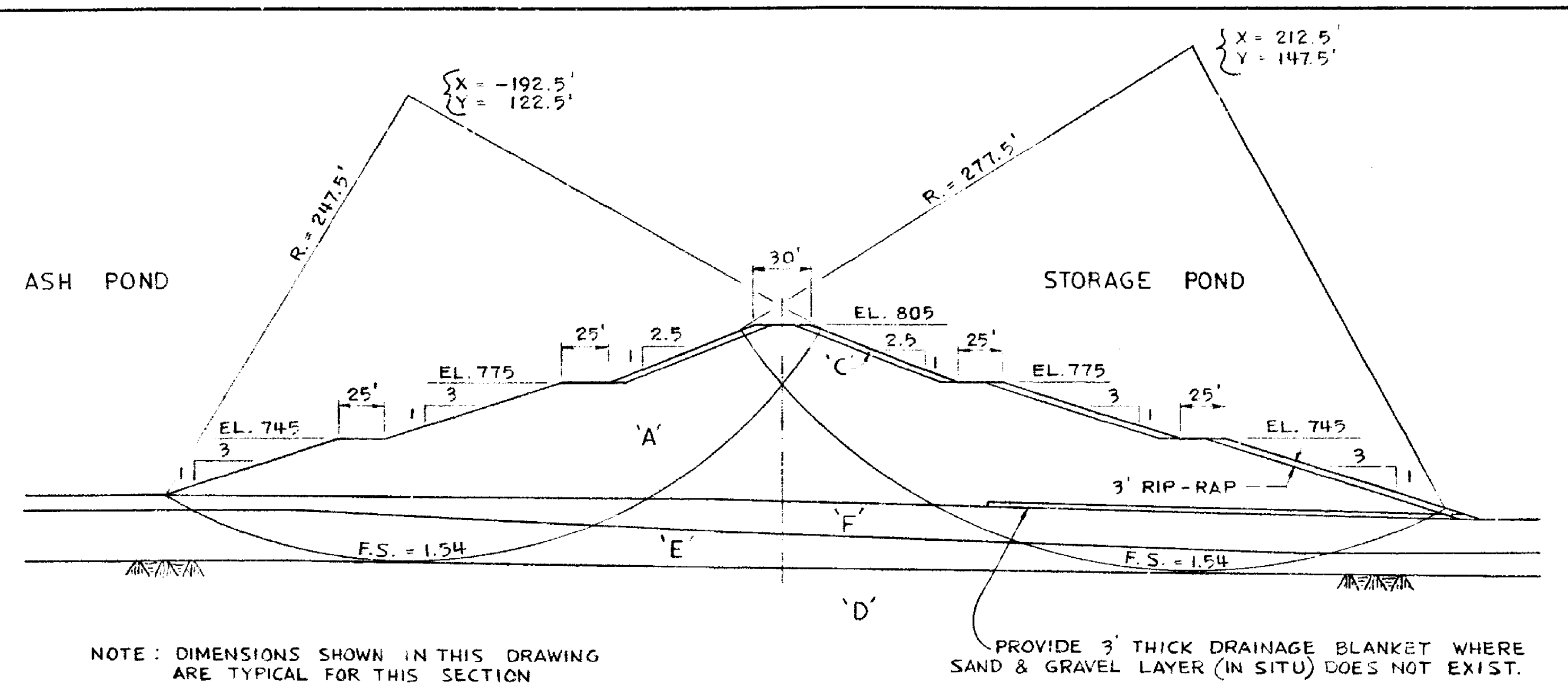
STORAGE POND DRAWDOWN EL. 795 - EL. 725

CIRCLE ANALYSIS SECTION A-A

REVISIONS		DATE	
GEORGIA POWER CO., ATLANTA, GA. GENERAL ENGINEERING DEPARTMENT PLANT WANSLEY SEPARATION DIKE STABILITY ANALYSIS-SHEET 1 OF 3			
SCALE	DATE	DRAWING NUMBER	SHEET NO.
1" = 50'	6-7-73	10-209	H-12996

30X

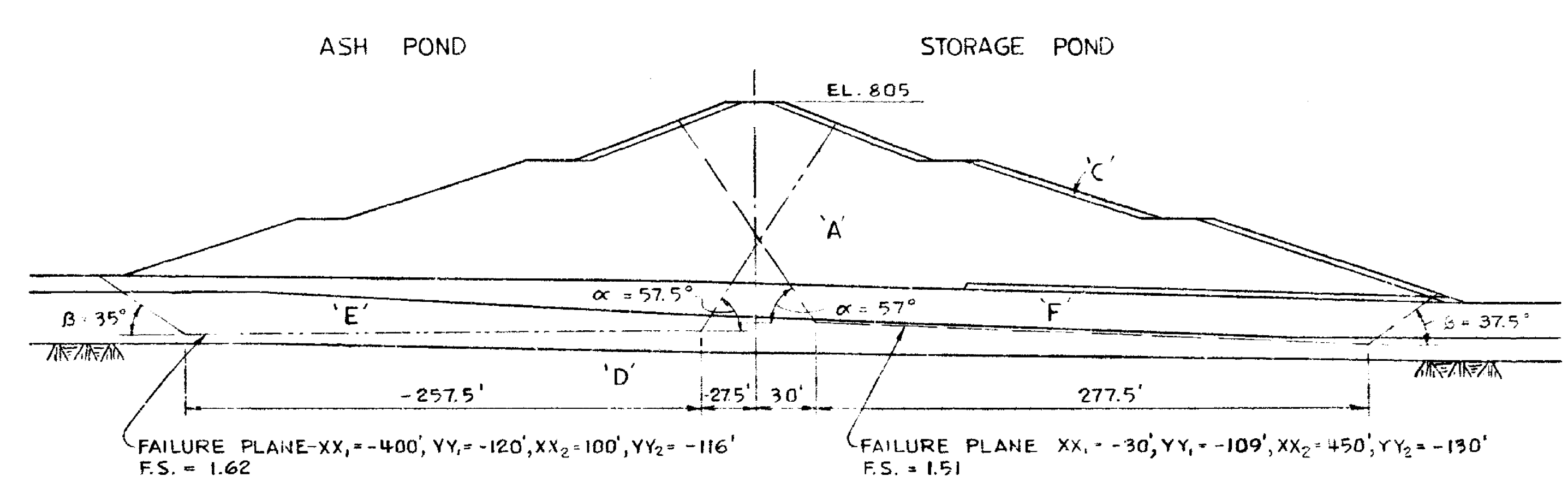




NOTE: DIMENSIONS SHOWN IN THIS DRAWING ARE TYPICAL FOR THIS SECTION

PROVIDE 3" THICK DRAINAGE BLANKET WHERE SAND & GRAVEL LAYER (IN SITU) DOES NOT EXIST.

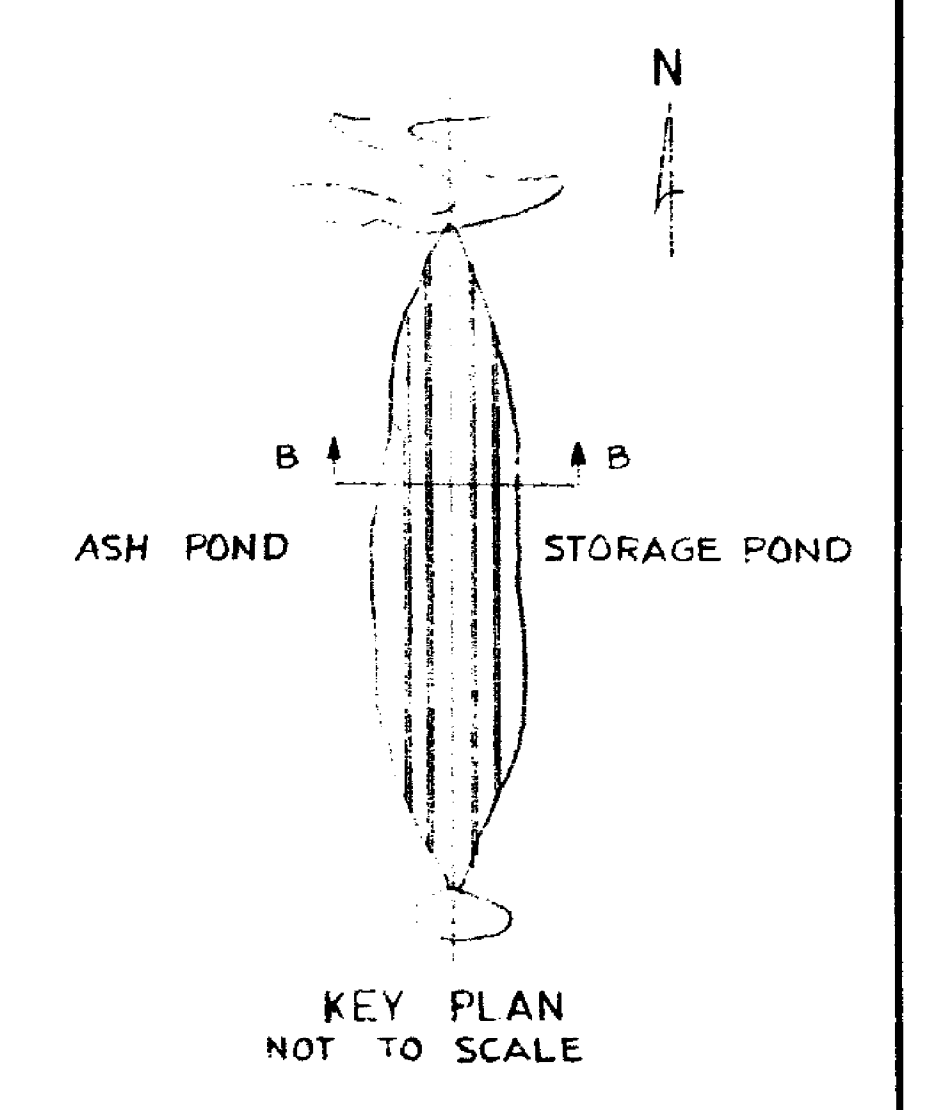
UNDER CONSTRUCTION



FAILURE PLANE XX₁ = -400', Y₁ = -120', X₂ = 100', Y₂ = -116'
F.S. = 1.62

FAILURE PLANE XX₂ = -30', Y₁ = -109', X₂ = 450', Y₂ = -130'
F.S. = 1.51

UNDER CONSTRUCTION

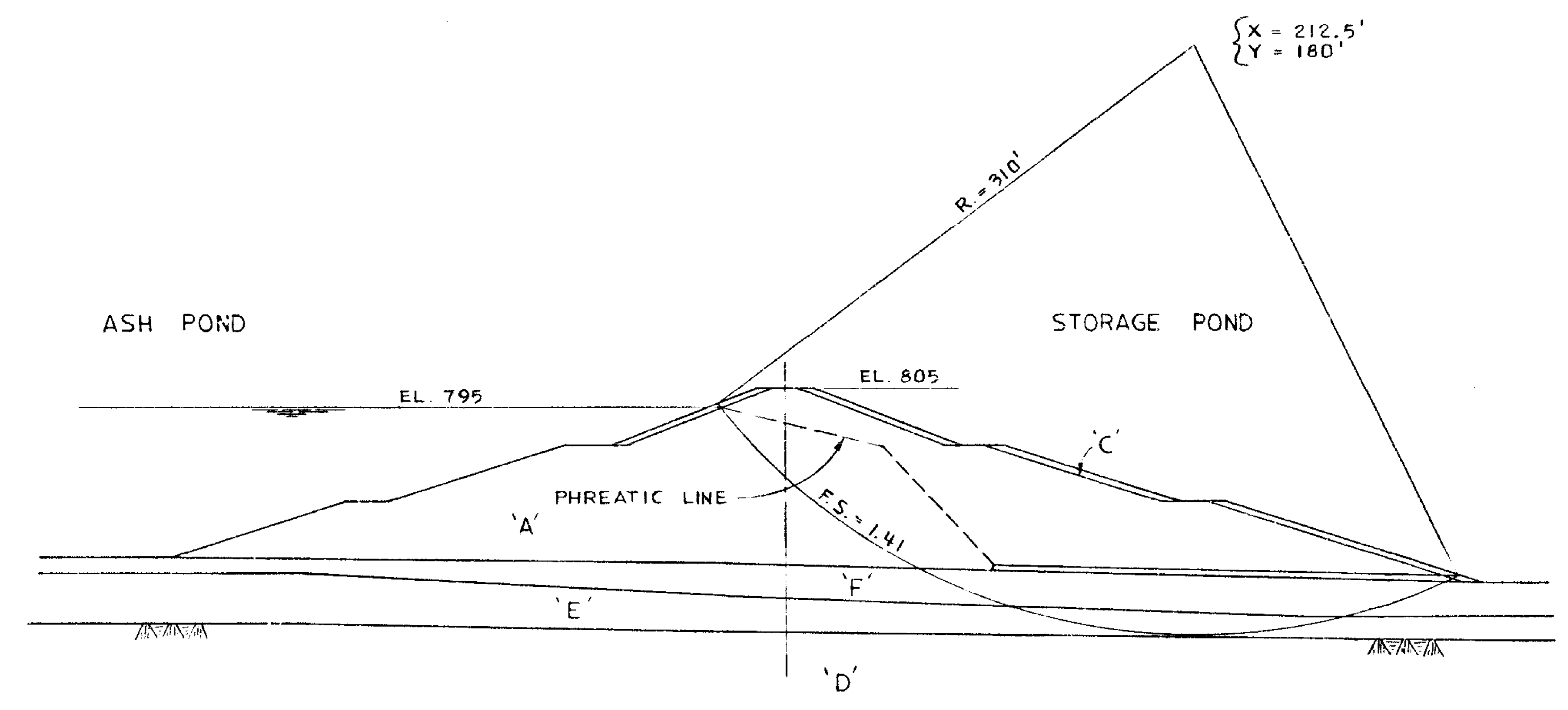


KEY PLAN NOT TO SCALE

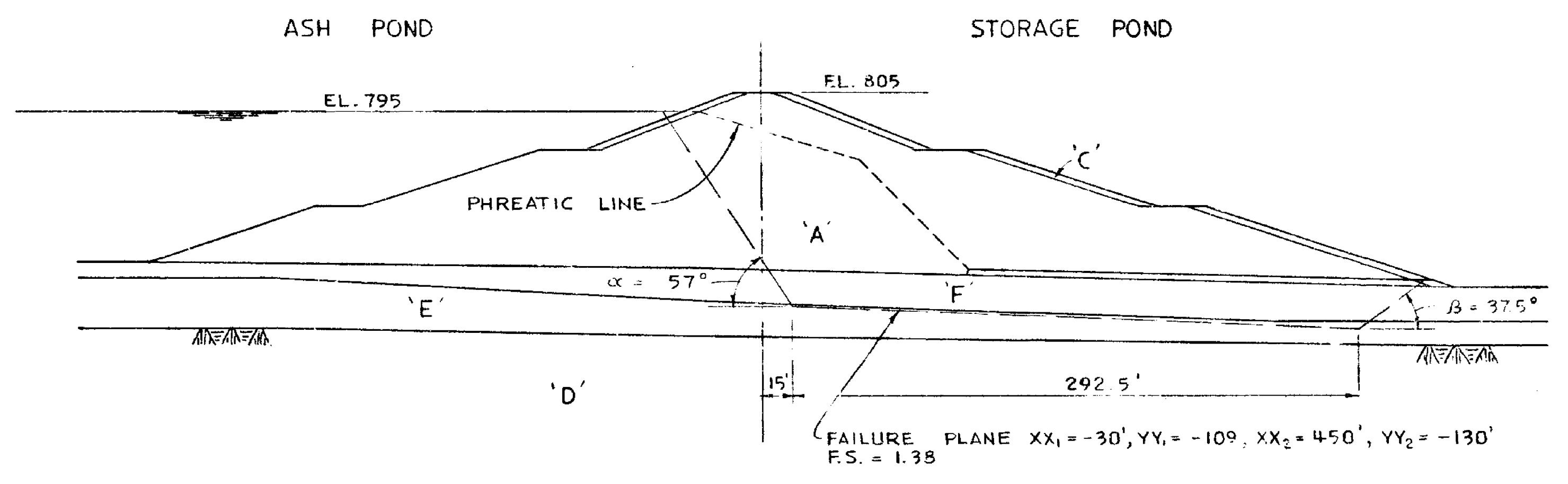
TOTAL STRESS SOIL CHARACTERISTICS

TYPE SOIL	CONSTRUCTION			STEADY SEEPAGE DRAWDOWN		
	γ_m	γ_w	γ_{sat}	γ_m	γ_w	γ_{sat}
EMB. FILL (A)	124	26.5	1200	124	19	1400
FILTER (B)	150	40	0	130	40	0
RIP-RAP (C)	130	30	8	130	30	8
BEDROCK (D)	150	40	3000	150	40	3000
FDN. 1 (E)	112	8	550	112	12	700
FDN. 2 (F)	120	12	1300	120	12	1300

NOTE: FOR GENERAL NOTES SEE DWG. H-12396.

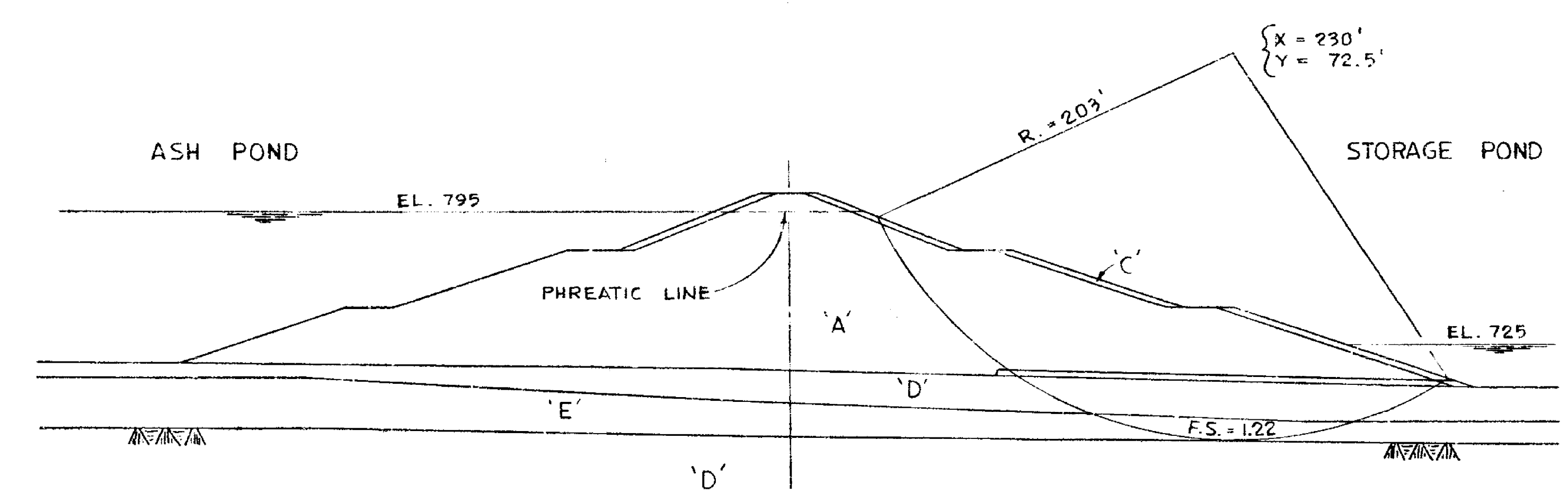


STEADY SEEPAGE



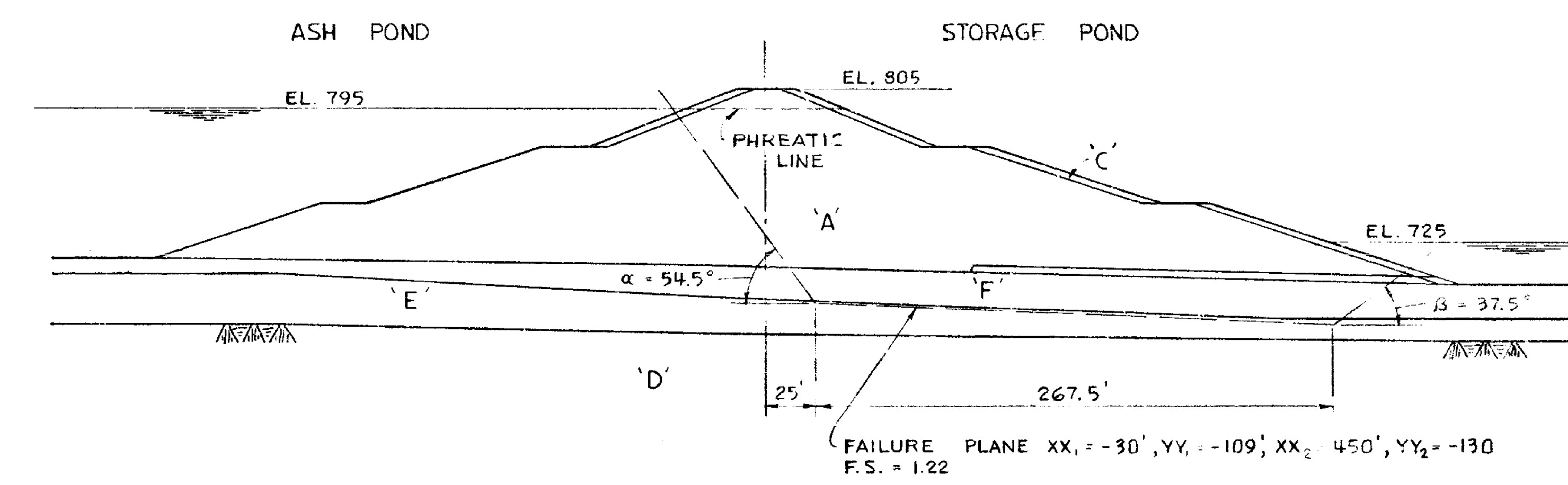
FAILURE PLANE XX₁ = -30', Y₁ = -109', X₂ = 450', Y₂ = -130'
F.S. = 1.38

STEADY SEEPAGE



STORAGE POND DRAWDOWN EL. 795 - EL. 725

CIRCLE ANALYSIS



STORAGE POND DRAWDOWN EL. 795 - EL. 725

WEDGE ANALYSIS

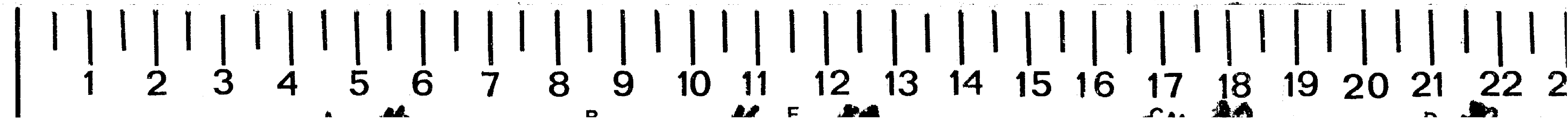
SECTION B-B

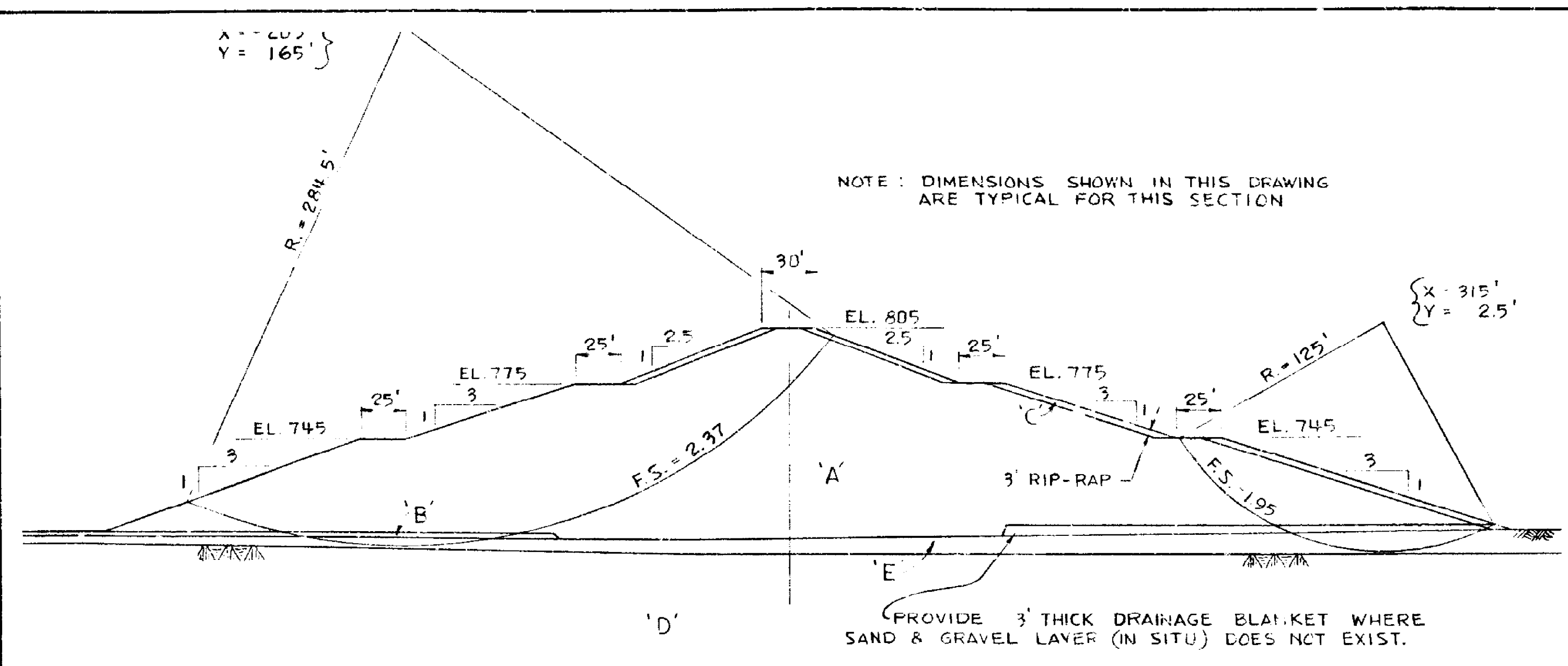
GEORGIA POWER CO., ATLANTA, GA.
GENERAL ENGINEERING DEPARTMENT
PLANT WANSLEY
SEPARATION DIKE
STABILITY ANALYSIS-SHEET 2 OF 3

DATE	BY	CHKD.	APP'D.
10-20-73	W. J. WDP	J. M.	J. M.
SCALE	1" = 20'	DATE	6-29-73
DRAWING NUMBER	26-71	LOCATION	10-209
SHEET NO.	2	SHEET NO.	H-12397

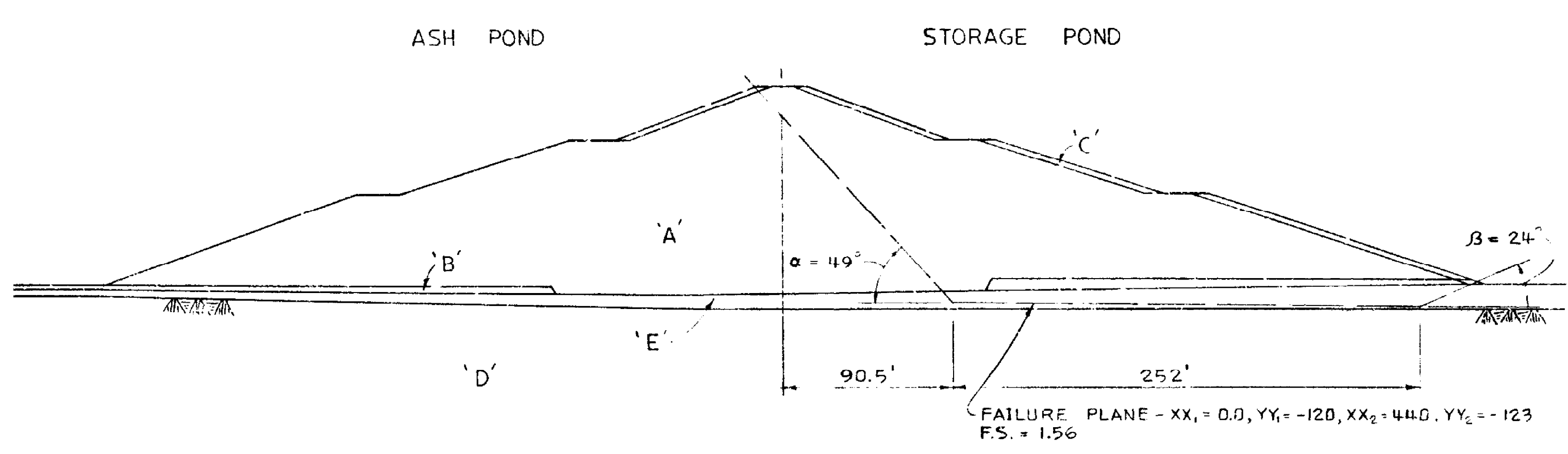
RETURN TO HYDRO

30X

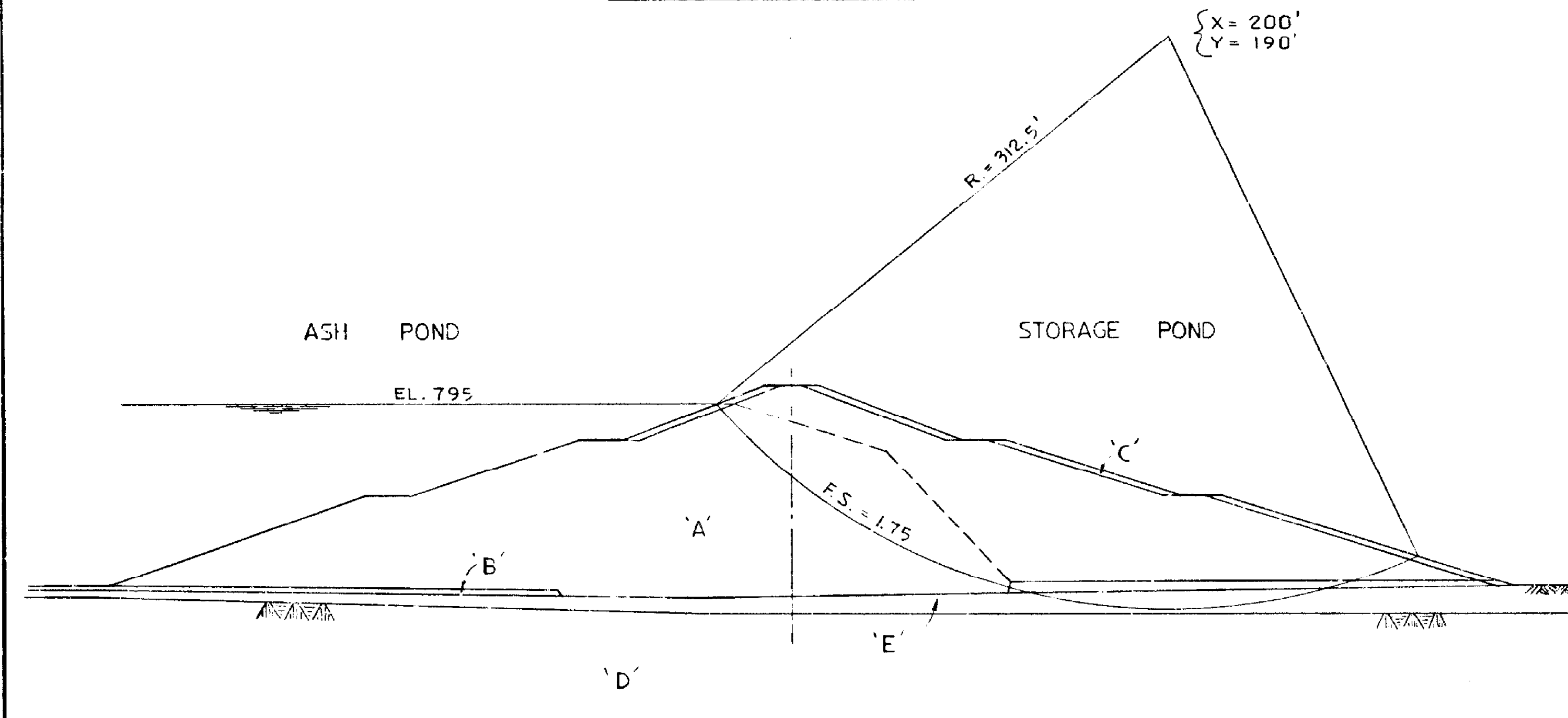
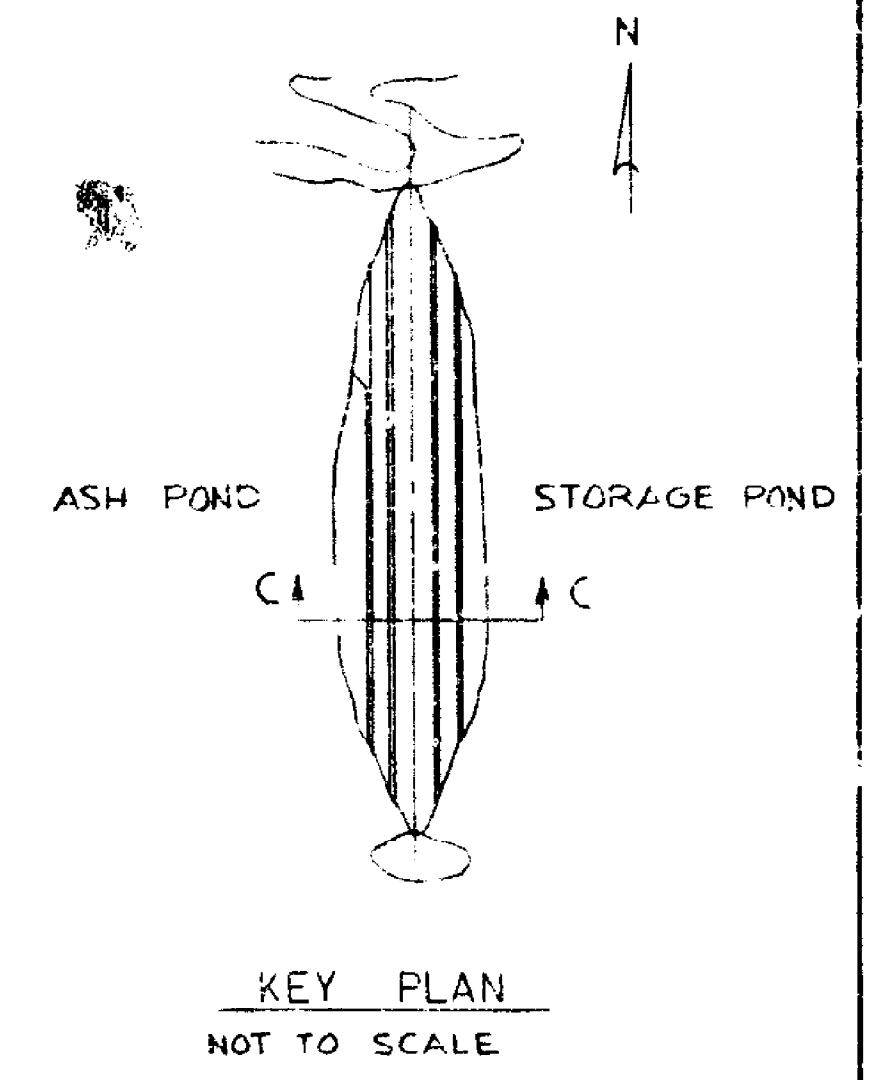




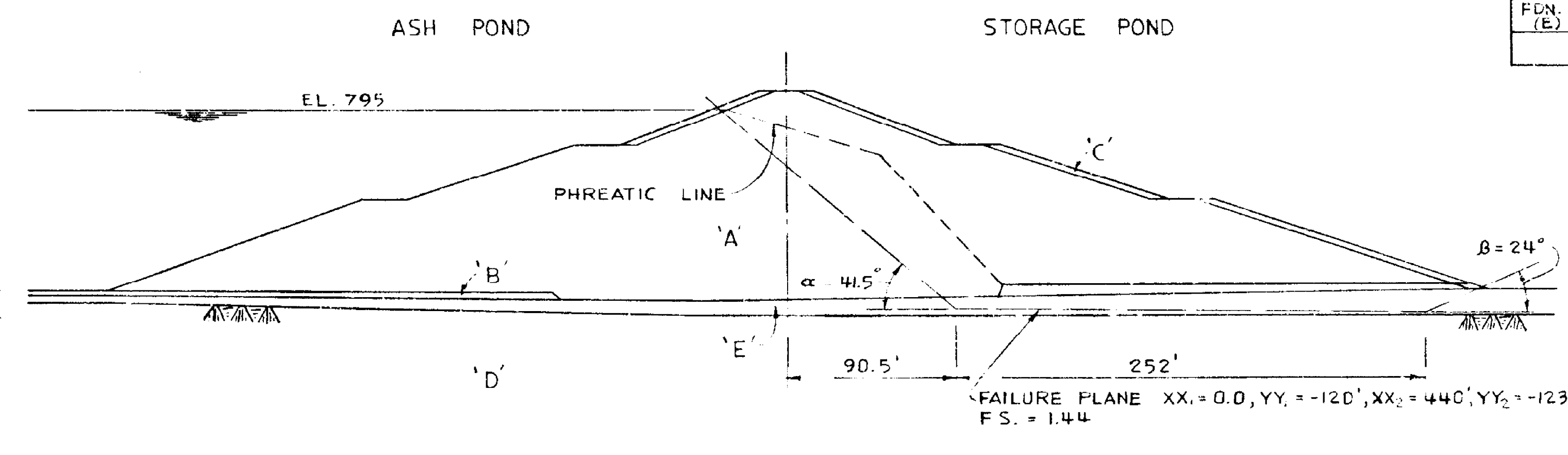
UNDER CONSTRUCTION



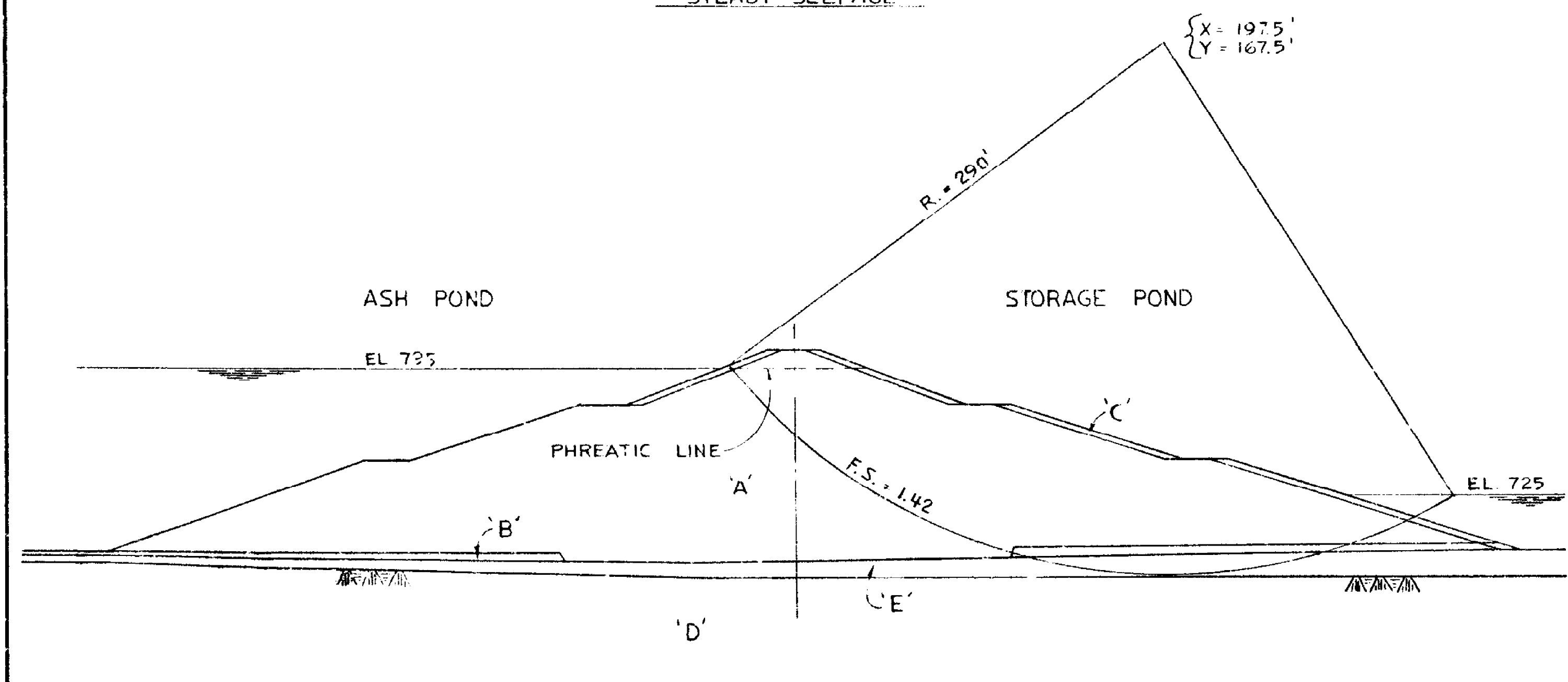
UNDER CONSTRUCTION



STEADY SEEPAGE

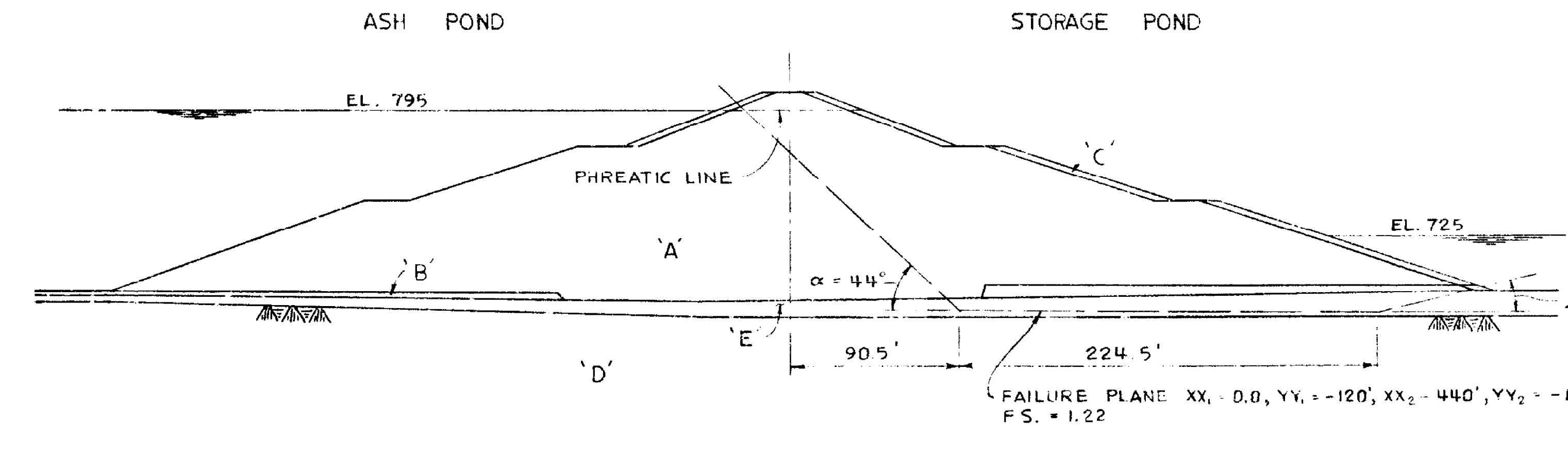


STEADY SEEPAGE



STORAGE POND DRAWDOWN EL. 795 - EL. 725

CIRCLE ANALYSIS



STORAGE POND DRAWDOWN EL. 795 - EL. 725

WEDGE ANALYSIS

TOTAL STRESS SOIL CHARACTERISTICS

TYPE SOIL	CONSTRICTION		STEADY SEEPAGE		DRAWDOWN	
	FE/FT	DEGREE	LB/SS/FT	FE/FT	DEGREE	LB/SS/FT
EMB. FILL (A)	124	26.5	1200	124	19	1400
FILTER (B)	130	40	0	130	40	0
RIP-RAP (C)	130	38	0	130	38	0
BEDROCK (D)	150	40	3000	150	40	3000
FLY (E)	112	8	550	112	12	700

- NOTE:
- FOR SECTION C-C ONLY, MATERIAL "B" EXISTS IN SITU. PROPER CARE SHALL BE TAKEN TO COMPACT THIS MATERIAL IN ACCORDANCE WITH THE SPECIFICATIONS. FIELD INSPECTION MUST BE MADE TO INSURE EXISTENCE OF THIS MATERIAL AS SHOWN.
 - FOR GENERAL NOTES SEE DWG. H-12396.
 - FOR CONSTRUCTION DETAILS SEE DWG. H-12365.

SECTION C-C

GEORGIA POWER CO., ATLANTA, GA.
GENERAL ENGINEERING DEPARTMENT

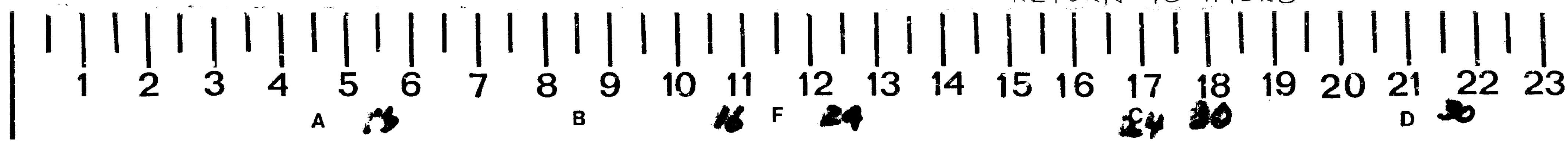
SEPARATION DIKE
STABILITY ANALYSIS-SHEET 3 OF 3

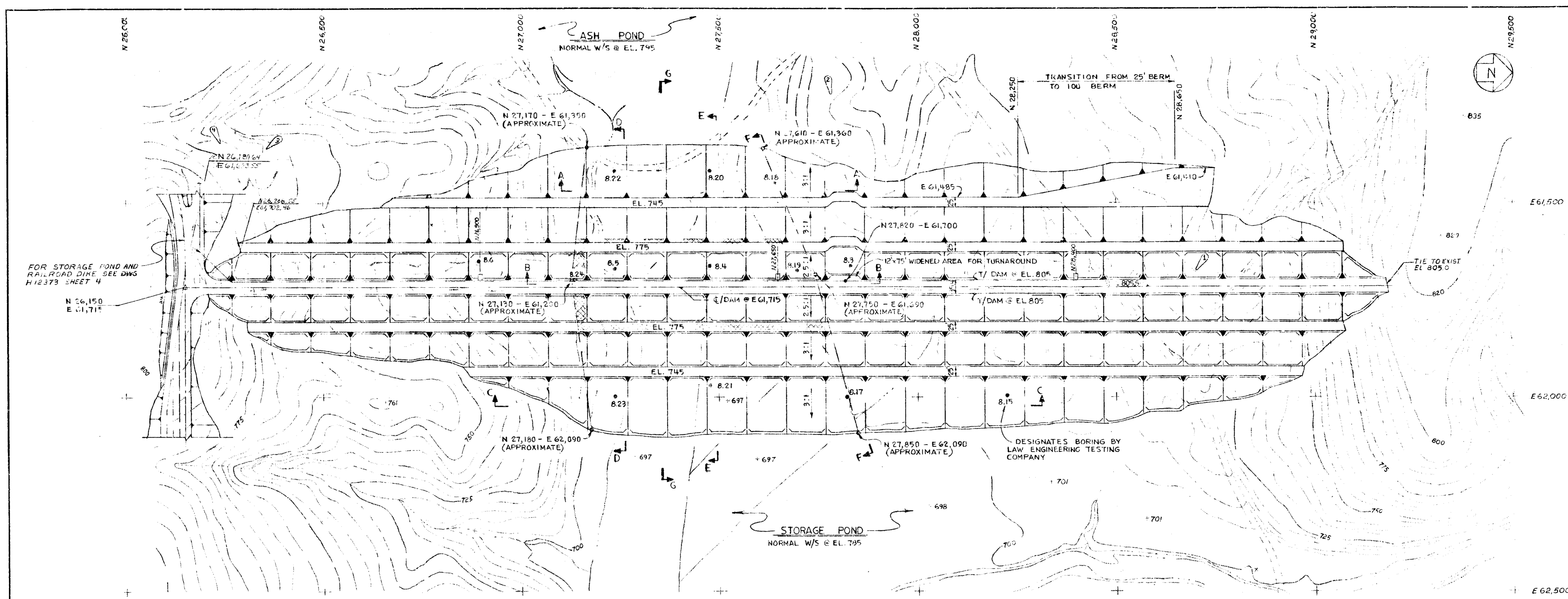
NO. DATE BY: [REVISIONS]

SCALE: 1" = 20'

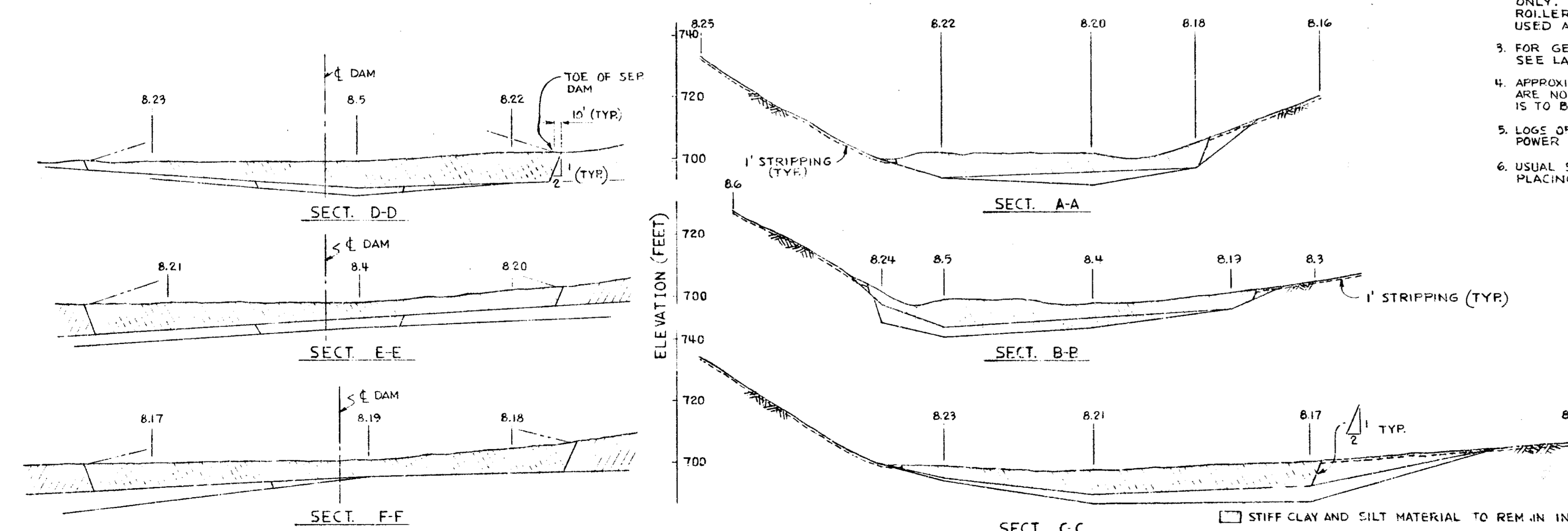
DRAWING NUMBER: 10 207
SHEET NO.: H12396

30X





PLAN OF SEPARATION DAM
1" = 100'-0"



GEOLOGIC SECTIONS
HORIZ. SCALE: 1" = 100'-0"
VERT. SCALE: 1" = 20'-0"

- STIFF CLAY AND SILT MATERIAL TO REMAIN IN PLACE
- SOFT CLAY AND SILT MATERIAL TO BE REMOVED
- SAND AND GRAVEL MATERIAL TO BE REMOVED
- SAND AND GRAVEL MATERIAL TO REMAIN IN PLACE

NOTE:

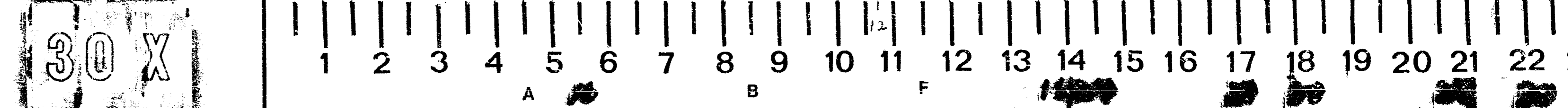
1. SOFT TO VERY SOFT ALLUVIUM (CLAY AND SILT) IS TO BE REMOVED UNDER THE SUPERVISION OF THE FIELD ENGINEER. THE APPROXIMATE BOUNDARY IS SHOWN BY THE SHADED AREA. LEAVE STIFF CLAY AND SILT IN PLACE.
2. SAND AND GRAVEL LAYER BELOW THE CLAY AND SILT IS TO BE REMOVED FROM THE HATCHED AREA ONLY. THE REST WILL BE CONSOLIDATED BY ROLLERS BEFORE PLACING EMBANKMENT FILL AND USED AS A DRAINAGE BLANKET.
3. FOR GEOLOGIC CROSS SECTIONS & OTHER RELATED DETAILS SEE LAW'S COMMUNICATION NO. 39; FIGURES 1-5, 9.
4. APPROXIMATE LOCATION OF LIMITS OF MATERIAL TO BE REMOVED ARE NOT TO BE CONSTRUED AS EXACT. ACTUAL EXCAVATION IS TO BE DETERMINED BY NATURE OF THE MATERIAL.
5. LOGS OF SOIL BORINGS MAY BE OBTAINED FROM GEORGIA POWER COMPANY OR SOUTHERN SERVICES INC.
6. USUAL STRIPPING SHOULD BE DONE AS NECESSARY BEFORE PLACING THE FILL.

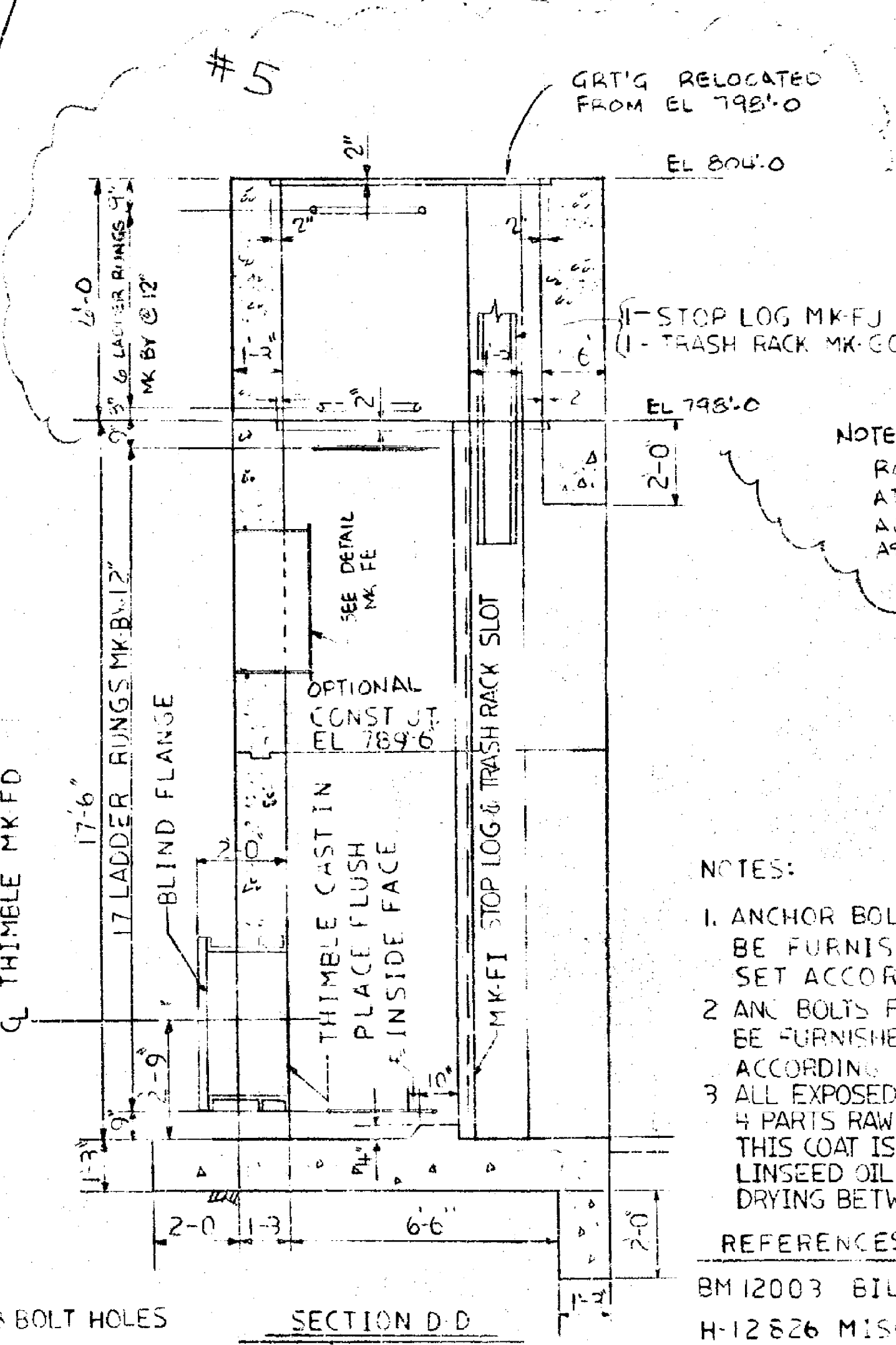
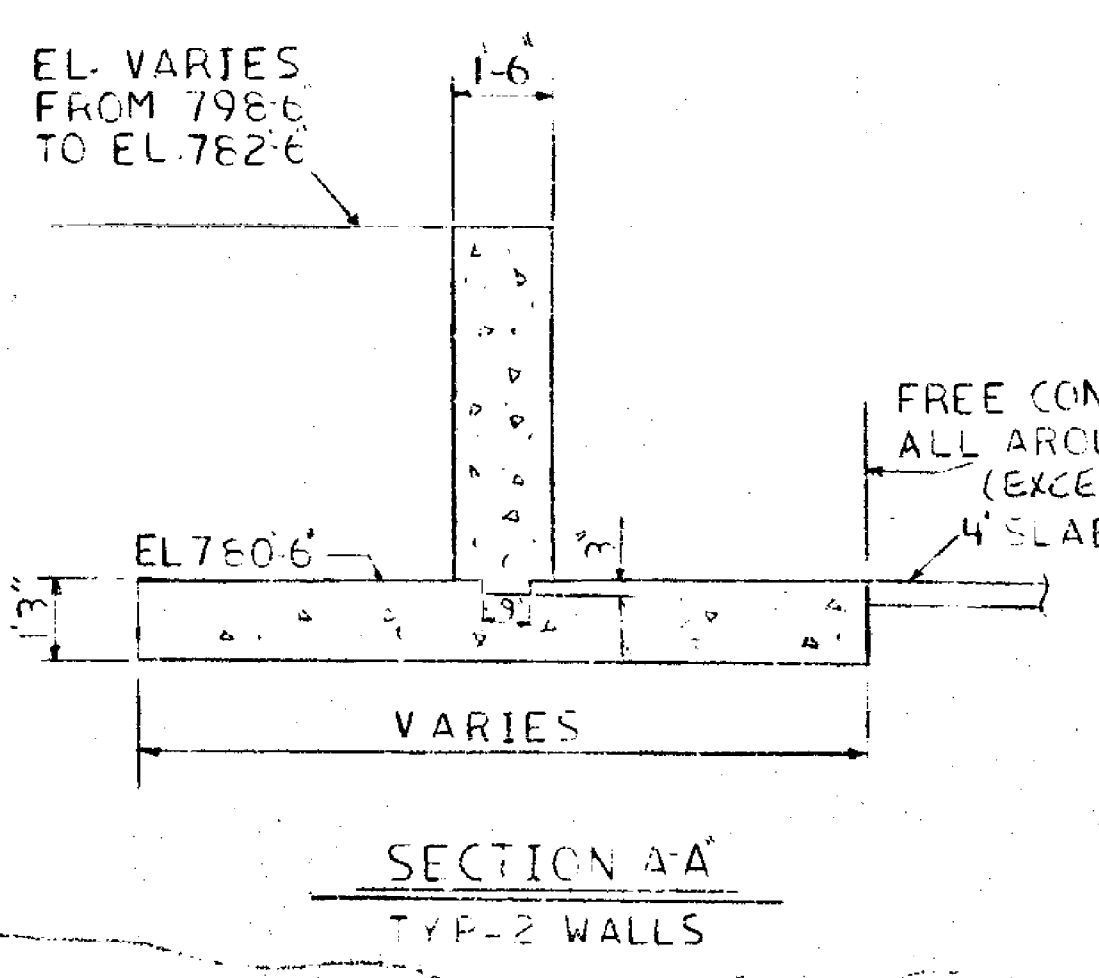
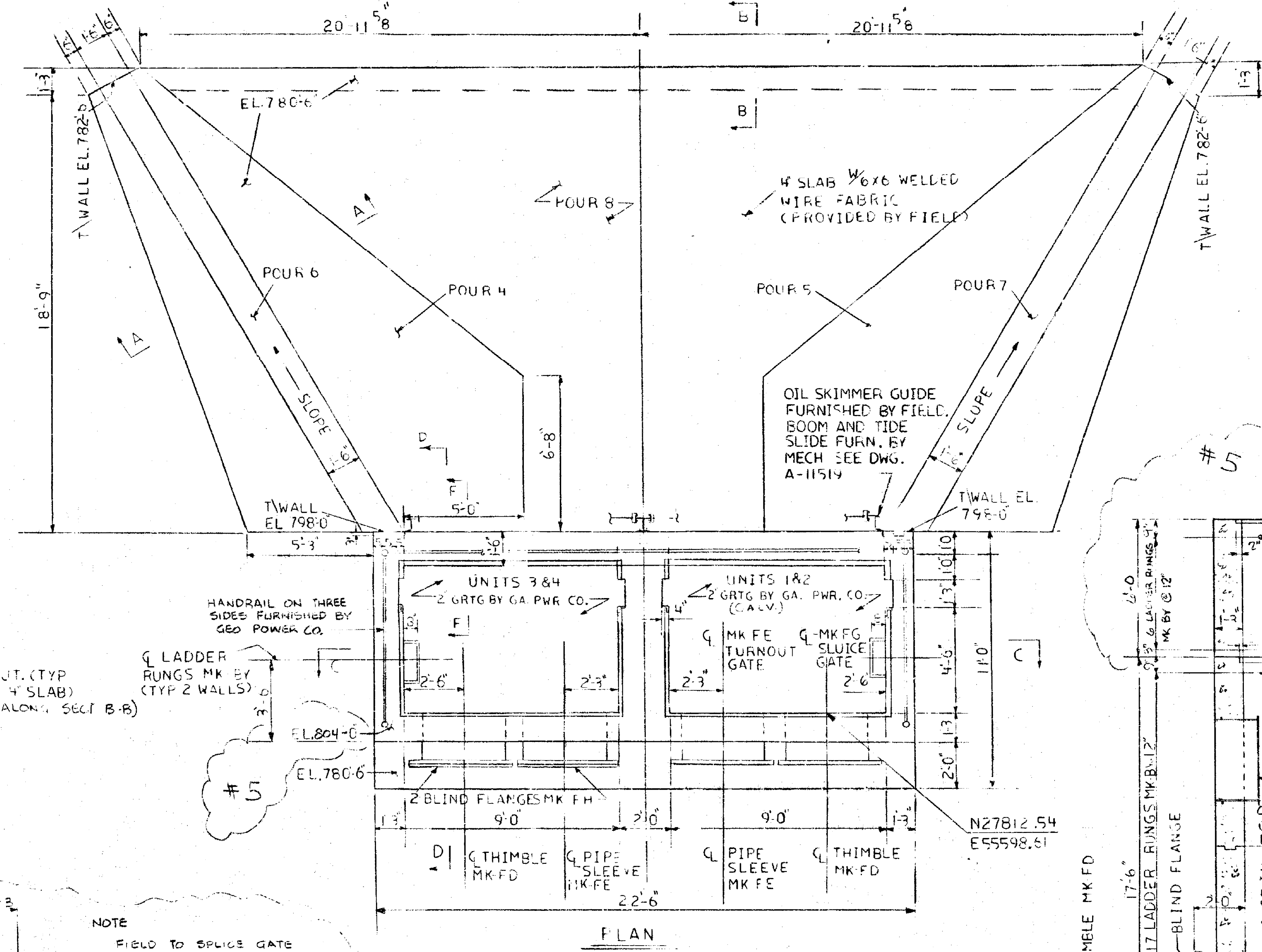
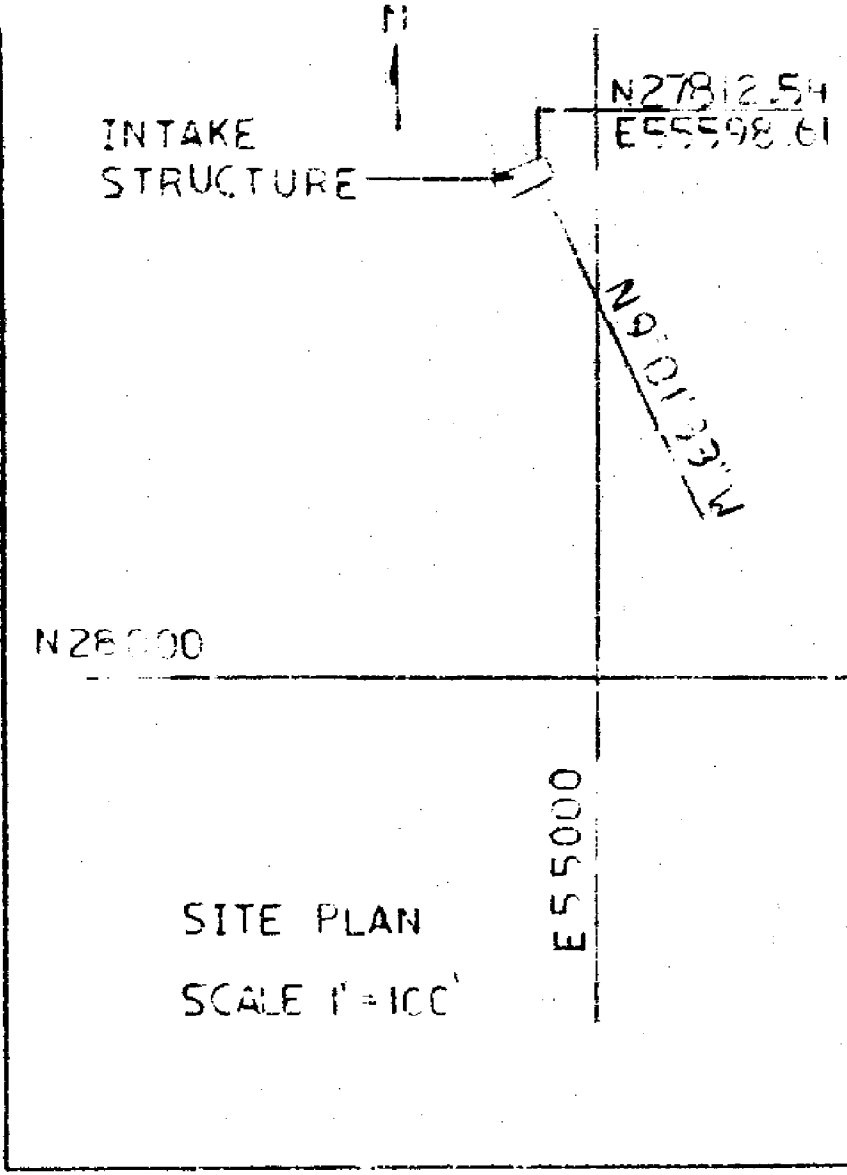
REFERENCES: SEPARATION DAM

- H-12364 — DIVERSION SCHEME — STAGE DRAWINGS & SECTIONS
- H-12365 — SECTION & DETAILS
- H-12366 — CONSTRUCTION DIVERSION SCHEME — STAGE DRAWINGS & PLANS
- H-12373 — STORAGE POND DAM, SHEET 4
- H-12396 — STABILITY ANALYSIS, SHEET 1 OF 3
- H-12397 — " " " " SHEET 2 OF 3
- H-12398 — " " " " SHEET 3 OF 3
- H-12237 — GEN. ARRANGEMENT, ASH PIPE ROUTING

SOUTHERN SERVICES, INC.
FOR

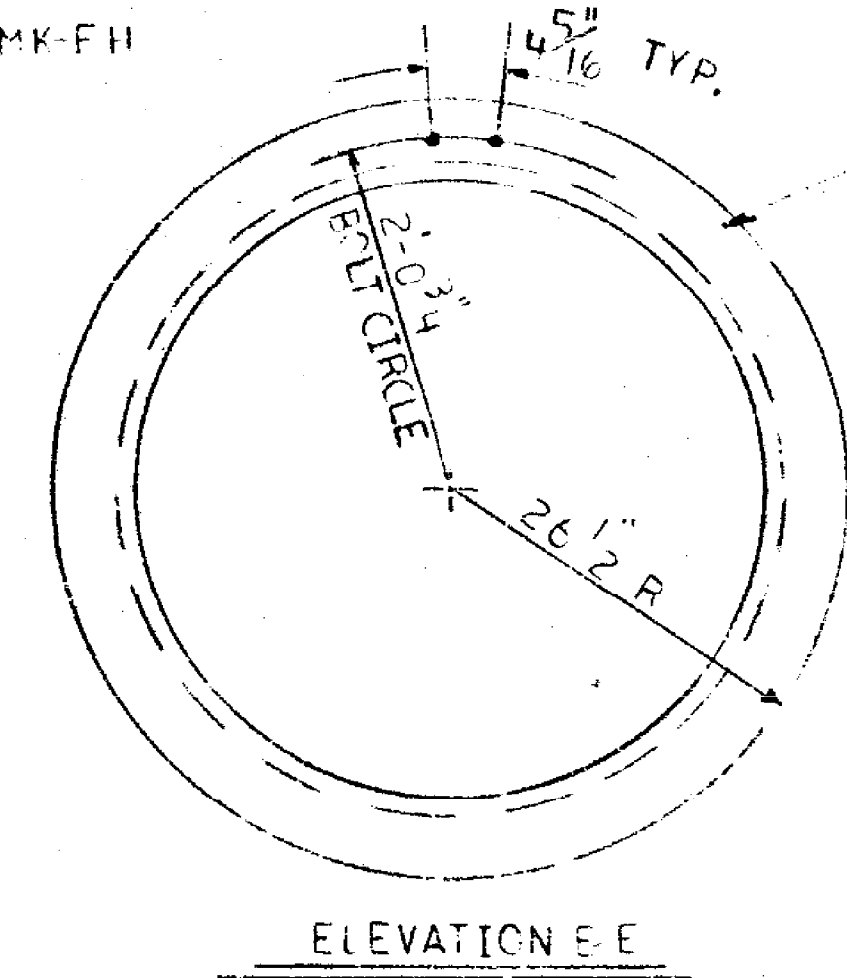
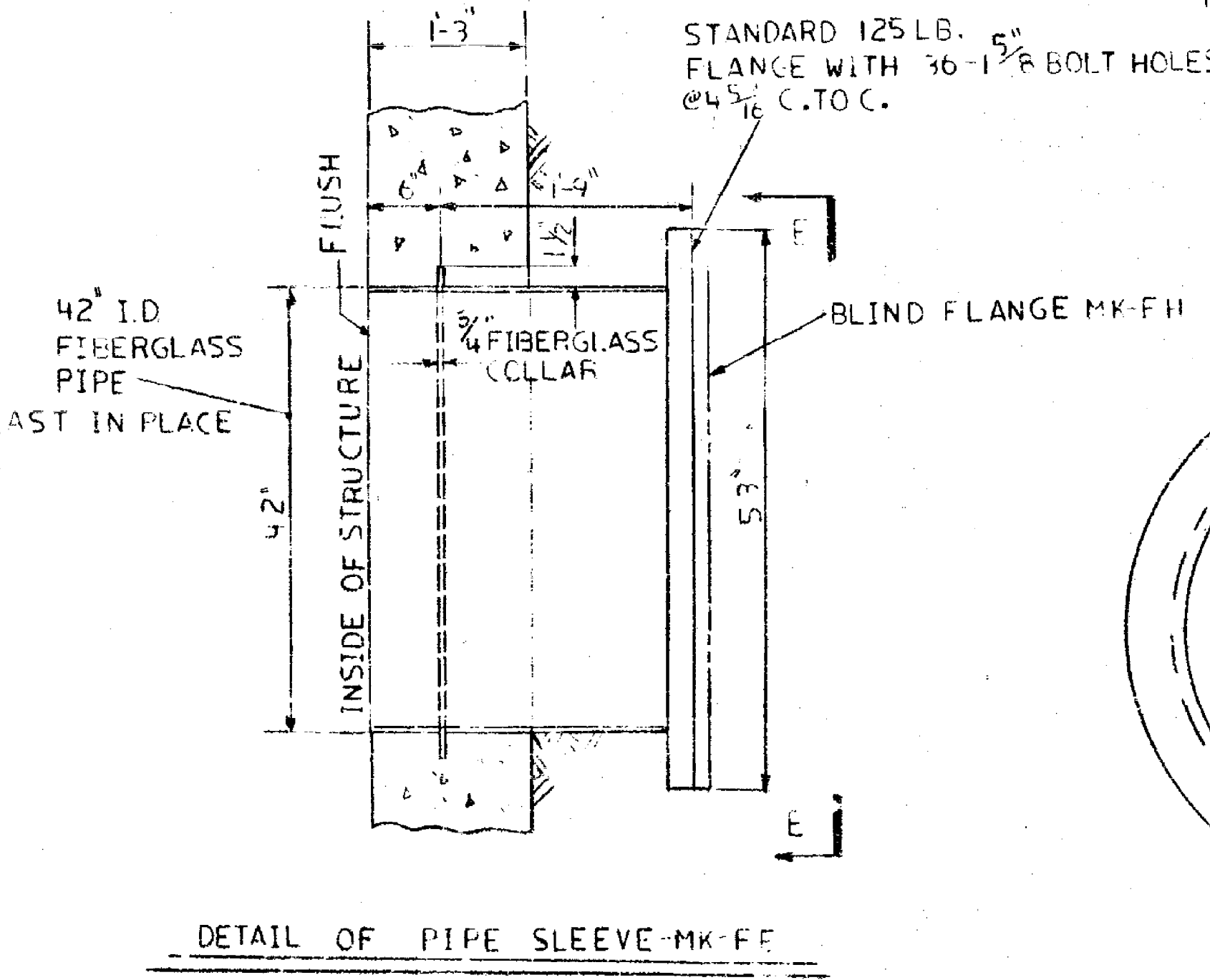
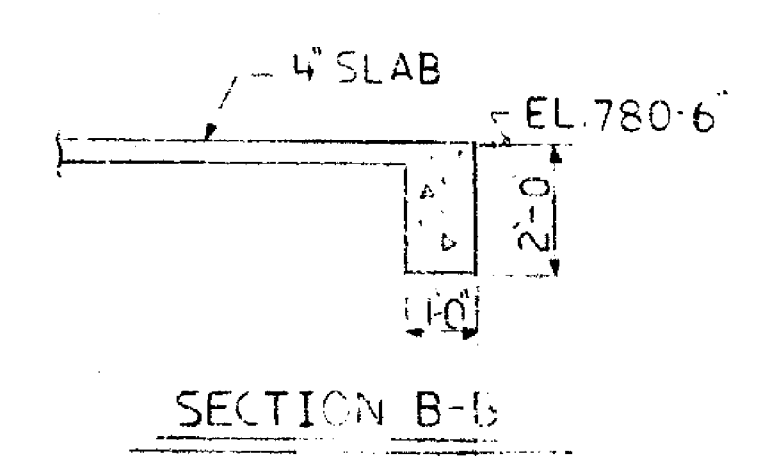
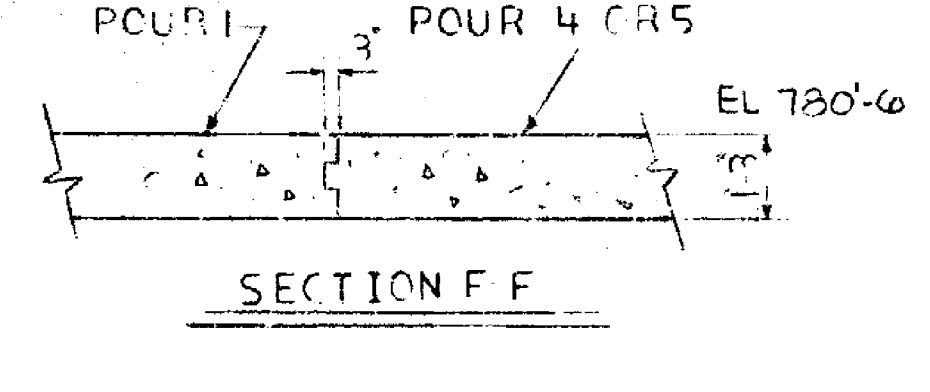
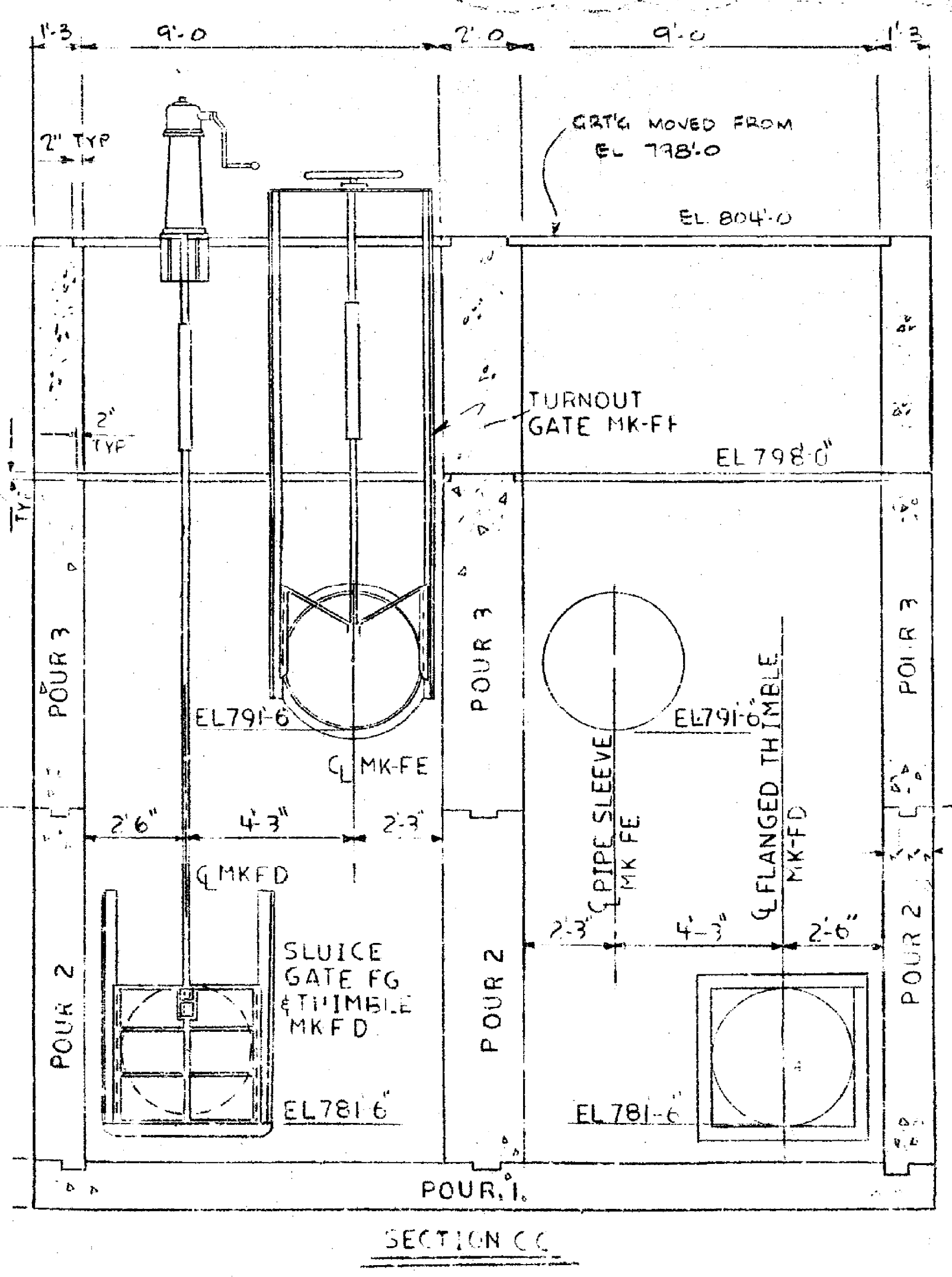
GEORGIA POWER CO., ATLANTA, GA. GENERAL ENGINEERING DEPARTMENT	
PLANT WANSLEY SEPARATION DAM — GENERAL ARRANGEMENT WITH LIMITS OF EXCAVATION	
DESIGNED BY AS ST-42	DATE 4-2-53
DRAWN BY J. G. Gorman	DATE 4-2-53
CHECKED BY	DATE
NO.	REVISIONS
10-209	H-12399





- NOTES:
- ANCHOR BOLTS FOR GATES & ACCESSORIES TO BE FURNISHED BY GATE MANUFACTURE & SET ACCORDING TO HIS RECOMMENDATIONS
 - ANCH. BOLTS FOR FUTURE GATES & ACCESSORIES TO BE FURNISHED BY GATE MANUFACTURE & SET ACCORDING TO HIS RECOMMENDATIONS
 - ALL EXPOSED CONC. TO BE COATED WITH BOILING MIXTURE 4 PARTS RAW LINSEED OIL & 1 PART TERPENTINE. AFTER THIS COAT IS DRY 2 ADDITIONAL COATS OF PURE RAW LINSEED OIL SHOULD BE APPLIED ALLOWING THOROUGH DRYING BETWEEN EACH COAT.

- REFERENCES:
- BM 12003 BILL OF MATERIAL
 - H-12826 MISC. STEEL DETAIL & STOP LOGS
 - H-12825 OUTDOOR CONC. ASH POND INTAKE STRUCTURE - REINF.
 - H-11156 PIPING - ASH POND RECYCLE WATER PIPING
 - H-12849 OUTDOOR CONC. TRASH RACK AT ASH POND INTAKE STRUCTURE - NEAT LINE



Southern Services, Inc. 708			
GEORGIA POWER CO., ATLANTA, GA. GENERAL ENGINEERING DEPARTMENT			
PLANT WANSLEY UNIT NO. 1			
OUTDOOR CONCRETE ASH POND INTAKE STRUCTURE - NEAT LINE			
DESIGN	TITLE	DATE	SCALE
10-2009	H-12824		
DRAWING NUMBER		SHEET NO.	
10-2009		H-12824	

30 X

